

**CITY OF PHOENIX  
CITIZENS TRANSPORTATION COMMISSION**

Pursuant to Arizona Revised Statutes, A.R.S. Section 38-431.02, notice is hereby given to the members of the **CITY OF PHOENIX CITIZENS TRANSPORTATION COMMISSION** and to the general public, that the **CITIZENS TRANSPORTATION COMMISSION (CTC)** will hold a meeting open to the public on **March 29, 2018, at 5:00 p.m. located in the 7th Floor Conference Room, Public Transit Building, 302 N. 1<sup>st</sup> Avenue, Phoenix, Arizona.**

One or more commission members may participate via teleconference. Agenda items may be taken out of order.

The agenda for the meeting is as follows:

1.	<b>Call to Order</b>	Chairperson Pastor
2.	<b>Approval of the minutes of the February 22, 2018 meeting</b>  <i>This item is for consent.</i>	Commission members
3.	<b>RFP for the Lease and Redevelopment of the City-Owned Parcel at 300 N. Central Ave</b> This report requests approval of the lease and redevelopment of the City-owned transit center parcel at 300 N. Central Ave. known as Central Station.  <i>This item is for information, discussion, and action.</i>	Community & Economic Development Director Christine Mackay
4.	<b>Regional Fare Collection System Improvements Project</b> This report provides information on the regional fare collection system improvements project and issuance of a Request for Proposals (RFP) to implement a new fare collection system.  <i>This item is for information, discussion, and action.</i>	Public Transit Deputy Director Joseph Bowar
5.	<b>Bike Plan Update</b> This report provides an update on the status of the Five-Year Bicycle Program outreach, upcoming Bicycle Summit, bicycle and pedestrian improvement project network, and corridors being considered for bicycle protection.  <i>This item is for information, and discussion.</i>	Street Transportation Deputy Director Mark Melnychenko
6.	<b>October 2018 Proposed Bus Service and Public Outreach</b> This report provides information on proposed October 2018 bus service improvements and public outreach process.  <i>This item is for information, and discussion.</i>	Public Transit Principal Planner Kevin Teng

7.	<p><b>T2050 Mobility Program Update</b> This report provides an update on progress made related to the eleven mobility studies, the T2050 Connectivity to Bus Stops program, and the future application for MAG Achieving Transportation Accessibility Now (ATAN) funding.</p> <p><i>This item is for information only.</i></p>	Report Only No Presentation
8.	<p><b>T2050 Financial Update</b> This report shows the current fiscal year sales tax revenues collected, life-to-date sales tax revenues collected, and the current year program expenditures.</p> <p><i>This item is for information only.</i></p>	Report Only No Presentation
9.	<p><b>Upcoming T2050 Related Public Meetings/Events</b> This report provides a list of upcoming T2050 related public meetings/events held by Public Transit and Street Transportation Departments, and Valley Metro.</p> <p><i>This item is for information only.</i></p>	Report Only No Presentation
10.	<p><b>Call to the Public</b> Consideration, discussion, and concerns from the public. Those wishing to address the Commission need not request permission in advance. Action taken as a result of the public comment will be limited to directing staff to study the matter or rescheduling the matter for further consideration and decision at a later date.</p>	Chairperson Pastor
11.	<p><b>Request for Future Agenda Items</b> Commission member request for information, follow-up or future agenda items.</p> <p><i>This item is for information only.</i></p>	Commission members
12.	<p><b>Adjournment</b></p>	Chairperson Pastor

**FUTURE AGENDA ITEMS:**

**T2050 Major and Expanded Streets Update (Apr)- Consent**  
**T2050 Technology Update (Apr)- Consent**  
**Bus Rapid Transit Contract Award (Apr)- Action**  
**Street Design Guidelines (Apr)- Action**  
**Northwest Extension Funding Agreement- (Apr)- Action**  
**GRID Bike Update (Apr)- Info/Discuss**  
**Additional Investments in Pavement Maintenance (Apr)- Info Only**  
**Complete Streets Advisory Board Adopted Guidelines (May or TBD)- Action**  
**Shaded Bus Shelters (May)- Action**  
**October Service Changes (May)- Action**  
**Capitol/I-10 West Downtown Rail Design Reconfiguration (TBD)- Action**  
**Circulator Study- (TBD)**

For further information, please call Kelly Murray, Administrative Assistant II, Public Transit Department at 602-534-6385.

**Persons paid to lobby on behalf of persons or organizations other than themselves shall register with the City Clerk prior to lobbying or within five business days thereafter, and must register annually to continue lobbying. If you have any questions about registration or whether or not you must register, please contact the City Clerk's Office at 602-262-6811.**

To request reasonable accommodations, call Kelly Murray at Voice/602-534-6385 or TTY/7-1-1 as early as possible to coordinate needed arrangements.

**CITY OF PHOENIX  
CITIZENS TRANSPORTATION COMMISSION  
MEETING MINUTES  
FEBRUARY 22, 2018 DRAFT**

Public Transit Department  
302 N. First Avenue, 7th Floor

<b>Commission Present</b>	<b>Public Present</b>	<b>City Staff Present</b>
Ed Pastor	Jerry Mullen	Ryan Stevens
Bret Aldieri	Wade Herdmy	Joe Bowar
Patrick Brennan	Vanish Yelhsetty	Jesus Sapien
Sue Glawe	Dayna Wasley	Marie Rabusa
Gail Knight	Suresh R	Dan Brown
Jennifer Mellor	Audra Koester Thomas	Roberto Valentin
Rick Naimark	Tom Granillo	Dan Cleavenger
Phil Pangrazio	Jim Schumman	Ken Kessler
William "Sparky" Smith	Cassandra Smith	Ted Mariscal
Quinn Tempest	Brandon Towson	Bruce Littleton
	Peter Hemingway	Jacob Brunswick
	Sonya Pastor	Kathryn Boris
	Martin Keentz	Elizabeth Kellim
		Jennifer Lugo
		Albert Crespo
		Herb Munoz
		Kevin Teng
		Jeff James
		Mark Melnychenko
		Justin Feek
		Sharyn Zlotnick
		Carl Montgomery
		Mike James
		Maria Hyatt
		Kelly Murray
		Angel Borrego
		Marie Rabusa
		Sarah Moratto
		Markus Coleman

<b>Commission Absent</b>
David Adame
David Martin
Mario Romero

- Call to Order  
Chair Pastor called the meeting to order at 5:07 p.m. with a quorum present.



2. Approval of the minutes of the January 2, 2018 meeting

Chair Pastor asked for a motion to approve the minutes.

*Commissioner Glawe moved to approve the January 2, 2018 minutes. The motion was seconded by Vice Chair Naimark. The minutes were approved unanimously.*

3. Alternative Transportation Services Contract Award

Street Transportation Director Maria Hyatt introduced Public Transit Administrative Assistant, Jennifer Lugo to present on agenda item 3. Ms. Lugo provided an overview of the Alternative Transportation Services Programs and background information of the recommended contract recipient. She explained the program uses multiple subsidy programs to provide service to 8,500 registers users per year, with 180,000 passengers boarding during the last fiscal year. Ms. Lugo described the Alternative Transportation Services Program groups: Group I consists of ADA Cab, Senior Cab, Employment and Employment Training, and Repetitive Medical Trips; Group II consists of Senior Center Shuttle and Senior Group Trips. She explained the procurement and evaluation process and noted that the recommendation is for a three-year contract to administer the Alternative Transportation Services Programs. Ms. Lugo requested the Citizens Transportation Commission (CTC) recommend that the City Council award the Alternative Transportation Services Programs contract to Total Transit Enterprises.

Commissioner Aldieri inquired about the current provider. Mr. Lugo responded the current contract is held by MV Transportation.

Commissioners and staff discussed the funding allocation for alternative transportation services and regional collaboration. Acting Public Transit Director Ken Kessler explained the funding for Group II comes from the general fund, and Group I funding is provided by T2050.

Chair Pastor requested clarification on the award amount. Ms. Lugo explained approximately \$2.7 million includes the first-year administration and transportation budget.

Commissioner Smith asked about the Commission's involvement with Group II. Mr. Kessler explained the two groups are under a single contract. Commissioner Smith suggested staff provide a breakdown of funding sources for contracts serving multiple programs in future presentations and reports.

*Vice Chair Naimark moved to approve to recommend City Council award the Alternative Transportation Programs contract to Total Transit Enterprises. The motion was seconded by Commissioner Aldieri. The motion passed unanimously.*

4. Street Transportation Pavement Maintenance Program and Bike Facilities

Maria Hyatt mentioned agenda item 4 was presented previously at the November meeting and on the agenda for this meeting for action. Ms. Hyatt introduced Street Transportation Civil Engineer Ryan Stevens to present. Mr. Stevens gave a brief overview and breakdown of the miles funded by Arizona Highway User Revenue Fund (AHUR or HURF) and T2050 funding. He explained the planned bicycle

facilities related to the Pavement Management Program. Mr. Stevens requested the CTC recommend Transportation and Infrastructure Subcommittee (T&I) and City Council approval of the proposed T2050 funded arterial and major collector streets pavement maintenance program for Fiscal Year 2022.

Commissioner Smith inquired about the projected bike facility costs. Mr. Stevens responded that the majority of the bike facilities included in the plan are created through striping, which is part of the overall pavement maintenance costs.

Commissioner Brennan asked if vehicular lanes were part of program and asked for bi-directional mileage data. Street Transportation Special Projects Administrator Mark Melnychenko stated an update will be provided at the next meeting.

Commissioner Tempest requested staff provide the Commission with a table identifying if a bike lane is protected and what method of protection is being recommended.

Commissioners discussed the network of streets related to the pavement maintenance program, along with needs by district. Mr. Melnychenko stated primary decisions were determined through the Capital Improvement Program (CIP). Mr. Stevens mentioned returning to the CTC with a report of 5-year condition distributions.

Vice Chair Naimark mentioned district boundaries are artificial and subject to change. He suggested using village planning boundaries to determine where the greatest needs are citywide.

*Vice Chair Naimark recommended Transportation and Infrastructure Subcommittee (T&I) and City Council approval of the proposed T2050 funded arterial and major collector streets pavement maintenance program for Fiscal Year 2022. The motion was seconded by Commissioner Brennan. The motion passed unanimously.*

#### 5. Key Corridor Master Plan

Maria Hyatt introduced Street Transportation Principal Planner Justin Feek to present on agenda item 5. Mr. Feek provided an overview of the Key Corridors Master Plan (KCMP) and explained there currently is no corridor function policy that identifies the desired operational focus of specific roads to assist in defining the types of corridor improvements that will benefit the transportation network. He mentioned the Street Transportation Department will establish a KCMP to provide corridor-specific guidance and transportation improvement priorities that will influence the prioritization of Capital Improvement Program projects in conjunction with other key City documents. He also stated the KCMP will include an assessment of the existing Street Transportation Department Street Classification Map to identify potential modifications to the map and roadway cross-sections to effectively utilize available right-of-way.

Commissioner Smith requested Waymo and other autonomous vehicle companies be considered in this study. Mr. Feek confirmed that autonomous vehicles fall into the scope of the plan.

Commissioner Tempest expressed her concern of bicycle plans being pushed back due to this plan, specifically referencing east-west connections. Mr. Feek explained the Maricopa Association of Governments was awarded funding to study an east-west connection through Colter Street. Ms. Hyatt added the Street Transportation Department is currently revamping their communication plan.

Commissioner Brennan stated he hopes this study protects employment and consumer accessibility. Mr. Feek stated the multimodal study intends to preserve connectivity and examine all modes of transportation.

Commissioners and staff discussed innovative methods of collecting public feedback. Commissioner Glawe inquired about the development process for a communication plan. Mr. Feek explained they plan to utilize village planning committees for public outreach efforts. Ms. Hyatt stated public meetings, web presence, Nextdoor, City Council offices, and various city department collaborations are some of the outlets the department could adopt to provide a widespread reach.

Commissioner Tempest suggested using different terminology when discussing “commuters”, as the term potentially alienates travelers who are not in cars.

Commissioners expressed interest in seeing a mode-split study to inform transportation decision makers. Mr. Feek explained this is not currently in the scope or budget of the study, but it can be explored using the KCMP study results.

Commissioners inquired about the procurement process for the project management consultant . Mr. Feek mentioned six firms responded to the Solicitation of Qualifications (SOQ), and Jacobs Engineering Group showed they understood the scope, had advanced visual tools and skills, and experience in public outreach. He added the evaluation committee was comprised of City of Phoenix Planning and Development, Public Transit, and Street Transportation staff, as well as a member of the consulting community.

Commissioners wanted clarification on the recommendation and inquired about the fees associated with the study. Mr. Feek explained it is a motion for a payment ordinance with a contract award of \$450,000 plus \$50,000 in soft funds from the Arizona Highway User Revenue Fund (AHUR). Ms. Hyatt explained the plan will help direct decisions of the commission in the future, even though funding is not derived from T2050.

Chair Pastor asked Chief Assistant City Attorney Dan Brown if the commission could take action, even though the documented recommendation only states that the report is for “possible action”. Mr. Brown affirmed that the commission could act on the recommendation since it is described in the Issue section of the report.

*Commissioner Mellor recommended City Council approval of the Key Corridors Master Plan contract not to exceed \$450,000. The motion was seconded by Commissioner Aldieri. The motion passed unanimously.*

6. Electronic Traffic Control Device Overview

Maria Hyatt introduced Street Transportation Traffic Engineer Bruce Littleton to present on agenda item 6. Mr. Littleton provided an overview of Electronic Traffic Control Devices, and explained how devices are selected for placement. He clarified the differences between warning beacons, High-intensity Activated Crosswalks (HAWK), and traffic signals, and described the advantages and disadvantages of each option.

The commissioners discussed the need for public education on traffic control devices by using social media and mailed material in the utility bills. They also identified various streets where commuters seemed to have the most trouble with traffic control devices, including 3<sup>rd</sup> Street and Taylor Street, and 7<sup>th</sup> Avenue and Fillmore Street.

Commissioner Tempest asked if T2050 could fund future traffic control devices. Mr. Littleton mentioned a request queue exists, but demand for the traffic control devices is currently being met. He explained federal funding fully satisfied traffic control signal demands as of last year. Ms. Hyatt added the Street Transportation Department can evaluate and identify if T2050 funds are needed to meet future demand.

7. T2050 Financial Update

Chairperson Pastor informed the commission that agenda item 7 was a report only.

There were no comments.

8. Upcoming T2050 Related Public Meeting/Events

Chairperson Pastor informed the commission that agenda item 8 was a report only.

Light Rail Administrator Jesús Sapien informed the commission of the grand opening of the South Central Community Alignment Center on Monday, February 26 from 8 a.m. to 9 a.m., located on Central Avenue and Roeser Road.

9. Call to Public

Chairperson Pastor called for public comment.

There were no comments.

10. Request for Future Agenda Items

Future agenda items agreed upon by the commission included:

1. Central Station RFP
2. T2050 Major and Expanded Streets Update
3. Bike Plan Update
4. Bus Rapid Transit

Chief Assistant City Attorney Dan Brown reminded the commission to complete the ethics acknowledgement. He also stated each commissioner is to go the City Clerk website to register for boards and commissions and update resumes.

11. Adjournment

*The meeting was adjourned at 7:17 p.m.*

February 22, 2018

DRAFT

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## CITIZENS TRANSPORTATION COMMISSION

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TO: Mario Paniagua  
Deputy City Manager

FROM: Ken Kessler  
Acting Public Transit Director

SUBJECT: RFP for the Lease and Redevelopment of the City-Owned Parcel at 300 N. Central Ave.

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This report requests Citizens Transportation Commission approval to issue a proposed RFP for the lease and redevelopment of the Central Station Transit Center, located at 300 N. Central Avenue.

The Central Station Transit Center is an approximately 2.6-acre parcel between Central and First Avenues, north of Van Buren Street. The site provides essential Transit services for many bus routes along with a 4,960 SF Public Transit Department office that includes rider amenities such as fare media, lost and found, and system information. There are also multimodal transportation uses at Central Station, with GRID Bikeshare Station and enhanced and accessible pedestrian walkways, light rail stations immediately adjacent to the parcel.

The proposal is a collaboration between the City of Phoenix and one or more partners to build transit-oriented development (TOD), which is typically dense, walkable, mixed-use development near transit – at the same time improve the transit system. The goals of the joint development are:

- To enhance the transit system in the context of the multimodal transportation network
- To generate revenue for the transit agencies and value for the real estate development partner(s)
- To build vibrant, mixed-use, economically-successful transit-oriented communities

The Federal Transit Administration (FTA) recognizes that joint development can generate long-term revenue streams for transit, enhances transit systems and service, and improves land use around transit stations. As more people, live, work and shop in the developments, transit agencies benefit from increased ridership and farebox revenues.

The Public Transit Department evaluated the Central Station Transit Center and determined that opportunities exist to jointly develop the site for transit uses and development, which would result in a long-term revenue stream for public transit while maintaining required transit uses on-site. In partnership with the

Community and Economic Development Department, an RFP for joint development of Central Station was issued and awarded in 2014. However, that RFP did not result in the disposition of the parcel due to circumstances outside of the city's purview.

The intent of this RFP is to seek proposals that complement and enhance the transit system through developing a mixed-use, transit oriented development. This includes ensuring existing transit service is not negatively impacted and maintaining efficient circulation for all modes of traffic on adjacent and nearby streets. One area of need to be addressed in the RFP is the expansion of the Public Transit facility. This facility will be replaced with a larger commercial space to accommodate administrative functions such as ticket vending and sales, customer service, security, restrooms and storage, all of which are critical services for transit passengers. Additionally, the revenues gained resulting from this RFP will be directed to the City's Public Transit fund per FTA guidelines.

#### Next Steps

Seek approval to issue RFP:

Downtown, Aviation, Economy and Innovation Subcommittee – April 4, 2018 (Information, Discussion and Action).

Transportation and Infrastructure Subcommittee – April 18, 2018 (Information Only).

#### RECOMMENDATION

This report requests the Citizens Transportation Commission recommend approval of the proposed RFP to the Downtown, Aviation, Economy and Innovation Subcommittee and City Council for the lease and redevelopment of Central Station Transit Center, located at 300 N. Central Avenue.





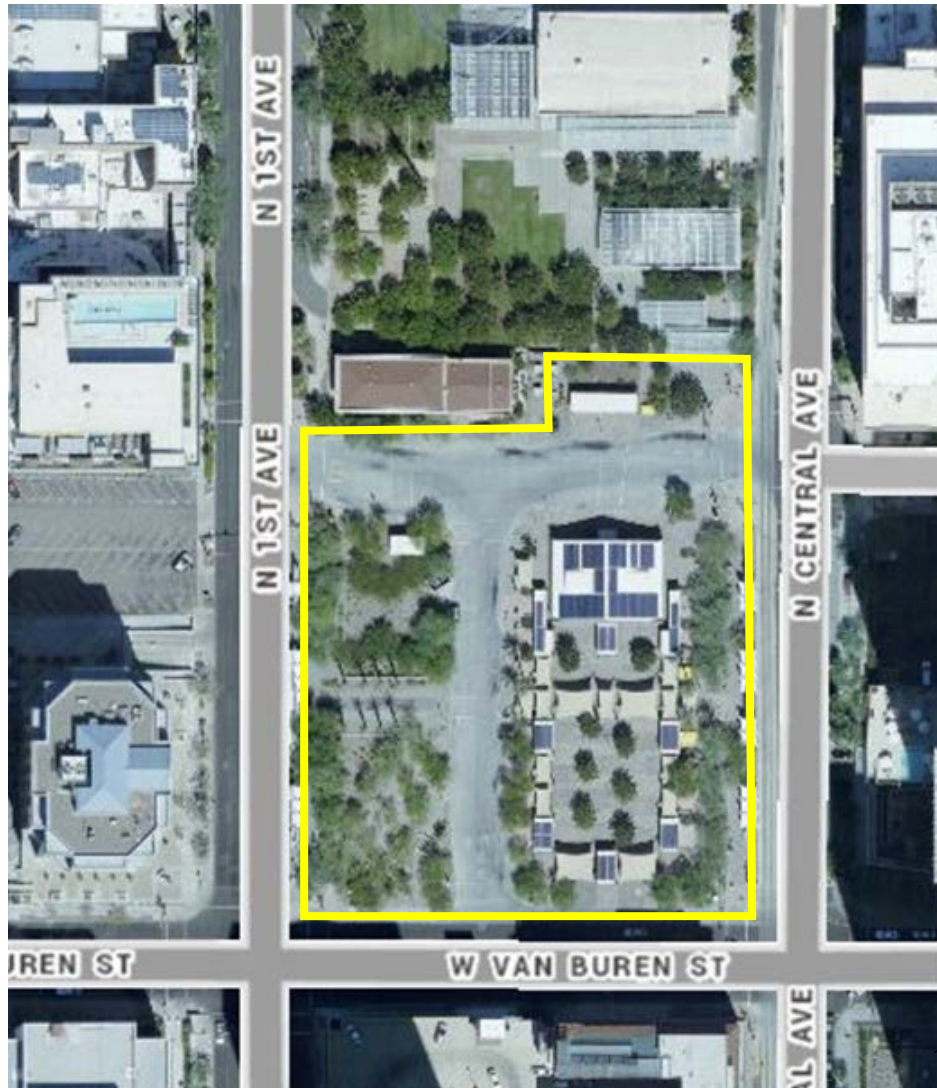
# Central Station RFP PROPERTY TODAY







# Central Station RFP HISTORY



## Background

- **1997** – City acquisition (FTA funded)
- **2011** – Renovation
- **Dec 2013** – RFP issued
- **2014** – Smithfield awarded RFP
- **Aug 2016** – Developer withdrew (deceased)
- **Late 2017 to Early 2018** – Community outreach
- **2018** – RFP re-issue sought



# Central Station RFP

## DESIRED PROJECT

- Enhance effectiveness of Transit operations and ridership
- Retain the Polk Street alignment and provide a south-to-north connecting drive aisle from Van Buren Street within the site for Transit use
- Retain bus routes on site. Any proposal to relocate buses must demonstrate no negative impact to transit operations, to vehicular traffic flow, or to passenger or pedestrian safety.
- Incorporate 9,000 SF of commercial space for Transit operations
- Provide pedestrian oriented amenities
- Integrate urban, dense, mixed-use, infill project
- Design distinct and diverse architecture



# Central Station RFP SITE

## Site Characteristics

- 111,688 SF
- ~ 2.564 acres
- Appraised Value \$12,286,000 as of 10/2017
- Light rail northbound and southbound stops adjacent to property, in right-of-ways
- Polk Street alignment, and driveway running north from Van Buren Street, run through site for Transit use
- Transit building on site is +/- 4,960 SF



# Central Station RFP

## COMMUNITY OUTREACH

- ASU
- SKB (US Bank Tower & 21 W. Van Buren)
- Mortenson
- National Real Estate Advisors (Westin Building)
- Means LLLP (Historic Elementary District Administration Building)
- YMCA
- Downtown Neighborhood Alliance (1/9/18)
- Downtown Voices (12/9/17)
- Roosevelt Action Association Board (12/14/17)
- PCA Multi-Modal Connectivity Committee (1/30/18)
- Evans Churchill (2/13/18)
- Roosevelt Merchants (2/13/18)



# Central Station RFP

## PROPOSED EVALUATION CRITERIA

Evaluation Criteria		Maximum Points
1.	<b>Concept to Activate the Site</b> (includes but not limited to) Should continue all existing transit functionality and routes; create a dense, infill redevelopment project; Capitalize on the unique transit-centric characteristics of the site; Ground floor activation along all four sides of Site; Promote walkability with connections to bus and light rail, Civic Space Park, pedestrian links and bicycle facilities; Maximize shared use area of the Polk Street alignment and a south to north driveway from Van Buren; provide transit passenger amenities; and Innovative, appropriate, and high quality design; distinctive and diverse architecture.	375 points
2.	<b>Return to the City</b> Proposed lease term and lease payment - minimum \$614,300 annually. Economic, fiscal, employment and other tangible public benefits. Requested City assistance, if any.	325 points
3.	<b>Proposer's Qualifications and Experience</b> Number of years and type of experience successfully developing similar projects. Financial capacity to successfully develop and complete proposed project.	300 points
<b>Total</b>		<b>1,000 points</b>



# Central Station RFP

## Transit Returns

- Transit Department leverages FTA and private investments
- Annual site maintenance savings \$135,000 projected
- \$614,300 annual ground lease payment to Transit
- 9,000 SF new space for Transit operations vs. 4,960 SF current
- Increase Ridership

\*\*note - requested Valley Metro 2035 Traffic report\*\* underway for Central Avenue with S. Central light rail and northbound closure between Jefferson and Washington

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## CITIZENS TRANSPORTATION COMMISSION

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TO: Mario Paniagua  
Deputy City Manager

FROM: Ken Kessler  
Acting Public Transit Director

SUBJECT: REGIONAL FARE COLLECTION SYSTEM IMPROVEMENTS PROJECT –  
ISSUANCE OF REQUEST FOR PROPOSALS

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This report provides the Citizens Transportation Commission (CTC) with information on the regional fare collection system improvements project and request a recommendation of approval for issuance of a Request for Proposals (RFP) to implement a new fare collection system. The proposed fare collection system improvements are a key element of “Moving Phoenix Forward” provided through Transportation 2050 (T2050).

### THE ISSUE

The City of Phoenix Public Transit Department (PTD), Valley Metro and its transit partners operate under the Valley Metro name which is comprised of sixteen regional cities and towns within Maricopa County. Likewise, the existing fare collection system is regional and used by all jurisdictions in the Phoenix metro area. This system was implemented in 2007 and has exceeded its useful life. Technology has significantly advanced over the last 11 years, and public demand for new ways to purchase fares significantly strengthens the need for a new fare collection system.

In recent years, fare collection systems across the nation have undergone significant changes. Most major public transportation networks have introduced a smartcard to the system and other media options such as a mobile application. The smartcard program involves upgrading multiple facets of the current fare system including hardware, software, modifying the fare policy, distribution, websites, and fare media. These fare collection instruments provide convenience for customers, fare media choice, stored value choices, faster boardings with tap technology, and eliminate wait time at TVMs and on-vehicles when purchasing tickets.

As regional leaders, the City of Phoenix and Valley Metro are charged with developing the new fare collection system. A series of regional workshops in 2015 and 2016, led by our consultant CH2M, provided discussion on smartcard distribution, mobile ticketing, media transition, reloadable smart cards, operations and procurement, and data processing. Based on the workshops, a new fare collection will focus on obtaining better data on ridership and revenue reconciliation, clear and better controls over reduced fare and media distribution, expansion of the smartcard to the public, and development of mobile ticketing. In the public outreach efforts for Proposition 104 (Transportation 2050) the public wanted improved fare purchasing options – specifically a mobile application and reloadable smart cards.

## PROJECT OBJECTIVES

Project objectives came primarily from the needs and shortcomings of the current system, regional workshop input, and the public. The project is focused heavily on the customer experience and the integration of a non-proprietary system. We want to provide a technology friendly experience for the customer in addition to creating a more efficient and expandable system in the future. The following objectives serve as the guiding principles for the new regional fare collection system design.

1. Improved Fare Payment Options for Customers
  - a. Offer stored value, or electronic cash, to provide flexibility for occasional riders
  - b. Enable innovative fares, including fare capping, time, and location-based products
  - c. Explore new fare technologies, such as mobile phone ticketing and open architectures
2. Improved Data Collection and Ridership/Revenue Reconciliation
  - a. Provide the capability to accurately correlate sales and usage data
  - b. Provide more accurate ridership data
  - c. Improve revenue reconciliation that is not dependent on manual process and reporting
3. Increased Control Over Media Distribution and Reduced Fare Programs
  - a. Require reduced fare eligibility for reduced fares purchases at point of sale
  - b. Control, reduce, or better determine fare evasion or misuse
  - c. Reduce fare media costs where possible
4. Explore Long Term Alternatives with Phased Implementation
  - a. Start with core improvements and expand
  - b. Consider enhanced features with costs to prioritize improvements
  - c. Require open architecture to facilitate adding features, components/hardware, and/or functionalities from third parties

## Request for Proposals

The region would like to move forward with the issuance of a Request for Proposals. The Public Transit Department would take the lead on the procurement of a new fare collection system with the scope of work and specifications developed through a regional collaboration. A single RFP would be issued with the project broken down into three phases in order to introduce improvements in a cost effective, time efficient and customer friendly manner.

- Phase 1 – Mobile Ticketing with Validators



A mobile app will be developed and be available to transit customers, with validation at rail stations and on buses using validators capable of reading barcodes from the mobile ticketing app.

- Phase 2 – Smartcard TVM and Retail Network

Smartcards will be made available to the general public, including reduced fare customers, for the purchase of fare products. Account reload will be available through new TVMs, a retail network, and a website.

- Phase 3 – Farebox Upgrade

Depending on the regional consensus and existing fare box life span, new fare boxes will be installed. New fare boxes would ultimately be for cash purchases only as mobile ticketing and smartcards would be the predominant methods to purchase fares.

Specifications for the new fare collection system will be developed and included in the RFP. This will be a highly technical project and the depth of the specifications are key to evaluating cost proposals. An evaluation panel with regional makeup would be charged with evaluating the proposals with support from our consultant and a technical support team from Public Transit and Valley Metro.

The proposals will be submitted in such a manner to allow the region to pick and choose the elements of the fare collection system based on regional consensus on priorities and cost.

### PRELIMINARY PROJECT SCHEDULE

		2018												2019											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Phase 1		RFP Development					Procurement					Award		Design Review and Development											
Phase 2														Design Review and Development											
		2020												2021											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Phase 1		Manufacturing			Installation			Testing			Phase 1 Launch														
Phase 2		Design Review and Development				Manufacturing				Installation				Testing				Phase 2 Launch							
Phase 3	<i>Timing of Phase 3 relative to Phases 1 and 2 TBD.</i>	Mo 1	Mo 2	Mo 3	Mo 4	Mo 5	Mo 6	Mo 7	Mo 8	Mo 9	Mo 10	Mo 11	Mo 12	Mo 13	Mo 14	Mo 15	Mo 16	Mo 17	Mo 18	Mo 19	Mo 20				
		Design Review and Development						Manufacturing				Installation				Testing				Phase 3 Launch					

Phase 2 would be implemented approximately 1 year after Phase 1 but design review and development of the smartcard program would begin after award of the contract.

### PRELIMINARY PROJECT COSTS

The project will be funded with regional sales tax proceeds (Prop 400) and Federal Transit Administration funds for public transit capital improvement projects.

## RECOMMENDATION

The Public Transit Department requests the Citizens Transportation Commission recommend the Transportation and Infrastructure Subcommittee approve the issuance of the RFP for the regional fare collection system improvements project.

# **Regional Fare Collection System Improvement Project Request for Proposals (RFP)**

Citizens Transportation Commission  
March 29, 2018

# Fare Collection System

- Regional system
- Current system implemented in 2007 - proprietary equipment
- Future system – improved/desired features and latest industry capabilities
- Request for Proposals (RFP) for new regional fare collections system





# Project Objectives

## Improved features, including:

- Mobile ticketing
- Reloadable smart card
- Enable innovative fares
- Expand purchase options
- Improve reduced fare ID program

### EXACT FARE REQUIRED

Local Bus / LINK Full Fare		Local Bus / LINK Reduced Fare *		Express / RAPID Full Fare	
1-ride	All-day	1-ride	All-day	1-ride	All-day
\$2.00	\$4.00	\$1.00	\$2.00	\$3.25	\$6.50
	\$6.00 (on-board)		\$3.00 (on-board)		\$8.50 (on-board)

\*PROOF OF ELIGIBILITY REQUIRED: 16-19: Valid ID or Student ID with photo and current school year.  
20-24: Valid ID or Student ID with photo and current school year.  
25-64: Valid ID or Student ID with photo and current school year.  
65+: Valid ID or Student ID with photo and current school year.



# New Options

- “Express” TVMs at light rail platforms
- All transit vehicles equipped with validators that read smart cards and mobile tickets (smartphones)
- “Gift card” model at retail network
- Self-service enabling website purchases
- New cash-only fareboxes on local buses





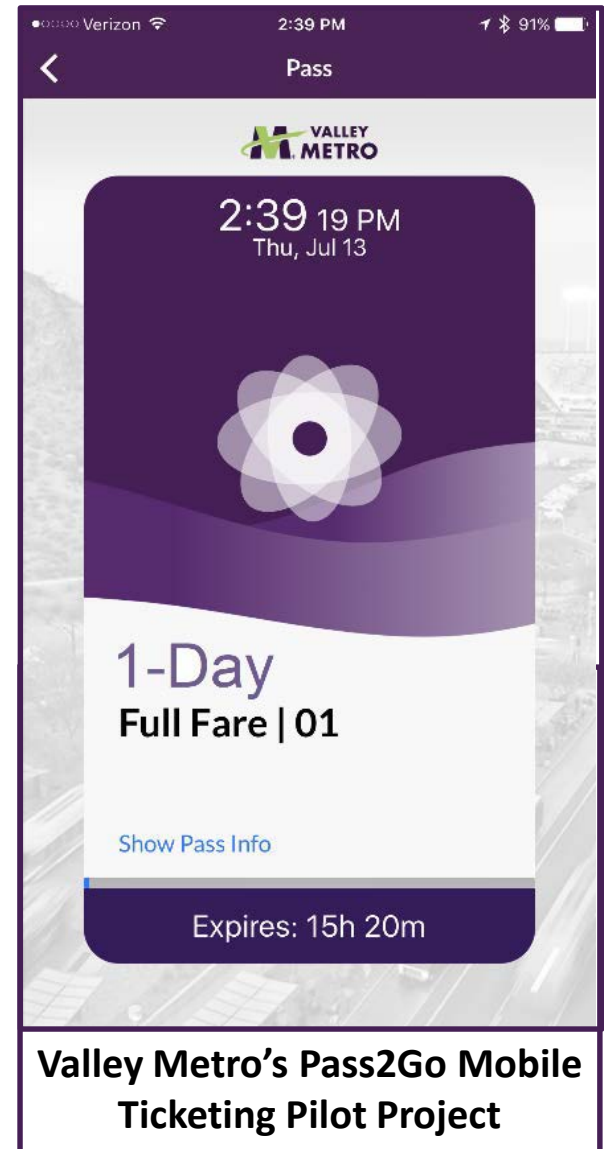
# Implementation

## Phase 1 – Mobile Ticketing with Validators

- Enables mobile ticketing users to purchase fares and validate on both bus and light rail, including reduced fare customers

## Phase 2 – Smartcard in Retail

## Phase 3 – Farebox Upgrade



# Implementation

**Phase 1 – Mobile Ticketing with Validators**

**Phase 2 – Smartcard in Retail**

- Adds account-based smartcard system into existing retail network to allow for purchases and cards reloads

**Phase 3 – Farebox Upgrade**





# Implementation

Phase 1 – Mobile Ticketing with Validators

Phase 2 – Smartcard in Retail

Phase 3 – Farebox Upgrade

- Replace aging fareboxes with new cash-only boxes



# Timeline

- **January – June 2018** - RFP Development
- **July 2018 – March 2019** - Procurement and Contract Award
- **April 2019 – December 2020** - Phase 1 Design and Development, Manufacturing, Installation, Testing
- **December 2020** – Phase 1 Launch
- **December 2021** – Phase 2 and 3 Launch

# Funding

- Funded with regional sales tax (Prop. 400) and FTA funds
- Capital and operational costs based on features selected
- Costs shared by City of Phoenix, Valley Metro and regional partners
- City of Phoenix will lead the procurement effort on behalf of all agencies



**City of Phoenix**  
PUBLIC TRANSIT DEPARTMENT



# Recommendation

- **Requests the CTC recommend the T&I Subcommittee approve the issuance of the RFP for the regional fare collection system improvements.**

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## CITIZENS TRANSPORTATION COMMISSION REPORT

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TO: Mario Paniagua  
Deputy City Manager

FROM: Maria Hyatt  
Street Transportation Director

SUBJECT: BICYCLE PROGRAM UPDATE

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This report provides an update to the Citizens Transportation Commission (CTC) on the public input received for the Five-Year Bicycle Program – *Shifting Gears*, information about the upcoming Bicycle Summit, and upcoming bicycle and pedestrian improvement projects.

As outlined in the Transportation 2050 Plan adopted by voters, the transportation network includes improvements that enhance the safety, comfort, and convenience of all streets users. As an example, bicycle facilities provide transportation choices for residents, connect people to places and other transportation options, encourage more active and healthy lifestyles, and promote a sustainable transportation option. The City's Draft Five-Year Bicycle Program report in **Attachment A** includes the integration of bicycle facilities projects into several streets improvement, maintenance, and development programs.

### PUBLIC INPUT

Public outreach efforts to garner feedback on the Draft Five-Year Bicycle Program-*Shifting Gears* included an open house on Dec. 4, 2017 where approximately 150 residents participated. Several community members provided written comments at the open house. Additionally, the City has provided and publicized an on-line comment tool through which feedback continues to come in and will close on March 31, 2018. Common themes that have surfaced from the public input received to date include:

- Safety
- Physical separation
- Gaps in the bike system / need for greater connectivity
- Regional cooperation
- Use existing infrastructure such as canal paths
- Concerns with removing vehicle lanes
- Focus funding on improving roadways

All comments received from the public will be documented and considered as a key next step in updating and finalizing the Five-Year Bicycle Program report. The report will act as a living document that will continue to capture community input annually. The information will be presented to the Citizens Transportation Commission once it is compiled following closure of the public comment period.

### BICYCLE SUMMIT

Throughout the United States, Bicycle Summits are held at national, state and municipal levels to discuss ideas and programs related to expanding bicycle use through innovative

infrastructure, creative messaging, networking and opportunities to build more livable communities through bicycle and pedestrian planning. Phoenix held its last Bicycle Summit in 2012.

The Phoenix Bike Summit – *Making Connections*, will be held on Apr. 28, 2018 at the A.E. England Auditorium at Civic Space Park from 10 a.m. to 4 p.m. The Summit is intended to serve as an opportunity for the community to enhance collaboration with the City and to identify priorities regarding the future of bicycling in Phoenix. It will also provide an opportunity to share the public’s comments received at the open house and the on-line engagement process.

The Bicycle Summit will focus on the 5 “E’s” of developing a safe and successful bicycle program, which are: Engineering, Education, Encouragement, Enforcement and Evaluation. A keynote speaker will help to emphasize the importance of bicycling for livable cities. Also, a panel of participants from the local community and the private development sector will host a panel session on ‘bikenomics,’ which will highlight the economic benefits tied to bicycle friendly initiatives when properly planned and implemented.

**BICYCLE AND PEDESTRIAN IMPROVEMENT PROJECTS**

Bicycle and pedestrian improvement projects are important components of a connected multi-modal transportation network. These projects coincide with the City’s aim of developing a safe bicycle/pedestrian network using lower volume and lower stress streets within the City. An example of this is shown through several ongoing projects linking downtown and midtown areas with the Camelback East Core. These projects, which are listed in the table below, are in line with existing City multi-modal initiatives.

Many of these projects will incorporate protection for people who use bicycles, including a planned two-way cycle track on 3<sup>rd</sup> Avenue from Roosevelt Street to McDowell Road. This location will provide an innovative example of bicycle protection on City streets that will integrate with the Roosevelt Neighborhood.

<b>Project Location</b>	<b>Project Phase</b>
3 <sup>rd</sup> Street: Roosevelt Road to Indian School Road	Final Design
Oak Street, 3 <sup>rd</sup> Street to Grand Canal	Final Design
Grand Canalscape: I-17 to City of Tempe	Phase I under construction and Phase II ready for construction
20 <sup>th</sup> Street: Grand Canal to Piestewa Park	Pre-design
3 <sup>rd</sup> Street: Lincoln Street to Washington Street	Pre-design
Van Buren Street: 7 <sup>th</sup> Street to 24 <sup>th</sup> Street	Final Design
56 <sup>th</sup> Street: Thomas Road to Camelback Road	Pre-design to begin
Colter Street: 15 <sup>th</sup> Avenue to 20 <sup>th</sup> Street	Pre-design to begin
3 <sup>rd</sup> Avenue and 5 <sup>th</sup> Avenue: Washington Street to McDowell Road	Final Design
3 <sup>rd</sup> Avenue and 5 <sup>th</sup> Avenue: McDowell Road to Grand Canal	Study

**OTHER INFORMATION**

Implementing the Five-Year Bicycle Program does come with challenges such as limited right-of-way and a lack of opportunities for strong east-west connections

throughout the City, balancing demand for vehicular traffic with that of additional bicycle lanes, and bike access to employment centers and arterial roadways. These challenges will be addressed as the bicycle program evolves and grows.

Many of the solutions will hinge on the use of existing infrastructure and technologies, including high-intensity activated crosswalks (HAWKs), pedestrian bridges, canals and underutilized street frontage roads.

#### NEXT STEPS

Staff will work to finalize the Draft Five-Year Bicycle Program, incorporating the feedback received from the community through the different outreach efforts, working with stakeholders to mutually identify solutions, and educating the public on the benefits of bicycle facilities. Staff will continue to report back to and seek input from both the CTC and Council.

#### RECOMMENDATION

This item is for information and discussion only.

# Attachment A

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**Introduction**

The city of Phoenix for the past 30 years has been evolving in making a difference in transportation options. Phoenix was fortunate to embark in a comprehensive bicycle network plan in the 1980s and 1990s that accomplished a significant amount of pedestrian and bicycle transportation network in cooperation with the regional partners to take advantage of federal and local funding to implement projects. Up to this point, the existing bicycle network consists of 778 miles of bicycle facilities that includes 542 miles of bicycle lanes, 161 miles of bicycle routes, 43 miles of paved shared use paths, and 32 miles of unpaved multi-use paths. The existing network is shown in Map #1 – Existing Bike Facilities. This network will continue to grow and expand with the work efforts and change in City strategies.

In the past three years, there has been a significant change in policy direction for the City of Phoenix’s transportation network. For the City of Phoenix, the primary focus of street design will include the safety and comfort of all users of the public right-of-way (ROW). Bicycle facilities are one of the components of the transportation system that provides choices for residents, connects people to places and other transportation options, and promotes a sustainable transportation option.

The work efforts outlined below show both a policy and funding shift to integrate bicycle facilities into decision making at a variety of levels through many Street Transportation programs.

- On July 2, 2014, City of Phoenix council members moved to adopt two Complete Streets ordinances, aimed at changing the way that streets are developed, designed, and constructed. Complete Streets are designed to encourage and facilitate active transportation and public health, and accommodate people of all ages and abilities, including pedestrians, wheelchair users, bicyclists, users of public transportation, motorists, emergency responders, and freight movers. In addition, on June 28, 2017 City Council adopted the Complete Streets Policy to take the next step in implementing the initiative.



- City Council adopted the Comprehensive Bicycle Master Plan in November 2014, which sets forth a blueprint for expanding bicycle facilities throughout the city to enhance bicycling as a safe and healthy transportation choice for our community. Through the city’s public budget hearings process, two million dollars is set-aside annually in the Street Transportation Department’s Capital Improvement Program to complete the thirty-nine identified projects.

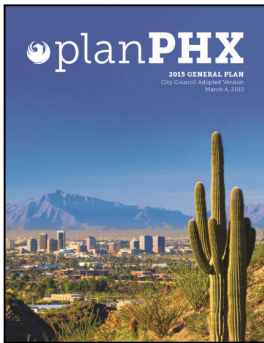


- The Grid Bike Share Program was launched in November 2014 with private funding. The program started with 250 bicycles at 24 stations. In 2015, the City Council approved the purchase of 250 bicycle racks for the program using funds from the Street Transportation Department's non-

general fund reserve account for citywide bicycling improvements. To further encourage bicycling as a convenient and affordable mode of transportation, the Street Transportation Department works with its vendor, Cyclehop, LLC, to operate and expand the City's GRID Bike Share program

As of Dec. 31, 2016, the Grid Bike Share system has grown to 49 stations with the capacity for 500 bicycles. The system has three planned expansions in the next five years.

- The Phoenix City Council approved an updated General Plan on March 4, 2015, and Phoenix voters approved the updated General Plan on the August 25, 2015 ballot. The City's General Plan 2015 outlines the blueprint of 'creating a Connected Oasis.' The Vision of the Connected Oasis



aims to ultimately enhance the quality of life for all city of Phoenix residents. It is framed by residents' enhanced levels of prosperity, improved health and a thriving natural environment (Prosperity, Health, and Environment). The City's General Plan identifies five core values for achieving the vision. The five core values provide the framework for the goals and initiatives of the updated General Plan: 1) celebrate our diverse communities and neighborhoods, 2) strengthen our local economy, 3) **connect people and places**, 4) build the sustainable desert city, and 5) create an even more vibrant downtown.

- In 2015, the City completed the Reinvent PHX planning effort that focuses on creating action plans for five distinct areas in the City. **Reinvent PHX** was a collaborative partnership between the City of Phoenix, the U.S. Department of Housing and Urban Development, Arizona State University, St. Luke's Health Initiatives (now Vitalyst Health Foundation) and numerous other organizations committed to developing walkable, opportunity-rich communities connected to light rail. Reinvent PHX created action plans for districts along the light rail system. The plans establish a community-based vision for the future and identify investment strategies to improve the quality of life for all residents. This process establishes a new, transit-oriented model for urban planning and development along the city's light rail system.



- On August 25, 2015, Phoenix voters approved Proposition 104 or Transportation 2050 (T2050), and made a strong statement about the importance of expanding investment in Phoenix for bus service, light rail construction and street improvements. The previous transit plan, known as T2000, was a voter-approved tax that primarily funded transit service in Phoenix.

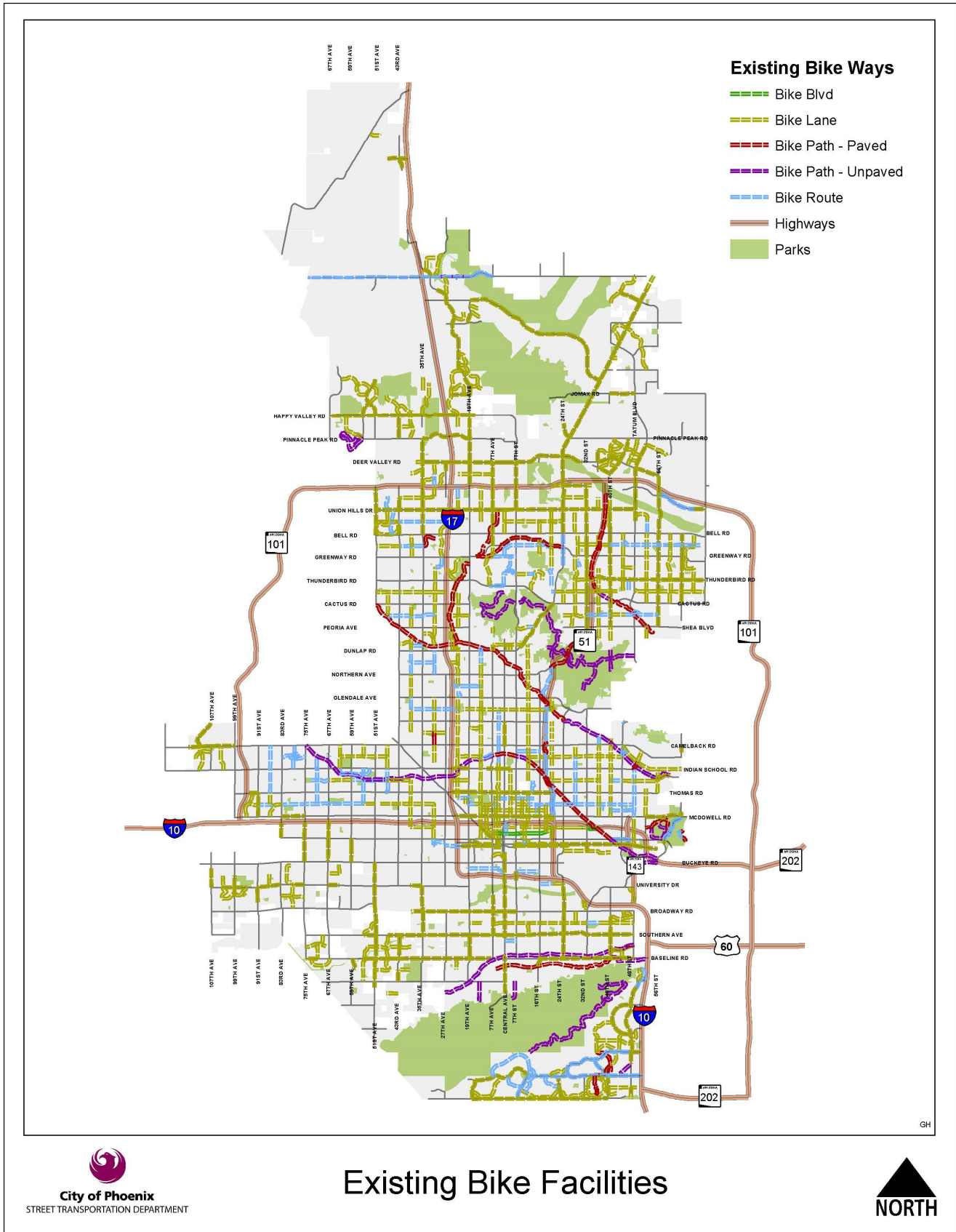


Now broader and more comprehensive, the T2050 plan places additional emphasis on street needs including; street maintenance, new pavement, bike lanes, sidewalks and ADA accessibility which will all compliment the increase in transit services.

This significant commitment to construct new bicycle and pedestrian facilities in the T2050 Plan, 135 miles of new sidewalks and 1,080 miles of new bike lanes led to the creation of a separate T2050 Mobility Improvements Program. The T2050 Mobility Improvements Program was established to implement additional projects that increase Americans with Disabilities Act (ADA) accessibility and mobility through construction of new sidewalks and multi-modal connectivity through provision of new bicycle facilities.

The result of planning efforts, policy direction, and investments have led the Street Transportation Department to establish a Bicycle Project Team consisting of over a dozen staff members to plan, design, manage and implement projects. Team members from all Street Transportation divisions meet regularly to discuss project funding, priorities, schedules, and other bicycle-related efforts. Project planning, design, and construction work has been initiated along several corridors slated for bikeway improvements citywide and are documented in this Draft Five-Year Bicycle Program – *Shifting Gears*.

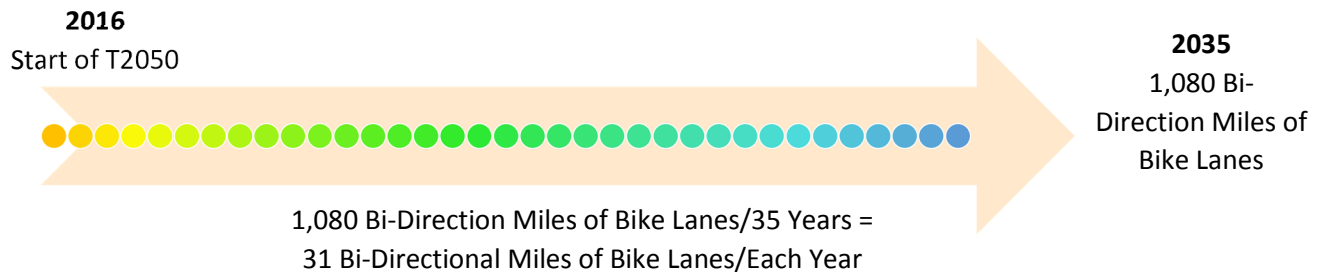
# Map #1 – Existing Bicycle Facilities



## Section I. Overview

The Five-Year Bicycle Program - *Shifting Gears* (Program) is a compilation of work efforts that will be initiated by the City of Phoenix Street Transportation Department to compliment the 2014 City of Phoenix Bicycle Master Plan. It will also be used to complete additional bicycle facilities that will help meet the goal of Proposition 104 by completing 1,080 bi-directional miles of bicycle lanes by 2050.

To meet the goal of installing 1,080 bi-direction miles of new bicycle lanes over a 35-years, 31 bi-directional miles of bicycle lanes per year. In addition to bicycle lanes, the City is committed to complete holistic improvements as appropriate that include bicycle detection, multi-use paths, safe crossings, protected bicycle lanes, and other bicycle facilities that are explained in Section II.



This Program reports on the implementation and installation of the City’s bicycle facilities. This effort comes from six distinct, yet collaborative work efforts completed by actions from different divisions and sections of the Street Transportation Department:

1. Neighborhood Traffic Management (NTMT)
2. Pavement Maintenance Program
3. Capital Improvement Program Projects
4. Developer & Partner Agency Projects
5. Bicycle Master Plan
6. Mobility Program

As projects complete the design process and bicycle facilities are installed, this report may have inadvertently missed documenting a new bicycle facility. This is not intentional, and the Street Transportation Department will update its project tracking system in the next year to help in the quality control efforts of data collection.



## Section II. Bicycle Facilities

While the goal of T2050 measures bicycle lane miles, the bicycle network is and will be comprised of a variety of different treatments and facilities. This Program provides information about the different facilities that have been completed, and are planned to be implemented in the future. While there are dozens of different types of bicycle facilities that are available to install, the city has not installed every type of facility just yet, but uses these options to find the best fit. Table 1 explains the different type of facilities and provides pictures of the possibilities.



**Table 1 - Bicycle Facility List**

<b>Bike Facility Type</b>	<b>Description</b>
Bike Lane	A Bike Lane is defined as a portion of the roadway that has been designated by striping, signage, and pavement markings for the preferential or exclusive use of bicyclists.
Extend Bike Lane to Intersection	A continuation of a bike lane that has previously terminated over 50 feet before the intersection.
Through Bike lanes with Intersection Road Diet	A continuation of a bike lane to the intersection that includes a lane reduction on approaching sides
Buffered Bike Lane	Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.
'Protected' Bike Lanes/One -Way Cycle Track	'Protected' bike lanes are at street level and use a variety of methods for physical distinction beyond paint from passing traffic. A protected bike lane may be combined with a parking lane or other barriers (flexible delineators, turtle bumps, oblong bumps, pre-cast curb, planters, bollards, medians, etc.) between the bicycle lane and the motor vehicle travel lane.

**CONTINUED Table 1 - Bicycle Facility List**

<b>Bike Facility Type</b>	<b>Description</b>
Two-Way Protected Bike Lanes/ Two-Way Cycle Track	Two-way protected bike lanes are at street level and use a variety of methods for physical protection from passing traffic. A two-way protected bike lane may be combined with a parking lane or other barriers (flexible delineators, turtle bumps, oblong bumps, pre-cast curb, planters, bollards, medians, etc.) between the bicycle lane and the motor vehicle travel lane. Two-way protected bike lanes allow bicycle movement in both directions on one side of the road.
Contra-Flow Bike Lane	Contra-flow bicycle lanes are designed to allow bicyclists to ride in the opposite direction of motor vehicle traffic.
Left-Side Bike Lane	Left-side bike lanes are conventional bike lanes placed on the left side of one-way streets or two-way median divided streets.
Raised Cycle Track	Raised cycle tracks are bicycle facilities that are vertically separated from motor vehicle traffic.
Bike Box	A bike box is a designated area at the head of a traffic lane at a signalized intersection that provides bicyclists with a safe and visible way to get ahead of queuing traffic during the red signal phase.
Intersection Crossing Markings	Intersection crossing markings indicate the intended path of bicyclists.
Two-Stage Turn Que Boxes	Two-stage turn queue boxes offer bicyclists a safe way to make left turns at multi-lane signalized intersections from a right-side cycle track or bike lane, or right turns from a left side cycle track or bike lane.
Median Refuge Island	Median refuge islands are protected spaces placed in the center of the street to facilitate bicycle and pedestrian crossings.
Bicycle Detection	Bicycle detection is used at actuated signals to alert the signal controller of bicycle crossing demand on an approach. Bicycle detection occurs either using push-buttons or by automated means (e.g., in-pavement loops, video, microwave, etc.).
Bicycle HAWK	A hybrid beacon, also known as a High-intensity Activated Crosswalk (HAWK), consists of a signal-head with two red lenses over a single yellow lens on the major street, and pedestrian and/or bicycle signal heads for the minor street.
Through Bike lanes	A through bike lane is present in the approach to a part of the road with a turn bay to the right or left.
Through Bike lanes with Intersection Road Diet	A through bike lane is added at near side and far side of the intersection by removing add/drop lanes.
Combined Bike Lane / Turn Lane	A combined bike lane/turn lane places a suggested bike lane within a portion of a right turn or left turn only lane. Shared lane markings are typically installed and bicyclists move forward instead of turning.

<b>CONTINUED Table 1 - Bicycle Facility List</b>	
<b><u>Bike Facility Type</u></b>	<b><u>Description</u></b>
Cycle Track Intersection Approach	An approach to an intersection from a cycle track that is designed to reduce turn conflicts for bicyclists and/or to provide connections to intersecting bicycle facility types.
Bicycle Boulevard	A bike route which has a combination of shared lane markings, directional markings for wayfinding and traffic control devices that prioritize travel by bicycle.
Shared Lane Marking (Sharrow)	A marking used to indicate a shared lane environment for bicycles and automobiles typically installed in a lane that is 14' wide or less.
Green Colored Pavement	Colored pavement within a bicycle lane increases the visibility of the facility, identifies potential areas of conflict, and reinforces priority to bicyclists in conflict areas and in areas with pressure for illegal parking.
Bike Route	A bike route is an undefined portion of roadway without pavement markings but may have a sign or stripe to promote use by bicyclists.
Shared Use Path	A paved surface for people walking, riding bicycles, riding horses and other manually operated equipment.
Multi-Use Trail	An UNPAVED surface for people walking, riding bicycles, riding horses and other manually operated equipment, typically built from stabilized decomposed granite.
Bridge / Underpass	A crossing of a heavily traveled thoroughfare or barrier that is not at grade.
Shoulder	The area to the right side of a road or street that is usually paved but is not typically driven upon by powered vehicles. It is sometimes called a breakdown lane.

### Context Sensitive Solutions

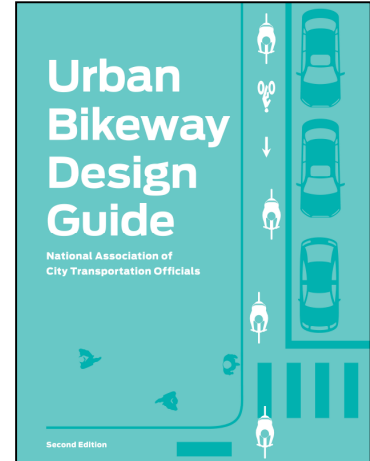


When initiating projects, the Street Transportation department asks, ‘is there an opportunity for this street/road to become more of a complete street and include bicycle infrastructure?’. The City has five classifications of roadways: major arterials, arterials, collectors, minor collectors, and local/neighborhood streets. These streets and various elements (sidewalk, bike lanes, street lights, landscaping, etc.) range in width from 28 feet to 140 feet. The City also has numerous data sets ranging from transit ridership, crash information, traffic signal timing, pavement condition, and many others that are brought into the project initiation process. The City uses public involvement through a variety of facets, to gain input from residents, employers, and the traveling public when developing projects. Additionally, the adjacent land uses and the placement of structures is the other integral component that is evaluated for multi-use facilities. Other considerations include a reduction in speeds, narrowing of traffic lanes, signage, and protected crossings. With this said, the projects that are moved forward to construction are based on the variety of tools the Department uses to develop a context sensitive solution.



## NACTO

Related to context sensitive solutions, the City of Phoenix has been a member of the National Association of City Transportation Officials (NACTO) for nearly 10 years. NACTO's mission *"is to build cities as places for people with safe, sustainable, accessible and equitable transportation choices that support a strong economy and vibrant quality of life."* Since inception, NACTO has released six guidebooks: Urban Street Design Guide, Global Street Design Guide, Urban Bikeway Design Guide, Transit Street Design Guide, Urban Street Stormwater Guide, and the Bike Share Station Siting Guide. The designs presented in these guidebooks are fresh approaches to maximize the right of way for inclusion of all users of a street: transit, pedestrians, bicyclists, and vehicles. The City of Phoenix and 49 other cities (Member and Affiliate Member Cities) have embraced the different ideas for use of the roadway. City staff and consultants use these guidelines when reviewing and developing project concepts and designs.



## Protected Bicycle Lanes

As corridors and streets are identified for bicycle improvements, they are evaluated to determine what type of facility makes the most sense for all users of the street. When a street is identified for a bicycle lane, or there is an existing bicycle lane, the City investigates if a buffered (striped spacing) bicycle lane and/or a protected facility can be provided as well. The City is now including buffered bike lanes in various future projects such as the 3<sup>rd</sup> Street and the Van Buren Street improvements. Consideration on when and how to include protection into bicycle lanes in order impacts to street maintenance and vehicle access to adjacent land uses.



City of Chicago, Kinzie Street

Tables 4 and Appendices A - F identify the specific projects and miles of buffered and protected bicycle lanes to be completed in the next five years. The City is proposing a series of specific protected areas for bicyclists in key areas of conflict on: Oak Street, 3<sup>rd</sup> Avenue, 5<sup>th</sup> Avenue, 3<sup>rd</sup> Street, Colter/SR-51 intersection area, Sweetwater Road, 24<sup>th</sup> Street, and 20<sup>th</sup> Street.

The Street Transportation Department is using an evaluation tool to assess more locations for the possibility of protection. The protected bicycle lane tool evaluates nine factors: speed, average daily traffic (ADT), street classification, driveway spacing, number of intersections in a mile, buffer conditions, on-street parking, transit stops, and bicycle crashes in a three-year period to see if a location is a good candidate for protected bike lanes. This effort is underway (as of August 2017,) and additional locations for protection will be included in future drafts. To identify additional locations, the bicycle team will:

- Review the identified bicycle lanes and buffered bicycle lanes in 2018 – 2021 pavement management plan
- Review other identified bicycle lanes and buffered bicycle lanes in the five-year bicycle program
- Assess new locations based on evaluation factors

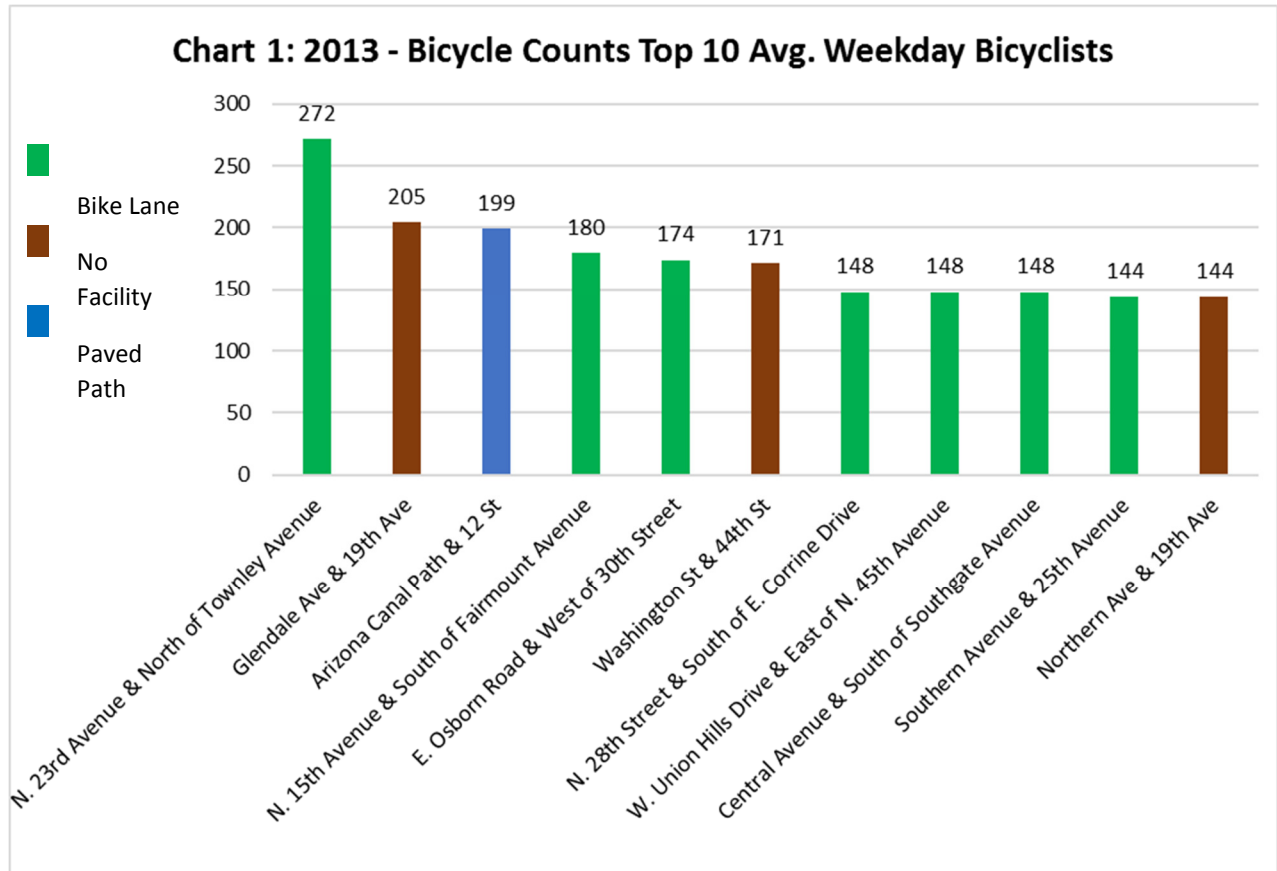
### Section III. Assessing Information for Bicycle Needs

The City uses a variety of tools to assess and prioritize corridors, streets, neighborhoods, and crossings for bicycle improvements. The Department is focusing on implementing the corridors outlined in the Bicycle Master Plan, while using additional opportunities through other work efforts (explained in Section IV) to complete additional bicycle facilities, and utilize the collectors, minor collectors, canals, neighborhood streets, and some arterials to create a low stress network. In addition to using the existing plans and programs in place, the department uses information from count data, crash information, and a gap analysis to identify future projects.

#### Bicycle Counts

The City of Phoenix completed bicycle counts at 55 locations in 2013, and an additional 28 in 2016. Unfortunately, the City’s data collection efforts in 2016 provided inconclusive data, which can’t be used. Additionally, in 2013, the Maricopa Association of Governments (MAG) launched their regionwide *Bicycles Count* work effort. MAG purchased bicycle counters, and selected 42 locations regionwide, 15 in Phoenix, to count bicycles. This work effort began in 2013 and continued through 2016. Map #2 reflects the 2013 bicycle count data from both the City and MAG efforts.

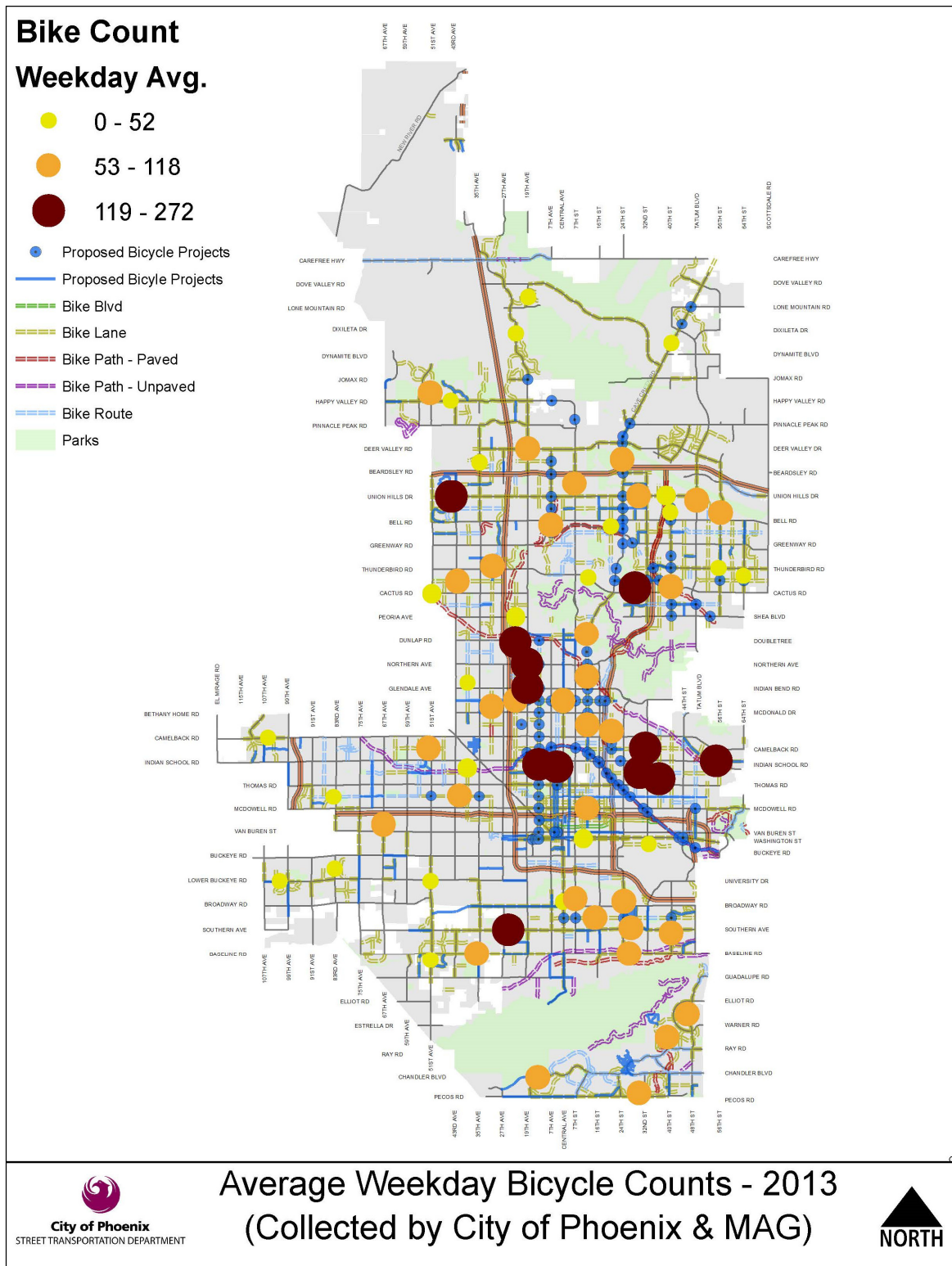
In 2013, both MAG and the City collected bicycle count data at 70 locations. Chart 1 highlights the top 10 locations that have the highest bicycle riders during the week. Weekend trips look similar in ridership, with half of the locations being in the top 10 locations for weekend trips. The colors in



the charts delineate if there is a bike lane, no facility or a paved path on the canal.

Map #2 reflects the 2013 bicycle count data from both the City and MAG efforts.

Map #2 – Average Weekday Day Bicycle Counts - 2013



## Bicycle Collision Information

The most current set of data the City has available is 2015. In general, data lags between 1-2 years behind the current year due to the needed evaluation and data control. For a more detailed report, please visit the Department’s website at : <https://www.phoenix.gov/streets/safety-topics>.

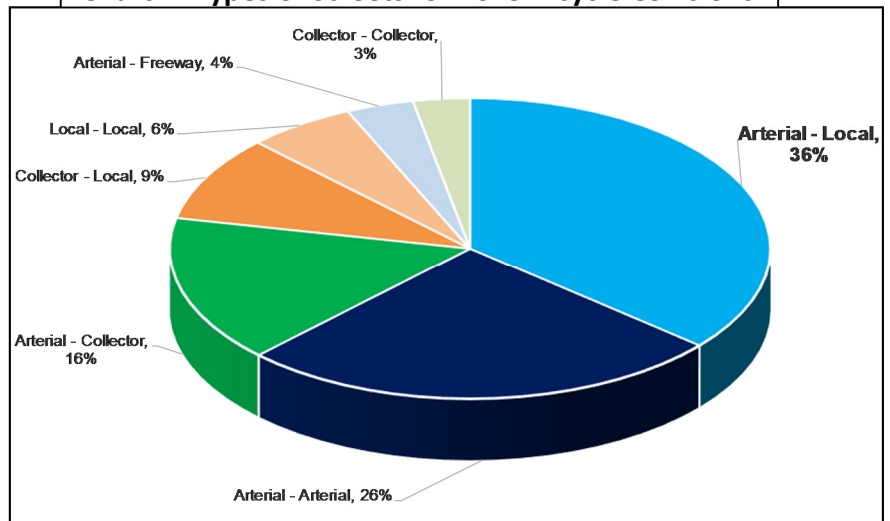
The information below provides a ‘facts-at-a-glance’ highlighting the summary information about Bicycle Collision that occurred in 2015:



- Bicycle collisions are on a four-year decreasing trend.
- Nearly 8 out of 10 collisions occurred at or within 150 feet of an intersection.
- More than 8 out of 10 non-intersection-related collisions occurred on an arterial street.
- Many collisions occurred while the motorist was making a right-hand turn.
- Only 7% of bicyclists involved in a collision are not injured.
- Bicycle collisions in 2015 accounted for nearly 2% of all traffic collisions, 3% of all injuries, and 5% of all fatalities.
- 15% of bicyclist collisions were children below the age of 18 (1% higher than 2014).
- 30% of all collisions occurred in an intersection crosswalk and 20% at driveways.
- 46 school-age bicyclists (5 to 18 years old) were hit during school hours (Monday – Friday, 7 AM – 4 PM).

- Only 25% of all bicycle collisions occurred at night, including twilight, but 67% of all bicyclist fatalities occurred at night.
- Bicycle collisions occurred most frequently between the hours of 3 PM and 6 PM and on Thursdays.

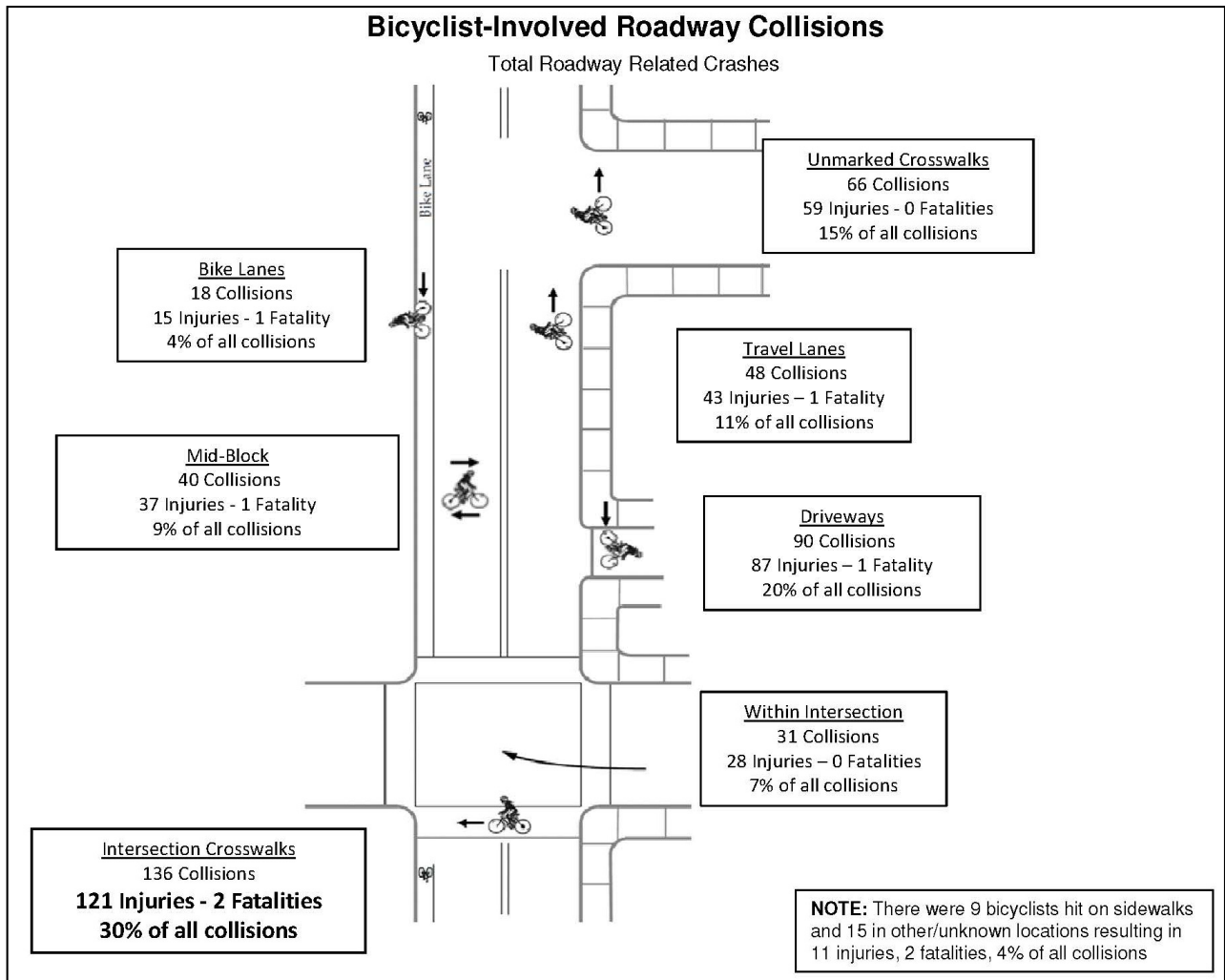
**Chart 2: Types of Streets for 2015 Bicycle Collisions**



- 45% of all bicycle collisions occurred at uncontrolled locations.

- There were 70 hit and run collisions involving bicycles.
- Chart 2 shows information about where the bicyclist involved collisions occur by street classification. Over half of the collisions occur where arterial and arterials (26%), and arterial to local street (36%) connect.

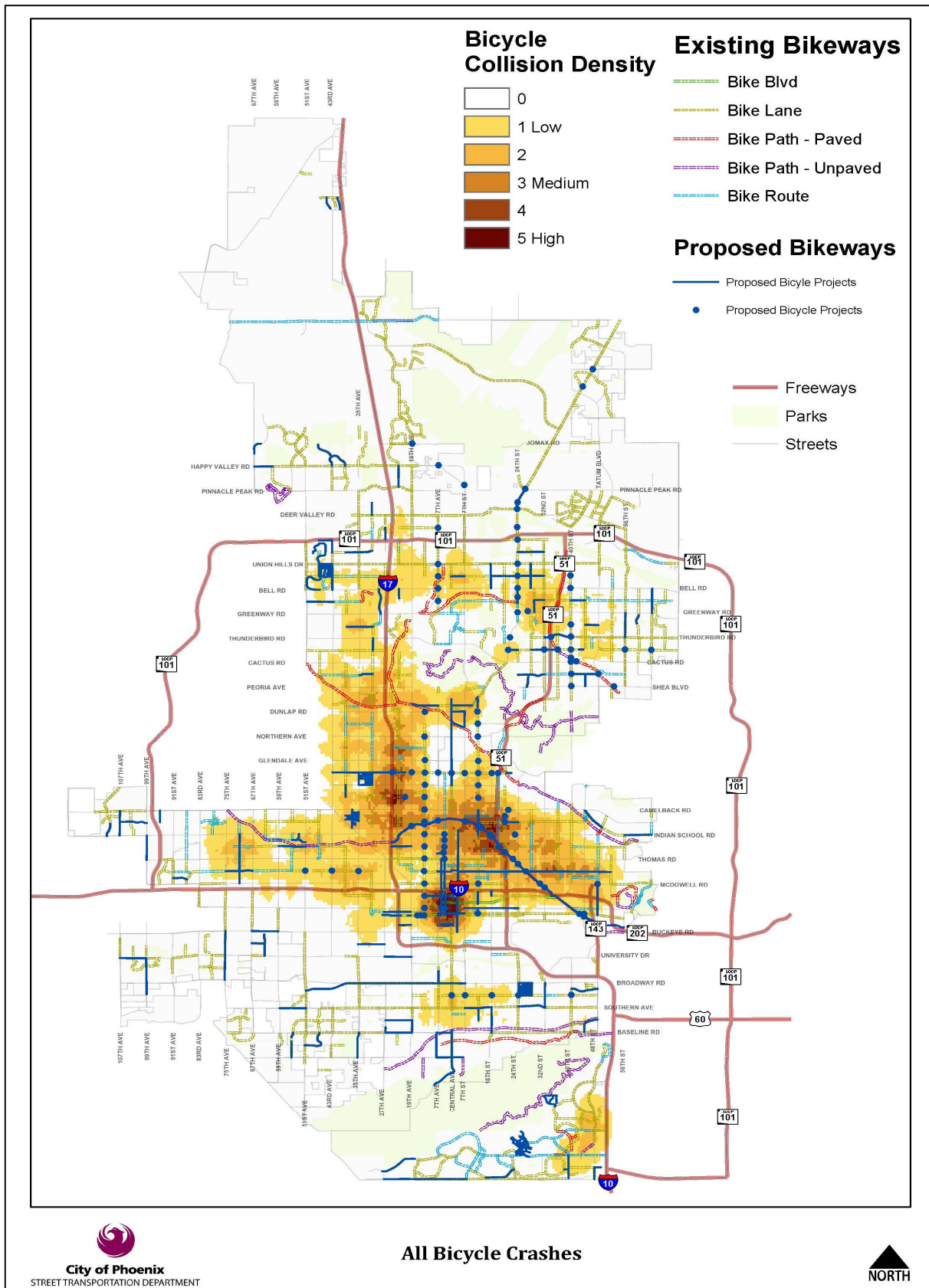
The infographic below depicts the location, amount, and severity of bicyclist-involved roadway collisions for 2015. About half of all bicycle collisions occur at intersection crosswalks (30%) and at driveways (20%).



Map #3 is a 'heat' map that shows the location of bicycle collisions over a 5-year period (2011 – 2015), the existing bikeways, and the bike facilities proposed in the next 5 years.



# Map #3 – Density and Location of Bicycle Collisions from 2011 to 2015

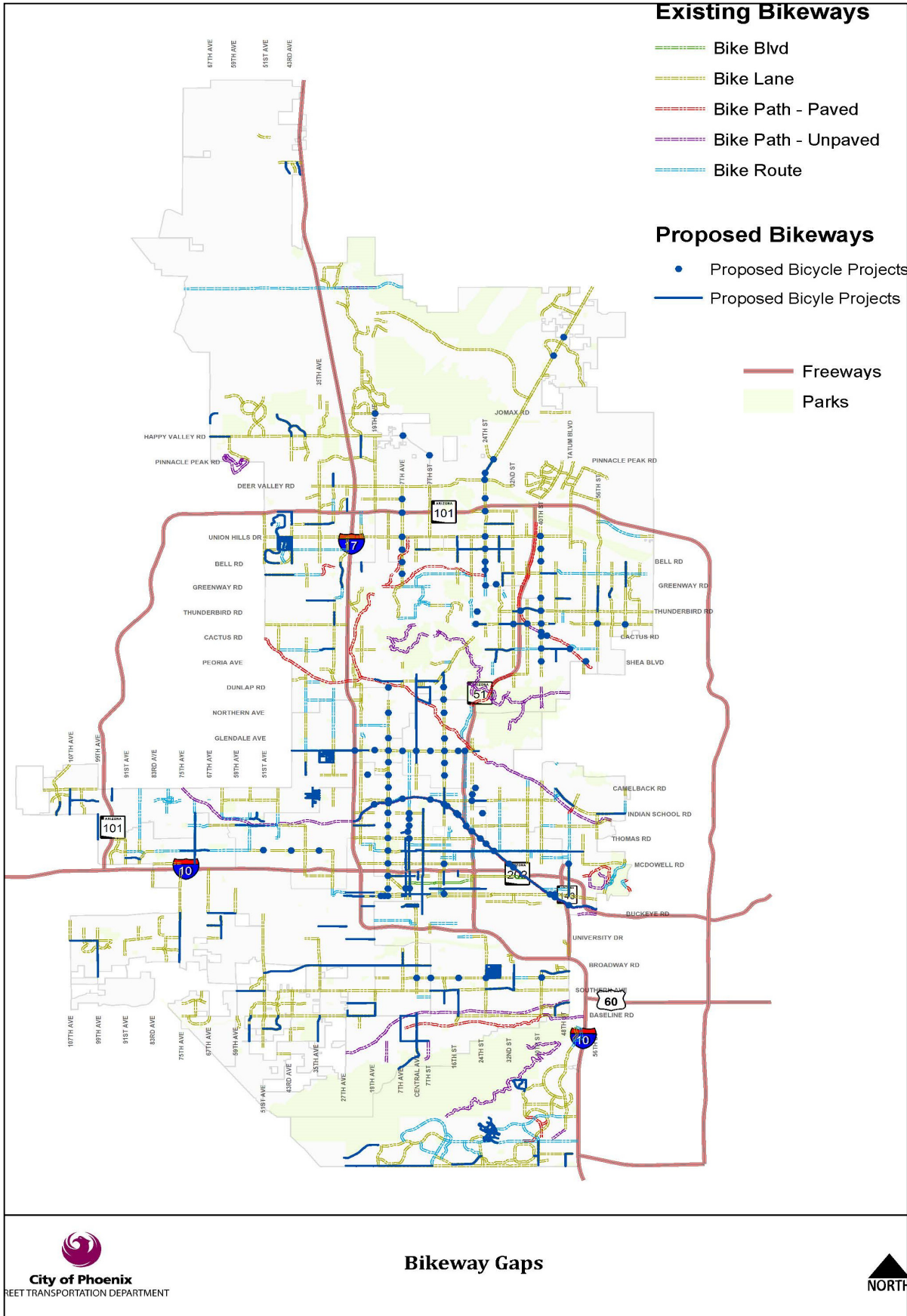


## Reviewing Poverty and Gaps in the System

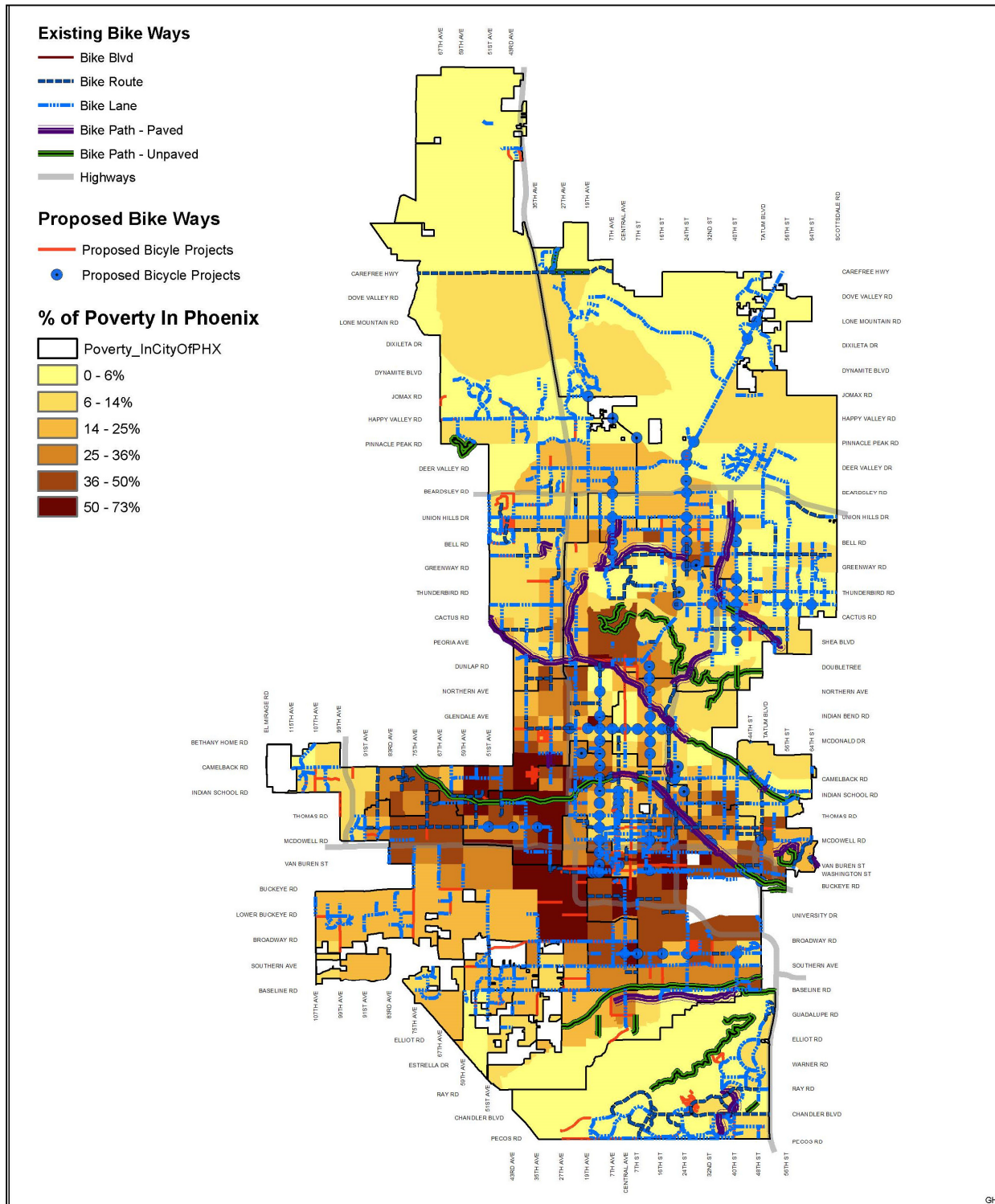
Two other considerations of where to install bicycle facilities is assessing gaps in the system and reviewing information such as where people in poverty live in the City. Map #4 outlines the current and proposed bicycle facilities and removes the street layer of the map. This exercise shows connections and disconnections in the bicycle system. Map #5 shows the different percentage of households in poverty (by Census blocks), the existing bicycle network, and the proposed bicycle facilities in the next five years.



# Map #4 – Gaps and Connections in Bicycle Facilities



# Map #5 – Percent of Households in Poverty



## % Below Poverty and Draft 5 Year Bicycle Program



## ***Section IV. Five Year Bicycle Program Work Efforts***

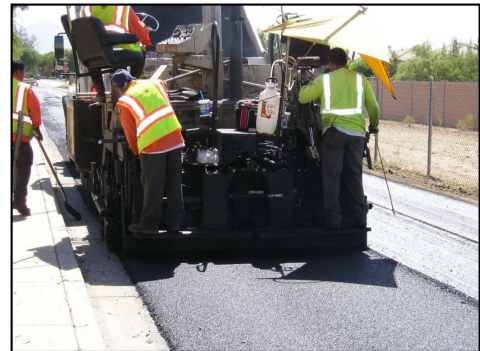
The six main work efforts that make up the Program are not derived from a single plan. Each program, plan, and project initiation is developed from different priorities, data input, community involvement, and other factors; yet resources and information are pooled together to make informed decisions about projects moving forward. Information about each program and how projects are initiated are explained in this section.

### **Neighborhood Traffic Management (NTMT) Program**

The Neighborhood Traffic Management program is dedicated to provide safe movement of vehicles, bicycles, and pedestrians throughout the City. Staff assists and educates residents on a variety of traffic safety issues. The projects completed by this program are developed through neighborhood requests, data analysis, warrants, school needs, and community support. The program has annual funding to support near term projects based on needs.

### **Pavement Maintenance Program**

Phoenix has a comprehensive roadway network of more than 4,850 miles of public streets. The Street Transportation Department's Street Maintenance Division is responsible for the planning, programming and execution of the City's street maintenance program. This entails maintaining all roadways within the City's jurisdictional limits and does not include private streets, state routes maintained by ADOT and roads maintained by Maricopa County. The pavement maintenance program uses a



variety of pavement treatment and maintenance options, that include: crack seal, tire rubber modified surface seal (TRMSS), micro-seal, slurry seal, fractured aggregate surface treatment (FAST), and mill and overlay, which provide multiple benefits to the pavement preservation program.

Since the 1980s, the Department has utilized the pavement maintenance program as an integral tool to deliver bicycle facilities. The program provides an opportunity to incorporate new bicycle facilities, when the roadway receives either an overlay or micro-seal treatment. Crack seal and TRMSS treatments do not provide post-application opportunities for changing the existing roadway striping configuration to include new bike facilities.

As roadways are identified for maintenance, staff assesses five main factors to determine the feasibility of including bicycle facilities:

1. Type of pavement maintenance treatment
2. Existing bicycle facilities
3. Connecting bicycle facilities and bicycle master plan priority
4. Existing roadway geometry: rights of way, lane widths, signalization at intersections and signage
5. Vehicle volumes and posted speed limits

## Capital Improvement Program Projects

The Street Transportation Department's Capital Improvement Program (CIP) includes a comprehensive pavement maintenance program, improvements to existing streets for mobility and safety issues, technology upgrades to signals, building new street and drainage infrastructure, expanding roadways, and much more. The five-year program provides over \$750 million in improvements to street transportation infrastructure.



The Department has identified five major areas to guide future investment of capital funding: 1) Major Streets Pavement Maintenance Program (50%); 2) New and Expanded Major Streets Program (35%); 3) Mobility Improvements (15%); 4) Technology Enhancements; (5%) and 5) Flood Control Projects. These prioritized areas will ensure the CIP is best able to be responsive to the public's expectations, as well as supporting traffic, development, and drainage needs throughout the City.

The CIP covers a five-year period that is updated annually with a new year added. Projects are derived from adopted plans, studies, data analysis, and requests. Projects are then evaluated during the fall of every year. The current CIP can be accessed here:

<https://www.phoenix.gov/streets/projects>.

## Developer & Partner Agency Projects

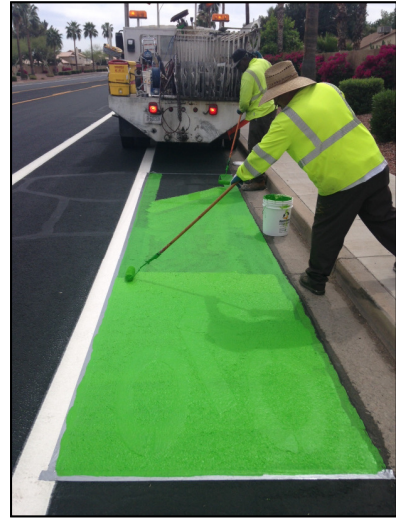
The Street Transportation Department coordinates with the Planning and Development Department and reviews private development project plans pertaining to right-of-way dedications and improvements. Depending on the proposed development project locations and existing conditions, the department can require additional right-of-way dedications and/ or roadway improvements to meet the required street cross-sections as per the approved Street Classification Map. Typically, the improvements in the public right-of-way is to conform to the proposed roadway as depicted in the Street Classification Map which includes additional travel lanes, curb and gutter, ADA ramps, sidewalk, bicycle lanes, street lights, landscaping, etc. Various street types are designed and built to serve all public users, including pedestrians and bicyclists, automobile, bus transit, and light rail transit.

There are several roadway segments and freeway interchanges throughout the City that come under the jurisdiction of other agencies, such as the Arizona Department of Transportation (ADOT) and the Maricopa Department of Transportation (MDOT). The Street Transportation Department coordinates with these agencies on right-of-way and infrastructure improvement items to make sure that required right-of-way and improvements are obtained from the developers to make streets contiguous across the jurisdiction. Further, the Street Transportation Department makes efforts to partner with other agencies and the development communities to complete any gaps in the existing infrastructure, as applicable.



## Comprehensive Bicycle Master Plan

The 2014 Comprehensive Phoenix Bicycle Master Plan is a 20-year vision for improvements to the biking infrastructure in Phoenix. One of the primary achievements of the Bicycle Master Plan is to set forth a blueprint for extending bicycle facilities throughout the city to enhance bicycling as an appropriate and healthful transportation choice for the community. As part of this plan, over 400 projects were identified to improve bicycle facilities along 39 corridors throughout the City. The projects range in complexity from simple inexpensive lane striping adjustments to bike bridge construction estimated at several million dollars. The original BMP prioritized projects into three tiers to be completed by 2035. The first five years are more specific, while the remainder of the plan is generally divided into groups of years. Table 2 outlines the original priority from the BMP, locations and the adjusted tier for implementation. The details of projects, segments and years of work are outlined in Appendix E.



**Table 2 - Bicycle Master Plan Original and Revised Tiers & Priorities**

<b>New Priority to Implement</b>	<b>Bicycle Master Plan Original Priority &amp; Location</b>	<b>Type of Roadway</b>
1	1) 3rd Street from Steele Indian School Park (Indian School Road) to Buckeye Road	Collector
1	4) 20th Street from Grand Canal Trail to Glendale Avenue	Collector
1	6) 12th Street from Cave Creek Road to Washington Street	Collector
1	7) 15th Ave from Dunlap Avenue to Jefferson Street	Collector
1	8A) Washington Street from 27th Avenue to 56th Street	Arterial
1	8B) Jefferson Street from 27th Avenue to 26th Street	Arterial
1	10) ReInventPHX Eastlake Bicycle Infrastructure and Intersection Projects (Van Buren Street)	Arterial
1	11) Maryland Ave from 43rd Avenue to 22nd Street	Collector
1	12B) 5th Avenue from Thomas Road to Washington Street	Collector
1	13) Encanto Boulevard / Oak Street from 19th Avenue to 52nd Street	Collector
1	14) 7th Avenue from Coral Gables Drive to Deer Valley Road	Arterial
1	17A) Missouri Ave from 43rd Avenue to 19th Avenue	Collector
1	19) Indian Bend Wash from SR 51 to East City Limits (Mountain View Road)	Canal/Wash
1	20) 40th Street from Shea Boulevard to Union Hills Drive	Collector
1	23) Sweetwater Avenue from 20th Street to Scottsdale Road	Collector

<b>Continued Table 2 - Bicycle Master Plan Original and Revised Tiers &amp; Priorities</b>		
<b>New Priority to Implement</b>	<b>BMP Original Priority &amp; Location</b>	<b>Type of Roadway</b>
1	24) 32nd Street from Rose Garden Lane (CAP Canal) to Puget Avenue	Arterial
1	25) Cave Creek Wash from Arizona Canal to 7th Street	Canal/Wash
1	26) Roeser from 19th Avenue to 48th Street	Collector
1	34) Cave Creek Road from 7th Street / Dunlap Road to Carefree Highway	Arterial
1	37) Encanto Boulevard from 95th Avenue to 31st Avenue	Collector
1 & 2	3) Central Avenue from Mountain View Road to South Mountain Park	Arterial
1 & 2	12A) 3rd Avenue from Arizona Canal to Jefferson Street	Collector
1 & 2	31) Chandler Boulevard from 27th Avenue to I-10*	Arterial
1 & 2	33) Western Canal from 27th Avenue to 48th Street	Canal
1 & 2	35) Broadway Road from 99th Avenue to 48th Street	Arterial
1, 2 & 3	15) Grand Canal from 75th Avenue to East City Limits (SR 202)	Canal
2	9) ReInventPHX Gateway Bicycle Infrastructure and Intersection Projects (Van Buren)	Arterial
2	18) 48th Street from Baseline Road to Pecos Park	Arterial
2	21) Union Hills Drive from 51st Avenue to Tatum Boulevard	Arterial
2	27) Baseline Road from 75th Avenue to 48th Street	Arterial
2	36) Deer Valley Road from 35th Avenue to 56th Street	Arterial
2	38) 44th Street from Sky Harbor Airport to University Drive	Arterial
2 & 3	28) Arizona Canal from 51st Avenue to east city limits (60th Street)	Canal
2 & 3	29) Highline Canal from Dobbins Road to Arizona Grand Parkway	Canal
2 & 3	39) CAP Canal from West City limits (6700 W) to Scottsdale Road	Canal
3	2) 24th Street from Van Buren Street to Baseline Road	Arterial
3	5) Osborn Road from I-17 to 40th Street	Collector
3	16) Ray Road from Chandler Boulevard to I-10	Arterial
3	17B) Missouri Avenue from 19th Avenue to 24th Street	Collector
3	22) 19th Avenue from Jomax Road to Thunderbird Road	Arterial
3	30) Southern Avenue from 75th Avenue to 48th Street	Arterial
3	32) Dobbins Road from 51st Avenue to 20th Street	Collector



## Additional Programs

### Bike Safety Campaign

As the City expands its bikeway system and continues to promote biking as an alternate transportation mode and healthier lifestyle, the Street Transportation department also strives to improve traffic safety for our current and new bicycle riders. The Bike Safe Phoenix campaign encourages drivers and bicyclists to be more aware of their environment and follow basic “rules of the road”. The efforts are focused on reducing the number of collisions and conflicts between motor vehicles and bicycles.

As part of the campaign, citizens are encouraged to become safer drivers and bicyclists by taking a “Bike Safe Phoenix” pledge: <https://www.phoenix.gov/streetsite/Pages/Bicycle-Safety-Pledge.aspx>. This pledge is a commitment to be courteous and cautious when travelling along City streets, obey traffic laws, yield to pedestrians, maintain safe distances, and be alert for bicyclists and pedestrians.

The Bike Safe Phoenix campaign team also initiated a new program to install “wrong-way” stickers on the backs of existing street signs. These stickers are intended to remind bicyclists to ride with the traffic flow to be more easily seen by motorists who are turning from driveways and intersections.

### Safe Routes to School Program

The Street Transportation Department’s School Safety Section provides leadership, assistance and training to schools across the city to help ensure safety for students who walk or bicycle to school. The section also carries out various programs and initiatives to practice safe behaviors near school zones.



The section is responsible for reviewing and responding to pedestrian and traffic related concerns that affect all public, charter, private and parochial K-12 schools in Phoenix.

The section works directly with City management, Police, Neighborhood Services, Fire, Parks, other city departments, parents and residents to address concerns and ensure student safety.

### Future Planning Efforts

Over the next two years, the City will implement two new planning efforts: Pedestrian Safety Action Plan and the Key Corridors Master Plan. The Key Corridors Master Plan will analyze corridors of significant economic and social importance within the community for identification of transportation improvement options. The Pedestrian Safety Action Plan will analyze previous pedestrian crash data, outline a plan of action for the City, and identify improvements at specific locations.



The City will also attempt to maximize resources by linking with related projects and leveraging funding opportunities in project areas. As an example, the City is merging efforts along Van Buren Street by combining the upcoming Van Buren Street Improvement Project, Choice Neighborhood Planning Grant, and the T2050 Mobility Assessment area.



















#### Energy Saving Street Light Project

Energy Saving Street Light Project to Ameresco under the enhanced capital proposal to replace up to 100,000 street lights with new Light Emitting Diode (LED) at 2,700 Kelvin citywide. The project is slated to start with an initial roll out in mid-August 2017 with completion in late 2018 or early 2019. This program is expected to enhance visibility for all users of the public street network.

## Section V. Five Year Bicycle Program

Information from the six work efforts varies and is dependent on how far in advance projects are scheduled per program. Table 3 outlines the availability of project specific information per fiscal year (FY) for each plan/program. A fiscal year runs from July 1<sup>st</sup> of the one year to June 30<sup>th</sup> of the next year. Understanding the limits of each program sets the parameters for the data analysis. The Pavement Maintenance Program, the Capital Improvement Program and the Bicycle Master plan have identified projects, funding, and scope per year until 2021. The Mobility Program will be a five-year program as it advances through the project and mobility assessments. The developer and neighborhood projects are not planned in future years because they are identified on an ongoing basis.

Additionally, it is recognized that planning, pre-design work, and implementation are cyclical and that the result of new bicycle facilities will change from year to year depending on these efforts.

<b>Plan/Program</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>FY2021</b>	<b>FY2022</b>
Traffic Services – Neighborhood Program		n/a	n/a	n/a	n/a	n/a
Pavement Maintenance Program						TBD**
Capital Improvement Program Projects						
Developer Projects	n/a	n/a	n/a	n/a	n/a	n/a
Bicycle Master Plan Lifecycle						
Mobility Program	n/a	n/a	n/a	n/a	n/a	n/a

\* The Mobility Program will be a five-year program after project and area assessments are complete and a five-year plan is recommended by the Citizen’s Transportation Commission.

\*\* FY2022 Pavement Maintenance Program is expected to be recommended and approval in FY2018.

### Bicycle Facilities per Plan/Program

Tables 4 and 5 outline the bicycle facilities per program and in total, that the City has completed (2017) and is planning to complete by FY2022. Information for FY2017 documents the work efforts installed to date, and FY2018-2022 is a forecast that still provides the City with opportunities to do more.

The most recent fiscal year (FY2017) completed 17.5 miles of new bicycle lanes. This number is lower than projected originally, which is due to two projects (Missouri Avenue: 19<sup>th</sup> Avenue to 24<sup>th</sup> Street and Osborn Rd: between 19<sup>th</sup> Avenue to 20<sup>th</sup> Street and 36<sup>th</sup> To 40<sup>th</sup> Streets) not moving forward at this time.

Looking forward to FY2018 – 2021, the City will utilize the Pavement Maintenance Program to its fullest extent in coordinating installation of new facilities; 69 bi-directional miles of bike lanes and extending bicycle lanes to the intersection at 27 locations. The FY2022 pavement maintenance program and schedule has not yet been approved.

The Bicycle Master Plan will also see completion of 128 individual projects that include full improvements to the Grand Canal between the City limits and the I-17. Bicyclists will be able to ride on 26 miles of new shared use path and cross streets safely with a variety of treatments that include HAWKS, rapid flashing beacons, and crosswalks.

The information about bicycle lanes and facilities related to the Mobility program is yet to be defined. The Street Transportation Department is actively working on planning efforts and evaluating potential projects. Once this effort is complete, the bike facilities will be included in this report.

Detailed reports per year, per program, location, and type of new bicycle facility are noted in the related appendices: Appendix A - 2017, Appendix B - 2018, Appendix C – 2019, Appendix D - 2020, Appendix E – 2021, and Appendix F – 2022.

<b>Table 4 - Bike Facilities per Program per Fiscal Year</b>						
<b>Neighborhood Traffic Management Program</b>						
<b>Bike Facility</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>FY2021</b>	<b>FY2022</b>
Bike Lanes (Bi-Dir. Miles)	6.5					
Buffered Bike Lanes (Bi-Dir. Miles)	n/a					
Protected Bike Lanes	n/a					
Extending bike lanes to intersections (# of Improvements)	n/a					
Shared Use Paths (Bi-Dir. Miles)	n/a					
Bicycle Detection (# of Improvements)	n/a					
<b>Pavement Maintenance</b>						
<b>Bike Facility</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>FY2021</b>	<b>FY2022</b>
Bike Lanes (Bi-Dir. Miles)	6.08	8	19.5	27.8	11.8	
Buffered Bike Lanes (Bi-Dir. Miles)	n/a	n/a	n/a	n/a	n/a	
Protected Bike Lanes	n/a	n/a	n/a	n/a	n/a	
Extending bike lanes to intersections (# of Improvements)	2	6	8	6	5	
Shared Use Paths (Bi-Dir. Miles)	n/a	n/a	n/a	n/a	n/a	
Bicycle Detection (# of Improvements)	TBD	TBD	TBD	TBD	TBD	
<b>Capital Improvement Program</b>						
<b>Bike Facility</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>FY2021</b>	<b>FY2022</b>
Bike Lanes (Bi-Dir. Miles)	2	2.66	2	0	4	TBD
Buffered Bike Lanes (Bi-Dir. Miles)	n/a	n/a	n/a	n/a	n/a	TBD
Protected Bike Lanes	n/a	n/a	n/a	n/a	n/a	TBD
Extending bike lanes to intersections (# of Improvements)	n/a	n/a	n/a	n/a	n/a	TBD

Shared Use Paths (Bi-Dir. Miles)	n/a	n/a	n/a	n/a	n/a	TBD
Bicycle Detection (# of Improvements)	TBD	TBD	TBD	TBD	TBD	TBD
<b>Developer Projects</b>						
<b>Bike Facility</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>FY2021</b>	<b>FY2022</b>
Bike Lanes (Bi-Dir. Miles)						
Buffered Bike Lanes (Bi-Dir. Miles)						
Protected Bike Lanes						
Extending bike lanes to intersections (# of Improvements)						
Shared Use Paths (Bi-Dir. Miles)						
Bicycle Detection (# of Improvements)						
<b>BMP Projects</b>						
<b>Bike Facility</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>FY2021</b>	<b>FY2022</b>
Bike Lanes (Bi-Dir. Miles)	3	27.6	18.16	16.34	7.84	25.84
Shared Lane Markings	0.24	9.38	1.7	3	n/a	n/a
Buffered Bike Lanes (Bi-Dir. Miles)	n/a	1	n/a	n/a	n/a	n/a
Protected Bike Lanes	n/a	n/a	2.9	2	n/a	n/a
Extending bike lanes to intersections (# of Improvements)	1	17	9	19	2	30
Shared Use Paths (Bi-Dir. Miles)	n/a	n/a	21.1	n/a	n/a	5
Bicycle Detection (# of Improvements)	TBD	TBD	TBD	TBD	TBD	TBD
<b>Mobility Program Projects</b>						
<b>Bike Facility</b>	<b>FY2017</b>	<b>FY2018</b>	<b>FY2019</b>	<b>FY2020</b>	<b>FY2021</b>	<b>FY2022</b>
Bike Lanes (Bi-Dir. Miles)						
Buffered Bike Lanes (Bi-Dir. Miles)						
Protected Bike Lanes						
Extending bike lanes to intersections (# of Improvements)						
Shared Use Paths (Bi-Dir. Miles)						
Bicycle Detection (# of Improvements)						

## Section VI. Shifting Gears

The Five-Year Bicycle Program compiles the information about the City’s efforts to include bicycle facilities in a comprehensive manner. Through FY2022, the T2050 annual target of installing 31 bi-directional miles of bicycle lanes per year equals 186 bi-directional bicycle lane miles. As noted in Table 5, in FY 2022, the City is on track to install just over 187 miles of new bi-directional bicycle lanes, plus an additional 5 miles of protected bicycle lanes for a total of 194 miles (Table 6). Map #7 details the existing and the five-year plan.

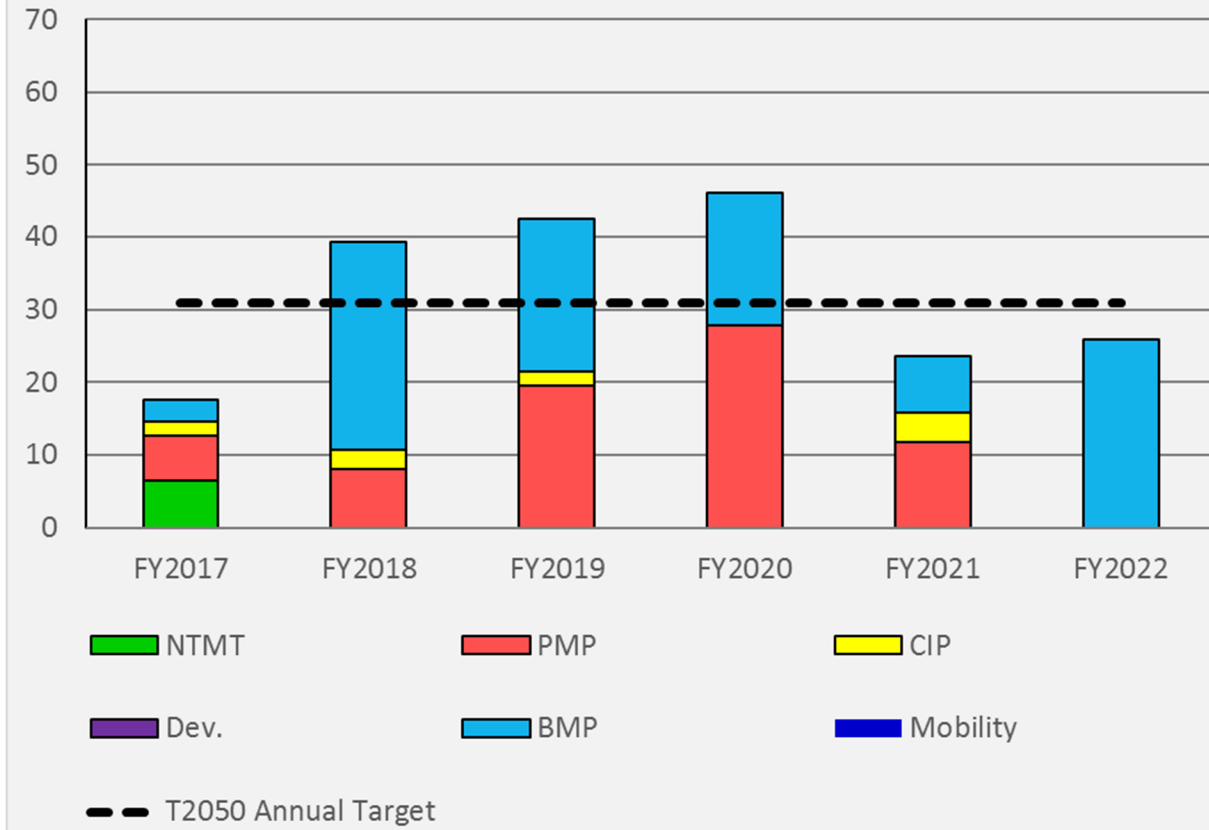
Table 5 - Total Bike Facilities per Program							
Total of Six Plans/Programs							
Bike Facility	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	Total - FY2017-2022
Bike Lanes (Bi-Dir. Miles)	17.58	38.26	39.66	44.14	23.64	25.84	189.12
Buffered Bike Lanes (Bi-Dir. Miles)	0	1	0	0	0	0	1
Protected Bike Lanes	0	0	2.9	2	0	0	4.9
Extending bike lanes to intersections (# of Improvements)	3	23	17	25	7	30	102
Shared Use Paths (Bi-Dir. Miles)	0	0	21.1	0	0	5	26.1
Bicycle Detection (# of Improvements)	0	0	0	0	0	0	0

Annually, the total miles fluctuate due to projects finishing final design, project schedules, and planning efforts being completed. Looking individually at fiscal years, FY2018, FY 2019, and FY2020 exceed the annual T2050 Target of 31, while FY2017, 2021 and 2022 are under the target as documented in Table 6.

Table 6 - Total Bike Facilities per Program							
Total of Six Plans/Programs							
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	Total - FY2017-2022
Total Bike Lanes (Bi-Dir. Miles) including Buffered and Protected Lanes	17.58	38.26	42.56	46.14	23.64	25.84	194.02
T2050 Annual Target	31	31	31	31	31	31	186
<b>Over/(Under) Target</b>	<b>(13)</b>	<b>7</b>	<b>12</b>	<b>15</b>	<b>(7)</b>	<b>(5)</b>	8.02

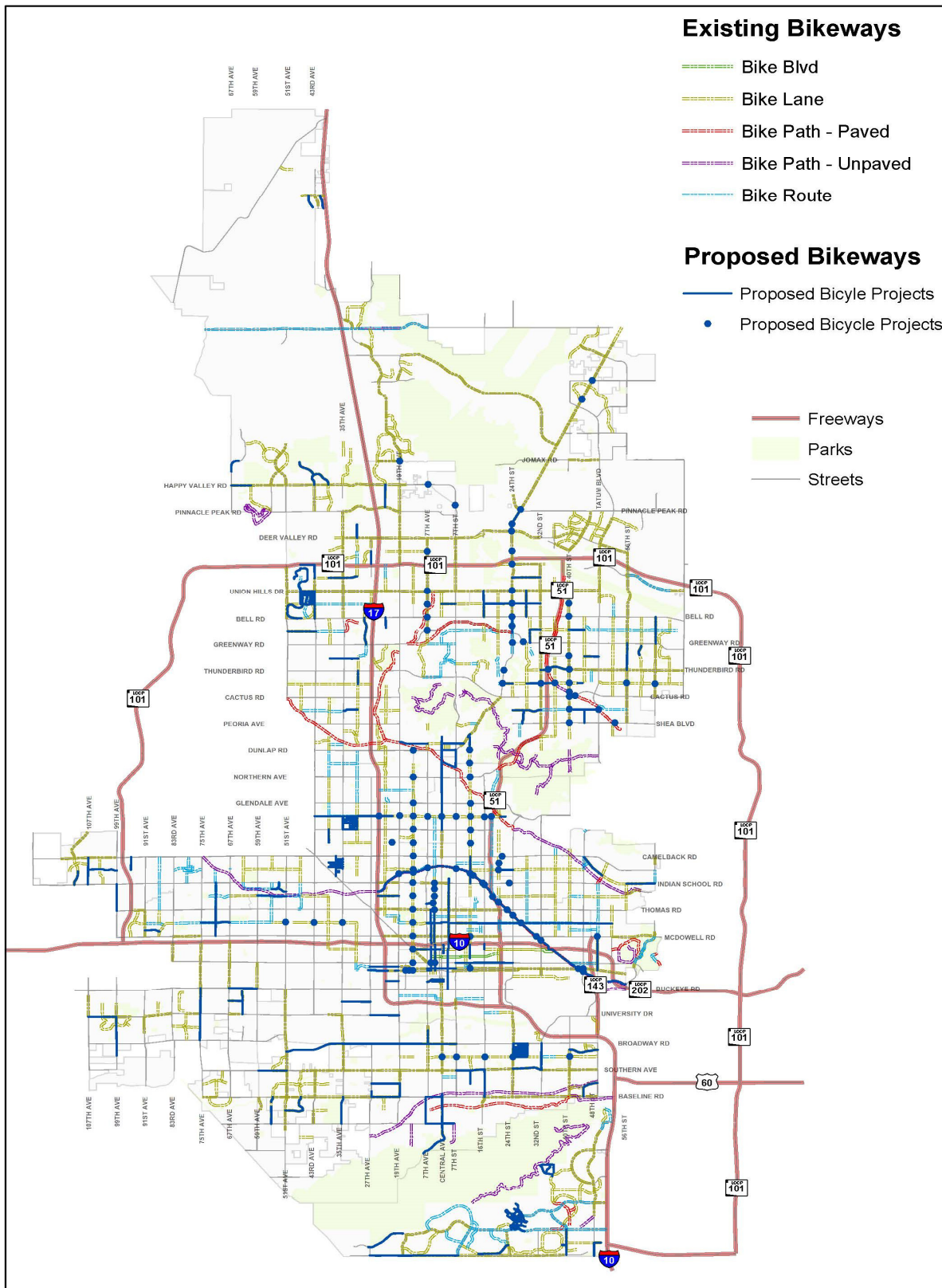
As shown in Chart 3, bicycle miles come from the projects of different plan/programs. Map #7 is included to show what is completed, what is planned in the next five years as the Five-Year Bicycle Program moves forward. This number will change and most likely have a positive influence on this program and bicycle lane miles will increase. Overall, the Five-Year Bicycle Program demonstrates that the City is *Shifting Gears* for a more complete transportation system.

**Chart 3 - Total Bi-Directional Miles Per Fiscal Year  
with T2050 Target**





# Map #7 – Existing and Proposed Bicycle Facilities



**APPENDICES A - F**

**APPENDIX A - FY2017**

<b>FY2017 - Neighborhood Traffic Management Program</b>							
<b>Location</b>	<b>From</b>	<b>To</b>	<b>Distance (mi.)</b>	<b>Bi-Directional</b>	<b>Existing Facility</b>	<b>Post Facility</b>	<b>Program</b>
44th Street	Shea Blvd.	Cholla Street	0.5	1	None	4-6 Foot Bike Lane	NTMT
Campbell Avenue	99th Avenue	107th Avenue	1	2	None	4-6 Foot Bike Lane	NTMT
Cholla Street	40th Street	Tatum Boulevard	0.75	1.5	None	4-6 Foot Bike Lane	NTMT / BMP
Lafayette Blvd.	56th Street to 64th Street	64th Street	1	2	None	4-6 Foot Bike Lane	NTMT
<b>Total New Bicycle Lanes</b>			3.25	6.5			
<b>Total New Shared Lane Markings</b>							
<b>Total New Protected Bicycle Lanes</b>							
<b>Total New Buffered Bicycle Lanes</b>							

<b>FY2017 - Pavement Maintenance Management Program</b>							
<b>Location</b>	<b>To</b>	<b>From</b>	<b>Distance (Mi.)</b>	<b>Bi-Directional</b>	<b>Existing Facility</b>	<b>Post Facility</b>	<b>Program</b>
Clarendon Avenue	55th Avenue	Indian School Road	0.44	0.88	None	Bike Lane	PMP
Maryvale Pkwy	Clarendon Avenue	51st Avenue	1.1	2.2	None	Bike Lane	PMP
Grovers Avenue	16th Street	Cave Creek Road	0	0	4-6 Foot Bike Lane	Intersection Treatment	PMP
Liberty Lane	15th Street	24th Street	0	0	4-6 Foot Bike Lane	Intersection Treatment	PMP
Cholla Street	35th Avenue	31st Avenue	0.5	1	No Bike Lanes	4-6 Foot Bike Lane	PMP
Grovers Road	Cave Creek Road	32nd Street	1	2	No Bike Lanes	4-6 Foot Bike Lane	PMP
<b>Total New Bicycle Lanes</b>			3.04	6.08			
<b>Total New Shared Lane Markings</b>							
<b>Total New Protected Bicycle Lanes</b>							
<b>Total New Buffered Bicycle Lanes</b>							

<b>CIP Program (projects that are in the CIP and are Bicycle Master Plan projects are accounted for in the Bicycle Master Plan Program)</b>							
<b>Location</b>	<b>From</b>	<b>To</b>	<b>Distance (mi.)</b>	<b>Bi-Directional</b>	<b>Existing Facility</b>	<b>Post Facility</b>	<b>Program</b>
Avenida Rio Salado/Broadway Road	51st Avenue	43rd Avenue	1	2	None	4-6 Foot Bike Lane	CIP Program
<b>Total New Bicycle Lanes</b>			1	2			
<b>Total New Shared Lane Markings</b>							
<b>Total New Protected Bicycle Lanes</b>							
<b>Total New Buffered Bicycle Lanes</b>							

FY2017 - Bicycle Master Plan								
BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility
8.1	BMP-08A.A	Adams Street between 27th Ave and 19th Ave	27th Avenue	19th Avenue	1	2	None	4-6 Foot Bike Lane
8.2	BMP-08B.A	Jefferson Street between 27th Ave and 22nd Ave	27th Avenue	22nd Avenue	0.5	1	Bike Route	4-6 Foot Bike Lane
8.2	BMP-08B.C	Jefferson Street between 20th Ave and 19th Ave	20th Avenue	19th Avenue	0.12	0.24	None	Shared Lane Markings
13	BMP-13K	Encanto Blvd. at 15th Ave Intersection	at 15th Avenue		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
<b>Total New Bicycle Lanes</b>					1.5	3		
<b>Total New Shared Lane Markings</b>					0.12	0.24		
<b>Total New Protected Bicycle Lanes</b>								
<b>Total New Buffered Bicycle Lanes</b>								

**APPENDIX B - FY2018**

<b>FY2018 - Pavement Maintenance Management Program</b>								
<b>Location</b>	<b>To</b>	<b>From</b>	<b>Distance (mi.)</b>	<b>Bi-Directional</b>	<b>Existing Facility</b>	<b>Post Facility</b>	<b>Program</b>	<b>FY of Completion</b>
Durango Street	27th Avenue	35th Avenue	1	2	No Bike Lane	4-6 Foot Bike Lane	PMP	2018
16 St	N/O Bell Rd	S/O Union Hills Dr	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	PMP	2018
32 St	N/O Southern Ave	S/O Broadway Rd	1	2	No Bike Lane	Shared Lane Markings	PMP	2018
56 St	N/O Thunderbird Rd	S/O Greenway Rd	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	PMP	2018
64 St	N/O Greenway Pkwy	S/O Bell Rd	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	PMP	2018
Cave Creek Rd	N/O Deer Valley Rd	S/O Pinnacle Peak Rd	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	PMP	2018
Dobbins Rd	7 Ave	7 St	1	2	No Bike Lanes	4-6 Foot Bike Lane	PMP	2018
Durango St	E/O 27 Ave	W/O 35th Ave	1	2	No Bike Lane	4-6 Foot Bike Lane	PMP	2018
Hatcher Rd	19 Ave	7 Ave	1	2	No Bike Lanes	4-6 Foot Bike Lane	PMP	2018
Hatcher Rd	E/O 7 St	W/O Cave Creek Rd	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	PMP	2018
Hatcher Rd	W/O Central Ave	W/O 7 St	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	PMP	2018
<b>Total New Bicycle Lanes</b>			4	8				
<b>Total New Shared Lane Markings</b>			1	2				
<b>Total New Protected Bicycle Lanes</b>								
<b>Total New Buffered Bicycle Lanes</b>								

**CIP Program (projects that are in the CIP and are Bicycle Master Plan projects are accounted for in the Bicycle Master Plan Program)**

Location	From	To	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility	Program	Fiscal Year
1st Street	Mckinley Street	Moreland Street	0.33	0.66	None	4-6 Foot Bike Lane	CIP Program	2018
Avenida Rio Salado/Broadway Road	43rd Avenue	35th Avenue	1	2	None	4-6 Foot Bike Lane	CIP Program	2018
<b>Total New Bicycle Lanes</b>			1.33	2.66				
<b>Total New Shared Lane Markings</b>								
<b>Total New Protected Bicycle Lanes</b>								
<b>Total New Buffered Bicycle Lanes</b>								

**FY2018 - Bicycle Master Plan**

BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility
3	BMP-03A	Central Avenue	Mountain View Road	Ruth Avenue	0	0	None	Bicycle Route Signage
3	BMP-03B	Central Avenue	Ruth Avenue	Bethany Home Road	2.69	5.38	None	Shared Lane Markings
3	BMP-03G	Central Avenue	Western Canal	Mineral Road	0.2	0.4	Bike Lanes	Extend Bike Lanes to Intersection
3	BMP-03H	Central Avenue	Mineral Road	Phoenix South Mountain Park	1.2	2.4	None	Extend Bike Lanes to Intersection
6	BMP-06F	12th Street	Osborn Road	Thomas Road	0	0	None	Bike HAWK
7	BMP-07D	15th Avenue	Van Buren St	Harrison St.	0.5	1	None	Buffered Bicycle Lanes
7	BMP-07R	15th Avenue	Harrison St.	I-17	1	2	None	Bicycle Lane
8.1	BMP-08A.C	Washington Street	7th Avenue	7th Street	1.01	2.02	None	Shared Lane Markings
8.1	BMP-08A.E	Washington Street	at 44th Street		0	0	No bike lanes	Extend Bike Lanes to Intersection
8.2	BMP-08B.F	Jefferson Street	7th Avenue	5th Street	0.89	1.78	None	4-6 Foot Bike Lane
8.2	BMP-08B.H	Jefferson Street	at 17th Avenue		0	0	No Bike Lane	Extend Bike Lanes to Intersection
8.2	BMP-08B.I	Jefferson Street	at 16th Avenue		0	0	No Bike Lane	Extend Bike Lanes to Intersection

BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility
8.2	BMP-08B.J	Jefferson Street	at 15th Avenue		0	0	No Bike Lane	Extend Bike Lanes to Intersection
12.1	BMP-12A.D	3rd Avenue	Van Buren Street	Jefferson Street	0.3	0.6	None	4-6 Foot Bike Lane
12.1	BMP-12A.J	3rd Avenue	at Van Buren Street		0	0	No Bike Lane	Extend Bike Lanes to Intersection
12.2	BMP-12B.B	5th Avenue	Van Buren Street	Washington Street	0.22	0.44	None	4-6 Foot Bike Lane
12.2	BMP-12B.F	5th Avenue	at Van Buren Street		0.2	0.4	No Bike Lane	Through Bike lanes with intersection road diet
13	BMP-13G	Oak Street	24th Street	32nd Street	0.99	1.98	Parking	Shared Lane Markings
13	BMP-13H	Oak Street	32nd Street	47th Place / Cross-cut Canal	1.98	3.96	Bike Route	4-6 Foot Bike Lane
13	BMP-13I	Oak Street	48th Street	52nd Street	0.49	0.98	None	4-6 Foot Bike Lane
13	BMP-13J	Oak Street	52nd St	56th St	0.5	1	None	4-6 Foot Bike Lane
19	BMP-19A	Indian Bend Wash	at Thunderbird Road		0	0	Underpasses	Wayfinding
19	BMP-19B	Indian Bend Wash	at 36th Street		0	0	Crosswalk	Wayfinding
19	BMP-19C	Indian Bend Wash	at 40th Street		0	0	Underpasses	Wayfinding
19	BMP-19D	Indian Bend Wash	at Cactus Road		0	0	Underpasses	Wayfinding
19	BMP-19E	Indian Bend Wash	at Tatum Blvd		0	0	Underpasses	Wayfinding
19	BMP-19F	Indian Bend Wash	at Shea Blvd		0	0	Underpasses	Wayfinding
31	BMP-31A	Chandler Blvd	27th Avenue	18th Avenue	0.8	1.6	None	4-6 Foot Bike Lane
34	BMP-34I	Cave Creek Road	at Sweetwater Avenue		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
34	BMP-34J	Cave Creek Road	at Sharon Drive		0	0	No Bike Lanes	Extend Bike Lanes to Intersection



BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility
34	BMP-34K	Cave Creek Road	at Greenway Road		0	0	No SB Bike Lane	Extend Bike Lanes to Intersection
34	BMP-34L	Cave Creek Road	at Greenway Parkway		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
34	BMP-34M	Cave Creek Road	at Grandview Road		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
34	BMP-34N	Cave Creek Road	at Bell Road		0	0	No Bike Lanes	Combined Bike Lane / Turn Lane
34	BMP-34O	Cave Creek Road	at Grovers Avenue		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
34	BMP-34P	Cave Creek Road	at Union Hills Drive		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
34	BMP-34Q	Cave Creek Road	at Beardslay Road		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
34	BMP-34R	Cave Creek Road	at Rose Garden Lane		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
35	BMP-35F	Broadway Road	51st Avenue	19th Avenue	4.03	8.06	None	4-6 Foot Bike Lane
35	BMP-35G	Broadway Road	19th Avenue	7th Street	2.02	4.04	None	4-6 Foot Bike Lane
<b>Total New Bicycle Lanes</b>					13.83	27.66		
<b>Total New Shared Lane Markings</b>					4.69	9.38		
<b>Total New Protected Bicycle Lanes</b>								
<b>Total New Buffered Bicycle Lanes</b>					0.5	1		

**APPENDIX C - FY2019**

CIP Program (projects that are in the CIP and are Bicycle Master Plan projects are accounted for in the Bicycle Master Plan Program)								
Location	From	To	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility	Program	Fiscal Year
107th Avenue	Camelback Road	Indian School Roads	1	2	None	4-6 Foot Bike Lane	CIP Program	2019
<b>Total New Bicycle Lanes</b>			1	2				
<b>Total New Shared Lane Markings</b>								
<b>Total New Protected Bicycle Lanes</b>								
<b>Total New Buffered Bicycle Lanes</b>								

FY2019 - Pavement Maintenance Management Program								
Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility	Program	FY of Completion
29 Ave	Greenway Rd	Bell Rd	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	PMP	2019
31 Ave	N/O Sweetwater Ave	S/O Thunderbird Rd	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	PMP	2019
35 Ave	Dobbins Rd	Baseline Rd	0.9	1.8	Partial Bike Lanes (.1 Mile)	New .9 Miles Of 4-6 Foot Bike Lane	PMP	2019
43 Ave	Bell Rd	Union Hills Dr	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	PMP	2019
45 Ave	Grovers Ave	Union Hills Dr	0.5	1	No Bike Lanes	4-6 Foot Bike Lane	PMP	2019

7 Ave	N/O Broadway Rd	S/O Elwood St	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	PMP	2019
71 Ave	N/O Mcdowell Rd	S/O Indian School Rd	2	4	No Bike Lanes	4-6 Foot Bike Lane	PMP	2019
75 Ave	N/O Broadway Rd	S/O Lower Buckeye Rd	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	PMP	2019
Baseline Rd	E/O 7 Ave (N Bnd)	W/O Central Ave	0.5	1	No Bike Lane	4-6 Foot Bike Lane	PMP	2019
Cotton Center Blvd	40 St	48 St	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	PMP	2019
Encanto Blvd	E/O 75 Ave	W/O 67 Ave	1	2	No Bike Lanes	4-6 Foot Bike Lane	PMP	2019
Grant St	E/O Black Canyon Frwy	W/O 19 Ave	0.45	0.9	No Bike Lanes	4-6 Foot Bike Lane	PMP	2019
Happy Valley Rd	E/O 67 Ave	W/O 61 Ave (S/Bnd)	0.2	0.4	4-6 Foot Bike Lane Partially Exist	4-6 Foot Bike Lane	PMP	2019
Mountain Gate Pass	E/O Cave Creek Rd	E/O Cave Creek Dam Rd	0.5	1	No Bike Lanes	4-6 Foot Bike Lane	PMP	2019
Oak St	E/O 7 St	W/O 14 St	0.75	1.5	No Bike Lanes	4-6 Foot Bike Lane	PMP	2019

Osborn Rd	E/O 59 Ave	W/O 51 Ave	1	2	No Bike Lanes	4-6 Foot Bike Lane	PMP	2019
Palm Ln	E/O 91 Ave	W/O 86 Dr	0.5	1	No Bike Lanes	4-6 Foot Bike Lane	PMP	2019
Roosevelt St	E/O 7 Ave	W/O 1 Ave	0.45	0.9	No Bike Lanes	4-6 Foot Bike Lane	PMP	2019
Southern Ave	E/O 7 St	W/O 16 St	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	PMP	2019
Sweetwater Ave	E/O 32 St	W/O 36 St	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	PMP	2019
Utopia/Yorkshire Dr	E/O Cave Creek Rd	E/O 32 St	1	2	No Bike Lanes	4-6 Foot Bike Lane	PMP	2019
<b>Total New Bicycle Lanes</b>			9.75	19.5				
<b>Total New Shared Lane Markings</b>								
<b>Total New Protected Bicycle Lanes</b>								
<b>Total New Buffered Bicycle Lanes</b>								

FY2019 - Bicycle Master Plan								
BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility
1	BMP-01A	3rd Street	Indian School	Roosevelt Street	2.1	4.2	None	4-6 Foot Bike Lane
1	BMP-01A	3rd Street	Indian School	Roosevelt Street	0.5	1	None	Protected Bike Lane
1	BMP-01B	3rd Street	Roosevelt Street	Filmore Street	0.29	0.58	None	4-6 Foot Bike Lane
12.1	BMP-12A.C	3rd Avenue	Thomas Road	Van Buren Street	1.5	3	Bike Lane	4-6 Foot Bike Lane
12.1	BMP-12A.C	3rd Avenue	Thomas Road	Van Buren Street	0.5	1	Bike Lane	Protected Bike Lane
12.2	BMP-12B.A	5th Avenue	Thomas Road	Van Buren Street	1.98	3.96	Bike Lane	4-6 Foot Bike Lane

BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility
13	BMP-13E	Oak Street	3rd Street	16th Street	1	2	None	4-6 Foot Bike Lane
13	BMP-13E	Oak Street	3rd Street	16th Street	0.25	0.5	None	Protected Bike Lane
13	BMP-13F	Oak Street	16th Street	24th Street	1.01	2.02	Bike Route	4-6 Foot Bike Lane
13	BMP-13C	Encanto Blvd.	7th Avenue	Central Avenue	0.52	1.04	None	Shared Lane Markings
13	BMP-13D	Encanto Blvd.	Central Avenue	3rd Street	0.33	0.66	Discontinuous	Shared Lane Markings
15	BMP-15B	Grand Canal	I-17	15th Avenue	1.5	3	Not Paved	Shared Use Path
15	BMP-15C	Grand Canal	15th Avenue	16th Street	2.75	5.5	Not Paved	Shared Use Path
15	BMP-15D	Grand Canal	16th Street	36th Street	3.5	7	Not Paved	Shared Use Path
15	BMP-15E	Grand Canal	36th Street	40th Street	0.6	1.2	Not Paved	Shared Use Path
15	BMP-15F	Grand Canal	40th Street	PHX/Tempe Border	2.2	4.4	Not Paved	Shared Use Path
15	BMP-15S	Grand Canal	at Indian School Road (2250 W)		0	0	None	Crosswalk
15	BMP-15U	Grand Canal	at 15th Avenue		0	0	None	Rapid Flashing Beacon
15	BMP-15V	Grand Canal	at 7th Avenue		0	0	None	Bike HAWK
15	BMP-15X	Grand Canal	at 7th Street		0	0	None	Crosswalk
15	BMP-15Y	Grand Canal	at 12th Street		0	0	None	Rapid Flashing Beacon
15	BMP-15Z	Grand Canal	at Longview Avenue		0	0	None	Crosswalk
15	BMP-15ZA	Grand Canal	at Indian School Road (1550 E)		0	0	None	Bike HAWK
15	BMP-15ZB	Grand Canal	at 16th Street		0	0	None	Bike HAWK

BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility
15	BMP-15ZC	Grand Canal	at Osborn Road		0	0	None	Rapid Flashing Beacon
15	BMP-15ZD	Grand Canal	at 20th Street		0	0	None	Rapid Flashing Beacon
15	BMP-15ZE	Grand Canal	at Thomas Road		0	0	None	Crosswalk
15	BMP-15ZF	Grand Canal	at 24th Street		0	0	None	Bike HAWK
15	BMP-15ZG	Grand Canal	at Oak Street		0	0	None	Crosswalk
15	BMP-15ZH	Grand Canal	at McDowell Road		0	0	None	Bike HAWK
15	BMP-15ZI	Grand Canal	at 32nd Street		0	0	None	Bike HAWK
15	BMP-15ZK	Grand Canal	at Washington Street		0	0	None	Crosswalk
15	BMP-15ZL	Grand Canal	at 44th Street		0	0	Refuge Island	Rapid Flashing Beacon
15	BMP-15ZN	Grand Canal	at 48th Street		0	0	None	Crosswalk
15	BMP-15T	Grand Canal	at 19th Avenue		0	0	None	Bike HAWK
23	BMP-23C	Sweetwater Avenue	42nd Street	Paradise Village Pkwy	1	2	None	Bicycle Lane
23	BMP-23C	Sweetwater Avenue	42nd Street	Paradise Village Pkwy	0.2	0.4	None	Protected Bike Lane
23	BMP-23E	Sweetwater Avenue	at Cave Creek Road		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
23	BMP-23F	Sweetwater Avenue	at 32nd Street		0	0	No Bike Lanes	Extend Bike Lanes to Intersection



BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility
23	BMP-23G	Sweetwater Avenue	at 40th Street		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
23	BMP-23H	Sweetwater Avenue	at 56th Street		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
23	BMP-23I	Sweetwater Avenue	at 64th Street		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
25	BMP-25A	Cave Creek Wash	at Peoria Avenue		0	0	Underpass	Wayfinding
25	BMP-25B	Cave Creek Wash	at Cactus Road		0	0	Underpass	Wayfinding
25	BMP-25C	Cave Creek Wash	at Thunderbird Road		0	0	Underpass	Wayfinding
25	BMP-25E	Cave Creek Wash	at 7th Avenue		0	0	Underpass	Wayfinding
25	BMP-25F	Cave Creek Wash	at 7th Street		0	0	Underpass	Wayfinding
34	BMP-34S	Cave Creek Road	at Deer Valley Road		0.2	0.4	No SB Bike Lane	Through Bike lanes with intersection road diet
34	BMP-34T	Cave Creek Road	at Mountain Gate Pass		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
34	BMP-34U	Cave Creek Road	at Desert Peak Pkwy		0	0	No SB Bike Lane	Extend Bike Lanes to Intersection
34	BMP-34V	Cave Creek Road	at Desert Willow E / W Pkwy		0	0	No Bike Lanes	Extend Bike Lanes to Intersection

BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility
34	BMP-34W	Cave Creek Road	at Lone Mountain Road		0	0	No Bike Lane NB	Combined Bike Lane / Turn Lane
					<b>Total New Bicycle Lanes</b>	9.08	18.16	
					<b>Total New Shared Lane Markings</b>	0.85	1.7	
					<b>Total New Protected Bicycle Lanes</b>	1.45	2.9	
					<b>Total New Buffered Bicycle Lanes</b>			

**APPENDIX D - FY2020**

FY2020 - Pavement Maintenance Management Program								
Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility	Program	FY of Completion
41 Dr	End Of Road	Anthem Way	0	0	4-6 Foot Bike Lane	Intersecti on Treatmen ts Needed	PMP	2020
47 Ave/Topeka R	N/O Union Hills Dr	N/O Yorkshire Dr	0.7	1.4	No Bike Lanes	4-6 Foot Bike Lane	PMP	2020
Campbell Ave	E/O 20 St	W/O 24 St	0	0	4-6 Foot Bike Lane	Intersecti on Treatmen ts Needed	PMP	2020
Dobbins Rd	E/O 51 Ave	W/O 43 Ave	1	2	No Bike Lane	4-6 Foot Bike Lane	PMP	2020
Earll Dr	E/O 7th Ave	E/O 3rd Ave	0.2	0.4	No Bike Lanes	4-6 Foot Bike Lane	PMP	2020
Grovers Ave	E/O Central Ave	W/O 7 St	0	0	4-6 Foot Bike Lane	Intersecti on Treatmen ts Needed	PMP	2020
Lower Buckeye R	E/O 107 Ave	W/O 99 Ave	0.5	1	Partial Bike Lanes (.5 Mile)	4-6 Foot Bike Lane	PMP	2020
Paradise Ln	W/O 51 Ave	E/O 43 Ave	0	0	4-6 Foot Bike Lane	Intersecti on Treatmen ts Needed	PMP	2020
Southern Ave	59 Ave	51 Ave	0	0	4-6 Foot Bike Lane	Intersecti on Treatmen ts Needed	PMP	2020
Thunderbird Rd	W/S 32 St	E/S 40 St	0	0	4-6 Foot Bike Lane	Intersecti on Treatmen ts Needed	PMP	2020
Cave Creek Rd	S/O Greenway Rd	N/O Bell Rd	0.98	1.96	None	4-6 Foot Bike Lane	PMP	2020

06-35	Ahwatukee Ct / Mountain Preserve	Mountain Preserve / Blackfoot Dr	1.49	2.98	None	4-6 Foot Bike Lane	PMP	2020
Quarter Section 1-23/1-24	Baseline Rd / Vineyard Rd	27 Ave / 19 Ave	1	2	None	4-6 Foot Bike Lane	PMP	2020
Quarter Section 23-32	Glendale Ave / Orangewood Ave	Sr 51 Frwy / 24 St	0.6	1.2	None	4-6 Foot Bike Lane	PMP	2020
Quarter Section 48-13	Prickly Pear Trl / Pyramid Peak Prkwy	Pyramid Peak Prkwy / Mountain Preserve	0.42	0.84	None	4-6 Foot Bike Lane	PMP	2020
Quarter Section 38-18	Grovers Ave / Union Hills Dr	47 Ave / 43 Ave	1.06	2.12	Bike Lane & Route	4-6 Foot Bike Lane	PMP	2020
Quarter Section 26-28	Las Palmaritas Dr / Dunlap Ave	Central Ave / 7 St	1	2	None	4-6 Foot Bike Lane	PMP	2020
Quarter Section 18-20/17-20	Glenrosa Ave / Camelback Rd	39 Ave / 35 Ave	0.77	1.54	None	4-6 Foot Bike Lane	PMP	2020
12 St	N/O Vineyard Rd	S/O Southern Ave	0.5	1	None	4-6 Foot Bike Lane	PMP	2020
Quarter Section 21-21	Maryland Ave / Bethany Home Rd	35 Ave / 31 Ave	1	2	Bike Lane & Route	4-6 Foot Bike Lane	PMP	2020
7 Ave	N/O Dobbins Rd	S/O Baseline Rd	0.5	1	Partial Bike Lane	Complete 4-6 Foot Bike Lane	PMP	2020
Acoma Dr	E/O 39 Ave	W/O 31 Ave	1	2	None	4-6 Foot Bike Lane	PMP	2020

Lindner Dr	Bell Rd / Grovers Ave	51 Ave / 47 Ave	0.38	0.76	Partial Bike Lane	Complete 4-6 Foot Bike Lane	PMP	2020
Quarter Section 4-33	Roeser Rd / Broadway Rd	24 St/28 St	0.5	1	Partial Bike Lane	Complete 4-6 Foot Bike Lane	PMP	2020
95 Ave	Minnezona Ave	S/O Camelback Rd	0.34	0.67	None	4-6 Foot Bike Lane	PMP	2020
<b>Total New Bicycle Lanes</b>			13.94	27.88				
<b>Total New Shared Lane Markings</b>								
<b>Total New Protected Bicycle Lanes</b>								
<b>Total New Buffered Bicycle Lanes</b>								

FY2020 - Bicycle Master Plan								
BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility
1	BMP-01C	3rd Street	Filmore Street	Washington Street	0.43	0.86	None	4-6 Foot Bike Lane
1	BMP-01D	3rd Street	Washington Street	Lincoln Street	0.42	0.84	None	4-6 Foot Bike Lane
1	BMP-01E	3rd Street	Lincoln Street	Buckeye Road	0.37	0.74	None	4-6 Foot Bike Lane
4	BMP-04A	20th Street	Glendale	Maryland	1	2	None	4-6 Foot Bike Lane
4	BMP-04C	20th Street	Clarmont	Bethany Home	0.5	1	None	Shared Lane Markings
4	BMP-04D	20th Street	Missouri Ave	Camelback	0.5	1	Bike Lanes	Protected Bike Lanes
4	BMP-04E	20th Street	Camelback	Highland	0.5	1	Bike Lanes	Protected Bike Lanes
4	BMP-04F	20th Street	Highland Avenue		0	0	No Bike Lanes NB	Through Bike lanes with intersection road diet
12.1	BMP-12A.E	3rd Avenue	Indian School Road		0	0	No Bike Lane	Extend Bike Lanes to Intersection

BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility
12.1	BMP-12A.F	3rd Avenue	Clarendon Avenue		0	0	No Bike Lane	Extend Bike Lanes to Intersection
12.1	BMP-12A.G	3rd Avenue	Osborn Road		0	0	No Bike Lane	Through Bike lanes with intersection road diet
12.1	BMP-12A.H	3rd Avenue	Earll Drive		0	0	No Bike Lane	Extend Bike Lanes to Intersection
12.1	BMP-12A.I	3rd Avenue	Thomas Road		0	0	No Bike Lane SB	Extend Bike Lanes to Intersection
14	BMP-14B	7th Avenue	Melinda Lane	Deer Valley Road	0.11	0.22	None	Extend Bike Lanes to Intersection
14	BMP-14C	7th Avenue	Greenway Parkway		0.2	0.4	No Bike Lanes	Through Bike lanes with intersection road diet
14	BMP-14D	7th Avenue	Bell Road		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
14	BMP-14E	7th Avenue	Grovers Avenue		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
14	BMP-14F	7th Avenue	Union Hills Drive		0	0	No Bike Lanes	Extend Bike Lanes to Intersection



BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility
14	BMP-14G	7th Avenue	Beardsley Road (SR 101)		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
14	BMP-14H	7th Avenue	Rose Garden Lane		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
17	BMP-17A	Missouri Avenue	43rd Avenue	35th Avenue	1.02	2.04	None	Shared Lane Markings
17	BMP-17C	Missouri Avenue	27th Avenue	23rd Avenue	2.5	5	Detour	4-6 Foot Bike Lane
17	BMP-17D	Missouri Avenue	23rd Avenue	19th Avenue	0.5	1	None	Extend Bike Lanes to Intersection
25	BMP-25D	Cave Creek Wash	19th Avenue		0	0	None	Bike HAWK
26	BMP-26D	Roeser Road	32nd Street	36th Street	0.51	1.02	Bike Route	4-6 Foot Bike Lane
26	BMP-26F	Roeser Road	at Central Avenue		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
26	BMP-26G	Roeser Road	at 7th Street		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
26	BMP-26H	Roeser Road	at 16th Street		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
26	BMP-26I	Roeser Road	at 24th Street		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
26	BMP-26J	Roeser Road	at 40th Street		0	0	No Bike Lane EB	Extend Bike Lanes to Intersection

BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility
37	BMP-37B	Encanto Blvd.	91st Avenue	87th Avenue	0.45	0.9	None	4-6 Foot Bike Lane
37	BMP-37C	Encanto Blvd.	87th Avenue	86th Drive	0.24	0.48	None	4-6 Foot Bike Lane
37	BMP-37E	Encanto Blvd.	83rd Avenue	75th Avenue	0.99	1.98	None	4-6 Foot Bike Lane
37	BMP-37F	Encanto Blvd. between 75th Ave and 67th Ave	75th Avenue	67th Avenue	2.48	4.96	None	4-6 Foot Bike Lane
37	BMP-37F	Encanto Blvd. between 67th Ave and 55th Ave	67th Avenue	55th Avenue	2.48	4.96	None	4-6 Foot Bike Lane
37	BMP-37H	Encanto Blvd. between 51st Ave and 49th Ave	51st Avenue	49th Avenue	0	0	None	Bike Detection
37	BMP-37J	Encanto Blvd. at 51st Ave Intersection	at 51st Avenue		0	0	No Bike Lanes EB	Bike Detection
37	BMP-37K	Encanto Blvd. at 43rd Ave Intersection	at 43th Avenue		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
37	BMP-37L	Encanto Blvd. at 35th Ave Intersection	at 35th Avenue		0	0	No Bike Lanes	Extend Bike Lanes to Intersection
<b>Total New Bicycle Lanes</b>					8.17	16.34		
<b>Total New Shared Lane Markings</b>					1.52	3.04		
<b>Total New Protected Bicycle Lanes</b>					1	2		
<b>Total New Buffered Bicycle Lanes</b>								

**APPENDIX E - FY2021**

<b>CIP Program (projects that are in the CIP and are Bicycle Master Plan projects are accounted for in the Bicycle Master Plan Program)</b>							
<b>Location</b>	<b>From</b>	<b>To</b>	<b>Distance (mi.)</b>	<b>Bi-Directional</b>	<b>Existing Facility</b>	<b>Post Facility</b>	<b>Program</b>
Buckeye Road	67th Avenue	59th Avenue/Loop 202	1	2	None	4-6 Foot Bike Lane	CIP Program
Lower Buckeye Road	27th Avenue	19th Avenue	1	2	None	4-6 Foot Bike Lane	CIP Program
<b>Total New Bicycle Lanes</b>			2	4			
<b>Total New Shared Lane Markings</b>							
<b>Total New Protected Bicycle Lanes</b>							
<b>Total New Buffered Bicycle Lanes</b>							

<b>FY2021 - Bicycle Master Plan</b>								
<b>BMP Proj. No.</b>	<b>Segment ID</b>	<b>Location</b>	<b>To</b>	<b>From</b>	<b>Distance (mi.)</b>	<b>Bi-Directional</b>	<b>Existing Facility</b>	<b>Post Facility</b>
2	BMP-02A	24th Street	Van Buren St	Sky Harbor Cir	0.83	1.66	None	4-6 Foot Bike Lane
2	BMP-02B	25th Street	Sky Harbor Circle	I-10	1.09	2.18	None	4-6 Foot Bike Lane
10	BMP-10	Van Buren Road	7th Street	24th Street	2	4	None	4-6 Foot Bike Lane
<b>Total New Bicycle Lanes</b>					3.92	7.84		
<b>Total New Shared Lane Markings</b>								
<b>Total New Protected Bicycle Lanes</b>								
<b>Total New Buffered Bicycle Lanes</b>								

<b>FY2021 - Pavement Maintenance Management Program</b>							
<b>Location</b>	<b>To</b>	<b>From</b>	<b>Distance (mi.)</b>	<b>Bi-Directional</b>	<b>Existing Facility</b>	<b>Post Facility</b>	<b>FY of Completion</b>
23 Ave	N/S Pinnacle Peak Rd	S/S Happy Valley Rd	0.5	1	Partial Bike Lanes (W Side)	Full 4-6 Bike Lanes	2021
27 Ave	N/S Agua Fria Frwy	N/S Rose Garden Ln	0.25	0.5	No Bike Lane	4-6 Foot Bike Lane	2021

Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility	FY of Completion
40 St	S/O Pecos Rd	N/O Chandler Blvd	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	2021
Osborn Rd	W/O Black Canyon Frwy	E/O 19 Ave	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	2021
Paradise Ln	W/O 40 St	E/O 44 St	0.5	1	No Bike Lanes	4-6 Foot Bike Lane	2021
Southern Ave	E/O 24 St	W/O 32 St	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	2021
Sweetwater Ave	E/O 28th St	W/O 32nd St	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	2021
Yorkshire Dr	W/O 39 Ave	E/O 31 Ave	0	0	4-6 Foot Bike Lane	Intersection Treatments Needed	2021
16 St	N/O Baseline Rd	S/O Southern Ave	1	2	None	4-6 Foot Bike Lane	2021
99 Ave	N/O Broadway Rd	N/O Lower Buckeye Rd	0.77	1.54	Partial Bike Lane	Complete 4-6 Foot Bike Lane	2021
99 Ave	Mobile Ln (Cop Bndy)	N/O Broadway Rd	0	0	None	4-6 Foot Bike Lane	2021
99 Ave (E 1/2)	S/O Thomas Rd	N/O Indian School Rd	1	2	None	4-6 Foot Bike Lane	2021

Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility	FY of Completion
Quarter Section 09-32/09-33/010-33	Ray Rd / Rockledge Rd	22 St / Rocky Slope Dr	1.42	2.84	Partial Bike Lane	Complete 4-6 Foot Bike Lane	2021
Quarter Section 40-18/40-17	Yorkshire Dr / Beardsley Rd	47 Ave / 43 Ave	0.49	0.98	Partial Bike Lane	Complete 4-6 Foot Bike Lane	2021
23 Ave	N/O Grandview Rd	S/O Bell Rd	0	0	None	4-6 Foot Bike Lane	2021
45 Ave	N/O Opportunity Wy	S/O Anthem Wy	0	0	None	4-6 Foot Bike Lane	2021
<b>Total New Bicycle Lanes</b>			5.93	11.86			
<b>Total New Shared Lane Markings</b>							
<b>Total New Protected Bicycle Lanes</b>							
<b>Total New Buffered Bicycle Lanes</b>							

**APPENDIX F -FY2022**

FY2022 - Bicycle Master Plan									
BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility	FY of Completion
9	BMP-09	ReInventP HX Gateway Van Buren	24th Street	44th Street	2.5	5	No Bike Lane	4-6 Foot Bike Lane	2022
12.1	BMP-12A.A	3rd Ave	Arizona Canal	Roma Ave	0	0	None	Bike HAWK	2022
21	BMP-21B	Union Hills Drive	27th Ave	23rd Ave	0.5	1	None	4-6 Foot Bike Lane	2022
21	BMP-21D	Union Hills Drive	51st Ave		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
21	BMP-21E	Union Hills Drive	47th Ave		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
21	BMP-21F	Union Hills Drive	43rd Ave		0	0	No Bike Lanes	Combined Bike Lane / Turn Lane	2022
21	BMP-21G	Union Hills Drive	39th Ave		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
21	BMP-21H	Union Hills Drive	35th Ave		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
21	BMP-21I	Union Hills Drive	19th Ave		0	0	No Bike Lane WB	Combined Bike Lane / Turn Lane	2022
21	BMP-21J	Union Hills Drive	15th Ave		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
21	BMP-21K	Union Hills Drive	7th Ave		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022

BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility	FY of Completion
21	BMP-21L	Union Hills Drive	Central Ave		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
21	BMP-21M	Union Hills Drive	7th St		0	0	No Bike Lane EB	Extend Bike Lanes to Intersection	2022
21	BMP-21N	Union Hills Drive	12th St		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
21	BMP-21O	Union Hills Drive	16th St		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
21	BMP-21P	Union Hills Drive	17th Way		0	0	No Bike Lane EB	Extend Bike Lanes to Intersection	2022
21	BMP-21Q	Union Hills Drive	Union Hills Drive at 20th St Intersection		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
21	BMP-21R	Union Hills Drive	Cave Creek Rd		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
21	BMP-21S	Union Hills Drive	28th St		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
21	BMP-21T	Union Hills Drive	32nd St		0	0	No Bike Lane EB	Combined Bike Lane / Turn Lane	2022
21	BMP-21U	Union Hills Drive	34th St		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022

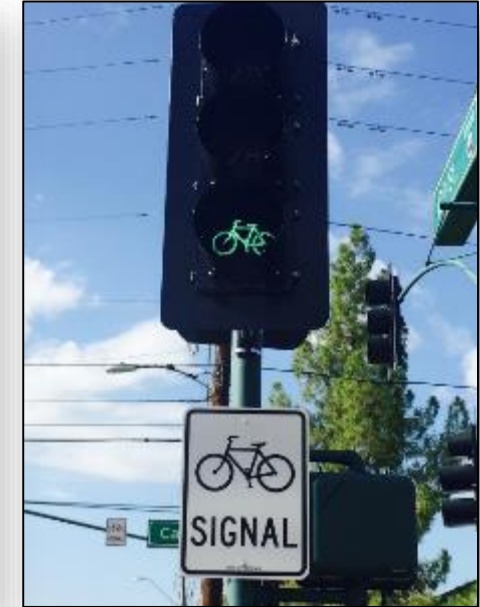


BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility	FY of Completion
21	BMP-21V	Union Hills Drive	40th St		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
21	BMP-21W	Union Hills Drive	Tatum Blvd		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
24	BMP-24C	32nd Street	Hartford Ave	Mountain View	4.67	9.34	None	Bicycle Lane	2022
24	BMP-24E	32nd Street	Grovers Ave		0	0	No Bike Lane SB	Extend Bike Lanes to Intersection	2022
24	BMP-24F	33rd Street	Michigan Ave		0	0	No Bike Lane SB	Extend Bike Lanes to Intersection	2022
24	BMP-24G	34th Street	Union Hills Dr		0	0	No Bike Lane SB	Extend Bike Lanes to Intersection	2022
24	BMP-24H	35th Street	Utopia Rd		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
26	BMP-26A	Roeser	19th Ave	15th Ave	0	0	Bike Route	Extend Bike Lanes to Intersection	2022
26	BMP-26A	Atlanta	15th Ave	7th Ave	0	0	Bike Route	Extend Bike Lanes to Intersection	2022
31	BMP-31C	Chandler Blvd	Desert Foothills Pkwy	26th St	1.58	3.16	Bike Route with edge line stripe	4-6 Foot Bike Lane	2022
31	BMP-31D	Chandler Blvd	26th St	I-10	3.27	6.54	None	4-6 Foot Bike Lane	2022

BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility	FY of Completion
31	BMP-31E	Chandler Blvd	Desert Foothills Pkwy		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
34	BMP-34A	Cave Creek Road	7th St / Dunlap Rd	8th St	0.2	0.4	None	4-6 Foot Bike Lane	2022
34	BMP-34E	Cave Creek Road	Hatcher Rd		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
34	BMP-34F	Cave Creek Road	Mountain View Rd		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
34	BMP-34G	Cave Creek Road	Peoria Ave		0	0	No Bike Lanes	Extend Bike Lanes to Intersection	2022
34	BMP-34H	Cave Creek Road	Cactus Rd /Thunderbird Rd		0.2	0.4	No Bike Lanes	Through Bike lanes with intersection road diet	2022
33	BMP-33A	Western Canal	Central	24th Street	2.5	5	Not Paved	Shared Use Path	2022
33	BMP-33J	Western Canal at Central Ave Intersection			0	0	None	Bike HAWK	2022
33	BMP-33K	Western Canal at Jesse Owen Pkwy Intersection			0	0	None	Crosswalk	2022
33	BMP-33L	Western Canal at 7th St Intersection			0	0	None	Bike HAWK	2022

BMP Proj. No.	Segment ID	Location	To	From	Distance (mi.)	Bi-Directional	Existing Facility	Post Facility	FY of Completion
33	BMP-33M	Western Canal at 10th St Intersection			0	0	None	Crosswalk	2022
33	BMP-33N	Western Canal at 16th St Intersection			0	0	None	Bike HAWK	2022
33	BMP-33O	Western Canal at 24th St Intersection			0	0	None	Bike HAWK	2022
					<b>Total New Bicycle Lanes</b>	12.92	25.84		
					<b>Total New Shared Lane</b>				
					<b>Total New Protected Bicycle</b>				
					<b>Total New Buffered Bicycle</b>				

# Bicycle Program Update



Citizens  
Transportation  
Commission

March 29, 2018

# Link to Existing Plans and Initiatives



*SHIFTING  
GEARS*



Phoenix Complete Streets



# Six Distinct Work Efforts

1. Neighborhood Traffic Management

2. Pavement Maintenance Program

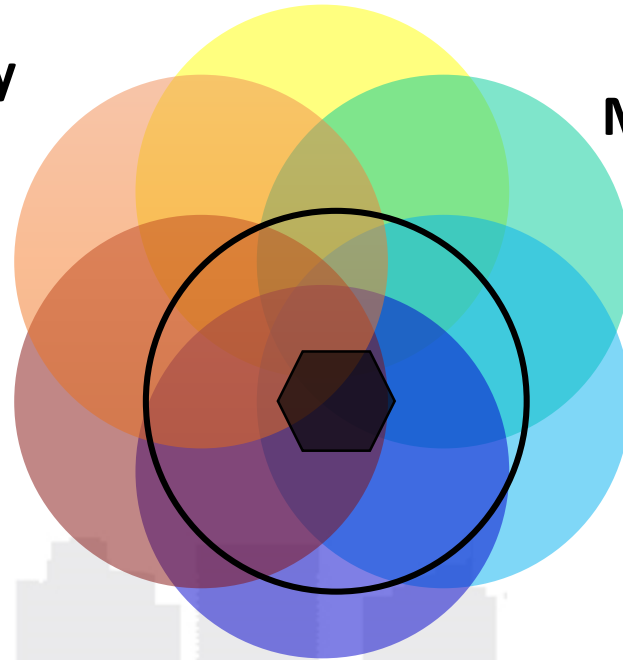


3. Capital Improvement Program

4. Developer & Partner Agency Projects

5. Bicycle Master Plan

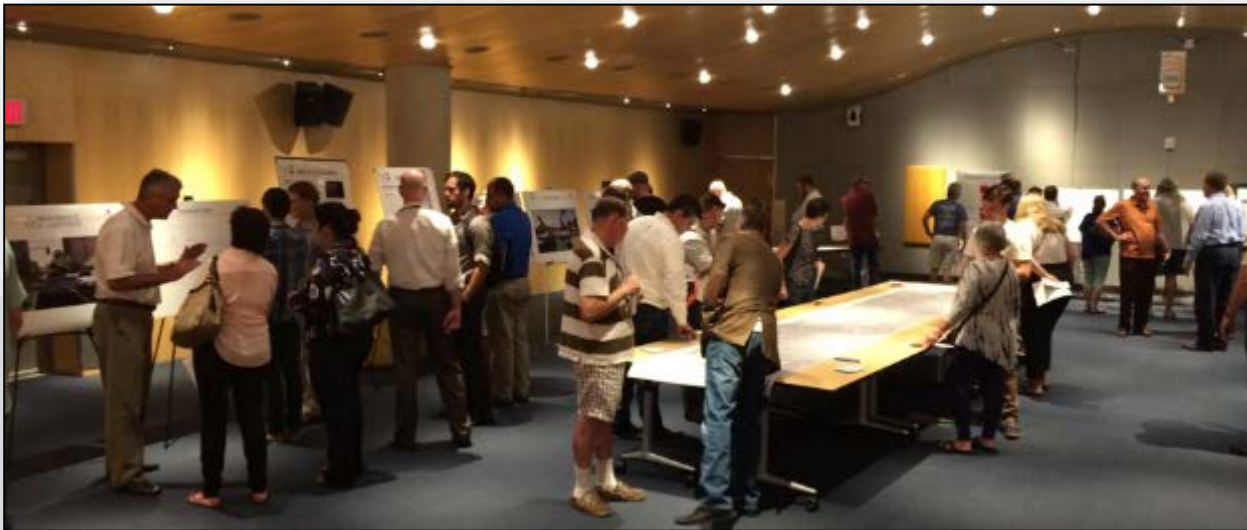
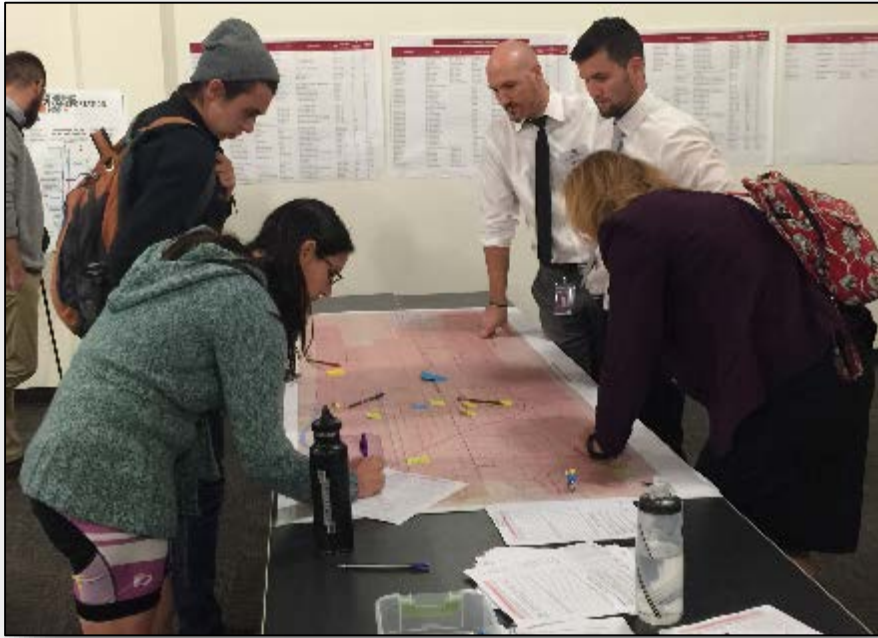
6. T2050 Mobility





# Public Input

- Open House  
Over 150 attendees
- On-line comment tool  
Closes March 31



Common Themes	In Progress
Safety	✓
Physical separation	✓
Gaps in bike system	✓
Gaps between transit stops and bike routes	✓
Regional cooperation	✓
Canals and intersections	✓
Sky Harbor Airport	
Continuity across Salt River	
3 <sup>rd</sup> Street bike lanes	✓
McDowell Road bike lanes	
Central Avenue protection	✓
Roadway condition funding focus	
Concerns with removing traffic lanes	





# Individual Projects

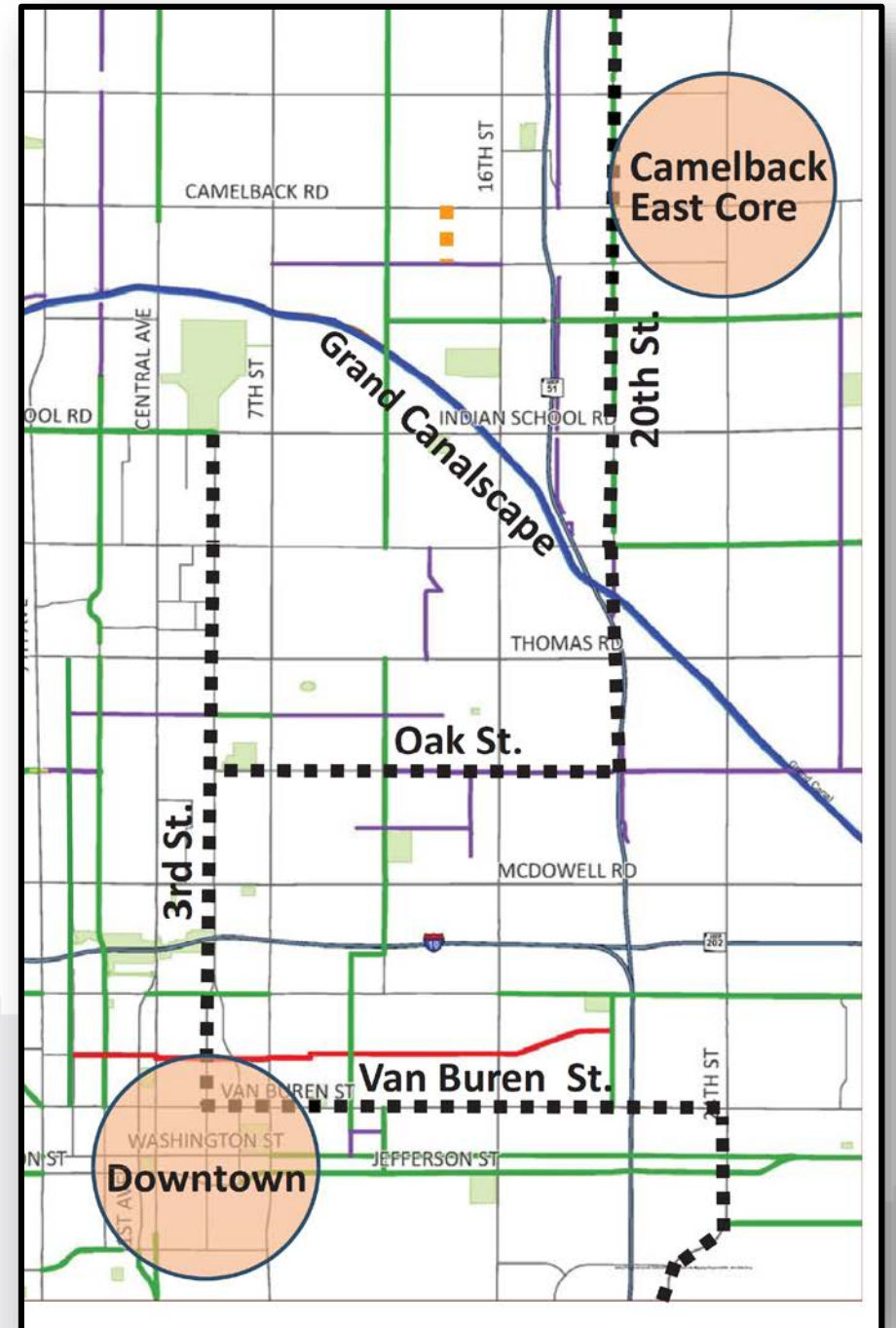
*Protection, Connected Network, Use of Existing Infrastructure*

- 20<sup>th</sup> Street
- 3<sup>rd</sup> Street
- Oak Street
- 56<sup>th</sup> Street
- Colter Street
- 3<sup>rd</sup>/5<sup>th</sup> Avenues
- Van Buren Street



# Connected Network

- Comprehensive approach
- Low-volume, low-stress streets
- Safety emphasis
- Economic development potential





# Existing Technology and Infrastructure



- Canals
- Pedestrian bridges
- HAWKS
- Modify cross-sections



# Efficiency/Innovation

- Existing ADOT Interchanges
- Mobility Area Assessments
- Use of Street Frontage Roads

KUBAN PARK  
NEIGHBORHOODS



*A MOBILITY IMPROVEMENT PROJECT*



103





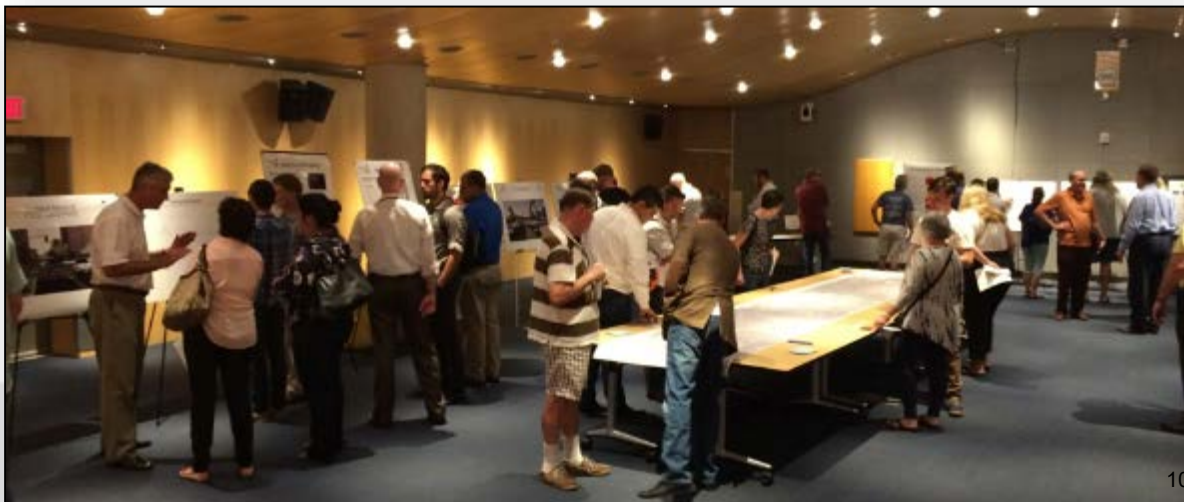


- Keynote speakers
- Group Panel on 'bikenomics'
- Five-Year Bicycle Program
- Our Process – “the life of a project”
- Active Projects Update
- Completed Key Projects



# Next Steps / Messaging

- Safety
- Developing network
- Balancing needs of all users
- Link to economic development potential



# Link to Future Plans and Initiatives



- Key Corridors Master Plan
- Planning and Design Guidelines
- Downtown Transportation Update
- Choice Neighborhoods Grant planning



# Challenges

- East-West corridors
- Direct links to arterial streets
- Repurposing streets to implement bike lanes
- Lengthy project implementation
- Transit capacity for more bicycles





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# Questions



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## CITIZENS TRANSPORTATION COMMISSION

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TO: Mario Paniagua  
Deputy City Manager

FROM: Ken Kessler  
Acting Public Transit Director

SUBJECT: OCTOBER 2018 PROPOSED BUS SERVICE AND PUBLIC OUTREACH

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This report provides information to the Citizens Transportation Commission on the proposed October 2018 bus service improvements and public outreach process. The proposed service changes are elements of Phoenix's Transportation 2050 (T2050) plan.

### THE ISSUE

The Public Transit Department is focused on improving the efficiency and reliability of Phoenix's transit system to best serve our passengers' needs. The department reviews passenger input and routes semiannually to determine what improvements can be made to transit services. Improvements can include modifications such as schedule changes, service efficiencies, and adding route connections. Proposed changes are vetted through an extensive public input process to ensure potential community impacts are fully considered. Based on public input, proposed changes may be revised or routes may be left unchanged. Bus service changes are coordinated regionally and occur in April and October of each year. The proposed October 2018 bus service changes are described below.

#### **Restoring Weekday Service Level on Five Holidays**

In coordination with all cities under the Valley Metro system, staff proposes to restore weekday service levels for local bus routes and Light Rail on five holidays: Martin Luther King Jr. Day, Presidents' Day, Veterans' Day, Day after Thanksgiving, and Christmas Eve.

Before July 2010, local, Express/RAPID, and light rail were operating on weekday service levels on these five holidays. Due to budgetary constraints, these holidays were converted to operate Sunday service levels in July 2010 along with other service reductions.

Sunday service levels have a narrower span of service and operate less frequently than weekday service levels. On weekdays, buses and light rail operate between 4 AM and 12 AM. Some routes have peak frequency as frequent as every 8 minutes. On Sundays, buses and Light Rail operate between 5 AM and 11 PM. There is no bus service more frequent than every 30 minutes on Sunday service level in Phoenix.

City of Phoenix and Valley Metro has seen an increase in customer complaints of overcrowding on local buses on these five holidays listed above. To address the need of having more bus service on these holidays, the region is proposing to restore weekday

service levels on local bus routes and light rail. Express/RAPID service to Downtown Phoenix will continue to not operate on these holidays as most Downtown Phoenix workers continue to have these five holidays off.

### **Frequency Improvement**

#### **Route 41 (Indian School) – Increase Off-Peak Frequency to 15 minutes**

Staff proposes increasing the off-peak service frequency during weekdays in the higher ridership segment of the route. Route 41, the fourth busiest route in the region, operates on Indian School Road from near 107<sup>th</sup> Avenue on the west end to Granite Reef Road in Scottsdale on the east end. Currently, the high ridership segment (between 59<sup>th</sup> Avenue and 32<sup>nd</sup> Street) operates at 10-minute frequency during peak service periods and 20-minute frequency during off-peak times before 7 PM. The proposed improvement is to increase the early evening frequency to 15 minutes until 7 PM. With the improvement, Route 41 will have a minimum service frequency of every 15 minutes from 6 AM – 7 PM Monday through Friday between 59<sup>th</sup> Avenue and 32<sup>nd</sup> Street. Current 10-minute peak frequencies will remain unchanged. The overall impact will be reduced passenger wait times between bus connections in the off-peak period for the route.

### **Modify Routing**

#### **Route 8 (7<sup>th</sup> Avenue)**

Staff proposes to modify the southbound Route 8 routing near Central Station in Downtown Phoenix. Currently the southbound Route 8 from 7<sup>th</sup> Avenue turns east on Fillmore Street, south on 1<sup>st</sup> Street, east on Van Buren Street before turning north to service the bus stop inside Central Station. Route 8 departs Central Station by turning west on Polk Street, south on 1<sup>st</sup> Avenue, west on Washington Street before returning on 7<sup>th</sup> Avenue. Staff is proposing to modify the southbound Route 8 routing from Fillmore Street to turn south on 1<sup>st</sup> Avenue, service the bus stop at 1<sup>st</sup> Avenue and Van Buren Street, then continue current routing from 1<sup>st</sup> Avenue to Washington Street and to 7<sup>th</sup> Avenue. With the reconfiguration, a bus stop would be installed at Fillmore Street and 1<sup>st</sup> Avenue to service the bus riders near the Westward Ho and the post office. The modified routing would reduce about 0.5 mile per trip on Route 8. All bus transfers would still be available at Central Station between Route 8 and other bus routes.

#### **Route 56 (Priest)**

The City of Scottsdale is proposing to eliminate Route 56 service in Scottsdale. The proposal would impact Route 56 service in Phoenix by the Desert Botanical Garden. Currently the route is operated by Valley Metro and connects 48<sup>th</sup> Street & Ray Road in Ahwatukee and Skysong Transit Center in Scottsdale via Ray Road, Priest Drive, and McDowell Road. The route also provides bus service to the Phoenix Zoo and the Desert Botanical Garden. With the elimination of Route 56 in Scottsdale, the route would have to terminate at the Desert Botanical Garden in Phoenix instead of continuing service to McDowell Road. The span and frequency of the service will remain unchanged.

#### **Route 106 (Peoria Avenue)**

Staff proposes to modify routing at Metrocenter to speed up bus service and reduce service cost. Route 106 currently offers bi-directional service on the Metro Parkway loop

to the east of the mall. The proposed modification is to change the service on Metro Parkway to a counterclockwise loop. The new routing will continue to service the bus stop at Metro Parkway and 28<sup>th</sup> Drive as well as the Metrocenter Transit Center. The impacts of the route modification are faster travel times and cost savings for the route overall, while still providing the necessary passenger connections.

### PUBLIC INPUT PROCESS

The Public Transit Department will use the locally adopted public outreach process for the proposed October 2018 bus service changes. During April and May 2018, staff will solicit public comment on service changes through various means, including several public events located near the proposed service change areas in coordination with other regional proposed service changes. A formal public hearing will also be held to collect public input and feedback on the proposed service changes.

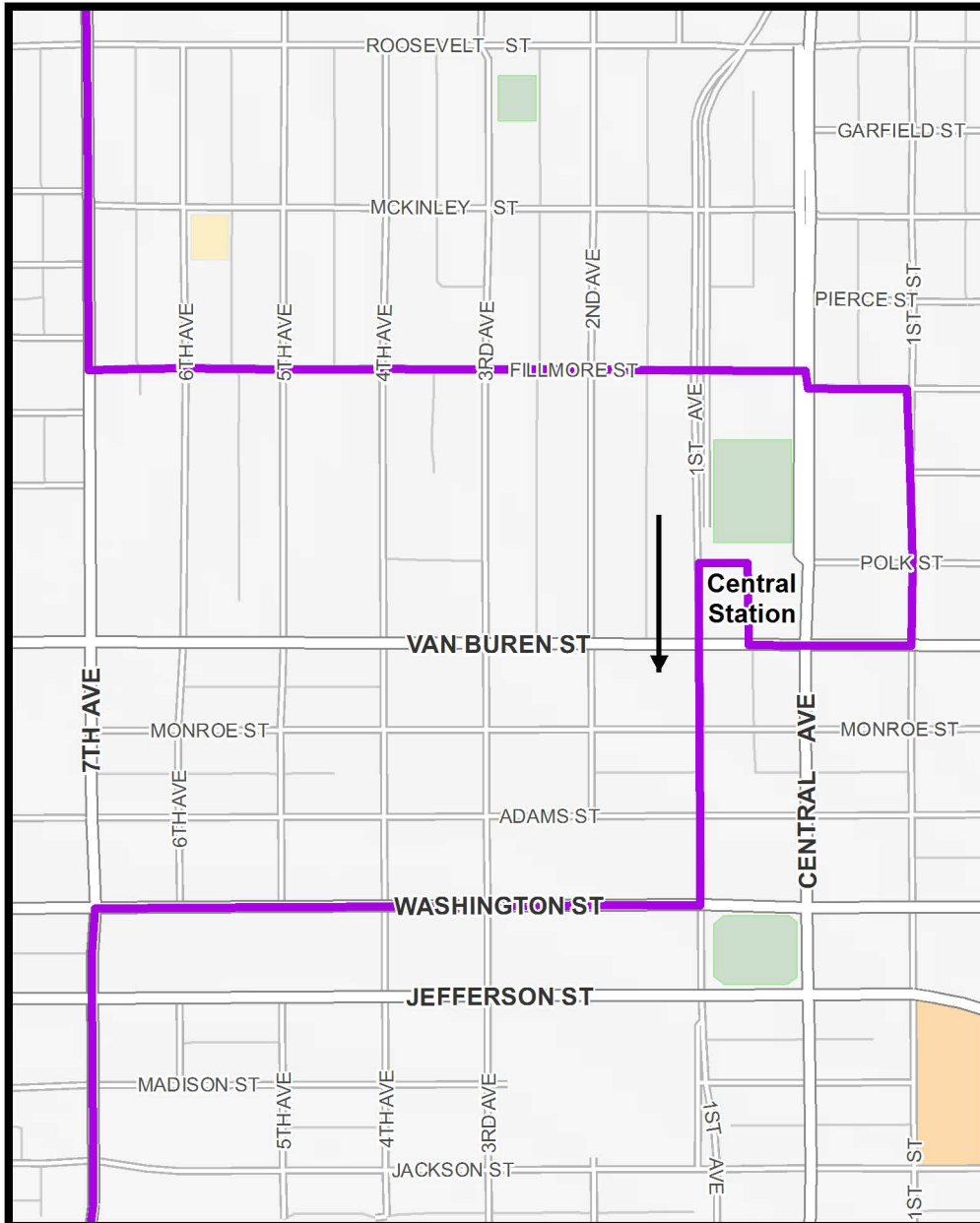
Staff seeks Citizens Transportation Commission, Transportation & Infrastructure Subcommittee, and City Council approval of the final bus service changes by July 2018 and to implement approved service changes on October 22, 2018.

### RECOMMENDATION

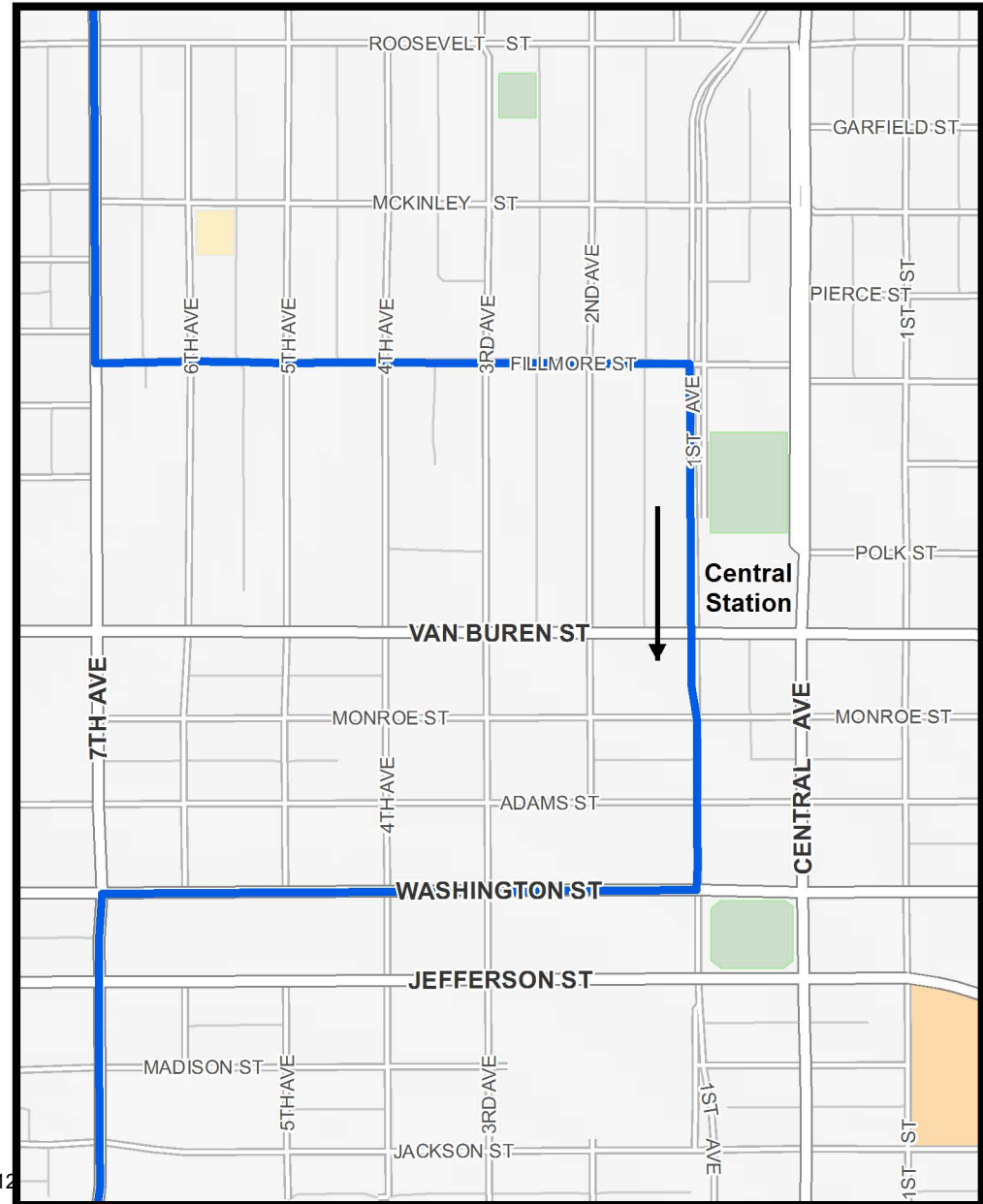
This report is for information and discussion only. Staff will return to the Citizens Transportation Commission in May 2018 to provide cost estimates, the results of the public input process, and to request recommending approval of the proposed October 2018 bus service changes to the Transportation & Infrastructure Subcommittee.

# October 2018- Southbound Route 8 Proposed Changes

## Current Routing



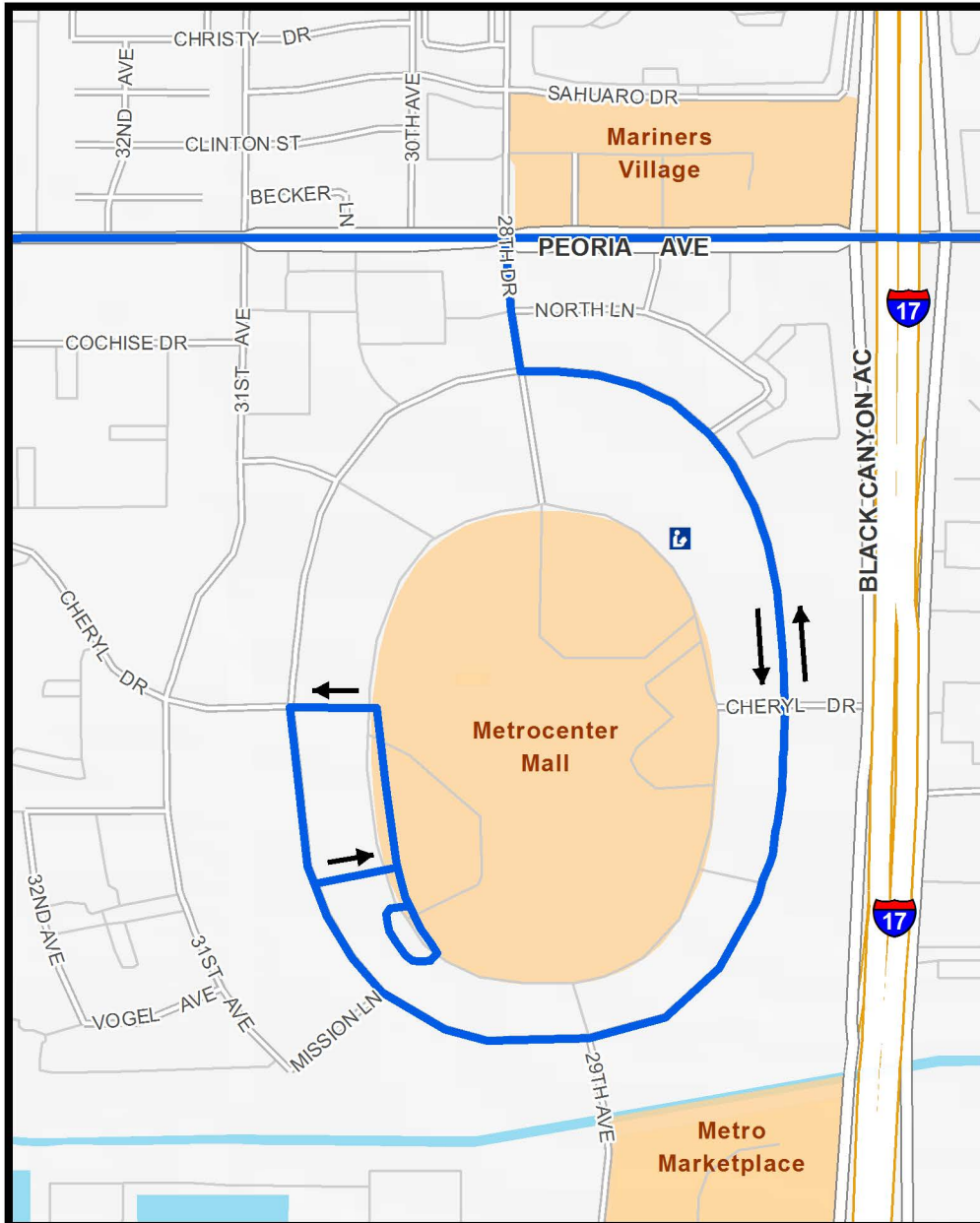
## Proposed Routing



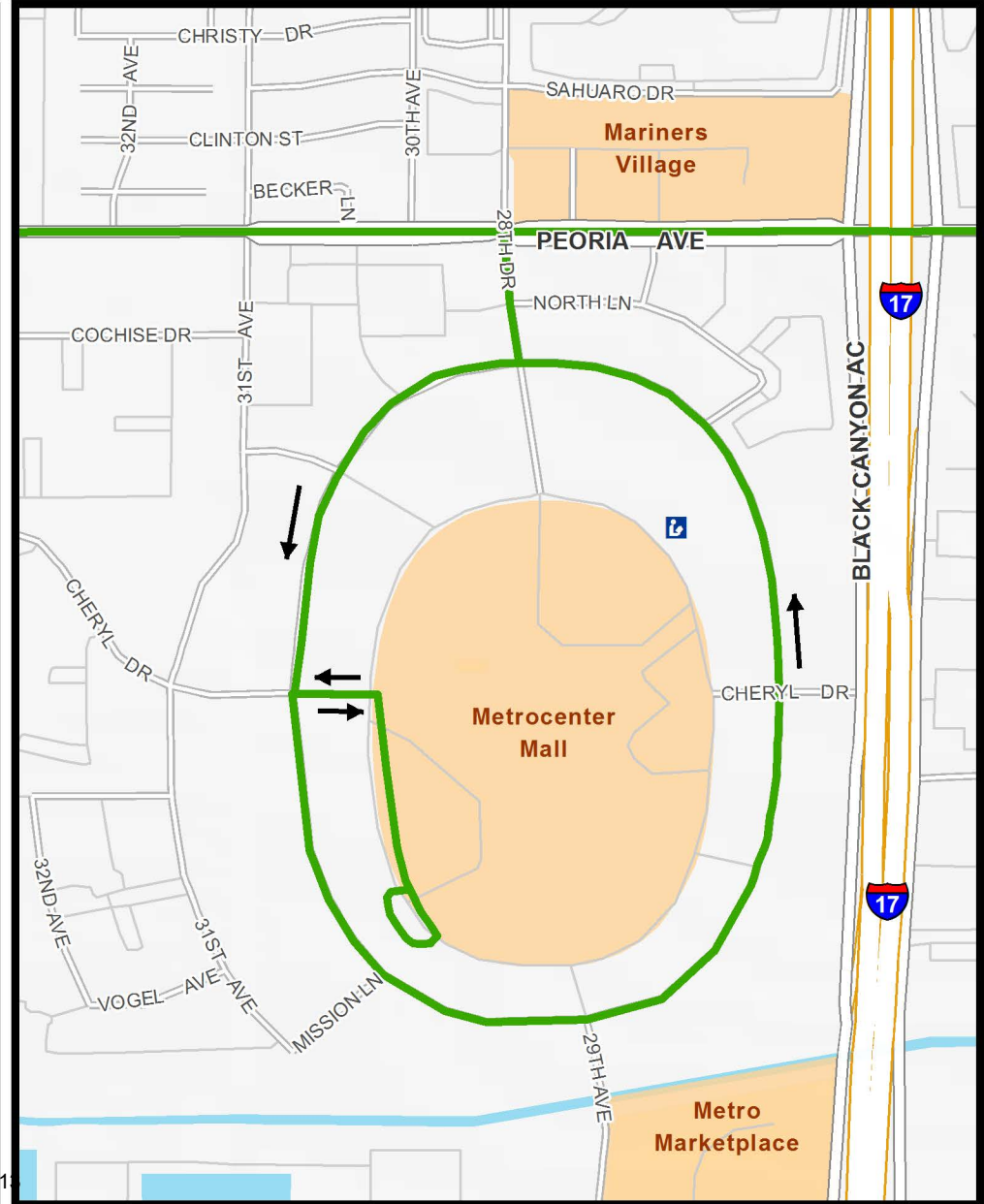


# October 2018- Route 106 Proposed Changes

## Current Routing



## Proposed Routing



# October 2018 Bus Service Changes and Public Outreach

Citizens Transportation Commission

March 29, 2018

# Restore Weekday Service on Five Holidays

Restore Weekday Service Level on local routes/Metro Light Rail on:

- **Martin Luther King, Jr. Day**
- **President's Day**
- **Veteran's Day**
- **Friday after Thanksgiving**
- **Christmas Eve**

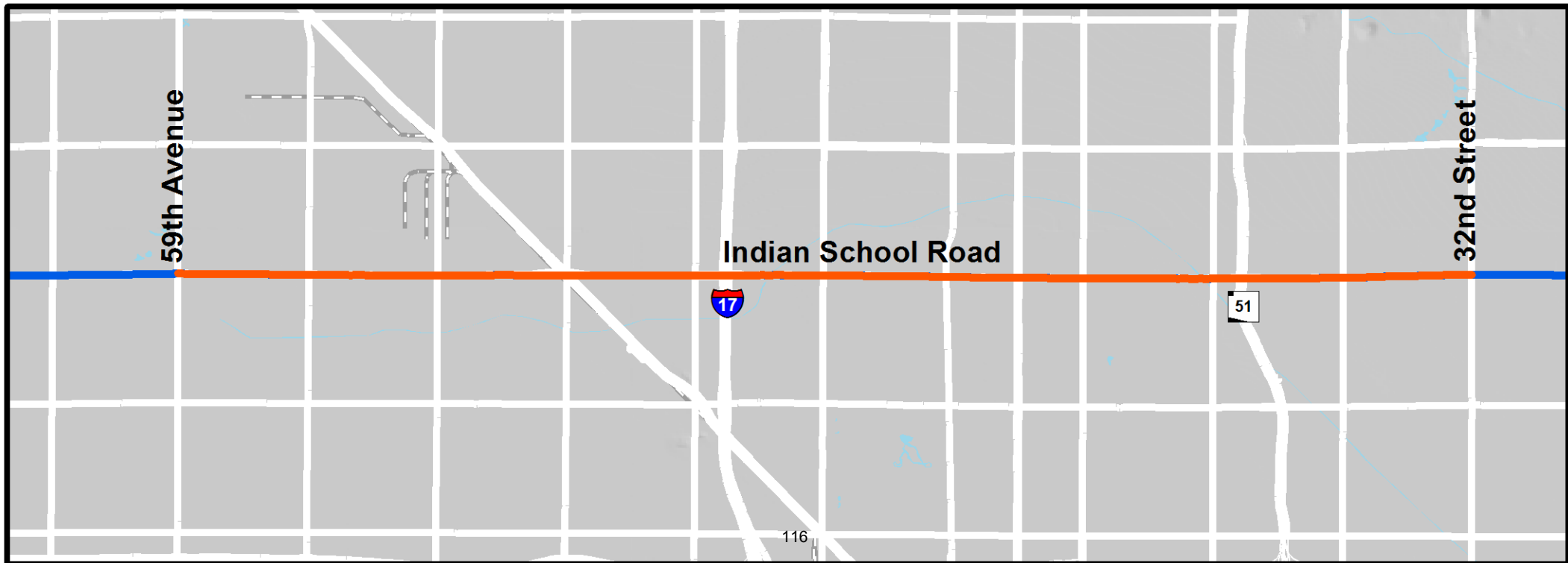
Currently 11 Holidays operated on Sunday schedule:

- New Year's Day
- Martin Luther King, Jr. Day
- President's Day
- Memorial Day
- Independence Day
- Labor Day
- Veteran's Day
- Thanksgiving Day
- Friday after Thanksgiving
- Christmas Eve
- Christmas Day



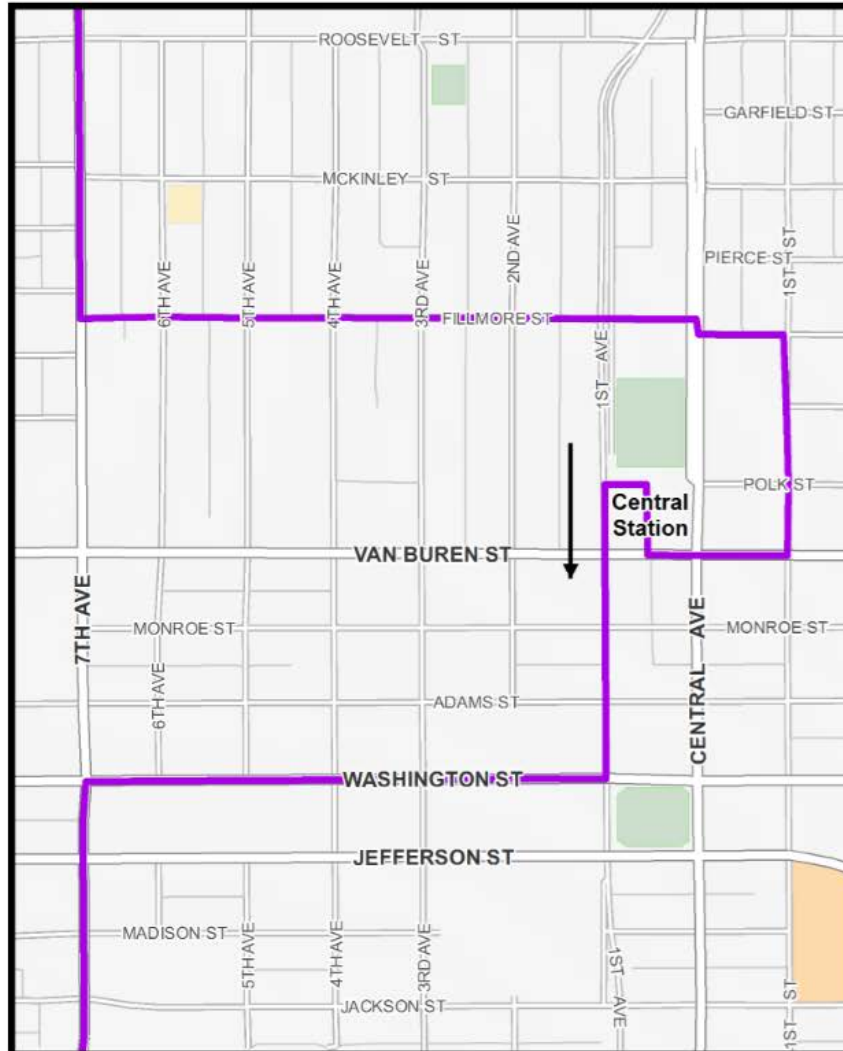
# Route 41 Frequency Improvement

- Add trips between 59<sup>th</sup> Avenue and 32<sup>nd</sup> Street
- Route 41 would run every 15 minutes or less 6AM- 7PM M-F

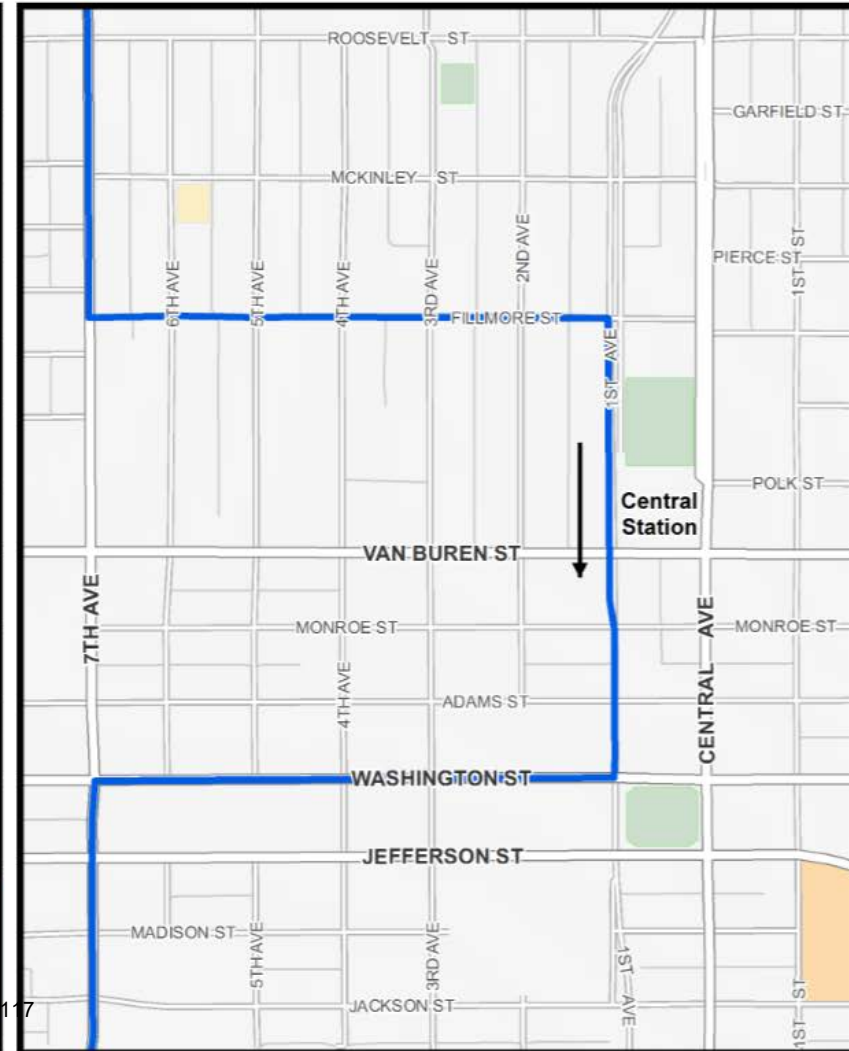


# Route 8 Modified Routing

Current Routing

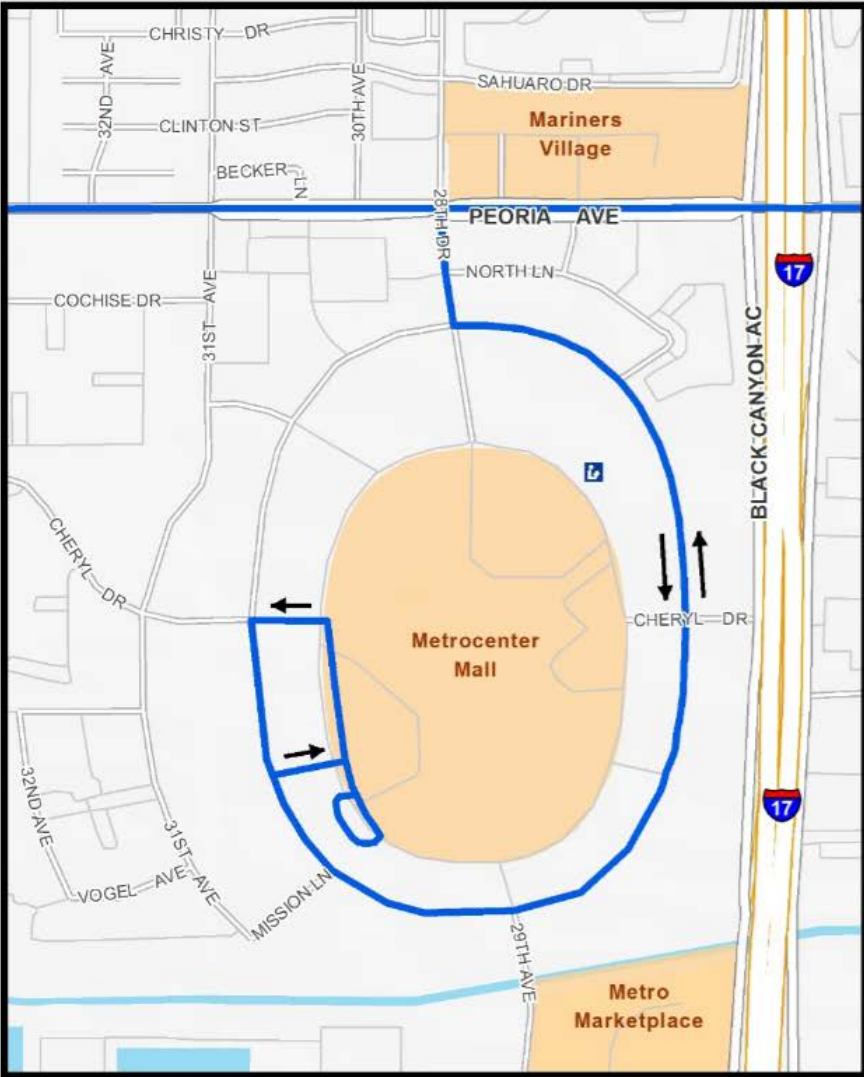


Proposed Routing

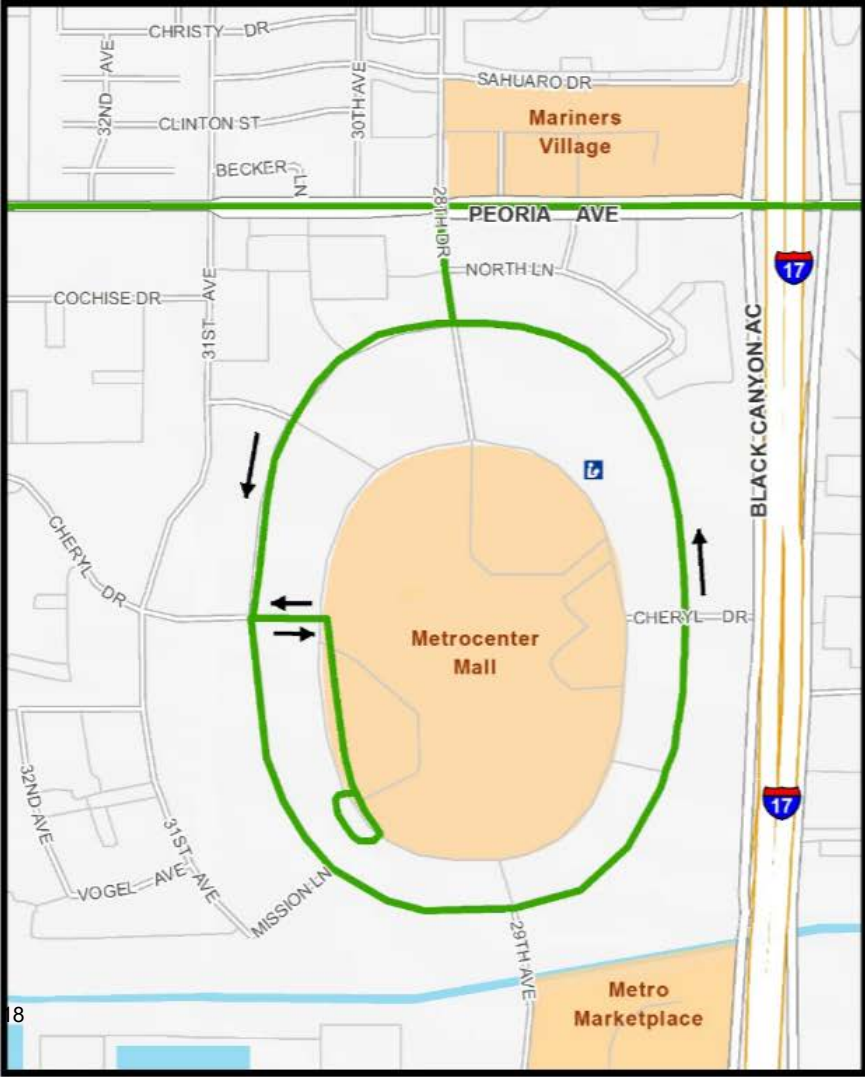


# Route 106 Modified Routing

Current Routing



Proposed Routing



# Route 56 Modified Routing

Current Routing



Proposed Routing



# Public Input And Approval Process

## ➤ Public Notification –

- Public Comment Period: April 16<sup>th</sup> – May 18<sup>th</sup>
- Posted on web sites (Valley Metro & Public Transit)
- Signs on major stops along Route 41
- Signs along proposed Route 8, 56 and 106 modified segments
- Open House/Public Hearing on May 15, 2018

## ➤ Approval-

- Citizens Transportation Commission– May 31, 2018
- Transportation and Infrastructure Subcommittee– June 12, 2018
- Phoenix City Council – June 21, 2018
- Service Implementation: October 22, 2018

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## CITIZENS TRANSPORTATION COMMISSION REPORT

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TO: Mario Paniagua  
Deputy City Manager

FROM: Maria Hyatt  
Street Transportation Director

SUBJECT: T2050 MOBILITY PROGRAM PROGRESS UPDATE

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This report provides an update to the Citizen’s Transportation Commission (CTC) on progress made related to the eleven Transportation 2050 (T2050) mobility studies and the T2050 Connectivity to Bus Stops program. The report also provides details about Achieving Transportation Accessibility Now (ATAN) funding from the Maricopa Association of Governments (MAG), which focuses on Americans with Disabilities Act (ADA)-related bus stop accessibility improvements.

### THE ISSUE

At the Sep. 28, 2017 CTC meeting, staff presented the results of a data analysis process that resulted in two T2050 Mobility Program focus areas: (1) Five-Year Mobility Sidewalk Program of improvements on major streets to make transit bus stops ADA accessible; and (2) Mobility areas for further study. At this meeting, the CTC approved the Five-Year T2050 Mobility Sidewalks Program for initiation of project design, right-of-way acquisition where applicable, and construction. The CTC also approved moving forward with 11 mobility studies in areas identified Citywide through a robust data analysis exercise.

The approved T2050 Plan allocates a total of 13.8 percent of Proposition 104 local sales tax revenues (or approximately \$2.3 billion over 35 years) to the Street Transportation Department (Streets) for the construction and maintenance of City roadways. To meet the Proposition 104 bicycle and pedestrian-related commitments, the T2050 Mobility Program is allocated 15% of Street’s T2050 revenues.

### Bus Stop ADA Accessible Sidewalks – Five-Year Program of Projects

The Five-Year T2050 Mobility Sidewalks Program Improvement Locations (**Attachment A**) map shows the locations of the 25 bus stop ADA accessible sidewalk improvements that will be completed in FY2018-FY 2022. The Five-Year T2050 Mobility Sidewalks Program projects cost information, including design, right-of-way, and construction work phases for each project are provided in **Attachment B**. The T2050 Sidewalk Program will utilize 50% of the T2050 Mobility Program’s five-year projected revenues.

After receiving approval from the CTC, Streets staff refined scopes and cost estimates for construction of 12 projects funded in FY 2018 and FY 2019. With exception of three projects on Cave Creek and Contention Mine Roads, the program is moving forward as approved.

After further analysis, it was determined that the three projects on Cave Creek and Contention Mine Roads will require additional analysis to refine project scopes and budgets. Due to the time needed to complete the scoping process for these projects, funding for these projects was moved out one year to FY 2020. With additional analysis, staff will may make further adjustments to the funding allocated to these three projects.

Staff will continue refining scopes and cost estimates related to the remaining 14 projects programmed in FY 2020 – FY 2022. The project located at the intersection of Tatum Boulevard and Mayo Boulevard will be completed with FY 2022 or later T2050 Mobility Program funds due to projected insufficient funding to complete the project in the current Five-Year Program timeframe.

#### Achieving Transit Accessibility Now (ATAN) Program

In response to public input, the Maricopa Association of Governments (MAG) Regional Council approved \$840,536 of transit funds to improve accessibility at transit stops in the MAG region. Applications from local jurisdictions are evaluated on a “rolling-application” cycle every six months. The next due date for ATAN program applications is scheduled for Apr. 5, 2018. Streets has 11 shovel-ready projects that meet the ATAN Program application requirements and will request \$440,000 in its grant application.

The ATAN program will contribute 80% of the project cost, with a maximum of \$40,000 per location. Local jurisdictions are required to contribute a minimum 20 percent match. This equates to \$10,000 local match per project site, or a total of \$110,000 for the 11 shovel-ready projects. The total cost of these projects is estimated to be \$1.8 million, which have already been programmed using T2050 funds. If awarded, the ATAN Program funds will make \$440,000 available to be used for other T2050 mobility projects.

#### T2050 Mobility Studies

As approved by the CTC, the remaining 50% of T2050 Mobility Program projected revenues will be used to identify and fund projects identified in 11 mobility studies throughout the City. The studies will utilize transportation data analysis, stakeholder feedback, and public outreach to identify and prioritize mobility improvements within each study area. Upon completion of the studies, staff will work with the CTC to evaluate and prioritize projects from the 11 studies to develop a five-year program of improvements.

Since receiving approval to complete the 11 T2050 Mobility studies, staff has successfully initiated all study efforts and has phased them into three groups. Staff is in the process of scheduling and developing a format for public meetings in the first group, which includes four study areas. The public meetings are anticipated for late April and early May 2018. The meetings will garner public input and feedback related to the importance of destinations, mobility project types, and general mobility infrastructure concerns that will assist with prioritizing projects. A map of the study areas with estimated completion dates is included as **Attachment C**.

A “Current Conditions” analysis has been completed for the second group, which also includes four study areas. The purpose of this analysis is to collect transportation system data, and to identify gaps in mobility infrastructure. This is an important step towards identifying viable projects and investments. Upon review of the “Current Conditions” report, project teams will begin identifying mobility project improvements for public input.

The final group, which include the remaining 3 study areas, is in the process of being initiated. Staff is starting to collect and analyze pertinent transportation system data for inclusion in preliminary “Current Conditions” reports.

It is anticipated all 11 studies will be completed in Mar. 2019. Due to the likelihood of studies identifying more projects than the anticipated revenue will support, a future discussion with the CTC will be held on the T2050 Mobility Program project evaluation criteria. This will likely coincide with the completion of the first group studies in Sep. 2018. That criteria will be key in the development of a Five-Year program mobility improvement projects.

RECOMMENDATION

This report is for information only.

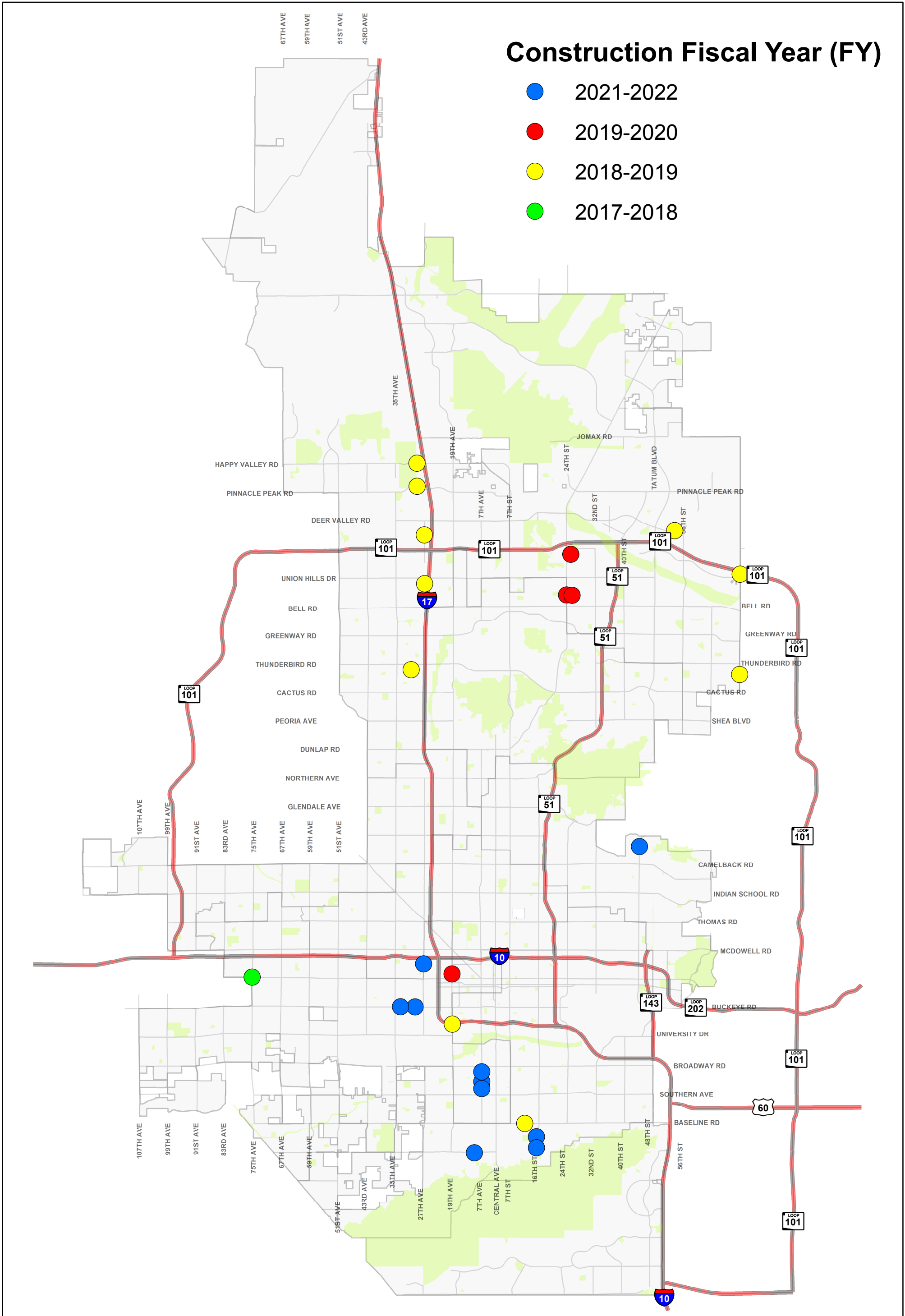
Attachments:

- Attachment A: Five-Year T2050 Mobility Sidewalks Program Improvement Locations
- Attachment B: Five-Year T2050 Mobility Sidewalks Program
- Attachment C: T2050 Mobility Studies Schedule



### Construction Fiscal Year (FY)

- 2021-2022
- 2019-2020
- 2018-2019
- 2017-2018



**Attachment B: Five-Year T2050 Mobility Sidewalks Program**

T2050 Sidewalk to Bus Stop Projects			FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	Total
<b>Total Mobility Program Funding:</b>			<b>\$ 8,570,000</b>	<b>\$ 4,650,000</b>	<b>\$ 4,890,000</b>	<b>\$ 5,130,000</b>	<b>\$ 5,205,000</b>	<b>\$ 28,445,000</b>
<b>ADA Sidewalk Program Funding (50% of Mobility Revenues)</b>			<b>\$ 4,285,000</b>	<b>\$ 2,325,000</b>	<b>\$ 2,445,000</b>	<b>\$ 2,565,000</b>	<b>\$ 2,602,500</b>	<b>\$ 14,222,500</b>
<b>Design Phase</b>								
Project	CD	Project Number						
75th Ave & Van Buren	7	1	\$ 69,800					
Deer Valley Rd: 125 W/O Marriott Dr	2	2	\$ 43,000					
31st Ave: Willow St - Voltaire Ave	1	3	\$ 73,600					
Baseline Rd: 12th St - 13th Pl	8	4	\$ 54,700					
Scottsdale Rd: Mayo Blvd - SR101	2	5	\$ 80,000					
29th Ave: Pinnacle Pk - 150' north	1	6	\$ 56,300					
27th Ave & Rose Garden Ln	1	7	\$ 26,500					
27th Ave & Villa Maria Dr	1	8	\$ 25,000					
Hilton Ave & 19th Ave	7	9	\$ 27,300					
Scottsdale Rd: Sweetwater Ave - Joan De Arc Ave	2	10	\$ 66,600					
29th Ave: 700' & 1,900' s/o Happy Valley Rd	1	11	\$ 28,500					
19th Ave: Van Buren St - Fillmore St	7	12	\$ 154,000					
Cave Creek Rd: 300' n&s/o Contention Mine Rd	2	13	\$ 76,000					
Cave Creek Rd: Utopia Dr - Marco Polo Rd	2	14	\$ 641,200					
Contention Mine Rd: Cave Creek Rd - 26th St	2	15	\$ 241,200					
7th Ave: 800' s/o Roeser Rd	7	16			\$ 205,200			
7th Ave: 900' s/o Sunland Ave	7	17			\$ 178,900			
7th Ave & Tamarisk St	7	18			\$ 27,600			
Buckeye Rd: 170' w/o 29th Ave	7	19			\$ 46,800			
Buckeye Rd: 135' w/o 33rd Ave	7	20			\$ 24,000			
16th St: Euclid Ave - South Mtn Ave	8	21				\$ 194,600		
16th St: Dobbins Rd - Euclid Ave	6	22				\$ 122,500		
44th St: Vermont St - Joseph St	6	23				\$ 315,000		
27th St & Roosevelt St	8	24				\$ 100,000		
10th Ave: 150' s/o Dobbins Rd	8	25				\$ 18,200		
Tatum Blvd & Mayo Blvd Intersection	1	26					\$ 800,000	
			<b>\$ 1,663,700</b>	<b>\$ -</b>	<b>\$ 482,500</b>	<b>\$ 750,300</b>	<b>\$ 800,000</b>	<b>\$ 3,696,500</b>
<b>ROW Phase</b>								
Project	CD	Project Number						
Deer Valley Rd: 125 W/O Marriott Dr	2	2	\$ 3,000					
19th Ave: Van Buren St - Fillmore St	7	12		\$ 25,000				
Cave Creek Rd: Utopia Dr - Marco Polo Rd	2	14		\$ 90,000				
7th Ave: 800' s/o Roeser Rd	7	16			\$ 13,700			
Buckeye Rd: 170' w/o 29th Ave	7	19			\$ 10,600			

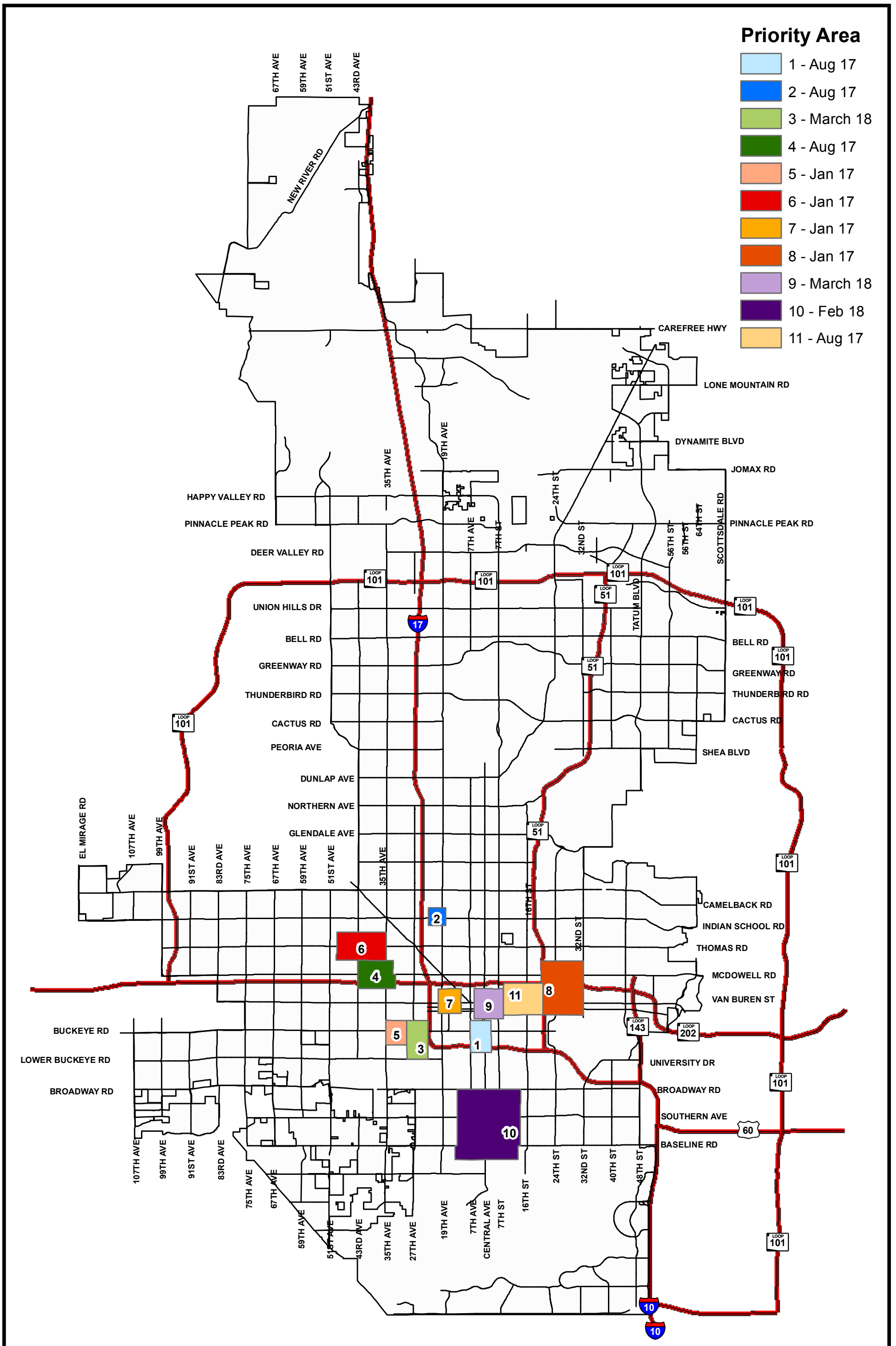
**Attachment B: Five-Year T2050 Mobility Sidewalks Program**

Buckeye Rd: 135' w/o 33rd Ave	7	20				\$ 21,000		
16th St: Euclid Ave - South Mtn Ave	8	21				\$ 3,000		
27th St & Roosevelt St	8	24				\$ 21,000		
			\$ 3,000	\$ 115,000	\$ -	\$ 69,300	\$ -	\$ 187,300

**Attachment B: Five-Year T2050 Mobility Sidewalks Program**

Construction Phase								
Project	CD	Project Number	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	Total
75th Ave & Van Buren	7	1	\$ 164,800					
Deer Valley Rd: 125 W/O Marriott Dr	2	2		\$ 54,700				
31st Ave: Willow St - Voltaire Ave	1	3		\$ 195,500				
Baseline Rd: 12th St - 13th Pl	8	4		\$ 154,700				
Scottsdale Rd: Mayo Blvd - SR101	2	5		\$ 64,000				
29th Ave: Pinnacle Pk - 150' north	1	6		\$ 38,900				
27th Ave & Rose Garden Ln	1	7		\$ 64,500				
27th Ave & Villa Maria Dr	1	8		\$ 47,000				
Hilton Ave & 19th Ave	7	9		\$ 101,500				
Scottsdale Rd: Sweetwater Ave - Joan De Arc Ave	2	10		\$ 220,000				
29th Ave: 700' & 1,900' s/o Happy Valley Rd	1	11		\$ 87,000				
19th Ave: Van Buren St - Fillmore St	7	12			\$ 122,000			
Cave Creek Rd: 300' n&s/o Contention Mine Rd	2	13			\$ 208,000			
Cave Creek Rd: Utopia Dr - Marco Polo Rd	2	14			\$ 3,303,100			
Contention Mine Rd: Cave Creek Rd - 26th St	2	15			\$ 1,153,000			
7th Ave: 800' s/o Roeser Rd	7	16					\$ 351,700	
7th Ave: 900' s/o Sunland Ave	7	17					\$ 276,400	
7th Ave & Tamarisk St	7	18					\$ 76,500	
Buckeye Rd: 170' w/o 29th Ave	7	19					\$ 44,500	
Buckeye Rd: 135' w/o 33rd Ave	7	20					\$ 36,200	
16th St: Euclid Ave - South Mtn Ave	8	21					\$ 849,500	
16th St: Dobbins Rd - Euclid Ave	6	22					\$ 459,500	
44th St: Vermont St - Joseph St	6	23					\$ 1,321,000	
27th St & Roosevelt St	8	24					\$ 150,000	
10th Ave: 150' s/o Dobbins Rd	8	25					\$ 27,700	
<b>Total Construction:</b>			<b>\$ 164,800</b>	<b>\$ 1,027,800</b>	<b>\$ 4,786,100</b>	<b>\$ -</b>	<b>\$ 3,593,000</b>	<b>\$ 9,571,700</b>
<b>Total Expenses (Design + ROW + Construction)</b>			<b>\$ 1,831,500</b>	<b>\$ 1,142,800</b>	<b>\$ 5,268,600</b>	<b>\$ 819,600</b>	<b>\$ 4,393,000</b>	<b>\$ 13,455,500</b>
<b>alf of T2050 Mobility Funding (Revenue Budget for Sidewalk Program)</b>			<b>\$ 4,285,000</b>	<b>\$ 2,325,000</b>	<b>\$ 2,445,000</b>	<b>\$ 2,565,000</b>	<b>\$ 2,602,500</b>	<b>\$ 14,222,500</b>
<b>Remaining Budget:</b>			<b>\$ 2,453,500</b>	<b>\$ 1,182,200</b>	<b>\$ (2,823,600)</b>	<b>\$ 1,745,400</b>	<b>\$ (1,790,500)</b>	<b>\$ 767,000</b>
Projects in yellow are currently underway								

# Attachment C: T2050 Mobility Studies Release Schedule



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## CITIZENS TRANSPORTATION COMMISSION REPORT

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TO: Mario Paniagua  
Deputy City Manager

FROM: Ken Kessler  
Acting Public Transit Director

Maria Hyatt  
Interim Street Transportation Director

SUBJECT: TRANSPORTATION 2050 FINANCIAL UPDATE

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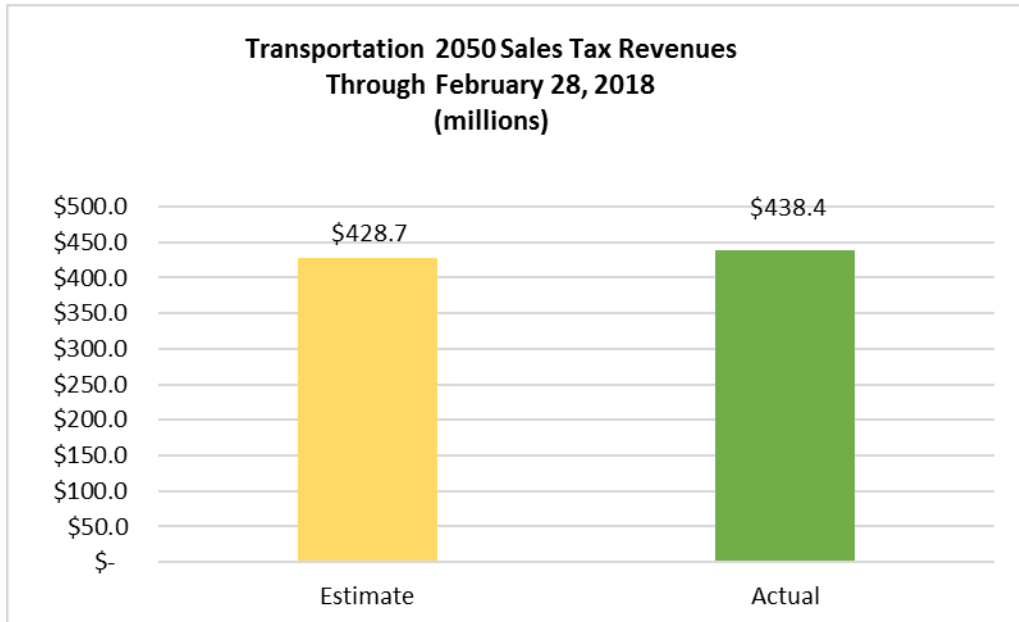
This report provides a financial update on Transportation 2050 (T2050), passed by voters on August 25, 2015. Included in this report is a summary of the sales tax revenue collections and the use of those revenues for projects within the plan.

### THE ISSUE

T2050 is a 35-year multi-modal transportation plan that includes street improvements, bus and paratransit service enhancements, and light rail expansion. These broad categories are broken down into specific plan elements, and within these elements are specific projects planned to be implemented over the course of the 35-year plan.

### OTHER INFORMATION

The sales tax revenues are being used in both the Public Transit and Street Transportation Departments' budgets to implement projects in the T2050 plan. The T2050 sales tax became effective January 1, 2016, and with the one-month lag in sales tax reporting and collections, there have been twenty-five months of revenue collected by the City through February 2018. The following graph provides estimated and actual sales tax through February 28, 2018. Estimates are based on a consistent annual growth rate. Some months and years will see a higher or lower return, however, the differences are anticipated to balance over time.



The attached table (Attachment A) shows T2050 sales tax revenue collections and T2050 expenditures through February 28, 2018.

**RECOMMENDATION**

This report is for information only.



Attachment A

**T2050 SALES TAX REVENUES:**

Through FY 2016-17	\$ 301,435,719
July 2017 - February 2018	136,992,300
<b>TOTAL</b>	<b>438,428,019</b>

**EXPENDITURES:**

Project	FY 2017-18 Total Expenditures	FY 2017-18 T2050 Expenditures	FY 2017-18 Other (1) Expenditures	FY 2017-18 Total Commit	FY 2017-18 T2050 Commit	FY 2017-18 Other (1) Commit	FY 2017-18 Total Actual + Commit	FY 2017-18 T2050 Actual + Commit	FY 2017-18 Current Year Other (1) Actual + Commit
Transit Ops and Administration	\$ 119,920,678	\$ 111,405,623	\$ 8,515,055	\$ 83,005,540	\$ 81,985,731	\$ 1,019,809	\$ 202,926,218	\$ 193,391,354	\$ 9,534,864
Bus Purchases	19,684,460	83,400	19,601,060	37,455	37,455	-	19,721,914	120,855	19,601,060
DAR Vehicle Purchases	-	-	-	1,608,800	-	1,608,800	1,608,800	-	1,608,800
50 <sup>th</sup> St./Washington LRT Station	5,366,848	5,366,749	99	8,016	6,113	1,903	5,374,864	5,372,862	2,002
16th St. Station Study	16,963	16,963	-	-	-	-	16,963	16,963	-
Bus Stop Improvements	692,176	692,176	-	-	-	-	692,176	692,176	-
South Facility Upgrades	4,038,288	1,564,508	2,473,780	558	558	-	4,038,846	1,565,066	2,473,780
Bus Pullouts	210,431	205,116	5,315	417	417	-	210,848	205,533	5,315
Transit Technology	2,961,383	493,874	2,467,509	98,690	-	98,690	3,060,073	493,874	2,566,199
South Central LRT	9,986,873	9,416,440	570,433	7,925,437	7,925,437	-	17,912,310	17,341,876	570,433
Northeast LRT	211,532	211,532	-	-	-	-	211,532	211,532	-
Capital/I-10 West LRT	11,918	11,918	-	-	-	-	11,918	11,918	-
West Phoenix/Central Glendale LRT	23,717	23,717	-	-	-	-	23,717	23,717	-
Norhwest Extetion LRT Phase II	45,786	45,786	-	-	-	-	45,786	45,786	-
McDowell & Central LRT Crosswalk	1,683	1,683	-	-	-	-	1,683	1,683	-
Bus Rapid Transit	16,690	16,690	-	-	-	-	16,690	16,690	-
Other Transit Capital	1,960,190	836,909	1,123,281	422,500	288,902	133,598	2,382,690	1,125,811	1,256,879
Project/Construction Mgmt	245,619	245,619	-	517,558	517,558	-	763,177	763,177	-
T2050 Cement Repair	1,026,314	1,026,314	-	1,022,293	1,022,293	-	2,048,607	2,048,607	-
T2050 Crack Seal	2,540,340	2,540,340	-	921,328	921,328	-	3,461,668	3,461,668	-
T2050 Major Street Overlay	3,473,267	3,473,267	-	767,491	767,491	-	4,240,758	4,240,758	-
T2050 Arterial TRMSS	280,074	280,074	-	-	-	-	280,074	280,074	-
T2050 Arterial Micro Surfacing	326,759	326,759	-	2,683,149	2,683,149	-	3,009,908	3,009,908	-
T2050 Arterial Microseal	2,292,947	2,292,947	-	-	-	-	2,292,947	2,292,947	-
Major Streets Project Assessments	-	-	-	-	-	-	-	-	-
Major Street Transportation Projects	44,299	44,299	-	236,520	236,520	-	280,819	280,819	-
Traffic Signal Pole Painting	267,965	267,965	-	-	-	-	267,965	267,965	-
Left Turn Arrows	279,726	279,726	-	-	-	-	279,726	279,726	-
Illuminated Street Name Signs	1,833,693	1,833,693	-	-	-	-	1,833,693	1,833,693	-
Pedestrian and Bicycle	163,991	163,991	-	424,491	424,491	-	588,482	588,482	-
<b>TOTAL</b>	<b>\$ 177,924,611</b>	<b>\$ 143,168,078</b>	<b>\$ 34,756,533</b>	<b>\$ 99,680,240</b>	<b>\$ 96,817,440</b>	<b>\$ 2,862,800</b>	<b>\$ 277,604,851</b>	<b>\$ 239,985,518</b>	<b>\$ 37,619,333</b>

(1) Other (non-T2050) sources include transit fares, federal, regional, AZ Lottery, and 302 building revenues.

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**CITIZENS TRANSPORTATION COMMISSION REPORT**

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TO: Mario Paniagua  
Deputy City Manager

FROM: Maria Hyatt  
Public Transit Director

Ray Dovalina  
Street Transportation Director

SUBJECT: UPCOMING T2050 RELATED PUBLIC MEETINGS/EVENTS

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This report provides the Citizens Transportation Commission (CTC) with a list of upcoming T2050 related public meetings by Public Transit Department, Streets Transportation and Valley Metro.

This item is for information only.

**Upcoming T2050 Related Public Meetings/Events**

Meeting Date and Time	Location	Topic	Department/Agency
Community Workshop: SEC Design Elements Workshop Apr. 7, 2018 TBD	TBD	South Central – Lincoln to Broadway  Community workshop to seek input on landscape	Public Transit/Valley Metro
Public Meeting – Initial Design (downtown area) Apr. 18, 2018 TBD	Downtown Phoenix  TBD	South Central LR – Downtown to Lincoln Provide and update on project and seek input on design elements.	Public Transit/Valley Metro