



# PHOENIX TRANSPORTATION 2050



MOVING PHOENIX  
FORWARD

## PROGRESS REPORT #1

JAN. 1, 2016  
– JUNE 30, 2017



Mayor Greg Stanton

"Transportation 2050 was an unprecedented investment in ourselves, in our economy, and in our future," said Mayor Greg Stanton. "Our voters wisely made one of the largest investments in transit and transportation infrastructure of its kind in the country, and now we are seeing those investments start to take shape and pay off. Phoenix residents are already finding it easier to get to work, school or other appointments because of expanded bus hours, improved Dial-a-Ride service and extensive street repairs."



Councilwoman Thelda Williams

"When voters approved Transportation 2050, they approved expanded investment in Phoenix's infrastructure for the next 35 years. Street improvements, expanded bus service, improved Dial-a-Ride, and light rail construction with South Central and Northwest extensions are priorities in the plan that residents overwhelmingly supported," said Transportation and Infrastructure Chair, Councilwoman Thelda Williams. "With T2050, expanding our transportation service is more than delivering on a plan, it's preparing for the future as we position Phoenix for decades of economic growth."



CTC Chair Ed Pastor

"T2050 has made it possible for our city to have better access thanks to new and improving transportation in Phoenix. I believe investing in public transportation is not only for the good of those who use it, but something we all benefit from," said CTC Chair Ed Pastor. "As the Chair of the Citizens Transportation Commission, I along with 14 other commissioners, will continue to monitor and make recommendations for the way your tax dollars are being used to move this city forward."

# TABLE OF CONTENTS

**1.0** Program Overview

**2.0** Bus and Dial-a-Ride

**3.0** High Capacity Transit

**4.0** Street Maintenance and Improvements

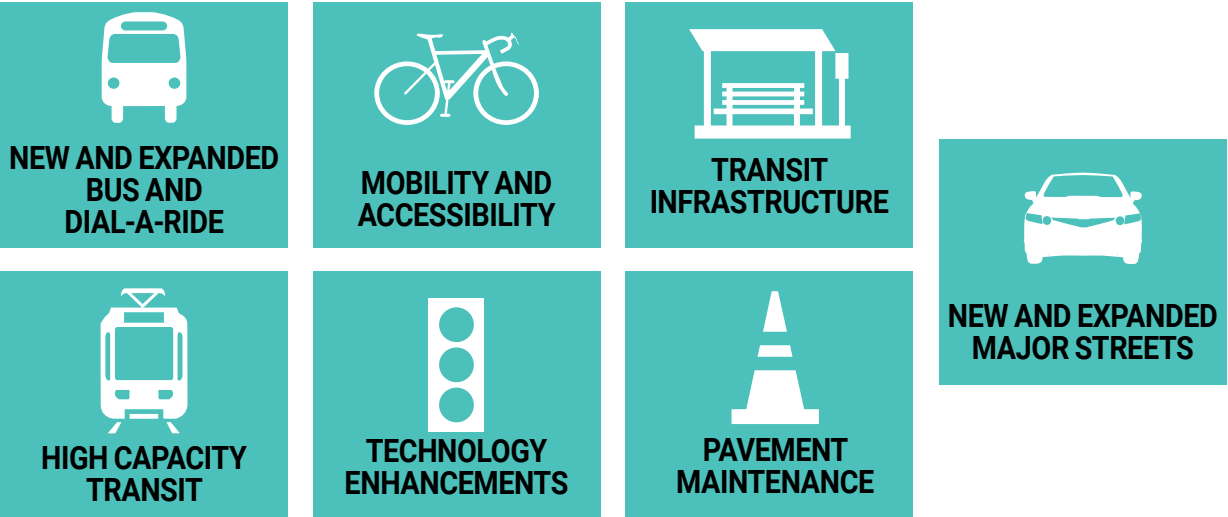
**Appendix**

# T2050 AT A GLANCE

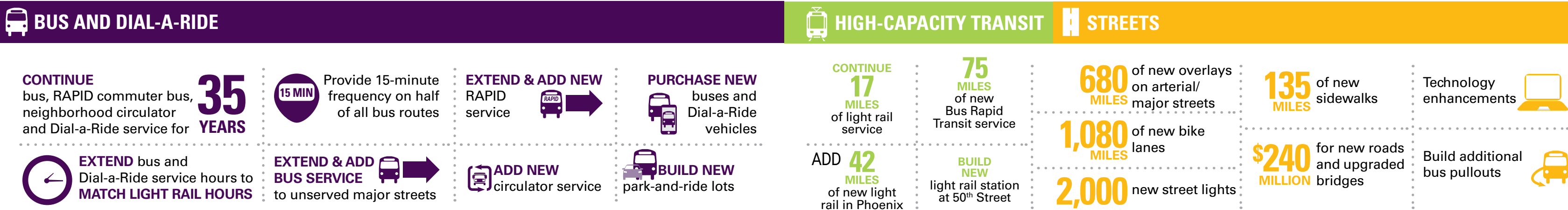
## T2050 FUNDING



## T2050 PROGRAM AREAS



## T2050 GOALS



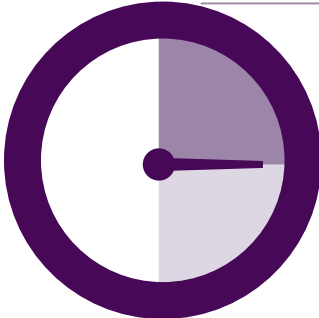
NEW OR IMPROVED BUS AND DIAL-A-RIDE

EXTENDED SERVICE HOURS

for bus and Dial-a-Ride to  
MATCH LIGHT RAIL HOURS



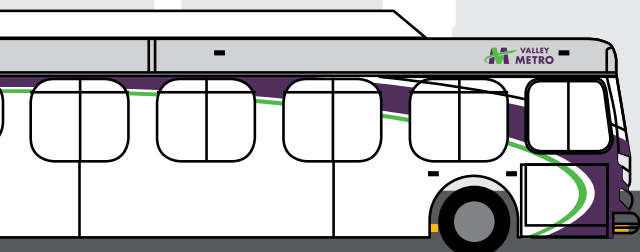
INCREASED FREQUENCY

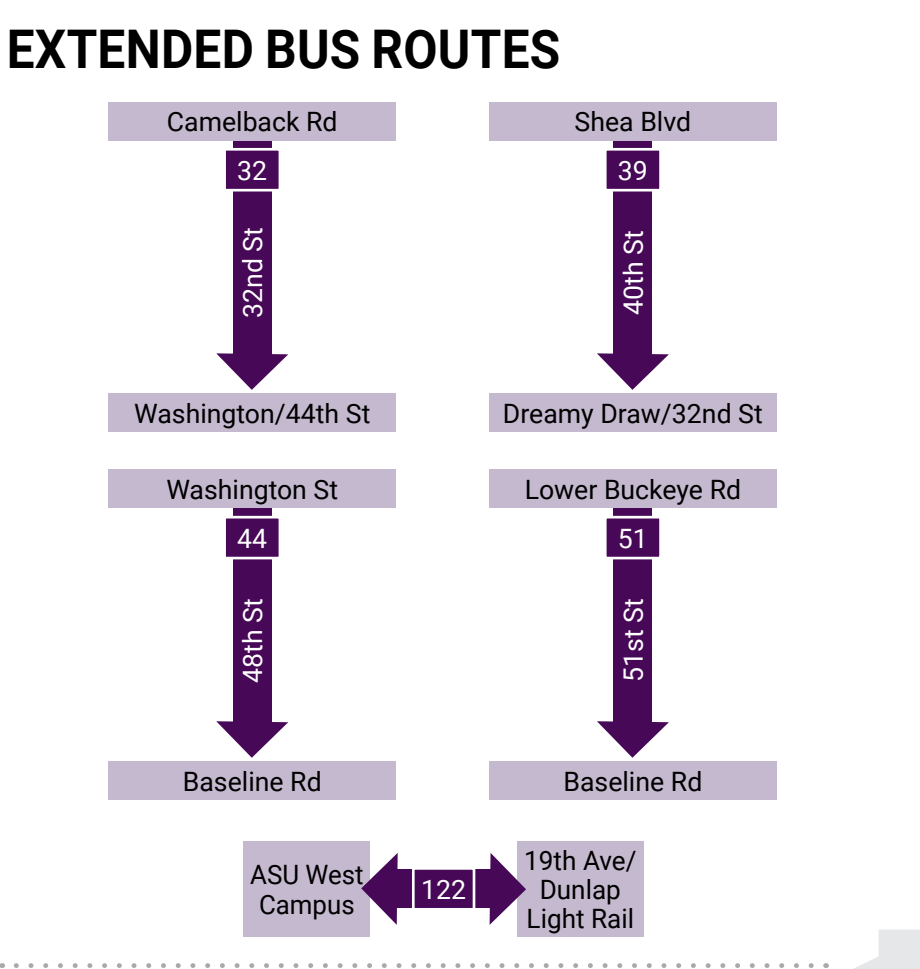


off-peak  
15 MIN

weekdays &  
weekends  
30 MIN  
OR LESS

ADDED  
153  
BUSES





ADDED  
47  
DIAL-A-RIDE  
VEHICLES



OTHER IMPROVEMENTS COMPLETED



REGIONAL DIAL-A-RIDE  
IMPLEMENTED  
eliminating transfers



K-9 SECURITY UNIT GRANT



31 BUS SHELTER SHADE  
STRUCTURES INSTALLED



5 BUS BAYS  
INSTALLED



CONTINUED REFURBISHING  
SOUTH TRANSIT FACILITY



COMPUTER AIDED DISPATCH  
SYSTEM IN PROGRESS



INTERACTIVE DIGITAL SIGNS



AUDIO ON DIGITAL  
BUS SIGNS



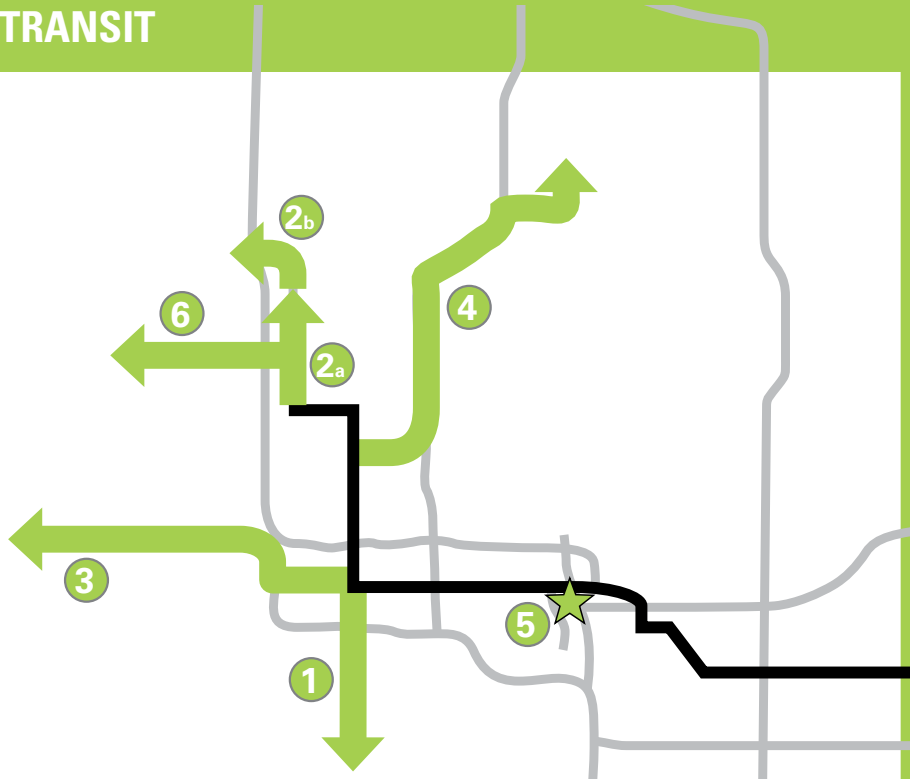
# MAKING PROGRESS

COMPLETED JANUARY 1, 2016 - JUNE 30, 2017



## NEW OR IMPROVED HIGH CAPACITY TRANSIT

- 1** **ACCELERATED COMPLETION BY MORE THAN 10 YEARS**  
South Central
- 1** **FINAL DESIGN AND PRE-CONSTRUCTION ACTIVITIES**  
South Central
- 2a** **COMPLETED AND OPENED**  
Northwest Phase I
- 2b** **ENVIRONMENTAL STUDY & PRELIMINARY ENGINEERING**  
Northwest Phase II
- 3** **ENVIRONMENTAL STUDY**  
Capitol/I-10 West Phase I
- 4** **CORRIDOR FEASIBILITY STUDY**  
Northeast Corridor
- 5** **CONSTRUCTION**  
50th Street station
- 6** **PRELIMINARY PLANNING**  
West Phoenix



**\$2 M**  
**GRANT AWARDED**  
for business  
assistance on  
South Central

**LAUNCHED**  
**BUS RAPID TRANSIT**  
**PROGRAM**



## NEW OR IMPROVED STREETS

|                                  | Miles<br>new<br>pavement | Miles<br>pavement<br>treatments |
|----------------------------------|--------------------------|---------------------------------|
| <b>ARTERIAL/MAJOR COLLECTORS</b> | <b>45</b>                | <b>69</b>                       |
| <b>MINOR COLLECTORS/ LOCAL</b>   | <b>116</b>               | <b>326</b>                      |

COMPLETED  
PRE-DESIGN FOR  
**18** MAJOR STREET  
CORRIDORS

**19** NEW/EXPANDED  
STREETS PROJECTS  
PLANNED  
**\$57M**

**7** MILES NEW  
SIDEWALKS



INITIATED  
**11**  
NEIGHBORHOOD  
PEDESTRIAN  
MOBILITY  
ASSESSMENTS

**79**  
MILES OF BICYCLE  
LANES INSTALLED

**SIGNAL POLES PAINTED**  
**64** intersections

**LEFT-TURN ARROWS ADDED**  
**54** intersections

**234** STREET LIGHTS  
INSTALLED

REPLACED  
**640** LIGHTED  
STREET SIGNS

# MOVING FORWARD

## BUS AND DIAL-A-RIDE

### NEW PROJECTS AND IMPROVEMENTS PLANNED FOR 2018

#### ADD BUS ROUTE



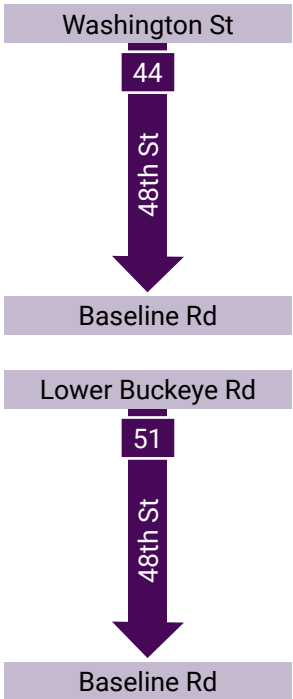
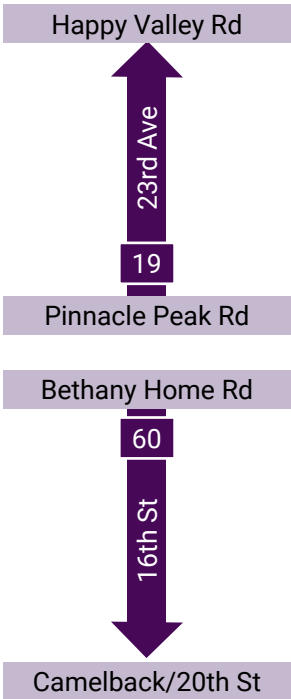
ADD  
 **9 BUS BAYS**

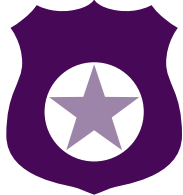
 **15 MINUTES**  
**INCREASE FREQUENCY**  
weekday off-peak service

ADD  
 **30 DIAL-A-RIDE VEHICLES**

ADD  
 **55 BUSES**

#### EXTEND BUS ROUTES



**ADDITIONAL SECURITY**  


SHADE  
**80 BUS STOPS**  


INSTALL  
**40 BUS STOPS**  


### NEW PROJECTS AND IMPROVEMENTS PLANNED FOR 2019-2022

#### CIRCULATOR STUDY

ADD  
**1 CIRCULATOR ROUTE**

ADD  
**12 CIRCULATOR VEHICLES**



SHADE  
**400 BUS STOPS**  


ADD  
 **24 BUS BAYS**

INSTALL  
**56 BUS STOPS**  


CONSTRUCT  
**2 PARK-N-RIDES**  


 **15 MINUTES**  
**INCREASE FREQUENCY**  
weekday peak service

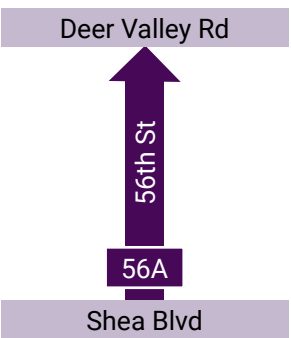
**ON-BUS DIGITAL SIGNAGE**

  
**NEW FARE COLLECTION SYSTEM**

ADD  
 **195 BUSES**

ADD  
 **100 DIAL-A-RIDE VEHICLES**

#### BUS ROUTE

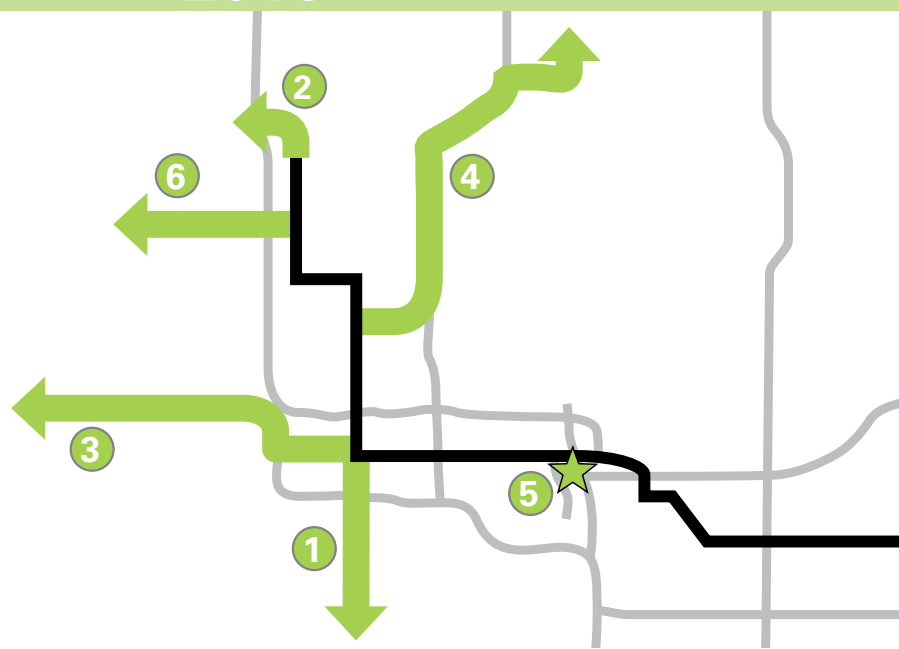


# MOVING FORWARD

## HIGH CAPACITY TRANSIT

### NEW PROJECTS AND IMPROVEMENTS PLANNED FOR 2018

- 1  **FINAL DESIGN & PRE-CONSTRUCTION**  
South Central
- 2  **FINAL DESIGN & PRE-CONSTRUCTION**  
Northwest Phase II
- 3  **ENVIRONMENTAL STUDY & PRE-CONSTRUCTION ACTIVITIES**  
Capitol/I-10 West
- 4  **PRELIMINARY PLANNING**  
Northeast Corridor
- 5  **CONTINUE CONSTRUCTION**  
50th Street station
- 6  **ENVIRONMENTAL STUDY**  
West Phoenix



 **PRELIMINARY PLANNING**  
Bus rapid transit

### NEW PROJECTS AND IMPROVEMENTS PLANNED FOR 2019-2022

 **CONSTRUCT EXTENSIONS**  
South Central  
Northwest Phase II  
Capitol/I-10 West Phase I and II

 **OPEN 50TH STREET STATION**

 **CONDUCT PLANNING FOR BUS RAPID TRANSIT**

## STREETS

### NEW PROJECTS AND IMPROVEMENTS PLANNED FOR 2018

|                           | Miles new pavement | Miles pavement treatments |
|---------------------------|--------------------|---------------------------|
| ARTERIAL/MAJOR COLLECTORS | 15                 | 68                        |
| MINOR COLLECTORS/LOCAL    | 76                 | 236                       |

**4 MILES NEW SIDEWALKS**

COMPLETE  
**11** NEIGHBORHOOD PEDESTRIAN MOBILITY ASSESSMENTS

INITIATE DESIGN  
**10** ROAD & BRIDGE PROJECTS

INSTALL  
**31** MILES OF BICYCLE LANES

PAINT  
**110** SIGNAL POLES intersections

ADD  
**7** LEFT-TURN ARROWS intersections

INSTALL  
**60** STREET LIGHTS

REPLACE  
**2,360** LIGHTED STREET SIGNS

### NEW PROJECTS AND IMPROVEMENTS PLANNED FOR 2019-2022

|                           | Miles new pavement | Miles pavement treatments |
|---------------------------|--------------------|---------------------------|
| ARTERIAL/MAJOR COLLECTORS | 59                 | 271                       |
| MINOR COLLECTORS/LOCAL    | 277                | 742                       |

**16 MILES NEW SIDEWALKS**

DEVELOP  
**9** ROAD & BRIDGE PROJECTS

CONSTRUCT  
**5** ROAD & BRIDGE PROJECTS

INSTALL  
**124** MILES OF BICYCLE LANES

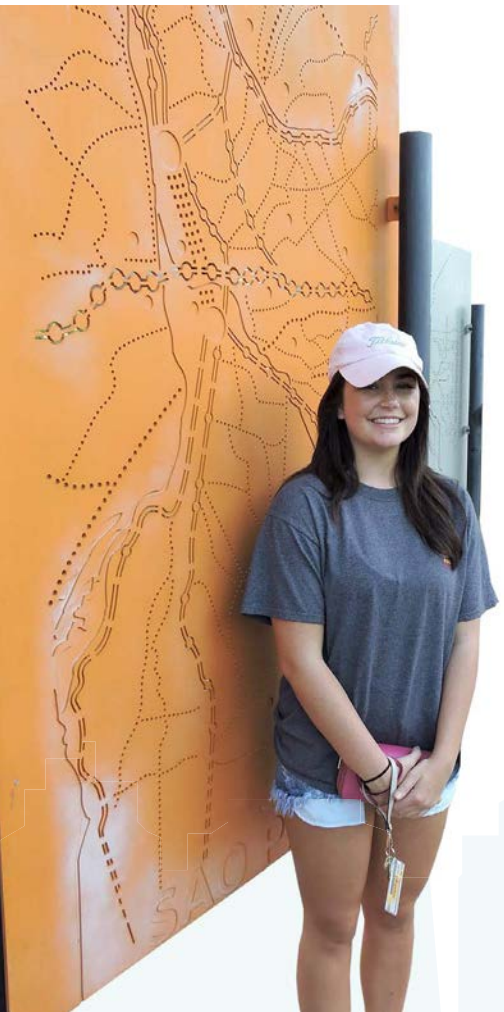
PAINT  
**440** SIGNAL POLES intersections

ADD  
**21** LEFT-TURN ARROWS intersections

INSTALL  
**240** STREET LIGHTS

**“I’m glad bus hours are longer, especially that they match light rail. We have lots of options to get around for school and fun.”**

*– Kaylin K.,  
Phoenix Student*



## Program Overview



# 1.0 PROGRAM OVERVIEW



On Aug. 25, 2015, Phoenix voters passed Proposition 104, approving a sales tax increase for transportation improvements from 0.4 percent to 0.7 percent for 35 years. The proposition, known as Transportation 2050 (T2050), became effective Jan. 1, 2016.

A 15-member Citizens Transportation Commission (CTC) was appointed by the mayor and City Council to oversee the T2050 program, ensure accountability in the expenditures of funds and provide oversight during implementation.

In addition to the CTC's role in shaping the plan, the City Council's Transportation and Infrastructure Subcommittee provides policy guidance on streets and transit issues before items are presented to the full council for approval.

This report identifies progress of the first 18 months of T2050 and highlights planned improvements for the next five years.



Citizens Transportation Committee Members from L to R: William Smith, Quinn Tempest, Jennifer Mellor, Phil Pangrazio, Mario Trejo Romero, Gail Knight, Bret Aldieri, Patrick Brennan and Ed Pastor (CTC Chair). Not pictured: David Adame, Sue Glawe, David Martin, Roy Miller and Rick Naimark (one position vacant). For more information, see: [www.phoenix.gov/T2050/Commission](http://www.phoenix.gov/T2050/Commission)

## \$31.5 Billion Over 35 Years

Over the 35-year life of the program, revenues from the T2050 city sales tax are estimated to total approximately \$16.7 billion -- half of the program's overall costs. Of this total, approximately 86 percent is dedicated to the city's public transit program, with the remaining used to supplement existing streets funding.

In addition to the city's sales tax, the plan will use federal and regional funds, and passenger fares to provide another \$14.8 billion in revenues. Total projected revenues for the 35-year program are \$31.5 billion.

More information on the regional and federal funding programs is available at [www.phoenix.gov/T2050/Funding](http://www.phoenix.gov/T2050/Funding).



Councilwoman Thelda Williams  
Chairwoman Transportation  
and Infrastructure  
Subcommittee



Vice Mayor Laura Pastor  
Transportation and  
Infrastructure Subcommittee



Councilwoman Kate Gallego  
Transportation and  
Infrastructure Subcommittee



Councilman Daniel Valenzuela  
Transportation and  
Infrastructure Subcommittee

# Lifecycle: Balancing Revenues and Expenditures

In some years, the projected T2050 revenue intentionally exceeds projected expenditures. This occurs to ensure funds are available for large projects, such as light rail extensions, that require large expenditures during construction years. The financial plan includes setting aside funds temporarily to ensure funds are available for large capital expenditures.

The city will continue to explore opportunities to reduce costs through innovation, value engineering and other project delivery and financing methods such as Public-Private Partnerships (P3). For more information on assumptions used to estimate T2050 revenues and project costs, please see Table 1 in the appendix.

Figure 1.1 Sources of Funds

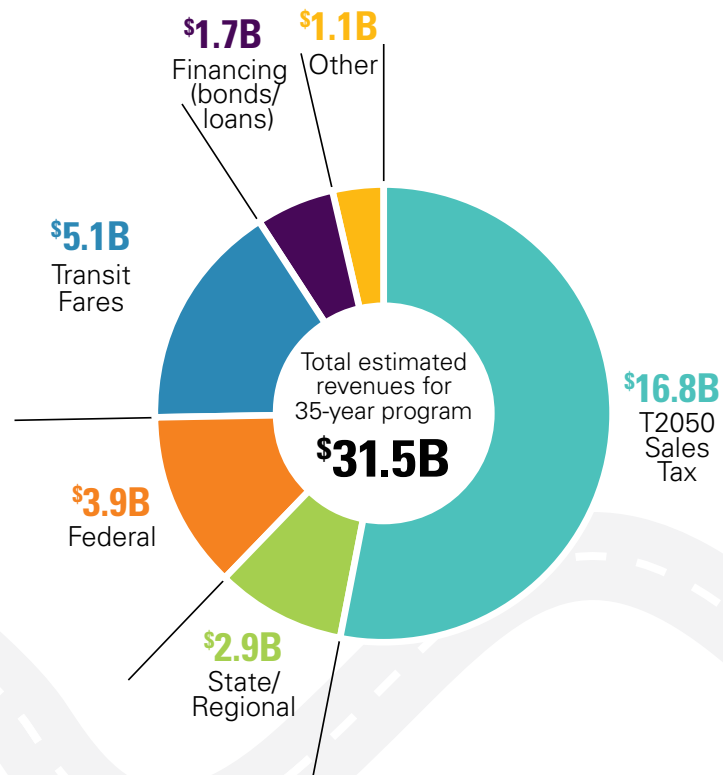
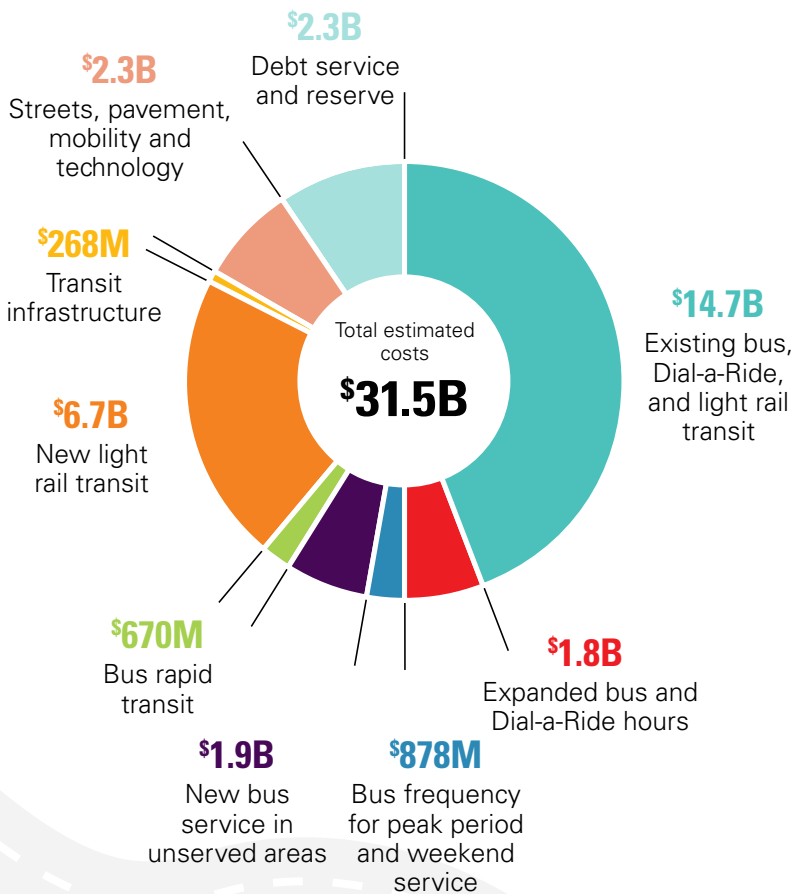


Figure 1.2 Planned Uses of Funds



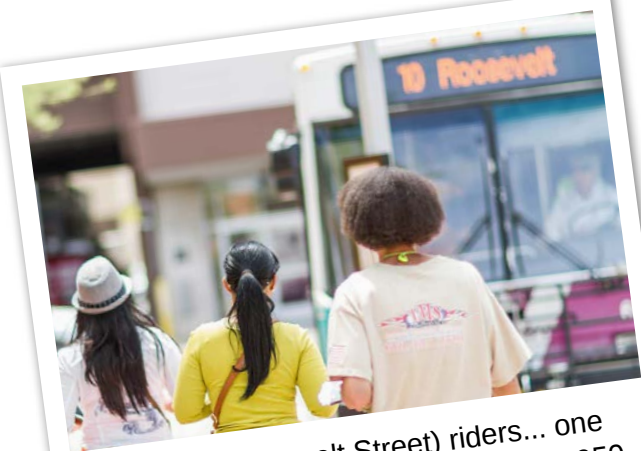
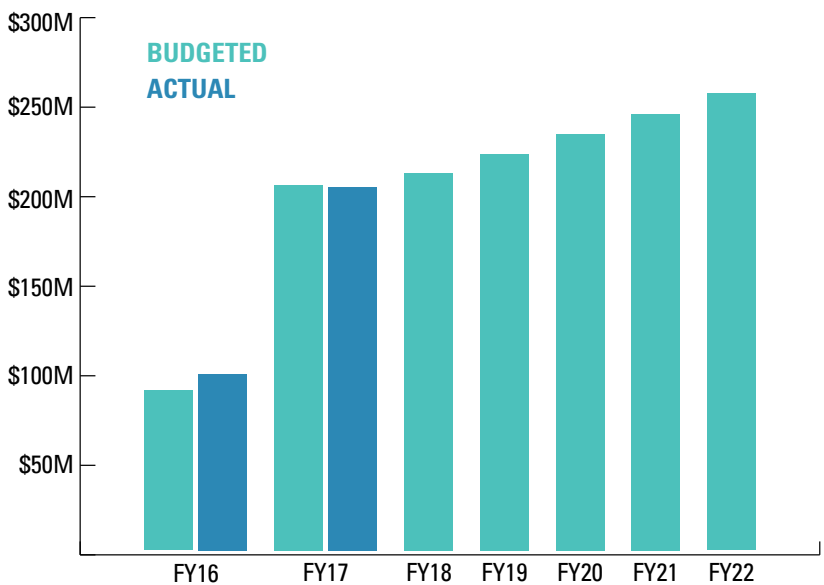
# Jan. 2016 - June 2017 Financial Summary

The total budgets for fiscal years (FY) 2016 and 2017 were approximately \$186 million and \$466 million, respectively. Please see tables 2 and 3 in the appendix for additional information.

# FY 2018 - FY 2022 Financial Summary

The five-year financial plan for the FY 2018–2022 time period is shown in Table 4 in the appendix. The balance of the fund is anticipated to increase through FY 2020, when funds will be used for the new light rail and major streets construction projects.

Figure 1.3 T2050 Sales Tax Revenue Summary



Route 10 (Roosevelt Street) riders... one of several local routes improved by T2050.



Route 8 (7th Avenue) passengers at Central Station in downtown Phoenix.

# Bus and Dial-a-Ride Service



2.0

# 2.0 BUS AND DIAL-A-RIDE

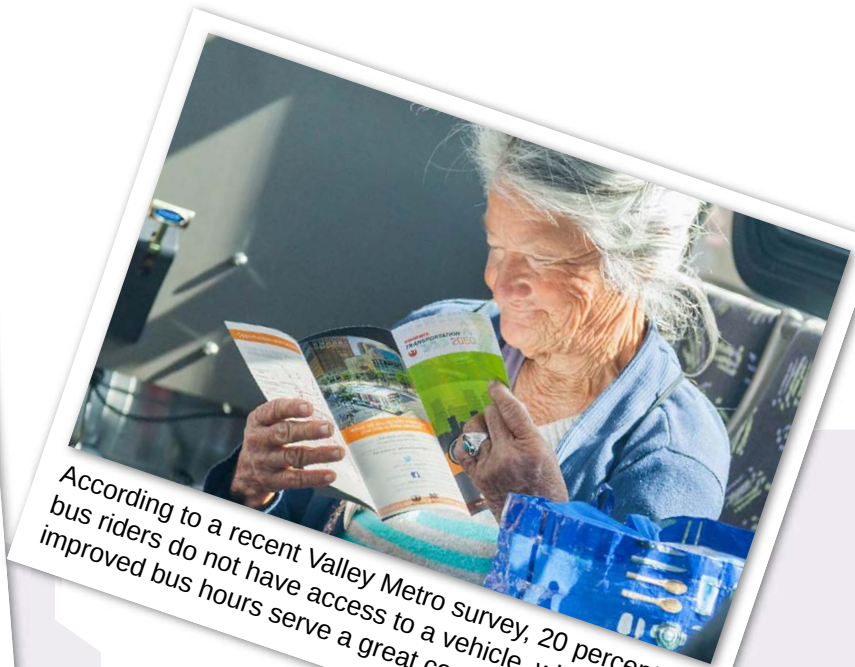


T2050 includes \$1.2 billion over five years for new and expanded bus and Dial-a-Ride services.

Other funding sources for these services include local funds, the Regional Public Transportation Fund (PTF), and federal and state grants.



T2050 continues to improve multimodal travel in Phoenix, making it easy for riders to go from bike to bus or even rail.



According to a recent Valley Metro survey, 20 percent of bus riders do not have access to a vehicle, which means improved bus hours serve a great community need.

Tables 2.1 T2050 Bus and Dial-a-Ride Progress and Goals

| Completed by June 30, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fund existing bus, RAPID commuter bus, neighborhood circulator and Dial-a-Ride service for 35 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"><li>Maintained existing services</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Extend bus and Dial-a-Ride service hours to match light rail hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"><li>Completed; extended service hours in October 2016 and April 2017</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Improve bus frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"><li>Increased frequency to 30 minutes on weekdays and weekends</li><li>Increased off-peak frequency to 15 minutes on 19th Avenue (Route 19)</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                      |
| Extend and add bus service to unserved major streets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <ul style="list-style-type: none"><li>Extended service on 32nd Street from Camelback Road to the light rail station at 44th and Washington streets (Route 32)</li><li>Extended service on 40th Street to serve Dreamy Draw park-and-ride and connect to service on 32nd Street (Route 39)</li><li>Extended service from Washington Street light rail station to Baseline Road (Route 44)</li><li>Extended service from Lower Buckeye Road to Baseline Road (Route 51)</li><li>Extended service to 19th and Dunlap avenues to connect to light rail and ASU West campus (Route 122)</li></ul> |
| Purchase new buses and Dial-a-Ride vehicles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"><li>Ordered 153 buses and 47 Dial-a-Ride vehicles</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Increase security                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <ul style="list-style-type: none"><li>Received Department of Homeland Security grant for K-9 security unit</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Shade bus stops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"><li>Collaborated with ASU Herberger Institute for Design and the Arts to develop innovative bus stop shade structures</li><li>Shaded 31 bus stops</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                |
| Incorporate technology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"><li>Installed interactive digital signs at park-and-rides and audio to digital bus signs</li><li>Began work on a computer aided system for dispatch/automated vehicle locations</li></ul>                                                                                                                                                                                                                                                                                                                                                                  |
| Other Improvements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"><li>Implemented transfer-free regional Dial-a-Ride service allowing travel on same vehicle for destinations outside city limits</li><li>Continued refurbishment of the South Transit Facility</li></ul>                                                                                                                                                                                                                                                                                                                                                    |

Tables 2.1 T2050 Bus and Dial-a-Ride Progress and Goals cont'd

| Planned for FY 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fund existing bus, RAPID commuter bus, neighborhood circulator and Dial-a-Ride service for 35 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"><li>Maintain existing services</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Improve bus frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"><li>Increase weekday off-peak frequency to 15 minutes on Thomas Road (Route 29) and Camelback Road (Route 50)</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Extend and add bus service to unserved major streets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"><li>Add new bus route on Ray Road between 48th Street and I-10 to connect with new service into Gilbert</li><li>Extend service from Pinnacle Peak Road and 23rd Avenue to Happy Valley Road and 23rd Avenue and connect to service on 35th Avenue (Route 19)</li><li>Extend service from 16th Street and Bethany Home to Camelback Road and 20th Street (Route 60)</li><li>Extend service from the Washington Street light rail station to 48th Street and Baseline Road (Route 44)</li><li>Extend service from Lower Buckeye Road to Baseline Road (Route 51)</li></ul> |
| Purchase new buses and Dial-a-Ride vehicles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <ul style="list-style-type: none"><li>Order 55 buses and 30 Dial-a-Ride vehicles</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Increase security                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"><li>Provide additional security on light rail and local bus routes and at park-and-ride lots</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Shade bus stops                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <ul style="list-style-type: none"><li>Shade 80 bus stops and install 40 new bus stops</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |



With more than 33 million bus boardings this fiscal year, T2050 bus improvements have already increased ridership.



Since T2050 began, Dial-a-Ride improvements include longer service hours and new vehicles.



Bus and Dial-a-Ride hours were extended in October 2016 and April 2017, and now match light rail service.

Tables 2.1 T2050 Bus and Dial-a-Ride Progress and Goals cont'd

| Planned for FY 2019 – 2022                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fund existing bus, RAPID commuter bus, neighborhood circulator and Dial-a-Ride service for 35 years                                                                                |
| <ul style="list-style-type: none"><li>Maintain existing services</li></ul>                                                                                                         |
| Improve bus frequency                                                                                                                                                              |
| <ul style="list-style-type: none"><li>Increase weekday peak service frequency to 15 minutes on Routes 59, 60 and 67</li></ul>                                                      |
| Extend and add bus service to unserved major streets                                                                                                                               |
| <ul style="list-style-type: none"><li>Add new bus route on 56th Street from Shea Boulevard to Deer Valley Road (Route 56A)</li></ul>                                               |
| Add new circulator service                                                                                                                                                         |
| <ul style="list-style-type: none"><li>Complete a neighborhood circulator study and begin service on one new circulator route</li></ul>                                             |
| Purchase new buses and Dial-a-Ride vehicles                                                                                                                                        |
| <ul style="list-style-type: none"><li>Order 195 buses and 100 Dial-a-Ride vehicles</li><li>Purchase RAPID buses</li><li>Purchase 12 new neighborhood circulator vehicles</li></ul> |
| Build park-and-ride lots                                                                                                                                                           |
| <ul style="list-style-type: none"><li>Construct two park-and-rides (near South Mountain Freeway and I-17/Carefree Highway)</li></ul>                                               |
| Shade bus stops                                                                                                                                                                    |
| <ul style="list-style-type: none"><li>Shade 400 bus stops and install 56 new bus stops</li></ul>                                                                                   |
| Incorporate technology                                                                                                                                                             |
| <ul style="list-style-type: none"><li>Install a regional fare collection system</li><li>Install on-bus digital signs</li></ul>                                                     |

## Local Fixed Route



Local fixed route bus service is the backbone of Phoenix's transit system. Local bus service in Phoenix operates on a grid system, and connects to key commercial, education and work centers throughout the region.

T2050 has already extended the service day to match light rail hours, increasing frequency to 30 minutes or less citywide. Future improvements include new and extended routes and more frequency on high ridership routes.

## RAPID Commuter



Phoenix's RAPID service is a commuter bus service that connects outlying areas of Phoenix with the downtown core, providing an efficient commuting solution for those who are tired of sitting behind the wheel of their own car in rush hour traffic.

T2050 allows for the future southwest Phoenix expansion of RAPID when the Loop 202 (South Mountain Freeway) opens in late 2019.

## Circulator Service



Currently, Phoenix has four circulators in service throughout the city (Ahwatukee, downtown Phoenix, Maryvale and Sunnyslope). The routes connect key community destinations, such as community centers and libraries, as well as other bus routes.

## Dial-a-Ride



Dial-a-Ride is a federally required paratransit service that complements local transit by providing a convenient transportation option for those who are unable to ride bus or light rail.

Under T2050, Phoenix has expanded hours and replaced over 40 old Dial-a-Ride vehicles, with a plan to continue to improve the fleet.

## Security



The safety and security of transit passengers is the city's top priority. The Phoenix Police Department's Transit Enforcement Unit (TEU) provides security and personnel and a private security contractor at four transit centers, 10 park-and-rides and all three bus operations and maintenance garages. Cameras are also installed on vehicles, facilities and park-and-rides. The TEU is comprised of 16 sworn officers, 23 police assistants, 24 municipal security guards and three K-9 teams.

With T2050, eight extra-duty Phoenix Police officers have been added who are assigned to perform enhanced enforcement along the light rail alignment, as well as wherever needed throughout Phoenix's transit system. New bicycles for the 16 sworn TEU officers will also be deployed in 2017.

## Passenger Facilities



The expansion of bus service means there will be the need for additional passenger facilities, including transit centers, park-and-ride lots and shaded bus stops in the coming years. As these planning efforts advance, staff will work with the CTC to identify locations and timing of these new facilities. Also, Phoenix has recently started constructing new shade shelters, with the goal of installing 400 throughout the city over the next five years.

## Operations and Maintenance Facilities



The city owns and operates three bus operations and maintenance facilities to maintain, fuel and clean buses.

## Bus and Dial-a-Ride Technology



Technology is a key area for the Transit department to modernize its fleet and operations under T2050. New transit technology for the bus system includes a new bus communication system and a new and improved fare collection system, which will be important as Phoenix and Valley Metro launch electronic fare payment such as mobile tickets and reloadable transit passes. Other proposed technology upgrades include Wi-Fi on buses and trains, real-time data for Dial-a-Ride and security technology improvements.

Also, staff is currently working on enhancements to the Dial-a-Ride trip booking software, which includes web-based trip booking and cancellation, interactive voice recognition trip booking, confirmation and automatic call back reminders, and the incorporation of mobile application technologies.



New RAPID buses have been ordered, which will modernize a fleet with buses more than 15 years old.

**“Better bus service helps  
me stay connected with  
friends and important  
appointments.”**

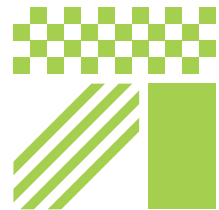
*– Richard S.,  
Phoenix Veteran*



**High Capacity Transit**

**3.0**

# 3.0 HIGH CAPACITY TRANSIT



The T2050 program includes approximately \$428 million over five years for high capacity transit services, which includes light rail and bus rapid transit (BRT). In addition to T2050 sales tax revenues, other funding sources for these improvements include local funds, the Public Transportation Fund (PTF), fares, advertising, and federal and state grants.

Tables 3.1 T2050 High Capacity Transit Progress and Goals

| Completed by June 30, 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Increase light rail in Phoenix</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <ul style="list-style-type: none"><li>Northwest Phase I extension (service began March 19, 2016)</li><li>South Central corridor received \$2 million business assistance federal grant which accelerates completion of the extension by more than 10 years</li><li>South Central extension final design and pre-construction</li><li>Northwest Phase II extension environmental study and preliminary engineering</li><li>Capitol/I-10 West Phase I extension environmental study</li><li>Northeast corridor preliminary planning</li><li>West Phoenix extension preliminary planning</li><li>Construction began on 50th Street station</li></ul> |
| <b>Begin new bus rapid transit program</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"><li>Bus rapid transit program launched</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

Tables 3.1 T2050 High Capacity Transit Progress and Goals cont'd

| Planned for FY 2018                                                                                                                                                                                                                                                                                                                                                                                                           | Planned for FY 2019 – 2022                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Increase light rail in Phoenix</b>                                                                                                                                                                                                                                                                                                                                                                                         | <b>Increase light rail in Phoenix</b>                                                                                                                                                                                            |
| <ul style="list-style-type: none"><li>South Central extension final design and pre-construction</li><li>Northwest Phase II extension final design and pre-construction</li><li>Capitol/I-10 West Phase I extension environmental study and pre-construction</li><li>Northeast corridor preliminary planning</li><li>West Phoenix extension environmental study</li><li>Continue construction on 50th Street station</li></ul> | <ul style="list-style-type: none"><li>South Central extension construction</li><li>Northwest Phase II extension construction</li><li>Capitol/I-10 West Phase I extension construction</li><li>Open 50th Street station</li></ul> |
| <b>Bus rapid transit program</b>                                                                                                                                                                                                                                                                                                                                                                                              | <b>Bus rapid transit program</b>                                                                                                                                                                                                 |
| <ul style="list-style-type: none"><li>Bus rapid transit program preliminary planning</li></ul>                                                                                                                                                                                                                                                                                                                                | <ul style="list-style-type: none"><li>Bus rapid transit program planning</li></ul>                                                                                                                                               |



A groundbreaking was held in June 2017 for the 50th Street light rail station project, which is expected to open to the public in 2019.

## Light Rail Service



The 26-mile Valley Metro Rail light rail system, 17 miles of which is within Phoenix, connects Phoenix, Tempe and Mesa. The system extends from 19th Avenue and Dunlap Avenue in Phoenix, to Main Street and Mesa Drive in Mesa – connecting the downtown cores of the three cities.

Phoenix, Tempe and Mesa share responsibility for funding the ongoing operations and maintenance costs of the system, which includes vehicle and system maintenance, security and fare collection and administration.

## 50th Street Light Rail Transit Station



Construction of the first new station along the existing light rail system is currently underway thanks to T2050. The station near 50th and Washington streets will provide access to local businesses and Ability360, a resource center offering numerous programs and facilities for persons with disabilities.

## South Central



One of Phoenix's most transit-dependent communities, south Phoenix, will soon be served by light rail. The South Central Light Rail Extension project will extend five miles south and connect the current light rail line in downtown Phoenix to Baseline Road.

Work is already underway between Phoenix, Valley Metro and community partners to prepare the community for the construction of the extension. In late 2016, the Federal Transit Administration awarded the project a \$2 million grant to aid in business assistance and land use planning.

Originally this extension was planned to open by 2034, but T2050 allowed the project to be accelerated over a decade. Now, construction is anticipated to start in 2019 and the much needed line is planned to open in 2023.



Since April 2016, local bus service hours now match light rail seven days per week.

## Northwest Phase II



In January 2016, the Phoenix City Council approved accelerating the Northwest Phase II to open in 2023, three years earlier than previously planned. This extension will advance the vision of city leaders as it takes light rail west on Dunlap Avenue, north on 25th Avenue and across I-17 near Mountain View Road, with a terminus on the west side of the freeway near Metrocenter Mall.

## Capitol/I-10 West



In January 2016, the Phoenix City Council approved taking a phased approach to the Capitol/I-10 West extension, designating the portion of the project from downtown Phoenix to the Capitol area as Phase I and the remaining segment along I-10 to 79th Avenue as Phase II.

Currently, Valley Metro is conducting a federally required Environmental Assessment (EA) on Phase I with design still to take place. Construction on Phase I is anticipated to begin in 2020.

## Northeast Corridor



The City of Phoenix initiated a feasibility study to evaluate corridor options to connect the existing light rail system to the Paradise Valley Mall area. The study includes two corridor options, a 12-mile corridor that was identified with the 2004 voter-approved Regional Transportation Plan (Proposition 400) and an eight-mile corridor that was identified under the T2050 plan.

## West Phoenix Extension



In 2013, a transit corridor study was conducted to identify high capacity transit service options to the existing light rail system to west Phoenix. The city of Phoenix will continue to work with the community to determine a route location and a transit type to best serve the area.

For more information on light rail corridors, please visit [www.valleymetro.org/projects\\_and\\_planning](http://www.valleymetro.org/projects_and_planning).

## Bus Rapid Transit



Bus rapid transit (BRT) is a high-capacity, bus-based transit system that delivers fast, comfortable and cost-effective trips in high demand travel areas.

BRT relies on limited stops, interconnected signal priority systems, off-board fare collection, level boarding stations and other enhancements to reduce travel times. BRT is a common transit service in other cities, but a new approach to transit for Phoenix. Network planning of the system will focus on the highest transit ridership corridors, capacity needs, and a phasing program that complements the T2050 finance program.

# Street Maintenance and Improvements

4.0



As a whole Phoenix's annual pavement preservation program now includes an average of 300 street miles per year. Prior to T2050 the program only included an average of 130 miles per year.

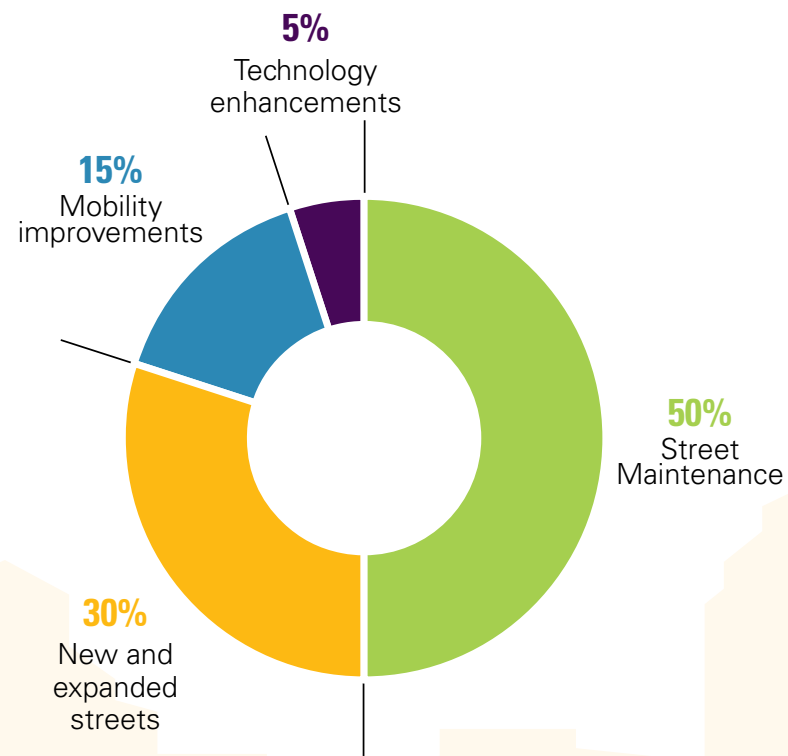
# 4.0 STREET MAINTENANCE AND IMPROVEMENTS



The T2050 program allocates approximately \$172 million over five years to supplement existing street funding for the construction and maintenance of Phoenix streets. Other funding for streets includes the city's General Fund, state-collected motor fuel taxes, federal funds and impact fees.

Only those programs that receive funding from T2050 are included in this report. For more information on the streets Capital Improvement Program (CIP), please visit [www.phoenix.gov/streets/projects](http://www.phoenix.gov/streets/projects).

Figure 4.1 T2050 Street Improvement Uses of Funds



Tables 4.1 T2050 Street Maintenance and Improvements Progress and Goals

| Completed by June 30, 2017                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Overlays on streets</b>                                                                                                                                                                                                                                                                                                                                                                            |
| <ul style="list-style-type: none"><li>• Pavement maintenance program approved</li><li>• 45 miles of asphalt pavement on arterial/major collectors</li><li>• 69 miles of other pavement treatments on arterial/major collectors</li><li>• 116 miles of asphalt pavement on minor collectors/local streets</li><li>• 326 miles of other pavement treatments on minor collectors/local streets</li></ul> |
| <b>Bicycle lanes</b>                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"><li>• 79 miles of bicycle lanes installed</li></ul>                                                                                                                                                                                                                                                                                                                 |
| <b>Street lights</b>                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"><li>• 234 street lights installed</li></ul>                                                                                                                                                                                                                                                                                                                         |
| <b>Sidewalks</b>                                                                                                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"><li>• Area Mobility Assessments for 11 locations underway</li><li>• 7 miles of sidewalks installed</li></ul>                                                                                                                                                                                                                                                        |
| <b>New roads and upgraded bridges</b>                                                                                                                                                                                                                                                                                                                                                                 |
| <ul style="list-style-type: none"><li>• 11 street assessments</li><li>• 7 safety assessments</li></ul>                                                                                                                                                                                                                                                                                                |
| <b>Technology Enhancements</b>                                                                                                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"><li>• Replaced 640 damaged street name signs at major intersections with illuminated signs</li><li>• 64 signal poles repainted at major intersections</li><li>• 54 left-turn arrows installed</li></ul>                                                                                                                                                             |

| Planned for FY 2018                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Overlays on streets</b>                                                                                                                                                                                                                                                                                                                           |
| <ul style="list-style-type: none"><li>• 15 miles of asphalt pavement on arterial/major collectors</li><li>• 68 miles of other pavement treatments on arterial/major collectors</li><li>• 76 miles of asphalt pavement on minor collectors/local streets</li><li>• 236 miles of other pavement treatments on minor collectors/local streets</li></ul> |
| <b>Bicycle lanes</b>                                                                                                                                                                                                                                                                                                                                 |
| <ul style="list-style-type: none"><li>• 31 miles of bicycle lanes installed</li></ul>                                                                                                                                                                                                                                                                |
| <b>Street lights</b>                                                                                                                                                                                                                                                                                                                                 |
| <ul style="list-style-type: none"><li>• 60 street lights installed</li></ul>                                                                                                                                                                                                                                                                         |
| <b>Sidewalks</b>                                                                                                                                                                                                                                                                                                                                     |
| <ul style="list-style-type: none"><li>• Area Mobility Assessments for 11 locations completed</li><li>• 4 miles of sidewalks installed</li></ul>                                                                                                                                                                                                      |
| <b>New roads and upgraded bridges</b>                                                                                                                                                                                                                                                                                                                |
| <ul style="list-style-type: none"><li>• Design 10 projects</li></ul>                                                                                                                                                                                                                                                                                 |
| <b>Technology Enhancements</b>                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"><li>• Replace 2,360 damaged street name signs at major intersections with illuminated signs</li><li>• 110 signal poles repainted at major intersections</li><li>• 7 left-turn arrows installed</li></ul>                                                                                                           |

| Planned for FY 2019 – 2022                                                                                                                                                                                                                                                                                                                                  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Overlays on streets</b>                                                                                                                                                                                                                                                                                                                                  |  |
| <ul style="list-style-type: none"> <li>• 59 miles of asphalt pavement on arterial/major collectors</li> <li>• 271 miles of other pavement treatments on arterial/major collectors</li> <li>• 277 miles of asphalt pavement on minor collectors/local streets</li> <li>• 742 miles of other pavement treatments on minor collectors/local streets</li> </ul> |  |
| <b>Bicycle lanes</b>                                                                                                                                                                                                                                                                                                                                        |  |
| <ul style="list-style-type: none"> <li>• 124 miles of bicycle lanes installed</li> </ul>                                                                                                                                                                                                                                                                    |  |
| <b>Street lights</b>                                                                                                                                                                                                                                                                                                                                        |  |
| <ul style="list-style-type: none"> <li>• 240 street lights installed</li> </ul>                                                                                                                                                                                                                                                                             |  |
| <b>Sidewalks</b>                                                                                                                                                                                                                                                                                                                                            |  |
| <ul style="list-style-type: none"> <li>• 16 miles of sidewalks installed</li> </ul>                                                                                                                                                                                                                                                                         |  |
| <b>New roads and upgraded bridges</b>                                                                                                                                                                                                                                                                                                                       |  |
| <ul style="list-style-type: none"> <li>• Develop 9 projects; construct 5 projects</li> </ul>                                                                                                                                                                                                                                                                |  |
| <b>Technology Enhancements</b>                                                                                                                                                                                                                                                                                                                              |  |
| <ul style="list-style-type: none"> <li>• 440 signal poles repainted at major intersections</li> <li>• 21 left-turn arrows installed</li> </ul>                                                                                                                                                                                                              |  |



Approximately \$1 billion of 35-year T2050 plan is allocated to the maintenance of 680 miles of asphalt pavement on major arterial streets enabling substantial enhancements to maintenance of all city streets.

Another component of the T2050 plan is prior to repaving streets, crews will repair damaged and degraded curb and gutter and sidewalks and ramps provide enhanced accessibility and mobility.



## New and Expanded Streets

Over 35 years, T2050 will provide an estimated \$240 million for major street improvement projects, such as new bridges and new roads, to help connect and complete the city’s roadway network and support future transit system expansion.



## Mobility Improvements

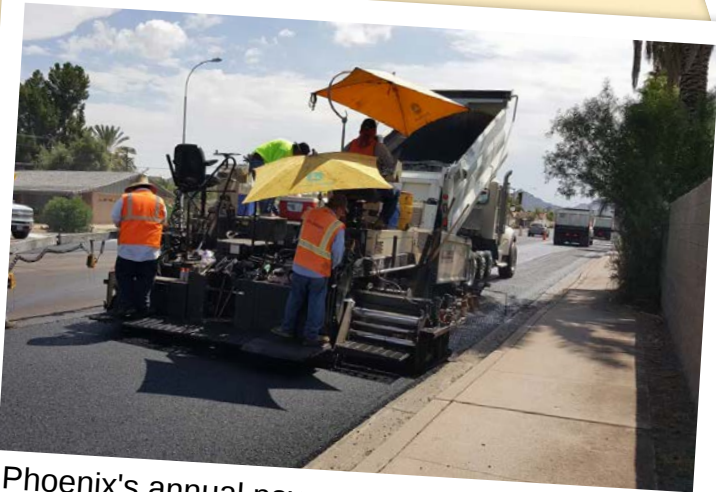
Due to the significant commitment for new bicycle and pedestrian facilities in the T2050 plan, a Mobility and Accessibility Improvements program was established to implement additional projects that increase ADA accessibility and mobility through new sidewalks, and multi-modal connectivity through new bicycle facilities.



## Intersection and Technology Enhancements

T2050 allows the city to make significant investments to improve signalized intersections by adding left-turn arrows, repainting traffic signal poles and replacing deteriorated intersection street name signs with retroreflective sign faces that include internal LED lighting.

This program will employ technology to improve traffic congestion and install signals, signage, detection equipment, and traffic management and monitoring systems.



Phoenix's annual pavement preservation program now includes an average of 300 street miles per year.



Since the inception of T2050, 79 miles of bicycle lanes have been installed.

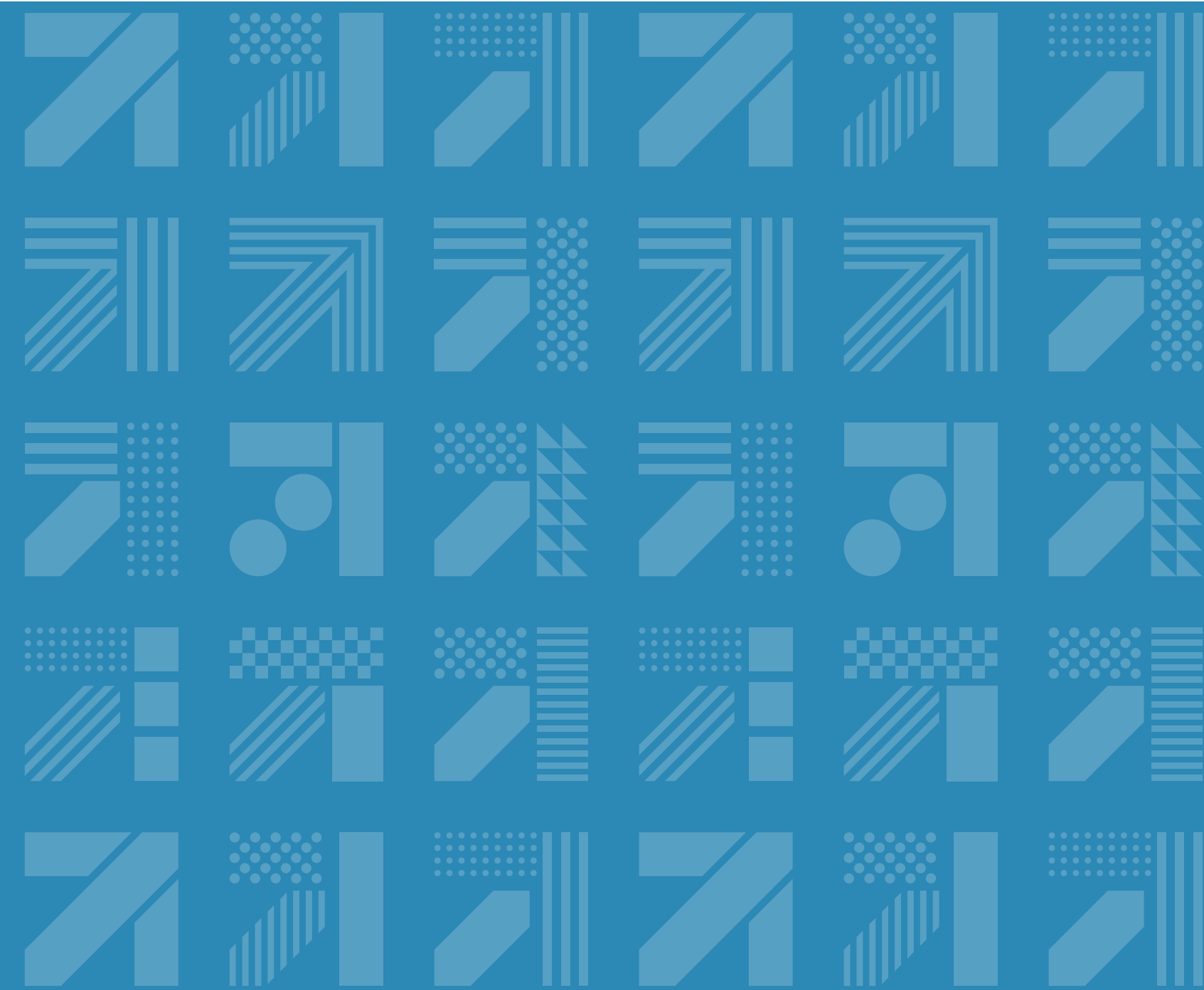


Prior to T2050, the annual pavement preservation program only included an average of 130 miles per year.

## APPENDIX

**“I’m a line cook. More bus services allows me to work a later or earlier shift at the restaurant.”**

*– Aldemar B.,  
Phoenix Resident*



# Lifecycle Programming Assumptions

As with any long-term plan, preparation of the financial model for the T2050 program required many assumptions for estimated costs, revenues, and timing of projects and new services. Key assumptions of the T2050 program include:

1. The implementation of projects and new services is projected to occur over the course of the 35-year plan as funding allows and service demand dictates.
2. Capital and operating costs are estimated to grow at average inflation rates of 3–4 percent annually over the life of the plan. These inflation rates are somewhat higher than the typical annual increases we have experienced in the large transit contracts, and provide for more conservative cost estimates.
3. T2050 sales tax revenues are estimated to grow at an average annual rate of 4.75 percent, slightly less than the 5.5 percent average annual growth rate in the Arizona Department of Transportation’s most recent forecast prepared in September 2016 for the Proposition 400 Maricopa County Transportation Excise Tax is assumed to provide a more conservative estimate.
4. The existing 0.5 percent Proposition 400 regional tax, currently in place through December 31, 2025 is assumed to be extended for at least 20 years.
5. Federal transit formula funds is assumed to continue through the life of the plan, with very modest increases over time, consistent with Maricopa Association of Government’s long-term Regional Transportation Plan.

6. The financial model includes an overall 30 percent funding level from discretionary federal Capital Investment Grants for light rail capital costs. Discretionary federal Capital Investment Grants are funding, on average, more than 40 percent of total project costs for current rail projects across the country, with 30 percent being the lowest federal funding level for any single project.
7. Transit fares are assumed to continue to be consistent with the regional fare policy goal of 25 percent recovery of direct transit operations costs.
8. As needed, some capital funding is assumed to be provided through financing, with the corresponding costs estimated using typical municipal bond offerings. Less expensive and more flexible types of financing will be explored to minimize financing costs.
9. Other revenues, such as transit advertising and interest earnings on fund balance, are forecasted using very small growth rates.
10. An operating reserve equivalent to 33 percent of annual public transit operating costs is assumed to be maintained throughout the life of the plan.

The following table includes the projected sales tax revenue for each year of the T2050 plan. Additionally, the table shows the anticipated allocation to the Public Transit and Streets Transportation departments.

Table 1 T2050 Sales Tax Projected Revenue Stream

| Fiscal Year | Overall T2050<br>(2015 Forecast) | Public Transit<br>(86.2%) | Street Transportation<br>(13.8%) |
|-------------|----------------------------------|---------------------------|----------------------------------|
| 2016        | \$89,125,000                     | \$76,826,000              | \$12,299,000                     |
| 2017        | \$204,006,000                    | \$175,853,000             | \$28,153,000                     |
| 2018        | \$213,696,000                    | \$184,206,000             | \$29,490,000                     |
| 2019        | \$224,401,000                    | \$193,434,000             | \$30,967,000                     |
| 2020        | \$235,642,000                    | \$203,123,000             | \$32,519,000                     |
| 2021        | \$246,835,000                    | \$212,772,000             | \$34,063,000                     |
| 2022        | \$258,559,000                    | \$222,878,000             | \$35,681,000                     |
| 2023        | \$270,841,000                    | \$233,465,000             | \$37,376,000                     |
| 2024        | \$283,706,000                    | \$244,555,000             | \$39,151,000                     |
| 2025        | \$297,182,000                    | \$256,171,000             | \$41,011,000                     |
| 2026        | \$311,298,000                    | \$268,339,000             | \$42,959,000                     |
| 2027        | \$326,085,000                    | \$281,085,000             | \$45,000,000                     |
| 2028        | \$341,574,000                    | \$294,437,000             | \$47,137,000                     |
| 2029        | \$357,799,000                    | \$308,423,000             | \$49,377,000                     |
| 2030        | \$374,794,000                    | \$323,072,000             | \$51,722,000                     |
| 2031        | \$392,597,000                    | \$338,419,000             | \$54,178,000                     |
| 2032        | \$411,245,000                    | \$354,493,000             | \$56,752,000                     |
| 2033        | \$430,779,000                    | \$371,331,000             | \$59,448,000                     |
| 2034        | \$451,241,000                    | \$388,970,000             | \$62,271,000                     |
| 2035        | \$472,675,000                    | \$407,446,000             | \$65,229,000                     |
| 2036        | \$495,127,000                    | \$426,799,000             | \$68,328,000                     |
| 2037        | \$518,646,000                    | \$447,073,000             | \$71,573,000                     |
| 2038        | \$543,281,000                    | \$468,308,000             | \$74,973,000                     |
| 2039        | \$569,087,000                    | \$490,553,000             | \$78,534,000                     |
| 2040        | \$596,119,000                    | \$513,855,000             | \$82,264,000                     |
| 2041        | \$624,435,000                    | \$538,263,000             | \$86,172,000                     |
| 2042        | \$654,095,000                    | \$563,830,000             | \$90,265,000                     |
| 2043        | \$685,165,000                    | \$590,612,000             | \$94,553,000                     |
| 2044        | \$717,710,000                    | \$618,666,000             | \$99,044,000                     |
| 2045        | \$751,801,000                    | \$648,052,000             | \$103,749,000                    |
| 2046        | \$787,512,000                    | \$678,835,000             | \$108,677,000                    |
| 2047        | \$824,919,000                    | \$711,080,000             | \$113,839,000                    |
| 2048        | \$864,102,000                    | \$744,856,000             | \$119,246,000                    |
| 2049        | \$905,147,000                    | \$780,237,000             | \$124,910,000                    |
| 2050        | \$948,142,000                    | \$817,299,000             | \$130,844,000                    |
| Total       | \$16,679,368,000                 | \$14,377,615,000          | \$2,301,753,000                  |

Table 2 includes the budgeted and actual revenue and expenditures during the first six months ofT2050 (Jan. 1, 2016 – June 30, 2016). Footnotes are as follows:

1.
- Original projection included one less month than was actually collected
2.
- Ridership decrease and lower average fare
3.
- Dial-a-Ride fare revenues greater than budget due to greater than projected ridership
4.
- Decrease due to capital projects delayed
5.
- Decrease due to capital projects delayed
6.
- Increase due to interest on fund balance and early repayment from AHUR
7.
- Dial-a-Ride operations costs less than budget due to lower than budgeted service hours operated and lower fuel cost
8.
- Laveen park-and-ride delayed
9.
- South Transit Facility change orders not completed by end of fiscal year
10.
- Computer Aided Dispatch/Automated Vehicle Locating System delayed
11.
- Unused contingency budget
12.
- Budget not originally programmed for FY 2016
13.
- Right-of-way and signal equipment under budget

Table 2 Financial Overview (Jan. 1, 2016 – June 30, 2016)

|                                                         | Budget        | Actuals       | Amount Over/<br>(Under Budget) | Percent Over/Under<br>Budget | Footnotes |
|---------------------------------------------------------|---------------|---------------|--------------------------------|------------------------------|-----------|
| Source of Funds                                         |               |               |                                |                              |           |
| Dedicated Sales Tax - T2050                             | \$89,125,000  | \$98,593,000  | \$9,468,000                    | 10.6%                        | 1         |
| Dedicated Sales Tax - T2000<br>(remaining fund balance) | 101,030,470   | 94,573,973    | (6,456,497)                    | -6.4%                        |           |
| Local Transportation Assistance                         | 2,150,000     | 2,178,039     | 28,039                         | 1.3%                         |           |
| Bus Fare Revenue                                        | 16,721,277    | 14,705,595    | (2,015,682)                    | -12.1%                       | 2         |
| Dial-a-Ride Fare Revenue                                | 455,228       | 530,223       | 74,995                         | 16.5%                        | 3         |
| Rail Fare Revenue                                       | 3,926,823     | 4,192,590     | 265,767                        | 6.8%                         |           |
| Federal Transit Funds                                   | 40,196,828    | 26,822,204    | (13,374,624)                   | -33.3%                       | 4         |
| Regional Transportation Tax                             | 50,045,567    | 14,092,006    | (35,953,561)                   | -71.8%                       | 5         |
| Other Revenue                                           | 5,516,320     | 6,846,947     | 1,330,627                      | 24.1%                        | 6         |
| Fund Balance                                            | (122,381,823) | (104,646,647) | 17,735,175                     | -14.5%                       |           |
| Total Revenues                                          | \$186,785,690 | \$157,887,930 | \$(28,897,760)                 | -15.5%                       |           |
| Use of Funds                                            |               |               |                                |                              |           |
| Transit Operations                                      |               |               |                                |                              |           |
| Local Fixed Route Bus                                   | \$57,146,464  | \$53,627,770  | \$(3,518,694)                  | -6.2%                        |           |
| RAPID Commuter Bus                                      | 2,331,270     | 2,187,726     | (143,544)                      | -6.2%                        |           |
| Neighborhood Circulator                                 | 1,461,087     | 1,371,123     | (89,964)                       | -6.2%                        |           |
| Dial-a-Ride Operations                                  | 9,011,851     | 8,095,127     | (916,724)                      | -10.2%                       | 7         |
| Light Rail Operations                                   | 12,980,566    | 11,736,769    | (1,243,797)                    | -9.6%                        |           |
| Bus Rapid Transit                                       | -             | -             | -                              | NA                           |           |
| Security                                                | 3,954,202     | 3,604,073     | (350,129)                      | -8.9%                        |           |
| Administration & Support                                | 10,203,928    | 9,593,634     | (610,294)                      | -6.0%                        |           |
| Total Operations                                        | \$97,089,368  | \$90,216,222  | \$(6,873,146)                  | -7.1%                        |           |
| Debt Service                                            | \$25,034,500  | \$25,012,974  | \$(21,526)                     | -0.1%                        |           |
| Capital Projects                                        |               |               |                                |                              |           |
| Bus and Dial-a-Ride Vehicles                            | \$24,248,952  | \$23,132,926  | \$(1,116,026)                  | -4.6%                        |           |
| Bus Passenger Facilities                                | 3,928,024     | 895,544       | (3,032,480)                    | -77.2%                       | 8         |
| Bus O & M Facilities                                    | 1,700,000     | 691,208       | (1,008,792)                    | -59.3%                       | 9         |
| Bus and DAR Technology                                  | 14,185,076    | 890,461       | (13,294,615)                   | -93.7%                       | 10        |
| Other Bus Capital                                       | 2,214,714     | 401,170       | (1,813,544)                    | -81.9%                       | 11        |
| South Central Light Rail Transit                        | -             | 2,352,316     | 2,352,316                      | NA                           | 12        |
| Northwest Phase I Light Rail Transit                    | 5,318,200     | 2,437,771     | (2,880,429)                    | -54.2%                       | 13        |
| Northwest Phase II Light Rail Transit                   | -             | -             | -                              | 0.0%                         |           |
| Capitol/I-10 West Phase I Light Rail<br>Transit         | 16,858        | 11,578        | (5,280)                        | 0.0%                         |           |
| Northeast Light Rail Transit                            | -             | 7,114         | 7,114                          | NA                           |           |
| West Phoenix/Central Glendale Light<br>Rail Transit     | -             | 7,114         | 7,114                          | NA                           |           |
| 50th Street Light Rail Transit Station                  | -             | 83,672        | 83,672                         | NA                           |           |
| Bus Rapid Transit                                       | -             | -             | -                              | NA                           |           |
| Streets-Other                                           | 500,000       | 500,000       | -                              | 0.0%                         |           |
| Streets-Pavement Maintenance                            | 11,050,000    | 10,812,188    | (237,812)                      | -2.2%                        |           |
| Streets-New & Expanded Streets                          | 1,500,000     | 435,675       | (1,064,325)                    | -71.0%                       |           |
| Streets-Mobility & Accessibility                        | -             | -             | -                              | NA                           |           |
| Streets-Technology Enhancements                         | -             | -             | -                              | NA                           |           |
| Total Capital Projects                                  | \$64,661,824  | \$42,658,737  | \$(22,003,087)                 | -34.0%                       |           |
| Total Expenditures                                      | \$186,785,692 | \$157,887,933 | \$(28,897,759)                 | -15.5%                       |           |

Table 3 includes the budgeted and actual revenue and expenditures during FY 2016-17 July 1, 2016 – June 30, 2017). Footnotes are as follows:

1.
- Ridership decrease
2.
- Regional Dial-a-Ride trips revenue moved to Valley Metro
3.
- Lower average fare
4.
- Decrease due to capital projects delayed
5.
- Decrease due to capital projects delayed
6.
- Increase due to interest from Northwest Extension Phase I repayment from Valley Metro
7.
- Budgeted for full year service increase, only partial year implemented
8.
- Savings due to position vacancies
9.
- Federal funds over programmed in the budget
10.
- Laveen PNR delayed, bus stop improvements delayed due to extended contract procurement
11.
- South Transit Facility change orders completed in FY 2016-17, originally budgeted
12.
- Unused contingency budget
13.
- Project accelerated
14.
- Right-of-way and signal equipment under budget
15.
- Project accelerated
16.
- Less costs than anticipated on this project
17.
- Not originally budgeted for FY 2017
18.
- Not originally budgeted for FY 2017

Table 3 Financial Overview (FY 2016-17)

|                                                         | Budget        | Actuals       | Amount Over/<br>(Under Budget) | Percent Over/<br>Under Budget | Footnotes |
|---------------------------------------------------------|---------------|---------------|--------------------------------|-------------------------------|-----------|
| Source of Funds                                         |               |               |                                |                               |           |
| Dedicated Sales Tax - T2050                             | \$204,006,000 | \$202,842,480 | \$(1,163,520)                  | -0.6%                         |           |
| Dedicated Sales Tax - T2000<br>(remaining fund balance) | 164,598,305   | 175,622,738   | 11,024,433                     | 6.7%                          |           |
| Local Transportation Assistance                         | 4,300,000     | 4,241,846     | (58,154)                       | -1.4%                         |           |
| Bus Fare Revenue                                        | 34,199,809    | 28,384,294    | (5,815,515)                    | -17.0%                        | 1         |
| Dial-a-Ride Fare Revenue                                | 1,101,674     | 833,253       | (268,421)                      | -24.4%                        | 2         |
| Rail Fare Revenue                                       | 11,600,000    | 8,658,840     | (2,941,160)                    | -25.4%                        | 3         |
| Federal Transit Funds                                   | 97,728,763    | 67,285,811    | (30,442,952)                   | -31.2%                        | 4         |
| Regional Transportation Tax                             | 46,271,796    | 29,383,474    | (16,888,322)                   | -36.5%                        | 5         |
| Other Revenue                                           | 10,651,870    | 14,747,821    | 4,095,951                      | 38.5%                         | 6         |
| Fund Balance                                            | (108,053,906) | (150,111,015) | (42,057,109)                   | 38.9%                         |           |
| Total Revenues                                          | \$466,404,311 | \$381,889,542 | \$(84,514,769)                 | -18.1%                        |           |
| Use of Funds                                            |               |               |                                |                               |           |
| Transit Operations                                      |               |               |                                |                               |           |
| Local Fixed Route Bus                                   | \$132,371,921 | \$114,543,235 | \$(17,828,686)                 | -13.5%                        | 7         |
| RAPID Commuter Bus                                      | 4,696,045     | 4,063,552     | (632,493)                      | -13.5%                        |           |
| Neighborhood Circulator                                 | 3,616,991     | 3,129,832     | (487,159)                      | -13.5%                        |           |
| Dial-a-Ride Operations                                  | 19,024,778    | 17,457,789    | (1,566,989)                    | -8.2%                         |           |
| Light Rail Operations                                   | 31,211,449    | 28,825,925    | (2,385,524)                    | -7.6%                         |           |
| Bus Rapid Transit                                       | -             | -             | -                              | NA                            |           |
| Security                                                | 8,581,040     | 8,621,369     | 40,329                         | 0.5%                          |           |
| Administration & Support                                | 21,285,003    | 18,494,037    | (2,790,966)                    | -13.1%                        | 8         |
| Total Operations                                        | \$220,787,227 | \$195,135,739 | \$(25,651,488)                 | -11.6%                        |           |
| Debt Service                                            |               |               |                                |                               |           |
| Debt Service                                            | \$61,050,000  | \$61,007,398  | \$(42,602)                     | -0.1%                         |           |
| Capital Projects                                        |               |               |                                |                               |           |
| Bus and Dial-a-Ride Vehicles                            | \$76,756,366  | \$49,311,935  | \$(27,444,431)                 | -35.8%                        | 9         |
| Bus Passenger Facilities                                | 9,504,442     | 879,874       | (8,624,568)                    | -90.7%                        | 10        |
| Bus O & M Facilities                                    | 3,058,648     | 4,741,592     | 1,682,944                      | 55.0%                         | 11        |
| Bus and DAR Technology                                  | 27,365,053    | 26,199,341    | (1,165,712)                    | -4.3%                         |           |
| Other Bus Capital                                       | 12,804,216    | 5,613,379     | (7,190,837)                    | -56.2%                        | 12        |
| South Central Light Rail Transit                        | 149,358       | 282,522       | 133,164                        | 89.2%                         | 13        |
| Northwest Phase I Light Rail Transit                    | 4,474,000     | 239,490       | (4,234,510)                    | -94.6%                        | 14        |
| Northwest Phase II Light Rail Transit                   | 25,000        | 87,007        | 62,007                         | 248.0%                        | 15        |
| Capitol/I-10 West Phase I Light Rail<br>Transit         | 25,000        | 19,348        | (5,652)                        | -22.6%                        | 16        |
| Northeast Light Rail Transit                            | 15,000        | 400,000       | 385,000                        | 2566.7%                       | 17        |
| West Phoenix/Central Glendale<br>Light Rail Transit     | -             | 35,382        | 35,382                         | NA                            | 18        |
| 50th Street Light Rail Transit Station                  | 22,190,000    | 20,249,325    | (1,940,675)                    | -8.7%                         |           |
| Bus Rapid Transit                                       | -             | -             | -                              | NA                            |           |
| Streets-Other                                           | 500,000       | 446,389       | (53,611)                       | -10.7%                        |           |
| Streets-Pavement Maintenance                            | 14,100,000    | 13,828,029    | (271,971)                      | -1.9%                         |           |
| Streets-New & Expanded Streets                          | 6,260,000     | 553,014       | (5,706,986)                    | -91.2%                        |           |
| Streets-Mobility & Accessibility                        | 4,230,000     | 37,436        | (4,192,564)                    | -99.1%                        |           |
| Streets-Technology Enhancements                         | 3,110,000     | 2,822,341     | (287,659)                      | -9.2%                         |           |
| Total Capital Projects                                  | \$184,567,083 | \$125,746,404 | \$(58,820,679)                 | -31.9%                        |           |
| Total Expenditures                                      |               |               |                                |                               |           |
| Total Expenditures                                      | \$466,404,310 | \$381,889,541 | \$(84,514,769)                 | -18.1%                        |           |

The table below includes the projected distribution of funds collected over the next five years. The table does not include actual collections. Please note: Bus Rapid Transit (BRT) capital and operations expenditures are planned to be incurred during this five-year plan; however, the amounts have not yet been programmed, pending the results of the BRT study to begin in FY 2017-18.

Table 4 Five-Year Implementation Plan (FY 2018–2022)

|                                              | FY 2018       | FY 2019       | FY 2020       | FY 2021       | FY 2022       |
|----------------------------------------------|---------------|---------------|---------------|---------------|---------------|
| Source of Funds                              |               |               |               |               |               |
| Dedicated Sales Tax - T2050                  | \$210,700,000 | \$221,264,000 | \$232,607,000 | \$243,535,000 | \$255,189,000 |
| Local Transportation Assistance              | 4,300,000     | 4,300,000     | 4,300,000     | 4,300,000     | 4,300,000     |
| Bus Fare Revenue                             | 29,504,045    | 32,366,000    | 33,337,000    | 35,604,000    | 38,808,000    |
| DAR Fare Revenue                             | 1,082,793     | 1,188,000     | 1,224,000     | 1,307,000     | 1,425,000     |
| Rail Fare Revenue                            | 9,362,027     | 9,717,000     | 9,905,000     | 10,096,000    | 10,292,000    |
| Federal Transit Funds                        | 57,536,671    | 33,069,000    | 34,505,000    | 51,529,000    | 34,374,000    |
| Regional Transportation Tax                  | 28,334,124    | 23,706,000    | 24,662,000    | 30,002,000    | 25,798,000    |
| Other Revenue                                | 9,582,590     | 10,062,000    | 9,257,000     | 8,794,000     | 8,706,000     |
| Fund Balance                                 | 60,047,766    | 53,548,978    | 17,637,810    | (47,728,545)  | (55,055,642)  |
| Total Revenues                               | \$410,450,016 | \$389,220,978 | \$367,434,810 | \$337,438,455 | \$323,836,358 |
| Use of Funds                                 |               |               |               |               |               |
| Transit Operations                           |               |               |               |               |               |
| Local Fixed Route Bus                        | \$121,943,679 | \$125,602,000 | \$129,370,000 | \$135,669,000 | \$139,739,000 |
| RAPID Commuter Bus                           | 4,670,183     | 4,810,000     | 4,954,000     | 5,103,000     | 5,256,000     |
| Neighborhood Circulator                      | 3,113,456     | 3,207,000     | 3,303,000     | 7,957,000     | 8,196,000     |
| DAR Operations                               | 19,610,000    | 20,198,000    | 20,804,000    | 21,428,000    | 22,071,000    |
| Light Rail Operations                        | 32,160,500    | 33,125,000    | 34,119,000    | 35,143,000    | 36,197,000    |
| Security                                     | 9,495,000     | 9,780,000     | 10,073,000    | 10,375,000    | 10,686,000    |
| Administration & Support                     | 23,263,700    | 23,962,000    | 24,681,000    | 25,421,000    | 26,184,000    |
| Total Operations                             | \$214,256,518 | \$220,684,000 | \$227,304,000 | \$241,096,000 | \$248,329,000 |
| Debt Service                                 |               |               |               |               |               |
|                                              | \$64,050,000  | \$67,246,000  | \$70,608,000  | \$74,000      | \$-           |
| Capital Projects                             |               |               |               |               |               |
| Bus and DAR Vehicles                         | \$36,798,396  | \$31,240,000  | \$27,376,000  | \$25,475,000  | \$33,410,000  |
| Bus Passenger Facilities                     | 11,587,885    | 3,421,978     | 3,435,000     | 3,463,000     | 3,492,400     |
| Bus O & M Facilities                         | 1,620,378     | 1,070,000     | 430,000       | 400,000       | 415,000       |
| Bus and DAR Technology                       | 13,466,790    | 1,840,000     | 140,000       | 30,390,000    | 340,000       |
| Other Bus Capital                            | 11,692,049    | 3,129,000     | 2,101,810     | 2,120,455     | 2,149,958     |
| South Central Light Rail Transit             | 16,410,000    | 29,290,000    | 3,040,000     | 250,000       | 500,000       |
| Northwest Phase II Light Rail Transit        | 150,000       | 200,000       | 200,000       | 250,000       | 250,000       |
| Capitol/I-10 West Phase I Light Rail Transit | 50,000        | 100,000       | 200,000       | 200,000       | 250,000       |
| Northeast Light Rail Transit                 | 200,000       | -             | -             | -             | -             |
| Streets-Other                                | 660,000       | -             | -             | -             | -             |
| Streets-Pavement Maintenance                 | 14,810,000    | 15,500,000    | 16,300,000    | 17,100,000    | 17,350,000    |
| Streets-New & Expanded Streets               | 12,799,000    | 9,300,000     | 9,780,000     | 9,780,000     | 10,410,000    |
| Streets-Mobility & Accessibility             | 8,570,000     | 4,650,000     | 4,890,000     | 5,130,000     | 5,205,000     |
| Streets-Technology Enhancements              | 3,329,000     | 1,550,000     | 1,630,000     | 1,710,000     | 1,735,000     |
| Total Capital Projects                       | \$132,143,498 | \$101,290,978 | \$69,522,810  | \$96,268,455  | \$75,507,358  |
| Total Expenditures                           | \$410,450,016 | \$389,220,978 | \$367,434,810 | \$337,438,455 | \$323,836,358 |
| Fund Balance                                 |               |               |               |               |               |
| - Public Transit                             | \$182,490,234 | \$128,941,256 | \$111,303,446 | \$159,031,991 | \$214,087,633 |
| - Streets                                    | 1,891,344     | 2,161,344     | 2,161,344     | 2,161,344     | 2,161,344     |
| Total Fund Balance *                         | \$184,381,578 | \$131,102,600 | \$113,464,790 | \$161,193,335 | \$216,248,977 |

## Terminology and Other Methodological Factors

- Accounting Objectives** – This report is intended to identify overall progress and projected future trends in the T2050 plan, not to provide detailed financial documentation. A detailed accounting, following generally accepted accounting principles, is provided in the city's comprehensive annual financial reports for fiscal years 2015-16 and 2016-17. Past expenditures, future costs and revenue collections are included as an aid to assess the plan's plan progress and outlook. These figures should not be interpreted as an official, year-by-year financial accounting record.
- Data Consistency** – In preparing this report, every effort is made to use data that is consistent with other documents publishing similar data. However, because these reports are issued at different times and serve different purposes, each report may not contain the same set of data presented as other reports. Therefore, minor differences in the data may be present.
- Nominal vs. Real Dollars** – Revenue and expenditure projections are expressed in “year of expenditure” (YOE) dollars, which reflect the actual number of dollars collected/expended in a given year (nominal dollars). Therefore, there is no correction or discounting for inflation, this is accounted for separately when comparing project costs and revenues.
- Public Transit Expenditure Reporting** – The T2050 program includes all city of Phoenix public transit capital and operating expenses. Accordingly, all public transit capital and operating expenditures are reported. These expenditures reflect total costs and include all funding sources to offset those costs, including T2050 sales tax, federal and regional public transit funds, farebox revenues and other public transit revenue sources.
- Streets Expenditure Reporting** – The T2050 plan includes only a small portion of the city's overall street transportation activities, so only T2050 funded street improvement expenditures are reported. Expenditures funded by other resources such as the Arizona Highway Users Revenue Fund (AHUR), the Capital Construction Fund (CCF), and other street transportation revenue sources are not in the report.

