

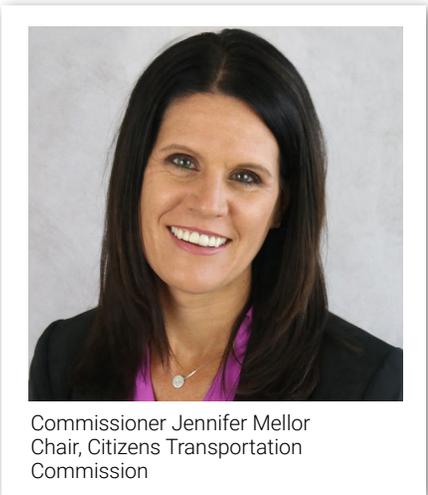
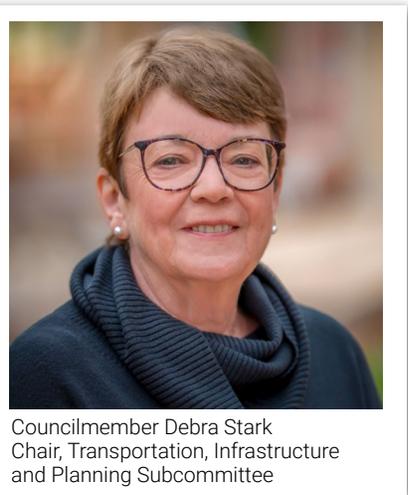
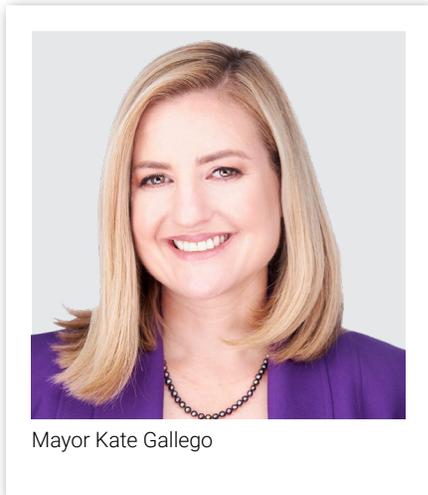
2022

ANNUAL PROGRESS REPORT

FISCAL YEAR 2022

JULY 1, 2021 THROUGH JUNE 30, 2022

A MESSAGE FROM LEADERSHIP



“Transportation 2050 is an unprecedented investment in our community, our economy, and our future,” said Mayor Kate Gallego. “Our voters made one of the largest investments in transit and transportation infrastructure of its kind in the country, and now we are seeing those investments starting to pay off. More Phoenix residents are finding that mass transit is the way to go, especially as gas prices remain higher. T2050 is expanding our transportation service, helping us prepare for the future, and positioning Phoenix for decades of economic growth.”

“When voters approved T2050, they approved expanded investment in Phoenix’s infrastructure for the next 35 years,” said Councilmember Stark. “Street improvements, expanded bus service, improved Dial-a-Ride and light rail expansion are all priorities in the plan that residents overwhelmingly supported. As we continue to improve transportation in Phoenix, our residents, and everyone who visits our city, will benefit from the vision our voters had when they approved this plan.”

“The T2050 plan continues to improve transportation in Phoenix with an expanding transit system and new paving projects on our city’s busiest arterial streets. The future is bright for transportation in Phoenix with new light rail projects underway, new asphalt smoothing the ride on even busier city streets, and our bus system providing multiple alternatives for residents looking for greener, more affordable ways to get to and from home, work, entertainment, and the community.”

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- 2.0 Bus and Dial-a-Ride
- 3.0 High Capacity Transit
- 4.0 Street Maintenance and Improvements
- 5.0 Appendix

Annual Progress Report – Fiscal Year 2022
Interactive features may be found throughout the document in orange.

The background is a vibrant teal color with a complex, repeating pattern of geometric shapes. These shapes include various polygons like squares, rectangles, and hexagons, as well as circles and lines. Some elements are solid, while others are composed of dots or multiple parallel lines, creating a sense of depth and movement. The overall aesthetic is modern and technical.

1.0

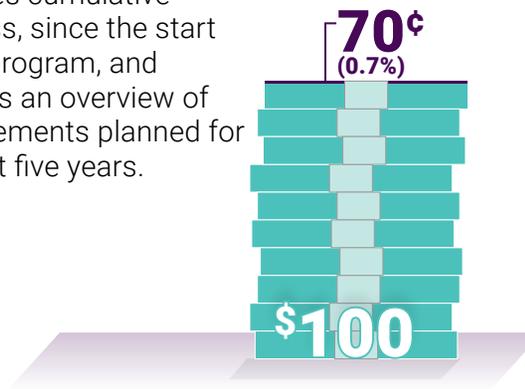


Program Overview



Transportation 2050 (T2050) is Phoenix's 35-year plan dedicated to improving multiple modes of transportation in Phoenix, including bus, light rail, Dial-a-Ride (DAR), streets, bikes lanes, and active transportation. Phoenix voters made T2050 possible when they approved [Proposition 104](#) on August 25, 2015. The measure, which replaced the previous 0.4% sales tax with a 0.7% sales tax, became effective Jan. 1, 2016, and allocates 70 cents of each \$100 spent to the city's transportation needs. Approximately 86% of funds support public transit and 14% supplement street maintenance and improvement funds.

T2050 revenues supplement other sources of transportation funding, allowing the city to accomplish more. This report summarizes T2050 accomplishments for July 1, 2021, to June 30, 2022 (FY 2022). In addition, the report identifies cumulative progress, since the start of the program, and provides an overview of improvements planned for the next five years.



T2050 is dedicated to improving multiple modes of transportation in Phoenix, including bus, light rail, Dial-a-Ride (DAR), streets, bikes lanes, and active transportation.

Lifecycle Revenues

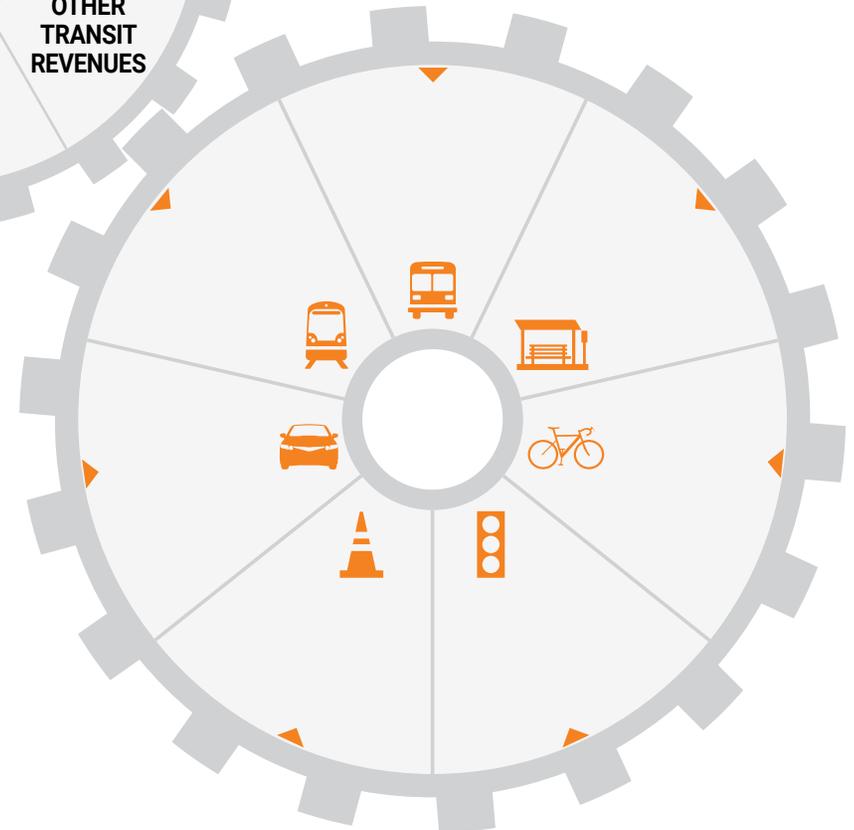
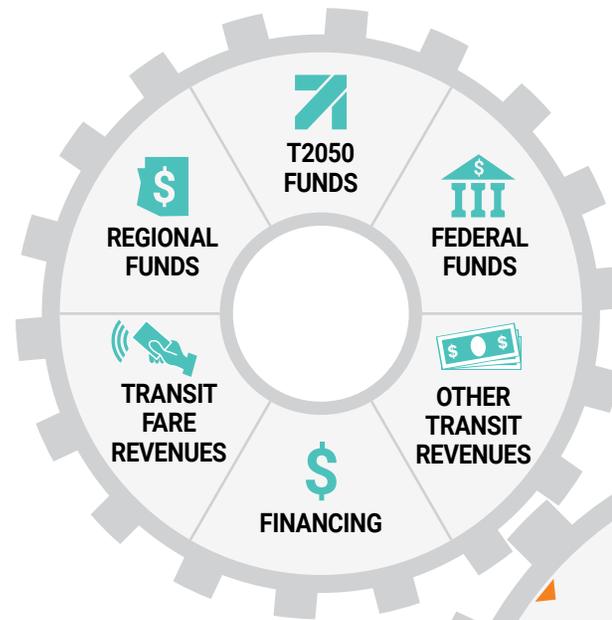
Over the course of 35 years, Phoenix expects sales tax revenue to generate more than half of the estimated \$31.5 billion in overall T2050 funding. The remaining funds will be provided by federal, state, regional and local funding sources.

shows funding sources as established at the start of the program.

In addition to these funds, Public Transit and Street Transportation Department staff will pursue any opportunities to reduce costs through innovation and efficient project delivery methods.

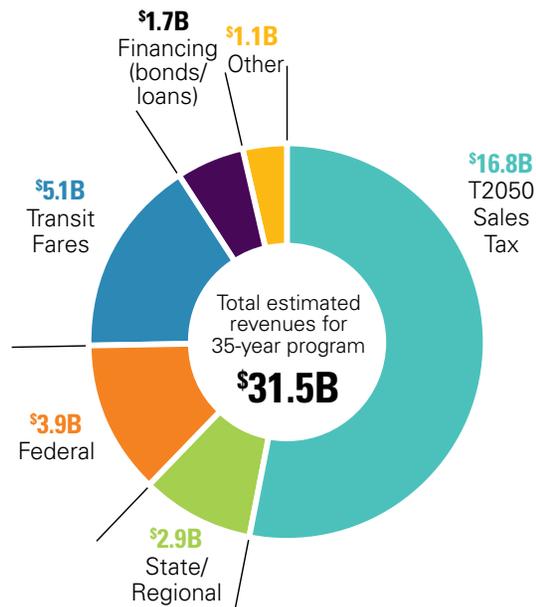
More information on program assumptions can be found in the appendix, with projected and actual sales tax revenue shown in [Table A.1](#). For additional information on regional and federal funding, visit phoenix.gov/T2050/Funding.

T2050 FUNDING



T2050 PROGRAM AREAS

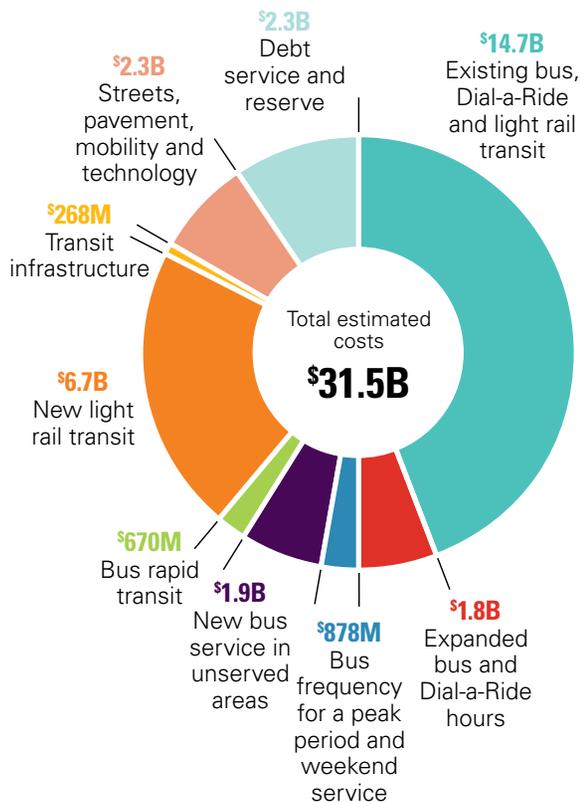
Figure 1.1 Sources of Funds



Lifecycle Expenditures

At times, revenue projections for T2050 will exceed projected expenditures for a given year. This helps to ensure that the plan has available funds in future years for large capital projects such as light rail construction, park-and-ride facilities, and to ensure a fund balance is maintained whenever possible during the life of the plan. shows planned uses of funds as established at the launch of the program.

Figure 1.2 Planned Uses of Funds



As COVID-19 cases are declining ridership is slowly returning to pre-pandemic levels.

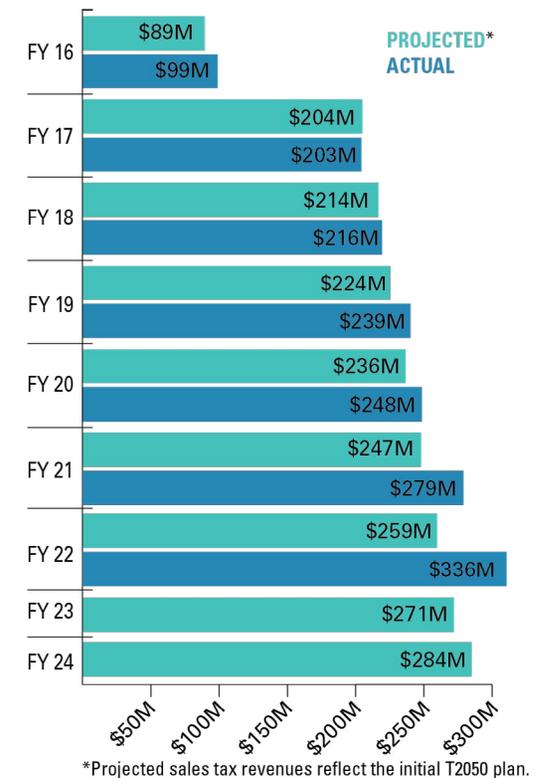
Impact of COVID-19

The COVID-19 virus resulted in a global pandemic beginning in 2020 and significantly shifted consumer demands. Ridership numbers steeply declined because social distancing requirements changed travel patterns and work practices in various industries continue to evolve. Ridership has been progressively increasing since the initial decline. However, it still remains below pre-pandemic levels. This report notes the effects of changes due to the pandemic within each program area.

FY 2022 Financial Summary and Projection

The total operating and capital budgets for FY 2022 are \$865,738,551. Table A.2 in the appendix details budgeted and actual revenues and expenditures. provides projected and actual sales tax revenue, as well as short-term projected revenue figures. Table A.3 in the appendix outlines the FY 2023–2027 five-year financial plan.

Figure 1.3 T2050 Sales Tax Revenue Summary



Public Outreach

To understand residents' transportation needs, staff regularly engages with the public at open houses and public meetings. They also attend community events, providing information and gathering input on a variety of topics, including increasing transit access; planning bus routes and extensions, future light rail station locations, potential bus rapid transit routes; building and improving roads; and creating and improving bike lanes.

Due to the pandemic, staff members utilized a mixture of in-person and virtual meeting platforms to conduct outreach and receive community input throughout the year. Staff members hosted virtual public meetings, accessible by phone or computer. Virtual meetings included presentations, a variety of speakers, and public question-and-answer segments. As COVID rates continue to decline across the Greater Phoenix area, in-person public meetings will once again be a consideration.

Formal Oversight

The Citizens Transportation Commission (CTC) was established in 2015 by the mayor and Phoenix City Council to provide oversight of the T2050 program. The Phoenix City Council appoints a total of 15 commission members to address street and transit needs, provide oversight on the expenditure of funds, and make recommendations on plan elements.



Transportation, Infrastructure and Planning Subcommittee Members: (top row, left–right): Councilmember Debra Stark, Chair; Vice Mayor Laura Pastor; (second row, left–right): Councilmember Betty Guardado; Councilmember Ann O'Brien.

CTC members represent various facets of the community. As of June 30, 2022, CTC members include:

- Chair Jennifer Mellor
- Vice Chair Rick Naimark
- Jess Bristow
- Carolyn Chatman
- Michael Infanzon
- Gail Knight
- Gabriel Loyola
- David Martin
- Christina Panaitescu
- David Moody
- Brookelynn Nisenbaum
- Phil Pangrazio
- Joan Berry
- Shannon McBride
- (Vacant Position)

The Phoenix City Council's Transportation, Infrastructure and Planning subcommittee provides policy guidance on issues related to infrastructure, transportation, transit, streets, aviation/airport, water, technology, smart cities, innovation, and sustainability. The Phoenix City Council provides additional oversight, and its meetings also provide opportunities for the public to offer input on the program.

35-Year Goals Established at the Onset of T2050

The voter-approved 35-year sales tax became effective on January 1, 2016. The following dashboard provides an overview of T2050 progress. City leaders established these goals based on the [Proposition 104](#) ballot language, with the expectation that goals may evolve as the program progresses. Use the interactive links included throughout this report to access additional information.

T2050
Goals
Dashboard
on next
page

This dashboard represents progress from Jan. 1, 2016, through June 30, 2022.

**EXPECTED PROGRESS
AT 6.5 YEARS**

T2050 GOALS ESTABLISHED AT PROGRAM ONSET

35 YEARS	CONTINUE local bus, RAPID commuter bus, neighborhood circulator and Dial-a-Ride service FOR 35 YEARS	
15 MIN	PROVIDE 15-MINUTE FREQUENCY on half of all bus routes	
	EXTEND & ADD new RAPID service	
	PURCHASE NEW buses and Dial-a-Ride vehicles	
	EXTEND bus and Dial-a-Ride service hours TO MATCH LIGHT RAIL HOURS	
	EXTEND & ADD BUS SERVICE to unserved major streets	
	ADD NEW circulator service	
	BUILD NEW park-and-ride lots	
	BUILD additional bus bays	
	CONTINUE 17 MILES of light rail service	
	PROVIDE 75 MILES of new bus rapid transit service	
	ADD 42 MILES of new light rail in Phoenix	
	BUILD NEW light rail station at 50th Street (completed April 25, 2019, and operational since then)	
	680 MILES of new overlays on arterial/major streets	
	2,000 new streetlights	
	\$240 MILLION for new roads and upgraded bridges	
	1,080 MILES of new bike lanes	
	135 MILES of new sidewalks	
	ENHANCE technology	

Below expected target Approaching expected target At or above expected target

All goals expected to be at or above the progress target at 6.5 years.

2.0



Bus and Dial-a-Ride

BUS AND DIAL-A-RIDE

CUMULATIVE PROGRESS JAN. 1, 2016–JUNE 30, 2022

EXTENDED SERVICE HOURS

for bus and Dial-a-Ride to **MATCH LIGHT RAIL HOURS (FY 2017)**



INCREASED FREQUENCY*

off-peak to **15 MIN** on five routes:



41

Indian School Road
(FY 2019)

Weekday service levels on five holidays reinstated
(previously on a Sunday schedule)

19

19th Avenue
(FY 2018)

RAPID service
frequency increases

3

Van Buren Street
(FY 2018)

50

Camelback Road
(FY 2018)

Weekdays and weekends
to 30 MIN or better

29

Thomas Road
(FY 2018)

EXTENDED BUS ROUTES

MARY **MARY Neighborhood Circulator** Extended on 59th Avenue to service neighborhoods near Sunridge Park. (FY 2022)

51 **51st Avenue** Lower Buckeye Road to Baseline Road (FY 2017)

60 **16th Street** Bethany Home Road & 16th Street to Camelback Road & 24th Street (FY 2018)

19 **23rd Avenue** Happy Valley Road to Pinnacle Peak Road (FY 2018)

39 **Shea Boulevard** (Dreamy Draw) Park-and-Ride to 40th Street (FY 2017)

122 **Cactus Road** ASU West Campus to 19th Avenue/Dunlap Avenue Light Rail (FY 2017)

ORDERED



443

Local Buses



44

Rapid Buses



147

Dial-a-Ride Vehicles



9

Circulator Buses



INSTALLED



7

Bus Bays



52

Bus Stops



445

Bus Shelter Shade Structures

ADDED BUS ROUTES

32 **32nd Street** Camelback Road to Baseline Road & Priest Drive (FY 2017)

140 **Ray Road** 48th Street to Gilbert Road (FY 2018)

** On May 4, 2020, service was temporarily reduced due to the COVID-19 pandemic and its impact on transit demand.*

BUS AND DIAL-A-RIDE

CUMULATIVE PROGRESS JAN. 1, 2016–JUNE 30, 2022

OTHER IMPROVEMENTS COMPLETED

\$431 MILLION RECEIVED
in Federal Transit Administration (FTA) formula grants for Phoenix transit (6.5-year total)

\$22 MILLION RECEIVED in competitive grant funding to purchase buses (6.5-year total)

 **LIQUEFIED NATURAL GAS**
contract saves \$2 million in fuel costs each year (FY 2018)

 **WEST TRANSIT FACILITY**
awarded contract (FY 2019)

 **NORTH AND SOUTH FACILITIES**
awarded contract (FY 2020)

 **ALTERNATIVE TRANSPORTATION SERVICES**
technology enhancements include: ADA Ride, Senior Ride and Senior Center Shuttle, Employment Transportation and Medical Trip (FY 2019)

 **PTD IT** is working on passenger notifications for passengers who use DAR (FY 2022)

 **TRIPSPARK**
customer web portal for Dial-a-Ride reservations (FY 2018)

 **SECURITY**
K-9 Security Unit Grant (FY 2017)

 **REGIONAL DIAL-A-RIDE IMPLEMENTED**
eliminating transfers (FY 2017)

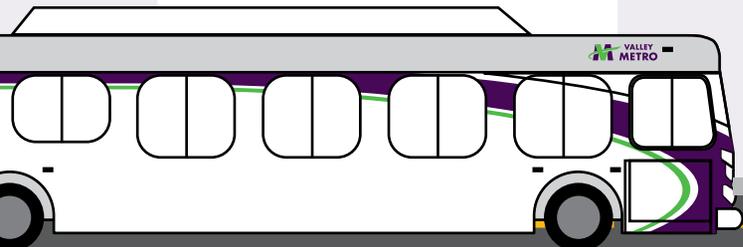
 **SOUTH TRANSIT FACILITY**
refurbished (FY 2019)

 **COMPUTER-AIDED DISPATCH/AUTOMATED VEHICLE LOCATION** upgrades installed (FY 2020)

 **AUDIO ON DIGITAL BUS SIGNS** (FY 2018)

 **FARE COLLECTION SYSTEM** awarded contract (FY 2020)

 **OPERATIONS CONTROL CENTER**
awarded contract (FY 2020)





BUS AND DIAL-A-RIDE

The Phoenix Public Transit Department (PTD) focuses on operating transportation services that allow riders to have a safe ride while knowing there is much value in physically connecting our communities. With the available services, riders are able to get to schools, health facilities, jobs, grocery stores, pharmacies and many other critical connections. The department works in partnership with Valley Metro, the regional public transportation agency that provides coordinated transit services to riders in the metro area.

Phoenix residents have access to a wide range of public transportation options, including fixed route bus and light rail service, neighborhood circulators, express commuter buses and alternative transportation services such as Dial-a-Ride (DAR) for people who are unable to utilize local routes due to a disability. This

implies local bus/LRT and not just bus service. For additional transit information, visit phoenix.gov/publictransit.

Funding and Budget

Bus and DAR receive T2050 sales tax revenues and funding from federal grants. Funding is also generated from fare revenues, transit advertising, and the Regional Public Transportation Fund.

Employing all those resources, PTD used \$235.5 million in FY 2022 to support ongoing operations and system improvements, which included greater bus frequency, additional and extended bus routes, new vehicles, shaded bus stops and security and technology enhancements. Phoenix plans to use \$2.1 billion in the next five years to continue bus and DAR operations, make capital investments to ensure that the system remains in a state of good repair and further expand and enhance the system.



Dial-a-Ride buses provide people with disabilities a safe and convenient means of transportation.

COVID-19 Response

The Transportation Security Administration has lifted its federal mask mandate for all transportation services. Masks are now optional and no longer required for riders or employees of the Valley Metro system. The Centers for Disease Control continues to [encourage masks on public transportation](#). PTD regularly updates staff members and contractors about health and safety protocols as CDC guidelines change.

Despite the lessening of the impact of the COVID-19 pandemic and its effect on ridership and fare revenue, PTD is still operating at a reduced service level. The morning service span is restored to pre-pandemic levels, while evening service currently ends at 11 p.m. daily. We have continued to extend bus and Dial-a-Ride service hours to match light rail hours. However, the pandemic's continuing impact to ridership and labor force have so far prevented PTD from fully resuming pre-pandemic levels of service.



In FY 2022, a total of 20,998,943 bus boardings occurred in Phoenix, which is about half the pre-pandemic level.

Local Fixed Route

The foundation of the public transportation network is local fixed route bus service. Riders can easily make their way to desired locations across the Valley using the grid system on which buses operate. Bus services were available nearly 24 hours per day prior to reductions in service due to the pandemic.

In FY 2022, a total of 20,998,943 bus boardings occurred in Phoenix, which is about half the pre-pandemic level. Throughout the pandemic, riders continued to use public transit for essential trips. PTD communicated with passengers about safety measures put in place throughout the transit environment.

Dial-a-Ride and Alternative Transportation Services

Phoenix provides a variety of alternative transportation options including DAR, ADA Cab, Senior Cab and Senior Center Shuttle, Employment Trips and Medical Trips.

DAR provides federally required paratransit service to individuals unable to ride the bus or light rail. This service complements fixed route bus service by operating during the same service hours. DAR passengers can schedule a ride by phone or TripSpark, an online reservation tool launched in 2018.



MARY (Maryvale Area Ride for You) is one of four circulator bus routes connecting key neighborhood destinations, like libraries and grocery stores.

Circulator Service

Four circulator routes connect local area residents with key neighborhood destinations, including libraries, grocery stores and community centers. Phoenix's routes are ALEX (Ahwatukee Local Explorer), DASH (Downtown Area Shuttle), MARY (Maryvale Area Ride for You) and SMART (Sunnyslope Multi-Access Residential Transit).

PTD began conducting the **Neighborhood Transit Study** in FY22. The study will use public outreach meetings and surveys to review Phoenix's current circulators. The study outcomes may include different fixed routing proposed by the public, frequency improvements, or different service delivery type such as flexible route. PTD began the study with a focus on the downtown DASH route and expects a report to be completed in FY 2023.



Residents in suburban areas have six RAPID route options that provide a fast, stress free alternative to driving into downtown Phoenix.

RAPID Commuter

Six RAPID routes provide residents in suburban areas with an alternative to driving to downtown Phoenix.

Park-and-Ride

PTD maintains and operates nine park-and-ride facilities, including the Sunnyslope, Metrocenter and Desert Sky transit centers, which provide free parking for transit users. In addition, Valley Metro manages five light rail park-and-ride locations along the Phoenix portion of the light rail alignment. A new park-and-ride facility is anticipated to open in Laveen near Baseline Road and the South Mountain Freeway in 2024.

Bus Stops and Shelters

PTD added 96 shade structures to existing bus stops during the past fiscal year. Over the next five fiscal years, Phoenix plans to install at least 80 additional shade structures at existing bus stops each year, totaling 400 new shade structures by FY 2027.



Over the next five fiscal years, Phoenix plans to install at least 400 new shade structures at existing bus stops across the city.

Table 2.1 T2050 Bus and Dial-a-Ride

Completed FY 2022 (July 1, 2021–June 30, 2022)

Fund existing bus, RAPID commuter bus, neighborhood circulator and Dial-a-Ride service for 35 years

- Continued to provide safe and reliable services.
- Maintained bus and DAR service hours to match light rail hours.

Improve bus frequency

- Implemented Route 7 frequency improvement between Dobbins Road and Van Buren Street (October 2021).
- Partially restored transit services that had been cut due to the COVID-19 pandemic and its impact on transit demand and the transit workforce.

New buses and Dial-a-Ride vehicles

- Ordered 40 CNG buses, three circulator buses and 25 DAR vehicles.

Extend and add bus service to unserved major streets

- Implemented Route 8 extension to Baseline Road and Central Avenue to connect with Route 0A (October 2021).
- Implemented MARY Circulator extension along 59th Avenue to Estrella Village via Fillmore St. and Roosevelt St. (April 2022).
- Completed outreach on proposed service change extending Route 43 on 43rd Avenue to Lower Buckeye Road, connecting to Route 28.

Bus bays

- One bus bay was constructed at the intersection of 75th Ave and Van Buren. The improvements at this intersection also included upgrading the adjacent signal with ADA compliant ramps and APS push buttons to help facilitate the safe movement of vehicles and pedestrians through the intersection.

Bus stops

- Installed 96 new shade structures at existing bus stops.

Incorporate technology

- The regional fare collection system modernization project continues into its 2nd year.
- A limited feature trip planner and real-time information mobile application was launched in July 2021.
- Mobile ticketing application will be launched in early 2023.
- Reloadable smartcards and a new retail network for the new Valley Metro Card will be incorporated into the new fare collection system in early 2024.

Increase security

- Modified security hours at transit centers due to the pandemic and related decreased bus service hours.

Technology

Phoenix finalized the conversion of its regional transit fleet to the new Computer-Aided Dispatch/Automated Vehicle Location (CAD/AVL) system supplied by Clever Devices. The conversion helped in updating the bus system technology and added new features to optimize transit system operations, dispatching and asset tracking.

The Regional Fare Collection System (FCS) Improvement Project is moving forward. Design has been completed and bus and light rail platform validators will be delivered from the manufacturer in the first quarter of FY23. All validators will be installed by mid-November 2022. A Mobile Ticketing pilot launch will begin in December 2022, with fares able to be purchased via the mobile app. Phase 2 will see a new public-facing website, reloadable smartcards, fare capping, and new Ticket Vending Machines (TVMs) across light rail.

Operations and Maintenance

Phoenix uses three facilities for bus maintenance, fueling and cleaning: the West, North and South Transit Facilities. First Transit, began providing transit services from the West Facility under a new agreement beginning July 1, 2018. Transdev began providing transit services from the North and South facilities under a new agreement beginning July 1, 2020. Transdev also began providing services at the Operations Control Center on July 1, 2020, adding three new controllers to provide increased system support and oversight.

Table 2.2 T2050 Bus and Dial-a-Ride

Planned for FY 2023
Fund existing bus, RAPID commuter bus, neighborhood circulator and Dial-a-Ride service for 35 years
<ul style="list-style-type: none"> Continue to provide safe and reliable services. Maintain bus and DAR service hours to match light rail hours.
Improve bus frequency
<ul style="list-style-type: none"> Restore transit services that had been cut due to the COVID-19 pandemic.
New buses and Dial-a-Ride vehicles
<ul style="list-style-type: none"> Order 40 buses, three circulator buses and 25 DAR vehicles. RFP issued for Zero Emission buses.
Extend and add bus service to unserved major streets
<ul style="list-style-type: none"> Implement service change that would extend Route 43 to Lower Buckeye Road. Conduct outreach on service change that would extend Route 28 to 99th Avenue. Conduct outreach on service change that would extend bus service north of Happy Valley Road on Norterra Pkwy.
Bus stops
<ul style="list-style-type: none"> Install 100 new shade structures at existing bus stops. ARPA funding allocated by the City Council provided for additional shade structure funding for 20 additional new shade structures for next two years.
Increase security
<ul style="list-style-type: none"> Increase security as service expands.
Incorporate technology
<ul style="list-style-type: none"> Continue work on the future launch of FCS mobile application. Implement a passenger notification system for DAR passengers which will produce automated message reminders when a trip is scheduled and when a driver is on its way to pick up a passenger.

Table 2.3 T2050 Bus and Dial-a-Ride

Planned for FY 2024–2027
Fund existing bus, RAPID commuter bus, neighborhood circulator and Dial-a-Ride service for 35 years
<ul style="list-style-type: none"> Continue to provide safe and reliable services. Maintain bus and DAR service hours to match light rail hours.
New buses and Dial-a-Ride vehicles
<ul style="list-style-type: none"> Order buses: 40 (FY 2023), 40 (FY 2024), 60 (FY 2025), 60 (FY 2026), 40 (FY 2027). Order circulator buses: 3 (FY 2023), 3 (FY 2024), 3 (FY 2025), 3 (FY 2026), 3 (FY 2027). Order 25 DAR vehicles each fiscal year.
Extend and add bus service to unserved major streets
<ul style="list-style-type: none"> FY2024: Add peak hour frequency on at least three local routes.
Circulator Service
<ul style="list-style-type: none"> Modify service pending outcomes of Neighborhood Transit Study. FY 2024: Improve MARY and ALEX service to every 30 minutes.
Bus stops
<ul style="list-style-type: none"> Install 400 new shade structures at existing bus stops.
Increase security
<ul style="list-style-type: none"> Increase security as service expands.
Incorporate technology
<ul style="list-style-type: none"> FY 2024: Launchable smart cards and reduced fare registration program. The regional fare collection system modernization project continues into its 2nd year. A limited feature trip planner and real-time information mobile application was launched in July 2021. Mobile ticketing application will be launched in early 2023. Reloadable smartcards and a new retail network for the new Valley Metro Card will be incorporated into the new fare collection system in early 2024.

3.0



High Capacity
Transit



HIGH CAPACITY TRANSIT

CUMULATIVE PROGRESS JAN. 1, 2016–JUNE 30, 2022

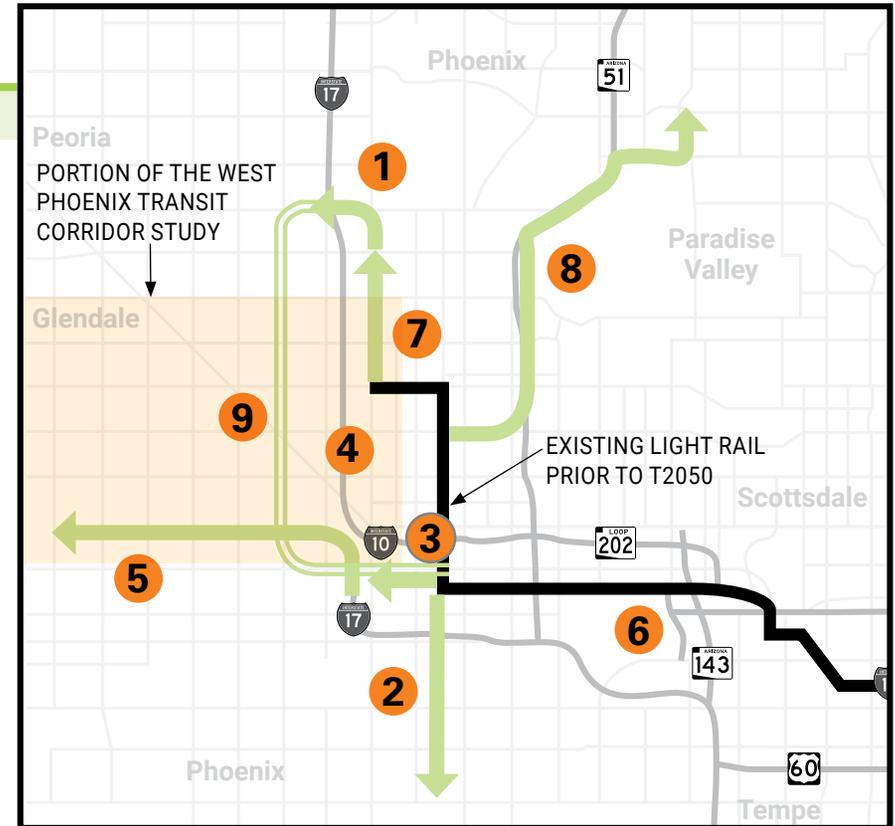
LRT Ongoing Projects - Construction

NORTHWEST EXTENSION PHASE II

- Began construction in August 2020.
- Awarded three allocations for the FTA Capital Investment Grants program (\$50.6 million in August 2020, \$49.4 million in December 2020 and \$58 million in May 2021).
- Awarded \$1 million for Transit Oriented Development (TOD) Planning Pilot Grant from the FTA.
- Began track and electrical installation work.
- In March 2022, completed the “Bridging East to West” milestone which completed the bridge girder installation crossing Interstate 17.
- In May 2022, \$58.1 million allocation to complete the FTA CIG project cost share.
- In May 2022 began Metrocenter elevated station platform construction.
- Transit Oriented Development (TOD) Land Use Planning and Equitable Housing Project consultant procurement in planning stages.

SOUTH CENTRAL EXTENSION/DOWNTOWN HUB

- In February 2022, City Council approved the extension of Small Business Financial Assistance Program (SBFAP) to increase the number of businesses access to the funding.
 - Eligibility criteria Increased the business annual revenue threshold \$500,000 to \$750,000.
 - Requirement for businesses to have been open not less than one year prior to construction is removed.
- Continue utility relocation work along the South Central area of the alignment.
- From May 2021 to July 2022, installed new track configuration in Downtown Hub and Single tracking of LRT system for special track work for Downtown Hub.
- In May 2022, \$232.1 million was allocated to complete the FTA CIG project cost share.
- Completed Salt River Bridge reinforcement in June.



LRT Ongoing Projects - Planning

- Capitol Extension
- West Phoenix Transit Corridor Study
- I-10 West Extension

Light Rail Transit (LRT) Completed Projects

- 50th Street Station
- Northwest Extension Phase I

LRT Deferred Projects

- Northeast Extension
- 35th Ave/Van Buren



HIGH CAPACITY TRANSIT

CUMULATIVE PROGRESS JAN. 1, 2016–JUNE 30, 2022

LRT Ongoing Projects - Construction

Northwest Extension Phase II

South Central Extension/Downtown Hub

LRT Ongoing Projects - Planning

CAPITOL EXTENSION

- In May 2022, reached 15% Preliminary Engineering, which identifies station locations under review.
- Capitol Extension and I-10 West Extension Transit Oriented Development (TOD) Land Use Planning and Equitable Housing Project consultant procurement process underway.

WEST PHOENIX TRANSIT CORRIDOR STUDY

- Approved to move forward by City Council, and for staff to apply for grant funds. (2022).
- In June, FTA awards \$514,045 American Rescue Plan Route Planning Restoration Program grant to conduct a West Phoenix High-Capacity Transit (HCT) study.
- Consultant procurement process is currently underway.

I-10 WEST EXTENSION

- Preliminary planning and corridor evaluation continued.
- In April 2022, completed Traffic Analysis Report.
- Capitol Extension and I-10 West Extension Transit Oriented Development (TOD) Land Use Planning and Equitable Housing Project consultant procurement process underway.

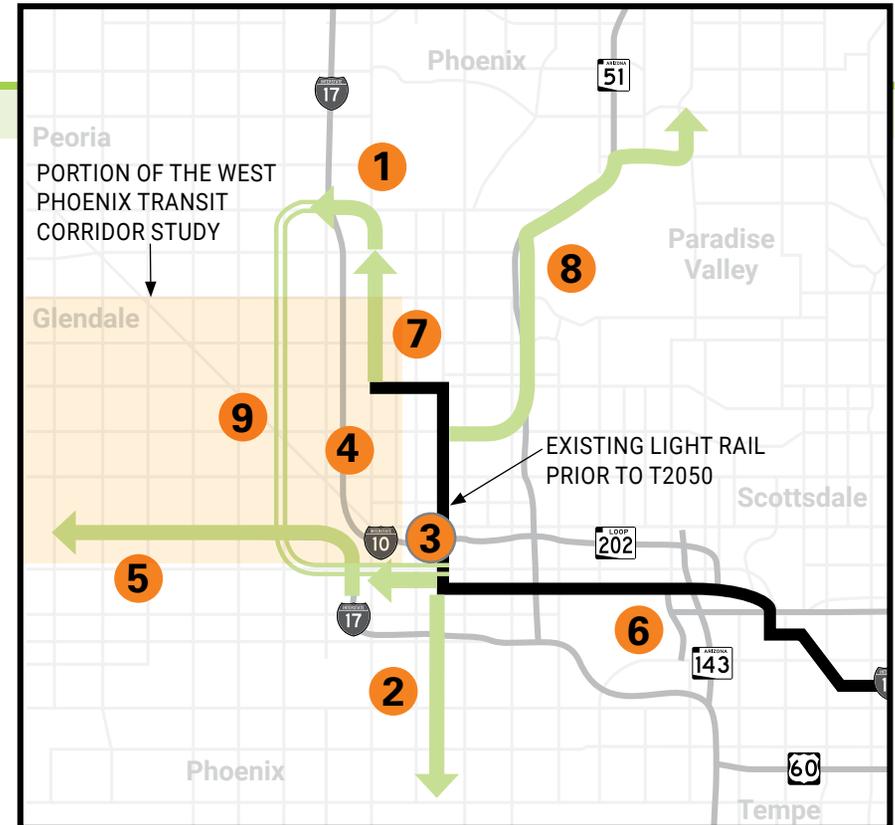
Light Rail Transit (LRT) Completed Projects

50TH STREET STATION

- Opened April 25, 2019.
- Received Sustainable Infrastructure Award from Arizona State University's Metis Center.

NORTHWEST EXTENSION PHASE I

- Service began March 19, 2016.



LRT Deferred Projects

NORTHEAST EXTENSION

- Deferred to end of T2050 program by Phoenix City Council (2018).

35TH AVENUE/VAN BUREN STREET

- In April 2022, City Council approved further transit analysis, public outreach, alternatives analysis and 15% preliminary engineering for the initial BRT corridor of 35th Avenue/Van Buren Street.



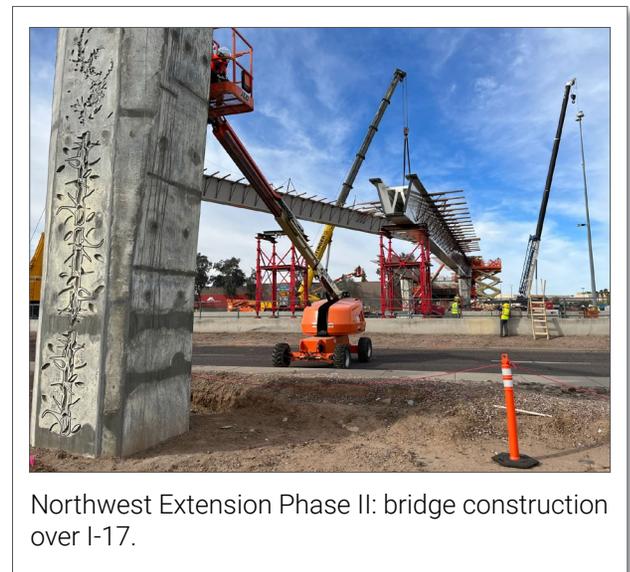
HIGH CAPACITY TRANSIT



High-capacity transit (HCT) is able to serve more customers than traditional bus service because it uses larger-capacity vehicles. HCT also offers faster travel because it bypasses vehicular traffic.

For example, Phoenix's light rail service can operate at faster travel speeds because it runs in an exclusive guideway with prioritized traffic signaling. The 16.5 miles of light rail service within the city of Phoenix is a substantial portion of the existing 28.2-mile Valley Metro Rail light rail system. Residents use the system to connect between the downtown areas of Phoenix, Tempe and Mesa, as well as Sky Harbor Airport and many other key destinations in between.

In addition to light rail, bus rapid transit (BRT) is a key component of continuing to expand the city's HCT network. The BRT program had previously completed an 11-month public education and community outreach campaign, which ran from February to December in 2020. The information gathered from this outreach effort, in addition to the transit analysis, was used to identify the recommended initial BRT corridor of 35th Ave and Van Buren Street. BRT focuses on improved speed, reliability, convenience, and the overall transit experience. There are common recurring elements found in successful BRT systems including enhanced stations, advanced fare collection, custom buses, unique branding, dedicated lanes, and transit spot improvements such as transit signal priority and queue jump lanes.



Northwest Extension Phase II: bridge construction over I-17.

Funding and Budget

The cities of Phoenix, Tempe and Mesa share funding obligations for the ongoing operations and maintenance of the light rail system. Expenses include vehicle operations, security and fare collection, and vehicle and system maintenance and administration.

Phoenix allocated \$290.2 million in FY 2022 to support ongoing light rail operations and expansion. T2050 includes an investment of more than \$2 billion to expand and improve the city's HCT network over the next five years. The plan includes light rail improvements and expansion and development of BRT. In addition to revenues generated by the city's T2050 sales tax, other funding sources include federal grants, the Regional Public Transportation Fund, fares and advertising.

COVID-19 Response

In FY 2020, Valley Metro modified light rail hours in response to the COVID-19 pandemic, and these modifications remained largely in place through FY 2022. The first full trip on light rail began at approximately 4:45 a.m. with the last trip starting at 11 p.m. Adjustments included a 15-minute frequency from 5 a.m. – 6 p.m. with no late-night service on Friday or Saturday. Sunday service remained the same. As public works construction is considered an essential service, construction activities on HCT projects, such as the extension of light rail down Central Avenue (South Central Extension/Downtown Hub), and the extension of light rail toward the Metrocenter transit center (Northwest Extension Phase II) were able to progress as planned.

Phoenix Public Transit Department (PTD)

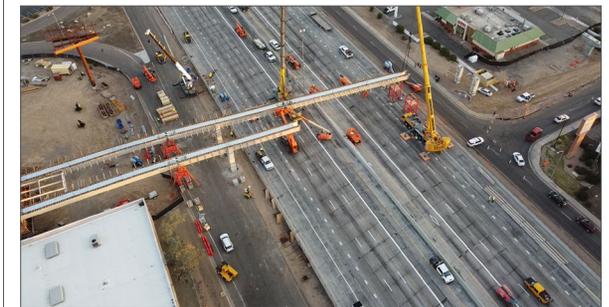
Despite the remaining challenges brought by COVID-19, the PTD saw significant progress in FY22:

- On September 15, 2021, the Transportation, Infrastructure, and Planning Subcommittee recommended City Council approval of the initial Bus Rapid Transit (BRT) corridor of 35th Avenue/Van Buren Street.
- On October 6, 2021, Phoenix City Council approved the initial BRT corridor of 35th Avenue/Van Buren Street.
- In October 2021, Route 0A frequency was modified in response to rail construction along the route. Route 7 frequency improved. Select RAPID trips that were reduced as result of the pandemic were also restored.
- On November 3, 2021, the Phoenix BRT hosted a Funding Workshop with Public Transit Department staff to discuss funding and finance strategies for the initial BRT Corridor of 35th Ave/Van Buren Street.
- In November 2021, PTD performed outreach on the proposal to extend the MARY circulator further south on 59th Avenue.
- In April 2022, City Council approved further transit analysis, public outreach, alternatives analysis and 15% preliminary engineering for the initial BRT corridor of 35th Avenue/Van Buren Street.
- In May 2022, PTD conducted outreach on the proposal to extend Route 43 one mile south on 43rd Avenue from Buckeye Road to Lower Buckeye Road. The extension was subsequently approved and will become effective in October 2022.

The BRT webpage, [Phoenix.gov/BRT](https://phoenix.gov/BRT), provides information about the program, including frequently asked questions.



In March of this year construction crews completed bridge girder installation crossing over Interstate 17 for the Northwest Extension, Phase II.



"Bridging East to West" Cranes set the final girders for the Northwest Extension, Phase II over I-17.

Table 3.1 T2050 High Capacity Transit

Completed FY 2022 (July 1, 2021–June 30, 2022)
Increase light rail in Phoenix
Northwest Extension Phase II
<ul style="list-style-type: none"> • Began track and electrical installation work. • In March, completed the “Bridging East to West” milestone which completed the bridge girder installation crossing Interstate 17. • In May, \$58.1 million allocation to complete the FTA CIG project cost share. • In May, began Metrocenter elevated station platform construction. • Transit Oriented Development (TOD) Land Use Planning and Equitable Housing Project consultant procurement in planning stages.
South Central Extension/Downtown Hub
<ul style="list-style-type: none"> • In February, City Council approved the extension of Small Business Financial Assistance Program (SBFAP) to increase the number of businesses with access to the funding: <ul style="list-style-type: none"> - Eligibility criteria increased the business annual revenue threshold \$500,000 to \$750,000. - Requirement for businesses to have been open not less than one year prior to construction removed. • Continued utility relocation work along South Central area of the alignment. • In May, began installation of new track configuration in Downtown Hub. • In June, began single tracking of LRT system for special track work for Downtown Hub. • In May, \$232.1 million allocation to complete the FTA CIG project cost share. • In June, completed Salt River Bridge reinforcement.

Capitol Extension

- In May, reached 15% Preliminary Engineering.
- Capitol Extension and I-10 West Extension Transit Oriented Development (TOD) Land Use Planning and Equitable Housing Project consultant procurement process underway.

I-10 West Extension

- In April 2022, City Council approved further transit analysis, public outreach, alternatives analysis and 15% preliminary engineering for the initial BRT corridor of 35th Avenue/Van Buren Street.
- Preliminary planning and corridor evaluation continued.
- In April, completed Traffic Analysis Report.
- Capitol Extension and I-10 West Extension Transit Oriented Development (TOD) Land Use Planning and Equitable Housing Project consultant procurement process underway.



Construction is well underway on the elevated station for the Northwest Extension Phase II

Light Rail Service

Northwest Extension Phase II

- Phase II of the Northwest Extension will bring light rail almost to Metrocenter. The extension will run west on Dunlap Avenue from 19th Avenue, north on 25th Avenue and west on Mountain View across I-17, terminating near Metrocenter.
- Construction began in August 2020 and the extension is currently scheduled to open in 2024, which is three years earlier than originally anticipated.
- In FY22, track and electrical installation work began on this section and completed the “Bridging East to West” in March. This milestone completed the bridge girder installation crossing Interstate 17.
- In November 2021, the Full Funding Grant Agreement between Phoenix and the Federal Transit Administration (FTA) was executed.
- The consultant procurement is in the planning stages for Transit Oriented Development (TOD) Land Use Planning and Equitable Housing Project.

South Central Extension/Downtown Hub

- This extension adds 5.5 miles to the light rail system and connects South Phoenix residents to downtown Phoenix and the light rail network. The project includes a hub in downtown Phoenix, two park-and-rides and public art.
- Construction began on the South Central Extension in October 2019 and the new line is expected to be operational by 2024.
- During the last half of 2021 we completed crossover track work at 5th Street (Between Jefferson and Washington) and McKinley (Between 1st Ave and Central). We also continue utility relocation work along entire alignment.
- In February 2022, City Council approved the extension of the Small Business Financial Assistance Program (SBFAP) to increase the number of businesses eligible for funding.
- Eligibility criteria Increased the business annual revenue threshold from \$500,000 to \$750,000. A requirement for businesses to have been open not less than one year prior to construction was removed.
- We continued utility relocation work along South Central area of the alignment, and in May, began installation of new track configuration in the Downtown Hub. Also in May, we allocated \$290.2 million to complete the FTA CIG project cost share.
- In June, we completed Salt River Bridge reinforcement and began single tracking of the downtown LRT system for special track work.

Capitol Extension

- The 1.4-mile Capitol Extension, originally known as Capitol/I-10 West Phase I, will connect the existing light rail system in downtown Phoenix to the Arizona state capitol.
- During the first half of FY22 we continued preparing for the federally required Environmental Assessment and began preliminary design.
- In December, City Council approved the completed analysis of the route alignment (LPA), and in May 2022, we reached 15% Preliminary Engineering.
- The consultant procurement process is currently underway for the Capitol Extension and I-10 West Extension Transit Oriented Development (TOD) Land Use Planning and Equitable Housing Project.
- The project is currently scheduled to be completed in 2026.

Table 3.2 T2050 High Capacity Transit

Planned for FY 2023
Increase light rail in Phoenix
Northwest Extension Phase II
<ul style="list-style-type: none"> • Continue utility relocation and rail construction.
South Central Extension/Downtown Hub
<ul style="list-style-type: none"> • Continue utility relocation and rail construction.
Capitol Extension
<ul style="list-style-type: none"> • Develop loop options and receive public input.
I-10 West Extension
<ul style="list-style-type: none"> • Continue evaluating portions to expedite the project.
Begin Bus Rapid Transit program
<ul style="list-style-type: none"> • Begin the Alternatives Analysis process for the BRT Corridor of 35th Avenue and Van Buren Street.

I-10 West Extension

- The I-10 West light rail extension will connect downtown Phoenix and the state capitol to the 79th Avenue Park-and-Ride in Maryvale. The project is expected to be completed in 2030.
- Preliminary planning and corridor evaluation continued in FY22, while in April, we completed the project Traffic Analysis Report.
- The project analysis, which began in 2020, includes an analysis of transit types and funding opportunities, and an evaluation of extending the line to the Desert Sky Transit Center.

Table 3.3 T2050 High Capacity Transit

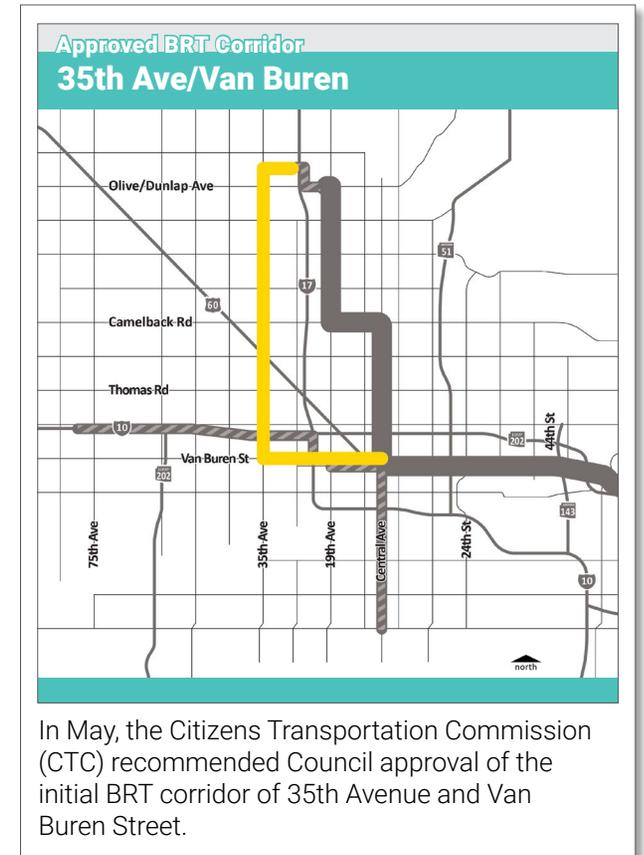
Planned for FY 2024–27
Increase light rail in Phoenix
Northwest Extension Phase II
<ul style="list-style-type: none"> • Complete construction, with anticipated opening in 2024.
South Central Extension/Downtown Hub
<ul style="list-style-type: none"> • Complete construction, with anticipated opening in 2024.
Begin Bus Rapid Transit program
<ul style="list-style-type: none"> • Planning, design and construction of one or more BRT corridors. Timing and schedule to be determined by the CTC and Phoenix City Council.

Bus Rapid Transit

Phoenix will develop the BRT program based on where current and future transit riders need service most. The BRT outreach effort began with an 11-month community information campaign and solicited input on six potential BRT corridors and four potential network scenarios. The outreach team held 26 in-person or virtual meetings, connected with more than 1,200 people and fielded/answered nearly 600 questions and comments.

- As a result, on May 27, 2021, the Citizens Transportation Commission (CTC) recommended Phoenix City Council approval of the initial BRT corridor of 35th Avenue/Van Buren Street.
- On September 15, 2021, the Transportation, Infrastructure, and Planning Subcommittee recommended City Council approval of the initial Bus Rapid Transit (BRT) corridor of 35th Avenue/Van Buren Street.
- On October 6, 2021, Phoenix City Council approved the initial BRT corridor of 35th Avenue/Van Buren Street.

- On November 3, 2021, the Phoenix BRT hosted a Funding Workshop with Public Transit Department staff to discuss funding and finance strategies for the initial BRT Corridor of 35th Ave/Van Buren Street.
- On Feb. 24, 2022, the Citizens Transportation Commission recommended City Council approval to execute an amendment to the Phoenix Bus Rapid Transit (BRT) Program with AECOM to extend the term of the contract for 24-months and provide further project management, public outreach and stakeholder engagement, alternative analysis, design concepts, and 15% design plans for the initial BRT corridor of 35th Avenue/Van Buren Street.
- On April 20, 2022, City Council approved an amendment to the Phoenix Bus Rapid Transit (BRT) Program with AECOM to extend the term of the contract for 24-months and provide further project management, public outreach and stakeholder engagement, alternative analysis, design concepts, and 15% design plans for the initial BRT corridor of 35th Avenue/Van Buren Street.



4.0



Street Maintenance
and Improvements

STREET MAINTENANCE AND IMPROVEMENTS

CUMULATIVE PROGRESS JAN. 1, 2016–JUNE 30, 2022

IMPROVED/INSTALLED

22,338

ADA RAMPS



69 MILES OF NEW SIDEWALKS

* Cumulative number updated due to previous administrative errors, per staff update to the Citizens Transportation Commission in April 2022.



STREET MAINTENANCE AND IMPROVEMENTS

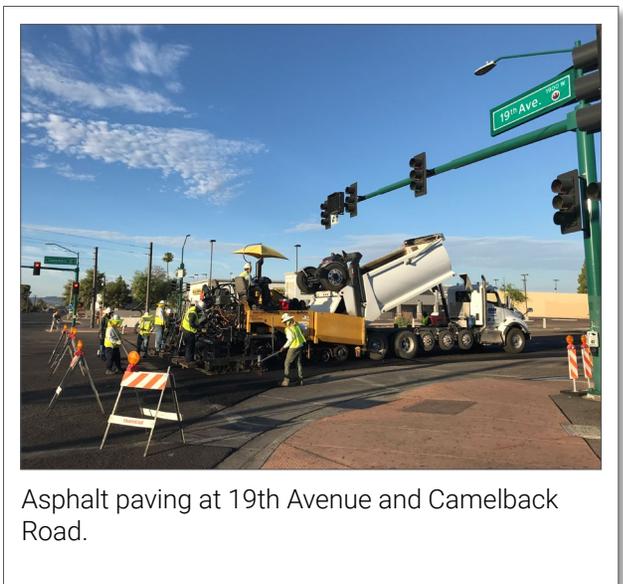


The Street Transportation Department works to provide a safe and sustainable transportation network for everyone, including pedestrians, bicyclists and motorists.

To ensure that people and goods move efficiently through the transportation network, the department's work includes the pavement preservation program, asphalt and pothole repair and installation of street signs, traffic signals, streetlights, bikeways and Americans with Disabilities Act (ADA)-compliant ramps and sidewalks.

Due to a well-defined scope, the Street Maintenance Division plans and executes many street improvement projects such as resurfacing and striping changes. However, larger-scale, more complex projects require a project assessment phase prior to design and construction. Examples of these more complex projects include turn lane improvements, lane additions and drainage studies.

The Street Transportation Department also conducts plan reviews for private development projects, construction inspections, materials testing and implementation of technology enhancements such as Geographic Information Systems (GIS). Visit phoenix.gov/streets for additional information.



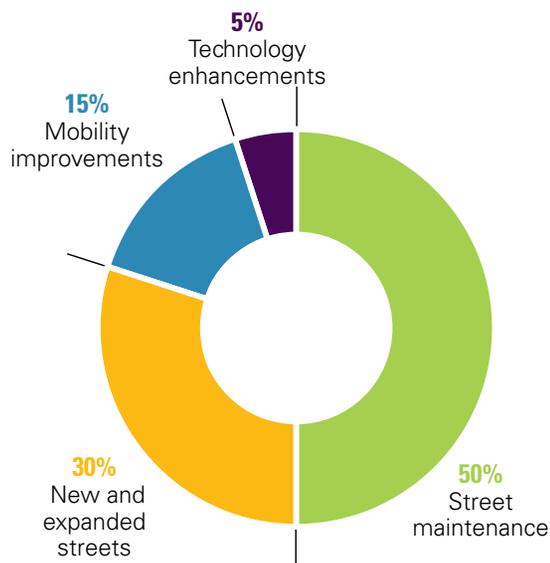
Asphalt paving at 19th Avenue and Camelback Road.

Funding and Budget

Phoenix streets receive funding from a variety of sources, including 13.8% of T2050 sales tax, the state-collected motor fuel tax, city's general fund, regional/Maricopa Association of Governments (MAG) funds, federal funds, grants and impact fees. [Figure 4.1](#) shows the overall T2050 program distribution of T2050 funds within the Street Transportation Department.

In FY 2022, Phoenix budgeted approximately \$44 million in T2050 funding for street construction and maintenance projects. Phoenix's T2050 plan for FY22 and the next five years includes nearly \$285 million to improve transportation system infrastructure, make ADA improvements, assess and address mobility needs and continue maintenance of city streets.

Figure 4.1 Overall T2050 Program Distribution for Street Improvements



COVID-19 Response

During Covid-19 restrictions, street paving and patching, pothole repair sign replacement, lane striping, traffic signal servicing and installation and streetlight repair were not significantly affected as they are considered essential city services. As Covid-19 impacts are further reduced Street Maintenance and Improvements will continue.

Throughout this fiscal year, planning and design continued with community engagement occurring on virtual platforms. The shift to virtual engagement has resulted in high levels of engagement and valuable input for the project teams.

Updates about health and safety protocols were regularly distributed to project teams and road crews, allowing schedules to be updated accordingly. Health and safety remain a top priority for the department.

Accelerated Pavement Maintenance Program

In 2018, the Phoenix City Council created the Accelerated Pavement Maintenance Program (APMP) and allocated \$200 million of additional funding over five years.

In June 2022, APMP had already reached its goal of 630 miles of mill and overlay treatments in just four years, a year sooner than its original goal. In FY 2022, under the APMP program the department performed mill and overlay treatment on 104 miles of streets, pavement preservation on 200 miles and crack seal on 360 miles in preparation for

future work. Additionally, 3,411 ADA sidewalk ramps were installed. The 2023 paving season currently has 59 miles of overlay planned.

The annual Pavement Condition Report details the paving assessment process, pavement treatments and current conditions. The reports are available on the city's [website](#).

Street Pavement and Overlays

In FY 2022, the T2050 program financed a substantial amount of pavement maintenance and replacement across the city. A total of 18.7 miles of new asphalt pavement was placed on major city streets, totaling 225.6 miles of new paving since the program began. Another 120.6 miles of crack and fog sealing (pavement preservation that maintains the roadway until it requires replacement) was performed on major streets, with a cumulative total of 669.5 miles.

Local (residential) streets saw 38.3 miles of new paving in FY22, for a total of 427 miles from the start of the program. Local streets also saw significant crack and fog sealing, with 297.2 miles included, totaling 2,063.4 miles completed since the program began.

Active Transportation Program

The Active Transportation Program (ATP) strives to connect, improve and expand the city's pedestrian and bicycle network. Active transportation and transit are highly interconnected because users depend on active transportation to access light rail, BRT and bus routes.

As the Street Transportation Department repaves streets, the ATP identifies opportunities to update striping plans to add or widen bike lanes, add buffers to existing bike lanes and add markings in the intersections on major bikeways. Buffered bike lanes and protected bike lanes create more space between sidewalks and vehicle travel lanes, improving the walking experience.

The ATP also coordinates with other teams to support multi-use paths and street crossings. Projects along canals and other off-street trails strengthen the active transportation network and create a better quality of life for everyone.

The Active Transportation Plan, which includes a Bicycle Master Plan update, launched its public outreach process in fall 2021 to find out residents' priorities for enhancing the active transportation network.

With that in mind, FY22 saw extensive increases to the city's bike network, adding 35.4 miles of new bike lanes, which is 4.5 miles more than the target goal of 30.9 miles. In addition, the ATP made a number of safety improvements to the existing bike lanes, adding either buffers or vertical protection:

- Protected bike lanes – 2.2 miles (A protected bike lane has a vertical element added to it, such as flexible lane delineators or a concrete curb, sometimes with a painted buffer.)



A protected bike lane reduces conflicts between bicycles and vehicles by providing physical separation between people biking and people driving.

- 1 mile of protection was added to existing bike lanes.
- 1.2 miles of protection was added to new bike lanes.
- Buffers – 49.5 miles (A buffered bike lane has striping added to the pavement that alerts drivers and riders to the bike lane boundaries.)
 - 26.5 miles of buffers added to existing bike lanes.
 - 23 miles of buffers added to new bike lanes.

While updating the bikeway data structure, staff discovered an administrative error that resulted in an overcount of 26.9 bike lane miles. Despite the counting issues, Street Transportation remains ahead of the target of 30.9 bike lane miles per year. Staff verified all bikeway data using aerial photography and Google Streetview. Results were presented to the CTC in April 2022, along with a plan to install an additional 26.9 bike lane miles over the next three years.

Mobility Studies

The Street Transportation Department conducts mobility studies to identify barriers for pedestrians and bicyclists as they travel to neighborhood destinations. Phoenix identified 39 locations for study at the inception of T2050 and has completed 12 studies so far.

To improve safety, convenience and quality of life, the studies' recommendations have included opportunities for constructing new sidewalks, installing or improving ADA curb ramps and installing streetlights, bicycle facilities, traffic signals, shade trees and connections to transit stops.

In FY22 we installed 54 Mobility ramps in partnership with the Neighborhood Services Department and their Community Development Block Grant (CDBG) funding.

In FY 2023, the Street Transportation Department will again partner with the Neighborhood Services Department to use Phoenix's federal Community Development Block Grant to install at least 305 ADA mobility ramps recommended by the mobility studies.



Construction crews are installing hundreds of ADA curb ramps throughout the city, eliminating barriers to mobility for people with disabilities.

**Table 4.1
T2050 Street Maintenance and Improvements**

Completed FY 2022 (July 1, 2021–June 30, 2022)

Street projects

- 4 major street projects in design.
- 3 major street projects in construction.

Street pavement and overlays

- Continued the Accelerated Pavement Maintenance Program, for which the Phoenix City Council authorized an additional \$200 million to fast-track pavement maintenance through FY 2024.
- 18.7 miles of new asphalt pavement on major streets.
- 120.6 miles of other pavement treatments, such as crack and fog sealing, on major streets.
- 38.6 miles of local street paving.
- 297.2 miles of other pavement treatments on local streets.

Bicycle lanes

- Installed 35.4 miles of new bike lanes.
- Upgraded 1 mile of existing bike lane miles to protected bike lanes.
- Added 1.2 miles of protection to new bike lanes.
- Upgraded 26.5 miles of existing bike lanes to buffered bike lanes.
- Added 23 miles of buffering to new bike lanes.

Streetlights

- Installed 52 new streetlights.

Sidewalks

- Constructed 3 miles of sidewalks.

Intersection technology enhancements

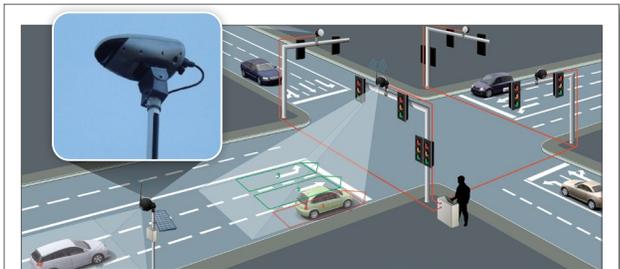
- Replaced six street signs at major intersections with illuminated signs.
- Repainted all signal poles at 528 major intersections to extend their lifecycles.
- Installed 21 new left-turn arrows at warranted intersections.
- Installed nine pedestrian High-intensity Activated crossWalks (HAWKs).

Intersection and Technology Enhancements

Phoenix uses a variety of technology enhancements, ranging from rapid flashing beacons and enhanced illumination to installing High-intensity Activated crosswalks (HAWKs). Other T2050 technology enhancements include improving and maintaining traffic control equipment, adding left-turn arrows at warranted intersections, replacing street name signs with retroreflective signs that feature light-emitting diode (LED) lighting and installing updated signals, signage, detection equipment and traffic management and monitoring systems.

The City, as part of a continuing transportation management program, is expanding the communication fiber backbone system to allow for remote monitoring, control and traffic signal optimization. The FY 2022 Indian School Road fiber enhancement project installed 12.5 miles of fiber optic infrastructure and cable to the western limits of the City of Phoenix and through a portion of the City of Glendale. The project provided connections between the Maricopa County Department of Transportation, the City of Glendale and the City of Phoenix. The FY 2023 Baseline Road fiber optic cable and equipment project will also install 13 miles of fiber optic infrastructure and cable along Baseline Road from South Mountain freeway (Loop 202) to Interstate 10. This project will provide connections between the Arizona Department of Transportation, the City of Tempe and the City of Phoenix for remote monitoring, control and traffic signal optimization along the corridor.

Traffic Management Center (TMC) can better monitor traffic with cameras that send full streaming video back to the TMC. In addition, intelligent devices installed at intersections transmit traffic performance metrics to the TMC, allowing the TMC to adjust traffic signal timing to improve traffic flow and better serve the public. Similarly, the expanded fiber backbone provides for improved, integrated connections between stations for emergency responders such as fire and police.



Sensors installed at intersections transmit traffic performance metrics, allowing the TMC to adjust traffic signals and reduce congestion.



Integration of new fiber optic lines to assist traffic safety and operations.

Information Technology and GIS

The Street Transportation Department digitizes, validates and reports on assets. The department uses GIS technology to catalogue location data and maintenance records on bikeways, pavement, lighted street signs and ADA curb ramps. Ultimately, the data allow for more efficient planning, analysis and reporting.

Recent improvements in these processes have included:

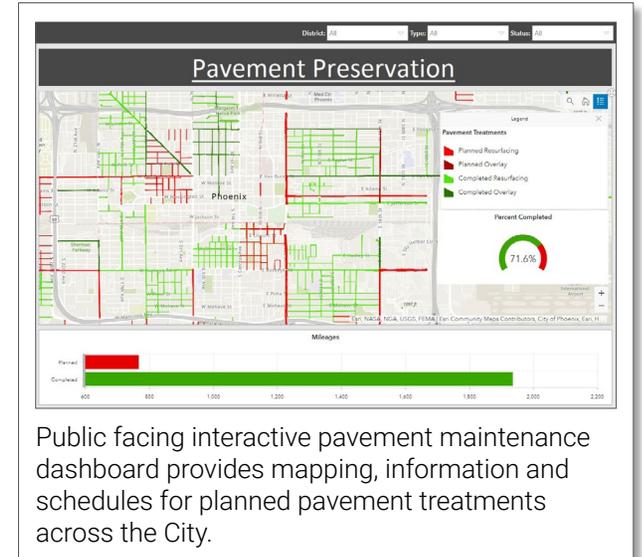
- Creating field staff applications for reporting condition and improvement needs related to assets such as traffic signals, pavement, curb ramps, sidewalks and streetlights.
- Improving the accuracy, usefulness and availability of existing traffic signal data for the entire department.
- Leveraging pavement condition data, with underlying soil condition data, to provide engineers with a broader understanding of problematic areas.
- Using data sources from the city, county and Arizona State University to identify and map tree and shade prioritization areas.
- Updating bikeways, Key Corridors Master Plan and Mobility Studies data to give the ATP team accurate information for planning and implementing improvements.
- Researching and editing thousands of ADA ramp records to build and update the database.

Internal and external applications allow staff and, in many cases, residents to access map services and applications with this GIS information. Some of these include a live active [HAWK traffic signal web map](#), the [pavement maintenance dashboard](#), [bikeways map services](#) and [e-scooter facilities mapping](#).

As staff members in the field make live updates, the accumulated data and analysis tools provide for a more efficient workflow and near-real-time analysis and reporting.

Table 4.2
T2050 Street Maintenance and Improvements

Planned for FY 2023
Street projects
<ul style="list-style-type: none"> • Design 10 major street projects. • Continue construction on 24 major street projects.
Street pavement and overlays
<ul style="list-style-type: none"> • Pave 19 miles on major streets.
Bicycle lanes
<ul style="list-style-type: none"> • Install 31 miles of bike lanes and low-stress bikeways.
Streetlights
<ul style="list-style-type: none"> • Install 100 new streetlights.
Sidewalks
<ul style="list-style-type: none"> • Construct 4 miles of new sidewalks.
Mobility studies
<ul style="list-style-type: none"> • Install 305 ADA ramps based on mobility studies.
Intersection technology enhancements
<ul style="list-style-type: none"> • Replace 240 street signs at major intersections with illuminated signs. • Repaint all signal poles at 80 major intersections to extend their lifecycles. • Install 15 pedestrian HAWKs.



Public facing interactive pavement maintenance dashboard provides mapping, information and schedules for planned pavement treatments across the City.

Table 4.3
T2050 Street Maintenance and Improvements

Planned for FY 2024–2027
Street projects
<ul style="list-style-type: none"> • Conduct one major street project assessment. • Design 11 major street projects. • Continue construction on 20 major street projects.
Street pavement and overlays
<ul style="list-style-type: none"> • Pave at least 77 miles of new pavement on major streets.
Bicycle lanes
<ul style="list-style-type: none"> • Install 124 miles of bike lanes and low-stress bikeways.
Streetlights
<ul style="list-style-type: none"> • Install 400 new streetlights.
Sidewalks
<ul style="list-style-type: none"> • Construct 15 miles of new sidewalks.
Intersection technology enhancements
<ul style="list-style-type: none"> • Replace 960 street signs at major intersections with illuminated signs. • Repaint all signal poles at 320 major intersections to extend their lifecycles. • Install 25 pedestrian HAWKs.



5.0



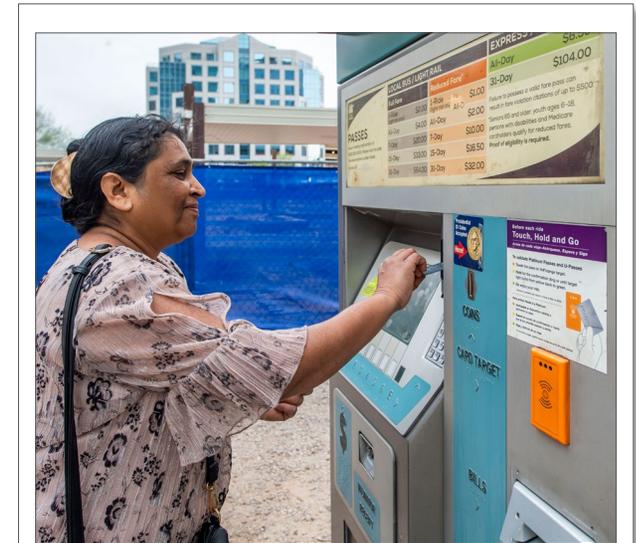
Appendix

APPENDIX

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:

- 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.
- Capital and operating costs are estimated to grow at average inflation rates of 3–4% annually over the life of the plan. These inflation rates are somewhat higher than the typical annual increases the city has experienced in the large transit contracts, and provide for more conservative cost estimates.
- T2050 sales tax revenues are estimated to grow at an average annual rate of 4.75%, which is slightly lower than the 5.2% average annual growth rate in the Arizona Department of Transportation's most recent forecast prepared in September 2020 for the Proposition 400 Maricopa County Transportation Excise Tax.
- The existing 0.5% Proposition 400 regional tax, currently in place through Dec. 31, 2025, is assumed to be extended for at least 20 years.
- Federal transit formula funds are assumed to continue through the life of the plan, with very modest increases over time, and are consistent with MAG's long-term Regional Transportation Plan.
- The financial model is consistent with Valley Metro assumptions, ranging from 0% to 39%, for the funding level from discretionary federal Capital Investment Grants for light rail capital costs. Discretionary federal Capital Investment Grants, on average, fund more than 40% of total project costs for current rail projects across the country.
- Transit fares are assumed to continue to be lower than the regional fare policy goal of 25% recovery of direct transit operations costs, reflecting the current fare recovery rate. Decreased fare revenues due to the COVID-19 pandemic are assumed to recover very slowly over 20 years.
- Some capital funding is assumed to be provided through financing, as needed, 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.
- Other revenues, such as transit advertising and interest earnings on fund balance, are forecasted using very low growth rates.
- An operating reserve equivalent to 15% of annual public transit operating costs is assumed to be maintained throughout the life of the plan.



As rates of Covid-19 infections declined fare revenues began to recover, though are still below 2019 levels.

Impact of COVID-19

Phoenix had expected that the global pandemic, which began in 2020 as a result of the contagious COVID-19 virus, would reduce revenue projections for the coming years because ridership numbers fell significantly in 2020. However, there were some economic drivers that had a positive impact on revenue projection, which city leaders continue to monitor.

This report notes the changes experienced due to the pandemic within each program area.

T2050 Sales Tax Projected Revenue Stream

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 Street Transportation departments.

Table A.1 T2050 Sales Tax Projected Revenue Stream

Fiscal Year	Overall T2050 (2015 Forecast)	Actual Overall	Forecasted Public Transit (86.2%)	Actual Public Transit	Forecasted Street Transportation (13.8%)	Actual Street Transportation
2016	\$89,125,000	\$98,593,240	\$76,826,000	\$85,095,392	\$12,299,000	\$13,497,848
2017	\$204,006,000	\$203,352,480	\$175,853,000	\$175,430,201	\$28,153,000	\$27,922,279
2018	\$213,696,000	\$215,805,685	\$184,206,000	\$185,998,894	\$29,490,000	\$29,806,791
2019	\$224,401,000	\$239,179,006	\$193,434,000	\$206,200,341	\$30,967,000	\$32,978,665
2020	\$235,642,000	\$247,592,555	\$203,123,000	\$213,437,765	\$32,519,000	\$34,154,790
2021	\$246,835,000	\$279,348,428	\$212,772,000	\$240,800,097	\$34,063,000	\$38,548,331
2022	\$258,559,000	\$335,608,608	\$222,878,000	\$289,313,016	\$35,681,000	\$46,295,592
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	

FY 2022 Financial Overview

The FY 2022 Financial Overview table summarizes the budgeted and actual revenue and expenditures during FY 2022.

Table A.2 FY 2022 Financial Overview (July 1, 2021 - June 30, 2022)

Source of Funds	Budget	Actuals	Amount Over/(Under Budget)	Percent Over/Under Budget	Footnotes
Dedicated Sales Tax - T2050	274,395,000	335,608,608	61,213,608	22.3%	1
Local Transportation Assistance	4,300,000	4,052,686	(247,314)	-5.8%	
Bus Fare Revenue	17,708,957	12,142,592	(5,566,365)	-31.4%	2
DAR Fare Revenue	889,066	502,968	(386,098)	-43.4%	3
Rail Fare Revenue	4,797,716	3,355,396	(1,439,321)	-30.0%	4
Federal Transit Funds	518,867,287	236,632,263	(282,235,024)	-54.4%	5
Regional Transportation Tax	64,266,816	3,857,201	(60,409,615)	-94.0%	6
Debt Proceeds	-	-	-	-	7
Other Revenue	8,202,649	25,480,764	17,278,115	210.6%	8
Fund Balance	(27,685,940)	(96,279,778)	(68,593,837)	247.8%	9
Total Revenues	\$865,738,551	\$525,352,700	\$(340,385,851)	-39.9%	
Use of Funds					
Transit Operations					
Local Fixed Route Bus	\$1501,471,083	\$147,342,304	\$(3,128,779)	-2.1%	
RAPID Commuter Bus	2,444,566	2,757,611	313,045	12.8%	10
Neighborhood Circulator	3,748,622	3,831,294	82,672	2.2%	
Bus Rapid Transit	-	-	-	N/A	11
DAR Operations	21,231,800	19,005,919	(2,225,881)	-10.5%	12
Light Rail Operations	42,484,798	19,954,485	(22,530,313)	-53.0%	
Security	13,060,602	12,121,303	(939,299)	-7.2%	13
Administration & Support	27,180,000	24,780,245	(2,399,755)	-8.8%	14
Total Operations	\$260,621,472	\$229,793,162	\$(30,828,310)	-11.8%	
Debt Service	\$21,124,625	\$1,522,947	\$(19,601,678)	-92.8%	15
Capital Projects					
Bus and DAR Vehicles	46,712,943	25,507,308	\$(21,205,635)	-45.4%	16
Bus Passenger Facilities	14,182,195	2,777,896	(11,404,299)	-80.4%	17
Bus O & M Facilities	28,246,735	2,043,494	(26,203,241)	-92.8%	18
Bus and DAR Technology	39,712,074	1,044,562	(38,667,512)	-97.4%	19
Other Bus Capital	12,056,676	1,579,530	(10,477,146)	-86.9%	20
South Central LRT	266,474,000	130,145,160	(136,328,840)	-51.2%	21
Northwest Phase II LRT	103,849,000	74,344,591	(29,504,409)	-28.4%	22
Capitol Light Rail Extension	9,970,000	43,825	(9,926,175)	-99.6%	23
LRT Other	1,841,457	3,986	(2,028,014)	-99.8%	24
Bus Rapid Transit	2,032,000	4,617	(5,999,665)	0.0%	25
Streets – Major Maintenance	17,053,000	39,105,848	22,052,848	-129.3%	
Streets – Major Transportation Projects	21,510,252	9,795,126	(11,715,126)	-54.5%	
Streets – Mobility Projects	9,308,797	2,776,937	(6,531,861)	-70.2%	
Streets – Other	2,639,500	913,021	(1,726,479)	-65.4%	
Streets – Technology	4,241,000	3,950,689	(290,311)	-6.8%	
Total Capital Projects	\$583,992,454	\$294,036,592	\$(289,955,863)	-49.7%	
Total Expenditures	\$865,738,551	\$525,352,700	\$(340,385,851)	-39.3%	

Footnotes detailing the FY 2022 Financial Overview table found on the preceding page include:

1. Better than expected local economic activity resulted in higher sales tax revenues.
2. Front door boarding and use of fareboxes resumed 10/11/21.
3. Front door boarding and use of fareboxes resumed 10/11/21.
4. Front door boarding and use of fareboxes resumed 10/11/21.
5. Decrease due to Capital Project delays.
6. Decrease due to Capital Project delays.
7. Transit did not need to finance due to federal pandemic relief funds received from FTA and higher than expected sales tax revenues.
8. \$13M Streets CIP Expense Recovery, \$6.5M PTD Expense Recovery, \$2M Higher than expected transit advertising revenues.
9. Fund balance increased due to federal pandemic relief funds received from FTA and higher than expected sales tax revenues.
10. 20% increase in scheduled revenue miles over prior estimate.
11. Reduction in revenue hours due to pandemic.
12. Reduction in payments to Valley Metro Rail due to lower service levels and federal pandemic relief funds received from FTA.
13. New Security Contract less than initially budgeted.
14. Personal Services and Technology less than budgeted.
15. Transit did not need to finance due to federal pandemic relief funds received from FTA and higher than expected sales tax revenues.
16. Fleet manufacturers' production delays.
17. Laveen Park-and-Ride delayed.
18. Projects delayed.
19. Projects delayed.
20. Unused contingency.
21. Delay in funding needed from Phoenix for the project.
22. Delay in funding needed from Phoenix for the project.
23. Project delays.
24. Over programed budget for disposal of remnant properties, Business Assistance Program, McDowell & Central and City Core Staff - West Phx/Central Glendale.
25. Longer than expected public/stakeholder involvement process.

Five-Year Implementation Plan

The Five-Year Implementation Plan table summarizes the projected distribution of funds collected over the next five years. The table does not include actual collections. Note: BRT capital and operations expenditures are planned to be incurred during this five-year plan, and the amounts reflected are preliminary, pending the results of the BRT study.

Table A.3 Five-Year Implementation Plan (FY 2023–2027)

	FY 2022-2023	FY 2023-2024	FY 2024-2025	FY 2025-2026	FY 2026-2027
Source of Funds					
Dedicated Sales Tax – T2050	\$326,455,000	\$344,937,000	\$363,346,000	\$382,305,000	\$402,433,000
Local Transportation Assistance	4,100,000	4,100,000	4,100,000	4,100,000	4,100,000
Bus Fare Revenue	18,018,129	24,945,870	30,394,321	32,504,044	33,769,118
DAR Fare Revenue	711,790	753,660	847,512	941,680	941,680
Rail Fare Revenue	3,852,674	6,485,335	9,953,069	10,052,600	12,010,726
Federal Transit Funds	496,434,040	148,370,708	477,870,024	489,470,033	514,437,012
Regional Transportation Tax	86,721,200	65,953,645	58,103,127	177,605,546	184,173,097
Debt Proceeds	-	-	136,692,208	-	160,000,000
Other Revenue	9,554,946	9,698,270	9,843,744	9,991,400	10,141,271
Fund Balance	25,771,234	214,192,148	(84,627,217)	(78,943,152)	(154,662,356)
Total Revenues	\$971,619,012	\$819,436,637	\$1,006,522,788	\$1,028,027,151	\$1,167,343,547
Use of Funds					
Transit Operations					
Local Fixed Route Bus	\$159,711,621	\$165,868,932	\$172,700,668	\$178,117,442	\$190,926,738
RAPID Commuter Bus	3,851,573	3,940,495	4,103,141	4,216,325	4,343,769
Neighborhood Circulator	3,911,960	7,178,144	7,481,712	7,729,252	7,994,861
Bus Rapid Transit	-	2,201,056	7,467,096	7,723,664	7,996,560
DAR Operations	22,182,792	22,848,276	23,533,724	24,239,736	24,966,928
Light Rail Operations	44,978,980	46,727,002	63,031,083	62,498,075	71,570,298
Security	13,468,302	13,872,351	14,288,522	14,717,177	15,158,693
Administration & Support	27,995,400	28,835,262	29,700,320	30,591,329	31,509,069
Total Operations	\$276,100,627	\$291,471,519	\$322,306,265	\$323,833,001	\$354,466,916
Debt Service	\$2,501,000	\$10,000,000	\$12,352,250	\$29,119,938	\$30,294,500
Capital Projects					
Bus and DAR Vehicles	\$53,557,503	\$49,290,645	\$50,027,783	\$62,687,005	\$63,469,019
Bus Passenger Facilities	24,082,534	4,330,000	4,330,000	4,430,000	4,430,000
Bus O&M Facilities	24,268,036	2,450,000	2,200,000	2,200,000	2,200,000
Bus and DAR Technology	26,054,178	2,520,000	300,000	20,000	20,000
Other Bus Capital	17,812,366	4,721,058	2,668,086	2,669,915	2,676,861
South Central Light Rail	251,334,000	260,986,000	65,189,000	-	-
Northwest Phase II Light Rail Extension	136,161,000	33,171,000	-	-	-
Capitol Light Rail Extension	23,318,000	43,051,000	78,603,000	107,264,000	115,155,000
Capitol/I-10 West Rail Extension	11,940,523	24,597,477	266,021,717	391,431,955	403,174,914
Other Light Rail	141,000	-	-	-	-
Bus Rapid Transit	40,790,000	50,000,000	160,000,000	55,000,000	160,000,000
Total Public Transit T2050 Capital Projects	\$609,459,140	\$475,117,180	\$629,339,586	\$625,702,875	\$751,125,794
Streets – Major Maintenance	\$48,768,578	\$25,090,000	\$25,090,000	\$26,090,000	\$27,090,000
Streets – Major Transportation Projects	\$12,782,893	\$2,909,337	\$14,125,015	\$11,147,337	\$1,977,337
Streets – Mobility Projects	\$11,515,451	\$12,021,601	\$671,327	\$1,161,000	\$1,066,000
Streets – Other	\$463,000	\$463,000	\$463,000	\$463,000	\$463,000
Streets – Technology	\$10,028,323	\$2,364,000	\$2,175,345	\$1,510,000	\$860,000
Total Streets T2050 Capital Projects	\$83,558,245	\$42,847,938	\$42,524,687	\$40,371,337	\$31,456,337
Total Capital Projects	\$693,017,385	\$517,965,118	671,864,273	\$666,074,212	\$782,582,131
Total Expenditures	\$971,619,012	\$819,436,637	\$1,006,522,788	\$1,028,027,151	\$1,167,343,547
Year End Fund Balance: Public Transit	\$253,334,554	\$36,890,037	\$123,900,193	\$200,456,592	\$352,339,531
Year End Fund Balance: Streets	49,246,659	51,499,027	49,116,088	51,502,841	54,282,258
Total Fund Balance	\$302,581,212	\$88,389,064	\$173,016,281	\$251,959,433	\$406,621,789