Tempe Transportation Plan 2050

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Readers Guide

The Tempe Transportation Plan 2050 Draft Plan presents the proposed content of the Plan for public review. The focus of this version is on the substance of the Plan, including the vision, goals, recommendations, and implementation framework. A final designed version, incorporating all figures and graphics (many of which are included in the accompanying Project website), and other visual elements, will be prepared after comments on the draft content have been reviewed and addressed.

To support review of the Plan's content, callouts, figures and tables not included in this draft are identified with placeholders shaded; these elements will be updated, refined, and fully formatted in the final Plan document.

> Callouts – Text with vertical bar show information to be displayed as callouts.

Figures and Tables – Text with underline bar show Figure and Table references.

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Introduction

> *Enhancing quality of life through equitable, safe and connected transportation*.

Tempe is committed to creating a safe, efficient, and accessible multimodal transportation system that easily connects people in Tempe and to the region along complete, functional, and attractive streets and paths.

> Multimodal refers to all the modes people and goods use to get around (e.g., automobiles, transit, bicycles, walking/rolling, and micromobility such as scooters).

Tempe Transportation Plan 2050 Vision and Goals

The City of Tempe *Transportation Plan 2050* (the Plan) provides a multi-modal transportation vision for the City that supports the Tempe Tomorrow *General Plan 2050* (General Plan 2050). The goals for the Plan are derived from the Circulation Chapter of the *General Plan 2050*, approved by Tempe voters in March 2024.

The General Plan 2050 vision for Tempe emphasizes enhanced mobility. It envisions a transportation system that realizes the community's desired future and the transportation improvements needed to support it, "***physically accessible by multiple modes of transportation, especially transit, walking, biking, and micro mobility options***", **and "*...neighborhoods that are walkable, pleasant and safe, and connected within a 20-minute walk, bike or transit ride*."** The General Plan 2050 emphasizes principles critical to this vision, quality of life, sustainability, equity, shade, and green infrastructure. Finally, it states that Tempe will aim to become a cultural and **"*transportation leader in the region*."**

> The overarching goal of the Plan is to ensure a balanced, future-ready transportation network for people, goods, and services.
>
> Vision Statement, ***Tempe is a seamlessly connected city where safe, walkable neighborhoods and abundant transportation choices bring people, places, and opportunities closer together.***

Goals

The Plan's vision is supported by seven goals that guide its recommendations. The goals define the desired outcomes needed to achieve Tempe's vision and establish the framework for implementation. The sections that follow identify the objectives associated with each goal and the strategies, including policies and actions, that help achieve them.

Community

Tempe is distinguished by its strong sense of community pride and civic participation. Annual resident surveys show that the City consistently outperforms both the national average and comparable mid-sized cities across a range of measures. This community spirit is further reflected in high levels of volunteerism, an active network of community organizations, two All-America City Awards, and a longstanding tradition of collaboration among residents, businesses, community organizations, and local government.

Goal 1 Provide affordable, accessible, and convenient connections to the places where residents and visitors live, learn, work, and play through a transportation network that reflects and supports Tempe's communities and local character.

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Goal 2 Reduce mobility barriers and equitably expand access to opportunities and services through transportation investments.

Connected Mobility

> A 20-minute city is characterized by a vibrant mix of commercial and residential establishments that allow any resident to find daily amenities within a one-mile walking distance, a 4-mile bike ride or 20-minute transit ride.

The City has established a goal of ensuring that residents can access most of their daily needs, excluding commute trips, within 20 minutes of their homes. Twenty-minute neighborhoods offer numerous benefits, including fostering a stronger sense of community, reducing transportation costs and greenhouse gas emissions, improving public health, saving time, and expanding access to essential destinations without requiring the use of an automobile.

Goal 3 Develop an effective citywide multi-modal transportation network integrated with sound land use planning, to create safe, efficient, and accessible mobility for persons, goods, and services within the City, and the region.

Goal 4 Provide transportation choices that move all people, goods, and services reliably, effectively, and affordably.

Infrastructure and Stewardship

The City Council Priorities emphasize the importance of maintaining and improving Tempe's transportation assets, including streets, sidewalks, traffic signals, bridges, and transit facilities. These assets support the daily mobility needs of residents, employees, students, businesses, and visitors. Recognizing the importance of preserving infrastructure and improving safety, Tempe voters approved a bond measure in November 2024 that includes funding to accelerate street improvements citywide. Continued investment in transportation infrastructure is necessary to maintain a state of good repair, enhance safety and accessibility, support economic vitality, and accommodate travel by walking, bicycling, transit, and motor vehicles.

Goal 5 Maintain the transportation system in a consistent state of good repair, using robust data to prioritize investments and minimize costs.

Safety

Safety is the foundation of Tempe’s transportation system. Recognizing that no loss of life is acceptable, the City is committed to advancing a safe transportation network through a comprehensive, data-driven approach that combines roadway design, operations, policies, programs, and education. Guided by the Safety Action Plan, Tempe will prioritize investments where they can have the greatest impact, reducing the risk of fatal and serious injury crashes and ensuring that people of all ages and abilities can travel safely, regardless of how they choose to move throughout the city.

Goal 6 Achieve zero traffic deaths and serious injuries, providing users with a feeling of safety and comfort regardless of who they are or how and when they travel.

Sustainability & Resilience

Tempe enhances transportation sustainability and resilience by preserving critical infrastructure, supporting multimodal mobility, incorporating shade and environmental improvements, and investing in transportation assets that can adapt to future climatic, economic, and community needs. These efforts help maintain a safe, reliable, and efficient transportation system while supporting the City's broader sustainability goals such as increasing the use of green stormwater infrastructure, investments in shade infrastructure, and minimizing air pollution.

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> **Desert Shade.** In the Arizona desert climate, extreme heat periods necessitate shade both when the sun is directly above at midday and when the sun is lower and still causing significant heat stress.

For many residents, driving remains the most practical and reliable way to travel, and this Plan recognizes the ongoing investments needed to maintain and operate the City's roadway system. For others, transit provides an essential and affordable transportation option. Community feedback also highlighted strong support for investments in walking, bicycling, and transit, which ranked among the highest transportation priorities. Together, these travel options form a multimodal transportation system that will continue to meet the diverse needs of Tempe residents, businesses, and visitors into the future.

Goal 7 Create a sustainable and resilient transportation system that supports environmental stewardship, adapts to future challenges, and provides reliable mobility for current and future generations.

This Plan is an update to the 2015 Transportation Plan. The 2015 Transportation Plan identified an integrated multimodal mobility approach that laid the groundwork for subsequent transportation strategies such as the Tempe Streetcar (opened in 2022), expansion of the circulator network (with launch of the Orbit Saturn route serving southern Tempe), enhanced bicycle connectivity, and the 20-Minute City framework.

The COVID-19 pandemic (2020-2022) significantly changed travel behavior in Tempe. The share of residents working from home increased from approximately 4 percent in 2010 and 6 percent in 2015 to more than 12 percent by 2024, while transit ridership declined sharply before gradually recovering. Although these shifts may not reflect long-term trends, they highlight the importance of a resilient multimodal transportation system that can adapt to changing travel patterns while supporting Tempe's sustainability and mobility goals.

Transportation Partners

Implementing the Plan will require collaboration among the City, residents, businesses, regional partners, public agencies, and other organizations. Key planning partners and their roles are described:

Maricopa Association of Governments (MAG)

Maricopa Association of Governments (MAG) serves as the regional metropolitan planning organization (MPO) for the Phoenix metropolitan area, coordinating long-range transportation planning, regional transportation investments (Prop 479 funds), and federally funded transportation programs. Coordination with MAG helps align City transportation investments with regional mobility needs and long-term growth objectives.

Arizona Department of Transportation (ADOT)

ADOT owns and manages a regional freeway system surrounding and serving Tempe (including State Route (SR) 202 Loop, SR 101 Loop, SR 143, Interstate 10 (I-10), and United States Route 60 (US 60); together, these routes contribute to over one million daily vehicle trips through or immediately adjacent to the City. ADOT is responsible for the operation and maintenance of the freeway system and associated interchanges, while Tempe manages most arterial streets that connect to the freeway network. Effective coordination between the City, ADOT and MAG is essential to address congestion, safety, and multimodal access at freeway interchange areas.

Valley Metro

Valley Metro plans, funds, and operates the region's public transit system, including local bus service, express bus routes, the Tempe Streetcar, paratransit, and light rail services. The City partners with Valley Metro to improve transit accessibility, expand transportation choices, enhance service reliability, and support transit-oriented development.

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Arizona State University (ASU)

Arizona State University is one of the City's largest activity centers and employers, generating substantial pedestrian, bicycle, transit, and vehicular travel. Partnership with ASU is essential to advancing mobility, safety, and transportation demand management strategies.

Maricopa County

Maricopa County plans, operates, and maintains transportation facilities within unincorporated areas. The City coordinates with Maricopa County to help ensure transportation investments and multimodal connections function seamlessly across jurisdictional boundaries.

Relationship to Tempe's General Plan 2050 and other Planning and Guidance Documents

The Plan supports and implements transportation-related objectives contained within adopted and published Tempe planning and guidance documents. Rather than reiterate these, the Plan relies on and supports these documents, providing transportation-specific guidance that advances broader community goals outlined in the Plan, while ensuring consistency across City policies and programs. The major plans and policies and their alignment with the Plan are noted below.

Tempe General Plan (2023)

The Tempe Tomorrow General Plan 2050 provides the vision for how Tempe will grow and look in 2050 and is updated once every 10 years. The document establishes a vision for Tempe that speaks to the transportation improvements necessary for this vision, "physically accessible by multiple modes of transportation, especially transit, walking, biking, and micro mobility options", and "...neighborhoods that are walkable, pleasant and safe, and connected within a 20-minute walk, bike or transit ride." The General Plan 2050 emphasizes principles critical to this vision, including quality of life, sustainability, equity, shade, and green infrastructure. Finally, it states that Tempe will aim to become a cultural and "transportation leader in the region."

The General Plan 2050's Circulation Element outlines systemwide and mode-specific goals, objectives and strategies for Tempe's transportation network. The Circulation Element also identifies relevant City Council strategic priorities and performance measures to quantify progress towards reaching City goals. The Plan's goals are guided by the General Plan 2050 Circulation Element's goals, which are presented by mode: Systemwide, Pedestrian and Bikeways, Transit, Roadways (referring to Tempe streets as multi-modal transportation conduits to move people and goods), and Aviation.

Sidewalk Inventory (2024)

The City of Tempe completed an inventory of public sidewalks in Tempe in 2024. This spatial assessment provides insight into existing sidewalk shapes/angles, widths, materials, and obstructions present. It also outlines standards for typical sidewalks along roadways for each functional classification, highlights where there are deficiencies, and includes planning-level cost estimates to serve as a baseline for future sidewalk network improvements.

Adaptive Streets Implementation Design Guide Book (2022)

This Guide Book provides a formalized process for the City to identify, design, review, and implement adaptive street projects that address rapid changes in the needs and demands for the City's roadways. Adaptive street projects are low-cost, temporary solutions to adapt the public right-of-way (ROW). Projects may be initiated when a community need is identified and are most suited to address the need for an enhanced pedestrian environment along roadways, at specific intersections or transit stops, or for specific ROW uses that require more space.

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ADA Transition Plan (2018)

The ADA Transition Plan identifies barriers that people with disabilities may encounter in Tempe's city policies, programs, services, communications, and facilities. This includes barriers in the public right-of-way, such as sidewalks, curb ramps, bus stops, traffic signals, and other pedestrian access elements. The Transition Plan is also an action plan to prioritize and implement strategies that address these barriers.

Tempe Climate Action Plan (2019)

The Climate Action Plan (CAP) guides Tempe's path toward a sustainable and resilient future. The CAP provides a framework for measuring and reducing greenhouse gas emissions and climate change impacts. It includes an inventory of previous years' emissions, reduction goals, and prioritized strategies to conserve resources and improve quality of life.

Rain to Roots Master Plan (Ongoing)

The Rain to Roots Master Plan develops a comprehensive strategy for implementing, maintaining, and funding green stormwater infrastructure throughout Tempe. It involves an update to Tempe's Urban Forestry Master Plan, feasibility studies, new codes and standards, and strategies and recommendations for low impact development and urban cooling strategies, providing practical means for implementing actions identified in the Plan.

Curb Management Study

The City of Tempe partnered with the Downtown Tempe Authority (DTA) for the development of a curb management framework to better understand the current and future demands on curb space and define policies and practices to ensure the curbside environment is being used to the highest and best manner relative to the needs of the Tempe community in response to a growing demand for commercial goods movement, passenger loading, and delivery. The study also considers the needs of pedestrians and micromobility users, and enhances safety.

Character Area Plans (2015 – 2025)

As a result of Tempe's General Plan 2040, the City developed eight Character Areas that recognize areas or groups of neighborhoods with common design, land use and commercial characteristics distinct from neighboring areas. Individual Character Area Plans convey the visions and goals of each area, including circulation plans that support their unique characteristics and transportation requirements. Character Area Plans are used while reviewing development proposals and designs within their respective boundaries. They are also considered while making decisions related to public investments in their respective areas.

Innovation Hub Plans

Tempe's nine Innovation Hubs are geographic areas that share similar industry and development characteristics. Tempe's innovation hubs have been advanced through a series of planning efforts since 2019. Innovation Hub Plans formalize a vision for each area and provide guidance for implementation, including design guidelines.

Tempe Transportation Overlay District (2006)

The Transportation Overlay District (TOD) encourages appropriate land development and redevelopment that is complementary to focused investment in transit, bicycle and pedestrian infrastructure in parts of Tempe. The TOD's boundaries are based on proximity to light rail corridors and station areas. The TOD regulates land uses and establishes development standards to maintain and enhance the transit, bicycle and pedestrian experience.

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Parks and Recreation Master Plan (2021)

The Parks and Recreation Master Plan guides the provision of city parks, recreation facilities, and programs that equitably accommodate the needs and desires of the community and provide ample capacity for future population growth.

Making Space: An Equity Study for Tempe Parks and Recreation (2023)

The Parks and Recreation department's equity study evaluated parks and recreation amenities throughout the City and resulted in the development of Equity Priority Zones – geographic areas that may benefit from additional investment and programming based on measures of socioeconomic inequity and health equity. These Equity Priority Zones were used to evaluate active transportation projects within the Plan.

MAG Momentum 2050 Regional Transportation Plan (2021, with Proposition 479 approved in 2024)

MAG's regional transportation plan (RTP), MOMENTUM 2050, establishes a broad vision for the region's multimodal transportation future and serves as a 20-year blueprint for the transportation system. The plan is performance-based and reflects funding the region has programmatic oversight for. It identifies long-range capital projects and programmatic investments for the region. The RTP invests the dedicated half cent sales tax for transportation, approved through Proposition 479, in multimodal transportation infrastructure.

Valley Metro Bus Network Redesign (Ongoing)

Valley Metro is conducting a comprehensive study of transit services across Maricopa County to make sure the network meets the changing needs of the region. The final plan will include a series of recommendations for enhancing regional mobility and increasing regional transit's efficiency and performance, enabling the regional network to adapt to changes in travel behavior post-pandemic, new population growth, and the new regional funding framework under Proposition 479.

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Tempe Today

Located in the heart of the Phoenix metropolitan area, Tempe is a diverse and vibrant community that recognizes the importance of providing a high quality of life through accessible transportation, economic, and cultural opportunities. As an established and densely populated community, Tempe prioritizes the development and maintenance of a safe, connected, and accessible multimodal transportation network that accommodates the evolving mobility needs of residents, workers, students, and visitors. The City is committed to supporting transportation choices that enhance connectivity, promote accessibility, and contribute to the community's long-term sustainability and livability.

> Graphic showing the regional freeway system with Tempe

The City's transportation system includes a well-connected street grid that leverages Intelligent Transportation Systems, local and regional transit services, Valley Metro Light Rail, and the region's first modern streetcar. These facilities are complemented by one of the Valley's most extensive bicycle networks and multi-use pathway systems, providing safe and convenient travel options for people walking, bicycling, using transit, and driving.

The Tempe Community

[Demographic snapshot/splash pages]

- Current population/current employment.
    - 190K Total population of Tempe
    - MAG identifies Tempe as one of the region's major employment centers (supported by Arizona State University, Downtown Tempe, the Novus Innovation Corridor, Tempe Town Lake developments, and regional transit access), with more jobs than residents, a trend that has persisted for more than two decades.

> Did you know? The US Census indicates more people work in Tempe than live here, continuing a trend of more than 20 years. Every day, nearly 230,000 employees commute into Tempe and 63,000 Tempe residents commute out of Tempe! [graphic InFlow/OutFlow Analysis]

- household income: $79,615
    - 15% of households with incomes below the poverty level
- 532 Total centerline miles of streets
    - 90% Percent of streets that include sidewalks

  Tempe's streets, which cover about 17 percent of the City's land area, are its most significant public space. Well-designed transportation networks and public spaces support mobility, enhance quality of life, and strengthen community identity
  Over 22% of Tempe's land area is public space: 17% is road/trail/sidewalk right-of-way and 5% are parks and amenities.

  > Graphic – Tempe figure ground

- 7.1M Transit Boardings in FY25
- 4% Residents who bike to work

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- **Trips by Mode**. Mode shift supports transportation equity and affordability by reducing reliance on cars and expanding travel choices, thereby encouraging a shift from single-occupancy vehicle use to alternative modes of travel. Successful mode shift supports City goals around climate, congestion, health, equity, growth management, and safety.

  > Graphic – Percent Tempe trips by mode

- **Transit propensity**. Transit propensity is the overall likelihood of public transport use in a particular area. It combines several demographic variables known to contribute to transit dependency, and indicates where potential transit demand is highest. These variables include:
  - Population
  - Employment
  - Minority Population
  - Low-income Population
  - Youth and Senior Population
  - Disabled Population
  - Zero Auto Households

Figure XX, Transit Propensity

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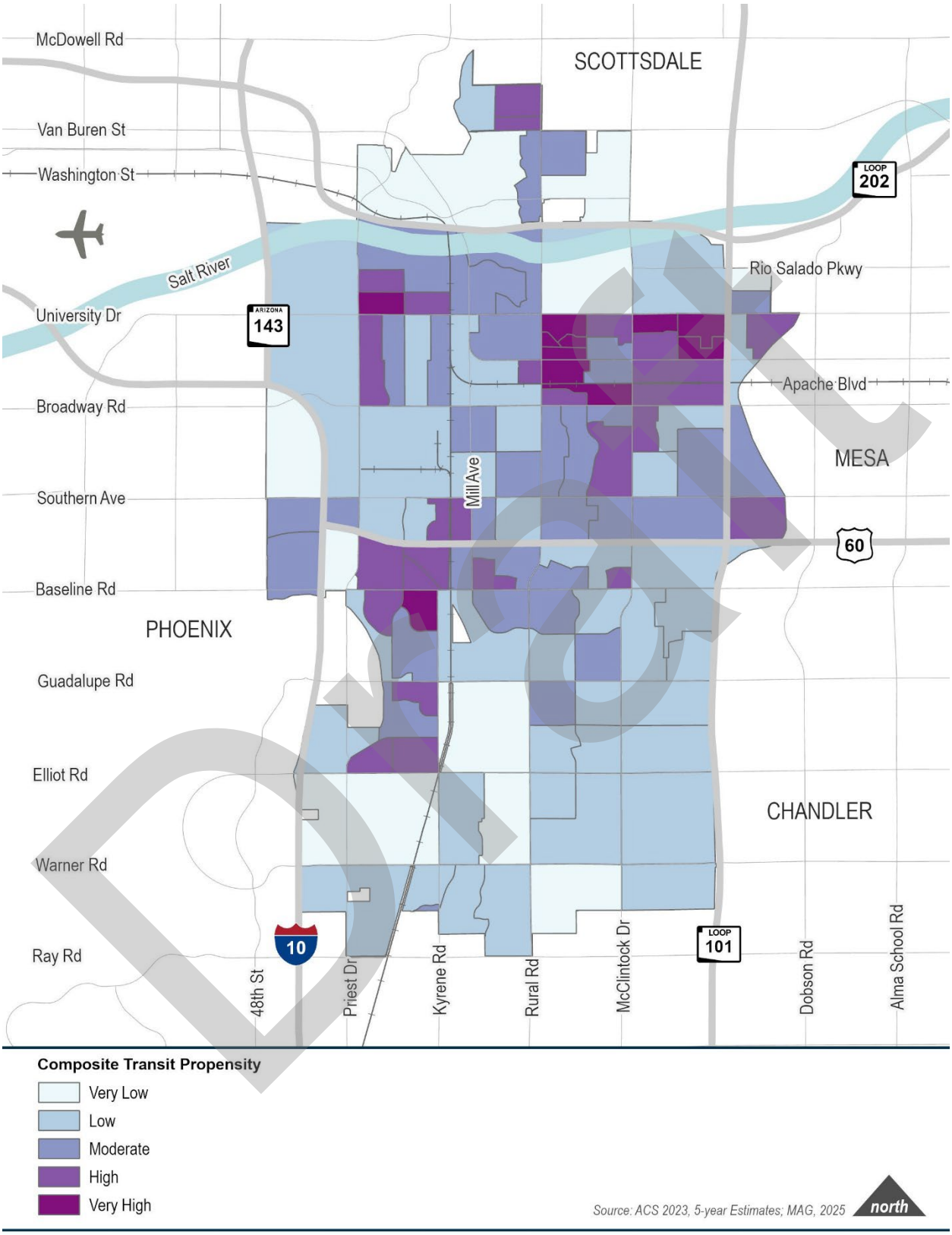


Figure XX, Transit Propensity

Tempe's Transportation System

Streets provide connections to the places that people go to school, work, and shop. Tempe is a leader in planning, designing, and constructing street corridors that accommodate all modes of travel for all types of users (vehicular, pedestrian and bicycle, and transit). Although Tempe's streets are multimodal, this section is organized by mode to discuss the characteristics of each.

Roadway Facilities

Tempe's roadway system includes local streets that provide access within neighborhoods, collector roads that connect neighborhoods to arterial corridors, arterial streets that serve as the primary routes for travel across the City and region, and freeways that support regional mobility, including I-10, US 60, Loop 101, Loop 202, and SR 143. While the City maintains and operates its local street network, the regional freeway system is owned and managed by ADOT.

> Freeways, freeway ramps, and certain interchange components within Tempe are under the jurisdiction of ADOT. As a result, planning, operations, maintenance, and improvements in these locations require coordination between the City and ADOT.

Roadway Network

Figure XX, Tempe Roadway Network - Tempe Functional Classification Map

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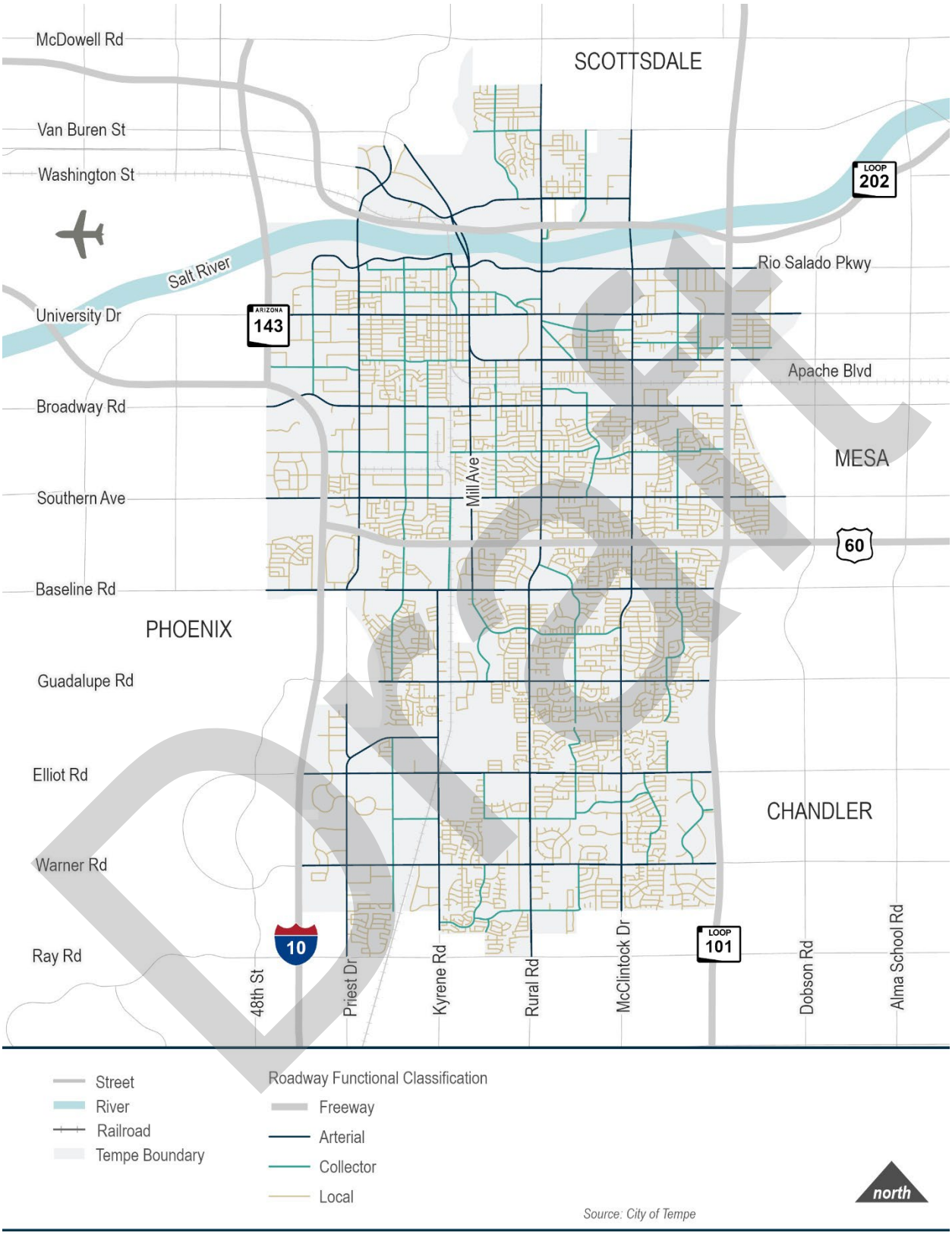


Figure XX, Tempe Roadway Network - Tempe Functional Classification Map

Roadway Traffic Volumes

Numerous factors, including the City's location in the center of the Phoenix metropolitan area, contribute to the traffic on the City's streets. While an increasing number of trips are served by transit, walking, rolling, and bicycling in the City—vehicles provide the primary mode of travel for residents of Tempe.

Today, Tempe's roadway network generally operates at acceptable levels, although localized congestion occurs during peak travel periods at recurring bottlenecks (areas where traffic slows down considerably, creating congestion and delays). Congestion is driven by high traffic volumes during peak hours as well as non-recurring events, such as crashes, special events, roadway incidents, or construction activity. While overall traffic volumes have largely returned to pre-pandemic levels, changes in travel patterns, trip timing, and travel behavior may continue to influence where and when congestion occurs.

> Graphic – Showing average weekday Travel Time Index for typical weekday, 4:45pm
> Caption: *Snapshot of the average mid-week traffic congestion over a 24-hour period during the peak season (September through May, when ASU and local schools are in session). The data represents real time travel speeds of millions of individual vehicles over this period. A higher TTI represents higher congestion*.

Roadway Performance

Traffic volume varies throughout the day, and year, with the heaviest volumes occurring during weekday afternoons. The COVID-19 pandemic presented a significant disruption to transportation; however, today traffic volumes have largely returned to near-pre-pandemic levels.

Even with traffic volumes returning to pre-pandemic levels, differences in the distribution of travel may lead to changes in congestion levels. It is important to note that traffic flow is highly nonlinear and a small reduction in peak demand on a congested roadway can cause outsized reductions in traffic congestion.

Figure XX, 2024 Traffic Data

> Graphic – LOS explanation

Roadway widening is the typical mitigation measure required for projects that exceed LOS standards. However, Tempe is largely built out, and the City is focused on accommodating local and regional travel demands with transit and other modes as alternatives to street widening (the addition of travel lanes), to avert the adverse environmental, public health, and fiscal impacts that would result. Wider roads are more expensive to maintain and enable driving at faster speeds in the short term, leading to more pollution, noise, and higher risks to bicyclists and pedestrians in the long term. Additionally, given Tempe's location in the middle of the Phoenix Metropolitan Area and surrounded by regional freeways, roadway capacity expansion may result in additional congestion, as drivers seek alternate routes to congested freeways and busy arterial corridors.

Traffic delay reduction is identified as a City Council priority (refer to Council Priorities and Strategic Plan), and the General Plan 2050 emphasizes retaining existing traffic capacity while the City works to reduce reliance on single-occupancy vehicles.

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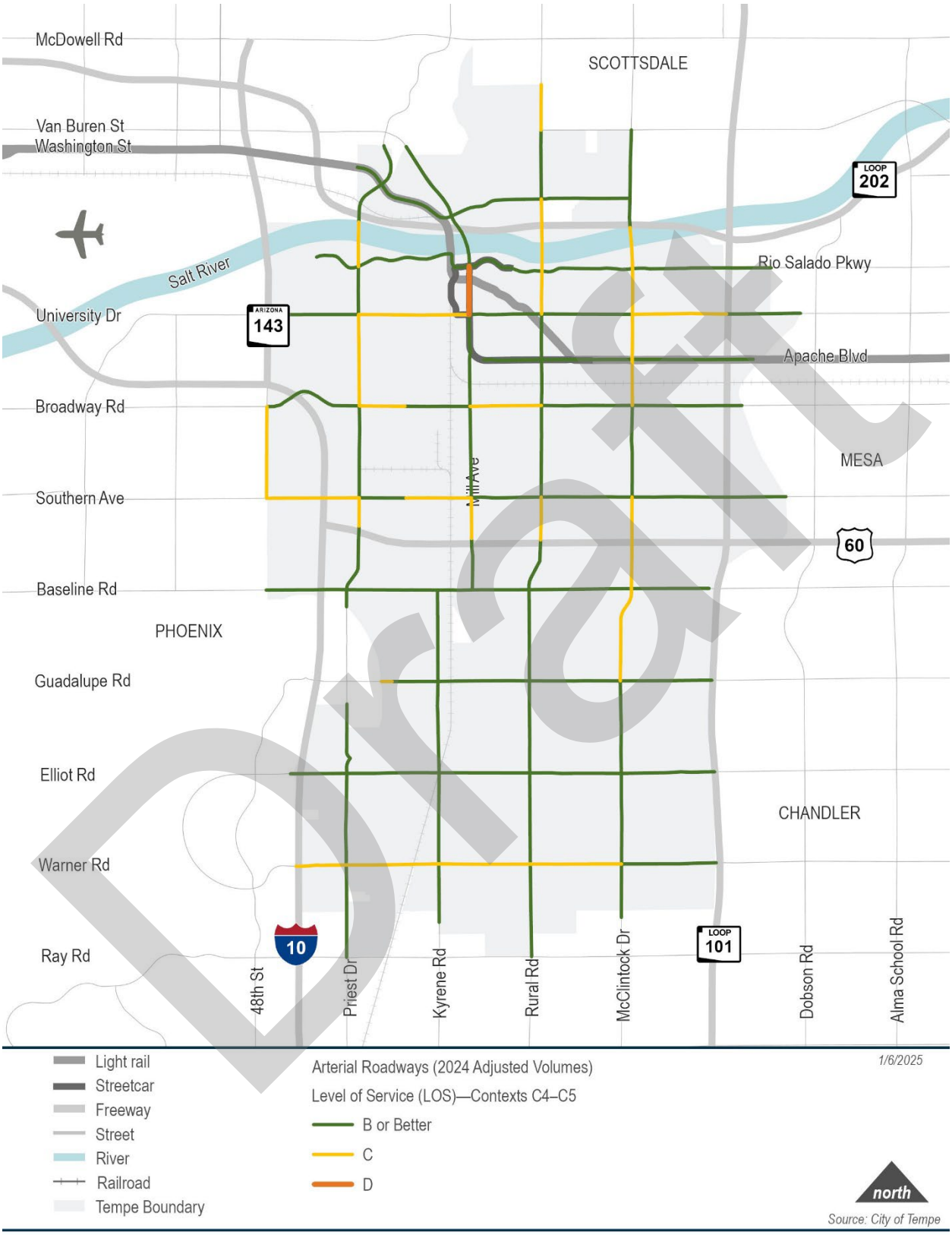


Figure XX, 2024 Traffic Data

To address the increasing travel demand, Tempe is focused on optimizing its existing investment in its streets. This investment includes improving the efficiency of traffic operations to improve safety and provide more reliable travel times throughout the day and peak periods (such as through signal optimization, intersection improvements, access management, and intelligent transportation systems). At the same time, providing convenient, comfortable, and accessible active transportation and transit options for users who depend or opt to use alternative modes of transportation.

Shared and On-Demand Mobility Services

Rideshare (connecting passengers through private transportation services [such as Uber, Lyft, and Waymo] through a smartphone app) is an important part of Tempe's transportation system. Tempe's robust transit options, proximity to Sky Harbor Airport, the large ASU presence in the City, and dense downtown, contribute to the prevalence of rideshare in the City.

The flexibility and convenience of rideshare in Tempe serves transportation needs in the City: it improves mobility for people without access to a personal vehicle; provides first-mile/last-mile connections to transit stations; and reduces parking demand in certain locations (such as Mill Avenue and the downtown area). This convenience can come with costs of increased vehicle trips and curbside activity in busy areas. Tempe's Curb Management Study (2023) studied the challenges and opportunities rideshare presents, and made recommendations for how to accommodate rideshare and other curbside uses. This input was instructive for the recently completed Mill Avenue Streetscape Improvements project.

> First- and last-mile travel is how people get to and from transit stops, destinations, and other parts of the transportation system.

Roadway Safety

From July 1, 2020 through June 30, 2024, there were 75 fatal crashes and 317 serious injury crashes on Tempe streets. Each of these fatal and serious injury crashes has a lasting impact on individuals, families, and the broader community. They result in loss of life and life-changing injuries, but they are preventable. The severity of these crashes reflect systemic conditions in how streets are designed and operated, how users interact with the system, how vehicles are designed and manufactured, and other factors.

The following information highlights key findings from the Safety Action Plan (see Appendix XX). The Safety Action Plan is organized into three primary sections that establish a framework for understanding general safety issues, locations with the greatest safety needs, and safety strategies to address locations and systemic safety challenges. Readers interested in learning more about Tempe's proactive approach to safety for all roadway users are encouraged to review the Safety Action Plan (see Appendix XX).

> *Safety is a foundational element of Tempe's transportation system and is addressed in greater detail through the City's Safety Action Plan, which is incorporated into this Plan by reference. The Safety Action Plan establishes the City's vision, goals, strategies, and priority actions for reducing traffic fatalities and serious injuries across all modes of travel. Together, these documents provide a coordinated framework for integrating safety considerations into transportation planning, project development, operations, maintenance, and investment decisions.*

Crash Data Analysis

Analyzing crash trends and contributing factors helps identify the greatest safety risks on Tempe's transportation network. The following analysis of FY2020-FY2024 crash data highlights patterns in crash severity and roadway user types to inform strategies for reducing fatalities and serious injuries.

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Table XX. Total Crashes and Severity by Mode, FY2020 – FY2024

'Key Takeaways from Crash Data Analysis'. The crash data analysis reveals the following key takeaways.

- Crashes involving bicyclists, pedestrians, and motorcyclists (also referred to as vulnerable road users) make up small shares of total crashes, but crashes involving vulnerable road users are disproportionately likely to result in fatalities or serious injuries.
- Motorcyclists are involved in as many FSI crashes as other drivers, despite being a substantially smaller share of roadway users.
- A high share of total, motorcycle, and pedestrian crashes occur in the evening, indicating a need for greater illumination in key locations.
- Drugs and alcohol are involved in more than a quarter of FSI crashes, highlighting the need for enforcement programs related to impaired driving.
- Crashes along Tempe streets are most frequently the result of turning movements (including crashes recorded as angle and left turn crashes) and rear end collisions.

Graphic – Comparison of All Crashes and Fatal or Serious Injury Crashes by Road User Type (FY2020-FY2024). Caption: *Although bicyclists, pedestrians, and motorcyclists account for a relatively small share of total crashes, they represent a disproportionate share of fatal and serious injury crashes, highlighting the elevated risk faced by vulnerable road users on Tempe's transportation network.*

Location of Safety Needs

A High Injury Network (HIN) identifies locations with the highest concentration of fatal and serious injury crashes, helping prioritize safety improvements and supporting Tempe's Vision Zero commitment to eliminate traffic fatalities and serious injuries (see Vision Zero callout on this page). The Safety Action Plan includes both a Segment HIN and an Intersection HIN, based on crash location data from police reports. Crashes identified as occurring at intersections are included in the Intersection HIN, while all other crashes are classified as mid-block and included in the Segment HIN.

A Commitment to Vision Zero
Vision Zero is an approach to transportation safety that acknowledges that traffic deaths and severe injuries are preventable and sets the goal of eliminating both in a set time frame with clear, measurable strategies. *Tempe's Safety Action Plan* (2026) establishes an explicit commitment to eliminate traffic fatalities and serious injuries and outlines a multidisciplinary approach and strategies to address transportation safety from a range of perspectives.

Key opportunities and benefits from developing a High Injury Network include:

- Targeting traffic enforcement activities
- Prioritizing public infrastructure improvements
- Tracking progress over time in reducing fatal and serious

Segment High Injury Network

The Segment HIN, shown in Figure XX, is based on crashes occurring at mid-block locations. This network helps identify roadway segments with elevated concentrations of severe crashes and guides the prioritization of safety improvements, such as speed management strategies, enhanced enforcement, and infrastructure investments, including roadway medians and other corridor treatments.

Intersection High Injury Network

The Intersection HIN, also shown in Figure XX, is based on fatal and serious injury (FSI) crashes occurring at intersections. Intersections that experienced two or more intersection-related FSI crashes within 100 feet of the intersection center point during the five-year study period are included in the network. The Intersection HIN helps identify locations where targeted operational, geometric, and multimodal safety improvements may be needed to reduce the frequency and severity of crashes.

Figure XX, High Injury Network

'Key Takeaways from the HIN':

Fatal and serious injury crashes in Tempe are concentrated on a relatively small share of roadway segments and intersections. The findings below highlight these locations and reinforce the value of focusing safety improvements where they can have the greatest impact.

- Of the 209 total FSI crashes on segments across the study period, 105, or about 50.2 percent, took place along the 20.7 miles that comprise the Segment HIN (that's just 3.9 percent of Tempe's 535 centerline miles of roads).
- 183 intersection-related FSI crashes took place at a total of 123 intersections across the City, a total of 104 FSI crashes, or 56.8 percent, took place along the 44 intersection HIN.
- Although motorcycles, bicycles, and pedestrians account for less than 10 percent of all crashes, combined these vulnerable road users account for half of all fatal and serious injury crashes.

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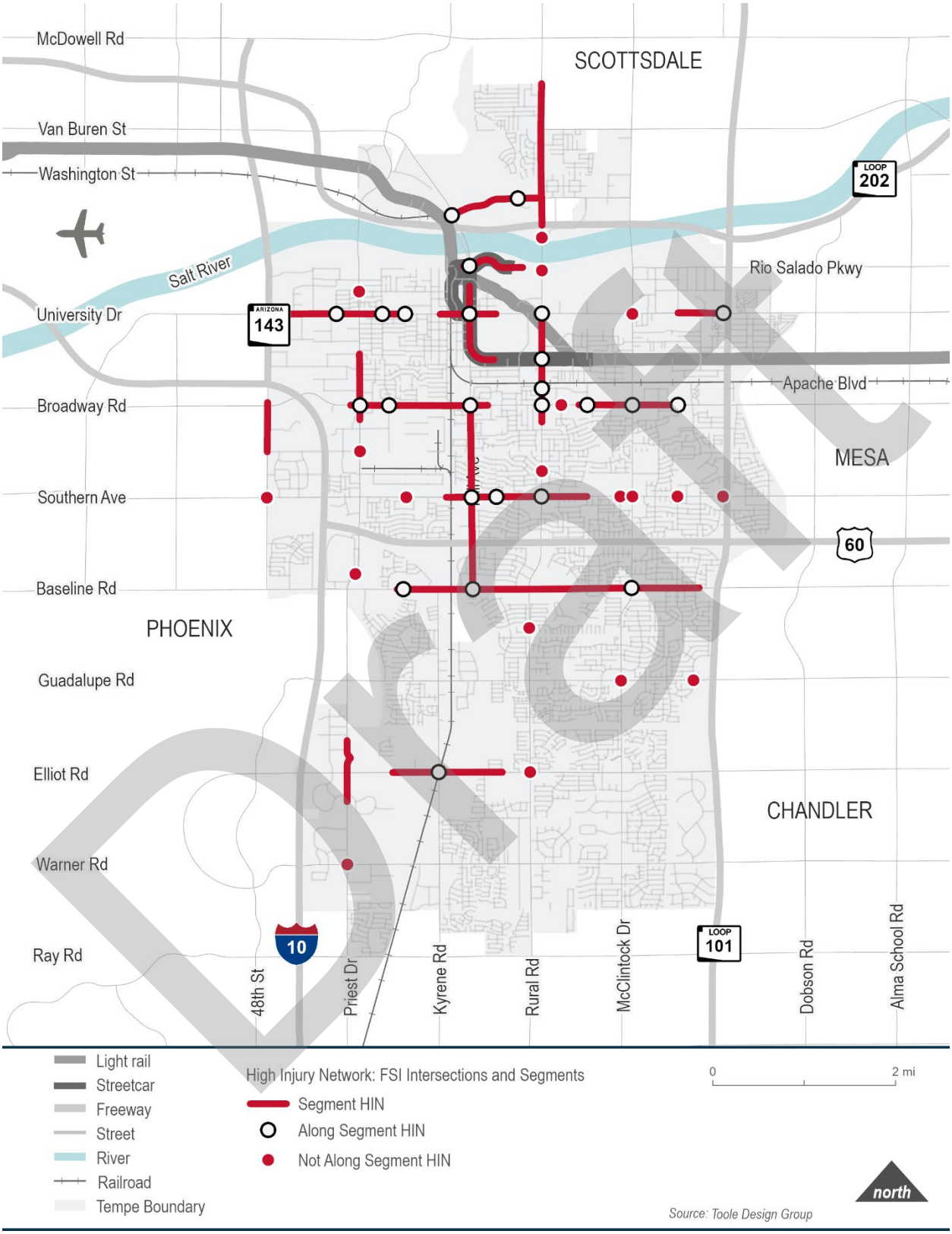


Figure XX, High Injury Network

Transit

Public transit service in Tempe is provided by Valley Metro in partnership with the City.

Transit Service and Facilities

Tempe has a robust network of transit options including light rail transit (LRT), streetcar, local bus, express bus, neighborhood circulators, paratransit, and RideChoice. These service are described briefly below:

- **Light Rail**: Tempe is served by the A Line, which operates between Mesa and the Downtown Hub in Phoenix. There are nine light rail stations in Tempe, which feature some of the highest ridership volumes in the system.
- **Streetcar**: the region's first streetcar line operates in Downtown Tempe and features 14 stop locations. Extensions to the east, west, and south have been proposed and are in various stages of planning.
- **Local Bus**: there are 13 local bus routes in Tempe which operate on arterial roadways and generally provide service every 15-30 minutes.
- **Neighborhood Circulators**: Tempe has six Orbit routes that primarily serve residential neighborhoods and one Flash route that serves the Tempe ASU campus. These services operate fare free.
- **Express Bus**: two express bus routes provide peak-period, peak-direction service between Tempe and Downtown Phoenix on weekdays.
- **Paratransit**: ADA paratransit service is available to persons with disabilities who have completed the eligibility certification process at Valley Metro's Mobility Center.
- **RideChoice**: in addition to federally mandated paratransit service, RideChoice is offered to Tempe residents with disabilities and seniors 65 years and older. The subsidized taxi service is $3.00 for each trip up to 8 miles, and $2.00 for each additional mile.

The fixed-route transit network is illustrated in Figure X. Service characteristics by mode are summarized in Table X.

Figure XX, Existing Transit Network

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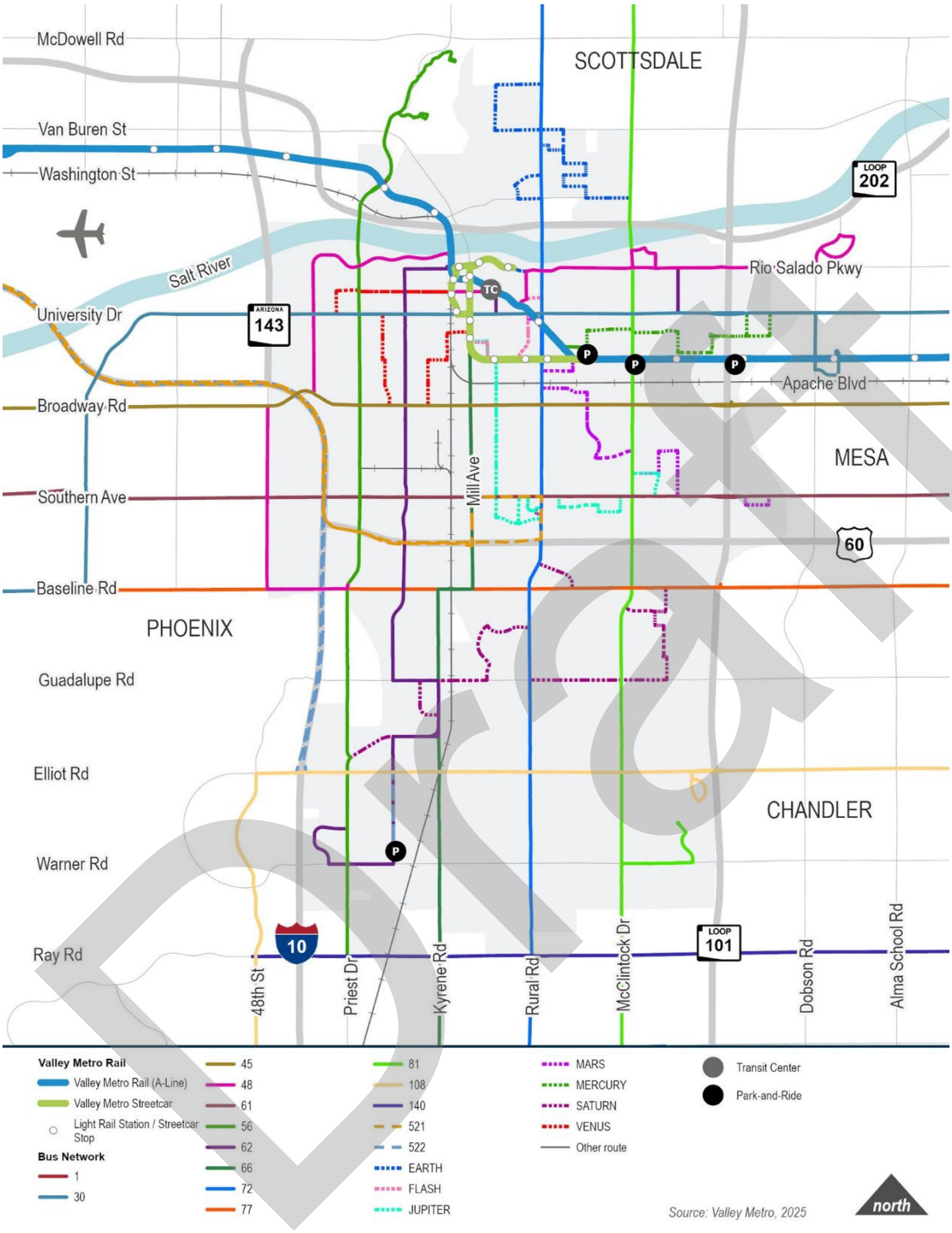


Figure XX, Existing Transit Network

Table XX. Service Characteristics by Mode

Mode	Service Span	Peak	Off-Peak	Service Span	Peak	Off-Peak	Service Span	Peak	Off-Peak
Valley Metro Rail	3:30 am - 2:00 am			3:30 am - 2:15 am	15	15-20	3:45 am - 2:10 am	20	20
Valley Metro Streetcar	5:30 am - 12:30 am	15	15-20	5:30 am - 12:30 am	15	15-20	7:30 am - 12:30 am	20	20
Local Bus	5:00 am - 12:00 am	15-30	30	5:00 am - 11:30 pm	30	30	5:00 am - 11:30 pm	30	30
Neighborhood Circulator	6:00 am - 10:30 pm	15	15	8:00 am - 10:30 pm	15	15	8:00 am - 7:45 pm	30	30
Express Bus	4 inbound AM peak trips, 4 outbound PM peak trips			No Service	-	-	No Service	-	-

Note: service spans are approximate, some variation between routes
Source: Valley Metro Service Schedule, 2025

There are several facilities that support Tempe's transit services including the Tempe Transportation Center, park-and-rides, the East Valley Bus Operations and Maintenance Facility (EVBOM), and over 700 bus stops. These facilities are briefly described below:

- **Tempe Transportation Center**: located at 200 E. Fifth Street, the City's primary transit center includes connections to light rail and a dozen local bus routes and neighborhood circulators. The 40,000 sq foot facility is certified LEED Platinum and includes retail uses, a transit store, security, and city facilities.
- **Park-and-Rides**: Tempe features two park-and-ride facilities along the light rail line at McClintock Dr and Apache Blvd and Loop 101 and Apache Blvd.
- **EVBOM**: this 250-bus capacity operations & maintenance facility is owned and operated by the cities of Tempe and Scottsdale and Valley Metro and located at 2050 W. Rio Salado Pkwy.
- **Bus Stops**: there are currently 773 bus stops in the City, of which 338 (44 percent) of locations include shelters. The City is committed to providing shelters at more stops, with a goal of installing at least 30 shelters per year.

Transit Performance

Tempe has a history of high performing transit services. On a boardings per revenue mile basis (a common transit performance metric), Tempe operates the most efficient service in the region. Tempe's commitment to high performing transit services is demonstrated in the following FY 25 performance statistics:

> - **7,089,678** | *Total Boardings*
> - **4,403,727** | *Total Revenue Miles*
> - **1.61** | *Boardings per Revenue Mile (highest in the region)*
> - **18.4%** | *Share of Total Regional Boardings*
> - **12.5%** | *Share of Total Regional Miles]*

The following highlights key performance metrics and takeaways for rail and bus services.

Rail Performance

Rail transit modes in Tempe include LRT (A Line) and streetcar. Light rail is the highest performing route in Tempe on an average daily boarding basis, with 5,614 boardings in October 2024 (Source: APC). In terms of service efficiency however, streetcar outpaces light rail as the highest performing route in Tempe with 10.0 boardings per revenue mile, compared with 6.4 boardings per revenue mile on light rail.

Rail performance in Tempe also compares favorably with that of the region, with three of Tempe's light rail stations rank in the top ten system-wide on an average daily boarding basis. These include:

- University Dr / Rural Rd: 1,532 boardings (Rank: #3)
- McClintock Dr / Apache Blvd: 1,106 boardings (Rank: #6)
- Veterans Way / College Ave: 1,093 boardings (Rank: #7)

Bus Performance

Average daily boardings at the stop-level were mapped to illustrate the geographic distribution of boarding volumes throughout the City. As illustrated in Figure X, the highest boarding areas are concentrated in the downtown Tempe / ASU area where population and job densities are highest and high-frequency service is available. The highest ridership stops in Tempe are as follows:

- Tempe Transportation Center: 1,700 boardings
- University Dr & College (EB): 562 boardings
- University Dr & Palo Verde Dorms (EB): 289 boardings

Figure XX, Average Daily Bus Boardings

Figure XX, Average Daily Rail Boardings

> "Key takeaways from Bus performance", Key findings from the Bus performance evaluation at the route level:
>
> - Orbit routes (Mars, Mercury, Jupiter, Venus) account for 4 of the 5 highest performing bus routes in terms of both average daily boardings and boardings per revenue miles.
> - Route 72 (Rural Rd) and Route 81 (McClintock Dr) are the highest performing local bus routes in terms of average daily boardings.
> - Route 30 (University Dr) and Route 55 (Broadway Rd) are the highest performing local bus routes in terms of boardings per revenue mile.

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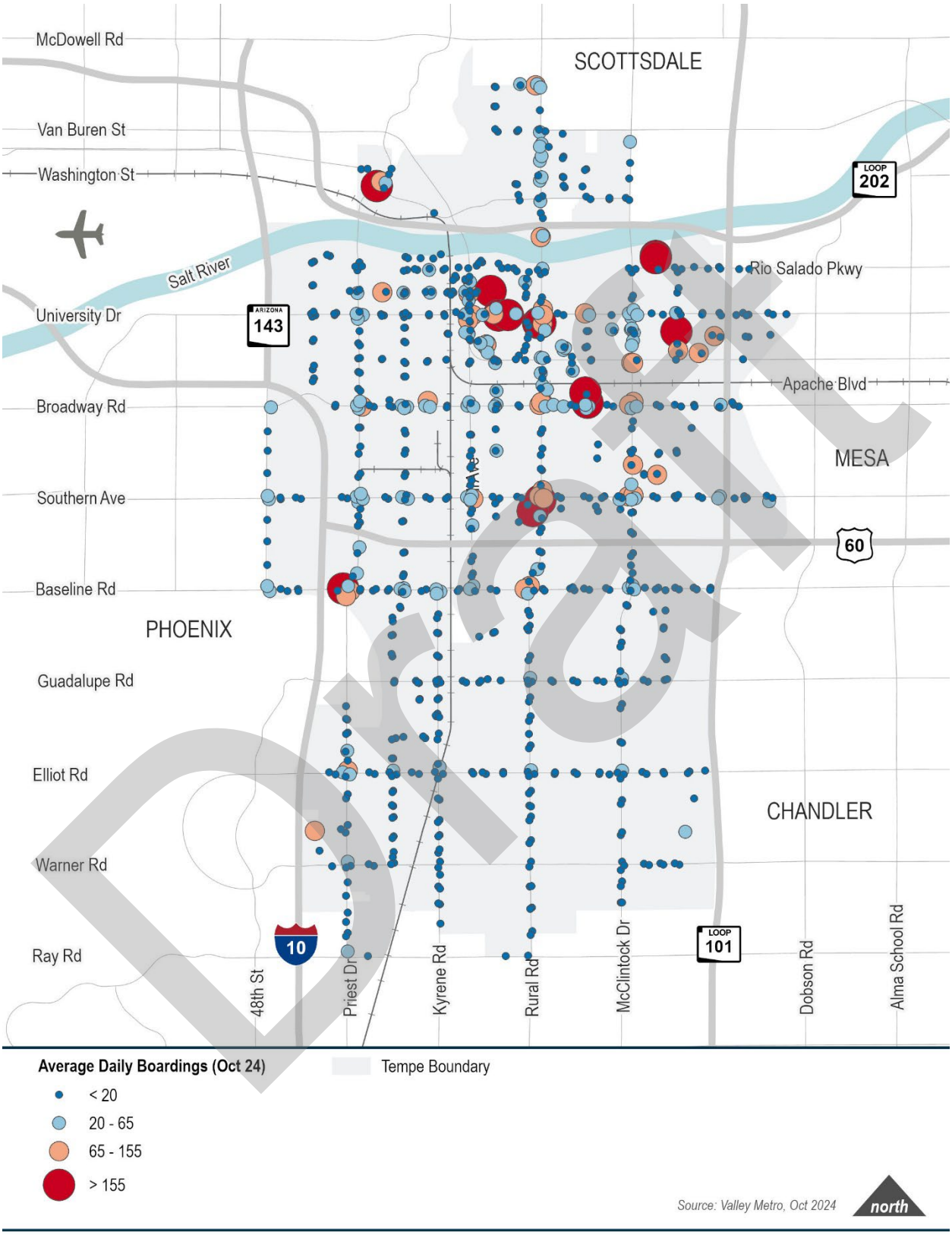


Figure XX, Average Daily Bus Boardings

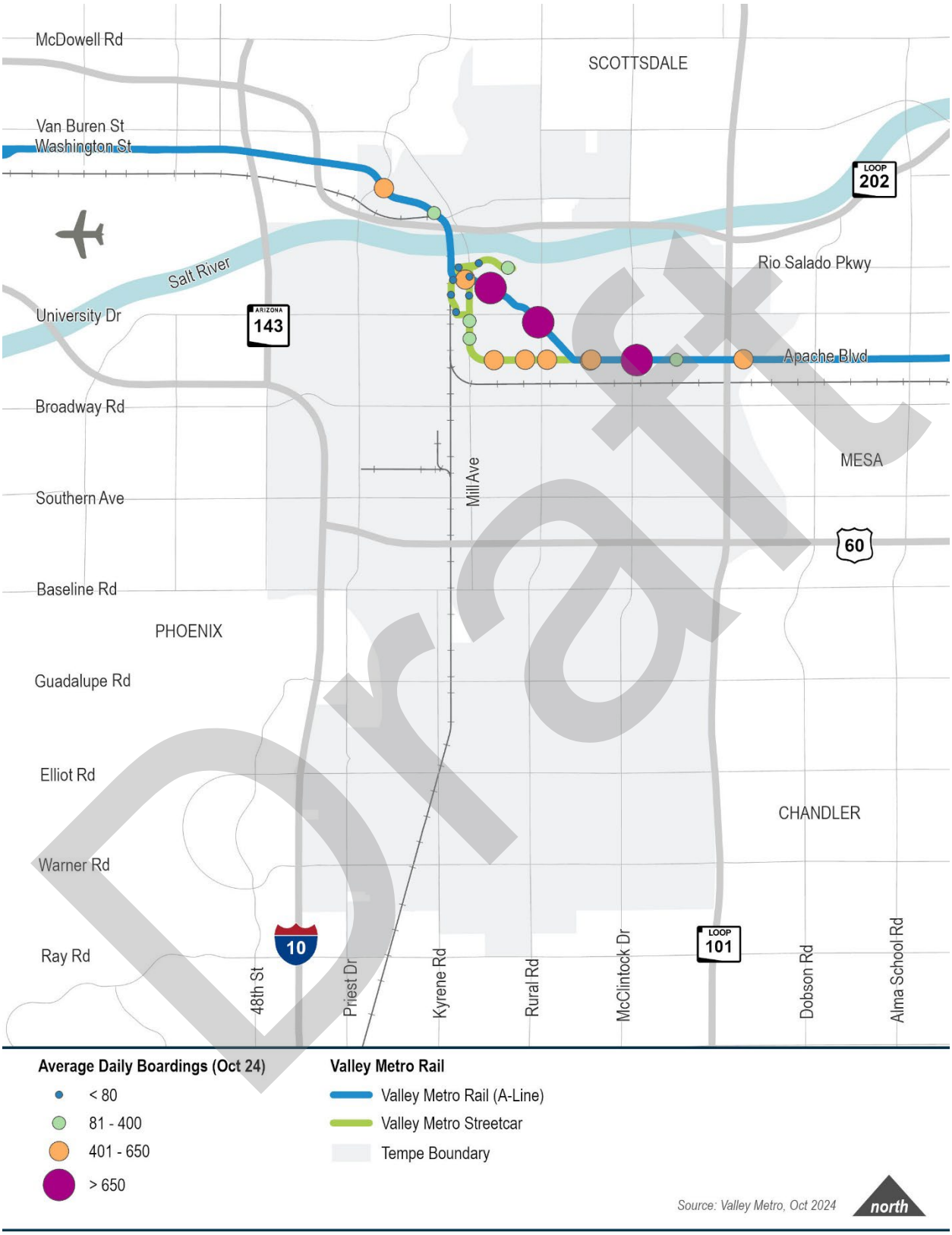


Figure XX, Average Daily Rail Boardings

Active Transportation

Tempe's active transportation network of dedicated bicycle facilities, shared-use roadways, and multi-use paths supports a range of transportation and recreational needs. The City prioritizes the continued development and improvement of a safe, accessible, and connected bicycle network that accommodates people of all ages and abilities. These efforts support the City's sustainability goals and reflect its commitment to expanding transportation choices and improving equitable access to employment, housing, services, and community destinations.

Pedestrian Network

Every journey begins and ends with pedestrian mobility. Pedestrian mode refers to travel undertaken on foot and includes people walking and using mobility aids such as wheelchairs, scooters, walkers, and other devices that enable personal movement within the public realm. Pedestrian travel serves as a fundamental component of Tempe’s transportation system, providing access to destinations, connecting to transit services, and supporting healthy, sustainable, and equitable mobility. This plan has identified gaps in this network, prioritized individual sidewalk infill projects, and introduced strategies to provide sidewalks on all Tempe streets.

Figure XX. Sidewalk Network Map

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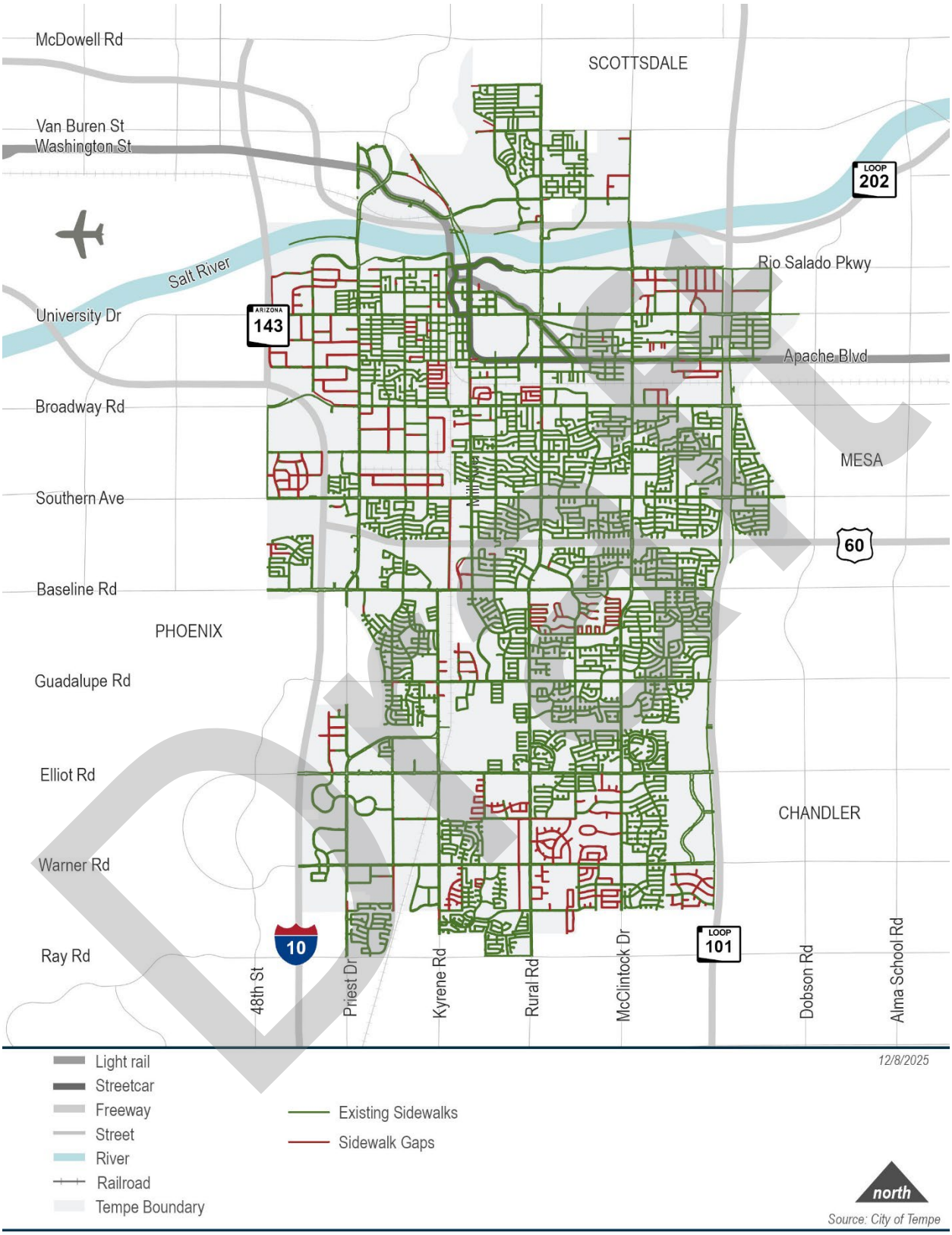


Figure XX. Sidewalk Network Map

Bicycle Network

Tempe's first bike plan was created in 1974, and has since demonstrated a commitment to building out an extensive network of bike facilities.[updated bike facility mileage]. While it is important to continue to expand the mileage of this network, it is also critical that the appropriate facility types are implemented to support comfortable and accessible bicycle travel.

In 2023, the League of American Bicyclists re-designated Tempe a Gold-Level Bicycle Friendly Community, demonstrating Tempe's commitment to promoting cycling through significant investments in infrastructure, education, encouragement programs, and policy changes. According to the 2024 US Census American Community Survey 5-year estimates, approximately 4.8% of Tempe residents use a bicycle to commute to work.

BIKEiT

BIKEiT is Tempe's preferred bicycle network for comfortable, convenient, and continuous access to major destinations, neighborhoods, and transit throughout the city on a collection of lower stress streets and off-street pathways. They are typically designed to prioritize active transportation users through physical interventions which aim to reduce vehicle speeds, improve visibility, and facilitate a more comfortable experience. BIKEiT does not replace the current bicycle network; instead, it provides another layer of facilities that are considered easier to use, or even optimal. In the same way there are freeways, arterials, and local streets for roadways, the preferred network consists of tiered routes; Primary and Secondary Routes. Where BIKEiT Routes overlap with existing Bike Routes, the former prevails. The preferred network is accompanied by comprehensive wayfinding signage that guide users toward routes and destinations.

Figure XX. BIKEiT Network Map

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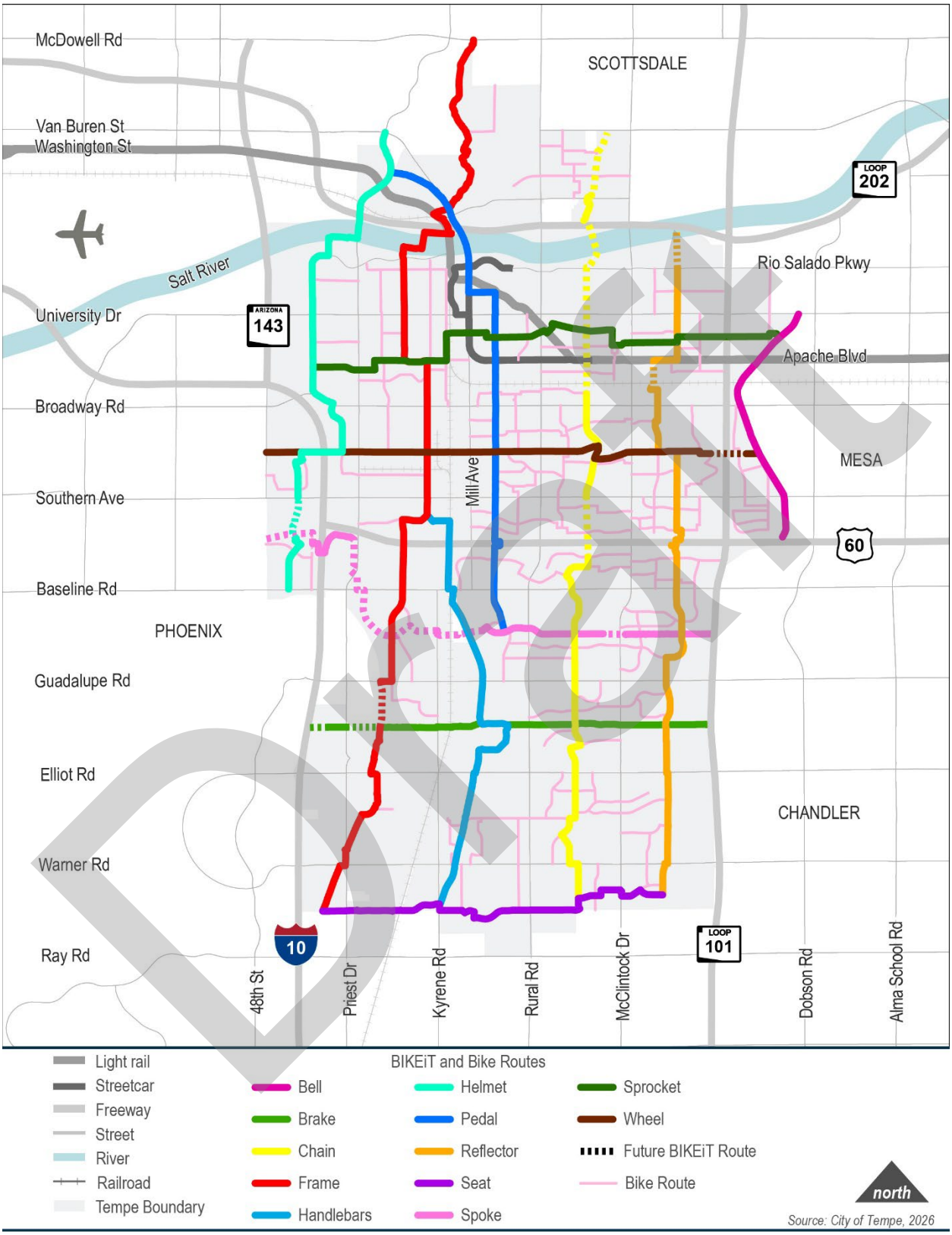


Figure XX. BIKEiT Network Map

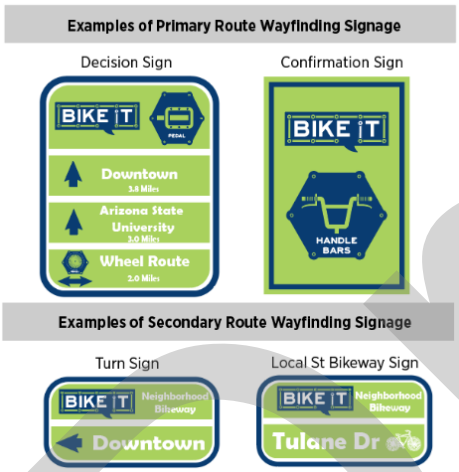
Primary Routes

Named for components of a bicycle, Primary Routes are the backbone of the preferred network. Bright, green wayfinding signage guide users directly toward major destinations, neighborhoods, and transit hubs on lower traffic-volume and speed streets and off-street pathways. They typically feature specialized treatments such as bridges, curb extensions, priority signals, crossing improvements, landscaping, and bollards that indicate to vehicles to slow down and pay attention. Most routes cross physical barriers that would otherwise require users to detour. Interventions such as these ensure Primary Routes rarely score higher than LTS 3 (see Bicycle Level of Traffic Stress for further explanation) and are suitable for most ages and abilities. For regional commuters, select Primary Routes provide continuous access beyond the city's borders.

Secondary Routes

Peripheral network within the preferred network that collects users within a neighborhood and funnels them to a Primary Route. Unique Neighborhood Bikeway signage and sharrows inform users they are on a Secondary Route. These routes do not generally connect users with major destinations, instead providing first and last mile connections that help people navigate the broader bicycle network.

BIKEiT Wayfinding Signage Example



Bicycle Level of Traffic Stress

The Bicycle Level of Traffic Stress (LTS) framework assigns a score for roadway segments and bikeways based on how stressful or accommodating these segments are presumed to feel for cyclists. Factors such as bicycle facility type and width, traffic volumes, vehicle speeds, intersection conditions, and on-street parking are used to identify routes that are comfortable for riders of different ages and abilities. Bicycle LTS analysis was used in identifying where improvements to existing bikeways are needed and where new low-stress connections could expand the network.

LTS Graphic and definition showing comfort levels

Tempe's bicycle network was evaluated through three key lenses:

- Safety: Locations with a history of bicycle crashes or other safety concerns.
- Comfort: Bicycle LTS high-stress riding conditions (equates with Bicycle LTS 3 and 4), including limited separation from traffic, challenging intersections, and other barriers to bicycling.

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- Connectivity: Missing links, gaps, and barriers that limit access between neighborhoods, destinations, and bikeways.

The assessment identified opportunities to improve existing routes, close network gaps, and provide safer crossings of major streets, freeways, and rail corridors. Together, these findings informed the bicycle projects and priorities recommended in this Plan. Additionally, these findings were used to develop proposed strategies such as maintaining a Bicycle LTS of 3 or lower for bike facilities on arterials, and 2 or better for bike facilities on the City's BIKEiT Network.

Multi-use Path

A paved facility physically separate from the roadway and automobile traffic designated solely for bicycles (both human powered and non-human powered), mobility devices, shared active transportation vehicles, horses, skateboards (both human powered and non-human powered), and pedestrians. Multi-Use paths are a minimum of 10 feet wide. These paths traverse neighborhoods, parks, canal banks, and the Rio Salado, and are often accompanied with pedestrian scale lighting and landscaping (where feasible). Presently, the City has 42 miles off multi-use path.

Shared-Active Transportation

Shared Active Transportation Vehicle (SATV) refers to a shared-use, human-powered or electric-assisted micromobility vehicle that supports active transportation, such as dockless scooters or bikes. SATVs offer convenient, flexible, travel options while addressing gaps in mobility. Most SATV trips in Tempe are 15 minutes long and average 1.5 miles, similar to national averages, demonstrating the important role they play in the first and last mile mobility.

> Graphic – SATV Heatmap Trips

Mobility Hubs

Mobility hubs are places where different travel options – walking, biking, transit and shared mobility – come together in one physical location, designed to help reduce the need for vehicle ownership and single occupancy driving trips. Mobility hubs serve this purpose at an origin, destination or an intermediate location of a person's trip. They can facilitate single mode trips, a transfer between travel modes or eliminate the need for a trip altogether.

Mobility hubs accomplish this purpose by improving the ease of using alternative modes of transportation, providing options that otherwise would have been fulfilled by vehicle ownership, such as shared vehicles, and addressing the "first/last mile" access problem manifested in fixed route public transportation. First/last mile access issues arise when transit systems must balance competing priorities of equitable geographic coverage and efficient service. The public transportation routes which attract higher ridership often provide a more focused geographic coverage with larger distances between stops. To access these higher quality transit services, users typically must travel longer distances (often a mile or greater) or transfer from feeder transit routes. Mobility hubs can bridge this gap with amenities that provide travelers more mobility options and a seamless travel environment.

> Graphic – Mobility Hub Heat Map

Improved Crossings

At grade or grade-separated crossings that are accessible to bicyclists and pedestrians. Often, major access barriers are presented along active transportation corridors, such as freeways, arterial roads, canals, railroad, etc., which often necessitate the use of a dedicated crossing for active transportation users. Tempe currently

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has 35 such crossings throughout the City which include underpasses, pedestrian bridges, railroad crossings, and pedestrian signals.

> Graphic – Ped Bridge and Underpass

Shade

Tempe has about 300 clear days per year and averages 4,050 hours of sunshine out of a possible 4,380 (92 percent). Shade is more than just comfort, shade is a critical resource in Tempe provided to the community by public and private assets. Shade, provided by trees and man-made structures creates cooler, comfortable spaces that protect public health, improve quality of life, and strengthen community resilience. The General Plan 2050 states, “Streets should be shaded where people walk and wait for transit.”

Challenges to maintaining the existing shade canopy and expanding the urban forest include water use, infrastructure coordination, and funding. Climate and social justice issues include addressing the racial and economic disparities of who has access to a shaded bus stop and a tree-lined cool street.

Shade is one of the most effective interventions for reducing the effects of heat on the human body and environment. It can be life-saving infrastructure, since research has found that shade reduces the temperature people feel more than any other single environmental modification. Because of this, both built and vegetative shade should be a priority. One specific way we can improve this is to provide shade at bus stops to promote ridership.

> When asked to select all the reasons they would walk more, two-thirds of survey participants included more shade in their response.

Figure XX. Tree Canopy Map

Active Transportation Toolkit

To support implementation of this Plan, the Active Transportation Toolkit provides a menu of proven design strategies to improve walking and bicycling safety, comfort, accessibility, and connectivity throughout Tempe. The toolkit identifies the types of conditions each treatment is intended to address and serves as a resource for selecting context-sensitive improvements based on roadway characteristics, traffic conditions, surrounding land uses, available right-of-way, funding, and project goals. Strategies range from lower-cost operational enhancements, such as pavement markings and signal timing adjustments, to larger capital improvements, including protected bicycle lanes, shared-use paths, intersection redesigns, and traffic calming measures. As projects advance through planning and design, the toolkit can be used to tailor solutions to local needs and support a more connected and comfortable active transportation network for people of all ages and abilities.

The toolkit is intended to support future project development by providing a consistent framework for selecting improvements that enhance comfort, safety, and connectivity for bicyclists of all ages and abilities. As projects advance through planning and design, appropriate strategies can be drawn from the toolbox and tailored to local conditions to reduce stress levels and expand access to the City's bicycle network.

[Refer to AT toolkit linked on the project webpage]

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Tempe Tomorrow

Tempe is one of the oldest, incorporated, and historic communities in the Valley, and the most densely populated city in Arizona. Although Tempe is largely built out, the City is expected to continue growing through redevelopment, infill development, and the intensification of existing activity centers. As aging commercial properties, underutilized parcels, and surface parking lots are redeveloped, additional housing, employment, and mixed-use development will be accommodated within the existing urban footprint.

MAG projects that the current population of 194,000 will increase to 236,000 by 2050 (a 22 percent increase). During that same period, employment in the City is expected to increase by 50,000 (a 30 percent increase).

To accommodate population and employment growth while maintaining the high quality of life Tempe is known for, the City must make more efficient use of its existing infrastructure and transportation investments.

Figure XX. 2050 Population Projections

Figure XX. 2050 Employment Projections

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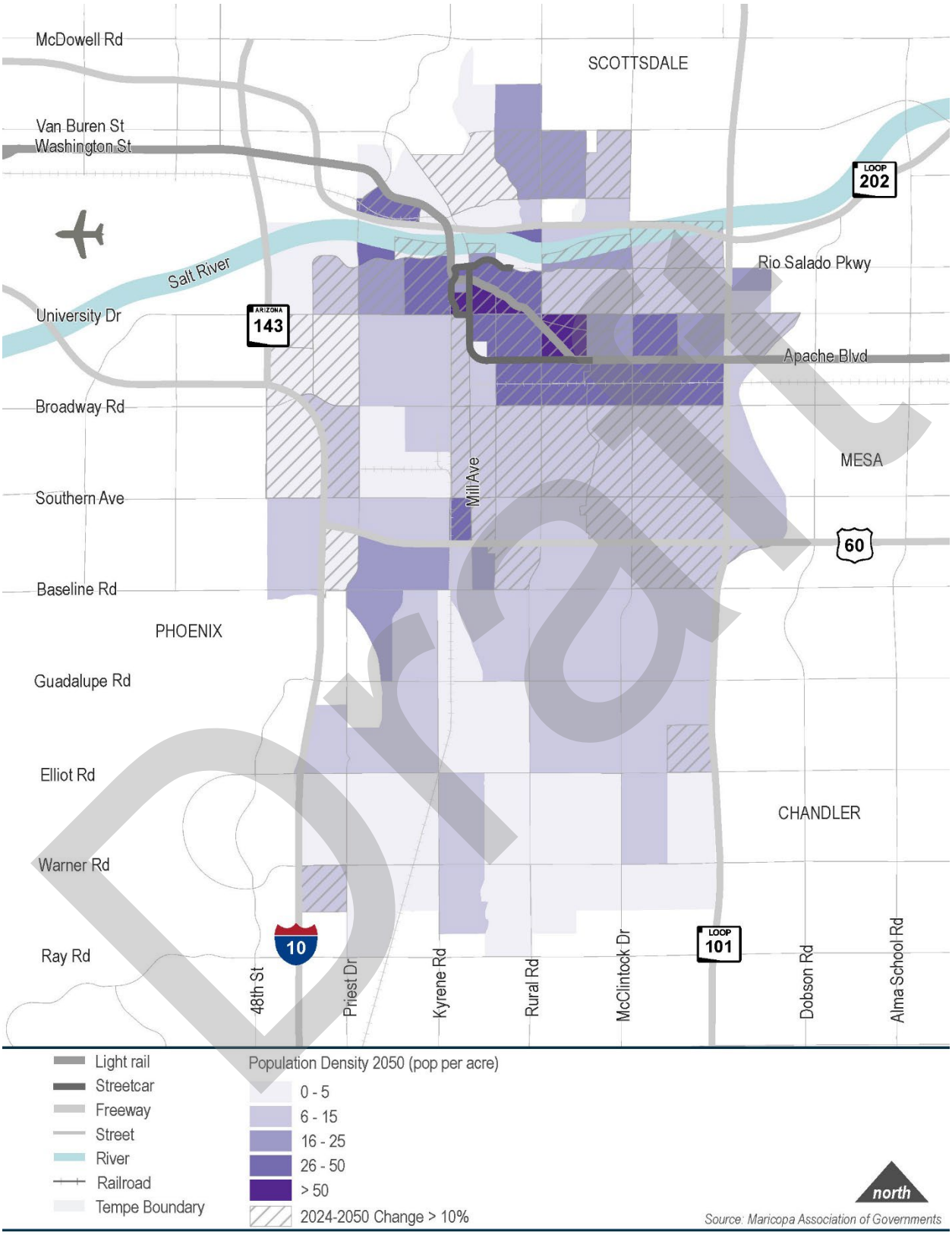


Figure XX. 2050 Population Projections, highlighting those areas experiencing substantial growth (≥10%)

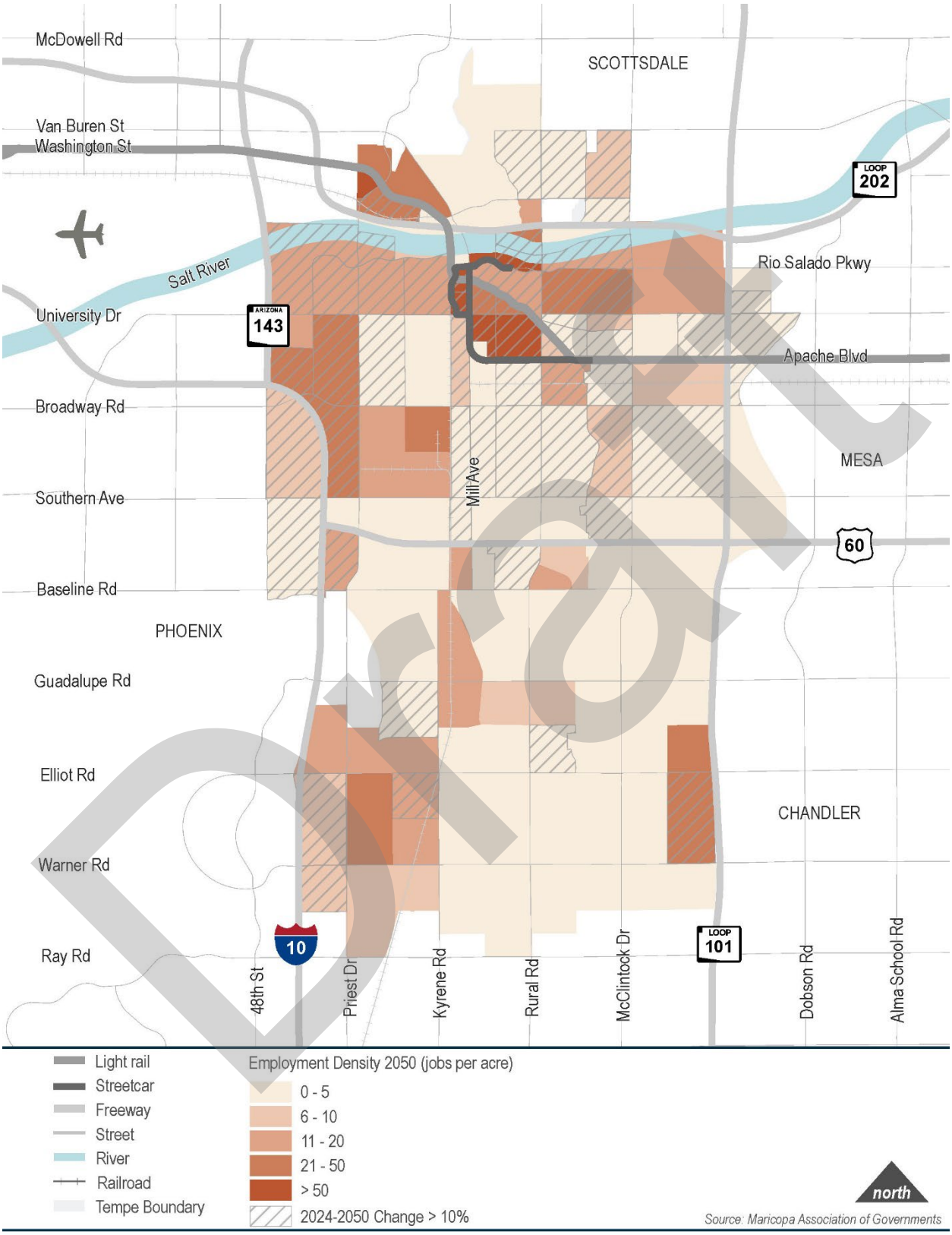


Figure XX. 2050 Employment Projections, highlighting those areas experiencing substantial growth (≥10%)

Projected Roadway Traffic Volumes

The MAG Regional Travel Demand Model is the primary forecasting tool used to estimate how people and goods will travel throughout the Phoenix metropolitan area under current and future conditions. Figure XX shows the projected growth in vehicular traffic across the City from 2024 to 2050. Not surprisingly, the areas with the greatest anticipated traffic growth are consistent with the areas experiencing increases in population and employment. These are also the areas where the City is investing in high capacity transit services.

Figure XX. Traffic Growth 2024 – 2050

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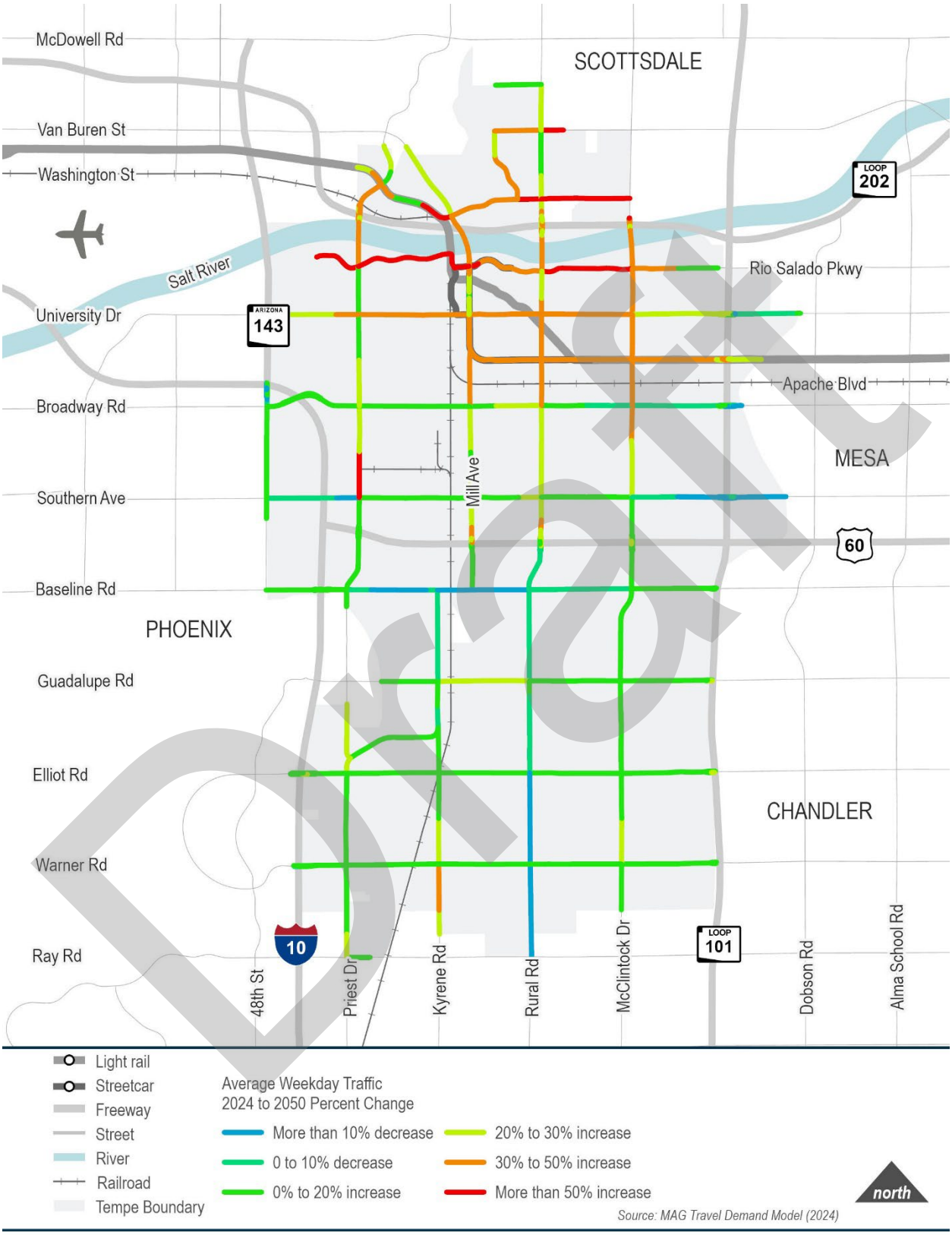


Figure XX. Traffic Growth 2024 – 2050

Trends and Challenges

Since adoption of the 2015 Transportation Master Plan, Tempe has made significant progress in expanding transportation choices, improving transit service, and advancing safety and sustainability strategies. At the same time, evolving travel patterns, continued growth, emerging technologies, climate challenges, and changing community needs are creating new opportunities and demands on the transportation system.

The trends highlighted in this section will influence how people move throughout Tempe in the coming years and help shape the priorities, investments, policies, and actions included in this Plan.

Multimodal Mobility and the "20-Minute City"

The 2015 Transportation Master Plan introduced the concept of the 20-Minute City, and the City remains committed to this goal. Easy access to basic human services is deserved by all Tempe residents, including persons with disabilities, and supports the goals of the Tempe Transportation Plan, the City's Sustainability Plan and Tempe's ADA Transition Plan. The Plan continues to make the 20-Minute City possible by promoting active transportation projects and transit improvements throughout the City.

Population and Employment Growth

Following COVID-19, Tempe experienced rapidly rising housing costs driven by strong demand, limited housing supply, and continued economic growth. As affordability challenges have intensified, housing and transportation have become increasingly interconnected. By improving mobility options and expanding access to housing and jobs, transportation investments can help mitigate some of the economic impacts of the housing affordability crisis while supporting Tempe's long-term sustainability and quality-of-life goals.

Transit Expansion and Regional Connectivity

Tempe will continue to be at the forefront of transit expansion and regional connectivity throughout the Valley. Major changes are underway for transit service in the region as part of the Valley Metro Bus Network Redesign and MAG Proposition 479. In general, there is a move towards higher quality and more productive transit services. The bulk of Tempe's transit network already meets or exceeds regional transit standards and Tempe offers the most diverse set of transit services in the region. The challenge going forward will be how to optimize and fund these services over the long term given local and regional funding constraints. Tempe will continue to add more frequent transit service to its network while balancing the funding needs for major capital programs such as Scottsdale/Rural Road BRT and Tempe Streetcar extensions.

Vision Zero

While safety was a fundamental element of the 2015 Transportation Plan, Tempe formally established their Vision Zero policy in 2018, which led to development of the subsequent Vision Zero Action Plan released in 2019. The Safety Action Plan updates the data and strategies introduced with the 2019 plan and is incorporated by reference into the Plan (see Appendix XX).

Sustainability and Resilience

As temperatures continue to rise across the region, climate adaptation and extreme heat resilience are becoming increasingly important factors in transportation investment decisions. According to the latest data from Maricopa County, 430 people died from heat-related causes in 2025, including 18 in Tempe. By taking action, Tempe can mitigate the severity of these combined climate impacts by building resilience against extreme heat and reducing dependence on fossil-fuel based energy and gasoline-powered transportation. The Plan focuses on improving modal choices across Tempe, increasing options to reduce dependence on fossil fuels and provide reliable, efficient, and equitable transportation options.

Transportation Electrification

The transition to electric vehicles and other electric mobility options is reshaping the transportation system. As adoption grows, Tempe will need to expand charging infrastructure and support policies that facilitate

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vehicle electrification. Consistent with the City's Climate Action Plan, this Plan supports transportation electrification as a strategy to reduce emissions, improve air quality, and advance sustainability goals.

> According to the 2022 Climate Action Plan, 24 percent of the City's 2020 Greenhouse Gas municipal emissions comes from transportation, a 17 percent reduction from just 5 years earlier. With the adoption of electric vehicle (EV) technology, Tempe's transportation system is growing greener, and quieter. The 2022 Climate Action Plan advocates for adopting policies that adapt building codes to reduce barriers to installing electric vehicle charging stations, an EV Fleet Roadmap for the City to develop and implement investments in charging stations and vehicles, and a Community EV program.

Micromobility Growth

Dockless scooters, bike share, and other micromobility options are becoming increasingly important for short trips and first/last-mile transit access. Tempe has sought to manage micromobility growth through management of City operating contracts, geofencing, and legislation. As growth of SATVs increases, policies will need to adapt to ensure equitable access while promoting safety for all people who walk, bike, roll, and use other active modes.

Equity and Accessibility

The City is focusing on providing safe, reliable, and affordable transportation options for all users, particularly underserved populations. Ensuring equitable access to transportation investments led to the Plan's active transportation prioritization process including Equity Priority Zones as a project evaluation criteria.

Technology, Smart Mobility and Big Data

Technology is playing an increasingly important role in improving the efficiency, reliability, and safety of Tempe's transportation system. The City is leveraging tools such as Tempe TRiP, which provides real-time parking availability information, and connected traffic signal systems that support more effective traffic management. Tempe is also advancing the use of Intelligent Transportation Systems (ITS), data analytics, and emerging smart mobility technologies to enhance system performance and inform decision-making. This Plan includes policies and actions that support continued investment in technology to improve mobility, safety, and the overall user experience.

Public Participation

The City of Tempe recognizes that transportation planning is most effective when informed by community input. This Plan was developed through a comprehensive engagement process designed to gather diverse perspectives and priorities from across the community. Inclusive and accessible outreach strategies were used to engage a broad range of residents and stakeholders, including traditionally underserved populations, helping to reduce barriers to participation and ensure that the Plan's vision, goals, and recommendations reflect community needs and aspirations.

The community engagement process included in-person and virtual meetings, surveys, mapping activities, and pop-up events that provided residents, employees, students, and visitors with opportunities to learn about the Plan and share feedback on transportation needs and priorities. The City also engaged stakeholders and regional partners, including elected officials, public agencies, educational institutions, community organizations, and businesses, to gather input on specific transportation issues, opportunities, and community needs.

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Graphic: *Community Engagement Results*

Phase I – Understanding

- 401 survey responses
- 81 online map comments
- 39 public meeting participants [8/13/2025]
- 21 virtual meeting participants
- 21 pop-up events

Phase II – Gaps and Needs

- 307 survey responses
- 67 online map comments
- 30 public meeting participants [2/25/2026]
- 19 virtual meeting participants
- 14 pop-up events

Phase III – Recommendations

- 137 survey responses
- 136 online map comments
- 33 public meeting participants [8/12/2026]
- 23 virtual meeting participants [8/12/2026]

Phase IV -(Reserved)

Phase – Understanding

The Understanding Phase survey engaged 401 participants and was open from August 12 to September 10, 2025. The survey shared information about the Plan update and solicited feedback from the community about the City's current transportation system and future needs.

- Current and Future Travel Modes
  - [Graphic – Q1 Primary Mode bar chart]
    - When asked to select their primary travel mode, survey participants most frequently reported driving alone. This is consistent with the most recent American Community Survey results, which report that 64% of workers in Tempe drive alone for their work commute.
    - 19% of survey participants selected walking, using a mobility device, or biking as their primary mode of transportation.
    - 17% of survey participants selected transit (bus, streetcar, light rail) as their primary mode of transportation.
  - Active Transportation
    - [Graphic – Q5 Walk More bar chart]
      - When asked to select all the reasons they would walk more, two-thirds of survey participants included more shade in their response.
    - [Graphic – Q6 Bike More bar chart]
      - When asked to select all the reasons they would bike more, survey participants' most selected reasons included more low-stress routes and separation between bikes and vehicles.
    - [Sidebar – "Active transportation is one of the smartest investments Tempe can make. It's also an incredibly equitable solution."]
  - Transit

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        - [Graphic – Q3 Transit Mode bar chart]
            - Nearly two-thirds (63%) of survey participants reported using transit in general, highlighting Tempe's multimodal transportation system.
            - Two-thirds of survey participants who primarily use transit selected bus as their most-used service.
        - [Graphic – Q12 Transit Frequency bar chart]
            - When asked how often they use transit, over half (54%) of survey participants reported using it daily or weekly.
        - [Graphic – Q14 Transit More bar chart]
            - When asked to select the top three reasons they would use transit more often, survey participants most frequently included expanding transit connectivity and improving service speeds.
        - [Sidebar – "For the average resident, transit often isn't competitive with driving"]
- Transportation System Priorities and Investments
    - [Graphic – Q4 Resource Prioritization]
        - When asked to select the top three transportation needs that should be prioritized in Tempe given limited resources, survey participants' most-selected priorities aligned with the Plan's goals to enhance transportation system safety, increase alternative travel mode use, and responsibly maintain infrastructure.
    - [Graphic – Q18 Transportation Investments bar chart]
        - When asked to select the top three transportation investments the City should focus on, survey participants most frequently included investments related to alternative transportation modes.
    - [Sidebar – "Improvements should improve the transportation experience of our most vulnerable community members."]

Phase – Gaps and Needs

The Gaps and Needs Phase survey engaged 307 participants and was open from February 25, 2026 through March 18, 2026. The survey gathered input on community-identified gaps and needs in the City's transportation system.

- Travel Experience
    - [Graphic – PH2_Safety bar chart]
        - When asked to select the top three safety issues they notice, half of participants selected each of the top two issues (speeding/aggressive driving and distracted/non-compliant driving), both of which relate to driver behavior.
    - [Graphic – PH2_Delays bar chart]
        - When asked to identify the top three causes of delays where they travel most, two-thirds of survey participants included traffic congestion in their selection.
- Transportation System Priorities and Investments
    - [Graphic – PH2_OutcomePrioritization bar chart]
        - When asked to select the top three outcomes the Plan should prioritize, over half of survey participants included "improve walking/biking conditions" and over a third included "improve transit access and reliability".
    - [Graphic – PH2_Funding bar chart]
        - When asked to select one area the community should invest in with limited funding, nearly a third of survey participants selected each of the top two investments.
    - [Graphic – PH2_SupportiveRev bar chart]

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- When asked to review potential recommended approaches and share their level of support for each, survey participants generally expressed support for approaches related to alternative travel modes and safety.
    - Add bus priority (54% support or strongly support)
    - Add protected bike lanes (71% support or strongly support)
    - Expand sidewalks and crossings (66% support or strongly support)
    - Lower speeds on key corridors for safety (62% support or strongly support)
    - Roadway lane reductions (38% support or strongly support)

Phase – Recommendations

The Recommendations Phase survey engaged 137 participants and was open from August 11 to August 30, 2026. The survey provided participants with an opportunity to share thoughts on the plan development process and initial project recommendations.

- Two-thirds of survey participants agreed that the recommendations proposed reflect Tempe's goals.
- [Graphic – PH3_WordCloud_concerns or needs that should be addressed]

Phase – Draft Plan

[reserved].

The goals, objectives, and strategies presented in the following sections establish the framework for advancing Tempe's transportation vision through 2050. Together, they translate the community's priorities into clear direction for future investments, programs, and policies.

The goals describe the desired outcomes for Tempe's transportation system, while the objectives define specific areas of focus. Strategies provide the policies and actions that will guide implementation, helping create a transportation system that is safe, connected, sustainable, equitable, and resilient.

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Community

> Goal statement - Foster a connected and inclusive community by providing transportation choices that strengthen neighborhood connections, expand access to destinations, and reflect the values and needs of Tempe's diverse residents, businesses, students, and visitors.
>
> Ensure that transportation investments are planned and distributed fairly, reducing barriers to mobility and expanding access to opportunities for all residents, particularly historically underserved and transportation-disadvantaged communities.

Our community is made up of many people: residents, students, workers, and visitors who make Tempe a vibrant and special place. The work that goes into maintaining and improving our transportation network, from rebuilding our roads, improving our traffic signal technologies, building new bus shelters, or installing stormwater infrastructure, helps people in Tempe get to their destinations in a dependable and reliable way.

The transportation network is an essential part of how communities move. It can influence how our communities grow, how we interact with each other, and the services different communities and populations receive. As our transportation network supports the many communities that make up the city, we must aim to create a network that provides a positive and safe experience for all users.

This chapter addresses how transportation can work with communities to strengthen neighborhood connections, reduce accessibility barriers, and equitably distribute investments and improvements that meet the wide range of communities' needs and values throughout the city. Transportation investments can be time-consuming and expensive, and improvements can affect affordability for both people and businesses. Involving neighborhoods, communities, and stakeholders in developing these transportation investments helps address these challenges and preserve the culture and character that make Tempe a desirable place to live, work, and play.

> When asked about Plan Priorities, 52 percent of respondents identified improved walking and bicycling conditions as a priority and 40 percent identified improved transit access and reliability.

Goal COMM 1: Provide affordable, accessible, and convenient connections to the places where residents and visitors live, learn, work, and play through a transportation network that reflects and supports Tempe's communities and local character

Objectives and Strategies

COMM 1.1: Increase public awareness around modal networks, roadway safety, and sustainable practices

1. Encourage collaboration with schools and school districts to identify and implement transportation safety improvements that support safe, accessible, and convenient travel for students
2. Develop and maintain accessible documents, materials, and resources like the Tempe Bicycle/BIKEiT Map to inform transportation choice and enhance awareness for wayfinding
3. Develop public education materials and outreach techniques to promote pedestrian and bicycling safety and compliance
4. Use Transportation Demand Management services to partner with organizations and new development to promote multi-modal commuting practices

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5. Collect transit ridership data to support the continued refinement and optimization of the transit network in Tempe.
6. Continue to provide information on transit routes, frequency, span of service, and fare policy, leveraging both City of Tempe and Valley Metro tools and resources.
7. Collect citywide pedestrian and bicycle volume data and collaborate with community partners, such as Tempe Bicycle Action Group (TBAG), to conduct supplemental manual counts. (ALT1)
8. Collaborate in programming and special events with local partners that raise awareness for bicycling safety and benefits

COMM 1.2: Enhance the landscape along the ROW with opportunities for engaging and interesting pedestrian experiences

1. Require transportation projects to evaluate and implement Low Impact Development (LID) and Green Streets practices that reduce stormwater runoff, improve water quality, and create safer, more attractive corridors.
2. Collaborate with neighborhoods to build amenities like shade structures, gardens, and public art along the ROW
3. Support community initiatives that improve pedestrian pathway design and access points

Goal COMM 2: Reduce mobility barriers and equitably expand access to opportunities and services through transportation investments.

Objectives and Strategies

COMM 2.1: Advance transportation investments that improve access to daily needs, services, jobs, and community destinations for people of all ages, abilities, and backgrounds

1. Integrate emerging micromobility technologies into the existing transportation network, while ensuring access to underserved communities and accommodations for ADA needs
2. Design, construct, and maintain ADA-compliant pedestrian curb ramps at all intersections to provide a continuous and accessible pedestrian network. (ALT1)
3. Maintain and update data related to the bicycle network and pedestrian network to prioritize access and resolve network gaps
4. Work with Neighborhood Associations and other stakeholders to add pathway connections for pedestrians and cyclists into neighborhoods
5. Use data-driven maps to identify communities that are underserved in the transportation network, and where services are needed
6. Build transit shelters with amenities along neighborhood collectors that support local ridership and improve their transit experience

COMM 2.2: Develop greater accessibility and connectivity throughout the transportation network to meet all basic daily non-work needs

1. Prioritize accessible crossing infrastructure near essential destinations and services
2. Use the development process to expand access to Tempe multiuse paths and recreational amenities
3. Implement bicycle and pedestrian infill projects that address gaps in pedestrian and bicycle network and are compatible neighborhood character

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Connected Mobility

> Goal statement - Provide a seamless, multimodal transportation system that enables people of all ages and abilities to safely, conveniently, and affordably access opportunities, services, and destinations throughout Tempe.

Tempe's citywide multimodal transportation network consists of interconnected streets, sidewalks, bikeways, multiuse paths, transit routes, and other transportation facilities or infrastructure that enable people and goods to move between destinations (home, school, grocery store, entertainment, place of employment). These different facilities or infrastructure are a part of overlapping modal networks; in this plan, they are known as pedestrian, bicycle, transit and roadway networks. Each provides essential connections for different forms of travel, common facilities like intersections, crossings, and the street joins these networks into a shared multimodal network. Understanding how these networks function individually and collectively is fundamental to improving accessibility, our ability to connect to many places and mobility, our ability to move with ease and reliability as we travel. Creating a transportation network that supports safe, accessible, and convenient travel for all users requires accommodations across infrastructure and facilities to enable pedestrians, cyclists, transit users, and drivers to reach their destinations with ease and reliability.

The Goals, Objectives, and Strategies of this chapter address the challenges present across our overlapping modal networks—how we can improve and maintain our modes of travel without diminishing either. By developing all our modes of travel, we encourage broader transportation choice and reduce demand and stress on a single mode.

Goal CM 1: Develop an effective citywide multi-modal transportation network integrated with sound land use planning, to create safe, efficient, and accessible mobility for persons, goods, and services within the City, and the region.

Objectives and Strategies

CM 1.1: Eliminate gaps in the sidewalk infrastructure and build the pedestrian network to be accessible and comfortable

1. Work with local neighborhoods and stakeholders to install pedestrian facilities where existing sidewalk gaps exist
2. Create more frequent points of access to our Multiuse Path facilities, connecting paths, crossings, and ramps
3. Complete installing ramps inventoried from the ADA transition plan
4. Inventory Multi-use Paths with deficient widths (under 10')

CM 1.2 Develop continuous, safe and comfortable routes in the Bicycle Network, and fill existing infrastructure gaps

1. Improve bicycle facilities along arterials to a Bicycle Level of Traffic Stress score below 3
2. Improve bicycle facilities in the BIKEiT network to a Bicycle Level of Traffic Stress score equal to or below 2

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3. Develop an All Ages and Ability Bicycle Network, providing a simple inventory of the most comfortable facilities in Tempe
4. Continue evaluating the bike network for opportunities and gaps in mobility, locally and regionally

CM 1.3 Enhance transit facilities and coordinate interconnected destinations to increase ridership

1. Ensure frequent transit service is provided to achieve accessibility and mobility throughout the city
2. Continue collaborating with Academic institutions like Arizona State University to develop transit programs, making transit more available to students and faculty
3. Identify and integrate Intelligent Transportation System technologies (ITS) into transit system plans
4. Implement improvements and locate facilities like transit shelters, mobility hubs, and 'park and rides' to increase transit ridership and ease of use among pedestrians, cyclists, and drivers
5. Ensure all transit facilities meet and/or exceed ADA standards and are accessible to persons with disabilities
6. Actions on coordinating with regional partners to expand intercity and regional transit travel

CM 1.4 Retain existing traffic capacity and reliability on our roadways

1. Establish roadway planning and development consistent with the street classification system and the engineering design criteria
2. Continue integrating and updating Intelligent Transportation System technologies into the roadway network to optimize traffic flow controls

CM 1.5: Develop a functional relationship between the diverse land uses in Tempe and the transportation network that serves them

1. Promote Transportation Demand Management strategies that reduce reliance on single-occupant vehicle travel, increase the use of transit, walking, bicycling, carpooling, vanpooling, and shared mobility services, and improve the efficiency of the transportation system. (ALT1)
2. Require or incentivize trip reduction plans for major developments, employment centers, and activity hubs to achieve measurable reductions in vehicle trips and increases in non-single-occupant vehicle travel. (ALT2)
3. Conduct a study to identify priority locations, operational needs, and funding requirements for variable message signs, and implement deployments that enhance event traffic management, traveler information, and detour guidance.
4. Continue to refine and optimize the transit network in Tempe to serve varied land uses and densities, recognizing that transit investments are scalable and can serve multiple travel markets.
5. Implement driveway spacing standards between adjacent driveways serving non-residential developments on collector and arterial streets, while encouraging shared access and cross-access connectivity to minimize access points and enhance corridor safety and mobility
6. Conduct multimodal vehicle counts to understand key corridors and areas of high density
7. Develop design guidelines that address accessibility features, driveway spacing, bicycle facilities and crossings in areas with considerable density and growth

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Goal CM 2: Provide transportation choices that move all people, goods, and services reliably, effectively, and affordably.

Objectives and Strategies

CM 2.1: Facilitate convenient first and last mile connections across transportation modes

1. Provide access for all residents to shopping, businesses, services, parks, schools, and other daily amenities within a 1-mile walking distance, a 4-mile bicycle ride, or a 20-minute transit ride.
2. Develop and maintain a downloadable interactive Tempe Bike/BIKEiT Map application to enhance user access to bicycle routes, facilities, and wayfinding resources.
3. Design and maintain all City streets with sidewalks on both sides to support safe, accessible, and connected pedestrian travel. (ALT1)
4. Identify first and last-mile connections whereby the total trip is considered so that transit works seamlessly with other modes.
5. Developments abutting an existing or planned multiuse path shall dedicate a public pedestrian and bicycle access easement
6. Require new development and redevelopment projects adjacent to multiuse paths to provide direct, convenient, and ADA-compliant pedestrian and bicycle access between the path and primary building entrances to enhance connectivity and encourage active transportation. (ALT1)
7. Develop a network of mobility hubs throughout Tempe that connect transit, active transportation, micromobility, shared mobility, and emerging transportation services through convenient, safe, shaded, and accessible facilities. (ALT1)

CM 2.2: [Objective and Strategies for emerging technologies - reserved]

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Infrastructure and Stewardship

> Goal statement - Invest in and responsibly manage transportation assets to provide a safe, reliable, resilient, and fiscally sustainable system that delivers long-term value to the Tempe community.

Maintaining transportation infrastructure is fundamental to a safe, reliable, accessible, and efficient transportation system. Tempe is committed to preserving and enhancing its streets, sidewalks, traffic signals, and other transportation assets through proactive maintenance, strategic investment, and long-term stewardship. This approach recognizes the importance of maintaining existing infrastructure while planning for the ongoing maintenance and eventual replacement of new facilities.

In November 2024, Tempe voters approved a bond measure to accelerate street improvements through 2028, with a focus on improving pavement quality, extending asset life, reducing maintenance costs, and enhancing roadway safety. The City uses a data-driven pavement management system to identify the right treatment at the right time, maximizing the value of public investments and preserving infrastructure in good condition. Beyond pavement, effective stewardship includes maintaining sidewalks, crossings, traffic signals, pavement markings, and other transportation facilities to support safe and reliable travel for all users.

Transportation improvement projects also present opportunities to advance broader community goals. As streets are resurfaced or reconstructed, Tempe evaluates opportunities to incorporate bicycle facilities, pedestrian improvements, ADA upgrades, signal enhancements, and other safety measures. Coordinating maintenance activities with planned transportation improvements, utility work, and private development can reduce construction impacts, improve efficiency, and create opportunities to enhance safety, accessibility, connectivity, and sustainability throughout the transportation network.

Long-term infrastructure stewardship also requires adapting to changing environmental conditions and transportation needs. Extreme heat, monsoon storms, and other environmental stresses can affect infrastructure condition, performance, and maintenance needs. Incorporating resilient materials, design practices, and infrastructure improvements can help extend asset life, reduce future costs, and support a transportation system that remains safe and functional under changing conditions.

As Tempe's transportation network evolves, balancing new investments with the resources needed to operate, maintain, and preserve existing infrastructure will remain essential. Through coordinated planning, ongoing condition assessments, and responsible management of public resources, the City can maximize the long-term value of transportation investments while supporting a safe, accessible, and resilient transportation system for future generations.

Goal IS 1: Maintain the transportation system in a consistent state of good repair, using robust data to prioritize investments and minimize costs.

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Objectives and Strategies

IS 1.1: Develop comprehensive options to address traffic congestion, while reducing reliance on automobile travel.

1. Maintain and enhance signal progression along major corridors through continued investment in signal optimization, communications infrastructure, and advanced ITS technologies. (ALT1)
2. Require new developments to provide direct, accessible pedestrian pathways when the walking distance to the nearest adjacent street exceeds one-quarter mile, improving connectivity, reducing travel distances, and supporting a more walkable transportation network. (ALT1)
3. Install or upgrade vehicle detection systems on major-street approaches to support actuated signal operations. When no through traffic is detected on the major street, signal controllers may terminate the green phase early to provide more efficient service to side-street traffic. (ALT1)
4. Implement transit speed and reliability improvements, including transit spot improvements such as transit signal priority, queue jumps, and dedicated lanes.

IS 1.2: Ensure the System Integrity and capacity is protected through regular maintenance.

1. Continue to monitor transit operations and performance and make adjustments to transit infrastructure such as transit spot improvements as needed.
2. Maintain pavement, sidewalks, bicycle facilities, and traffic control devices in a state of good repair.
3. Maintain and modernize emergency vehicle preemption systems at signalized intersections to support safe, reliable, and efficient emergency response. (ALT1)

IS 1.3: Maintain guidelines that enhance the land-use, transportation, and neighborhood character, and historical elements in the ROW.

1. Plan transit services and infrastructure so that they are context sensitive in terms of the performance and application.
2. Upon annexation of county islands, streets shall be improved and realigned as necessary to meet current City standards; however, specific future roadway alignments shall be determined through the planning, design, and development review process. (ALT1)

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Safety

> Goal statement - Advance a transportation system where every trip can be made safely by supporting Tempe's Vision Zero goal of eliminating traffic fatalities and serious injuries for all roadway users.

The City of Tempe recognizes that no loss of life is acceptable and has made significant investments in transportation safety in recent years. The Safety Action Plan (see Appendix XX), developed alongside this Plan, provides a comprehensive framework for improving safety for all roadway users.

Achieving safer streets requires more than any single project, policy, or program. Instead, safety is advanced through a layered approach that reduces the likelihood that a single mistake or system failure results in a fatal or serious injury crash. This approach emphasizes multiple layers of protection, including safer street design, appropriate travel speeds, safer road users, and improved operations to reduce both the likelihood and severity of crashes.

The Safety Action Plan combines citywide analyses with corridor- and location-specific evaluations to identify where safety improvements can have the greatest impact. The City's High Injury Network helps identify locations with concentrations of fatal and serious injury crashes, while additional analysis considers roadway conditions, travel patterns, and other factors that may contribute to safety risks. Particular attention is given to the safety of people walking, bicycling, and using other forms of transportation who are more vulnerable to serious injury in a crash. This data-driven approach helps guide investment toward locations and conditions where improvements can meaningfully reduce risk.

Improving transportation safety also requires integrating safety considerations into everyday transportation decisions. Street maintenance, traffic operations, development review, and new transportation projects all present opportunities to address existing safety concerns and prevent future crashes.

Recommended strategies include roadway design countermeasures, operational improvements, policies, and programs that together support a proactive and comprehensive approach to transportation safety. By integrating these recommendations into transportation planning and project delivery, Tempe can continue to make progress toward a safer transportation system for everyone.

Transportation safety is an ongoing responsibility that requires collaboration, community involvement, and continuous evaluation. By monitoring crash trends, assessing the effectiveness of improvements, and adapting strategies as transportation needs evolve, Tempe can make informed investments and measure progress toward eliminating fatal and serious injury crashes. Through implementation of the Safety Action Plan and integration of its recommendations into Tempe Transportation Plan 2050, the City can advance a safer, more accessible, and more reliable transportation system for everyone.

Goal S 1: Achieve zero traffic deaths and serious injuries, providing users with a feeling of safety and comfort regardless of who they are or how and when they travel.

Objectives and Strategies

S 1.1: Provide convenient and safe access between neighborhoods and destinations for vulnerable roadway users.

1. Design and maintain all City streets with sidewalks on both sides to support safe, accessible, and connected pedestrian travel.

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2. Maintain dedicated funding for the resident-driven Neighborhood Traffic Calming Program to address community-identified traffic safety concerns.
3. Provide safe and accessible transit services and infrastructure for transit users, including while riding and traveling to and from these services.
4. Identify locations for transit infrastructure and transit spot improvements that have a shared benefit with the Safety Action Plan.
5. Require the dedication of bicycle and pedestrian easements necessary to preserve and implement planned multiuse path corridors. Development and redevelopment projects shall protect identified alignments, maintain corridor continuity, and provide connections to adjacent properties and existing or planned active transportation facilities.
6. On shared-use paths with significant pedestrian activity, electric bicycle users shall yield to pedestrians and operate at speeds consistent with safe shared use. The City may restrict higher-speed electric bicycles on designated segments where user conflicts are documented.

S 1.2: Facilitate safe operations along roadways and at intersections and driveways.

1. Evaluate median installation opportunities to provide access control, prioritizing arterials with five or more lanes, and those on the HIN. Identify locations that could benefit from the installation of pedestrian refuge islands and implement them along with the median.
2. Continue investing in advanced vehicle detection technologies to improve traffic signal operations and system performance. (ALT1)
3. Require a comprehensive High-Injury Network (HIN) update every three years to ensure safety priorities reflect current crash trends and conditions. (ALT1)
4. Require a left-turn safety evaluation at all HIN signalized intersections lacking protected-only left-turn phasing. (ALT1)
5. Monitor and evaluate safety performance at HIN intersections to identify, prioritize, and implement targeted safety improvements. (ALT1)
6. Design, construct, and maintain ADA-compliant pedestrian curb ramps at all intersections to provide a continuous and accessible pedestrian network.
7. Limit driveways to one per parcel, or one per one-eighth mile for larger parcels to promote access control along arterial streets. Encourage cross-access agreements for adjoining parcels where possible.
8. Implement access management standards that limit driveways to one per parcel, or one per one-eighth mile of frontage for larger parcels, along arterial streets. Prioritize shared driveway and cross-access arrangements between adjacent properties to minimize conflict points and enhance safety, mobility, and site accessibility.
9. For developments that are not single-family residential, space driveways at a minimum of 100’ from adjacent driveways on collector and arterial streets.

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Sustainability and Resilience

> Goal statement - Create a sustainable and resilient transportation system that supports environmental stewardship, adapts to future challenges, and provides reliable mobility for current and future generations.

Sustainability and resilience are essential to creating a transportation system that supports Tempe's long-term environmental, economic, and community goals. As the City continues to grow and adapt to changing conditions, including extreme heat, evolving travel patterns, and emerging technologies, the transportation system must minimize environmental impacts while remaining safe, reliable, and accessible for future generations.

Tempe has established a strong foundation through City strategies and initiatives that advance climate action, sustainability, public health, and quality of life. Transportation plays an important role in achieving these goals by reducing greenhouse gas emissions, conserving resources, and providing convenient alternatives to driving alone. Transportation Plan 2050 builds upon these efforts by supporting a connected multimodal transportation network that makes walking, bicycling, and transit more practical and accessible. Coordinating transportation investments with land use and development patterns can further reduce travel distances, improve access to everyday destinations, and support more sustainable travel choices.

Extreme heat poses a significant challenge to transportation in Tempe, affecting both infrastructure performance and the comfort and safety of travelers throughout the city. Expanding shade, improving pedestrian and transit environments, and incorporating heat-responsive design into transportation projects can help reduce exposure and make transportation options more usable year-round. These improvements are especially important for people who depend on walking, bicycling, and public transit and may have limited alternatives during periods of extreme heat.

A resilient transportation system must also be able to withstand, adapt to, and recover from disruptions such as extreme weather, flooding, infrastructure failures, and emergencies. Through strategic investments in infrastructure maintenance, durable materials, drainage improvements, technology, and network connectivity, Tempe can strengthen the transportation system's ability to function under changing conditions. Providing multiple transportation options, maintaining reliable connections to essential destinations, and coordinating transportation planning with emergency preparedness efforts can help residents, businesses, and visitors stay connected during disruptions.

Together, sustainability and resilience guide transportation decisions that reduce environmental impacts, protect public investments, and strengthen the community's ability to adapt to future challenges. By integrating these principles into transportation planning, design, operations, and maintenance, Tempe can create a transportation system that supports a healthier, more connected, and more resilient community for generations to come.

Goal SR 1: Create a sustainable and resilient transportation system that supports environmental stewardship, adapts to future challenges, and provides reliable mobility for current and future generations.

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Objectives and Strategies

SR 1.1: Respond to climate-related factors to achieve human comfort, utilize the built environment to promote a healthy community and to encourage active lifestyles.

1. Prioritize shade and heat-mitigation improvements along pedestrian and bicycle corridors and at transit stops to enhance comfort, safety, accessibility, and year-round use of the transportation system.

SR 1.2: Reduce the number of vehicle miles traveled locally and regionally.

1. Support mode shift to walking, bicycling, transit, and shared mobility.

SR 1.3: Promote sustainable design concepts.

1. Implement sustainable design for transit including vehicles, shelters, and other transit infrastructure.
2. Leverage advancements in transit technology including zero-emission vehicles, intelligent transportation systems, real-time traveler information, integrated fare technologies, and data-driven operations, to support a more sustainable and resilient transit network.
3. Incorporate low-impact development features into transportation projects where feasible.
4. Provide secure and convenient bicycle parking at key destinations, transit facilities, activity centers, and public buildings to encourage bicycling and support a connected multimodal transportation system.
5. Encourage the provision of secure bicycle parking as part of new development and redevelopment projects.

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Recommendations

The Recommendations in the Plan build upon the transportation policies of the General Plan 2050, and support a balanced, multimodal transportation system. Supporting and advancing these strategies, the Plan identifies specific project recommendations to improve transportation in Tempe.

Roadway Recommendations

Roadway recommendations were developed based on the findings from the review of existing roadway performance, the gaps and needs analysis, and feedback from community engagement. The recommendations were developed with the understanding that Tempe's roadway network is largely built out, with limited opportunities to add vehicular capacity due to existing development, right-of-way constraints, environmental considerations, and community priorities. As a result, addressing the projected travel demand will depend primarily on optimizing the existing transportation system, expanding travel options (through transit and active transportation), and improving operational efficiency, rather than constructing significant new roadway capacity.

The roadway recommendations are found in Table XX and shown in Figure XX. The project ranking shown in Table XX reflects the prioritization exercise that was developed through public input. The implementation of prioritized recommendations will be guided by available funding, grant opportunities, partnership support, project readiness, and community priorities. The pace and timing of implementation may vary as these factors change over the planning horizon.

Table XX. Recommended Roadway Projects [refer to website linked document].

Figure XX. Recommended Roadway Projects

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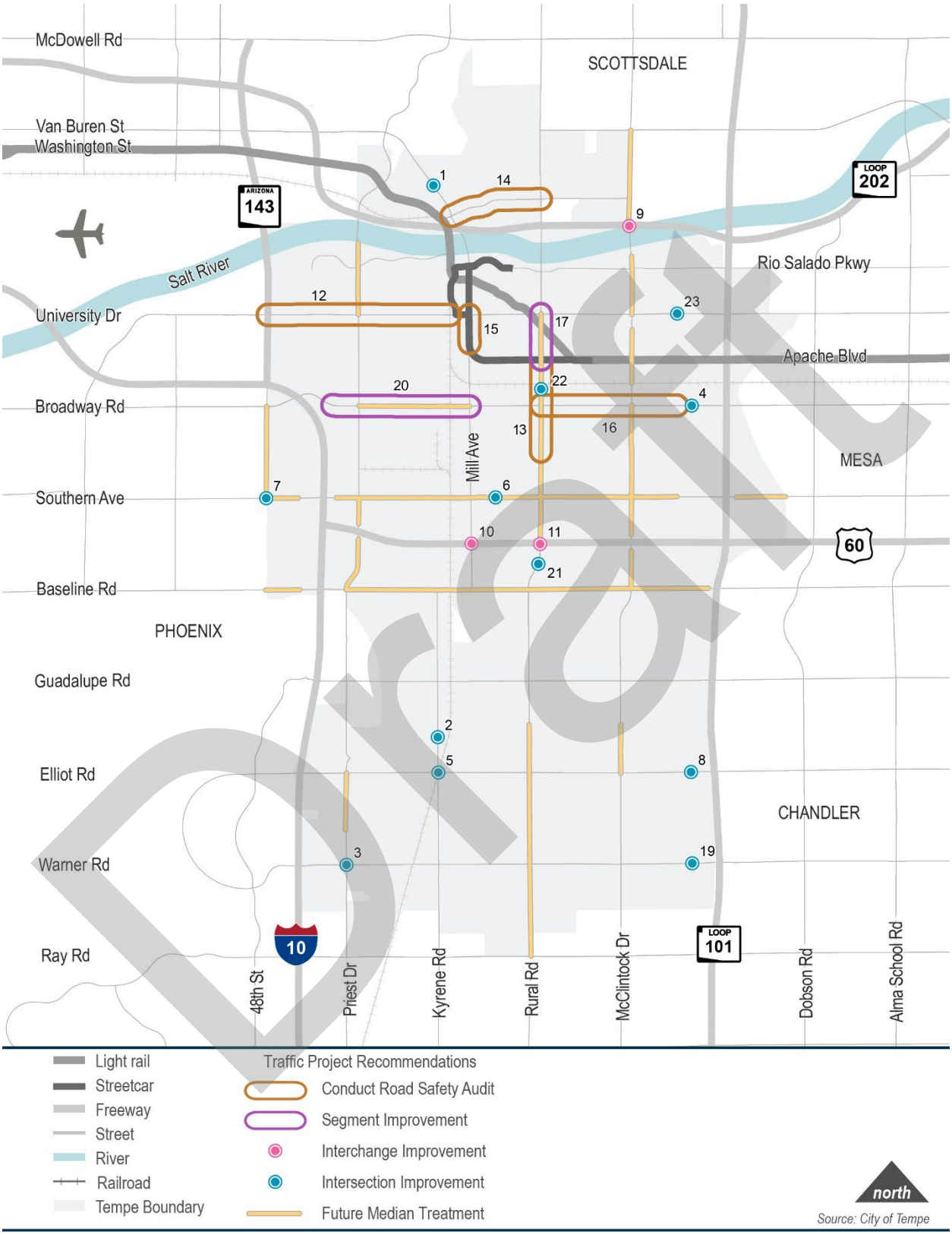


Figure XX. Recommended Roadway Projects

The weights shown in Table 1 were developed with consideration with the public input from the Phase 2 community engagement effort, where community members were asked how well each goal aligns with their vision for the future of Tempe. The project scores (0–1) for each goal were then multiplied by the corresponding weighting, resulting in a total project score with a possible maximum score of 100 (for additional information see Appendix XX, Project Prioritization.)

Safety Recommendations

A driving force behind the improvements is the safety of all roadway users. Tempe's Safety Action Plan (see Appendix XX) provides a comprehensive list of strategies, both ongoing and new, to improve safety in Tempe. The SAP, developed alongside the Plan, provides a comprehensive approach to further address safety for all roadway users and create conditions that promote a high quality of life. The SAP reinforces a commitment initially made in the Vision Zero Action Plan to eliminate all fatal and serious injury crashes and establishes a framework for action through policy changes, coordinated strategies, and systemic changes to the design and operation of streets.

Safety Countermeasures Toolkit Referenced here

Transit Recommendations

Transit recommendations were developed based on the findings from the review of existing transit performance, gap analysis, and feedback from the community engagement efforts. The recommendations were compared against parallel planning processes (e.g. Valley Metro's Bus Network Redesign, Short-Range Transit Plan, etc.) to ensure consistency with these efforts. The recommendations are broken down into two categories: frequency improvements and new services. The recommendations are detailed in the following sections.

Frequency Improvements

The gap analysis conducted in the early phase of the project revealed a lack of frequent transit service, particularly during the weekday off-peak period and on weekends. As such, the recommendations aim to increase frequency on many routes to 10 or 15 minutes during these periods/service days, thereby making transit a more attractive and feasible option for users. Frequency improvements are summarized in Table X and illustrated in Figures XX-XX.

Table X. Recommended Frequency Improvements

Day/Period	Frequency Recommendation	Routes
Weekday Peak	10 minutes	A Line, Route 72
	15 minutes	Routes 30, 48, 62, 77
Weekday Off-Peak	10 minutes	A Line, Route 72
	15 minutes	Routes 30, 45, 56, 61, 66, 81
Saturday	15 minutes	Routes 30, 45, 61, 66, 72, 81
	30 minutes	Route 108
Sunday	15 minutes	A Line, Route 72
	30 minutes	Routes 30, 108, 140

Figure XX. Frequency Improvements - Weekday Peak; Figure XX. Frequency Improvements - Weekday Off-Peak; Figure XX. Frequency Improvements – Saturday; Figure XX. Frequency Improvements – Sunday.

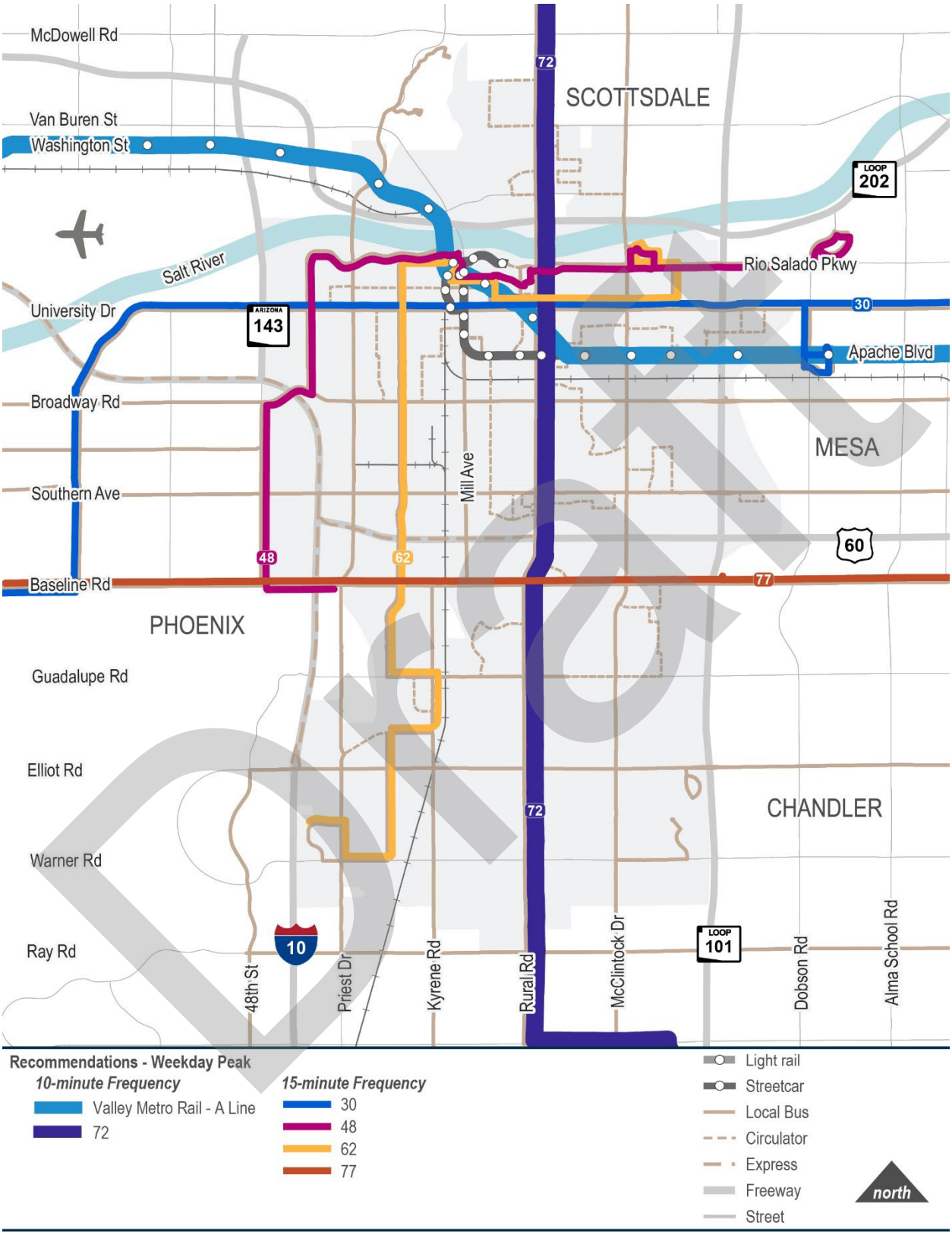


Figure XX. Frequency Improvements - Weekday Peak

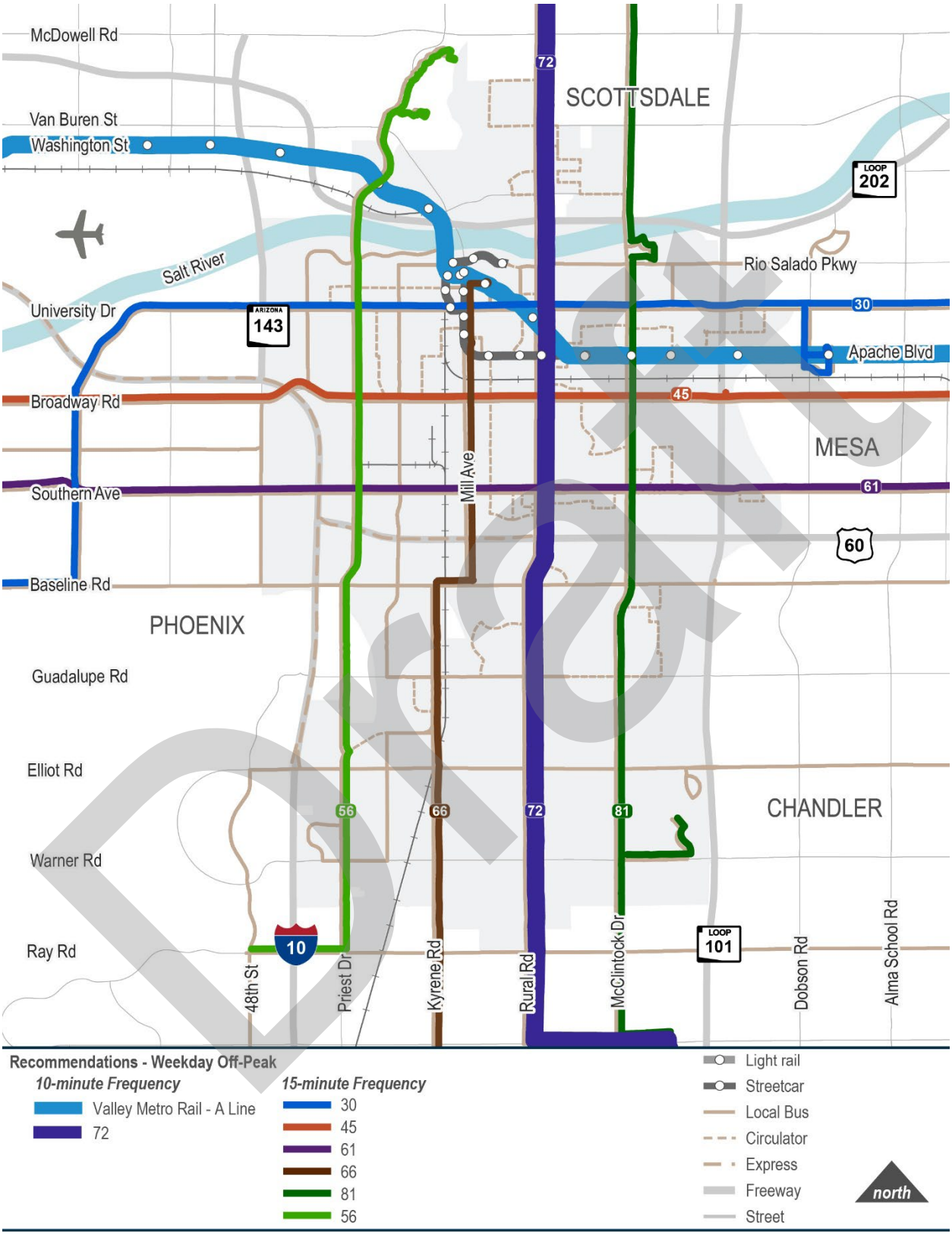


Figure XX. Frequency Improvements - Weekday Off-Peak

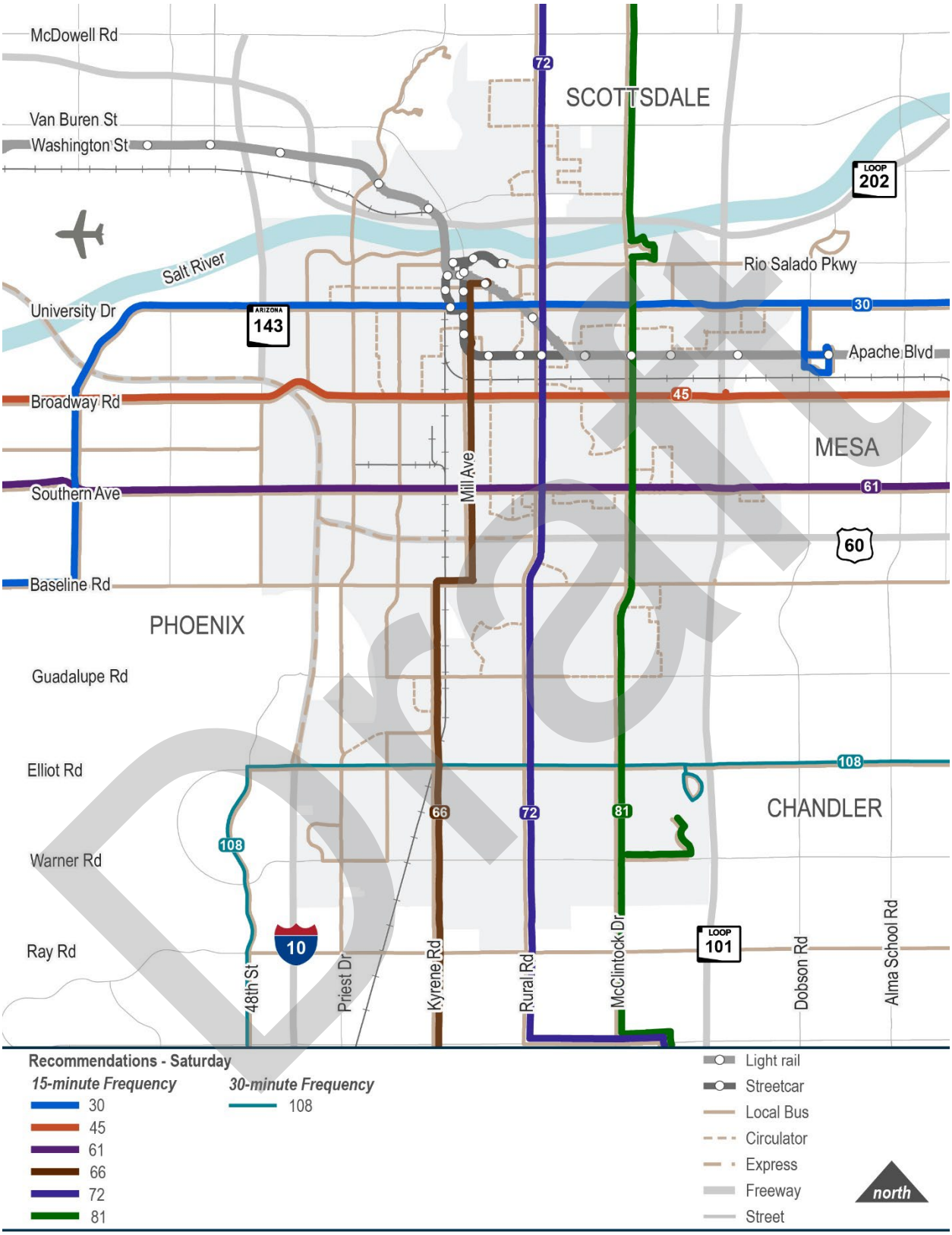


Figure XX. Frequency Improvements – Saturday

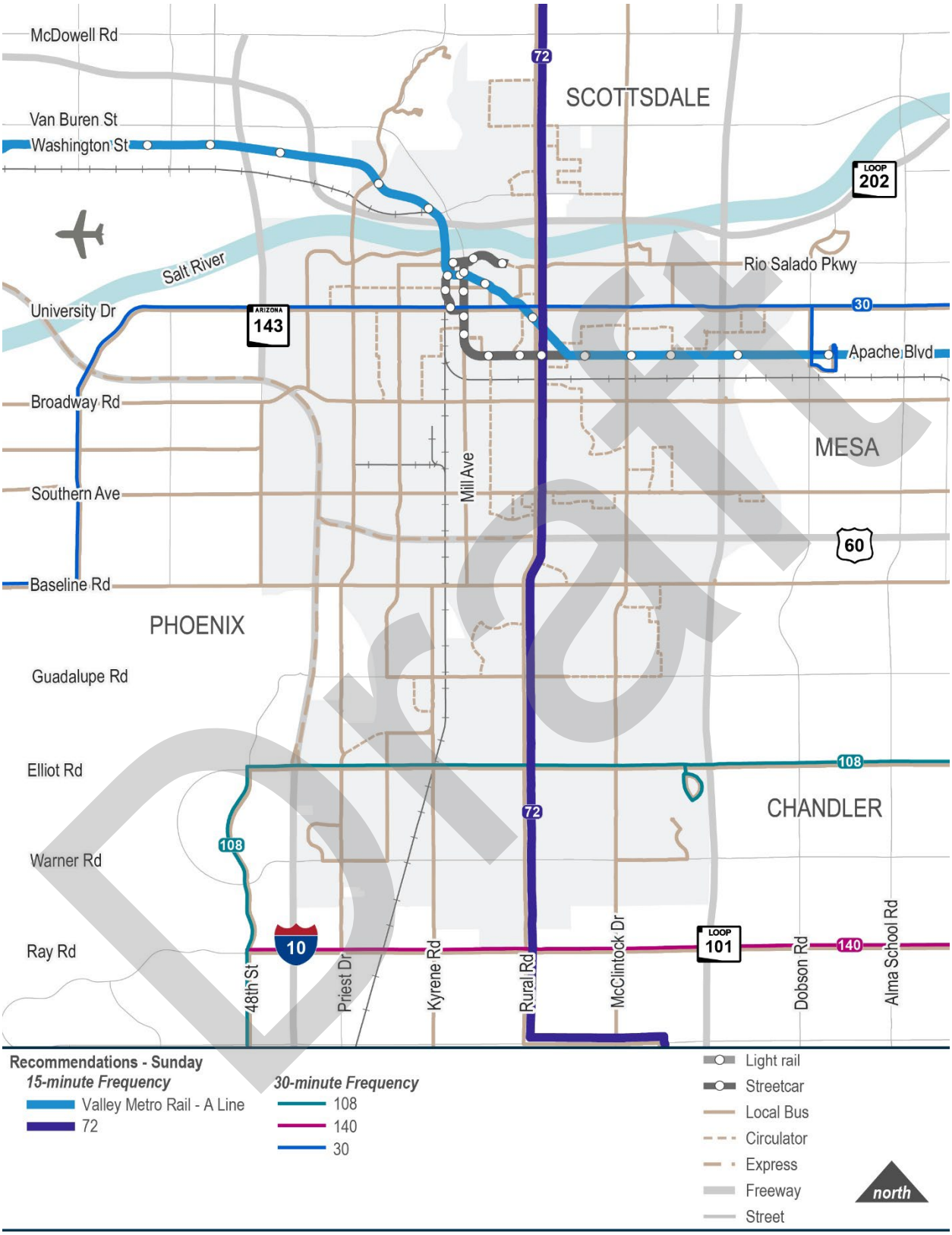


Figure XX. Frequency Improvements – Sunday

New Transit Services

The transit recommendations also include the implementation of new services. New service recommendations have been identified for several existing modes including streetcar, local bus, and neighborhood circulators as well as new modes such as BRT and passenger rail. Many of the recommended services have been identified in previous local or regional planning efforts, including the Rio East streetcar extension, Scottsdale/Rural Road BRT, and consolidated express bus service. These new service recommendations would further expand Tempe's transit options, bringing frequent and efficient transit services to every area of the City. The new service recommendations are summarized in Table X and illustrated in Figure X.

Table X. New Transit Service Recommendations

Mode	Route/Service	Description
Streetcar	Rio East Extension	Extend east on Rio Salado Pkwy to Tempe Marketplace or Mesa Riverview depending on Mesa participation.
	Rio West Extension	Extend west to Priest Dr.
	Mill/Southern Extension	Extend south on Mill Ave and east on Southern Ave to Tempe Library or Mesa Fiesta District depending on Mesa participation.
BRT	Scottsdale/Rural BRT	New BRT service on Rural Rd. Northern/southern terminus dependent on Scottsdale/Chandler participation.
Passenger Rail	New Passenger Rail	New intercity passenger rail (routing TBD).
Local Bus	Guadalupe Rd	Implement local bus service in Guadalupe Rd corridor, one of two east/west arterials without local bus service
	Warner Rd	Implement local bus service in Warner Rd corridor, one of two east/west arterials without local bus service
Express	Consolidated Express Bus in US 60 Corridor	Combine express routes in US 60 corridor (521, 531, & 533) to create consolidated route with bidirectional service. Requires new stop in vicinity of Mill Ave or Rural Rd.
Circulator	Orbit - West Tempe	New Orbit route in west Tempe (routing TBD).
	Orbit - South Tempe	New Orbit route in south Tempe (routing TBD).

Figure XX. New Transit Service

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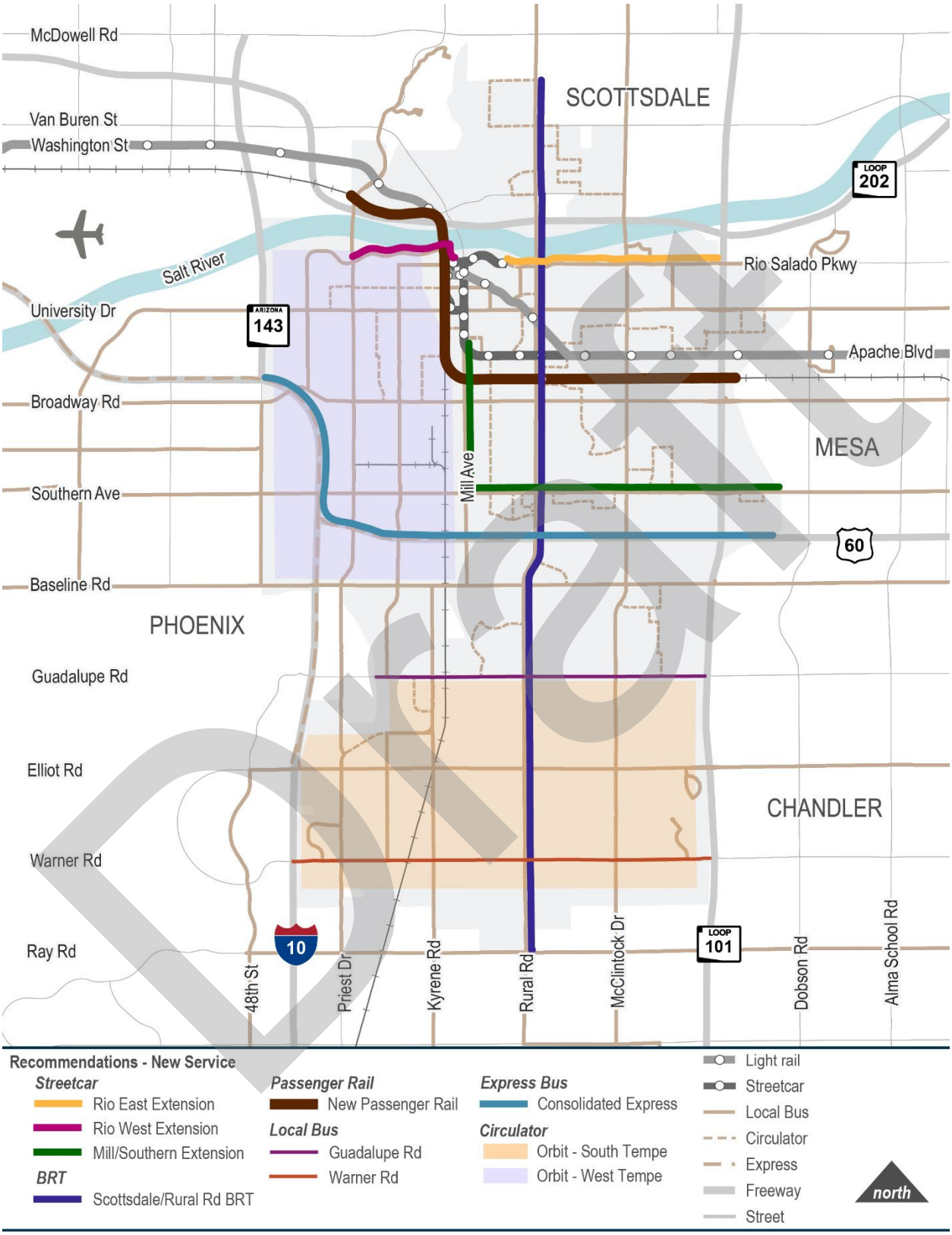


Figure XX. New Transit Service

Active Transportation Recommendations

The active transportation recommendations were developed based on the findings from the review of existing system performance, the gaps and needs analysis, and feedback from the community engagement efforts. The recommendations build on Tempe's BIKEiT network and extensive MUP system.

The active transportation project recommendations are found in Table XX and shown in Figure XX. The project ranking shown in Table XX reflects the prioritization exercise that was developed through public input. The implementation of prioritized recommendations will be guided by available funding, grant opportunities, partnership support, project readiness, and community priorities. The pace and timing of implementation may vary as these factors change over the planning horizon.

Reference the Active Transportation Toolkit Here: idea for statement - The recommended projects for active transportation uses the toolkit as a template the type of projects that meet our identified gaps and challenges in the ped and bike networks.

Table XX. Recommended Active Transportation Projects [see web site for linked table]

Figure XX. Recommended Active Transportation Projects; refer to current version, Tempe Transportation Plan 2050 | Recommendations

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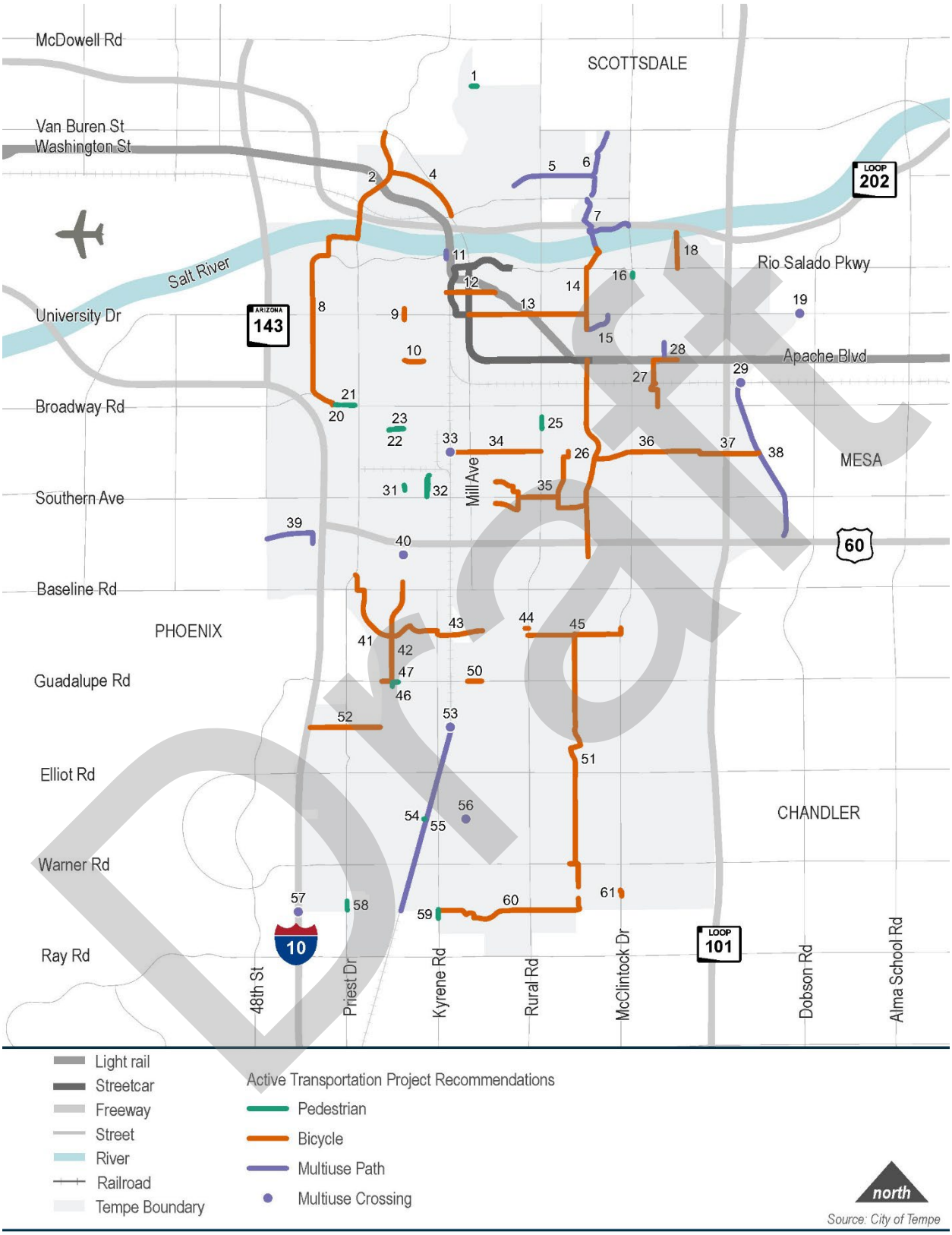


Figure XX. Recommended Active Transportation Projects