CITY OF ALBUQUERQUE

2024 Bikeway and Trail Facilities Plan

ONE ALBUQUE RQUE municipal development

ONE ALBUQUE RQUE parks & recreation

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1. Introduction and Plan Overview

What is the 2024 Bikeway & Trail Facilities Plan?

Albuquerque boasts many on and off-street biking facilities for both transportation and recreation, yet there are significant barriers and safety concerns that limit the number of people who are willing to travel by bicycle. It has been nearly a decade since the City took a comprehensive look at its bicycling infrastructure and the needs of people who bike. In that span of time, practices for bikeway facility design have evolved significantly, and the City has prioritized reversing the rise in traffic fatalities and addressing the safety of its most vulnerable road users. Since the previous plan was last updated in 2015, the City has also adopted major new policies and regulatory documents, including the *Comprehensive Plan*, *Development Process Manual* and the *Integrated Development Ordinance.*

The 2024 *Bikeway and Trail Facilities Plan* aligns with these recently adopted plans and policies and presents an opportunity to center the needs of historically underserved communities and ensure an equitable distribution of bikeways across the city. The 2024 Plan also identifies critical improvements that can make bicycling across the City of Albuquerque safer, more comfortable, and accessible to more people while establishing a clear vision for how to prioritize and implement proposed projects.

The 2024 Plan focuses on projects that are plausible in the near term—pending available funding and staff resources—and provides a road map for the City to build out a dense network of high-comfort facilities that connects to everyday destinations. Recommendations include an array of bikeway facilities and crossing treatments that create useful and comfortable connections and encourage more people to choose bicycling as a mode of transportation, creating a virtuous cycle where drivers become more cognizant of bicyclists and safety increases.

Plan Background

In 2015, the City of Albuquerque adopted the *Bikeways and Trails Facility Plan*, which combined and updated the City's two bicycle and trail plans – the *Trails and Bikeways Facility Plan* (1993), and the *Comprehensive On-Street Bicycle Plan* (2000). By combining these two plans, the City was able to better manage the growth of on-street bikeways and multi-use trails and promote a well-connected, and safer non-motorized transportation system. The 2015 Plan recommended regular updates to address the evolving challenges and opportunities related to walking and biking.

While much of the 2015 Plan text will remain and is still relevant, the 2024 Plan identifies targeted updates to reflect emerging best practices in planning for and implementing a bikeway and trail system that can support both transportation and recreational bicycling activities. The 2024 Plan focuses specifically on City-led improvements to **on-street bikeways**, including bike boulevards and various forms of bike lanes, and **paved multi-use trails**, with an emphasis on enhanced crossings where trails intersect with major roads.

An Update to the City's Rank II Plan

The City of Albuquerque uses a system of ranked plans, starting with the Rank I *Comprehensive Plan*, which sets a vision, goals, and overall policies. Lower-ranked plans must comply with the intent, policies, and goals of the higher-ranked plans. The 2024 Plan is a Rank II Facility Plan and serves as a policy document that provides direction for the City's infrastructure investments and is a mechanism for implementing the *Comprehensive Plan*.

Ultimately, the 2024 Plan seeks to better accommodate the needs of people who bike today and attract a new generation of residents and visitors of all ages, abilities, and backgrounds to a form of transportation and recreation that is healthy, economical, sustainable, and fun.

Recent Accomplishments

Between 2021 and 2022, the City installed four pedestrian hybrid (RRFBs), with eight additional PHBs or RRFBs currently being designed.

Between 2021 and 2023, the City installed over 9 miles of bike lanes and 17.3 miles of buffered bike lanes through the Annual Complete Street Maintenance Program

In Fall 2023, the City completed a 1.7-mile portion of the multi-jurisdictional Alameda Drain Trail from Fourth Street to Montaño Blvd.

A Strong Foundation for Bicycling in Albuquerque

The 2024 Plan builds upon expansive networks of on-street bikeways and paved multi-use trails, policies that support safety and increasing rates of bicycling, and a strong culture of bicycling and outdoor recreation around the City of Albuquerque.

Quality Infrastructure: Albuquerque is particularly notable for its network of paved multi-use trails, including the Paseo del Bosque Trail and the North Diversion Channel Trail, which offer both long-distance spines for everyday transportation purposes and high-quality recreational amenities.

Over time, the City has expanded the network of on-street bikeways through direct investments and innovative techniques for implementing projects. Particularly noteworthy is the Annual Complete Streets Maintenance Program, which incorporates Complete Streets design principles during annual repaving and restriping efforts and resulted in 16.5 miles of new or enhanced bikeways in 2023 alone.

The city also features an emerging network of bike boulevards—neighborhood streets that include traffic calming to slow motor vehicles, discourage through-vehicle traffic, and provide enhanced crossings at major intersections.

Other key investments include numerous sidepaths—multi-use trails at sidewalk level—across the western portion of the city as part of larger roadway improvement projects.

Existing bikeways and trails are complemented by major planned infrastructure investments, including the Rail Trail, an eight-mile loop and signature urban trail that will connect various regional destinations and activity centers in the greater downtown area, including the Paseo del Bosque Trail, and the Alameda Drain Trail, a partially constructed paved multi-use trail - with further design and construction ongoing - which will ultimately run nine miles north-south from I-40 to the northern end of 2nd Street.

The City of Albuquerque was named a silver-level Bicycle Friendly Community by the League of American Bicyclists in 2020, an upgrade from bronze status.

The Bosque Trail was recognized in 2023 by Travel & Leisure magazine as one of the best urban bike trails in the United States.

Policy Support: Over the last five years, the City of Albuquerque has passed various policies that support the adoption of active modes of travel and increase the safety and quality of facilities for people walking and biking. The 2024 Plan is an opportunity to create consistency among recently approved plans and policies. Key initiatives include:

- The ***Vision Zero Action Plan***, through which the City aspires to eliminate traffic fatalities by 2040.
- The ***Climate Action Plan***, which identifies GHG emissions reduction strategies including greater use of and investments in alternative modes.
- The ***Complete Streets Ordinance***, which codifies an emphasis on the needs of bicyclists and pedestrians during street design.
- The ***City of Albuquerque-Bernalillo County Comprehensive Plan*** and the long-range ***Mid-Region Metropolitan Planning Organization (MRMPO) before Metropolitan Transportation Plan***, developed by the Mid-Region Metropolitan Planning Organization, both emphasize investing in a wider range of transportation options and development patterns that reduce the distances needed to access destinations.
- Policy priorities from the Comprehensive Plan have been integrated into the ***Development Process Manual***, the City's infrastructure design standards document.

See **Chapter 2: Existing Conditions and Programs** for a complete list relevant plans and policies and **Appendix A: Planning & Policy Framework** for a comprehensive summary of these documents.

Culture of Bicycling and Outdoor Recreation: Participants in the plan development process highlighted the culture around bicycling as a reason for optimism. Pleasant weather means that bicycling is an option year-round, and various community groups and organizations play an integral role in supporting bicycling by advocating for improved bikeways and bicycle-friendly policies and hosting bicycling-related events and programs. Notable community-driven events that encourage people to ride include the CiQlovía open streets festival and the annual Halloween-themed Day of the Tread. The City oversees Bike to Wherever Day each May and Bike thru Burque Week each October and supports community programs through the Esperanza Bicycle Safety Education Center, which provides trainings and free tune-ups for Albuquerque residents.

A Commitment to Saving Lives

Albuquerque features some of the highest pedestrian and overall traffic fatality rates in the U.S. Safety is a critical issue for people bicycling as well; between 2016 and 2020, 14 people died while biking on Albuquerque roads, and over 700 people suffered traffic-related injuries while biking. Many of these severe and fatal crashes occurred on lower-comfort bicycle facilities—including streets with bike lanes—that coincide with the City's High Fatal and Injury Network (HFIN).

The City of Albuquerque is committed to Vision Zero and actively working to eliminate traffic deaths and serious injuries through a variety of strategies, including creating connected, quality bike infrastructure that increases the level of comfort and safety for all riders. Updating the Bikeway and Trail Facilities Plan is an important step toward this goal.

Applying Emerging Approaches and Best Practices to Bikeway Facility Selection and Network Development

Creating safe places for people to bike and increasing the number of people who choose to bike as an everyday form of transportation requires an understanding of the needs of a wide range of potential users, the application of best practices in street design, and creative means of implementation so that the impacts of bikeway investments can be felt sooner rather than later.

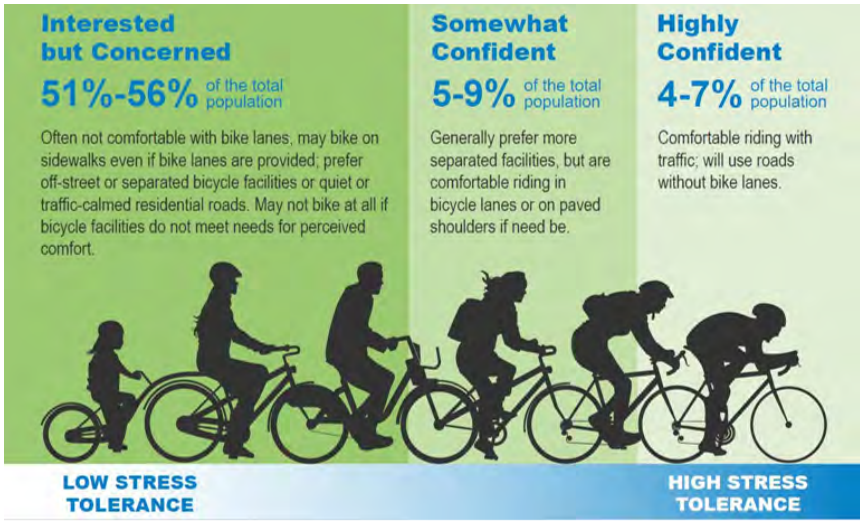


Figure 1. Three Types of Bicyclists

Addressing the Needs of Bicyclists of All Ages, Abilities, and Backgrounds

The City of Albuquerque is committed to providing quality transportation options for all community members and for users of all modes. The 2024 Plan strives to consider the needs for different user types and to make each trip as safe, comfortable, and efficient as possible by providing a connected network of low-stress, high-comfort on- and off-street options for people of all ages, abilities, and backgrounds. The 2024 Plan also intends to prioritize bikeway investments in areas that have not had their fair share of investment in the past.

Bicyclist User Types

National surveys indicate that two-thirds of the population are interested in riding a bicycle, even if they don't do so today. These existing and prospective bicyclists can be categorized into three general user types (see Figure 1). Interested, but concerned bicyclists make up more than half of the total population. These prospective bicyclists feel most comfortable using paved multi-use trails, sidepaths, low-volume neighborhood streets with safe crossings or bicycle facilities completely separated from motor vehicle traffic by physical barriers, and often choose not to bike if these facilities are not present. Somewhat confident and highly confident bicyclists feel comfortable using a broader range of bikeway

facility types, though even more confident bicyclists tend to prefer as much separation from motor vehicles as possible.

Demand for a safe, comfortable network of bikeways is higher than ever in Albuquerque. However, not all of Albuquerque's existing bikeways appeal to the broad range of residents and visitors who are interested in biking. The recommendations from the 2024 Plan focus on creating densely connected networks that create more opportunities for people to ride – and present a variety of options for bicyclists depending on their comfort level.

Other Types of Trail Users

Pedestrians or People Walking

This group includes all travel that is primarily foot-powered, including walkers, joggers, runners, and skaters. People walking are typically looking for facilities that provide connections to destinations for utilitarian trips or longer continuous facilities for exercise-related trips. Key facilities for pedestrians include travel ways with a smooth travel surface and infrastructure that helps enhance safety at roadway crossings. The City also must provide adequate access and opportunities for individuals with disabilities to use the multi-use trails and trail system facilities.

Other Wheeled Trail Users

Other types of trail users may have slightly different needs. These users include in-line and roller-skates, long skateboards, skateboards, and kick scooter users travel at speeds comparable to bicycles, as well as people with baby strollers and individuals in wheelchairs. These users tend to prefer a surface that is smooth without major cracks and often move at a slower pace than other wheeled trail users.

Equestrians

As with pedestrians and bicyclists, the needs of equestrians vary with experience and relative levels of urbanization and trail development. In areas of higher use, equestrians prefer facilities that provide adequate separation from other user types that may spook horses (e.g., bicyclists or in-line skaters) and an unpaved trail.

Needs of People of Different Ages and Ability Levels, Genders, and Races

The level of comfort for people bicycling can vary depending on a person's age, gender, and even race. This plan strives to consider the needs for different user types and to make each trip as safe, comfortable, and efficient as possible by providing a connected network of low-stress, high-comfort on- and off-street options for people of all ages, abilities, and backgrounds. This plan also intends to prioritize bikeway investments in areas that have not had their fair share of investment in the past.

Ages and Ability Levels: Child bicyclists, older adults, women, and adults beginning to bicycle may prefer lower-stress, higher-comfort multi-use trails because there is no vehicular traffic or low-stress on-street bikeways such as bike boulevards or separated bike lanes that have greater separation from vehicular traffic. Individuals who cannot afford to drive a car or who choose to live without a car may have preferences that are not as easily classified.

Gender: In contrast to northern European countries where half or more of bicyclists are women, in the United States approximately 72% of bicycle commuters are men. Research has shown there are a variety of reasons for this gender gap in bicycling in the United States, including but not limited to lack of safe infrastructure, social or cultural expectations, and concerns over harassment. Trip patterns also vary by gender, as women are often responsible for a disproportionate share of domestic chores and tend to have more complex trip patterns, including dropping their kids off at school before going to work or stopping by the grocery store before picking up an older parent to take them to an appointment.

While there is no silver bullet for achieving gender parity in bicycling, cities that invest in premium infrastructure such as separated

bikeways have seen the largest increases in the number of women who choose to bicycle. A recent study found that when New York City built new separated bike lanes, the project resulted in more overall people bicycling and between a 4-6% increase in women bicycling.

Race: It is important to recognize that not all people can move through our communities in the same way and that the mobility for Black, Indigenous, or people of color (BIPOC) can be different because of structural racism in the planning, policy, enforcement, and design of our communities. Past examples that continue to impact today's built environment and communities include redlining, in which the Federal Housing Administration refused to insure mortgages in and near black and brown communities, and the intentional construction of the Interstate Highway System through communities of color, which led to many communities being demolished or bisected.

Historically, BIPOC communities have been intentionally left out and have not had their fair share of infrastructure investments such as sidewalks, bike lanes, or other amenities. City and staff, in collaboration with the community, can intentionally include everyone, particularly BIPOC communities, in the planning and project development processes.

The City installed buffered bike lanes along San Pedro Drive as part of a road diet in which one lane of traffic was removed in each direction to reduce travel speeds and create safer conditions for people walking and biking.

A Critical Review of Albuquerque Bikeways

The City of Albuquerque features an extensive system of paved multi-use trails and has greatly expanded its network of on-street bikeways in recent years. However, many of these bikeways are located along high-speed and high-volume roadways that provide important connections but are unlikely to appeal to less confident bicyclists. The layout of the city and the roadway network also create significant barriers; in addition to the relatively modest number of bridges over the Rio Grande and the Interstates, major street intersections can be challenging or unsafe to cross and limit the ability to reach key destinations.

The 2024 Plan differs from past planning efforts by prioritizing **high-comfort bikeways** that provide as much separation as possible between bicycles and motor vehicles and

enhanced crossings that can make biking a safer and more appealing option for a wide range of individuals, including people who do not bike on City streets today.

A Focus on Quicker Implementation

The 2024 Plan emphasizes projects that are technically feasible and could be implemented in the near term, provided that sufficient funding, staff time, and other resources are available. This approach recognizes that bikeways cannot be implemented on all streets without major reconstruction efforts that are both costly and take place infrequently.

Rather, targeted changes to Albuquerque streets can make an immediate impact and can provide significant benefits in terms of safety and bicyclist user comfort. These lower-cost, high-impact projects include changes within existing curb lines to install new bikeways or enhance existing facilities, and utilizing neighborhood streets that run parallel to busy, higher-stress streets and that still provide useful connections to major destinations.

What is (and is Not) Included in the 2024 Plan?

Targeted Updates to the Previous Plan

The *2015 Bikeways and Trails Facility Plan*, initially developed in 2012 and updated in 2015, covered a wide range of bicycle, pedestrian, and trail-related issues. Key recommendations from the 2015 Plan have been accomplished, including numerous bikeway improvements, while elements from the Design Manual chapter of the 2015 Plan have been integrated into the City's *Development Process Manual*.

The 2024 Plan focuses specifically on recommendations related to on-street bikeways and paved multi-use trails, including ways to reconfigure existing roads to make bikeways more comfortable, and replaces those elements from the 2015 Plan. Major changes include a revised approach to project identification and prioritization, updated project priority lists, as well as policy and programmatic recommendations and considerations for accommodating e-bikes on paved trails and sidepaths. After adoption, 2024 Plan recommendations are intended to be integrated into the regional Long Range Bikeway System, maintained by the Mid-Region Council of Governments (MRCOG).

The 2024 Plan does not consider certain elements covered in the 2015 Plan, namely unpaved trails, equestrian needs, and recreational facilities within City parks and open space. These items are maintained with the 2024 Plan; however, there are opportunities to revise additional chapters or sections of the 2024 Plan as needed in the future. MRCOG will continue to lead recommendations on unbuilt future roads.

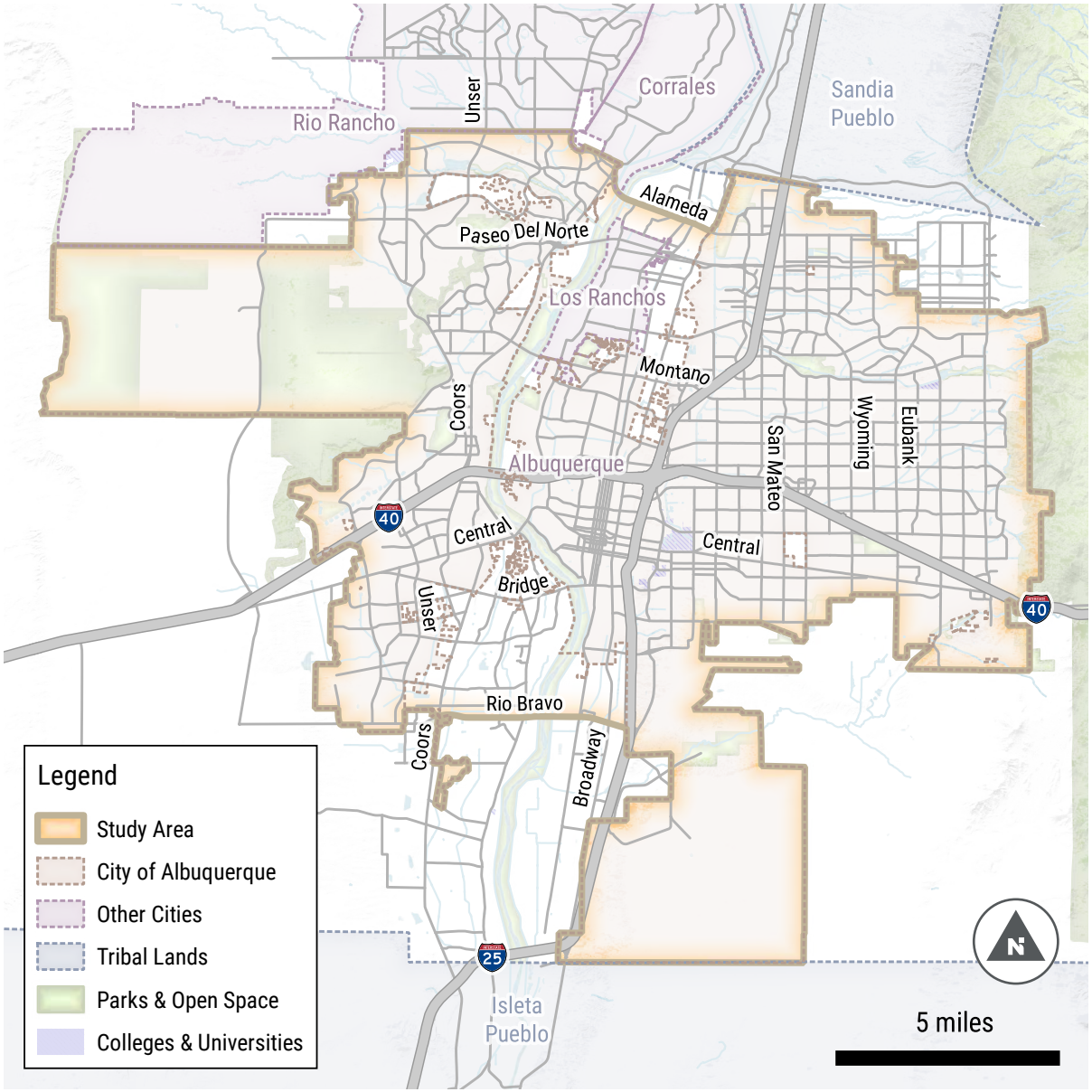
Table 1. Key Components of the 2024 Plan and Differences from the 2015 Plan

Included in the 2024 Plan	Not Included in the 2024 Plan
Conditions along **existing bikeways and trails** **Enhancements to existing bikeways** **New on-street bikeways**, including a range of facility types Proposed **paved multi-use trails** within City limits **Crossing enhancements** for paved multi-use trails and bike boulevards Bicycle-related **policy and programmatic recommendations** Recommendations for **sidepath and trail design to better accommodate e-bike users**. Updated **bikeway evaluation and prioritization process** that considers equity and safety	**Equestrian and pedestrian considerations**: Maintained from the 2015 Plan **Bikeways along future roads**: Refer to the MRCOG Long Range Bikeway System for alignments and proposed facility types **Unpaved trails**: Maintained from the 2015 Plan **Bikeway improvements outside City limits** or the 2024 Plan study area **Recreational facilities** within parks and open space parcels **Trail Maintenance and Operations:** Maintained from the 2015 Plan See **Appendix H: Additional Considerations for Multi-Use Trails** for further information.

Study Area

The study area for the 2024 Plan is the extent of the incorporated City of Albuquerque as well as areas between Rio Bravo Boulevard and Alameda Boulevard outside of city limits. Recommendations for unincorporated portions of the study area and the Village of Los Ranchos focus on regional connections that bolster City-led improvements by creating an integrated network that crosses major barriers through the North and South Valley. The 2024 Plan is not intended to replace more detailed local plans and defers to those resources for potential improvements to streets in other jurisdictions, such as the Bernalillo County *Bicycle and Pedestrian Safety Action Plan*.

Figure 2. Bikeway and Trail Facilities Plan Study Area



Plan Components and Products

In addition to the **formal plan**, the 2024 Plan is accompanied by **online story maps** that present existing conditions analyses and details on priority projects in an accessible format. These online story maps are intended to be user-friendly and easy to access, and can be more easily updated to remain relevant in the coming years.

Key components of the 2024 Plan include:

1. **Introduction and Plan Overview** – Summarizes the purpose of the plan as well as the vision statement and goals that will guide investments in bikeway infrastructure across the City of Albuquerque.
2. **Existing Conditions and Programs** – Provides an overview of existing bikeways and paved multi-use trails, including comfort level of existing facilities using a Bicycle Level of Traffic Stress assessment, equity considerations, and the connection between the 2024 Plan and existing city plans and policies, such as Complete Streets and Vision Zero.
   - The **Existing Conditions Story Map** shows the streets and paved multi-use trail corridors that appeal to a broad range of people interested in bicycling, as well as the streets where only the most confident bicyclists are willing to ride.
3. **Community and Stakeholder Engagement** – Summarizes the phases of community outreach, including engagement strategies and key takeaways from community surveys, as well as the role of stakeholder advisory groups in the plan development process.
4. **Facility Types** – Outlines the design components and appropriate contexts for bikeway facility types that are present in the City of Albuquerque today and proposed in the 2024 Plan.
5. **Proposed Bikeways and Trails Network** – Documents the process for identifying potential projects and developing the proposed bikeway and trail networks. For each proposed project, the 2024 Plan indicates the facility type, potential means of implementation, and planning-level cost estimates.
   - The **Proposed Network Story Map** displays proposed projects, including information about facility types and project prioritization.
6. **Implementation** – Documents the process for prioritizing projects, the mechanisms the City can utilize for implementing bikeway improvements, and policy and programmatic recommendations to support bicycle-friendly street design and further create a culture around bicycling for recreation and transportation.

Appendices – A collection of supporting guidance and reference documents for the 2024 Plan and the 2015 Plan. These documents include findings from community surveys, the methodology behind the Bikeway Evaluation Process, a comprehensive set of policy recommendations, and documents that support plan implementation, including a Bike Boulevard Toolkit and profiles of a subset of projects to support project scoping and development.

Why Bicycling?

Bicycling is both an essential element of the transportation system and a popular activity for recreation. Building physical infrastructure that encourages people to take advantage of these opportunities has numerous benefits for Burqueños and the city as a whole.

Access to Destinations. Investing in on-street bikeways and paved multi-use trails increases transportation options and improves access to jobs and services. Over 50 percent of trips in the U.S. are **under three miles**, and almost 30 percent of trips are under a mile. Bicycling is a practical mode of transportation for trips of these distances, and a wide range of people choose to make shorter trips by bike when safe and comfortable options for doing so are available. Increased adoption of e-bikes make shorter trips that much more convenient and expands the distance that one can easily reach by bike.

Equity. Bicycling is an affordable mode of transportation. Many individuals and families struggle to afford the full costs of driving, which includes purchasing, maintaining, insuring, and fueling a car. A network of high-comfort bikeways and trails provides a less expensive transportation option that can connect people to transit and serve individuals who either cannot or choose not to drive.

Health. **Studies** indicate that bicycling provides overall health benefits and is associated with a lower risk of cardiovascular disease and adverse cancer outcomes.

Well-being. Bicycling on trails is a great way to experience nature, which can have a positive impact on mental health. **Research** has shown that spending two hours a week in nature can tremendously benefit overall well-being.

Climate. Riding a bike is one way to help address a changing climate. Replacing motor vehicle trips with bicycling trips in urban environments **reduces carbon dioxide emissions** and improves a city's air quality.

Safety. **Research** indicates that cities where more people bike are safer for all road users, with even greater benefits when separated bike lanes are utilized. Choosing to bike generally makes streets safer by reducing the number of vehicles on the road, which can in turn reduce the number of severe injuries and fatalities resulting from crashes. Enhanced crossings for bike boulevards and paved trails also provide direct benefits for pedestrians and improve access to transit.

Quality of Life. Interest in biking in Albuquerque has grown in recent years. Popular bike-oriented events go hand in hand with community support to improve and expand bicycling infrastructure. For over 15 years, the City has hosted Bike to Work Day (now **Bike to Wherever Day**) and recently added a fall event called Bike Thru Burque Week. Burqueños embraced bicycling even more during the COVID-19 pandemic, and that interest appears to be continuing.

Vision Statement and Goals

This 2024 Plan centers around a clear, bold vision for expanding bicycling options for Burqueños. The vision statement and goals reflect established policy priorities for the City of Albuquerque and input from stakeholders and community members who were involved in the 2024 Plan development process. The goals and objectives provide an overarching purpose and structure for the analysis, prioritization framework, and recommendations contained in the 2024 Plan.

Vision Statement

Albuquerque is a city that embraces bicycling by implementing convenient on-street bikeways and paved multi-use trail facilities that enhance safety and appeal to people of all ages, abilities, and backgrounds. Over the next decade, the City will increase the range of transportation options and enable a greater share of trips to be made by bicycle by expanding and improving bikeways and multi-use trails into a comfortable and well-connected network.

Goals and Priorities

1. **Equitable: Increase access to on-street bikeways and multi-use trails for all people in Albuquerque.**
   - Create opportunities for traveling by bicycle to be a safe and convenient everyday activity by investing in bikeways and trails that appeal to users of all ages and abilities.
   - Ensure an equitable distribution of bikeways across the City to provide opportunities for all people to travel and recreate by bicycle.
   - Prioritize infrastructure improvements in areas that have not had bikeway investment and/or have a high level of social vulnerability.
2. **Connected: Improve and expand the on-street bikeway and multi-use trail networks so they are intuitive, convenient, and well-connected.**
   - Increase the extent of the on-street bikeways and multi-use trail networks by implementing new facilities and filling in network gaps.
   - Improve crossing opportunities at intersections with major roads and barriers such as the Interstates and the Rio Grande.
   - Create a network of low-stress corridors that connect to enable a wider range of trips to be taken by bicycle.
3. **Useful: Create networks of on-street bikeways and multi-use trails that can be used for both recreational and everyday transportation purposes.**
   - Improve the quality of existing bikeways and trails to increase user comfort levels and encourage bicycle trips to be made by residents and visitors of all ages and abilities.
   - Provide access to a range of everyday locations, recreational sites, and significant community destinations via the on-street bikeway and multi-use trail networks.
   - Increase access to Rail Runner and ART stops and major transit station areas.
4. **Integrated: Integrate on-street bikeway and multi-use trail development into the City and regional transportation planning processes to increase overall travel options and support health, economic, climate, and environmental efforts throughout the City.**

- Incorporate plan recommendations into city and regional long-range planning efforts and the City's development review process.
- Support the local economy by increasing bikeway and multi-use trail access to commercial districts and activity centers.
- Support goals from the Comprehensive Plan and Climate Action Plan to reduce transportation costs and transportation-related greenhouse gas emissions through increased opportunities for residents and visitors to travel across Albuquerque without a private vehicle.
- Support the City's Vision Zero goals of eliminating traffic fatalities and serious injuries by 2040 by implementing high-quality facilities that promote user safety and comfort.

5. **Prioritized: Use an objective, data-driven process for selecting bikeway and multi-use trail improvement projects.**
   - Formalize and adopt the use of the City's Bikeway Evaluation Process and the Bicycle and Trail Crossing Guide as part of the 2024 Plan.
   - Emphasize equity considerations among project selection criteria, including demographic characteristics and socioeconomic measures such as access to vehicles and median household income.
6. **Implementable: Identify feasible improvements that can improve upon and expand the current bikeway and trail networks.**
   - Improve bikeway comfort levels by providing separation from motor vehicles as part of street reconfiguration efforts and the design of new streets.
   - Ensure maintenance needs of existing multi-use trails and on-street bikeways are met prior to constructing new facilities.
   - Continue to incorporate bikeway improvements through the annual Complete Streets Maintenance Program and other transportation projects.
   - Consider technical feasibility as part of proposed improvements, including parallel route options if space is not available to enhance existing bikeways.
   - Partner with adjacent jurisdictions and transportation agencies to implement improvements for bikeways and multi-use trails that support regional trips across municipal boundaries.

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2. Existing Conditions and Programs

Overview

The 2024 Plan public outreach process revealed that if given quality bicycle infrastructure, there would be a greater demand for everyday bicycling. That public demand is supported through various initiatives and policies that seek to further build out the City's bicycling infrastructure. This chapter provides an overview of the current bicycle planning context, including key city priorities and how they relate to bicycle planning, as well as the existing bikeways and trails network. This chapter also outlines various analyses used in the 2024 Plan to consider how well existing bikeway facilities meet the needs of community members. See the **Existing Conditions Online Story Map** for detailed maps and additional information on existing bikeways.

Key Policy Priorities and Programs

The 2015 Plan guided the implementation of numerous bikeway improvements and outlined bicycle design considerations that have subsequently been integrated into the *Development Process Manual*, the City's infrastructure design document. This section highlights key issues and policy priorities that support investments in bikeway infrastructure, as well as implementation measures that are helping to create safe streets that meet the needs of all users. See Table 2 for a full overview of relevant plans and policies, including how the 2024 Plan will build on these documents, and **Appendix A: Planning & Policy Framework** for detailed summaries.

Safety

Albuquerque has some of the highest traffic fatality rates in the U.S. and people walking and biking are especially vulnerable. Following an executive order and Vision Zero pledge that established safety as a policy priority, the City developed an initial ***Vision Zero Action Plan*** (2021) and ***Vision Zero Year in Review Report/Action Plan Update*** that outline areas of improvement for the City of Albuquerque and identifies strategies for eliminating traffic fatalities and severe crashes by 2040, including safe multimodal street designs and a shift to active modes. The report also emphasizes the need to address safety in vulnerable communities, defined as parts of the city where individuals are more likely to rely on walking, bicycling, and taking transit.

To support Vision Zero policies, the City is using a one-time City Council funding allocation to fund a range of safety projects and initiatives, including improvements along Louisiana Boulevard and other High Fatal and Injury Network (HFIN) corridors. The inauguration of an automated speed enforcement program in 2022 has resulted in meaningful reductions in speed along corridors with high crashes, including locations documented on the City's HFIN. Other efforts include the implementation of a Downtown Safety Zone with reduced speed limits to 20 mph and the installation of enhanced pedestrian crossings—a major priority for the 2024 Plan—along corridors such as Central Avenue.

Complete Streets

Through various policies, implementation programs, and updates to the *Development Process Manual*—the City's roadway design standards document—the City has integrated Complete Streets principles into its transportation decision-making processes and investment decisions. This focus begins with the City's **Complete Streets Ordinance**, originally passed in 2015 and updated in 2019, which commits the City of Albuquerque to consider the needs of people walking and biking as part of all roadway projects, including rehabilitation and new road construction. The Ordinance cites the need to create a well-connected transportation network that serves all roadway users and to implement and prioritize improvements equitably by examining neighborhood factors, such as low-to-moderate income, the number of elderly residents, people with disabilities, and traffic fatalities.

Implementation

Recently developed design documents and programs provide the City with tools for implementing high-quality bikeways and enhanced crossings.

The ***Development Process Manual*** (DPM), updated in 2020, is the City's technical standards document and provides design standards and guidance on public infrastructure that is installed or improved as part of public capital improvement projects or privately-funded site development, including bikeway and trail facility type definitions and design elements. The DPM update incorporates best practices in facility design and encourages wider bike lanes and buffers to the extent feasible. The DPM defers to the *Bikeway and Trail Facilities Plan* for facility selection.

The ***Bicycle and Trail Crossing Guide*** is used as a reference by City staff when identifying locations for crossing and appropriate crossing types and complements the street design guidance contained in the DPM. Depending on the context, recommended crossing treatments range from simple crosswalk markings to more robust treatments such as rectangular rapid flashing beacons (RRFB) or pedestrian hybrid beacons (PHB). Several PHBs have been installed in recent years along corridors such as Central Avenue and Lomas Boulevard.

Recently installed PHB along Central Avenue near the International District Library

The **Complete Streets Annual Maintenance Program** serves as a primary mechanism for implementing the Complete Streets Ordinance by incorporating design techniques that support the needs of people walking and biking into restriping plans when roads are resurfaced. The program has led to tangible changes to the configuration of roads in Albuquerque; in 2023 alone, the program resulted in 16.5 miles of new or enhanced bikeways. Because the program installs bikeways across the city, community members see multi-modal facilities in all neighborhoods, increasing awareness and expectations about the presence of people walking and biking.

Table 2. Bikeway Enhancements Completed Through the Complete Streets Annual Maintenance Program, 2021-2023

Bikeway Improvement	2021	2022	2023	Three-Year Total
New Bike lane miles	1.4	5.4	2.5	9.3
New buffered bike lane miles	3.3	5.3	8.7	17.3
Miles of existing bike lanes expanded to meet or exceed current minimum width of 5'	3.6	2.7	5.3	11.6
New road miles of bike routes (shared lane markings)	0.0	4.0	0.6	4.6
Road lane miles were the driving lane was narrowed	11.4	18.2	6.2	35.8
Road lane miles where striped parking was added to narrow the roadway	2.3	11.0	1.5	14.8
Miles of road diets	1.6	1.0	2.5	5.1
Intersections where daylighting was added	0	79	24	103
New or refreshed crosswalks	0	48	68	116

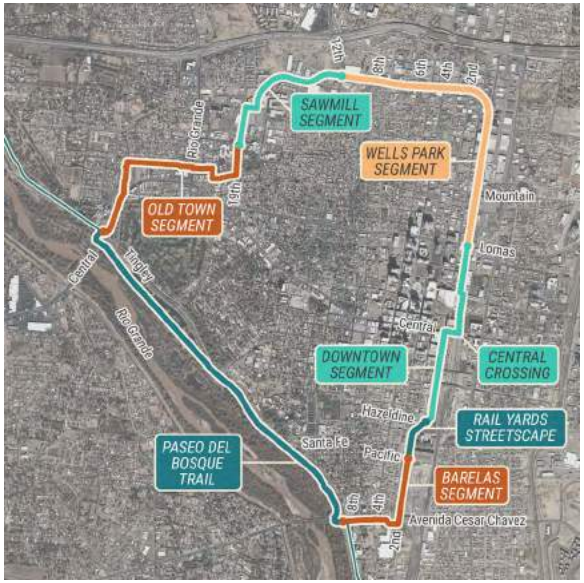
Signature Projects

The **Albuquerque Rail Trail** is a planned seven-mile loop and signature urban trail through the greater Downtown Albuquerque area. The paved trail will link numerous key destinations: including the Rail Yards, Downtown core, Wells Park, Sawmill, Old Town, Bosque Trail, Barelas, and the National Hispanic Cultural Center. The loop will consist of a combination of trails at sidewalk level along city streets, portions of the BNSF rail corridor and the spur through Sawmill, and the existing Paseo del Bosque trail along the Rio Grande.

Once completed, the Rail Trail will serve as a major amenity and recreational attraction and will provide transportation connections for people walking and biking throughout the greater Downtown area. Similar trails in cities across the US have also spurred revitalization and new housing development.

The **Alameda Drain Trail** runs parallel to historic drainage and irrigation facilities and will ultimately provide a high quality paved multi-use trail for nine-miles from I-40 to the northern end of 2nd Street. The project is a cooperative effort among Bernalillo County, the City of Albuquerque, Middle Rio Grande Conservancy District, and the Albuquerque Metropolitan Arroyo Flood Control Authority and is being completed in phases, with various segments complete and others in various stages of design and construction, as of early 2024.

Figure 3. Proposed Segments for Albuquerque Rail Trail



The 2024 Plan considers both the Rail Trail and the Alameda Drain Trail to be critical components of the proposed bikeways and trails network and identifies various connections to the facilities.

Alameda Drain Trail south of Griegos Road

Table 3. Applicability of Relevant Plans and Policies and Opportunities for Further Progress

Category	Document	Relevance to the 2024 Plan	Opportunities for Further Progress Through the 2024 Plan
Policy Documents	Comprehensive Plan (2017)	Policy document that provides a vision for long-term growth and development priorities, including transportation and urban design. Contains high-level descriptions of bikeway facility types.	Incorporate relevant policies into bikeway prioritization to further support implementation of Comp Plan goals and policies.
	Complete Streets Ordinance (2019)	City Council Ordinance requiring the consideration of Complete Streets design principles and the needs of people walking and biking as part of all roadway projects.	Define desired bikeway facility types and their application based on City of Albuquerque road conditions.
	Vision Zero Action Plan (2021) and Year in Review (2023)	Outlines areas of action to address crashes resulting in serious injuries and fatalities for the city as a whole, and for vulnerable communities and vulnerable road users, in particular. Contains a city-level High Fatal and Injury Network (HFIN).	Incorporate safety data and Vision Zero analyses into bikeway prioritization.
	Climate Action Plan (2021)	Establishes the value of walking and bicycling as mitigation and resilience strategies and documents community desires to increase pedestrian and bikeway facilities.	Prioritize projects that are most likely to increase the share of trips taken by bicycle, producing a reduction in GHG emissions.

Category	Document	Relevance to the 2024 Plan	Opportunities for Further Progress Through the 2024 Plan
Regional Planning Documents and Programs	Statewide Prioritized Bicycle Network Plan (NM Bike Plan)	Identifies a system of priority tiers and design guidance for bikeway facilities along US and NM highways based on the role the roadway could play in statewide and regional bikeway systems.	Consider potential NMDOT-led improvements as part of the 2024 Plan recommendations
	Connections: 2040 Metropolitan Transportation Plan (2020)	Documents current transportation trends while projecting future transportation needs and establishing regional investment priorities.	Develop recommendations that can form the basis for federal funding applications.
	Long Range Bikeway System	Contains a regional map of existing, planned, and proposed bikeways, based on input from public agency staff across the Albuquerque region, as well as proposed bikeways on future roads that will be built as a part of development projects.	Consider previously proposed enhancements as an input to the network development process. Incorporate bikeway and trail recommendations from 2024 Plan into the Long Range Bikeway System.
	MRCOG Non-Motorized Traffic Counts Program	Program provides quantitative data on level of use along existing bikeways and trails.	2024 Plan can be used as a reference for prioritizing locations for data collection.

Category	Document	Relevance to the 2024 Plan	Opportunities for Further Progress Through the 2024 Plan
Reference Documents	Bikeways & Trails Facility Plan (2015)	Previous city-level bikeway and trail plan that establishes bicycle and trail-specific goals, proposes capital improvements, and outlines potential programs and policy recommendations.	Focus on an implementable network of bikeways and trails that suits the needs for people biking of all ages, abilities, and backgrounds. Create criteria for selecting, designing, and implementing bike boulevards. Reconcile the bikeway and trail network with the LRBS. Update recommendations for on-street bikeways and paved multi-use trails.
	Development Process Manual (2020)	Technical standards document for infrastructure improvements, which provides design guidance on a variety of public and private developments, including public right-of-way and bikeway and trail facilities design.	Incorporate emerging best practices in bikeway and trail design into City design standards.
	Bicycle & Trail Crossings Guide (2021)	Identifies appropriate crossing facility types and countermeasures for improving roadway crossing conditions along bicycle and trail routes and decision-making guidance.	Apply crossing treatment guidance to trail and bike boulevard crossing locations and prioritize investments that will support a well-connected, low-stress network.
	Bikeway Project Evaluation Process: Overview and Methodology (2022)	Outlines the City's evaluation process for selecting bikeway projects based on the project benefits, technical feasibility, and the magnitude of cost.	Update the process to ensure consistency with 2024 Plan goals and objectives. Formally adopt the evaluation process as part of the 2024 Plan.

Category	Document	Relevance to the 2024 Plan	Opportunities for Further Progress Through the 2024 Plan
Implementation Programs	Complete Streets Annual Maintenance Program	Leverages city-wide repaving and restriping program to implement on-street bikeways.	Identify projects that could be implemented through Complete Streets resurfacing, as well as complementary treatments to further enhance safety and user comfort.
	Capital Project Development	City-led bikeway and trail implementation projects, either as standalone projects or part of larger roadway improvements, utilizing funds from general obligations bonds and other City sources.	Identify clear project priorities and magnitude of cost estimates.
	Private Development	Site development projects are required to improve the roadway frontage, creating a means for implementing sidepaths. Trails and bikeways may be built on new roads accompanying private subdivision development.	Identify desired bikeway improvements that could occur through private development.

Category	Document	Relevance to the 2024 Plan	Opportunities for Further Progress Through the 2024 Plan
Recent / Ongoing Studies	I-25 Bicycle Accessibility Study (2020; updated 2021)	Evaluates gaps in the bikeway network caused by I-25 and identifies potential improvements.	Integrate and prioritize recommendations into the 2024 Plan as appropriate. Review the benefits of previously proposed I-25 bridge crossing locations.
	Bike Gap Closure Project List Summary Profiles and Feasibility Study– Summary Profiles (2022 / 2023)	Evaluates opportunities to close gaps on existing bikeways, based on priority list provided by GABAC (now GAATC). Feasibility Study conducts further engineering analysis on three priority locations: San Pedro Dr, Claremont Ave, and the Osuna Rd/San Mateo Blvd intersection.	Incorporate previously proposed bikeway and trail projects into the recommended network in the 2024 Plan, as appropriate.
	Rail Trail Framework Plan, Alignment Studies, and Planning and Design (Ongoing)	Set of studies and plans that identify the alignment, preferred design, and desired amenities along the proposed Rail Trail. Design in progress on the first segments as of 2024.	Incorporate the Rail Trail alignment into the recommended network and identify potential on-street connections.
	Rio Grande Trail Master Plan (ongoing)	Identifies alignments for a 500-mile multi-use trail open to people hiking, biking, and horseback riding along the Rio Grande corridor from Texas to Colorado.	Coordinate on recommended trail alignments through the City of Albuquerque.
	UNM Integrated Campus Master Plan (ongoing)	Guides the University of New Mexico's decisions on the physical environment and character of each campus, including issues related to access and mobility.	Coordinate on recommended street and bikeway projects that connect to and travel through the UNM main campus.

Existing Bikeway and Trail Facilities

The City of Albuquerque features an extensive network of bicycling infrastructure, consisting of a variety of on-street bikeways and paved multi-use trails and sidepaths. Figure 4 depicts the existing bikeways and trails. Table 4 provides definitions and summarizes the mileage of bikeway and trail facilities by type across the City of Albuquerque. See **Chapter 4: Facility Types: Definitions and Considerations** for additional information on design considerations and appropriate context for different facility types.

Altogether, the City of Albuquerque features over 420 miles of paved multi-use trails and on-street bike lanes. Of the 230 miles on bike lanes, 32 miles have been installed since 2015. In that span, dozens of miles of bikeways have also been upgraded to meet or exceed design standards (i.e., a minimum width of 5') or to include buffers.

The on-street bikeway network also includes shared streets – bike routes and bike boulevards – where some combination of signage, pavement markings, and traffic calming features are utilized to indicate to motorists that bicyclists may be present and to create safer conditions for people bicycling. Bike routes are noted in Table 4 but are not included in the analyses that follow as they do not feature the enhanced crossings or other conditions that are critical for creating useful connections that appeal to bicyclists of all ages and abilities.

As of Spring 2024, the City does not have any separated bike lanes (also called protected bike lanes); however, the first separated bike lanes will be installed along Louisiana Boulevard between Gibson Boulevard and Kathryn Avenue in 2024 and are among the facility types recommended for Albuquerque streets as part of the 2024 Plan. Separated bike lanes were recently installed along Sunport Boulevard by Bernalillo County.

Figure 4. Existing Bikeways and Trails

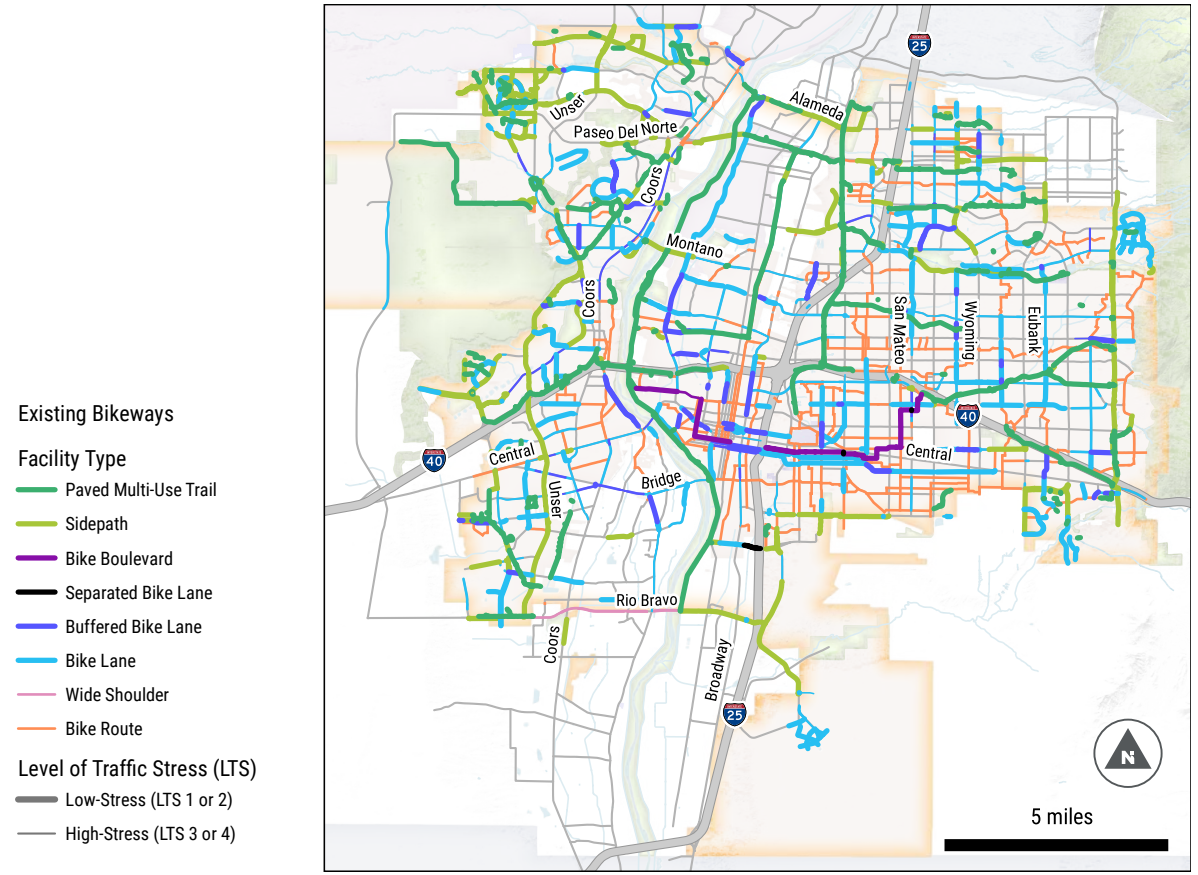


Table 4. Definitions of On-Street Bikeway and Paved Trail Facility Types and Current Mileage

Facility Type	Definition	Total Miles		
		2015 City	2023 City	2023 Plan Study Area
Paved multi-use trails	Off-street facilities in their own right-of-way that are shared among people biking, walking, jogging, and rolling.	160*	91.8	109
Sidepaths	Two-way, off-street paved facilities that are shared among people biking, walking, jogging, and rolling. Sidepaths are located within the public street right-of-way on the outside of the curb and are designed to the same standards as paved multi-use trails.		91.3	99.8
Standard bike lanes	Separate, dedicated space for people biking that is delineated by striping. Standard bike lanes are typically located at the road edge and include signage and bike stencils, but do not provide additional vertical or horizontal separation from vehicular travel lanes.	198*	194.2	213.9
Buffered bike lanes	Bikeways with striped, horizontal space between the bike lane and the adjacent vehicle travel lane to provide additional separation between bicyclists and moving vehicle traffic.		35.5	37.9
Separated bike lanes	Also known as protected bike lanes, separated bike lanes are a type of bike lane that is located at street level but features some form of vertical separation from motor vehicles.	0	0.1	0.4
Paved bikeable shoulders	Space at the road edge separated by striping that can be used by people biking. Unlike bike lanes, shoulders typically do not feature bike stencils or signage indicating bicyclists may be present. Bikeable shoulders are typically located in more rural areas and on the edges of the city.	N/A	1.4	4.5
Bike boulevards	Low-stress corridors that feature traffic calming elements, frequent signage and pavement markings, and enhanced crossing treatments to reduce through-vehicle traffic and manage vehicle speeds. Though people biking share space with motor vehicles, the low-stress conditions ensure these bikeways appeal to people biking of all ages and abilities.	6	8.9	8.9
Bike routes	Shared streets that use signage to indicate that bicyclists may be present. Bike routes are typically, but not always designated along local streets with low volumes of vehicle traffic. Some bike routes include pavement markings.	116	162.4	177.8

Note: Summary conditions as of December 31, 2023. ****2015 data did not distinguish among different facility types.***

Other Multi-Use Trails

The City features other multi-use trails that are not paved but also are intended for various users. Unless these trails are located in Major Public Open Space or a City park, they are typically informal and not maintained as trails.

Examples of unpaved multi-use trails include the extensive network of drains and ditches (also sometimes known as acequias) within the Middle Rio Grande Conservancy District (MRGCD), which owns and/or maintains this irrigation system. Other unpaved multi-use trails can be found along the Bosque, in City Major Public Open Space, County Open Space, the United States Forest Service, and the National Park Service among other public and private lands.

The Open Space Division manages just over 100 miles of official trails, including in City-owned Major Public Open Space in Sandoval and Bernalillo Counties. Many of these "single-track" trails or hiking are about one and a half to two feet wide and attract many hikers, runners, dog walkers, and mountain bicyclists. All of these unpaved trails are considered to be part of Albuquerque's multi-use trail system, despite the City's varying degrees of oversight and maintenance.

The 2024 Bikeway and Trail Facilities Plan did not include updated information for unpaved or equestrian trails.

Unpaved multi-use trail through the Bosque

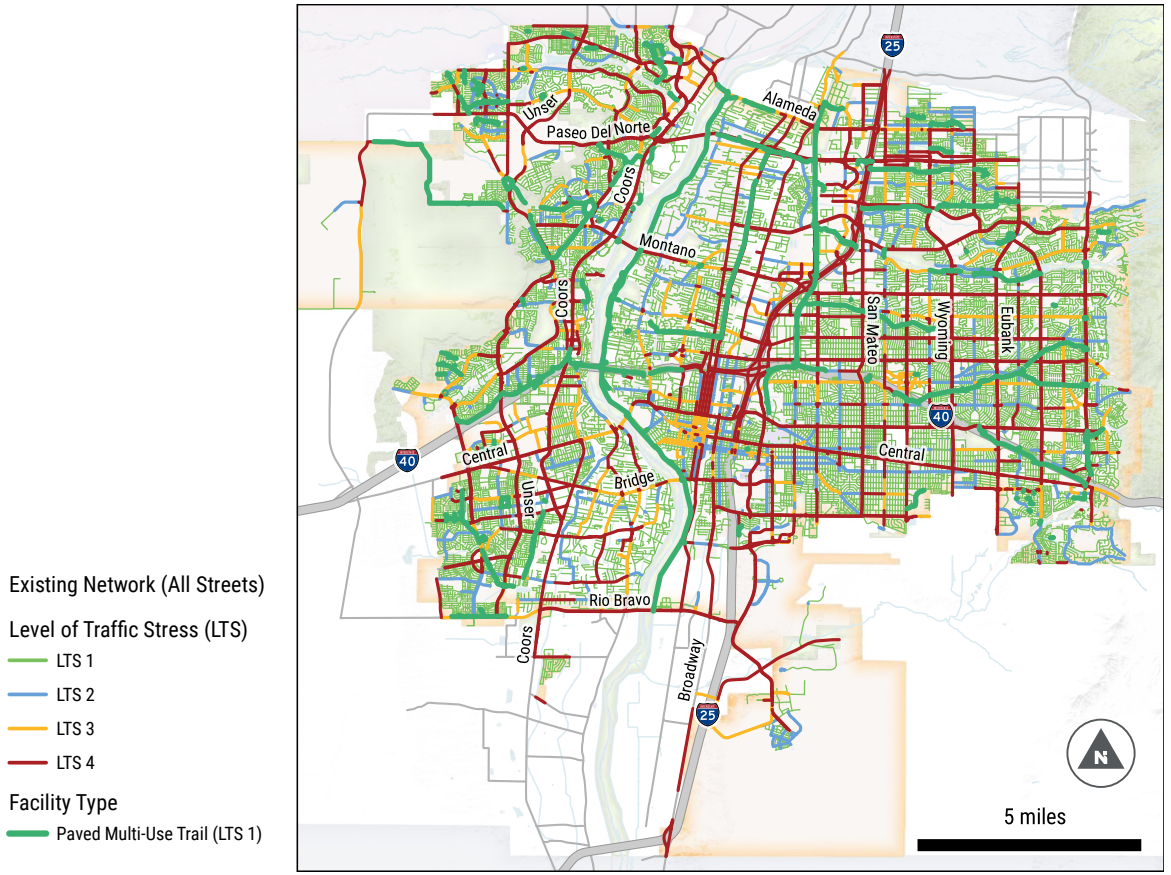
How Well Does the Bikeway Network Meet the Needs of Albuquerque Community Members Today?

Measuring Traffic Stress

Level of Traffic Stress (LTS) is a widely-used planning tool that systematically quantifies the stress a person is likely to experience while bicycling on a particular street. LTS is based on the premise that a person's level of comfort on a bicycle increases as separation from vehicular traffic increases or as traffic volume and speed decrease. LTS utilizes a numerical scale to classify streets and multi-use trails from greatest comfort (LTS 1) to least comfort (LTS 4). Most people interested in bicycling feel comfortable doing so on lower-stress facilities (LTS 1 and LTS 2), whereas more confident bicyclists may also feel comfortable riding on higher-stress facilities (LTS 3 and LTS 4).

Figure 5 shows current LTS values for all roads in the 2024 Plan study area, including roads with and without bikeways, while Figure 6 shows LTS values for streets with existing bikeways, including the facilities that are classified as low stress today (i.e., LTS 1 or 2). All paved multi-use trails and sidepaths are classified as LTS 1 because they provide separation from traffic, even when located adjacent to roadways with fast, heavy vehicle traffic. Many residential streets are also classified as LTS 1 because they have low traffic volumes and speed limits. Due to the lack of physical separation between motorists and bicyclists and the relatively high posted speeds and traffic volumes, many roads in Albuquerque with existing bike lanes are considered LTS 3 or 4. Bike lanes along roads with lower posted speed limits (i.e., 30 MPH or less) and modest traffic levels (i.e., less than 7,000 vehicles per day) are generally considered LTS 1 or 2.

Figure 5. Current LTS Levels of all Albuquerque Streets

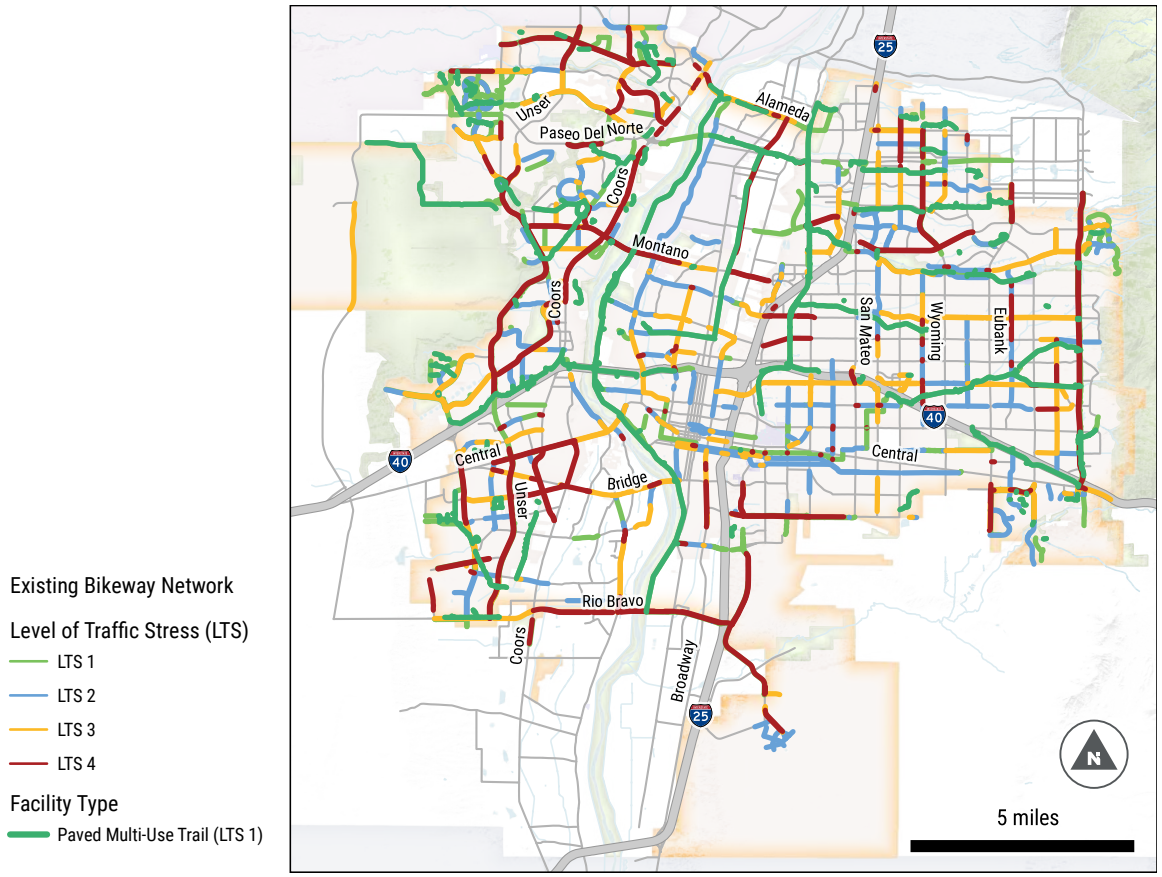


A central goal of the 2024 Plan is to identify and prioritize actionable next steps the City can take to expand the low-stress bikeway network and create safe, comfortable, and attractive biking options for a broad range of community members. As shown in Figure 6, only a limited number of Albuquerque's existing streets and facilities provide a comfortable, low-stress biking experience that appeals to people of all ages and abilities—and these low-stress facilities are often not connected. The disconnected network limits access to destinations (including multi-use trails) and discourages people from making longer trips by bike. See the **Existing Conditions Story Map** for detailed information.

Applying LTS Results

The 2024 Plan uses LTS as a reference for locations where user comfort could be enhanced on existing bikeways and quantifies the potential for proposed projects to achieve a lower LTS as part of the facility needs criterion in the Bikeway Evaluation Process. 2024 Plan recommendations include opportunities to create lower-stress conditions on streets with existing bikeways through further separation between people biking and motorists or slower vehicle speeds—achieved through techniques such as narrower travel lanes and modified signal timing patterns. The 2024 Plan also considers opportunities for bikeways on lower-volume streets that are parallel to higher-stress streets that are typically costlier to reconfigure.

Figure 6. Existing Low-Stress Bicycling Network



Notes on LTS Methodology

The LTS assessment was applied to the entire network of streets and paved trails across the 2024 Plan study area, including locations with and without dedicated bikeways. For the purposes of LTS analysis, only certain bikeways (i.e., bike lanes, shoulders, and trails) are considered to be dedicated bicycle facilities. Though bike routes help direct bicyclists to key destinations and raise awareness of their presence on the road to motorists, these routes are scored using the "mixed traffic" criteria as there is no physical separation between moving traffic and bicyclists, and research indicates the presence of signs alone does not influence traffic stress.

The stress or comfort people feel based on their proximity to traffic is an important aspect, but far from the only component, of people's biking experience. Other factors influence the decision to ride a bicycle on a particular facility, including incidences of speeding and conflicts with turning movements at driveways and site access points.

LTS Inputs

LTS builds on the Mineta Transportation Institute's nationally-recognized research and applies LTS rating values for individual street segments based on the following inputs and characteristics:

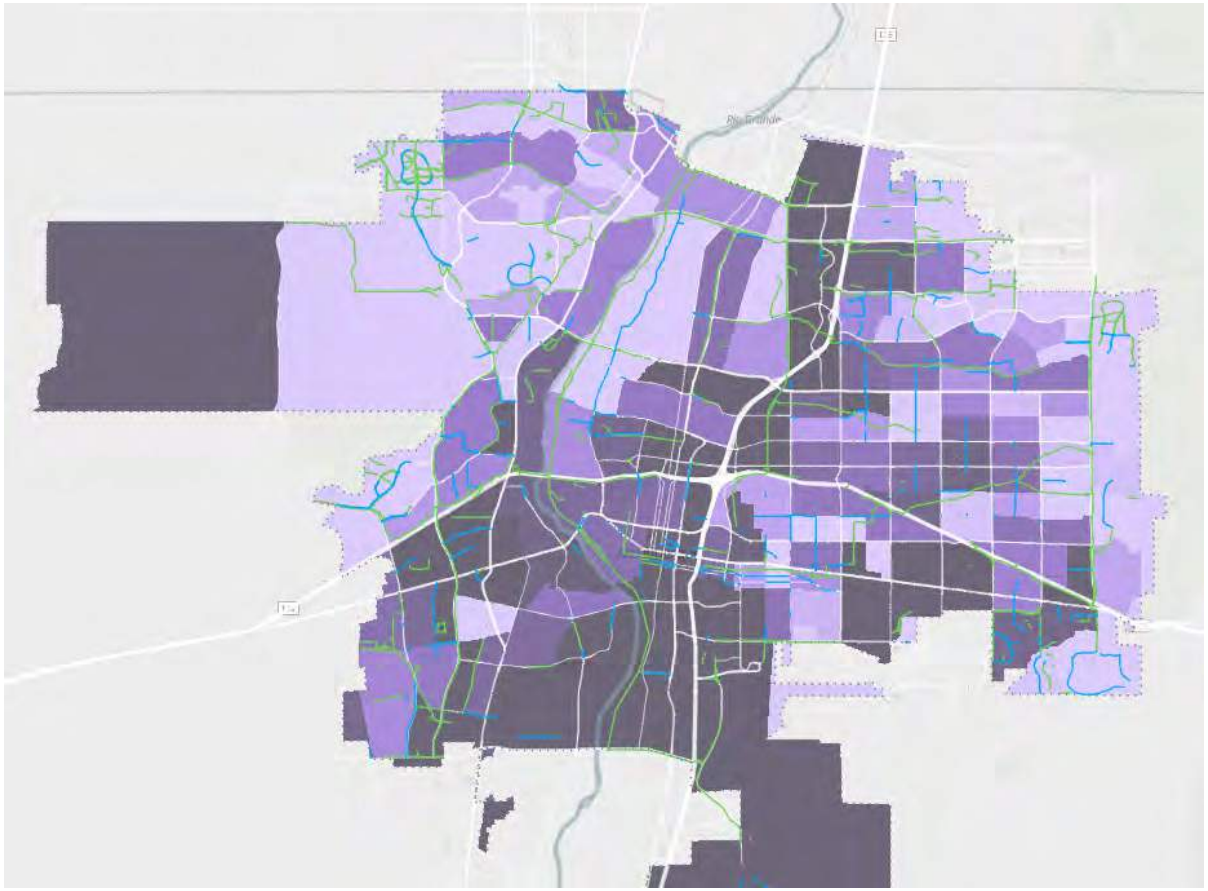
- Bicycle facility presence, type, and width
- Posted speed limit
- Number of travel lanes per direction
- Average daily traffic (ADT) volume
- Presence and width of on-street parking lanes
- Presence of a centerline

Equity in Access

Access to low-stress bikeways is not evenly distributed across the City of Albuquerque. Figure 7 displays the low-stress bikeway network overlaid on top of the Vulnerability Index used by the Mid-Region Council of Governments for various equity-related analyses. Darker colors represent the Census tracts with more vulnerable populations, as measured through indicators related to:

- Per-capita income and poverty levels
- Population dynamics (including share of residents 17 years old or younger and 65 years old or older)
- Population with a disability
- Non-white population
- Population with limited English proficiency
- Multi-family housing with 10 or more units
- Households with limited access to vehicles

Figure 7. Vulnerability Index and Existing Low-Stress Bikeways



Applying Equity Analysis

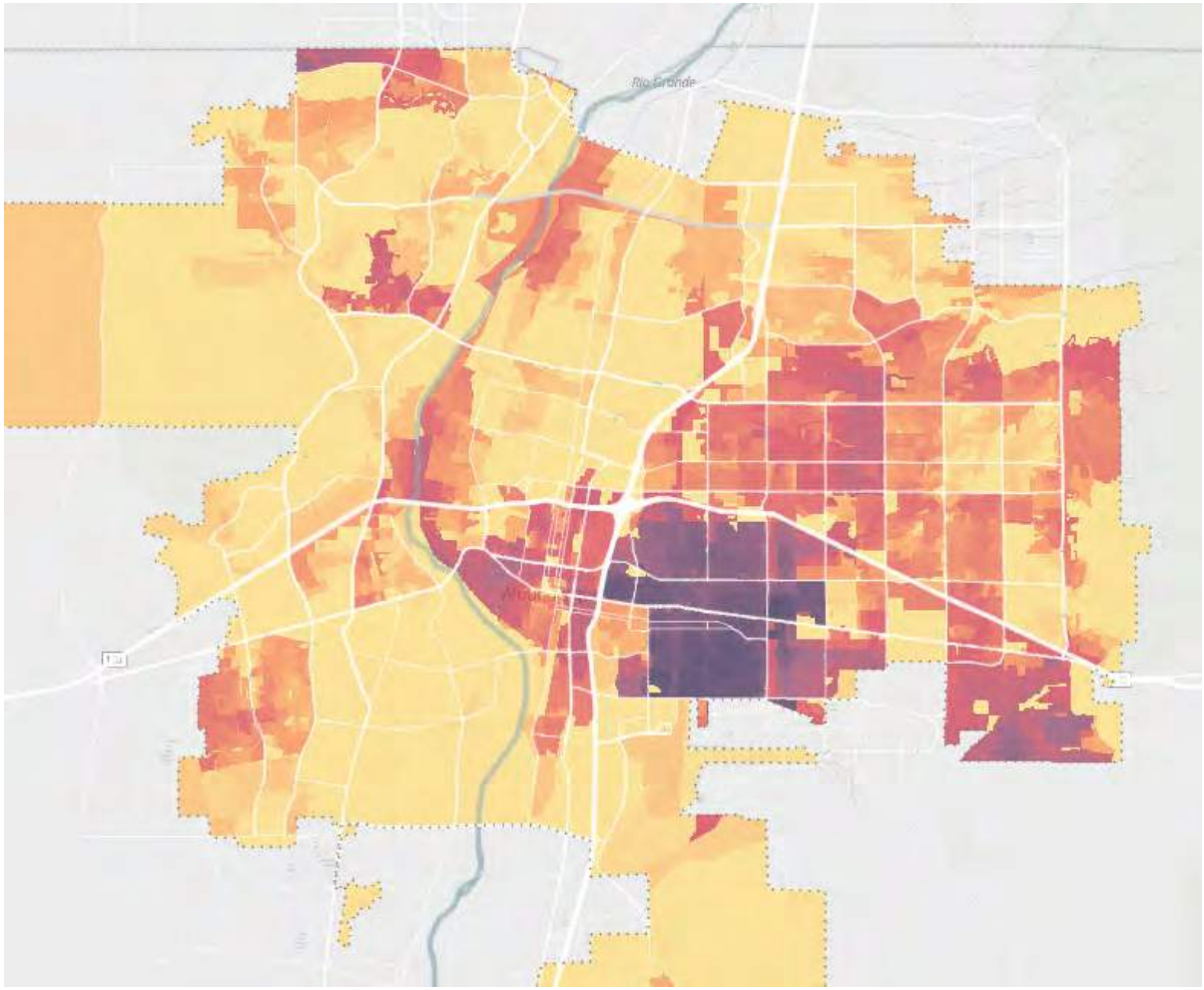
The Vulnerability Index data can be contrasted against the existing bikeway and paved multi-use trail networks to understand how accessible low-stress facilities are to different population groups. The International District, for example, has no meaningful low-stress bikeways, despite being home to a high number of lower-income individuals and families who either cannot afford or must make large financial sacrifices to own and drive a car. The Bikeway Evaluation Process incorporates the Vulnerability Index into project prioritization. See **Chapter 6: Implementation** for additional details.

Opportunities for Connections

Bicycle Network Analysis (BNA) highlights areas where bicyclists cannot easily access destinations such as schools, major job sites, and stores via low-stress bikeways and paved multi-use trails. BNA integrates LTS data with consideration of how bicyclists experience intersections to reflect not only bicyclists' comfort or stress riding along streets and multi-use trail corridors, but also how existing infrastructure allows or prevents them from crossing major roadways safely and comfortably.

Places shown in darker colors represent the areas where bicyclists can access a broad range of destinations using low-stress bikeways and paved multi-use trails, while places shown in lighter colors represent areas where bicyclists can reach fewer destinations. In Albuquerque, biking access to destinations is greatest in the neighborhoods surrounding the University of New Mexico, where there is a dense concentration of destinations and several low-stress bikeways. Meanwhile, large swaths of the South Valley—including areas in the City of Albuquerque and unincorporated Bernalillo County—have limited biking access to destinations. Investments in higher-comfort bikeways and multi-use trails can help improve bicycling access to critical destinations in these areas.

Figure 8. Bicycle Network Analysis Results



Applying BNA Results

This 2024 Plan uses BNA as a reference during network development to identify areas where additional low-stress connections would be particularly beneficial and prioritizes implementable bikeway projects that provide connections through local neighborhoods and across regional barriers like the Rio Grande to help make biking a safe, comfortable, and enjoyable option for trips citywide.

3. Community and Stakeholder Outreach

Overview

The City of Albuquerque used a variety of outreach strategies to raise awareness about the 2024 Plan development process and gather input from community members on bicycling-related needs and priorities. This chapter summarizes the community and stakeholder outreach and highlights some of the key takeaways.

Figure 9. Public and Stakeholder Outreach Infographic

3 Phases of Outreach

12+ Hosted more than a dozen pop-up meetings

5 Community meetings

9 City and regional committee presentations

2 Stakeholder working groups

8 Total meetings

2 Surveys that reached >1,200 people in English and Spanish

Pop-up events during Bike to Wherever Day and Bike Thru Burque Week

Key Takeaways

The key takeaways listed below represent a combination of input received from stakeholders and community members at in-person meetings and pop-up events and through the initial community survey. **This input informed the 2024 Plan vision and goals, proposed bikeway projects, and the criteria used in project prioritization.** Detailed summaries of both surveys can be found in **Appendix B: Community Survey Summary** and **Appendix C: Project Priorities Survey Map Results.**

- **Survey respondents see positive changes in Albuquerque over time**: Survey respondents were generally positive about the trajectory of bicycling conditions in Albuquerque, though not as positive as they had been in past Bike to Wherever/ Bike to Work Day surveys. Reasons that respondents felt positive about bicycling in Albuquerque included the expanding network of on-street bikeways, a high-quality network of paved multi-use trails, pleasant weather, and a growing culture of bicycling.
- **Most trips by bicycle are for recreational purposes**: The majority of recent bicycling trips among survey respondents were for recreational purposes, though many respondents indicated a desire to bike for more utilitarian purposes if quality bikeways were available.
- **Safety and personal security are major concerns while bicycling**: Survey respondents emphasized safety as their highest priority, which is consistent with previous surveys. Major sources of safety concerns included excessive speeding and the presence of larger vehicles on the road. While paved multi-use trails remain popular places to ride, several participants voiced concerns over personal security along some trail segments, including the North Diversion Channel.
- **Bicyclists prefer greater physical separation from motor vehicles**: When asked to rate different bikeway facility types, respondents' level of comfort rose significantly along bikeways with greater physical and spatial separation from motor vehicles.
- **Bikeway travel is limited by natural and human-made barriers**: Limited bridges and crossings of the Rio Grande, Interstates 25 and 40, and the railroad tracks near Downtown affect access to key destinations and the ability to complete trips by bicycle. Participants asked that improved facilities along key crossings be prioritized.
- **Major street crossings are major barriers to bicycling:** Crossing major streets, both at signalized intersections – where bike lanes are not always continuous and require traveling in mixed traffic – and at unsignalized or uncontrolled intersections where wide roads and fast-moving traffic create hazardous conditions. Several participants expressed a desire for better bike detection at signalized crossings.
- **Plan recommendations should include improvements to existing facilities**: Participants noted that many existing bikeways could be improved further and that some bikeways classified as low stress in the Level of Traffic Stress analysis do not always feel low stress, particularly where motorists regularly travel above the posted speed limits.
- **Neighborhood streets can be quality bikeways**: Many participants prefer riding along quiet neighborhood streets and indicated that Bike Route signage is useful. For bike routes and bike boulevards to be low stress, participants requested enhanced crossings and other features beyond signage and pavement markings.
- **Greater integration of modes is desired**: Participants expressed a desire for greater integration between bicycling and transit, including more bike parking at transit stops and station areas and making it easier to bring bikes on buses.
- **There is a need to manage potential conflicts associated with e-bikes**: Participants and stakeholders highlighted the need to both create opportunities for a greater range of users and to manage conflicts among bicyclist types, including the use of e-bikes on paved multi-use trails and on-street bikeways.

Phases of Outreach

The planning process included three outreach phases designed to generate input on general barriers and challenges to bicycling in Albuquerque, as well as specific locations for improvements and project priorities. Table 5 provides an overview of the phases of engagement, the information the Project Team shared with the public, and the input gathered to inform the planning process. Specific outreach strategies are described in the following section. Phase 1 of engagement focused on understanding bicyclist user needs and general priorities. Outreach events aligned with the nationwide Bike Month and with the City's Bike to Wherever Day event (previously Bike to Work Day) on May 12, 2023. During these events, the Project Team promoted the plan and encouraged the public to fill out the annual Bike to Wherever Day survey and identify locations for potential improvements.

The launch of Phase 2 aligned with Bike Thru Burque Week in October 2023 and the CiQlovía open streets festival. Outreach events featured a survey map where community members could indicate which potential projects they think should be prioritized.

Phase 3 centered around the release of the plan for public review before the draft plan was brought before the Environmental Planning Commission and City Council for approval.

Table 5. Phases of Public Outreach

Phase	Information Shared	Input Gathered
1. **Needs Assessment (May-June 2023)**	• Existing conditions including Level of Traffic Stress (LTS) analysis	• Challenges and opportunities for biking in Albuquerque • Critical factors for prioritization • Preferred facility types • Priority corridors for improvements
2. **Project Priorities**	• Proposed bikeway and paved trail network, including facility types, implementation timeline, and magnitude of costs	• Bikeway projects that community members believe should be prioritized
3. **Plan Review**	• Full draft of the 2024 Plan, including network components and policy recommendations	• General feedback on 2024 Plan contents

Public Engagement Strategies

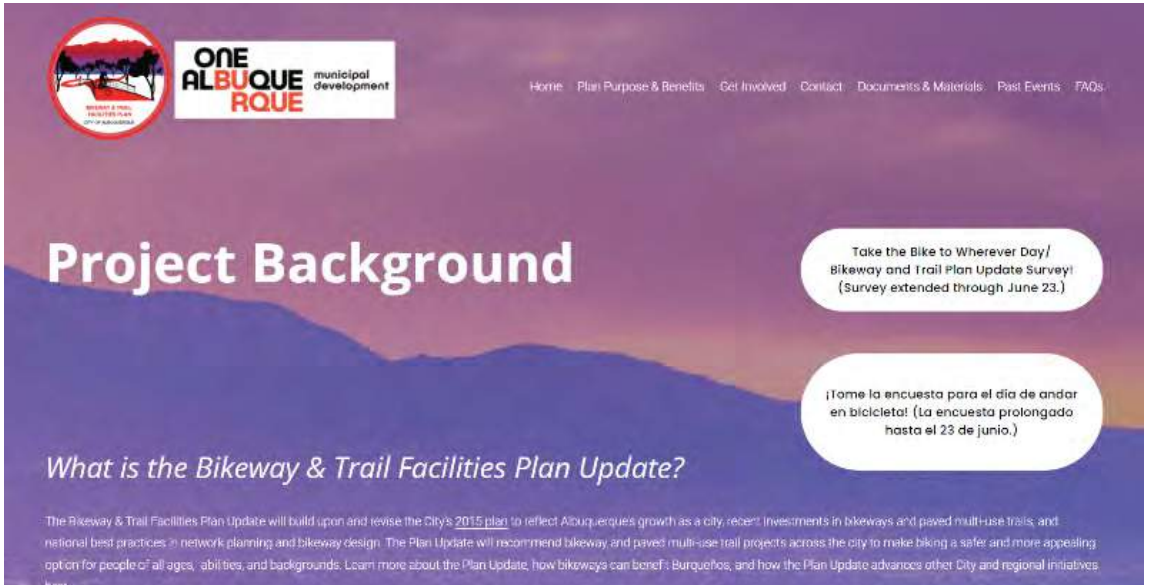
Engagement strategies included a combination of in-person and virtual events and activities. Online advertising and marketing efforts about opportunities for input took place in coordination with Bike to Wherever Day in May 2023 and Bike Thru Burque Week in October 2023, to leverage well-established programs and activities and to increase awareness of the plan development process. Coordinated efforts included plan promotion via Bike Thru Burque social media channels, event webpages, and email lists.

Project Website

A dedicated project website (**www.abqbikeplan.com**) hosted information about the project, including links to public meetings, draft products such as the **Existing Conditions Story Map**, surveys, and interactive maps. Key elements of the project website, including both surveys, were available in Spanish.

Logo for 2023 Bike Thru Burque Week

Logo for 2023 Bike to Wherever Day



Homepage for Bikeway and Trail Facilities Plan website

Stakeholder Outreach

Stakeholder outreach included two formal working groups convened specifically for the 2024 Plan and formal presentations to standing city and regional committees.

Working Groups

The planning process convened two working groups: the Technical Working Group (TWG) comprised of staff from various City departments and peer agencies and the Stakeholder Advisory Committee (SAC) comprised of community members, external stakeholders, and bicycling advocates. Both groups provided input on bicycling-related needs, the plan development methodology, components of project prioritization, draft deliverables, and related implementation strategies.

The Project Team held four meetings with each group, including a joint visioning session in early 2023 to consider potential plan priorities. In addition to the formal meetings, the Project Team held a series of four network design workshops with select members of the TWG in Summer 2023 to review and develop the proposed bikeway network.

Table 6. Composition of the Technical Working Group and Stakeholder Advisory Committee

Technical Working Group	Stakeholder Advisory Committee
City departments • Municipal Development • Parks and Recreation • Planning • Council Services • ABQ RIDE • Sustainability • Senior Affairs **Peer agencies** • Bernalillo County • Mid-Region Council of Governments	**External agencies** • Albuquerque Public Schools • Sandia National Labs • UNM Parking & Transportation **City advisory committee representatives** • Greater Albuquerque Active Transportation Committee • Greater Albuquerque Recreational Trails Committee • Transit Advisory Board **Community organizations** • Bike ABQ • Duke City Wheelmen • Together 4 Brothers **Other** • Private citizens and advocates

City and Regional Boards and Committees

The Project Team gave regular updates to key City and regional boards and committees at their scheduled monthly meetings. Table 7 describes the role and composition of these boards and committees. Presentations to the committees coincided with the three plan outreach phases to increase awareness and encourage participation.

Community Meetings

The first two phases of engagement included both an in-person public meeting and a virtual public meeting; the virtual public meetings were recorded and posted online. Meeting content engaged the public on topics such as the vision and goals of the plan, solicited input on the proposed network and projects for prioritization, and informed the public of next steps for implementation.

In-Person Pop-Up Events

In addition to traditional public meetings, the Project Team hosted a series of in-person pop-up events, many of which coincided with Bike to Wherever Day and Bike Thru Burque Week programs and activities to increase participation rates. Each pop-up event included promotional materials, paper surveys, and hard copies of map materials.

Table 7. Boards and Committees Involved in Plan Outreach Efforts

Entity	Role of Committee
Greater Albuquerque Active Transportation Committee (GAATC)	**Description/Role**: Advises the City on the needs of people who walk, bike, use mobility devices, and other people-powered transportation options. **Participants**: Volunteer community members; staff from various City departments and peer agencies attend to provide reports.
Greater Albuquerque Recreational Trails Committee (GARTC)	**Description/Role**: Supports, encourages, and advises agencies to set priorities related to the development of new trails and maintenance of existing trails throughout the region. **Participants**: Volunteer community members; staff from various City departments and peer agencies attend to provide reports.
MRCOG Active Transportation Committee	**Description/Role**: Brings active transportation modes into the larger discussion of transportation issues in the Albuquerque Metropolitan Planning Area and discusses and reviews regional plans and projects. **Participants**: Staff from MRCOG agencies across the region, including the City of Albuquerque; interested community members.

Surveys and Interactive Maps

The Project Team utilized surveys and interactive maps in phases 1 and 2 to solicit location-based feedback from the public. More information about these surveys, including detailed summaries of findings, can be found in **Appendix B: Community Survey Summary** and **Appendix C: Project Priorities Survey Map Results.** The Key Takeaways section at the end of this chapter summarizes highlights from the general input survey.

Bike to Wherever Day Survey and Interactive Map

A general input community survey during phase 1 gathered feedback about general bicycling conditions, personal habits, and preferred facility types. The survey leveraged and expanded upon the annual Bike to Wherever Day survey to include an interactive map with components and questions particularly relevant to the 2024 Plan. The survey was open from May 1 to June 16, 2023, and received a total of 679 responses. The interactive map collected data on the following topics:

- Destinations that respondents would like to bike to
- Existing bikeways where respondents feel unsafe
- Unsafe crossing locations
- Locations where new facilities are desired

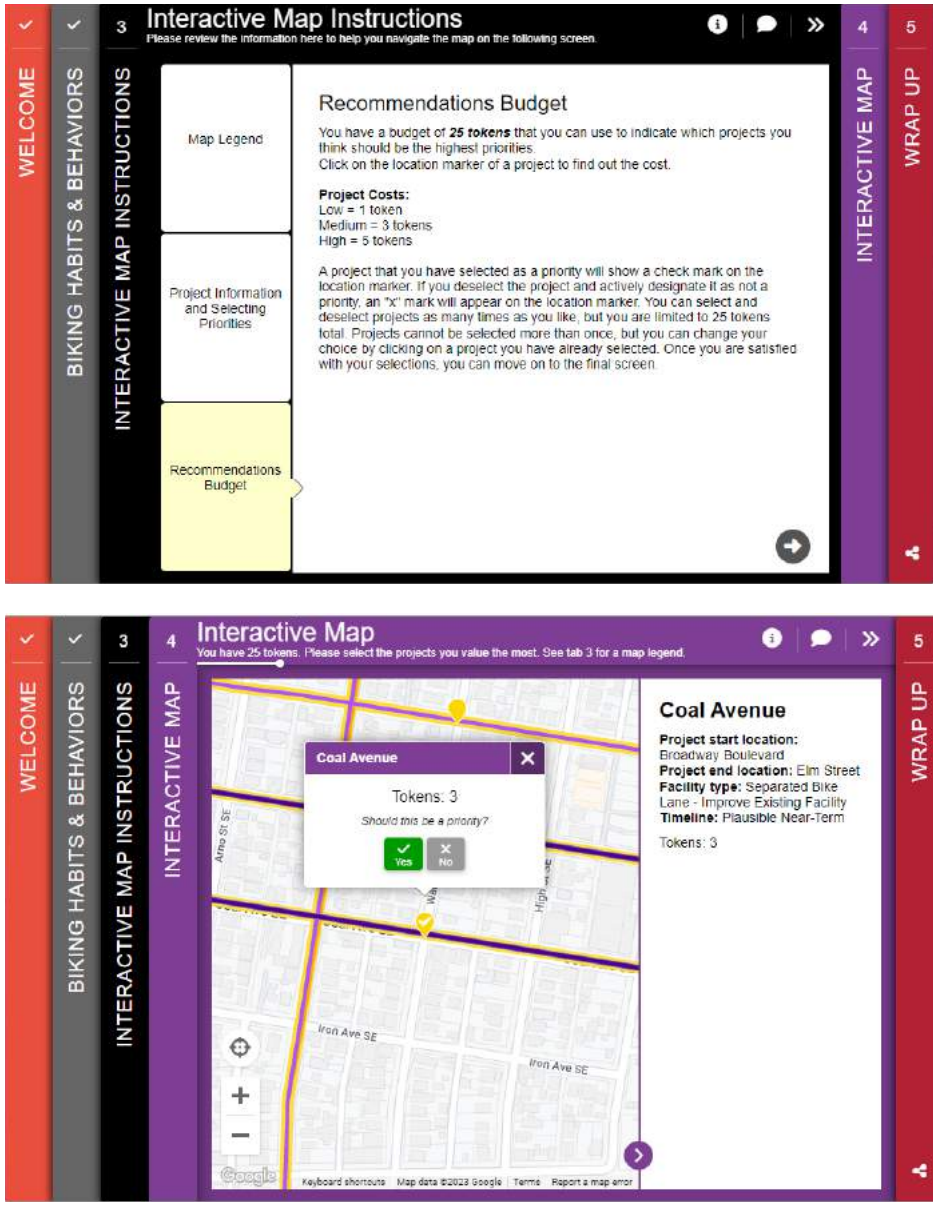
Interactive map component of the Bike to Wherever Day Survey

Figure 10. Destinations People Would Like to Bike To, Bike to Wherever Day Survey

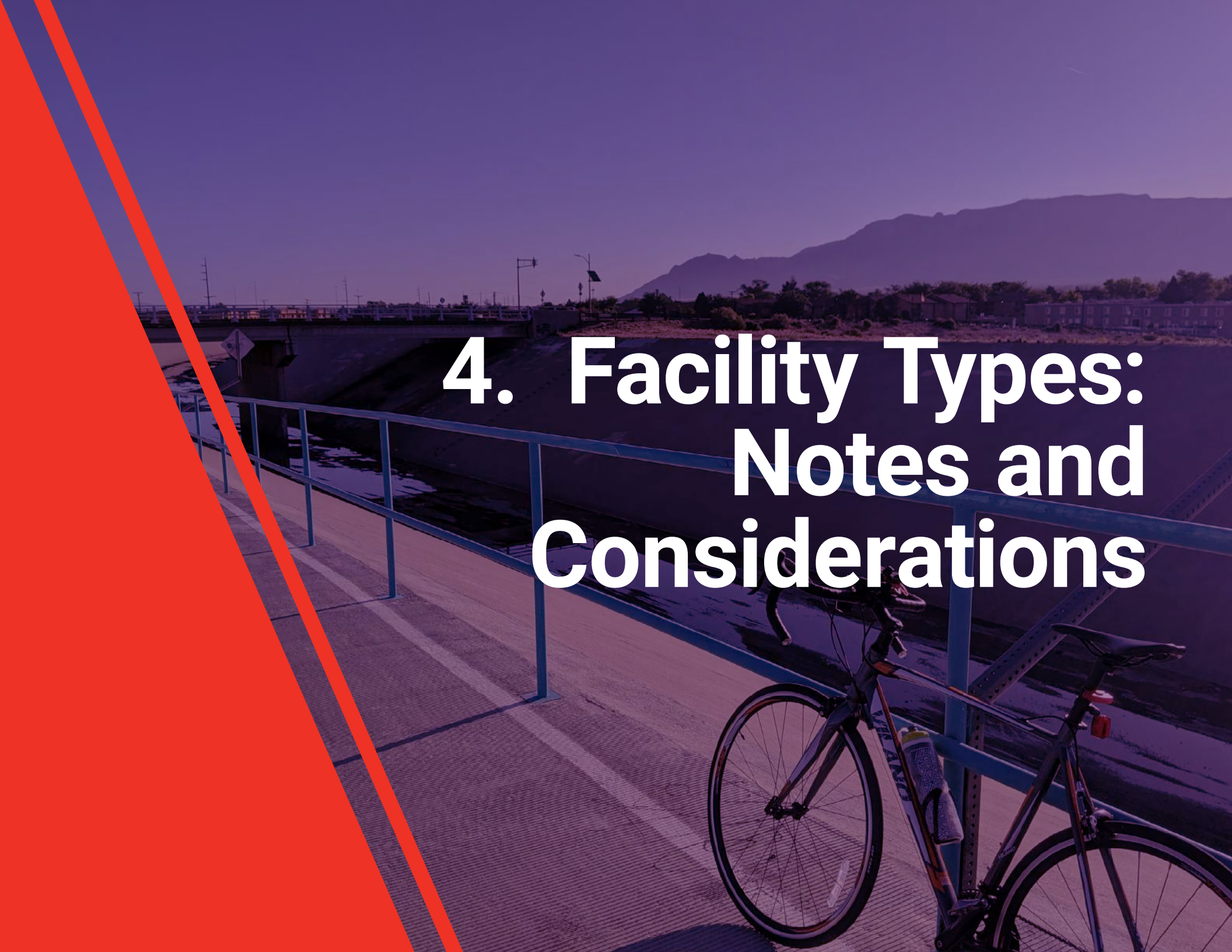
Project Priorities Map Survey

The project priorities map survey was available online from October 21 through November 30, 2023, as part of phase 2 of engagement and provided participants an opportunity to view the proposed bikeways and their estimated timeframe for implementation. The interactive survey map included an exercise in which participants were given a "budget" of virtual tokens and asked to select which potential bikeway projects to prioritize. Projects had a "cost" of one, three, or five tokens to represent the technical feasibility and complexity of a proposed improvement.

A total of 662 individuals participated in the project priorities survey map. The Project Team incorporated results into project prioritization as a community input criterion in the bikeway evaluation process. **Appendix C: Project Priority Survey Map Results** provides details on the most frequently selected priority projects.



Instructions tab and interactive map component of the Project Priorities Survey Map



4. Facility Types: Notes and Considerations

Purpose

This document defines various on and off-street bikeway facilities based on current design guidance and their intended application across the City of Albuquerque. The 2024 Bikeway and Trail Facilities Plan did not update information related to unpaved trails, though unpaved trails are defined and described later in this section. As facility types are described in multiple City of Albuquerque planning documents and best practices in bikeway facility design are constantly evolving, these definitions ensure a common understanding of terms and establish the appropriate contexts in which different bikeway facility types may be implemented as part of the *2024 Plan*.

Note on Unpaved Trails

See **Appendix H: Additional Considerations for Multi-Use Trails** for discussion on unpaved trails for equestrians hiking and mountain biking. These trails serve recreational purposes only and are not evaluated in the 2024 Plan.

Design Guidance

Information on appropriate contexts for the application of bikeway facility types is derived from the Federal Highway Administration (FHWA) *Bikeway Selection Guide* and the National Association of City Transportation Officials (NACTO) *Urban Bikeway Design Guide* and reflects the bikeway infrastructure needed to achieve low-stress conditions for people biking. Design guidance and standards are taken from the City of Albuquerque *Development Process Manual* (DPM) unless otherwise noted.

Note: The 2024 Plan recommends revisions to the DPM based on emerging national best practices. These updates would impact desired widths and other elements of bikeway facility design.

Identifying Appropriate Facility Types

This section is intended as a reference and resource for identifying appropriate bikeway facility types and informs the recommendations of the *2024 Plan.* Bikeway facilities should adhere to the FHWA Bikeway Selection Guide to the greatest extent possible (see Figure 11).

LOW-VOLUME SHARED STREETS

- Bike Boulevard
- Enhanced Bike Route

ON-STREET FACILITIES

- Bike Lanes
- Buffered Bike Lanes
- Separated/Protected Bike Lanes

OFF-STREET FACILITIES

- Paved Multi-Use Trails
- Sidepaths

CONTEXT-SPECIFIC TREATMENTS

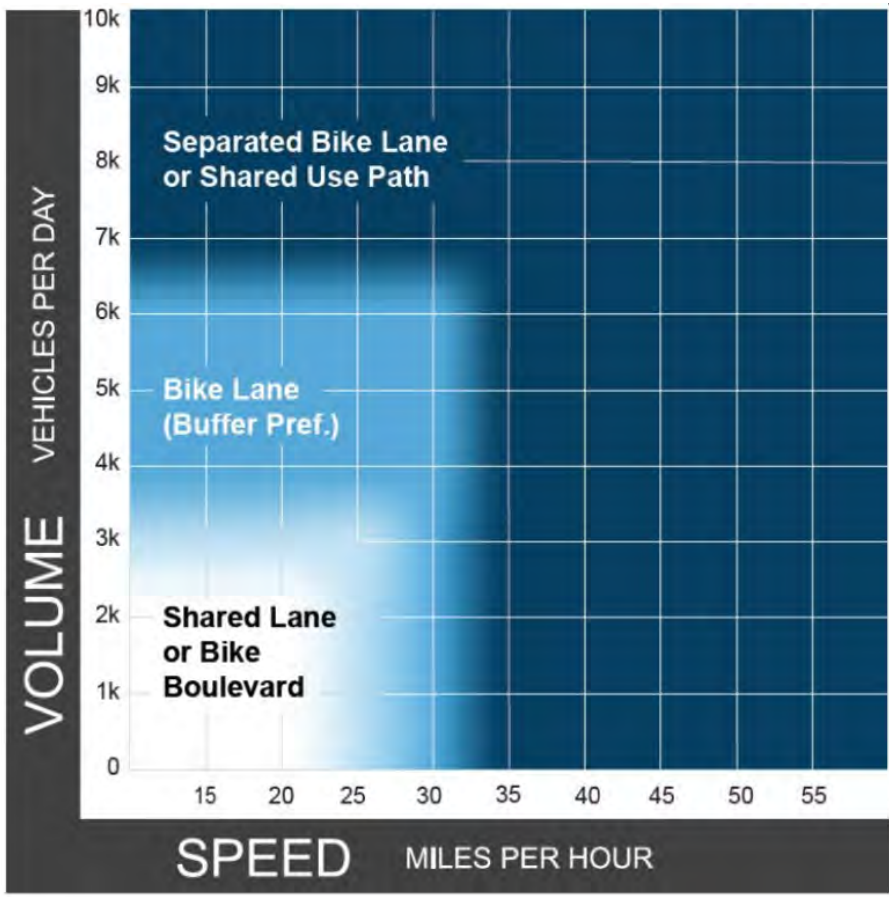
- Two-Way Cycle Track
- Raised Bike Lanes

RECREATIONAL TRAILS

- Unpaved Multi-Use Trails

Figure 11 illustrates how additional separation between where people driving and bicycling is needed as vehicle volumes and speeds increasewhat facility types are appropriate for all users, based on the volume of motor vehicles and the actual speeds of motor vehicles. The graph is intended to minimize the level of traffic stress (LTS) experienced by all users, regardless of volume and speed conditions, and ability levels. The lightest color in the lower left shows that bike boulevards and bike routes are appropriate facility types along streets with low traffic volumes and vehicle speeds. As traffic volumes and speeds increase (darkest colors), separated facilities such as multimodal multi-use trails orand sidepaths are more appropriate. In addition, this graph shows that, with some exceptions such as crossing treatments for bike boulevards, lowest-stress conditions can be handled in the short term with the lowest-cost facilities while higher stress conditions require more long term and capital-intensive facilities.

Figure 11. Preferred Bikeway Facility Type Based on Roadway Speed and Volume



Source: FHWA Bikeway Selection Guide

Low-Volume Shared Streets:

Bike Boulevard

Bike boulevards are low-stress corridors with slow speeds and low vehicle volumes that feature traffic calming elements and enhanced crossing treatments to reduce through vehicle traffic and manage vehicle speeds.

Though people biking share space with motor vehicles, the low-stress conditions ensure these bikeways appeal to people biking of all ages and abilities.

Appropriate Contexts

Primarily residential streets that run parallel to major roads and have posted speeds of 25 mph or lower before implementation.

Per the DPM, the target daily vehicle volume is 1,000 or below after implementation; 1,000–2,000 vehicles per day is acceptable.

Narrower streets (under 40 feet wide) are preferable for bike boulevards as wider streets require additional treatments to encourage slower vehicle speeds.

Posted Speeds

20 mph or lower after implementation

Considerations and Design Guidance

Per the DPM and the *Bike Boulevard Toolkit*, typical features include branded signage and pavement markings, design elements to narrow the roadway (e.g. diverters or striped on-street parking) and reduce traffic (e.g. closed medians at major intersections), and enhanced street crossings to remove barriers to longer-distance travel.

See the City of Albuquerque *Bike Boulevard Toolkit* for detailed design considerations and the City of Albuquerque *Bicycle and Trail Crossing Guide* for appropriate crossing treatments at major intersections.

Silver Ave

Girard Blvd

Low-Volume Shared Streets:

Enhanced Bike Route

Enhanced bike routes are shared streets that utilize signage and pavement markings (i.e. sharrows) to indicate that bicyclists may be present and to help bicyclists connect to other facilities and local destinations.

Today, bike routes are a common form of bikeway throughout Albuquerque and are typically designated through basic signage along local streets with low volumes of vehicle traffic. However, conditions vary in terms of treatments and traffic volumes and speeds and not all existing bike routes meet the criteria described below. Many existing bike routes are proposed as bike boulevards or enhanced bike routes in the 2024 Plan.

Appropriate Contexts

Low-volume (generally under 2,000 vehicles per day) and low-speed streets, including residential streets.

Enhanced bike routes typically provide short connections to local destinations or link other facilities to one another and do not involve crossing treatments at intersections with major streets.

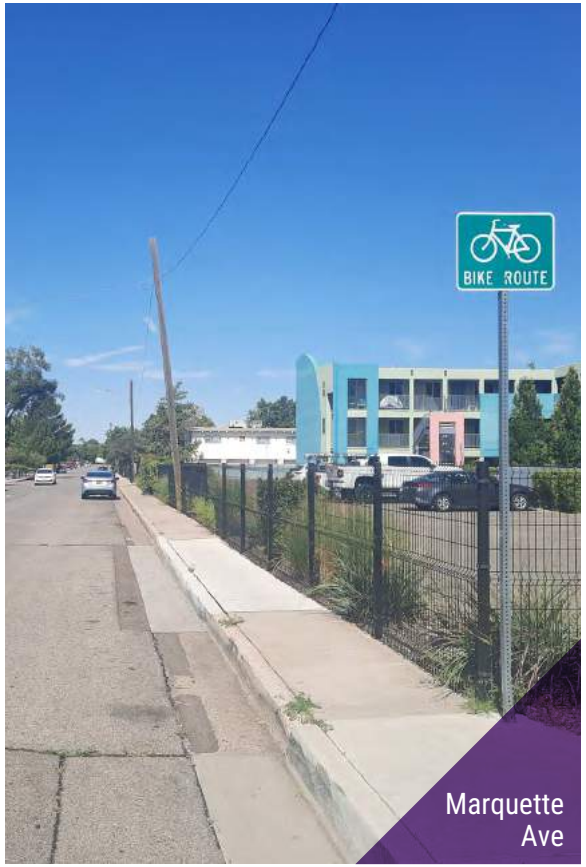
Posted Speeds

25 mph or lower

Considerations and Design Guidance

Enhanced bike routes share many of the characteristics of bike boulevards, including frequent pavement markings and traffic calming features to reduce vehicle speeds and increase bicyclist user comfort.

Per the DPM, bike route designations may be used selectively on higher-volume roads where a bikeway connection is desired but right-of-way is constrained and bike lanes that meet the minimum design standards are not feasible.



Marquette Avenue is an existing bike route. Additional pavement markings and traffic calming techniques are desired to create an enhanced bike route.

On-Street Facilities:

Bike Lanes

Bike lanes utilize striping to delineate a separate, dedicated space for people biking. Standard bike lanes are typically located at the road edge and do not provide additional vertical or horizontal separation from vehicular travel lanes.

Appropriate Contexts

Collector and arterial streets with moderate speeds and volumes. Per the FHWA Bikeway Selection Guide, bike lanes are best suited for streets with traffic volumes under 6,500 vehicles per day.

On local streets with wide pavement sections (i.e., at least 40 feet wide), bike lanes may be an appropriate alternative to bike boulevards.

Posted Speeds

30 mph or lower

Considerations and Design Guidance

Per the DPM, bike lanes should be a minimum of 5 feet wide, with additional width (up to 6.5 feet) desired as space permits. The gutter pan is not included in the bike lane width.

Bike lanes may be implemented on existing roadways by narrowing vehicle travel lanes, medians, and/or parking lanes; reducing the number of vehicle travel lanes; and/or reconsidering the need for on-street parking.


Carlisle Blvd


Griegos Rd

On-Street Facilities:

Buffered Bike Lanes

Buffered bike lanes are bikeways with striped, horizontal space between the bike lane and the adjacent vehicle travel lane, which provides additional separation between bicyclists and moving vehicle traffic.

Appropriate Contexts

Buffers are appropriate for all bike lanes as space permits. Buffers are particularly critical for increasing user comfort level as vehicle speeds and traffic volumes increase.

Per the FHWA Bikeway Selection Guide, buffered bike lanes are best suited for streets with traffic volumes under 6,500 vehicles per day (the same threshold recommended for standard bike lanes).

Posted Speeds

35 mph or lower (DPM)

30 mph or lower (FHWA Bikeway Selection Guide)

Considerations and Design Guidance

Per the DPM, buffers may range from 1–3 feet, depending on the available roadway space, with wider buffers preferred. Buffers that are 1.5 feet or less may be comprised of parallel striped lines. Wider buffers should feature cross hatching.

The term buffered bike lanes specifically refers to separation from moving vehicle traffic, though buffers may also be applied on the inside of a bike lane to create separation from parked vehicles or to improve sight lines where walls or barriers are present on the roadway edge.


Coal Ave


San Pedro Dr

On-Street Facilities:

Separated Bike Lanes

Separated bike lanes, also known as protected bike lanes, are a form of buffered bike lane located at street level that features some form of vertical separation from motor vehicles.


Austin, Texas

Appropriate Contexts

Vertical separation may be considered for all buffered bike lanes, depending on the roadway conditions, and is desirable for ensuring user comfort on roads with traffic volumes over 6,500 vehicles per day, per the FHWA Bikeway Selection Guide.

Posted Speeds

30 mph or higher

Vertical separation is critical for ensuring user comfort level on roads with operating speeds of 35 mph or greater, per the FHWA Bikeway Selection Guide.

Considerations and Design Guidance

Vertical elements may include flex posts, parking stops, curbs, or other form of physical separation.

Per the DPM, separated bike lanes should be a minimum width of 6.5 feet with a 3-foot buffer for the vertical element.

Vertical separation is most appropriate along corridors with limited numbers of driveways to ensure more continuous barriers.

Off-Street Facilities:

Paved Multi-Use Trails

Paved multi-use trails are off-street facilities in their own right-of-way that are shared with people walking, jogging, and rolling.

Appropriate Contexts

Multi-use trails are typically located in natural settings or along drainage channels or arroyos.

Posted Speeds

N/A

Considerations and Design Guidance

DPM guidance calls for a minimum width of 10 feet, with 12 feet recommended and 14 feet desired for high-use areas and long-distance routes. Additional space is needed for shoulders and frontages against private property.

Consult the AASHTO Guide for the Development of Bicycle Facilities for detailed design guidance.

Bosque Trail

North Diversion Channel Trail

Off-Street Facilities:

Sidepaths

Paved multi-use sidepaths are two-way, off-street facilities that are shared among people biking, walking, and rolling. Sidepaths are located within the public street right-of-way on the outside of the curb. Because sidepaths are located at curb level, they provide vertical separation between people biking and motor vehicle traffic.

Appropriate Contexts

Sidepaths are appropriate on streets with sufficient space behind the curb. Sidepaths are most appropriate on streets with limited intersections and driveways because drivers making turns often do not account for bicyclists traveling in both directions at these conflict points.

Vertical separation (achieved through sidepaths at curb level) and buffers are critical for ensuring user comfort level on roads with operating speeds of 35 mph or greater, per the FHWA Bikeway Selection Guide.

Posted Speeds

30 mph or higher

Considerations and Design Guidance

Per the DPM, sidepaths are designed using the same width and engineering standards as paved multi-use trails and should be demarcated with a dashed yellow centerline on asphalt pavement. Wider sidepaths are desired to the greatest extent possible to allow for both people walking and biking to comfortably pass and to increase overall capacity of the facility.

Sidepaths should be offset from the curb and the property line. These buffers create spatial separation and ensure that people biking feel comfortable using the full extent of the sidepath. Landscaping and street trees are desired for shade as long as they do not impede visibility approaching intersections and site access points.

Sidepaths may take the place of sidewalks and can complement on-street bike lanes to provide options for different bicyclist user types. Conflicts at driveways and intersections must be accounted for during facility design.

Arroyo Vista Blvd

McMahon Blvd

Raised Bike Lanes

Raised bike lanes are one-way facilities that are located at sidewalk level or slightly elevated from the roadway to provide vertical separation from moving traffic.

Raised bike lanes may have a buffer and/or a vertical element in between the bikeway and the roadway.

Appropriate Contexts

Roads with high speeds and traffic volumes (above 6,500 vehicles per day).

Can be an appropriate treatment where sufficient right-of-way is available outside of the roadway and/or near transit stops to manage conflicts among buses, pedestrians, and bicyclists.

Posted Speeds

30 mph or higher

Considerations and Design Guidance

The NACTO Urban Bikeway Design Guide recommends that one-way raised bike lanes be 6.5 feet wide, with a 1.5-foot buffer next to a vehicle travel lane, or a 3-foot buffer next to a parking lane.

If the bike lane is level with the sidewalk, a textured material or colored pavement should distinguish spaces for people walking and biking.

Raised bike lanes are most appropriate on streets with few driveways and conflicts associated with turning movements.

Two-Way Cycle Track

Cycle tracks are fully separated bikeway facilities that support people biking in opposite directions. Cycle tracks can be located at sidewalk-level or at the same level as vehicle travel lanes if there is a form of physical separation.

Appropriate Contexts

Generally appropriate for short connections between segments of on-street bikeways or sidepaths and streets where there is not enough room for separated bike lanes on both sides of the street.

Locations where high volumes of both bicyclists and pedestrians are anticipated and there is a strong desire and ample ROW to manage conflicts by providing dedicated spaces for people walking and biking on separate facilities.

Posted Speeds

30 mph or higher

Considerations and Design Guidance

The NACTO Urban Bikeway Design Guide recommends a minimum facility width of 12 feet, with a 3-foot buffer between the bike lane and parked vehicles. Some form of vertical separation should be placed in the buffer zone.

Cycle tracks are typically located on the road edge rather than the median. Additional intersection treatments needed.

Recreational Trails:

Unpaved Trails

Unpaved trails typically accommodate but are not limited to (unless posted and signed) equestrians, mountain bikers, hikers, joggers, and people walking who may prefer a soft walking surface (stabilized unpaved trails may also be suitable for wheelchair users depending on their ability). Unpaved multi-use trails are typically used for recreational purposes.

The 2024 Plan did not update information related to unpaved trails. For appropriate contexts and design considerations and guidance, see **Appendix H: Additional Considerations for Multi-Use Trails.**

5. Proposed Bikeways and Trails Network

Chapter Overview

This chapter outlines the considerations that were applied in developing the proposed bikeways and trails network and provides an overview of the strategies that may be used by the City of Albuquerque to develop individual bikeway and trail improvement projects. Additional details on project priorities and how projects may be implemented can be found in **Chapter 6: Implementation and Recommendations**. See the **Proposed Network Story Map** and **Appendix F: Priority Project Tables** for detailed information on proposed bikeway and trail projects.

Components of the Proposed Bikeways and Trails Network

On-street Bikeways and Paved Multi-use Trails

The 2024 Plan identifies new projects and enhancements to existing bikeways and trails to complement the existing network of low-stress bikeways. This collection of improvements will ultimately form a robust and well-connected city-wide network that increases the range of transportation options, serves the daily needs of all Albuquerque community members, and provides access to major destinations. Table 8 summarizes the components of the proposed bikeways and trails network.

Figure 12 depicts the full network of existing and proposed on-street bikeways and paved multi-use trail facilities, including projects that are considered both plausible near term and long term. Altogether, the 2024 Plan proposes nearly 360 miles of new or enhanced bikeways. See Table 9 for mileage of new and enhanced bikeways and trails by facility type.

Table 8. Components of the Proposed Bikeways and Trails Network

Network Component	Description
Existing Bikeways and Trails	**Existing facilities** that provide low stress conditions for people biking (LTS 1 or 2). Projects are not generally proposed on these bikeways.
Proposed Projects	**Improvements to existing facilities**, including upgrades to create lower-stress facility types and the implementation of enhanced crossings – based on the City's *Bicycle and Trail Crossings Guide* – where paved multi-use trails and bike boulevards intersect with major streets. **New on-street bikeways and paved multi-use trails**, including a range of facility types. Proposed projects draw from previous plans and studies, public and stakeholder input on desired routes, and an analysis of street conditions and desired connections, including opportunities to reconfigure streets to better accommodate bikeways.

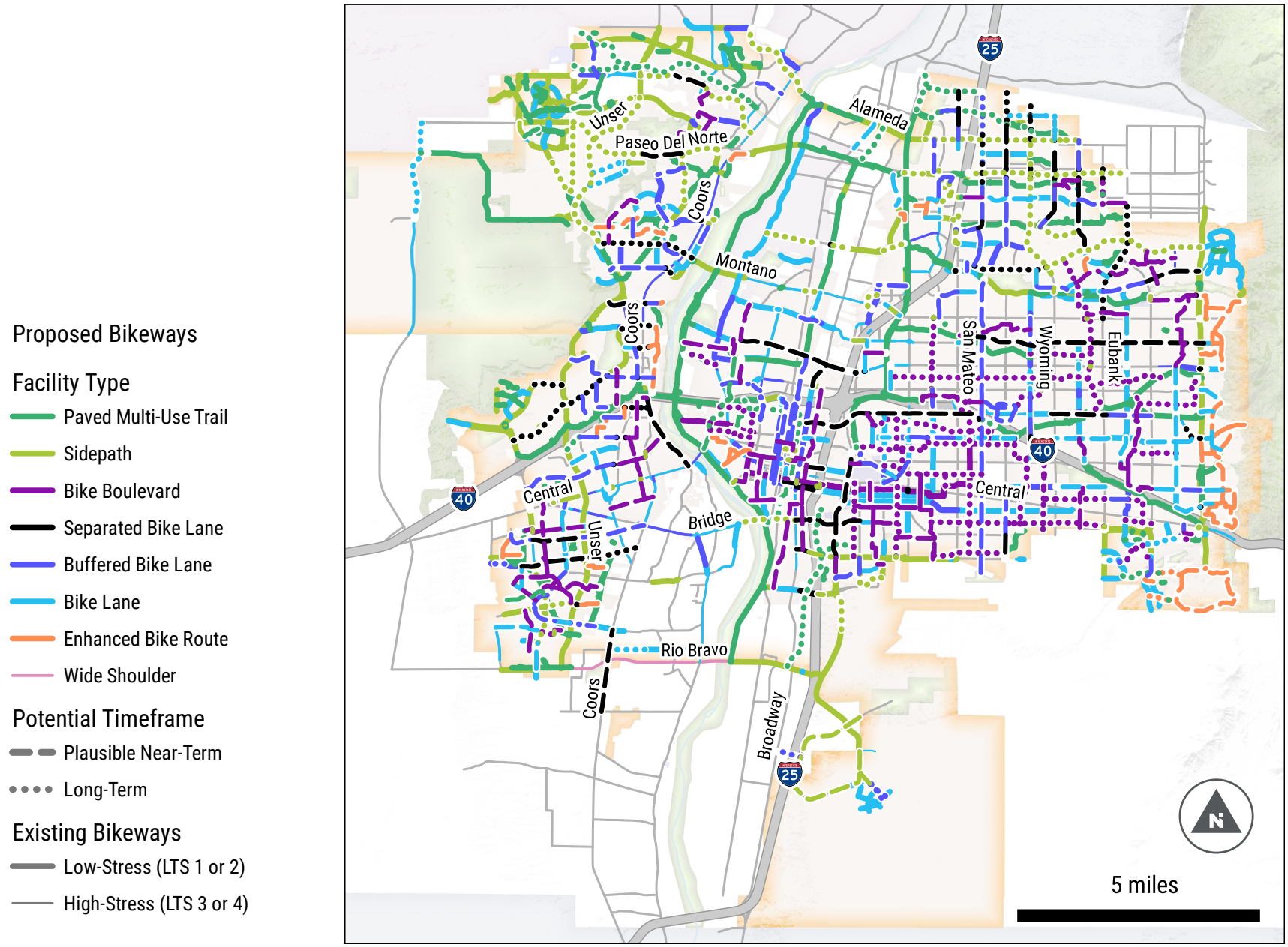
Table 9. Mileage of New or Enhanced Bikeways by Facility Type

Facility	2024 City Limits	2024 Plan Study Area
Bike Boulevard	98.7	99.4
Enhanced Bike Route	25.4	25.4
Bike Lane	33.1	34.9
Buffered Bike Lane	52.1	53.1
Separated Bike Lane	52.0	53.0
Paved Multi-Use Trail	19.6	22.4
Sidepath	67.5	70.4
Total	348.5	358.6

Notes:

- Mileage includes new bikeways as well as enhancements to existing bikeways, including miles of roads where speed limit reductions are proposed to increase bicyclist comfort level.
- Mileage calculated in terms of street centerline miles for bike boulevards, bike lanes (all types), and enhanced bike routes.
- Total mileage calculated for sidepaths and paved multi-use trails. Many sidepath projects assume new sidepaths on both sides of the streets to provide access to destinations on opposite sides of busy roadways.

Figure 12. Proposed On-Street Bikeway and Paved Multi-Use Trail Network



Proposed Crossing Locations

Enhanced crossings are generally proposed along paved multi-use trails and bike boulevards and ensure that neighborhoods surrounded by high-speed and high-volume roadways are not cut off from key destinations. Multiple enhanced crossings may be needed for bike boulevards to be fully implemented or for existing multi-use trails to be useful and appealing to a wider range of users.

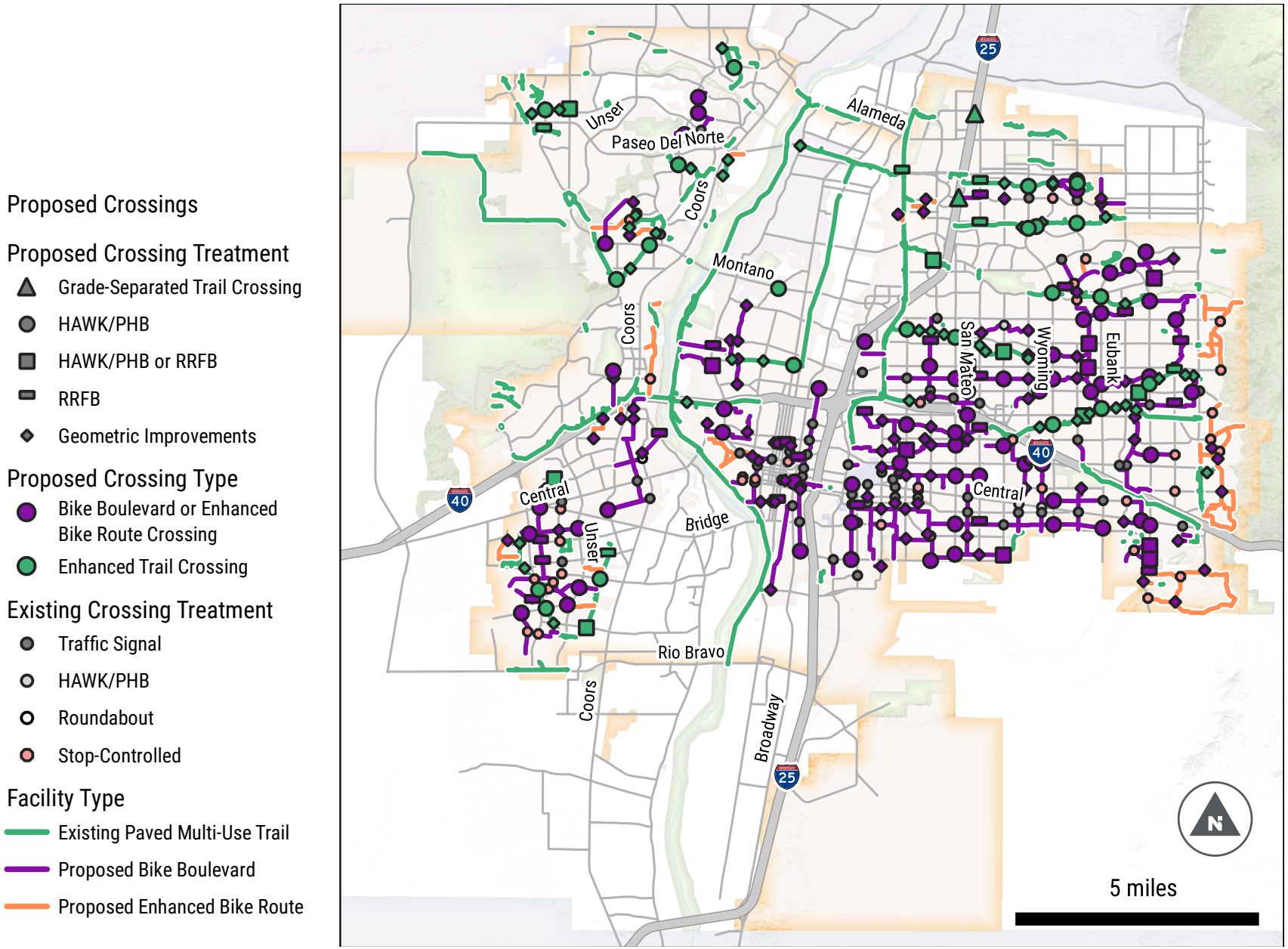
The 2024 Plan recommends 175 enhanced crossing locations along existing or proposed bike boulevards and 79 enhanced crossings along existing or proposed multi-use trails. Specific treatment types are based on the context-sensitive guidance contained in the City of Albuquerque Bicycle and Trail Crossings Guide. See Table 10 for a summary of proposed crossings by type and Figure 13 for proposed locations for enhanced crossings. See the Enhanced Crossings section below for additional information.

Table 10. Enhanced Crossings by Type along Paved Multi-Use Trails and Bike Boulevards

Crossing Type	Paved Multi-use Trails	Bike Boulevards
Geometric Improvements	44	85
Rectangular Rapid Flashing Beacon	6	21
RRFB or PHB*	7	9
Pedestrian Hybrid Beacon	22	60
Total	79	175

**** Per the Bicycle and Trail Crossing Guide, either crossing type would be appropriate. Further investigation is recommended for these locations.***

Figure 13. Proposed Enhanced Crossings along Bike Boulevards and Paved Multi-use Trails



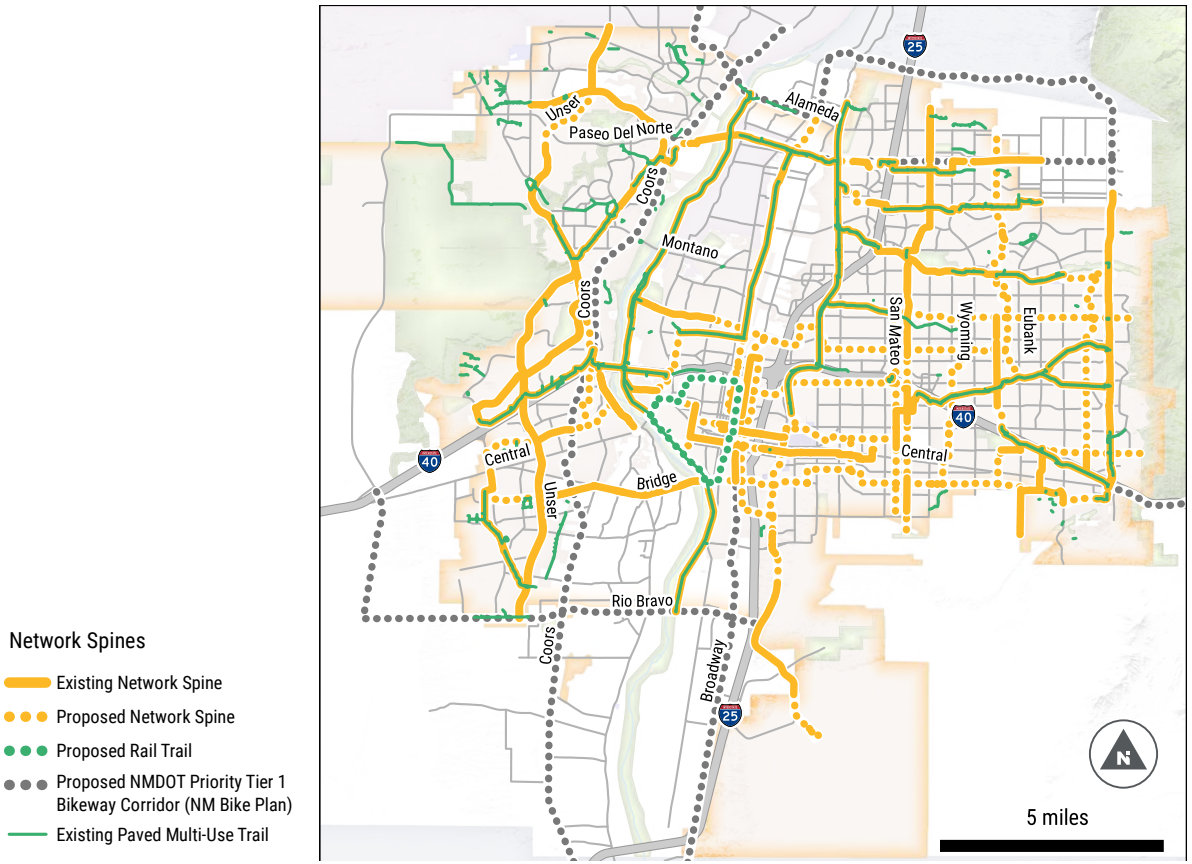
Network Spines

Purpose of Network Spine Designations

The 2024 Plan designates a series of corridors as network spines that support longer-distance travel by bicycle and link together key destinations and connect multiple neighborhoods. Network spines anchor the network and are distributed geographically across the city to ensure all Albuquerque residents have access to the bikeway and trail network, though not all areas of the city have the same concentration of spines. Other bikeways should tie into the spines to create as much connectivity as possible.

Spines may be a range of facility types, as long as they currently provide—or could be improved to provide—low-stress conditions. Some spines are parallel to each other to accommodate the preferences of different users and support different potential implementation timeframes. Projects along network spines are prioritized in the bikeway evaluation process. See Figure 14 for network spines, including existing and proposed bikeways. Refer to the **Proposed Network Story Map** for additional details.

Figure 14. Existing and Proposed Network Spines



Candidates for Network Spines

Existing bikeways that are designated as network spines include:

- Major paved trails, such as the Paseo del Bosque Trail, the North Diversion Channel Trail, and east-west arroyo trails.
- Bike boulevards where enhanced crossings and traffic calming treatments are already present.
- Low-stress on-street bike lanes, such as Rio Grande Boulevard north of Candelaria Road and portions of San Pedro Drive.

Network spines along proposed bikeways include:

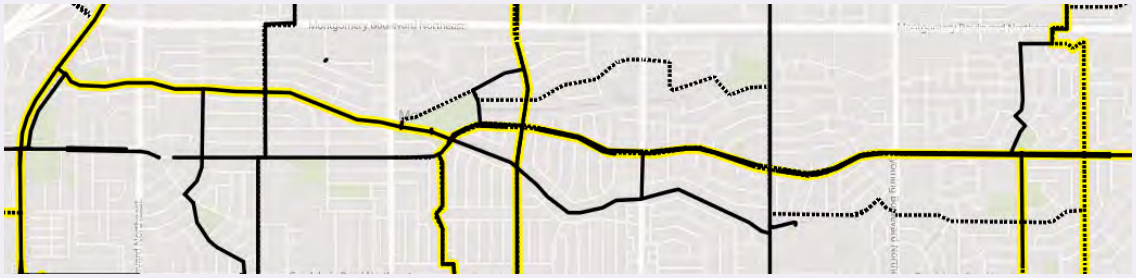
- Buffered and separated bike lanes, including connections between paved multi-use trails.
- Bike boulevards on neighborhood streets that connect to other spines or that provide long-distance connections or access to major destinations, if enhanced crossings are provided.

Emphasis on Near-Term Improvements

Proposed bikeways that are designated as network spines feature improvements that are plausible in the near term unless no other option is available. One such example is the Bridge Boulevard-Avenida Cesar Chavez corridor where existing roadway conditions and right-of-way constraints limit the ability to implement high-quality bikeways within the existing curb lines. The corridor is nonetheless included as a spine due to its role in regional mobility and the lack of parallel river crossing options.

Example: Comanche Road

Comanche Road is part of a network spine that features proposed separated bike lanes to the east of San Mateo Boulevard. This network spine links the Bosque Trail to Tramway Boulevard and utilizes the existing Paseo del Nordeste Trail and North Diversion Channel Trail as well as proposed bikeway improvements on Candelaria Road. Bikeway improvements along this corridor are mostly plausible in the near-term.



Bikeway Network Development Process

Process for Identifying Projects

Figure 15 outlines the steps taken to identify bikeway improvement projects, while Table 11 describes how the considerations applied in the identification of projects and development of the bikeways and trails network are directly connected to the goals of the 2024 Plan. Proposed projects draw from previous plans and studies, public and stakeholder input on desired routes and general preferences on facility types, and an analysis of street conditions and desired connections, including opportunities to reconfigure streets to better accommodate bikeways.

Figure 15. Bikeway Network Development Process Flow Chart

Review Existing Conditions

- Existing networks and results of level of traffic stress analysis
- Existing plans and proposed/ongoing improvements
- Analysis of network gaps and key destinations for bicycling

→

Public Input

- Unsafe locations to bike today
- Desired conections for transportation and recreation purposes
- Existing bikeways that feel high stress

→

Project Identification

- Routes and facility types
- Bikeway improvement strategies
- Means of Implementation
- Prioritization
- Cost estimates

Table 11. Connection Between 2024 Plan Goals and Bikeway Network Design Principles

Goal	Network Design Principles
Equitable	• Review existing facilities and prioritize projects in areas where residents are most likely to rely on bicycling as a means of transportation. • Prioritize projects in **vulnerable areas** that have not had bikeway investments. • Ensure **equitable access** to high-quality bikeway facilities across all portions of the city.
Connected	• **Fill network gaps** to create a denser grid and/or useful **neighborhood connections**. • Create a **well-connected network** that supports travel by bicycle across the city.
Useful	• Recommend infrastructure improvements to create a **robust *low-stress* network** that is appealing to people of all ages and abilities (LTS 1 or LTS 2) • Create networks that can be used for both **recreational** and everyday **transportation** purposes. • **Improve existing bikeways** to increase user comfort and encourage bicycle trips by people of all ages and abilities. • Provide access to **a range of everyday locations**, including activity centers (including designated Comprehensive Plan Centers), transit stops and station areas, recreational sites, and other significant community destinations.
Integrated	• Review and incorporate proposed projects from the **Long Range Bikeway System**, as appropriate. • Coordinate with partner agencies on **ongoing and planned projects** that could form components of the regional bikeways and trails network in the near term.
Prioritized	• Utilize a **data-driven process to prioritize projects** for implementation. See the Implementation chapter for more details.
Implementable	• Emphasize projects that are **technically feasible and plausible in the near term** for the City to implement.

Building Upon Existing Conditions Analysis

Critical Review of Existing Facilities

The 2024 Plan recognizes that a high-quality and comfortable bikeway is more than a line on the map or a sign on the side of the road. While some existing bikeways form important building blocks for a well-connected, low-stress network, the LTS analysis demonstrates that not all existing bikeways are appealing to bicyclists of all ages and abilities. Put simply, Albuquerque's existing low-stress network (i.e., bikeways with LTS 1 or 2) is limited.

The bikeway and trail network development process began with a critical review of existing facilities to identify gaps in the low-stress network and areas of Albuquerque that are underserved by bikeways and trails. Since some existing bikeways are better candidates than others for improvements, the 2024 Plan considered the following questions as part of the review of existing facilities and identification of potential enhancements:

- What type of improvements are needed for an existing bikeway to meet best practices in facility design, per the FHWA Bikeway Selection Guide?
- If an existing bikeway cannot easily be improved to meet the needs of users of all ages and abilities, is there a nearby alternative route?
- Can the City implement bikeway improvements by reconfiguring the street through lower-cost techniques within the existing curb lines, or would costlier reconstruction of the roadway be needed to install high-quality bikeways?

Applying Public and Stakeholder Feedback

The 2024 Plan incorporates feedback received through public and stakeholder outreach into project identification and development of the proposed network. Key desires from public outreach that are addressed through proposed projects include:

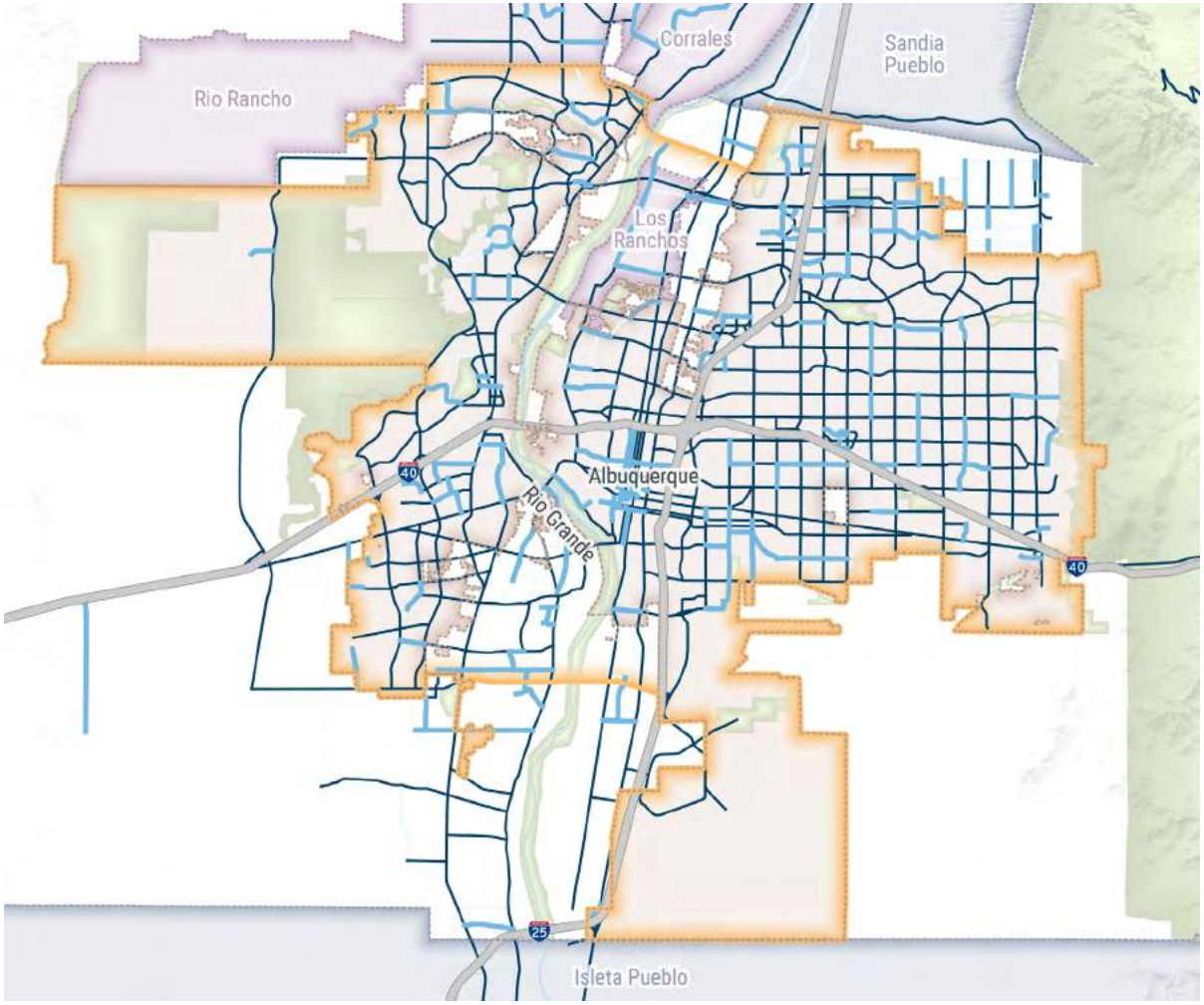
- Providing a range of options to address the fact that different users prefer different facility types
- Creating more facilities on low-stress streets that are parallel to major corridors
- Addressing a desire for separated bikeways when facilities are located along streets with high vehicle speeds and traffic volumes
- Concern about comfort at signalized intersections along corridors with existing bike lanes that are high-stress
- The ability to cross major streets when traveling along multi-use trails and existing bike routes
- Additional bikeways in areas that have not historically had high-quality options for travel by bicycle

Constraints on Achieving a Low-Stress Network

Roadway Conditions: The bikeway facilities that create the lowest-stress conditions may not always be practical or feasible due to current traffic conditions and roadway design. Per the FHWA *Bikeway Selection Guide*, bike lanes and buffered bike lanes best support low-stress conditions along roads with less than 7,000 vehicles per day and operating speeds of 30 MPH or lower.

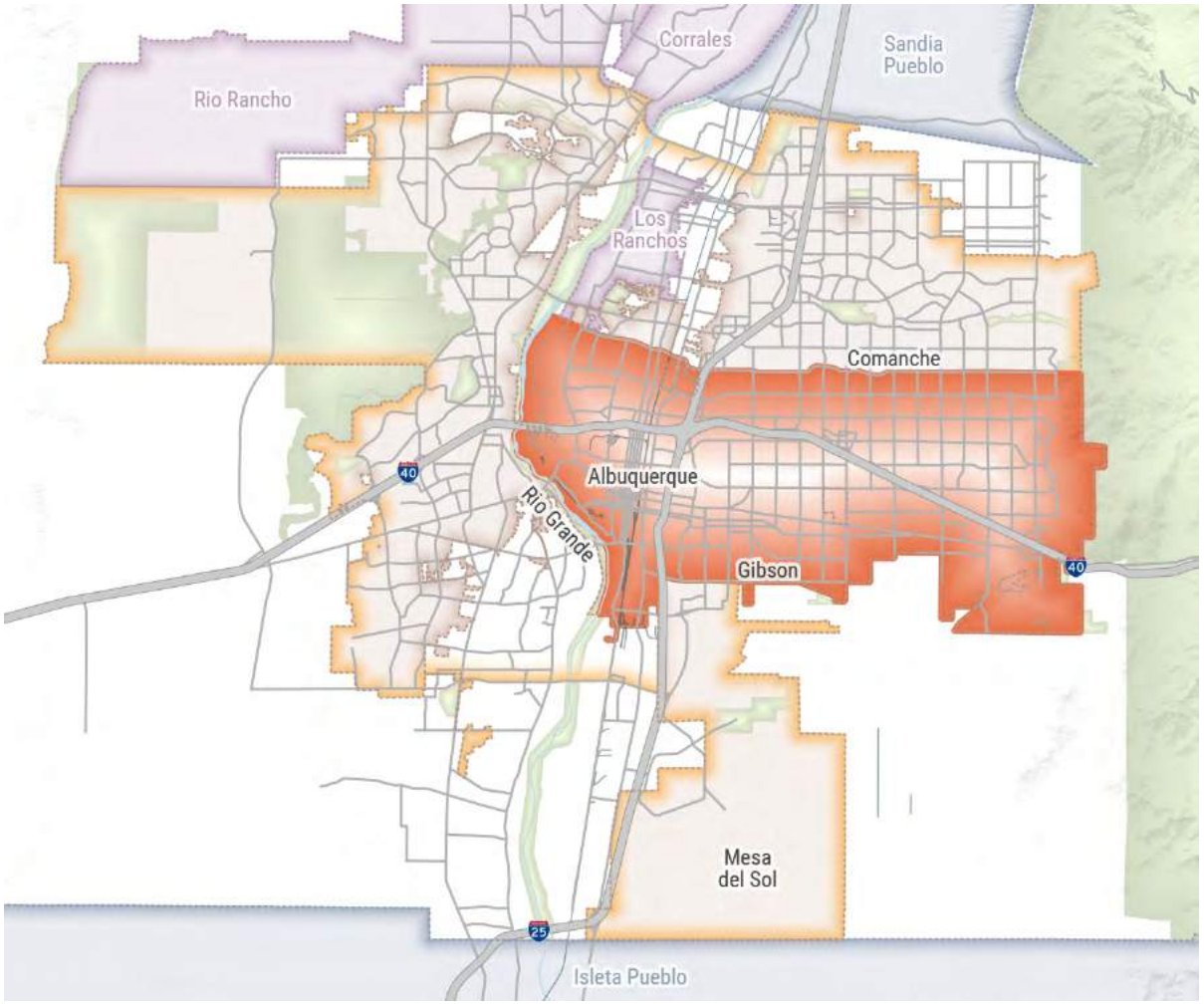
As shown in Figure 16, many major roads exceed those thresholds and would require separated bike lanes or sidepaths to support the needs of bicyclists of all ages and abilities. However, many streets in older parts of the city (i.e., constructed before around 1960) feature high numbers of driveways and limited access control and would require costly reconstruction to create the kinds of limited access conditions where separated bikeways are more feasible.

Figure 16. Streets in Albuquerque Where Separated Bikeways and Buffered Bike Lanes Would be Required to Meet Best Practices in Facility Design



Available Right-of-Way: Uncertainty over right-of-way is a common challenge in older parts of the city, which limits the implementation of improvements outside of existing curb lines without additional resources and engineering analysis. As a result, sidepath and crossing enhancements (e.g., pedestrian hybrid beacons) may not be plausible in the near term in some parts of the city (see Figure 17). Right-of-way west of the Rio Grande and in newer parts of the city tends to be more clearly documented, making crossing enhancements and improvements outside of the curb lines (but within City property) more plausible in the near term.

Figure 17. Locations Where Uncertainty Over Right-of-Way Limits Near-Term Implementation of Bikeway Projects (Shaded Area)



Approaches to Project Development: Reconfiguration versus Reconstruction

New and enhanced bikeways require some level of change to the way space is allocated within a roadway right-of-way. These changes take two forms: **reconfiguration** and **reconstruction/new construction**. Specific techniques for implementing bikeways are discussed below in the Bikeway Improvement Strategies section.

Reconfiguration includes street improvements that can generally be accomplished within the existing curb lines and are generally lower cost.

- Bikeway improvement strategies that can be accomplished as part of reconfiguration include:
- Installing new or wider bike lanes
- Traffic calming techniques
- Installation of vertical barriers to existing buffered bike lanes
- Road diets and lane narrowing and the reallocation of space for other uses, including bikeways

Reconstruction or new construction projects include more comprehensive changes to the roadway to accommodate bikeways – including widening projects that relocate curb and gutter - and are generally higher in cost and complexity. Reconstruction projects include:

- Street widening to install paved shoulders or bikeways
- Narrowing medians to create space for on-street bikeways
- Implementing bikeway facilities outside of the existing curb-to-curb space
- Installation of sidepaths where the sidewalk would need to be replaced with a wider facility to accommodate both bicyclists and pedestrians
- New paved multi-use trails (a form of new construction)

As much as possible, the 2024 Plan identifies potential new bikeways or enhancements to existing bikeways that can be accomplished through roadway reconfiguration. Many of these reconfiguration projects can be accomplished through regular resurfacing and restriping efforts, plus additional signage or spot improvements, as needed. Additional crossings or changes to intersection geometry to better accommodate bike lanes may require additional resources. See the Means of Implementation section in **Chapter 6: Implementation and Recommendations** for additional discussion.

Bikeway and Trail Project Details

In addition to locations of bikeway improvements, the 2024 Plan identifies various details and considerations for each proposed project that can assist the City of Albuquerque in implementation. These project details are summarized in Table 12 and are described in greater detail in the following sections and **Chapter 6: Implementation and Recommendations**.

Table 12. Components of Projects Proposed in the 2024 Plan

Facility Type	The 2024 Plan identifies the preferred facility type to achieve low-stress conditions given the roadway context. See **Chapter 4: Facility Types** for definitions and general design considerations.
Bikeway Improvement Strategy	Required changes to the roadway to achieve the desired facility type. Strategies include roadway restriping through road diets, enhanced crossings, implementation of bike boulevard treatments, vertical separation, and road expansion, among other techniques.
Priority Level	Projects are scored using the City's Bikeway Evaluation Process to determine overall priority level. This information—along with cost estimates, timeframe, and means of implementation—is used to inform bikeway investment decisions. See **Chapter 6: Implementation and Recommendations** for evaluation criteria and **Appendix D: Bikeway Evaluation Process** for additional details.
Potential Implementation Timeframe	Designations of **plausible near-term** or **long-term** based on current roadway conditions and the types of changes needed to the street to create low-stress bikeway facilities. See **Chapter 6: Implementation and Recommendations** for additional details.
Means of Implementation	The City may implement projects through a range of approaches, including as a standalone investment, through annual roadway resurfacing efforts, or as part of a larger roadway improvement project. See **Chapter 6: Implementation and Recommendations** for additional details.

Bikeway Improvement Strategies

Low-stress on-street bikeway facilities can take a variety of forms and can be achieved through a range of techniques for reconfiguring or reconstructing a roadway. The 2024 Plan applies a variety of strategies, outlined in Table 13, in the identification of bikeway and trail improvement projects.

A major priority for the 2024 Plan is to provide useful connections that are plausible in the near term. This approach emphasizes projects with lower costs and high impacts and acknowledges the real constraints related to staffing capacity and the financial resources available for implementation. *Near-term* opportunities to create lower-stress bikeways through reconfiguration include narrowing vehicle lanes to allow for buffers and wider bike lanes, road diets through restriping, and adding vertical separation, where feasible. Additional details and case studies are provided below for some of these strategies. *Long-term* projects include bikeways installed through strategies such as road expansion and median narrowing. Long-term projects also provide opportunities to incorporate street design elements that offer various co-benefits for pedestrians and overall roadway safety, such as street trees.

In practice, projects may require a combination of strategies. For example, separated bike lanes may be installed through a road diet or narrowing travel lanes to create space for a striped buffer and the installation of some form of vertical separation, while a bike boulevard may require a combination of traffic calming strategies and enhanced crossings. A sidepath may be installed by narrowing a median and reconstructing the sidewalk and/or moving the curb line into the roadway.

The travel lanes on this section of Copper Avenue east of Chelwood Park Boulevard were recently narrowed to create space for a striped buffer.

Table 13. Bikeway Improvement Strategies Summary Table

Strategy	Description
Road Diet	Removal of general-purpose travel lanes and reallocation of roadway space for bike lanes – with buffers and vertical separation as conditions permit. A road diet may be achieved in the near term through restriping. Changes to the curb lines generally indicate a long-term project.
Restriping / Lane Narrowing	Installation of new bike lanes or enhancements to existing bike lanes (e.g., application of striped buffers) through narrowing lanes and/or utilizing additional space on the road edge. Restriping may occur through the Annual Complete Streets Maintenance Program or as part of a stand-alone project. Where pavement is in good condition, striping can be removed and reapplied without resurfacing.
Speed Reduction + Traffic Calming	Increase bicyclist user comfort by reducing vehicle speeds adjacent to an existing or proposed bikeway through a combination of context-appropriate traffic calming techniques such as lane narrowing, adding street trees, adjustments to signal timing patterns, and reductions in posted speed.
Vertical Separation	Application of vertical barriers to existing bike lanes or as part of a restriping effort to create separated bike lanes.
Road Expansion	Install bike lanes and/or sidepaths as part of broader road improvement projects.
Median Narrowing	Reallocation of excess median width space to allow for a lateral shift in driving lanes and installation on-street bike lanes and/or sidepaths on the edges of the street. Many medians in newer parts of the city are excessively wide and were intended to conserve right-of-way for future roadway users.
Enhanced Crossings	Install new or improved crossings where multi-use trails or bike boulevards intersect with major streets. These crossings improve user safety and allow bicyclists and pedestrians to more comfortably cross major streets.
Bike Boulevard and Enhanced Bike Route Treatments	Application of traffic calming techniques, enhanced crossings, and signage and pavement markings along neighborhood streets to create low-stress conditions for bicyclists. Bike boulevards and enhanced bike routes may be implemented by upgrading existing bike routes or implementing design treatments on new corridors identified in the 2024 Plan.
Multi-Use Trails	Installation of new paved multi-use trails or improvements to existing trails, including enhanced crossings, to create more useful long-distance connections.
Sidepath Installation	Widening of existing sidewalks or installing a new facility outside of the curb line to create a low-stress facility that is shared by people bicycling, walking, and rolling.

Road Diets and Lane Narrowing Through Restriping

Opportunities and Benefits

Various corridors in Albuquerque feature excess vehicle travel lanes and lane widths, exceeding minimum thresholds outlined in industry best practice documents. These conditions encourage speeding and create high-stress conditions for bicyclists and pedestrians, but provide opportunities for road diets and narrowing of travel lanes to reallocate space for new or enhanced bike lanes. Installing bikeways in this manner is generally lower cost and can be implemented as part of regular roadway resurfacing and restriping or as part of a standalone effort to implement bikeways.

The 2024 Plan identifies on-street bikeway projects that are plausible in the near-term through restriping. Many of these projects include the installation of vertical barriers in the striped buffer space to create separated bike lanes, where feasible. Bikeway projects that involve reconfiguration of the roadway are based on initial screenings of traffic volumes, number of travel lanes, and curb-to-curb width.

Assumptions

Road diets are appropriate when daily traffic volumes exceed certain thresholds. Table 14 contains thresholds applied by the City of Albuquerque for determining the appropriateness of implementing a road diet based on the number of general-purpose travel lanes and daily traffic volumes. The 2024 Plan applies a planning-level assumption in which road diets are feasible where there are fewer than 15,000 vehicles per day on streets with four general-purpose travel lanes and fewer than 30,000 vehicles per day on streets with six general-purpose travel lanes. Proposed road diets may be vetted using the MRCOG travel demand model before moving forward to design.

Table 15 provides key assumptions about appropriate travel lane widths and other street elements. This information is used to determine if proposed improvements are likely to fit within the existing curb lines. The guidance is consistent with ranges provided in the City's DPM and reflects current City processes. Note that the 2024 Plan did not perform an exhaustive inventory of all travel lane and median widths across the city and that additional engineering analysis is needed before projects are implemented.

Table 14. Guidelines for the Appropriateness of Road Diets on Albuquerque Roads

	Daily Traffic Volumes	Next Steps in Consideration of a Road Diet
4-lane to 2-lane conversion	<10,000 vehicles	No study required before implementing a road diet
	10,000-15,000 vehicle	Generally feasible; review of congestion at intersections before implementing road diet
	>15,000 vehicles	Study of traffic operations and intersection delay required
6-lane to 4-lane conversion	<25,000 vehicles	No study required before implementing a road diet
	25,000-30,000 vehicle	Generally feasible; review of congestion at intersections before implementing road diet
	>30,000 vehicles	Study of traffic operations and intersection delay required

Table 15. Minimum Widths by Street Element (Project Identification Purposes)

Street Element	Minimum Width
Inside Travel Lanes	10’
Outside Travel Lanes	10.5’ 11’ when transit is present
Center Turn Lanes	10.5’; 11’ preferred
Median	15’ on principal arterials 10.5’ on minor arterials and collectors
On-street Parking	7’, including gutter pan
Bike Lane	5’ not including gutter pan
Buffered Bike Lane	7’
Separated Bike Lane	9’; 6’ bike lane + 3’ buffer

Note: Minimum street width values by element are consistent with the City’s DPM.

Speed Modifications

Opportunities and Benefits

There are several corridors with existing or proposed bikeways where posted speeds are relatively high given the surrounding land uses. In these locations, modest reductions in posted speed limits could be accompanied by design and operational changes that produce lower design speeds, such as narrower travel lanes and modified signal timing, to create lower-stress bikeways.

Example: Chelwood Park

Chelwood Park Boulevard traverses largely residential areas in east Albuquerque, yet features a posted speed limit of 35 MPH. With the addition of traffic calming measures, the posted speed limit could be lowered to 25 or 30 MPH in line with many comparable roadways.

Chelwood Park Boulevard north of Copper Avenue

Vertical Separation

Opportunities and Benefits

Physical separation increases safety and is an important strategy for creating low-stress bikeways that appeal to users of all ages and abilities, particularly along streets with higher traffic volumes and vehicle operating speeds. According to the FHWA inventory of crash modification factors, even simple flexible delineators may result in a 50% reduction in crash rates compared to a standard bike lane.

The City of Albuquerque features a growing number of buffered bike lanes, some of which may be candidates for vertical separation where the buffer area is at least 3' wide and where there are limited numbers of driveways.

Considerations for Implementation

- Separated bike lanes can be installed as part of new bikeways or by applying a range of barrier types to upgrade existing buffered bike lanes to separated bike lanes.
- Vertical separation may be applied as a targeted improvement following the implementation of buffered bike lanes through resurfacing efforts.
- Many cities take the approach of applying lower-cost treatments in the near-term and applying more permanent features based on the observed impacts and public response.

Figure 18. Existing Buffered Bike Lanes (Top) and Option for Separated Bike Lanes (Bottom)

Note: The image on the bottom depicts one form of vertical separation with a flexible delineator. See Chapter 4: Facility Types for additional discussion and other forms of vertical barriers.

Enhanced Crossings

Opportunities and Benefits

The usability of the proposed network of bike boulevards and many existing paved multi-use trails depends on the ability to cross intersections with major streets. As demonstrated through public input for the 2024 Plan and national research, many people feel unsafe crossing these larger roadways without measures such as pedestrian hybrid beacons that increase motorist awareness of the presence of people walking and biking, and when activated, tell motorists to come to a complete stop. Enhanced crossings are also an important strategy for the City in addressing its Vision Zero goals as they have been shown to reduce the overall frequency and severity of crashes. See Table 16 for descriptions of crossing treatment types and general considerations for application.

Benefits for Pedestrians

While the enhanced crossings in the 2024 Plan are specifically intended to support bicycle travel along existing and proposed bikeways, these crossings also provide significant benefits for pedestrians. In particular, crossings along bike boulevards and paved multi-use trails improve access to transit along major streets and reduce the distance between existing signalized intersections.

Considerations for Implementation

- Enhanced crossings may be implemented as an individual investment, though benefits along paved multi-use trails and longer bike boulevards are greatest when crossings are implemented simultaneously to support greater overall mobility.
- Planning-level assumptions from the City's Bicycle and Trail Crossing Guide are used for selecting the appropriate crossing type and for developing project cost estimates. For bike boulevards, crossings are included in the overall estimated project cost.
- A general assumption for enhanced crossings is that two-way left turn lanes become a raised median refuge island that allows for a two-stage crossing. See examples of geometric improvements and a PHB with two-stage crossings in Table 16.

Crossings of the Interstates and Rio Grande

Due to high costs and challenges related to implementation, dedicated bicycle and pedestrian bridge crossings are included in the 2024 Plan only if they have been subject to follow-up studies or analysis. These include a proposed facility along Bridge Boulevard over the Rio Grande and proposed crossings of I-25 at San Diego Avenue and San Francisco Street, which were evaluated at part of the *I-25 Bicycle Accessibility Study*. In other instances, the 2024 Plan leverages existing crossings by identifying bikeway improvements leading up to those bridges, such as a continuous bike boulevard along Alvarado Street on both sides of the I-40 crossing.

Additional crossings of the Rio Grande and the interstates may be identified as part of the update to the Long Range Bikeway System, a long-range planning tool maintained by MRCOG and updated as part of the *Metropolitan Transportation Plan*.

Table 16. Enhanced Crossing Types and Applications

Crossing Type	Description	Applications & Constraints
Geometric Improvements  *Silver Avenue at Girard Boulevard*	A range of potential treatments -- including marked crosswalks, median refuge islands, bulbouts, raised crossings, and stop control -- intended to support safe, comfortable bicycle crossings of lower-volume and lower-speed streets. Where paved trails cross minor residential streets, treatments may include adding stop signs along the residential streets – pending a traffic analysis – so that trail users have priority and can continue bicycling without stopping.	• Lower speed and/or volume roadways • Rely on signage and crosswalk markings for driver compliance
Rectangular Rapid Flashing Beacon (RRFB)  *Morgan Hill, California*	A traffic control device that increases driver awareness of pedestrians and bicyclists crossing roadways at marked midblock crossings or uncontrolled intersections. The beacons consist of rectangular-shaped amber lights that flash when activated and reinforce the need for drivers to stop at the crosswalk.	• Appropriate on streets with moderate speeds and traffic volumes • Safety benefits decrease as road width, traffic volumes, and vehicle speeds increase • Should feature raised medians to allow for two-stage crossing, if needed • Driver yield rates are lower than PHBs
Pedestrian Hybrid Beacon (PHB)  *Central Avenue at San Pablo Street*	Also referred to as HAWK signals, PHBs are a traffic control device that tell drivers to come to a complete stop at a midblock crossing or uncontrolled intersection when activated by a pedestrian or bicyclist.	• Driver yield rates are shown to be 90-100% • Should feature raised medians to allow for two-stage crossing, if needed • Higher cost than RRFBs • Require electrical connections and additional right-of-way for i implementation

Bike Boulevard and Enhanced Bike Route Treatments

Opportunities and Benefits

The grid network across much of Albuquerque means there are low-stress neighborhood streets that run parallel to major roadways that provide direct connections to key destinations. Many of these streets are currently designated as existing bike routes—though conditions vary widely—and are proposed as either bike boulevards or enhanced bike routes.

Though bike boulevards and enhanced bike routes are shared streets, low-cost **traffic calming treatments** can be applied between major intersections to ensure low vehicle speed and traffic volumes and create comfortable conditions for bicyclists of all ages and abilities. In addition to managing vehicle speeds, **enhanced crossings** are essential components of bike boulevards as major street crossings can be significant barriers that can limit the utility of these bikeways.

Selecting Bike Boulevard Corridors

Concurrent with the 2024 Plan, the City developed a *Bike Boulevard Toolkit* with guidance on which types of streets are appropriate candidates for bike boulevards and techniques for creating low-stress conditions for bicyclists, including the traffic calming features needed to achieve low traffic volumes and vehicle operating speeds.

Lowest-stress bike boulevards feature the following characteristics:

- 1,000 vehicles per day or less and operating speeds of 15-18 MPH or lower
- Traffic calming features that reduce motor vehicle speeds and discourage cut-through traffic
- Enhanced crossing treatments at intersections with major streets; refer to the Bicycle and Trail Crossings Guide when determining appropriate crossing treatments

Building Upon a Growing Bike Boulevard Network

Over the last decade, the City of Albuquerque has introduced a series of bike boulevards that now connect Old Town, Downtown, the University of New Mexico (UNM), Nob Hill, the Fair Heights neighborhood, and Uptown.

The 2024 Plan recommends numerous bike boulevards that connect to existing facilities and expands the network of low-stress bikeways.

Building a Network of Bike Boulevards

Figure 19 depicts the way a well-connected network of bike boulevards with enhanced crossings could be implemented in a portion of southeast Albuquerque. At present, there are numerous existing bike routes, though bikeway facilities are limited to basic signage and there are few crossings at major intersections that support low-stress bicycle travel. The proposed network consolidates the bike routes into a series of bike boulevards to form a simpler and more coherent network, thus increasing the chances of full implementation.

Figure 19. Transitioning from Bike Routes to Bike Boulevards

Existing Bike Routes in Southeast Albuquerque

Locations Where Crossing Improvements Would be Needed

Proposed Bike Boulevards and Enhanced Crossings

Bike Boulevards Versus Enhanced Bike Routes

Enhanced bike routes are shared streets with many of the characteristics of bike boulevards, including frequent pavement markings and traffic calming features to reduce vehicle speeds and increase bicyclist user comfort. The primary difference between bike boulevards and enhanced bike routes is the length of the facility and the lack of need for enhanced crossings, which is an integral part of bike boulevards. Enhanced bike routes are generally shorter-distance bikeways that provide connections to nearby destinations, including parks and trailheads, and other bikeways and paved multi-use trails. The 2024 Plan recommends upgrading various existing bike routes to enhanced bike routes or bike boulevards.

Improvements to Existing Bike Routes

Many existing bike routes along neighborhood streets are recommended as enhanced bike routes and bike boulevards that are plausible in the near term, though the 2024 Plan does not prioritize all existing bike routes for improvements. Existing bike routes may be enhanced on a case-by-case basis through existing resurfacing and maintenance programs. In some cases, long-term projects are identified along existing bike routes that are designated as collector and arterial streets with higher speeds and traffic volumes. Where existing bike routes are located along corridors that exceed the speed and volume thresholds outlined in **Chapter 4: Facility Types**, such as Avenida Cesar Chavez between the Rio Grande and Yale Boulevard, the City may consider removing Bike Route signage to encourage bicyclists to use parallel facilities.

Constraints and Considerations for Implementation of Bike Boulevards

Feasibility of Pedestrian Hybrid Beacons: PHBs, a form of enhanced crossing and a critical component of many bike boulevards, are plausible in the near term where the right-of-way is known to be available, traffic signal utilities can support a new signal, and electrical power can be easily tapped into. Additional right-of-way and engineering analysis may be required prior to project design and implementation in older parts of the city (i.e., east of the Rio Grande between Gibson Boulevard and Comanche Road).

Phased Implementation: Implementation of bike boulevards may take place in phases as pavement markings and traffic calming features that rely on restriping can be installed as part of Complete Streets resurfacing. However, the corridor cannot be considered a bike boulevard until enhanced crossings are provided, generally as part of a standalone project. Other traffic calming measures may also be warranted, especially if there is a need to further manage traffic volume and travel speeds.

Case Study: Claremont Avenue Bike Boulevard

Claremont Avenue is proposed as a bike boulevard from just east of the North Diversion Channel trail to Moon Street, a distance of more than 3.5 miles. As a continuous local street, Claremont Avenue offers a potentially low-stress option for accessing major commercial destinations and transit stops along nearby Menaul Boulevard. Because of the length of the corridors and the connections it provides to other bikeways, Claremont Avenue is also designated as a potential network spine.

In addition to low traffic volumes and vehicle speeds, Claremont Avenue already features traffic calming measures in the form of mini-roundabouts. Low-cost treatments such as frequent signage and striping could create a recognizable bike boulevard along linear portions of the corridor.

However, the value and benefits of a Claremont Avenue as a bike boulevard and network spine can only be realized through enhanced crossings at major intersecting streets such as San Mateo Boulevard, Louisiana Boulevard, and Wyoming Boulevard. Safer and more comfortable means of crossing these multi-lane arterials opens up a wide range of possibilities for less confident bicyclists who may otherwise be unwilling to attempt to cross such significant barriers. Enhanced crossings also provide significant benefits for pedestrians, as many of these arterials are important transit corridors.

Claremont Avenue at Charleston Street (left); San Mateo Boulevard at Claremont Avenue

Sources: Toole Design (left), Google Street View (right)

Improving the Multi-use Trail Network

Paved multi-use trails are an integral part of the transportation network and support both long-distance trips across the city as well as recreational activities. Many of the City's paved multi-use trails form network spines. Some of these facilities are in separate right-of-way, such as the Bosque Trail, while others such as the North Diversion Channel Trail are fully grade-separated featuring notches under major roadways to allow for low-stress crossings. The 2024 Plan contains recommendations to both expand the paved trail network and to improve the comfort and usefulness of existing trails through design improvements. Coordination with the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) or other entities is generally required for improvements or expansion of the paved trail network.

Proposed Multi-Use Trails

New paved multi-use trails have been previously proposed in the 2015 Plan and the Long Range Bikeway System, and a subset of these facilities that are generally feasible and would be highly useful for everyday transportation purposes are included in the 2024 Plan. Due to high construction costs and the need for detailed engineering design, proposed trails included in the 2024 Plan are usually considered long-term projects.

Planners, designers, and members of the public should refer to the Long Range Bikeway System for proposed sidepaths along future roads and paved trails in master-planned areas and to the DPM for guidance on trail design and desired amenities.

Addressing Gaps in Major Multi-Use Trails

The 2024 Plan includes projects that address gaps in paved multi-use trails where right-of-way for improvements is currently available. Other multi-use trails projects where right-of-way is not currently available may still be included in the Long Range Bikeway System.

A major gap in the trail network is along the I-40 Trail. Based on the results of a recent study which determined that providing additional trail connections are not feasible at this time, projects along the I-40 Trail are not included in the 2024 Plan, though I-40 Trail improvements are included in the Long Range Bikeway System.

Impacts of Width on Trail Capacity

At 11', a trail can comfortably accommodate 150-300 people passing a single point in an hour.

At 12–15', a trail can comfortably accommodate 300-500 people passing a single point in an hour.

The 2024 Plan recommends that the minimum width for paved multi-use trails and sidepaths be increased to 11' with 12-14' preferred. See **Chapter 6: Implementation and Recommendations** for additional information.

Enhancements to Existing Trails

Increased Trail Width along Network Spines

Paved multi-use trails are popular with a range of users, including people walking, jogging, rolling, and biking, and some of the more popular trails in Albuquerque, including the Bosque Trail, experience issues related to crowding. The growing presence of e-bikes creates a greater need to manage conflicts among users traveling at different speeds. Multi-use trails can meet increased demand and support different types of bicyclists through increased width during trail resurfacing, particularly along trails that were too narrow when initially constructed.

Today, most trails and sidepaths are 10' wide, with some facilities only 8' wide, particularly where right-of-way is constrained. Research shows that at less than 11', trails do not provide space for people to travel side-by-side and pass other users without increasing the potential for conflicts. Where space permits, trails that serve as network spines and that are below 11' in width should be widened.

Enhanced Crossings

Many paved multi-use trails feature at-grade crossings with major streets that limit the usability of the trails. The 2024 Plan identifies locations for enhanced crossings and crossing types. In some cases, a project is proposed along existing trails involving multiple enhanced crossings. Enhanced crossings may be implemented individually, though a series of enhanced crossings along paved multi-use trails is critical for the extent of the trail to be useful and low-stress.

Crossings at major streets without enhanced traffic control treatments, such as where the Embudo Trail intersects with Wyoming Boulevard, create barriers and limit the number of people who are willing to make trips by bicycle. Image source: Google Street View.

Sidepaths

Opportunities and Benefits

Paved sidepaths at curb level provide a low-stress option for bicyclists of all ages and abilities, particularly where there is a buffer between the edge of the path and motor vehicle traffic. Particularly in newer parts of the city, sidepaths provide opportunities for long-distance connections and may be candidates for network spines.

The 2024 Plan proposes various projects that install new facilities or convert sidewalks into facilities that may be used by people walking, biking, and rolling. Sidepaths may be installed by the City through a dedicated bikeway project, as part of larger roadway improvement projects, or as part of the build-out of the street frontage along private development. Sidepaths may also be implemented through reallocation of roadway space, including narrowing medians. Sidepath projects that require moving curb lines are generally considered a long-term project with higher costs.

Considerations for Implementation

- Sidepaths may not be feasible in the near term where there is limited right-of-way on the edge of a roadway or where there are frequent driveways and turning movements.
- Sidepaths may be considered on both sides of the street as space permits to better support two-way travel along a roadway and minimize the need for crossings
- A minimum of 14’ of space is needed where subdivision walls are present to account for shy zones.
- Sidepaths may be installed alongside existing or future on-street bike lanes to support the preferences of different bicyclist user types.
- The 2024 Plan identifies sidepath projects along existing roads only. Planners and designers should refer to the Long Range Bikeway System for sidepaths along future roadways.
- Maintenance agreements are required for sidepaths installed as part of private development projects.

Sidepath along Girard Boulevard near the Albuquerque International Sunport

6. Implementation and Recommendations

Chapter Overview

While the City of Albuquerque plans to implement the full set of projects identified in the 2024 Plan, constrained resources necessitate prioritizing improvements and implementing projects through various creative approaches. This chapter identifies priority projects, describes the potential means of implementing projects, identifies complementary policy and programmatic actions, and describes potential funding sources for 2024 Plan recommendations.

Project Prioritization

Evaluation Criteria and Prioritization

Background and Purpose

The 2024 Plan applies a data-driven prioritization process to help the City determine which bikeway projects to prioritize. The prioritization criteria align with the goals of the 2024 Plan and reflect overall City priorities and feedback received during the plan development process. The data-driven process uses nine evaluation criteria that address six key issues: safety, equity, access to destinations, network improvements, potential for bicycling trips, and community preferences. Table 17 summarizes the evaluation criteria categories and Table 18 summarizes the scoring system used for project prioritization. The criteria and methodology in this 2024 Plan are intended to replace the Bikeway Evaluation Process initially developed in 2021 in coordination with the City's Greater Albuquerque Bicycling Advisory Committee (now GAATC).

Data Sources and Methodology

The evaluation criteria rely on a variety of existing datasets from the City and the Mid-Region Council of Governments (MRCOG), including crash data, the High Fatal and Injury Network (HFIN), and the equity-focused Vulnerability Index, as well as datasets developed for the 2024 Plan, including Bicycle Level of Traffic Stress and trip potential analysis. **Appendix D: Bikeway Evaluation Process** describes the criteria used in project prioritization and explains their link to plan goals and City policy priorities. The evaluation process utilizes Census data and datasets regularly updated by MRCOG or City staff, so the City and partner agencies can adapt the methodology to consider future projects not identified in this 2024 Plan.

Project Selection Considerations

Evaluation criteria reflect the overall benefits associated with a particular project, and the results of prioritization are meant to inform City decision-making. However, the City will consider other factors beyond prioritization scores as part of project selection, including staffing needs, financial resources, and technical feasibility of a project.

Table 17. Evaluation Criteria Categories and Purpose

Category	Purpose
Safety	Prioritize projects that improve bicycle facilities along corridors with a history of crashes or provide alternative parallel routes to these corridors.
Equity	Prioritize projects in areas with high share of vulnerable communities, as defined by the MRCOG Vulnerability Index, which considers a series of economic, demographic, housing, and transportation factors. These vulnerable communities are particularly likely to rely on biking as a form of transportation and to benefit from improved facilities.
Access	Prioritize projects that provide direct access to important everyday destinations, including schools, parks, community centers, transit station areas, and high-frequency stops, as well as commercial and mixed-use areas designated as Centers in the Comprehensive Plan.
Network Improvements	Prioritize projects that provide a high level of user comfort, meet best practices in bikeway facility design (based on the FHWA *Bikeway Selection Guide*), and support longer-distance travel by bicycle along a Network Spine.
Level of Use	Prioritize projects that create opportunities for more trips to be taken by bicycle, based on an analysis of the share of trips that are less than 2 miles in length in the project area.
Community Input	Prioritize projects that received positive feedback the through online survey map conducted in phase 2 of outreach.

Table 18. Bikeway Evaluation Process Criteria Summary Table

Category	Criterion	Data Source	Max Points by Criterion	Share of Points by Category
Safety	Bicyclist-Involved Crashes	NMDOT Traffic Safety Division, 5-year crash inventory (2018-2022)	3	15%
	High Fatal Injury Network	Simplified HFIN, City of Albuquerque Vision Zero Year-in-Review/Action Plan Update	3	
Equity	Vulnerability Communities	MRCOG Vulnerability Index	8	20%
Access	Destinations	Inventory maintained by the City of Albuquerque	3	15%
	Designated Activity Centers	City of Albuquerque Comprehensive Plan	3	
Network Improvements	Facility Needs	Bicycle Level of Traffic Stress (LTS) scores contained in the 2024 Plan	4	30%
	User Comfort	FHWA Bikeway Selection Guide, based on whether project meets best practices	4	
	Network Spine	Map of Network Spines contained in the 2024 Plan	4	
Level of Use	Potential For Bicycle Trips	Trip potential analysis, based on Replica data; aggregated at Census block group level	4	10%
Community Input	Community Input	Results of Project Priorities Map Survey	4	10%
Total			40	100%

Prioritization Results

Figure 20 depicts the relative priority of the projects proposed in the 2024 Plan, while Table 19 lists the highest priority projects. See the **Proposed Network Story Map** for an interactive map, including details on facility type, project score, and potential timeframe for implementation for each priority project. See **Appendix F: Priority Project Lists** for a complete list of projects and rankings.

Figure 20. Projects in the 2024 Plan by Prioritization Score

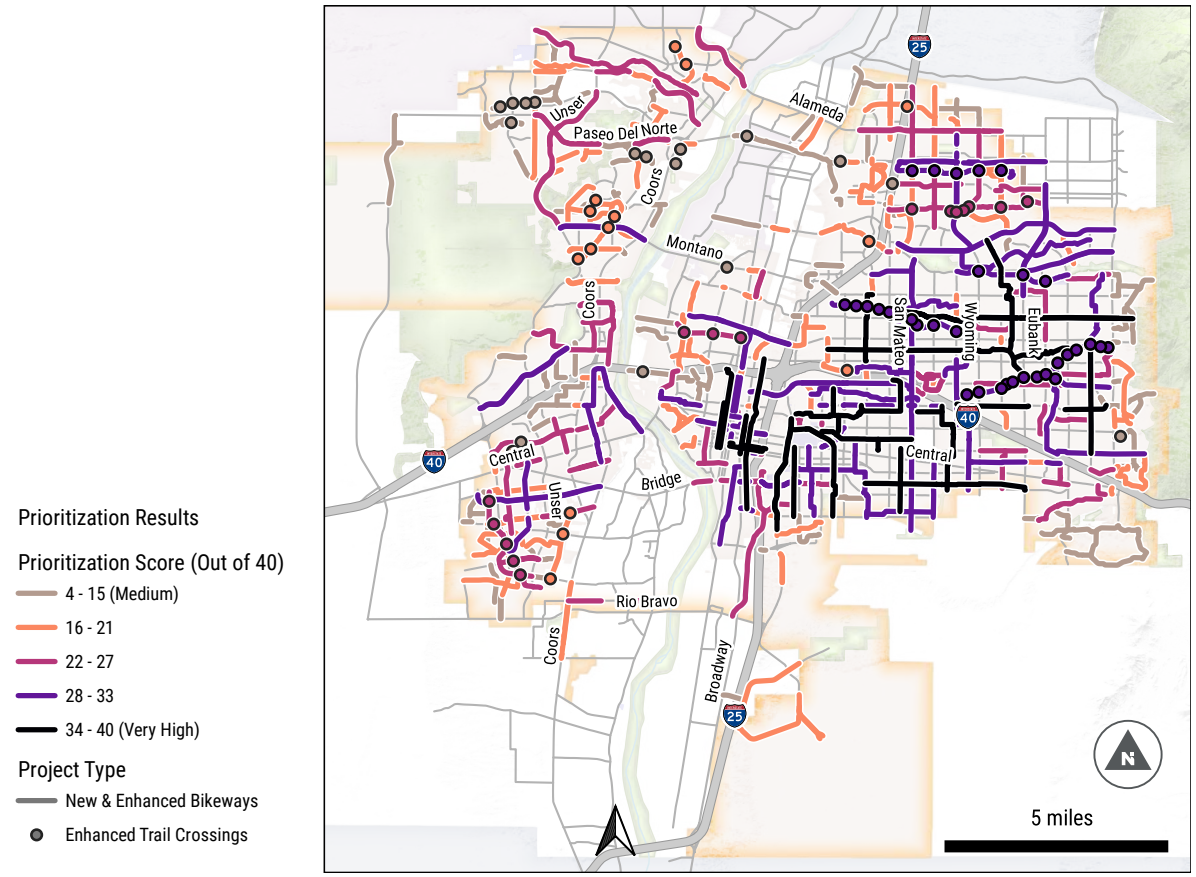


Table 19. Highest Priority Projects from the 2024 Plan

Corridor	From Street	To Street	Length (mi.)	Proposed Facility	Timeframe
5th Street / 6th Street	Coal Avenue	I-40 Frontage Road Eastbound	2.87	Buffered Bike Lane, Bike Lane	Plausible Near-Term
Alvarado Drive	Eastern Avenue	I-40 Trail Bridge	2.25	Bike Boulevard	Long-Term
Broadway Boulevard	Coal Avenue	Lomas Boulevard	0.87	Buffered Bike Lane	Plausible Near-Term
Buena Vista Drive	Gibson Boulevard	Central Avenue	1.56	Bike Boulevard	Long-Term
Chelwood Park Boulevard	Copper Avenue	Candelaria Road	2.56	Bike Lane	Plausible Near-Term
Claremont Avenue	Richmond Drive	Juan Tabo Boulevard / Paseo de las Montañas Trail	6.03	Bike Boulevard	Long-Term
Comanche Road	San Mateo Boulevard	Tramway Boulevard	5.48	Separated Bike Lane	Plausible Near-Term
Constitution Avenue	Pennsylvania Street	Mary Ellen Street	2.61	Bike Lane	Plausible Near-Term
Edith Boulevard	Gibson Boulevard	Menaul Boulevard	3.44	Bike Boulevard	Plausible Near-Term
Las Lomas Road / Campus Boulevard	University Boulevard	Monte Vista Boulevard	1.02	Buffered Bike Lane, Bike Lane, Bike Boulevard	Plausible Near-Term
Lead Avenue	2nd Street	Oak Street	0.49	Separated Bike Lane, Two-Way Cycle Track	Plausible Near-Term

Corridor	From Street	To Street	Length (mi.)	Proposed Facility	Timeframe
Marquette Avenue / Roma Avenue	Girard Boulevard	San Pedro Drive	2.32	Bike Boulevard	Long-Term
Parsifal Street / Moon Street	Paseo de las Montañas Trail	Academy Road	3.64	Bike Boulevard	Long-Term
San Pablo Street / Charleston Street / Mesilla Street	Southern Avenue	Constitution Avenue	2.28	Bike Boulevard	Long-Term
Silver Avenue	2nd Street	Mulberry Street	1.02	Bike Boulevard, Two-Way Cycle Track, Sidepath	Plausible Near-Term
Summer Avenue / Mackland Avenue / Marble Avenue	Stanford Drive / North Diversion Channel Trail	Louisiana Boulevard / I 40 Trail Bridge	3.38	Bike Boulevard	Long-Term
Trumbull Avenue	Valverde Drive	Eubank Boulevard	3.70	Bike Boulevard	Long-Term
University Boulevard	Gibson Boulevard	Lomas Boulevard	2.58	Separated Bike Lane	Plausible Near-Term
Washington Street / Montclaire Drive	Menaul Boulevard	Montgomery Boulevard	1.65	Bike Boulevard	Long-Term
Wellesley Drive / Tulane Drive / Lafayette Drive	Gibson Boulevard	Haines Avenue	2.77	Bike Boulevard	Long-Term

Potential Implementation Timeframes

Definitions

To assist with planning and budgeting needs, the 2024 Plan proposes an implementation timeframe for all proposed projects: **plausible near-term** and **long-term**. These designations are based on the proposed facility type and the type of street improvements needed to achieve the desired conditions. Plausible near-term generally aligns with reconfiguration projects, whereas long-term generally aligns with reconstruction. All projects, regardless of implementation timeline, are subject to the bikeway evaluation process and are included in the project prioritization ranking tables.

- **Plausible near-term:** Projects that are considered plausible in the near-term are generally feasible through reconfiguration and do not require any additional right-of-way. Plausible near-term projects are usually lower cost and lower complexity and represent opportunities to build a network quickly if funding becomes available. This designation does not necessarily indicate that a project will happen, but that the project could happen, pending available funding, limited utility conflicts, staff capacity, and availability of local contractors to design and perform restriping and other improvements among other potential constraints.
- **Long-term:** Long-term projects include improvements that require moving curb lines, narrowing medians, or constructing paved multi-use trails. A long-term designation does not mean the project will not or cannot happen in the near term, but these projects are generally higher in cost and complexity and typically take longer to finance and implement.

Notes on Technical Feasibility and Project Identification

Since the 2024 Plan emphasizes projects that are plausible in the near term, the timeframe for implementation is both a designation applied to projects *and* an input into project identification. Where multiple route options are present, the 2024 Plan recommends paths that are more technically feasible over corridors that might require costlier and more challenging changes to the roadway. Long-term projects are included in the 2024 Plan but do not generally comprise key components for the proposed network unless no other options are available.

In much of east Albuquerque, particularly in the older parts of the City east of the Rio Grande and south of Comanche Road, uncertainty over right-of-way can create challenges for implementing enhanced crossings or other improvements outside of the curb lines. For this reason, many sidepath and bike boulevard projects are by default designated as long-term, though implementation may be plausible in the near term in some locations pending additional survey and right-of-way analysis and the availability of electrical and fiber connections.

Means of Implementation

Implementation Categories

There are various ways in which the City of Albuquerque can pursue the actual implementation of bikeway improvements. The *means of implementation* refers to the process of constructing bikeways and differs from the bikeway improvement strategies, which highlight the changes to the roadway that are needed to create a high-quality bikeway or trail facility.

Means of implementing bikeway projects can be grouped into two broad categories: **opportunistic** or **proactive** improvements.

- **Opportunistic** refers to a situation where bikeway improvements are not the primary purpose of a roadway investment but may be included as part of a larger project. Opportunistic improvements include the installation of on-street bikeways and paved trails as part of a roadway widening project or as part of a regularly scheduled roadway rehabilitation. A key consideration is to identify bikeway or trail improvements upfront when scoping more comprehensive roadway improvement projects.
- **Proactive** refers to a targeted or standalone project that is specifically intended to improve conditions for people bicycling. Proactive projects require dedicated resources to implement.

Table 20 summarizes bikeway improvement project types by implementation category. The extent of changes to a roadway informs whether projects can be made proactively or opportunistically. Depending on the situation, some of the project types described below could be completed in either a proactive or opportunistic manner.

Table 20. Summary of Means of Implementation for Bikeway and Trail Projects Led by the City of Albuquerque

	Opportunistic *Can be Accomplished via Other Means and Programs*	**Proactive** *Standalone Project*
Reconfiguration	• Annual Complete Streets Maintenance Program • Bike lanes • Buffered bike lanes • Enhanced bike routes	• High-priority bike lanes and buffered bike lanes • Separated bike lanes • Bike boulevards with enhanced crossings and/ or traffic-calming features • Intersection and signal improvements • Speed modifications
Reconstruction	• City-led major **roadway improvement** projects integrating bikeways • Paved multi-use trails/ Sidepaths accompanying **private development** • Street construction accompanying **private development**	• High-priority paved multi-use trails/ sidepaths • High-priority projects that require roadway widening or median narrowing

Annual Complete Streets Maintenance Program

New or Upgraded On-Street Bikeways

Every year the City of Albuquerque repaves dozens of miles of municipal roads, which provides opportunities to install alternative striping designs that include new or wider bike lanes, buffers, and other pavement markings. Bikeway improvement projects identified in the 2024 Plan—defined as a new facility or a change in facility type, such as converting a bike lane into a buffered bike lane—can be implemented through the Annual Complete Streets Maintenance Program. Additional improvements to complement striping improvements, such as enhanced crossings, could be implemented in the future as part of a standalone project.

General Facility Enhancements Through Restriping

In addition to the proposed projects contained in the 2024 Plan, modest improvements to existing bikeways can be applied through resurfacing and restriping, such as widening a bike lane from 5' to 6'. The City's standard practice as part of the Annual Complete Streets Maintenance Program currently is and should continue to be to enhance existing bikeways within the existing curb lines to meet DPM guidance and national best practices, where feasible, regardless of whether there is a proposed bikeway project along the corridor.

Standalone Bikeway Projects

General Bikeway Improvements

More significant improvements that require changes to curb lines, intersection upgrades, enhanced crossings, acquiring right-of-way, and other changes beyond what can be implemented through restriping generally require standalone projects that are funded through federal and local funds, including money from general obligation bonds. A reconfiguration project that just requires restriping may also be performed as a standalone project, especially in cases where a bikeway improvement is a high priority but the roadway is not scheduled for resurfacing in the near term. Due to the need for enhanced crossings, bike boulevards generally require standalone projects.

Complementary Treatments to Complete Streets Resurfacing

Standalone projects may also include targeted improvements to further enhance existing bikeways and bikeways newly installed through resurfacing and restriping. These improvements require independent funding and include techniques beyond the striping changes that can be applied through the Annual Complete Streets Maintenance Program. Targeted improvements include applying vertical separation, where appropriate and as space permits, and signal upgrades to accommodate bicycle and pedestrian safety treatments such as leading pedestrian intervals and dedicated bicycle signal phases.

Private Development

Bikeways and multi-use trails may be constructed along the frontage of a private development or redevelopment project, depending on the scale of the project and the location. The Long Range Bikeway System, maintained by the Mid-Region Council of Governments, is the primary resource when requiring infrastructure investments as part of private site development.

Major Roadway Projects

Bikeways and trails are often installed as part of new roadway construction or major roadway projects, such as the widening of Unser Blvd between Paseo del Norte and Paradise Blvd. Where bikeways and trails are installed, design should follow the guidance contained in the DPM.

Planning, Policy, and Programmatic Recommendations

Overview

This section outlines a series of **planning**, policy, and program recommendations that support the implementation of on-street bikeways and paved multi-use trails across the City of Albuquerque and encourage a greater share of trips to be taken by bicycle. Individual recommendations are described below and summarized in Table 24 at the end of this document.

Table 21. Categories of 2024 Plan Recommendations

Planning	Policy	Programmatic
• City Staff, Regional, and Stakeholder Coordination • Data Collection and Evaluation • Project Development • Signage/Wayfinding Plan	• Local Level • State Level	• Existing Programs to Continue • New Programs to Initiative • Partnerships and Programs to Encourage and Support

Planning Recommendations

City Staff, Regional, and Stakeholder Coordination

Implementation of the 2024 Plan will require coordination between the City and various partner agencies and peer institutions. This section highlights specific opportunities to partner on programs and investments related to bikeway facility implementation and supporting programs.

City/Inter-Departmental

- Continue inter-departmental coordination among Municipal Development (DMD), Parks and Recreation (PRD), Planning, ABQ RIDE, and others involved in on-street bikeways and off-street multi-use trails
- Update Bikeway and Trail Facilities Plan at regular intervals (e.g., every five years)

Transit

- Coordinate on potential street improvements along existing or proposed transit corridors (e.g., University Blvd).
- Pursue a comprehensive program to improve access to transit, including bicycle and pedestrian connections to high-frequency transit routes.
- Increase installation of bike parking at park-and-ride facilities and on-street locations near ART stops.

Higher Education

- Coordinate with the University of New Mexico on the Integrated UNM Campus Master Plan and the implementation of enhanced bike facilities within the Main Campus. Ongoing coordination is needed for the maintenance of facilities on campus roads that are owned by the City of Albuquerque.
- Coordinate with Central New Mexico Community College (CNM) on proposed improvements in or near Main Campus and area branch campuses. Specific priorities around CNM Main Campus include the Buena Vista Dr Bike Boulevard and bikeways along University Blvd.

Law Enforcement

- Departments overseeing the Rail Trail and other paved multi-use trails should coordinate with the Albuquerque Police Department (APD) on bicycle patrols to address security concerns.
- Encourage APD to enforce the city ordinance prohibiting drivers from parking in bike lanes.

Regional Planning, Coordination, and Data Collection

MRCOG

- Participate in regional boards and committees and seek federal funding for bikeway and trail improvements through the Transportation Improvement Program (TIP).
- Coordinate with MRCOG on its non-motorized counts program, including locations for deployment and data sharing.
- Support the development of the Metropolitan Transportation Plan (MTP), including integration of Bikeway and Trail Facilities Plan recommendations into the regional Long Range Bikeway System (LRBS).
- Participate in updates to the LRBS, including identification of potential bridge crossings over the Interstates and the Rio Grande.
- Develop criteria and guidance on the appropriate contexts and considerations for dedicated pedestrian and bicycle bridges, including Interstates and other access-controlled facilities.

BERNALILLO COUNTY

- Convene staff on an as-needed basis to identify regional bikeway and trail priorities and review improvements that transcend jurisdictional boundaries.
- Participate in the Bicycle and Pedestrian Safety Action Plan update and other relevant planning efforts.

NMDOT

- Coordinate on future updates to the Statewide Prioritized Bicycle Network Plan.
- Collaborate on potential projects along NM highways within city limits, including crossings where City streets intersect with NMDOT facilities.
- Coordinate on maintenance of paved multi-use trails located within city limits that are owned and maintained by NMDOT.

AMAFCA

- Coordinate on the continued development and maintenance of paved multi-use trails along arroyos and flood control infrastructure.

Data Collection & Evaluation

MRCOG Active Transportation Count Program

For evaluation efforts, the City should coordinate with MRCOG on its Active Transportation Count Program. Short and long-term bicycle, pedestrian, and trail counts require many resources, equipment, and staff time to be able to collect a comprehensive set of data and then analyze data.

To better understand best practices and approaches to these programs, starting in 2022 and throughout 2023, MRCOG completed a planning effort in coordination with partner agencies, including the City of Albuquerque, to create and formalize an Active Transportation Count Program and Plan. Discussions with MRCOG and partner agencies throughout the planning process, determined that a centrally organized Active Transportation Count Program managed by MRCOG was the most suitable for the region. At the time of the discussions, most partner agencies did not feel well-equipped to create their own non-motorized count programs because they require many staff resources, coordination, understanding of different methodologies/technologies, analyses, and funding.

Next steps include creating a stakeholder committee consisting of MRCOG staff and interested partner agencies. The City should partner with and support MRCOG's Active Transportation Count Program and work with MRCOG to monitor these data and be proactive in collecting before and after counts for key on-street bike and multi-use trail projects.

Program History and Permanent Counters

In partnership with PRD , MRCOG installed and managed seven bicycle and pedestrian EcoCounters between 2014 – 2017 at the following locations:

- Paseo del Bosque Trail and Tingley Beach
- Paseo del Bosque Trail and Montano Rd
- Paseo del Norte and the Rail Runner
- North Diversion Channel Trail near the Journal Center
- North Diversion Channel Trail near Indian School Rd
- Near the Erna Fergusson Library
- Jerry Cline Park

Data related to these counters and other active transportation counts can be found on the MRCOG **website.** MRCOG also works with partner agencies to set up a camera to gather short duration video counts of people walking and biking. Typically, these counts are gathered at locations before and after an improvement project to see if the project had an impact on active transportation usage rates.

CRASH DATA ANALYSIS

DMD's Transportation Engineering Division and Traffic Engineering Divisions monitor and analyze crash data to inform current and planned projects and to identify potential future projects. The Vision Zero program also uses crash data to prioritize proposed bikeway and trail projects. DMD, APD, and MRCOG have recurring meetings to review fatal crash reports and identify if there are potential engineering countermeasures that could address crashes. DMD should continue this data-driven analysis and the fatal crash review meetings. There is an opportunity for the Active Transportation Planner to put together an annual summary of crash data by mode, and crash factors, and update the story map with bicycle-involved crashes. MRCOG also tracks and monitors crash data and the City should work with MRCOG on crash data analysis to identify trends.

TRACKING NEW BIKEWAYS AND TRAILS

In coordination with PRD, DMD should track and monitor new on-street bikeway and paved multi-use trail projects and keep the geographic information systems (GIS) data up to date. This data tracking should distinguish new bikeway and trail projects that were identified for the 2024 Plan versus those created or updated based on the results of crash data or other subsequent analyses and studies.

Surveys

In partnership with MRCOG and as part of the City's Bike to Wherever (Work) Day event in May, MRCOG distributes a bike survey to understand the barriers, perceptions, and feedback from the community. The survey helps the City evaluate its progress in implementing new on-street bikeways and trails and to understand areas of concern or potential gaps in the network. The City should continue to partner with MRCOG in putting the survey together and disseminating the survey through Bike to Wherever Day events. The City should use data collected from the survey to better understand the community's perceptions of bicycling in Albuquerque and to evaluate transportation projects that include bicycle and/or pedestrian improvements.

Project Development

Proactive Planning for Long-term Projects

The following strategies will assist in the development of long-term projects and allow the city to develop more accurate budgets for implementation and long-term maintenance:

- **Consider life cycle and maintenance costs as part of project scoping**: Cost estimates for new bikeways and capital investments such as PHBs and RRFBs should include both capital project cost estimates and annualized maintenance costs across a period of time (e.g., 10 years).
- **Preserve right-of-way for future improvements:** Preserve abandoned rail or utility corridors for future multi-use trails. Future trail alignments should be incorporated into the Long Range Bikeway System.
- **Proactive survey and right-of-way analysis along high-priority crossing locations**: Determining right-of-way limits and obtaining property when installing PHBs and for intersection improvements can be time-consuming and costly. The City could proactively survey proposed locations for PHBs and other spot improvements along the 10 highest-scoring bike boulevard corridors and trail crossing locations to identify whether existing City right-of-way is sufficient or if property acquisition would be needed.

Updates to the Development Process Manual

GENERAL OBSERVATIONS AND RECOMMENDATIONS

The City of Albuquerque *Development Process Manual* (DPM) contains standards and guidance for various infrastructure types, with roadway design elements organized around *Comprehensive Plan* Corridor designations. As a design manual, the DPM focuses primarily on the required features of different street elements, with some guidance given on how street designs should vary based on the surrounding context. The 2024 Plan can

complement the DPM by providing greater direction on the appropriate bikeway facility type for different contexts and strategies for meeting the needs of users of all ages and abilities. In addition to references to the 2024 Plan, references can be provided to City-specific design guidance documents that are not currently mentioned in the DPM, including the *Bike Boulevard Toolkit* and the *Bicycle and Trail Crossings Guide*.

RECOMMENDATIONS BY DESIGN ELEMENT AND FACILITY TYPE

Recommended updates to the DPM are organized by design element and facility type.

CROSSINGS

- **Crossing spacing:**
  - Expand the focus of the DPM beyond the distance or spacing between crossings by corridor type to include guidance on bikeway crossings. Greater clarity is needed to explicitly allow for the placement of crossings where bike boulevards and multi-use trails intersect with major streets.
  - Include guidance on minimum spacing between signalized intersections and PHBs. Best practice is generally a minimum of 300'.
- **Crossing design:**
  - Include cross references to the *Bicycle and Trail Crossings Guide* for discussion on appropriate crossing types.
  - Provide guidance to ensure crossings at mid-block locations are properly illuminated.

PAVED MULTI-USE TRAILS

- **Width:**
  - Change the minimum width for paved multi-use trails from 10' to 11', with 12' as the preferred minimum.
- **Public access:**
  - Provide a general recommendation that paved multi-use trails should be publicly accessible for all hours of the day, to the greatest extent possible, especially if they are critical for network connectivity (e.g., dedicated bridges over the Interstates).

SIDEPATHS

- **Appropriateness:**
  - Update language to indicate that sidepaths are a standard bikeway facility type rather than just an alternative design for sidewalks.
- **Design guidance:**
  - Additional consideration could be provided regarding intersections, driveway conflicts, buffer zones, shy distance, the needs of contraflow bicyclists, and other factors that influence the experience of people walking and biking along a roadway.
  - Existing language indicating that sidepaths are to be designed to the standards of paved multi-use trails should be retained.

ON-STREET BIKEWAYS

- **Bike boulevards:**
  - Provide references to the 2024 Plan for facility type definitions and how to differentiate between bike routes and bike boulevards.
  - Create a reference to the *Bike Boulevard Toolkit* for guidance on appropriate corridors and desired design elements.
  - Create a reference to the *Bicycle and Trail Crossings Guide* for appropriate crossing treatments of bike boulevards at major intersections.
  - Formalize a standard speed limit for bike boulevards. If 18 MPH is not considered appropriate, then the speed limit should be 15 MPH.
  - Discuss the application of traffic calming techniques along bike boulevards, including the use of speed bumps and stop sign orientation.

- For signage along bike boulevards and enhanced bike routes, use "Bicycles May Use Full Lane (R4-11) rather than "Share the Road."

- **Bike lanes and buffered bike lanes:**
  - Include a maximum bike lane width to ensure the bike lane is not confused with a travel lane or turn lane.
  - Clarify that any buffer wider than 1.5' requires cross hatching.
- **Separated bike lanes:**
  - Provide additional guidance on separated bike lane design, including appropriate barrier types and buffer widths.
  - Clarify the circumstances in which separated bike lanes are most appropriate.
- **Application of green paint:**
  - Provide guidance and a standard detail on the application of green paint along different bicycle facility types, including at conflict areas and approaches to intersections.
  - Include references to national design manuals, including the recently updated MUTCD and the AASHTO *Guide for the Development of Bicycle Facilities*.

DESIGN GUIDANCE FOR CONTEXT-SPECIFIC BICYCLE FACILITY TYPES

- **Two-way cycle tracks:**
  - Update language to state that "two-way cycle tracks may be considered under specific circumstances" rather than that two-way cycle tracks are "discouraged" (7-86).
  - Clarify the differences between two-way cycle tracks and separated bike lanes.
- **Raised bike lanes:**
  - Complement the current references to national design manuals with a reference to the 2024 Plan for appropriate contexts and limitations in the application of raised bike lanes across the City of Albuquerque.

GENERAL STREET DESIGN

- **Road diets:** Provide guidance on appropriate locations for the application of road diets.
- **Traffic control plans:** Formalize the consideration of a bike detour during the review of traffic control plans.
- **Drainage:** Provide guidance on preferred types of drainage grates and placement in the gutter pan to avoid conflicts with users along on-street bikeways. Include cross references to the Drainage section to ensure consistency.
- **Green stormwater infrastructure:** Provide guidance on use of native drought-tolerant grasses and plants adjacent to multi-use trails.

INTERSECTIONS

- **Daylighting:** Require and provide guidance on the use of daylighting to improve visibility by restricting on-street parking for a certain distance from intersections to ensure sightlines are not obstructed and all roadway users can see each other.
- **Bike lane design at intersections:** Conduct an internal review of existing intersection design treatments, including general challenges at major street intersections in Albuquerque, and identify preferred bikeway design treatments, opportunities for protected intersections, and bicycle detection techniques. Develop guidance on desired treatments for different intersection types.
- **Signalization:** Develop guidance for bicycle and pedestrian-specific signal treatments, including equipment needs and appropriate contexts.

Annual Complete Streets Maintenance Program

The Annual Complete Streets Maintenance Program can be further enhanced through proactive planning and design efforts. Identifying likely roadways for resurfacing

12-18 months in advance, where possible, would provide time for additional analysis of street design needs, including spot improvements that are currently outside of the scope of the program, and identification of supplemental funding sources. General recommendations are provided below; additional staff resources would be required.

- **Advanced planning:** Identify roadways for resurfacing more proactively to allow for advanced planning and design. Consider restructuring the selection criteria of roadways for surfacing to include equity considerations, multimodal needs, and safety concerns.
- **Coordinated resurfacing schedules:** Coordinate future resurfacing on adjacent segments to minimize the time where bikeway facilities end at the terminus of a repaving project. To the extent possible, the objective should be to create continuous bikeways.
- **Documentation:** Continue to compile technical memoranda that document future improvements and additional location needs and compile recommendations into a formal database and geospatial inventory.
- **Internal coordination:** Consult the Bikeway and Trail Facilities Plan recommendations during resurfacing and restriping and consider opportunities to implement ADA improvements concurrent to pavement preservation.
- **Supplemental funding:** Create a dedicated and flexible source of supplemental funding for small spot improvements such as signage, flexible delineators, etc.

Maintenance

Develop maintenance plans for on-street bikeways and paved multi-use trails: Maintenance of on-street bikeways and paved multi-use trails is critical for both recreation and transportation purposes and should be viewed as an ongoing investment in creating alternatives to single-occupancy vehicle travel. To continue the current level of maintenance and add any recommended additional maintenance responsibilities requires additional staff resources, equipment, and funding. Considerations and components of on-street bikeway and paved multi-use trail maintenance plans include:

- Coordination between DMD and PRD
- Coordination with outside agencies that are also responsible for multi-use trail maintenance including AMAFCA, Bernalillo County, NMDOT, National Park Service, neighborhood associations, private entities (such as homeowner's associations), and any other relevant groups.
- Explore opportunities to utilize volunteers for multi-use trail maintenance
- More frequent street sweeping of bikeway network spines and other high-volume bikeways.
- Refreshing of pavement markings regularly for on-street bikeways, and for trail and bike boulevard crossings as needed.
- Inspection of bicycle-specific loop detectors at key crossing locations regularly.
- For major bikeway and trail projects, the design engineer or landscape architect should include a concept plan for the long-term maintenance protocol if there are needs specific to that project that vary from routine maintenance practices.
- Establish timely responsiveness to maintenance requests from citizens through 311
- Funding to hire additional staff to support maintenance for on-street bikeways and paved multi-use trails.

Provide adequate staffing for traffic signal maintenance: *2024 Plan recommendations* include a high number of PHBs and RRFBs. The enhanced crossings require additional technology, staff time, and maintenance; adequate staffing is needed to support the ongoing operations of traffic signals and crossing equipment.

Current Maintenance Practices

Current maintenance practices are described below. In addition to the formal maintenance techniques, members of the public are encouraged to submit comments and requests via 311 and online comments so that DMD and PRD can be more responsive to critical maintenance issues.

As more on-street bikeways and multi-use trails are built, additional funding for staff and maintenance is needed, and the recommendation to develop maintenance plans for both on and off-street facilities is increasingly critical.

On-Street Bikeways: For on-street bikeways, pavement preservation, signs, pavement markings, and sweeping are the responsibilities of the Department of Municipal Development, typically through the Street Maintenance Division and/or Traffic Engineering Division. City streets are swept four times per year on average, and as needed based reports of debris in roadways.

Multi-Use Trails: Current maintenance practices for paved multi-use trails include:

- Maintain a clear 3' recovery zone on both sides of trails, spray for weeds on both sides of trails, mow both sides of trails to keep weeds and grasses at a manageable height, and sweep trails on an as-needed basis.
- Asphalt repairs include filling in cracks and removing and replacing sections of trail as needed. Repairs may be limited based on funding and staffing; major repairs need to be contracted when funding is available.
- Painting and replacing bollards as needed, sign replacement and installation as needed, and pruning of trees and shrubs that encroach into bike trails; this is on an as-needed basis.

Inter-agency Coordination: Bernalillo County, Open Space Division, and NMDOT also maintain paved trails in the Albuquerque area; in addition, AMAFCA, MRGCD, and other agencies may perform work along trail corridors. Informal coordination and occasional opportunities for cooperation may occur, but there is no regular coordination among crews working in the same area.

As more on-street bikeways and multi-use trails are built, additional funding for staff and maintenance is needed, and the recommendation to develop maintenance plans for both on and off-street facilities is increasingly critical. Current maintenance practices are described below.

Signage/Wayfinding Plan

Background/Purpose

Directional signage and wayfinding can help people bicyclists better navigate the transportation network and access destinations such as commercial centers, public facilities, multi-use trails, parks, or transit stations. At present, wayfinding is primarily used on bike boulevards and at select locations along the paved multi-use trail network. Improved signage along paved multi-use trails was frequently cited by community members as a need during public outreach events, and expanded wayfinding and signage could be particularly useful for appealing to a wider range of potential bicyclists. Both the creation and implementation of a formal signage/wayfinding plan require additional staff resources and funding.

Signage and Wayfinding Plan Elements

The City of Albuquerque should pursue a comprehensive signage and wayfinding plan with the following elements:

- Signage design principles, including general frequency of signage along paved multi-use trails and on-street bikeway types and standard conventions around signage content, such as destination types.
- A "sign family" of the various sign types to be consistently applied throughout the city. All signs must be MUTCD compliant.
- Guidance on placement, including approaches to intersections, trail crossings, and other decision points.
- Integration among bikeway facilities, including bike boulevards, paved trails, and other bikeway networks such as the 50 Mile Activity Loop.
- Maintenance needs and considerations.

Source: Rails to Trails Conservancy; Toole Design

Policy Recommendations

Local Level

Incorporate Plan Recommendations into Ongoing City and Regional Planning Efforts

The 2024 Plan should be referenced during the development of Community Planning Area Assessments, and plan recommendations should be incorporated into updates to the City's *Comprehensive Plan* and the Metropolitan Transportation Plan (MTP). Additional staff resources are needed to ensure continued participation in regional boards and committees through the Mid-Region Council of Governments (MRCOG) and to adequately support internal planning needs.

E-Bike Policies

ESTABLISH A CITY-LEVEL POLICY ON THE USE OF E-BIKES ALONG PAVED MULTI-USE TRAILS

Electric bicycles, or e-bikes, are an increasingly popular option for bicycling that provide a way for people of varying abilities to take longer trips by bike and overcome barriers such as steep hills. City-level policies can encourage the further adoption of e-bikes as both a recreational activity and a utilitarian mode of transportation. Since e-bikes are capable of traveling at higher speeds than standard bikes, state regulations and local policy are critical for managing conflicts among different user groups, particularly along paved trails.

As of spring 2024, the City is considering an e-bike policy that would allow all classes of e-bikes on paved multi-use trails and imposes a speed limit of 20 miles per hour on paved multi-use trails. This draft policy revises previous city ordinances to allow Class 1, 2, and 3 e-bikes on streets except where explicitly prohibited, and on designated trails within Open Space Lands or Regional Preserves (see Table 22 for definitions). Further policies may be considered that clarify which types of powered micromobility devices (e-scooters, e-skateboards, etc.) – in addition to e-bikes – are allowed on city streets, on-street bikeways, and/or sidewalks.

Table 22. Standard E-bike Classes and Definitions

Class	Bicycle Equipment	Appropriate Locations to Ride
Class 1	Bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the electric bicycle reaches 20 mph.	All roads and paved multi-use trails.
Class 2	Bicycle equipped with a throttle-actuated motor that ceases to provide assistance when the bicycle reaches 20 mph.	Any road; paved multi-use trails if located within a street or highway, or if a city permits.
Class 3	Bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the electric bicycle reaches 28 mph. People under 16 may not operate class 3 e-bikes.	Any road; paved-multi-use trails if located within a street or highway, or if a city permits.

Source: People for Bikes; Department of the Interior

Emerging Best Practices in E-bike Rebate Programs

According to **research from Portland State University**, emerging best practices from e-bike rebate programs around the US include:

- Using a "targeted universalism" approach to create high incentive programs for certain population groups in addition to more modest incentives for the general population.
- Partnering with academic institutions or regional planning agencies for collecting and tracking data.
- Partnering with local bike shops for access to service and demonstrating e-bike use.
- Making the application process for rebates simple and available through an online portal.

PROVIDE INCENTIVES FOR THE PURCHASE AND USE OF E-BIKES

The City of Albuquerque can investigate and pursue one of several emerging models to encourage e-bike adoption through incentive or rebate programs. One potential model is Denver, CO's successful **E-Bike Incentive Program,** operated by the City's Office of Climate Action, Sustainability, and Resiliency, which created a point-of-purchase rebate program at brick-and-mortar bike shops for residents to purchase e-bikes or cargo e-bikes, with an increased rebate for residents earning 80% area median income or less. The program is funded by a **2020 ballot measure** that approved a sales tax increase to support a range of climate initiatives. The program has been shown to attract new people to bicycling and successfully replaced an average of 3.4 car trips per user per week in its first year.

Allow Bicyclists to Follow Pedestrian Control Signals

Currently, people bicycling in Albuquerque must follow the same rules of the road as people driving. In addition to investing in lower-stress bikeways, there are opportunities to modify existing traffic laws to create a safer and more comfortable experience for people bicycling. Leading pedestrian intervals (LPIs) are an FHWA proven safety countermeasure that allows people a five to seven-second head start when crossing the street before people driving enter the intersection. There are opportunities to also allow people bicycling the opportunity to cross the intersection using the LPI. In recent years, DMD has implemented LPIs at approximately 15 intersections, including along critical HFIN corridors such as Louisiana Boulevard at Kathryn Avenue, Southern Avenue, and Trumbull Avenue.

A policy of allowing bicyclists to follow LPIs has precedent in other cities, including New York City, which made it legal for people bicycling to cross roadway intersections using pedestrian signals in in 2019. The City of Albuquerque should investigate and create a similar law that would allow people bicycling to use LPIs to cross an intersection except where otherwise indicated by traffic control devices. Bicyclists would still be required to yield to people in the crosswalk.

Reevaluate Local Bike Laws that Prevent Safe and Inclusive Biking

In partnership with the community and advocates, the City should reevaluate its existing rules, laws, and policies that impact people bicycling and walking and investigate if there are opportunities to remove or improve them in alignment with recent national best practices. This policy review would follow an example by a growing number of cities.

NACTO released a working paper called "**Breaking the Cycle: Reevaluating the Laws that Prevent Safe and Inclusive Biking**" in 2022 that investigated laws or rules that are intended to keep people safe but that are often enforced unevenly and disproportionately impact marginalized people, including but not limited to people of color, low-income, and unhoused people. The paper investigates commonly enforced laws related

to equipment (e.g., helmets, bike lights, etc.), behavior (e.g., stop signs, traffic signals,), and locations (e.g., biking on sidewalks, biking the wrong way in a bike lane). The paper also identifies recommendations for city agencies to revisit and potentially eliminate laws that can be used to criminalize people on bikes; for example, Kansas City had a statute that required bike wheels and tires to be clean. In another example, the State of California passed a bill in 2022 to decriminalize jaywalking; the law went into effect on January 1, 2023.

Investigate Opportunities to Pay Volunteers who Serve on City Advisory Committees

GAATC and GARTC advise the City on matters of walking, biking, and on and off-street facilities, and having a diverse committee of people from different backgrounds, genders, geographic areas is critical for creating safe, comfortable, and accessible facilities to serve the entire community. To help support and encourage diverse representation, the City should investigate opportunities to pay committee members a stipend for each meeting they participate in. Committee members can choose whether or not to accept a stipend; however, providing a stipend may be a determining factor in whether a person can serve on a committee. People who serve on committees may have to take time off from work, find childcare, or have other scheduling conflicts that must be addressed before they can serve. Member of the City of Sacramento's Active Transportation Commission each receive a $50 stipend per meeting. The City of Albuquerque should research what other cities do and if there are opportunities to bring such a model to Albuquerque.

State Level

Idaho Stop/Stop As Yield

The City should support and encourage the adoption of a state-level Idaho Stop/stop-as-yield law in New Mexico. An Idaho Stop, named after the state which first sanctioned the technique in 1982, allows a person bicycling to treat a stop sign as a yield sign then proceed through the intersection when safe to do so rather than coming to a complete stop. States such as Delaware, Minnesota, Colorado, Washington, Oregon, and others have also passed stop-as-yield laws. Current data and **research** show added safety benefits because people bicycling can mitigate risk to their advantage. The year after Idaho passed its law, bicyclist injuries from traffic crashes declined by 14.5%. In Delaware, bicyclist-involved crashes fell 23% in the 30 months after the law compared to the 30 months before the passage of the law. These laws are popular among people bicycling because of the safety benefits and increased level of comfort, as well as the fact that a person biking will not lose their momentum.

Statewide E-bike Rebate Program

The City of Albuquerque should advocate for the Mexico State Legislature to develop a statewide e-bike program. A model for such a program is the State of Colorado, which responded to the success of Denver's rebate program and designated $12 million for the **Colorado Energy Office** to roll out a statewide e-bike rebate. The Colorado Energy Office distributed most of its funding between August and December 2023 before temporarily pausing the program due to **higher-than-expected participation**. Funds from this statewide program are also distributed through Denver's E-Bike Incentive Program.

Other states provide e-bike rebates directly or through state-funded programs, rather than distributing funding to local jurisdictions. For example, the state-operated **California Air Resource Board** funds a replacement vehicle program (including e-bikes and electric vehicles) through local air quality management districts, such as the **Bay Area Air Quality Management District**.

Programmatic Recommendations

In addition to direct investments in physical infrastructure there are various existing and potential programs that can further encourage individuals to ride bicycle and create a greater culture around bicycling as a form of everyday transportation and recreation. This section highlights three categories of programmatic recommendations:

- Existing Programs to Continue
- New Programs to Initiate
- Partnerships and Programs to Encourage or Support

It is important to emphasize that, as of 2024, the City does not have the funding or staffing resources to fully pursue the programs recommended in the plan. This list is intended to identify how additional funding or staff resources could be allocated in the future. Some of these programs could also be initiated by other agencies or organizations with targeted City support.

Existing Programs to Continue

Bicycle Encouragement Programs

The City hosts two annual encouragement events that support mode shift through behavior change and create greater awareness of the presence of people bicycling along Albuquerque streets. As the City continues to implement its bikeway network, these programs provide opportunities to further build a culture around bicycling and the City should continue to host them.

Bike to Wherever Day

Each May, the City of Albuquerque hosts the annual Bike to Wherever Day in partnership with local advocates and business partners. The event is an adaptation of Bike to Work Day – the event rebranded following the COVID-19 pandemic and adopted the slogan "It doesn't matter where you go, just bike!" – and is supported by a prominent public awareness campaign to promote bicyclist safety and encourage community members to try bicycling for transportation purposes. Bike to Wherever Day typically features a variety of pop-up stations throughout the city where participants can obtain informational materials, complete an annual survey, and pick up bicycle safety giveaway items.

Bike Thru Burque Week

Each October, the City hosts Bike Thru Burque Week, a weeklong promotional and awareness event that encourages people to bike at some point over the course of the week. People can sign up to participate through the Bike Thru Burque website, including events such as a scavenger hunt, photo contest, and a team, individual, or kids riding challenge in which participants track their miles ridden and receive points based on destinations visited. Participants from the photo scavenger hunt and the highest-scoring teams can win prizes such as including gift certificates to local businesses or bicycle-related safety. Participants can also propose a ride in the crowdsourced map.

Bicycle-Friendly Community Status

The League of American Bicyclists/Bicycle Friendly Community Program (BFC) provides incentives, hands-on assistance, and award recognition for communities that actively support bicycling. A Bicycle Friendly Community welcomes bicyclists by promoting safe accommodation and encouraging people to bike for transportation and recreation. In 2005, the City was recognized with the Bronze level award, and in 2020, the City was named Silver, an upgrade from the Bronze status.

The City should complete an application each certification cycle (i.e., every four years). The application is an audit of equity and accessibility, engineering, education, encouragement, and evaluation and planning. As of 2023, the

City of Albuquerque maintains Silver status and should aspire for Gold status in upcoming application cycles. Recommendations from the 2020 Report Card and recent City efforts, as of the end of 2023, related to those recommendations are contained in Table 23. In future applications, the City should consider feedback provided by the League of American Bicyclists and work toward making recommended improvements pending available staffing resources and funding.

Table 23. Recommendations from the League of American Bicyclists (2020) and Progress to Date

Recommendation	Progress to Date
1. Continue efforts to improve data-driven road safety operations and adopt a comprehensive road safety plan	The City completed a Vision Zero Action Plan in late 2021 and a Year in Review Report/Action Plan Update in 2023 (approved at City Council in November 2023).
2. Continue to expand the bike network throughout all areas of the city, and increase connectivity through the use of different types of low-stress bicycle facilities.	The City has installed dozens of miles of new bikeways in the last four years through targeted projects, roadway upgrades, and restriping efforts. The 2024 Plan will help the City to continue to expand the low-stress bicycle network.
3. Work with local League Cycling Instructors (LCIs) to offer Bicycle Friendly Driver training to motorists.	Esperanza Bicycle Safety Education Center employs multiple LCIs who provide training in community settings and in public schools. The City has coordinated with the State of New Mexico on incorporating bicycle safety-related material into driver education programs.
4. Hire a full-time Bicycle & Pedestrian Coordinator for the City.	The City has funded and posted for a full-time employee to serve as an active transportation planner, though the City has been unable to fill the position.
5. Adopt a target level of bicycle use (percent of trips) to be achieved within a specific timeframe and ensure data collection necessary to monitor progress.	MRCOG oversees a growing non-motorized counts program that is being used to establish rates of bicycling and changes in use over time.

Recommendation	Progress to Date
6. Expand bicycle safety education to be a routine part of education for students of all ages, and ensure that schools and the surrounding neighborhoods are particularly safe and convenient for biking and walking.	Bicycle safety education takes place at Albuquerque Public Schools (APS) through a partnership between the Parks and Recreation Department and APS, including bike rodeos. APS operates a Vision Zero for Youth Initiative that encourages students to safely navigate their routes to school as pedestrians and bicyclists
7. Continue to increase the amount of high-quality bicycle parking throughout the City, including near bus stops.	Bicycle parking is required as part of private development through the City's Development Process Manual. The City and Rio Metro RTD install bike parking in public places and at Rail Runner stations through travel demand management programs.
8. Continue efforts to re-launch a new public bike share system to replace the Pace Bikeshare system that recently ceased operations.	MRCOG and Rio Metro RTD evaluated opportunities to reintroduce a public bike share system but determined a publicly funded program was not viable. The City Planning Department administers the Shared Active Transportation Program Permit and Agreement, which allows for private shared micromobility operators to apply for a permit to serve the city.

Esperanza Bicycle Safety Education Center

The Esperanza Bicycle Safety Education Center is operated by the Parks and Recreation Department out of a facility on the west side of Albuquerque, with plans to open an east side location in 2024. Esperanza focuses on bicycle education to increase the safety, self-sufficiency, and comfort of recreational, fitness, and utility riders alike, and provides classes and programs of varied types and topics, including bicycle safety, road use and traffic law, mechanics, and riding skills. The Center supports mechanical safety with the Open Bike Clinics at its shop, while providing Pop-Up Bike Clinics throughout the community. Esperanza also accepts donations of bikes, bike parts, and other bicycle-related items, which are refurbished for use through their ongoing programs.

Esperanza offers a range of programs and instruction techniques they utilize, depending on the needs of the organizations they partner with. Examples of programs offered by Esperanza include but are not limited to:

- Earn-a-bike classes
- Mechanical clinics
- Safe Routes to School programming
- Walking safety at elementary schools
- Bike rodeos
- Flat tire repair at middle schools

- Teaching adults to ride a bicycle
- Teaching kids to ride a bicycle
- Introduction to mountain biking
- Introduction to bike packing
- Adaptive cycling (primarily for adults this time)
- Hosting League of American Bicyclists Certified Instructor Trainings
- Educating driving instructors about people walking and biking

Bikeways and Trails Map

The City updates and prints hardcopy bikeways and trails maps approximately every two years. In addition to the most up-to-date bikeway facilities, the map contains resources and information on City programs and resources, safety tips, biking regulations and frequently asked questions, and guidance on bringing bikes on public transit.

Guaranteed Ride Home Program

The City's transit provider, ABQ RIDE, offers free guaranteed ride home service for community members who regularly use alternative modes of transportation instead of single-occupancy vehicles to ensure those individuals will not be stranded should an emergency arise. Eligible participants include those who commute to work or school by bike, walking, carpooling, vanpooling, or transit at least three times a week, a person.

Open Space Division Programs

In addition to hiking, mountain biking, and horseback riding, the Open Space Division of the Parks and Recreation Department serves to protect and preserve the natural environment for the benefit of the Albuquerque resident and visitor trail users. Key products and programs include:

- Environmental education and interpretation for schools, youth, families, and adults through several outdoor activities, classroom programs, and community events to educate the public on the use of Major Public Open Space and Trails.
- Trail maps and informational pamphlets
- Sponsored hikes and special events to heighten awareness of the low-impact recreation and the protection of the natural state of Major Public Open Space
- Trail Watch Volunteers Program, which serves to educate the public about trail use ethics while noting maintenance needs.

Each of these programs involves an element of outdoor stewardship education, including Leave no Trace Ethics, proper use of trails in MPOS, and in some cases, trail design and management.

Prescription Trails Program

The City's Prescription Trail Program is intended to make information available to all residents about the importance of walking for health and how to get started in a self-directed or group program. The program guide provides information about specific parks and walking routes in the Albuquerque area, including details about the level of difficulty for each trail location, the length of each "loop," and what amenities are provided in each park facility. The program guide includes a walking log so the trail user can easily document the distances walked. Information is also provided on Walking Clubs and Mall Walking for those rainy days.

New Programs to Initiate

Bike Rack Program

The City should develop and implement a Bike Rack Program to proactively identify and install racks at key locations within the City right-of-way. As an initial step, staff should create and publicly share a GIS layer of where existing public and private bike racks are located. This data should be kept up to date as new bike parking is installed.

It is important to note that public funding cannot be used to improve existing private property, so locations for new bike parking must be within the City right-of-way as part of this program. The installation of bike parking must also meet ADA/PROWAG requirements. Per existing requirements, developers must

continue to provide adequate bike parking within their new developments or redevelopments to confirm Integrated Development Ordinance (IDO) requirements.

Launch Parties or Ribbon Cuttings for New Bikeways and Trails

In coordination with the completion of bikeways and trail projects, the City should host launch parties or ribbon-cutting ceremonies as part of the City's standard bikeway and trail implementation procedures. Such events are a low-cost strategy that celebrates and publicizes new facilities and builds public awareness of bicycling and walking. As a low-cost/high-benefit program, it should become.

Parks and Trails Programs

Launch a Share the Trail Campaign

Conflicts between multi-use trail users can be a major issue on popular, well-used trail systems like the Bosque Trail. Some communities have launched successful "share the trail" events to help educate users about safety and trail courtesy. Share the Trail campaigns can be run by agencies, nonprofits, or any user group (equestrian, hikers, etc.). These programs educate users about expected behavior and how to limit conflicts. Volunteers often give out brochures and engage with users in a non-confrontational way.

Volunteers can also report back to trail agencies about trail damage, erosion, or vandalism. Media outreach should be included as well. Common strategies include a bicycle bell giveaway, handing out maps and information, posting signs, tabling, and 'stings' that reward good behavior. The City of Albuquerque could investigate opportunities to further pursue a campaign.

Bike to Parks Program

Encouraging bicycling to parks and along paved and unpaved trails is way to increase community health, decrease motor vehicle congestion and parking issues at parks, and maximize the use of public resources. A "bike to parks" program could distribute information about how and why to bike to parks. Elements may include:

- Distributing route information through maps, brochures, and online outreach
- Guided rides on trails and to parks
- Information kiosks
- Improved bicycle parking at trailheads and parks
- Outreach to existing groups (e.g., BikeABQ, senior and youth groups, schools, etc.)

Regional Transportation Demand Management Program

Transportation demand management (TDM) refers to a set of strategies and policies that seek to reduce single-occupancy vehicle demand, congestion, and carbon emissions, and increase rates of walking, riding transit, carpooling, and ridesharing as alternatives to driving alone. The City of Albuquerque currently operates various bicycle-focused programs that fall under the umbrella of TDM, including the installation of bike parking and encouragement programs such as Bike to Wherever Day. These programs could be expanded at a regional level to incorporate other initiatives aimed at reducing vehicle miles traveled and complement the types of infrastructure improvements identified in the 2024 Plan. Potential bicycle-related components of such a program are outlined below. Both significant staff time and financial resources are required to operate a TDM program.

Bike Parking

Easily accessible bike parking at popular destinations and transit facilities is a critical component to increasing the share of bicycling trips. With additional staffing and funding support, the City or MRCOG could expand bike-parking-related programs and provide clear guidance on location siting and maintenance policies. A regional bike parking program could offer two forms of parking: short and long-term.

- **Short-term parking** is intended for people visiting locations for less than four hours. Typical short-term parking racks include inverted U, post and ring, and bike corrals. Roll-up bike racks should be prioritized as they better accommodate e-bikes for short-term parking.
- **Long-term bicycle parking,** such as bike lockers, is oriented toward employees, residents, and public transit users who need to store their bikes for a longer period. Local initiatives around long-term bicycle parking include bike lockers at Rail Runner Express stations, which are managed by the Rio Metro Regional Transit District.

Example of bike corrals and bike lockers

Private Business Incentives

Private employers often provide incentive programs to employees to encourage active transportation as a form of wellness and to reduce single-occupancy commuting trips and manage parking demand. Regional program administrators could create a **TDM Toolkit** that provides employers with resources related to a range of TDM strategies, including ride matching, bicycle equipment and safety training, transit user guides, and strategies for the efficient use of available parking. The toolkit could also contain case studies and examples of employer programs in other markets.

Bicycle Benefits Program

Bicycle Benefits is a national program that incentivizes bicycling by partnering with local businesses to provide discounts to customers who bike. As of fall 2023, there are no participating businesses in New Mexico. However, the City could support this program by encouraging local businesses to participate and providing marketing support and advertising through encouragement events. Such a program could take place at the city or regional scale to amplify the impacts of the program; staff support for program coordination would be required.

End-of-Trip Facilities

End-of-trip facilities, including bicycle parking and other facilities such as showers and clothing lockers, can be a determining factor in whether someone decides to make a bicycle trip. They enhance the bicycling experience by providing people biking with somewhere to park and somewhere to refresh themselves following their trip. Numerous studies have shown the value of these facilities in attracting bicyclists to employment and activity centers and in supporting multi-modal trips. In fact, in the online survey conducted in 2010, nearly 70% of the people who responded indicated that more bicycle parking would likely influence them to bike and/or use the trail system more often.

As mentioned previously, the City does not currently have a bike rack program, which would be an excellent way to encourage utilitarian bicycle trips to retail and other destinations. The City has no zoning requirement for end-of-trip facilities other than the bicycle parking requirements. Some businesses voluntarily provide end-of-trip facilities such as bike lockers, showers, and changing rooms for employees who commute to work. End-of-trip facilities can be incorporated into a TDM program.

Safe Routes to Schools

Safe Routes to Schools (SRTS) is a popular program across cities, regions, and states that focuses on creating active transportation options for students from elementary to high school, structured around the Es of Safe Routes: Engagement, Equity, Engineering, Encouragement, Education, and Evaluation. Both PRD and Albuquerque Public Schools are implementing elements of a SRTS program; there are opportunities to further these efforts and coordination through a regional TDM program.

Bicycling Encouragement Events

Bike to Wherever Day and Bike Thru Burque could be expanded upon as part of a formal TDM program to be more regionally focused. Management of these event by dedicated staff could also create greater opportunities to cultivate partnerships with private businesses and community organizations.

Partnerships and Programs to Encourage and Support

This section describes programs that are led by external organizations, including public agencies and private entities, and partnership opportunities that could advance the City's goals of creating additional opportunities for Albuquerque community members and visitors to travel by bicycle.

ABQ CiQlovía Open Streets Festival

ABQ CiQlovía is an annual event – organized by the International District Healthy Communities Coalition (IDHCC), Presbyterian Community Health, and community members – that temporarily closes specific streets to people driving and opens them up for people to walk, bike, play, and reimagine the City's largest public space. Since 2017, the event has been on different routes in the International District. Over the past few years, the City's Vision Zero program has sponsored the event and staff have also worked with ABQ CiQlovía to coordinate and align with the City's Bike to Wherever Day and Bike Thru Burque events. City staff have also participated in the event to share information about transportation plans and/or projects occurring in the area. The City should strive to support and encourage future CiQlovía events. When Bike Thru Burque and CiQlovía overlap, the City should coordinate with event organizers to co-promote each event.

Albuquerque Public Schools

Elements of a Safe Routes to Schools program are being undertaken by Albuquerque Public Schools (APS), which recently began a Vision Zero for Youth Initiative through federal grant funding. In addition to developing a Vision Zero for Youth Action Plan, APS planning staff is working with 21 pilot schools to develop and implement training materials to encourage students to walk and bike to school and educate them about traffic safety. As part of its Vision Zero for Youth Initiative, in October 2023, APS hosted Walktober, an event to promote walking to school at different elementary and

middle schools. APS is also pursuing a general awareness campaign about the need for traffic safety around schools and is interested in institutionalizing SRTS programs across the District so that programs are applied and overseen at the individual school level.

Rio Metro Regional Transit District Job Access Program

The Rio Metro Regional Transit District's (RMRTD) Job Access Program is a continuation of MRCOG's previous program called Jobs Access Reverse Commute (JARC), a now discontinued federal program that provided taxi-based work transportation for low-income individuals. RMRTD continues to provide this service for Bernalillo County residents receiving Temporary Assistance for Need Families, those living within 150% of the Federal poverty line, seniors, and individuals with disabilities. Additional information can be found on RMRTD's website.

Shared Micromobility – Bike and Scooter-share Programs

A bicycle or scooter sharing system is a service in which bicycles or scooters are rented on a short-term basis to individuals at unattended stations or existing bike racks using electronic vending or a smartphone application. Bike and scooter share schemes allow people to make short-distance trips by borrowing a bike or scooter from a kiosk, bike rack, or drop zone in one location and returning it to a kiosk, bike rack, or drop zone in another location.

In 2018, the City of Albuquerque created a Shared Active Transportation Program and permitting process for private bike and scooter sharing companies to apply for a permit to serve Albuquerque. The City's Planning Department administers the permit and agreement. Currently, there are no operators. The City should continue this permit program and also follow emerging best practices in shared micromobility to ensure the current policy framework supports the needs of Albuquerque residents and potential visitors looking for alternative transportation options.

University of New Mexico Bicycle Programs

The University of New Mexico (UNM) is recognized as a Bronze level Bicycle Friendly University (BFU) by the League of American Bicyclists. UNM offers various services for bicyclists on campus, including bike racks, bike lockers, and a bike shop, which offers bicycle repair, maintenance, and rental bikes for recreation. Campus maps of bicycle racks and lockers are available online.

Bicycle Events and Awareness Programs

Bicycle Races and Group Rides

Numerous bicycling events are held throughout the year. These include races, skills competitions, and bike polo events. These events are tracked through some community calendars, such as www.nmcycling.org, www.usacycling.org, and www.bikehubnm.com. Facebook pages have been created to promote these events, such as the Critical Mass Albuquerque and Duke City Classic pages.

Bike Valet

At events such as the International Balloon Fiesta, the Downtown Growers' Market, and City Summerfest events, local bicycle advocates or other groups provide bike valets. Bike valets can encourage people to bike to events instead of driving and serve to promote bicycling as a viable transportation option. Over the last 10+ years, bike valets have become increasingly popular and well-used. The City should continue to support and encourage bike valets and at large City events, the City should provide a bike valet to encourage people to bicycle to the events.

Ghost Bike Memorials

"Ghost bikes" are roadside memorials that commemorate the location where a bicyclist was killed. These memorials are typically bicycles painted white and are often decorated with flowers and other personal items or notes to recognize the individual.

Previous Micromobility Programs

Downtown ABQ MainStreet Initiative, in partnership with MRCOG, launched a downtown pilot bike share program in May 2015 called BICI Bike Share. The pilot program featured 75 bikes and 15 stations and was funded by a PNM grant along with local private businesses. In 2016, the program moved under the management of the Rio Metro Regional Transit District (Rio Metro RTD) to expand the program beyond downtown. The program re-launched the program in April 2018 under the brand Pace ABQ with 200 bikes and 30 stations, and added an additional 50 bikes and 10 stations in June 2018. Though Rio Metro RTD had funding secured through the Transportation Alternative Program (TAP) for continued development of the bike share program, the bike share operator went out of business during the COVID-19 pandemic.

Funding

Federal and State Sources

New Mexico Department of Transportation

The New Mexico Department of Transportation (NMDOT) along with the Mid Region Council of Governments (MRCOG) administer and program federal funding allocated to the State and Region by USDOT/ Federal Highway Administration (FHWA). There are a variety of sub-allocated funds that are eligible only for pedestrian and bicycle facilities (Transportation Alternatives Program (TAP) as well as the sub-allocated large urban funds under the Surface Transportation Enhancement funding. There are also various opportunities to apply directly to USDOT/ FHWA for competitive grant funding as well as congressional earmarks. Local and Tribal entities must provide local match requirements for most federal funding opportunities.

New Mexico Legislature

During its annual legislative sessions, funds can be provided for bicycle projects through special appropriation bills (e.g., capital outlay requests or memorials).

Local Sources

Capital Implementation Program (CIP)

Funding for capital improvement projects is provided through the General Obligation (GO) bond program. Both the City of Albuquerque and Bernalillo County have set aside 5% of the Public Works Streets portion of their GO bonds to be used exclusively for bicycle projects, beginning in 1995. The GO bonds are obligated in 2-year cycles. Typically, this 5% set aside is used as matching funding for federally funded transportation projects that include bikeways. Parks and Recreation also receive funding for off-street facilities as part of the two-year bond cycle. In addition to the GO program, the City's Parks and Recreation Department also receives dedicated tax funding in a two-year cycle for recreational trails and off-street trail facilities.

Additional monies from the CIP (e.g., major pavement rehabilitation or specific roadway construction projects) may be used for bicycle projects. On-street bikeways will be incorporated into new roadway construction and street rehabilitation/resurfacing projects wherever feasible – particularly through the City's Annual Complete Streets Maintenance Program.

Gross Receipts Tax

A 1/4-cent gross receipts tax for fixing existing streets, building new roads, expanding transit, and constructing bikeways/trails was

approved by voters in 1999. A set percentage (4%) of this revenue, or $1.65 million biennially, is earmarked for trails used for both commuting and recreational travel; however, no dedicated funds were specifically identified for on-street bikeway improvements.

Land Development

There also exists an opportunity to work with the private sector to implement bicycle projects. This is accomplished through right-of-way dedications, infrastructure improvements, and/or impact fees.

Additional Funding Sources

Other funding opportunities include:

- City Council set aside funds
- Municipal bonds
- Public/Private Partnerships
- Metropolitan Redevelopment Area projects
- Tax Increment Financing (TIFs), Special Investment Districts (SIDs), and Public Investment Districts (PIDs)

Additional Funding for Bikeway and Trail Facility Implementation

At present, the only source of recurring funding for bikeway and trail improvements is a 5% set-aside of transportation General Obligation (GO) bond money. Dedicated bikeway or trail projects are often completed with federal funds, with GO bond money used as a local match (up to 20% of the total federal award). However, federal funds are competitive, require substantial staff resources to administer, and are not available at the levels needed to address the full range of desired improvements. While additional funds for capital improvements are needed, additional staff resources are also critical for administering programs and pursuing grant opportunities, particularly related to federal funding. Recommendations for additional funding include:

- Pursue a dedicated bikeway GO bond program that would allow for near-term implementation of higher-cost, high-impact projects (i.e., projects with a priority level of “very high” or “high”).
- Create a dedicated source of supplemental funding for spot improvements as part of the Complete Streets Annual Maintenance Program.
- Create a dedicated source of supplemental funding for spot improvements along paved multi-use trails and sidepaths.
- Continue to pursue federal funding through the programs overseen by the MRCOG and the NMDOT Planning Division (e.g., Highway Safety Improvement Program, Recreational Trails Program, Carbon Reduction Program, etc.).
- Pursue competitive grants through federal discretionary programs (e.g., RAISE and Safe Streets for All). Collaborate with MRCOG on grant funding applications and administration.
- Identify additional funds for local match needed to support federal funding applications.

Table 24. Summary of Planning, Policy, and Programmatic Recommendations

ID	Category	Action	Relevant Plan Goals	Timeline/Next Steps	Measurement	Staff Resources	Financial Resources	Lead Agency, Coordinating Agency
1	**Planning**	**Annual Complete Streets Maintenance Program:** Enhance the existing program to include advanced planning for resurfacing needs and inclusive selection criteria for project locations. Identify supplemental funding.	Equitable, Useful, Implementable	Near-term	Miles of bikeways added or enhanced per year	$$	$$	**DMD,** City Council
2	**Planning**	**Annual progress reporting:** Annually staff should put together a memo outlining new bikeway and trail projects implemented the previous year. The memo should identify bikeways and trails implemented within vulnerability communities.	Equitable, Integrated	Ongoing	Annual memorandum	$	$	**DMD, PRD**
3	**Planning**	**Coordination:** Continue and expand the interface between bikes and buses, including such features as bicycle racks on all buses, bicycle racks and lockers at park and ride lot, and the guaranteed ride home program. Promote bike/bus programs through ABQ RIDE literatures, PSAs, Strive Not to Drive Week, Bike to Wherever Day, and Bike thru Burque.	Connected, Useful, Integrated	Ongoing	Transit boardings wth bicycles	$$	$$	**ABQ RIDE,** DMD, PRD
4	**Planning**	**Coordination:** Incorporate plan recommendations into ongoing City and regional planning initiatives.	Integrated, Implementable	Ongoing	N/A	$$	N/A	**DMD, Planning, PRD, City Council,** MRCOG
5	**Planning**	**Data collection:** Continue to support MRCOG's annual bike survey that is distributed at the City's Bike to Wherever Day.	Equitable, Useful, Integrated	Ongoing	Number of survey participants	$	$	**MRCOG**, DMD, PRD
6	**Planning**	**Data collection:** Develop a map or GIS tool that will improve interagency knowledge of emergency access location and wayfinding information on trails.	Integrated	Long-term	Development of mapping tool	$$	$$	**PRD**, APD, Other First Responders

ID	Category	Action	Relevant Plan Goals	Timeline/Next Steps	Measurement	Staff Resources	Financial Resources	Lead Agency, Coordinating Agency
7	**Planning**	**Data collection:** Review, track, and analyze crash data to inform current and planned projects and to identify future projects.	Equitable, Connected, Integrated, Prioritized, Implementable	Ongoing	Annual analysis of crash data	$	$	**DMD, PRD**
8	**Planning**	**Data collection:** Support and partner where appropriate with MRCOG on its Active Transportation Count Program.	Equitable, Integrated	Ongoing	Number of locations counted	$	$	**MRCOG,** DMD, PRD, Planning
9	**Planning**	**Data collection:** Track and monitor new bikeway and trail projects and keep GIS layer up-to-date.	Equitable, Connected, Integrated, Prioritized, Implementable	Ongoing	Quarterly data updates	$	$	**DMD, PRD**
10	**Planning**	**Data tracking:** Keep the existing bikeway and trails GIS shapefile up-to-date as new facilities are built. Ensure up-to-date data is reflected in the online bikeway and trail data interactive map.	Useful, Integrated	Ongoing	Quarterly data updates	$	$	**DMD, PRD**
11	**Planning**	**Design standards:** Design and construct facilities according to design standards/ guidelines to improve safety of facilities. Adhere to the Design Guidelines in the DPM or adopted as part of this Plan when implementing projects unless strict adherence is not feasible. Any deviation must be documented by the project manager, including a rationale for the deviation.	Connected, Useful, Integrated, Prioritized, Implementable	Ongoing	Number of projects that deviate from design standards/ guidelines	$	$	PRD, DMD, Planning
12	**Planning**	**Future plans and studies:** Develop a Pedestrian Safety Plan or Active Transportation Plan that integrates biking, walking, transit, and micromobility.	Equitable, Integrated, Implementable	Long-term	Creation of plan	$$$	$$$	**Planning,** DMD, PRD,

ID	Category	Action	Relevant Plan Goals	Timeline/Next Steps	Measurement	Staff Resources	Financial Resources	Lead Agency, Coordinating Agency
13	**Planning**	**Future plans and studies:** Update the Arroyo Facilities Plan.	Integrated, Implementable	Long-term	Creation of plan	$$	$$	**PRD,** Planning
14	**Planning**	**Future plans and studies:** Update the Bollard Inventory to identify the location and design of all existing bollards on trails. Prioritize remediation of bollard installations that do not meet the Design Standards in City right-of-way.	Integrated	Medium to Long-term	Bollard inventory and remediation plan	$$	$$	**PRD**, DMD, Planning
15	**Planning**	**Maintenance:** Create on-street bikeways and paved multi-use trail maintenance plans and hire additional traffic maintenance staff. Ensure maintenance plan incorporate work order and tracking system.	Useful, Integrated	Medium to Long-term	Creation of maintenance plan	$$$	$$	**DMD, PRD,** Administration, City Council
16	**Planning**	**Performance measures:** Identify performance standards and metrics for active transportation.	Equitable, Useful, Integrated, Implementable	Long-term	Creation of performance standards	$	$	DMD, PRD, Planning
17	**Planning**	**Project cost assumptions:** Develop a City-wide policy for incorporating maintenance considerations and funding as part of all new (or major renovation) trail construction projects.	Integrated, Implementable	Long-term	Creation of policy	$$	$$	**Administration, City Council,** PRD, DMD, Planning
18	**Planning**	**Project development:** Conduct proactive survey and right-of-way analysis for upcoming projects and consider life cycle and maintenance costs as part of project scoping.	Useful, Implementable	Medium to long-term	Number of projects completed per year	$$	$$$	**DMD, PRD, City Council**
19	**Planning**	**Project development:** Design, construct, and maintain the proposed projects based on the project prioritization list with higher ranking projects being a higher priority.	Equitable, Connected, Useful, Prioritized, Implementable	Ongoing	Priority level of projects completed each year	varies	varies	**DMD, PRD, Planning, Administration, City Council**

ID	Category	Action	Relevant Plan Goals	Timeline/Next Steps	Measurement	Staff Resources	Financial Resources	Lead Agency, Coordinating Agency
20	**Planning**	**Project development:** Establish native drought-tolerant grasses and plants next to trails, with a goal that over time, the natives will outcompete the puncture vine.	Integrated, Implementable	Long-term	Number of projects involving landscaping	$	$	**PRD**, DMD, Planning
21	**Planning**	**Project development:** For major trail projects, require the design engineer to include a concept plan for the long-term maintenance protocol that is envisioned (e.g., care of plantings, drainage issues, etc.).	Useful, Integrated, Implementable	Ongoing	Create of maintenance protocols for multii-use trails	$	$	**PRD**, DMD, Planning
22	**Planning**	**Project development:** Prioritize implementation of trail amenities projects. Obtain supplemental capital funding as needed for major projects and to provide trail amenities.	Integrated	Long-term	Number of trail amenities projects per year	$$	$$	PRD
23	**Planning**	**Project development:** Provide appropriate bikeways on all new or reconstructed bridges, underpasses, and overpasses, to the greatest extent feasible.	Equitable, Connected, Integrated	Ongoing	Number of new or reconstructed bridges with adequate bikeways	$	$	DMD, PRD, Planning, NMDOT, MRCOG
24	**Planning**	**Public information:** Create and maintain a webpage on the City's website to include all information about bicycling in Albuquerque.	Useful, Integrated	Near to medium-term	Creation of webpage	$	$	**IT, DMD, PRD**, ABD RIDE
25	**Planning**	**Public information:** Include trail and bikeway dedication events as part of other public project planning. Continue to support Land Development Regulations enabling trail and bikeway dedication and construction.	Equitable, Connected, Useful, Integrated, Implementable	Ongoing	Dedications as part of public and private projects			**Planning, PRD, DMD**

ID	Category	Action	Relevant Plan Goals	Timeline/Next Steps	Measurement	Staff Resources	Financial Resources	Lead Agency, Coordinating Agency
26	**Planning**	**Public information:** Update, develop, and distribute a bicycle and trail map.	Integrated	Ongoing	Publication and distributiion of bike and trail map	$$	$$	**DMD**, PRD
27	**Planning**	**Regional and stakeholder coordination:** Partner with regional and local agencies on programs and investments related to bikeway and trail data collection and facility implementation.	Connected, Integrated, Implementable	Ongoing	N/A	$$$	$	**MRCOG, DMD, Planning, PRD, ABQ RIDE, APD,** Bernalillo County, AMAFCA, UNM, CNM, APS
28	**Planning**	**Signage/wayfinding:** Create a signage and wayfinding plan, including a sign family for paved trails, bike boulevards, and other bikeways.	Useful, Implementable	"Near-term to medium-term: Fund and develop plan. Long-term: Plan implementation"	Creation of wayfinding plan	$$	$$	**DMD, PRD**
29	**Planning**	**Training/capaciity-building:** Ensure that consistent, routine training of City of Albuquerque, MRCOG, and other jurisdiction staff is taking place related to national best practices in on-street bikeways and off-street multi-use trail planning.	Connected, Useful, Integrated, Implementable	Ongoing	Number of trainings per year	$$	$$	DMD, PRD, Planning, MRCOG
30	**Planning**	**Unpaved Trails:** Preserve and add equestrian facilities where appropriate.	Connected, Integrated	Ongoing	Total miles of unpaved trails	$$	$$	**PRD,** DMD, Planning
31	**Planning**	**Updates to the Development Process Manual:** Update the City's DPM to reflect emerging best practices in bicycle planning and design and recommendations included in this plan.	Integrated, Implementable	Near-term	Approved updates to the DPM	$$	No additional cost if using existing staff resources	**DMD, PRD, Planning**

ID	Category	Action	Relevant Plan Goals	Timeline/Next Steps	Measurement	Staff Resources	Financial Resources	Lead Agency, Coordinating Agency
32	**Policy**	**Access to schools:** Evaluate waivers and variance requests for bicycle and pedestrian facilities around schools and within high vulnerability areas as identified by the Vulnerability Index.	Equitable, Integrated, Implementable	Near-term	Number of waivers/variance requests	$	$	**Planning**
33	**Policy**	**Advisory boards:** Investigate opportunities to pay people who serve on City boards and commissions (e.g., GAATC and GARTC) to encourage a greater and more diverse representation of people serving on these committees.	Equitable, Integrated	Long-term	Paying people for their time on committees	$$	$$$	**Boards and Commissions, Administration, City Council,** PRD, DMD
34	**Policy**	**Advisory groups:** Continue to work with citizen advisory and advocacy groups to promote bicycling and pedestrianism, improve bicycle and pedestrian safety, and improve the implementation of new facilities in their advisory role.	Integrated	Ongoing	Advisory committee meetings and feedback on City efforts related to waking and biking	$	$	**DMD, PRD,** Administration, City Council, ABQ RIDE
35	**Policy**	**E-bike policy:** Collaborate with the State on a rebate program to encourage the adoption of e-bikes and reduce single-occupancy vehicle trips.	Useful, Integrated	"Near-term to medium-term: Evaluate program needs. Long-term: Identify funding sources"	Creation and implementation of e-bike incentive program	$$	$$$	**State of New Mexico Legislature**, Administration, City Council, Sustainability
36	**Policy**	**E-bike policy:** Develop a City policy that identifies appropriate types of e-bikes – among other micromobility devices – on paved trails. Requires City Council approval	Useful, Integrated	Ongoing	Adoption of policy by City Council	$	$	**PRD, City Council**
37	**Policy**	**Encouragement events:** Develop a new policy regarding Exclusive Use Permit for Trails Events.	Integrated	Long-term	Creation of policy	$$	$	**PRD, Planning**

ID	Category	Action	Relevant Plan Goals	Timeline/Next Steps	Measurement	Staff Resources	Financial Resources	Lead Agency, Coordinating Agency
38	Policy	**Funding:** Evaluate the feasibility of a Parks, Open Space & Trails Foundation, which would allow tax-deductible contributions and encourage patronships.	Integrated	Long-term	Creation of Parks, Open Space & Trails Foundation	$$	$$	PRD
39	Policy	**Funding:** Identify dedicated funding for bikeway and trail project design, implementation, and maintenance.	Useful, Implementable, Prioritized	Ongoing	Creation of dedicated funding source	$$	$$$$	**Administration, City Council**, DMD, PRD
40	Policy	**Funding:** Identify funding and resources to create a City Bike Rack Program to install bike racks within public ROW and meeting ADA.	Equitable, Connected, Integrated	Long-term	Creation and funding for a bike rack program	$$	$$	Administration, City Council, DMD
41	Policy	**Micromobility:** Update the City's existing Active Transportation Ordinance and Permit Program that enables private shared micromobility operators to apply for a permit to serve residents with shared bikes and/or scooters. Updates should align with national best practices which have evolved since the ordinance originally passed in 2018.	Equitable, integrated, useful	Long-term	Completion of updates to permit program	$	$	**City Council, Planning,** DMD, PRD
42	Policy	**Staffing resources:** Provide full-time staff positions dedicated to trails and bikeways with appropriate office budgets to promote bicycling and trail use and planning within Albuquerque.	Equitable, Integrated, Implementable	Ongoing	Number of full-time employees	$$	$$	**DMD, PRD, Administration, City Council**
43	Policy	**Traffic code:** Investigate changes to the traffic code that would allow people bicycling to cross a roadway following pedestrian control signals such as leading pedestrian intervals.	Equitable, Useful, Integrated, Implementable	Long-term	Changes to traffic code	$$	$	**Administration, City Council**, DMD

ID	Category	Action	Relevant Plan Goals	Timeline/Next Steps	Measurement	Staff Resources	Financial Resources	Lead Agency, Coordinating Agency
44	**Policy**	**Traffic code:** Make the Idaho Stop or Stop as Yield legal in New Mexico.	Equitable, Useful, Integrated, Implementable	Medium to Long-term	Adoption of law	$	$	**State of New Mexico Legislature**, Administration, City Council, DMD, PRD
45	**Policy**	**Traffic code:** Reevaluate City of Albuquerque laws around walking and biking that may disproportionately impact marginalized communities.	Equitable, Integrated	Near to medium-term	Evaluation of existing laws and plan to address			**Administration, City Council, APD,** DMD, PRD
46	**Programmatic**	**Bicycle friendly community status:** Address recommendations from the League of American Bicyclists Bicycle-Friendly Communities. Continue to submit the Bicycle-Friendly Communities application every four years.	Equitable, Connected, Useful, Integrated	Ongoing	City submitting application every four years	$	$	**DMD,** PRD, ABQ RIDE
47	**Programmatic**	**Education:** Continue and expand Police Bicycle Patrols and dedicate a distinct percentage of their time to educational efforts on proper bicycling and driver behaviors.	Integrated	Long-term	Number of Police Bicycle Patrols per year	$$	$	**APD,** PRD, DMD
48	**Programmatic**	**Education:** Maintain ongoing training programs through the Esperanza Bicycle Safety Education Center and support the APS Vision Zero for Youth Initiative.	Equitable, Useful, Integrated	Ongoing	Number of events per year	$$$	$$	**PRD**
49	**Programmatic**	**Encouragement events:** Continue supporting programs related to education, outreach, and encouragement. Identify funding to support bikeway and trail programming and education efforts.	Equitable, Useful, Integrated	Ongoing	Events per year; number of participants	$$	$$	**PRD,** DMD, Planning, Administration, City Council
50	**Programmatic**	**Encouragement events:** Continue to plan and implement Bike to Wherever Day and Bike thru Burque events.	Integrated	Ongoing	Events per year; number of participants	$$	$$	**DMD,** PRD, MRCOG, Planning, ABQ RIDE

ID	Category	Action	Relevant Plan Goals	Timeline/Next Steps	Measurement	Staff Resources	Financial Resources	Lead Agency, Coordinating Agency
51	**Programmatic**	**Encouragement events:** Encourage and coordinate with ABQ CiQlovía organizers to co-promote Bike Thru Burque and ABQ CiQlovía.	Equitable, Integrated, Implementable	Ongoing	Number of co-promoted events	$	$	**DMD**, PRD, Planning
52	**Programmatic**	**Encouragement programs:** Continue to encourage and support bicycle events and awareness programs such as bicycle group rides, bike valets, and ghost bike memorials.	Integrated	Ongoing	Create and maintain iinventory of events	$	$	**DMD, PRD**
53	**Programmatic**	**Interagency programs:** Continue to provide ABQ RIDE's Guaranteed Ride Home Program.	Integrated	Ongoing	Number of program participants per year	$	$	**ABQ RIDE**
54	**Programmatic**	**Interagency programs:** Continue to provide and support Rio Metro's Job Access Program.	Integrated	Ongoing	Number of program participants per year	$$	$$	**Rio Metro**
55	**Programmatic**	**Park programs:** Continue to provide and support environmental education and interpretation activities, programs, and events at Major Public Open Space and Trails.	Integrated	Ongoing	Number of events per year	$$	$$	**PRD**
56	**Programmatic**	**Parks programs:** Continue to provide and support the City's Prescription Trails Program.	Integrated	Ongoing	Funding level for program	$$	$$	**PRD**
57	**Programmatic**	**Parks programs:** Investigate opportunities to create a bike to parks program.	Equitable, Useful, Integrated	Long-term	Creation of program	$$	$$	**PRD**
58	**Programmatic**	**Parks programs:** Launch a share the trail campaign	Equitable, Useful, Integrated	Long-term	Creation of program	$$	$$	**PRD**

ID	Category	Action	Relevant Plan Goals	Timeline/Next Steps	Measurement	Staff Resources	Financial Resources	Lead Agency, Coordinating Agency
59	**Programmatic**	**Public information:** Heighten public awareness of bicycle and trail planning efforts through launch parties or ribbon cuttings for new bikeways and trails	Integrated	Ongoing	Number of press releases or ribbon cuttings celebrating new projects	$	$	Administration, City Council, DMD, PRD
60	**Programmatic**	**Regional transportation demand management program:** Create a regional TDM program that incentivizes and encourages bicycle travel and general reductions in single-occupancy vehicle travel.	Integrated	"Near-term: Evaluate program needs and partnership opportunities. Long-term: Identify funding and staff resources"	Creation of regional TDM program	$$$	$$$	**MRCOG,** DMD, PRD

Acronyms and Definitions

Acronyms

AWDT .....Average Weekday Daily Traffic

AASHTO.....American Association of State Highway and Transportation Officials

ADA.....Americans with Disabilities Act

AMAFCA ....Albuquerque Metropolitan Arroyo Flood Control Authority

APS.....Albuquerque Public Schools

APD.....Albuquerque Police Department

BNA.....Bicycle Network Analysis

DMD .....Department of Municipal Development

FHWA .....Federal Highway Administration

GAATC .....Greater Albuquerque Active Transportation Committee

GARTC .....Greater Albuquerque Recreational Trails Committee

GIS .....Geographic Information Systems

HFIN.....High Fatal and Injury Network

ITE .....Institute of Transportation Engineers

KAFB.....Kirtland Air Force Base

LTS.....Level of Traffic Stress

MRCOG .....Mid-Region Council of Governments

MRGCD .....Middle Rio Grande Conservancy District

MTP .....Metropolitan Transportation Plan

MUTCD.....Manual on Uniform Traffic Control Devices

NACTO .....National Association of City Transportation Officials

NMDOT .....New Mexico Department of Transportation

OSD.....Open Space Division

POST.....Parks, Open Space, and Trails

ROW .....Right-of-way

PHB.....Pedestrian Hybrid Beacon

PRD.....Parks and Recreation Department

PROWAG ....Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way

RRFB .....Rectangular Rapid Flashing Beacon

STIP .....State Transportation Improvement Program

TAP .....Transportation Alternatives Program

TDM .....Transportation or Travel Demand Management

TIP .....Transportation Improvement Programs

Definitions

Accessible — describes a trail, or a portion thereof, which complies with the American National Standards Institute (ANSI) Guidelines and is accessible to people with disabilities.

Activity Center — location such as employment center, schools, downtown and uptown, entertainment, museums, etc. that tend to attract bicyclists for education, recreation, shopping or employment.

At-grade Crossing — a junction where multi-use trail, bike boulevard, or sidewalk users cross a roadway at the same level as motor vehicle traffic, as opposed to a grade-separated crossing where users cross over or under the roadway using an overpass or underpass.

Bicycle (Bike) — a human-powered vehicle with two or more wheels designed to transport by the act of pedaling one or more persons seated on one or more saddle seats on its frame.

Bike Boulevard — low-stress corridors with slow speeds and low vehicle volumes that feature traffic calming elements and enhanced crossing treatments to reduce through vehicle traffic and manage vehicle speeds. Though people biking share space with motor vehicles, the low-stress conditions ensure these bikeways appeal to people biking of all ages and abilities.

Bicycle Network — a system of public bicycle facilities that can be mapped and used by bicyclists for transportation and recreational purposes.

Bike Route — shared streets that utilize signage and pavement markings (i.e. sharrows) to indicate that bicyclists may be present and to help bicyclists connect to other facilities and local destinations.

Bike Lane — a lane on the roadway that has been designated by striping, signing, and pavement markings for preferential or exclusive use by bicyclists. Bike lanes or paved shoulders are part of the standard arterial and collector cross-section. At signalized intersections, bike lanes should have bicycle-sensitive actuation capabilities such as loop detectors, video detection, curbside push buttons, or other detection devices approved by the City Traffic Engineer.

Space along the edge of a roadway that utilizes striping to delineate a separate, dedicated space for people biking. Standard bike lanes are typically located at the road edge and do not provide additional vertical or horizontal separation from vehicular travel lanes.

Bikeway — a generic term for any road, street, path or way which in some manner is specifically designated for bicycle travel, regardless of whether such facilities are designed for the exclusive use of bicycles or are to be shared with other transportation modes.

Buffered Bike Lane — bikeways with striped, horizontal space between the bike lane and the adjacent vehicle travel lane, which provides additional separation between bicyclists and moving vehicle traffic.

Chicane — an artificial feature used to slow traffic by creating extra turns in a road.

Complete Streets — an approach to planning, designing, building, operating, and maintaining streets that enables safe access for all people who need to use them, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

Crosswalk — any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian or bicyclist crossing by lines or other markings on the surface.

Cycle Track — a fully separated bikeway facility that support people biking in opposite directions. Cycle tracks can be located at sidewalk-level or at the same level as vehicle travel lanes if there is a form of physical separation.

Directional or wayfinding signs — signs typically placed at road and bicycle path junctions (decision points) to guide bikeway users toward a destination or experience.

E-bike — a variety of bicycles equipped with electric motors that provide assistance for riders either when pedaling or through a throttle. There are three classes of e-bikes depending on the level and type of assistance provided.

Enhanced Crossing — a street crossing that features a range of treatments that support bicycle travel along existing and proposed bikeways. Enhanced crossing along narrower and slower speed roadways include simpler treatments such as signage and striping; along roadways with higher speed and traffic volumes, treatments include rectangular rapid flashing beacons and pedestrian hybrid beacons.

Geometric crossing improvement — A range of potential treatments -- including marked crosswalks, median refuge islands, bulbouts, raised crossings, and stop control -- intended to support safe, comfortable bicycle crossings of lower-volume and lower-speed streets.

Grade-separated crossing — an overpass or underpass allowing multi-use trail users to cross a major roadway without motor vehicle conflict.

Highway — a road or thoroughfare, such as a street, boulevard, or parkway, which functions as a main route for any form of transport or travel and is available to the public for use.

Long-term Project — bikeway improvements that require moving curb lines or narrowing medians or constructing paved multi-use trails. A long-term designation does not mean the project will not or cannot happen in the near term, but these projects are generally higher in cost and complexity and typically take longer to finance and implement.

Loop Detector — a device placed in the pavement, real or virtual, at intersections to detect a vehicle or bicycle and trigger a signal to provide a green light for through traffic. Loop detectors are also used to count bicyclists on multi-use trails.

Major Public Open Space — an integrated system of lands and waters that have been designated as such in the Comprehensive Plan. The lands and waters and interests therein have been or shall be acquired, developed, used, and maintained to retain their natural character to benefit people throughout the metropolitan area by conserving resources related to the natural environment, providing opportunities for outdoor education and recreation or defining the boundaries of the urban environment.

Means of Implementation — a range of approaches for implementing a new bikeway or enhancing an existing facility, including as a standalone investment, through annual roadway resurfacing efforts, or as part of a larger roadway improvement project.

Median — the area in the center of the roadway that separates directional traffic. Medians may be painted and level with the surrounding roadway or raised using curb and gutter. Medians may include landscaping, concrete, striping or any combination thereof.

Median Refuge — an area within an island or median that is intended for pedestrians or bicyclists to be separated from travel lanes to wait for an opportunity to continue crossing the roadway.

Midblock Crosswalk — a legally established crosswalk that is not at an intersection.

Multi-use Trail — a separate pathway that is physically separated from motor vehicle traffic by a buffer or barrier and either within the highway right-of-way or within an independent right-of-way. Multi-use trails are designated by signs for use by non-motorized traffic only, including pedestrians, bicyclists, skaters, wheelchair users, joggers, other non-motorized users, and equestrians. Not all trails may accommodate all of these uses. Most trails are designed for two-way travel. Trails may be

either hard-surface or soft-surface; or paved or unpaved.

Open Space Trail — a linear corridor within open space or linking open space to other facilities. Open space trails include open space arroyos and open space links.

Paved Trail — a trail surfaced with asphalt, concrete, soil cement, or other hard, stabilized surface.

Pavement Marking — any marking on the surface of the pavement that gives directions to motorists and other road users in the proper use of the road. The MUTCD determines the standard marking in New Mexico for state and local use.

Pedestrian — someone who walks or journeys on foot; a walker.

Pedestrian Hybrid Beacon (PHB) — the pedestrian hybrid beacon (also known as the High Intensity Activated crosswalk, or HAWK) is a pedestrian-activated warning device located on the roadside or on mast arms over midblock pedestrian crossings. PHBs are recognized by FHWA as a proven countermeasures that improve safety.

Plausible Near-term Project — bikeway projects that are feasible through reconfiguration and do not require any additional right-of-way. Plausible near-term projects are usually lower cost and lower complexity and represent opportunities to build a network quickly if funding becomes available. This designation does not necessarily indicate that a project will happen, but that the project could happen, pending available funding, limited utility conflicts, staff capacity, and availability of local contractors to design and perform restriping and other improvements among other potential constraints.

Policy Goal — a broad statement of intent providing guidance for action.

Practical Uses — when the primary purpose is to get to a necessary destination, such as to work or school, or to perform essential errands such as shopping for food or going to a doctor's appointment.

Principle — things we want to do or avoid doing, as we develop and implement the plan. Principles define how we will go about "doing business" to achieve the plan's goals.

Raised Bike Lane — one-way facilities that are located at sidewalk level or slightly elevated from the roadway to provide vertical separation from moving traffic. Raised bike lanes may have a buffer and/or a vertical element in between the bikeway and the roadway.

Recreational Use — when the primary purpose of a bicycle trip is for fun, fitness, training, or as a social activity.

Rectangular Rapid Flash Beacons (RRFBs) — user-actuated amber LEDs that supplement warning signs at unsignalized intersections or mid-block crosswalks. They can be activated by pedestrians manually by a push button or passively by a pedestrian detection system. These are recognized by FHWA as proven countermeasures that improve safety.

Road Diet — A reduction in the number of motor vehicle travel lanes along a roadway in order to reduce speeds, improve safety, and reallocate space for other roadway uses, such as bike lanes.

Separated Bike Lane — bikeways with some sort of physical, vertical separation between moving motor vehicle traffic and the bike lane, such as plastic posts, bollards, curbs, parking stops, planters, raised bumps or parked cars. Also referred to as protected bike lanes, these facilities can be at street level, raised to sidewalk level, or a level in between the street and sidewalk level. Paint alone does not create a protected bike lane.

Shared Roadway — a shared roadway is any roadway that may be legally used by both motor vehicles and bicycles and is not specifically designated as a bikeway.

Sharrow (Shared Lane Marking) — a pavement marking symbol that indicates an appropriate positioning of bicyclists within a travel lane shared by both bicycle and motor vehicles. This is used in Albuquerque on low-traffic volume streets, typically classified as collector or below.

Shoulder Bikeways (Paved Shoulders) — a bicycle facility located along uncurbed arterials and collectors. It consists of a smooth paved surface that covers all or part of the roadway shoulder. Shoulder bikeways, or paved shoulders, are similar to wide curb lanes on roadways with curb and gutter.

Sidepath — two-way, off-street facilities that are shared among people biking and walking. Sidepaths are located within the public street right-of-way on the outside of the curb. Because sidepaths are located at curb level, they provide vertical separation between people biking and motor vehicle traffic. Sidepaths can be implemented in lieu of a sidewalk.

Sidewalk — the portion of a street or highway, beyond the curb or edge of roadway pavement, which is intended for use by pedestrians. Sidewalks are typically, but not always, curb-separated from the roadway and made of concrete, brick, asphalt, or other hard surface material.

Single-track Trail — a trail where users must generally travel in a single file and is named not for the physical structure of the trail but rather for the user. Single-track trails are typically 18-30 inches wide. Usually and almost always a soft-surface trail or unpaved natural surface trail. These trails are typically found on Major Public Open Space lands and are sometimes referred to as mountain bike or hiking trails. Single-track trails disturb less ground and can be easier to maintain due to their narrow width. The narrowness of the trail tends to immerse the user closer to nature than a wider trail or dirt road.

Traffic Volume — the total number of motor vehicles that pass along a roadway segment over a period of time (e.g., a 24-hour period).

Transportation or Travel Demand Management Program — an institutional framework for implementing a set of TDM strategies. Such a program has stated goals, objectives, a budget, staff, and a clear relationship with stakeholders. It may be a division within a transportation or transit agency, an independent government agency, or a public/private partnership.

Transportation Improvement Program — a capital improvement program managed by the metropolitan planning organization and developed cooperatively by local and state transportation entities. TIP projects are drawn from and consistent with a statewide rural long-range plan and include a list of multi-modal transportation (a connected transportation system that supports cars, bicycles, pedestrians, and public transit) projects. All regionally significant projects must be in the TIP regardless of the intended funding source.

Traffic Calming — changes in street alignment, installation of barriers, and other physical measures employed to reduce traffic speeds and/or cut-through traffic volumes to enhance neighborhood and street safety, livability, and other public purposes. Traffic Calming measures may include diverters, speed humps, traffic circles, or pocket parks which allow through access by bicycles.

Traffic Control Devices — Signs, signals, push buttons, or pavement markings whether permanent or temporary, placed on or adjacent to a travel way by the authority of a public body having jurisdiction to regulate, warn, or guide traffic. MUTCD designates standards.

Unpaved Trail — a range of dirt or gravel paths that accommodate but are not limited to (unless posted and signed) equestrians, mountain bikers, hikers, joggers, and people walking who may prefer a soft walking surface (stabilized unpaved trails may also be suitable for wheelchair users depending on their ability). Unpaved multi-use trails are typically used for recreational purposes.

Utilitarian Trips — trips that are for everyday purposes, such as commuting or running errands, rather than for recreation.

Wayfinding — signs, maps, and other graphic or audible methods used to convey location and directions to travelers.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