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Metro®

2023 Active Transportation Strategic Plan

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 - Appendix G – Community Based Organization Charter Agreements
 - Appendix H – ATSP Benefit Dashboard + Technical Documentation
 - Appendix I – ATSP Benefits Dashboard Report
-

Acronyms and Abbreviations

- AT – Active Transportation
- ATSP – Active Transportation Strategic Plan
- BIPOC – Black, Indigenous, People of Color
- CTP – California Transportation Plan
- EFC – Equity Focus Community
- FLM – First/Last Mile
- GHG – Greenhouse Gas
- MENI – Metro Equity Need Index
- OER – Metro Office of Equity and Race
- OS – Opportunity Score
- VMT – Vehicle Miles Traveled

Executive Summary

Metro is excited to present its updated 2023 Active Transportation Strategic Plan (ATSP) to support the development of a world-class transportation system in LA County. The 2023 ATSP includes proposals for First/Last Mile (FLM) improvement areas, regional bikeways and pedestrian districts. The first ATSP was adopted in 2016 and was prefaced by several Metro Board motions calling for the agency's proactive role in countywide active transportation. This update of the ATSP is an opportunity to advance Metro's and other agencies' policies related to climate, social equity and sustainability that have been adopted in the years since the 2016 ATSP.

The planning process included four key phases – *Goals and Objectives, Network Development, Implementation Strategies, and Draft and Final Plan* – each supported by rich community engagement programs that included a total of seven Zoom webinars and workshops attended by 336 participants, 33 in-person events across the nine LA County subregions, and a community survey that garnered over 1,800 responses. In addition, a Technical Working Group (TWG) was convened to guide Metro's overall planning approach and to review draft plan components at each stage of the process.

Goals and Objectives (Chapter 2): The 2023 ATSP goals and objectives reflect recently adopted and relevant plans, as well as TWG input and outreach to the community. The 2023 ATSP goals are centered on Equity, Safety and Comfort, Accessibility, Connectivity and Sustainability, with each goal being supported by two to three objectives. Finally, a comprehensive set of performance measures is presented and will be tracked periodically to assess the level of plan implementation over time.

Network Development (Chapter 3): Three pillars of a comprehensive, planned active transportation network for LA County are presented in the 2023 ATSP. The three pillars consist of FLM areas, pedestrian districts and regional bikeways. See **Figures E-1 through E-3** on the following pages.

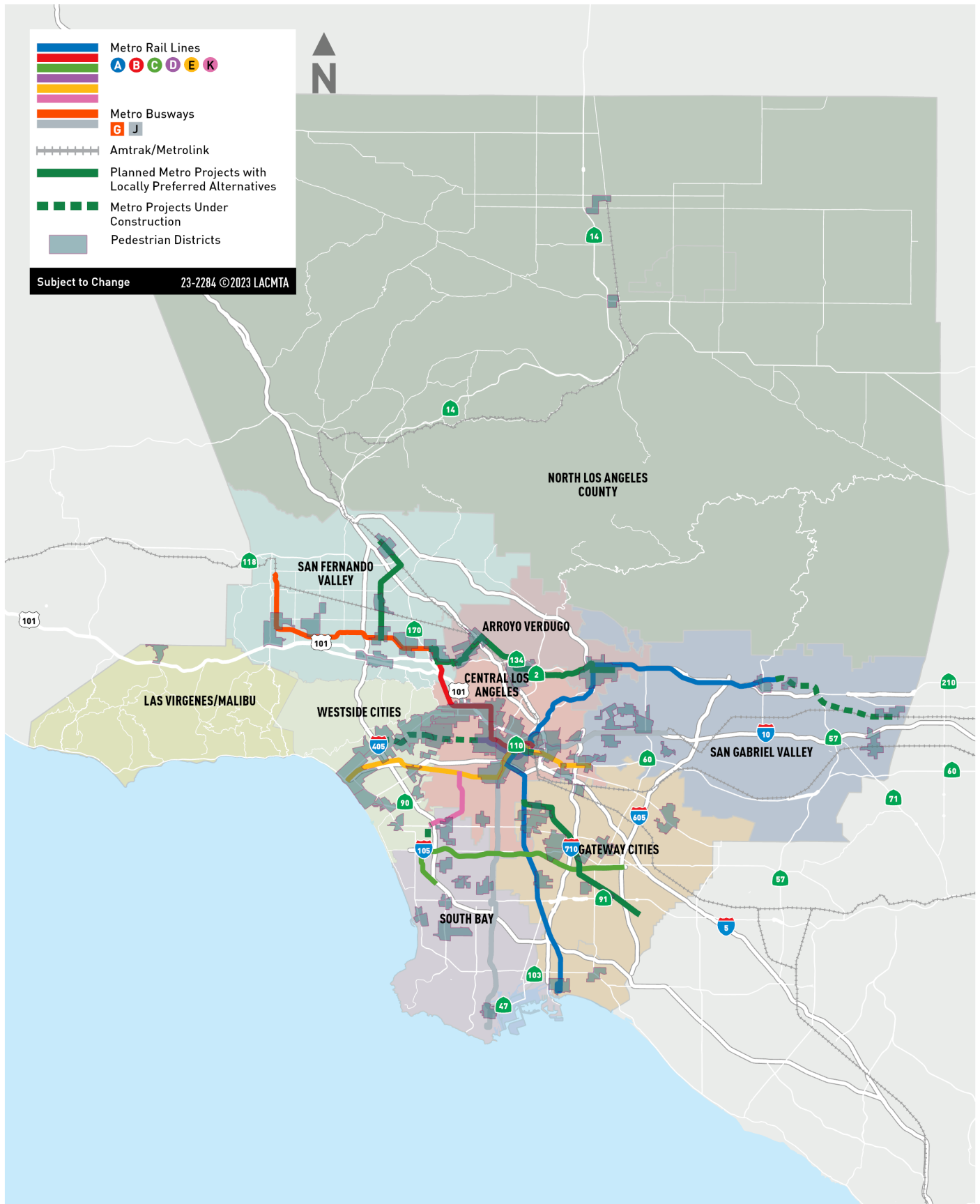
Implementation Strategies (Chapters 4 - 7): Several important implementation strategies were developed as part of the 2023 ATSP, including prioritizing and phasing each of the three networks, costing the networks, and inventorying grant funding sources available for building the three networks.





Figure E-2

2023 ATSP PEDESTRIAN DISTRICTS



Source: CR Associates, 2023

Chapter 4 presents the prioritization of the three active transportation networks with criteria reflecting the ATSP goals. The table below shows the eight prioritization criteria used to prioritize the FLM areas, regional bikeway segments and pedestrian districts. The prioritized ordering of projects was used to categorize the networks into tier 1, 2 and 3 projects with the first tier projects being recommended for phase one implementation by Metro.

Table E-1

GENERAL DESCRIPTION OF PRIORITIZATION CRITERIA

PRIORITIZATION CRITERIA	GENERAL DESCRIPTION
Equity	Targeting future active transportation investments towards those with the greatest needs in communities that have historically lacked investment
Safety and Comfort	Addressing high-injury locations by creating low-stress, high-quality facilities for safe walking, biking and rolling
Connectivity	Prioritizing projects that close gaps in the existing active transportation networks or that enhance the number of connections between key origins and destinations
Accessibility	Ensuring that future active transportation improvements connect to transit, job centers and recreational spaces
Sustainability	Addressing climate change by improving active transportation options and transit access to lessen transportation emissions in the most polluted communities
Demand	Propensity for existing walking, biking or rolling trips
Community Support	Implementing bikeways and pedestrian improvements that are supported by local stakeholders
Project Readiness	Advancing implementation of bikeway projects that are part of an approved or adopted local plan

Source: CR Associates, 2023

Chapter 5 presents the cost estimation methodology and results for the three active transportation networks. **Tables E-2, E3, and E4** display costs estimates for FLM areas, pedestrian districts and regional bikeways, respectively. The total cost to build the entire network of FLM areas across LA County is estimated at roughly \$22 billion, while the total cost to build out the network of roughly 89,000 acres of pedestrian districts is estimated at roughly \$11 billion. Finally, the total cost to build out the complete network of 2023 ATSP regional bikeways is estimated to range from roughly \$8.3 billion to \$11.4 billion.

Table E-2

FLM COST ESTIMATES BY PHASED BUILDOUT

PHASE	FLM COST (EXCLUDING PRIOR FLM PLANS)	FLM COST (PRIOR FLM PLANS ONLY)	FLM TOTAL COST BY TIER
Tier I	\$685,892,313	\$120,037,142	\$805,929,455
Tier II	\$1,614,167,898	\$307,984,837	\$1,922,152,735
Tier III	\$17,666,832,855	\$1,626,032,160	\$19,292,865,014
Total	\$19,966,893,066	\$2,054,054,139	\$22,020,947,205

Source: CR Associates, 2023

Table E-3

PEDESTRIAN DISTRICT COST ESTIMATES BY PHASED BUILDOUT

PHASE	PED DISTRICT COST (EXCLUDING OVERLAP WITH FLM)	PEDESTRIAN DISTRICT COST (INCLUDING OVERLAP WITH FLM)
Tier I	\$962,349,607	\$1,716,301,771
Tier II	\$655,346,375	\$1,321,877,905
Tier III	\$4,619,279,421	\$7,933,124,252
Total	\$6,236,975,402	\$10,971,303,927

Source: CR Associates, 2023

Table E-4

BIKEWAY COST ESTIMATES BY PHASED BUILDOUT

PHASE	BIKEWAY PROJECT COST (EXCLUDING OVERLAP WITH FLM)	BIKEWAY TOTAL COST BY TIER (INCLUDING OVERLAP WITH FLM)
Tier I	\$122,368,981 - \$241,861,310	\$192,250,004 - \$380,961,257
Tier II	\$247,470,789 - \$491,532,740	\$466,869,269 - \$925,931,407
Tier III	\$3,790,612,730 - \$7,520,818,250	\$5,093,298,226 - \$10,097,620,236
Total	\$4,160,452,500 - \$8,254,212,300	\$5,752,417,500 - \$11,404,512,900

Source: CR Associates, 2023

Chapter 5 concludes with a summary of local, regional and state grants that could be pursued by agencies in LA County to assist with funding the implementation of the 2023 ATSP networks.

In addition to the active transportation network recommendations, two convenient online tools are being made available to community members and agency staff in support of grant proposals and other implementation activities. The tools are 1) the First/Last Mile Dashboard which displays existing condition characteristics for all 602 FLM areas across LA County, and 2) the Active Transportation Benefits Dashboard which calculates important indicators for inclusion in grant proposals like bikeway project VMT reduction potential, induced bike trips, and project related safety improvements.

Chapter 6 of the 2023 ATSP presents programmatic initiatives for consideration by Metro and local agencies in LA County. This chapter concludes with a summary of the estimated benefits of implementing the complete ATSP regional bikeway network.

Finally, Chapter 7 concludes with a discussion of an overarching strategy for implementing the active transportation networks proposed in this plan, with a particular focus on implementation of the highest priority Tier 1 projects in the near-terms which are estimated to cost about \$1.9 billion.

Table E-5

COUNTYWIDE BENEFITS OF 2023 ATSP REGIONAL BIKEWAY IMPLEMENTATION

BENEFIT	DAILY BENEFIT	ANNUAL BENEFIT ESTIMATE
Travel and Safety Benefits		
Bicycle Trips	+123,393	+45,038,493
Bicycle Miles Traveled	+293,676	+107,191,613
Vehicle Miles Travelled	-138,028	-50,380,613
Change in Bicycle Collisions	52%	52%
Environmental Benefits		
Greenhouse Gas Emissions (metric tons CO ₂ e)	-46.71	-17,051
Gallons of Fuel Consumed	-5,250	-1,916,109
Air Pollution Costs	-\$1,932	-\$705,321
Household and Health Benefits		
Total Vehicle Operating Costs	-\$76,396	-\$27,884,457
Health care and Mortality Costs	-\$23,494	-\$8,747,329

Source: Cambridge Systematic, 2023

Introduction





1.0 Introduction

1.1 Purpose of the Plan

The 2023 Active Transportation Strategic Plan (referred to hereafter as the 2023 ATSP) supports Metro’s mission to provide a world-class transportation system that enhances quality of life for all who live, work and play within LA County. The 2023 ATSP encompasses plans for First/Last Mile (FLM) improvements, pedestrian districts and regional bikeways. The first ATSP was adopted in 2016 and was prefaced by Metro Board motions calling for the agency’s proactive role in countywide active transportation. This update of the ATSP is an opportunity to advance Metro’s and other agencies’ policies that have been adopted in the years since the ATSP was first adopted.

The objectives of this update to Metro’s ATSP are:

- > Renew the goals and objectives of the 2016 ATSP
- > Develop countywide performance measures and calculate baseline conditions
- > Incorporate new plans/policies that have since been adopted by Metro and consider state-of-the-art practices in multimodal planning
- > Refine the identification of the regional active transportation network, inclusive of bikeway corridors, pedestrian districts and FLM locations
- > Prioritize buildout of the regional active transportation networks and identify funding sources
- > Publish an interactive virtual platform for the ATSP that is user-friendly and accessible to the public at large

1.2 Metro’s Current Role in Active Transportation

Metro’s role in active transportation has evolved over the years to reflect Board policy direction, regional and local needs and priorities, and federal and state policy initiatives that address climate change and promote sustainable transportation.

Historically, Metro has played a minimal role in active transportation. The first Metro bicycle policy document was the 1994 MTA Los Angeles Countywide Bicycle Policy Document. The document served as a policy framework for bike planning and implementation throughout LA County. The closest and oldest predecessor to the ATSP is the Metro Bicycle Transportation Strategic Plan (2006). The 2014 LA Metro First Last Mile Strategic Plan solidified Metro as an active participant in active transportation planning by outlining strategic improvements to facilitate easy, safe and efficient access to the Metro system. The 2016 Active Transportation Strategic Plan built on this work by identifying key FLM station areas and bikeways that promote countywide connectivity.

Today, Metro is responsible for programming a substantial portion of countywide transportation funds, including the planning and funding of the regional transit system and highway corridors.

Figure 1.1

METRO 2023 ATSP KEY PLANNING COMPONENTS



GOALS, OBJECTIVES
AND PERFORMANCE
METRIC TARGETS



FLM CONDITIONS
ANALYSIS



REGIONAL ATN



IMPLEMENTATION
STRATEGIES



RESOURCES

Involvement in supporting active transportation projects and programs ranges from improving conditions for bicyclists and pedestrians to launching education and encouragement campaigns. Projects and programs that demonstrate Metro's involvement in active transportation include:

- > Using capital grant programs to fund projects that improve conditions for walking, biking and rolling
- > Leading the planning and implementation of active transportation corridors and First/Last Mile improvements
- > Championing a user-friendly bike-share system that fosters local trips and First/Last Mile connections
- > Operating and expanding bicycle parking at stations throughout the system
- > Raising awareness, improving safety, and encouraging a shift away from driving to more active modes and public transit through education and encouragement campaigns, events and classes
- > Providing technical assistance, policy guidance, training, toolkits and data to local government agencies and stakeholders to assist with project planning and implementation

The passage of Measure M by LA County voters in 2016 delivered a new mandate for planning enhancements to walking, biking and rolling. This ordinance delivered Metro's first dedicated funding to active transportation, setting aside over \$2 billion for bicycle, pedestrian and complete streets projects through 2057. This sizable funding stream both unlocks significant opportunities and emphasizes the need for a strong vision to guide future agency investments.

While Metro plays a key role in funding and supporting countywide active transportation advancements, the overall bicycle and pedestrian system is largely driven by critical policy and programming decisions made by LA County, its 88 cities, Caltrans and others. Jurisdictional support of any active transportation project is crucial as roadways and sidewalks are generally owned and operated by a local government or state agency such as Caltrans. **Table 1.1** differentiates between these complementary activities of Metro and cities, noting the leading capacity of cities and local agencies in construction and maintenance of improvements to walking, biking and rolling.

Table 1.1

METRO AND CITY/COUNTY ROLES IN ACTIVE TRANSPORTATION

THEME	METRO ROLE	LOCAL/JURISDICTION ROLE
Project Funding and Implementation	<p>Use funding programs to improve conditions for active transport users</p> <p>Lead planning and implementation of regional active transportation corridors</p> <p>Lead planning and support implementation of First/Last Mile improvements around transit facilities</p> <p>Provide technical assistance to help with local project planning and implementation</p>	<p>Design capital improvements in cooperation with community stakeholders, anticipated users</p> <p>Fund and construct improvements on local right-of-way</p> <p>Maintain accessibility of all public rights-of-ways for people with disabilities</p>
Road Safety and Enforcement	<p>Create education campaigns to raise awareness and improve safety at individual and regional levels</p>	<p>Maintaining safety and cleanliness of pedestrian and bicycle facilities</p> <p>Traffic enforcement</p>
Bike Share	<p>Develop a user-friendly bike-share system</p>	<p>Support bikeshare expansion through partnership with Metro</p>
Bicycle Parking	<p>Operate and expand bicycle parking at rail and bus stations</p>	<p>Deploy on-site bike parking through policy and development mechanisms</p>

1.3 Why is this Update Important?

Since 2015, the miles of funded and built bicycle infrastructure has considerably increased in Los Angeles County (see **Figure 1.2**). However, the number of transit, bike and walk commuters has decreased and, of particular concern, pedestrian-involved collision rates have increased in recent years (see **Figures 1.4** and **1.5**).

Even though active transportation infrastructure has improved, people continue to choose driving over any other mode, and walking and cycling around LA County continues to be relatively uncomfortable. The 2023 ATSP seeks to shift these trends by supporting the buildout of a high-quality, safe and well-connected network of regional bikeways, along with walking and cycling improvements near priority transit facilities that support safe non-motorized access to the regional transit system. The ATSP also seeks to support development of a network of pedestrian districts across the county to make walking safer and more comfortable for those accessing key destinations on foot.

Improved sidewalks and pedestrian pathways make it easier for older adults and individuals with disabilities, who do not have the option of driving, to reach their destinations by foot or wheelchair. Safe walking infrastructure also greatly benefits younger pedestrians and people walking with small children

and/or rolling mobility devices (strollers, carts, etc.). The plan identifies pedestrian districts of regional significance that benefit populations relying more heavily on sidewalks, crosswalks, and other pedestrian facilities for their daily travel needs. Furthermore, by supporting more dedicated bikeway facilities, the plan will help reduce conflicts with bicycles and scooters on sidewalks.

Realizing this vision of countywide active transportation corridors is not without challenges, Metro’s current financial resources for active transportation are insufficient to meet this task without a comprehensive set of complementary funding from local, state and federal agencies. When Metro’s resources are deployed, delivering a project from initial concept to the street can prove difficult. Cost increases for project materials can water down a visionary streetscape to a more modest set of improvements. Adverse community feedback to potential tradeoffs such as reduced vehicle or parking lanes result in project delays or modifications that weaken the safety of non-motorized users. Lastly, inadequate staffing or technical expertise from our jurisdictional partners result in project delays or a lack of pursuit of active transportation improvements. This is especially echoed among our smaller, lower-resourced jurisdictional partners, many of whom represent geographic areas that Metro has identified as Equity Focus Communities (EFCs).



Figure 1.2

ACTIVE TRANSPORTATION FUNDING AND INFRASTRUCTURE (2015-2021)

METRIC	% CHANGE
Change in Metro Funding for Active Transportation Projects (2015 to 2021)	+73%
Percent of 2021 Metro Active Transportation Projects Located in EFCs	76%
Percent of 2021 FLM Areas Receiving Active Transportation Funding	56%
Percent of 2021 FLM Areas with Completed Active Transportation Improvements	46%

INCREASE IN COUNTYWIDE BICYCLE FACILITY MILES (2015 TO 2019)



Source: Metro Mobility Corridors, 2019

EQUITY FOCUS COMMUNITIES

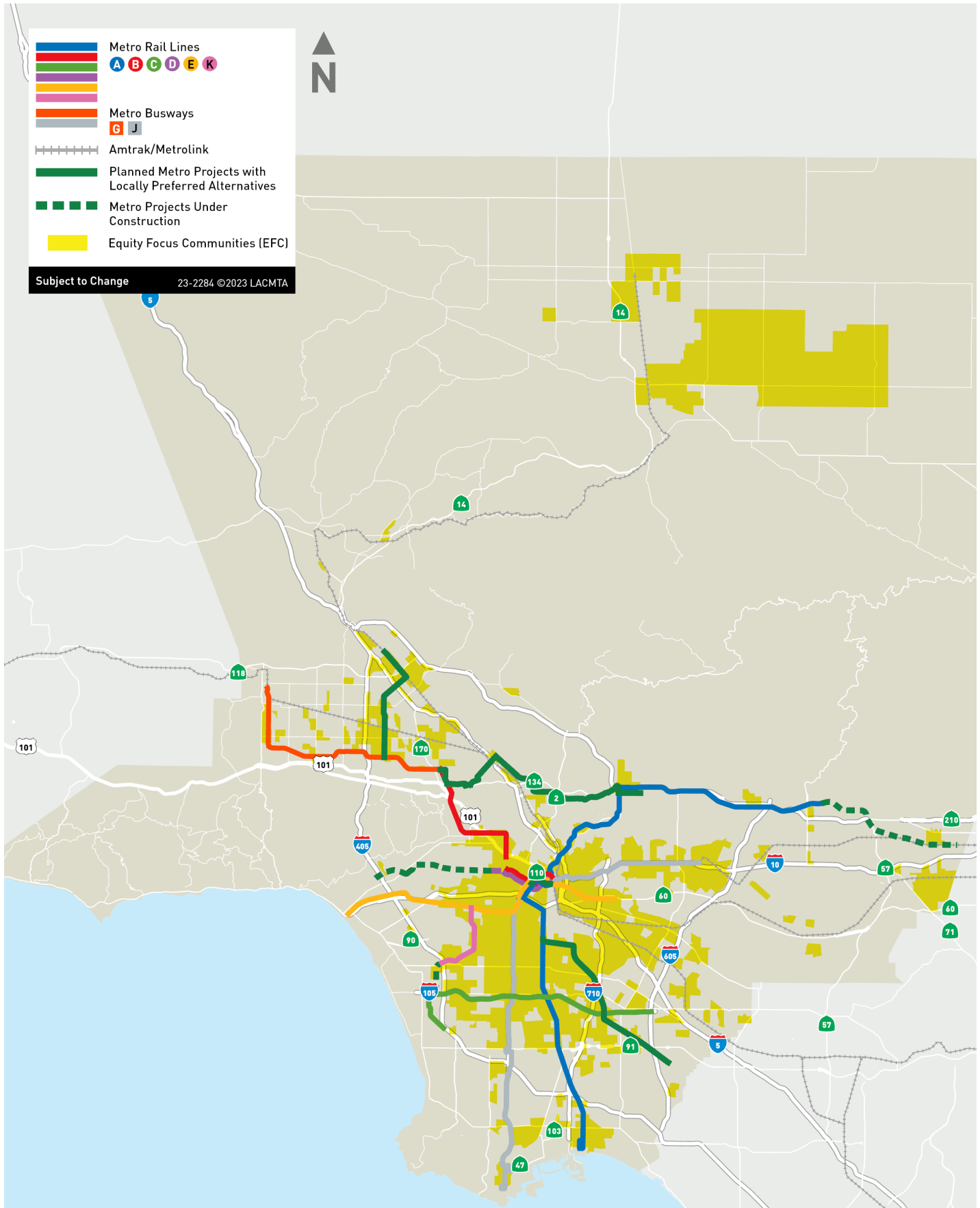
In 2019, Metro created its first equity tool called the Equity Focus Communities (EFC) Map. This map identified concentrations of demographics most aligned with opportunity gaps and lack of access to resources in LA County. The first EFC Map identified tracts with the highest concentrations of low-income households; Black, Indigenous and other people of color (BIPOC) residents; and households with no access to a car. In 2022, the Metro Office of Equity and Race (OER) updated the agency's EFC Map by creating the Metro Equity Need Index (MENI) that uses the same three sociodemographic criteria (income, race/ethnicity, vehicle ownership). The 2023 ATSP Update uses Metro's 2019 EFC Map. Future updates to the ATSP will use the most current version of the EFC Map.

The MENI is an analysis that allows for a more nuanced understanding of equity needs across the county. The MENI includes five tiers of equity need (Very High Need, High Need, Moderate Need, Low Need and Very Low Need). Within this index, only the top two tiers (“High Need” and “Very High Need”) are designated as EFCs. These updated EFCs are displayed in **Figure 1.3**.



Figure 1.3

METRO'S 2022 EFCS MAP



Source: Metro 2022 EFC Map (Web Map) - Overview (arcgis.com)

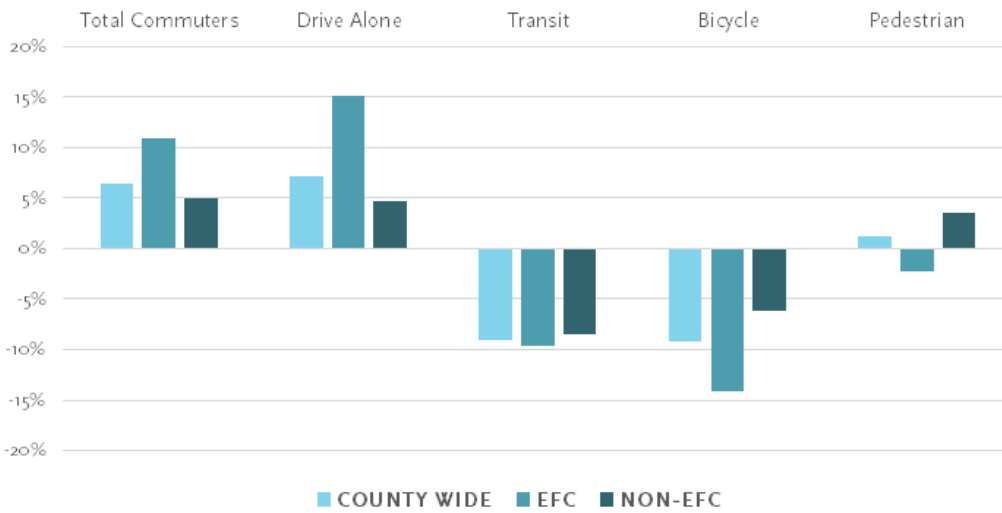
Although 2022 EFCs are shown in this map, all analyses in this plan used 2019 EFCs, as this was the most recent data available at the time.

The following sequence of figures underscores the sense of urgency to improve the active transportation mobility landscape across LA County. In short, while bikeway and transit access improvements, funding and bikeway miles has increased between 2015 and 2019, the share of drive alone commuters has increased, while transit and cycling commuting has declined, as shown in **Figure 1.4**.

The figures furthermore reveal some disconcerting findings in relation to EFCs. While walking to work has declined over the period from 2015 to 2019 in EFCs, pedestrian collisions over this same period have increased in these geographies (see **Figure 1.5**).

Figure 1.4

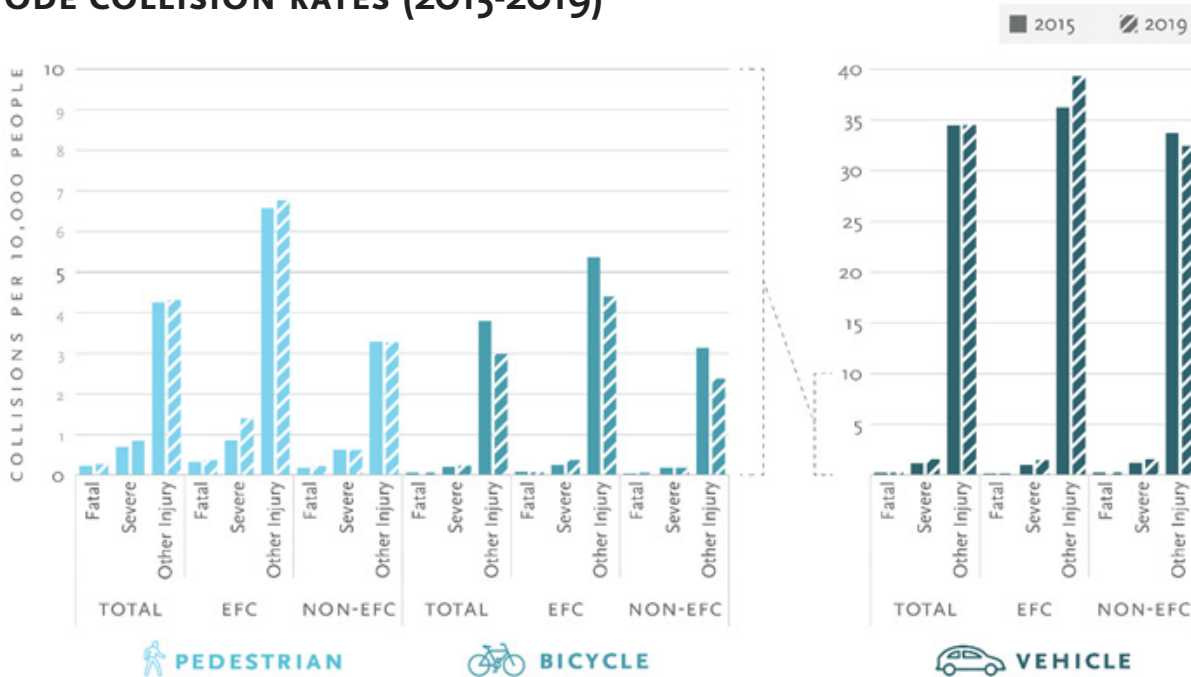
CHANGE IN NUMBER OF TRANSIT, BIKE AND WALK COMMUTERS (2015-2019)



Source: Census Bureau, American Community Survey, 2019

Figure 1.5

ALL-MODE COLLISION RATES (2015-2019)



Source: SWITRS, 2019

Within LA County, over 20% of Black, Asian and Hispanic households choose not to walk more due to safety concerns, as shown in **Figure 1.6** (National Household Travel Survey, 2017). These fears are grounded in traffic injury data for the City of Los Angeles which show that Blacks make up 8.6% of the city population but 18% of pedestrian traffic collision victims (Brozen & Ekman, 2020). Furthermore, Hispanic cyclists represent a majority of the city’s bicycle collision victims.

Active transportation offers necessary cost-savings for low-income and non-white households. **Table 1.2** shows that nearly 40% of households with incomes under \$35,000 walk to save money, and 12% of non-white* households bike to cut transportation costs (National Household Travel Survey, 2017).

The 2023 ATSP seeks to address these noted disparities in walking and cycling safety, travel costs, and access to active transportation infrastructure.

Figure 1.6

PERCENT OF POPULATION DETERRED FROM BIKING AND WALKING BY RACE/ETHNICITY



Source: National Household Travel Survey, 2017

Table 1.2

PERCENT OF POPULATION WALKING AND BIKING TO SAVE MONEY BY INCOME AND RACE

ANNUAL INCOME	% WALKING TO SAVE MONEY	% BIKING TO SAVE MONEY
<\$35,000	38.32%	15.10%
>\$35,000	16.47%	8.23%
LA County Total	21.58%	9.84%
RACE	% WALKING TO SAVE MONEY	% BIKING TO SAVE MONEY
Non-white*	25.13%	12.33%
White	18.72%	2.59%
LA County Total	20.50%	5.28%

*Does not include Hispanic

Source: National Household Travel Survey, 2017

1.4 The Planning Process

The 2023 ATSP planning process began in October 2021 and continued through spring 2023 as shown in Figure 1.7 below. The first stages of this effort focused on updating policies, goals and objectives, with a particular focus on addressing disparities in transportation networks and outcomes. The second phase of the planning process focused on refining the regional bikeways and FLM areas from the 2016 plan, as well as developing newly recommended pedestrian districts across LA County. The final stages of the plan update process developed implementation strategies including prioritizing active transportation projects, estimating buildout costs for the networks, phasing the projects and identifying funding sources. In addition, educational and promotional programs were recommended in this final stage. Several interactive dashboards – for FLM area existing conditions and for planned bikeway benefits – were developed in the latter stages of this planning process to enhance accessibility to key plan content and provide a valuable resource to cities and other community stakeholders.

The planning process included extensive in-person and online community engagement from a comprehensive network of stakeholders at each phase of the project. These distinct groups – the Technical Working Group and Community Stakeholders – are described in the following sections.

Technical Working Group (TWG)

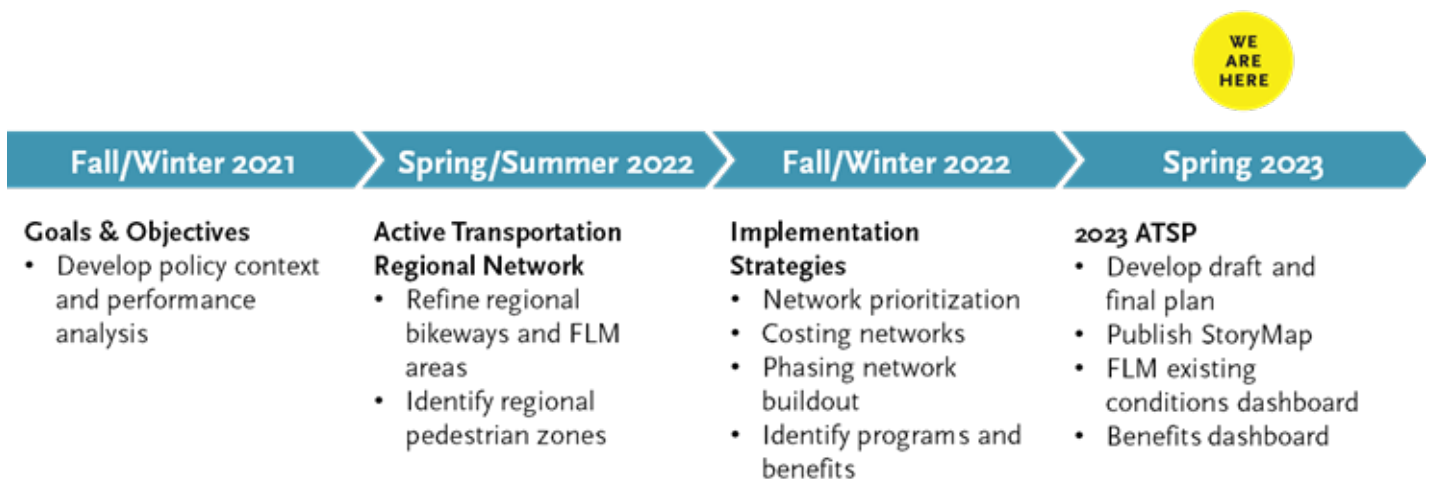
A Technical Working Group (TWG) comprised of transportation professionals from the 88 local governments, various transit agencies and representatives from regional councils of governments and community-based organizations (CBOs) across LA County was convened and met across the duration of the ATSP planning process.

The TWG was involved at each of the four key phases of the planning process through virtual meetings in two different formats. For introducing new topics and summarizing final work products, the project team engaged with the TWG via Zoom webinars. For soliciting detailed input with high levels of interaction, the project team employed Zoom meetings with breakout rooms facilitated by project team members from Metro and the consulting team. TWG members were also invited to view existing conditions information and propose improvements through several interactive web-based maps, where they could also provide detailed input to the project team.

Appendix A provides a summary of the complete body of input received from the TWG over the course of this plan preparation.

Figure 1.7

PLANNING PROCESS



ONGOING PUBLIC PARTICIPATION

Community Stakeholders

Community-based organizations (CBOs), elected officials, Metro committee staff and key stakeholders provided an on-the-ground perspective of needed improvements to walking, biking and rolling in their community.

Community engagement was an essential input to defining the active transportation network and ensuring projects were prioritized according to community needs. Community engagement began in March 2022 and concluded in August 2023. Outreach occurred through a total of 7 Zoom webinars and workshops, attracting 336 RSVPs and attendees. To further gather feedback on the 2023 ATSP, 33 in-person events across the nine county subregions were held. Printed factsheets, surveys, and informational poster boards were utilized to inform community members and solicit feedback. Printed materials, including fact sheet and surveys, were available in Spanish. The surveys were also distributed virtually via Metro’s social media, The Source blog, emailed to the project mailing list, and shared with local agency partners.

In crafting the network of active transportation improvements, community members identified approximately 100 locations in their communities in need of bike and pedestrian investments through a virtual mapping tool. Surveys on project network development and prioritization fielded 1,850 responses, highlighting the importance of safety and design considerations when implementing active transportation improvements. Community members voiced support for protected bike lanes in communities with high-injury networks.

The project team also formed partnerships with three CBOs who have relationships with community members in EFCs where the project had seen relatively low participation to date. The three CBOs were Active SGV (San Gabriel Valley), Streets are Safe for Everyone (SAFE, Southern California) and Healthy Active Streets (HAS, Long Beach). Each CBO coordinated two in-person outreach events that ranged from bike rides, interactive workshops, and a writing workshop to gather key inputs regarding the prioritized ATSP network and active transportation preferences. In total, the three CBO partnerships fostered engagement and discussion on the 2023 ATSP with 282 community members.

Table 1.3

STAKEHOLDER INVOLVEMENT BY PLANNING PHASE

PLANNING PHASE	TECHNICAL WORKING GROUP	COMMUNITY-WIDE
Goals and Objectives	●	
Active Transportation Networks	●	●
Project Prioritization	●	●
Draft and Final 2023 ATSP	●	●



Thirty-three community events were held over a 12-month period.

Photo credit when applicable

LOS ANGELES COUNTY SUBREGIONS

For planning purposes, LA County cities and communities are identified geographically by nine distinct, diverse and vibrant subregions generally based on the existing Councils of Government (COGs) boundaries that range from 60 to 2,500 square miles in area. Some subregions are small, cooperative efforts staffed by city representatives; others are formalized COGs with paid staff; and some are geographic sub-sections of the City of Los Angeles.

In developing the 2023 Active Transportation Strategic Plan, subregional agencies and cities alike were engaged through the Technical Working Group to capture their insight on the unique transportation issues and challenges facing each subregion. **Figure 1.8** illustrates the subregions across LA County:

- > Arroyo Verdugo
- > Central Los Angeles
- > Gateway Cities
- > Las Virgenes/Malibu
- > North Los Angeles County
- > San Fernando Valley
- > San Gabriel Valley
- > South Bay Cities
- > Westside Cities

In January 2015, the Metro Board approved the separation of major airports and seaports (including LAX, Long Beach Airport, Burbank Bob Hope Airport, Palmdale Regional Airport, and the Ports of Los Angeles and Long Beach), as well as Los Angeles Union Station into a Regional Facilities Planning Area, because improvements to these regional facilities benefit the entire county.



LOS ANGELES COUNTY SUBREGIONS



Source: Metro 2022 EFC Map (Web Map) - Overview (arcgis.com)

Plan Policies

ATSP policies were updated by reviewing recently adopted relevant plan documents from state and regional agencies, as well as seeking input from TWG members who represented key local perspectives across LA County.





→ Santa Monica Place Visitor Center
↑ Downtown Third Street Promenade

55

KE

2.0 Plan Policies

2.1 Reviewing Recent Relevant Plans

Several plans and policy documents relevant to the 2023 ATSP, and adopted since 2016, were reviewed as preparation for updating ATSP policies. In particular, twenty-one relevant regional and state plans contributed to five focal priorities for the project, including equity, safety and comfort, accessibility, connectivity and sustainability. **Appendix B** *Active Transportation Policy Context Memo* presents the complete review of the local, regional and state policy environment prepared in support of the 2023 ATSP.

Equity

Improving service to communities of color, low-income people and other historically marginalized users, is a widespread theme across recent plans and policies. Metro's Equity Platform, adopted after the 2016 ATSP, articulates the agency's commitment to incorporate equity into all facets of its work. Metro's pilot Equity Planning and Evaluation Tool (EPET) guided the planning process throughout the development of the 2023 ATSP with the goal of identifying and understanding disparities and providing more equitable outcomes. Caltrans' California Transportation Plan (CTP) 2050 and the Southern California Association of Government's (SCAG) Connect SoCal reaffirm this priority beyond LA County. Equity as a goal refers not only to equitable improvements to access, but also to addressing existing disparities in mobility, safety and all other active transportation goals. While there are many equity factors that impact active transportation, the 2023 ATSP focuses on a geographic analysis of equity.

Safety and Comfort

Existing policies underline safety as a key multimodal priority, rendered even more critical for users of active transportation, who are more vulnerable to severe injuries and fatalities. Many of the policy documents, including Metro's 2016 Active Transportation Strategic Plan, the First/Last Mile Strategic Plan and the CTP 2050, emphasize the importance of increasing safety and comfort as key to expanding alternatives to private auto travel, including walking, biking, or rolling alone or as a complement to transit use. Numerous jurisdictions in LA County have developed Vision Zero plans, which aim to move the broader transportation network toward zero fatalities. Furthermore, both SCAG and Caltrans have established serious injury and fatality rate reduction targets.

Accessibility

Access to active transportation options is another consensus policy priority. Not only does the active mobility user need to feel safe and comfortable, but they must also have access comparable to private vehicles when traveling to opportunity centers, essential destinations, recreation or transit. Policies from Metro's NextGen Bus Plan, the Transit to Parks Strategic Plan, the Long Range Transportation Plan and Subregional Mobility Matrices, as well as Caltrans' CTP 2050, each discuss enhancements around transit stations and recreational facilities as key to improving active transportation options to Angelenos' preferred destinations.

Connectivity

Connectivity refers to the active traveler's ability to navigate an entire trip using a continuous, direct and integrated system. The literature highlights the importance of connecting existing and proposed improvements into a larger network, which provides ever more users with robust, end-to-end active travel routes.

Sustainability

Reducing greenhouse gas (GHG) emissions to support climate change mitigation is a state and regional priority referenced in nearly all reviewed documents. Increases in active transportation trips result in reduced vehicle miles traveled (VMT) and associated GHG emissions to the extent that they replace or reduce auto trips. Such reductions in VMT are also associated with improved air quality and reduced health impacts in the most polluted communities, potentially contributing to GHG reduction and equity goals alike. Both federal and state programs have increased commitments to active transportation planning and construction over prior years with broadening recognition of the climate crisis.

Table 2.1

GOALS ADDRESSED IN RECENT RELEVANT DOCUMENTS

POLICY DOCUMENT	EQUITY	SAFETY AND COMFORT	ACCESSIBILITY	CONNECTIVITY	SUSTAINABILITY
California Senate Bill 743 (2013)	•	•	•	•	•
LA County Mobility Matrices (2015)	•	•	•	•	•
Metro Vision 2028 (2018)	•	•	•	•	•
SCAG Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) – Connect SoCal (2020)	•	•	•	•	•
Metro Long Range Transportation Plan (LRTP) (2020)	•	•	•	•	•
N-19-19 (2020) Climate Action Plan for Transportation Infrastructure (CAPTI) (2021)	•		•	•	•
California Active Transportation Program (2013)	•	•	•	•	•
Metro First/Last Mile Strategic Plan and 2021 Guidelines (2014)	•	•	•	•	•
Metro Complete Streets Policy (2014)	•	•	•	•	•
California Active Transportation Plan (ATP) (2016)	•	•	•	•	•
Metro Active Transportation Strategic Plan (ATSP) (2016)	•	•	•	•	•
California Transportation Plan (CTP) 2050 (2021)	•	•	•	•	•
Metro Equity Platform (2018)	•	•	•	•	•
Metro Climate Action and Adaptation Plan (2019)	•			•	•
Metro Transit-to-Parks Strategic Plan (T2P) (2019)	•	•	•	•	•
Metro NextGen Bus Plan (2020)	•	•	•	•	•
Metro Moving Beyond Sustainability (MBS) (2020)	•	•		•	•
Metro Gender Action Plan (GAP) (2021)	•	•	•	•	

Source: Cambridge Systematics, 2023

2.2 Updated Goals and Objectives

The 2023 ATSP policies, consisting of plan goals and objectives, reflect recently adopted and relevant plans, as well as TWG input and outreach to the broader community.

GOAL 1. EQUITY



Low-income populations, communities of color and other vulnerable and underserved people have equitable access to safe and convenient active transportation options.

Metro is committed to plans and programs that eliminate racial and social disparities and enable people to enjoy an enhanced quality of life. This goal considers the extent to which active transportation-related racial and social inequities are being meaningfully reduced. It aligns with Metro's Our Next LA priority area of Access to Opportunity, Metro's Street Safety Policy and with the CTP 2050 and the Climate Action Plan for Transportation Infrastructure (CAPTI) goals related to equity.

Equity Objectives

- 1.1 Improved data-driven understanding of the challenges facing disadvantaged active transportation users
- 1.2 Prioritized active transportation interventions in Equity Focus Communities (EFCs)
- 1.3 Sustained and meaningful participation of community members and organizations in EFCs in the planning and design of active transportation projects

GOAL 2. SAFETY AND COMFORT



Bicycling, walking, and rolling are increasingly safe and comfortable.

The lack of safety, security and comfort of travelers is one of the primary deterrents to walking and cycling. This goal establishes the desire for a safer and more comfortable environment for walking, biking and rolling in Los Angeles County. It aligns with Metro's Our Next LA priority area of Complete Streets, Metro's Street Safety Policy, as well as with SCAG's Connect SoCal Core Vision component of Complete Streets, and CTP 2050/CAPTI goal of safety.

Safety and Comfort Objectives

- 2.1 Eliminate fatalities and severe injuries for bicyclists and pedestrians, with a focus on high collision rate areas where communities of color face disproportionate impacts
- 2.2 Increased low-stress, high-quality facilities for bicycling, walking and rolling, and traffic calming improvements that support and protect the most vulnerable active transportation users
- 2.3 Increased opportunities to learn skills, build confidence, and enjoy bicycling, walking and rolling for community members

GOAL 3. ACCESSIBILITY



Bicycle and pedestrian access to transit, jobs, and other destinations is increasingly convenient and competitive.

Greater and more convenient access to critical destinations, such as employment centers, recreational areas and transit stations, will improve the countywide mode share of active travel and transit. This goal aligns with Metro's Our Next LA priority areas of Complete Streets, Access to Opportunity and Better Transit; SCAG's Connect SoCal Core Vision components of Complete Streets and Transit Backbone; and the CTP 2050/CAPTI goal of accessibility. For the purposes of this countywide plan, the accessibility goal is related to "access to opportunity" rather than access for people with disabilities.

Accessibility Objectives

- 3.1 Expanded and enhanced active transportation access to transit with a focus on those that rely on non-vehicular travel for household cost savings
- 3.2 Expanded and enhanced active transportation access to socio-economic opportunities

GOAL 4. CONNECTIVITY



An expansive and connected world-class bicycle and pedestrian network serves a growing share of countywide trips.

Whereas accessibility focuses on access to destinations, this goal is concerned with the system as a whole. The greater and more connected the regional active transportation system becomes, the more it will be able to serve a larger share of countywide trips. This goal aligns with Metro’s Our Next LA priority area of Complete Streets; SCAG’s Connect SoCal Core Vision component of Complete Streets; and the CTP 2050/ CAPTI goals of accessibility and infrastructure.

Connectivity Objectives

- 4.1 Enhanced viability and competitiveness of multi-modal transportation options
- 4.2 Expanded countywide bicycle and pedestrian networks

GOAL 5. SUSTAINABILITY



Active transportation is an integral component of a sustainable transportation system that contributes to regional climate change mitigation efforts.

Metro’s Climate Action Plan and the Moving Beyond Sustainability plan, as well as SCAG’s Connect SoCal, and state policies, such as SB 743, N-19-19 and CAPTI, have established clear transportation-related climate goals centered on the reduction of VMT and associated GHG emissions. The more users choose active transportation over the automobile, the greater these reductions can be.

Sustainability Objectives

- 5.1 Increased usage of walking and cycling for short trips
- 5.2 Expanded active transportation facilities in communities with the highest rates of pollution
- 5.3 Reduced transportation-related climate impacts

2.3 Updated Performance Measures

Table 2.2 presents a comprehensive policy framework including goals, objectives and performance measures. This framework serves as a resource for guiding mobility-related decision-making across the region. Importantly, performance measures should be tracked and reported on a yearly or every-other-year basis to promote understanding of countywide progress among Metro staff, board members and the community at large.

The performance measure development process was generally limited to those that:

Can be influenced or furthered by Metro. For example, increased low-stress facilities is included as a Safety and Comfort goal, while desirable objectives such as meeting ADA accessibility standards would fall under the purview of cities, and are therefore not included.

Can be directly advanced through provision of active transportation improvements. For instance, the nexus between active transportation and critical issues such as displacement, gentrification and enforcement is difficult to establish under existing data and methods.

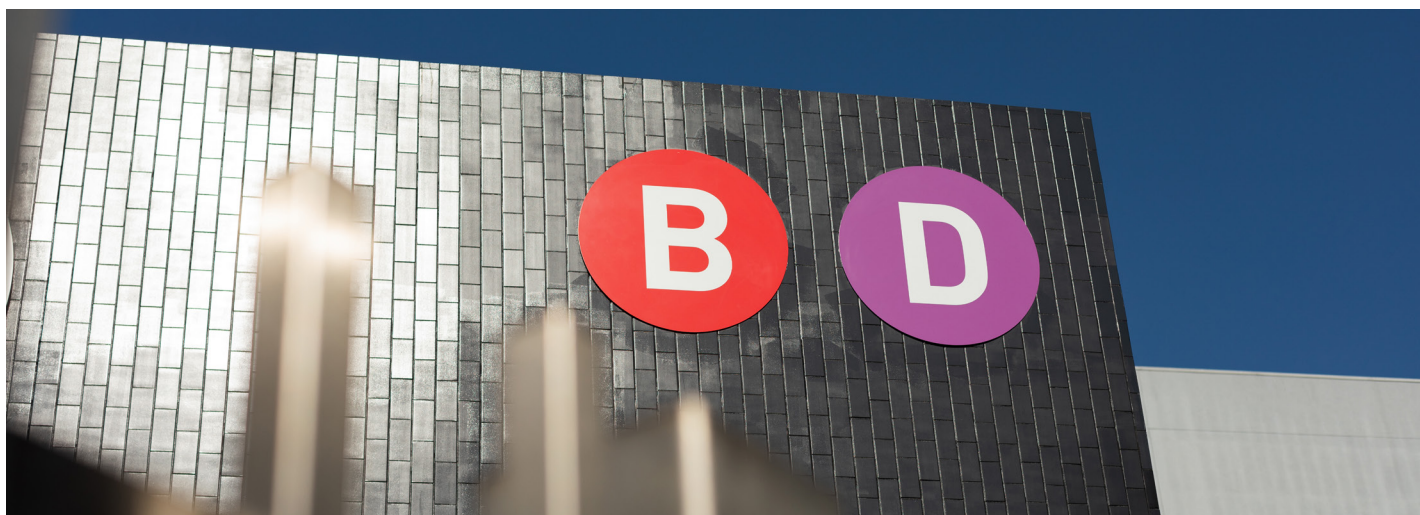


Table 2.2

2023 ATSP POLICY FRAMEWORK - GOALS, OBJECTIVES AND PERFORMANCE MEASURES

GOALS		OBJECTIVES	PERFORMANCE MEASURES
1.0 EQUITY	Low-income populations, communities of color, and other vulnerable and underserved people have equitable access to safe and convenient active transportation options.	1.1 Improved data-driven understanding of challenges facing disadvantaged active transportation users	1.1.1 Annual data on safety conditions in EFCs and disaggregated by income, race/ethnicity and gender 1.1.2 Before/after survey of residents, workers and business owners near new projects to identify any unforeseen barriers
		1.2 Prioritized active transportation interventions in EFCs	1.2.1 Metro 2021 investment in bicycle and pedestrian improvements by EFC/non-EFC 1.2.2 Discretionary grant funds received by EFC/non-EFC
		1.3 Sustained and meaningful participation of EFC communities in the planning and design of active transportation projects	1.3.1 Number of projects or project elements related to community input and ongoing partnerships with community organizations
2.0 SAFETY AND COMFORT	Bicycling, walking, and rolling are increasingly safe and comfortable	2.1 Eliminate fatalities and severe injuries for bicyclists and pedestrians, with a focus on high collision rate areas where communities of color face disproportionate impacts	2.1.1 Annual number and rate of bicycle and pedestrian fatalities and severe injury by EFC/non-EFC 2.1.2 Race/ethnicity, household income and car ownership for areas with highest 10% annual rate of bicycle and pedestrian fatalities and severe injuries 2.1.3 Rate of trips made by bicycling and walking by race/ethnicity
		2.2 Increased low-stress, high-quality facilities for bicycling, walking and rolling, and traffic calming improvements that support and protect the most vulnerable active transportation users	2.2.1 Miles of low-stress bikeways by EFC/non-EFC 2.2.2 Rates of cycling and walking by gender
		2.3 Increased opportunities to learn skills, build confidence, and enjoy bicycling, walking and rolling for community members	2.3.1 [To be advanced through Metro educational and safety campaigns around walking, biking and rolling]

Table 2.2

2023 ATSP POLICY FRAMEWORK - GOALS, OBJECTIVES AND PERFORMANCE MEASURES

GOALS		OBJECTIVES	PERFORMANCE MEASURES
3.0 ACCESSIBILITY	Bicycle and pedestrian access to transit, jobs, and other destinations is increasingly convenient and competitive	3.1 Expanded and enhanced active transportation access to transit with a focus on those that rely on non-vehicular travel for household cost savings	3.1.1 Rate of bike and walk to transit from survey sample data 3.1.2 Estimated % walk and bike access to transit from LOCUS data 3.1.3 Walk/bike/transit scores for FLM station areas ¹ 3.1.4 Number of supportive facilities at stations including # of bike hubs, # of stations with bike lockers, # of short-term bike parking spaces, # of long-term bike parking spaces by EFC/non-EFC
		3.2 Expanded and enhanced active transportation access to quality of life and socioeconomic opportunities	3.2.1 Miles of bike facilities (I/II/III/IV) within 1/2-mile of schools, health care facilities, parks and major employment centers by EFC/non-EFC
4.0 CONNECTIVITY	An expansive and connected world-class bicycle and pedestrian network serves a growing share of countywide trips	4.1 Enhanced viability and competitiveness of multimodal transportation options	4.1.1 Estimated number of bicycling and pedestrian trips
		4.2 Expanded countywide bicycle and pedestrian networks	4.2.1 Miles of countywide bicycle network by type by EFC/non-EFC; acres of improved pedestrian districts
5.0 SUSTAINABILITY	Active transportation is an integral component of a sustainable transportation system that contributes to regional climate change mitigation efforts	5.1 Increased usage of walking and cycling for short trips	5.1.1 Percentage of trips <3 miles made by bicycling or walking
		5.2 Expanded active transportation facilities in communities with the highest rates of pollution	5.2.1 Miles of bicycle facilities in communities with a CalEnviroScreen score >90
		5.3 Reduced transportation-related climate impacts	5.3.1 Estimated VMT reduction resulting from active transportation 5.3.2 Estimated GHG reduction resulting from active transportation 5.3.3 Percent of community with strong tree canopy coverage

Source: CR Associates, 2023

¹ Transit Score data was unavailable for approximately one-fifth of the FLM stations because Walk Score did not have access to GTFS data in some jurisdictions.

Appendix B presents the current conditions for a majority of these 2023 ATSP performance measures. **Table 2.3** below shows some of the key performance measures under baseline conditions.

Table 2.3

2023 ATSP - SELECTION OF PERFORMANCE MEASURES UNDER BASELINE CONDITIONS

ATSP PRIORITY	PERFORMANCE METRIC	OBJECTIVES		
		Countywide	EFCs Only	Non-EFCs Only
Equity	Metro funding for active transportation projects	\$330 Million	\$250 Million	\$79 Million
Safety and Comfort	Pedestrian fatalities	273 annually	3.75 annually (per 100,000 people)	2.26 annually (per 100,000 people)
Accessibility	Miles of bike facilities within 1/2-mile of major employment centers	387.8 miles	115.5 miles	272.2 miles
Connectivity	Total bikeway miles	1,894 miles	347 miles	1,547 miles
Sustainability	Bikeway miles in most polluted communities	168 miles	N/A	N/A



Planned Regional Active Transportation Networks

This chapter of the 2023 ATSP presents the three pillars of a comprehensive, planned active transportation network for LA County. The three pillars consist of First/Last Mile Areas, Pedestrian Districts and Regional Bikeways. A proposed network for each pillar is presented in this chapter.





ING INTER... ONAL - SANTA MONICA

Green light mounted on a tree trunk.

3.0 Planned Regional Active Transportation Networks

The first and last part of the journey that riders walk, bike or roll to and from transit is called the “First/Last Mile connection.” First/Last Mile (FLM) areas refers to a set of locations across LA County in close proximity to Metro’s rail and busway network, Metrolink, Amtrak stations and key bus stop locations where pedestrian and cycling improvements will be prioritized in order to make non-motorized access to the public transit system safe and comfortable.



First/Last Mile Areas

Pedestrian Districts refer to a set of locations across LA County where pedestrian improvements will be prioritized in order to improve access to opportunity centers across the region. Each district features a high concentration of destinations conducive to active transportation such as grocery stores, parks and schools.



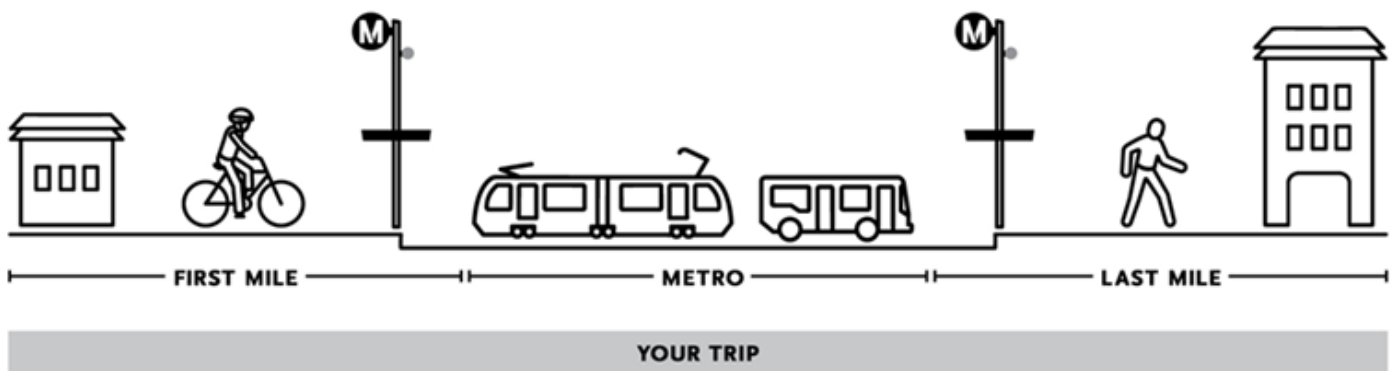
Pedestrian Districts

Regional Bikeways refers to an inter-community network of high-quality, safe cycling infrastructure largely separating cyclists from motorized traffic. The regional bikeway network envisions seamless connections through low-stress bicycle facilities, such as Class I Shared-Use/Off-Street Paths and Class IV Protected Bicycle Lanes.



Regional Bikeways

Appendix C *Active Transportation Network Development Memo* presents the detailed approach to developing and updating the planned networks.



*NOT TO SCALE



3rd Street Promenade, Santa Monica



Class I Shared-Use/Off-Street Path, Ballona Creek Bike Path



Downtown Los Angeles



Spring Street Class IV Protected Bikeway, Downtown Los Angeles

3.1 FLM Areas

A key purpose of this 2023 ATSP is to refine the 2016 FLM areas shown in **Figure 3.1**.

The FLM areas update process generally followed the methods employed during the 2016 ATSP planning process as presented in the Development of Station Areas for Analysis (6-19-2015) memo, including the following steps:

1. *Existing Rail/Busway:* Include all existing Metro Rail, Metro Busway, Metro Rapid, Metrolink and Amtrak stations and stops within LA County.
2. *Planned Rail/Busway:* Include under construction or planned Metro Rail and BRT stations associated with a transit project with a Board-approved Locally Preferred Alternative (LPA). These projects include the Regional Connector Transit Project, Crenshaw/LAX Transit Project Phase 2, Airport Metro Connector, Foothill Extension, Purple (D Line) Extension Transit Project, East San Fernando Valley Light Rail Transit Project, West Santa Ana Branch Transit Corridor and the North Hollywood to Pasadena Transit Corridor.
3. *Bus Priority Corridors:* Include bus stop locations (Metro or local/municipal operator) on roadways with bus-priority lanes that are existing, under construction or planned. Some locations captured under this criterion were consolidated at the discretion of the project team to ensure the final selection of FLM areas were separated by a minimum distance.

4. *High Ridership Bus Stops:* Include high-ridership Metro and local/municipal transit operator bus stop locations (e.g., Santa Monica Big Blue Bus, Long Beach Transit, Culver CityBus, Burbank Bus, LADOT Dash, Foothill Transit) beyond a 1/2 mile from Metro Rapid, Rail and BRT, Metrolink or Amtrak stations. Ridership was determined by summarizing average weekday boardings at all bus stops at an intersection (e.g., an intersection with two perpendicular bus routes may have as many as four separate bus stops at an intersection) for all routes where data was available across LA County. Bus stop locations already identified in steps 1, 2 and 3 were excluded from this criterion. The remaining bus stop locations were sorted by ridership and the highest ridership locations were selected. Bus stop locations selected from this criterion had a minimum of 650 average weekday boardings.

5. *Stakeholder Consultation:* Review and revise preliminary FLM areas in consultation with Metro staff and TWG members to account for local agency preference.

The FLM area update process is depicted in **Figure 3.2**.

The FLM area update resulted in the identification of 602 FLM areas as shown in **Figure 3.3**. **Table 3.1** shows a count of FLM areas by subregion across LA County.



Figure 3.2

FLM AREA DEVELOPMENT PROCESS

Step 1:

First, we identified all existing Metro Rail, Metro Busway, Metro Rapid, Metrolink and Amtrak Stations

(230 locations)



Step 2:

Then, we identified planned and under construction Metro Rail and BRT Stations

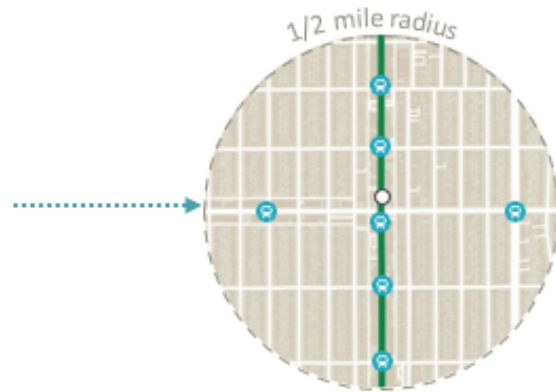
(38 locations)



Step 3:

Then, we identified all Metro and municipal transit agency stops along existing, under construction and planned bus-priority lanes

(14 locations)



Step 4:

Finally, we identified high-rideship Metro or municipal transit agency stops not included in step 1, 2, or 3

(320 locations)

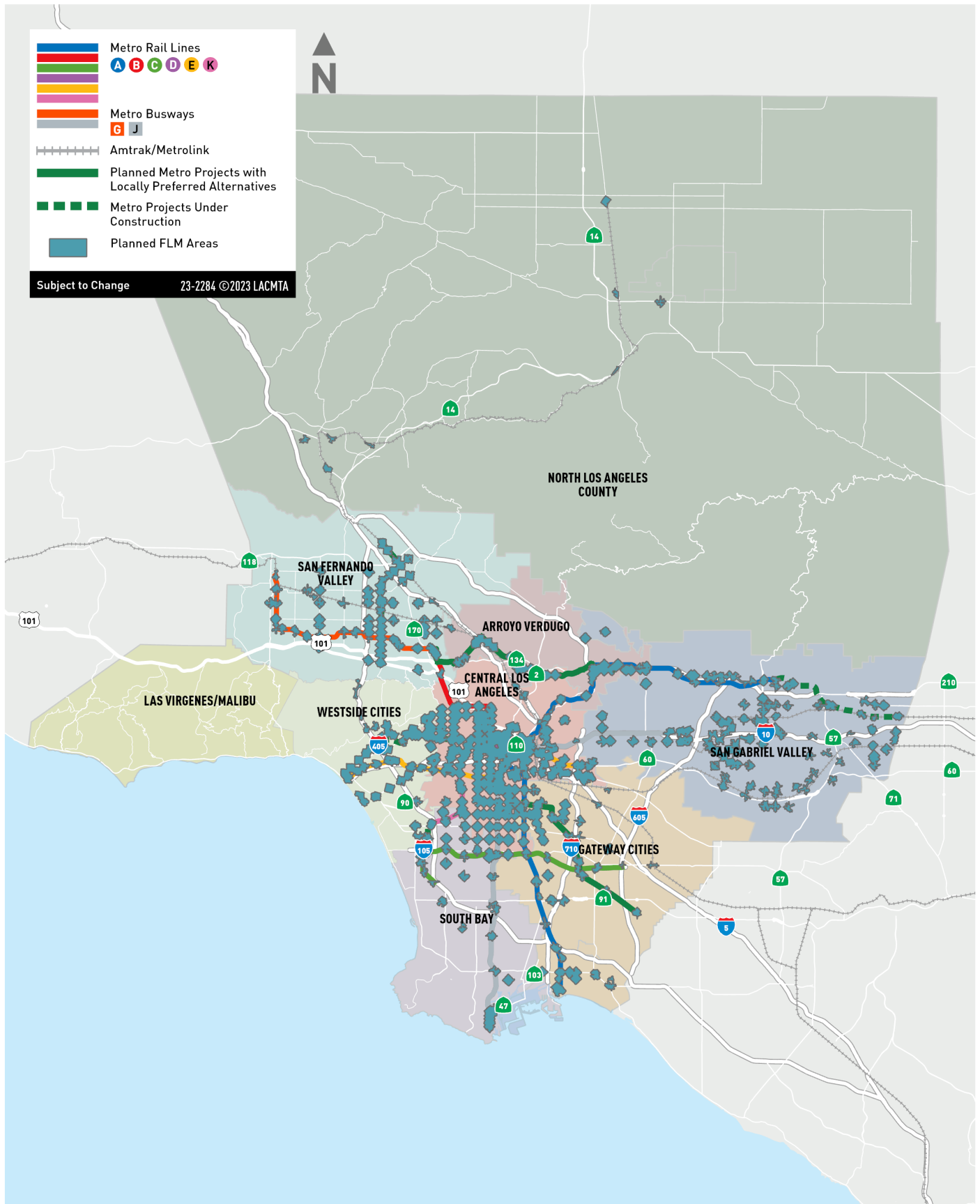


Step 5:

Review and revise preliminary FLM areas in consultation with Metro staff and TWG members to account for local agency preference.

Figure 3.3

2023 ATSP FLM AREAS



Source: CR Associates, 2023

Table 3.1

2023 ATSP FLM AREAS BY SUBREGION

SUBREGION	COUNT
Arroyo Verdugo	27
Central Los Angeles	212
Gateway Cities	61
Las Virgenes/Malibu	0
North Los Angeles County	8
San Fernando Valley	72
San Gabriel Valley	126
South Bay Cities	39
Westside Cities	57
Total	602

Source: CR Associates, 2023

As part of the 2023 ATSP, the project team assessed current conditions within all 602 FLM areas. **Figure 3.4** shows an example of the existing conditions summary for the Leimert Park Station FLM area, including the station area’s population, employment, land uses, cycling infrastructure, cycling and pedestrian collisions and other relevant information. An infographic sheet similar to that shown in Figure 3.4 was prepared for all 602 FLM areas and are linked in the FLM Dashboard.

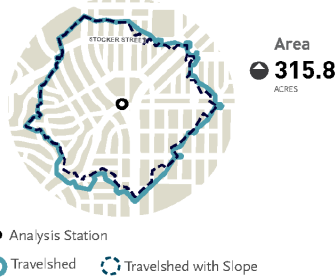
EXISTING CONDITIONS SUMMARY FOR LEIMERT PARK STATION FLM AREA

Leimert Park Metro Station Half-mile Travelshed Analysis – Existing Conditions

Transit Service(s): Metro K Line and Local Bus Service

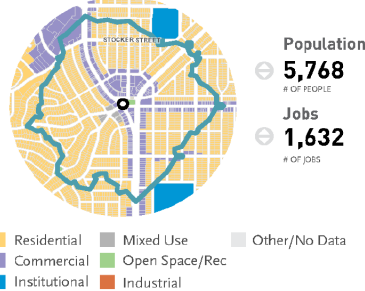
Half-Mile Travelshed Area

Shows the area within a half-mile of the street network



Station Area Characteristics and Demographics

Mapped are existing land uses; listed are employment and population



Age Distribution

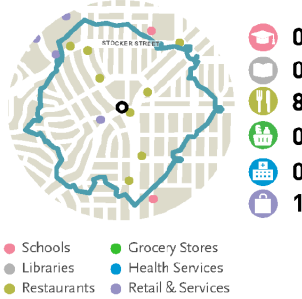
	% OF POPULATION	RANK
Under 18	19.3 %	⊖
18 to 64	66.2 %	⊖
65 and over	14.5 %	⊖

Journey to Work by Mode

	% OF COMMUTERS	RANK
Walk	2.0 %	⊖
Bike	0.1 %	⊖
Public Transit	5.1 %	⊖
Carpool	1.5 %	⊖
Drive Alone	65.7 %	⊖
Other	1.5 %	⊖

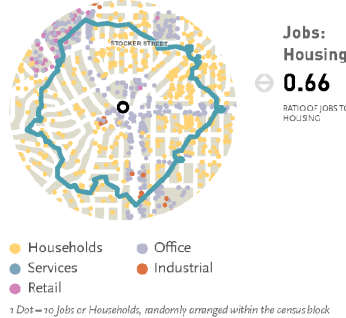
Points of Interest

Key community locations



Jobs/Housing Diversity

Commercial and residential dot density



Network Connectivity

	1-100	RANK
Connectivity Score	62.8	⊖

Intersections

	#	RANK
Number of Intersections	79	⊖

Access Scores

	1-100	RANK
Walk Score	92	⊖
Bike Score	55	⊖
Transit Score	55	⊖

Bicycle Facilities

Existing and planned bike facilities



Existing Bicycle Facilities:

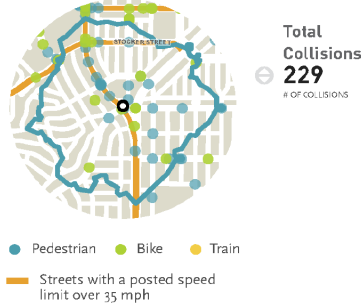
- Shared-Use/Off-Street Path (Class I)
- Bicycle Lane (Class II)
- Protected Bicycle Lane (Class IV)

Planned ATSP Regional Bikeways

- Shared-Use/Off-Street Path
- On-Street Bicycle Facility

Safety

Collisions shown by mode

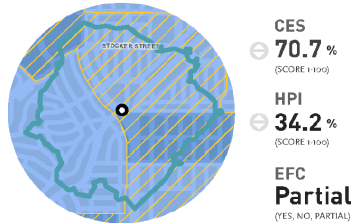


Collisions by Mode

	Total Collisions by Mode		Killed or Severely Injured (KSI)	
	#	RANK	#	RANK
Pedestrian	29	⊖	3	⊖
Bike	13	⊖	2	⊖
Train	0	⊖	0	⊖
Auto	187	⊖	13	⊖

Disadvantaged Communities

CalEnviroScreen (CES), Healthy Places Index (HPI), Metro Equity Focus Communities (EFC)

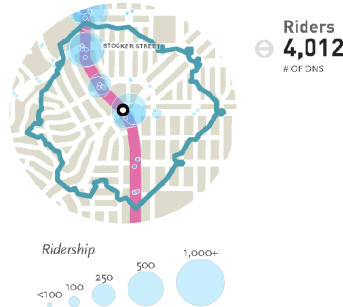


CES Score:

- 0-24.9
- 25-49.9
- 50-74.9
- 75-100
- HPI 75-100
- EFC

Ridership Activity

Weekday transit ridership per stop/station



Station Location



Rankings In comparison to the other stations

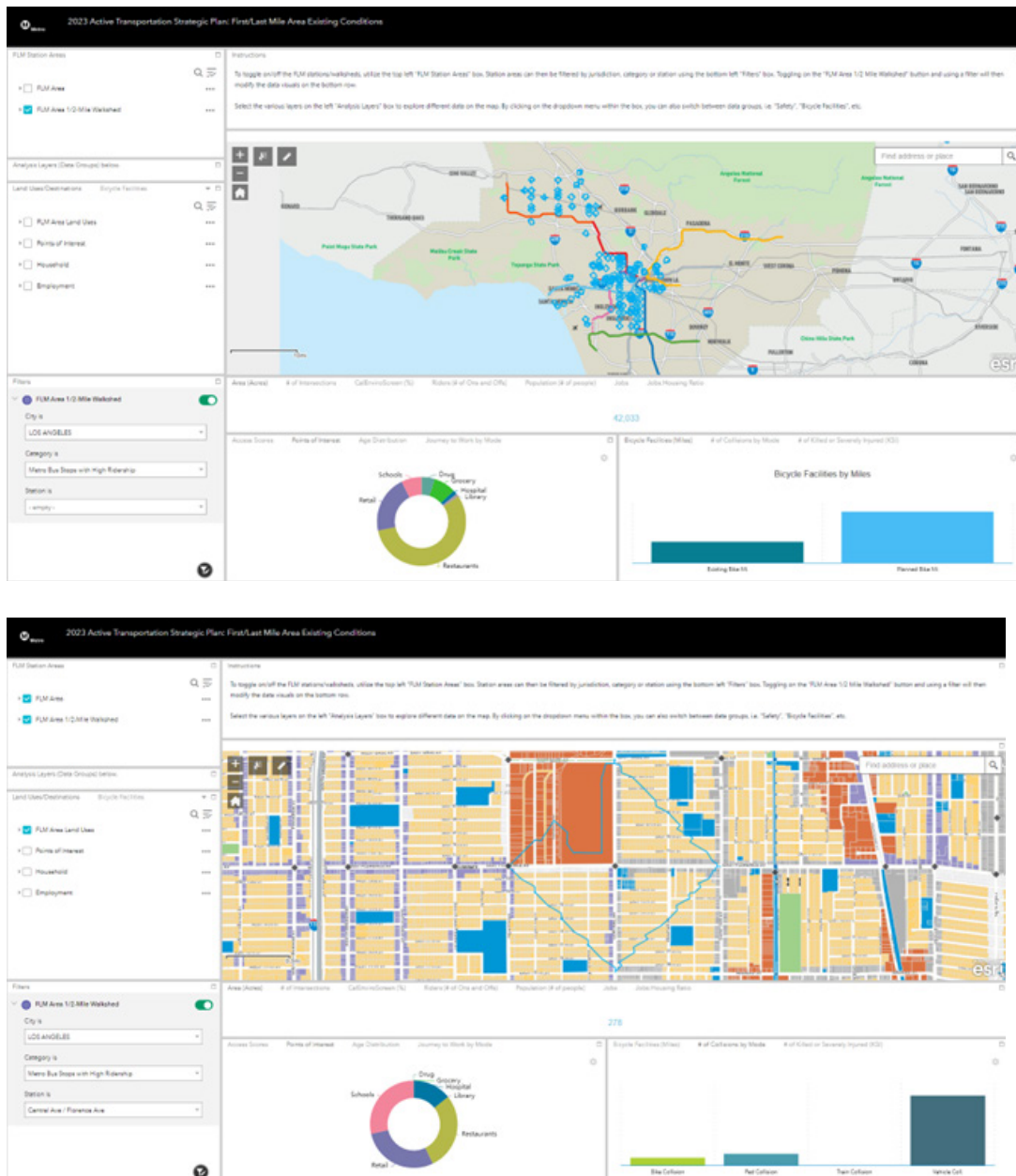
- ⬇️ Top 10%
- ⬇️ Top 25%
- ⬇️ Middle 50%
- ⬇️ Bottom 25%
- ⬇️ Bottom 10%

The methods employed for calculating these FLM area current conditions are described in **Appendix D FLM Area Existing Conditions Methods Memo**.

In addition, a 2023 ATSP FLM Dashboard was developed to assist local jurisdiction staff in pursuit of active transportation grant applications or other efforts requiring an in-depth understanding of the characteristics near FLM areas in their respective cities.

Figure 3.5 shows a screenshot of the FLM Dashboard interface.

Figure 3.5
FLM DASHBOARD²



Source: CR Associates, 2022

² Link to access FLM Dashboard: chenryan.maps.arcgis.com/apps/webappviewer/index.html?id=07c8d96e03c74ad2aa3af0e94c9d5e94

3.2 Pedestrian Districts

Since pedestrian districts were not a component of the 2016 ATSP, a methodology was developed for designating pedestrian districts across the Metro region for the purposes of this planning effort. This process began with a technical analysis measuring and identifying locations in close proximity to an abundance and large variety of pedestrian trip attracting destinations.

The center or centroid of TAZs throughout LA County were operationalized as origin locations for identifying pedestrian districts. TAZs are small geographic areas (about the size of a census block group) delineated by state and/or local transportation officials for tabulating traffic-related data, especially journey-to-work and place-of-work statistics. Compiling destinations conducive to pedestrian travel produced an “Opportunity Score,” based on the quantity and variety of destinations within a short one-mile walking distance of each TAZ center. The analysis sought to identify clusters of TAZs with high accessibility to destinations, and thus a high potential for concentrated pedestrian activity. These initial locations were subsequently refined into the plan’s recommended pedestrian districts after receiving feedback from the ATSP Technical Working Group.

A summary of the pedestrian district methodology is described below, with more detail available in **Appendix C Active Transportation Network Development Memo**.

The following steps were employed to identify pedestrian districts for the 2023 ATSP:

1. Identify pedestrian trip-attracting land uses and destination categories
2. Generate one-mile pedestrian travelshed from the center of each TAZ
3. Calculate Opportunity Score for every TAZ based on a count of destinations and trip-attracting land uses within a one-mile network buffer of every TAZ center
4. Aggregate contiguous TAZs with a high Opportunity Score into pedestrian districts. A minimum contiguous area threshold of 500 acres was used to approximate an appropriate district-sized area and to eliminate anomaly locations, which may have had high Opportunity Scores but possessed few pedestrian district-like characteristics.

5. Split aggregated TAZ areas identified in previous step that are too large for planning and implementation purposes. Within the City of LA, aggregations of TAZs were split by community planning area boundaries. Outside of the City of LA, aggregations of TAZs were split by municipal boundaries.
6. Review by Metro staff, with some refinements to the methodology to award bonus points to TAZs in EFCs and to ensure all Metro subregions were represented with at least one district.
7. Review by TWG members, with some refinements made to the boundary areas and incorporation of new areas per their suggestion.

The Opportunity Score calculation relied upon the following eleven destination types, which were deemed to have a high likelihood of attracting a pedestrian trip.

1. Grocery stores and markets
2. Pharmacies, drug, health and personal care stores
3. Full-service restaurants³
4. Limited-service restaurants⁴
5. Snack and beverage bars⁵ (non-alcoholic and alcoholic)
6. Retail stores
7. Colleges and universities
8. Libraries
9. Parks and beaches
10. Elementary, middle and high schools
11. Hospitals and clinics

³ “Full service restaurants” seat customers prior to ordering food.

⁴ In “limited service restaurants,” customers order food prior to sitting.

⁵ Snack and non-alcoholic beverage bars specialize in preparing and/or serving a type of snack (ice cream, pretzels, cookies, etc), or a type of non-alcoholic beverage (coffee, tea, juices, etc).

Destinations within a 1-mile Travelshed from the Center of Every TAZ

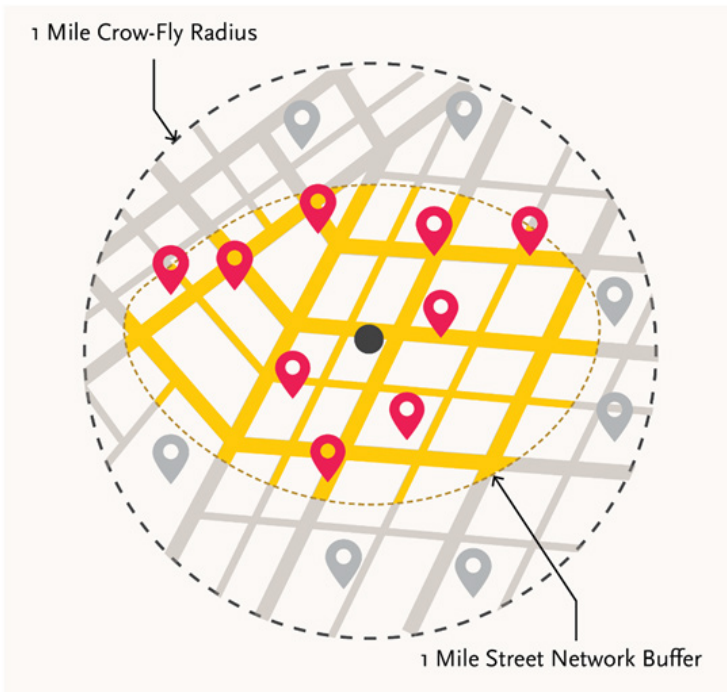


Figure 3.6 shows the more than 15,000 business and other land use destinations included in the Opportunity Score calculation.

Figure 3.7 shows the resulting 81 pedestrian districts covering about 89,204 acres in 44 of the 88 cities across the Metro region that will become the focus of prioritized pedestrian improvements.

Source: CR Associates, 2023



Figure 3.6

DESTINATIONS USED TO CALCULATE THE OPPORTUNITY SCORE

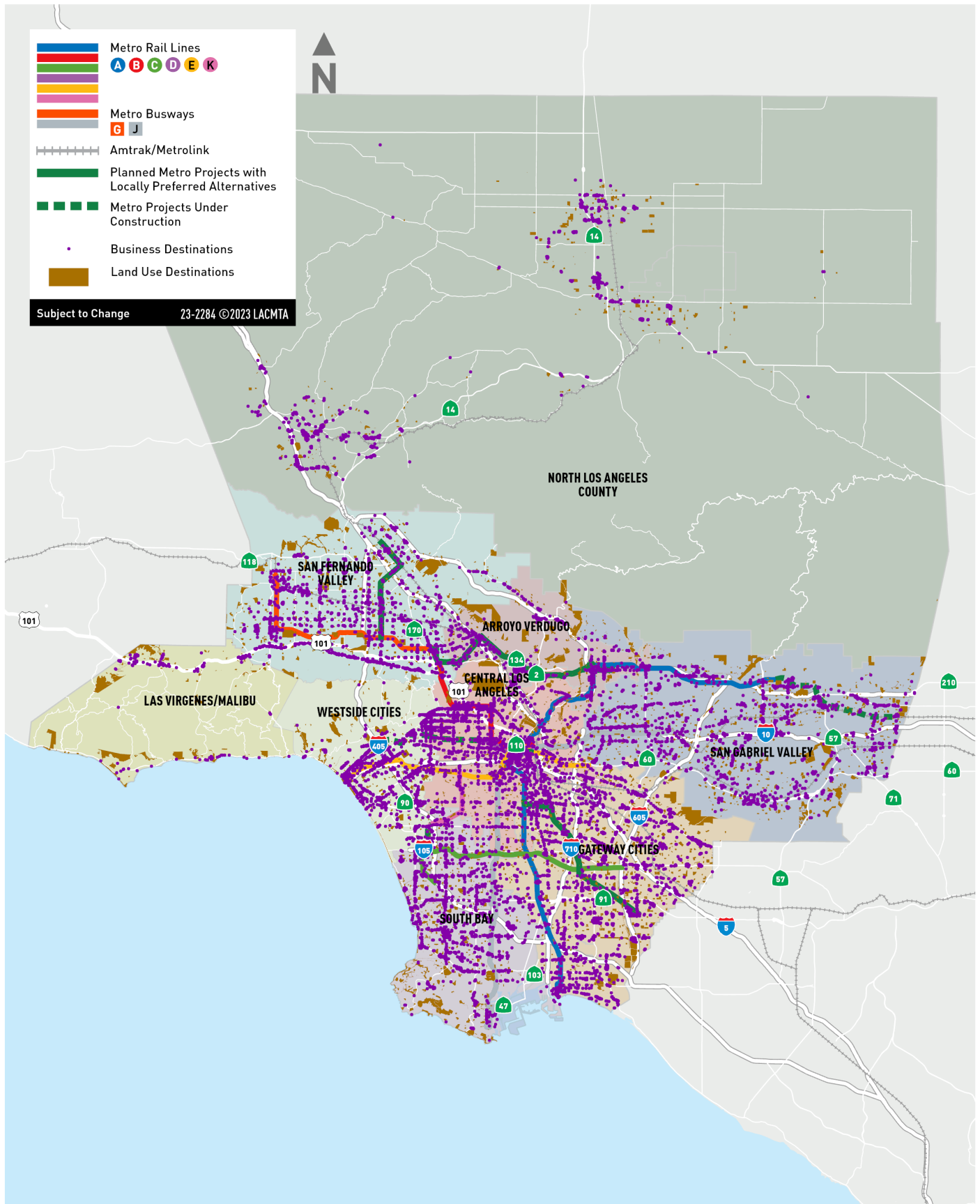
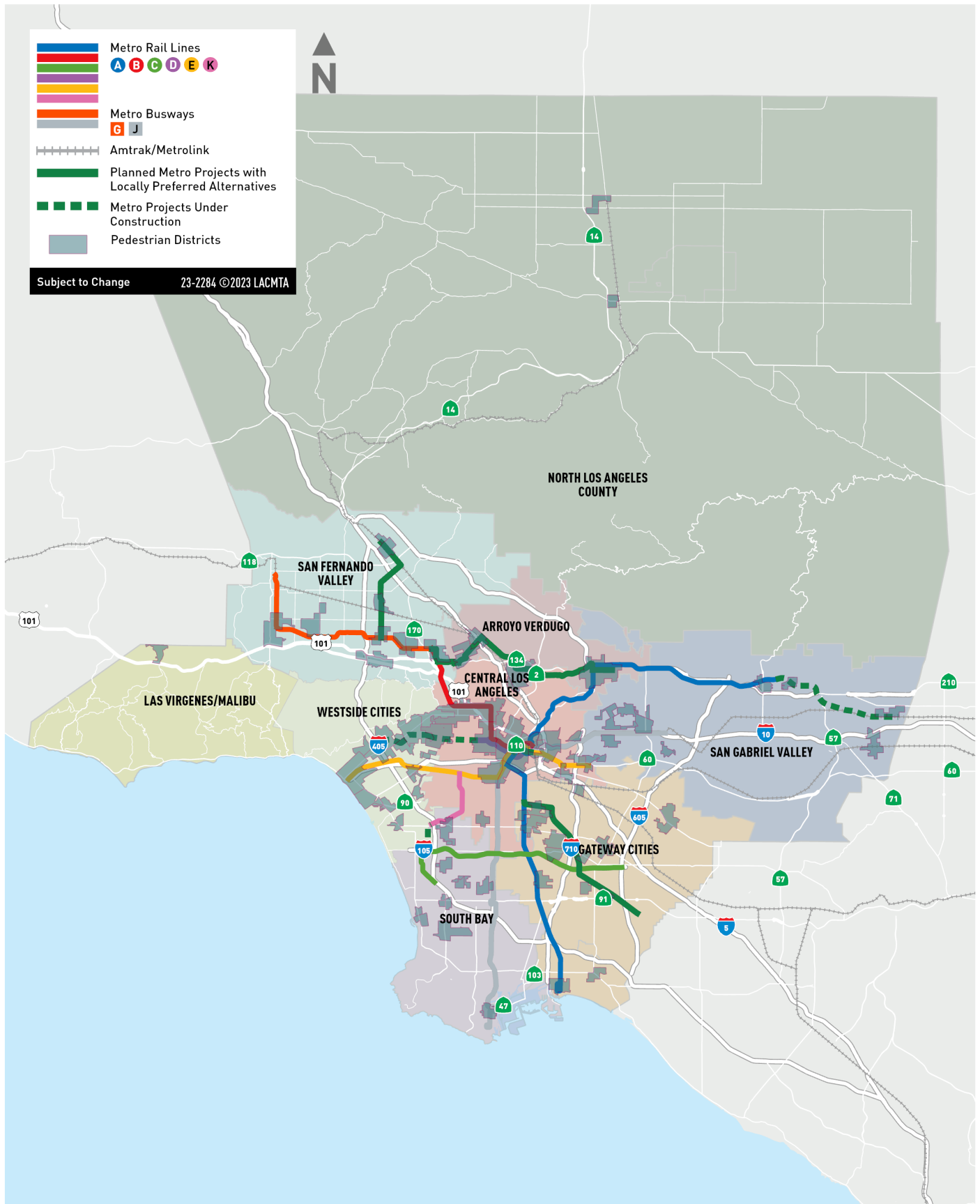


Figure 3.7

2023 ATSP PEDESTRIAN DISTRICTS



Source: CR Associates, 2023

Table 3.2 shows a count of pedestrian districts by subregion.

Table 3.2

2023 ATSP PEDESTRIAN DISTRICTS BY SUBREGION

SUBREGION	COUNT
Arroyo Verdugo	4
Central Los Angeles	11
Gateway Cities	13
Las Virgenes/Malibu	1
North Los Angeles County	2
San Fernando Valley	9
San Gabriel Valley	15
South Bay Cities	14
Westside Cities	12
Total	81

Source: CR Associates, 2023

3.3 Regional Bikeways

Figure 3.8 shows current bicycle facilities by type across LA County as of 2022. Table 3.3 summarizes the miles of facility by type, showing about 1,800 existing bikeway miles across LA County, with about half being Class II Bike Lanes.

This existing conditions information was considered when updating the 2016 ATSP bikeways depicted in Figure 3.9.

Table 3.3

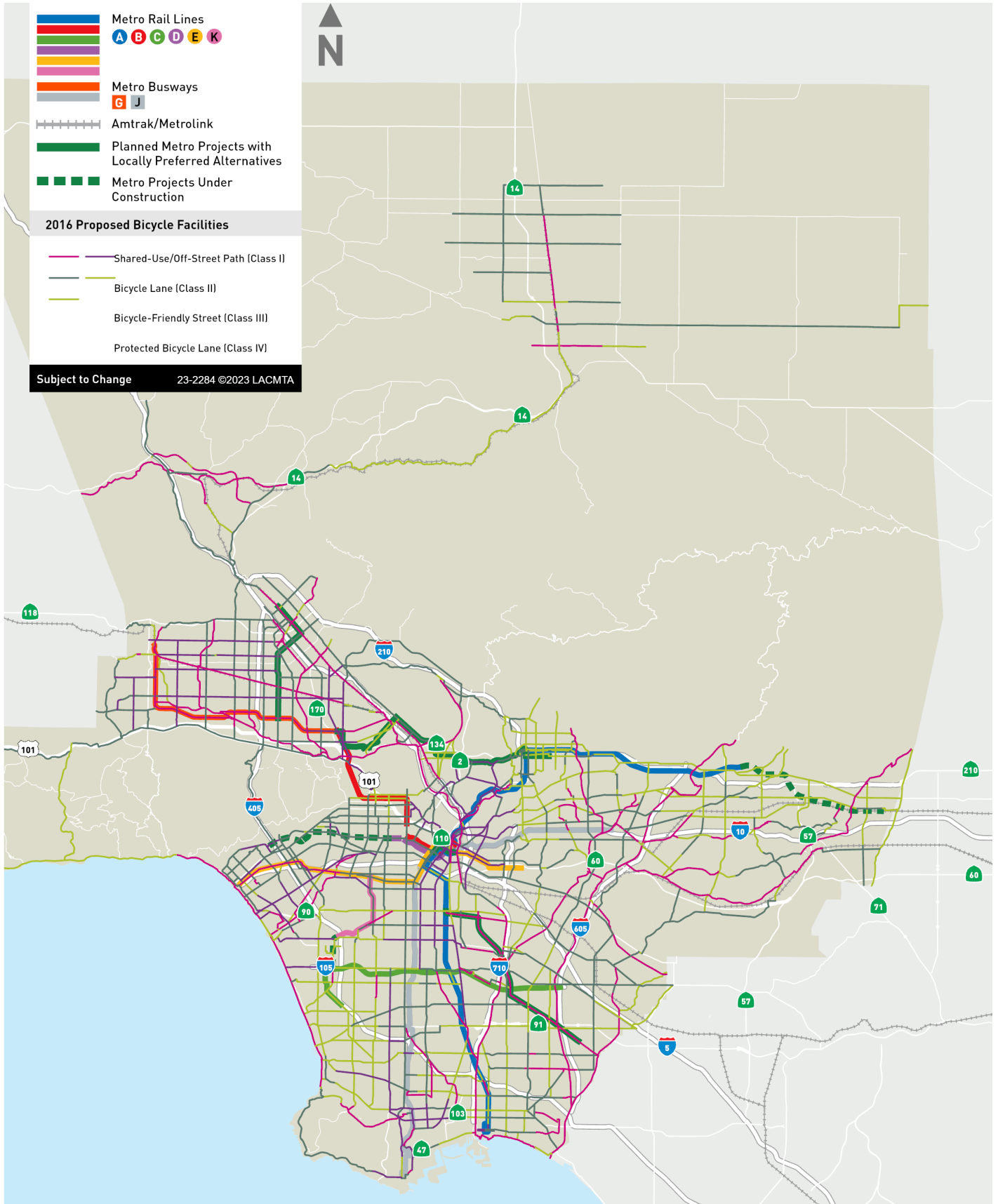
2022 EXISTING BIKEWAY FACILITY TYPES BY MILES

SUBREGION	MILES
Shared-Use/Off-Street Path (Class I)	305.6
Bicycle Lane (Class II)	950.6
Bicycle-Friendly Street (Class III)	522.8
Protected Bicycle Lane (Class IV)	42.2
Total	1,821.2

Source: CR Associates, 2023

Figure 3.9

2016 ATSP BIKEWAYS



As shown in **Figure 3.9**, the 2016 ATSP proposed bicycle network was expansive, with roughly 2,000 miles of existing and proposed facilities across LA County. The 2023 ATSP regional bikeway network identifies a more strategic bicycle network reflecting high-importance, high-quality backbone cycling connections across the region. The goal is that such a network will clarify and enhance Metro’s ability to participate in the funding and implementation of this regionally significant network.

The 2023 ATSP regional bikeway network was developed using the process outlined below:

1. Identify and include existing and proposed high-quality bike network segments

- All existing Class I and Class IV segments in the LA County region
- All proposed Class I and Class IV segments from the 2016 ATSP, as well as from local and subregional plans

2. Ensure inter-subregional connectivity:

- Identify a set of regionally-significant activity centers (SCAG RTP Job Centers) across LA County and ensure the regional bikeways connect them with high-quality facilities

3. Within subregions, ensure inter-city connectivity with high-quality facilities

4. Review and revise preliminary bikeway network in consultation with Metro staff and TWG members. This included Metro’s assessment of the relationship between the 2023 ATSP bikeways and other Metro projects, such as major transit corridors, dedicated bus lanes and major active transportation corridors (e.g. West Santa-Ana Branch Transit Corridor, La Brea Ave Bus Priority Lanes Project).

Figure 3.10 shows the final updated network of regional bikeways. Approximately 1,205 miles of the 1,433-mile recommended network is unbuilt. The unbuilt portions are comprised of 183 miles of planned off-street pathways and about 1,022 miles of on-street facilities.

Table 3.4 shows the miles of existing and unbuilt portions of planned network of regional bikeways. As can be seen, less than 20 percent of the regional bikeways network is currently built out.

Table 3.4

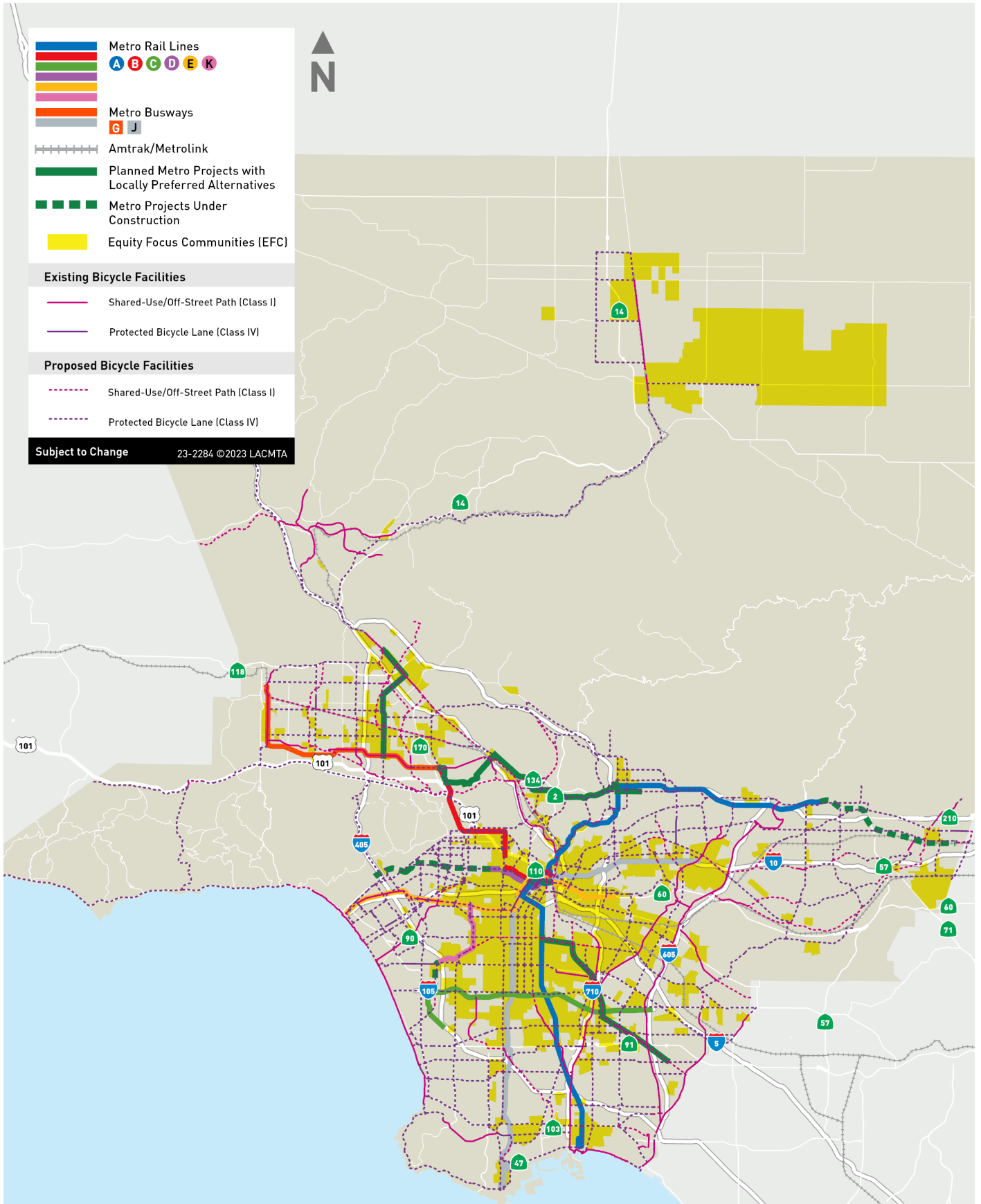
MILES OF PLANNED REGIONAL BIKEWAYS BY ON-STREET/OFF-STREET

BICYCLE FACILITY TYPE	MILES OF EXISTING REGIONAL BIKEWAYS	MILES OF UNBUILT REGIONAL BIKEWAYS
Shared-Use/Off-Street Path	208.4	183.1
On-Street Protected Bicycle Lane	19.4	1,021.9
Total Mileage	227.8	1,205

Source: CR Associates, 2023

Figure 3.10

2023 ATSP REGIONAL BIKEWAYS



Source: CR Associates, 2023

Although 2022 EFCs are shown in this map, all analyses in this plan used 2019 EFCs, as this was the most recent data available at the time.

Active Transportation Network Prioritization and Phasing

This chapter of the 2023 ATSP describes the network prioritization process and outcomes which informed phasing the unbuilt planned FLM areas, pedestrian districts and regional bikeways. Prioritization provides a common starting point for considering future implementation.





4.0 Active Transportation Network Prioritization and Phasing

The prioritization of FLM areas, pedestrian districts and regional bikeway project segments followed a six-step process.

1. Defining Project Areas
2. Defining Prioritization Criteria
3. Operationalizing Prioritization Criteria
4. Assigning Score Values to Prioritization Criteria
5. Project Prioritization and Ranking
6. Project Phasing

The subsequent sections of this chapter describe each phase in greater detail. **Appendix E Active Transportation Project Prioritization Methods Memo** presents the complete technical memo on project prioritization for the 2023 ATSP.

4.1 Defining Project Areas

Each FLM area and each pedestrian district was considered a project area for the purposes of the prioritization process.

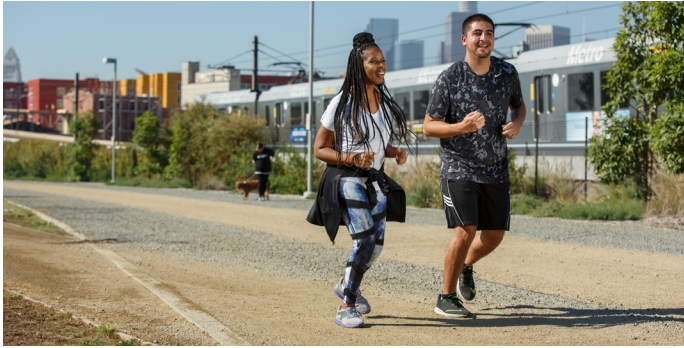
To define regional bikeway projects, the regional bikeway network was divided into smaller segments more suitable for implementation. Lengthy corridors were segmented at locations where regional bikeway alignments intersected.



4.2 Defining Prioritization Criteria

Prioritization criteria were developed to align with the 2023 ATSP goals and objectives as presented in chapter 2 of this plan document. The five major 2023 ATSP goals include equity, safety and comfort, accessibility, connectivity and sustainability.

Table 4.1 shows a preliminary set of prioritization criteria that largely flow from the long-range goals established for the 2023 ATSP, with the addition of three criteria: potential demand for the project, community support and project readiness⁶.



4.3 Operationalizing Prioritization Criteria

The next step in the prioritization process was to operationalize the prioritization criteria. As part of this process, community support and demand were combined into a single criterion reflecting overall support and demand for a given project. This was to re-frame the approach to capture both existing (via LOCUS data) and desired (via questionnaire responses) usage patterns. Existing usage patterns were measured using LOCUS, enabling countywide estimation of bicycle, pedestrian and transit trips through location-based, anonymized cell phone data. The potential for future active transportation trips was assessed through community-identified locations where stakeholders would like to walk, bike or roll.

Table 4.2 displays the operationalization of the seven preliminary criteria. Note that the project readiness criterion was not calculated for FLM areas or pedestrian districts due to the rarity of pedestrian and FLM plans for locations in LA County.

Table 4.1

GENERAL DESCRIPTION OF PRIORITIZATION CRITERIA

PRIORITIZATION CRITERIA	GENERAL DESCRIPTION
Equity	Targeting future active transportation investments towards those with the greatest needs in communities that have historically lacked investment
Safety and Comfort	Addressing high-injury locations by creating low-stress, high-quality facilities for safe walking, biking and rolling
Connectivity	Prioritizing projects that close gaps in the existing active transportation networks or that enhance the number of connections between key origins and destinations
Accessibility	Ensuring that future active transportation improvements connect to transit, job centers and recreation spaces
Sustainability	Addressing climate change by improving active transportation options and transit access to lessen transportation emissions in the most polluted communities
Demand	Propensity for existing walking, biking or rolling trips
Community Support	Implementing bikeways and pedestrian improvements that are supported by local stakeholders
Project Readiness	Advancing implementation of bikeway projects that are part of an approved or adopted local plan

Source: CR Associates, 2023

⁶ Community support is derived from input gathered from the ATSP Active Transportation Network Review AGOL and ATSP Questionnaire, in which residents were asked to pinpoint where active transportation was most important to them.

Table 4.2

OPERATIONALIZATION OF PRIORITIZATION CRITERIA

PRIORITIZATION CRITERIA	NETWORK TYPE	OPERATIONALIZATION
Equity	FLM Area	Percent of FLM area overlapping with Equity Focus Communities (EFCs) (acreage of FLM area overlapping with EFCs/total FLM area acreage)
	Pedestrian Districts	Percent of pedestrian districts overlapping with EFCs (acreage of pedestrian districts overlapping with EFCs/ total acreage of pedestrian districts)
	Bikeway Projects	Percent of bikeway project segment overlapping with EFCs (length of project segment overlapping with EFCs/total project segment length)
Safety and Comfort	FLM Area	<ol style="list-style-type: none"> 1. Density of bicycle and pedestrian collisions within FLM areas (count of collisions within FLM areas/acreage of FLM area) 2. FLM area intersects high-collision/high-population of color census block groups 3. FLM area intersects high-collision/low-income census block groups 4. FLM area intersects SCAG High-Injury Network (HIN) 5. Traffic speed and volume (overlap with high-speed/high-traffic corridors)
	Pedestrian Districts	<ol style="list-style-type: none"> 1. Density of pedestrian collisions within pedestrian districts (count of collisions in pedestrian districts /acreage of pedestrian districts) 2. Pedestrian districts intersect high-collision/high-population of color census block group 3. Pedestrian districts intersect high-collision/low-income census block group 4. Pedestrian districts intersect SCAG High-Injury Network (HIN) 5. Traffic speed and volume (overlap with high-speed/high-traffic corridors)
	Bikeway Projects	<ol style="list-style-type: none"> 1. Density of bicycle collisions along bikeway project segment (count of collisions along project segment/project segment length) 2. Bikeway project segment intersects high-collision/high-population of color census block group 3. Bikeway project segment intersects high-collision/low-income census block group 4. Bikeway project segment intersects SCAG High-Injury Network (HIN) 5. Traffic speed and volume (overlap with high-speed/high-traffic corridors)

Table 4.2

OPERATIONALIZATION OF PRIORITIZATION CRITERIA

PRIORITIZATION CRITERIA	NETWORK TYPE	OPERATIONALIZATION
Connectivity	FLM Area	Intersection density (count of intersection nodes from walkable/bikeable roadway network within FLM area/acreage of FLM area)
	Pedestrian Districts	Intersection density (count of intersection nodes from walkable/bikeable roadway network within pedestrian districts /acreage of pedestrian districts)
	Bikeway Projects	Bikeway project segment closes a gap in the existing network (gap between Class I, II, and IV bikeways)
Accessibility	FLM Area	1. Opportunity Score of FLM area (weighted by area average score) 2. Density of SCAG's Livable Corridors within FLM areas
	Pedestrian Districts	1. Opportunity Score of pedestrian districts (weighted by area average score) 2. Density of SCAG's Livable Corridors within pedestrian districts
	Bikeway Projects	1. Opportunity Score within half-mile of bikeway project segment (weighted by area average score) 2. Bikeway project segment intersects SCAG's Livable Corridor
Sustainability	FLM Area	Percent of FLM area overlapping with CES>75 (acreage of FLM area overlapping with a CES>75 th percentile/total FLM area acreage)
	Pedestrian Districts	Percent of pedestrian districts overlapping with CES>75 (acreage of pedestrian districts overlapping with a CES>75 th percentile/total pedestrian district acreage)
	Bikeway Projects	Percent of bikeway project segment overlapping with CES>75 (length of bikeway project segment overlapping with a CES >75 th percentile/bikeway project segment length)
Demand and Community Support	FLM Area	1. FLM area intersects high-demand, low-income census block group 2. Density of community support occurring within FLM areas (count of supportive comments in FLM area/FLM area acreage)
	Pedestrian Districts	1. Pedestrian districts intersect high-demand, low-income census block group 2. Density of community support occurring within pedestrian districts (count of supportive comments in pedestrian districts/pedestrian district acreage)
	Bikeway Projects	Bikeway project segment intersects high-demand, low-income census block groups. Density of community support occurring along bikeway project segment (count of supportive comments/bikeway project segment length)
Project Readiness	FLM Area	N/A
	Pedestrian Districts	N/A
	Bikeway Projects	Bikeway project segment has received an advanced/detailed implementation-focused study from the local jurisdiction, such as a high-priority project sheet, specific plan, feasibility study, etc.

Source: CR Associates, 2023

4.4 Assigning Score Values to Prioritization Criteria

Table 4.3 displays the total possible points for each prioritization criterion. Each of the criteria were assigned equal points and then weighted according to feedback from our community prioritization questionnaire and TWG members. The maximum points achievable for bikeway projects was 220 points, while the maximum points for pedestrian project areas and FLM areas was 210 due to the exclusion of the project readiness criterion.

Table 4.3

POINTS AND WEIGHTS ASSOCIATED WITH PRIORITIZATION CRITERIA

PRIORITIZATION CRITERIA	POINTS	WEIGHT	TOTAL POSSIBLE POINTS
Equity	20	1.5	30
Safety and Comfort	20	3.0	60
Connectivity	20	2.0	40
Accessibility	20	2.0	40
Sustainability	20	1.0	20
Demand and Community Support	20	1.0	20
Project Readiness	20	0.5	10
	140		220*

* Pedestrian districts and FLM areas did not include the project readiness criterion. Their total possible score was 210.
CR Associates, 2023

The associated point values within each prioritization criteria can be found in **Appendix E Active Transportation Project Prioritization Methods Memo**

4.5 Project Prioritization and Ranking

There are 602 FLM areas in the 2023 ATSP, totaling 118,849 acres. The final FLM area prioritization scores range from 0 to 210 with a mean score of 105.1.

The 2023 ATSP includes 81 pedestrian districts, totaling 89,204 acres. The final pedestrian district prioritization scores range from 10 to 202.5 with a mean score of 102.7.

Finally, there are 745 bikeway project segments totaling 1,205 miles. The final bikeway project prioritization scores range from 0 to 207.5 with a mean score of 89.4.

Roughly 38,412 acres of pedestrian districts (or 43% of the total pedestrian district acreage) and 320 miles of bikeway projects (or 27% of the total bikeway project miles) overlap with FLM areas.

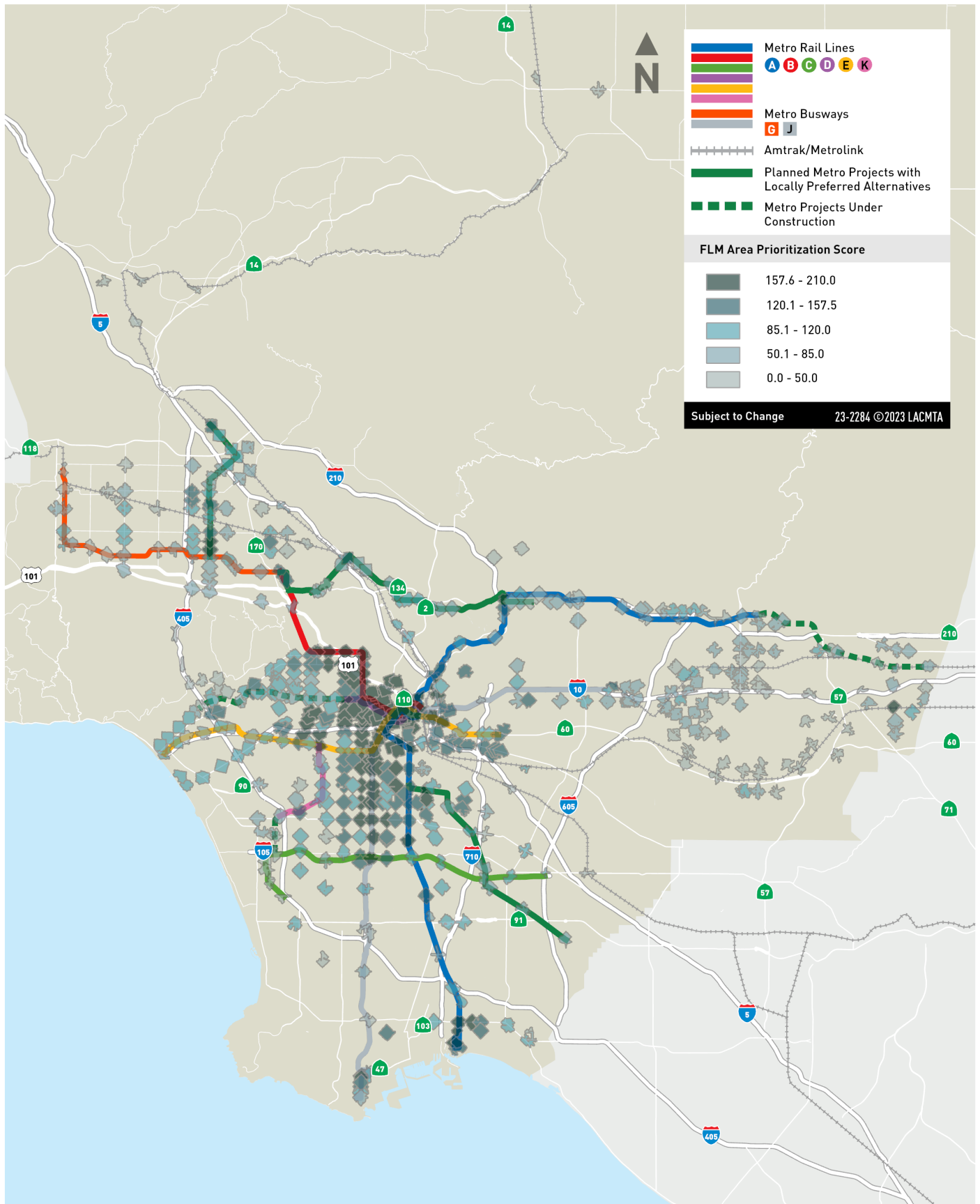
Figures 4.1, 4.2 and 4.3 display the resulting prioritization of the three networks – FLM areas, pedestrian districts and regional bikeways – using five category breaks with the final prioritization score.

Appendix E *Active Transportation Project Prioritization Methods Memo* present tables with the final ranking of all projects for FLM areas, pedestrian districts and regional bikeways (shown in **Appendix E, Tables 6.1, 6.2 and 6.3**). The values for each of the prioritization criteria associated with each project is also shown, along with the final prioritization score. The final prioritization score was used to rank order the projects within subregions.



Figure 4.1

FLM AREA PRIORITIZATION



Source: CR Associates, 2023

Figure 4.2

PEDESTRIAN DISTRICT PRIORITIZATION

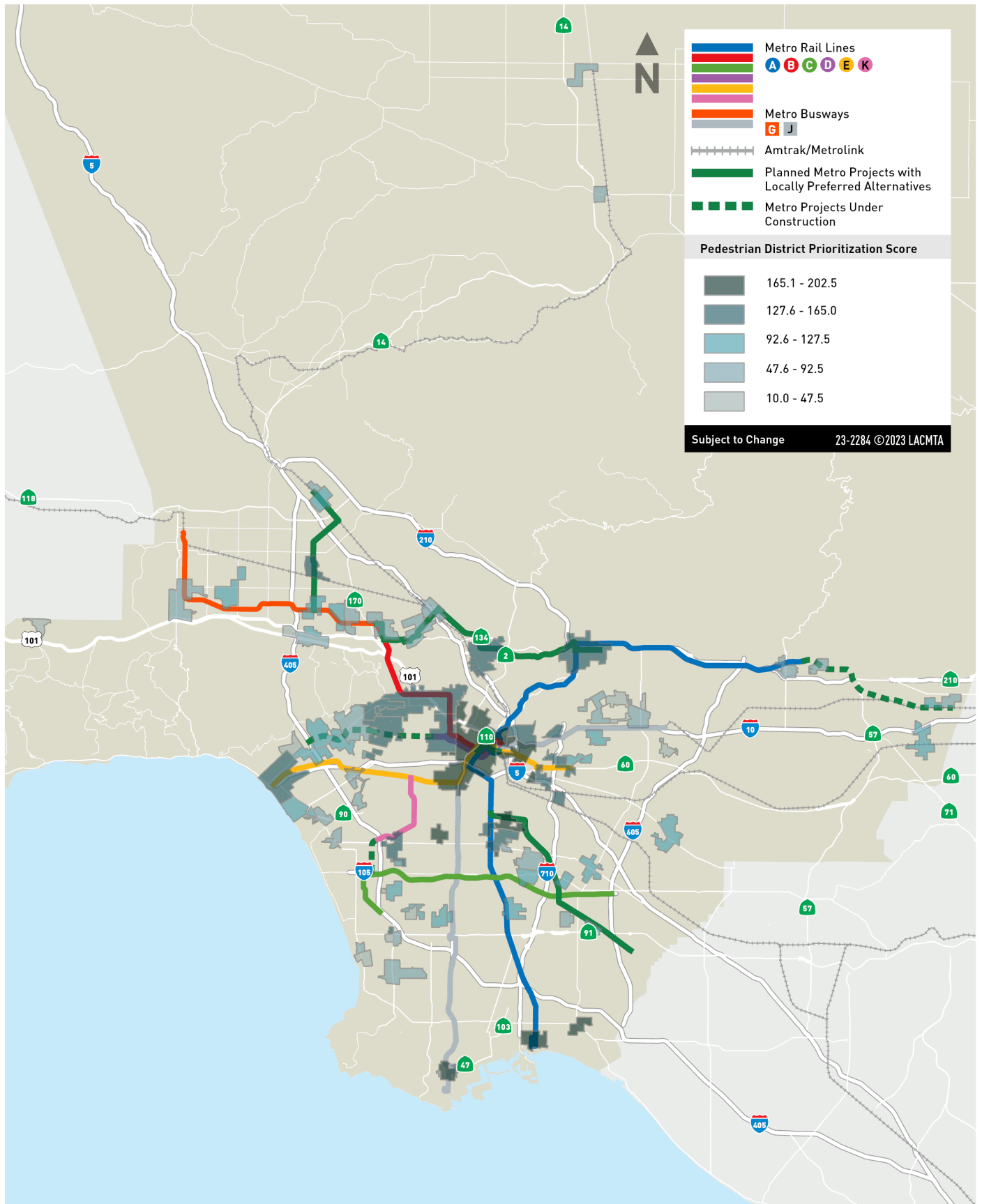
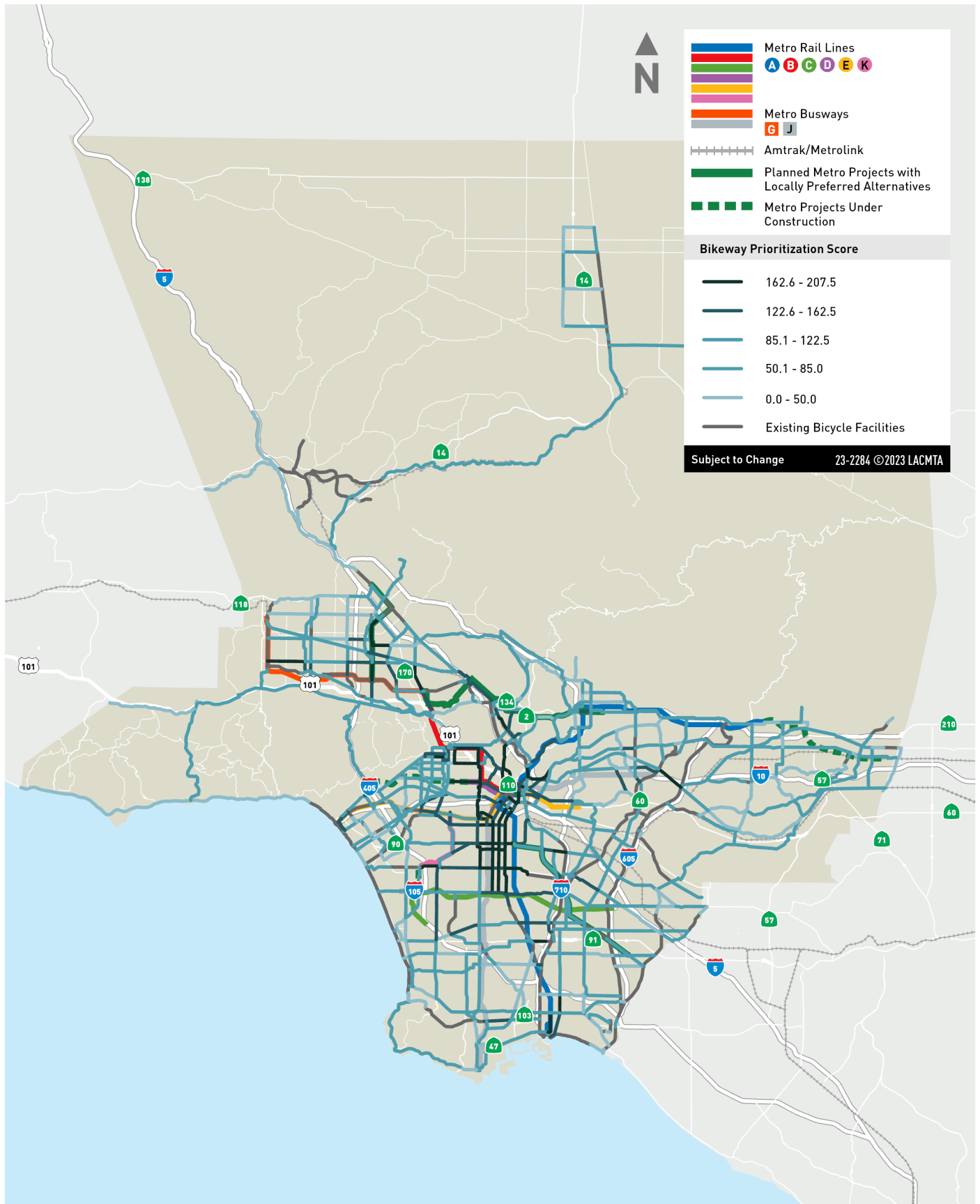


Figure 4.3

REGIONAL BIKEWAY PROJECT PRIORITIZATION



Source: CR Associates, 2023

4.6 Project Phasing

Project phasing identifies which portions of the networks should be the focus of early implementation. The projects associated with each of the three networks were divided into tiers based upon their prioritization score and rank. Tier 1 includes the top 2.5% of projects from each Metro subregion. Tier 2 projects included the top 2.6% to 10% of projects by rank, and Tier 3 projects included the remaining projects.

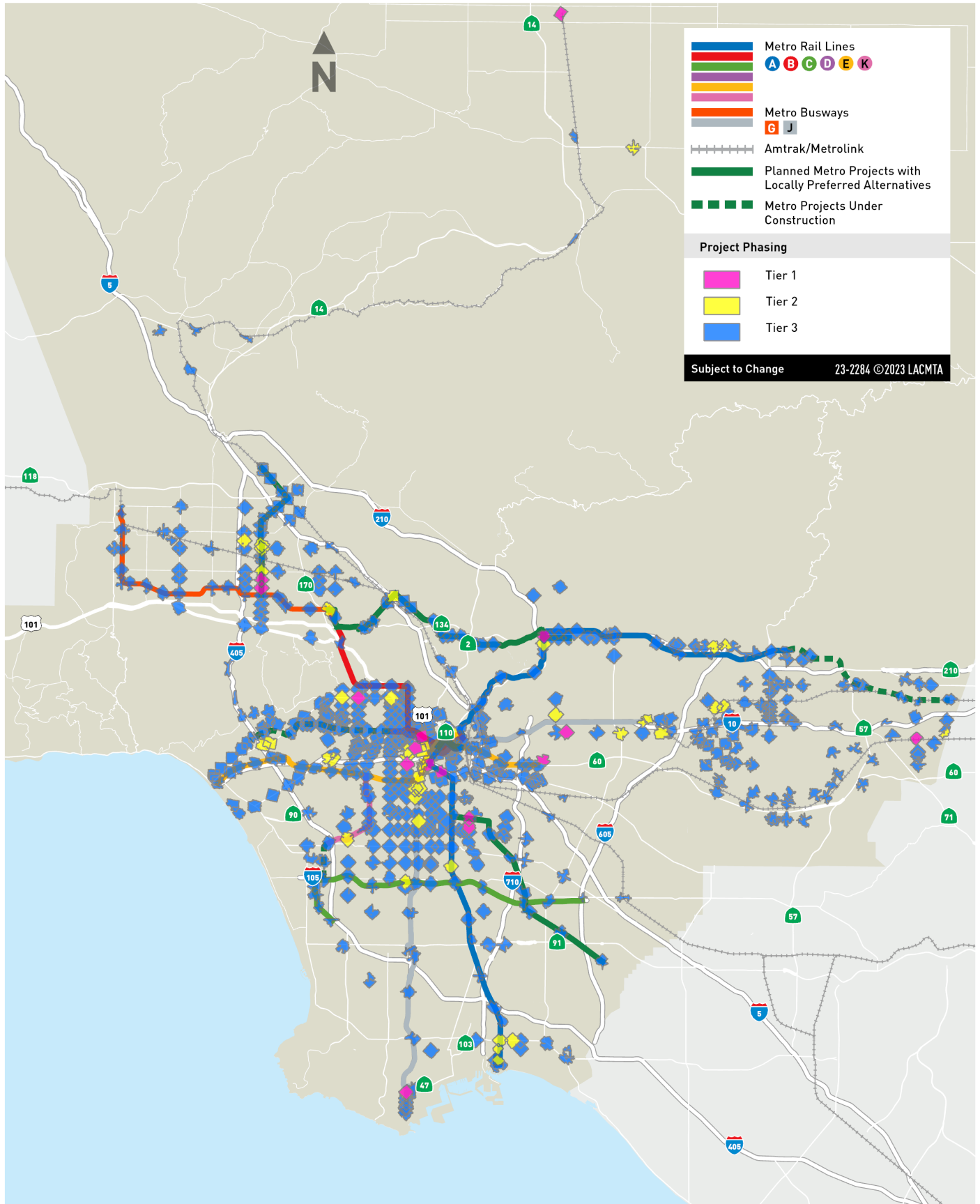
Figures 4.4, 4.5 and 4.6 show Tier 1, 2, 3 for all FLM areas, pedestrian districts and bikeway projects, respectively.

The complete active transportation project lists with rankings by subregion and tier designations are shown in **Appendix E Active Transportation Project Prioritization Methods Memo** as **Tables 6.1, 6.2 and 6.3** for FLM areas, pedestrian districts and bikeway projects, respectively.



Figure 4.4

TIERS 1-3 FLM AREAS



Source: CR Associates, 2023

Figure 4.5

TIERS 1-3 PEDESTRIAN DISTRICTS

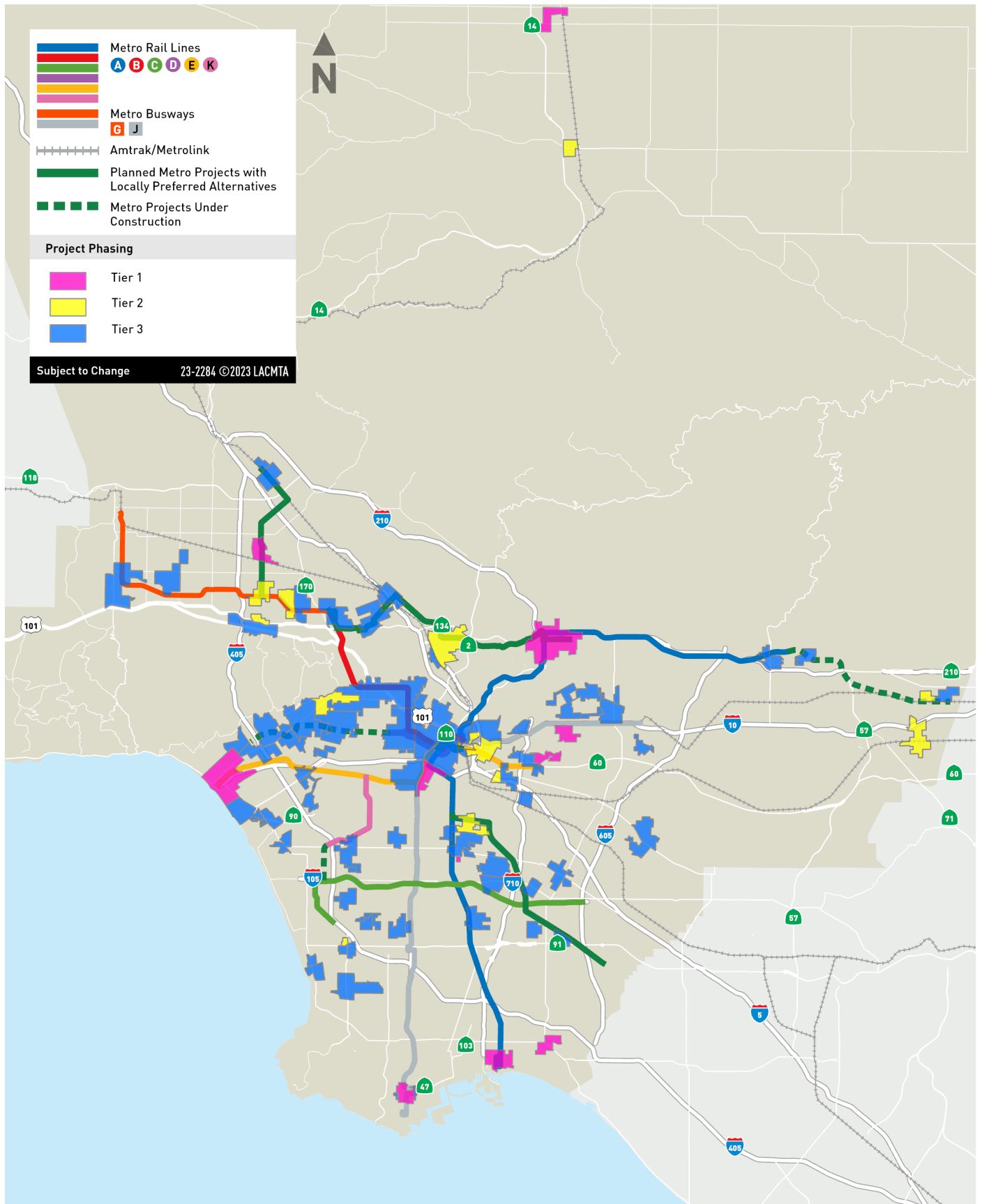
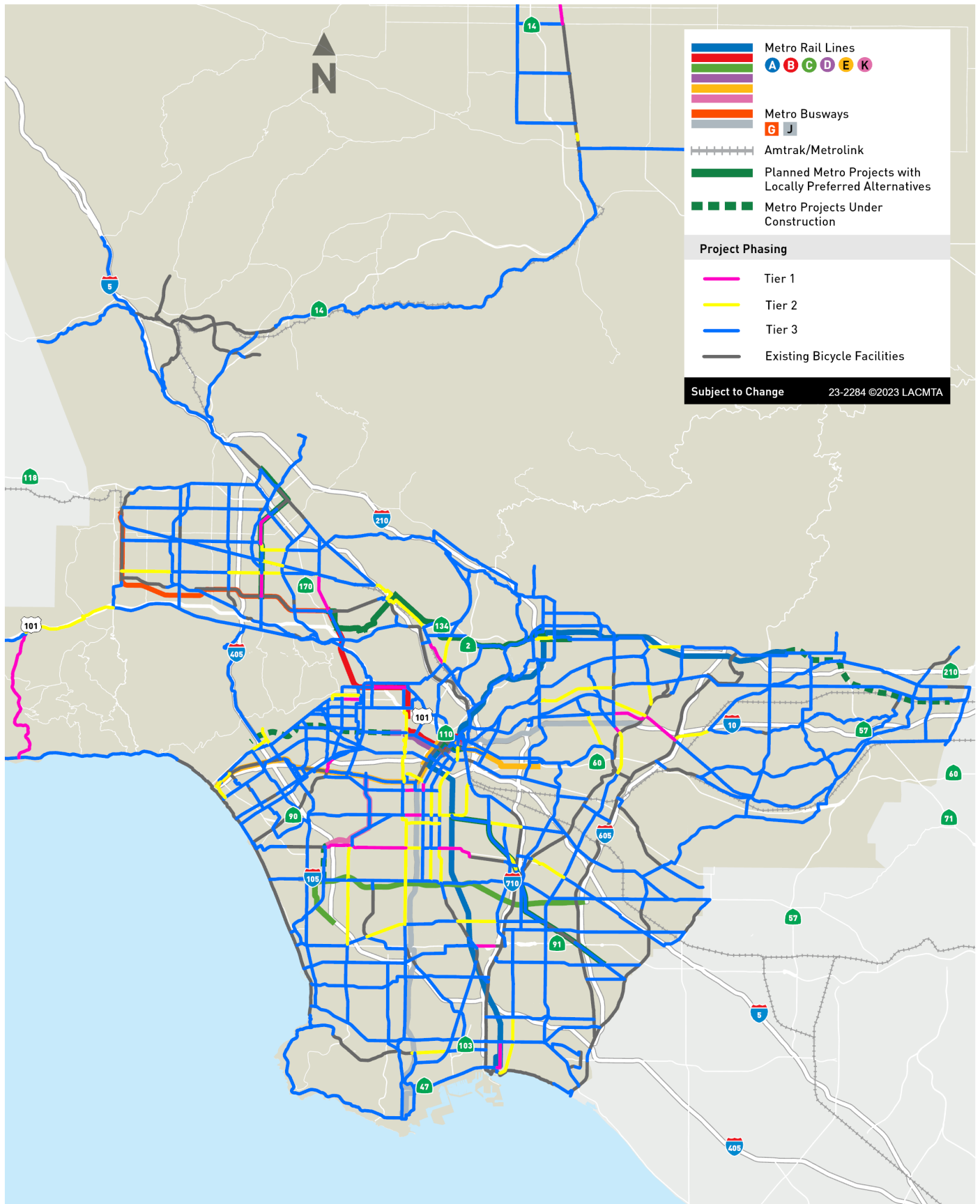


Figure 4.6

TIERS 1-3 BIKEWAY PROJECTS



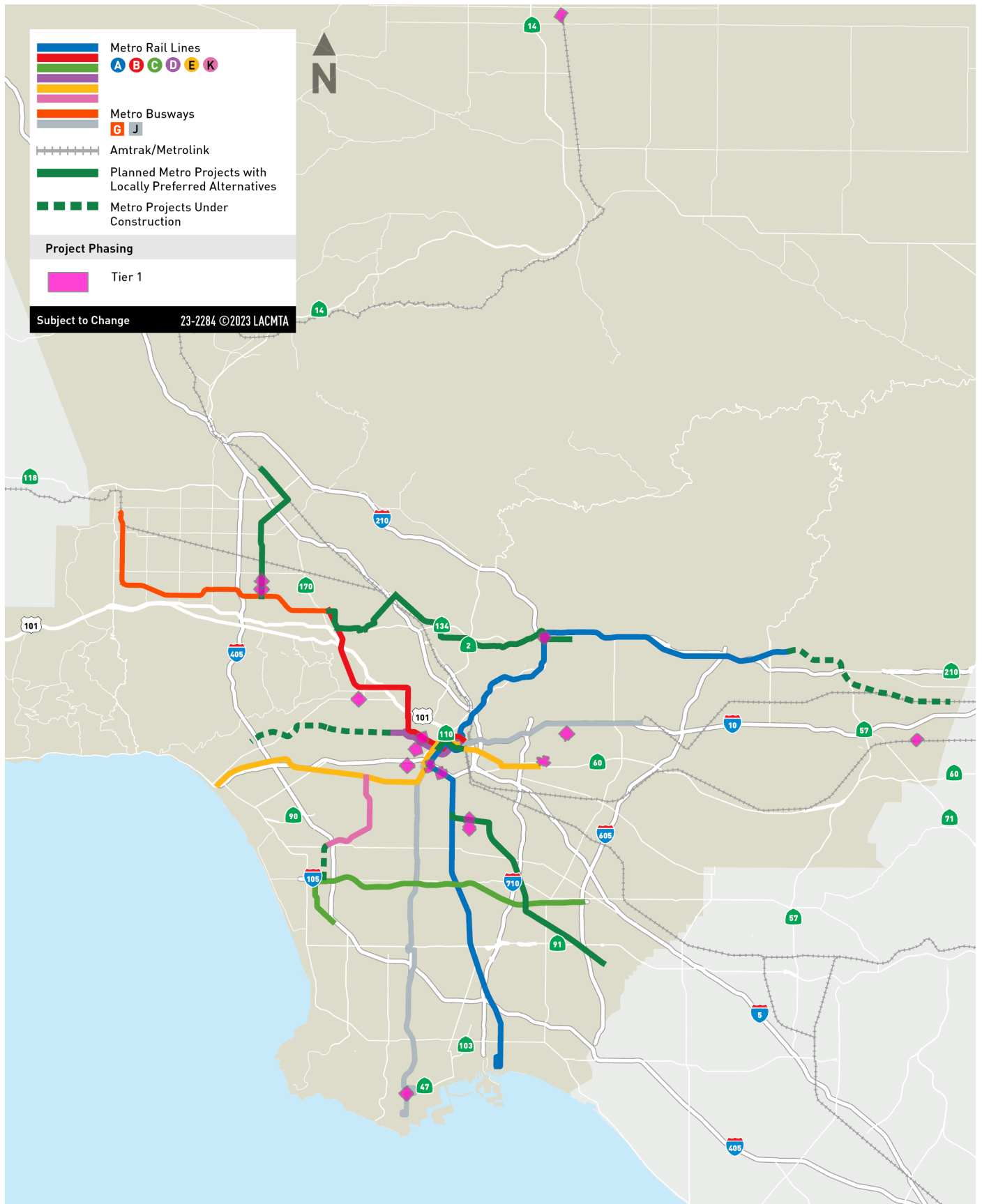
Source: CR Associates, 2023

Figure 4.7 and Table 4.4 display Tier 1 FLM areas. Figure 4.8 and Table 4.5 show Tier 1 pedestrian districts, and finally, Figure 4.9 and Table 4.6 present Tier 1 regional bikeway projects.



Figure 4.7

TIER 1 FLM AREAS



Source: CR Associates, 2023

Table 4.4

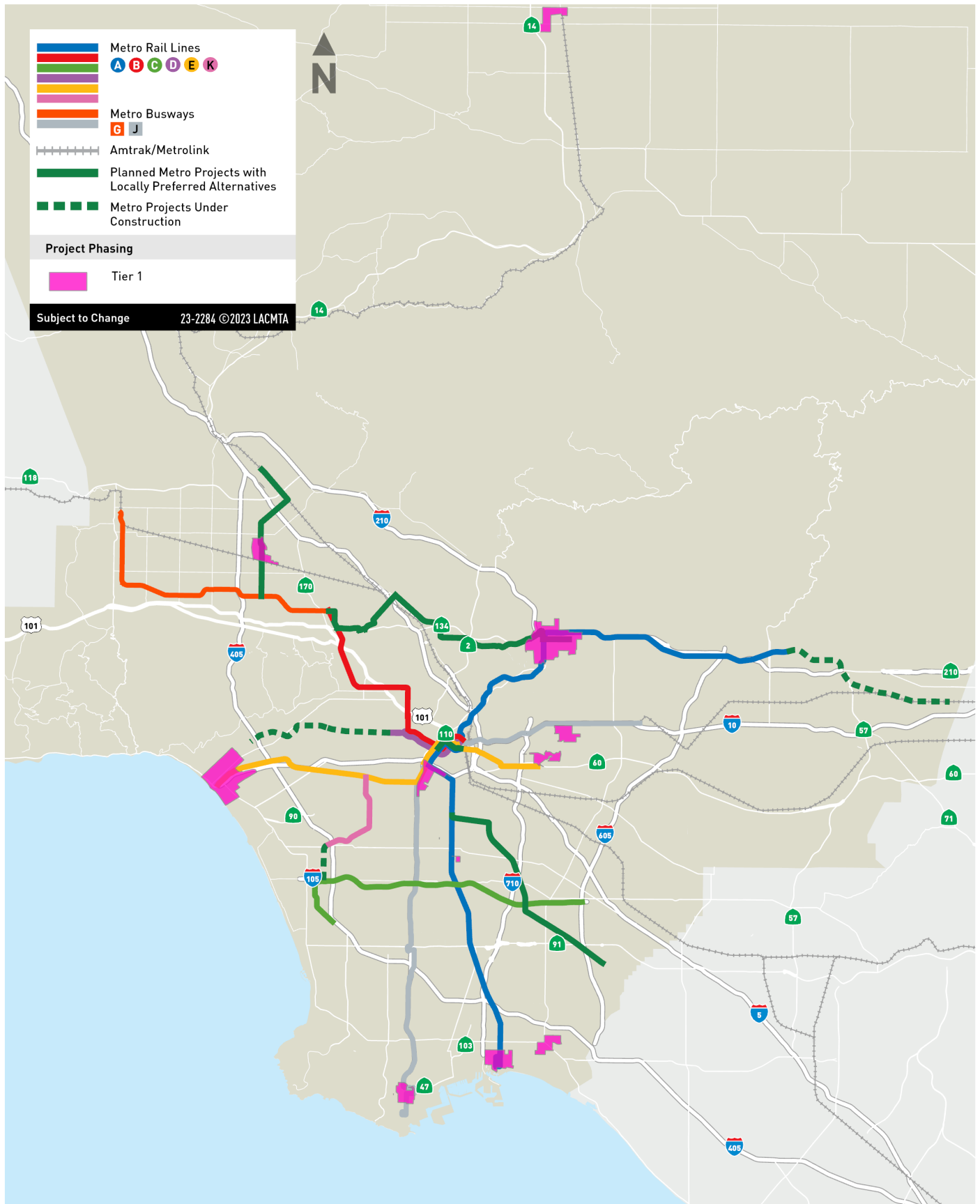
TIER 1 FLM AREAS

LEAD SUBREGION	SUBREGION RANK	STATION NAME	SAFETY AND COMFORT	CONNECTIVITY	ACCESSIBILITY	EQUITY	DEMAND AND COMMUNITY SUPPORT	SUSTAINABILITY	COMPOSITE SCORE	WEIGHTED SCORE
Arroyo Verdugo	1	Memorial Park Metro Station	20	20	20	10	5	0	75	160
Central Los Angeles	1	Westlake / MacArthur Park Metro Station	20	20	20	20	20	20	120	210
	2	San Pedro Metro Station	20	20	20	20	15	20	115	205
	3	Vermont Ave / Adams Blvd	20	20	20	20	15	20	115	205
	4	Grand Metro Station	20	20	20	20	17.5	15	112.5	202.5
	5	Alvarado St / Pico Blvd	20	20	20	20	17.5	15	112.5	202.5
Gateway Cities	1	Pacific/Randolph Metro Station*	20	20	20	15	15	15	105	192.5
	2	Pacific Blvd / Zoe Ave	20	10	20	20	15	20	105	185
North Los Angeles County	1	Lancaster Metrolink Station	0	20	0	20	0	15	55	85
San Fernando Valley	1	Victory Metro Station*	20	0	20	20	15	20	95	165
	2	Vanowen Metro Station*	20	0	20	20	15	20	95	165
San Gabriel Valley	1	Downtown Pomona Metrolink Station	10	20	20	15	17.5	15	97.5	165
	2	Garfield Ave / Garvey Ave	20	0	20	15	15	0	70	137.5
	3	Collegian Ave / Avenida Cesar Chavez	5	20	20	10	15	5	75	130
South Bay Cities	1	Pacific Blvd / 1st St	20	20	10	20	0	20	90	170
Westside Cities	1	La Brea Ave / SR 2	15	10	20	5	15	5	70	132.5

* Future Metro Station
CR Associates, 2023

Figure 4.8

TIER 1 PEDESTRIAN DISTRICTS



Source: CR Associates, 2023

Table 4.5

TIER 1 PEDESTRIAN DISTRICTS

RANKING	NAME	LEAD SUBREGION	SAFETY AND COMFORT	CONNECTIVITY	ACCESSIBILITY	EQUITY	DEMAND AND COMMUNITY SUPPORT	SUSTAINABILITY	COMPOSITE SCORE	WEIGHTED SCORE
1	South Central - Watts	Central LA	20	20	20	20	17.5	15	112.5	202.5
2	Long Beach	Gateway Cities	20	20	20	10	20	10	100	185
3	San Pedro	South Bay Cities	20	20	10	20	15	15	100	180
4	Pasadena	Arroyo Verdugo	20	10	20	5	20	0	75	147.5
5	Santa Monica	Westside Cities	15	20	20	0	15	5	75	145
6	Panorama City	San Fernando Valley	20	0	15	15	15	15	80	142.5
7	Monterey Park	San Gabriel Valley	20	0	15	10	15	5	65	125
8	Lancaster	North LA County	5	10	0	15	0	10	40	67.5
9	Agoura Hills	Las Virgenes/ Malibu	5	0	0	0	0	0	5	15

CR Associates, 2023

Table 4.6

TIER 1 BIKEWAY PROJECTS

LEAD SUBREGION	SUB-REGION RANKING	CORRIDOR	FROM	TO	MILEAGE	SAFETY AND COMFORT	CONNECTIVITY	ACCESSIBILITY	EQUITY	DEMAND AND COMMUNITY SUPPORT	SUSTAINABILITY	PROJECT READINESS	COMPOSITE SCORE	WEIGHTED SCORE
Arroyo Verdugo	1	San Fernando Rd	Colorado St	Glendale Ave	1.6	15	20	20	15	15	20	20	125	192.5
Central Los Angeles	1	Hollywood Blvd	N Vermont Blvd	N Cahuenga Blvd	2.2	20	20	20	20	17.5	10	20	127.5	207.5
	2	W Slauson Ave	S Main St	S Vermont Ave	1.0	20	20	20	20	15	20	0	115	205
	3	MLK Blvd	S Figueroa St	S Vermont Ave	0.5	20	20	20	20	15	20	0	115	205
	4	S Main St	MLK Blvd	W Jefferson Blvd	0.5	20	20	20	20	15	20	0	115	205
Gateway Cities	1	Manchester Ave	Southern Ave	S Central Ave	2.1	10	20	20	20	15	20	20	125	185
	2	Long Beach Blvd	S Pine Ave	Pacific Coast Hwy	1.8	15	20	20	15	20	15	0	105	182.5
	3	Artesia Blvd	Butler Ave	Alameda St	1.2	20	20	10	10	15	20	20	115	180
Las Virgenes / Malibu	1	Route N1	Route 1	Agoura Rd	9.2	5	20	0	0	0	0	10	35	60
North LA County	1	Sierra Hwy	W Avenue J	W Avenue H	2.0	5	20	0	15	2.5	15	20	77.5	105
San Fernando Valley	1	Van Nuys Blvd	Sherman Way	Metro Busway G Line Orange	1.4	20	10	20	15	17.5	20	20	122.5	190
	2	Van Nuys Blvd	Parthenia Blvd	East Canyon Channel	2.1	20	20	15	10	15	10	10	100	175
	3	Lankershim Blvd	Sherman Way	Chandler Blvd	2.4	20	20	15	10	15	10	0	90	170

Table 4.6

TIER 1 BIKEWAY PROJECTS

LEAD SUBREGION	SUB-REGION RANKING	CORRIDOR	FROM	TO	MILEAGE	SAFETY AND COMFORT	CONNECTIVITY	ACCESSIBILITY	EQUITY	DEMAND AND COMMUNITY SUPPORT	SUSTAINABILITY	PROJECT READINESS	COMPOSITE SCORE	WEIGHTED SCORE
San Gabriel Valley	1	Southern Pacific RR	San Gabriel River Trail	Santa Anita Ave	2.3	20	20	15	20	0	20	20	115	190
	2	Rosemead Blvd	Rio Hondo Bike Path	Hershey St	0.5	20	10	10	10	0	20	20	90	145
	3	Valley Blvd	Santa Anita Ave	CA -164	2.1	20	10	15	10	0	10	20	85	145
South Bay Cities	1	W Manchester Blvd	E Hillcrest Blvd	Aviation Blvd	1.7	20	20	20	20	0	15	0	95	185
	2	W Manchester Blvd	S Vermont Ave	S Hillcrest Ave	3.3	20	10	15	10	15	10	0	80	150
Westside Cities	1	Santa Monica Blvd	Fairfax Ave	N Orange Dr	1.1	15	20	20	10	17.5	0	20	102.5	167.5
	2	Ballona Creek	National Blvd	Fairfax Ave	1.0	15	20	20	5	0	5	20	85	147.5

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Cost Estimates and Funding





M

Metro

Monte Station

Exit to Street/Plaza

Bus Bays 1-17

Exit



5.0 Cost Estimates and Funding

5.1 Cost Estimates

This chapter reviews methods employed and results of the cost estimation for each of the three ATSP networks: FLM areas, pedestrian districts and regional bikeways. The chapter also presents a summary of funding opportunities for Metro and local jurisdictions across LA County.

Appendix F *Active Transportation Project Cost Estimation Memo* presents the complete approach to developing cost estimate for the 2023 ATSP.

5.1.1 FLM Cost Estimates

Unit costs for FLM areas were developed using cost estimates from nine prior FLM plans for 54 Metro stations adopted between 2018 and 2021. The station area costs at the time of adoption are listed in **Appendix F**, with their adjustment for inflation. The 2023 ATSP FLM areas, including the 54 FLM areas represented in prior plans, were categorized into typologies reflecting varying levels of activity and urban form. To operationalize these characteristics, the FLM areas were separated into three categories by the sum of their population and employment to approximate the station area’s activity levels, and into two categories of intersection density to approximate the surrounding area’s urban form.

Table 5.1 describes the ranges of population, employment and intersection counts by FLM area that define the typology categorization into high, medium and low values.

Table 5.1

FLM AREA TYPOLOGIES – RANGES OF INPUT VALUES

SUM OF POPULATION AND EMPLOYMENT	
Category	Range
High	Greater than 65,534
Medium	19,160 – 65,534
Low	19,159 or Less
Count of Intersections	
Category	Range
High	Greater than 55
Low	55 or Less

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This categorization resulted in six possible typologies. There were no FLM areas within the high population and employment with low intersection count typology, thus this category did not factor into the costing methodology. Examples of stations within each of the five FLM area typologies and their urban characteristics are shown in **Table 5.2**.



Table 5.2

FLM AREA TYPOLOGIES








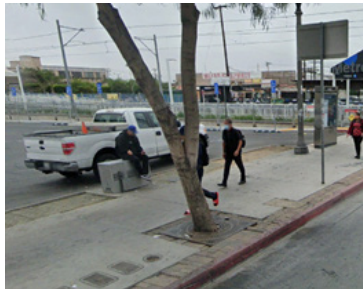


<p>TYPOLGY POP + EMP / INTERSECTION COUNT</p>	<p>POP + EMP WITHIN 0.5-MILE</p>	<p>INTERSECTION COUNT WITHIN 0.5-MILE</p>	<p>PHOTOS OF EXAMPLE FLM AREAS BY TYPOLOGY</p>	
<p>High/High</p>	<p>Greater than 65,534</p>	<p>Greater than 55</p>	 <p>7th St/ Metro Center Station (Los Angeles)</p>	 <p>Civic Center Metro Station (Los Angeles)</p>
<p>Med/High</p>	<p>19,160 to 65,534</p>	<p>Greater than 55</p>	 <p>Vermont/Sunset Metro Station (Los Angeles)</p>	 <p>Hollywood/Highland Metro Station (Los Angeles)</p>
<p>Med/Low</p>	<p>19,160 to 65,534</p>	<p>55 or Less</p>	 <p>26th/Bergamot Metro Station (Santa Monica)</p>	 <p>Brand Ave & Broadway (Glendale)</p>

Table 5.2

FLM AREA TYPOLOGIES

TYPOLOGY POP + EMP / INTERSECTION COUNT	POP + EMP WITHIN 0.5-MILE	INTERSECTION COUNT WITHIN 0.5-MILE	PHOTOS OF EXAMPLE FLM AREAS BY TYPOLOGY	
Low/High	19,159 or Less	Greater than 55	 <p data-bbox="802 909 1130 974">Downtown Pomona Metrolink (Pomona)</p>	 <p data-bbox="1211 909 1461 974">Florence Metro Station (Florence-Graham)</p>
Low/Low	19,159 or Less	55 or Less	 <p data-bbox="837 1415 1088 1482">Norwalk Metro Station (Norwalk)</p>	 <p data-bbox="1195 1415 1477 1482">Chatsworth Metro Station (Los Angeles)</p>

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A cost per acre for build out of FLM areas by typology was developed using the prior 54 station area cost estimates, and then applied to the acreage of FLM area by typology for the entire 2023 ATSP.

Table 5.3 shows the range of cost estimates for each FLM area typology and their average acreage. By adjusting for inflation since the year of the source FLM plan, we are able to identify estimated costs per acre for 2023.

Table 5.3

FLM AREA COST ESTIMATE BY TYPOLOGY

		RANGE OF COST ESTIMATE					
		Low	Mean	High	Average FLM Size in Acres	Cost per Acre	Inflation Adjusted Cost per Acre
Typology Pop + Emp / Intersection Count	Low/Low	\$5,305,229	\$31,522,442	\$79,483,655	221.5	\$142,314	\$168,450
	Med/Low	\$6,056,049	\$27,812,691	\$62,604,161	202.9	\$137,076	\$158,597
	High/Low	N/A*					
	Low/High	\$9,194,580	\$45,353,731	\$103,947,000	261.7	\$173,304	\$206,746
	Med/High	\$26,717,954	\$42,748,168	\$67,205,285	285.4	\$149,783	\$177,488
	High/High	\$8,816,191	\$40,488,772	\$91,137,014	301.0	\$134,514	\$162,897

* There were no FLM areas located within the High Population/Employment – Low Intersection Count typology.

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Table 5.4 displays the inflation-adjusted, estimated cost for buildout of the 602 FLM areas across Los Angeles County by typology. The total acreage within each typology is also shown. To avoid duplication in estimating costs where FLM areas overlap, overlapping acreage of the same typologies were only costed once. Where FLM areas of different typologies overlap, the overlapping acreage was assigned to the more expensive cost category.

The Low/High (low population + employment and high intersection density) typology has the highest acreage across LA County at roughly 55,000 acres, an estimated cost per acre of \$206,746 and an estimated total cost of \$11.4 billion to build out all Low/High FLM areas.

The total cost to build out the entire network of FLM areas across LA County is estimated at roughly \$22 billion. See **Appendix F** for a complete explanation of the treatment of overlapping FLM areas for cost estimation purposes.

Table 5.4

2023 ATSP FLM AREA COST ESTIMATE BY TYPOLOGY

FLM AREA TYPOLOGY	ACRES	INFLATION ADJUSTED COST PER ACRE	TOTAL COST
Low/Low	42,159	\$168,450	\$7,101,744,530
Med/Low	1,408	\$158,597	\$223,326,717
High/Low	n/a	n/a	n/a
Low/High	55,641	\$206,746	\$11,503,538,616
Med/High	6,219	\$177,488	\$1,103,827,5642
High/High	212	\$162,897	\$34,455,562
FLM Areas with Prior Cost Estimates ⁷	n/a	n/a	\$2,054,054,139
Total Cost			\$22,020,947,205

* Excludes FLM areas with prior cost estimates

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⁷ FLM station areas with prior cost estimates were not estimated using the process described in this section, rather their cost as determined in their respective FLM plan was used, adjusted for inflation.

5.1.2 Pedestrian District Cost Estimation

Pedestrian district costing was also based on the prior Metro FLM plans. As the FLM plans identify improvements associated with pedestrian and bicycle projects, pedestrian project costs were isolated to estimate 2023 ATSP pedestrian district costs. The FLM area improvements were separated by mode and the proportion of pedestrian project costs to bicycle project costs, excluding all soft costs, was determined. The same typology categories used in the FLM costing were also used to differentiate cost estimates of pedestrian districts by activity level and urban form.

Twenty-two of the 54 FLM station areas with previous cost estimates from the nine adopted FLM plans provided enough project costing detail to adequately determine the share of total costs allocated to pedestrian-specific projects. There were no FLM station areas occurring in the High/Low typology from which to base cost estimates for pedestrian projects. Another typology (High/High) had no representation within the 22 FLM station areas for pedestrian-specific projects costs. For those typologies without cost estimates to reference, the average cost proportion of all 22 FLM station areas was used as a substitute. These proportions were then applied to the FLM cost per acre by typology to determine a pedestrian district cost per acre.

Table 5.5 displays the inflation-adjusted cost per acre estimates for pedestrian districts.

Table 5.5

PEDESTRIAN PROJECT UNIT COSTS

		FLM COST PER ACRE	AVERAGE COST PROPORTION ATTRIBUTABLE TO PEDESTRIAN PROJECTS	PEDESTRIAN PROJECT COST PER ACRE	INFLATION ADJUSTED COST PER ACRE
Typology Pop + Emp / Intersection Count	Low/Low	\$142,314	58%	\$82,542	\$95,419
	Med/Low	\$137,076	74%	\$101,436	\$117,260
	High/Low	\$134,514	62%*	\$83,399	\$96,409
	Low/High	\$173,304	66%	\$114,381	\$132,224
	Med/High	\$149,783	74%	\$110,840	\$128,131
	High/High	\$134,514	62%*	\$83,399	\$96,409

*No examples available, used mean of all FLM studies where proportion could be calculated
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Table 5.6 displays the inflation-adjusted, cost estimate for buildout of the 81 pedestrian districts across Los Angeles County by typology.

As with the FLM areas, the Low/High (low population + employment and high intersection density) typology has the highest number of acres across LA County at roughly 60,000 acres, an estimated cost per acre of \$132,224, and an estimated total cost of \$8 billion to build out all Low/High pedestrian districts.

The total cost to build the entire network of roughly 89,000 acres of 2023 ATSP pedestrian districts is estimated at roughly \$11 billion.



Table 5.6

2023 ATSP PEDESTRIAN DISTRICT COST ESTIMATE BY TYPOLOGY

PEDESTRIAN PROJECT AREA TYPOLOGY	ACRES	INFLATION ADJUSTED COST PER ACRE	TOTAL COST
Low/Low	21,174	\$95,419	\$2,020,418,236
Med/Low	1,540	\$117,260	\$180,568,234
High/Low	256	\$96,409	\$24,710,319
Low/High	60,404	\$132,224	\$7,986,868,880
Med/High	5,275	\$128,131	\$675,837,413
High/High	860	\$96,409	\$82,900,846
Totals	89,509		\$10,971,303,927

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5.1.3 Bikeway Project Cost Estimation

In developing updated unit costs for bicycle projects, unit costs from recent projects in the California Transportation Commission’s Active Transportation Program (ATP) were employed. The unit costs reflect an estimated cost per mile by bicycle facility type, including both construction costs and soft costs such as preliminary engineering, right-of-way and final design, as shown in **Table 5.7**.

Table 5.7

BICYCLE UNIT COST ESTIMATES BY FACILITY TYPE (\$/MILE)

BICYCLE FACILITY TYPE	PER MILE UNIT COST
Class I - Shared-Use Path (Off-Street)	\$1,530,000 - 3,366,000
Class IV – Separated Cycle Track with Raised Median Buffer (On-street)	\$5,355,000 - \$10,557,000

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Table 5.8 displays the inflation-adjusted cost estimate for buildout of the 2023 ATSP regional bikeways across LA County. While the design of each bikeway project will be up to the implementing city or agency, the ATSP assumes a high-level of cyclist protection in future facilities. For this reason, our estimate used per unit costs of Class I (Share-Use Paths) facilities for off-street bikeways and Class IV (Protected Bicycle Lanes) for on-street bikeways.

The cost to implement the approximately 183 miles of proposed off-street bikeways is estimated to range from roughly \$280 million to \$616 million, while the 1,022 miles of on-street bikeways is estimated to cost between \$5.5 and \$10.8 billion.

The total cost to build out the complete network of 2023 ATSP regional bikeways is estimated to range from roughly \$5.8 billion to \$11.4 billion.

Table 5.8

2023 ATSP BIKEWAY COST ESTIMATE BY FACILITY TYPE

BICYCLE FACILITY TYPE	TOTAL BIKEWAY MILES	COST PER MILE	TOTAL COST
Shared-Use/Off-Street Path (Class I)	183.1	\$1,530,000 - 3,366,000	\$280,143,000 - \$616,314,600
Protected Bicycle Lane (Class IV)	1,021.9	\$5,355,000 - \$10,557,000	\$5,472,274,500 - \$10,788,198,300
Totals	1,205		\$5,752,417,500 – \$11,404,512,900

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5.2 Funding Opportunities

There are multiple avenues to secure funding for bikeway and pedestrian planning, engineering and construction. It should be noted, however, that most grant funds are competitive, and regional, state and federal authorities receive more applications requesting funding each year than there are funding dollars available.

The following tables outline relevant grant programs for Metro and local agencies in LA County to consider when pursuing funding. A brief description of each program, the eligible projects, funding amounts and frequencies, and funding cycles is provided.



Regional Funding

Regionally, Metro, SCAG and Caltrans distribute grant funds for transportation projects.

Table 5.9

REGIONAL GRANT FUNDS

FUNDING PROGRAM	RELEVANT ELIGIBLE PROJECTS	FUNDING AMOUNT/ FUNDING FREQUENCY	NOTES
<p>Metro Measure M Active Transport, Transit and First/Last Mile (MAT) Program</p> <p>Established by Measure M, this is a competitive discretionary program available to municipalities in LA County. The purpose of the MAT Program is to encourage increased use of active modes of transportation, such as biking and walking, and enhanced pedestrian and bicycle safety.</p>	<p>Eligible MAT projects should:</p> <ul style="list-style-type: none"> •Improve and grow the active transportation network •Expand the reach of transit 	<ul style="list-style-type: none"> •Program cycles to occur every 2-5 years •\$75 million awarded to projects in Cycle 1 •Cycle 1 featured a maximum project award of \$5 million 	<ul style="list-style-type: none"> •The MAT program is committed to encouraging, testing and refining project partnerships and innovative delivery approaches •The MAT program is informed by Metro’s ATSP Network and Equity Platform Framework
<p>Metro Measure M Multi-Year Subregional Program (MSP)</p> <p>Influenced by projects submitted by subregions during the development of Measure M, the Multi-Year subregional program funds projects eligible under a subregion’s highway subfund program.</p> <p>Active transportation projects may be eligible for a subregion’s multi-year subregional program. Cities are encouraged to work with their respective Council of Governments to submit eligible projects per the Measure M Guidelines.</p>	<p>Projects vary by subregional funding guidelines, but generally, eligibility might include:</p> <ul style="list-style-type: none"> •Improving non-motorized access to transit •Sidewalk improvements, enhanced crosswalks/ crossings •Bike lanes, bike parking •Signage and wayfinding 	<ul style="list-style-type: none"> •Funding availability sized proportionally to Metro subregion, see Measure M Expenditure Plan for details. 	<p>The following Metro subregions have begun utilizing MSP funds as of early 2023:</p> <ul style="list-style-type: none"> •Central City •Las Virgenes/Malibu •North County •San Gabriel Valley •Westside Cities •South Bay •Gateway Cities •Arroyo Verdugo

Table 5.9

REGIONAL GRANT FUNDS

FUNDING PROGRAM	RELEVANT ELIGIBLE PROJECTS	FUNDING AMOUNT/ FUNDING FREQUENCY	NOTES
<p>Metro Open Streets Grant Funding</p> <p>Metro’s Open Streets Grant Program promotes opportunities for riding transit, mode shifts to active transportation and civic engagement by advancing temporary street closure events.</p>	<ul style="list-style-type: none"> •Events that temporarily close streets to automobiles 	<ul style="list-style-type: none"> •\$4.47 million approved for 2018 Grant Cycle •\$1 million awarded in 2020 “Mini Cycle” •Awarded biennially 	<ul style="list-style-type: none"> •2020 “Mini Cycle” followed the approved Open Streets Grant Program Cycle 3 in 2018
<p>Metro Local Return Program</p> <p>Local return funds are allocated and distributed monthly to county jurisdictions on a per capita basis. Local return funds are sourced from Proposition A (25%), Proposition C (20%), Measure R (15%) and Measure M (17%). \$1 billion is generated annually in local transportation revenue from the aforementioned propositions and measures where a proportion of said funds are earmarked for the Local Return Program</p>	<ul style="list-style-type: none"> •Streets and roads •Traffic control measures •Bikeways and pedestrian improvements •Public transit services •Public transit capital •Transportation marketing, •Planning, engineering and/or study, congestion management program •Transportation administration •Local funding contributions 	<ul style="list-style-type: none"> •\$583.3 million obtained in FY 2021 by Metro 	<ul style="list-style-type: none"> •Local Return funds are allocated and distributed monthly to LA jurisdictions on a per capita basis by Metro

Table 5.9

REGIONAL GRANT FUNDS

FUNDING PROGRAM	RELEVANT ELIGIBLE PROJECTS	FUNDING AMOUNT/ FUNDING FREQUENCY	NOTES
<p>SCAG Sustainable Communities Program (SCP)</p> <p>With cycles focusing on different program areas and funding categories, this program aims to provide local jurisdictions and agencies the resources for strategies related to active transportation, transportation safety, removing barriers to housing production, smart permitting, and integrated land use.</p>	<ul style="list-style-type: none"> •Vision Zero Policy and Programs or Transportation Safety Plans •Multimodal corridor studies 	<ul style="list-style-type: none"> •\$5 million available for SCP Call 4 •Funding available annually/biennially (past closure dates for applications for different program areas: Dec. 11, 2020, Jan. 29, 2021, and April 23, 2021) 	<ul style="list-style-type: none"> •SCP Call 4 does not support capital improvement construction projects; it prioritizes planning or analysis of feasibility and planning and upfront activities. SCP Call 4 funding parameters must align with Draft Regional Early Action Planning Grant Program (REAP) 2.0 Guidelines •Average project award of \$250,000 •No minimum or maximum amounts
<p>Transportation Development Act (TDA) Article 3 - Caltrans</p> <p>2 percent of the Local Transportation Funds (LTF) are available to counties and cities for facilities for the exclusive use of pedestrians and bicyclists. California Department of Transportation administers the statutes and regulations of the TDA. Program includes two variants with cycles every two years: Formulaic and Competitive.</p>	<ul style="list-style-type: none"> •Bicycle and pedestrian facilities •Bicycle safety educational programs •Bicycle/pedestrian planning 	<ul style="list-style-type: none"> •\$6.7 million obtained in FY 2021 by Metro •Funding available biennially 	<ul style="list-style-type: none"> •Other Transportation Planning Agencies (TPAs) hold webpages dedicated to (TDA) Article 3, Metro does not. •TPA must annually hold one Unmet Transit Needs Hearing •Program compliance: Fiscal audits (every year) and performance audits (every three years)

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Statewide Funding

On a statewide level, there are several agencies that have grant funding available for active transportation projects.

Table 5.10

STATEWIDE GRANT FUNDS

FUNDING PROGRAM	RELEVANT ELIGIBLE PROJECTS	FUNDING AMOUNT/ FUNDING FREQUENCY	NOTES
<p>Active Transportation Program (ATP) – California Transportation Commission</p> <p>ATP was created to encourage use of active modes of transportation, increase the safety and mobility of non-motorized users, help achieve greenhouse gas reduction goals, enhance public health, and provide a broad spectrum of projects to benefit many types of active transportation users while ensuring disadvantages communities share in the benefits.</p>	<ul style="list-style-type: none"> •Capital projects: environmental, design, right-of-way, and construction phases of a capital project •Plans: Community-wide bicycle, pedestrian, safe routes to school, or active transportation plan •Non-Infrastructure (NI) Projects: Education, Encouragement, and Enforcement activities 	<ul style="list-style-type: none"> •\$650 million available for ATP Cycle 6 •ATP cycles set biennially •Each ATP programming cycle includes four years of funding 	<ul style="list-style-type: none"> •The application cycle is on a two-year schedule. Cycle 6 Call for Projects closed June 2022 •Minimum request for infrastructure projects is \$250,000, however, the minimum does not apply to Safe Routes to Schools projects or Recreational Trail projects •Match Funding Requirements: None •In each cycle of the ATP, LA County has received at least \$350 million in cumulative project funding
<p>Affordable Housing and Sustainable Communities Program (AHSC) – CA Strategic Growth Council</p> <p>Funds land-use, housing, transportation, and preservation projects to support infill and compact development that reduces GHG emissions.</p>	<ul style="list-style-type: none"> •Bike facilities •Pedestrian facilities •Connections to transit •Connections to affordable housing 	<ul style="list-style-type: none"> •\$405 million for FY 2021 Round 6 Cycle •Funding available annually 	<ul style="list-style-type: none"> •Must benefit disadvantaged communities, low-income communities, and/or low-income households •Project area must contain at least one transit stop •Project must include an affordable housing development or housing related infrastructure. Full details of eligible projects elaborated in Affordable Housing and Sustainable Communities Program Round 7 Program Guidelines •Notice of Funding Availability (NOFA) set to be released January 2023 •Match Funding Requirements: 90%

Table 5.10

STATEWIDE GRANT FUNDS

FUNDING PROGRAM	RELEVANT ELIGIBLE PROJECTS	FUNDING AMOUNT/ FUNDING FREQUENCY	NOTES
<p>Solutions for Congested Corridors Program – California Transportation Commission</p> <p>Statewide, competitive program that provides funding to achieve a balanced set of transportation, environmental, and community access improvements to reduce congestion throughout the state.</p>	<ul style="list-style-type: none"> •Project may include improvements to local streets and roads, public transit facilities, bicycle and pedestrian facilities 	<ul style="list-style-type: none"> •\$250 million available annually •Previous Program Cycles were in 2022 and 2020 	<ul style="list-style-type: none"> •Biannual program •Projects must be in an adopted comprehensive corridor plan •Open to regional transportation planning agencies, county transportation commissions, and Caltrans •Match Funding Requirements: None
<p>Local Highway Safety Improvement Program (HSIP) – Caltrans</p> <p>Serves to reduce traffic fatalities and serious injuries on all public roads.</p>	<ul style="list-style-type: none"> •HSIP funds are eligible for work on any public road or publicly owned bicycle or pedestrian pathway or trail that improves the safety for its users 	<ul style="list-style-type: none"> •\$227.6 million for Caltrans HSIP Cycle 10 (FY 2021) •Funding available biannually or annually 	<ul style="list-style-type: none"> •Usually, two calls for projects in the calendar year •Agency must have a Local Roadway Safety Plan or equivalent to apply •Match Funding Requirements: 10%
<p>Local Streets and Roads Program (LSRP) – California Transportation Commission</p> <p>Dedicated formula funding for cities and counties to perform basic road maintenance, rehabilitation, and critical safety projects on the local streets and roads systems.</p>	<ul style="list-style-type: none"> •Safety projects •Complete streets components •Traffic control devices •Maintenance and rehabilitation 	<ul style="list-style-type: none"> •Approximately \$1.3 billion in Road Maintenance and Rehabilitation Account, Local Streets and Roads Funds are expected to be disbursed monthly from the Controller in Fiscal Year 2022-23. •Funding available annually 	<ul style="list-style-type: none"> •Annual formula distributions •To be eligible, cities must submit an adopted proposed project list to the California Transportation Commission.
<p>Office of Traffic Safety (OTS) Grant Program – California Office of Traffic Safety</p> <p>Funding to prevent serious injury and death resulting from motor vehicle crashes so all roadway users arrive at their destination safely.</p>	<ul style="list-style-type: none"> •Non-infrastructure programs •Safety education programs •Encouragement programs •SRTS programs 	<ul style="list-style-type: none"> •Funding available annually 	<ul style="list-style-type: none"> •Grants available annually with applications typically due at the end of January (the 31st) •OTS grants may only be applied to non-infrastructure projects

Table 5.10

STATEWIDE GRANT FUNDS

FUNDING PROGRAM	RELEVANT ELIGIBLE PROJECTS	FUNDING AMOUNT/ FUNDING FREQUENCY	NOTES
<p>Public Access Program – California Wildlife Conservation Board</p> <p>Program funding is focused on creating opportunities for meaningful wildlife-oriented recreation experiences.</p>	<ul style="list-style-type: none"> •Planning, preliminary design, environmental review, permitting, final design and construction costs for facilities or the enhancement of existing facilities that will provide for public access to wildlife-oriented activities 	<ul style="list-style-type: none"> •Funding available annually 	<ul style="list-style-type: none"> •Available annually, with a call for projects open in the spring •Match Funding Requirements: None
<p>Recreational Trails Program (RTP) – California Parks Department</p> <p>Administered by the California Department of Parks and Recreation. Provides funds for recreational trails and trails-related projects.</p>	<ul style="list-style-type: none"> •Development and rehabilitation of trails, trailside and trailhead facilities •Construction of new trails •Acquisition of easements and simple title to property for recreational trails 	<ul style="list-style-type: none"> •Funding available annually 	<ul style="list-style-type: none"> •Annual funding cycle •Match Funding Requirements: 12%
<p>Sustainable Communities Grants – Caltrans</p> <p>Funds intended to: further the region’s Regional Transportation Program/Sustainable Communities Strategy, help achieve the state’s GHG reduction targets, and directly benefit the multi-modal transportation system.</p>	<ul style="list-style-type: none"> •Safe Routes to School Plan •Active Transportation Project Feasibility Study •First/Last-Mile Connectivity Plan •Active Transportation Plans 	<ul style="list-style-type: none"> •Most recent cycle made \$17 million available, with maximum grant of \$700,000 •Funding available annually 	<ul style="list-style-type: none"> •11.47% minimum local match required (cash or in-kind) •Annual funding cycle, kick-off workshops are typically held in the spring.
<p>Transformative Climate Communities– California Strategic Growth Council</p> <p>Funds community-led development and infrastructure projects that achieve major environmental, health and economic benefits in California’s most disadvantaged communities.</p>	<ul style="list-style-type: none"> •Bike facilities •Pedestrian facilities •Urban greening for pedestrian facilities •Bike share program 	<ul style="list-style-type: none"> •\$163.2 million available for Round 5 of TCC program 	<ul style="list-style-type: none"> •Future grant solicitations expected •Match Funding Requirements: 50%

Table 5.10

STATEWIDE GRANT FUNDS

FUNDING PROGRAM	RELEVANT ELIGIBLE PROJECTS	FUNDING AMOUNT/ FUNDING FREQUENCY	NOTES
<p>Urban Greening Program – California Natural Resources Agency</p> <p>Supports the development of green infrastructure projects that reduce GHG emissions and provide multiple benefits, such as reducing commute vehicle miles travelled (VMT) by constructing bicycle or pedestrian facilities that provide safe routes for travel.</p>	<ul style="list-style-type: none"> •Non-motorized urban trails •Projects that expand or improve the usability of existing active transportation routes or create new active transportation routes •Complete Green Streets 	<ul style="list-style-type: none"> •\$47.5 million available (Source: Urban Greening Program Final Guidelines) 	<ul style="list-style-type: none"> •Future grant solicitations expected •All projects must expand park or green space or use natural systems - or mimic natural systems - to achieve multiple benefits •Match Funding Requirements: None
<p>Clean Mobility Options - CA Air Resources Board</p> <p>Program focuses on funds for zero-emissions shared mobility projects (such as car sharing, bike sharing and on-demand sharing) in disadvantaged and low-income communities, including some tribal and affordable housing communities (California Climate Investments).</p>	<ul style="list-style-type: none"> •Bike share programs •Infrastructure improvement projects 	<ul style="list-style-type: none"> •\$34 million available for FY 2022/2023 funding for CMO Pilot Program 	<ul style="list-style-type: none"> •Awards two kinds of vouchers: Mobility Project Vouchers and Needs Assessment Vouchers •Application window for Community Transportation Needs Assessment Vouchers closed December 7, 2022 •Phase 1 Mobility Project Vouchers applications anticipated to open early 2023 •Match Funding Requirements: None
<p>Sustainable Transportation Equity Project (STEP) - Air Resources Board</p> <p>The pilot program aims to address community residents' transportation needs, increase access to key destinations, and reduce greenhouse gas emissions by funding planning, clean transportation, and supporting projects for the purpose of increasing transportation equity. STEP offers two types of grants: Planning and Capacity Building Grants and Implementation Grants.</p>	<ul style="list-style-type: none"> •Bike or pedestrian facilities •Active Transportation Plan •Bike Plan •Pedestrian Plan •Safe Routes to School Plan •Capacity Building (NI Programs– education, engagement, demo projects, campaigns) 	<ul style="list-style-type: none"> •\$44.5 million total •Funding available annually 	<ul style="list-style-type: none"> •Future funding cycles to be determined by CA Air Resources Board •Match Funding Requirements: 20%

Table 5.10

STATEWIDE GRANT FUNDS

FUNDING PROGRAM	RELEVANT ELIGIBLE PROJECTS	FUNDING AMOUNT/ FUNDING FREQUENCY	NOTES
<p>Transit and Intercity Rail Capital Program (TIRCP)- CalSTA and Caltrans Division of Rail and Mass Transportation</p> <p>Provides grants from the Greenhouse Gas Reduction Fund (GGRF) to fund transformative capital improvements that will modernize California’s intercity, commuter, and urban rail systems, and bus and ferry transit systems, to significantly reduce emissions of greenhouse gases, vehicle miles traveled, and congestion.</p>	<ul style="list-style-type: none"> •First/Last Mile •Non-Infrastructure (NI) Education and Outreach •Bicycle and pedestrian facilities at transit sites 	<ul style="list-style-type: none"> •\$900 million to \$1.35 billion (Existing TIRCP Projects Leveraging Federal and Local Funds Reserve) •Funding available annually 	<ul style="list-style-type: none"> •Applicants must be public agencies that operate or have planning responsibility for transit service •Match Funding Requirements: None
<p>Local Partnership Program (LPP)- California Transportation Commission</p> <p>Includes competitive and formulaic programs. Provides funding to counties, cities, districts, and regional transportation agencies that administer voter approved fees or taxes dedicated solely to transportation improvements or that have imposed fees, including uniform developer fees, dedicated solely to transportation improvements.</p>	<ul style="list-style-type: none"> •Bicycle and pedestrian facilities 	<ul style="list-style-type: none"> •\$200 million annually 	<ul style="list-style-type: none"> •Biannual competitive and formulaic funding cycle •Match Funding Requirements: For full details see “Section 8B. Matching Requirements” of 2022 Local Partnership Competitive Program Guidelines (pg. 8)

Table 5.10

STATEWIDE GRANT FUNDS

FUNDING PROGRAM	RELEVANT ELIGIBLE PROJECTS	FUNDING AMOUNT/ FUNDING FREQUENCY	NOTES
<p>State Transportation Improvement Program (STIP)- California Transportation Commission</p> <p>The STIP is the biennial five-year plan adopted by the Commission for future allocations of certain state transportation funds for state highway improvements, intercity rail, and regional highway and transit improvements. Local agencies should work through Metro to nominate projects for inclusion in the STIP.</p>	<ul style="list-style-type: none"> •Bicycle and pedestrian projects 	<ul style="list-style-type: none"> •\$2.1 billion (FY 2022) •Funding available biennially 	<ul style="list-style-type: none"> •Must be eligible for State Highway Account or federal funds •Inclusion in STIP is subject to Metro Long Range Transportation Plan priorities •For details on funding eligibility see “Section 25. Regional Improvement Program Project Eligibility” of the State Transportation Improvement Program Guidelines (pg.15-16)
<p>Reconnecting Communities: Highways to Boulevards Pilot Program (RC:H2B) – Caltrans</p> <p>Plans for the conversion of key underutilized highways in the state into multi-modal corridors to reconnect communities divided by transportation infrastructure via community-based transportation planning, design, demolition, and/or reconstruction of city streets, parks or other infrastructure. The proposed project must address an “eligible facility,” which is defined as a highway or other transportation facility that creates a barrier to community connectivity, including barriers to mobility, access, or economic development, due to high speeds, grade separations or other design factors.</p>	<ul style="list-style-type: none"> •Eligible facilities include limited access highways, viaducts, any other principal arterial facilities, and other facilities such as transit lines, rail lines, gas pipelines, and airports. Construction activity projects must be associated with the removal, retrofit, or mitigation of an eligible facility and/or the replacement of an eligible facility with a new facility that restores community connectivity •Bicycle and pedestrian projects 	<ul style="list-style-type: none"> •\$149 million (FY 2022-23) 	<ul style="list-style-type: none"> •Planning Grants: \$500,000 (minimum award per project), \$2 million (maximum award per project) •Capital Construction Grants-\$3 million (minimum award per project)- \$100 million (estimated maximum award per project) •Does not require a match of private, local, federal or other state funds, however it is highly encouraged to provide other funding

Table 5.10

STATEWIDE GRANT FUNDS

FUNDING PROGRAM	RELEVANT ELIGIBLE PROJECTS	FUNDING AMOUNT/ FUNDING FREQUENCY	NOTES
<p>Local Transportation Climate Adaptation Program (LTCAP) – California Transportation Commission</p> <p>Distributing funds from the Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) Program, the Local Transportation Climate Adaptation Program (LTCAP) provides competitive grants to local agencies for the development and implementation of capital projects adapting local transportation infrastructure to climate changes.</p>	<ul style="list-style-type: none"> •Public transportation facilities that may include transit facilities, publicly owned railroads, active transportation facilities and public parking structures. 	<ul style="list-style-type: none"> •\$252.5 million provided to California over 5 years 	<ul style="list-style-type: none"> •Eligible projects must include: meeting specifications as directed from Planning and Investing for a Resilient California: A Guidebook for State Agencies, consistency with state, regional, or local climate adaptation reports, plans, and the Adaptation Planning Guide, outreach to under-resourced and vulnerable communities, incorporate environmental equity, protecting and providing benefits to vulnerable and under-resourced communities, providing meaningful benefits to underserved communities, and consistency with the California State Adaptation Strategy

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Federal Funding

Table 5.11 presents possible federal grant programs that may be available for Metro and local agencies across LA County in support of active transportation projects.

Table 5.11

FEDERAL GRANT FUNDS

FUNDING PROGRAM	DESCRIPTION	FUNDING AMOUNT/ FUNDING FREQUENCY/ MATCH REQUIREMENTS
Rebuilding American Infrastructure with Sustainability and Equity (RAISE) – USDOT transportation.gov/RAISEgrants	Grant program is intended to help urban and rural communities move forward on projects that modernize roads, bridges, transit, rail, ports and intermodal transportation.	<ul style="list-style-type: none"> •\$1.5 billion available in 2023 •Projects in disadvantaged areas and rural areas are eligible for up to 100% federal cost share where projects in other areas require a 20% match
Reconnecting Communities Pilot Program (RCP) – USDOT transportation.gov/grants/reconnecting-communities	Program dedicated to reconnecting communities that were previously cut off from economic opportunities by transportation infrastructure. Funding supports planning grants and capital construction grants, as well as technical assistance, to restore community connectivity through the removal, retrofit, mitigation, or replacement of eligible transportation infrastructure facilities.	<ul style="list-style-type: none"> •\$1 billion total available between FY 2022-2026 •FY 2022- \$195 million available •Planning and Capital Construction grants require a minimum 20% Non-Federal match
Nationally Significant Multimodal Freight & Highway Projects (INFRA) – USDOT transportation.gov/grants/infra-grants-program	Awards competitive grants for multimodal freight and highway projects of national or regional significance to improve the safety, efficiency, and reliability of the movement of freight and people in and across rural and urban areas. The program is part of the FY22 Multimodal Project Discretionary Grant Opportunity (MPDG) and is updated to include new eligibilities, set-asides and other programming changes from the FAST Act of 2015.	<ul style="list-style-type: none"> •\$8 billion total available from FY 2022-2026 •Matching Funds: 40% match required
Safe Streets and Roads for All Grant Program (SS4A) – USDOT transportation.gov/grants/SS4A	2021's Bipartisan Infrastructure Law (BIL) established the new Safe Streets and Roads for All (SS4A) discretionary program with \$5 billion in appropriated funds over the next five years. Includes Action Plan Grants and Implementation Grants.	<ul style="list-style-type: none"> •\$5 billion over five years •\$1 billion available in FY 2022 •20% of total project funds are required from non-Federal sources
Thriving Communities Program– USDOT transportation.gov/grants/thriving-communities	Funds are directed towards disadvantaged communities to facilitate the planning and development of transportation and community revitalization activities and provides tools to ensure access to funding provided in the Bipartisan Infrastructure Law (BIL).	<ul style="list-style-type: none"> •\$25 million •No match requirement

Table 5.11

FEDERAL GRANT FUNDS

FUNDING PROGRAM	DESCRIPTION	FUNDING AMOUNT/ FUNDING FREQUENCY/ MATCH REQUIREMENTS
<p>Railroad Rehabilitation & Improvement Financing (RRIF) – USDOT</p> <p><i>transportation.gov/buildamerica/financing/rrif</i></p>	<p>RRIF offers direct loans and loan guarantees for capital projects related to rail facilities, stations or crossings. Pedestrian and bicycle infrastructure components of “economic development” projects located within half-mile of qualifying rail stations may be eligible and may be combined with other grant sources. (Chapter 224 of title 49 U.S.C.). Most RRIF activity and projects types related to active transportation are eligible for funding under the program, but are not competitive unless part of a larger project.</p>	<ul style="list-style-type: none"> •No information available (Internet search conducted January 2023)
<p>Transportation Infrastructure Finance and Innovation Act (TIFIA) program– USDOT</p> <p><i>transportation.gov/buildamerica/financing/tifia</i></p>	<p>The TIFIA credit program includes three types of financial assistance (secured/direct loans, loan guarantees and standby credit) aimed to improve qualified projects of regional and national significance, including large-scale, surface transportation projects.</p>	<ul style="list-style-type: none"> •\$300 million authorized for 2020 •No other current information available (Internet search conducted January 2023) •Matching Funds: N/A
<p>FTA Transit-Oriented Development Program (TOD) – FTA</p> <p><i>transit.dot.gov/TOD</i></p>	<p>Annual, competitive, TOD planning grants aim to support community efforts to increase access and use of public transportation, increase connectivity, and improve safety for pedestrians and cyclists. Project funds were last announced as of November 17,2022.</p>	<p>\$13.1 million awarded in FY 2022 TOD planning grants</p>
<p>Areas of Persistent Poverty Program (AoPP) – FTA</p> <p><i>transit.dot.gov/grant-programs/areas-persistent-poverty-program</i></p>	<p>The competitive grant program supports projects that address the transportation challenges faced by areas of persistent poverty. Maximum grant limits are set at \$850,000.</p>	<ul style="list-style-type: none"> •\$16.2 million in FY 2020 and FY 2021 funding •Match Requirements: Minimal federal share is no less than 90%
<p>Bridge Investment Program, (BIP) – FHWA</p>	<p>One of the variety of FHWA programs focusing on supporting bridge infrastructure, the BIP focuses on existing bridges in poor or at risk of being in poor condition.</p>	<p>Bridge Investment Program:</p> <ul style="list-style-type: none"> •\$12.5 billion over five years •\$2.4 billion available in FY 2022

Table 5.11

FEDERAL GRANT FUNDS

FUNDING PROGRAM	DESCRIPTION	FUNDING AMOUNT/ FUNDING FREQUENCY/ MATCH REQUIREMENTS
<p>Carbon Reduction Program (CRP) – FHWA</p> <p>fhwa.dot.gov/environment/sustainability/energy/policy/crp_guidance.pdf</p> <p><i>Bipartisan Infrastructure Law - Carbon Reduction Program (CRP) Fact Sheet Federal Highway Administration (dot.gov)</i></p>	<p>Derived from 2021's Bipartisan Infrastructure Law (BIL), the program focuses on providing funds for projects designed to reduce transportation emissions, defined as carbon dioxide (CO₂) emissions from on-road highway sources.</p>	<ul style="list-style-type: none"> •\$1.234 billion for FY 2022 •\$555 million estimated available funds for California •Matching Funds: 20% Required
<p>Congestion Mitigation and Air Quality Improvement (CMAQ) – FHWA</p> <p>fhwa.dot.gov/environment/air_quality/cmaq/</p>	<p>Continued with 2021's Bipartisan Infrastructure Law (BIL), program funding focuses on projects that reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter. Added project eligibility from the previous CMAQ program includes micro mobility</p>	<ul style="list-style-type: none"> •\$2.536 billion available in 2022 •Matching Funds: 20% Required •Funds programmed/allocated to local jurisdictions by Metro
<p>Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Formula Program – FHWA</p> <p>fhwa.dot.gov/environment/sustainability/resilience/</p>	<p>Program provides funds for resilience improvements to surface transportation assets regarding current and future weather events and natural disasters and changing conditions, including sea level rise, with formula funding distributed to states and competitive planning grants.</p>	<ul style="list-style-type: none"> •\$1.4 billion total available in 2022 •Matching Funds: 20% generally required
<p>Surface Transportation Block Grant Program (STBG) – FHWA</p> <p>fhwa.dot.gov/specialfunding/stp/</p>	<p>The Surface Transportation Block Grant program (STBG) provides flexible funding that may be used by states and localities for projects to preserve and improve the conditions and performance on any federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals.</p>	<ul style="list-style-type: none"> •\$13.835 billion total available in 2022 •Matching Funds: 20% required; 10% for interstate projects •Funds programmed/allocated to local jurisdictions by Metro
<p>National Scenic Byways Program (NSBSP) – FHWA</p> <p>fhwa.dot.gov/hep/scenic_byways/</p>	<p>The program funds improvements, such as byway facilities, safety improvements, and interpretive information, along roads in the United States that merit recognition at the national level for their outstanding scenic, historic, cultural, natural recreational and archeological qualities.</p>	<ul style="list-style-type: none"> •\$22 million available in 2022

Table 5.11

FEDERAL GRANT FUNDS

FUNDING PROGRAM	DESCRIPTION	FUNDING AMOUNT/ FUNDING FREQUENCY/ MATCH REQUIREMENTS
<p>Federal Lands Transportation Program (FLTP) – FHWA</p> <p><i>highways.dot.gov/federal-lands/programs/transportation</i></p>	<p>The program focuses on improving federal lands transportation facilities (FLTFs) that are located on, adjacent to, or provide access to federal lands. The FLTFs must be owned and maintained by the federal government and must be included in the national FLTF inventory.</p>	<ul style="list-style-type: none"> •\$1.775 billion total available for FY 2016 to FY 2020 •No match requirement •No other current information available (Internet search conducted January 2023)
<p>Active Transportation Infrastructure Investment Program (ATIIP)</p>	<p>Created by the Bipartisan Infrastructure Law and kick started by the Fiscal Year (FY) 2023 Omnibus Appropriations bill, the Active Transportation Infrastructure Investment Program (ATIIP) provides \$200 million annually in direct competitive grants over five years towards active transportation projects that increase connectivity while addressing goals around safety, equity and the environment. Project types that are eligible for funding includes active transportation projects or group of projects with a total cost of over \$15 million, or total cost of \$100,000 for planning and design grants.</p>	<ul style="list-style-type: none"> •\$200 million annually over 5 years

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Metro

31046

6952 Coach/Baggage

Programmatic Initiatives and Plan Benefits

This chapter presents a summary of current programmatic initiatives operated by Metro as well as recommendations for innovative programmatic initiatives that Metro or local agencies may want to consider implementing. The chapter concludes with a summary of the estimated benefits from buildout of the 2023 ATSP regional bikeways expected to accrue in terms of the environment, health, safety and household finances.





6.0 Programmatic Initiatives and Plan Benefits

6.1 Education, Encouragement and Other Programmatic Initiatives

The following are programs currently operated by Metro in support of active transportation.

Countywide Safe Routes to School Resource Manual

Metro published and made available a Countywide Safe Routes to School (SRTS) Resource Manual. The manual provides background information regarding SRTS programs, the benefits of SRTS and how to develop an SRTS culture. The manual provides easy to follow steps such as how to set up a SRTS program. Reproduction of the manual and the accompanying fact sheet, as well as student tally forms and parent survey, are encouraged.

Bike Month

Bike Month is a chance to encourage people to try riding a bike for recreation, mobility or to work. It is also an opportunity to share the many benefits of riding a bike.

Metro is an active participant and promoter of Bike Month each year. Programmatic details from past years include offering free 30-minute rides on Metro Bike Share, offering free transit rides, free online bicycle classes, prizes for cyclists who track their bike trips, promoting videos on how to take bikes on transit and showcasing a calendar of cycling events throughout the entire month.

Open Streets

Open Streets initiatives temporarily close streets to automobile traffic and open them to cyclists, pedestrians, and other modes of non-motorized transportation. This allows people to experience streets solely for active transportation and free from vehicles. Open Streets are an increasingly common strategy in regions that are seeking innovative ways to encourage mode shift to sustainable modes of transportation, reduce traffic congestion, and achieve economic and public health improvement.

Created in 2013, Metro's Open Streets Grant Program is intended for use by local jurisdictions. The Grant Program provides funding with the following goals:

- > Provide opportunities for riding transit, walking and riding a bike without vehicles present, possibly for the first time
- > Encourage future mode shift to more sustainable transportation modes
- > Promote civic engagement to foster the development of multi-modal policies and infrastructure at the city/community level

Metro Bike Hub

Metro operates and maintains five Bike Hubs providing secured bicycle parking near Metro Rail and Busway lines to facilitate bike-transit trips. To use Bike Hubs' secured bike parking, users are asked to register their bike with Bike Index, and sign into the room each time with their Metro TAP card and ID before locking their bike using personal bike locks. Bike security is also enhanced by limiting the time each user can be in the facility per use before alarms are engaged, discouraging bike theft.

Bike Hub access can be purchased in various increments: 7-day, 30-day, or a 1-year Pass.

The existing five Bike Hub locations are:

1. Hollywood/Vine (B line)
2. El Monte (J line)
3. Union Station (A, B, D, J lines)
4. Culver City (E line)
5. Willowbrook / Rosa Parks (A, C lines)

The Culver City Bike Hub offers bike repairs during limited hours. The North Hollywood Bike Hub is slated to open in the near future. Independent of the Bike Hub facilities, bike lockers are also available for rent at select Metro station areas. All Metro trains have designated open area to accommodate bicycles, designated with a yellow symbol. All Metro buses have at least two bike racks, allowing riders to safely store their bicycle on the front of the bus and retrieve it at their stop.

Metro Bike Share

The Metro Bike Share (MBS) program launched in July 2016 in partnership with the City of Los Angeles. It offers convenient round-the-clock access to a fleet of bicycles for short trips and to connect to bus and rail. Bikes are available 24/7, 365 days a year at over 200 docking stations in Downtown LA, Central LA, Hollywood, North Hollywood and on the Westside.

MBS is one of Metro's multiple public transportation options for Angelenos and visitors to get around. The program offers one seamless system that is compatible between service areas and that includes both classic and electric bikes. A variety of full-fare and reduced fare passes, including passes for LIFE participants, and membership types are available through the mobile app and on taptogo.net. To date, over 1.5 million trips have been taken, 5.5 million miles have been traveled, and 5.2 million pounds of CO₂ have been averted.

Best practices have been identified in successfully expanding to new neighborhoods as the program has grown in the last six years. As a case study, the Hollywood expansion of 11 stations, which was completed in October 2021, provides an overview of some of these best practices, including:

- > Ensuring the local jurisdiction have identified resources needed to make the program successful. These resources may include funding; prioritizing curb space for stations in lieu of parking and other curb needs; and staff time for outreach, coordination and permitting.
 - > Communicating with residents and local businesses early and often. Community support is necessary for the successful implementation and longevity of the program
 - > Providing opportunities and increasing access through educational programs and classes, implementing reduced fare pass types, and reducing barriers that exacerbate issues related to the digital divide and those faced by the unbanked
- As MBS looks toward the future and ongoing expansion, several underlying goals continue to help guide the program, which include:
- > expanding the system equitably and geographically,
 - > growing the benefits of MBS throughout the region's diverse communities,
 - > providing customers, residents, and visitors, with a reliable, clean, efficient, affordable, and available transportation/ mobility option, and
 - > improving the quality of life for Los Angeles County residents by ensuring that MBS operates as a "good neighbor/community" partner.
- Metro Bike Share also offers discounted Bike Share passes to Reduced Fare TAP card holders, Low-Income Fare is Easy (LIFE) patrons, K-12 students, college and vocational students, persons with a disability and senior citizens.

Metro Bike Parking

Metro is currently upgrading the Bicycle Parking Program with new bike lockers and changes to the parking requirements for the Bike Hubs. Some highlights of the new program include:

- > Upgrades existing and new bicycle lockers to an electronic on-demand locker system, eliminating the requirement of physical keys
- > Removing pre-registration barriers allows patrons to rent lockers on-site more immediately
- > Takes the program from exclusive to inclusive by moving away from the existing monthly program to a more versatile format, allowing more people to rent lockers when they need them
- > Expansion of bike lockers to stations and neighborhoods that previously did not have secure bicycle parking
- > Unbanked patrons will be able to utilize the bicycle lockers and Bike Hubs
- > Most Bike Hubs and upcoming bike shelters will convert to free, secured bicycle parking (patrons are still required to bring their own lock)
- > ID and contact information can be processed on-site for Bike Hub users, meaning that parkers do not have to wait to gain access to the secure bike parking

Bike Parking Statistics:

> Bike Lockers

- Current number of lockers: 860
- Number of new planned lockers (through 2027): 198
- Current number of stations: 50
- Number of potentially new stations (through 2027): 38

> Bike Hubs

- Current number of bike hubs: 5
- Number of new planned bike hubs (through 2027): 8
- Current bike hub parking spaces: 462
- Number of new planned bike hub parking spaces (through 2027): 607

Metro FLM Planning

The Metro Board adopted the First/Last Mile Strategic Plan in 2014, which identifies policy solutions to expand and improve the quality of user access sheds for new Metro projects via new and improved pedestrian and bicycle facilities. In 2016, the Metro Board passed two motions that directed FLM program activities, including integrating improvements into all new rail and bus rapid transit projects. It subsequently adopted the First/Last Mile Guidelines in 2021 to formalize FLM planning within Metro's transit project delivery.

Metro FLM planning emphasizes equity and relies on a robust community engagement process to assess study sites before identifying primary pathways and infrastructure improvements. Crosswalks, bulb-outs, street trees, bike lanes, bike parking, wayfinding signage and transit information kiosks are examples of common tools advanced through Metro's walk audits and studies for FLM planning. Such tools are identified and consolidated into Metro FLM Plans, from which local jurisdictions can elect to initiate project design and implementation.

This planning effort advances supportive bike and pedestrian activities for future rail investments and existing transit users. Since 2018, nine FLM Plans have been published for both new and existing stations, totaling 55 stations of heavy rail, light rail and Bus Rapid Transit.

Metro Grant Writing Assistance

Metro offers a grant writing assistance program for Transit Oriented Communities (TOC) in Los Angeles County. This serves as an avenue for LA County jurisdictions, nonprofits, transit agencies and other agencies to pursue funding opportunities with Metro grant writing assistance. Eligible TOC activities include affordable housing production, preservation and tenant protections, the Regional Housing Needs Assessment, anti-displacement strategies, First/Last Mile improvements for existing stations, Measure M Metro Active Transport and the Transit to Parks program. Both planning studies and capital improvement projects are eligible activities under this program.

Metro's Joint Development Program

Metro offers a real estate development program that focuses on building transit-oriented developments on Metro-owned properties. This effort produces housing and amenities in communities that have excellent transit connectivity and encourages an increase in transit ridership. These joint development opportunities are income-restricted to address potential gentrification and displacement concerns, and projects must undergo a community engagement process before being approved. Projects are prioritized based on the number of benefits they would provide the community and where the needs are greatest. This program has several completed developments across Los Angeles County, including in the communities of Boyle Heights, Venice, El Monte, Little Tokyo and East Hollywood.

6.2 Best Practices and Innovative Programs

This section provides a summary of programs that Metro and LA County jurisdictions could pursue in support of the 2023 ATSP. Case studies for each recommended program is also provided.

6.2.1 Quick Build Projects **Quick Build Best Practices**

Quick build projects took on a new significance at the beginning of the COVID-19 pandemic, as more people began using streets for exercise and recreation, and cities quickly provided infrastructure to accommodate higher volumes of non-motorized travelers and new travel patterns.

The usual timeline for implementing bicycle and pedestrian projects can take one to two years for planning including public engagement and adoption of a plan. The funding, final design and construction of a project may push out project delivery even further. The concept of "Quick Build" is to get more projects on the ground quickly.

Quick build projects focus on using low-cost materials and engaging the community while the project is installed in its temporary design. Once a quick-build project is in place, residents can see and feel how the new infrastructure operates. The final design or solutions can then be modified and adjusted based on community input. Due to the low-cost materials in use, designs can be changed to be responsive to public comment, if needed. Low-cost materials such as colorful paint, plastic bollards, planters and signs can be used to enhance crosswalks and create bulb-outs, medians or protected bicycle lanes. Quick build projects can remain in place with their low-cost materials or can be converted to more permanent installations using materials such as concrete and asphalt.

Quick build projects may have significant impacts to community members, residents and businesses. Thus, there are four main recommended best practices associated with quick build projects.

1. Quick build projects are best incorporated as part of an existing plan or set of recognized multimodal projects, such as a jurisdiction's Mobility Plan.
2. Design innovation is an important part of quick build projects. While maintaining technical design standards are required, it is important to consider creativity and how different elements and treatments can be used to maximize project success. Quick build projects are an opportunity to infuse color, culture and character as part of the project.
3. Collection of community engagement is a key component of quick build projects. Capturing community impressions early in a project allows local needs to be infused into the project and can lend to greater project utilization. Opportunities for quick build projects can also be identified by prior or ongoing community engagement efforts pertaining to street/quality of life improvements, as these efforts can reveal opportunities that may be well suited for quick build project solutions. Community organizations, citizen-based advisory groups, businesses, and others can all be partners in community engagement. Surveys, comment cards, and door-to-door engagement are tools that can help capture feedback in addition to ongoing engagement channels. The Active Transportation Resource Center (ATRC) provides a free tool for capturing location-based input from community members (UC Berkeley, n.d.).

4. Evaluation of how the quick build project has changed outcomes is critical to planning a project's long-term design and applicability of future quick-build projects. Some quantifiable outcomes could include reduced collisions or speeding. However, it is also important to consider related qualitative outcomes such as residents' willingness to walk or bike, increased feelings of safety, etc.

Quick Build Case Study

One example of a quick build project can be found on Harrison Street, one of Oakland's high injury corridors. The project was in response to the death of a senior citizen who was struck and killed by a driver turning left from 23rd onto Harrison Street.

The project added painted curb-extensions, bicycle lanes, curb ramps, a larger pedestrian median and removed the left turn lane. As a result of these quick-build measures, "speeding decreased by 7% along the corridor" and "drivers yielding to pedestrians increased by 82-89%" (The City of Oakland, n.d.). These temporary measures will eventually be replaced by more permanent solutions, but this example shows how municipalities can both act quickly to resolve problems and create a proof of concept for traffic interventions with minimal funding.



Source: City of Oakland, <https://www.oaklandca.gov/projects/harrison-23rd-st-crash-response>

6.2.2 Bicycle Theft Prevention Campaigns

Theft Prevention Best Practices

Addressing bicycle theft is an essential step in achieving a shift from single-occupancy vehicle trips to bicycle trips. Research has shown that following a bicycle theft, many people do not purchase another bicycle out of fear of having it stolen again (ASU Center for Problem-Oriented Policing, 2022). Of those who do replace their stolen bicycle, approximately 15% subsequently ride less often (ASU, 2022). The most effective bicycle anti-theft campaigns are those which are multi-pronged and involve community partners (Shifter, 2021).

Bicycle theft prevention begins with educating users on defensive locking techniques but can be furthered by expanding opportunities for secure bicycle parking. This may include video tutorials on how to properly lock one's bicycle, billboard messaging or bus shelter campaigns regarding the proper way to lock a bicycle and encouragement to register one's bicycle serial number with local agencies. It is best if this campaign is supported by a dedicated webpage. Successful examples of bike registration programs include Bike Index, Bike Register, and Project 529.

Additional strategies which could enhance a bicycle theft prevention campaign are working with bicycle shops and distributors to secure their commitment to not sell stolen bicycles, working with local agencies to develop a registration program and/or to opt into existing online bicycle registration services. Around Again Cycles, a New Zealand-based bike resale shop, utilizes best practices to prevent selling stolen bikes such as checking serial numbers with the local police registry, holding bikes for 24 hours before purchasing, photo ID requirements, and only having one buyer in the firm to ensure that frequent sellers interact with the same person every time, preventing foul play (Around Again Cycles, n.d.).

A successful anti-theft campaign also includes increasing the availability of secure bicycle parking. Secure bicycle parking can include bicycle cages in parking garages, bicycle lockers on transit station platforms, as well as video surveillance of the bicycle parking area.



Source: <https://www.stuff.co.nz/national/crime/92254110/bike-theft-prevention-campaign-launched-in-wellington>

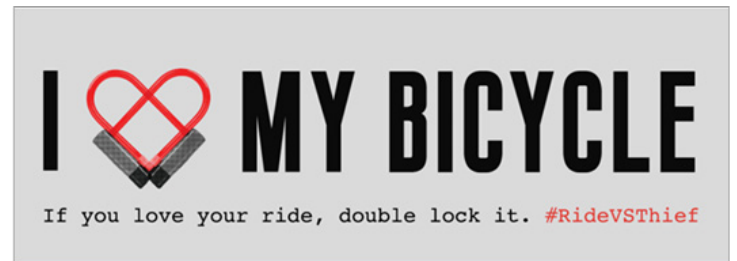
Theft Prevention Case Study

The City of Vancouver, Canada launched its bicycle theft prevention campaign in the Fall of 2015. This City partnered with the online registration service 529 Garage and asked residents to register their bicycles online. Following registration, cyclists received a branded sticker to place on their bike.

Data indicates that such citywide bike registration deters theft of bicycles with registration stickers. Bicycle thefts dropped by 20% after the first year of the Vancouver campaign, and an additional 30% after year two. Even with an increase in pandemic cycling in 2021, bicycle theft in the City of Vancouver was still down 40% from its 2015 rate.

The Vancouver Police Department believes that if they had not launched the bicycle theft prevention campaign, the annual number of bicycle thefts in the city would have totaled 7,000 by 2021 (Shifter, 2021). With the bicycle theft prevention campaign in place over several years, the city only experienced 1,500 stolen bicycles by 2021 (Shifter, 2021). The police department estimates the differential between the projected stolen bicycles and the actual stolen bicycles to be valued at \$8 million dollars (Shifter, 2021).

Examples of Bicycle Theft Prevention Campaigns



Source: <https://www.stolenride.co.uk/ridevsthief/>



Source: <https://www.cyclinguk.org/blog/guide-locking-your-bike>



Source: <https://garda.ie/en/about-us/our-departments/office-of-corporate-communications/news-media/lock-it-or-lose-it-2020.pdf>

6.2.3 Tactical Urbanism / Pilot Projects *Tactical Urbanism Best Practices*

Tactical Urbanism can describe the implementation of projects that use low-cost materials, take local context into consideration, are supported by the community, and are intended to create long-term change. Tactical Urbanism involves community- or neighborhood-building by involving community members in the physical implementation of the project.

An important component to Tactical Urbanism projects is that they are backed by a long-term vision or plan, and are intended to create positive, lasting change. This temporary project is made durable when anchored by a long-term investment.

Tactical Urbanism can be used to implement projects such as traffic circles, bicycle lanes, crosswalks, and curb-extensions. It is common for Tactical Urbanism to focus on roadways as they are an accessible gathering space for communities. Since most Tactical Urbanism projects use materials that cities are already accustomed to using, this increases the ease of implementation. Tactical urbanism components are an easy way to install low-cost barriers between users of active transportation and motorists, increasing comfort around walking, biking and rolling.

Materials for Tactical Urbanism projects should be chosen depending on the intended length of implementation for the project. Time considerations are important and may be

broken into three intervals: short-term, medium-term, and long-term. Short-term can be defined as projects that will last between one-day to seven-days. Medium-term can be defined as projects that will last from one month to one year, and long-term projects are intended to last one to five years. Such time considerations should consider required resources a program's activation, including traffic control management plans, safety officers and maintenance.

Tactical Urbanism Case Study

New York City has a Plaza Program that functions as an official Tactical Urbanism program. The program utilizes a competitive application process through which organizations can propose a new plaza site for their neighborhood. If the site is selected, the NYC Department of Transportation (DOT) funds the design and construction of the plaza, however, the community organization is charged with ensuring community participation in the design. To ensure long-term viability, the organization must also develop a funding plan for the plaza and consider strategies for activation through regular events (NYC DOT, n.d.).

As a result of this program, which celebrated its 10th anniversary in 2017, there are now 74 plazas in New York City (Janoff, 2017). This program has been successful in utilizing tactical urbanism's principles of testing interventions in rapid timeframes to evaluate their potential impacts in very short timeframes. However, as the Public Space Operations Manager at NYC DOT from 2008 to 2013 reflected, a chief issue for this model is ensuring that the selected partnerships

adequately support the maintenance of the plazas (Janoff, 2017). For plazas that are less successful in sourcing funding but are sorely needed for the community, the NYC DOT now partners with the Horticultural Society of New York to provide subsidies (Janoff, 2017).

6.2.4 Project Partnerships ***Partnership Best Practices***

There are several models for project partnerships to advance walking, bicycling and rolling improvements, such as partnerships with community-based organizations (CBOs) or other public agencies.

Metro has historically partnered with numerous CBO groups in LA County area. To standardize and improve this process, a Community Based Organization Partnering Strategy was developed in 2020- 2021 (see Attachment A – CBO Partnering Strategy). This strategy, built on best practices research and guided by community input, was developed to improve Metro’s program delivery, enhance equitable outcomes, and help “reverse the “vast disparity among neighborhoods and individuals in LA County in their ability to see and seize opportunity” (see Attachment A). The strategy established seven recommendations with actionable implementation steps.

The following should be considered when implementing a CBO partnership: goals of the project, funding, risk considerations, the intention behind the partnership, and the resources each partner can effectively provide in the arrangement. For example, challenges may arise among a project partnership because of differing project goals. Or, an organization may be unable to fulfill their commitment due to a lack of staff and resources. Additionally, a misunderstanding of expectations and timeline may result in a fractured and unsuccessful partnership. To address these challenges, the Metro CBO Partnering Strategy recommends establishing a project partnership charter. The charter should outline shared values, the scope of work, partner roles, project timeline, and desired outcomes.

Compensating CBOs fairly for their involvement should be standard agency practice, and establishing CBO compensation criteria is a core recommendation in Metro’s Community-Based Organization Partnering Strategy. The value that CBOs can add to community outreach, data collection, or internal policy making exceeds the cost of their involvement. CBOs have better ties and are better equipped to engage with communities than paid consultants. Agencies may consider committing portions of their own budgets to make CBO compensation an ongoing, replicable part of planning and policy making. A significant barrier to CBO compensation is internal agency procurement processes,

which are not set up to permit CBO participation. Some agencies have used sole source procurements or blanket contracts with umbrella organizations to make this easier.

The 2023 ATSP partnered with three CBOs and established charter agreements with each one (see **Appendix G**). Charter agreements between Metro and CBOs helped guide successful event planning, establish metrics for success and highlight unique strengths of each CBO.

Metro has also produced other resources to improve equity outcomes in planning and implementation efforts, including a mapping tool to identify areas with high equity needs (Metro 2022 EFC Map), a rapid Equity Assessment Tool to help center equity in the decision-making process and various policies and programs enacted to further equity in outcomes and procedures (Equity Platform FY19 Activation Plan, Metro Equity Platform Framework).

Other regionally-specific resources for devising effective CBO-partnerships include the Active Transportation Resource Center (ATRC) and SCAG Go Human Demonstration Kit. Implementation of a new program that supports active transportation can build on the lessons learned from other agencies and jurisdictions. It is advisable to follow these steps:

1. Research other programs
2. Reach out to regional resources including the ATRC and SCAG and confirm what resources are available
3. Talk to other cities’ staff about their lessons learned
4. Garner internal support and identify key supporting partner departments
5. Establish vision, objectives, and desired outcomes

Partnership Case Study

Mayor Eric Garcetti launched the Great Streets Initiative in the City of Los Angeles to strengthen partnerships with CBOs and enable their leadership in creating vibrant community spaces. The program focused on unsafe streets throughout the City



Venice Boulevard Cyclist, Source: <https://la.streetsblog.org/2019/12/19/where-all-of-l-a-s-protected-bike-lanes-are/>

of Los Angeles and featured CBO champions working closely with nearby residents on a shared vision of improvements. The goal was to further safety and community development quickly through grassroots projects.

The Great Streets Initiative began in 2013, with the City continuing to implement projects advanced under its 2019 cycle. The Initiative focused on two different project types: pop-up projects (tactical demonstration projects) and build or quick-build projects. These community grants compensated community partners to conduct outreach and serve as local experts; further, these grants came with technical assistance from professionally trained urban designers and implementation, planning, and engineering guidance from city departments. While spearheaded by the Mayor's Office, project delivery brought together the Departments of City Planning, Transportation and the Bureau of Street Services. Use of the SCAG Go Human Kit in the initiative allowed for cost savings for both temporary installations and longer-term implementation by City.

Three Great Streets projects that have been completed primarily consist of successful active transportation and street improvements. The Watts Central Avenue Streets and Safety project was designated as a Great Street in 2019 after the Watts Labor Community Action Committee applied for the program. According to a representative from WLCAC, after their project was selected, they engaged in outreach within the community, conducting surveys on where people lived, their relationship with the community, travel modes, the frequency with which they visited the area, what improvements they would like to see as a result of this project and other things. The City of Los Angeles then incorporated that feedback into the streetscape improvements, and WLCAC was reimbursed for their outreach efforts.

This project advanced numerous streetscape improvements, including bus boarding islands, curb extensions, curb cuts, concrete medians, pedestrian street lighting and a pedestrian activated flashing beacon. Other improvements are slated to be built, such as pedestrian hybrid beacons. Another Central Avenue project produced continental crosswalks and

a pedestrian paddle sign and will receive conventional traffic signal in the future. On the Westside, the Venice Boulevard project resulted in nine new leading pedestrian intervals, two planned or constructed protected left turn traffic signals and one protected/permissive left turn traffic signal.

Some helpful resources are provided below:

- > CBO Partnering Strategy
- > Untokening 1.0 — Principles of Mobility Justice
- > Report: At the Intersection of Active Transportation and Equity
- > Mobility Equity Framework
- > Evaluating Transportation Equity: Guidance for Incorporating Distributional Impacts in Transport Planning
- > Practical Approaches for Involving Traditionally Underserved Populations in Transportation Decision Making (pdf pages 38-42)
- > Transportation Equity Toolkit
- > Equity in Practice: A Guidebook for Transit Agencies
- > National Active Transportation Equity Work Group Resources
- > ATRC
- > SCAG GoHuman
- > Tactical Urbanist's Guides: Tactical Urbanism Materials and Design Guide
- > People for Bikes: A Nine Step Recipe for Fast Flexible Changes to City Streets
- > People for Bikes: Quick-Build for Better Streets
- > Strong Towns: These Resources will Help You Host a Pop-Up Traffic Calming Demonstration in Your Town
- > Manual on Uniform Traffic Control Devices

- > Urban Street Design Guide - Interim Design Strategies
- > NACTO Urban Bikeway Design Guide
- > Quick-Builds for Better Streets: A New Project Delivery Model for U.S. Cities

6.2.5 “Slow Streets” Initiatives

“Slow Streets” Best Practices

Slow Streets Initiatives saw an upswell in support during the height of the COVID-19 pandemic. The program strives to slow vehicular speeds and grant people more room on roadways for recreation. This was primarily achieved by closing residential streets to through-traffic and using soft closures like sandwich boards, signs and cones. Some cities used existing Bike Master Plans or Active Transportation Plans to identify which streets could be made into Slow Streets. Others asked neighborhood groups and non-profits to apply for their roadways to be temporarily converted into Slow Streets. In general, best practices can be split into two topics: choosing the location and implementing the street closure.

While cities adopted a variety of methodology for Slow Street selection, corridors often featured low existing traffic volumes and speeds prior to Slow Street designation. San Francisco chose streets that had fewer than 3,000 average daily vehicles per day and typical vehicle speeds less than 25 miles per hour (SFMTA, 2021). A best practice is that the identified streets should serve an existing low-level role in local traffic patterns to avoid disproportionate spillover on to other local streets.

Early cooperation with residents can lend to greater use following Slow Street implementation. Residents can identify pre-existing obstacles or issues that may arise from the proposed Slow Street. For example, dismissal times could pose a problem for a Slow Street roadway near a school’s popular pick-up site. Additionally, discussion and communication with the neighborhood can encourage use, establish expectations and prevent negative reception.

Some of the most successful Slow Streets programs featured

Example of Slow Streets Signage



Source: <https://spectrumnews1.com/ca/la-west/public-safety/2020/07/27/slow-streets-program-spreads-to-palms--may-become-permanent>

signs and barriers at the entry points to indicate that only local traffic is allowed and that low speeds are required. Vehicle traffic can be further notified by pavement markings, visually cuing drivers that they are entering a shared space with pedestrians.

“Slow Streets” Case Studies

Launched in May of 2020, the City of Los Angeles Slow Streets program works with neighborhood organizations to place signs indicating corridors closed to cut-through traffic and urging drivers to slow down while using the segment. In the initial program, LADOT launched over fifty miles of slow streets across 30 neighborhoods. Designated Slow Streets saw significant reductions in weekday vehicle traffic and protections from citywide increases in vehicle speeds (Yonan, 2021). Following positive feedback from organizations sponsoring neighborhood corridors, the City is currently implementing more permanent slow street corridors.

Sacramento’s Slow and Active Streets pilot ran through July 2021, with up to six miles of streets temporarily closed to through-traffic. The City worked with neighborhoods to determine which low-traffic streets to close, and placed temporary barriers, signs, cones and A-frame barricades in the streets (with federal CARES Act dollars and City Public Works funds).



Source: <https://www.sfmta.com/projects/slow-streets-program>

6.3 Plan Benefits

This subsection presents an innovative ATSP Benefits Dashboard for use by Metro staff, city agency staff and community members for the purposes of understanding specific benefits associated with recommended active transportation projects. For the purposes of the 2023 ATSP, only benefits associated with implementation of planned regional bikeways were calculated, as the range of improvements and benefits related to FLM areas and pedestrian districts is highly variable, and not very well supported by peer-reviewed research.

Benefits of regional bikeways are summarized at the project level in two-high level categories:

- > Social, economic and environmental benefits derived from the additional bicycle trips associated with new bicycle facilities
- > Safety benefits created by providing additional protection to cyclists from motor vehicles

Table 6.1 shows the types of benefits within each category.

Table 6.1

TYPES OF BENEFIT ESTIMATED

SOCIAL, ECONOMIC, AND ENVIRONMENTAL BENEFITS	Trip-based benefits includes additional utilitarian bicycle trips, extra bicycle miles traveled and reduced vehicle miles traveled.
	Emissions reduction includes reductions to greenhouse gases, gallons of fuel consumed and air pollution costs.
	Household and health benefits includes the reduced vehicle operating costs and health care savings.
SAFETY BENEFITS	Safety benefits summarize the reduction in bicycle crashes per year based on the project.

Source: Cambridge Systematic, 2023

6.3.1 Benefits from Additional Bicycle Trips

Estimating change in bicycle trips is the foundation for understanding safety, greenhouse gas, and household and health benefits of active transportation investments. For the purposes of the 2023 ATSP, change in bicycle trips was estimated using peer-reviewed research examining how new active transportation infrastructure affects bicycle trip-making.

Table 6.2 shows that the greatest number of new cyclists is estimated to result from implementation of bikeways within highly urbanized or “core” locations. Additionally, higher numbers of new cyclists are estimated to result from shared use paths as compared to projected bike lanes.

Table 6.2

PROJECTED NEW UTILITARIAN CYCLISTS PER DAY BY FACILITY AND URBAN TYPES

BICYCLE FACILITY TYPE	URBAN TYPE			
	Core	Urban	Suburban	Rural
Shared Use Paths (Class I)	327	174	55	11
Protected Bike Lanes (Class IV)	203	108	34	0

Source: Cambridge Systematic, 2023

The values shown in Table 6.2 were used in conjunction with new facility miles to estimate new bicycle trips associated with 2023 ATSP’s recommendations for off-street and on-street bikeways. While final design of many bikeways will be championed by local jurisdictions, this assumption supports the goal of providing the highest-quality, lowest-stress bicycle facility for future users.

Projections of new cyclists informed a number of benefits associated with higher bicycle miles travelled (BMT). For example, travel behavior changes associated with new bicycle facilities informed the estimation of reductions in vehicle miles travelled (VMT) as travelers switch a proportion of their trips from driving to biking. The combination of increased BMT and reduced VMT allows for an estimate of greenhouse gas emission reductions (metric tons CO₂e), gas consumption, air pollution costs and vehicle operating costs. Improved health outcomes associated with greater bicycle use informs estimated reduction in individual healthcare costs.

6.3.2 Safety Benefits

Safety-related benefits are described in terms of the reduction in bicycle crashes per year. A simple method to estimate the safety benefit for each project was attained by counting crashes near each project and assigning a Crash Reduction Factor (CRF) from the California Local Roadway Safety Manual⁸. CRFs are the percent of crash reduction that might be expected after implementing a given countermeasure, which in the context of this approach, are protected bicycle lanes and shared use paths for on- and off-road facilities.

6.3.3 Benefits Summary

The ATSP Benefits Dashboard estimates that full implementation of the ATSP regional bikeway network will yield the following annual benefits: bicycle trips will increase by over 45 million trips, vehicle-miles-travelled will decrease by about 50 million miles and injury/fatal bicycle collisions will decrease along proposed bikeways by about 52%.

Table 6.3 displays daily and annual estimated countywide benefits associated with full implementation of the 2023 ATSP, while **Table 6.4** shows estimated annual benefits by subregion.

⁸ <https://dot.ca.gov/-/media/dot-media/programs/local-assistance/documents/hsip/2020/lrsm2020.pdf>

An online ATSP Benefits Dashboard was created to assist city staff and other stakeholders in estimating various benefits associated with implementing the ATSP regional bikeways.

Appendix H *ATSP Benefit Dashboard + Technical Documentation* presents detailed instructions for employing the dashboard, while **Appendix I** *ATSP Benefits Dashboard Report* summarizes methods used to calculate these anticipated benefits.

Table 6.3

COUNTYWIDE BENEFITS OF 2023 ATSP REGIONAL BIKEWAY IMPLEMENTATION

BENEFIT	DAILY BENEFIT	ANNUAL BENEFIT ESTIMATE
<i>Travel and Safety Benefits</i>		
Bicycle Trips	+123,393	+45,038,493
Bicycle Miles Traveled	+293,676	+107,191,613
Vehicle Miles Travelled	-138,028	-50,380,613
Change in Bicycle Collisions	52%	52%
<i>Environmental Benefits</i>		
Greenhouse Gas Emissions (metric tons CO ₂ e)	-46.71	-17,051
Gallons of Fuel Consumed	-5,250	-1,916,109
Air Pollution Costs	-\$1,932	-\$705,321
<i>Household and Health Benefits</i>		
Total Vehicle Operating Costs	-\$76,396	-\$27,884,457
Health care and Mortality Costs	-\$23,494	-\$8,747,329

Source: Cambridge Systematic, 2023

Table 6.4

ANNUAL SUBREGIONAL BENEFITS OF 2023 ATSP BIKEWAY IMPLEMENTATION

SUBREGION	INCREASED BICYCLE TRIPS	REDUCED GREENHOUSE GAS EMISSIONS (METRIC TONS CO ₂ E)	PERCENT REDUCTION IN COLLISIONS
Arroyo Verdugo	6,172,376	2,337	59%
Central Los Angeles	16,448,434	6,227	49%
Gateway Cities	13,824,556	5,234	53%
Las Virgenes/Malibu	964,116	365	68%
North Los Angeles County	1,378,412	521.8	45%
San Fernando Valley	12,187,914	4,652	55%
San Gabriel Valley	12,501,688	5,490	55%
South Bay	9,102,958	3,446	48%
Westside Cities	6,778,884	2,556	47%

Source: Cambridge Systematic, 2023

Implementation





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7.0 Implementation

7.1 Implementation Overview

The 2023 ATSP serves as Metro's vision for a safe, effective and high-quality active transportation network for LA County. As such, the plan further serves as a blueprint to guide Metro's activities and investments in support of the vision, and this implementation chapter of the plan describes a strategy to that end. The strategy includes considerations for project delivery in various contexts. It also considers and describes partnership considerations between Metro and local agencies.

Most importantly, the implementation strategy focuses on a coordinated and cohesive investment strategy. As a fundamental principle, and given the scale and complexity of the challenge that this plan presents, Metro resources for active transportation must be deployed based on key elements of this plan, notably:

- > the network, prioritization approach, and
- > project delivery and partnership approaches.

This chapter describes an approach to manage Metro's active transportation portfolio with this intended coherence.

At the same time, this plan lays out a significantly scaled implementation challenge, and acknowledges that we are at an early stage. This chapter also describes approaches that, while intended to address known challenges in the project delivery system, should be considered tentative and experimental, and subject to change and adjustment in future updates.

Of particular note, the 2023 ATSP updates the prior adopted plan from 2016. The 2016 plan was completed prior to the passage of Measure M. Measure M is a milestone in that it provided Metro's first dedicated, on-going funding for active transportation. As such, this plan and chapter place a particular emphasis on the management of Measure M active transportation funding and projects as the key building blocks for achieving the agency's active transportation vision.

As described below, this strategy reorganizes, recenters, and better defines Metro's role in active transportation infrastructure delivery and does so in ways that are informed by current and recent experience. In most cases, Metro is best positioned as a funder, planner, project designer (in some cases) and in deploying targeted technical assistance.

While Metro can and does construct some active transportation projects, we are rarely the owner or maintainer of right-of-way where most active transportation infrastructure is located. Additionally, most jurisdictions are experienced and capable (though often short on capacity) of the type of roadway configuration and streetscape work typically required for active transportation. The effective partnerships we seek through this strategy will most often be achieved by working with partner agencies who own public rights-of-way, primarily LA County and its 88 cities, to facilitate and enable them to construct and maintain projects delivered as part of the 2023 ATSP vision.

7.2 Network Delivery and Scale

Chapter 3 outlines an expansive regional network of active transportation projects poised for future action. This includes 602 FLM areas, 81 pedestrian districts, and 1,433 miles of regional bikeways across all nine LA County subregions.

Portions of this regional network are already seeing improvement. As a funder and planner, Metro is advancing numerous bikeway projects through its grant programs, including Call For Projects (Pedestrian & Bicycle modes) and Metro Active Transportation (MAT). City partners are championing projects within their jurisdictions, many made possible by the statewide Active Transportation Program (ATP) and Measure M's Multi-year Subregional Programs.

Despite progress in select bikeway corridors and station areas, much of the active transportation network remains conceptual. Approximately 1,205 miles, or nearly 86%, of the 1,433-mile bikeway network is unbuilt.

Chapter 5 illustrates the significant financial resources required to see this network come to fruition. Excluding areas where pedestrian districts or bikeways overlap with FLM station areas, **Table 7.1** presents a total cost of network buildout at \$36.5 billion.

Table 7.1

2023 ACTIVE TRANSPORTATION NETWORK COST ESTIMATE BY MODAL CATEGORY

NETWORK PILLAR	TOTAL COST	TOTAL COST (REMOVING OVERLAP WITH FLM AREAS)
FLM Areas	\$22.0 B	\$22.0 B
Pedestrian District	\$11.0 B	\$6.2 B
Regional Bikeways	\$11.4 B	\$8.3 B
Total Cost	\$44.4 B	\$36.5 B

Source: CR Associates, 2023

The resources available to Metro and local jurisdictions for this effort are substantial, as noted in Section 5.2. Funding Opportunities. Our strategy generally targets core funding opportunities, including:

- > Measure M (inclusive of a range of fund categories and programs)
- > State ATP
- > New, emerging federal programs, especially Safer Streets and Roads for All and Reconnecting Communities

As the 2023 ATSP encourages cities and local partners to tap into funding streams at the regional, state and federal levels, Metro will optimize its portfolio of financial resources to advance the regional network of FLM areas, pedestrian districts and regional bikeways. This includes dedicated funding streams for active transportation such as Measure M's 2% Active Transportation program, but also AT-eligible streams influenced by our regional partners such as Multi-year Subregional Programs and Local Return.

Table 7.2 illustrates the five-year forecast across these two funding categories, in addition to external grant funding historically awarded to LA County cities. In total, at least \$1.2 billion in active transportation funding will be made available to Metro and local partners through 2028.

Table 7.2 summarizes likely or assumed funding from various sources. Dedicated funding consists of the 2% Active Transportation fund category which contains the MAT program along with project-specific commitments (LA River bike path). Eligible/non-dedicated resources are primarily within the 17% Highway fund category, including Multi-year Subregional Programs. The external category below is based

on the region's recent competitive share of State Active Transportation Program grants as the most common fund source. Note that other grant programs, especially new federal programs such as Safer Streets and Roads for All also fund active transportation infrastructure but are too new to establish a track record for funding expectations.

Table 7.2

METRO FIVE-YEAR ACTIVE TRANSPORTATION FUNDING FORECAST

FUNDING CATEGORY	5 YEAR FUNDING FORECAST (FY23 - FY28)
Dedicated	\$530.5 M
Eligible	\$438.3 M
External/Competitive Grants (ATP)	\$239 M
Total Funding	\$1.21 B

Source: CR Associates, 2023

7.3 Implementation Strategy

The implementation strategy elaborated in this chapter proceeds from recognition of the immense scale of the unbuilt active transportation network as described above, and the observed challenges at present and in the recent past in delivering active transportation projects.

Simply put, while LA County has, or can access, significant resources to deliver active transportation infrastructure, known and committed resources are insufficient to achieve the network described in this plan. That imbalance is exacerbated by a range of other issues including, notably, dramatically escalating costs and long delivery times for projects. The following five subsections outline key elements of Metro's ATSP implementation strategy.

7.3.1 Efficiency

Metro and its partners will develop and deploy delivery methods that reduce or eliminate wasted time, effort and money. While many active transportation projects have inherent challenges requiring a more intensive process not all projects are the same. Where we have opportunities to deliver elements of the network quickly and inexpensively, we must do so. We should additionally ensure that projects are taking advantage of the full range of regulatory streamlining available, notably recently broadened CEQA exemptions for active transportation. Further, challenging or larger scale projects must be eased through thoughtful approaches that absorb lessons from current and prior work. As such, the 2023 ATSP contemplates a range of implementation approaches tailored to a range of project types.

7.3.2 Manage and Align Resources

Given the significant resources available to Metro, and the even larger challenge of deploying the resources effectively to implement the ATSP network, this plan proposes to manage resources well. This includes critically examining our investments based on whether and how they help achieve the vision laid out in this plan, and to the extent possible, using funding commitment processes driven by this plan (notably the MAT program) to deploy available funding. Further, the plan emphasizes the importance of expanding available resources, including by more fully integrating active transportation in non-dedicated Metro funding streams, and by securing external resources, especially from the State and Federal governments.

7.3.3 Predictability and Consistency

At present, the portfolio of active transportation projects led by Metro are, by and large, the result of ad-hoc decisions and characterized by a wide range of project terms and approaches. As a result, we can observe a variety of lessons

learned through this project experience. The 2023 ATSP proposes a more regular and consistent approach to projects that will consider what has worked or not worked in prior and current efforts. Predictability and consistency is most critical for project initiation and commitment but includes all aspects and phases of project delivery. For project initiation and commitment, this plan specifically proposes that commitment to project delivery can and should only occur at a point when delivery costs and risks are fully known. Further, in the context of soliciting projects for the MAT grant funding, Metro staff will consider and may propose a consolidated application process for all Metro active transportation activities. This would include, in addition to direct funding within the MAT program, opportunities to propose other resource deployment in support of active transportation infrastructure, such as technical assistance, community engagement support and others.

7.3.4 Partnership

Metro plays a number of roles in active transportation. Most notably, we are a funder. In some cases, we directly deliver projects. In fewer cases, we own, operate, and maintain active transportation infrastructure. The vast majority of our activity is in partnership with LA County, its 88 cities or Caltrans as owners and operators of public right-of-way. While many partnership arrangements are established and effective, too often our partnership efforts exacerbate rather than reduce inefficiency. We are further cognizant of a pervasive shortage of capacity and resources (mainly staffing) throughout the public sector in LA County, and specifically as it relates to active transportation project implementation. Our strategy seeks to identify opportunities to support local agencies in augmenting their own capabilities, to deploy available capacity to the greatest benefit across the county, and to provide targeted assistance that allows Metro and its partners to be effective. Notably, active transportation efforts around the county lack a standing coordination process or collaborative body. As such, this strategy proposes forming a group for coordination and professional exchange as well as to vet and track progress under this plan. Other specifics will be determined and proposed by Metro staff.

7.3.5 Equity

The 2023 ATSP incorporates equity considerations, notably in prioritization of the ATSP network. This implementation chapter further contemplates deployment of limited Metro resources to facilitate project delivery. Any resource deployment will incorporate criteria to direct efforts to high need communities and locations, considering EFCs and other indicators or need.

7.4 Phasing and Interim Goals

The 2023 ATSP will target 2.5% by subregion of the active transportation network for funding in the next five years.

Table 7.3 presents cost estimations for the Tier 1 FLM areas, pedestrian districts and regional bikeways, totally about \$1.9 billion.

The Tier 1 projects roughly fit within estimated agency resources and will serve as a core goal to be advanced through a variety of partnership methods. Review of this goal will occur in future iterations of Metro's ATSP. Chapter 4 describes in detail a phasing approach for the implementation of this plan, noting that the phasing concept is a starting point for any given funding and project selection process. Metro funding programs, such as MAT, will include additional considerations for funding awards.

Table 7.3

TIER 1 ATSP NETWORK COST *

MODE	# OF PROJECTS	COST*
FLM Areas	16	\$723.9 M
Pedestrian District	9	\$962.4 M
Regional Bikeways	20	\$170.3 M
Total Cost	45	\$1.86 B

* Removes costs for pedestrian districts and regional bikeways when overlapping with FLM areas

Source: CR Associates, 2023

Note that this goal for the first five-year increment is a significant challenge compared to on-going efforts but is not an adequate pace to establish build out of the network in a reasonable timeframe of 30 years or less. As such, future ATSP updates will build from this goal and prompt an acceleration of funding and project commitments over time.

The overall cost estimate (excluding overlap with FLM areas) for Tier 1 projects, at approximately \$1.9 billion, is reasonable considering the levels of funding allocated by Metro for other modes. For example, in the period between 2016-2022, Metro allocated about \$2.6 billion for transit infrastructure, \$480 million for highway infrastructure and \$330 million for bicycle and pedestrian infrastructure.



7.5 Project Delivery and Partnerships

This section of the strategy describes terms and approaches for project delivery with a focus on more consistent and effective partnerships with Los Angeles County, its 88 cities and Caltrans in their roles as owner-operators of public rights-of-way.

7.5.1 Partnership Considerations

The 2023 ATSP contemplates a variety of partnership models. All models, starting from the simplest provision of grant funding, must proceed based on agreed-upon goals. In other words, as a pre-condition of any partnership, all parties should concur on project objectives and outcomes. This agreement should be formal and documented, though documentation can be among a variety of formats including project charters. Beyond agreement on goals and outcomes, partnership arrangements should also include specific, agreed-upon roles and responsibilities.

As part of shared commitment and objectives, the 2023 ATSP stipulates that projects supported by Metro funds will be high quality and permanent. Unless otherwise specifically agreed (e.g. for explicitly temporary or pilot projects), Metro will seek to recoup funding provided for active transportation improvements that are removed, or that are altered to degrade safety and usability for active transportation users.

Partnerships must reduce inefficiency and wasted effort, noting that current and prior efforts sometimes have the opposite effect. In most cases, inefficiency will be reduced by clarity of roles as described above. Other specific provisions can help, including clear and streamlined conflict resolution.

As noted, current and recent projects have experienced dramatic cost increases. In some cases, partners do not have equal incentive to manage or limit this issue (e.g. where only one partner is responsible for cost overruns). As a general principle applicable to project initiation and commitment, this plan proposes that partnerships should proceed based on specific agreements to manage and share project risks, along with other partnership roles and terms.

Finally, partnerships to implement projects should recognize capacity, ability and relative strengths of all partners for various aspects of the delivery process. Project delivery models should deploy resources that allow partners to play to their strengths. For example, local agency staff may be best equipped to prepare roadway designs, where Metro can be in a better position to manage community engagement (or vice versa).

As a general consideration, Metro's role is best directed to regional planning and, in limited circumstances, project-level design activities.

Local agencies, or other owners/maintainers of public right-of-way are best suited to plan, design, construct and maintain projects on their rights-of-way. Given the scale of both geography and the portfolio of collaborative work, a special set of partnership considerations between Metro and the City of Los Angeles is necessary. Refer to discussion in sidebar section.

7.5.2 Potential Project Delivery Models

The 2023 ATSP specifically proposes a range of project models to be deployed consistently with the principles described above. As noted earlier, project models at this time are informed by prior experience but should be considered experimental and subject to change and adjustment. Metro staff will include, within the proposed second cycle of the MAT program, opportunities to fund and deploy among these models, and potentially others that would advance our efficiency and effectiveness goals. We will further develop a matrix intended to identify resource needs, delivery and partnership terms and process approach across a variety of project types (e.g. for smaller or larger projects).



Current project delivery models, where Metro is involved, are among a range including:

- > Typical grant funding programs;
- > A small portfolio of projects delivered by Metro (generally larger projects, e.g. Rail to River corridor);
- > A small portfolio of hybrid projects, notably within the MAT program whereby Metro leads works through early planning or design phases leading to a handoff to a local agency for final design and or construction. Projects within the FLM program generally also follow this model.

Development of this strategy, and specifically this discussion of project delivery models, was informed by internal Metro review of lessons learned on current and recent projects, discussion with the Technical Working Group and informal discussions with individual local partner agencies.

Standing Working Group Model – A standing working group can be formed between Metro and local agency partners and is likely best suited to jurisdictions with a portfolio of multiple collaborative projects. This approach is modeled on the current Bus Speed and Reliability Working Group involving Metro and the City of Los Angeles. The success of the bus speed effort rests on shared objectives, defined roles, and allocating resources appropriate for each participating agency. Note sidebar discussion for additional background and suggesting specific partnership efforts with the City of LA.

Metro Design and Handoff Model – There are several examples of project delivery set-ups wherein Metro leads planning and some level of design preceding a hand-off to a local agency for construction. These include Metro First/ Last Mile Plans which are transitioned to local agencies at the conclusion of a concept plan phase, a subset of the MAT portfolio wherein Metro advances projects to 15% or 30% design, and complete streets projects within the Metro Highway Program which, in some cases, advance projects to 100% design/ready for construction. This last model has been deployed in a limited number of cases on typically small-scale projects (e.g. 2-3 blocks of protected bike lane), and typically contains a stipulation that accessing construction funds is contingent on the local partner accepting and delivering the Metro-led design as-is.

Small Quick-Build Model (as proposed for MAT cycle 2) – An overall need highlighted in this plan, as well as in the recently adopted Street Safety, Data Sharing and Collaboration Policy, is the rapid deployment of active transportation infrastructure especially in identified safety hot spots. To this end, an additional delivery model would be providing funding for small scale, easy to implement interventions that reduce and remove conflict points for vulnerable users. For this model, Metro intends to explore significantly streamlined contracting and payment approaches with the goal of getting improvements on the street significantly faster, as well as easing administrative burdens for smaller cities.

Targeted, Small-Scale Resource Assistance – Alongside the development of MAT cycle 2, Metro will consider various types of assistance and incentives that can be made available to jurisdictions for a range of project delivery activities. This may include the creation of a local matching grant program, whereby Metro would provide local match for agencies seeking federal, state or regional grants. Similarly, Metro may consider provision of technical assistance (e.g. for planning, design, community engagement, etc.) on an application basis. Such a program would be developed and proposed to the Metro Board inclusive of identifying funding to support the effort, noting that funding within the MAT program itself could be utilized.



7.5.3 Metro's Next Steps

This chapter has described a broad strategy and specific activities to achieve the stated goals of consistent, coherent and efficient delivery of the ATSP network. Summarized, this necessitates evaluating Measure M and other Metro investments against the ATSP vision, creating and testing partnership delivery models and reducing and eliminating inefficiencies. Specifically, Metro will:

- > Establish procedures to assure consistency of Measure M investments;
- > Establish steps to improve regional performance in competitive grant programs. Subject to further consideration, this may include advocacy, establishing matching grant programs, expanding technical and grant assistance;
- > Continue to place strong emphasis on prioritization of the network established in this plan in order to direct resources according to equity, safety and need based factors; and
- > Within the context of the MAT Cycle 2 proposal, include several key new elements including, considering a consolidated intake application for all Metro AT funding and partnership activities, considering a small-scale technical assistance program and prompting project applications that establish and test the new partnership models described here.



CITY OF LOS ANGELES CASE STUDY

The implementation of the ATSP provides unique opportunities and challenges for the City of Los Angeles. A focus on project delivery and partnership with the city is necessary for effective ATSP implementation given the geographic scale of the city, and the significant portfolio of project efforts with collaborative involvement for Metro. Metro held several discussions with city staff to better understand issues, opportunities and challenges with our shared work. The goals of these conversations were to establish mutual interest in the implementation of a specific range of active transportation projects and to reduce and eliminate inefficiencies. Through these discussions, Metro and City of LA staff were able to identify lessons learned from both prior active transportation efforts and from previously effective partnerships models. Staff from both agencies recognized that delivering projects in the ATSP network would require experimenting with new approaches, and identified some options as described below.



Constraints

There are two overarching challenges that impact implementation of the ATSP within the City of LA:

1. The city's role in review/permitting for Metro-led active transportation projects

Metro projects in which the City of LA has a review/permitting role, such as the Rail to Rail Active Transportation Corridor Project and the Alameda Street Mobility Project, have presented several issues. These arrangements can demonstrate a perceived lack of commitment or shared objectives between the two agencies. Current projects delivered under this partnership model have struggled with reaching interagency alignment to achieve cost and time efficiencies.

2. Project delivery capacity and available resources

City resources are often strained and staff capacity is extended across multiple projects and priorities. This leads to delays and can contribute to a backlog of funded projects. Further, Metro has, especially through the First/Last Mile program, established an interest and impetus for a significant portfolio of additional projects for the City to lead. Preparation for the 2028 Olympic Games may put further strain on project delivery capacity. It is imperative to take a fresh look at the full body of collaborative active transportation work and move forward with shared priorities.

Opportunities and Recommendations

An effective partnership between the City of Los Angeles and Metro should be guided by general principles for the collaborative process. Effective collaboration begins with both agencies defining their overall network objectives, as Metro has done in this ATSP update, and the city established in the Mobility Element, Low Stress Network and other citywide planning efforts. From there, we can establish shared commitments involving deliberate deployment of limited resources and staffing. Other general principles include:

- > Identifying and addressing known inefficiencies in project delivery. For example, we should seek to avoid allocating federal funds, which carry a greater administrative burden, to smaller active transportation projects.
- > Clearly define project roles and responsibilities in a way that builds upon each partner's strengths. For projects in which there are shared interests, Metro will consider providing tactical support (e.g. co-convenor of community engagement for FLM implementation). Where possible, Metro will also support efforts to add staffing capacity to City departments and projects.

Actions for Enhanced City of LA and Metro Partnership

There have been recent successful partnership models between the City of LA and Metro. These include, of note, Metro's Bus Speed Working Group, the City's Bike Lane Acceleration and Safety Team (BLAST). Implementation of the ATSP network allows for new partnership approaches that adapt and build from these models. The specific terms and stipulations of each partnership will be contingent on project type and size. Recommendations here were developed in discussion with City of LA staff and are recommended for follow-up action with the City. However, approaches described here can be appropriate for a wide range of jurisdictions. Of note, the formation of standing working groups is recommended in Section 3 of this chapter.

This plan recommends the formation of an Active Transportation Pilot Team that is composed of staff from Metro Countywide Planning & Development, other Metro departments and City of LA staff from LADOT Livable Streets, StreetsLA, and related areas. The purpose of this collaborative will be to facilitate implementation of selected projects that are focused on piloting delivery of 2-3 stations from the FLM portfolio. The team will determine and document roles, responsibilities and processes, similar to the Bus Speed Working Group. To assess overall effectiveness and commitment to established intended outcomes, there will be a continuous evaluation protocol that will inform the refinement and adjustment of the process. Depending on the outcomes of the pilot teamwork, Metro and City of Los Angeles will consider adjustments or expansion to direct efforts toward a larger body of work.





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