CAPSTONE PROJECT REPORT

UCLA Institute of Transportation Studies

Pathway to a Greener Los Angeles

Prioritizing the Mobility Plan 2035

Project Lead: Madilynn Hamilton
Faculty Advisor: Evelyn Blumenberg
Client: LADOT/Nataly Rios Gutierrez

June 2025

Technical Report Documentation Page

1. Report No. N/A	**2. Government Accession No.** N/A	**3. Recipient's Catalog No.** N/A
4. Title and Subtitle Pathway to a Greener Los Angeles: Prioritizing the Mobility Plan		**5. Report Date** June 2025
		6. Performing Organization Code UCLA-ITS
7. Author(s) Madilynn Hamilton		**8. Performing Organization Report No.** LAS2512
9. Performing Organization Name and Address Institute of Transportation Studies, UCLA 3320 Public Affairs Building Los Angeles, CA 90095-1656		**10. Work Unit No.** N/A
		11. Contract or Grant No. N/A
12. Sponsoring Agency Name and Address UCLA Institute of Transportation Studies www.its.ucla.edu		**13. Type of Report and Period Covered** Final
		14. Sponsoring Agency Code UC ITS

15. Supplementary Notes
DOI:10.17610/T65C9T

16. Abstract

In 2016, the City of Los Angeles Planning Commission produced the Mobility Plan 2035, an element of the General Plan, which includes bicycle path projects. The city of Los Angeles has struggled to implement the Green Network (Class I Bicycle Path Network) included in the Mobility Plan 2035 and disproportionately distributes cycling infrastructure and green space to more affluent, White neighborhoods. This project aims to answer two research questions: What is the state of existing bicycle path infrastructure in the city of Los Angeles? Given the city's goals and plans related to bicycle path infrastructure, how should the agency prioritize projects?

To answer these questions, I draw on other infrastructure prioritization models and the goals of the Los Angeles Department of Transportation (LADOT) to develop a model for prioritizing projects. The model most heavily weights the Equity, Safety, and Network Expansion aspects of projects. It also prioritizes bicycle path segments that would score well on competitive state grants such as the Caltrans Active Transportation Program. The final weighted model better prioritized bicycle path segments crossing through census tracts with high Equity Index scores. Even with this priority, the bicycle path segments with priority scores in the top quintile are still evenly distributed across the city of Los Angeles.

This modeling effort highlights the importance of translating the city's goals into quantifiable measures that provide LADOT with the information necessary to strategically prioritize its infrastructure investments. To improve future prioritization models, I recommend that LADOT focus on collaborating with other departments and community stakeholders to better understand each path segment, including cost-benefit analyses as part of the planning process, and expanding this modeling effort to other assets included in LADOT's Capital Infrastructure Plan.

17. Key Words	**18. Distribution Statement** No restrictions.

19. Security Classif. (of this report) Unclassified	**20. Security Classif. (of this page)** Unclassified	**21. No. of Pages** 67	**22. Price** N/A

Acknowledgments

I would like to thank my capstone advisor, Dr. Evelyn Blumenberg, and my clients, Nataly Rios Gutierrez and Rachel Junken at the Los Angeles Department of Transportation's Transportation Policy and Planning department, for their unwavering support and guidance on this project. Thank you to the Institute of Transportation Studies at UCLA for supporting me and my work through the Capstone Fellowship Program. Finally, I would like to thank my family and friends.

The Institute of Transportation Studies at UCLA acknowledges the Gabrielino/Tongva peoples as the traditional land caretakers of Tovaangar (the Los Angeles basin and So. Channel Islands). As a land grant institution, we pay our respects to the Honuukvetam (Ancestors), 'Ahiihirom (Elders) and 'Eyoohiinkem (our relatives/relations) past, present and emerging.

Disclaimer

This report was prepared in partial fulfillment of the requirements for the Master in Urban and Regional Planning degree in the Department of Urban Planning at the University of California, Los Angeles. It was prepared at the direction of the **Los Angeles Department of Transportation (LADOT)** as a planning client. The views expressed herein are those of the authors and not necessarily those of the Department, the UCLA Luskin School of Public Affairs, UCLA as a whole, or the client.

Pathway to a Greener Los Angeles: Prioritizing the Mobility Plan 2035

UCLA Institute of Transportation Studies

A comprehensive project submitted in partial satisfaction of the requirements for the degree

Master of Urban and Regional Planning.

Table of Contents

List of Tables and Figures

Executive Summary

In 2016, the City of Los Angeles Planning Commission produced the Mobility Plan 2035, an element of the General Plan, which includes bicycle path projects. The city of Los Angeles has struggled to implement the Green Network (Class I Bicycle Path Network) included in the Mobility Plan 2035 and disproportionately distributes cycling infrastructure and green space to more affluent, White neighborhoods. This project aims to answer two research questions: What is the state of existing bicycle path infrastructure in the city of Los Angeles? Given the city's goals and plans related to bicycle path infrastructure, how should the agency prioritize projects?

To answer these questions, I draw on other infrastructure prioritization models and the goals of the Los Angeles Department of Transportation (LADOT) to develop a model for prioritizing projects. The model most heavily weights the Equity, Safety, and Network Expansion aspects of projects. It also prioritizes bicycle path segments that would score well on competitive state grants such as the Caltrans Active Transportation Program. The final weighted model better prioritized bicycle path segments crossing through census tracts with high Equity Index scores. Even with this priority, the bicycle path segments with priority scores in the top quintile are still evenly distributed across the city of Los Angeles.

This modeling effort highlights the importance of translating the city's goals into quantifiable measures that provide LADOT with the information necessary to strategically prioritize its infrastructure investments. To improve future prioritization models, I recommend that LADOT focus on collaborating with other departments and community stakeholders to better understand each path segment, including cost-benefit analyses as part of the planning process, and expanding this modeling effort to other assets included in LADOT's Capital Infrastructure Plan.

The executive summary goes here. It should be about 1-2 pages in length, 1.15 spaced, with one line between paragraphs. Use Arial, 11pt for the entire document.

1. Introduction

Studies show that access to green space and cycling paths provides health, environmental, and societal benefits (Lee et al., 2015), but that these amenities have so far been inequitably distributed across Los Angeles (Shukla, 2020). Green space is often concentrated in high-income, predominantly White neighborhoods, while freeways tend to be concentrated near low-income, predominantly minority neighborhoods (Loukaitou-Sideris et al., 2023; Neighborhood Data for Social Change, n.d.).

A major reason for these disparities is the planning process associated with the implementation of infrastructure investments. Historically, neighborhoods with the most money, time, and resources have advocated for green space and cycling infrastructure and, therefore, have been more likely than other neighborhoods to receive them (Lorien Esbitt et al., 2019). The city and county of Los Angeles have acknowledged the shortcomings in their planning process and its consequences: variation in the quality and quantity of this infrastructure across LA neighborhoods. The city of Los Angeles Planning Commission produced the Mobility Plan 2035, an element of the General Plan, which includes bicycle path projects. By facilitating the long-range planning of mobility infrastructure projects, the city of Los Angeles aims to achieve geographic and group equity in both the process of determining and prioritizing projects and outcomes. According to the 5-Year Mobility Element Programs Progress Report, 76% of the 173 proposed programs have been completed or are in ongoing implementation (LADOT, 2022). However, despite the immense effort that the city put into the Mobility Plan 2035, the green network remains largely unrealized. As of January 2025, the city had delivered 73 of the 150 path segments, although the city had delivered 49 of those paths before the adoption of the Mobility Plan in 2016. These numbers indicate that the city has delivered 24 paths in the past nine years at a pace of 2.67 paths per year. At this rate, the city would fully deliver the path segments by 2054, 19 years after their target date of 2035.

This trend has prompted the city to focus on prioritizing and delivering the network now. However, it does not have unlimited resources and, therefore, will not be able to pursue all of these projects simultaneously. The purpose of this project, therefore, is to help the city identify a set of high-priority off-street bicycle path projects. To do this, I draw on examples of prioritization models from other cities and regions and apply the lessons learned from these models to develop a model to prioritize bicycle path projects in Los Angeles.

2. Literature Review

In the following section, I first explore the access to cycling infrastructure in the city of Los Angeles, the relationship between cycling infrastructure, cycling use and green space, and, finally, access to green space. Numerous studies find that cycling infrastructure and green space are inequitably distributed across the city of Los Angeles (Bai et al., 2023;

Campos-Sánchez et al., 2019; Hogendorf et al., 2020). Despite the difficulties with and concerns about current measurement techniques, the data indicate that the city of Los Angeles' current bicycle facility network is inadequate.

2.1 The State of Access to Cycling in Los Angeles

Access to bicycle infrastructure is notably concentrated within predominantly White and affluent neighborhoods, especially in the city of Los Angeles (Shukla, 2020). Research shows that cycling provides health benefits, such as reducing the risk of cardiovascular disease, Type II diabetes, colon cancer, and all-cause mortality (Oja et al., 2011). However, cycling investments are disproportionately located in affluent, predominantly White neighborhoods in the city of Los Angeles. At the same time, communities of color disproportionately experience cycling fatalities and health risks, like pollution (Braun et al., 2021; Cunha & Silva, 2023). This trend extends beyond the U.S. Drawing on data from 2011 to 2016, Kiani et al. (2024) found that census tracts in Montreal with visible minorities had comparatively less cycling infrastructure than other areas. While the cause of these disparities is unknown, the outcome is clear – cycling infrastructure is more widespread in predominantly White, affluent communities. While Class I paths (bicycle facilities completely separated from vehicle traffic) offer a higher level of safety and comfort by separating cyclists from other modes of traffic, jurisdictions may have difficulty implementing this class of bicycle infrastructure due to a scarcity in existing right of way. From 2015 to 2019, the County of Los Angeles added a total of four miles of Class I bicycle paths, increasing the network from 348 to 352 miles (LADOT, 2019; Metro, 2023).

Over this same period, the proportion of cycling commuters declined by 9% across the county (LADOT, 2019). This decrease was even larger in Equity Focus Communities, census tracts with higher concentrations of BIPOC, low-income, and carless households, characteristics associated with more mobility barriers; in these neighborhoods the proportion of cycling commuters dropped by 14% (Equity Platform | Metropolitan Transportation Commission, 2021). In the city of Los Angeles, the cycling commute mode share decreased from 1.1% (from the 2014-2018 5-Year American Community Survey (ACS) estimate) to 0.7% (from the 2019-2023 5-Year ACS estimate) (Social Explorer, n.d.). The lack of cycling infrastructure in the city of Los Angeles may have affected this decline in mode share.

The LADOT Strategic Plan 2021-2023 update highlighted equity as a key pillar of the agency's future. The plan acknowledges "LADOT's legacy of inauthentic community engagement [which] led to further harm, where we spent much more time investing in communities that raise their hands first, rather than communities that need investments the most" (LADOT, 2021). LADOT promised to establish an equity framework for pursuing and allocating resources including using disaggregated data on race, ethnicity, and gender, piloting a mobility service for "underserved communities", and creating infrastructure design guidelines to ensure gender equity when traveling.

Therefore, meaningful inclusion of equity measures in prioritizing cycling infrastructure is central (**see Figure 1**). **Table 1** below shows that the 3rd quintile of the LADOT Community Health and Equity Index census tracts have the most tracts with a planned Class I bicycle path. This is followed by the 4th quintile, then the 2nd, 5th, and finally the 1st. The 5th quintile has the lowest proportion of paths completed before 2016 while the 1st quintile has the most.

The data show that bicycle path implementation has been slow in Los Angeles. Researchers are undecided on the impact of bicycle path supply on cycling use (Heesch et al., 2015;Bai et al., 2023; Campos-Sánchez et al., 2019; Hogendor, 2020). However, while there are many determinants of cycling (Biehl et al., 2018), some studies find that the lack of quality infrastructure may be one of them, potentially contributing to low cycling rates (de Sousa et al., 2014; Mölenberg et al., 2019). However, even with excellent bike infrastructure, the distribution of destinations in Los Angeles may be too dispersed for many to consider cycling as a travel option. Additionally, poverty has been suburbanizing (Kneebone & Garr, 2010). Many low-income households now live in low-density neighborhoods where longer distances travel may make commuting by cycling difficult (Terry Castleman, 2023).

However, data on cycling rates are very limited, drawing into question some of the existing research. Cycling counts are expensive and rarely done at small geographic scales, and data on non-commute mode share is sparse. Heesch et al. (2015) determined that off-street bicycle paths are more likely than on-street bicycle facilities to be used for recreation. Unfortunately, the use of active transportation modes is more difficult to measure than the use of other modes, especially when differentiating between commute and non-commute purposes. For example, transit agencies can monitor ridership using fare payment records; planners can also take advantage of proprietary smartphone location data to determine vehicle volumes. Cycling counts can capture the number of cyclists and household travel surveys can quantify the cycling mode share. However, these methods only capture a snapshot of behavior usually across one day. Bicycle counts and household travel surveys are expensive to implement and difficult to obtain for small geographies and, therefore, are not collected at regular intervals. It is easier to monitor the status of infrastructure projects (which are fewer in numbers) than quantify the number of cyclists. Inventories of bike infrastructure projects show that in recent decades Los Angeles has struggled to expand its bicycle path network.

The city of Los Angeles chose the Green Network (the Class I bicycle paths) for its connections to regional cycling infrastructure and green space and for its potential to serve as a safer commute option (in addition to offering more recreation opportunities). To create separated bicycle paths, the city must find right of way; these rights of way often follow naturally occurring green spaces in the region like rivers, the ocean, open space preserves, and tree-filled bus rapid transit corridors like the Orange Line. By providing access to new cycling paths, the city is also expanding access to green spaces beyond existing parks and open spaces.
A key piece of inspiration for LADOT comes from Copenhagen, Denmark's cycle superhighway concept. Copenhagen originated the concept in 2009 to address vehicle congestion. As of 2024,

the city has built 16 out of the 24 planned routes comprising 850 km or 528 miles of infrastructure. The city created the Office for Cycle Superhighways to ensure coordination between municipalities since the routes will cross through 29 municipalities. The creation of this separated path network resulted in a 68% increase in bicycle traffic with just two-thirds of the network built (“Cycle Superhighways,” n.d.). Copenhagen and its surrounding municipalities designed the superhighway system for commuters to easily access schools and jobs across an integrated regional bicycle path network.

While current cycling measurements are not the most reliable, they still indicate cycling behavior is declining in the city of Los Angeles. I concluded that access to cycling infrastructure can positively affect cycling behavior. I also concluded that green space itself does not affect cycling behavior, but that access to green space is still beneficial. Given that the city of Los Angeles has been slow to implement bicycle infrastructure, the Green Network seeks to deliver equitable access to both green space and cycling infrastructure (taking inspiration from Copenhagen’s Cycle Superhighway).

2.2 Connection Between Green Space and Cycling Behavior and Infrastructure

The city of Los Angeles chose the Green Network (the Class I bicycle paths) for its connections to regional cycling infrastructure and green space and for its potential to serve as a safer commute option than other bicycle infrastructure. To create separated bicycle paths, the city must find right of way; these rights of way often follow naturally occurring green spaces in the region like rivers, the ocean, open space preserves, and tree-filled bus rapid transit corridors like the G Line (which operates between Chatsworth and North Hollywood in the San Fernando Valley). By providing access to new cycling paths, the city is also expanding access to green spaces beyond existing parks and open spaces.

Bai et al. (2023) found a positive relationship between the “green-ness” of a bikeway and users’ propensity to cycle. Campos-Sánchez et al. (2019) determined that the presence of bicycle facilities and destinations supports increased cycling behavior in Granada, Spain. Campos-Sánchez et al. (2019) used data from a cycling route database from the Healthy Campus Secretariat at the University of Granada in Spain. During a month-long cycling campaign, Campos-Sánchez et al. examined 560 users’ cycling and walking patterns. The researchers found that cycling trips were taken more often in places with a high concentration of destinations and cycling infrastructure, but not necessarily where green space existed. Campos-Sánchez et al. hypothesized that this was a result of the environment, where cycling infrastructure existed in the center of the city while green space largely existed in the outskirts. This study examined cycling behavior in lieu of any changes to cycling infrastructure availability or connectivity to green spaces. Hogendorf et al. (2020) found no association between Dutch individuals’ relative exposure to green space near their residence and their propensity to cycle for leisure purposes. With this evidence, I cannot conclude that providing more cycling

infrastructure near or to green space affects users' propensity to cycle for commuting or recreation; however, studies suggest the benefits of both green space and cycling infrastructure and both are delivered via the Green Network.

2.3 The State of Access to Green Space in Los Angeles

Green space can provide air purification, carbon sequestration, cooling effects, recreation opportunities, and as such a place for education and stress relief (Jezzini et al., 2023). The construction of freeways in Southern California disproportionately displaced low-income and minority communities in both the central city of Los Angeles and surrounding suburbs (Andres Ramirez et al., 2024). Vehicles on freeways produce localized air pollution that leads to an increased prevalence of childhood asthma and school absences (Nino Kunzli et al., 2003). The high concentration of freeways and the dearth of parks and other open space particularly burdens residents in low-income and majority non-White neighborhoods. Vaughan et al. (2013) determined that parks in low-income and minority neighborhoods also have lower quality infrastructure. As **Figure 2** shows, green space is largely concentrated in areas that score lower on the LADOT Community Health and Equity Index. According to this index, these communities have lower hardship index scores, less pollution burden, and fewer instances of disease mortality in addition to higher life expectancy and Complete Communities Index than other neighborhoods.

In 2016 LA County conducted a Park Needs Assessment (LA County Department of Parks & Recreation, 2016) to understand the quantity and quality of existing park and open space infrastructure and relative need levels across neighborhoods (see **Figure 3**). The agency defined 43 Study Areas within the city of Los Angeles, finding that 15 of these areas had very high needs and another 11 areas had high needs. In total 60% of the Study Areas in the city had high or very high park needs. Many of the study areas with very high needs align with LADOT's CHE index.

Measure A, a local option sales tax that serves as the primary mechanism for funding parks in the County, previously distributed 12.7% of its revenues to very-high and high-need areas, neighborhoods that include 52% of the County population (LA County Park Equity Groups Fight to Turn Park-Poor Communities 'Red to Green' | Catalyst California, n.d.). Disparities in the quality and quantity of park and open spaces largely fall along racial lines and persist today. Moving forward, the County of LA named equitable access to green space as a priority in the LA River Master Plan, Green Zones Program, and the city of LA Parks Needs Assessment (city of Los Angeles, 2009; "Green Zones Program," n.d.; LA River Master Plan – A Reimagined River for LA County, 2016). This priority relates to the Mobility Plan's bicycle path network as a large portion of the network comprises the LA River bicycle path. The LA River Master Plan includes the LA River bicycle path while the other two plans discuss the need for access to green space (something the Mobility Plan bicycle path network delivers). These three documents (the LA River Master Plan, Green Zones Program, and the city of LA Parks Needs Assessment) confirm that the County of Los Angeles is also engaged in this effort.

2.4 Conclusion

Existing research shows that more affluent, majority White neighborhoods in Los Angeles have disproportionately more access to green space and cycling infrastructure. The research is not conclusive on the reasons for this distribution. Regardless, LADOT has stated a commitment to move toward more data-based decision making for allocating infrastructure investments. Access to green space and cycling infrastructure provide many health benefits to individuals. While the presence of cycling infrastructure is more strongly associated with increased cycling use than the presence of green space, this Class I path network provides access to both of these.

3. Background

In this section, I first discuss the Los Angeles Department of Transportation (LADOT) and the agency's vision. I then review the key priorities of three plans relevant to this analysis (Mobility Plan 2035, Los Angeles Metro Active Transportation Strategic Plan (ATSP), and the LA River Master Plan) and discuss how this network of Class I paths seeks to address those priorities.

To understand the history of the Los Angeles Department of Transportation (LADOT), see Appendix 1. On February 25, 1979, a city ordinance formed the Los Angeles Department of Transportation (LADOT) by combining staff from the Department of Traffic and the Department of City Planning, the Department of Public Works, and the Community Development Department. Ninety percent of the staff came from the Department of Traffic. With its expanded scope, the new Department began developing bike lanes and paths and implementing a preferential parking program at LADOT (ibid). Over the years, LADOT's vision has evolved. Currently, the vision is that "…all people have access to safe and affordable transportation choices that treat everyone with dignity and support vibrant, inclusive communities" (About, n.d.). The Department's mission is to lead transportation planning, project delivery, and operations in the city of Los Angeles. "We work together and collaborate to deliver a safe, livable, and well-run transportation system in the city and region" (ibid). LADOT has become an invaluable resource for the city with responsibilities that include parking enforcement, traffic control, active transportation planning, and transit operations. Given the wide scope of LADOT's responsibilities, it is unsurprising that for 137 of the 173 action programs in the Mobility Plan the city of Los Angeles delegated LADOT as the lead agency; one of their responsibilities includes the implementation of 210.9 miles of Class I bicycle paths (LADOT, 2022). The California Department of Transportation (Caltrans) defines bicycle paths as paths which serve corridors not served by streets or highways designed to provide recreational opportunities and, sometimes, "direct high-speed commute routes" (Caltrans, 2025).

As of January 2025, of the 150 bicycle path segments included in the Mobility Plan, the city had completed 73 segments. However, 49 of these segments already existed when the LA City Council passed the Mobility Plan (see **Figure 4**). Between the adoption of the Mobility Plan and January 2025, the city of Los Angeles has delivered 24 path segments or 31% of the remaining path segments. These figures mean that the city has been delivering roughly 2.67 path segments per year (or 4.8 miles per year) since the adoption of the Mobility Plan. At this rate, it would take the city 19 years – well beyond the 2035 target date – to deliver the remainder of the path segments (see **Figure 5**).

This report comes at a time of limited resources for the city of Los Angeles. Mayor Karen Bass and the Los Angeles City Council is constantly editing the 2025-26 budget, but each iteration maintains a multi-million dollar deficit affecting all three major agencies in charge of implementing the Green Network (LADOT, the Bureau of Engineering and the Bureau of Street Services - StreetsLA). That being said, the city of Los Angeles will likely take longer than 19 years to fully implement the rest of the path segments. Meanwhile, there is increasing uncertainty surrounding the availability of federal and state funding for capital infrastructure projects (Four Recent Trends in US Public Infrastructure Spending, n.d.; Nieves, 2025). With limited and uncertain funding, it is vital to ensure that the city directs its funds to the projects that will have the greatest impact.

The city and county of Los Angeles developed the current bicycle and green space plans in three documents: the Mobility Plan 2035, the 2023 Active Transportation Strategic Plan, and the LA River Master Plan. Each plan involved collaboration across jurisdictions, community engagement strategies, and within unique geographies. The Mobility Plan covers the city of Los Angeles; the Active Transportation Strategic Plan spans LA County; and the LA River Master Plan neighborhoods in close proximity to the LA River which winds its way through LA county. I summarize the content of these three plans below.

3.1 Mobility Plan 2035

Mobility Plan 2035 is one of 12 elements of the city of Los Angeles General Plan. The Los Angeles City Planning Commission adopted it in June of 2016, followed by the Los Angeles City Council in September of 2016. The plan originated from a state-mandated process which involved over 100 community meetings and seven community forums and resulted in 173 Action Programs. One of these programs, Engineering 6, involves implementing the Bicycle Enhanced Network and creating or maintaining 150 miles of bicycle paths. The document outlines five goals: Safety First; Access for All Angelenos; World Class Infrastructure; Collaboration, Communication, and Informed Choices; and Clean Environments & Healthy Communities. The Mobility Plan also includes the following relevant policy initiatives: the inclusion of equity and environmental justice in the planning framework, first/last mile connections, and the use of data to prioritize equity in safety, access, and public health.

The Mobility Plan's Bicycle Enhanced Network, which is represented in **Figure 6**, includes on-street and off-street improvements to maintain a connected low-stress network for cyclists. The green Bicycle Paths represent the Green Network which the city will prioritize using criteria that were successfully adopted by other cities and which will address specific goals of the Mobility Plan and LADOT. The Bicycle Paths follow rail and river corridors in the city of Los Angeles and connect to a few neighboring jurisdictions.

3.2 Los Angeles Metro's 2023 Active Transportation Strategic Plan

In 1993 the California State Legislature merged the Southern California Rapid Transit District with the Los Angeles County Transportation Commission to form the Los Angeles County Metropolitan Transportation Authority (LA Metro). LA Metro's responsibilities include both long range service planning and transit operations. The agency published its first Active Transportation Strategic Plan (ATSP) in 2016, which it then updated in 2023, as the agency launched its intent to support active transportation infrastructure throughout the County (Metro, 2023). The 2023 update includes proposals for First/Last Mile areas and bikeway and pedestrian districts. The ATSP's five goals are Equity, Safety, Comfort, Accessibility, and Connectivity. LA Metro's involvement in active transportation includes planning and funding first-last mile transportation, the creation of pedestrian districts, and the implementation of a regional bikeway. LA Metro's plans largely depend on the use of land owned by local jurisdictions, so their plans serve as guidance and a starting point for discussions with cities. LA Metro also serves as a grant-making institution, so they can help cities finance the infrastructure included in LA Metro plans. As **Figure 7** shows, the ATSP identified 208.4 miles of existing bike paths (Class I) throughout the County in 2023 and proposed 183.1 additional miles. LA Metro chose these additions based on their ability to connect sub-regions determined by the Regional Transportation Plan's Job Centers and due to their proximity to existing transit and active transportation corridors. The ATSP outlines Metro's implementation strategy which identifies five-year phases based on delivery method, the need for multi-jurisdictional collaboration, delivery efficiency, and equity implications. Even with these considerations, LA Metro and the county's jurisdictions must determine further details for each project and the exact order of implementation.

3.3 LA River Master Plan

Since a large portion of the off-street bicycle paths run along the LA River, I also considered the priorities identified in the LA River Master Plan. The first LA River Master Plan dates back to 1996 and aims to provide a regional analysis of the corridor. In 2016, the LA County Board of Supervisors passed a motion to update the plan (LA River Master Plan – A Reimagined River for LA County, 2016). The updated plan included goals and actions determined by extensive community engagement and a needs assessment throughout the county. The process involved 1,306 participants across 13 community meetings, a Youth

Summit with 800 participants, and a Native Communities discussion with elders and leaders of the Gabrielino-Tongva peoples. LA County Public Works incorporated the extensive feedback and laid out the following goals: reduce flood risk, provide equitable, safe access to the river, embrace opportunities for arts and culture, address housing affordability impacts, and continue community engagement, among others (LA River Master Plan – A Reimagined River for LA County, 2016). To address the second goal, the plan proposed additional mileage to the LA River trail to better connect existing segments (see **Figure 8**).

3.4 Implications of Regional Plans for the Green Network

Each of the entities responsible for these plans (city of LA, LA Metro, and LA County) incorporated their own goals. While LADOT is only responsible for implementing the Mobility Plan, these other plans drafted by LA Metro and the County of Los Angeles demonstrate similar priorities related to bicycle infrastructure and green space implementation. At the same time, LADOT and other local jurisdictions are tasked with implementing the lion's share of proposed improvements. Additionally, the plans are meant to serve as guiding documents with flexibility to determine and revise specific investments or improvements for each project during the implementation process. The extent to which the Green Network is discussed in the Mobility Plan 2035 final document, in particular, is a bit limited, so the implementation-related decisions must occur now - with continued input and guidance from the city. These projects could involve adding new sections of bicycle paths, connecting existing bicycle paths where small gaps exist, and making improvements to existing segments (e.g. repaving). The plans include recommendations on how to prioritize and implement the projects, specifically calling out the need to invest in communities that have historically received disproportionately large burdens from the transportation system. However, the plans do not identify the specific mechanisms for ensuring that the plans rectify past harms. They acknowledge the current disparity in green space and cycling infrastructure distribution and plan to implement these assets evenly throughout the city and county, but mostly leave prioritization for the next steps. Determining which projects should be implemented first can be a difficult task, especially when multiple jurisdictions are involved.

4. Prioritization Models

In this section, I analyze similar prioritization models from Los Angeles, the United States, and globally to inform my model for the city of Los Angeles. These prioritization models, which consider off- and on-street bicycle paths, offer a standard structure of scoring projects with categories like Equity, Connectivity to other Bicycle Infrastructure, Safety Improvements, and Proximity to Destinations.

Prioritization models for cycling infrastructure typically include a set of criteria to which planners assign point values either placing a higher point value for more important criteria or

weighting a criterion heavier. These models are normally developed at the project level and include criteria such as connectivity gains through proximity to community assets and intersections with existing cycling infrastructure, equity, and topography (Bike Somerville, 2023; Edmonton, 2021; Silicon Valley Bicycle Coalition, 2024). Most prioritization models consider both off- and on-street bicycle infrastructure and include criteria that are not relevant to this analysis, such as safety and level of comfort (Alameda, 2022; Bike Somerville, 2023; Edmonton, 2021). It is common to build a prioritization model around an existing set of projects,the focus of this project with respect to the Green Network.

The following are examples of prioritization models for bicycle facilities in the Los Angeles, US, and global context. The purpose of this inventory is to explore the common criteria and data that agencies and organizations use to prioritize projects. These methods vary by their goals, urban context, and existing planning processes. Despite their differences, some criteria are widely used including connectivity, equity, and proximity to destinations. The plans define these criteria in different ways, but they represent common aims to ensure bicycle facilities help people get to where they need to go and to help cities distribute resources to all residents, and maintain a network of facilities to ensure safe, comfortable trips.

4.1 Los Angeles Examples

LADOT Slow Streets

LADOT implemented Slow Streets in May 2020, a program started by Mayor Eric Garcetti, as a means to provide safer access to walking, cycling, and rolling residents amid public recreation facility closures during the COVID-19 pandemic (Yonan, 2021). The program accepted applications from local sponsors to close local streets for local and emergency vehicle access with a speed limit of 15 MPH and traffic calming measures (LADOT, 2020). The city ranked each application based on network size, street classification, connectivity, and equity:

LADOT installed 50.2 miles of Slow Streets with the help of 30 project sponsors (which were community-based organizations). The city selected twelve corridors within the 13 specified neighborhoods. A 2020 City Council motion urged LADOT to make some of these street segment modifications permanent. However, the program has not gone without criticism. Dr. Destiny Thomas, CEO and founder of Thrivance Group and a former Transportation Planning Associate at LADOT, noted that, as tactical urbanism, the Slow Streets program bypasses traditional community meetings, which were one of the few avenues through which marginalized communities could influence planning processes affecting their neighborhoods.

There is an important difference between Slow Streets and the Mobility Plan 2035. The city selected Slow Streets projects from sponsor bids; this kind of engagement relies on the

advocacy and capacity of local groups to make LADOT aware of these corridors. Historically, such processes favor wealthier, White neighborhoods where residents have the time and resources to take on volunteer advocacy roles. Meanwhile, the Mobility Plan 2035 conducted an extensive community engagement process and included data driven prioritization processes as a policy (4.6) (Los Angeles Department of city Planning, 2016).
Metro Active Transportation Strategic Plan 2023 Update (Metro, 2023)
The Metro Active Transportation Strategic Plan 2023 Update prioritized Class I and Class IV bicycle paths using the following categories: Equity, Safety and Comfort, Accessibility, Connectivity, and Sustainability (**see Figure 9**). Class IV bicycle lanes are separated bikeways or cycle tracks that provide similar protection to Class I bicycle paths through their physical separation from other traffic modes (Design Information Bulletin 89-01: Class IV Bikeway Guidance, n.d.).

Table 2 outlines LA Metro's prioritization methodology which they document in the ATSP 2023 update. It includes criteria related to Equity, Safety and Comfort, Accessibility, Connectivity, Sustainability, Demand and Community Support, and Project Readiness.

4.2 U.S. Examples (outside of Los Angeles)

Silicon Valley Bicycle Coalition (SVBC) Network Priority Tool

The Silicon Valley Bicycle Coalition (SVBC), a nonprofit advocacy organization working in Santa Clara and San Mateo Counties in Northern California, and Copenhagenize, an international urban design firm specializing in bicycle mobility, collaborated on the Bicycle Network Priority Tool (Silicon Valley Bicycle Coalition, 2024). As a primarily volunteer-based organization, SVBC created the tool to help its organizers prioritize bicycle infrastructure projects to create a low-stress all-ages-and-ability (AAA) network with the hope that the tool can positively influence local Active Transportation Plans. SVBC and Copenhagenize developed a lookbook and user manual to ensure that anyone in the two counties could use the prioritization tool. The scoring included the following major categories: High Needs Areas, Proximity to Destinations, Harm Reduction, and Bike Network Connectivity. **Table 3** lists the major categories and each subcriteria and the points allocated to them.

One limitation of the Network Priority Tool is that it does not account for space constraints or future improvements. The tool may recommend a Class IV lane where only a Class II or III lane would fit or it may recommend an intervention which already is planned or in construction. The tool makes recommendations based on road speed and volume and the other criteria mentioned above. Unfortunately, the tool cannot prioritize segments which have not been constructed yet and are not included in a previous plan. With this methodology, off-road bike paths also score relatively low due to the weighting of harm reduction and proximity to destinations.

Somerville Bicycle Network Plan Implementation (Bike Somerville, 2023)

Somerville, Massachusetts is a suburb of Boston with 80,407 residents (Somerville City, Massachusetts - Census Bureau Profile, n.d.). The city of Somerville adopted the Bicycle Network Plan in April 2023 (city of Somerville, 2023). Bike Somerville completes an annual selection of projects and prioritizes said projects based on five categories: Equity, Connectivity, Destinations, Topography, and Safety/Crash Rate (see **Table 4**).

Unfortunately, this plan did not include scores for off-street paths, just on-street paths. Bike Somerville staff argued that these off-street paths were “often part of major city infrastructure projects, or state agency or developer projects” (Bike Somerville, 2023). Still, the Bike Somerville’s on-street prioritization method includes criteria that overlap with those used in the LA Metro ATSP 2023 Update: equity and connectivity.

Prioritizing Equity in Multimodal Trail and Pathway Grant Programs

Safe Routes Partnership (SRP), a national nonprofit organization working to ensure safe walking and bicycling access to schools, developed a factsheet summarizing how ten state grant programs funded multimodal trails and pathways with transportation connections while prioritizing equity (Safe Routes Partnership, 2023). This fact sheet highlights several examples of U.S. prioritization methods that are relevant to this project, including Colorado’s Disproportionately Impacted Communities, California’s Active Transportation Program, the Clean Ohio Trail Fund, and Michigan’s Natural Resources Trust Fund. The SRP fact sheet summarizes how various grant programs define high-need communities according to several criteria: income, race and ethnicity, age, and linguistic isolation or limited English proficiency.

SRP defines low-income neighborhoods using median household income (MHI); it splits neighborhoods into three income categories (and a fourth for the top 2% of MHI). They prioritize communities with a higher proportion of BIPOC residents, using Colorado’s Disproportionately Impacted Communities as a reference. They determine the age category by the proportion of the population under 18 or above the age of 65, population groups that are most likely to be vulnerable road users or cyclists. To identify linguistic isolation, SRP looks to Massachusetts where Environmental Justice Communities are defined as those where 25% or more of the population have limited English proficiency.

SRP recommends four methods for incorporating equity: maintaining a funding commitment, incorporating targeted application questions, creating or applying indicator maps, and promising adjusted match requirements. A funding commitment means setting aside a certain portion of the total available funding for projects within specific communities; for California’s Active Transportation Program, these are California’s SB 540 Disadvantaged Communities. The Targeted Application Questions allow qualitative responses describing how each project affects priority communities. The Indicator Maps consolidate spatial information to identify areas with greater need.

SRP also highlights the Clean Ohio Trail Fund, which aggregates seven equity factors to determine high-need/high-demand areas. Any projects within those areas receive more points. Finally, the Adjusted Match Requirements sets a varying requirement for local contributions depending on each project community's median household income; the example here is Michigan's Natural Resources Trust Fund. The adjusted match requirements may be the least applicable equity measure since the mechanism affects local jurisdictions' chances of applying but not their chances of being awarded funding. These grant programs work a bit differently than prioritization schemes as they have no commitment to fund every project application. However, they do consider different methods to measure which projects provide the most benefit to specific population groups and, therefore, are useful background for developing a formal prioritization model.

4.3 Global Examples

Urban Bikeability Index (Arellana et al., 2020)

Arellana et al. (2020) developed the urban Bikeability Index (BI) to prioritize bicycle infrastructure investments in the Global South for cities where planning processes may be weak and data availability using traditional prioritization methods may be limited. The authors use Barranquilla, Colombia as an example for Global South cities. In Barranquilla, bicycle lanes are typically concentrated in high-income neighborhoods, which are situated closer to dense job centers than are low-income neighborhoods. Bicycle lanes are typically designed for high-income residents' recreational purposes, forcing cycling commuters from low-income neighborhoods to ride on dangerous ring roads. Arellana et al. (2020) developed the tool to transition from an accessibility-focused prioritization (the current methodology) to an equity-focused prioritization which is operable within the data availability confines of local governments in the Global South.

The authors divided the prioritization criteria into seven categories: Directness and Coherence, Comfort and Attractiveness, Traffic Safety, Security, Climate, Presence of Bicycle Infrastructure, and Cost of the Trip (see **Table 5**). Arellana et al. (2020) used a multinomial logit model from Biogeme to determine the weights of observable and non-observable factors for frequent and non-frequent cyclists. They found that security was the most important factor for frequent cyclists and security and traffic safety were the most important for non-frequent cyclists. By employing a survey, Arellana et al. (2020) were able to make this distinction, while the other prioritization models largely relied on agency priorities and discretion.

Edmonton Bike Plan Implementation Guide

The city of Edmonton, the capital of the Alberta province in Canada, has a population of 1.087 million people (UNdata | Record View | city Population by Sex, city and city Type,

n.d.). Edmonton adopted its updated Bike Plan in 2020 and developed a Bike Plan Implementation Guide 2021-2026 (Edmonton Bike Plan | city of Edmonton, n.d.). In the Implementation Guide, the city developed a Bike Route Prioritization method with four criteria determined by surrounding neighborhood characteristics (Edmonton, 2021): Equity, Ridership potential, Safety, and Connectivity (see **Table 6**).

Planners assigned the scores for these four criteria to each bicycle project and intervention (see **Figure 10** for an example of one of the metrics). The city considered high-scoring projects for their connections to other projects and city priorities including concentrating resources along and on specific corridors and nodes, respectively.

4.4 Takeaways from Other Prioritization Models

Table 7 summarizes the criteria included in all of the above prioritization models. The most common criteria are connectivity, equity, and proximity to destinations. Connectivity refers to the bicycle facility's ability to maintain a connected low-stress network throughout the city. Bicycle facilities designed for all ages and abilities can be limiting if there are gaps in the network as it severely restricts the number of destinations one can reach in a safe, comfortable manner.

Many prioritization methods define equity in terms of neighborhood demographic characteristics. Most prioritization methods described above assign each bicycle facility to a neighborhood and then decide whether that neighborhood was a priority according to aggregated data like the American Community Survey.

While prioritization models are well-developed for on-street bicycle infrastructure projects, there is little precedence for the use of these models in prioritizing off-street bicycle paths. These off-street bicycle paths differ in that they provide more comfort, but less access to destinations. Many prioritization models include criteria related to the level of stress or road conditions cyclists currently experience. These considerations would be less relevant to an analysis of off-street bicycle paths.

5. Data and Methods

This project builds on previous research and prioritization models to examine the following two questions:

- What is the state of existing bicycle path infrastructure in the city of Los Angeles?
- Given the city's goals and plans related to bicycle path infrastructure, which prioritization model best meets LADOT's goals?

To answer these questions, I drew on several open data sources including LADOT, LA Metro, LA County Department of Public Works, the city of LA's GeoHub and Near Map

satellite data. Given the previous prioritization model examples and the unique nature of off-street bicycle paths, I focused the data assembly and model on equity, connectivity, safety improvements, proximity to key destinations, current funding, residential density, and network expansion. I did not include comfort and attractiveness in this model because off-street bicycle paths are presumed to have similar levels regardless of location. I also excluded direct measures of traffic safety since off-street bicycle paths are completely separated from other modes of traffic; instead, I included whether paths ran parallel to High Injury Network street segments to anticipate where bicycle paths could serve as a safer alternative. Finally, I did not include path grade due to the lack of data availability. I then analyze these data in the context of previous network prioritization models and LADOT's strategic goals. I describe each data source and my methodology below. The Green Network (the Class I bicycle paths) included in the Mobility Plan 2035 seeks to alleviate both disparities in cycling and green space access by providing equitable access to bikeways along river and rail corridors.

5.1 Criteria Categories and Weighting

In developing the final model, I initially did not weigh the categories. Instead, I assigned each category 10 points. Given LADOT's priorities and the priorities stated in the Mobility Plan 2035, LA Metro Active Transportation Strategic Plan Update, and the LA River Master Plan, I added weights to the final model.

As I mentioned, I constructed two models. In the first model, I weighted each of these elements equally, giving them each 10 points for a maximum score of 70 points (see **Figure 11**). In a second model I worked with LADOT staff to assemble a set of weights that reflected the agencies'' priorities and resources constraints. LADOT and other Los Angeles municipalities emphasized the equitable distribution of bicycle facilities and green space (including six out of the eight prioritization models I reviewed in Section 4). I, therefore, gave this criteria the most weight, 20 potential points. The Mobility Plan 2035 identifies Safety First as a goal. Safety also was a criteria in six out of the eight prioritization models. I included safety as a category and similarly weighted this category heavily, 20 points. Six out of the eight prioritization models also included Network Expansion as a category (as Connectivity). Therefore, I assigned 20 potential points to this category. Six of the eight prioritization models that I reviewed (including the Mobility Plan 2035) included a Proximity to Key Destinations category, so I assigned the category 10 points.

Through discussions with LADOT staff, I included a few other criteria that were not part of previous prioritization models. I included Crossing Barriers as a category (with 15 potential points) to favor bicycle path segments that provided access across barriers. Since LADOT took inspiration from Copenhagen's Bicycle Superhighways, I designed the prioritization model to emphasize regional connectivity with this proxy. While other prioritization models did not include residential density, LADOT wanted to include this category so the model would favor path segments that could serve a greater number of potential riders. Therefore, I

assigned this category 10 points. Finally, LADOT wanted to prioritize path segments that already had been funded, so I included a “funding” category. This category is similar to LA Metro Active Transportation Strategic Plan’s Project Readiness category. I assigned 5 points to this category.

5.2 Data Measurement and Sources

Table 8 lists my data sources by category, subcategory, and year. I elaborate on each of these below.

Equity designation: LA City Planning updated the Community Health and Equity Index, which LADOT adopted to designate priority transportation equity neighborhoods, in 2021 (Community Health and Equity Index, n.d.-a); the index incorporates normalized data on demographic, socio-economic, health conditions, land use, transportation, and other relevant characteristics scored 0-100 at the census tract level. For the equity criteria, I assigned path segments with a score in the top quintile of the Community Health and Equity Index a score of 25, segments in the 2nd top quintile 20 points, and so on (Community Health and Equity Index, n.d.-b). For path segments crossing through multiple census tracts, I used the highest index score to determine the equity score. Equity is a noted priority of both other prioritization models and Los Angeles plans and government agencies (including LADOT) (LADOT, 2024b), hence the model weights this category–and safety–most heavily.

Crossing Barriers: LADOT provided me with cleaned publicly-available data on highways, rivers, and transit in Los Angeles which previously served as barriers to cyclists; LADOT last updated these data in December 2023. By building bridges across or installing bicycle paths beneath these assets, LADOT further amplifies the level of connectivity offered by the bicycle path network. The crossing barriers criteria prioritizes path segments which would provide cyclists and pedestrians additional spaces crossing natural or man-made barriers that previously may have divided communities. This category also took inspiration from the “Reconnecting Communities” grant program offered by the Federal Government from the Infrastructure Investment and Jobs Act of 2021 (Rep. DeFazio, 2021). I assigned path segments which intersect a highway, river, or at-grade transit line (using proprietary LADOT data) a score of 5 for each category of asset crossed. All other segments received a score of 0. Somerville’s prioritization plan included a similar metric under the “Safety/Crash Rate” category.

Proximity to Key Destinations: I received point data on high quality transit stops from Caltrans; the agency last updated the data in April 2025 (CA HQ Transit Stops, n.d.). High quality transit stops are any bus, rail, or other fixed-route transit stops where service headways are 15 minutes or less according to up-to-date GTFS data. I obtained school site polygons from LAUSD for the 2023-24 school year (LAUSD School Site Locations, n.d.). LAUSD last updated these data in June, 2024; they include public K-12 schools, adult education sites, and charter schools in the city of Los Angeles. Data on job locations come

from the Census Longitudinal Employer-Household Dynamics tool for the city of Los Angeles using LODES (LEHD Origin-Destination Employment Statistics) data from 2022 (LED Extraction Tool Help and Documentation - Longitudinal Employer-Household Dynamics, n.d.). The County of Los Angeles provided data on the location of libraries; the County last updated this file in April 2023 (County of Los Angeles, 2023). I then clipped the data to include only those libraries that are located in the city of Los Angeles boundary. The County also provided park polygons which includes polygons for both parks and open space (County of Los Angeles, 2025). They last updated the data in April 2025. I clipped these data to include only those parks that are located in the city of Los Angeles. Finally, I obtained data on cooling centers from the County of Los Angeles and again clipped the data to include only those located in the city of LA. I deleted any duplicates which served as both a library and a cooling center, maintaining only one purpose for each site (Cooling and Warming Centers, n.d.). For the proximity to key destinations criteria, path segments received a score of 2 for each destination within a ¼ mile (Euclidean distance). These destinations include school sites, high quality transit stops, job sites, libraries, parks, and cooling centers with a maximum score of 10 for the category. This category was also included in the Silicon Valley Bicycle Coalition Network Prioritization tool, the LADOT Slow Streets program, and the Edmonton Bike Plan Implementation Guide. While this plan is helpful for providing regional bicycling and pedestrian connectivity, the bicycle paths are not only designed for recreational travel and proximity to key destinations may provide some insight into future levels of use.

Safety: LADOT conducted an analysis to define its High Injury Network (HIN) in 2023 (LADOT, 2023). The HIN street segments are subset by the modes involved in the crash, so this analysis only includes the bicycle HIN street segments. For the safety (High Injury Network) criteria, a path segment received a score of 25 if it ran parallel (within a ¼ mile) to a High Injury Network corridor without a Class IV bicycle facility. Class I bicycle paths are off-street and, therefore, may be more comfortable, approachable, and safe than on-street bicycle infrastructure (besides well-designed Class IV lanes). Providing an off-street bicycle path parallel to Bicyclist High Injury Network corridors provides a safe and inclusive alternative. This criteria is also included in the Metro Active Transportation Strategic Plan 2023 Update, the SVBC Network Priority Tool, the Somerville Bicycle Network Plan Implementation, and the Edmonton Bike Plan Implementation Guide.
Residential Density: The residential density data for each census tract and for the city of Los Angeles are from the American Community Survey 5-year estimates from 2019-2023 (US Census, 2023). For the density criteria, path segments partially or completely within a census tract with a higher population density than the city of Los Angeles received a score of 5. This category is another proxy for potential future levels of use. While none of the previous prioritization efforts included this category, several (including the Metro 2023 Active Transportation Strategic Plan, and Arellana et al.'s Bikeability Index) included some data predicting future use.

Network Expansion: I determined project types using Near Map satellite data, and LADOT's data on existing and planned Class I and IV bikeways (LADOT, 2024a). Near Map updated their data in 2023 and LADOT updated their data in 2024. LADOT provided data on existing and planned Class IV bikeways; the city last updated these data in 2024 (ibid). For the Network Expansion criteria, path segments designated as gap closures (both segment ends abut existing bicycle paths) received a score of 10 and those designated as new paths (if one or neither of the segment ends abut existing bicycle paths) received a score of 5. This tool, in its current design, is meant to direct staff attention and resources toward eliminating gaps in the protected bicycle facility network for the city of Los Angeles. While working on this project, I interacted with many residents who, anecdotally, are frustrated with the current state of bicycle paths, complaining about bicycle paths ending abruptly and spilling onto a freeway entrance or exit. This criteria is included in the Metro Active Transportation Strategic Plan 2023 Update as "Project Readiness". While this criteria may be unique to my methodology, it is critical to LADOT's priorities and current capacities.

Funding: I received funding information from LADOT and the city of Los Angeles' internal sources. For the funding criteria, path segments that were funded in any capacity received a score of 5 and those that were not funded received a score of 0. This tool is meant to prioritize paths for the planning process, which involves but also extends beyond the funding acquisition process. Therefore, LADOT can use this tool to identify which projects should be delivered first based on where resources have already been allocated.

5.3 Project Inventory

Before implementing the prioritization model, I analyzed the Mobility Plan's Green Path Network to identify the existing infrastructure, planned segments, and potential project needs. Using Nearmap satellite imagery, I confirmed whether each segment had been constructed and, if they had, assessed key physical attributes of the segment, such as connectivity and surface condition. To determine funding status, I reviewed documentation from the Los Angeles Department of Transportation (LADOT) and consulted local news sources.

Based on these inputs, I categorized path segments into three groups: funded planned segments, unfunded planned segments, and existing segments included in the Green Network because of desired upgrades or maintenance. In addition to funding status, I assigned each segment a project type. Gap closures refer to unbuilt segments that connect to existing or planned Class I or IV infrastructure at both ends, effectively filling missing links in the network. New paths include unbuilt segments that connect to existing or planned paths on only one side or not at all, representing extensions of the network into previously unserved areas. Repaving projects are applied to existing paths identified as needing maintenance or upgrades. The classification of each segment by funding status and project type is presented in **Figure 12** below.

5.4 The Prioritization Model

5.4.1 Developing the Model

In collaboration with LADOT, I designed the model over several iterations. I will describe how I came to the final model by comparing the final model to an unweighted model. Both models consist of assigning points to each path segment by category including Equity, Crossing Barriers, Proximity to Key Destinations, Safety, Network Expansion (previously known as Project Type), and later Density and Funding.

In both models, I assigned the following formula (**see Tables 9 and 10** for category point values):

$$Priority\ Score\ =\ Equity\ +\ Crossing\ Barriers\ +\ Crossing\ Barriers\ +\ Proximity\ to\ Key\ Destinations\ +\ Safety\ +\ Density\ +\ Network\ Expansion\ +\ Funding$$

My initial model included a Project Type multiplier. After analyzing the distribution of path segments with Priority Scores in the top quintile, it became apparent that the Project Type Multiplier overpowered every other category; if a path segment was a Gap Closure (the only project type to receive the x2 multiplier), it was guaranteed to have a much higher score. In the later models, I changed the Project Type/Network Expansion category to a point value from a multiplier.

LADOT staff and I were also unsatisfied with the fact that the categories were given equal weighting. Considering that LADOT's stated priorities include Equity and Safety, I increased the weighting for these categories in the final model.

For the final model, I reweighted Equity to 20 points, Crossing Barriers to 15, Proximity to Key Destinations to 10, Safety to 30, Network expansion to 10, and added Density with 5 points, and Funding with 10 points.

6. Results and Discussion

6.1 Statistical Analysis

Figure 13 displays the results from the final model and **Table 11** shows the average scores for each category by the Priority Score quintile. The symbology is split into quintiles with the lowest scoring paths reflected in white and the highest scoring paths reflected in green.

See **Table 12** for the distribution of scores for each category. The two tables describe the percentage of path segments which scored a certain number of points in each category; since Proximity to Key Destinations is scored in multiples of 2 rather than 5, I placed its distribution in a separate table.

Not surprisingly, high scoring paths tend to cross through a census tract in the top two quintiles of the Community Health and Equity Index, cross through at least one barrier, cross within a ¼ mile of more than three destinations, run parallel to a High Injury Network street segment, and serve as a Gap Closure or Extension of a Class I Path.

To better interpret the equity results of the final model, I compared the proportion of census tracts with implemented path segments by each quintile of Priority Score (see **Table 13**) between the weighted and unweighted models. Assuming the path segments are delivered in five phases (according to their Priority Score quintile), my results show that the final model implements paths in a markedly higher proportion of the census tracts with the most need (according to the CHE index) than the unweighted model (58.6% for the weighted versus 55.2% for the unweighted model). By weighting the Equity category higher in the final model, resources and staff capacity will be directed to those areas, helping to reverse the historic disproportionate distribution of cycling infrastructure and green space.

6.2 Limitations

While this model contains rich data capable of informing LADOT's decision making, the model could include additional variables like more detail relating to project readiness, more detailed street type or quality data of neighboring and connecting streets, and topography. I also struggled with the difficulty of assembling indices. This exercise is subjective; planners often debate the best way to use resources over time and across neighborhoods with no clear answer (Lempert et al., 2022). Municipalities can prioritize low-hanging fruit, projects that can be completed quickly, or projects that benefit the most people.

As I mention in the funding sources analysis, some of these paths likely require more funding and staff resources than others. While the Metrolink path would provide improved East-West connection in the San Fernando Valley and access to the Orange Line bicycle path, this project requires coordination with Metrolink and the federal government during construction. Such requirements could prolong the planning and construction process. The Mobility Plan outlines other path segments along river segments with box channel designs lacking banks. These will require more engineering input during the planning process and would increase project costs. While I have noted these limitations and urged LADOT staff to consider these constraints, future versions of the model could incorporate them in the modeling.

Additionally, LADOT conducted the community engagement process for the Mobility Plan a decade ago. The transportation needs of communities and communities themselves have likely changed. It may be worthwhile to conduct a smaller community engagement process to ensure that these paths still represent community needs and that no additional bicycle path segments are omitted.

6.3 Potential Performance on Caltrans Active Transportation Program Application

While it is not feasible to conduct a complete estimate of path segments' scores for certain funding sources, I analyzed whether the fourth highest scoring path segment (part of the San Fernando Road Path) would score well on the Caltrans Active Transportation Program funding source according to the guidance from Cycle 7 which closed in April 2025. I am examining the fourth highest scoring path segment due to various limitations relating to the higher scoring path segments. The first highest scoring path segment is part of the LA River path, which Metro has already allocated considerable staff hours toward. Meanwhile, the second highest scoring path segment already exists. Finally, the third highest scoring path segment is the easternmost portion of the Metrolink Valley bicycle path which will require coordination with Metrolink and the federal government during the planning and construction process. The fourth highest scoring path segment (along N Alameda Street) runs through Downtown LA and has a Priority score of 73. The path segment passes through a census tract in the highest quintile of the Community Health and Equity Index, runs within a ¼ mile of four of the five Key Destinations, runs parallel to a High Injury Network street segment, serves as a Gap Closure, runs through a census tract with a residential density higher than the city average, and has funding assigned. The segment does not currently exist and is planned to run for 2.04 miles. Since a right of way seems viable without major constraints, this segment serves as a strong example of a potential implementation project for LADOT in the short term.

I analyzed the path segments' potential score according to the Cycle 7 scoring criteria, which assigns up to 100 points for a project (see **Table 14**). First, the project must provide a benefit to Disadvantaged Communities, a state criteria determined by a census tract's CalEnviroscreen score, and address displacement concerns. The S. Alameda St. path runs almost completely through Disadvantaged Communities. The street is seven lanes wide at some points with an occasional wide shoulder on the northbound side. It is likely that a protected bicycle path can be implemented through a road diet without displacing any residents. This project is likely to score well in this category - as it did according to my model's Equity criteria.

The Need category seeks to provide increased access to schools, transit facilities, community centers, and other destinations. The Alameda St. path is within a ¼ mile of a transit stop, a school, and a park. The guidelines also indicate that equity of access for all users is prioritized. This project can deliver on this goal since off-road paths are comfortable for all levels of cyclists. It is likely that this project will also score well in the need category. In the same vein as the Need category, safety prioritizes projects which reduce pedestrian and bicyclist crashes. As an off-street path, this project can deliver on this priority and is likely to score well.

I am not able to estimate the Public Participation and Planning score as this project has not undergone this part of the planning process yet. However, we can speak to the community engagement that has already taken place through the Mobility Plan including over 100 community meetings, seven community forums, and a task force which engaged with community based organizations. The scope and plan layout, context-sensitive, and transformative project categories also rely on additional planning to be scored. However, of the categories where we had enough information to estimate the scores, the S Alameda St bicycle path should score very well. Therefore, using this anecdotal evidence, we can see that our prioritization model is apt for identifying projects for planning and funding purposes.

7. Policy Recommendations

7.1 Collaboration and Model Input Data Collection

This model came together thanks to the collaboration of many LADOT departments. This was a vital part of the process of creating a data-based list to inform decision making across departments and to incorporate LADOT staff expertise on the work required for each path segment. While interdepartmental collaboration is a solid first step, community collaboration is invaluable for identifying additional projects and consolidating local knowledge on prioritized segments to understand each project's scope. Houston established a Bicycle Advisory Committee to supplement their prioritization methodology through approving weighting factors, identify data gaps relating to the identification of high need areas, and establish an open dialogue with the larger community through monthly meetings.
Further collaboration within LADOT and with communities also helps refine the weighting. LADOT's priorities and the other prioritization models informed the current weighting. Communities may disagree with the prioritization; perhaps Los Angeles constituents are more concerned with completing projects that already have funding attached to them or completing projects that implement new paths first.

As I previously mentioned, the city of Los Angeles is currently experiencing a budget deficit and federal, state, and local funds are in jeopardy. With the uncertainty of future funding and staff availability, robust decision making can ensure the implementation of this bicycle path network (Lempert et al., 2022).

7.2 Data Collection

While more relevant to ongoing asset management, LADOT should add in details like where access points are no longer ADA compliant, where path pavement is cracked from tree roots or water damage, or where paths suddenly end and force cyclists onto arterial roads. Given that the city of Los Angeles is 502 square miles, a single department will not have the local expertise to identify the detailed requirements necessary for each path segment project.

This process would further enhance this tool to ensure connectivity and safety across the region.

Additionally, there is still work to be done in identifying path segments ready for LADOT staff time: community engagement is key since it has been almost a decade since the Mobility Plan's workshops and expertise from other departments must be consulted to enhance asset management information like where box channels exist without banks. Several bicycle paths have grade issues where banks exist along rivers but bridges cross at that same grade. It would require building under or over the bridge to maintain a path right-of-way; this makes a project more costly and would take longer to deliver to constituents. So, additional asset management information would bring to light which paths could be delivered in the nearest future or which could be delivered with the least amount of funding.

In addition to model input data collection, LADOT should focus on collecting more data related to outcomes. If LADOT conducts more frequent and precise bicycle and walk audits and counts, the agency can develop a clearer understanding of the impact the implementation of the Green Network has on cycling behavior for existing and new cyclists.

7.3 Cost-Benefit Analysis

As I previously mentioned, these path segment projects vary in the time, effort, and cross-agency collaboration they require. Conducting cost-benefit analyses for each project would better inform this model and ensure that LADOT can consider the "low-hanging fruit" approach as well, prioritizing projects that maximize benefits relative to costs. In this model, I do not account for the costs and effort needed to implement these projects. As I state in Section 6.3, some of these path segments require collaboration with transit agencies and the federal government while others require more engineering expertise. A cost-benefit analysis would incorporate these needs.

7.4 Recommendations for Other Assets

Finally, this data assembly and prioritization process can and should be replicated for other assets. As part of the Capital Improvement Plan Mayor Bass introduced with Executive Order 9, the city must conduct needs assessments to understand the state of its infrastructure and services (Mayor Bass Signs Executive Directive to Repair Streets, Clean Parks and Enhance Infrastructure Projects, City Services Ahead of Major Upcoming World Events | Mayor Karen Bass, 2024). While the city of Los Angeles is currently facing a major deficit, this work is still important. Building and maintaining quality data on the status of city services and infrastructure can expedite prioritization processes and allow staff more time to inclusively consult stakeholders on various investments. The city does not currently maintain up-to-date or detailed inventories on all of its existing or planned assets. And, as I mentioned previously, LADOT has historically taken an ad-hoc approach to project

prioritization decisions. Having high-quality, up-to-date data on assets opens the door for more data-based prioritization methodologies city-wide.

Lastly, this project ties into the city of Los Angeles' ongoing efforts to develop a capital infrastructure plan complete with asset inventories and prioritized projects. To understand the origins of the city's Capital Improvement Program and how this project can be extended, see Appendix 2.

8. Conclusion

Green space and bicycle facilities are inequitably distributed across the city of Los Angeles as they are largely concentrated near predominantly White, more affluent neighborhoods. Meanwhile, freeways (and their subsequent air and noise pollution) have been placed near and eradicated largely non-White, low-income neighborhoods. These disparities in the placement of infrastructure is due, in part, to the inequitable and ad-hoc prioritization processes for infrastructure investment. To remedy this past failure and ensure efficient implementation of the Mobility Plan 2035, I developed a prioritization model for the Class I bicycle paths using equity, connectivity, safety, proximity to key destinations, and density criteria. The model shows that many of the top-scoring path segments are concentrated in the San Fernando Valley and serve as north-south connectors which cross at-grade transit lines and pass through higher priority equity communities. This process relies on quality, detailed data and interdepartmental, as well as community, collaboration. To maximize the impact of the city's infrastructure investments–this process is one that should be replicated for other street assets.

Tables and Figures

Tables

Table 1. The Distribution of Census Tracts within Community Health and Equity Index Quintiles

	Number of Tracts with Pre-2016 Paths	Total Tracts with Planned Paths	Percent of Tracts with Pre-2016
5th Quintile (Highest Need)	7	58	12
4th Quintile	14	74	19
3rd Quintile	29	93	31
2nd Quintile	21	63	33
1st Quintile (Lowest Need)	19	53	36

Table 2. LA Metro ATSP 2023 Update Prioritization Method

Criteria	Description	Score	% of Total Score
Equity	Percent bikeway segment overlaps with Equity Focus Communities (EFCs)	30	13.6
Safety and Comfort	Density of bicycle collisions along segment, segment intersects with a census block group that has high rates of collisions, people of color, or collisions and low-income residents in the block group, segment intersects SCAG High Injury Network (HIN)[1], or segment intersects with high speed/traffic corridors	60	27.3
Accessibility	Segment intersects with the Southern California Association of Government's (SCAG's) Livable corridor[2]	40	18.2
Connectivity	Segment closes gap between Class I, II, or IV bikeway	40	18.2
Sustainability	Percent overlap with CalEnviroScreen[3] census tracts with 75th percentile or higher	20	9.1
Demand and Community Support	Number of supportive comments collected (normalized by length)	20	9.1
Project Readiness	Implementation study is complete (in a specific plan, feasibility study, etc.)	10	4.5
Total		220	100

[1] SCAG's High Injury Network uses 3-5 years of collision data to determine the street segments with the highest concentration of traffic crashes associated with any given mode (SCAG, n.d.).

[2] SCAG developed its Livable Corridors strategy as part of Connect SoCal, a long-term regional transportation plan for the five-county jurisdiction. These Livable Corridors are arterial roads where SCAG encourages local governments to increase residential and employment density, improve transit options, and encourage active transportation through protected lanes and micro-mobility parking (*Livable Corridors -SCAG Region*, n.d.).

[3] The California Office of Environmental Health Hazard Assessment (OEHHA) developed CalEnviroScreen 4.0 in 2021 following a state mandate in SB 535 (OEHHA, 2021; SB 535 Coalition, n.d., p. 5). OEHHA designed the tool to identify Disadvantaged Communities to which a set portion of state funding is directed for various programs; communities are scored on their pollution burden and population characteristics.

Table 3. SVBC Network Priority Tool Criteria

Categories	Subcriteria	Points
High Needs Areas	High population density (5) MTC Communities of Concern (5) Low vehicle access households (5) Low income households (5) Single caregiver households (5) Non-english speaking majority (5)	30
Proximity to Destinations	Job sites (5) Community centers/destinations (5) Public transit hubs (5)	15
Harm Reduction	Crash rate (10) Fatalities (5) Proximity to K-12 schools (5) Proximity to senior centers (5)	25
Bike Network Connectivity	Space Syntax Analysis (10) Bikeable Street Grade (5) Connections to Existing Protected Bike Facilities (10) Corridors to Close a Gap in the Bike Network (5)	30
Total		100

Table 4. Somerville Bicycle Network Plan Prioritization Method

Category	Criteria
Equity	Community of Concern given priority
Connectivity	Given a higher score when the street intersects with more bicycle network streets
Destinations	Streets with key destinations receive a higher score
Topography	Steeper streets are given a higher score
Safety/Crash Rate	Public input, tree density, alternative routes considered

Table 5. Arellana et al.'s (2020) Urban Bikeability Index for Barranquilla, Colombia

Category	Subcategories	Data Sources
Directness and Coherence	*	Origin-Destination survey
Comfort and Attractiveness	Presence of bicycle infrastructure and trees, quality of pavement, obstacles on path, slope and width of path	Google Street View
Traffic Safety	Presence of bicycle infrastructure and traffic control devices, bus/vehicle/motorcycle/pedestrian traffic flow, motorized transport speed	Google Street View, Urban Mobility Plan for Barranquilla
Security	Presence of police officers and security cameras, bike traffic flow, lighting	Google Street View
Climate	*	No data collected; considered homogenous
Presence of Bicycle Infrastructure	*	Google Street View
Cost of the Trip	*	Origin-Destination survey

*=directly observed

Table 6. Edmonton Bike Plan Implementation Criteria

Criteria Category	Subcriteria
Equity	Age, gender, race, household income (highest priority)
Ridership potential	Based on the current population size, employment, and access to jobs, schools, shopping, residences seen in the Bike Trip Potential map (see Figure 10)
Safety	Areas in the high injury network were prioritized
Connectivity	Used a Bike Network Analysis to consider connections to key destinations in each neighborhood

Table 7. Summary of Prioritization Model Criteria

Major Criteria	LADOT	LA Metro	LA River Master Plan	LADOT Slow Streets	LA Metro Active Transportation Strategic Plan Update	SVBC	Somerville	Safe Routes Partnership	Total
Access/Destinations	x	x	x		x	x	x		6
Comfort		x			x				2
Connectivity		x	x	x	x	x	x		6
Equity		x		x	x	x	x	x	6
Network size				x					1
Procedural	x		x		x				3
Project readiness					x				1
Safety	x	x	x		x	x	x		6
Street type				x					1
Sustainability	x				x				2
Topography							x		1
World Class/Image	x								1
Total	5	5	4	4	8	4	5	1	

Table 8. Data Sources for the Prioritization Model

Data	Subcategory	Source	Last Updated (Year)
Equity (Health Atlas)		City Planning	2021
Crossing Barriers		LADOT	2023
Proximity to Key Destinations	Transit Stops	Caltrans	2025
	Schools	LAUSD	2024
	Jobs	US Census	2022
	Cooling Centers	County of Los Angeles	2023
	Parks	County of Los Angeles	2025
Safety (High Injury Network)		LADOT	2023
Residential Density		US Census	2023
Network Expansion		LADOT	2024
Funding		City of Los Angeles	various

Table 9. Weighting for Three of the Proposed Models (Including the Final Model)

	Unweighted Model Points (Percent)	Final Model Points (Percent)
Equity	10 (14%)	20 (20%)
Crossing Barriers	10 (14%)	15 (15%)
Proximity to Key Destinations	10 (14%)	10 (10%)
Safety (High Injury Network)	10 (14%)	20 (20%)
Density	10 (14%)	10 (10%)
Network Expansion	10 (14%)	20 (20%)
Funding	10 (14%)	5 (5%)
Total	70	100

Table 10. Point Breakdown for Each Model (Subcategories highlighted in green have the same methodology between the two models)

	Unweighted Model		Final Model	
Category	**Point Breakdown (Points)**	**Details**	**Point Breakdown (Points)**	**Details**
Equity	5th Quintile (10)	If highest scoring tract a path segment passes through is the top CHE quintile	5th Quintile (20)	If highest scoring tract a path segment passes through is the top CHE quintile
	4th Quintile (8)	If highest scoring tract a path segment passes through is the second highest CHE quintile	4th Quintile (15)	If highest scoring tract a path segment passes through is the second highest CHE quintile
	3rd Quintile (6)	If highest scoring tract a path segment passes through is the third highest CHE quintile	3rd Quintile (10)	If highest scoring tract a path segment passes through is the third highest CHE quintile
	2nd Quintile (4)	If highest scoring tract a path segment passes through is the fourth highest CHE quintile	2nd Quintile (5)	If highest scoring tract a path segment passes through is the fourth highest CHE quintile
	1st Quintile (2)	If highest scoring tract a path segment passes through is the bottom CHE quintile	1st Quintile (0)	If highest scoring tract a path segment passes through is the bottom CHE quintile
Crossing Barriers (Highways, Rivers, and Transit scores are added together)	Crosses any Barrier (10)	Path segment crosses a highway, river, or transit	Highways (5)	Path segment crosses a highway
	Otherwise (0)	Path segment does not cross any barrier	Rivers (5)	Path segment crosses a river
	–	–	Transit (5)	Path segment crosses transit
Proximity to Key Destinatio	School (2)	Path segment is within ¼ Mi of a LAUSD School	School (2)	Path segment is within ¼ Mi of a LAUSD School
	Transit (2)	Path segment is within ¼ Mi of	Transit (2)	Path segment is within ¼ Mi

ns (School, Transit, Job, Cooling Center, and Park scores are added together)		a High Quality Transit stop		of a High Quality Transit stop
	Job (2)	Path segment is within ¼ Mi of a Job	Job (2)	Path segment is within ¼ Mi of a Job
	Cooling Center (2)	Path segment is within ¼ Mi of a Cooling Center	Cooling Center (2)	Path segment is within ¼ Mi of a Cooling Center
	Park (2)	Path segment is within ¼ Mi of a public park or open space	Park (2)	Path segment is within ¼ Mi of a public park or open space
Safety (High Injury Network)	Parallel to or Crossing HIN (10)	Path segment is within ¼ Mi of and parallel to or crossing a High Injury Network street segment	Parallel to HIN (20)	Path segment is within ½ Mi of and parallel to a High Injury Network street segment
	Not Parallel to or Crossing HIN (0)	Path segment is not within ¼ Mi of or parallel to or crossing a High Injury Network street segment	Not Parallel to HIN (0)	Path segment is not within ¼ Mi of or parallel to a High Injury Network street segment
Density	Higher Residential Density (10)	Path segment passes through a census tract with a higher residential density than the LA city avg	Higher Residential Density (10)	Path segment passes through a census tract with a higher residential density than the LA city avg
	Otherwise (0)	Path segment does not pass through any census tracts with a higher residential density than the LA city avg	Otherwise (0)	Path segment does not pass through any census tracts with a higher residential density than the LA city avg
Network Expansion	Gap Closure (10)	Path segment is within two existing Class I segments of the larger path	Gap Closure (20)	Path segment is within two existing Class I segments of the larger path
	Extension of Class I Path (5)	Path segment extends from one existing Class I segment	Extension of Class I Path (15)	Path segment extends from one existing Class I segment
	Class IV Connection (0)	Path segment connects to a Class IV segment	Class IV Connection (10)	Path segment connects to a Class IV segment

Funding	Funded (10)	Path segment is fully or partially funded	Funded (5)	Path segment is fully or partially funded
	Unfunded (0)	Path segment is not funded	Unfunded (0)	Path segment is not funded
Total	70		100	

Table 11. Average scores for each category by Priority Score quintile.

Category	**Quintiles**				
	1st	**2nd**	**3rd**	**4th**	**5th**
Equity	17.5	13.17	10.83	10	2.67
Crossing Barriers	5.83	4.5	3.33	0.67	0.67
Proximity to Key Destinations	7.53	6.8	6.8	5.8	5.87
Safety (HIN)	16	7.33	3.33	0.67	0
Density	7.67	3.67	3.33	0.67	0
Network Expansion	7.5	6.33	2	2.5	0
Funding	4.33	4.67	4.5	4	4.83

Table 12. Distribution of Scores per Category (Final Model)

	Points				
Category	**20**	**15**	**10**	**5**	**0**
Equity	24.7%	23.3%	17.3%	13.3%	21.3%
Crossing Barriers	–	2%	12%	30%	56%
Safety (HIN)	27.3%	–	–	–	72.7%
Density	–	–	30.7%	–	69.3%
Network Expansion	8.7%	8%	7.3%	–	76%
Funded	–	–	–	89.3%	10.7%

	Points				
Category	**10**	**8**	**6**	**4**	**2**
Proximity to Key Destinations	0.7%	40%	48%	9.3%	2%

Table 13. Percent of Path Segments per Priority Score Quintile in Each CHE Quintile of Census Tracts

Model Priority Score Quintile		Top CHE Quintile (58 Tracts)	2nd Top CHE Quintile (74 Tracts)	Middle CHE Quintile (93 Tracts)	Second Bottom CHE Quintile (63 Tracts)	Bottom CHE Quintile (53 Tracts)
		Number of Census Tracts (Percent)				
Unweighted Model	Top Priority Quintile	32 (55.2%)	38 (51.3%)	34 (36.6%)	17 (27.0%)	6 (11.3%)
	2nd Top Priority Quintile	17 (29.3%)	33 (44.6%)	32 (34.4%)	27 (42.9%)	15 (28.3%)
	Middle Priority Quintile	3 (5.2%)	15 (20.3%)	22 (23.7%)	21 (33.3%)	14 (26.4%)
	Second Bottom Priority Quintile	5 (8.6%)	10 (13.5%)	23 (24.7%)	6 (9.5%)	10 (18.9%)
	Bottom Priority Quintile	3 (5.2%)	1 (1.4%)	5 (5.4%)	6 (9.5%)	21 (39.6%)
Final Model	Top Priority Quintile	34 (58.6%)	27 (36.5%)	29 (31.2%)	15 (23.8%)	5 (9.4%)
	2nd Top Priority Quintile	17 (29.3%)	32 (43.2%)	21 (22.6%)	12 (19%)	8 (15.1%)
	Middle Priority Quintile	4 (6.9%)	14 (18.9%)	26 (28%)	22 (34.9%)	14 (26.4%)
	Second Bottom Priority	4 (6.9%)	6 (8.1%)	13 (14%)	12 (19%)	9 (17%)

	Quintile					
	Bottom Priority Quintile	3 (5.2%)	1 (1.4%)	8 (8.6%)	8 (12.7%)	16 (30.2%)

Table 14. Cycle 7 Scoring Criteria for the Active Transportation Program funding source

Category	Score
Benefits to Disadvantaged Communities (DAC)	10
Need	38
Safety	20
Public Participation & Planning	10
Scope and Plan Layout Consistency and Cost Effectiveness	7
Context Sensitive & Innovation	5
Transformative Projects	5
Leveraging	5
Corps	0 or -5
Past Performance	0 or -10
Total	100

This is a table source information (Source).

Tables: Each table should be referenced in the text and numbered with consecutive Arabic numerals. When referencing **Table 1** in the text of the document, please make sure to bold it in text.

Titles should be Arial 11pt. Bold the Table and corresponding number, and follow with a period. In order to appear in the List of Tables/Figures, use Heading 4.

Table source information should be below each table in Arial 11pt, italicized and left-aligned.

The text of the table should be Arial 11pt, but can go lower to 10pt font or 9pt only if needed. Header rows should be bold and all caps. Use vertical lines for clarity if desired. Avoid tables crossing pages where possible; when this is unavoidable, repeat column headers on subsequent page(s) and repeat table title with “(cont.)” (See below.)

Please do not paste your tables as images since that makes it difficult for people using screenreaders to understand the information presented.

Figures

Figure 1. Green Network Paths that Existed Before 2016 and the Community Health and Equity Index

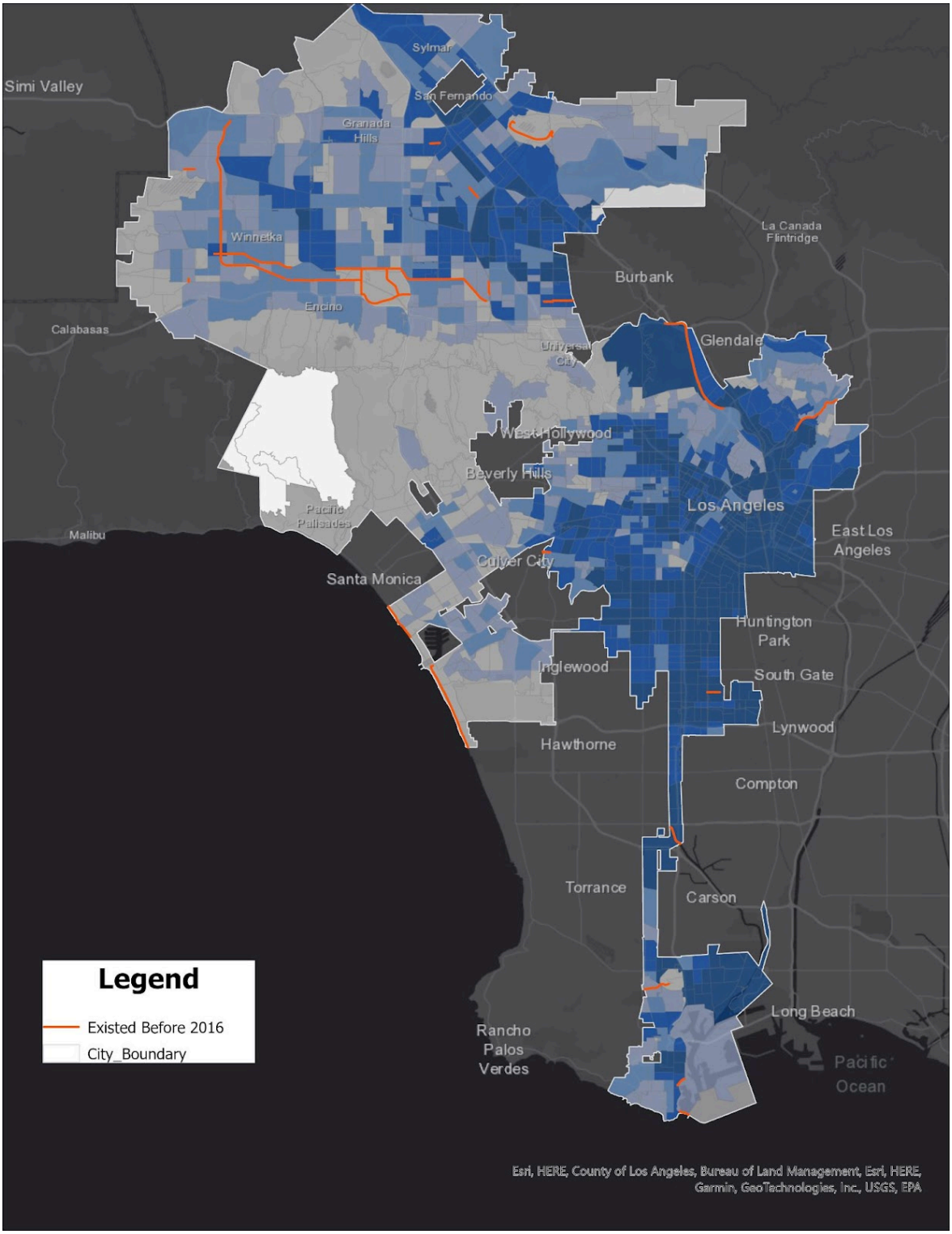


Figure 2. Green space (bright green) and Community Health and Equity Index (blue) in the city of Los Angeles

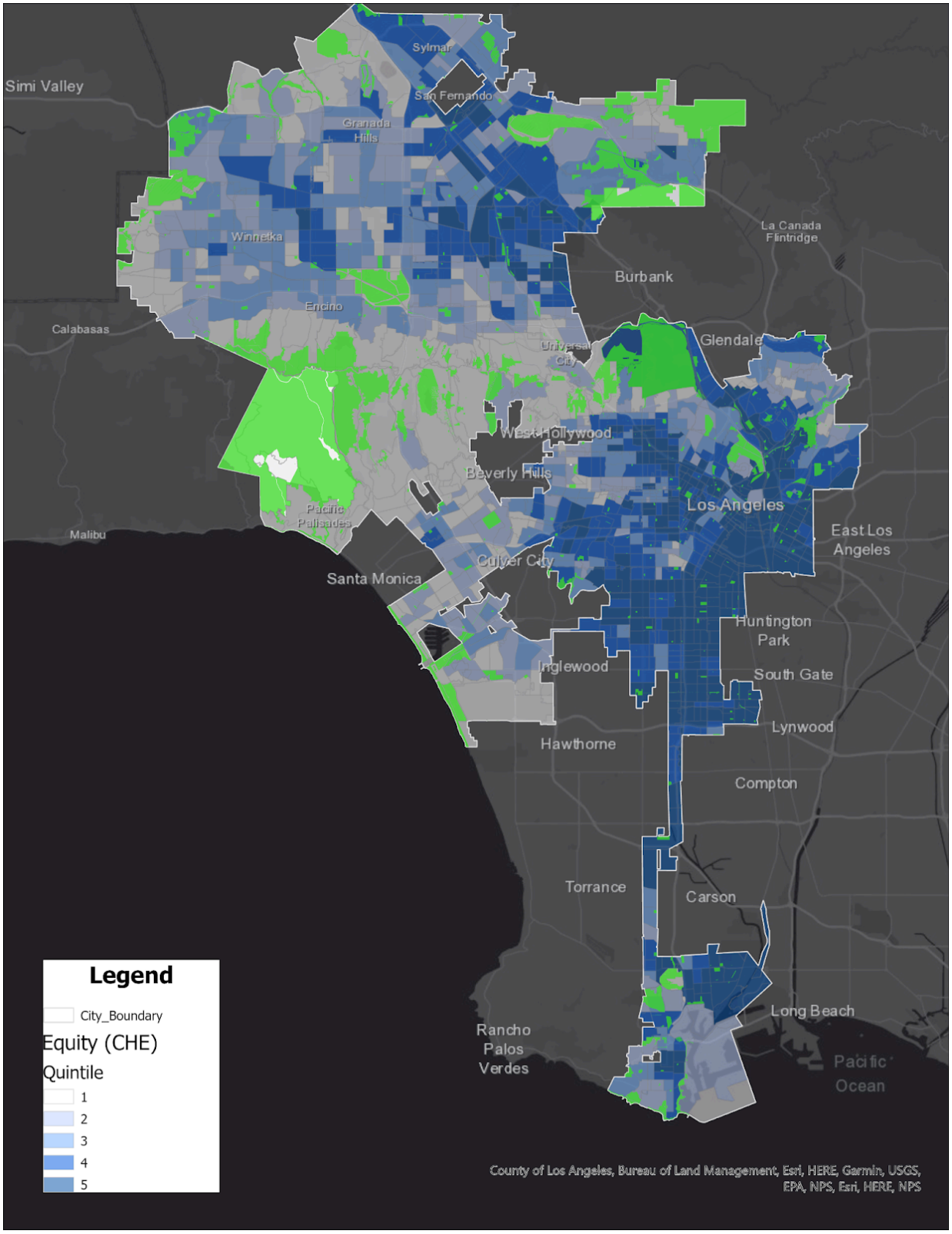


Figure 3. Parks in LA County (Source: LA County Park Needs Assessment) Measure A, a local option sales tax that serves as the primary mechanism for funding parks

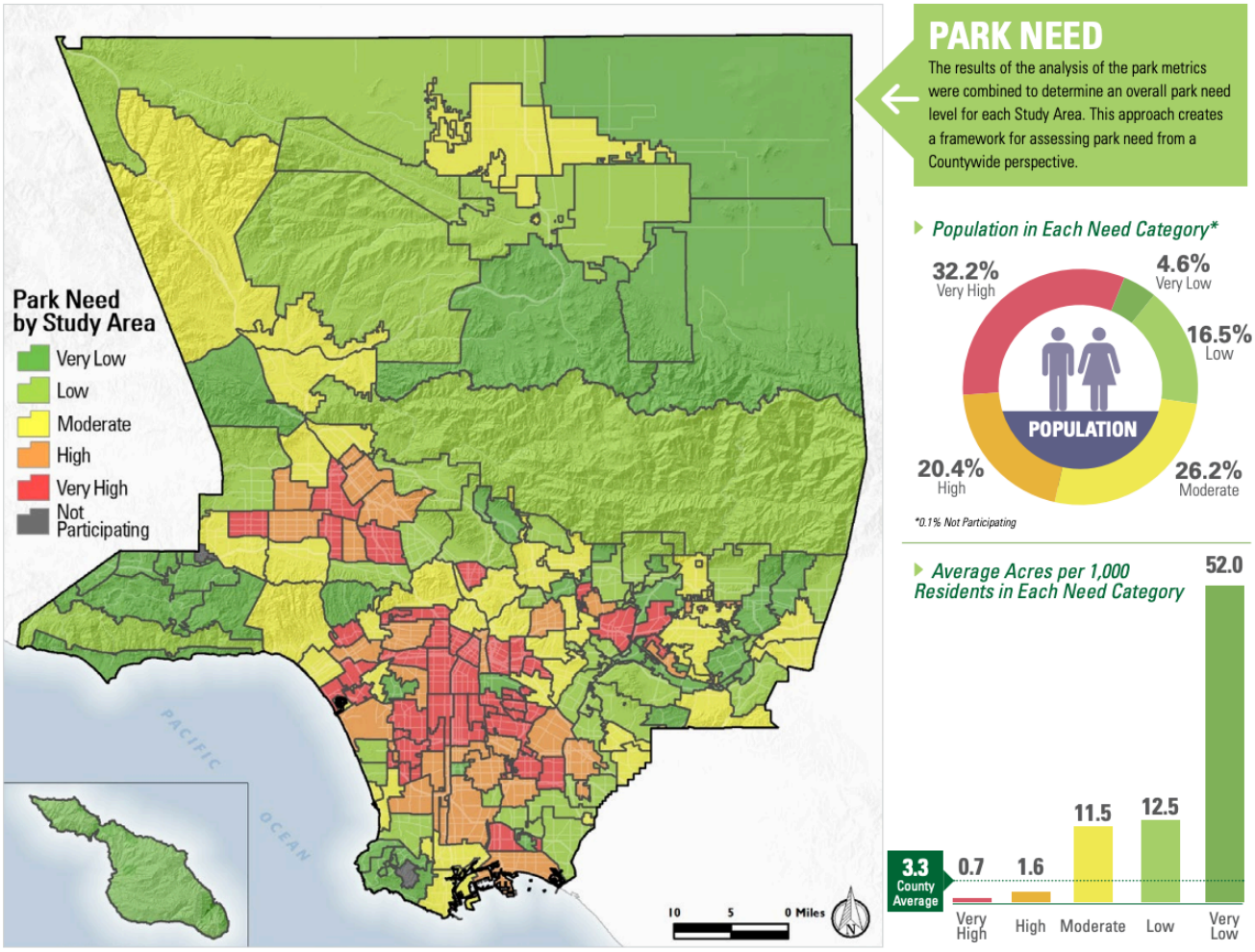


Figure 4. Bicycle Path Segments in the Mobility Plan (Red existed before 2016; Green either delivered after 2016 or not yet been built).

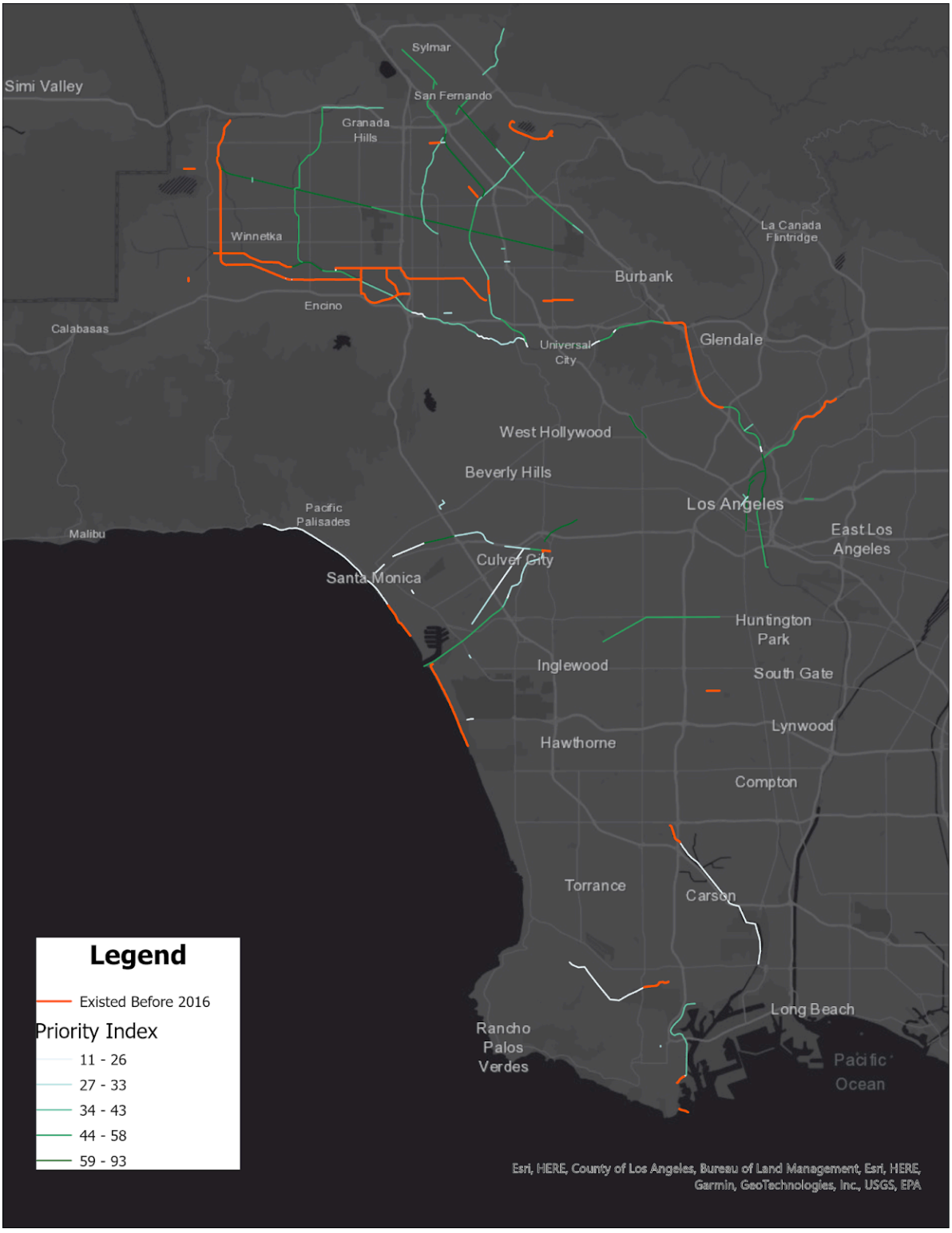


Figure 5. Current pace of delivering Class I bicycle path segments from the Mobility Plan 2035. (When the city adopted the Mobility Plan in 2016, 49 of the 150 segments already existed in some capacity.)

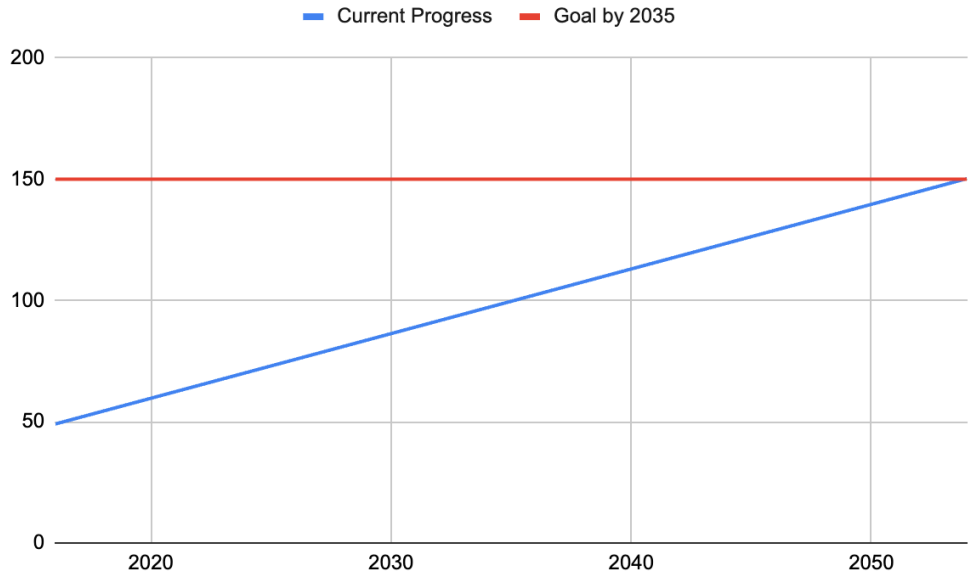


Figure 6. Mobility Plan 2035 Bicycle Enhanced Network; the green Bicycle Paths constitute the Green Network (city of Los Angeles, n.d.)

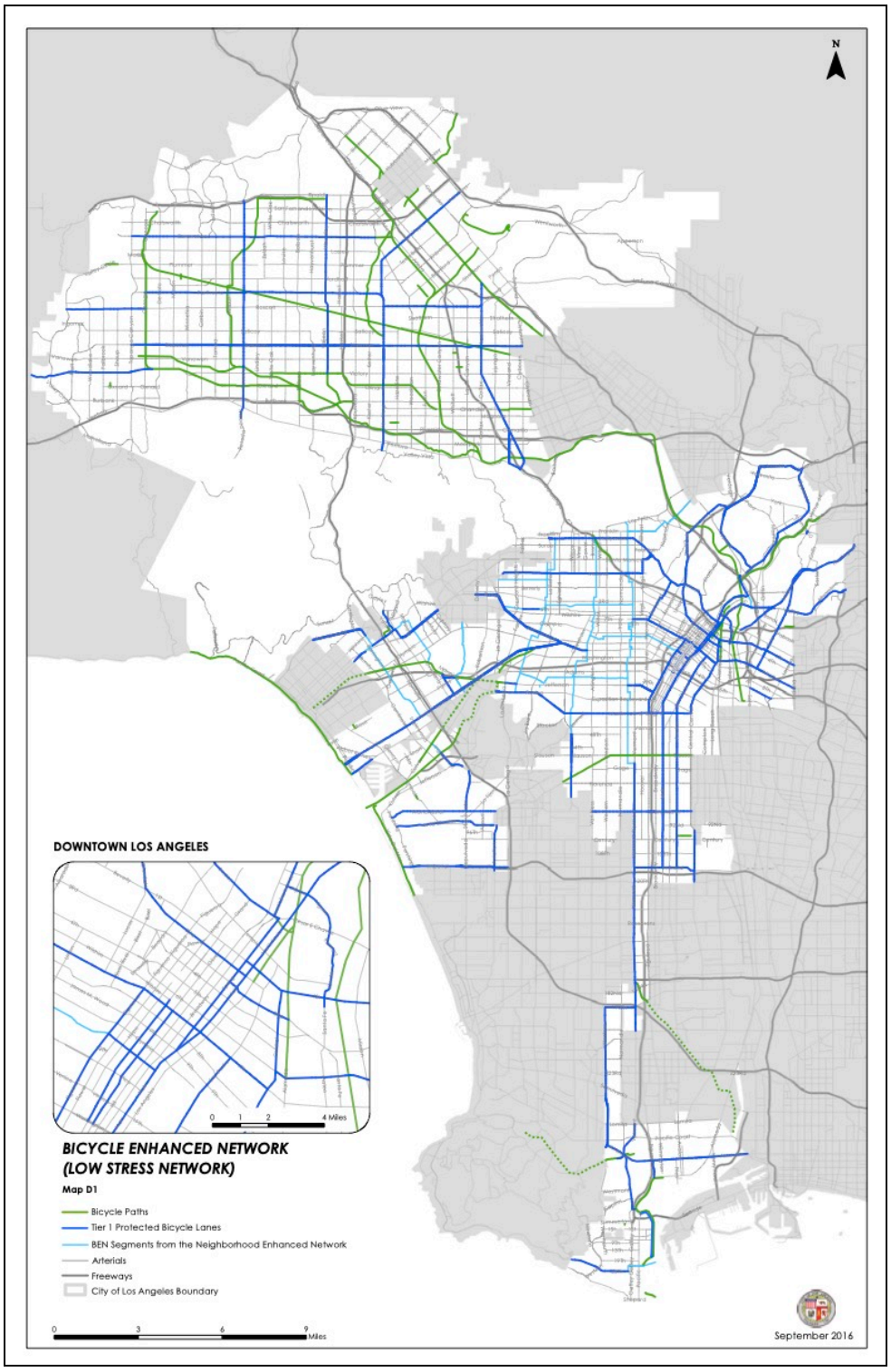


Figure 7. Regional Bikeways Planned in 2023 according to the LA Metro Active Transportation Strategic Plan (Metro, 2023)

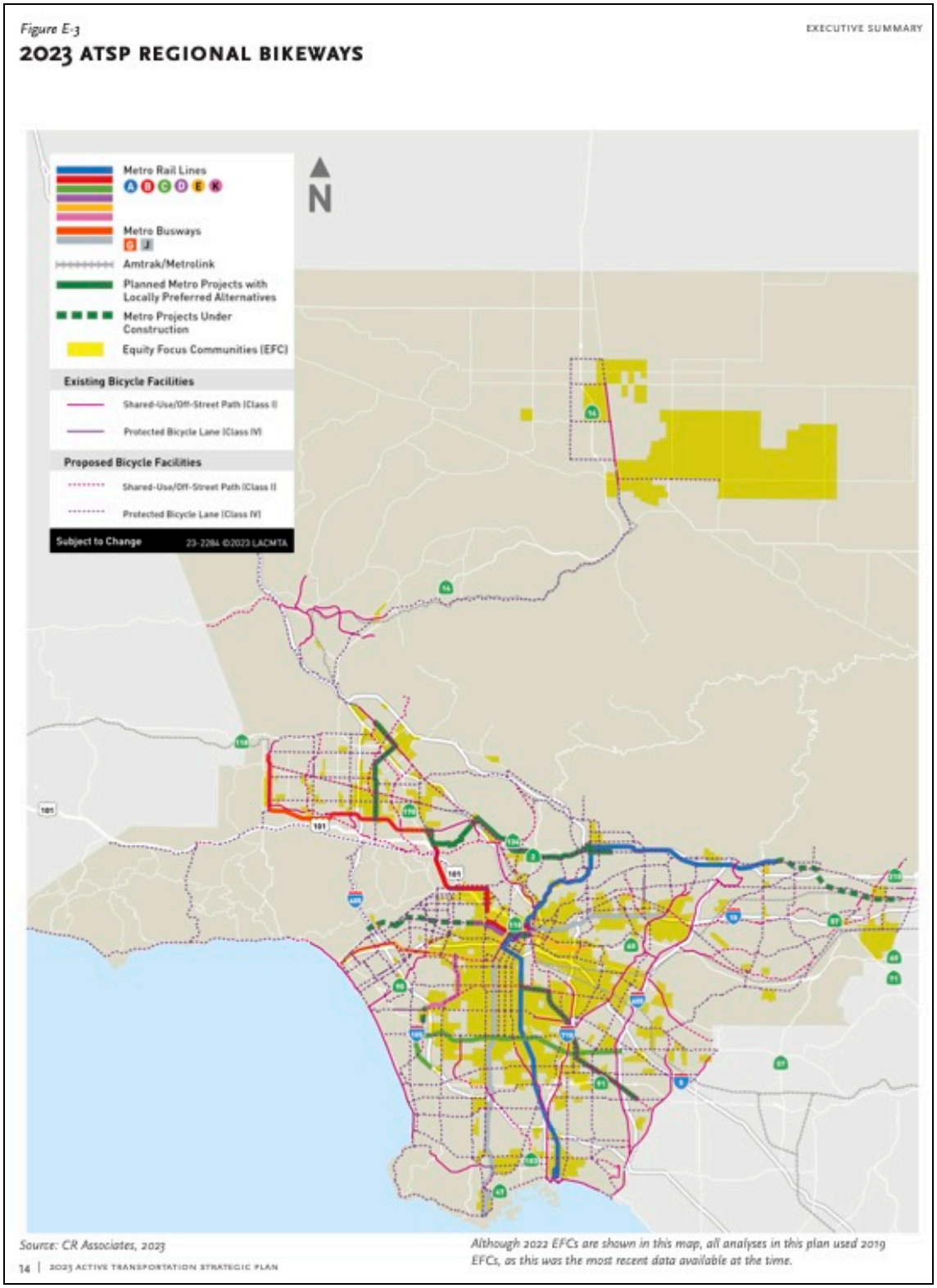


Figure 8. The 2018 LA River Master Plan includes the addition of trails along the river (*LA River Master Plan – A Reimagined River for LA County*, 2016)

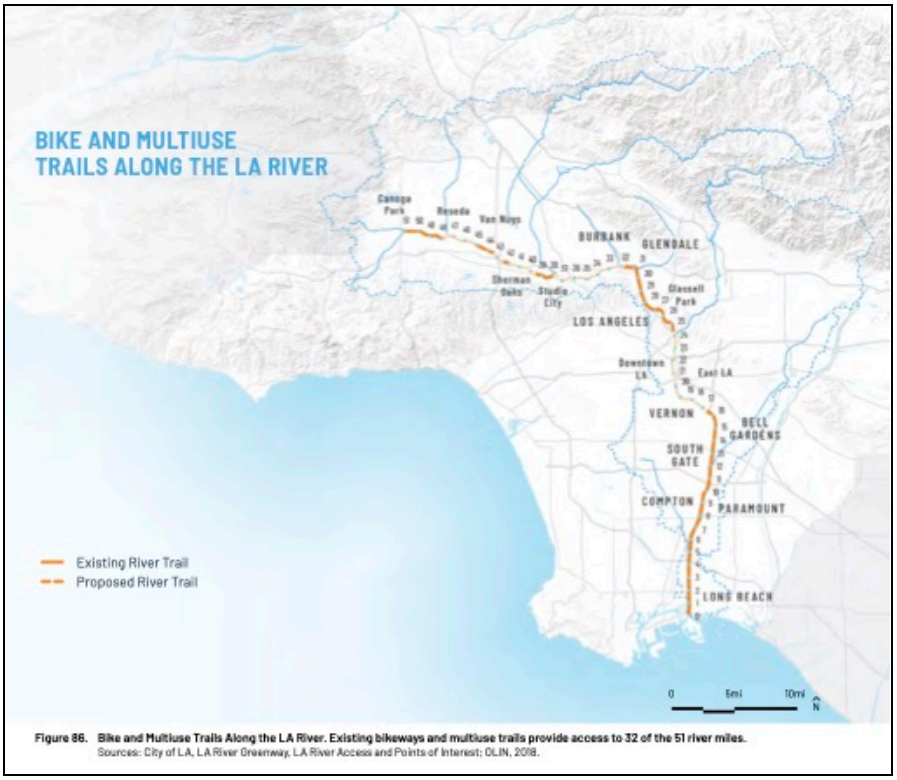
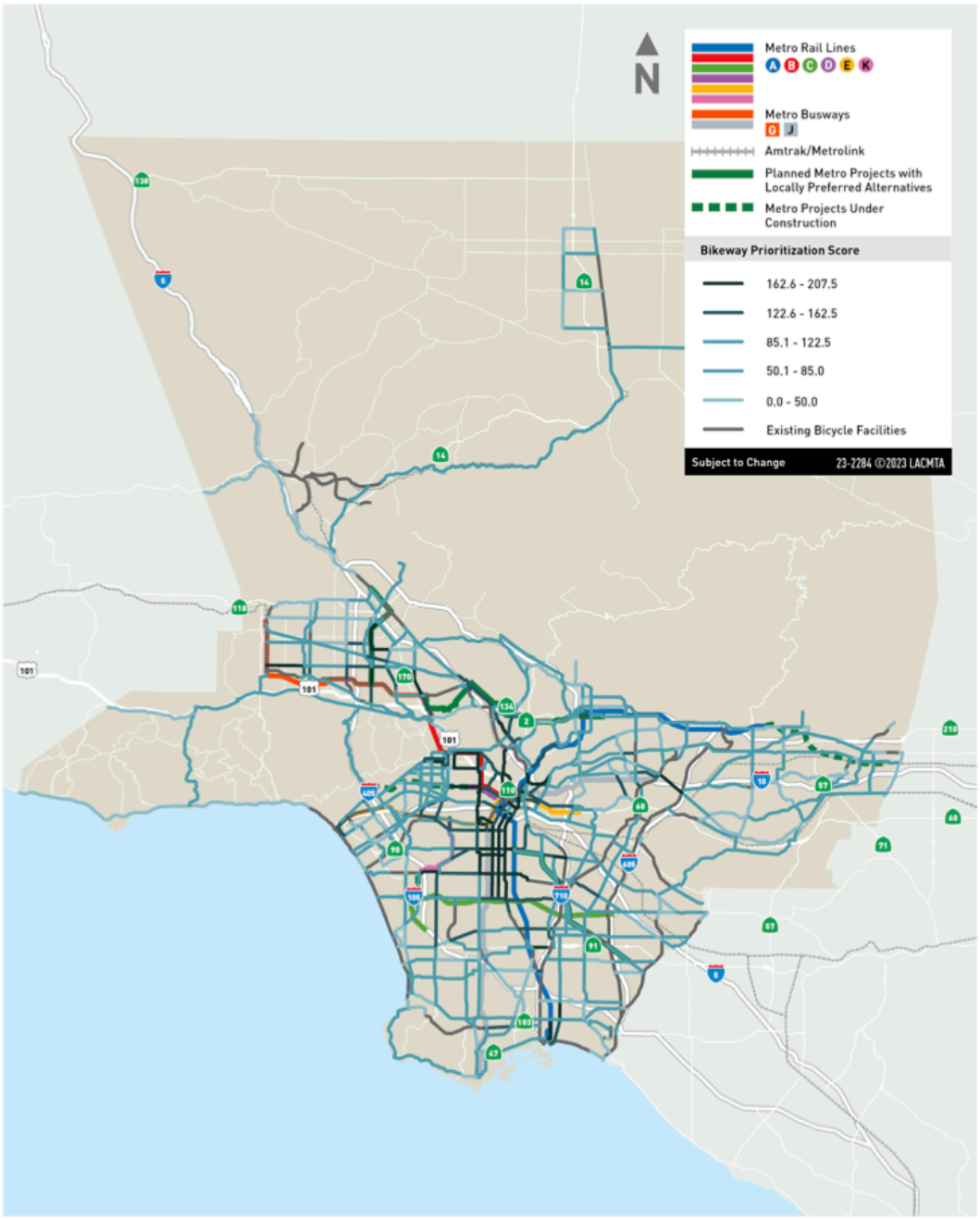


Figure 86. Bike and Multiuse Trails Along the LA River. Existing bikeways and multiuse trails provide access to 32 of the 51 river miles.
Sources: City of LA, LA River Greenway, LA River Access and Points of Interest; OLIN, 2018.

Figure 9. LA Metro Regional Bikeway Project Prioritization (Metro, 2023)

Figure 4.3

REGIONAL BIKEWAY PROJECT PRIORITIZATION



Source: CR Associates, 2023

72 | 2023 ACTIVE TRANSPORTATION STRATEGIC PLAN

Figure 10. Bike Trip Potential for Edmonton

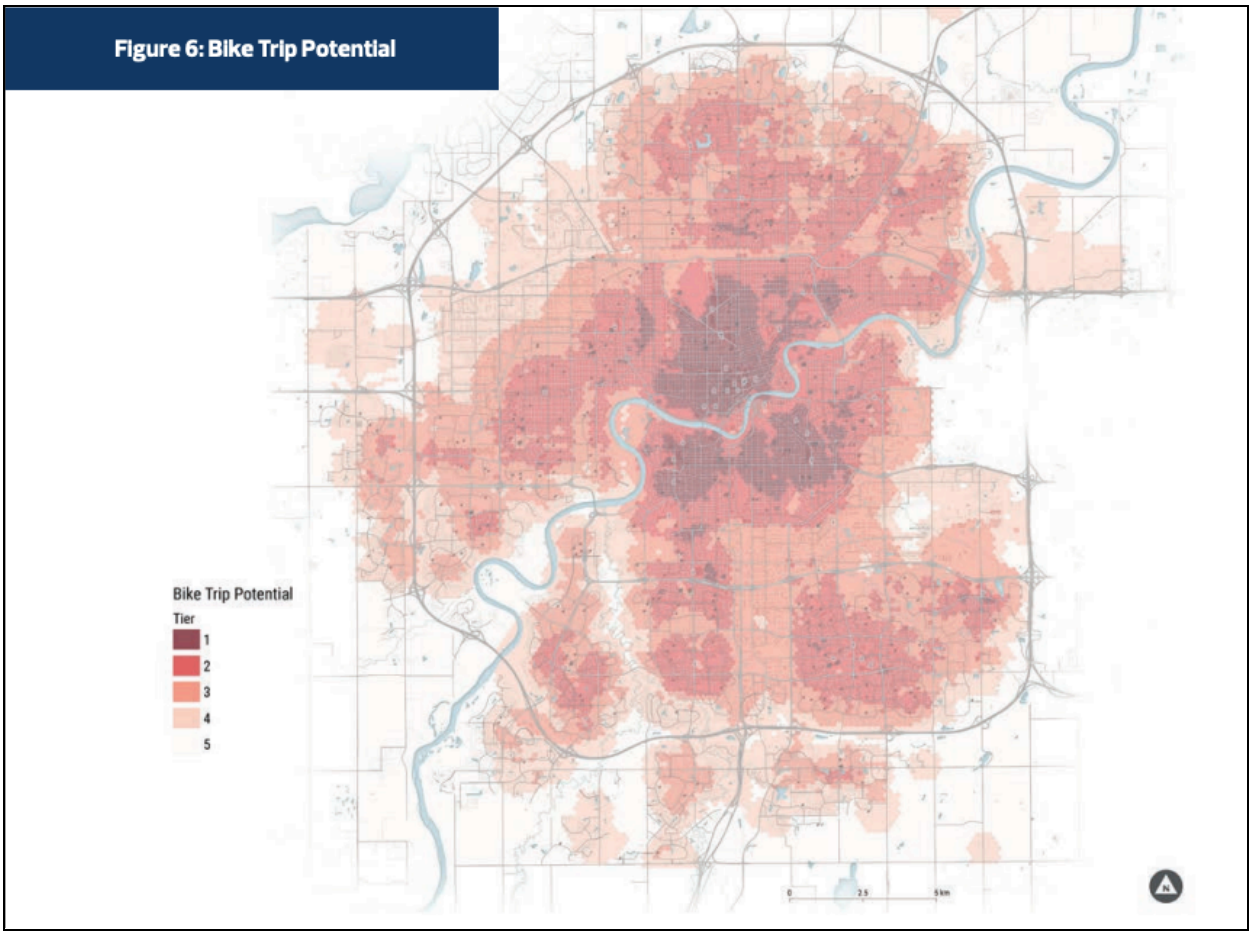


Figure 11. Unweighted vs. Weighted Final Model

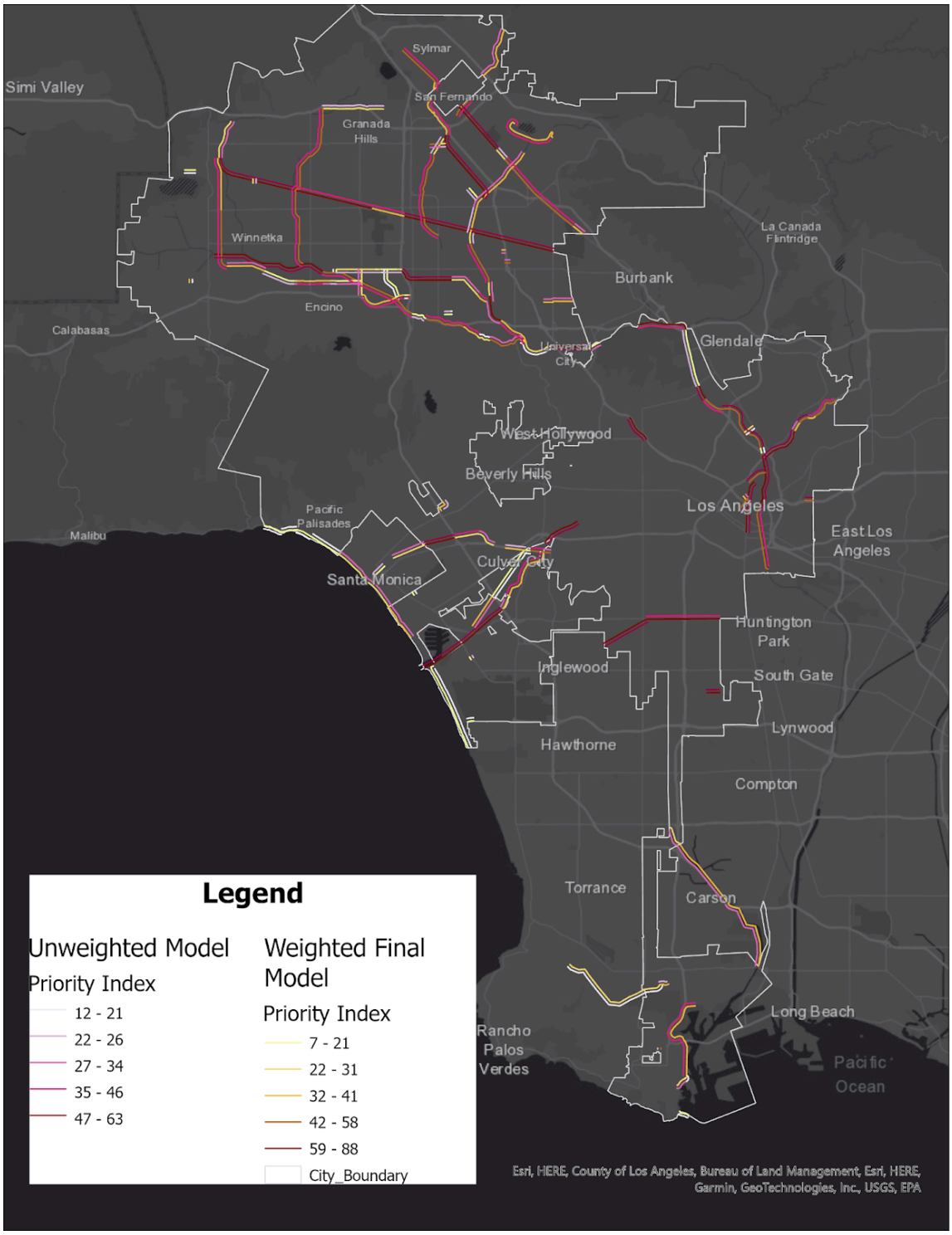


Figure 12. Character of Existing Path Segments –Gap Closure and Funding

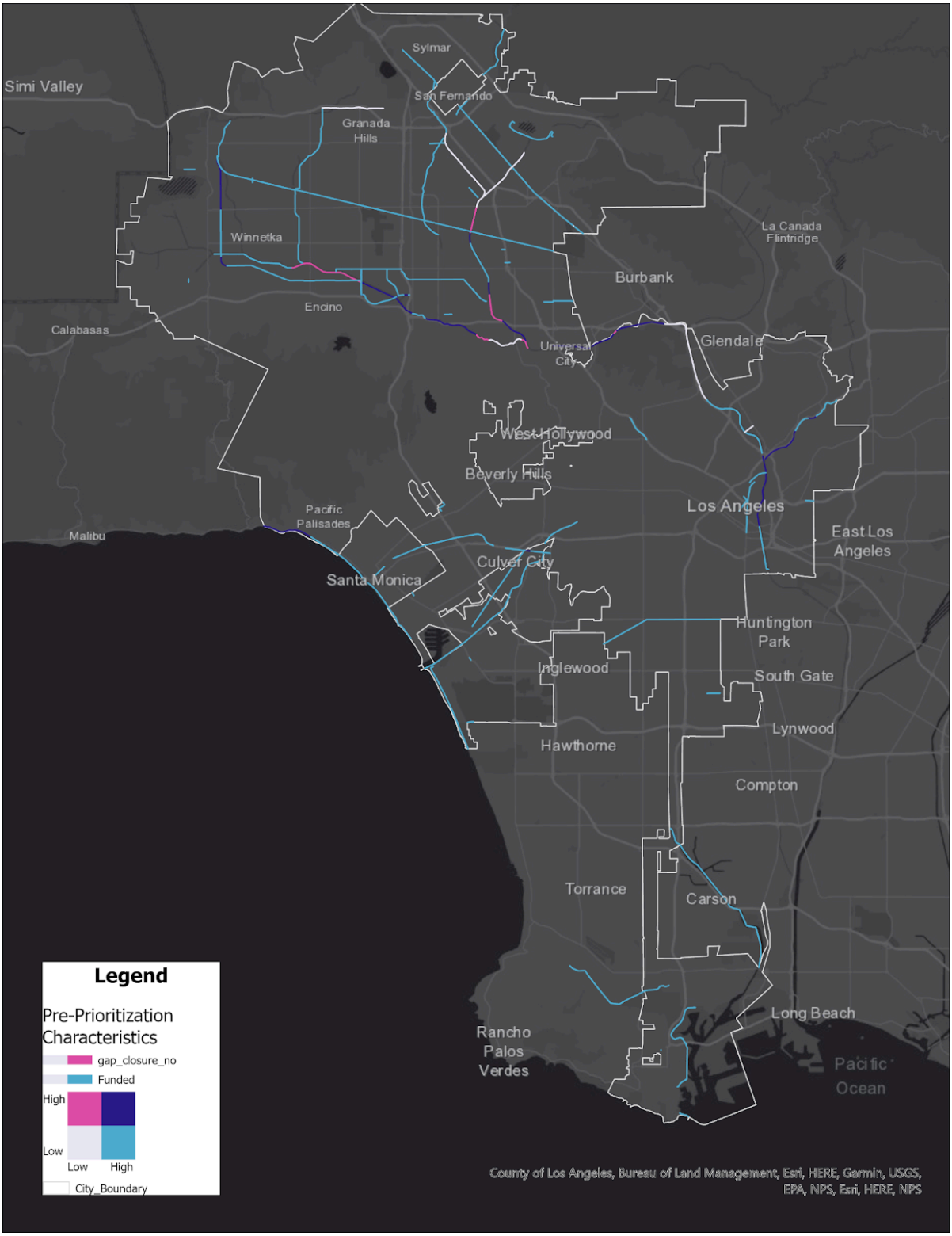
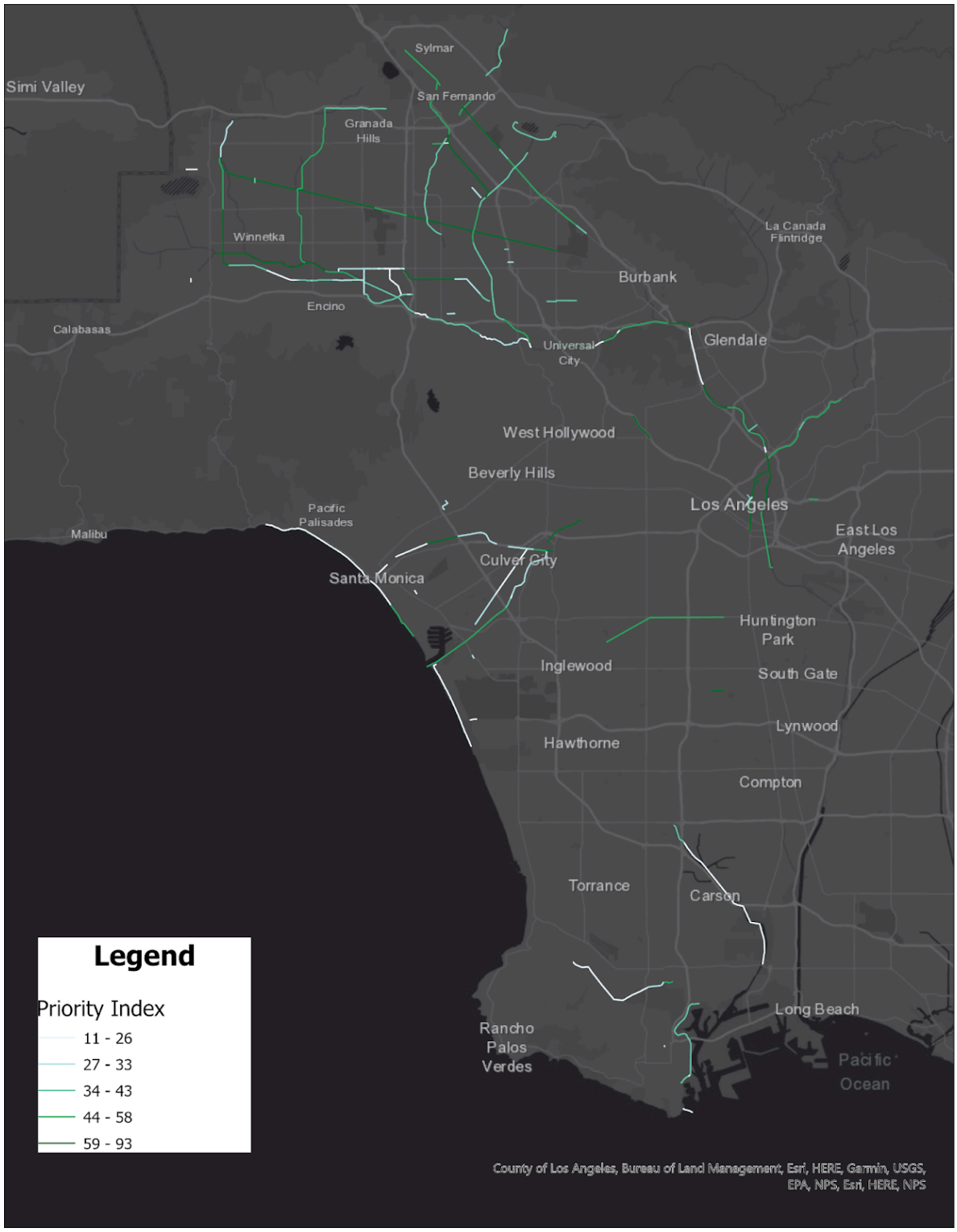


Figure 13. The lowest-scoring paths in the final model are reflected in light green and the highest-scoring paths are reflected in dark green.



References

https://bikesiliconvalley.org/biketivism/bicycle-network-priority-tool

Yonan, J. (2021). Slow Your Roll! An Analysis of LADOT's Slow Streets Program. https://doi.org/10.17610/T6831Z

About. (n.d.). LADOT. Retrieved May 1, 2025, from https://ladot.lacity.gov/about

Alameda. (2022, December). Alameda Active Transportation Plan | Appendix A: Active Transportation Project Prioritization. https://www.activealameda.org/files/sharedassets/transport/v/1/appendix-a-active-transportation-project-prioritization.pdf

Andres Ramirez, Jacob Wasserman, & Anastasia Loukaitou-Sideris. (2024). Exposing Freeway Inequalities. https://bruinlearn.ucla.edu/courses/195573/files/18260091?module_item_id=6974337

Arellana, J., Saltarín, M., Larrañaga, A. M., González, V. I., & Henao, C. A. (2020). Developing an urban bikeability index for different types of cyclists as a tool to prioritise bicycle infrastructure investments. Transportation Research Part A: Policy and Practice, 139, 310–334. https://doi.org/10.1016/j.tra.2020.07.010

Bai, Y., Bai, Y., Wang, R., Yang, T., Song, X., & Bai, B. (2023). Exploring Associations between the Built Environment and Cycling Behaviour around Urban Greenways from a Human-Scale Perspective. Land, 12(3), Article 3. https://doi.org/10.3390/land12030619

Biehl, A., Ermagun, A., & Stathopoulos, A. (2018). Modelling determinants of walking and cycling adoption: A stage-of-change perspective. Transportation Research Part F: Traffic Psychology and Behaviour, 58, 452–470. https://doi.org/10.1016/j.trf.2018.06.016

Bike Somerville. (2023). Bicycle Network Plan Ch. 5: Implementation. https://s3.amazonaws.com/somervillema-live/s3fs-public/bicycle-network-plan-chapter5.pdf

Braun, L. M., Le, H. T. K., Voulgaris, C. T., & Nethery, R. C. (2021). Healthy for whom? Equity in the spatial distribution of cycling risks in Los Angeles, CA. Journal of Transport & Health, 23, 101227. https://doi.org/10.1016/j.jth.2021.101227

CA HQ Transit Stops. (n.d.). Retrieved January 4, 2025, from https://gis.data.ca.gov/datasets/f6c30480f0e84be699383192c099a6a4_0/about

Caltrans. (2025). Chapter 1000: Bicycle Transportation Design—Highway Design Manual. https://dot.ca.gov/-/media/dot-media/programs/design/documents/chp1000-a11y.pdf

Campos-Sánchez, F. S., Valenzuela-Montes, L. M., & Abarca-Álvarez, F. J. (2019). Evidence of Green Areas, Cycle Infrastructure and Attractive Destinations Working Together in Development on Urban Cycling. Sustainability, 11(17), Article 17. https://doi.org/10.3390/su11174730

City of Los Angeles. (n.d.). Draft Mobility Plan 2035. Retrieved October 8, 2024, from https://clkrep.lacity.org/election/2024_Primary_Ballot_Measure_Eng.pdf

City of Los Angeles. (2009). 2009 Citywide community Needs Assessment. https://www.laparks.org/sites/default/files/projects/2009%20Community%20Needs%20Assessment%20-%20Final.pdf

City of Somerville. (2023, May). City of Somerville Bicycle Network Plan. https://ehq-production-us-california.s3.us-west-1.amazonaws.com/5ba4b4097935bd855875ffe6dba8fec0ca4816d7/original/1681824638/abc69f024d6671067bf4b1c76a1036a8_Somerville_Bike_Network_Plan.pdf?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIA4KKNQAKICO37GBEP%2F20241204%2Fus-west-1%2Fs3%2Faws4_request&X-Amz-Date=20241204T191124Z&X-Amz-Expires=300&X-Amz-SignedHeaders=host&X-Amz-Signature=acaf8359fd99d6f9574618bb1c4b2580187f956089efcce0c7425e0aeaf19a42

Community Health and Equity Index. (n.d.-a). Retrieved May 23, 2025, from https://visionzero.geohub.lacity.org/datasets/lahub::community-health-and-equity-index-1/about

Community Health and Equity Index. (n.d.-b). Retrieved January 4, 2025, from https://geohub.lacity.org/datasets/lahub::community-health-and-equity-index-1/about

Cooling and Warming Centers. (n.d.). Retrieved January 4, 2025, from https://egis-lacounty.hub.arcgis.com/datasets/lacounty::cooling-and-warming-centers/about

County of Los Angeles. (2023). County Of Los Angeles Enterprise GIS. https://egis-lacounty.hub.arcgis.com/search?q=library

County of Los Angeles. (2025). Countywide Parks and Open Space (Public—Hosted). https://egis-lacounty.hub.arcgis.com/datasets/lacounty::countywide-parks-and-open-space-public-hosted/about

Creating LA's Capital Infrastructure Plan: 10 Lessons From Other Cities. (2023, March 21). Investing in Place. https://investinginplace.org/creating-las-capital-infrastructure-plan-10-lessons-from-other-cities/

Cunha, I., & Silva, C. (2023). Equity impacts of cycling: Examining the spatial-social distribution of bicycle-related benefits. International Journal of Sustainable Transportation, 17(6), 573–591. https://doi.org/10.1080/15568318.2022.2082343

Cycle Superhighways. (n.d.). Cycling Embassy of Denmark. Retrieved October 15, 2024, from https://cyclingsolutions.info/member/cycle-superhighways/

de Sousa, A. A., Sanches, S. P., & Ferreira, M. A. G. (2014). Perception of Barriers for the Use of Bicycles. Procedia - Social and Behavioral Sciences, 160, 304–313. https://doi.org/10.1016/j.sbspro.2014.12.142

Design Information Bulletin 89-01: Class IV Bikeway Guidance. (n.d.). Retrieved May 19, 2025, from https://dot.ca.gov/-/media/dot-media/programs/design/documents/dib-89-01_kf-a11y.pdf

Edmonton. (2021, February). The Bike Plan Implementation Guide | 2021-2026. https://www.edmonton.ca/sites/default/files/public-files/BikePlan-ImplementationGuide.pdf

Edmonton Bike Plan | City of Edmonton. (n.d.). Retrieved December 4, 2024, from https://www.edmonton.ca/transportation/cycling_walking/bicycle-transportation-plan

Equity Platform | Metropolitan Transportation Commission. (2021, March 17). https://mtc.ca.gov/about-mtc/what-mtc/equity-platform

Ferenchak, N. N., & and Barney, A. (2024). Analysing access to parks and other green spaces on walking, biking, and driving networks through a socioeconomic lens. Local Environment, 29(5), 663–679. https://doi.org/10.1080/13549839.2023.2300949

Four recent trends in US public infrastructure spending. (n.d.). Brookings. Retrieved April 24, 2025, from https://www.brookings.edu/articles/four-recent-trends-in-us-public-infrastructure-spending/

Green Zones Program. (n.d.). LA County Planning. Retrieved May 1, 2025, from https://planning.lacounty.gov/long-range-planning/green-zones-program/

Hogendorf, M., Oude Groeniger, J., Noordzij, J. M., Beenackers, M. A., & van Lenthe, F. J. (2020). Longitudinal effects of urban green space on walking and cycling: A fixed effects analysis. Health & Place, 61, 102264. https://doi.org/10.1016/j.healthplace.2019.102264

Investing in Place. (n.d.). Investing in Place. Retrieved November 11, 2024, from https://investinginplace.org/

Jezzini, Y., Assaf, G., & Assaad, R. H. (2023). Models and Methods for Quantifying the Environmental, Economic, and Social Benefits and Challenges of Green Infrastructure: A Critical Review. Sustainability, 15(9), Article 9. https://doi.org/10.3390/su15097544

John E Fisher. (n.d.). Transportation Topics and Tales. Retrieved May 1, 2025, from https://ladot.lacity.gov/sites/default/files/documents/transportation-topics-and-tales-milestones-in-transportation-history-in-southern-california.pdf

Karen Bass. (2024, October 16). Executive Directive 9. https://mayor.lacity.gov/sites/g/files/wph2066/files/2024-10/ED%209%20-%20Streamlining%20Capital%20Project%20Delivery%20and%20Equitably%20Investing%20in%20the%20Public%20Right-of-Way.pdf

Kiani, B., Thierry, B., Apparicio, P., Firth, C., Fuller, D., Winters, M., & Kestens, Y. (2024). Associations between gentrification, census tract-level socioeconomic status, and cycling infrastructure expansions in Montreal, Canada. SSM - Population Health, 25, 101637. https://doi.org/10.1016/j.ssmph.2024.101637

Kneebone, E., & Garr, E. (2010). The Suburbanization of Poverty: Trends in Metropolitan America, 2000 to 2008. Brookings. https://www.brookings.edu/articles/the-suburbanization-of-poverty-trends-in-metropolitan-america-2000-to-2008/

Koseff, A. (2025, May 14). California's budget woes are back: State faces $12 billion deficit. CalMatters. http://calmatters.org/politics/2025/05/california-budget-revision-may-2025/

LA County Department of Parks & Recreation. (2016). Los Angeles Countywide Comprehensive Parks & Recreation Needs Assessment. https://lacountyparkneeds.org/wp-content/uploads/2016/06/FinalReport.pdf

LA County park equity groups fight to turn park-poor communities 'red to green' | Catalyst California. (n.d.). Retrieved October 25, 2024, from https://www.catalystcalifornia.org/blog/la-county-park-equity-groups-fight-to-turn-park-poor-communities-red-to-green

LA River Master Plan – A reimagined river for LA County. (2016). https://larivermasterplan.org/

LADOT. (2019). LADOT 2019 Walk and Bike Count. https://ladot.lacity.gov/sites/default/files/documents/ladot2019walkandbikecount.pdf

LADOT. (2020). LADOT Slow Streets. https://clkrep.lacity.org/onlinedocs/2021/21-1222_rpt_tran_11-1-22.pdf

LADOT. (2021). LADOT Strategic Plan Update 2021-2023. https://ladot.lacity.gov/sites/default/files/documents/ladot-strategic-plan-2021-2023.pdf

LADOT. (2022). 5-Year_Mobility_Element_Programs_Progress_Report_2016-2022.pdf. https://planning.lacity.gov/odocument/cc49dd19-c4d0-4cb1-85fd-add46433f22e/5-Year_Mobility_Element_Programs_Progress_Report_2016-2022.pdf

LADOT. (2023). High Injury Network [Dataset].

LADOT. (2024a). City of Los Angeles Bikeways—Overview. https://www.arcgis.com/home/item.html?id=8cecdd0293264602bef3432e8d7a4afe#overview

LADOT. (2024b). LADOT City Council Report December 4, 2024. https://clkrep.lacity.org/onlinedocs/2023/23-0935_rpt_tran_12-04-24.pdf

LAUSD School Site Locations. (n.d.). Retrieved January 4, 2025, from https://geohub.lacity.org/datasets/baac330cda4c4d34a8f7f176fb3c74eb_0/explore?location=34.174834,-118.379251,9.24

LED Extraction Tool Help and Documentation—Longitudinal Employer-Household Dynamics. (n.d.). Retrieved January 4, 2025, from https://lehd.ces.census.gov/applications/help/led_extraction_tool.html#!what_is_the_led_extraction_tool

Lee, A. C. K., Jordan, H. C., & Horsley, J. (2015). Value of urban green spaces in promoting healthy living and wellbeing: Prospects for planning. Risk Management and Healthcare Policy, 8, 131. https://doi.org/10.2147/RMHP.S61654

Lempert, R. J., Popper, S. W., Hernandez, C. C., & RAND Corporation. (2022). Transportation Planning for Uncertain Times: A Practical Guide to Decision Making Under Deep Uncertainty for MPOs (FHWA-HEP-22-031). https://rosap.ntl.bts.gov/view/dot/64646

Livable Corridors -SCAG Region. (n.d.). Retrieved May 20, 2025, from https://hub.scag.ca.gov/datasets/4e8ea626250a42fda5c519324ba5ef18_0

Lorien Esbitt, Michael J. Meitner, Cynthia Girling, Stephen R.J. Sheppard, & Yuhao Lu. (2019). Who has access to urban vegetation? A spatial analysis of distributional green equity in 10 US cities—ScienceDirect. https://www.sciencedirect.com/science/article/pii/S0169204618307710

Los Angeles Department of City Planning. (2016, June). Mobility Plan 2035 An Element of the General Plan. https://planning.lacity.gov/odocument/523f2a95-9d72-41d7-aba5-1972f84c1d36/Mobility_Plan_2035.pdf

Loukaitou-Sideris, A., Handy, S. L., Ong, P. M., Barajas, J. M., Wasserman, J. L., Pech, C., Garcia Sanchez, J. C., Ramirez, A. F., Jain, A., Proussaloglou, E., Nguyen, A., Turner, K., Fitzgibbon, A., Kaeppelin, F., Ramirez, F., & Arenas, M. (2023). The Implications of Freeway Siting in California: Four Case Studies on the Effects of Freeways on Neighborhoods of Color. https://escholarship.org/uc/item/7mj2b24q

Mayor Bass Signs Executive Directive to Repair Streets, Clean Parks and Enhance Infrastructure Projects, City Services Ahead of Major Upcoming World Events | Mayor Karen Bass. (2024,

October 16). https://mayor.lacity.gov/news/mayor-bass-signs-executive-directive-repair-streets-clean-parks-and-enhance-infrastructure

Metro. (2023). 2023 Active Transportation Strategic Plan (ATSP). https://www.dropbox.com/sh/md1lj8rjkqy62s5/AAA6a0_IAFBki1C2jAjqDChWa/2023%20Active%20Transportation%20Strategic%20Plan%20%28ATSP%29?dl=0&subfolder_nav_tracking=1

Mölenberg, F. J. M., Panter, J., Burdorf, A., & van Lenthe, F. J. (2019). A systematic review of the effect of infrastructural interventions to promote cycling: Strengthening causal inference from observational data. International Journal of Behavioral Nutrition and Physical Activity, 16(1), 93. https://doi.org/10.1186/s12966-019-0850-1

Neighborhood Data for Social Change. (n.d.). Access to Parks and Green Space – Neighborhood Data for Social Change. Retrieved January 24, 2025, from https://la.myneighborhooddata.org/2019/02/access-to-parks-and-green-space/

Nieves, A. (2025, March 4). California officials sound alarm over shrinking gas tax revenue. E&E News by POLITICO. https://www.eenews.net/articles/california-officials-sound-alarm-over-shrinking-gas-tax-revenue/

Nino Kunzli, Rob McConnell, David Bates, Tracy Bastain, Andrea Hricko, Fred Lurmann, Ed Avol, Frank Gilliland, & John Peters. (2003). Breathless in Los Angeles: The Exhausting Search for Clean Air | AJPH | Vol. 93 Issue 9. https://ajph.aphapublications.org/doi/full/10.2105/AJPH.93.9.1494

OEHHA. (2021, September 20). CalEnviroScreen 4.0 [Text]. https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

Oja, P., Titze, S., Bauman, A., de Geus, B., Krenn, P., Reger-Nash, B., & Kohlberger, T. (2011). Health benefits of cycling: A systematic review. Scandinavian Journal of Medicine & Science in Sports, 21(4), 496–509. https://doi.org/10.1111/j.1600-0838.2011.01299.x

Rep. DeFazio, P. A. [D-O.-4. (2021, November 15). Text - H.R.3684 - 117th Congress (2021-2022): Infrastructure Investment and Jobs Act (2021-06-04) [Legislation]. https://www.congress.gov/bill/117th-congress/house-bill/3684/text

Richard Llewellyn. (2017). Evaluation of the State of Street Related Infrastructure. https://clkrep.lacity.org/onlinedocs/2017/17-1311_rpt_CAO_11-21-17.pdf

Safe Routes Partnership. (2023). Prioritizing Equity in Multimodal Trail and Pathway Grant Programs. https://www.saferoutespartnership.org/sites/default/files/resource_files/Prioritizing%20Equity%20in%20Multimodal%20Trail%20and%20Pathway%20Grant%20Programs%20-%20FINAL.pdf

SB 535 Coalition. (n.d.). AB 1550: The Climate Investments for California Communities Act. Retrieved October 13, 2024, from https://www.ccair.org/wp-content/uploads/2015/12/ab_1550_visual_fact_sheet_by_the_sb_535_coalition.pdf

SCAG. (n.d.). High Injury Network. Retrieved May 19, 2025, from https://transportation-safety-scag.hub.arcgis.com/pages/high-injury-network

Shukla, S. (2020, September 23). Racial Disparities in Access to Public Green Space. Chicago Policy Review. https://chicagopolicyreview.org/2020/09/23/racial-disparity-in-access-to-public-green-space/

Silicon Valley Bicycle Coalition. (2024, October 23). Network Priority Tool. Silicon Valley Bicycle Coalition. https://bikesiliconvalley.org/biketivism/bicycle-network-priority-tool

Social Explorer. (n.d.). Social Explorer. Retrieved June 3, 2025, from https://www.socialexplorer.com/tables/ACS2018_5yr

Somerville city, Massachusetts—Census Bureau Profile. (n.d.). Retrieved December 4, 2024, from https://data.census.gov/profile/Somerville_city,_Massachusetts?g=160XX00US2562535

Terry Castleman. (2023). SoCal housing crisis makes commutes worse for many—Los Angeles Times. https://www.latimes.com/california/story/2023-12-13/unequal-road-burden-socals-wealthy-drive-less-as-killer-commutes-worsen-for-working-class

UNdata | record view | City population by sex, city and city type. (n.d.). Retrieved December 4, 2024, from https://data.un.org/Data.aspx?d=POP&f=tableCode%3A240

US Census. (2023). ACS 5-Year 2019-2023 Residential Density Estimates [Dataset].

Vaughan, K. B., Kaczynski, A. T., Wilhelm Stanis, S. A., Besenyi, G. M., Bergstrom, R., & Heinrich, K. M. (2013). Exploring the Distribution of Park Availability, Features, and Quality Across Kansas City, Missouri by Income and Race/Ethnicity: An Environmental Justice Investigation. Annals of Behavioral Medicine, 45(1), 28–38. https://doi.org/10.1007/s12160-012-9425-y

Yonan, J. (2021). Slow Your Roll! An Analysis of LADOT's Slow Streets Program. https://doi.org/10.17610/T6831Z