

## **Attachment A – Active Transportation Strategic Plan**



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# Active Transportation Strategic Plan

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Volume I  
April 2016



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## ACRONYMS AND ABBREVIATIONS

**AB 32** – The California Global Warming Solutions Act of 2006

**AB 1358** – California Complete Streets Act of 2008

**ACS** – US Census' American Community Survey

**ADA** – Americans with Disabilities Act

**AHSC** – California Affordable Housing and Sustainable Communities grant

**ATP** – California Transportation Commission's Active Transportation Program

**ATSP** – Metro's Active Transportation Strategic Plan

**The BLVD** – A downtown revitalization effort along Lancaster Blvd in Lancaster, California

**BMP** – Bicycle Master Plan

**CAC** – Community Advisory Committee

**CalEnviroScreen** – California Communities Environmental Health Screening Tool

**Caltrans** – California Department of Transportation

**CMAQ** – Congestion Mitigation and Air Quality Improvement Program

**COG** – Councils of Government

**EPA** – US Environmental Protection Agency

**FAST** – Fixing America's Surface Transportation Act

**FHWA** – Federal Highway Administration

**GHG** – Greenhouse Gas

**HDM** – Highway Design Manual

**HSIP** – Highway Safety Improvement Program

**JD** – Metro's Joint Development program

**LADOT** – Los Angeles Department of Transportation

**LOS** – Level of Service

**MTA or Metro** – Los Angeles County Metropolitan Transportation Authority

**NCHRP** – National Cooperative Highway Research Program

**RSTP** – Regional Surface Transportation Program

**RTP** – Regional Transportation Plan

**SB 375** – Sustainable Communities and Climate Protection Act of 2008

**SCAG** – Southern California Association of Governments

**SCS** – Sustainable Communities Strategy

**SHSP** – Strategic Highway Safety Plan

**STP-L** – Surface Transportation Program – Local

**SWITRS** – Statewide Integrated Traffic Records System

**TIGER** – Transportation Investment Generating Economic Recovery

**TIMS** – Transportation Injury Mapping System

**TOD** – Transit-Oriented Development

**USDOE** – United States Department of Energy

**VMT** – vehicle miles traveled

# EXECUTIVE SUMMARY



*CicLAvia in Los Angeles*

The reach of and vision for Metro's investments support all Los Angeles County residents, whether they choose to walk, bike, take transit, or drive. As a steward of public resources, Metro's aim is to create and maintain a world-class transportation system that focuses on providing the best customer experience possible and enhancing the quality of life for those who live, work, and play within the County. The reality is that this means different things for different people based on where they work or live or how they get around, which can differ based on length of the trip and the final destination. As transportation planner and coordinator, designer, funder, builder and transit operator, Metro is constantly working to deliver a regional system that

supports increased transportation options and associated benefits, such as improved:

- > mobility options
- > air quality
- > health and safety
- > access to goods and services
- > quality of life

While Metro will continue to serve the County's transportation network for all the ways people travel, this Active Transportation Strategic Plan (Plan) focuses on enhancing access to transit stations and developing a regional network for people who choose to take transit, walk, and/or bike. Such improvements

ultimately benefit all users of the transportation system by providing more transportation choices. Surveys of travelers in LA County have found that approximately half of all trips are three miles or less, which is generally a distance that can be biked. Approximately one quarter of trips are under one mile, which is generally a distance that can be walked. Over a third of trips of one mile or less are currently driven.

Without the resources or real estate to “build” our way out of congestion, we need to rethink how we use our public space and resources to develop a transportation system that enhances the viability of all travel options. Metro initiated this process with the Bicycle Transportation Strategic Plan in 2006 and is following-up with this effort. A lot has changed since 2006 in Los Angeles County, particularly with increases in biking and walking and community-driven efforts to improve safety and local access for people regardless of how they travel.

There are three main components to this plan that will help Metro and partners work to plan, implement, and improve the overall quality of our active transportation network:

- > First last mile station area access improvements
- > Regional Active Transportation Network
- > Support Programs, including performance metrics and monitoring

Working toward this vision is not without its challenges.

It is important to note that walking or biking may not be desired or viable in a number of communities based on topography, land use, preferences, or other factors. The intent of this effort is not to force people to travel differently but to provide that option to all users. This dynamic highlights the importance of Metro’s partners, which include, but are not limited to, local agencies, residents, regional/state agencies, community groups, non-profits, and local advocates. Since Metro does not control the local roadways in most instances, Metro is dependent on partnerships and collaboration with local agencies.

This plan serves as a roadmap for stakeholders and partners to help identify transportation concepts and changes they’d like to see in their community and how all can work together to make that a reality. These efforts also help the region respond to regional and state regulations for the development of the transportation system and reductions in greenhouse gas emissions, including the development of Complete Streets networks.

As defined by Caltrans, a Complete Street is “a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including people who bike, walk, ride transit, or drive, appropriate to the function and context of the facility. Complete street concepts apply to rural, suburban, and urban areas.” This policy is supported by laws and guidance at various levels of government, including Federal law requiring safe accommodation for all



users, State law requiring that Caltrans provide an integrated multi-modal system, and State Assembly Bill 1358 requiring cities to plan for Complete Streets in their General Plan. In addition, Metro has adopted a Complete Streets Policy. Ultimately, the regional transportation system should strive to meet the varied needs of multi-modal trips and travelers, such as the many people who live, work, and play in the County of Los Angeles and exhibit a wide range of travel patterns and modes (walking, biking, using transit, and driving).

The vision for this Plan is to enhance the environment for all road users and balance future policies and investments to reflect local values and conditions. For instance, many local cities do not currently have any designated bicycle facilities, even though they may have a number of constituents who walk, bike, or live in a very walkable or bikeable area (within one to three miles) from key destinations such as schools, parks, retail corridors, civic facilities, and local/regional transit corridors. The following statistics, most of which are unique to LA County, highlight the conditions making it ripe for planning and delivering active transportation infrastructure for our region:

- > From 2006 to 2014, bicycle commute trips in Los Angeles County rose by 81%
- > Among Metro Orange Line park-n-ride survey respondents, 39% reported using the Orange Line Bus Bikeway Path
- > The Spring 2015 Metro Customer Survey found that

83% of bus riders and 68% of train riders begin their trip by walking

- > Metro surveys reveal that 35% of train riders and 18% of bus riders had a car available to drive, but chose to take transit
- > Studies in a number of cities have found that the average spent per month at local businesses was greatest amongst people who walk and bike compared to other ways of traveling, thus generating local economic development.

The Active Transportation Strategic Plan Volume I includes four chapters:

- > **Chapter 1 – Introduction** describes the purpose and need for the Active Transportation Strategic Plan and defines its goals and objectives.
- > **Chapter 2 – The Role of Active Transportation** frames active transportation within a broader policy context. It describes the benefits of active transportation investment, and it discusses the numerous existing related planning and implementation efforts occurring countywide. The chapter concludes with a summary of barriers and opportunities to implementing active transportation projects.
- > **Chapter 3 – Implementation** explains the framework and resources available for delivering active

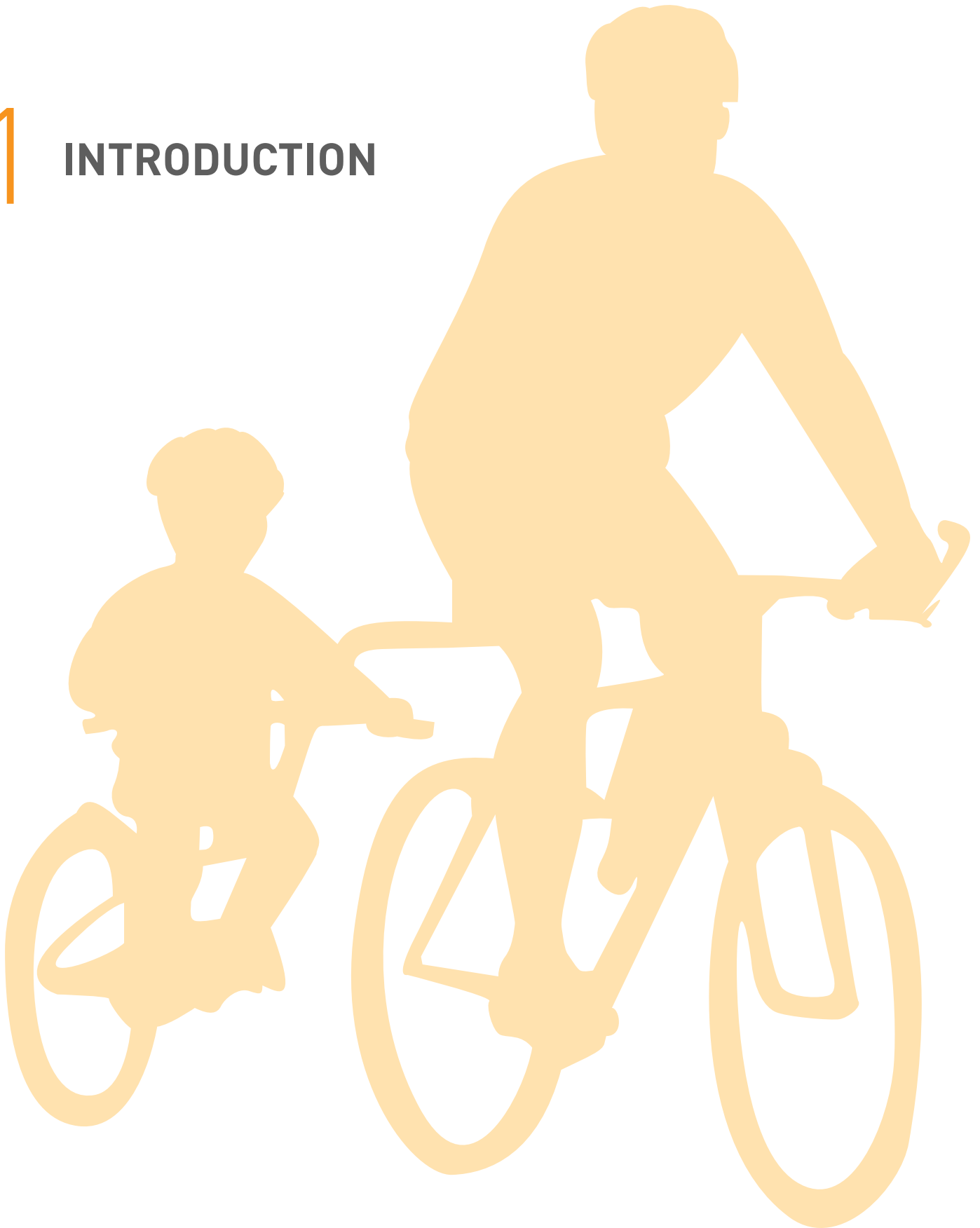
transportation projects. It defines stakeholder roles and provides multiple implementation approaches spanning a breadth of planning and funding scenarios. The chapter discusses innovations, showcases example projects, and details performance metrics for project evaluation. Financial considerations, including project cost estimates, funding strategies, and funding sources, are also discussed. Finally, the chapter lists Metro, city, and community programs that facilitate active transportation implementation and concludes with Metro's next steps to implementation.

> **Chapter 4 – Countywide Active Transportation Network** presents a vision for an interconnected active transportation network consisting of two pieces: 1) first last mile active transportation improvements to 661 major transit station areas and 2) the Regional Active Transportation Network. It describes the process for developing the network, the ways in which stakeholders have helped shape the network, and the projects comprising the Countywide Active Transportation Network.



1

# INTRODUCTION





*Multi-modal travel in Los Angeles*

## WHAT IS THE ACTIVE TRANSPORTATION STRATEGIC PLAN?

The Active Transportation Strategic Plan (ATSP) demonstrates Metro’s ongoing commitment to improving mobility in the region for people who walk, bike, and take transit and to creating safer streets that benefit all roadway users. Many of Metro’s recent investments and projects are a reflection of how the agency can work with local partners to serve the region, maximize the return on investment on our county’s extensive and growing transportation network, and support the public’s interest in more travel choices.

“Active Transportation” refers to any non-motorized mode of travel, including walking, bicycling, rolling, skating, or scooting. The ATSP will serve as Metro’s overall strategy for funding and supporting implementation of active transportation infrastructure and programs in Los Angeles County. It identifies strategies to improve and grow the active transportation network, to expand the reach of transit, and to develop a regional active transportation network to increase personal travel

options. It is intended to provide guidance to Metro and partner organizations, including local jurisdictions, regional government, and other stakeholders, in setting regional active transportation policies and guidelines to meet transportation goals and targets established in our local, regional, state, and federal plans.

In most instances, Metro does not own or operate many elements of the public right of way, including pedestrian and bicycle facilities beyond the agency’s station footprint. However, effective walking and bicycling infrastructure are critical elements to facilitate first last mile connectivity to the agency’s extensive public transit network. Beyond the connection to transit, a high-quality, safe, low-stress regional active transportation network can provide more transportation options and improve mobility. The ATSP builds on local and sub-regional planning already underway in the region to weave a cohesive strategy for our county and identify opportunities for Metro to support local partners in achieving implementation.



# GOALS & OBJECTIVES

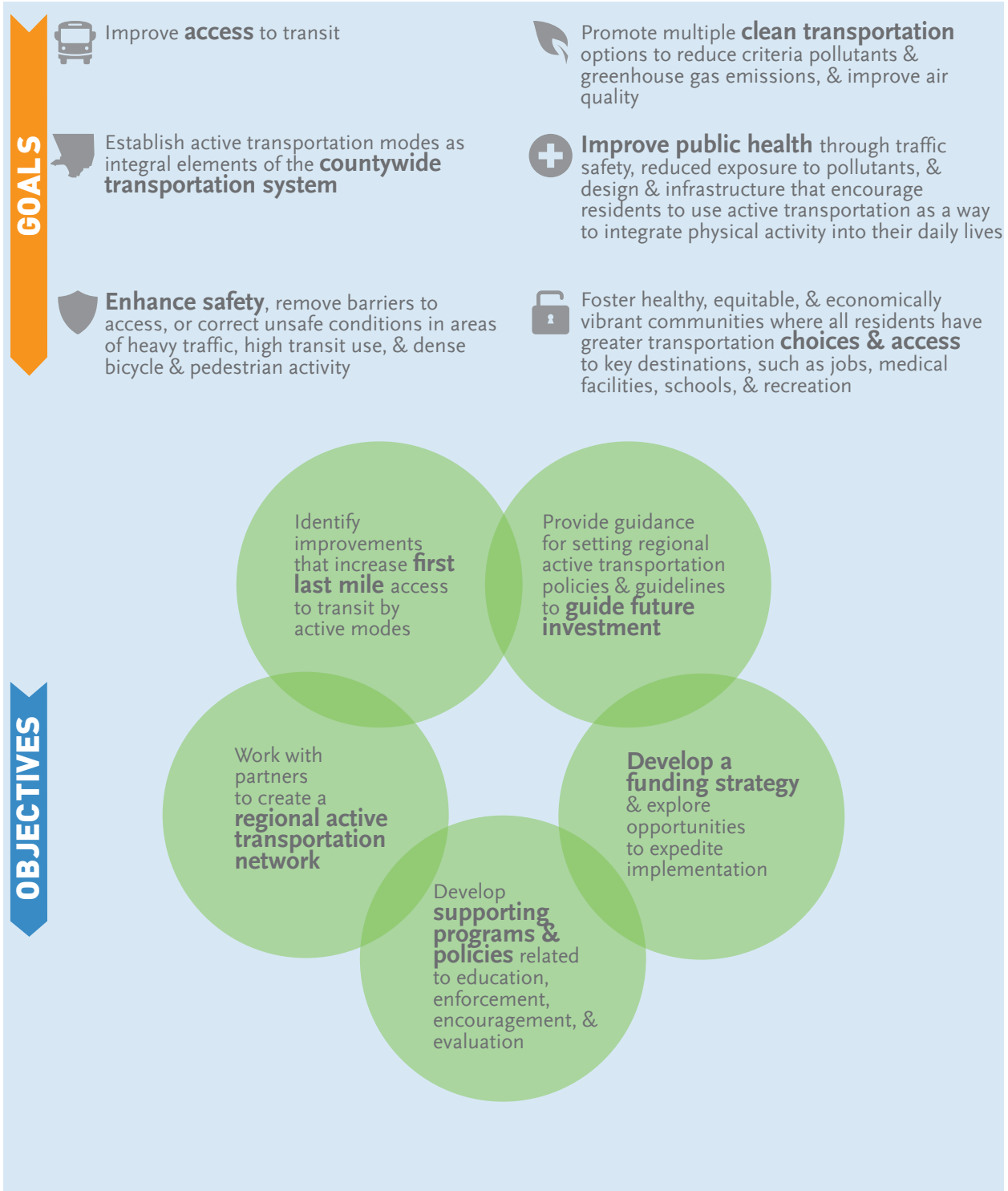


Figure 1.1: Goals and Objectives of ATSP

## Plan Goals

The Active Transportation Strategic Plan (ATSP or Plan) goals were crafted to reflect the overarching vision of the active transportation planning process at Metro. The goals in Figure 1.1 are a synthesis of goals outlined in previous Metro documents that informed the development of the ATSP, updated to reflect Project Technical Advisory input. Though these goals were developed to specifically relate to active transportation, many of the goals are multi-modal in nature and will result in benefits for all users of the transportation system throughout Los Angeles County. The ATSP goals align with those established in previous Metro planning documents including the Long Range Transportation Plan (2009; update anticipated in 2017) and the Short Range Transportation Plan (2014).

## Plan Objectives

The objectives were crafted to identify the specific ways in which the scope of the ATSP supports the overarching vision outlined by the goals above. Compared to the goals, which are aspirational in nature and may be affected by other Metro efforts or other trends outside Metro's control, the objectives are more specific to this Plan and the actions that Metro can take related to the implementation of the Plan. The objectives speak to all of the goals articulated in Metro's guiding policies and plans (further discussed in Chapter 2 of this plan).

## Component Parts

This Plan is presented in three chapters following this introductory chapter. Chapter 2 outlines the overall purpose of the Active Transportation Strategic Plan, including the benefits of active transportation and the need for active transportation planning in Los Angeles County. This chapter also reviews the previous work that has been done at Metro to set policies and initiate plans that improve access and safety across the county for people walking and biking.

Chapter 3 discusses implementation of active transportation projects. Throughout the process of developing this Active Transportation Strategic Plan, a key comment from stakeholders was that more support, technical advice, and guidance is needed to navigate the complex process of conceiving, planning, funding, constructing, and maintaining a project. Chapter 3 is intended to provide guidance and examples of how to navigate through the available options to implement successful active transportation projects.

Chapter 4 presents the recommended Countywide Active Transportation Network, comprised of two key components: 1) first last mile active transportation improvements to 661 transit station areas and 2) the Regional Active Transportation Network.



The ATSP builds off the framework of the Metro First Last Mile Strategic Plan and includes improvements for people walking and biking to 661 transit station locations, which include existing and under construction Metro Rail, Metro Rapid, Metrolink, and high ridership local bus stops served by Metro and municipal transit operators. These first last mile improvements are intended to improve regional access by connecting people to the extensive and growing transit network, and to maximize the benefits from transit investments that are being made across the county.

The Regional Active Transportation Network includes high-quality facilities for bicycling and walking that connect key regional origins and destinations across the county. The Regional Active Transportation Network is intended to improve regional access for people biking, walking, or rolling, and includes projects which close gaps between existing high-quality bicycling and walking facilities, as well as new corridors that take advantage of available waterways, utility corridors, and right-of-way that can be developed into high-quality walking and biking facilities.

## Using the Active Transportation Strategic Plan

Figure 1.2 provides an overview of the steps to implementation for active transportation projects. For some of the steps, portions of the ATSP have been identified which can provide support to a local jurisdiction going through the implementation process. For example, “Step 2: Identify and prioritize projects” can be supported by the ATSP Volume II: Case Studies, which offers ideas for potential improvements to challenges that occur across the county. These case studies can help a local jurisdiction identify their own challenges and develop projects to address these challenges.



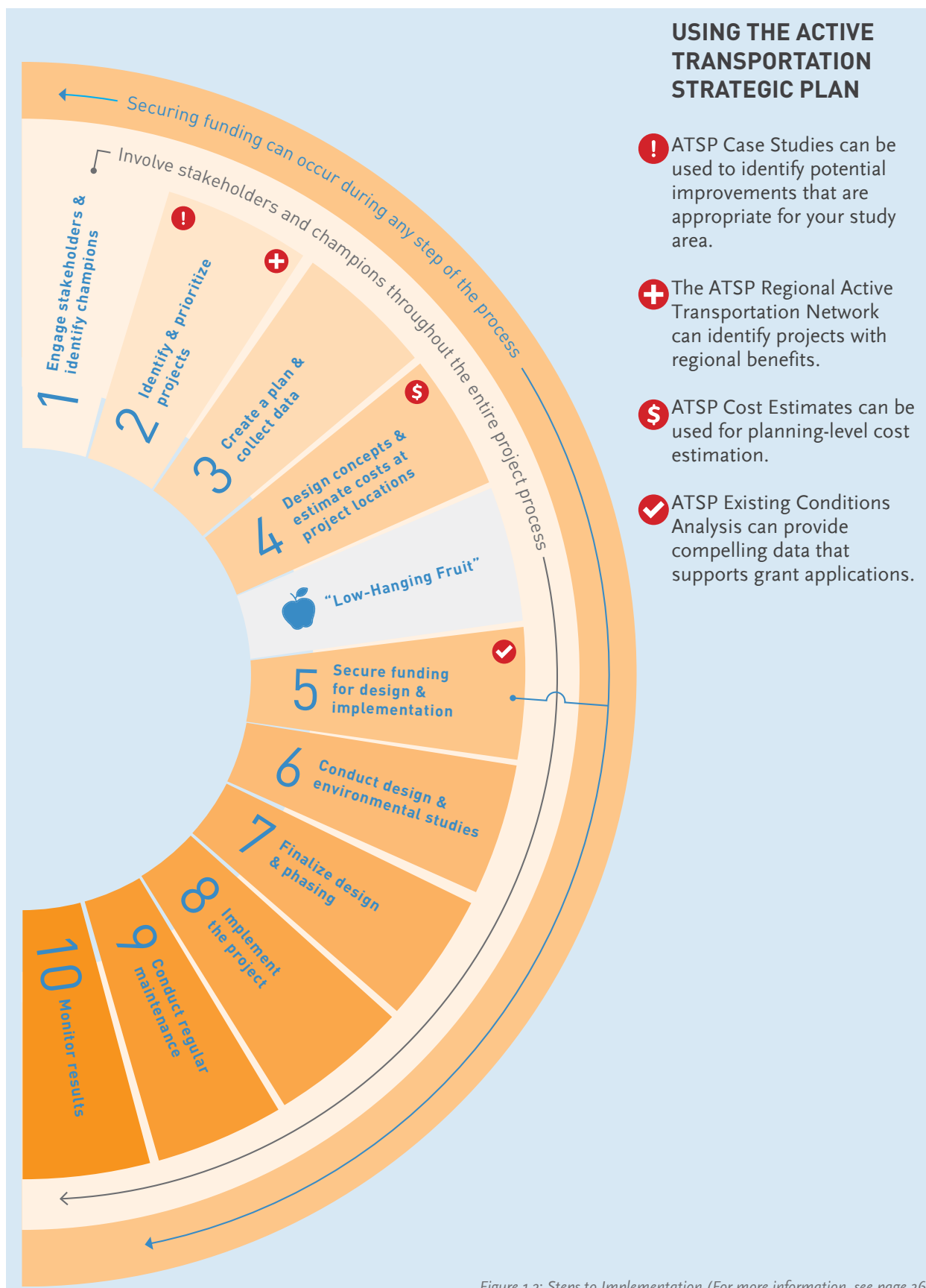
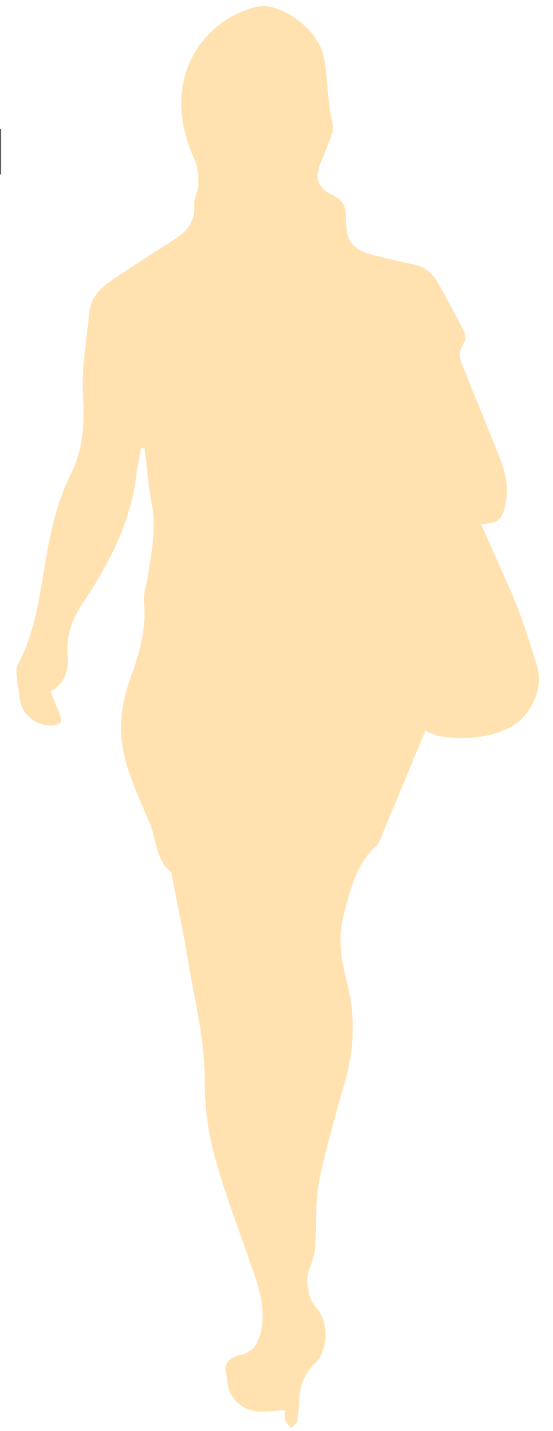


Figure 1.2: Steps to Implementation (For more information, see page 36)



## 2 THE ROLE OF ACTIVE TRANSPORTATION



## POLICY CONTEXT

### Federal

Federal, state, regional, and local policies have echoed the need for accommodating all users of the roadway. The U.S. Department of Transportation Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations supports the development of fully integrated active transportation system networks, which foster safer, more livable, family-friendly communities; promote physical activity and health; and reduce vehicle emissions and fuel use. The policy encourages transportation agencies to go beyond the minimum requirements and to proactively provide convenient, safe, and context-sensitive facilities that accommodate people of all ages and abilities, including people too young to drive, people who cannot drive, and people who choose not to drive. In 2011, the Federal Transit Administration issued a policy statement under Federal Transit Law indicating that all pedestrian improvements located within one-half mile and all bicycle improvements located within three miles of a public transportation stop or station have a de facto physical and functional relationship to public transportation.

#### *FAST*

Signed into law at the conclusion of 2015, Fixing America's Surface Transportation Act (FAST Act) is the first Federal law in over ten years to provide long-term funding certainty for surface transportation. The FAST Act authorizes \$305 billion over fiscal years 2016 through 2020 to improve the nation's surface transportation infrastructure, including roads, bridges, transit systems, and passenger

rail network. The FAST Act also aims to enhance federal safety programs for highways, public transportation, motor carriers, hazardous materials, and passenger rail. With its enactment, States and local governments can move forward with critical transportation projects, knowing they will have a Federal partner over the long term.

The FAST Act largely maintains current program structures and funding shares between highways and transit. It increases funding by 11 percent over five years, but still falls short of the amount needed to meet the increasing demands on our transportation systems in general, and does not address much of the unmet need for bicycle and pedestrian infrastructure throughout the country. The law also makes changes and reforms to many Federal transportation programs, including streamlining the approval processes for new transportation projects, providing new safety tools, and establishing new programs to advance critical freight projects.

### State and Regional

The State of California enacted the California Complete Streets Act of 2008 (AB 1358), which requires that when cities or counties make substantive revisions to the circulation elements of their general plans, they identify how they will provide for the mobility needs of all users of the roadways. The California Department of Transportation's Deputy Directive 64-R2 emphasizes all transportation improvements as opportunities to improve safety, access, and mobility for

all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system. The California Global Warming Solutions Act of 2006 (AB 32) sets a mandate for the reduction of greenhouse gas emissions in the state, and the Sustainable Communities and Climate Protection Act of 2008 (SB 375) requires emissions reductions through coordinated regional planning that integrates transportation, housing, and land-use policy. Achieving the goals of these laws will require significant increases in travel by public transit, bicycling, and walking. Strategies to support greenhouse gas emissions targets in support of SB 375 were adopted by the Southern California Association of Governments in the 2012-2035 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS), which is currently being updated at the time this Plan is written.

In 2013, the State enacted SB 743, which eliminates requirements for level of service (LOS) metrics for projects within Transit Priority Areas. Under SB 743, the Governor’s Office of Planning and Research has been tasked with developing alternative criteria to LOS. Particularly within areas served by transit, the alternative criteria must promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.

The Metro Board has been a champion for sustainability and supportive of federal and state policy initiatives to address climate change and promote sustainable transportation. The development of an Active Transportation Strategic Plan is a continuation of the agency’s commitment to supporting an integrated multimodal transportation system. The ATSP supports a number of Metro Board-adopted policies and directives, including, but not limited to, the following:

- > Metro Board Motion: Environmental & Sustainability Efforts to Further Metro’s Goals to Reduce Emissions, Clean the Air & Improve Urban Areas, February 2016;
- > Complete Streets Policy, October 2014;
- > Metro Board Motion: Developing an Active Transportation Finance Strategy, July 2014;
- > First Last Mile Strategic Plan and Planning Guidelines, April 2014;
- > Countywide Sustainability Planning Policy and Implementation Plan, December 2012;
- > Metro/ SCAG Joint-Work Program, July 2012 (updated May 2015);
- > Active Transportation Agenda, November 2011;

- > Health and Active Transportation Motion, April 2011 (Item #17);
- > Enhanced MTA Bicycle Policies and Programs Motion, September 2010; and
- > Bicycle Transportation Strategic Plan, June 2006.

In addition to these policies and directives, the goals and objectives of the ATSP align with the long-term and short-term strategies established in Metro planning documents such as the Long Range Transportation Plan (2009; update anticipated in 2017) and the Short Range Transportation Plan (2014), which serve as a blueprint for how Metro will spend anticipated revenue in the coming decades.

## Local Jurisdictions

Within Los Angeles County, a number of local jurisdictions and sub-regions have adopted bicycle and pedestrian plans, Safe Routes to School plans, mobility plans, or adopted policies or resolutions to improve the mobility and safety of the streets for people who walk, bicycle, and take transit, and to advance the health, safety, welfare, economic vitality, and environmental well-being of their communities, as shown in Appendix B.

## BENEFITS OF ACTIVE TRANSPORTATION

### If you build it...

The decision to walk or ride a bicycle (instead of driving) hinges on the presence of safe and convenient active transportation infrastructure, such as protected bicycle lanes and sidewalks. When this infrastructure is provided, people use it: in 2006, federal funding for active transportation increased more than 60 percent to almost \$1 billion per year (up from \$360 million previously). Eight years later, the number of people riding bicycles to work in the United States had increased by 60 percent. A similar trend occurred in Los Angeles County, where bicycle commute trips grew 81 percent over the same time period.

Simply put, more people choose to walk and ride their bicycles when infrastructure investment enables them to do so safely and easily. A majority (53 percent) of Americans now say that they would like to bicycle more than they currently do. They are bringing to light a powerful latent demand for healthy and economical travel options.

### Mobility Benefits

#### *First Last Mile Connections*

Active transportation investment enables better connectivity between modes – particularly for transit. Many people who could potentially take transit choose to drive instead when transit stops are not conveniently located at their starting points and final destinations. These situations require “first last mile”

connections. Enabling people to walk or ride a bicycle to or from transit expands the menu of transportation choices and makes taking transit convenient and accessible. It creates a seamless travel experience that improves the transit experience. Better active transportation connections makes it possible for more riders to use transit easily, particularly in areas of Los Angeles County with fewer or less frequent transit routes. Integrating walking, biking, and rolling travel with transit expands the effective reach of the transit network and adds value to Metro’s ongoing capital investments around the county.

#### *Congestion*

Americans wasted \$124 billion sitting in traffic in 2013, costing families an average of \$1,700 per year in wasted time (opportunity cost). Los Angeles County accounted for nearly a fifth of the total opportunity cost of congestion nationwide, at \$23.2 billion annually. Travelers in the greater Los Angeles area spend an average of 80 hours per year in traffic.

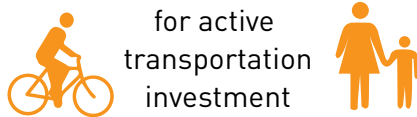
#### *Parking*

With the high rate of car ownership in Los Angeles County, there is a perceived scarcity of parking spaces. An increase in people walking and bicycling offsets motor vehicle trips, reducing demand for motor



The average **BENEFIT-COST RATIO** is

**13:1**



for active transportation investment

Source: Davis, 2010

THE AVERAGE ESTIMATED COST TO BUILD PARKING IN LOS ANGELES COUNTY, PER SPACE, IS:



**\$75-\$110 PER BIKE\***

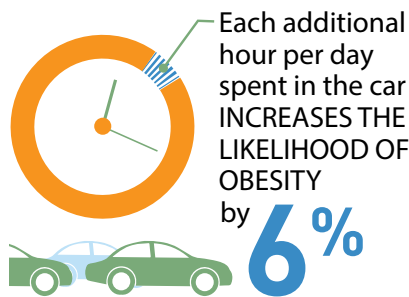
\*in short-term bike racks



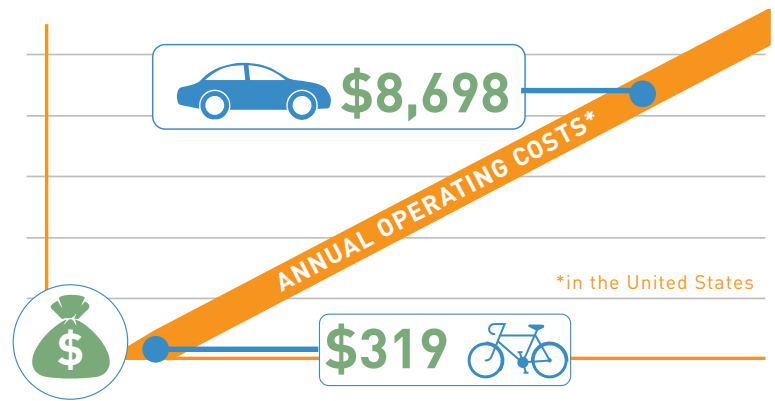
**\$15,000-30,000 PER CAR\***

\*in a parking garage structure

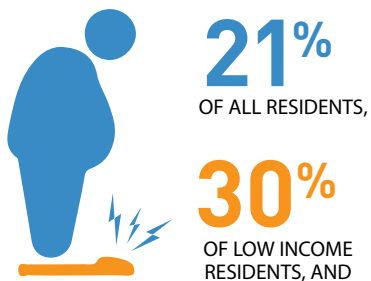
Source: NCHRP, 2006 | USDOE, 2013



Source: SCAG, 2012



Source: Mohn 2012 | AAA Newsroom, 2015



CLOSE TO **1 in 4** CHILDREN IN LOS ANGELES COUNTY

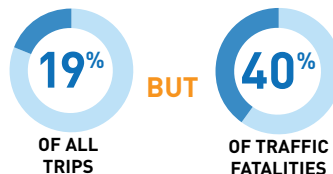
**ARE OBESE**

Source: County Health Rankings, 2015 | County of Los Angeles Public Health, 2011

Between **2009 & 2013** an average of **4,480 BICYCLISTS & 4,904 PEDESTRIANS** were **INJURED IN COLLISIONS** with motor vehicles per year



and in the County, active transportation accounts for



Source: FHWA, 2009 | TIMS, 2009-2013

Installing bike lanes can **REDUCE CYCLING INJURIES BY 50%**

The **ADDITION OF PHYSICAL BARRIERS** can drop the rate of injury by **99%**

and can reduce **SIDEWALK RIDING** by over **90%**

Source: Teschke et al., 2012 | NYCDOT, 2011

Figure 2.1: Benefits of Active Transportation

vehicle parking. This can potentially increase parking space availability and reduce cost for both users (lower prices) and developers (fewer parking spaces needed in new buildings).

People riding bicycles also require parking space, but bicycle parking is more efficient than vehicle parking in terms of both space and cost. Up to ten bicycles can fit in a parking space originally designed for a motor vehicle, and the cost per bicycle parking space is 200 to 300 times lower than the cost per motor vehicle parking space.

## Economic Benefits

### *Affordability*

Active transportation is the most affordable means of transportation available in Los Angeles County, where moderate-income residents spend 27 percent of their salaries on transportation. Replacing vehicle trips with walking and bicycle trips offers immediate financial relief for households struggling with transportation costs. Saving money on transportation gives people more disposable income to use for income-generating

## **Active transportation is the most affordable means of transportation available in Los Angeles County**

investments, rather than gasoline and maintenance.

### *Local Economic Development*

People who arrive at local businesses by walking and bicycling spend more money than those arriving by car.

For instance, a Portland study found that, compared to people who drive, people who bicycle spend 30 percent more at local establishments (restaurants, convenience stores and bars) and people who walk spend 7 percent more.

As part of The BLVD, a downtown revitalization effort, Lancaster, California re-designed its main street, Lancaster Boulevard. The re-design included a road diet, a pedestrian-only plaza, wider sidewalks and landscaping. After a \$10.6 million public investment, the project helped attract nearly \$125 million in private

investment, resulting in a 26 percent increase in sales tax revenue and 800 new jobs.

### *Job Creation*

Active transportation infrastructure has an economic impact on local economies through increased retail activity (sales and rentals) and tax revenues. It can also result in direct job

## **People who arrive at local businesses by walking and bicycling spend more money than those who arrive by car**



creation through the design and construction of non-motorized infrastructure.

In the City of Baltimore, every \$1 million spent on bicycle and pedestrian infrastructure projects created 11 to 14 jobs, compared to only 7 jobs for each \$1 million in roadway infrastructure. This estimate includes direct jobs (engineering and construction), indirect jobs (related to engineering and construction) and induced effects (impacts on other industries, such as retail).

## Health Benefits

### *Disease Prevention*

Regular aerobic activity (i.e. 30 minutes per day, 5 days per week) improves health by lowering the risk of heart attack and stroke. Active transportation increases opportunities to meet this minimum threshold of aerobic activity, reducing the prevalence and cost of obesity and associated health conditions.

### *Sickness*

Enabling people to ride bicycles to work can improve the health of the workforce. In the United Kingdom and the Netherlands, people who regularly bicycle to work take, on average, one to two fewer sick days annually.

## Environmental Benefits

### *Physical Environment*

Many of the factors contributing to LA County's low health outcomes are related to physical environment, such as air quality, access to recreation and exercise

opportunities, long commutes and a high percentage of residents who drive alone. All of these factors can be improved with active transportation investment.

### *Pollution and Greenhouse Gases*

Reducing vehicle miles traveled (VMT) in fossil fuel-burning vehicles is a pillar of efforts to reduce airborne pollutants and greenhouse gases (GHGs). Active transportation plays a role in reducing VMTs by offering a transportation alternative that enables people to leave their cars at home.

The transportation sector is a significant source of air and water pollution in Los Angeles County, accounting for 37 percent of GHG emissions. The American Lung Association places the Los Angeles Basin and California's Central Valley as the areas with the nation's highest levels of ozone and fine particle pollution. Los Angeles topped the list of cities with the worst smog in the nation, violating federal health standards for ozone an average of 122 days per year.

## Safety Benefits

People walking and riding bicycles account for a disproportionate number of fatalities on the streets of Los Angeles County. These modes represent 19 percent of all

trips, but 40 percent of all traffic fatalities.

In Los Angeles County, the financial loss due to active transportation fatalities is more than \$1 billion per year - a figure that does not include the emotional cost to the families and friends of these victims.

Road diets have been found to be effective at reducing collisions for all road users in a variety of urban contexts. Road diets provide refuge for turning vehicles, which reduces side-swipe and rear-end collisions. They also have traffic calming effects, reducing the opportunity to speed or drive recklessly by eliminating excess capacity and repurposing it for people on bicycles or people on foot. Meanwhile, long-term statistics support the "safety in numbers" principle, which holds that walking and bicycling

becomes statistically less dangerous when more people walk and ride bicycles.

Additional information on the benefits and effects of active transportation, including citations and references, are included in Appendix A.

**Active transportation infrastructure has an economic impact on local economies through increased retail activity and tax revenues**



*Metro Bus in Downtown Los Angeles*

## EXISTING CONDITIONS

The existing conditions analysis is a key component of the process of developing the Active Transportation Strategic Plan. The data included in the analysis is intended to help communities and stakeholders plan for the specific needs and conditions around their station area of interest, to better position applicants for grant funding opportunities, to assist communities in targeting resources to those areas that need it most, and to add value to the tremendous transit investments occurring across the county.

The analysis covers 661 transit station areas across the county, including Metro Rapid and Metro Rail service, Metrolink service, and high ridership bus stops serviced by Metro or municipal transit providers. Not all municipal transit providers contributed the ridership data

necessary to assess the stop-level activity for inclusion into the set of high-ridership stops. For a full description of the process and the municipal transit providers included in the analysis, please see Appendix D.

The existing conditions analysis provides a snapshot of key data around the station area, within a half-mile walkshed and a three-mile bikeshed. These sheds are based on the network connectivity and slope, and are therefore smaller than a simple circle with a half mile or three mile radius; they are more reflective of the realities of walking and biking in Los Angeles. The data available in this analysis are explained on the following page, with an example

of the analysis layout for one station area.

Additionally, much of the existing conditions data are used to set the baseline for the performance evaluation discussed in Chapter 3. Viewing this data station-by-station in the existing conditions analysis shows the variation that exists around the county, emphasizing the need to identify metrics and set benchmarks at the county level as well as at the project level. A more extensive

discussion of performance evaluation is included in Chapter 3, along with the selected metrics and the benchmarks against which this Plan will be measured.

**To explore existing conditions around the full set of 661 station areas, visit <http://gis.fehrandpeers.com/metroatp/>.**



## UNDERSTANDING THE ATSP EXISTING CONDITIONS ANALYSIS

As part of the ATSP, Metro uses several methods to capture data that the First Last Mile Strategic Plan identifies as important to planning a comprehensive first last mile analysis. The ATSP online portal, available at <http://gis.fehrandpeers.com/metroatsp>, is a publicly-accessible resource, home to existing conditions analysis for the 661 transit stations and stops. Each station area location may consist of multiple bus stops and rail stations that are close to each other - this enabled stops that are on opposite sides of the streets, rail stations that have bus stops nearby, or stations that have more than one portal, to be treated as one area rather than multiple areas with duplicate analysis. Figure 2.2 is an example of an existing conditions analysis summary.

The existing conditions analysis summaries help identify stations or stops in your local jurisdiction with need for first last mile connectivity improvements. The analysis focuses on a half-mile walkshed and a three-mile bikeshed around each station area location. The information presented in these summaries is based on the most recent available data for each source; therefore, it is important to supplement this with

The summaries visually present information and analysis on elements including:

- > extents of the analysis area
- > population and employment
- > points of interest
- > age demographics
- > land uses
- > Walk Score
- > jobs/housing diversity
- > Bike Score
- > bicycle facilities
- > Transit Score
- > ridership activity
- > route directness
- > CalEnviroScreen Score
- > intersection density
- > collisions by mode
- > journey to work

site visits and other data sources, when a specific station area planning effort begins.

The following section provides a detailed overview of the existing conditions analysis conducted for the 661 station areas, the data presented, and the sources utilized to prepare the analyses. The data presented will be particularly helpful for initiating first last mile planning near station areas or presenting relevant data requested in grant applications

to pursue funding for implementation of pre-existing plans and projects that help complete local and regional active transportation networks or address first last mile challenges.

The following pages are intended to serve as a guide to the data presented in the existing conditions analysis summary sheets. For the optimal experience, read the following pages alongside a full 11 x 17 inch printout of the existing conditions analysis at your station area, available at <http://gis.fehrandpeers.com/metroatsp>.

**The ATSP online portal, available at <http://gis.fehrandpeers.com/metroatsp>, is a publicly-accessible resource, home to existing conditions analysis for the 661 transit stations and stops.**



Metro Active Transportation Strategic Plan

# Transit Station or Stop Name

## Walkshed or Bikeshed Analysis - Existing Conditions



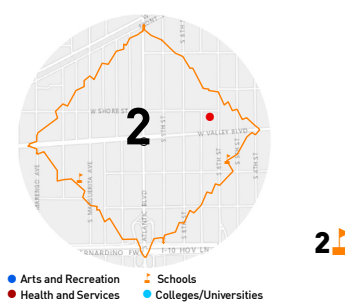
### WALKSHED OR BIKESHED ANALYSIS AREA

Shows the area within a half mile walk or three mile bike along the street network.



### POINTS OF INTEREST

Shows the location of key community destinations and the number of schools in the walkshed or bikeshed.



### POPULATION AND EMPLOYMENT

Population and employment in walkshed or bikeshed.

**5,965** Population  
**232** Rank  
**1,273** Employment  
**431** Rank



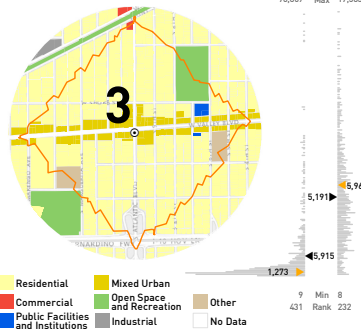
### AGE

Displays the number and % of people under 18 and over 64 in the walkshed or bikeshed.

**1,161** Under 18  
**19.5%**  
**756** Over 64  
**12.7%**

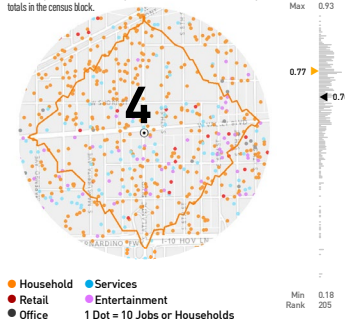
### LAND USE

Depicts the types of existing land uses around the station area.



### JOBS/HOUSING DIVERSITY

Each dot represents a household or job in the area. Dots are shown randomly in the area based on the totals in the census block.



### WALK SCORE (1-100)

Reports the Walk Score for the station area.

**78**



### BIKE SCORE (1-100)

Reports the Bike Score for the station area.

**21**



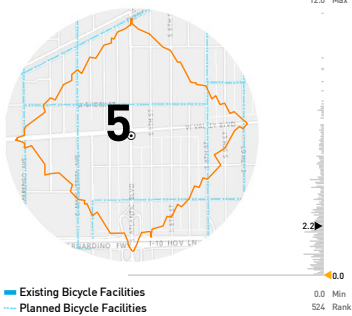
### TRANSIT SCORE (1-100)

Reports the Transit Score for the station area.

**34**

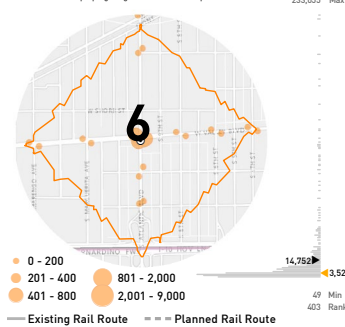
### BICYCLE FACILITIES

Shows existing and planned bike lanes, routes, paths, and protected facilities.



### RIDERSHIP ACTIVITY

Shows the number of people getting off and on at each stop or station.



### ROUTE DIRECTNESS

Represents the amount of out of direction travel needed to get to destinations in the walkshed or bikeshed. Higher scores are more direct.

**4.4**



### INTERSECTION DENSITY

Number of intersections in walkshed or bikeshed.

**105** Count  
**35** Score (1 - 100)



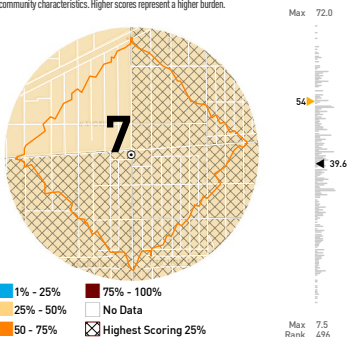
### JOURNEY TO WORK

Shows the percentage of people who live in the walkshed or bikeshed and how they get to work.

**2.3%** Walk  
**0.2%** Bike  
**0.0%** Rail  
**7.2%** Bus  
**13.0%** Carpool  
**77.2%** Drive Alone  
**0.1%** Other

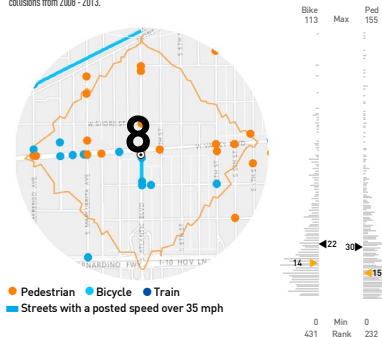
### CALENVIROSCREEN SCORE

CalEnviroScreen Scores represent a combination of pollution levels and demographic community characteristics. Higher scores represent a higher burden.



### COLLISION BY MODE

Shows locations of all collisions including people walking, bicycling, driving, and train collisions from 2008 - 2013.



### COLLISION BY MODE // KSI

Shows the total number of collisions in the walkshed or bike and the number of collisions resulting in someone being killed severely injured (KSI) from 2008-2013.

**Total KSI**  
**15** 3 Pedestrian  
**14** 0 Bike  
**0** 0 Train  
**101** 1 Auto

FEHR PEERS

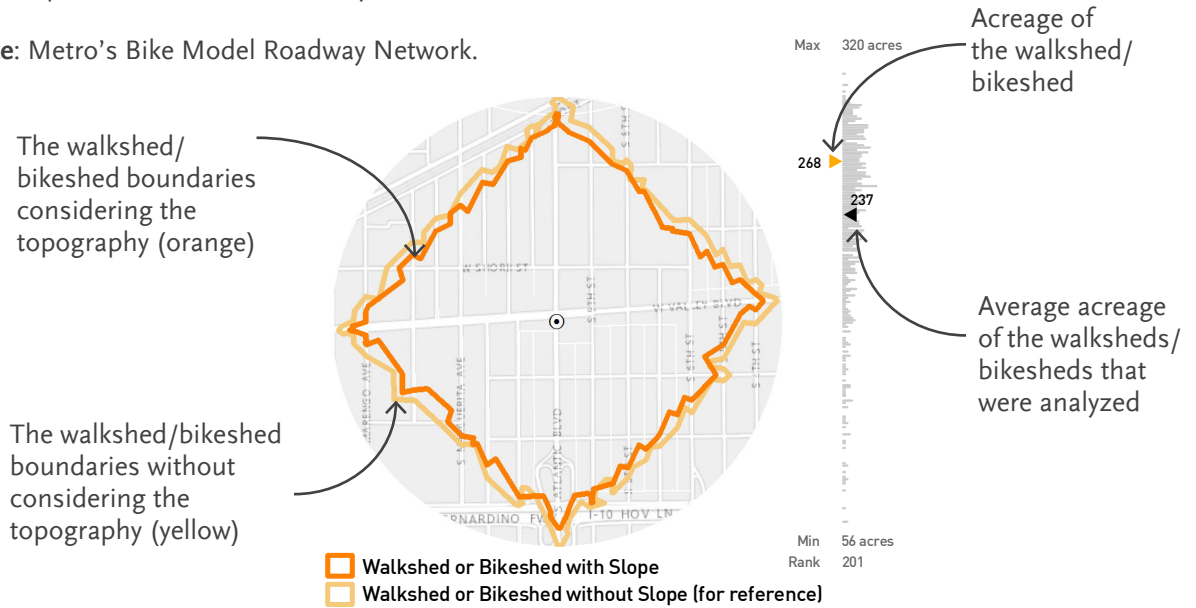
Figure 2.2: Existing conditions analysis summary

## 1. Bikeshed/Walkshed Analysis Area

Figure 2.3

**Definition:** The area is defined by the bikeshed/walkshed, or the distance a person is willing to travel biking or walking to or from a transit station or stop based on the existing street grid. The sheds are presented with and without the slope taken into account and are based on the travel distance on the street network, which is not necessarily in a straight line. All data are presented for the sheds with slope; the sheds without slope are presented for reference only.

**Source:** Metro’s Bike Model Roadway Network.

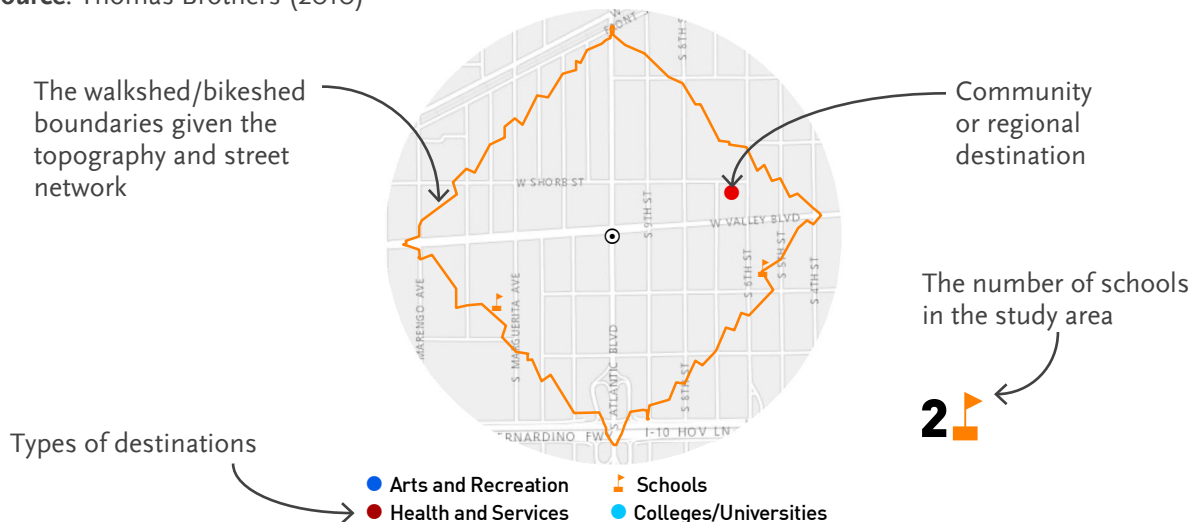


## 2. Points of Interest

Figure 2.4

**Definition:** The locations of important community or regional destinations that people might travel to/from the transit station or stop. The number of schools is also presented in this graphic.

**Source:** Thomas Brothers (2010)

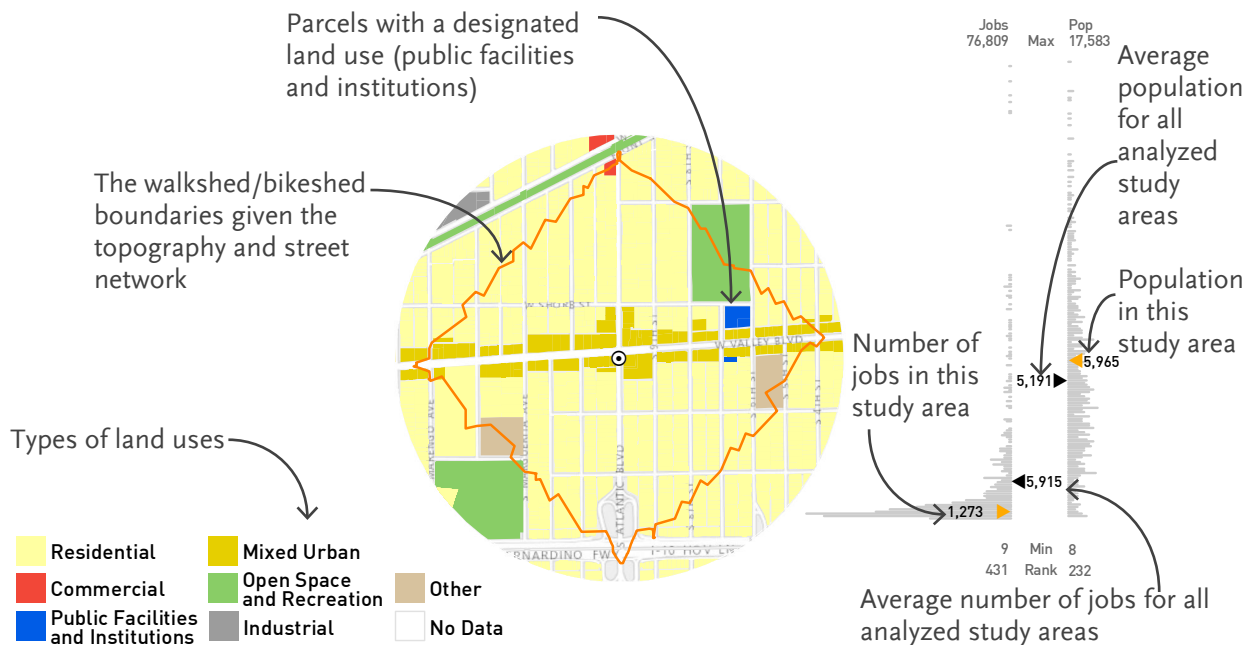


### 3. Land Use

Figure 2.5

**Definition:** The types of existing land uses that define the study area.

**Source:** Southern California Association of Governments (SCAG) (2010)

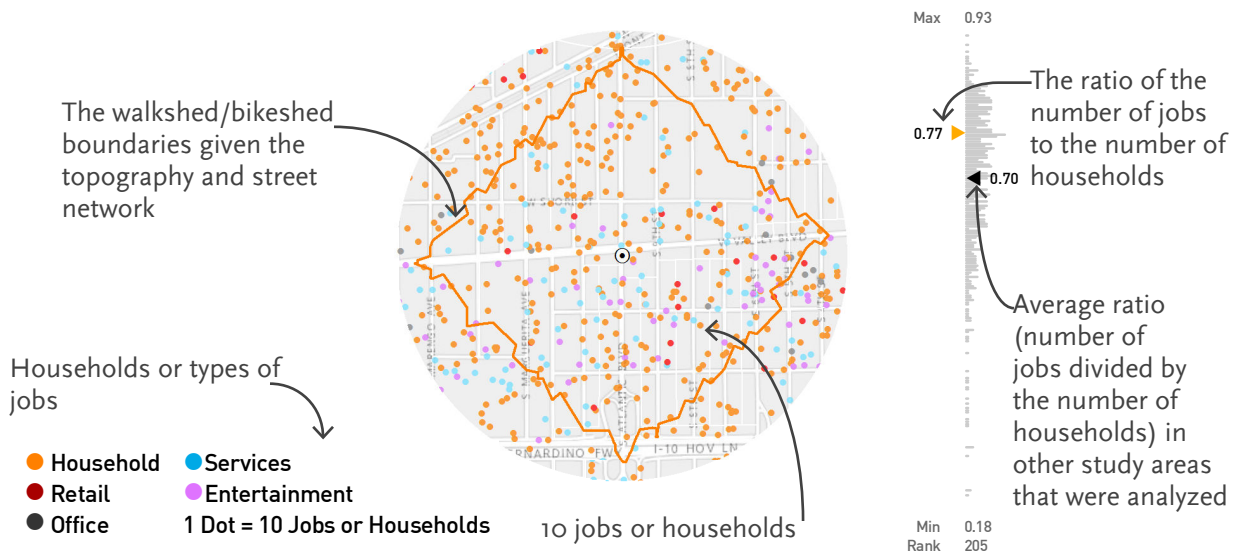


### 4. Jobs/Housing Diversity

Figure 2.6

**Definition:** The number of households and jobs in the study area based on Census block totals.

**Source:** Environmental Protection Agency (EPA) Smart Location Database (Census 2010)

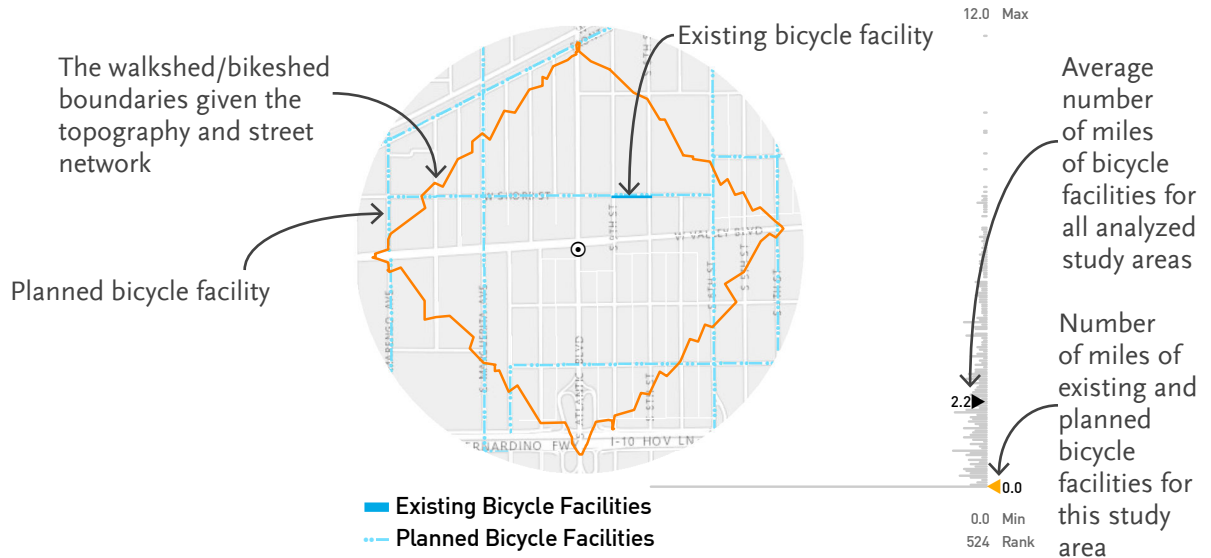


## 5. Bicycle Facilities

Figure 2.7

**Definition:** The location of existing and planned bikeways, including bike lanes, routes, paths, and protected facilities.

**Source:** Metro (2015), Alta Planning (2015), Various Local Jurisdictions within Los Angeles County

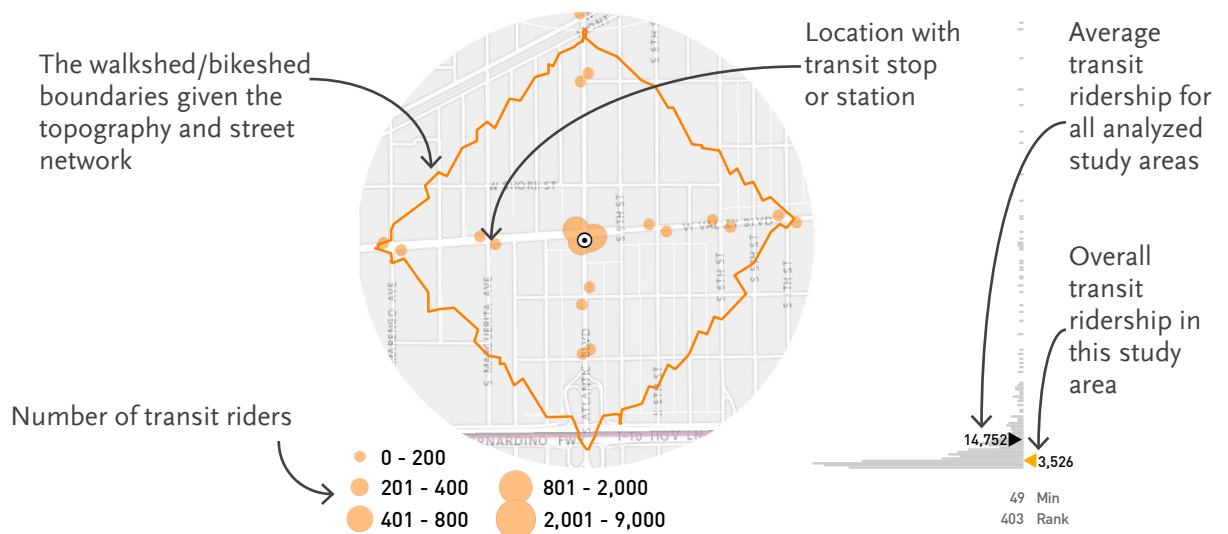


## 6. Ridership Activity

Figure 2.8

**Definition:** The number of people getting on and off at each transit stop or station within the study area.

**Source:** Metro, Culver City Bus, Foothill Transit, City of Los Angeles Department of Transportation (LADOT), Gardena Transit, Long Beach Transit, Montebello Bus, Santa Clarita Transit, Santa Monica Big Blue Bus. Numbers were normalized to reflect average daily boardings and alightings per stop.



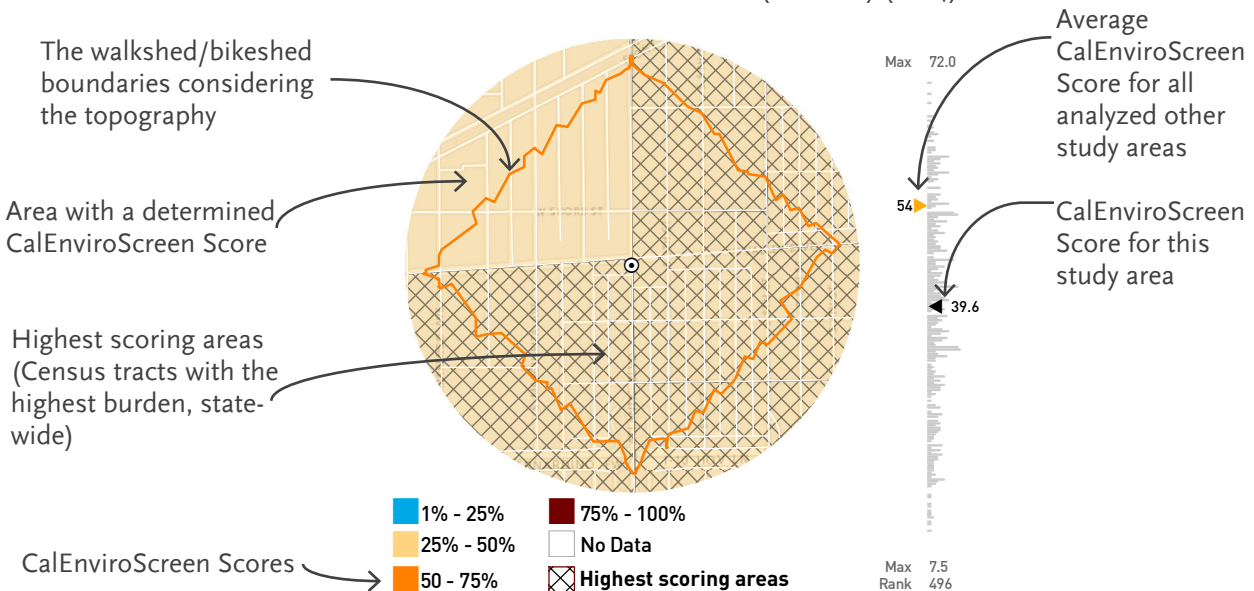


## 7. CalEnviroScreen Score 2.0

Figure 2.9

**Definition:** The score given to represent the overall quality of public health, considering a combination of pollution types and demographic community characteristics. Higher scores represent a greater burden.

**Source:** Office of Environmental Health and Hazard Assessment (OEHHA) (2014)

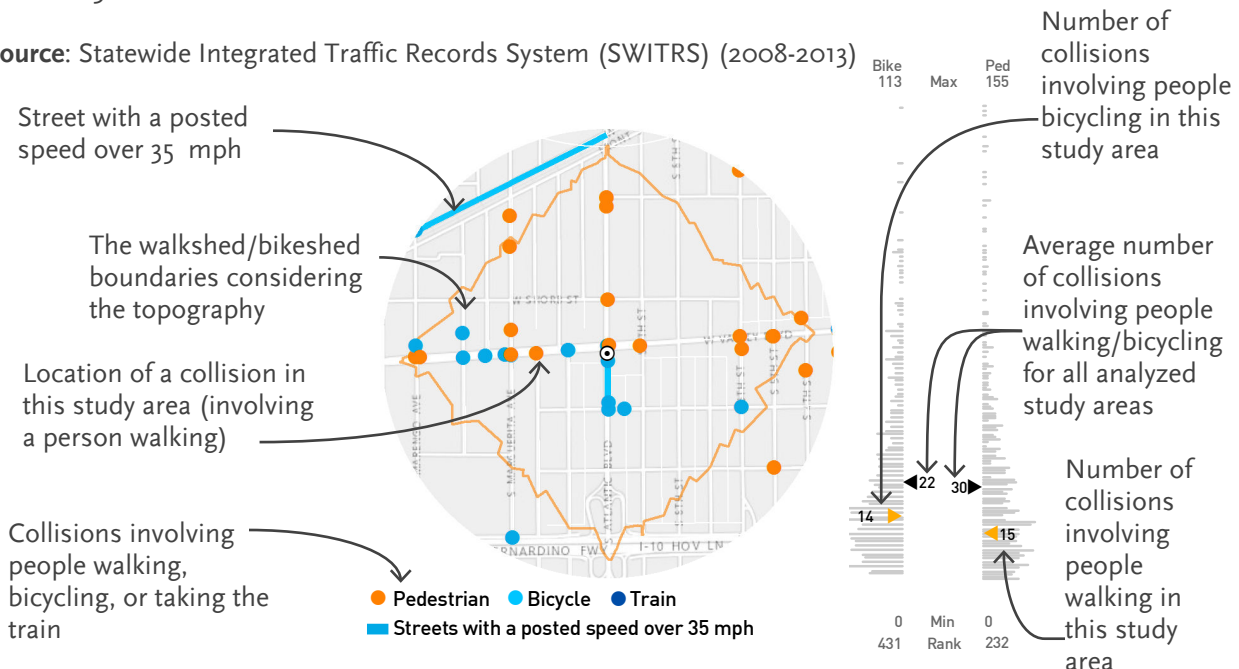


## 8. Collision by Mode

Figure 2.10

**Definition:** The locations of collisions involving people walking, bicycling, driving, and train collisions from 2008-2013.

**Source:** Statewide Integrated Traffic Records System (SWITRS) (2008-2013)



## Population and Employment

**Definition:** The number of people living and working in the study area. Station areas are ranked 1-661, where 1 has the highest population/employment among all stations.

**Source:** U.S. Census Bureau (2010)



### POPULATION AND EMPLOYMENT

Population and employment in walkshed or bikeshed.

**5,965** Population  
**232** Rank

**1,273** Employment  
**431** Rank

## Age

**Definition:** The number and percentage of people under the age of 18 and over the age of 64 in the study area.

**Source:** U.S. Census Bureau (2010)



### AGE

Displays the number and %s of people under 18 and over 64 in the walkshed or bikeshed.

**1,161** Under 18  
**19.5%**

**756** Over 64  
**12.7%**

## Walk Score

**Definition:** The score given to represent the walkability in an area. Scores range from 1 (bad) to 100 (excellent).

**Source:** WalkScore.com (2015)



### WALK SCORE (1-100)

Reports the Walk Score for the station area.

**78**

## Bike Score

**Definition:** The score given to represent the bikeability in an area. Scores range from 1 (bad) to 100 (excellent).

**Source:** WalkScore.com (2015)



### BIKE SCORE (1-100)

Reports the Bike Score for the station area.

**21**

## Transit Score

**Definition:** The score given to represent the transit-friendliness in an area. Scores range from 1 (bad) to 100 (excellent).

**Source:** WalkScore.com (2015)



### TRANSIT SCORE (1-100)

Reports the Transit Score for the station area.

**34**

## Route Directness

**Definition:** The amount of out-of-direction travel needed to get to destinations in the study area. The Route Directness Index ranges from 1-5; higher scores are more direct.

**Source:** Fehr & Peers, Thomas Brothers (2010)



### ROUTE DIRECTNESS

Represents the amount of out of direction travel needed to get to destinations in the walkshed or bikeshed. Higher scores are more direct.

**4.4**

## Intersection Density

**Definition:** The number of intersections within a study area. Higher scores indicate more intersections. Scores range from 1-100.

**Source:** Thomas Brothers (2010)



### INTERSECTION DENSITY

Number of intersections in walkshed or bikeshed.

**105** Count  
**35** Score (1 - 100)

## Journey to Work

**Definition:** The percentage of people in the study area who commute to work by each mode.

**Source:** U.S. Census (2010)



### JOURNEY TO WORK

Shows the percentage of people who live in the walkshed or bikeshed and how they get to work.

**2.3%** Walk  
**0.2%** Bike  
**0.0%** Rail  
**7.2%** Bus  
**13.0%** Carpool  
**77.2%** Drive Alone  
**0.1%** Other

## Collision by Mode // KSI

**Definition:** The number of collisions and the number resulting in someone being killed or severely injured (KSI) from 2008-2013 in the study area.

**Source:** SWITRS (2008-2013)



### COLLISION BY MODE // KSI

Shows the number of fatal or serious injury collisions in the walkshed or bikeshed from 2008-2013

Total	KSI	
<b>15</b>	<b>3</b>	Pedestrian
<b>14</b>	<b>0</b>	Bike
<b>0</b>	<b>0</b>	Train
<b>101</b>	<b>1</b>	Auto





*Entrance to North Hollywood Station on the Metro Red Line*



*Cyclist near Tongva Park in Santa Monica*



*Biking and walking in downtown Los Angeles*

## BARRIERS TO IMPLEMENTATION

During the development of the Active Transportation Strategic Plan, Metro and the project team engaged numerous stakeholders through the Project Technical Advisory Committee, meetings with Councils of Governments, and stakeholder outreach meetings. A consistent theme throughout these discussions focused on implementation, and associated challenges and opportunities. The following section outlines and summarizes

much of the feedback that stakeholders provided, focusing on the key challenges and barriers discussed. The ATSP is intended to help stakeholders address barriers and seize opportunities for the development and implementation of active transportation infrastructure. Appendix C provides more details on the outreach process that informed the development of this Plan.

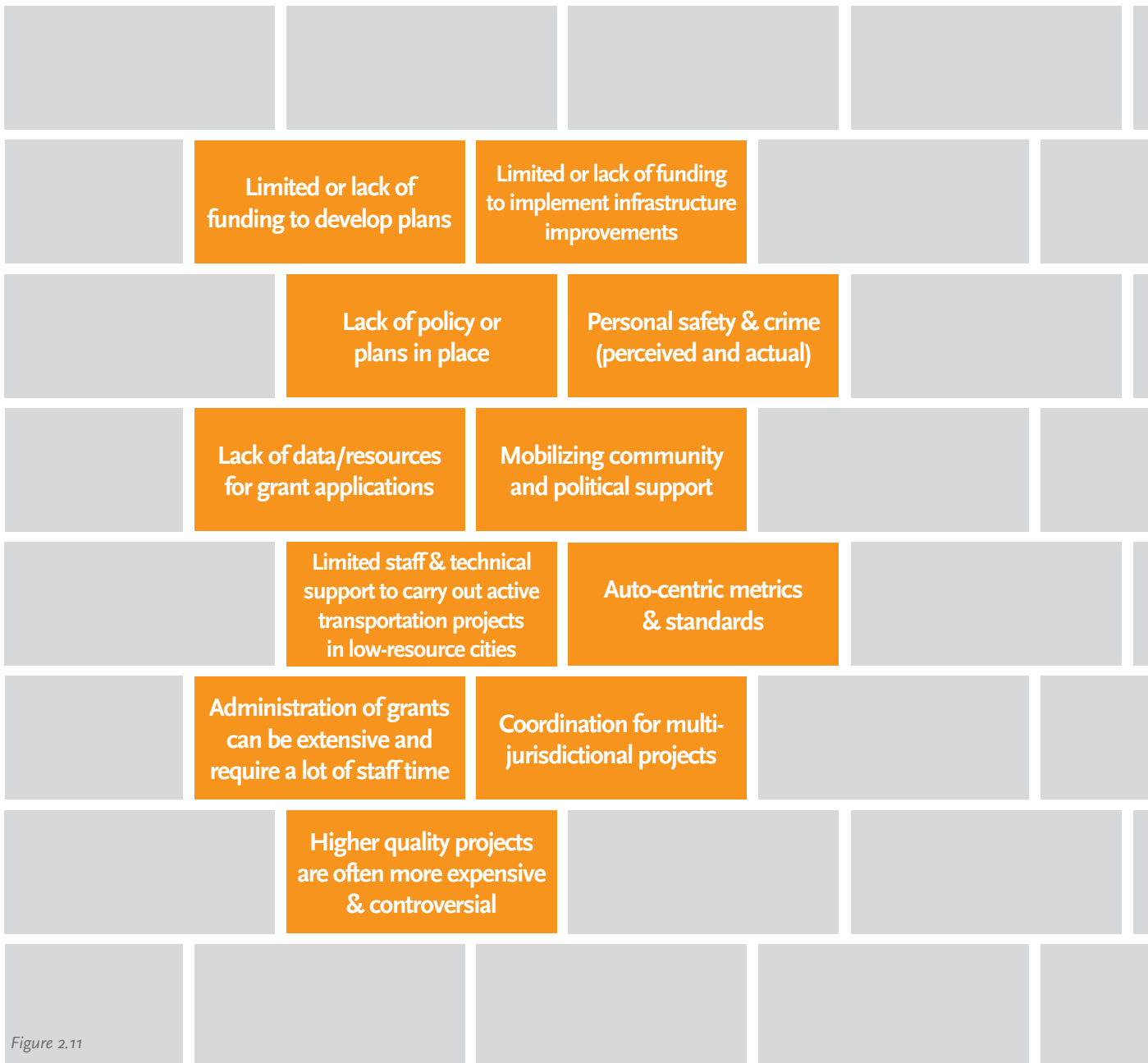
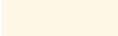


Figure 2.11



# OPPORTUNITIES FOR IMPLEMENTATION





# 3 IMPLEMENTATION



## OVERVIEW

This chapter helps identify the steps towards getting a project on the ground. It highlights the areas where various stakeholders can get involved, as well as the components that are supported by the Active Transportation Strategic Plan.

In order to make improvements that are beneficial to all stakeholder groups, it is vital that applicable groups are involved in the process when appropriate. However, this process could differ from city to city, project to project, or with different agencies.



## STEPS TO IMPLEMENTATION

### 10 STEPS TO IMPROVE FIRST LAST MILE CONNECTIONS & THE REGIONAL ACTIVE TRANSPORTATION NETWORK\*

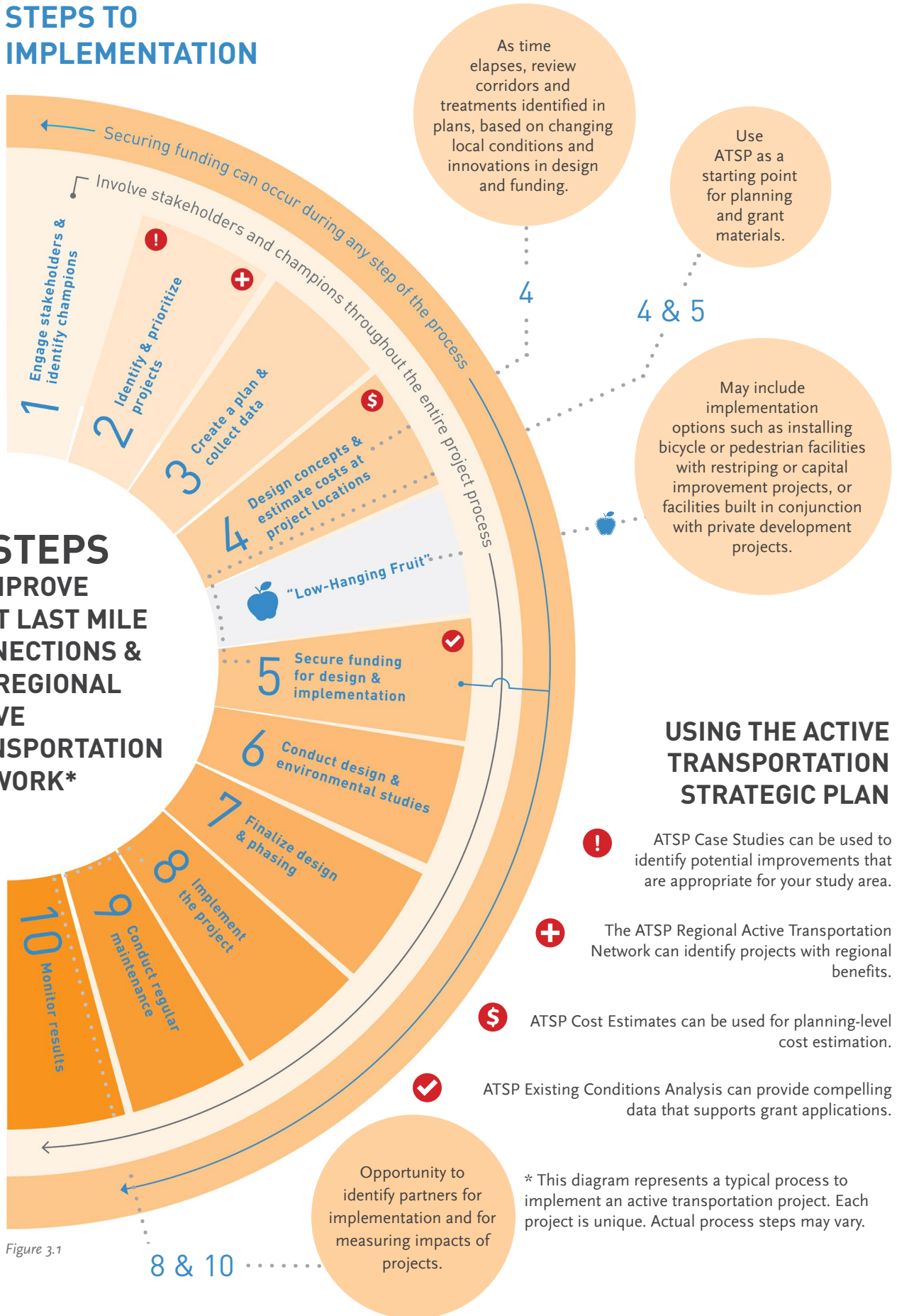


Figure 3.1

## MORE INFORMATION

### Stakeholder Outreach

- > Stakeholders provide first-hand insight on priority projects and should be engaged early in the process.
- > Potential champions and stakeholders include: neighborhood organizations, community groups, elected officials, council districts, municipal departments, residents, schools, non-profit organizations, faith-based organizations, large- and small- scale businesses, neighboring municipalities, and celebrities.
- > Utilize technology, social media, and other non-traditional strategies to attract diverse groups of stakeholders to participate.
- > Produce appropriate outreach material for people of varying ages, language needs, educational levels, etc.
- > Consider developing a community advisory committee (CAC) comprised of local stakeholders to encourage ownership of the project.
- > Stakeholders can help champion plans for final approval.
- > Consider reaching out to the community to help install and maintain the project, as well as to collect subsequent data for evaluation.
- > Consider having education and support programs that teach lawful and safe behaviors and the importance of maintenance and evaluation.

### “Low-Hanging Fruit”



- > Low-hanging fruit includes easy and immediate opportunities that are implemented before or during long-term projects to capitalize on existing resources.
- > These easy and immediate improvements can include things like: adding landscaping, shade, lighting, and signage; enhancements to bus waiting areas; restriping lanes and crossings; adding time-to-station signage, street furniture, and bicycle parking.
- > Consider coordinating Complete Streets improvements with private development, roadway repaving, re-striping, rehabilitation, renovation, and maintenance planned or underway. A Complete Streets approach views all transportation improvements as opportunities to create safe, more accessible public streets for all users.

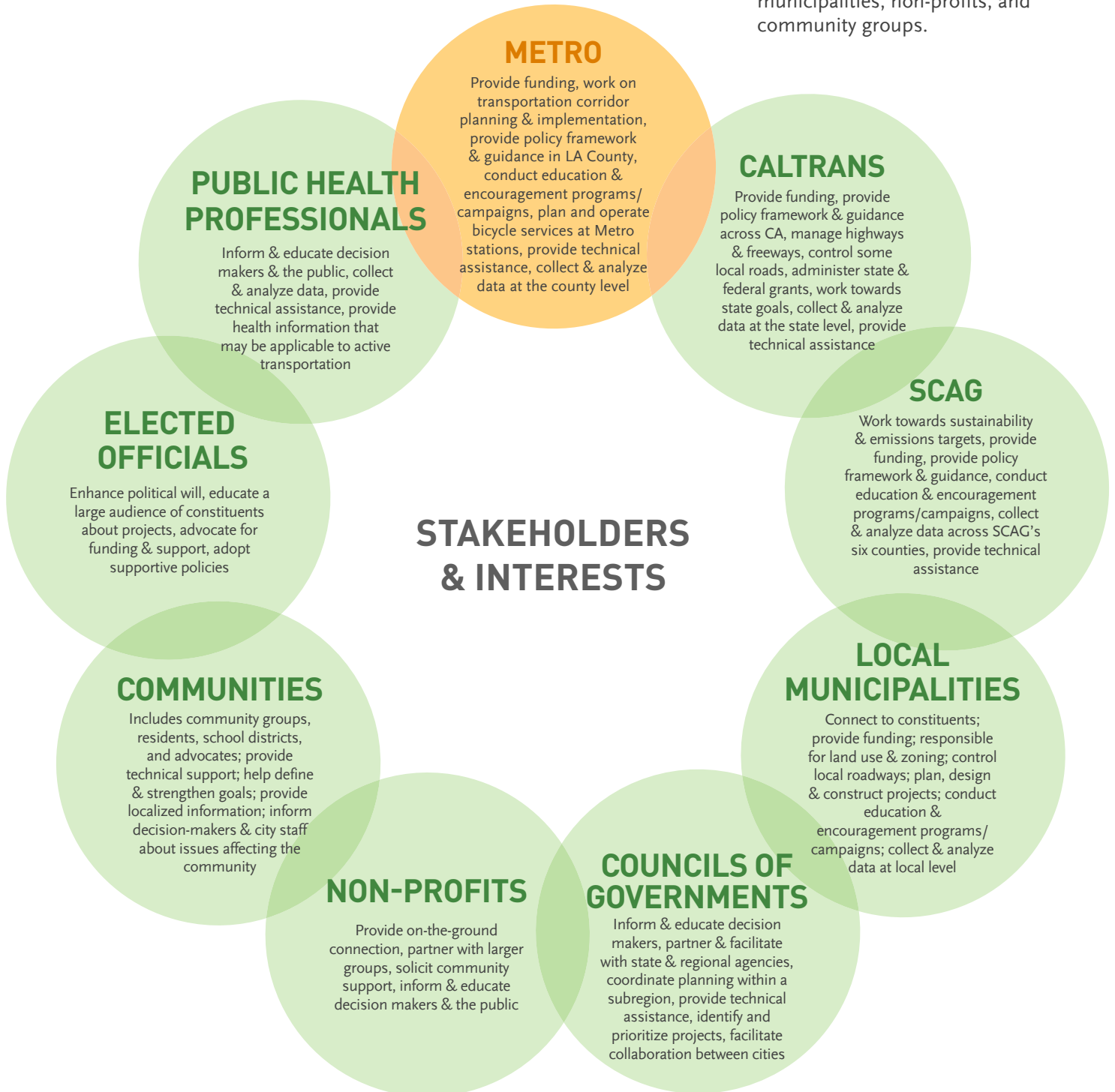
### Helpful Tips

- > Typical Complete Streets-related plan types include: Pedestrian Plans, Bicycle Plans, Active Transportation Plans, Community Plans, Transportation Plans, and Complete Streets Plans.
- > Consider consulting with non-profit and private organizations that can offer their expertise in outreach, planning, cost estimation, grant writing, design, environmental review, implementation, and maintenance.
- > Prioritize projects that provide greater safety, environmental and long-term benefits.
- > Consider using new technologies and social media to collect data and track results.
- > Consider first piloting the project using temporary and affordable materials.
- > Create branding schemes and creative outreach mechanisms to attract and retain project supporters.
- > Potential funding sources include: city funds, Metro capital grant programs, state and federal grants, philanthropy, and developer mitigations and fees. In some instances, the private sector can be involved in funding for projects or plans.

## STAKEHOLDER ROLES

Many important stakeholder groups play a vital role in the inspiration, planning, funding and implementation of active transportation projects.

The graphic provides an overview of the functions and roles that each stakeholder may play as it relates to active transportation. These functions and roles may differ among various local municipalities, non-profits, and community groups.





## Metro's Role

Metro is responsible for programming a significant portion of the County's transportation funds and for the planning and funding of the regional transit system and highway corridors. Over the last decade, the agency's role in supporting active transportation has continued to evolve in response to the Metro Board's vision and policy direction, regional and local needs and priorities, and to further support federal and state policy initiatives that address climate change and promote sustainable transportation. Metro's involvement in supporting active transportation projects and programs include:

- > Funding projects that improve conditions for people who walk and bicycle through Metro's capital grant programs
- > Leading the planning/ implementation of active transportation corridors and first last mile improvements to transit in partnership with local municipalities
- > Leading the regional effort to develop a user-friendly bike share system to foster first last mile connections
- > Operating and expanding bicycle parking at many stations throughout the system to improve first last mile connections
- > Launching education and encouragement campaigns, events, and classes to raise awareness, improve safety, and encourage a shift from driving to more walking, bicycling, and the use of public transit
- > Developing a Countywide Safe Routes to School Initiative to help communities start Safe Routes to School Programs or sustain and enhance existing efforts
- > Providing technical assistance, policy guidance, training, toolkits, and data to local government agencies and other stakeholders to assist with project planning and implementation
- > Metro's countywide programs are discussed in more detail on page 72



## Other Stakeholder Roles, Responsibilities, & Opportunities

### *California Department of Transportation (Caltrans)*

As the state transportation agency that controls the freeways in Los Angeles County, Caltrans is responsible for designing, building, and maintaining highways, freeways, and on and off ramps which can cause potential conflicts between vehicles entering or exiting the freeways and people walking or biking on the local adjacent roads. Caltrans also maintains some local roads throughout cities in the region, which follow the agency's design guidelines and standards rather than those of the local jurisdiction. Caltrans provides several funding streams for local agencies to implement pedestrian and bicycle improvements. Caltrans also sets state policy which can provide guidance for local jurisdictions coming into alignment with the goals of the state.



*Caltrans has a responsibility to maintain connection points between highways @ local roads*



*Community workshop discussing the ATSP*



*Community workshop discussing the ATSP*



*Bicycle training class*

### *Southern California Association of Governments (SCAG)*

As the Metropolitan Planning Organization covering the six-county Southern California region, SCAG develops initiatives, conducts research and funds planning efforts to help Southern California meet state-legislated sustainability goals. The agency provides funding for bicycle and pedestrian improvements through the Active Transportation Program grant. SCAG provides policy guidance and technical assistance to local governments and conducts education and encouragement programs to encourage more sustainable transportation. SCAG also produces forecasts to estimate the pace of population growth in the region, as well as other demographic and socioeconomic changes that might have effects on transportation choices and travel behavior.

### *Communities*

Community groups, residents, school districts, and individual advocates play an important role in the development and implementation of active transportation projects. They can provide insight into the needs and desires of residents, for whom the projects are intended to serve. They can also provide highly localized information about safety concerns and travel behavior, support the processes of defining goals, and inform the scoping, implementation, and maintenance of projects. They can also serve as a repository of knowledge about the history of plans and projects in a community for future planning efforts.

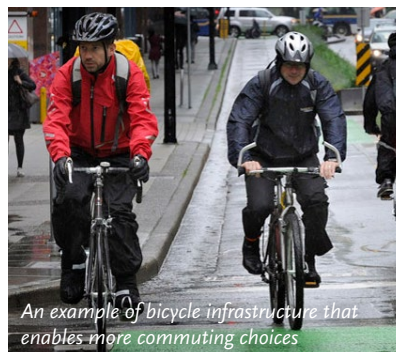


## Local Municipalities

Local municipalities in Los Angeles County are largely responsible for owning and operating the public right-of-way used by people walking, biking, driving, and riding transit. Local monies can fund right-of-way maintenance and improvement, as well as implementation of new active transportation facilities and access improvements to connect local residents with regional destinations. Local municipalities can set design guidelines and standards for the use of their right-of-way. They enforce traffic through their law enforcement department. They also represent the views and preferences of their residents to regional and countywide planning agencies like SCAG and Metro. Other municipal agencies, like water districts, can also play a role in coordination and implementation of projects.

## Elected Officials

Elected officials can be critical to the success of an active transportation project by serving as a local champion of a project idea, whether the idea was generated by constituents, by an agency, or by a third party such as a non-profit or community group. They can encourage agency staff to pursue the project, garner support from the public to implement the project, and advocate for funding to construct and maintain it. Elected officials can work to adopt supportive policies that provide institutional support for making streets safer and more accessible for all users.



## Councils of Governments (COGs)

Members of sub-regional Councils of Governments may consist of cities, Los Angeles County supervisorial districts, and other organizations. Each COG serves as a regional voice for its member agencies and provides an organizing body to engage and represent local agencies within a sub-region of the county to Metro for planning and funding purposes. The sub-regions were established to reflect the diversity of needs and preferences across the county, allowing each to set their own mobility and access agenda in a manner which represents the cities and residents within the sub-region through ongoing engagement with city representatives and the public. Sub-regional COGs communicate this input with Metro, influencing the development of active transportation programs and strategies.

## Public Health Professionals

The topics of health and safety have become more pervasive in transportation planning, particularly with respect to walking, biking, and rolling. Public health professionals, some of whom also have planning backgrounds or experience, are uniquely suited to speak to health conditions and associated challenges that many communities face, particularly low-income communities and minority communities. Issues like air pollution, obesity, and opportunities for physical activity can be addressed through the strategies in this plan and by also incorporating the public health lens into planning and evaluation.

## RESPONDING TO BARRIERS & OPPORTUNITIES

The Active Transportation Strategic Plan addresses many of the barriers and opportunities outlined in Chapter 2. It is designed to:



Provide clarity on the process of implementation

In this chapter, possible routes for implementation are outlined and clarified in a way that many different types of organizations can follow. Through the routes to implementation, which identify potential partner organizations for every step and related examples, this Plan aims to clarify the process and identify opportunities for different stakeholders to be involved in making our streets safer and more accessible for all users.



Provide guidance on obtaining & executing funding

Funding is a key element of any active transportation project. This Plan is intended to inform Metro's capital grant programs as well as better position partners for local, state, and federal grant funding opportunities that arise in the future. It identifies specific funding partners, strategies, and ways to think about new opportunities for funding.



Propose active transportation routes that connect multiple jurisdictions, communities, & regional destinations

Coordination with neighboring cities is critical to realizing the benefits of active transportation investments. Active transportation facilities within local jurisdictions can provide residents with more travel options by connecting local destinations; however, when these facilities connect multiple cities, communities, and regional destinations, it can bring tremendous regional benefits and contribute to a robust regional active transportation network. This Plan provides guidance and identifies gaps and corridors to provide a comprehensive, integrated, countywide active transportation network that can serve people ages 8 to 80.



Pull together progressive design resources

Designing an active transportation project that is both context-sensitive and cost effective while utilizing the newest planning practices can be difficult and daunting. This Plan looks at the latest in bicycle and pedestrian facility types and their application, paving the way for jurisdictions or agencies to follow suit.



Show by example how to scope projects to improve station area access

Examples in this Plan showcase the wide range of possible scopes for future projects, focusing in particular on station area access. The examples take into consideration different types of local context and challenges that are seen across the county. Use these flexible examples to build a scope that could be applied to any potential project site.



Share cost estimates and related tools

The cost estimates in this Plan provide a framework for creating a budget and determining funding needs for active transportation projects in the region.





LA River Bike Path, Vernon



Harbor Drive Cycle Track, Redondo Beach



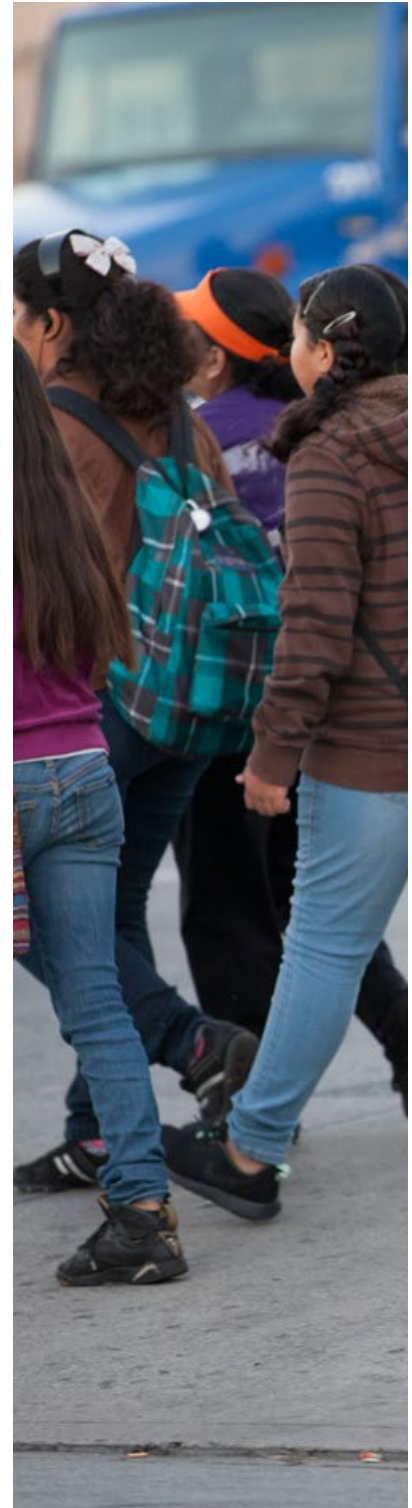
Michigan Avenue Neighborhood Greenway Staging, Santa Monica



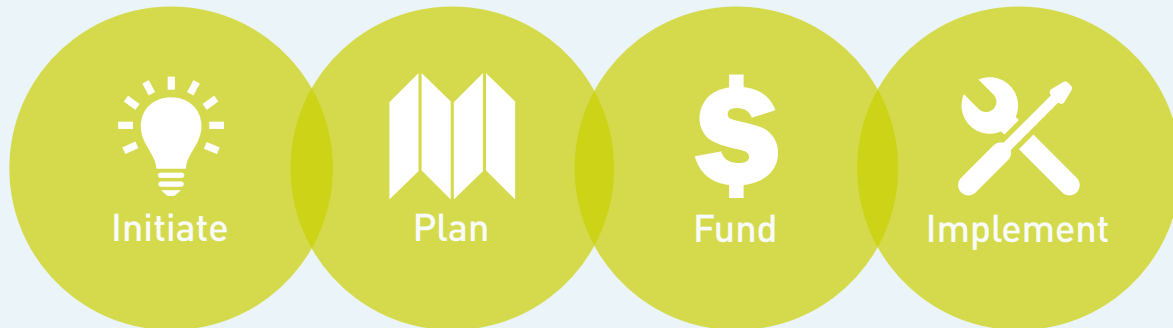
## ROUTES TO IMPLEMENTATION

This section provides several examples of how different agencies, partnerships, and approaches can come together to move toward active transportation project implementation. These examples include options such as local or regional agencies leading the effort, implementation efforts that are funded through grants or local funds, and areas where synergies and opportunities can be maximized based on a sampling of recent or on-going projects in LA County. These examples aim to provide a better understanding of key steps to implementation and how different stakeholders can participate in the process.

These are intended as representative examples only, and the participants, process, and implementation approach may vary in length, intensity, and stakeholder involvement depending on the given project.



## Example 1: City government institutionalizes processes which lead to the implementation of active transportation projects.



City reviews existing processes to identify places where active transportation could be imbedded and projects could be implemented with little or no additional cost.

City relies on policy guidance (such as Complete Streets policies) to direct the inclusion of pedestrian and bicycle facilities in existing processes. Where applicable, City's policies may need to be adopted by City Council.

Grant funding is not necessary to implement; active transportation projects are included in the normal course of maintenance, development, and construction projects.

Implementation occurs over time during the normal course of maintenance, development, and construction.

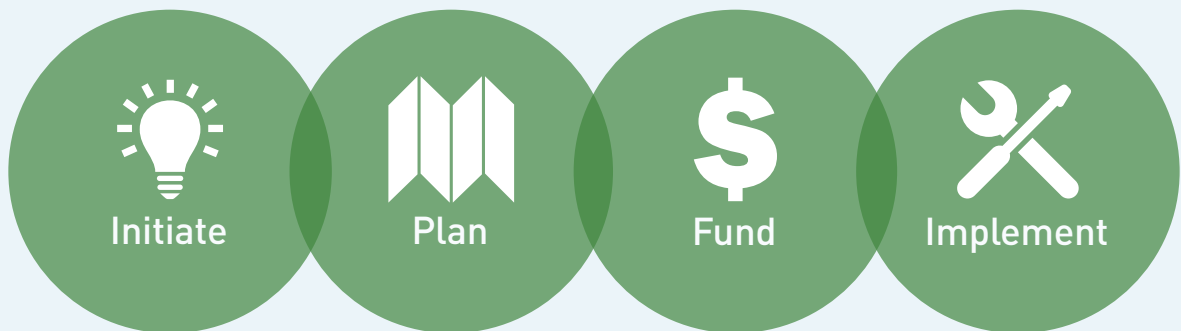


### *Long Beach's Complete Streets Policy*

The City of Long Beach has taken great strides to integrate complete streets into citywide planning and operations. When considering maintenance, corridor planning, or new development, the City contextualizes a street in terms of its function, the character and design of the surrounding neighborhood, and the needs of all mobility users. The design of streets is a multidisciplinary effort that draws from the expertise and resources of diverse City jurisdictions. This arrangement facilitates a more balanced mobility system, one that supports the integration of mobility, land use, and urban design.

*Maintaining the program:* As the consideration of bicycle and pedestrian safety and access became a normal part of all maintenance and construction, additional maintenance specific to those facilities became unnecessary. Maintenance of projects is institutionalized similar to all other capital projects.

## Example 2: City government manages the projects from start to finish



**Initiate**  
City and local bicycle or pedestrian coalition successfully prepare grant for funds to develop bicycle plan.

**Plan**  
City prepares active transportation master plan concurrent with subregional Active Transportation Plan at Council of Government level. City's plan is adopted by City Council.

**Fund**  
Single grant source (e.g., Metro Call for Projects or State Active Transportation Plan) is successfully obtained to fund implementation of bicycle and pedestrian facilities, bicycle parking, and wayfinding.

**Implement**  
Implementation of all components occurs upon receipt of grant funds from single source.



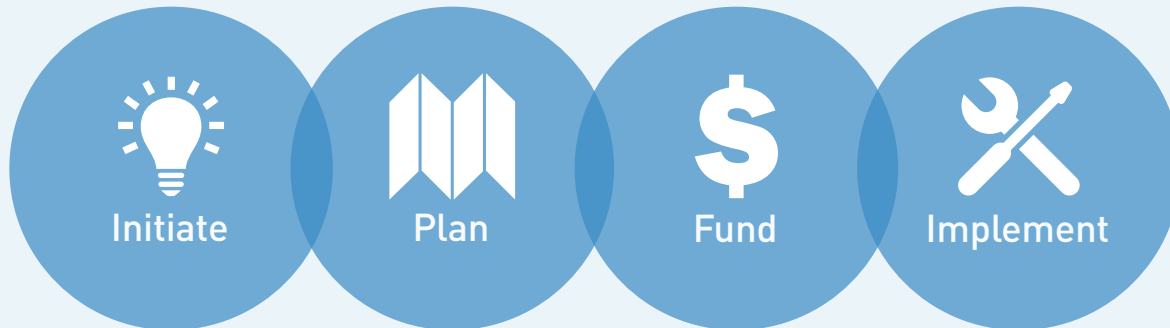
*Cyclists of all ages attend Tour de Downey as part of the Bicycle Master Plan effort*

### *Downey Bicycle Master Plan*

The development of the Bicycle Master Plan came as part of an effort by the City of Downey to address local and regional desires to enhance the viability of bicycling as a mode of transportation and reduce transportation system impacts on local communities. The City of Downey General Plan, adopted in 2005, identifies active modes of transportation such as bicycling as a way to mitigate congestion and advance livable communities. The process to develop the Bicycle Master Plan began in May 2014. Grant funding secured through this process will include all of the Bicycle Master Plan's Phase I projects, including 16 miles of bike lanes, approximately 100 bike racks, and wayfinding. All of these components will enhance access to commercial areas and the Lakewood Boulevard Green Line Station.

**Maintaining the program:** In July 2015, City Council adopted the Plan, which allowed the City to expand its funding efforts. It has since been recommended for a Metro Grant award of \$2.3 million for implementation.

### Example 3: City government initiates and plans, then implements utilizing existing programs or as funding is available



City successfully prepares grant for funds to develop bicycle and pedestrian plan.

City prepares active transportation master plan absent subregional Active Transportation Plan. City's plan is adopted by City Council.

City transportation dollars and multiple grant sources (e.g., Metro Call for Projects and State Active Transportation Plan) are successfully obtained to fund implementation of bicycle and pedestrian facilities.

Implementation of facilities occurs as resources allow (such as roadway restriping) and as grants are received.



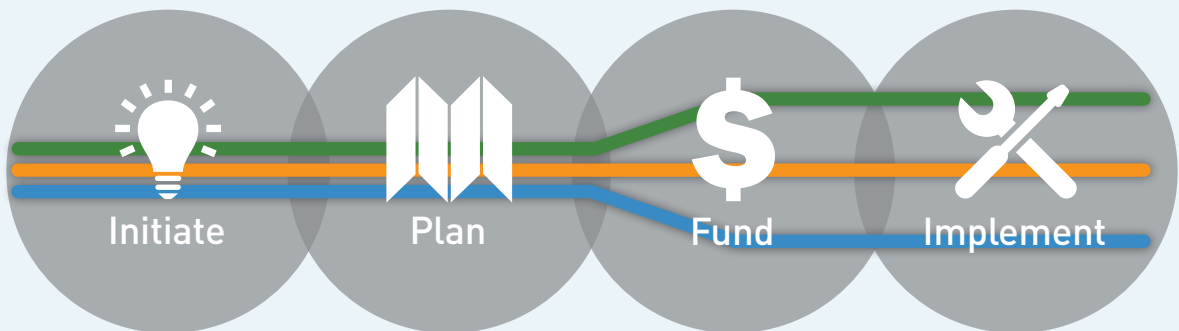
Pomona's Active Transportation Plan supports pedestrian and safe routes to school initiatives.

#### *Pomona Active Transportation Plan*

The City of Pomona embarked on developing its first Active Transportation Plan (ATP) in 2012, which includes a complete Bicycle Master Plan combined with targeted pedestrian and safe routes to school planning efforts. It was approved along with a General Plan amendment, Corridors Specific Plan, Green Plan and environmental impact study by City Council in March 2014.

**Maintaining the program:** Moving forward, the City of Pomona is considering “big-picture” ways in which the plan can now be implemented, as well as securing additional funding.

## Example 4: Multiple cities initiate and coordinate, with each city obtaining its own funding and implementing separately



**Initiate**  
Multiple cities and/or agencies partner to plan and implement regional facility that connects multiple cities.

**Plan**  
Project may be planned based on projects in local or regional plans. Projects may close gaps between existing facilities, or reflect jointly-planned new projects depending on each city's needs and capabilities.

**Fund**  
Funding a project that is included in a local or regional plan will make it more competitive for grant funding. Jointly-planned new projects may require use of agency funds.

**Implement**  
If cities jointly plan, fund, and implement the project with grant funding sources it may be done simultaneously or separately. Using agency funds is more likely to result in installation city by city.



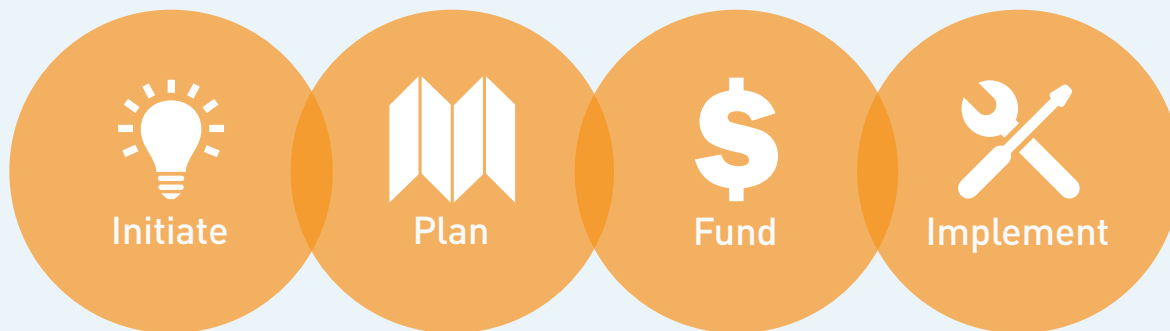
Rosemead Blvd Cycle Track

### *Lakewood Blvd/Rosemead Blvd Bike Facilities*

Numerous jurisdictions are connected on Lakewood Blvd/Rosemead Blvd, from the San Gabriel Valley to Long Beach. The separated bikeway on Rosemead Blvd in Temple City began construction in 2013, improving conditions for bicyclists and pedestrians through streetscaping and separation from moving vehicle traffic. The project had a budget of \$20.7 million, funded through local, state, and federal resources, including Metro's 2011 Call for Projects. Adjacent cities and others along Lakewood/Rosemead are exploring opportunities for regional coordination for a low stress facility spanning a significant portion of the region.



## Example 5: Metro initiates and leads project in coordination with local jurisdictions



Elected officials, Councils of Government, and/or the community partners with Metro to investigate the feasibility of an active transportation corridor along an under utilized Metro-owned right-of-way.

Metro develops a feasibility study with conceptual designs and generates support. The study identifies the value of multi-modal mobility elements throughout the corridor and benefits to the community, safety, connectivity to transit/light rail corridors and employment.

The feasibility study provides information needed for various grant opportunities and a framework to further refine the project scope and cost estimates. Metro leverages in-kind and local match dollars to successfully obtain federal and state grant funding to design and construct the project.

Metro continues to work with federal, state, and local partners, including elected officials, Councils of Government, local jurisdictions and community stakeholders, to further plan, design, and construct the project.

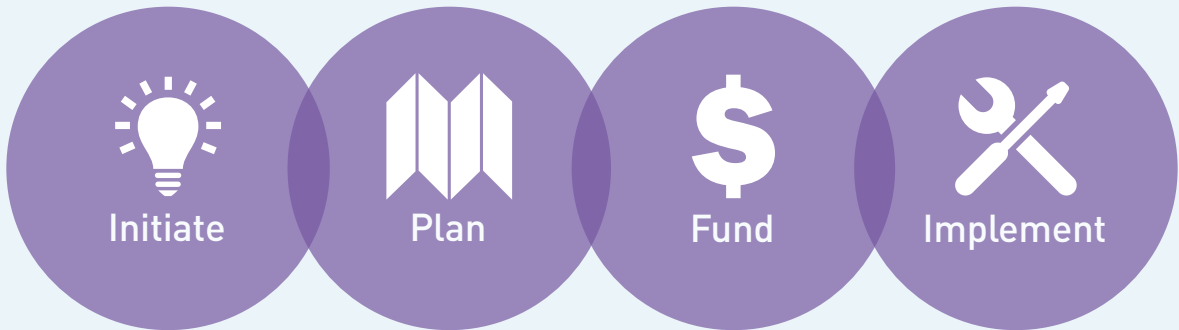


Photo-rendering shown at community meeting for the Rail-to-River Project

### *Metro Rail to Rail/River Active Transportation Corridor Project*

The Rail to Rail/River Active Transportation Corridor Project will serve communities to the south and west of downtown LA by connecting two Metro Rail lines (Crenshaw/LAX and Blue Line) and the Harbor Busway to the LA River bike path which will eventually run 51 miles from the West San Fernando Valley to Long Beach. Metro is taking the lead on this complex active transportation project developed largely on Metro-owned right-of-way, requiring coordination with the BNSF railroad, the County of Los Angeles, and the cities of Bell, Huntington Park, Los Angeles, Maywood and Vernon.

## Example 6: Community members, non-profit organization, and city partner for initiation through implementation



Stakeholders such as community members, Councils of Government, or non-profits initiate requests or planning for features such as bicycle repair hubs or fix it stations.

The city works with stakeholders to provide support in planning specifics such as location, goals, and intended use.

The city and stakeholders partner to identify and pursue funding sources to implement and maintain the desired amenities.

The city and stakeholders may partner on implementation and operation, or identify an entity to implement and run the program/project.



### *Santa Monica Bike Center*

The Bike Center is a City-owned facility that is privately operated, and exists as a part of Santa Monica's comprehensive Bike Action Plan adopted in 2011. The Bike Center provides bike rentals, secure bike parking, showers, locker rooms, education courses, and specialty rides such as those for senior citizens.

## INNOVATIONS

The preceding section provides several examples, based on planned or completed projects, of how the planning process and resources available can be used among local stakeholders, elected officials, city staff, funding agencies, and regional partners to plan and implement active transportation projects. However, project planning, implementation, and associated processes can vary widely from community to community and project to project; therefore, the steps or strategies in the previous examples may be combined, expanded, or left out altogether depending on the local context and needs. While these are models used to successfully plan and implement projects, it is important to recognize that there is no “one size fits all” approach. The following innovations are described to provide more information regarding how approaches may be further modified to achieve project goals.

### Innovation 1: Capacity Building with Metro

This route to implementation is a variation of examples 4 and 5 from the previous section. Under those examples, regional projects are initiated, planned, funded, and implemented entirely by the cities or Metro. One innovation that may emerge as a result of the ATSP recommended networks is for a project to be initiated by Metro and for Metro to play a greater role through the planning and funding stages for projects that span multiple cities or communities and connect employment centers, educational institutions, and transit operations. Most of the implementation would continue to be under the purview of the local jurisdictions. Corridors such as Vermont Avenue, Imperial Highway, Washington Boulevard, and Crenshaw Boulevard are examples of corridors that either are related to a variety of on-going studies (transit, freeway, and active transportation studies) and/or provide significant regional connections between major employment or residential concentrations and transit facilities.

- > *Initiate: A corridor with a proposed local or regional bicycle or pedestrian facility may emerge as a key corridor for implementation because of the potential benefits to the users of the regional active transportation network or synergies with other projects underway.*
- > *Plan: Playing a greater role, Metro could take the lead in organizing key government agencies and other implementers for communities along the corridor and provide technical assistance to those jurisdictions for planning the facility and pursuing funding for implementation.*
- > *Fund: Metro would have involvement throughout the process, for instance providing assistance in preparing grant applications so that the various cities can secure funding through competitive sources and assemble multiple funding sources, if necessary.*
- > *Implement: Two key outcomes of this innovation are implementation of projects for walking, biking, and rolling and building the capacity of local municipalities to replicate the process with or without Metro’s assistance for the build out of local and regional active transportation networks.*

## Innovation 2: Metro Exemplifies a Program Incubated by Stakeholders

This route to implementation is a variation of example 5. Under this innovation, local stakeholders would play a greater role in planning and implementing the project, and a successful undertaking would likely lead to the project's maintenance and



CicLAvia Los Angeles

on-going funding being transferred to local agencies, as opposed to staying at the community level. One example of a project that has generally followed this approach is Open Streets, which are temporary one-day events that close the streets to automotive traffic and open them to people on foot or bicycle. This project began at the local stakeholder level and has become a countywide program with a dedicated funding source at the regional level. Many cities have also taken it upon themselves to hold and fund smaller, local events.

- > *Initiate: A community stakeholder, such as a non-profit organization, resident, or elected official, initiates a program or a project based on a local desire or unmet need. The initiation process could include identifying a project, affected stakeholders, and a strategy for assembling partners, informing the community, and obtaining the needed resources.*
- > *Plan: While planning a project or event, the initiating entity would need to conduct outreach and develop project details required to pursue funding and move toward implementation. For something like an open streets event, this could include determining a route, developing traffic operation and control plans, outreaching to residents and businesses affected by the event, identifying funding sources, advertising the event, working with governmental agencies to have them as partners, and securing any needed permits. City support in planning and pursuing funding would improve the likelihood of finding a viable funding source and may assist stakeholders*

*with the capacity to administer grant funding.*

- > *Fund: Depending on the project/event type, this phase may be the most challenging and may depend on effective planning that identifies a broad range of supporters and benefits to the local community. If initiated by a local non-profit, for example, it is likely that the group would require additional funding support. Currently, cities interested in hosting an Open Streets event can submit an application for funding to Metro when the grant cycle is open. Metro and local cities are currently the two main sources used for funding open streets events. However, when the first Open Streets, or CicLAvia, event was held in Los Angeles, this funding source did not exist and the planners of that event pursued funding from a variety of sources. This model should be encouraged to sustain long-term sustainability.*
- > *Implement: Implementation of these projects are key to demonstrating their benefit and long-term viability. Under this option, implementation would be a partnership between the initiating stakeholder(s) and the City. If the project is successful in the long-run, the duties initially taken on by local stakeholders may be assumed by governmental agencies in an effort to increase the size and frequency of events at the local or regional level.*



### Innovation 3: Working with Community-Based Groups

In addition to planning and funding infrastructure, support programs and events are critical elements of active transportation planning that should not be forgotten, since they are critical to building political will and public support to help implement walking and bicycling facilities. This route to



Volunteer at PopUp MANGo Event

implementation can be seen as a complement to all five of the routes discussed previously. Under this innovation, local stakeholders would take the lead, with coordination and support from governmental agencies, in developing programs alongside the planning and implementation of active transportation infrastructure. A number of non-profits have educational curricula, staff, and a variety of funding sources that they pursue to conduct programs related to the other E's (education, encouragement, enforcement, and evaluation) such as outreach, walking/biking skills classes, community based walking audits, and pedestrian/bike count data collection. This innovation identifies ways that stakeholders and agencies can partner to avoid duplicating efforts and enjoy the synergies between the engineering aspect of implementing facilities and the other E's, to promote safe and regular use of active transportation infrastructure through additional engagement of stakeholders. This example will focus on using the annual count program that the Los Angeles County Bicycle Coalition (LACBC) organizes as a model.

> *Initiate: An external stakeholder, such as a local non-profit or community-based organization, initiates the planning of a program or effort such as count data collection. Initiation of this activity should include the local agency as a partner and can occur simultaneously with the development of a plan or the implementation of infrastructure for walking and biking.*

> *Plan: Planning a data collection program would be based on serving the effort being undertaken by the local agency. For example, if a cycle track is being implemented by a local city, a local stakeholder might conduct outreach to businesses and residents along the corridor to explain how the facility is being implemented and some of the associated tradeoffs and benefits. This could be followed by educational materials and classes targeting all roadway users to explain how the facility operates and the rights and responsibilities of all roadway users. Finally, this group may also plan a ride, collect pedestrian and bicycle data, and organize other events in the community to raise awareness of the project, evaluate how it is being used, and pursue additional implementation of infrastructure as desired by the local community.*

> *Fund and Implement: Funding and implementation would be led by the local stakeholder group with support from the City and other regional partners. The LACBC count program is largely a volunteer effort; however, as data collection needs grow for new projects and funding sources, support from sponsors and agencies are needed to organize the event, provide training and materials, and produce a document or product that shares the data collected and relevant findings.*



## REGIONAL CORRIDOR EXAMPLES

Building on feedback regarding challenges and opportunities around the steps outlined in the Routes to Implementation section, this section demonstrates how those processes can be put into practice by collecting data, analyzing existing conditions, reviewing plans and proposals at the local (City plans) and regional (COG, SCAG, Metro) levels, and selecting from the regional network and low-stress treatment options to meet local needs and desires for active transportation projects.

### Imperial Highway

South Bay and Gateway Cities Sub-regions



#### Initiate

- > Proposed as a dedicated on-street facility in the ATSP
- > Identified in the South Bay Subregional Mobility & Gateway Cities Subregional Mobility Matrix/Project Lists
- > Based on local community goals, plans and preferences, agencies may need to coordinate on the consideration of alternative facility types or corridors for implementation

- > A low stress bicycle facility through the South Bay sub-region could include slow lanes that accommodate bicycles and Neighborhood Electric Vehicles
- > Include connectivity and wayfinding along corridor to/from local and regional facilities and activity sites
- > Shade and ADA issues should be addressed to improve the streetscape
- > Provide ancillary facilities to support active transportation along the corridor, including bike parking, sidewalk improvements, and street crossing enhancements



#### Plan

- > Two segments in South LA/Watts included in the High Injury Network
- > Major facilities represent a significant challenge to regional connectivity via active transportation
- > Connects with I-105, I-405, I-110, I-710, I-5, I-605
- > Connects with Metro Rapid Lines 740, 710, 757, 754, 745, 760, 762, Metro Green Line, Silver Line, Blue Line
- > A low stress bicycle facility on an arterial such as Imperial Hwy would include protected or buffered on-street bike lanes



#### Fund

- > To be most competitive for funding, regional cooperation is needed amongst cities and COGs, Metro ATSP, local advocacy groups and state and regional funding agencies



#### Implement

- > California Active Transportation Program (ATP) Cycle 2 grants were awarded in October 2015. Future projects should be planned to be consistent with previous ATP grant cycle application requirements

## Vermont Avenue

South Bay and Central Los Angeles Sub-regions



### Initiate

- > Proposed as a dedicated on-street facility in the ATSP
- > Identified in the South Bay Subregional Mobility & Central Subregional Mobility Matrix/Project Lists
- > Based on local community goals, plans and preferences, agencies may need to coordinate on the consideration of alternative facilities or implementation options



### Fund

- > To be most competitive for funding, regional cooperation is needed amongst cities and COGs, Metro ATSP, local advocacy groups and state and regional funding agencies



### Implement

- > California Active Transportation Program (ATP) Cycle 2 grants were awarded in October 2015. Future projects should be planned to be consistent with previous ATP grant cycle application requirements



### Plan

- > A large segment of Vermont Ave., from Manchester Ave. to Franklin Ave., is included in the High Injury Network
- > Traverses South Bay and Central Los Angeles sub-regions
- > Connects with I-405, SR-91, I-105, I-10, US 101
- > Connects with Metro Rapid Lines 754, 705, 740, 728, 730, 733, 720, 704, 780, Metro Green Line, Expo Line, and Red/Purple Lines
- > A low stress bicycle facility on an arterial such as Vermont Ave. would include protected or buffered on-street bike lanes
- > Include connectivity and wayfinding along corridor to/from local and regional facilities and activity sites
- > Shade and ADA issues should be addressed to improve the streetscape
- > Provide ancillary facilities to support active transportation along the corridor, including bike parking, sidewalk improvements, and street crossing enhancements

## San Fernando Road / Colorado Blvd. / Huntington Dr.

San Fernando and San Gabriel Valley Sub-regions



### Initiate

- > Proposed as a dedicated off-street facility in the ATSP
- > Identified in the San Fernando Valley Subregional Matrix/Project List
- > Based on local community goals, plans and preferences, agencies may need to coordinate on the consideration of alternative facilities or implementation options



### Fund

- > To be most competitive for funding, regional cooperation is needed amongst cities and COGs, Metro ATSP, local advocacy groups and state and regional funding agencies



### Implement

- > California Active Transportation Program (ATP) Cycle 2 grants were awarded in October 2015. Future projects should be planned to be consistent with previous ATP grant cycle application requirements



### Plan

- > San Fernando Road: Several segments in the northeastern San Fernando Valley included in the High Injury Network
- > Colorado Blvd./Foothill Blvd.: High Injury data only available within City of Los Angeles; portions of other major corridors across LA County may also have high injury rates
- > Connects with I-5, I-210, SR-118, SR-134, SR-2, I-605
- > Connects with Metro Rapid 794, 761, 734, Metrolink, and the Metro Gold Line
- > A low stress off-street bicycle facility on an arterial such as San Fernando Road could include a Class I bike path or a new Class IV cycletrack
- > A low stress bicycle facility on Colorado Blvd./ Foothill Blvd. would include protected or buffered on-street bike lanes
- > Include connectivity and wayfinding along corridor to/from local and regional facilities and activity sites
- > Shade and ADA issues should be addressed to improve the streetscape
- > Provide ancillary facilities to support active transportation along the corridor, including bike parking, sidewalk improvements, and street crossing enhancements

## Sub-Regional Project with Regional Significance

Various Sub-regions



### Initiate

- > Proposed as a designated active transportation improvement in the ATSP or local planning documents
- > Identify projects from Sub-regional Mobility Matrices/Project Lists
- > Based on local community goals, plans and preferences, agencies may need to coordinate on the consideration of alternative facilities or implementation options



### Fund

- > To be most competitive for funding, regional cooperation is needed amongst cities and COGs, Metro ATSP, local advocacy groups and state and regional funding agencies



### Implement

- > As funding becomes available, coordinate between cities, sub-regions, and COGs to implement project cohesively



### Plan

- > Connects with several corridors planned as dedicated on-street active transportation facilities
- > Connects through major highways and regional transit facilities
- > Overcomes regional barriers such as water features or topography
- > Addresses first last mile challenges when accessing transit facilities
- > A low stress bicycle facility could include various on- or off-street options, including a Class I bike path, a Class IV cycletrack, or a Class II protected/buffered bike lane
- > Include connectivity and wayfinding along corridor to/from local and regional facilities and activity sites, including transit stations/centers, educational facilities, recreational facilities, institutional/government facilities and high employment and commercial centers
- > Provide ancillary facilities to support active transportation along the corridor, including bike parking, sidewalk improvements, and street crossing enhancements

## COST ESTIMATES

An important aspect of active transportation planning and infrastructure development is understanding the resources required to develop a robust active transportation network that serves the County's varied user types and trips. Metro has been working to develop an estimate of the cost to build-out the active transportation network and incorporate a funding strategy to help partners in the region obtain dollars for planning and implementation. With an emphasis on developing a safe, low-stress network that suits users of all ages and abilities for both local and regional travel, an estimate is provided below for building out a high-quality network throughout the county. For additional detail on how these estimates were developed, please see Appendix G. The costs are presented in Table 3.1 as a low-medium-high range,

based on increasing magnitude of project and, therefore, cost. The ATSP will focus primarily on the regional active transportation network and first last mile access to major transit stops and stations in the County; therefore, the cost to implement improvements identified in the ATSP would be less than the total countywide active transportation needs mentioned in Table 3.1. Local active transportation networks that connect to local destinations are not the focus of the ATSP. However, estimates of annual needs for these local active transportation facilities are provided in Table 3.1 for informational purposes. Cost savings may be obtained from changes in policies that support greater and more integrated multi-modal transportation planning and implementation and by using a Complete Streets approach.



*Bike racks on the front of a Metro bus help with first last mile access*



Table 3.1: High-Level Estimate of Annual Active Transportation Needs in Los Angeles County

Description	Cost <sup>1</sup>		
	Low	Medium	High
<b>Total Active Transportation Network - Annual Capital Costs <sup>2</sup></b>	<b>\$698,245,426</b>	<b>\$1,013,418,783</b>	<b>\$1,613,352,965</b>
First Last Mile Access to Major Transit Stops/ Stations <sup>3</sup>	\$347,306,213	\$468,699,344	\$604,622,152
Regional Active Transportation Network <sup>4</sup>	\$4,714,147	\$75,811,137	\$396,667,117
Local Active Transportation Networks <sup>5</sup>	\$346,225,067	\$468,908,301	\$612,063,696
<b>Metro Bike Services - Annual Capital Costs <sup>6</sup></b>	<b>\$1,068,100</b>	<b>\$2,205,900</b>	<b>\$3,496,500</b>
<b>Metro Bike Services - Annual Operations and Maintenance <sup>6</sup></b>	<b>\$13,635,000</b>	<b>\$26,921,000</b>	<b>\$40,016,000</b>
<b>Education &amp; Encouragement Programs - Annual Costs <sup>7</sup></b>	<b>\$24,357,776</b>	<b>\$30,010,552</b>	<b>\$35,734,663</b>
<b>Total Annual Cost Range</b>	<b>\$737,306,302</b>	<b>\$1,072,556,235</b>	<b>\$1,692,600,128</b>

Notes:

1. Costs are in 2015 dollars and not escalated. Cost estimates are subject to change based on further refinements and economic conditions.
2. Assumes total build out by 2035. Includes planning, design, engineering, environmental clearance, construction, and contingency costs. Cost range considers intensity of infrastructure improvement elements. Includes annual capital costs for first last mile access improvements to major transit stops/stations, regional active transportation network, and local active transportation network.
3. Includes first last mile active transportation improvements to 661 total station areas, which consist of existing and under construction Metro Rail, Metro Rapid, Metrolink, and high ridership local bus stops served by Metro and municipal transit operators. Each station area location may consist of multiple bus stops and rail stations that are close to each other - this enabled stops that are on opposite sides of the streets, rail stations that have bus stops nearby, or stations that have more than one portal to be treated as one area rather than multiple areas with duplicative analysis.
4. Regional active transportation network consists of bikeways and mixed use paths that connect cities and communities, major destinations, and transit hubs. These include local projects with regional benefits.
5. Local active transportation networks provide connections to local destinations and feed into the regional network.
6. Metro bicycle services include bike share and secure bike parking, such as bike hubs, lockers, and racks. Cost range considers scale of services.
7. Cost range considers scale and intensity of activities for Metro-sponsored Adult Bicycle Safety Skills Classes, Metro sponsored community rides, Metro Open Streets grant program, and Safe Routes to School non-infrastructure programs at public schools, which may be implemented by local municipalities or other external stakeholders.

## FUNDING STRATEGIES

With an understanding of the financial resources needed to develop world-class infrastructure for Los Angeles County, a funding strategy that accounts for this need helps the region compete for resources at all levels, including local, regional, state, and federal, as well as public-private partnerships or other private sector entities. There are many ways this issue can be examined, beginning with two key questions:

- > How much would the county need to spend annually to build out this infrastructure in 20 years or 40 years?
- > At the county's current annual spending levels, how many years would it take to build out this infrastructure?

Table 3.2 provides the estimated expenditures needed to build out the full active transportation network within 20 years and within 40 years.

The ATSP identifies a number of funding sources and opportunities to achieve implementation, including leveraging existing resources; better positioning partners for local, regional, state, and federal

grant funding opportunities; involving the private sector; coordinating among multiple jurisdictions; identifying partnership opportunities among various entities; and using a Complete Streets approach to transportation planning and implementation. In addition, Metro is considering a ballot measure for November 2016 that could provide additional funding for active transportation, including a two-percent set-aside for the Regional Active Transportation Program, with approximately half of those funds allocated for projects that will be consistent with the ATSP. The ballot measure also includes 16% allocation for local return, which can be used for active transportation projects. There are several changes the Metro Board may wish to consider to align existing funding sources to better support active transportation projects in Los Angeles County. Below are recommendations to policy changes that may increase Metro's ability to finance and deliver active transportation projects to meet the equity, mobility, and sustainability goals of the agency. Tables 3.3 through 3.8 provide additional information about the funding sources mentioned here.

- > Update Proposition A, C, and Measure R Local Return Guidelines to align with the Metro Board-adopted 2009 Long Range Transportation Plan, Metro First Last Mile Strategic Plan, Metro Complete Streets Policy, and the Active Transportation Strategic Plan, consistent with any constraints in the ordinance language;
- > Update Proposition C 10% and Proposition C 25% Guidelines to align with the Metro Board-adopted 2009 Long Range Transportation Plan and future Board-adopted updates, Metro First Last Mile Strategic Plan, Metro Complete Streets Policy, and the Active Transportation Strategic Plan;
- > Increase proportion of Call for Projects funding reserved for the Bicycle, Pedestrian, and Transportation Demand Management Modes according to the needs identified in the ATSP in proportion to needs for other modes;

- > Prioritize projects submitted for Call for Projects funding which implement projects and programs identified in the Metro Active Transportation Strategic Plan;
- > Continue to use grant-writing technical assistance for Active Transportation Program (ATP), Affordable Housing and Sustainable Communities (AHSC) Program, Highway Safety Improvement Program (HSIP) and Transportation Investments Generating Economic Recovery (TIGER) to advance projects and programs identified in the ATSP and any future updates; and
- > Consider providing grant-writing technical assistance for other existing funding sources, including “non-traditional funds” or new funds that may arise in the future (e.g., health-related grants, “parks and recreation”-related grants that may fund active transportation projects that support Metro’s policy goals).

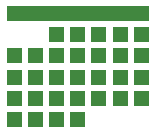


Table 3.2: Active Transportation Network Build Out within 20 years/40 years

Active Transportation Network build out estimate <sup>1</sup>	\$20,300,000,000 <sup>2</sup>	
# of years for build out	20-year	40-year
Required yearly expenditures for Active Transportation network	\$1,013,000,000	\$506,700,000

**Notes:**

1. Includes first last mile access to major transit stops/stations, proposed Regional Active Transportation Network, and other local active transportation network.
2. Reflects the value of the medium cost estimate in the range provided in Table 3.1.

## FUNDING SOURCES

Tables 3.3-3.7 contains the list of eligible fund sources for active transportation improvements in the county and controlled by various levels of government. It should be noted that while the total amount of funding available per year is shown, many of these

fund sources are also currently used for other transportation needs in the County beyond active transportation. Due to finite resources that must be distributed across many transportation priorities, these needs exceed the existing funding sources available.

Table 3.3: Eligible Formula Local Funding Sources

Funding Source and Annual Amount <sup>1</sup> (approx.)	Description	Eligible Uses	Opportunities/ Constraints
Transportation Development Act (TDA) – Article 3 \$7.5 million	2% of TDA Article 3 funds are allocated to local jurisdictions based 85% on population and 15% to City of LA and LA County to maintenance of regionally significant Class I bicycle facilities.	Bicycle and pedestrian facilities are eligible.	TDA Article 3 funds are directly allocated to local jurisdictions.
Proposition C 10% \$75.2 million	10% Commuter Rail/Transit Centers/ Park-n-Ride – To increase mobility and reduce congestion by providing funds for Commuter Rail and the construction of Transit Centers, Park-and-Ride Lots, and Freeway Bus Stops. Allocated directly by the Metro Board to Metrolink and through the Metro Call for Projects process to other eligible agencies for specific eligible projects.	In terms of active transportation, access improvement projects are eligible as well as bicycle lockers and other improvements to Metrolink rail stations.	Bond debt service and commuter rail operations have first priority for these funds. Board action in June 2015 further restricted these funds to only be available to projects which directly benefit Metrolink operations. These funds may not be used to improve access to Metro Rail or Bus stations.
Proposition C 20% \$150.4 million	20% Local Return – Distributed to cities on a per capita basis for public transit-related purposes.	Proposition C 20% Local Return can be used for Transportation Demand Management, commuter bikeways and bike lanes, and street improvements supporting public transit service.	Declines in gas tax subventions from the state have led to cities using a larger portion of Local Return for street maintenance.
TDA Article 8 \$22 million	For areas within LA County not served by Metro, North County unincorporated area, Palmdale, Lancaster, Santa Clarita, and Avalon. Allocated to the eligible local jurisdictions based on population. Requires annual public hearings.	Transit and paratransit programs to fulfill unmet transit needs in areas not served by Metro.	If there are no unmet transit needs, may be used for street and road improvements.



Table 3.3: Eligible Formula Local Funding Sources (Continued)

Funding Source and Annual Amount <sup>1</sup> (approx.)	Description	Eligible Uses	Opportunities/ Constraints
Proposition C 25% \$188.0 million	25% Transit-related Improvements to Freeways and State Highways and Public Mass Transit Improvements to Railroad Rights-of-Way – To provide essential countywide transit-related improvements to freeways and State highways. To facilitate transit flow, the operation of major streets and freeways will be improved by providing preference and priority for transit.	In terms of eligible active transportation projects, transportation demand management, Class I and Class II bicycle facilities, roadway improvements which support transit use, like first last mile improvements are eligible.	Bond debt service has first priority for funds. The majority of these funds are assumed to be programmed to rail and HOV projects. The balance is typically allocated through the Metro Call for Projects.
Measure R 15% \$112.8 million	15% Local Return - Distributed to the incorporated cities within Los Angeles County and the County of Los Angeles for the unincorporated area of the County on a per capita basis.	Major street resurfacing, rehabilitation, reconstruction, bikeways, pedestrian improvements, streetscapes, and other active transportation improvements.	Declines in gas tax subventions from the state have led to cities using a larger portion of Local Return for street maintenance.
Repayment of Capital Project Loans Fund 3562 \$ variable	Metro established the Repayment of Capital Project Loans (fund 3562) to account for capital reimbursements from the State for advances that Metro made in lieu of capital project funding that the State could not provide on the originally programmed schedule.	The Long Range Transportation Plan (LRTP) assumes that these funds must be used for capital purposes only and are allocated at the discretion of the Metro Board.	This source is typically used to cover cost increases on rail projects which are under construction. This fund source can also be programmed in the Metro Call for Projects when other eligible funds are not available.
Metro ExpressLanes Net Toll Revenue Grant Program \$ 19.6 million (Cycle 1)	The objective of the Program is to increase mobility and person throughput through a series of integrated strategies (transit operations, transportation demand management, transportation systems management, active transportation, and capital investments) in the I-10 and I-110 corridors.	First last mile connections to transit facilities, focusing on multimodal elements recommended as part of the First Last Mile Strategic Plan including investments that might support 3rd party mobility solutions (car-share, bike-share), complete streets projects which emphasize multi-modalism, bicycle infrastructure including bicycle lanes and secured bicycle parking facilities, and pedestrian enhancements including on/off-ramp safety improvements.	This source is flexible, but limited by Board policy to areas within three miles of the ExpressLanes facilities. Funding for this program is subject to availability of net toll revenue.

Table 3.4: Eligible Formula State Funding Source <sup>2</sup>

Funding Source and Annual Amount <sup>1</sup> (approx.)	Description	Eligible Uses	Opportunities/Constraints
Regional Improvement Program \$ variable	Regional Improvement Program – 75% of State Transportation Improvement Program Funds are distributed to the counties and RTPA's.	Capital projects including bicycle, pedestrian projects, safety projects, TDM, and intermodal facilities.	Funding from this source has been limited and volatile due to inflation and legislative and market changes in the price of gasoline and the taxes on gasoline.

Table 3.5: Eligible Competitive State Funding Sources

Funding Source and Annual Amount <sup>1</sup> (approx.)	Description	Eligible Uses	Opportunities/Constraints
Active Transportation Program (ATP) <sup>3</sup> \$120 million available statewide \$33 million available to LA County	The Active Transportation Program is a consolidation of five previous programs which funded active transportation. This program is exclusively devoted to funding active transportation projects, particularly those that improve health and safety, benefit disadvantaged communities, and promote increased use of active modes.	Bicycle and pedestrian improvement project, Safe Routes to School, bicycle and pedestrian planning, non-infrastructure projects, safety and encouragement campaigns. Highest priority projects demonstrate ability to increase walking and biking, improve health and safety, reduce GHG, and ensure benefit to disadvantaged communities.	Projects are selected based on a statewide as well as regional competition. Funds are now programmed several years out and are not available for immediate active transportation needs. Metro has provided ongoing technical grant-writing assistance to local municipalities to compete for this funding source.
Affordable Housing and Sustainable Communities (AHSC) <sup>3</sup> \$ is 20% of overall Greenhouse Gas Reduction Fund	Supports reduction of GHG emissions by improving mobility options and increasing infill developments. Funds are administered by the Strategic Growth Council.	Active transportation and complete streets that are linked to affordable and infill developments.	Active transportation improvements must be linked to an affordable housing development.
Transit and Intercity Rail Capital Program (TIRCP) \$ is 10% of overall Greenhouse Gas Reduction Fund	Administered by Caltrans in collaboration with California State Transportation Agency (CalSTA). The TIRCP provides grants for capital improvements and operational investments that modernize California's transit system.	Active transportation projects are eligible as project elements.	Funds are typically reserved for bus or rail projects. However, bicycle and pedestrian improvements are eligible project expenses as long as they are part of a transit expansion or modernization project.

Table 3.6: Eligible Formula Federal Funding Sources <sup>4</sup>

Funding Source and Annual Amount <sup>1</sup> (approx.)	Description	Eligible Uses	Opportunities/Constraints
Congestion Mitigation and Air Quality Improvement Program (CMAQ) \$138 million	An FHWA program. CMAQ funds are used for projects and programs which have a demonstrable impact on reducing criteria pollutants and relieving congestion. Funds are allocated based on weighted population formula, which takes into account air pollution severity, and are typically awarded through the Metro Call for Projects.	Bicycle, pedestrian, and TDM projects are eligible so long as they can demonstrate air quality benefits.	Funds from this source are typically allocated to rail expansion, HOV projects, and rail operation start-up. A limited amount of CMAQ is also programmed through the Metro Call for Projects to the Bicycle, Pedestrian, and Transit Capital modes. Projects must clearly demonstrate air quality benefits. Landscaping and street furniture are not eligible.
Regional Surface Transportation Program (RSTP) \$81.6 million	An FHWA program. A flexible funding source which is apportioned to states on a per capita basis. Metro programs LA County's share to LRTP projects or through the Metro Call for Projects.	Bicycle, pedestrian, and TDM projects	Funds from this source are currently used primarily to operate Access Services as well as some highway and transit projects.
Surface Transportation Program – Local (STP-L) \$31.7 million	Part of RSTP. Metro allocates \$31.7 million per year of RSTP	Bicycle, pedestrian, and TDM projects; typically used for rehabilitation and maintenance	Funds from this source are apportioned to each municipality by population. Municipalities are responsible for selecting projects under this program.
Federal Transit Administration (FTA) Grants Section 5307 - \$247.1 million Section 5310 - \$0.4 million Section 5311 - \$0.18 million Section 5337 - \$84.5 million Section 5339 - \$24.8 million	FTA MAP-21 programs.	Active transportation projects must meet the following criteria: 1) Be elements of a larger transit project. 2) Be within a 3-mile bikeshed or a 1/2-mile walkshed of a transit station. 3) Enhance economic development or incorporate private investment; effectiveness of public transit project, or establish new or enhanced coordination between public transit and other transportation; and provide a fair share of revenue for public transit.	Use of these funds for active transportation requires showing connectivity and a demonstrable benefit to the transit system (i.e., attracting new riders). Use of these funds is likely easier for new transit projects than existing transit facilities due to high FTA threshold.

Table 3.7: Eligible Competitive Federal Funding Sources

Funding Source and Annual Amount (approx.)	Description	Eligible Uses	Opportunities/Constraints
Highway Safety Improvement Program (HSIP) \$2.4 billion available nationwide	An FHWAY MAP-21 program. The program purpose is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads.	Any strategy, activity, or project on a public road with the data-driven State Strategic Highway Safety Plan (SHSP) and corrects or addresses a highway safety problem. Funds are administered by the state.	Projects must be identified in the SHSP.
Transportation Investment Generating Economic Recovery (TIGER) \$500 million available nationwide	A competitive grant program for surface transportation capital project	All bicycle and pedestrian projects.	This is an extremely competitive grant program. Projects will need to demonstrate economic value as well as multi-modal transportation improvements.
Federal Transit Administration Section 5309 \$ variable	A component of the New Starts program. A discretionary grant program from the Federal General Fund. Maximum Federal share is generally 80%.	See eligible uses under FTA Section 5307.	See opportunities/constraints under FTA Section 5307.

Notes:

<sup>1</sup> Amount shown is after administrative costs.

<sup>2</sup> Eligibility and available funding amounts of state funds may have changed due to passage of the new federal transportation bill, the FAST Act.

<sup>3</sup> ATP and AHSC funds are not directly controlled by Metro. However, Metro has provided grant assistance for recipients and has received ATP and AHSC funding for Metro-sponsored projects.

<sup>4</sup> Federal amounts reflect MAP-21 funding levels. Amounts will be updated once the FAST Act and state enabling legislation are analyzed.



## PERFORMANCE METRICS



*Various transportation modes in Downtown Los Angeles*

Progress toward the goals and objectives of this Plan can be measured by performance metrics that capture how much implementation activity is occurring and how this implementation activity is affecting the quality of life across the county. Both types of metrics are important to track so that Metro has an understanding of the broader trends that may influence or be influenced by Metro’s active transportation investments.

The tables on the following pages include the set of performance metrics to measure the performance of this Plan. These metrics are based on the goals and objectives described in Chapter 1, informed by stakeholder input; aligned with national best practices from two key national sources of guidance, the National Complete Streets Coalition and the National Association of City Transportation Officials; and by a review of “cutting edge” peer agencies<sup>1</sup>. A number of these metrics are optimal for the county level, so Metro and partner agencies can understand the effects of active transportation investments across the county,

as shown in Table 3.8. Tracking at the countywide level is critical as some metrics may see an exponential effect – where the observed increases or decreases are greater than the sum of the activity occurring right around the project location. The benchmarks are set as an opportunity for Metro to be a leader in the field of active transportation planning. They are specifically tied to the context of Los Angeles County in terms of current baseline. The horizon year of 2025 was selected for most of the potential benchmarks because the ten-year horizon is generally the time frame in which active transportation plans are refreshed and updated, and would be a good point to revisit these targets. This time frame would allow Metro and partner agencies to track the implementation of active transportation projects and evaluate the performance of those projects against the baseline and benchmarks. Other metrics are more appropriate to be collected and tracked at the project level, to understand the localized impact of specific improvements for people walking and bicycling. Each performance metric includes a baseline and a benchmark, reflecting where

we are today (or the most recent data available) and where we want to be by 2025 and 2035, using measurable targets. The full process of developing these metrics is described in Appendix F.

Finally, there are a number of other performance measure initiatives at Metro taking place concurrently to this Plan. These include the performance measures under review for the upcoming Long Range Transportation Plan update, those set forth by the Metro Countywide Sustainability Planning Policy and Implementation Plan, and those to be included in an upcoming Metro Quality of Life project. Where possible, Metro will streamline data collection and avoid duplication of efforts, as many of the types of data recommended for these various efforts are very similar.

<sup>1</sup> Peer agencies reviewed included San Francisco Bay Area Metropolitan Transportation Commission, San Francisco Metropolitan Transportation Authority, Oregon Metro, Puget Sound Regional Council, New York City, City of Seattle, City of San Luis Obispo, City of Los Angeles, and City of Santa Monica.

## PERFORMANCE METRICS AT THE COUNTYWIDE LEVEL

Table 3.8: Performance Metrics Collected at the Countywide Level

Performance Metric	Initial Baseline (2015)	Potential Benchmark	Available Data Sources
Number and percent bicycle-to-transit <sup>1</sup>	4% (Rail) 3% (Bus)	100% increase by 2025	Metro On-Board Surveys
Number and percent walk-to-transit	68% Walk (Rail) 4% Skated (Rail) 83% Walk (Bus) 2% Skated (Bus)	10 percentage point increase (walk to rail) by 2025  5 percentage point increase by 2025 (walk to bus)	Metro On-Board Surveys
Percent of all trips completed by bicycle in Los Angeles County	1.4% Bike	100% increase by 2025	2009 National Household Travel Survey
Percent of all trips completed by walking in Los Angeles County	17.6% Walk	50% increase by 2025	2009 National Household Travel Survey
Means of transportation to work	3.8% Combined Bike + Walk (0.9% Bicycle, 2.9% Walk)	100% increase by 2025 in combined Bike + Walk	2013 American Communities Survey 5-Year Estimate
Miles of installed bicycle facilities, by class	2014: Class IV = 6 miles (2015)  Class III = 614 miles  Class II = 1,046 miles  Class I = 341 miles	100% increase per year for class IV    10% increase per year for each class I, II and III	Self-reported by jurisdictions

Table 3.8 (continued)

Performance Metric	Initial Baseline (2015)	Potential Benchmark	Available Data Sources
Metro capital funding allocated to bicycle/pedestrian improvements	To Be Determined	To Be Determined	Self-tracked/self-reported by Metro
Percent of bicycle/pedestrian improvement projects funded by Metro capital funding that benefits a disadvantaged community <sup>2</sup>	n/a	50% per funding cycle	Self-tracked/self-reported by Metro
Number of station areas receiving Metro capital funding or external funding allocated to bicycle/pedestrian access improvement treatments	To Be Determined	100% of 661 station areas served by 2030	Self-tracked/self-reported by Metro
Number of station areas with completed bicycle/pedestrian access improvement treatments funded by Metro capital funding or external funding	To Be Determined	100% of 661 station areas served by 2035	Self-tracked/self-reported by Metro
External (non-Metro) discretionary grant funding won within LA County for active transportation projects	To Be Determined	Proportional to LA County population or greater	Self-reported by jurisdictions and implementing agencies

Notes:

1. Because the percent of transit riders who walk or bike to transit is already very high, it is critical to also collect the number of riders who walk or bike to a station, so that net ridership increases are captured in addition to any increase in walk-or-bike-to-transit ridership.
2. For the purposes of this ATSP, Disadvantaged Community is characterized as one of the following: The median household income is less than 80% of the statewide median based on the most current census tract level data from the American Community Survey, an area identified as among the most disadvantaged 25% in the state of California according to the CalEPA and based on the latest version of the California Communities Environmental Health Screening Tool (CalEnviroScreen) scores, or at least 75% of public school students in the project area are eligible to receive free or reduced-price meals under the National School Lunch Program.

Table 3.8 (continued)

Performance Metric	Initial Baseline (2015)	Potential Benchmark	Available Data Sources	
Collision statistics (number by mode, percent by mode for severe injury and fatal crashes)	2012:	Support benchmark of local municipalities with Vision Zero Policies	State-Wide Integrated Traffic Reporting System (SWITRS)	
	Total Collisions=51,207			
	Total Injuries=50,622			
	Total Severe Injuries=2,300			Decrease overall collisions by 10% per year countywide
	Total Fatalities=585			
	Ped Collisions=5,024			
	Ped Injuries=4,821			
	Ped Fatalities=203			
	Bike Collisions=4,955			
	Bike Injuries=4,926			
Bike Fatalities=29				
Greenhouse gas reductions	To Be Determined	Evaluate against forecasts and inputs	SCAG, Self-reported by implementing agencies	



## PERFORMANCE METRICS AT THE PROJECT LEVEL

Table 3.9: Performance Metrics Collected at the Project Level

Performance Metric	Initial Baseline (2015)	Potential Benchmark	Available Data Sources
Number and percent of people who walk	Baseline set by implementing agency before project implementation	100% increase by 2025	Self-reported by implementing agencies via pedestrian counts, Baseline available in the ATSP existing conditions analysis
Number and percent of people who bike	Baseline set by implementing agency before project implementation	100% increase by 2025	Self-reported by implementing agencies via bicycle counts, Baseline available in the ATSP existing conditions analysis
Number of households within ¼ mile of a low-stress bicycle facility	Baseline set by implementing agency before project implementation	Increase by 20% per year, countywide	US Census American Communities Survey, Self-reported by implementing agencies, Baseline available in the ATSP existing conditions analysis
Number of jobs within ¼ mile of a low-stress bicycle facility	Baseline set by implementing agency before project implementation	Increase by 20% per year, countywide	US Census American Communities Survey, Self-reported by implementing agencies, Baseline available in the ATSP existing conditions analysis
Number of destinations (schools, medical, parks, recreational, etc.) within ¼ mile of a low-stress bicycle facility	Baseline set by implementing agency before project implementation	Increase by 20% per year, countywide	Self-reported by implementing agencies; Baseline available in the ATSP existing conditions analysis

## METRO PROGRAMS

Supportive non-infrastructure programs and policies can help build capacity and momentum to implement active transportation infrastructure projects. This section provides an overview of programs under the purview of Metro that support active

transportation in the county. By developing infrastructure, policies, and programs, the region will be able to execute a holistic approach to project delivery to improve safety and access for all roadway users.

Table 3.10: Metro Programs

Category	Programs & Description
Grant Programs	<p>Call for Projects - Competitive grant program that provides local, state, and federal funds for surface transportation improvements in seven modal categories, including bicycle and pedestrian capital improvements. Other modal categories eligible for funding include regional surface transportation improvements, goods movement improvements, signal synchronization &amp; bus speed improvements, transportation demand management, and transit capital.</p> <hr/> <p>ExpressLanes Net Toll Revenue Re-Investment Grant Program - Net toll revenues generated by the Metro ExpressLanes are required by state law to be reinvested for transportation improvements in the corridor where generated. The Grant Program is intended to increase mobility through transit operations, transportation demand management, transportation systems management, active transportation, and capital investments in the 1-10 and 1-110 corridors.</p> <hr/> <p>Metro Open Streets Grant Program - Competitive grant program that funds regional car-free events to provide opportunities to 1) ride transit, walk and ride a bike, possibly for the first time, 2) encourage future mode shift to more sustainable transportation modes, and 3) foster the development of multi-modal policies and infrastructure at the city/community level.</p> <hr/> <p>Wayfinding Signage Grant Pilot Program – Provides funds to eligible agencies wishing to install static wayfinding signage within one mile to and from Metro fixed guideway stations that will be open by June 30, 2017.</p> <hr/> <p>Transit Oriented Development (TOD) Planning Grant Program - Grant Program designed to spur the adoption of local land use regulations that are supportive of Transit Oriented Development in Los Angeles County.</p>
Planning Studies	<p>Los Angeles River Bikeway Gap Closure Feasibility Study - Feasibility study included conceptual designs, associated cost estimates and engineering feasibility considerations for the 8-mile gap in the path between Atwater Village and Maywood. The Study included a comprehensive accounting of existing and known future attractions as well as general transportation needs of the neighborhoods surrounding the project area.</p> <hr/> <p>I-710 Bikeway Study - Studying the development of the following Class-I bike paths and access points: a) Los Angeles Flood Control District right-of-way on the western levee of the Los Angeles River Channel from the Pacific Coast Highway (Long Beach) to Imperial Highway (South Gate) to connect with the existing Los Angeles River Bike Path, b) Southern California Edison (SCE) right-of-way, roughly parallel to Greenleaf Blvd., between the Los Angeles Blue Line and Sportsman Drive; and c) SCE and Los Angeles Department of Water and Power right-of-way from Willow/TI Freeway (Long Beach) to connect with the Rio Hondo Bike trail at Garfield Avenue (South Gate).</p>

Table 3.10 (continued)

Category	Programs & Description
Planning Studies (continued)	<p>Bike/Bus Interface Study - The study will establish recommended infrastructure guidelines that enhance safe and efficient mobility for roadway users. Study tasks include performing in-depth technical analyses to understand effects of bicycle infrastructure on transit operations and overall roadway safety, completing a review of national and international best practices and research on bike/bus interactions, developing training guidance and safety tips for transit operators and bicyclists, and identifying appropriate design guidelines.</p> <hr/> <p>Blue Line First Last Mile Planning - Metro was awarded an Active Transportation Program (ATP) grant for first last mile planning around all 22 stations of the Metro Blue Line. This project will use the planning guidelines in the First Last Mile Strategic Plan to conduct walk audits and develop detailed plans for first last mile investments in and around 22 Metro Blue Line stations. The project will also utilize innovative community engagement to inform the first last mile maps and recommended improvements.</p> <hr/> <p>Sustainability Demonstration Project: Metro is working in partnership with the San Gabriel Valley Council of Governments to develop a Bike Friendly Business Improvement Plan for the cities of South Pasadena and Glendora.</p> <hr/> <p>Sustainability Demonstration Project: Complete Streets Master Plan - This project, in coordination with the Gateway Cities Council of Governments, will create a plan for implementation of a key complete street corridor identified in the COG's strategic transportation plan. The corridor will traverse multiple jurisdictions along Florence Avenue and will test and develop implementation methods for a multi-city project. The project is part of a larger effort to pilot strategies featured in Metro's Countywide Sustainability Planning Policy.</p> <hr/> <p>Metro Transfer Design Criteria - Metro is working to develop criteria for transfer points. Over half of transit passengers make at least one transfer as part of their trip. The new Design Criteria will streamline the transfer experience with standards for the type and locations of transit amenities and infrastructure at major transfer points. Metro is gathering input from local jurisdictions, municipal transit operators, transit riders, and other stakeholder groups to develop the criteria. In addition to the Design Criteria for Metro, the project will produce an easy-to-use handbook for cities with local strategies to improve the transfer environment.</p>
Capital Projects	<p>Rail to Rail/River Active Transportation Corridor Project – This is a 6.4-mile long corridor project in South Los Angeles that will convert a rail right-of-way to an active transportation corridor, facilitating opportunities for improved access to key destinations and linking major transit facilities, including the future Crenshaw/LAX Transit Project, the Silver Bus Rapid Transit Line, and the Metro Blue Line.</p> <hr/> <p>Regional Connector 1st &amp; Central Station first last mile improvements.</p> <hr/> <p>Gold Line Eastside Access Projects - First last mile improvements to the following Metro Gold Line stations: Pico/Aliso, Mariachi Plaza, Soto, Indiana, Maravilla, East LA Civic Center, and Atlantic.</p> <hr/> <p>Connect US Action Plan - Metro will support the City of Los Angeles in identifying funding opportunities in order to improve pedestrian and bicycle connections to and from Los Angeles Union Station, the 1st/ Central Regional Connector Station, and the surrounding historic and culturally significant communities.</p>
Bicycle Services	<p>Bicycle Parking - Metro provides bicycle parking and continues to expand bicycle services at many stations throughout the system to improve first last mile connections, including providing bike racks, bike lockers and secure bike hubs.</p>

Table 3.10 (continued)

Category	Programs & Description
Bicycle Services (continued)	<p>Metro Bike Share – Metro is leading a regional effort to develop a Countywide Metro Bike Share program to facilitate first last mile connections and short point-to-point trips. The system will begin in summer 2016 with a pilot of 1000 bicycles and 80 stations in downtown Los Angeles with a phase II in the works to expand to Pasadena. Additionally, there are plans to expand the system to 4000 bicycles in other bike share ready communities, including, but not limited to, MacArthur Park, Koreatown, Hollywood, Culver City, East LA (unincorporated LA County), Boyle Heights, Burbank, Glendale, North Hollywood, Huntington Park, Downey, Marina Del Rey (unincorporated LA County), Venice, and San Gabriel Valley cities.</p>
Joint Development Program	<p>The Metro Joint Development (JD) Program is a real estate management program that collaborates with qualified developers to build transit-oriented developments (TODs) on Metro-owned properties. These properties are often parcels of land that contain Metro Rail station portals or platforms or that were acquired for parking or construction staging for transit projects. Metro's JD sites are a gateway to the Metro transit system and hold unique potential for shaping the built environment surrounding transit stations, which will have a significant impact on rider experience, attraction of new riders, and the urban form of the County of Los Angeles. Each site includes a creation of Development Guidelines, in collaboration with the community and local regulatory agencies, to identify desired land uses, density and amenities for a Metro-owned site; provides neighborhood context; and assesses opportunities for integration with active transportation and other community development goals.</p>
Education & Encouragement Programs and Activities	<p>Active Transportation Campaign – Annual campaign to promote awareness of and participation in walking and bicycling countywide. A single marketing effort unites events for Bike Month and Walktober, and cross-promotes complementary efforts from many organizations and municipalities across the county.</p> <p>Bike Month LA - Month-long marketing and event effort to highlight bicycling as a mode of transportation. Creates multiple opportunities and incentives for people to try riding bicycles for utilitarian trips, perhaps for the first time. Bike Month culminates in Bike to Work Day, with pit stops across the county, and Bike Night, a Metro-hosted gathering at Union Station.</p> <p>Community Bicycle Rides - Metro's guided bicycle ride events provide safe, supportive environments such that people of all skill and comfort levels may engage in riding a bike in an urban setting. The rides also provide a controlled environment in which people can practice safe riding skills and provide a valuable overall encouragement opportunity.</p> <p>Bicycle Safety Classes - Metro provides bicycle safety skills classes free to the public. This resource is available to any Los Angeles County resident and classes are held in locations across the county. Classes may range from entry-level to expert instructor certification and are moving towards regionally-tailored educational materials adapted from national standards.</p> <p>Complete Streets Education and Training – Provides training to applicable Metro staff and local government agency planners, engineers, decision-makers, traffic safety professionals, public health professionals, and community organizations about developing a Complete Streets policy, as well as implementing Complete Streets and incorporating high quality design to help comply with the California Complete Streets Act of 2008 and Metro's 2014 Complete Streets Policy.</p> <p>First Last Mile Training Pilot Program - Metro will offer a series of trainings to local staff, elected officials, and other stakeholders. The trainings will inform staff on how to design, seek funding, and implement a first last mile project. Policy level trainings will cover communication and community issues that often arise as part of first last mile and active transportation efforts. The trainings will be geared toward near term implementation and will result in preliminary concept plans that can be directed toward funding sources in the near term.</p>



Table 3.10 (continued)

Category	Programs & Description
Technical Assistance, Policy and Planning Guidance, and Data	Grant Writing Assistance – Metro provides grant writing assistance to advance and implement Metro’s active transportation plans and meet critical active transportation needs in Los Angeles County.
	Bicycle and Pedestrian Counter Program - In partnership with the Southern California Association of Governments, Metro is developing a countywide counter deployment plan to meet the calibration needs of bicycle travel demand models and infrastructure project performance monitoring. A combination of permanent and temporary automatic counters will be deployed in strategic locations and their data fed into the regional Active Transportation Database.
	Active Transportation Data Collection Plan – Metro is working in partnership with the Southern California Association of Governments to upgrade the existing Bicycle Data Clearinghouse. The new Active Transportation Database will set standards for data collected regionally and will be compatible with national databases. It will have the capability to accept manually collected as well as automatic data feeds. The Data Collection Plan will lay out initial and ongoing data collection efforts to meet regional needs.
	Open Streets Evaluation – Per Metro Board direction in 2014 to evaluate the costs/benefits of the annual \$2 million grant program, Metro is conducting an evaluation of the 12 cycle-one Metro Open Street events. Results will be shared after the last event is implemented in June 2016.
	Urban Greening Toolkit and Implementation Plan – On-line website that provides tools on how to create transit-adjacent projects that facilitate access to Metro bus and rail lines throughout the Los Angeles region and enhance transit riders’ experience getting to and from stations. Provides information on best-practices, resources, and guide to implementing greening and placemaking projects.
	Toolkit for Transit Supportive Planning- Funded by the Strategic Growth Council, Metro is developing the Toolkit for Transit Supportive Planning as a resource for Los Angeles County jurisdictions to develop and adopt transit supportive regulations and achieve the broader greenhouse gas (GHG) emission reduction and transportation, water, and energy efficiency goals of Assembly Bill 32 (AB32) and Senate Bill 375 (SB375).
Other	Countywide Safe Routes to School Initiative - Metro continues to collaborate with stakeholders to develop a Countywide Safe Routes to School Initiative to provide technical support to help communities interested in starting Safe Routes to School programs or sustain and enhance existing efforts. This involves assessing needs and identifying opportunities, collecting data, convening an advisory committee, and hosting summits to engage local jurisdictions and other stakeholders to guide Metro’s initiative.
Other	Bicycle Roundtable - The Bicycle Roundtable is a quarterly public outreach meeting held by Metro that provides a forum to discuss and get input on current Metro bicycle projects and programs.

## CITY, COUNTY AND COMMUNITY PROGRAMS

This section outlines key innovative programs, selected based on prior effectiveness in advancing planning, implementation, and capacity building at the local and regional level. These programs can supplement the physical improvements described in this Plan. Many programs are

appropriate for countywide implementation, requiring more resources and regional coordination to realize the full benefits of the program. Some programs are appropriate on a smaller scale, at the city level or community level. The table below indicates the scale at which they are most appropriate.


Table 3.11: City & Community Programs



### Programs


Develop a Pedestrian and Bicycle Master Plan

### Implementers

 City planning, public works, or transportation department




Train staff on Complete Streets guidelines, bicycle facilities design standards, and pedestrian-oriented safety interventions

 City, Caltrans, Metro, SCAG



Train staff on how to respond to bicycle and pedestrian collisions to reduce collision severity

 City emergency responders



Organize Open Streets events which temporarily close streets to vehicles and open them to people on foot, bike, skateboards, scooters, etc.


 Community groups or city agencies


Table 3.11 (continued)



Programs


Organize trainings on bicycle, pedestrian, and roadway safety

Implementers

 City police department and County sheriff's department; other road safety experts




Organize Walking School Buses or Bicycle Trains to encourage kids to walk and bike to school

 School communities, city




Develop a GIS-based asset inventory of sidewalks, curb-cuts, mid-block crossings, pedestrian and bicycle signals, bike lanes, bike racks, and other pedestrian and bicycle infrastructure

 City public works, planning, or transportation department




Conduct an annual multi-modal collision data analysis

 City public works, planning, or transportation department



Conduct an annual collection of pedestrian and bicycle volumes at key locations including transit stops and stations

 City public works, planning, or transportation department

## NEXT STEPS FOR IMPLEMENTATION OF THE ACTIVE TRANSPORTATION STRATEGIC PLAN

Table 3.12: Steps for Implementation

Implementation Action	Metro Participants (lead department designated in bold and underlined)	Other External Participants	Initiation Timeframe
<b>1. Technical Assistance, Policy and Planning Guidance, and Data</b>			
1.1 Provide grant-writing technical assistance for Active Transportation Program (ATP), Affordable Housing and Sustainable Communities (AHSC) Program, Highway Safety Improvement Program (HSIP) and Transportation Investments Generating Economic Recovery (TIGER) to advance projects and programs identified in the ATSP and any future updates.	<b><u>Planning</u></b>	Local Jurisdictions	ongoing
1.2 Provide grant-writing technical assistance for other funding sources, including “non-traditional funds” or new funds that may arise in the future (e.g., health-related grants, “parks and recreation”-related grants that may fund active transportation projects that support Metro’s policy goals).	<b><u>Planning</u></b>	Local Jurisdictions	0-1 year
1.3 Maintain and update Metro active transportation and other applicable websites, newsletters, social media profiles, and online resources to provide relevant information to stakeholders regarding resources, funding, key information, and best-practices.	<b><u>Planning, Communications</u></b>		ongoing
1.4 Explore upcoming grant opportunities (e.g., Caltrans Planning Grant, Active Transportation Program, Cap and Trade, TIGER) and identify potential opportunities for supporting local jurisdictions to achieve implementation.	<b><u>Planning</u></b>	Local Jurisdictions	ongoing
1.5 Organize training workshops, symposiums, and forums to disperse information on best-practices related to active transportation, first last mile, and complete streets.	<b><u>Planning,</u></b> Highways, Construction, Operations	Southern California Association of Governments (SCAG), Caltrans, Local Jurisdictions, Public Health, Nonprofits, Advocates, Other Interested Stakeholders	ongoing

Table 3.12 (continued)

Implementation Action	Metro Participants (lead department designated in bold and underlined)	Other External Participants	Initiation Timeframe
1.6 Participate in project technical advisory committees and working groups convened by local jurisdictions.	Applicable Departments	Local Jurisdictions	ongoing
1.7 Connect agencies to other local organizations and expert sources, where applicable, to support implementation of active transportation projects and programs.	Planning	Local Jurisdictions	ongoing
1.8 Organize summit, at least annually, to connect organizations and businesses that offer resources and services related to active transportation with those who are looking to implement such projects and programs in Los Angeles County.	Planning, DEOD, other applicable departments	Local Jurisdictions, Businesses, Nonprofits, Other Interested Stakeholders	0-1 year
1.9 Assist local agencies to seek opportunities and partnerships to implement demonstration projects to showcase best practices and case studies and to highlight innovative active transportation demonstration projects.	<b>Planning</b> , other applicable departments	Local Jurisdictions	ongoing
1.10 Publicize outcomes of active transportation infrastructure, educational, and demonstration projects.	<b>Planning</b> , Communications, Community and Government Relations, and other applicable departments	Local Jurisdictions	0-2 years
1.11 Conduct before and after performance evaluations on projects led by Metro or projects funded through Metro's grant programs to evaluate metrics against baseline and benchmarks identified in ATSP report. Collection and reporting of data may be by Metro or partner agencies but must be uploaded to the Active Transportation Database.	<b>Planning</b> , other applicable departments	Local agencies, interested stakeholders	0-2 years
1.12 Implement automatic bicycle and pedestrian counter program.	<b>Planning</b> , Operations	SCAG, Local agencies, interested stakeholders	0-1 year



Table 3.12 (continued)

Implementation Action	Metro Participants (lead department designated in bold and underlined)	Other External Participants	Initiation Timeframe
1.13 Continue development of Metro Countywide Safe Routes to School (SRTS) Initiative through collaboration with Metro departments, elected officials and staff, SRTS advisory group, and key stakeholders to inform policy and program development.	<b>Planning</b> , other applicable departments	Local jurisdictions, other stakeholders	ongoing
1.14 Further refine Active Transportation Strategic Plan online webtool and update relevant data when applicable to better position partners for local, state, and federal grant funding opportunities that arise in the future.	<b>Planning</b> , ITS		0-1 year
<b>2. Education &amp; Encouragement Programs and Activities</b>			
2.1 Implement temporary (i.e., pop-up, tactical urbanism) active transportation and first last mile projects to build community support and foster multi-modal policies and long-term infrastructure improvements.	<b>Planning</b> , Communications, Operations	SCAG, Caltrans, Local Jurisdictions, Public Health, Nonprofits, Advocates, Other Interested Stakeholders	0-2 years
2.2 Continue to promote safe travel to schools in Los Angeles County through the development of Metro Safe Routes to School (SRTS) Resource Manual (toolkit); Walk-Safe, Bike-Safe (train the trainer) Safety Education Campaign; continued development and maintenance of the Metro SRTS website; and other related activities.	Planning, other applicable departments	Local Jurisdictions, Other Stakeholders	ongoing
2.3 Continue collaboration with key stakeholders and other Metro departments in the development of campaigns, printed materials, video and other visuals supporting safe walking, bicycling, and utilization of public transit for travel to and from schools within Los Angeles County.	Planning, other applicable departments	Local jurisdictions, other participants	ongoing
2.4 Continue to enhance education and training for bicyclists, pedestrians, bus operators, and other roadway users to improve awareness and safer interactions between these users of the roadway.	<b>Operations, Planning, Community Relations</b>	Metro Technical Advisory Committee (TAC) & Subcommittees, Transit Operators	ongoing

Table 3.12 (continued)

Implementation Action	Metro Participants (lead department designated in bold and underlined)	Other External Participants	Initiation Timeframe
2.5 Continue annual active transportation campaigns, such as advertising/messaging, bike and walk to work/school, radio advertisements, social media, and other related activities.	<b><u>Planning,</u></b> <b><u>Communications,</u></b> other applicable departments		ongoing
2.6 Work with health care providers, community groups, businesses, and other organizations to promote bicycle and pedestrian education programs and highlight benefits. Continue to seek partnerships and innovation opportunities.	Planning, Communications, other applicable departments	Health Care Providers, Community Groups, Businesses, other interested stakeholders	ongoing
2.7 Continue bicycle traffic safety classes, community bicycle rides, and explore other education and safety programs to promote bicycling and mode shift. Evaluate the effectiveness of these projects and programs and report outcomes. Refine as necessary to maximize effectiveness.	<b><u>Planning,</u></b> <b><u>Communications,</u></b> Community Relations, other applicable departments	Law Enforcement, Local Jurisdictions, School Districts, Nonprofits, Advocates, Other Interested Stakeholders	ongoing
2.8 Promote walking and bicycling among Metro employees through wellness programs, incentive programs, safety programs, rideshare, community rides, marketing materials, and campaigns.	Planning, Corporate Wellness, Communication, other applicable departments		ongoing
2.9 Explore the creation of Metro employee bicycle pool commuting and bicycle fleet programs.	Planning, General Services, Communication, other applicable departments		0-2 years
2.10 Support local agency efforts on bicycle and pedestrian education and safety.	<b><u>Planning</u></b>	Local Jurisdictions, Nonprofits, Advocates	ongoing

Table 3.12 (continued)

Implementation Action	Metro Participants (lead department designated in bold and underlined)	Other External Participants	Initiation Timeframe
2.11 Seek partnerships with local educational institutions to create active transportation education and research center in Los Angeles region to build capacity and knowledge about active transportation planning, implementation, and research and build long-term institutional knowledge among practitioners, decisionmakers, local jurisdictions, and other key stakeholders.	<b><u>Planning</u></b>	Educational Institutions, Federal Highway Administration, Federal Transit Administration, Caltrans	0-2 years
3. Funding			
3.1 Prioritize recommendations in Active Transportation Strategic Plan in Metro Capital Grant Programs.	<b><u>Planning, Congestion Reduction</u></b>	Metro TAC & Subcommittees, Councils of Governments (COGs), SCAG, Caltrans, Local Jurisdictions, Public Health, Nonprofits, Advocates, other interested stakeholders	0-1 year
3.2 Update Proposition A, C, and Measure R Local Return Guidelines to align with the Metro Board-adopted 2009 Long Range Transportation Plan, Metro First Last Mile Strategic Plan, Metro Complete Streets Policy, and the Active Transportation Strategic Plan, consistent with any constraints in the ordinance language.	Planning, OMB	Metro TAC & Subcommittees, COGs, SCAG, Caltrans, Local Jurisdictions, Public Health, Nonprofits, Advocates, other interested stakeholders	0-1 year
3.3 Update Proposition C 10% and Proposition C 25% Guidelines to align with the Metro Board-adopted 2009 Long Range Transportation Plan and future Board-adopted updates, Metro First Last Mile Strategic Plan, Metro Complete Streets Policy, and the Active Transportation Strategic Plan.	Planning, OMB	Metro TAC & Subcommittees, COGs, SCAG, Caltrans, Local Jurisdictions, Public Health, Nonprofits, Advocates, other interested stakeholders	0-1 year

Table 3.12 (continued)

Implementation Action	Metro Participants (lead department designated in bold and underlined)	Other External Participants	Initiation Timeframe
3.4 Increase proportion of Call for Projects funding reserved for the Bicycle, Pedestrian, and Transportation Demand Management Modes according to the needs identified in the ATSP in proportion to needs for other modes.	Planning, OMB	Metro TAC & Subcommittees, COGs, SCAG, Caltrans, Local Jurisdictions, Public Health, Nonprofits, Advocates, other interested stakeholders	0-1 year
3.5 Incorporate Active Transportation Strategic Plan into 2009 Long Range Transportation Plan update.	<b><u>Planning</u></b>	Metro TAC & Subcommittees, COGs, SCAG, Caltrans, Local Jurisdictions, Public Health, Nonprofits, Advocates, other interested stakeholders	0-1 year
3.6 Update funding criteria in Metro capital grant programs (i.e., Call for Projects, ExpressLanes Net Toll Revenue Re-Investment Grant Program, and other Metro capital grant programs) to encourage projects that implement recommendations in the Active Transportation Strategic Plan and projects that achieve goals of Metro Board-adopted First Last Mile Strategic Plan and Complete Streets Policy.	<b><u>Planning,</u></b> <b><u>Congestion</u></b> <b><u>Reduction</u></b>	Metro TAC & Subcommittees, COGs, SCAG, Caltrans, Local Jurisdictions, Public Health, Nonprofits, Advocates, other interested stakeholders	0-1 year
3.7 Promote active transportation strategies and funding in applicable state and federal legislations.	Government Relations, Planning		ongoing
3.8 Seek new sources of funding opportunities and innovative finance strategies.	Planning, Office of Management & Budget		ongoing
3.9 When funding is available, program local funds for active transportation projects that have grant awards of \$2 million or less. Prioritize federal funding when available and applicable to grant awards of \$2 million or more to reduce the burden of grant administration and processing on smaller projects.	<b><u>Planning</u></b>		ongoing

Table 3.12 (continued)

Implementation Action	Metro Participants (lead department designated in bold and underlined)	Other External Participants	Initiation Timeframe
<b>4. Planning and Project Delivery</b>			
4.1 Issue “Call for Partners” to identify potential partners to help bring key active transportation corridor projects identified in the ATSP closer to the “shovel ready” stage and take advantage of potential funding opportunities that may arise in the future to acheive project implementation, including, but not limited to, the San Gabriel Valley Greenway Network and those currently in progress as shown in Chapter 3, under Metro Programs.	<b><u>Planning</u></b> , Highways, Construction, Operations	Local Jurisdictions, interested stakeholders	0-1 year
4.2 Update rail design criteria to further incorporate active transportation elements and create active transportation design criteria section.	<b><u>Planning</u></b> , <b><u>Construction</u></b> , Operations		0-1 year
4.3 Expand bicycle parking at Metro stations and stops, including creating bicycle hubs, increasing bicycle parking, implementing and expanding bike share, and providing other bicycle facilities.	<b><u>Planning</u></b> , Construction, Operations, other applicable departments	Local Jurisdictions, interested stakeholders	ongoing
4.4 During transit project corridor planning phase, define active transportation connectivity elements as an intrinsic part of the project’s scope during project planning and in environmental documents and project definition for construction. Key sections within environmental documents where active transportation connectivity elements can be better specified include: Purpose and Need Statement, Project Definition, Basis of Design, and Mitigation Measures. Ensure project team members have staff skilled and experienced to address active transportation and first last mile planning and design by providing training to Metro staff members involved in project and/or as part of criteria during consultant team selection. Conduct active transportation access studies as part of corridor planning to ensure first last mile and bicycle and pedestrian access improvements are addressed early in the project planning. These studies may be planned as part of larger transit corridor project or in parallel.	<b><u>Planning</u></b> , Construction, Operations, other applicable departments	Local Jurisdictions, interested stakeholders	0-1 year



Table 3.12 (continued)

Implementation Action	Metro Participants (lead department designated in bold and underlined)	Other External Participants	Initiation Timeframe
<p>4.5 During project design phase (following environmental clearance) and during construction for new projects, ensure that active transportation improvements and first and last mile solutions are integrated into project scope, design, and implementation. Provide relevant directive drawing(s) and appropriate budget set aside in Life of Project for construction of these facilities. Ensure project team members have staff skilled and experienced to address first last mile and bicycle and pedestrian access design and implementation by providing training to Metro staff members involved in project and/or as part of criteria during consultant team selection.</p>	<p><b><u>Planning,</u></b> <b><u>Construction,</u></b> Operations, other applicable departments</p>	<p>Local Jurisdictions, interested stakeholders</p>	<p>0-1 year</p>
<p>4.6 During construction for new projects, identify opportunities for maintaining access to bicycle and pedestrian facilities or provide appropriate detours.</p>	<p><b><u>Planning,</u></b> <b><u>Construction</u></b></p>	<p>Local Jurisdictions</p>	<p>ongoing</p>
<p>4.7 Better design street treatments around freeway on and off ramps in highway corridor projects to facilitate safer and convenient access for pedestrians and bicyclists who must cross these corridors. Ensure project team members have staff skilled and experienced to address multimodal active transportation and complete streets planning and design by providing training to Metro staff members involved in project and/or as part of criteria during consultant team selection.</p>	<p><b><u>Highways,</u></b> Planning</p>	<p>Caltrans, Local Jurisdictions</p>	<p>ongoing</p>
<p>4-8 Include first last mile and active transportation components as a standard in conjunction with design of new stations and updates to existing stations for projects that do not have a Life of Project (LOP) budget established.</p>	<p><b><u>Planning,</u></b> <b><u>Construction,</u></b> Operations, other applicable departments</p>	<p>Local Jurisdictions, interested stakeholders</p>	<p>0-1 year</p>
<p>5. Joint Development</p>			
<p>5.1 Include appropriate text in boilerplate or a modified-to-suit language in every joint development project solicitation/Requests for Proposal/Design Guidelines to ensure appropriate inclusion of active transportation facilities and access for people who walk and bicycle.</p>	<p><b><u>Planning</u></b></p>	<p>Local Jurisdictions, interested stakeholders</p>	<p>ongoing</p>
<p>5.2 Work with local jurisdictions to incentivize developer mitigations to address first and last mile solutions and active transportation facilities and access.</p>	<p><b><u>Planning</u></b></p>	<p>Local Jurisdictions, interested stakeholders</p>	<p>ongoing</p>

Table 3.12 (continued)

Implementation Action	Metro Participants (lead department designated in bold and underlined)	Other External Participants	Initiation Timeframe
<b>6. Transit Operations</b>			
6.1 Explore opportunities to add additional bicycle accommodations on buses and trains.	<b><u>Planning, Operations</u></b>		ongoing
<b>7. Bicycle Services</b>			
7.1 Expand bicycle parking at Metro stations and stops, including creating bicycle hubs, increasing bicycle parking, implementing bike share, and providing other bicycle facilities.	<b><u>Planning, Operations, Construction, Maintenance, Communications, other applicable department</u></b>		ongoing
<b>8. Policy Update</b>			
8.1 Review and consider updates to the Active Transportation Strategic Plan at least every five years.	<b><u>Planning, other applicable departments</u></b>	Metro TAC & Subcommittees, COGs, SCAG, Caltrans, Local Jurisdictions, Public Health, Nonprofits, Advocates, other interested stakeholders	
8.2 Review and recommend possible changes to Metro, state, and federal policies to achieve the goals of the ATSP.	Planning, other applicable departments		ongoing
8.3 Update the 2000 Metro Right of Way Preservation Guidelines to be consistent with recent Metro Board-adopted policies.	Planning, Operations, other applicable departments		0-2 years



*CicLAvia event in downtown Los Angeles*

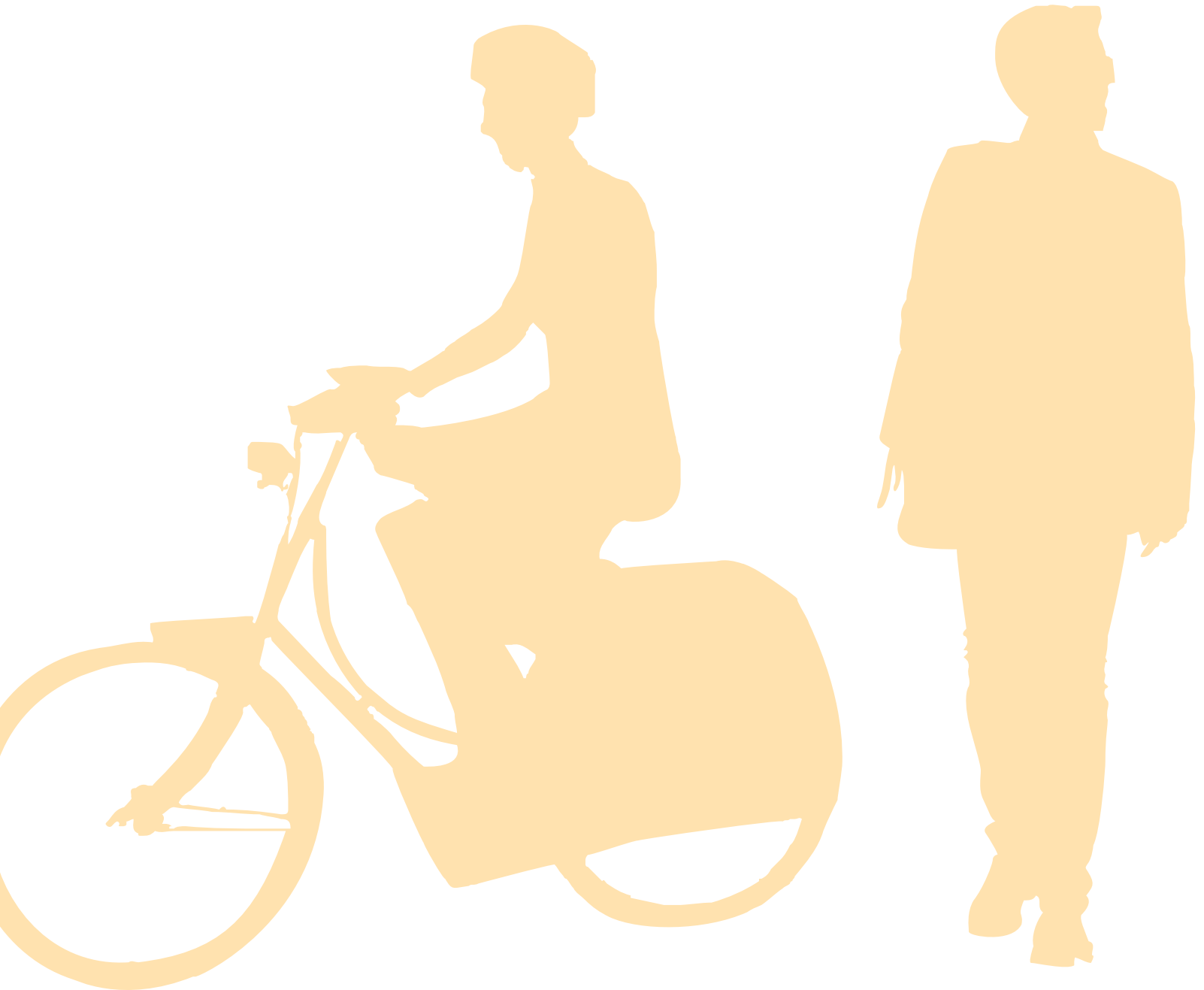


*Metro Rapid bus serving Santa Monica*



*Pedestrians prepare to cross the street near a Metro bus station*

# 4 COUNTYWIDE ACTIVE TRANSPORTATION NETWORK



## OVERVIEW

This chapter presents the recommended Countywide Active Transportation Network, comprised of two key components: 1) first last mile active transportation improvements to 661 major transit station areas and 2) the Regional Active Transportation Network.

The ATSP identified 661 major transit station locations throughout the county for first last mile improvements, which are intended to enhance regional access by connecting people to the extensive and growing transit network and to maximize the benefits from transit investments. In many places across the county, it connects with key corridors in the Regional Active Transportation Network that function both as origins and destinations as well as transit corridors.

The proposed Regional Active Transportation Network is intended to serve people biking and walking much like our freeway network serves drivers or our rail network serves transit riders. It is intended to provide the most comfortable, safe, high-quality bicycling and walking experience, with minimal disruption from other users and with extensive reach across the county. It is designed to connect key regional origins and destinations across the county, filling in the gaps in the current network, taking advantage of available waterways, utility corridors, and on-street right-of-way that can be developed into high-quality, low-stress walking and biking facilities.

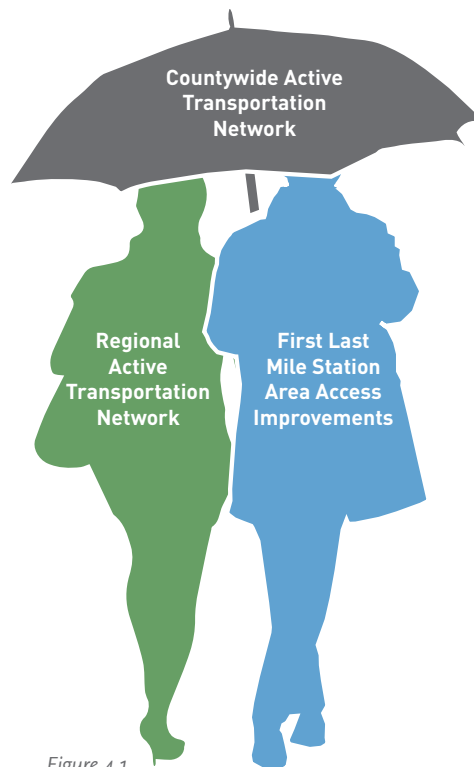


Figure 4.1



## Sample Facilities in the Countywide Active Transportation Network



*Sidewalk  
(Dedicated On-Street)*



*Pedestrian-Only Promenade  
(Dedicated On-Street)*



*Paseo  
(Shared On-Street or Off-Street)*



*Class I Shared-Use Path  
(Off-Street)*



*Class II Bicycle Lane  
(Dedicated On-Street)*



*Class II Buffered Bicycle Lane  
(Dedicated On-Street)*



*Class III Bicycle Route/Boulevard  
(Shared On-Street)*



*Class IV Protected Bicycle Lane  
(Dedicated On-Street)*

# STAKEHOLDER OUTREACH

The process for identifying the Countywide Active Transportation Network began with an extensive existing conditions analysis. During the development of the ATSP, the project team engaged and solicited feedback from various Metro departments, as well as agency partners, including the Metro Technical Advisory Committee and its Subcommittees, sub-regional Councils of Governments, the California Department of Transportation (Caltrans),

Southern California Association of Governments (SCAG), local governments, and other stakeholders. Metro also formed a project Technical Advisory Committee, which consisted of internal Metro departments and external stakeholders, to guide the development of the ATSP. During August 2015, Metro held seven stakeholder workshops across the county to solicit input. These workshops were attended by over 250 attendees and included representatives of local, regional, and state government agencies; elected offices; sub-regional councils of governments; nonprofit organizations;

community groups; advocates; private firms; transit operators; transit riders; public health professionals; and other stakeholders. Metro launched an online survey to gather additional input from stakeholders during Summer 2015. During December 2015, the agency held a second round of six stakeholder workshops across the county to provide an update on the ATSP and solicit additional input. Over 120 participants attended in total to provide feedback. Refer to Appendix C for more details.

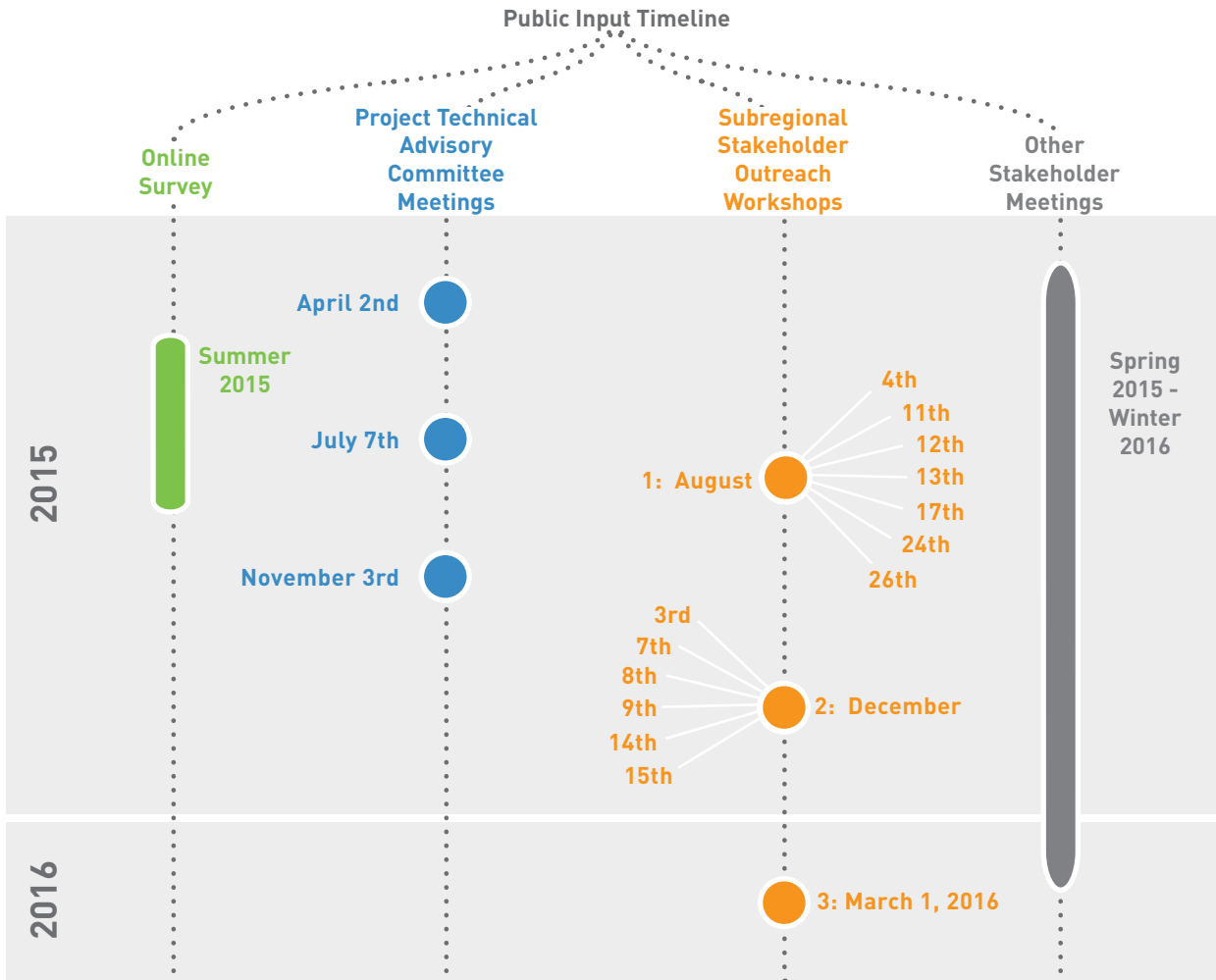


Figure 4.2

## STAKEHOLDER INPUT

Throughout the project, we heard key feedback from stakeholders at every level, summarized here.



Figure 4.3



# FIRST LAST MILE ACCESS TO MAJOR TRANSIT STATIONS & STOPS

The Active Transportation Strategic Plan (ATSP) uses strategies presented in the Metro First Last Mile Strategic Plan and Planning Guidelines to identify opportunities for improving first last mile access to 661 major station locations, which is intended to improve the journey to and from a transit station or stop for people who walk and bicycle to transit.

Unlike the Regional Active Transportation Network, which recommends countywide corridors for active transportation facilities, the first last mile access strategies refer to walking and bicycling improvements around

the 661 station areas (defined in the Existing Conditions section, Chapter 2), which are local in nature but connect to the wider transportation network via transit, thus generating regional benefits.

This section presents a step-by-step guide to assist local jurisdictions and stakeholders in identifying opportunities for first last mile access improvements around a transit area, based on the process established in the First Last Mile Strategic Plan.

The ATSP Volume II: Case Studies companion document uses this process to recommend first last mile improvements around 20 different study areas throughout Los Angeles County. These case studies reflect the diversity of transit areas, geographies, demographics, land uses, building and population densities, and subregions of Los Angeles County.

Refer to the ATSP Volume II: Case Studies document to determine which conditions are most similar to your project study area and use these case studies as a helpful guide.

The ATSP has not identified specific first last mile access routes to each station area location, since this should be done at the local level and with applicable stakeholder input. The ATSP is developed to ensure that there is flexibility in local planning, design, and implementation that suits the context of the community. Key first last mile recommendations are summarized in this section and presented in more detail in the ATSP Volume II: Case Studies companion document.

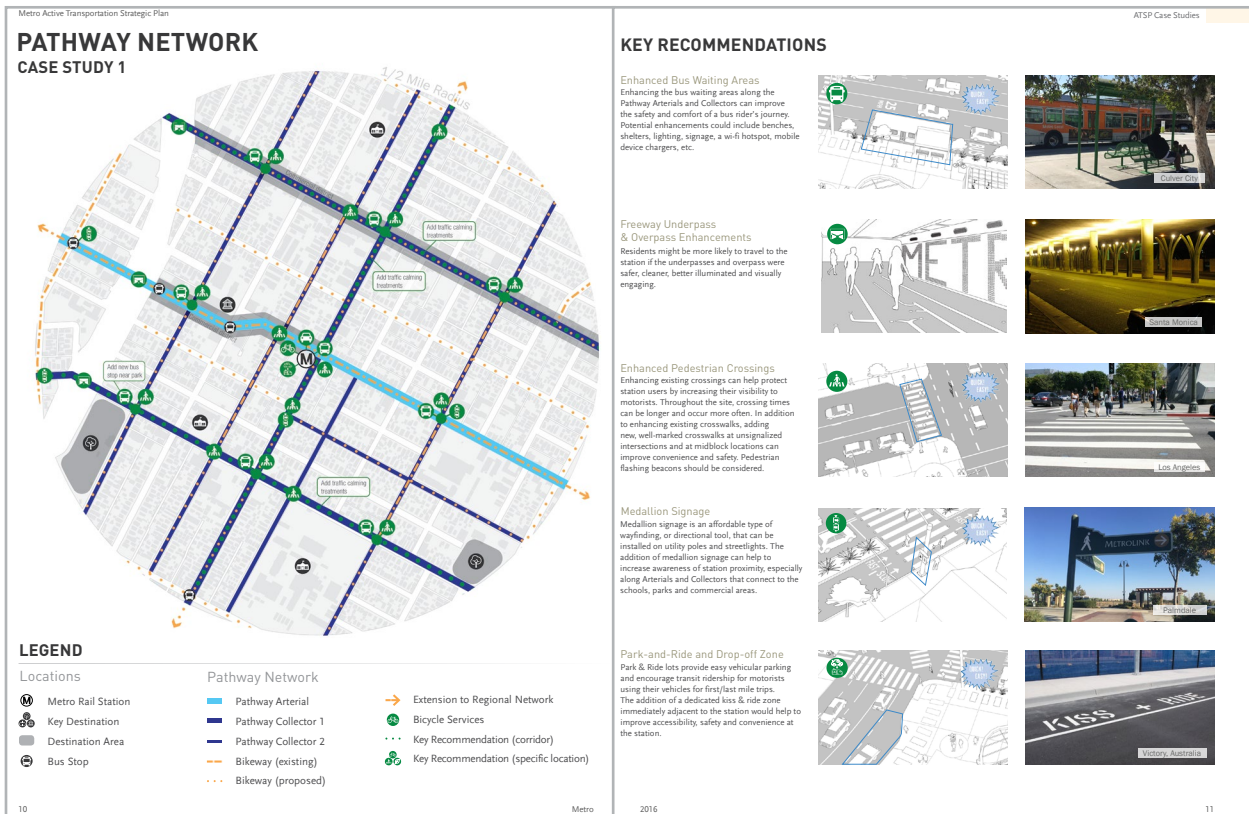
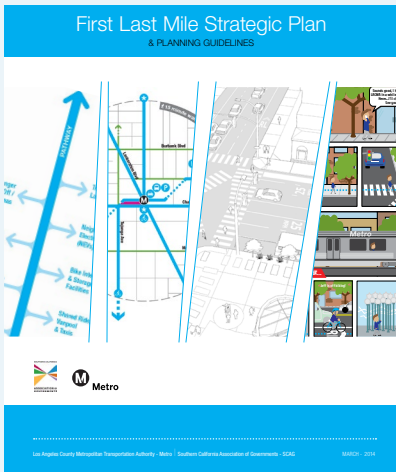


Figure 4.4: Pages from the ATSP Volume II: Case Studies

## First Last Mile Strategic Plan & Planning Guidelines



The First Last Mile Strategic Plan & Planning Guidelines (2014) provides municipal organizations, community groups, and private institutions with a planning tool that strategically focuses infrastructure investments around a transit station or stop, with the ultimate goal of improving transit ridership. The Plan serves as guidance to create and implement a Pathway Network, which is a strategy that addresses first last mile challenges. Infrastructure investments are concentrated

along the Arterials, Collectors, and Cut-Throughs of a particular Pathway Network. Arterials are the main streets that extend from transit locations and support maximized throughput and efficiency for active transportation users. Collectors include routes that both feed into Arterials and support general station area permeability. Cut-Throughs are supporting paths, often used as shortcuts that feed into Arterials and Collectors. These classifications do not supersede roadway designations assigned by the local jurisdiction.

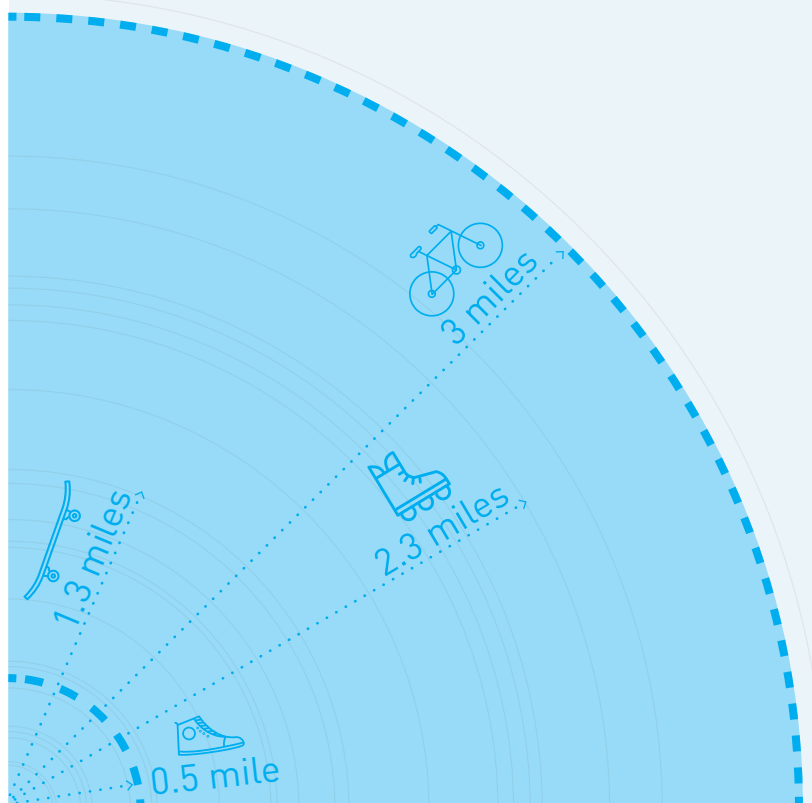


Figure 4.5: First last mile access shed

### Access Shed

The First Last Mile Strategic Plan requires identification of an access shed, which is the average distance a person is willing to travel to a transit station or stop. The size and shape of an access shed depends on the type of active transportation that the project seeks to accommodate as well as typical access barriers such as topography, block size, and freeways.



# How to Use the First Last Mile Strategic Plan

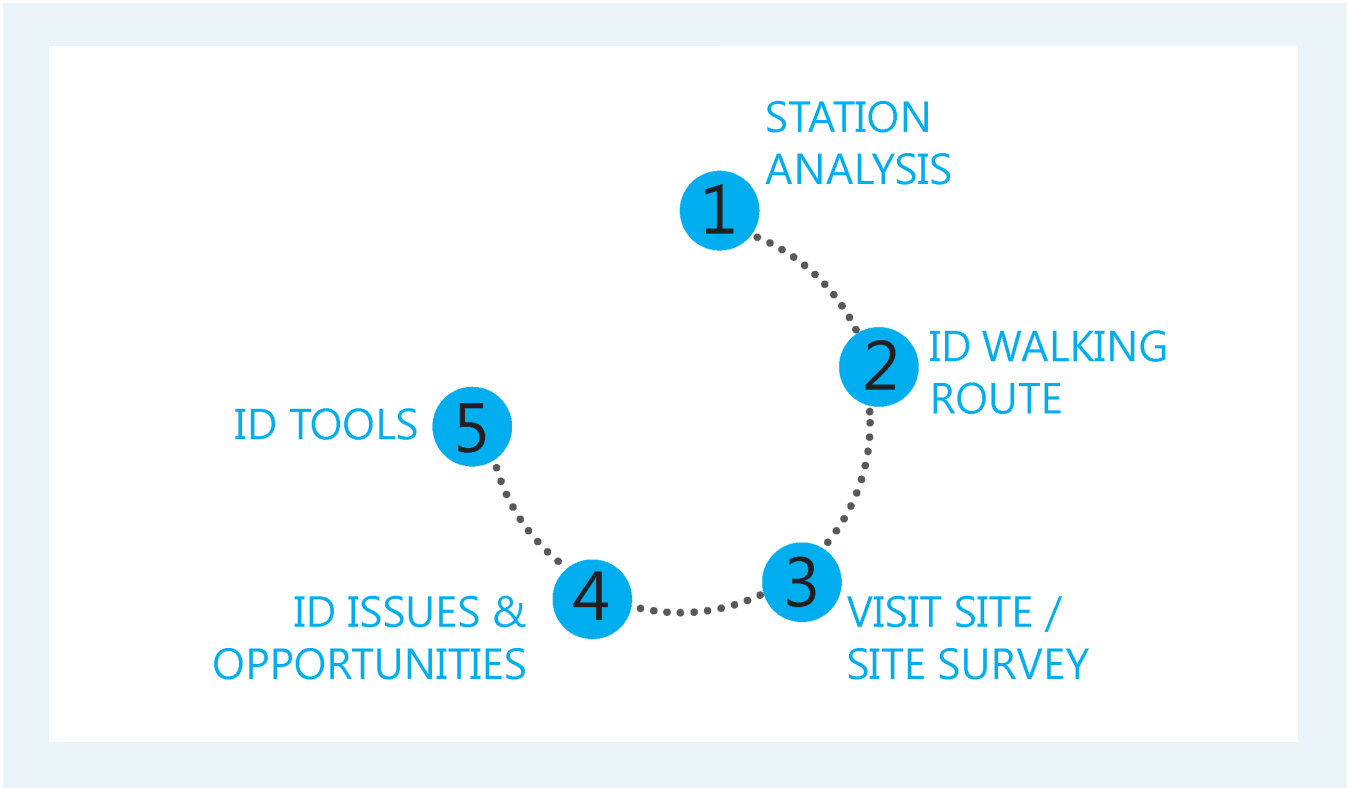
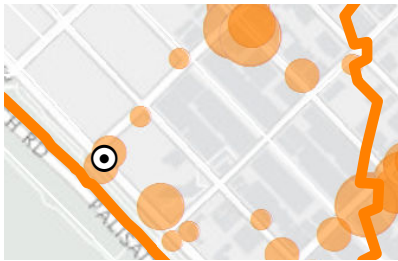


Figure 4.6: Simplified First Last Mile Process



Metro riders boarding a bus at a high ridership stop



### 1. Conduct Preliminary Station Analysis

First last mile planning requires a comprehensive understanding of the study area, which is the space within the access shed of a transit stop or station. The access shed is defined by several measures, including distance, topography, block size, and freeways; these conditions serve as barriers or opportunities to first last mile connectivity.



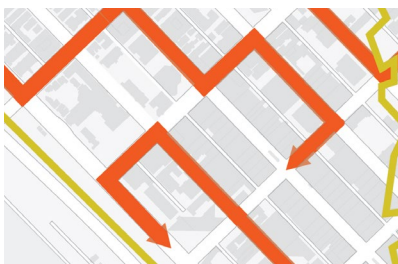
1. Browse the existing conditions analysis online portal available at: <http://gis.fehrandpeers.com/metroatstp>.



2. Identify a Metro transit station or stop for the first last mile analysis



3. Study the existing conditions analysis summary



### 2. Determine Walking Route

Site visits offer first-hand knowledge of existing conditions within a study area. One way to conduct an effective site visit is by creating a walking route from a transit stop or station that passes by important destinations such as schools, commercial districts, and residential areas. Also consider routes that have high levels of activity, existing and planned bicycle routes, and areas where collisions have been reported.



1. Determine a walking route in the study area, based on elements from the existing conditions analysis summary



2. Make sure to visit local destinations such as points of interest, bicycle facilities, and areas where collisions have occurred



Recommendation: Talk to people who are familiar with the area to get a better sense of where and how people are travelling; consider organizing a walking audit

STATION AREA CHECKLIST		For each of the quality criteria, mark the station area based on how well it meets the criteria independently or jointly in parallel situations. Consider, and if needed, separate assessment for safety.				
		Disagree/ Tending	Somewhat/ Adequate	Strongly Agree/ People		
<b>1. SAFETY</b>						
1.1 Adequate lighting. (Night survey required)	Regularly spaced and frequent lighting that is directed towards the sidewalk and any driveway, which provides sufficient illumination. Potential obstacles marked with reflectors or lighting.	1	2	3	4	5
1.2 Eyes-on-the-street.	Presence of lighting management, ground floors, windows, and awnings.	1	2	3	4	5
1.3 Well maintained public realm.	Concrete is well-maintained and without cracks; vegetation is trimmed, etc.	1	2	3	4	5

### 3. Visit Study Area & Complete Checklist

Now that the walking route has been planned, visit the study area to document the existing conditions. The First Last Mile Strategic Plan includes a station area checklist that qualitatively focuses on the safety, accessibility, and aesthetics of a station area. Fill out the checklist after your site visit has been completed; it helps if multiple people complete the checklist to get more balanced results.



1. Visit the study area and conduct site visit; repeat visits at different times of the day



2. Fill out a station area checklist found in the Metro First Last Mile Strategic Plan



3. Take photographs and notes of both barriers and local assets to first last mile connectivity



#### 4. Identify Issues & Opportunities

Every study area is unique, but there are typical first last mile issues including gaps in the bicycle network, street conditions barriers (e.g. lack of sidewalks), land use barriers (e.g. long blocks), connectivity gaps (e.g. freeways), and lack of amenities (e.g. bus stop benches). Typical access strengths include transit stations, key destinations (e.g. schools), destination corridors (e.g. retail areas), existing bikeways, corridor assets (e.g. shade), and specific assets (e.g. enhanced crosswalks).



1. Identify the key issues and assets relating to first last mile connectivity based on the existing conditions analysis, site visits, and station area checklist results



2. Refer to the First Last Mile Strategic Plan to identify typical issues and assets in Los Angeles County



3. Make the message clear and concise to stakeholders and funders by prioritizing key issues and assets



#### 5. Choose First Last Mile Improvement Tools

The First Last Mile Strategic Plan has a list of improvement tools that help to address barriers to connectivity. Start by creating a Pathway Network and focusing improvements along those routes. Tools may include sidewalk addition or widening, landscaping and shade, enhanced pedestrian crossings, bikeway improvements, enhanced bus waiting areas, underpass and overpass enhancements, medallion signage, and kiss-and-ride locations.



1. Create a Pathway Network (refer to First Last Mile Strategic Plan)



2. Choose improvements from the First Last Mile Strategic Plan that relate to priority issues



3. Recommendations: Choose improvements that are more affordable and quick to install; implement temporary pilot projects or long-term infrastructure projects

## Key First Last Mile Recommendations

ATSP Volume II Symbol	Term	Further Description
	Bike Share Station	Provides numerous strategic locations where users can rent bicycles for short-term use; bike share stations located at transit stations and stops make bicycling a convenient option for first last mile trips; other stations are typically placed at strategic locations close to destinations; corporate sponsorships and other public-private coordination can help make bike share a relatively inexpensive intervention for municipalities
	Sidewalk Widening or Addition	Improves safety, comfort and convenience for people of all ages and abilities; wider sidewalks create more room for streetscape elements that enhance comfort and convenience, such as street furniture, bus waiting areas, landscaping, and trees
	Enhanced Pedestrian Crossings	Protects transit users by increasing their visibility to motorists; crossing times can be longer and occur more often; in addition to enhancing existing crosswalks, adding new, well-marked crosswalks at unsignalized intersections and at midblock locations can improve convenience and safety; pedestrian flashing beacons may be considered
	Enhanced Bicycle Facility	Improves safety and increase comfort for people bicycling; these include bicycle lanes physically separated from vehicular traffic, such as buffered lanes, cycle tracks, painted bicycle lanes, conflict zone markings at/approaching intersections, bicycle boxes, and bicycle-prioritized signalization
	Curb Extensions at Intersections	Improves safety by shortening crossing distances, increasing visibility of people walking, and slowing vehicles that are turning; it can also provide room for amenities such as seating areas, bioswales, stormwater management, and other planted areas
	Traffic Calming	Decreases speeds along streets with heavy, fast-moving traffic in order to increase safety and comfort for all users of the street; traffic calming treatments include physical measures such as curb extensions to narrow the roadway, narrowed travel lanes to promote slower driving speeds, and diverters to limit vehicle cut-through traffic on neighborhood streets
	Enhanced Bus Waiting Areas	Improves the safety and comfort of a bus rider's journey; potential enhancements could include benches, shelters, lighting, signage, wi-fi hotspot, mobile device chargers, etc.
	Freeway Underpass and Overpass Enhancements	Traveling to the transit station stop by foot or bike would be more convenient and comfortable if the underpasses were safer, cleaner, better illuminated, and visually engaging.

ATSP Volume II Symbol	Term	Further Description
	New Connection Across Barrier	Designing a new connection across the railroad crossings can improve connectivity to the station; this can manifest as an at-grade signalized crosswalk for people walking and bicycling; a well-designed connection should consider the safety of all people
	Medallion Signage	Medallion signage is an affordable type of wayfinding, or directional tool, that can be installed on utility poles and streetlights; the addition of medallion signage can help to increase awareness of station proximity, especially along Arterials and Collectors that connect to the schools, parks and commercial areas
	Street Furniture	Provides amenities to make active transportation users comfortable while traveling and provide resting places; waste receptacles, pedestrian-scale lighting, water fountains, and bicycle parking are other elements that enhance the sidewalk environment
	Landscaping and Shade	Improves aesthetics, provide pleasant and safe pathways, and offer an attractive buffer between the sidewalk and the roadway; trees and shade structures provide refuge from the sun for people walking, resting, or waiting
	Lighting	Increases safety and aid in night navigation for people walking or bicycling along Pathway routes; install lighting rhythmically and consistently in coordination with tree canopies as not to block the light; consider installing lights that are efficient and/or motion activated/self powered in areas where constant light is not needed
	Car Share	Provides numerous strategic locations where users can rent vehicles for a short term use; vehicle pick-up/drop-off spaces should be located conveniently nearby the transit station or stop at a highly-visible and location
	Bicycle Services	Includes secure bicycle parking, bicycle hubs, bicycle repair stations, and/or bike share
	Park-and-Ride	Park and Ride lots provide easy vehicular parking and encourage transit ridership for motorists using their vehicles for first last mile trips; the addition of a dedicated drop-off zone immediately adjacent to the station would help to improve accessibility, safety and convenience at the station
	Key Recommendation Along Corridor	Key recommendations that extend throughout the entire length of the corridor



## THE REGIONAL ACTIVE TRANSPORTATION NETWORK

The Regional Active Transportation Network (Regional Network) is a countywide system of routes intended to serve active travelers - people walking, riding bicycles and using other non-motorized modes. The purpose of the Regional Network is to deliver an interconnected network of convenient active transportation routes that enable Los Angeles County residents to safely access

the places they want to go by the mode of their choosing.

Cities around Los Angeles County are making tremendous progress in constructing active transportation facilities (such as sidewalks and protected bicycle lanes). However, the County has lacked a regional vision for inter-jurisdictional travel, resulting in piecemeal local systems, large network gaps and a wide range

of facility comfort. The Regional Network is a low-stress network. This means that facility users will not be expected to share lane space with high-speed or high-volume motor vehicle traffic. The Regional Network is comprised of facility types with high safety performance and the ability to attract and retain users. Metro is committed to realizing this vision, and will support local jurisdictions in implementing the

### Regional Active Transportation Network Guiding Principles

#### Connect cities and communities

The Regional Active Transportation Network emphasizes connectivity between communities, as opposed to connectivity within local jurisdictions. However, regional routes will still play a role in local travel.

#### Serve desire lines

The Regional Active Transportation Network enables bicycle travel on the routes that people want to use. People generally want routes that are direct and safe.

#### Serve Main Street

The Regional Active Transportation Network embraces routes that link directly to the cores of cities, serving historic Main Streets and Central Business Districts.

#### Harness continuous rights-of-way

The Regional Active Transportation Network relies upon continuous rights-of-way (both natural and human-made) to provide unhindered movement for long stretches.

#### Link to transit

The Regional Active Transportation Network seeks opportunities to connect with major transit hubs, particularly if these hubs are located in population centers.

#### Address existing safety problems

The Regional Active Transportation Network improves travel conditions along routes with a history of bicycle crashes.

#### Design for all ages and abilities

The facilities comprising the Regional Active Transportation Network meet a minimum standard of service, suitable for use by children and seniors.

Regional Active Transportation Network progressively over time through funding and technical support.

The Regional Active Transportation Network is intended to serve both people walking and people riding bicycles. However, the network planning process primarily takes cues from best practices in regional bikeway network development, for the following reasons:

- > Pedestrian trips are inherently less regional in scale than bicycle trips due to differences in travel speed;
- > The Active Transportation Strategic Plan includes detailed transit station area plans that emphasize pedestrian connectivity;
- > The Regional Active Transportation Network will directly serve pedestrian travel on all of its recommended Class I (shared-use path) facilities;
- > The Regional Active Transportation Network will indirectly improve pedestrian conditions around many of its other facilities (for instance, protected bicycle lanes reduce sidewalk riding, calm traffic and shorten crossing distances, all of which improve pedestrian safety and comfort); and

- > The inclusion of sidewalks can be assumed on most on-street facilities with low-stress bikeways, such as protected bicycle lanes (Class IV) or bicycle boulevards (Class III).

## Design Flexibility

Metro encourages local jurisdictions to pursue facilities that best fit their communities. The Regional Active Transportation Network has been designed with local implementation in mind, and flexibility in design is a key aspect of this approach.

The generalized facility type identified for each Regional Network project is subject to review, modification and implementation by the relevant local jurisdiction(s). Engineering judgment, feasibility studies or community feedback may identify an alternative facility type for a Regional Network project. Provided that the modified facility meets the eligibility criteria contained in Table 4.1, the facility may be considered part of the Regional Network for the purposes of Metro grant opportunities and regional designation.

The alignments identified are also subject to review and modification by the relevant local jurisdiction(s). The Regional Network is intended to provide local jurisdictions with a high degree of latitude to construct

facilities using preferred alignments. If a locally-identified alignment diverges from the identified Regional Active Transportation Network project, it can maintain Regional Active Transportation Network status by serving the same desire line as the original Regional Active Transportation Network facility (i.e. serving the same general corridor or destinations). For instance, a jurisdiction may elect to construct a facility along a parallel urban street or off-street corridor serving the same destinations as the original Regional Network alignment. As described above, these alternative facilities may harness the full range of available facility types and design enhancements, provided that the facility meets the eligibility criteria contained in Table 4.1.

## Regional Active Transportation Network Eligible Facility Types

Table 4.1

Regional Active Transportation Network Design Guidance/Standards	Off-Street	Dedicated On-Street	Shared On-Street
Highway Design Manual (HDM) Class <sup>1</sup>	Class I	Class II & Class IV	Class III
HDM Class Eligible Under the Following Conditions <sup>2</sup>	Always	A conventional Class II bicycle lane is only eligible on a low-stress roadway. <sup>3</sup>  Class II bikeways with buffers and Class IV protected bicycle lanes (with various barrier types) are always eligible.	A Class III facility is only eligible on a low-stress roadway. <sup>4</sup>
Available Design Enhancements	Bicycle Freeway <sup>5</sup> Floating Bicycle Path <sup>6</sup> Sub-Grade Bicycle Intersection <sup>7</sup>	Various separation methods  Two-way or contraflow operation  Protected intersection	Various traffic calming methods to maintain low traffic speeds and volumes  Bicycle boulevards, bike-friendly streets, neighborhood greenways  Advisory Bicycle Lanes

1. California Department of Transportation, 2015. [Highway Design Manual](#).

2. Eligible facility types are those that are consistent with Regional Active Transportation Network design standards. Existing or planned facilities meeting these standards are not necessarily included in the Regional Active Transportation Network.

3. For Class II bicycle lanes, a low-stress roadway is defined as having a bicycle lane adjacent to the curb, rather than parked vehicles, and no more than two general purpose travel lanes.

4. For Class III bicycle boulevards, a low-stress roadway is defined as having average daily vehicle volumes of no more than 2,000 and 85th percentile speeds at or below 20 mph.

5. A Bicycle Freeway is a long-distance bikeway that is separated from auto traffic and other street activity, allowing for high cycling speeds. The goal is to give cyclists the same long-distance access that drivers have on a auto-only freeway.

6. A Floating Bicycle Path is a cantilevered structure that transitions into floating dock pathways to serve as part of a continuous shared use path or bicycle freeway system across or along a body of water. They are built to accommodate fluctuations in water level and are most applicable when sufficient right-of-way is not available to construct the path on land.

7. A Sub-Grade Bicycle Intersection is a subterranean shared use path or bicycle freeway system that allows people bicycling to avoid interacting with motor vehicles at a large intersection or freeway interchange. These connections help save time and distance and reduce conflicts by allowing non-motorized traffic to proceed through the middle of the intersection without having to circumnavigate the facility.

## Proposed Regional Active Transportation Network

The Proposed Regional Network is presented as a map series (Maps 1 through 11) and a project list (see ATSP Volume III, Appendix H). The Proposed Regional Active Transportation Network comprises nearly 2,000 miles of low-stress active transportation facilities throughout Los Angeles County and consists of three generalized facility types, as defined in Table 4.1: Dedicated On-Street, Off-Street, and Shared On-Street. Overall, the Regional Network

includes 1,390 miles of Dedicated On-Street facilities (70 percent), 510 miles of Off-Street Facilities (26 percent) and 55 miles of Shared On-Street Facilities (3 percent). The Proposed Regional Network also includes about 15 miles of alternative alignments for facilities that are currently under study by Metro. These alignments are included in the overall mileage for the Proposed Regional Network.

Maps 1-11 can be accessed online at <https://www.metro.net/projects/active-transportation-strategic-plan/>. To explore additional existing and planned bikeway facilities in detail, visit <http://gis.fehrandpeers.com/metroatsp>.

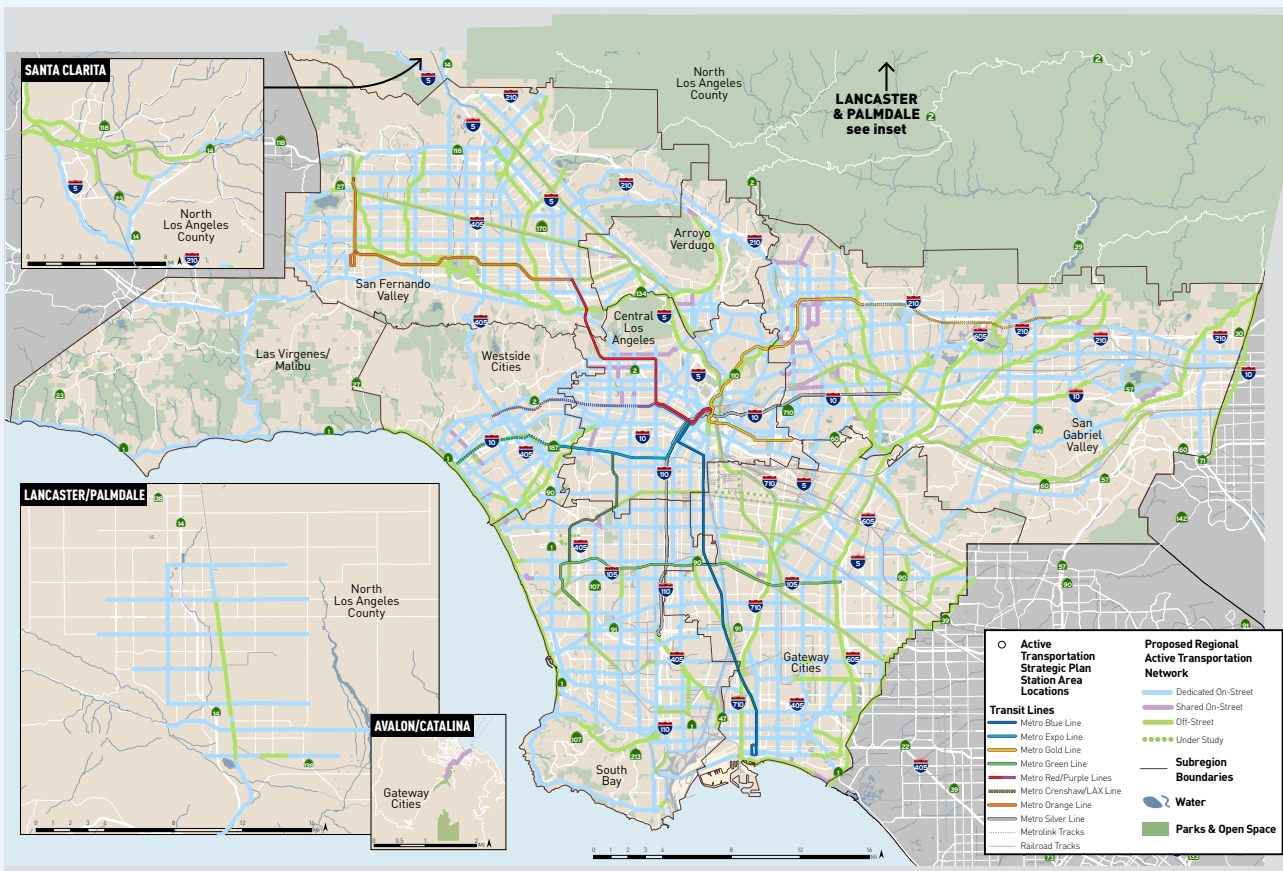
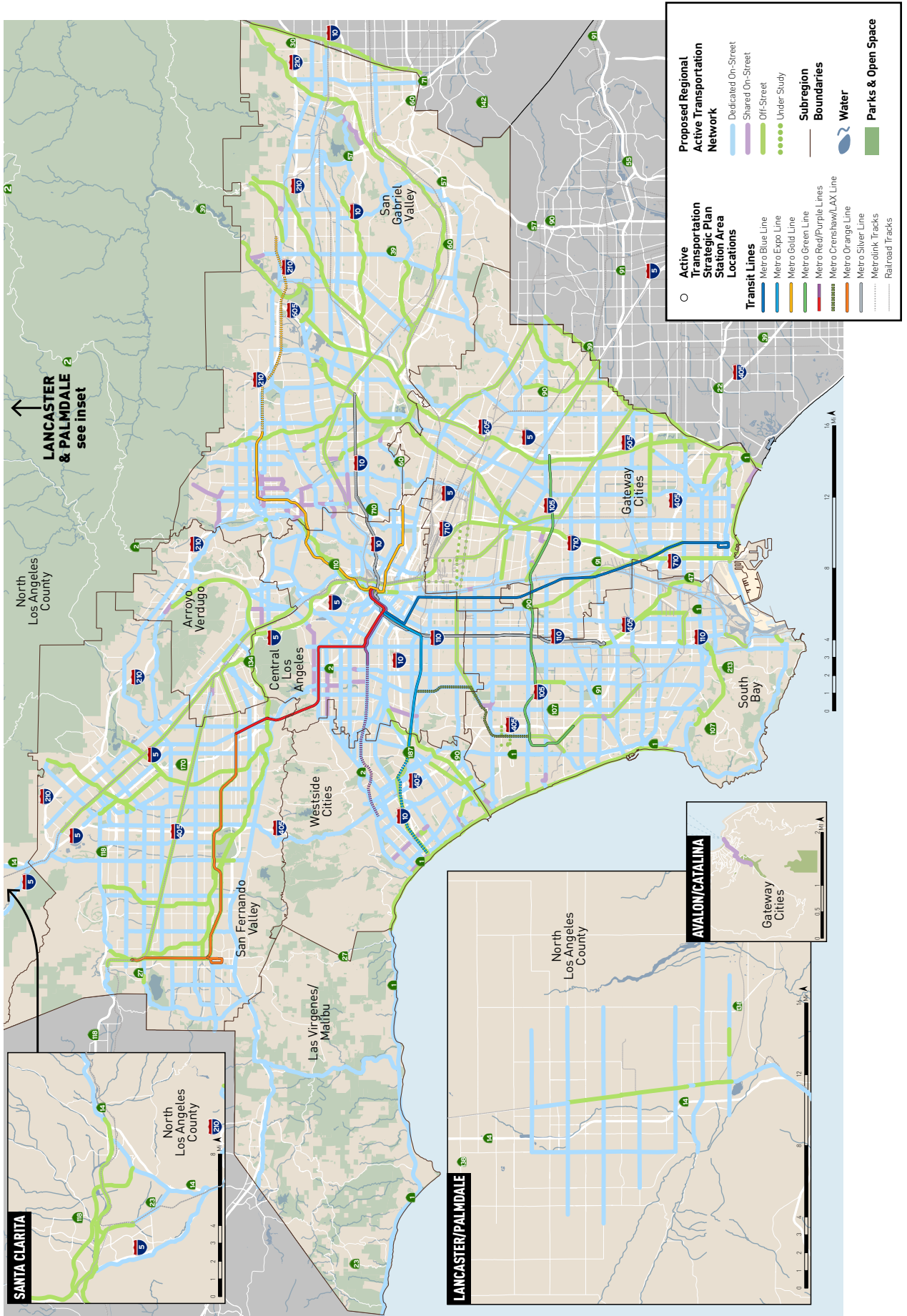


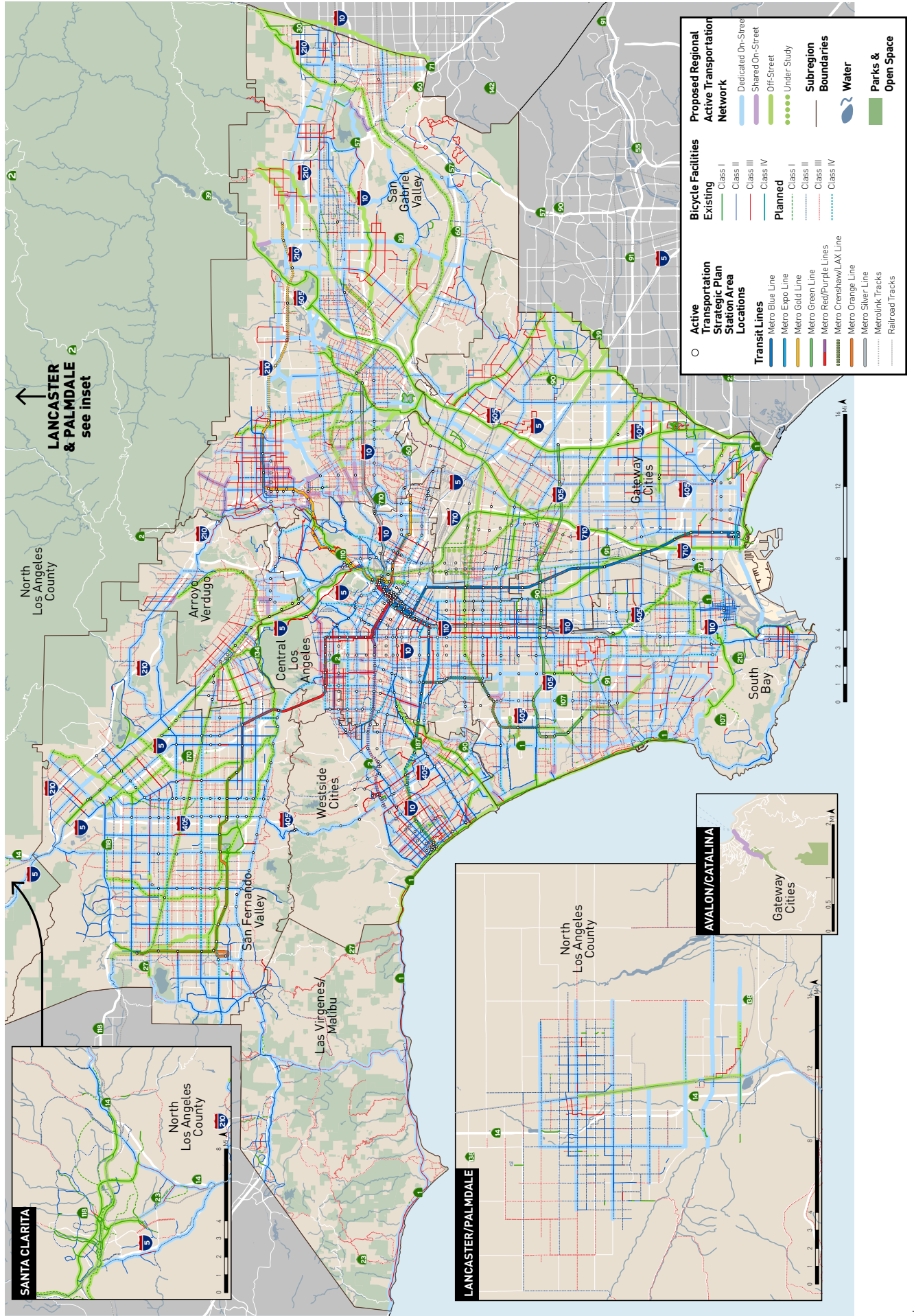
Figure 4.6: Proposed Regional Active Transportation Network (Maps 1-11 show enlargements of this image.)

**Map 1: Regional Active Transportation Network Overview**

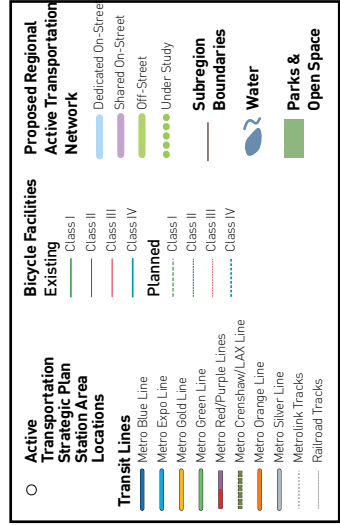
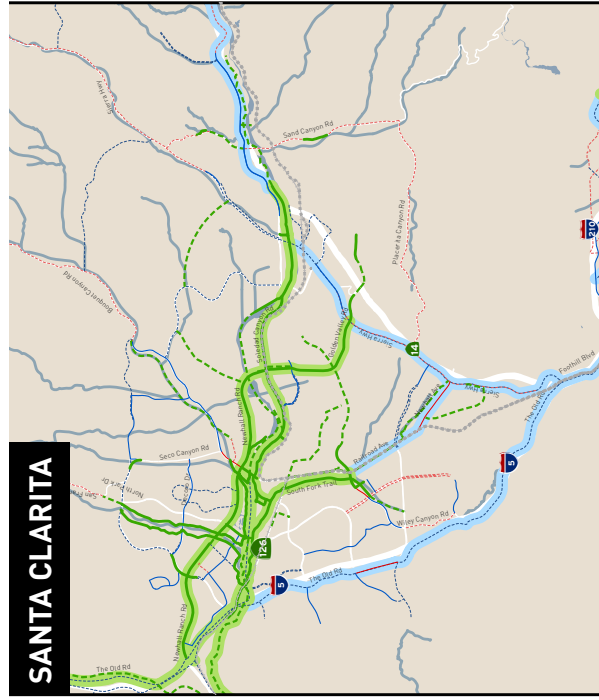
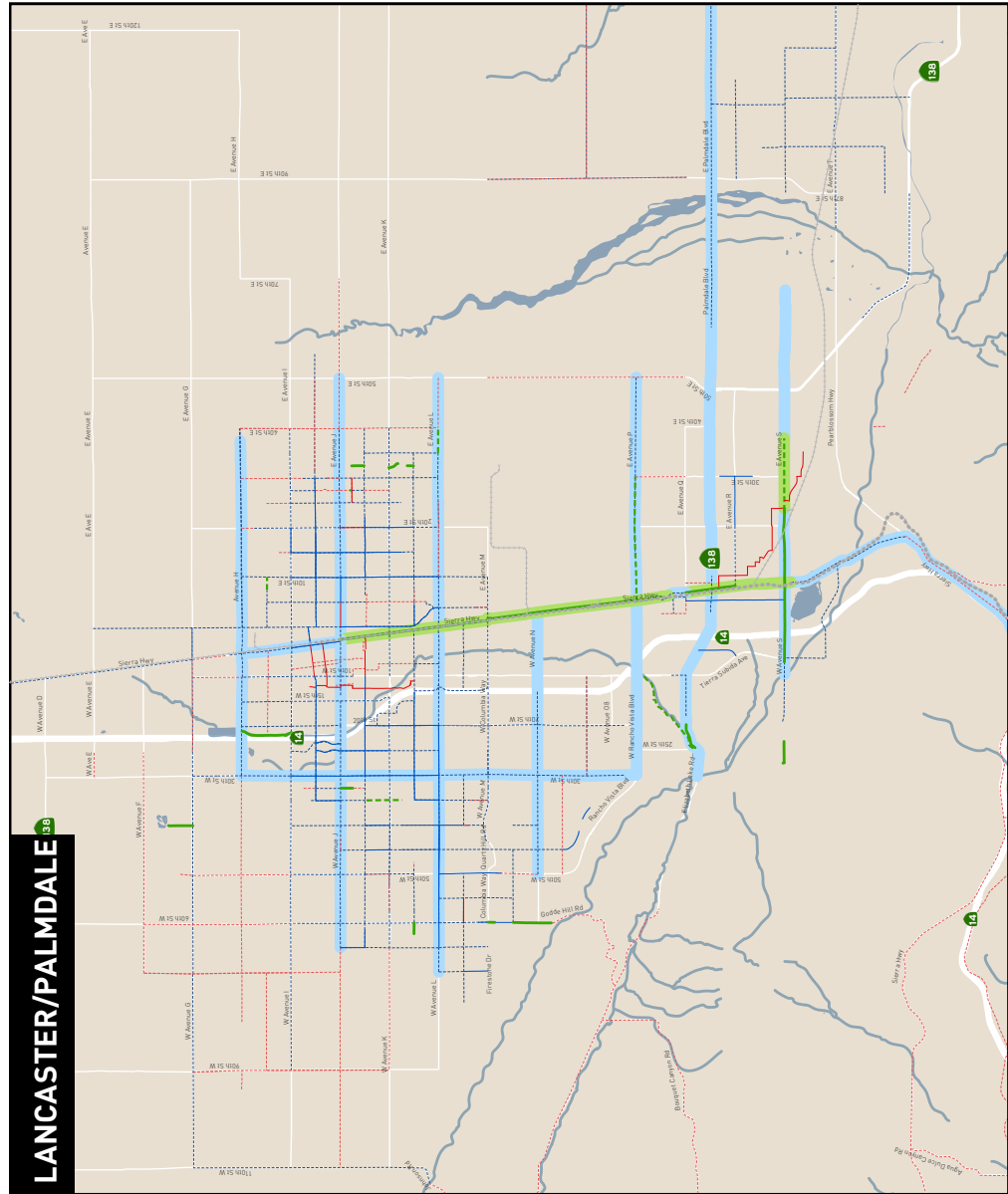




**Map 2: Regional Active Transportation Network with Existing and Planned Bicycle Facilities**

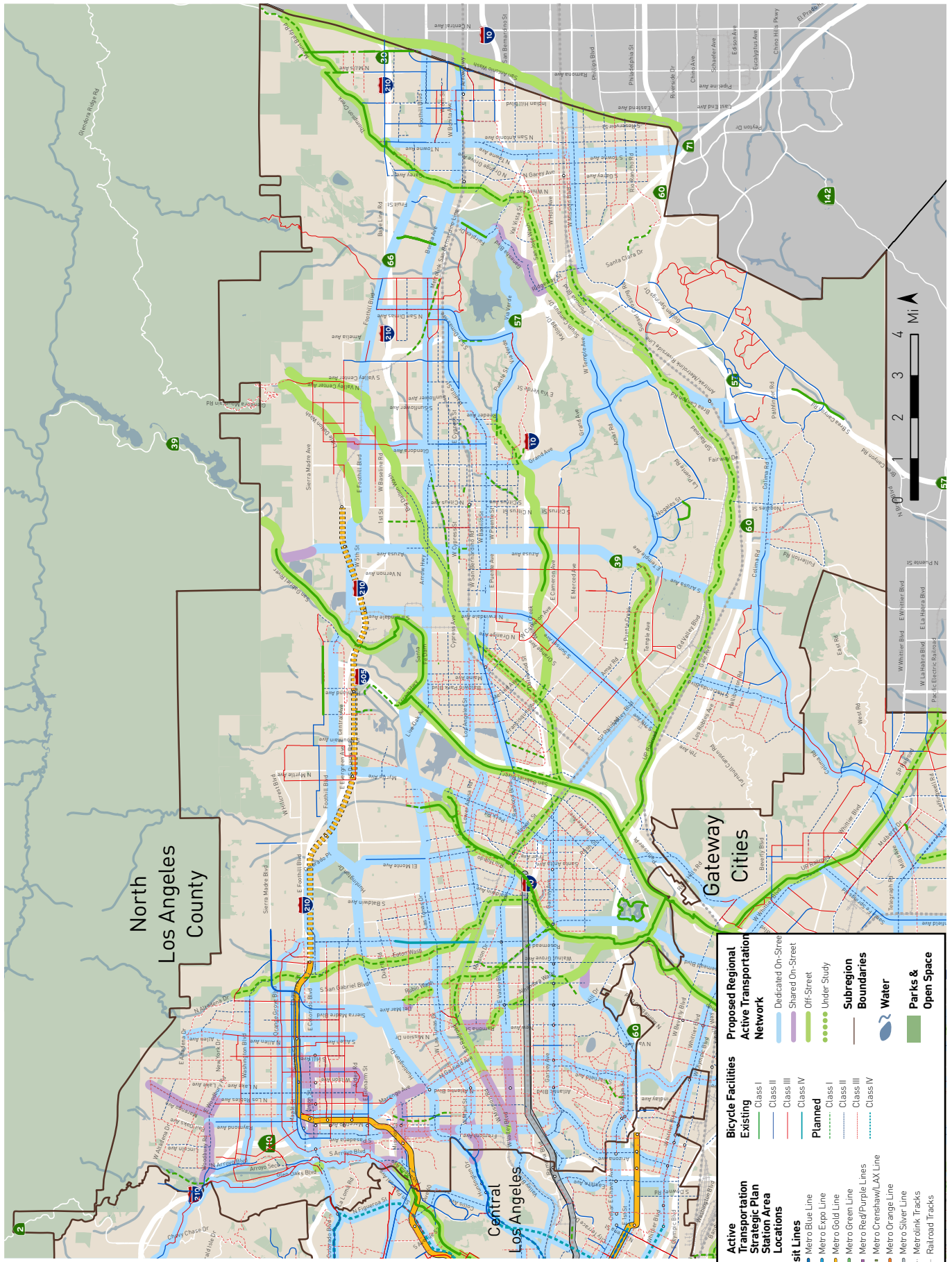


**Map 3: North Los Angeles County Proposed Regional Active Transportation Network**



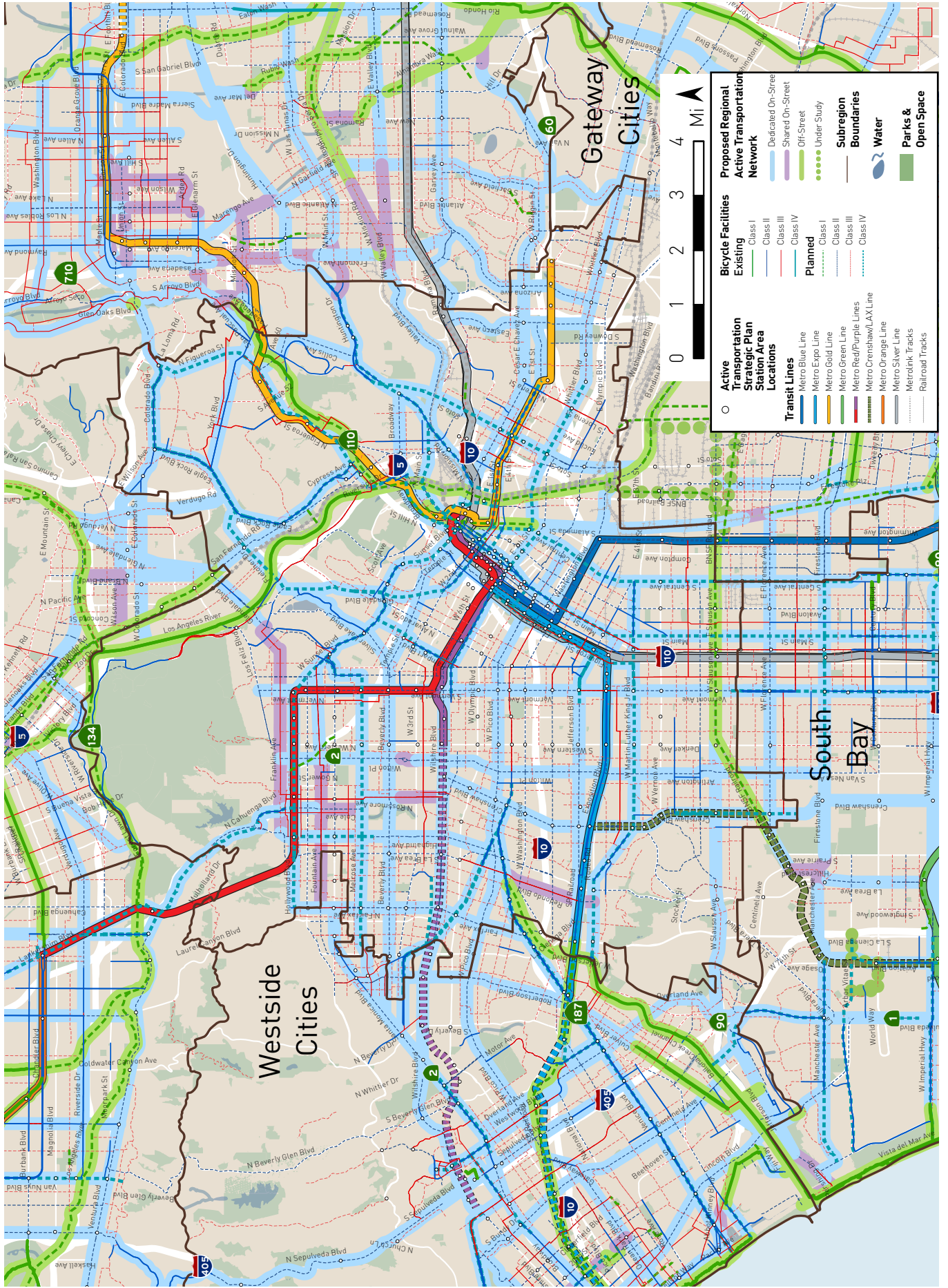


**Map 4: San Gabriel Valley Proposed Regional Active Transportation Network**



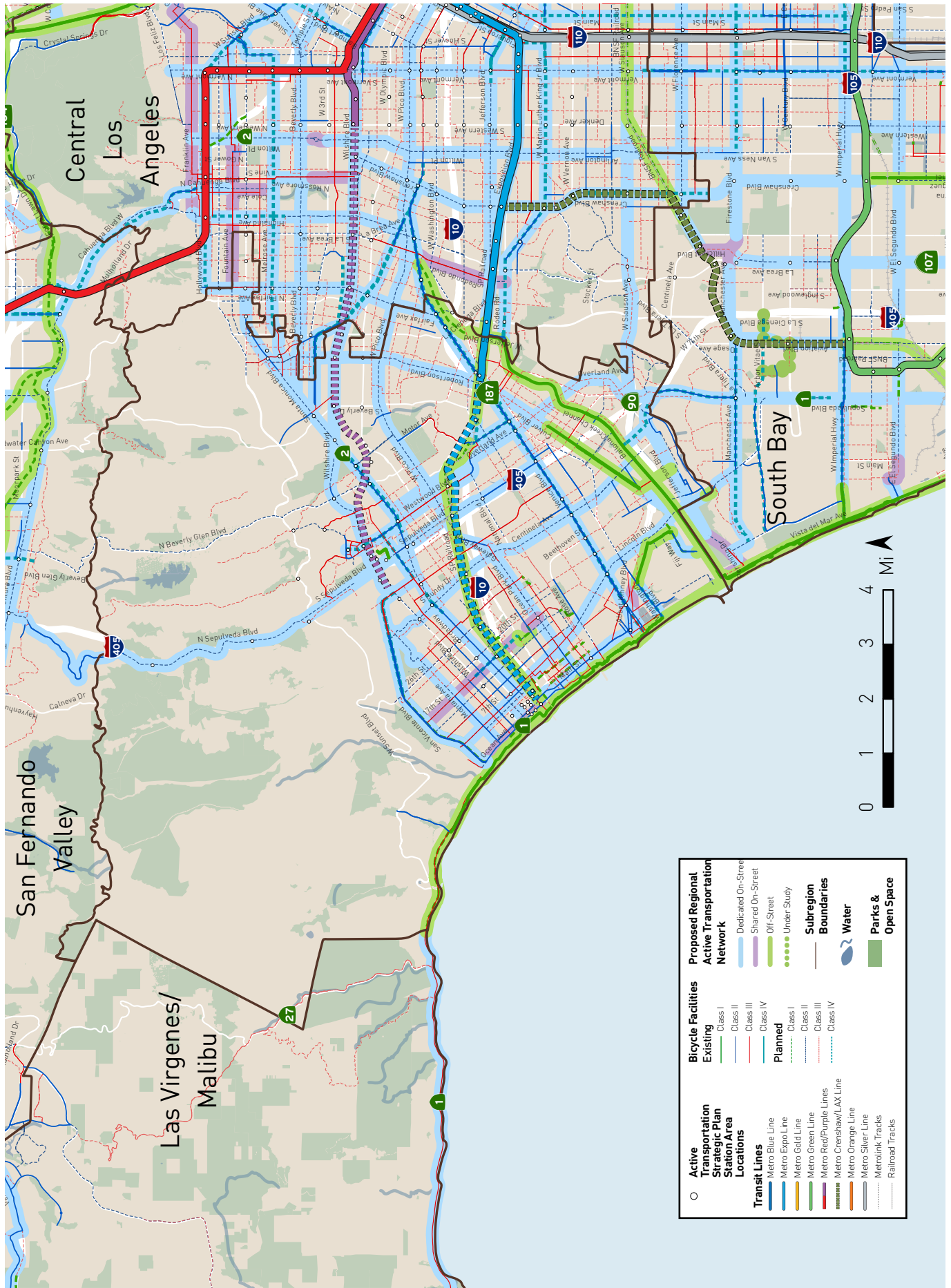
Active Transportation Strategic Plan Station Area Locations		Bicycle Facilities		Proposed Regional Active Transportation Network	
○	Transit Lines	Existing	Planned	Class I	Dedicated On-Street
—	Metro Blue Line	Class II	Class III	Class II	Shared On-Street
—	Metro Expo Line	Class III	Class IV	Class III	Off-Street
—	Metro Gold Line	Class IV	Class I	Class IV	Under Study
—	Metro Green Line	Class I	Class II	Class I	Under Study
—	Metro Red/Purple Lines	Class II	Class III	Class II	Under Study
—	Metro Crenshaw/LAX Line	Class III	Class IV	Class III	Under Study
—	Metro Orange Line	Class IV	Class I	Class IV	Under Study
—	Metro Silver Line	Class I	Class II	Class I	Under Study
—	MetroLink Tracks	Class II	Class III	Class II	Under Study
—	Railroad Tracks	Class III	Class IV	Class III	Under Study

Map 5: Central Los Angeles Proposed Regional Active Transportation Network



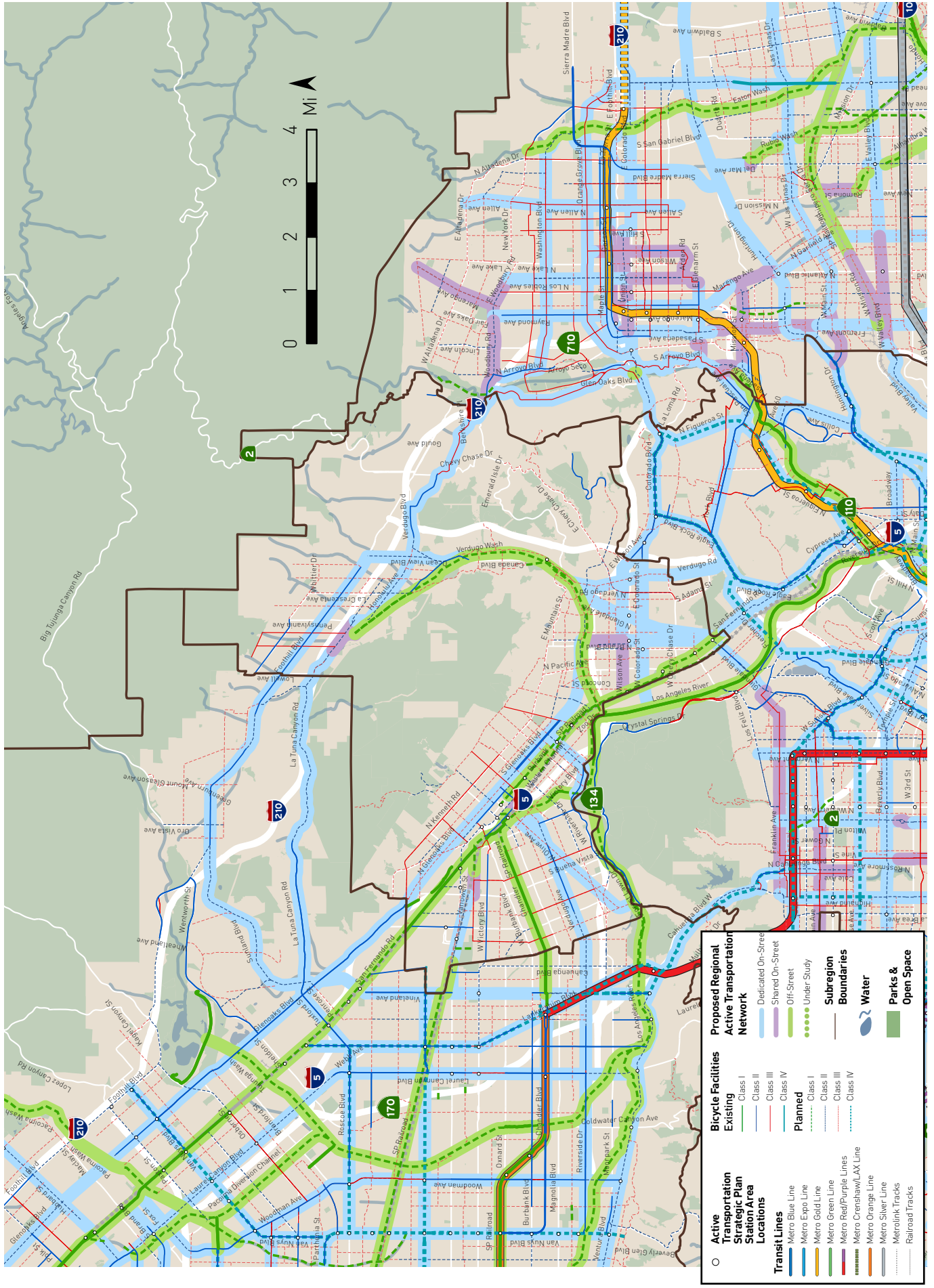


**Map 6: Westside Cities Proposed Regional Active Transportation Network**



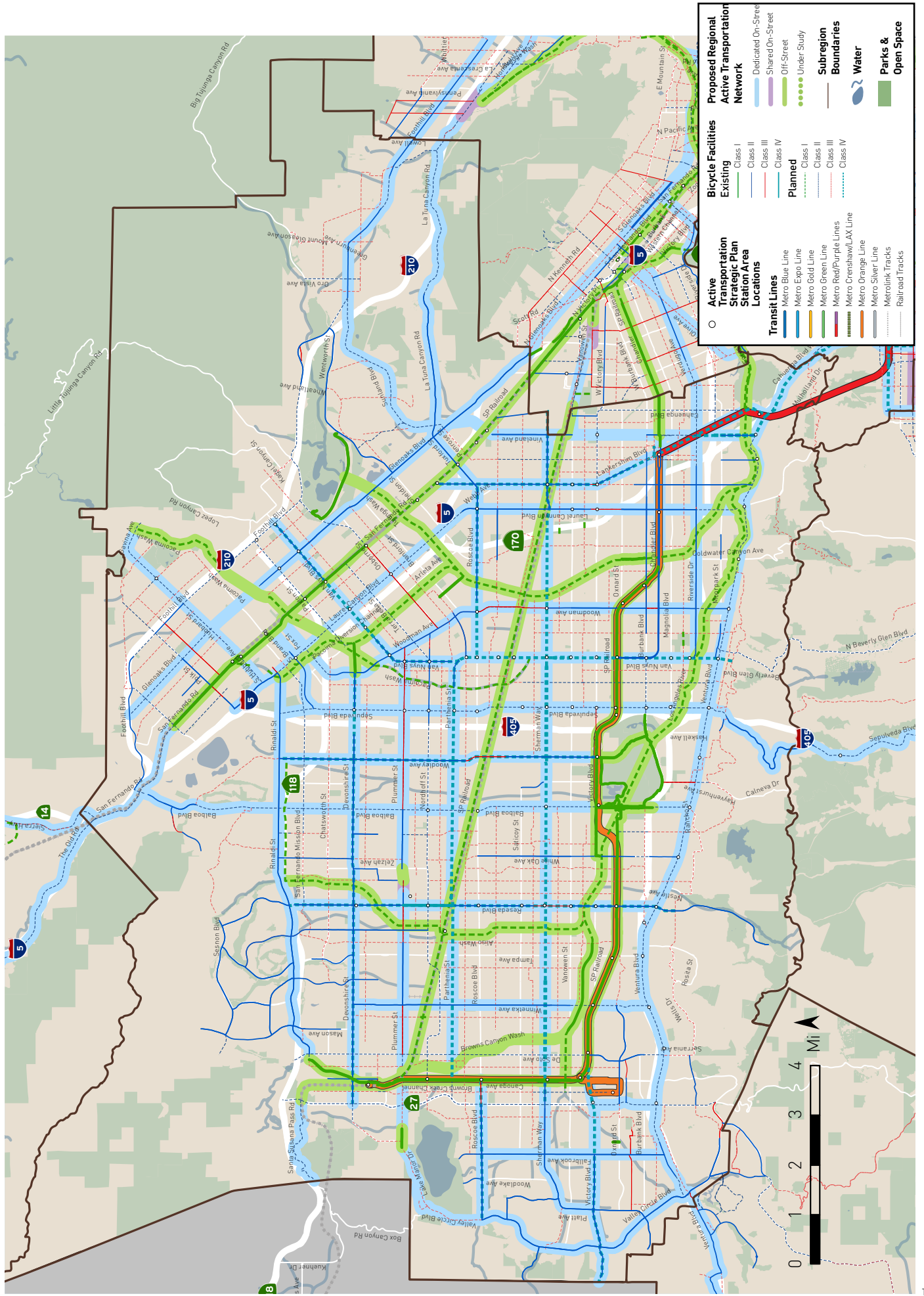


# Map 7: Arroyo Verdugo Proposed Regional Active Transportation Network

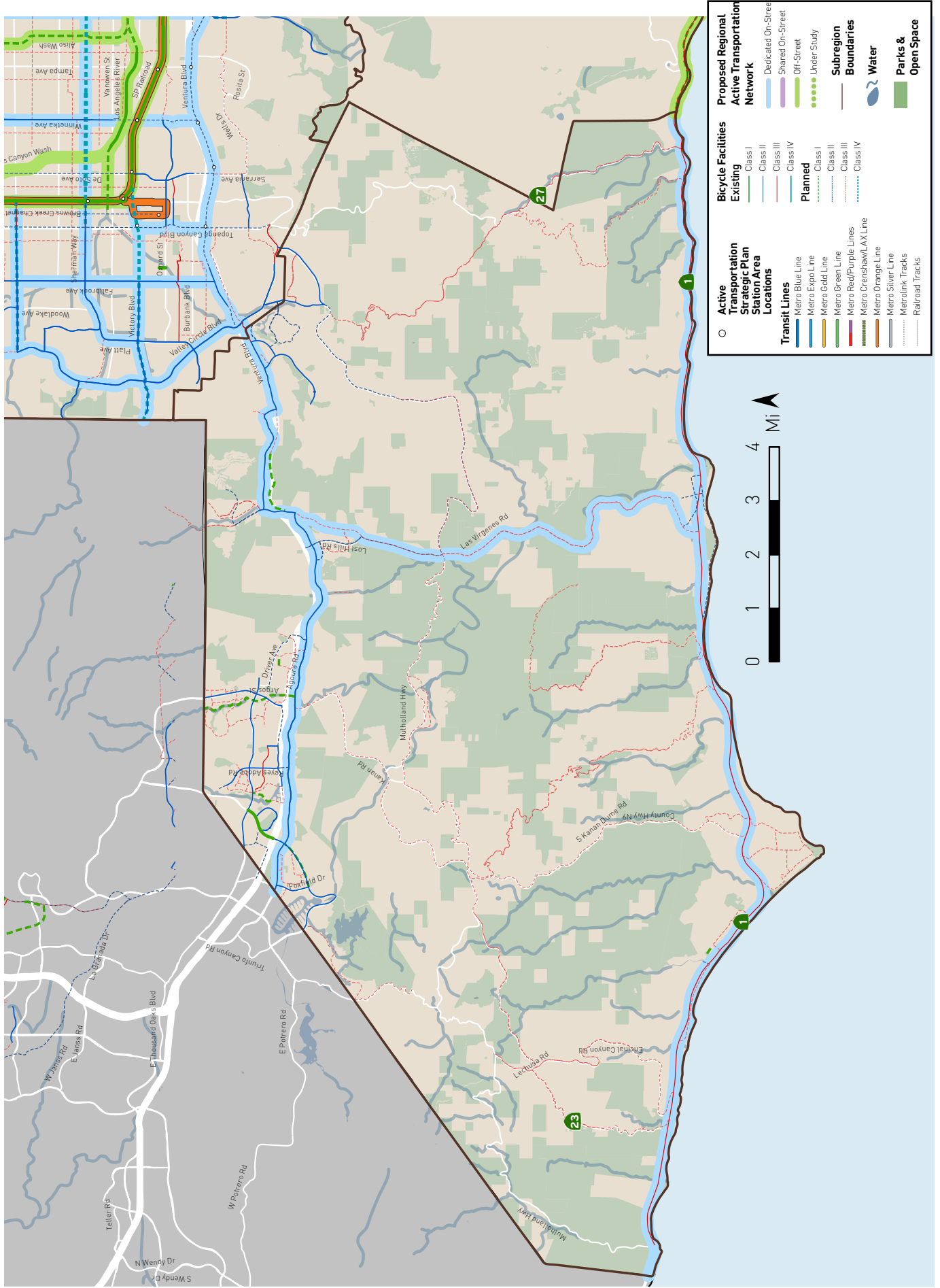


Active Transportation Strategic Plan Station Locations		Bicycle Facilities		Proposed Regional Active Transportation Network	
○	Strategic Plan Station Locations	Class I	Existing	Dedicated On-Street	Proposed Network
—	Class II	Class II	Existing	Shared On-Street	Proposed Network
—	Class III	Class III	Existing	Off-Street	Proposed Network
—	Class IV	Class IV	Existing	Under Study	Proposed Network
—	Class I	Class I	Planned		
—	Class II	Class II	Planned		
—	Class III	Class III	Planned		
—	Class IV	Class IV	Planned		
—	Metro Orange Line				
—	Metro Silver Line				
—	Metrolink Tracks				
—	Railroad Tracks				
—	Water				
—	Parks & Open Space				
—	Subregion Boundaries				

**Map 8: San Fernando Valley Proposed Regional Active Transportation Network**

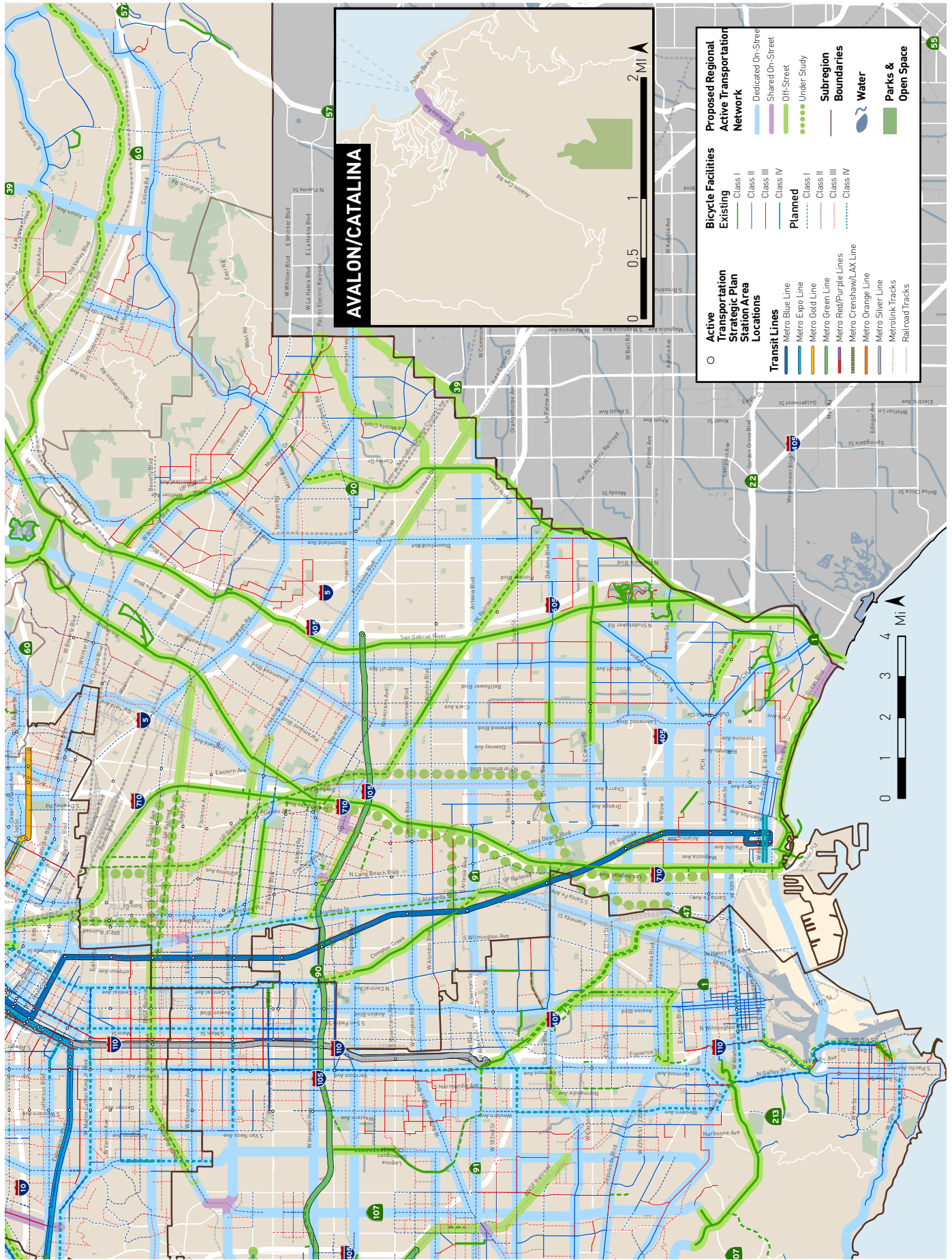


# Map 9: Las Virgenes-Malibu Proposed Regional Active Transportation Network





Map 10: Gateway Cities Proposed Regional Active Transportation Network



**Map 11: South Bay Proposed Regional Active Transportation Network**





Table 4.2

Table 4.2 presents a summarized project list for the facilities included in the proposed Regional Active Transportation Network. This network includes nearly 2,000 miles of low-stress active transportation facilities throughout Los Angeles County and consists of three generalized facility types, as defined in Table 4.1: Dedicated On-Street, Off-Street, and Shared On-Street.

Table 4.2 shows the total mileage by type for each subregion in the county, as well as a low, medium, and high cost estimate for the Regional Network based on the mileage. More detail about the specific facilities included in the Regional Network can be found in Appendix H - Regional Active Transportation Network Methodology and Analysis.

Subregion	Milage				Total Cost Estimate		
	Dedicated	Off-Street	Shared	Metro Study	Low	Medium	High
Arroyo Verdugo	36	20	4	-	\$3,813,436	\$61,275,537	\$320,652,189
Central Los Angeles	232	24	9	1	\$9,937,396	\$160,066,589	\$837,315,707
Gateway Cities	196	129	5	12	\$14,108,395	\$226,834,079	\$1,186,906,134
Las Virgenes/ Malibu	44	-	-	-	\$1,354,114	\$21,840,541	\$114,226,029
North Los Angeles County	134	47	-	-	\$8,547,752	\$137,461,688	\$719,241,743
San Fernando Valley	230	99	0	-	\$18,718,312	\$300,843,632	\$1,574,245,230
San Gabriel Valley	245	118	27	-	\$22,839,528	\$367,099,021	\$1,920,929,795
South Bay	168	39	3	-	\$8,931,079	\$143,718,448	\$751,906,645
Westside Cities	90	35	8	-	\$5,531,081	\$88,991,715	\$465,598,235
Ports & Airports	15	0	-	2	\$501,843	\$8,091,489	\$42,320,642
<b>Total</b>	<b>1,390</b>	<b>510</b>	<b>55</b>	<b>15</b>	<b>\$94,282,934</b>	<b>\$1,516,222,738</b>	<b>\$7,933,342,350</b>

5

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*Users of all ages enjoy bike-related activities in the LA area*



*Pedestrian and cyclists wait to board a Metro bus*



*Green bike lanes provide visible cycling access in Santa Monica*