

SANTA MONICA BIKE ACTION PLAN



NOVEMBER 2011



ACKNOWLEDGEMENTS

CITY COUNCIL

Richard Bloom, Mayor
Gleam Davis, Mayor Pro Tempore
Robert Holbrook
Kevin McKeown
Pam O'Connor
Terry O'Day
Bobby Shriver

CITY MANAGER'S OFFICE

Rod Gould, City Manager
Elaine M. Polachek, Deputy City Manager
Kate Vernez, Deputy City Manager, Special Projects
Danielle Noble, Assistant to the City Manager
Sarah Johnson, Community and Government Relations

PLANNING COMMISSION

Jim Ries, Chairperson
Gerda Newbold, Chairperson Pro Tempore
Jennifer Kennedy
Richard McKinnon
Jason Parry
Ted Winterer
Hank Koning, FAIA (Emeritus)
Gwynne Pugh, FAIA, ASCE (Emeritus)

RECREATION AND PARKS COMMISSION

Neil Carrey, Chair
Phil Brock, Vice Chair
Deborah Cohen
Dryden Helgoe
Jenna Linnekens
Richard McKinnon (Emeritus)
John Petz
Susan Cloke (Emeritus)
Frank Schwengel (Emeritus)

PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT

David Martin, Director
Ellen Gelbard, Assistant Director
Francie Stefan, Strategic & Transportation Planning Manager
Lucy Dyke, Deputy Director, Special Projects
Eileen P. Fogarty (Retired Director)

Marcia Antonio
Elizabeth Bar-El, AICP
Frank Barnes, PE, PTOE
Jay Dinkins, PE
Peter Dzewaltowski, AICP
Kyle Ferstead
Michelle Glickert, LCI
Linda Huynh
Kim Jackson
Peter D. James
Tony Kim
Jason Kligier
Leticia "Betsy" Wheeler Kollgaard
Rachel Kwok
Sarah Lejeune, AICP
Andrew Maximous, PE
Luis Morris, LCI
Sam Morrissey, PE
Travis Page
Beth Rolandson, AICP
Denise Smith
Colleen Stoll
Regina Szilak
Lynn Wolken-Gonzales
Lily Yegazu
Jing Yeo
Annette Colfax (Retired)

OTHER CITY DEPARTMENTS

Big Blue Bus
City Attorney's Office
City Manager's Office (CityTV, Office of Sustainability and the Environment)
Community and Cultural Services
Finance
Fire
Housing and Economic Development
Information Systems
Library
Police
Public Works

TASK FORCE ON THE ENVIRONMENT

Mark Gold, Chair
David Hertz
Rob Lempert
Susan Mearns
Erik Neandross
Matt Petersen
Bill Selby

CONSULTANTS

Nelson\Nygaard Consulting Associates
Fehr & Peers
Jeremy Cogan and Associates
Ways and Means Design

OTHER ORGANIZATIONS

Bikerowave
Buy Local
California Department of Transportation
City of Los Angeles
City of Long Beach
Cycle Santa Monica
Downtown Santa Monica, Inc.
Global Green
Los Angeles County Bicycle Coalition
Los Angeles County Metropolitan
Transportation Authority
Main Street Farmers' Market
Main Street Merchants Association
Montana Merchants Association
Pico Improvement Association
Santa Monica Chamber of Commerce
Santa Monica College
Santa Monica Convention and Visitors Bureau
Santa Monica Malibu Unified School District
Santa Monica Pier Restoration Corporation
Santa Monica Spoke
Sustainable Streets
Twilight Dance Series
Westside Cities Council of Governments

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....ES-1

HOW TO USE THE PLAN... ES-16

1. SHIFTING GEARS

SUSTAINABLE, FUN AND HEALTHY TRANSPORTATION 1-1

Santa Monicans are Shifting Gears..... 1-2

The City's Urban Form is Adapting to the Bicycle..... 1-2

THE LUCE ESTABLISHED A FRAMEWORK FOR THE BIKE ACTION PLAN..... 1-3

SANTA MONICA ASPIRES TO..... 1-5

Increase Cycling Numbers..... 1-5

Make Bicycling Fun for Everyone 1-6

Make Bicycling Convenient and Comfortable..... 1-6

BICYCLING BENEFITS SANTA MONICANS 1-7

A HISTORY OF THE PROCESS 1-11

2. BICYCLING IN SANTA MONICA TODAY

INTRODUCTION 2-1

BICYCLES BY THE NUMBERS 2-2

Bicycle Commuters 2-2

Bicycle Counts..... 2-2

Bicycle Ownership 2-5

Bicycle Safety 2-5

LOCAL AND REGIONAL BICYCLE NETWORK 2-8

Local Bicycle Connections..... 2-8

Regional Bicycle Connections 2-12

Transit Connections 2-13

BICYCLE PROGRAMS TODAY 2-15

Events 2-15

Awareness 2-16

Education 2-18

Encouragement 2-19

Enforcement 2-20

Supporting Facilities..... 2-20

THE FACES OF BICYCLING IN SANTA MONICA..... 2-25

3. SETTING A COURSE

INTRODUCTION	3-1
ACTION PLAN STRUCTURE	3-2
PROGRAMS: GETTING PEOPLE ON BIKES	3-3
Events	3-5
Awareness	3-6
Information	3-7
Education	3-9
Encouragement	3-10
Enforcement	3-13
SUPPORTING FACILITIES: MAKING CYCLING CONVENIENT	3-15
Bike Sharing.....	3-17
Wayfinding	3-18
Bicycle Parking	3-19
Bike Centers	3-20
BIKEWAYS	3-21
Making Bicycling in Santa Monica Appealing	3-21
Bikeway Selection Process.....	3-22
Bikeway Recommendations.....	3-27
5-YEAR IMPLEMENTATION PLAN	3-28
Bikeway Descriptions.....	3-29
20-YEAR VISION	3-50
Bikeway Corridor Descriptions	3-51
Bicycle Facility Toolbox	3-59

4. ROLLING IT OUT

INTRODUCTION	4-1
5-YEAR IMPLEMENTATION PLAN:	
PROGRAMS REFLECTING COMMUNITY PRIORITIES.....	4-3
PROGRAM IMPLEMENTATION	4-4
AGGRESSIVELY IMPLEMENTING THE BIKEWAY NETWORK	4-14
MEASURING AND MONITORING	4-23
LOOKING AHEAD	4-25
Keep It Current.....	4-25
Make It Happen.....	4-25

APPENDICES

Appendix A. Existing Bikeway Network Descriptions
Appendix B. Priority Bikeway Sheets
Appendix C. Glossary of Common Bicycle Terms and Acronyms
Appendix D. Bicycle Transportation Account Matrix
Appendix E. Funding Strategies
Appendix F. City of Santa Monica Bicycle Parking Ordinance
Appendix G. Public Bicycle Parking Guideline

TABLE OF FIGURES

Figure ES-1	Recent Changes Mode Shift in Santa Monica – Major Employers	ES-3	Figure 3-1	Proposed Supporting Facilities	3-16
Figure ES-2	Santa Monica Resident Bicycle Usage.....	ES-5	Figure 3-2	Bikeway Wayfinding Elements Valued by the Community	3-18
Figure ES-3	Existing Bicycle Network	ES-6	Figure 3-3	LUCE Bicycle Network.....	3-23
Figure ES-4	Local and Regional Bicycle Connections – City of LA Bicycle Plan.....	ES-7	Figure 3-4	Priority Bikeway Network.....	3-25
Figure ES-5	Proposed Supporting Facilities	ES-10	Figure 3-5	Anticipated Shift in Bikeway Mileage and Mode Share, 2010–2030	3-26
Figure ES-6	Priority Bikeway Network.....	ES-11	Figure 3-6	Bicycle Traffic across Four Main Portland Bicycle Bridges Juxtaposed with Bikeway Miles.....	3-27
Figure ES-7	Bicycle Facility Toolbox Summary	ES-12	Figure 3-7	5-Year Implementation Plan	3-28
Figure ES-8	5-Year Implementation Plan	ES-14	Figure 3-8	20-Year Vision Plan	3-50
Figure ES-9	Program Implementation Strategy	ES-17	Figure 3-9	Connecting Caltrans Bikeway Designations to the Proposed Facility Types	3-59
Figure ES-10	5-Year Implementation Plan Recommended Projects	ES-19	Figure 4-1	Program Implementation Strategy	4-4
Figure ES-11	20-Year Vision Plan Recommended Bikeway Projects.....	ES-24	Figure 4-2	5-Year Program Implementation Recommendations.....	4-6
Figure ES-12	Santa Monica Bicycle Action Plan Performance Indicators	ES-26	Figure 4-3	5-Year Implementation Plan Conceptual Construction Cost Estimates.....	4-15
Figure 2-1	Recent Changes Mode Shift in Santa Monica – Major Employers	2-2	Figure 4-4	20-Year Bikeway Vision Plan Conceptual Construction Cost Estimates.....	4-20
Figure 2-2	Adopted LUCE Land Use Designation Map.....	2-3	Figure 4-5	Existing Grant Funding for Bicycle Facilities and Programs	4-22
Figure 2-3	Weekday Peak Bicycle Counts	2-4	Figure 4-6	Santa Monica Bicycle Action Plan Performance Indicators	4-24
Figure 2-4	Bicycle Ownership and Frequency of Bicycle Use (of those who own bicycles)	2-5	Figure A-1	Existing Bicycle Network	A-1
Figure 2-5	Bicycle Crash Data, 2010.....	2-7	Figure B-1	5-Year Implementation Plan	B-2
Figure 2-6	Existing Bicycle Network	2-9	Figure B-2	20-Year Vision Plan	B-3
Figure 2-7	Bike Facilities Comparison to Other California Cities	2-10	Figure D-1	Caltrans Bicycle Transportation Account Requirements.....	D-2
Figure 2-8	Santa Monica Bicycle Deficiencies	2-11	Figure E-1	Metro Call for Projects – Modal Categories Relevant to Bike Plan Projects and Programs ...	E-6
Figure 2-9	Local and Regional Bicycle Connections – City of LA Bicycle Plan.....	2-13	Figure F-1	Bicycle Parking Requirements	F-2
Figure 2-10	Existing Bikeway/Connectivity to Major Transit Stops.....	2-14	Figure G-1	Recommended Bicycle Parking Types.....	G-1
Figure 2-11	Annual Bike Valet Utilization.....	2-21			
Figure 2-12	Existing Bike Parking Space Map	2-22			
Figure 2-13	Bikes on Buses.....	2-23			
Figure 2-14	Existing and Proposed Shower and Changing Facilities	2-24			

EXECUTIVE SUMMARY

SANTA MONICA IS SHIFTING GEARS

The Bike Action Plan is guided and supported by Santa Monica's award-winning 2010 Land Use and Circulation Element (LUCE) which lays out a bold vision for the city's future, one that protects and enhances the city's beautiful neighborhoods, creates new community benefits in complete neighborhoods around the new light rail stations, supports community character through good design, and minimizes traffic through a "No Net New Vehicle Trips" policy. This Bike Action Plan strives to be equally bold and practical. On the one hand, this plan envisions a future Santa Monica in which it is attractive and fun for Santa Monicans of all ages and abilities to use a bike to get everywhere in the city and to meet all the needs of daily life. On the other hand, it is also a detailed five-year implementation strategy for moving toward that vision.

The adopted LUCE established a strong framework that supports the Bike Action Plan through:

- ▶ **Integrating Land Use and Transportation**
- ▶ **Creating Complete Streets**
- ▶ **Preserving and Enhancing Neighborhoods**
- ▶ **Managing Congestion**
- ▶ **Ensuring Quality Transportation Choices**
- ▶ **Facilitating Affordable and Healthy Transportation**
- ▶ **Supporting Economic Health**

What is the Bike Action Plan?

The Bike Action Plan is a statement of community priorities that will guide and coordinate implementation of bicycle programs and the LUCE bicycle network, and encourage residents, employees, and visitors to make bicycling their transportation of choice. It outlines where the community wants to go and how to get there, laying out a bold 20-year vision and a 5-year implementation strategy. The document also reviews the policy context and goals, assesses current conditions, identifies resources for project development



Santa Monica Aspires To...

The LUCE identified three overarching Bicycle Goals:

- ▶ **Goal T9:** Create a complete network of high-quality bicycle facilities including a minimum of one new north-south and one new east-west dedicated bicycle path, with the aim of increasing of the number of people who use bicycles for everyday transportation.
- ▶ **Goal T10:** Ensure that the bicycle network is attractive to cyclists of all ages and experience levels.
- ▶ **Goal T11:** Create a safe, comfortable cycling environment in the city through facility design and public education.

and implementation, and includes a monitoring program to ensure accountability and flexibility. The Plan outlines programs and a network of bikeways that form the City's implementation priorities for the near and long-term. The Plan supports efforts to collaborate with community partners including businesses, employers and schools. Finally, the Plan is expected to meet State Bicycle Transportation Account requirements, making the City eligible to apply for state funding pursuant to that legislation.

This Plan is a roadmap, setting a course developed with community participation and guidance for creating a Santa Monica that is truly bicycle friendly for all. Both programs and bikeway improvements are outlined as the encouragement of bicycling is inseparable from the need to provide facilities to support bicycling. The Plan is practical and flexible, and provides a menu to guide the implementation of select priority projects during the next five years. It allows for variation based on funding decisions and outside grant availability. Actions by granting agencies such as Metro and Caltrans, and public or private partners, will impact the timing of implementation, with offers of financial, technical and logistical support.

WHAT THE COMMUNITY SAID WAS IMPORTANT

Bicycling emerged as a key issue during the extensive public process that produced the Land Use and Circulation Element (LUCE). During dozens of community meetings including Board and Commission discussions, focused bicycle workshops, and a dedicated survey, people expressed a vision for bicycling that includes:

- ▶ A Connected Bicycle Network – reaching major destinations including commercial districts, schools, the beach, and transit.
- ▶ Supportive Programs – encouraging new riders, educating new and existing riders, and providing information.
- ▶ Recreational and Fun Events – celebrating bicycling as a part of social life and stimulating new ridership.
- ▶ On-going Communication - creating an on-going dialogue with the Santa Monica community and beyond.
- ▶ Raising Awareness – ensuring that all road users understand how to work together.
- ▶ Complete Facilities – providing bike racks, showers, maintenance and other facilities to support the complete trip.
- ▶ Streets for All – balancing the mix of roadway users to accommodate bicycles in concert with vehicles, pedestrians and transit.



A “How-To” for Getting More People on Bikes in Santa Monica

At the most basic level, the Bike Action Plan is about how to encourage more people in Santa Monica to ride bikes for fun and as an alternative to driving. The Plan’s strategies and recommendations build on Santa Monica’s strengths, and aim to create a world class bicycling experience throughout the city. Santa Monica is a place where nearly anyone can bicycle, with its year-round moderate climate, relatively flat terrain, close proximity of destinations and easy to navigate street system. The Bike Action Plan develops bikeways and programs that are inviting and comfortable enough to encourage all types of bicyclists. It reaches out to a diverse population by providing a broad array of facility types, from separated bike paths to in-lane sharrows, by educating all road users through awareness and information campaigns, and by developing encouragement efforts with businesses, employers and schools.

BICYCLING IN SANTA MONICA TODAY

Interest in bicycling in Santa Monica is growing steadily. Bicycling is being encouraged and promoted through the City’s existing bicycle programs and facilities. The community benefits from a modest bicycle network and a comprehensive package of bicycle programs.

Over the past ten years, approximately \$1.7 million has been invested in bicycle facilities and programs throughout the city.

Bicycles by the Numbers

Bicycle Commuters

According to the American Community Survey, the City of Santa Monica maintains a 3.4 percent bicycle commuter mode share (also known as the percentage of work commuters traveling by bicycle), which is higher than most California cities, but lower than leading “bicycle friendly” cities like Portland, Oregon (5.8 percent) and Boulder, Colorado (12.3 percent). Annual surveys of Santa Monica’s major employers show that bicycling’s popularity is increasing. The share of people accessing work by bicycle grew by roughly 29 percent between 2007 and 2010.

Bicycle Counts

The City conducts traffic counts at over 190 intersections every several years. The counts have included bicycle movements at signalized intersections. The most recent data from 2007 indicates that cyclists were observed through citywide intersections over 3,600 times during morning commute peak hour and 4,300 times during the evening commute peak hour. Ridership is highest on Arizona Avenue, Main Street, and throughout Downtown. Bicyclist counts are being updated for 2011.

Figure ES-1 Recent Changes Mode Shift in Santa Monica – Major Employers

	07/08 Mode Split	09/10 Mode Split	Change
Total Trips	100%	100%	
Drive alone	67.80%	65.76%	-3.0%
Carpool	12.96%	13.37%	+3.2%
Transit	9.10%	8.95%	-1.6%
Walk	3.40%	3.42%	+0.6%
Bike	2.59%	3.33%	+28.7%
Non-commute*	4.16%	5.16%	+24.0%

* Includes telecommute, compressed work week day off, and non-commute.

Bicycle mode share increased dramatically in the past two years. Source: Santa Monica Employer Annual Transportation Fee Filing Form/Invoice, FY07/08 - FY09/10

Bicycle Racks

The City has been actively expanding bicycle parking along commercial streets, at public buildings, and at the beach. In 2010, the city had 920 bike rack spaces at over 50 locations, with efforts underway to increase bike racks citywide.

Bike Valet

Attended bike parking known as “bike valet” has become a hugely popular service at special events and high demand destinations in Santa Monica. In fiscal year 2010-2011, the City provided valet service to 25,577 bikes at 157 events. The number of valeted bikes in 2010-2011 was nearly a quarter higher than observed in 2008-2009.



Bike Ownership

According to the 2010 citywide resident survey, two-thirds of Santa Monica residents own a bike, and over half of bicycle owners ride at least a few times a month.

Bicycle Programs Today

Bicycling today is encouraged and promoted through an array of programs and supporting facilities.

- ▶ The City actively participates in events such as Bike-to-Work and highlights bicycling at City-sponsored GLOW, the Santa Monica Festival, Tour de Arts, and National Night Out. Many of these activities involve partnering.
- ▶ The City initiated targeted awareness campaign strategies, including a media campaign about newly installed shared lane markings, also known as “sharrows.”
- ▶ Bicycle education is offered during school registration periods and bicycle training workshops. In Fall 2011, the City completed a bicycle training “campus” adjacent to the beach bike path near the south beach lots.
- ▶ Bicycle awareness is actively promoted through programs with schools, businesses, and visitor-serving entities.
- ▶ Santa Monica provides training for employers on how to encourage bicycling within employee commute reduction programs. The City also initiated and operates its own Bike@Work program and works with the schools through Bike It! Day and Safe Routes to School efforts.

- ▶ Bicycling information is provided on the City’s website and through printed maps. New residents are provided with welcome packets that include bicycle maps and safety information.
- ▶ The City also conducts targeted safety and enforcement campaigns.

Supporting Facilities

The City is continuously increasing on-street bike parking and operates the highly-successful bike valet program. The City has been upgrading traffic signals with bicycle detection. The City’s first Bike Center opened in Fall 2011 at the base of Santa Monica Place. As a hub for Downtown, it provides 350 secure bicycle parking spaces, offers showers and lockers for regular commuters, bike repairs, travel information and related services. It also promotes “green mobility” through outreach and education, conducting bicycle classes and tours. Bike parking is being designed into the rebuilding of the City’s Parking Structure No. 6 on 2nd Street between Broadway and Arizona, with construction beginning in 2012. The City also requires commercial developers to provide adequate bicycle parking and amenities for employee commuters.



A Bike Santa Monica spoke card - part of an ongoing effort to raise visibility and promote biking.

Figure ES-2 Santa Monica Resident Bicycle Usage

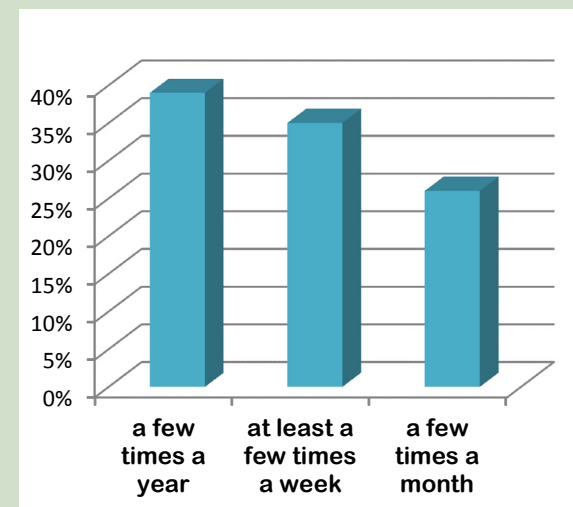


Figure ES-3 Santa Monica's Existing Bicycle Network



The City's Bicycle Network

Today, Santa Monica has a bicycle network covering 37 miles, including 18 miles of bikeways (either bike lanes or paths) and 19 miles of bicycle routes. Key east-west bicycle connections include the bike lanes on Broadway and San Vicente Boulevards. Bike lanes on Main Street, Ocean Avenue, and portions of 11th Street offer important north-south connections. Figure ES-3 shows the city's existing bicycle network of bike lanes, signed routes, and bike paths.

Regional Network and Transit Connections

The Marvin Braude Beach Bicycle Trail provides a critical 20-mile off-street path used for commute and recreation trips, linking Santa Monica to South Bay cities at the southern end of the path and Will Rogers Beach in Los Angeles at the northern end.

Transit operators provide regional connections by accommodating bicycles on buses and trains. Bicycle facilities are connected with transit stops along the Downtown Transit Mall and along many of the major boulevards within the city.

Santa Monica's bike network connectivity and major destinations. The bike map is available on the BIKE Santa Monica website at <http://www.bikesantamonica.org>.

SETTING A COURSE

Santa Monica strives to transform itself into a world class bicycling city. The Bike Action Plan recommends the development of innovative programs and bikeways to satisfy the goals for bicycling outlined in the LUCE. Making bicycling appealing and comfortable for people of all ages and abilities and for all types of trips calls for the City to invest in a complete network of high quality bikeways and an array of effective programs. Programs will improve bike awareness, encourage more cycling, provide supporting facilities, and enforce safe traveling. This Bike Action Plan is therefore comprised of two complementary and robust components: Programs and Bikeways.

Programs

Programs encourage people to get on bikes, build awareness for all road users, promote safety, and support a vibrant bicycling culture.



An electronic sign on Lincoln alerts people to expect more cyclists out for BikeIt! Day.

Figure ES-4 Local and Regional Bicycle Connections – City of LA Bicycle Plan



Partnerships with local non-profits, schools, and employers will strengthen bike programs. Programs include:

Education

People need the skills, knowledge, and understanding to feel comfortable on and along a bicycle. Santa Monica aspires to

provide bicycle education to as many people as possible, while communicating the rights and responsibilities of sharing the road to cyclists and drivers, and the many benefits of bicycling. Recommendations include bike rodeos to educate young people in how to ride safely, League Certified Instructor training courses for adults to help create more volunteer cycling

educators, Commuting 101 and bicycle repair skills courses, and bicycle skills training at a new Bicycle Campus. The Plan also calls for development of curriculum-based training programs for middle school students and development of a library of core educational content that can be used with targeted groups including students, seniors, those who receive traffic tickets, visitors, and commuters.

Events

Events provide opportunities to reach out to large numbers of people and engage them with bicycling in Santa Monica. Bicycle-focused events, bicycle elements in other events, and bicycle rides and tours raise the profile of bicycling in Santa Monica. Recommended events include expanded support for Bike to Work and Bikelt! Day efforts, stronger requirements for bike presence at City-permitted events, car-free street events held in conjunction with other events and the creation of special events including ribbon-cuttings and openings to highlight bicycle initiatives. The City seeks to support the development of car-free events that raise awareness of bicycling and provide opportunities for people to enjoy riding comfortably on streets reserved exclusively for bicyclists and pedestrians.



Non-Profit Partnerships help promote bicycle awareness in the community. Pictured above, at a Santa Monica Spoke, City Council Mixer & Forum To Discuss Bicycling. Source: Gary Kavanagh

Awareness

Awareness is the first step towards changing the culture so that all people see that bicycles have a place on city streets, where road users show mutual respect. The goal for awareness campaigns is to expose people to bicycle rights, resources, and facilities. Recommendations include promotion of the Bike Santa Monica program identity, a commitment by the City to lead by example and to continue to show how to integrate bicycling programs into all City operations and programs. Actions will also include annual education campaigns, convening of cycle talks and informal roundtables, and regular network showcasing, including bike tours focused on specific issues.

Information

It is essential for people to be informed of what is going on with bicycling in Santa Monica. The key recommendation is to develop a high-quality, robust web site that provides a comprehensive source for Santa Monica bike information. The site will include information about programs and facilities, real time trip planning, employee and visitor Transportation Demand Management support tools, and opportunities for public participation and input. Also recommended are attractive printed and online maps, self-guided bicycle tour routes, and the provision of information about transit connectivity.



Sustainable Streets provides bicycle training courses – from the basics to vehicular cycling. Source: Sustainable Streets

Encouragement

Reflecting the need for collaboration with community partners, encouragement programs include coordinating efforts with targeted groups. The Bike Action Plan supports business initiatives like “Buy Local” with a “Bike Local” component, school-based access improvements and training, and additional support for bicycling in employer TDM plans and the development of Transportation Management Associations. The Plan also encourages continued partnering, sharing of resources and co-hosting events with neighboring jurisdictions, non-profit bike groups and the Convention and Visitors Bureau. These programs support the goal of increasing the number of people using bicycles for school, work, shopping and entertainment.

Enforcement

The Bike Plan emphasizes coordination between education and enforcement to reduce bicycle related traffic violations and bicycle related crashes. Recommended enforcement programs include a Police Department Bicycle Ambassador program and ticket deferments for cyclists who participate in a bicycle safety course.

Supporting Facilities

Supporting facilities get more people on bikes by providing highly attractive, easily accessible, and visible bicycling amenities. Proposed facilities are noted below and displayed in Figure ES-5:

- ▶ Bicycle parking, including convenient short-term and secure long-term parking at all key

destinations as well as bike valet at regular and special events. The Plan calls for 2,500 new bike racks, including corrals and access-controlled bike parking in new City parking structures;

- ▶ Shared use of bicycles at multiple locations through development of a bike share system, expanding the Bike@Work fleet and making bike rentals available at Bike Centers and local bike shops. The Plan calls for a bike share program funded by a grant in 2016, and encourages early implementation of 250 bicycles at 25 locations;
- ▶ Comprehensive and coordinated wayfinding system, including destination and distance signs along bikeways throughout the city; and
- ▶ High-quality trip end facilities such as Bike Centers which provide secure bike parking and bike-related services, and showers, changing and locker facilities at transit stations and in major development projects.

Bikeways

The recommended bikeways in this Plan are designed to appeal to a wide range of Santa Monicans, including novice and experienced riders and young and senior residents. The LUCE Bicycle Network has been refined in this Action Plan through a combination of community outreach, analysis of physical characteristics along various corridors, extensive field review, and application of appropriate measures from the Bicycle Facility Toolbox (see Figure ES-7 for toolbox summary).

The network was designed with the following priorities in mind:

- ▶ Build upon and expand the current bike network;
- ▶ Provide at least two new high quality separated bikeways - one east-west and one north-south;
- ▶ Enhance heavily used bicycle corridors;
- ▶ Provide excellent connections to the Marvin Braude Bike Trail and planned Expo Bike Path regional facilities;
- ▶ Strengthen connections to schools, the Expo Light Rail stations and other destinations;
- ▶ Ensure that the bike network feels inviting to a broad array of existing and potential cyclists; and
- ▶ Connect to existing and planned bikeways in surrounding communities.

The resulting Priority Bicycle Network of 33 corridors, with three tiers of priority are shown in Figure ES-6. Future bikeways include improvements on 75 percent of the LUCE bike network including green bike lanes, cycle tracks, buffered bike lanes, climbing bike lanes, sharrows, neighborhood greenways and bike paths/trails. The proposed bikeway network is a balance of high-quality capital intensive projects and projects that can be easily installed without restriping or major changes to the streetscape.

Figure ES-5 Proposed Supporting Facilities



The network was informed by major public workshops, Planning Commission, Recreation and Parks Commission, and City Council review. The outreach process also informed the implementation plan. The Plan’s bikeway recommendations are organized into two phases: A 5-Year Implementation Plan and the 20-Year Vision. Projects are prioritized into these two phases based on funding, cost, publicly-endorsed priorities, and gaps in the existing bicycle network. Although

some projects require additional planning and engineering studies, public processes and environmental review, the 5-Year Implementation Program includes initial work necessary to bring many forward. Several high quality marquee projects are included in the near-term implementation as important demonstration projects that improve the bicycle network while also raising the awareness and visibility of bicycling. The recommended program projects are shown in

Figure ES-6 Priority Bikeway Network



Figure ES-9, the 5-Year Implementation Plan projects are listed in Figure ES-10, and the 20-Year Bikeway Vision Plan projects are listed in Figure ES-11.

Priority actions for bikeways in the 5-year Implementation include:

- ▶ Enhanced School Access:
 - ▶ Use information, education, and awareness programs to encourage responsible and safe driving and bicycling to and around schools

- ▶ Work with School District to identify and improve good bicycle routes to each school and to provide information about these routes to school communities and neighbors of schools
- ▶ New high-quality improvements on:
 - ▶ 17th Street: provide new north-south crosstown connection to the 17th Street Expo light rail station at Memorial Park, including direct connection to Santa Monica College
 - ▶ Michigan Avenue/20th Street crossing: Create a Michigan Avenue (east-west) bikeway with a 20th Street I-10 Crossing.

The facility will link the beach area, Civic Center, Santa Monica High School, Bergamot Expo station and residential areas

- ▶ Buffered Green Bike Lanes – colorized buffered lanes will improve visibility and comfort on two of the City’s most popular bikeways:
 - ▶ Main Street/Second Street (north/south): also extend Main Street connection northward on 2nd Street
 - ▶ Broadway (east/west)
- ▶ Better Beach Connections on California Incline and Pier Bridge/Ramp
- ▶ North/South Improvements on:
 - ▶ 6th Street: Emerging neighborhood greenway south of Pico
 - ▶ 7th Street: Better crosstown connection from Olympic to north City Limit
 - ▶ 11th Street: Better crosstown connection with extended lanes
 - ▶ 14th Street: Better crosstown connection with new lanes
 - ▶ Yale/Stewart Streets
- ▶ Potential bicycle connections (requiring collaboration) through and around:
 - ▶ Santa Monica High School
 - ▶ Santa Monica College
 - ▶ Major office complexes
 - ▶ Marine Park/Penmar Park
 - ▶ Clover Park
 - ▶ Airport/Airport Park

Figure ES-7 Bicycle Facility Toolbox Summary

Neighborhood Greenways

Low stress bike routes and a liveable street environment for pedestrians, bikes and vehicles



Cycle Tracks

Physically separated facility parallel to the roadway



Bike paths, side paths and multi-use trails

Provides a shared use or dedicated path physically separated from motorized vehicle traffic by an open space or barrier



Bike lanes, buffered

Provides additional buffer from parked cars or traffic, which greatly increases user comfort



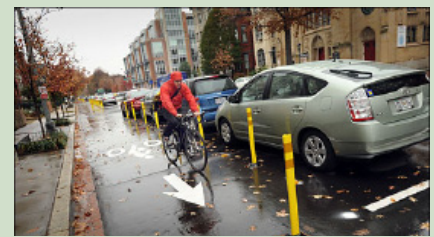
Bike lanes, climbing

Provides a bike lane in the climbing direction and shared lane markings in the downhill direction



Bike lanes, contraflow

Provides dedicated lane in the opposite direction of traffic



Bike lanes, double

Provides additional capacity for cyclists by creating two four-foot wide bike lanes side by side



Intersection treatments

Includes through lanes and merge treatments, bike boxes, box turn facilities, bike detection, signal timing, and phasing to support bicyclists



Figure ES-7 Bicycle Facility Toolbox Summary

Shared lane markings

Guides cyclists away from the “door zone” and signals to motorists that cyclists are present; shared lane markings are also known as “sharrows”



Bicycle access enhancements

Median crossings provide two phase crossing for bikes and pedestrians, while half closures prioritize bicycle through-movements at key locations



Signalization

Include bike detection or automatic bike-friendly timing at signalized intersections. Use green wave progression where appropriate. Use bike boxes and detection symbols to encourage good lane positioning at signals



Wayfinding and Branding

Allows cyclists to get to important destinations, navigate streets in real time, and provides a visible cue to all road users that cyclists belong



Complete Local Streets

A designation for neighborhood streets that focus street trees, lighting, and stormwater design and other features that enhance the bicycling and walking experience



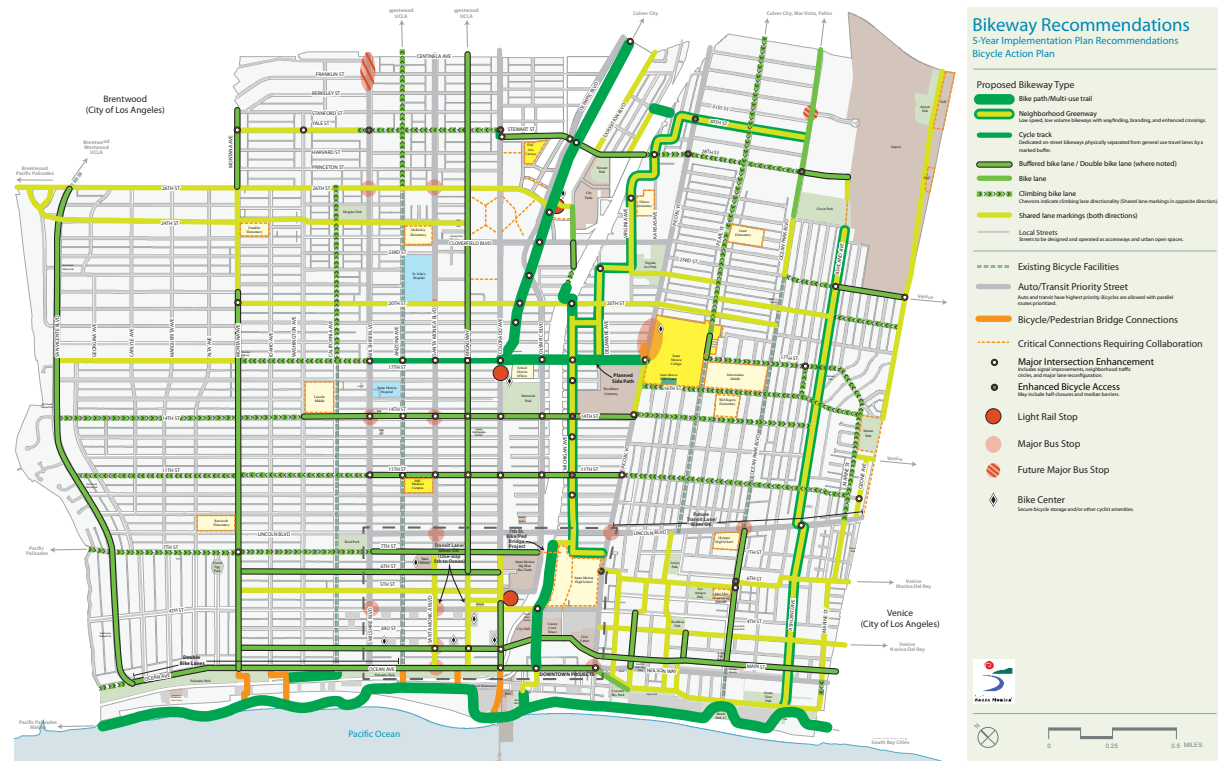
At a 2011 Bicycle Action Plan workshop, community members provided input on the bikeway treatments to be included in the toolbox.

HIGH VISIBILITY BIKEWAYS

As part of the 5-Year Implementation Plan, the City of Santa Monica will begin striping high visibility bikeways enhanced with green color pavement treatments. Corridors that will be enhanced with these highly visible treatments are those that experience high bicycle demand and connect into major transit hubs or future Expo Light Rail stations. Although the City is adopting a bike lane striping standard that includes green colored bike lanes for all buffered bike lanes, the corridors that are prioritized for initial investment include:

- ▶ Broadway Bikeway
- ▶ 2nd / Main Bikeway
- ▶ 11th Street Bikeway
- ▶ 14th Street Bikeway
- ▶ Colorado Esplanade

Figure ES-8 5-Year Implementation Plan



The Plan emphasizes bikeways that connect to the regional Expo Bike Path that is also planned within the 5-Year time frame, providing a major east-west connection from 17th Street into Downtown Los Angeles. The City is also working with the County of Los Angeles and other cities along the Marvin Braude beach bike trail to upgrade and enhance signing and striping, and seek funding to ultimately widen the facility so there is a separate pedestrian path and bicycle path north of the Santa Monica Pier.

Rolling It Out Implementing the Plan

The 5-Year Implementation Plan incorporates conceptual cost estimates to support budgeting and development of grant applications, as well as inform staff work-plan development. Funding for planning and implementation is anticipated from grants, Capital Improvement Projects, a Transportation Impact Fee, Development Agreements and

other outside sources. Completing the 20-Year Vision is expected to cost over \$25 million.

Measuring and Monitoring

The things which we measure often receive the most consistent attention. Building upon the Sustainable City Report Card's success, the Bike Action Plan includes regular monitoring of its progress. It proposes performance indicators tied to key plan components. The recommended indicators are summarized in Figure ES-12.

Next Steps

Keep It Current

The Bike Action plan is a living document. In order to meet the goals of this Plan and keep it current, it will be necessary to revisit it at least every five years to examine the state of Santa Monica's bicycle network and programming. The plan and process will adjust implementation in response to needs and opportunity. Changing land uses and transportation conditions should be considered in each update, making this a living document and making cycling ever more appealing.

Make It Happen

Bike Action Plan implementation will occur using a variety of strategies.

Existing Tools

The City of Santa Monica can encourage implementation through existing processes, and in conjunction with LUCE implementation, including:

- ▶ Developing Zoning Ordinance standards and Development Agreement guidelines that incentivize or require inclusion of high quality bicycle facilities;
- ▶ Preparing bicycle network implementation and maintenance guidelines applicable to the City's annual pavement resurfacing program and maintenance projects; and
- ▶ Facilitating the establishment of Transportation Demand Management

Districts and/or Transportation Management Associations to support implementation and utilization of bicycle programs and facilities.

Grants

With adoption of the Bike Action Plan, the City will be more competitive when applying for grant funds from numerous sources. The clarity of programs, bikeways and supporting facilities, along with the Plan's community-based vision to increase cycling numbers is anticipated to make Santa Monica's projects attractive for funding.

Capacity Building

Partnerships among community members and across City departments are a critical component of plan implementation. The Plan seeks to build on the energy and enthusiasm of all bicycle advocates to expand programming and to facilitate and support bikeway network completion. An ongoing dialogue will be fostered to share information and drive implementation.

Bicycling into the Future

Santa Monicans are experiencing a cultural shift in the way they move around the city. Bicycling, along with walking and transit, have emerged as cornerstones of Santa Monica's integrated land use and transportation approach. Increasing the number of people who embrace bicycling as part of their daily



City crews install bicycle lane symbols and directional arrows.

lives is an achievable vision. The physical and programmatic changes included in this Plan will harness existing momentum to provide the reassurance necessary for others to make the shift to cycling. This Plan is intended to expand on the successes of the past with visible and effective programs that promote the benefits of bicycle travel. It also identifies specific high quality bicycle facilities that provide direct connections to destinations citywide. Whether they are neighborhood greenways, cycle tracks, bike paths, or buffered bike lanes, Santa Monica's bikeways will weave seamlessly into the city's fabric and provide a convenient and fun option for getting around.

This Plan will require the ongoing commitment of the city’s policymakers, staff, residents, and businesses and the continued enthusiasm of the cycling community. Working together, a partnership of involvement can transform Santa Monica into a world-class bicycle community. The City can harness the power of the bicycle in promoting a more vibrant local economy, improving the quality of life for all residents, nurturing a more sociable community, encouraging healthier lifestyles, and creating a more sustainable future. Santa Monicans have places to go and the bicycle is well-positioned to take them there.

How to Use the Plan

The document is organized as follows:

- ▶ Chapter 1: Shifting Gears – describes the goals and policy basis for the Plan, the integration into the LUCE community vision and process, the development of the Plan, and why cycling is integral to the achievement of the community’s larger goals.
- ▶ Chapter 2: Bicycling in Santa Monica Today – presents the physical network and supportive programs available in the city today, as well as key information about bicycling trends in Santa Monica.
- ▶ Chapter 3: Setting a Course – presents the 5-year Implementation Plan and 20-year Vision for bicycle facilities, as well as a toolbox of bicycle programs for encouragement, education, information, awareness and events which are further refined in Chapter 4.
- ▶ Chapter 4: Rolling It Out – presents the strategies to implement the 5-year bicycle vision through existing and new facilities improvements, and detail on anticipated costs of facility improvements. This chapter also outlines the Plan’s proposed monitoring approach.



Program Implementation

Figure ES-9 lists recommended program projects and Figures ES-10 and ES-11 list recommended bikeway projects for 5-Year Implementation and 20-Year Vision Plans. The **bold** print indicates that some funding has been secured for that item.

Figure ES-9 Program Implementation Strategy



Program Category	Base	Medium	High
Education	Bicycle Campus Planning, Develop a City TV episode highlighting benefits of biking, safety, etc. , Bike Education at events, Bike Rodeos, One time bike training for city workers	Educational videos, Bicycle Campus Opening, Classes offered through City Bike Center , Additional City TV Episodes, Bike Training for adults and additional training for youth and targeted groups like Seniors	Develop Core Educational Programming, Ongoing Bicycle Training, Bicycle Repair Skills
Events	Bike to Work Day, Bike It! Day, Bike to Park Day, Presence at special events (Glow, Marathon) , Technical support for events with bike element (i.e. Tour da Arts)	Bike cross-promotion at events, Success celebrations for programs and facilities, Revise event requirements regarding bicycles, Bike Center Tours , Car Free Street Elements at existing events such as Glow, Santa Monica Festival	Cyclovia, Major car free street events, Upgrade bike-friendly status of Santa Monica events
Awareness	Attend public forums and existing group and or commissions' meetings, Create Bike Program Identity, One targeted Sharrow campaign including bus tailcards	Continued collaboration with Advocacy Groups, City Leadership Cycle Talks , Awareness Campaigns, Bicycle Showcase Tours, Giveaways with targeted campaigns	Ongoing targeted campaigns, Leadership role, Legislative advocacy, Promotion of high profile facilities including green paint, bike boxes, and signalization
Information	Request System (City Go App and Web Page), Bike info. at City Events, Self-guided bike tour maps, bike on bus web information and on maps	Electronic map information on City website and others , Updated Bike Map, Directions to major destinations, Encourage others to include cycling in promos, New resident packet, Info incorporated into event process, Web Improvements, Web based multi-modal trip planning	Real-time bike parking availability information
Encouragement	Offer technical assistance to schools for access, Support Bikelt! Day, Employer TDM web services, Provide information to employers regarding Bike@Work and Bike Parking, Work with bicycle advocacy groups, New resident outreach	Safe Routes to School (Samohi, Middle School bicycle training, Middle and Elementary encouragement) , Mobile School Bike Training, Bike Friendly Business Recognition, Support Buy Local, Encourage Bike Local bike to business discounts, Car-Free Tourism support, TMA Formation Planning , Bike Pooling, Partner with SMC on programming	TMA Formation Outreach, Santa Monica High School access and parking improvements, No Net New Trips Toolkit that provide help and incentives for employers , Bicycle ownership programs, Mobile bike assistance, Bike-friendly districts, Work with School District to identify and improve good bicycle routes to each school and to provide information about these routes to school communities and neighbors of schools

Figure ES-9 Program Implementation Strategy

Program Category	Base	Medium	High
Enforcement	PD Bicycle Ambassador, Establish Ticket Diversion Program, Encourage bike registration	Prioritize enforcement based on safety, Agency coordination on rules and rights of the Road	Consider anti-harassment rules
Supporting Infrastructure			
Bicycle Parking (Valet, Bike Centers, and public racks)	Bike Valet at Sunday Farmers' Market, Bike Parking at Santa Monica High School, 800 New public bike parking spaces	Increased bike parking requirements and amenities, Bike Valet at additional Farmers' Markets, 2,500 new bike parking spaces for public, provide on site bike racks for schools and businesses as part of TDM toolkit, Create four bike corrals	Complete and Operate Bike Centers – full and self service at Parking Structures 7 and 8, additional Bike Centers at two rail stations
Bike Share	Planning efforts for local and citywide Bike Share	Pilot Bike Share Program in Downtown focused on Employees or in business areas	Citywide Public Bike Share Program – 25 locations with 10 bikes each, Develop and pursue opportunities to accelerate the implementation of bike share in Santa Monica, Expand the scope of the initial bike share program as needed to provide good coverage throughout the city, Encourage and support the development of a bike share program at the regional level
Wayfinding	Planning Beach Bike Trail signage improvements, Initial wayfinding to downtown Santa Monica Bike Center	Install Beach Trail signage and striping plans, Citywide wayfinding to major destinations and on primary bikeways	Design and phased implementation of comprehensive wayfinding system



Figure ES-10 5-Year Implementation Plan Recommended Projects

Bikeway Name (Streets)	From	To	Length (mi)	Facility Type(s)
San Vicente Bikeway ▶ San Vicente	Ocean Avenue	26th Street	2.02	Buffered bike lanes
Montana Avenue Bikeway ▶ Montana	Ocean Avenue	21st Street	1.51	Buffered bike lanes
Montana Avenue Bikeway ▶ Montana	21st Street	Stanford Avenue	0.68	Buffered bike lanes, Shared lane markings, Raised median crossing
California Avenue Bikeway ▶ California Incline	Pedestrian Bridge	Ocean Avenue	0.2	Bike path (determined by design process)
California Avenue Bikeway ▶ California	17th Street	26th Street	0.68	Climbing bike lanes, Shared lane markings
Arizona Avenue Bikeway ▶ Arizona	26th Street	Centinela Avenue	0.52	Climbing bike lane, Shared lane markings
Broadway Bikeway ▶ Broadway ▶ Santa Monica Boulevard	Ocean Avenue	7th Street / 6th Street	0.83	Shared lane markings (Green "Super-sharrow"), Bus-bike lane
Broadway Bikeway ▶ Broadway	6th Street	Centinela Avenue	2.04	Buffered bike lanes (green)
Santa Monica Pier Improvements ▶ N/A - Off-Street	Ocean Avenue	SM Pier	N/A	Determined by design process, Short-term shared lane markings
Colorado Esplanade ▶ Colorado	Ocean Avenue	7th Street	0.45	Buffered bike lanes (green), Shared lane markings
2nd/Main Bikeway ▶ Main	Colorado Avenue	South City Limit	1.27	Buffered bike lanes (green)
Exposition Bike and Pedestrian Path	17th Street	Centinela Avenue	1.36	Bike path (determined by design process)
Virginia Avenue Shared Lane Markings ▶ Virginia	Stewart Street	Dorchester Tunnel	0.2	Shared lane markings

N/A incorporated in other City projects

Figure ES-10 5-Year Implementation Plan Recommended Projects

Bikeway Name (Streets)	From	To	Length (mi)	Facility Type(s)
Michigan Avenue Neighborhood Greenway ▶ Arcadia Terrace ▶ Appian Way ▶ Pacific Terrace ▶ Olympic Drive ▶ East Olympic Boulevard	Ocean Front Walk	7th Court	0.6	Neighborhood greenway, Bike path, Shared lane markings, New intersection, Bicycle signal
Michigan Avenue Neighborhood Greenway ▶ Michigan ▶ 7th Court	East Olympic	19th Court	0.98	Neighborhood greenway, Shared lane markings, Neighborhood traffic circles, Bicycle access enhancement
Michigan Avenue Neighborhood Greenway ▶ Michigan ▶ 20th Street ▶ I-10 right-of-way	19th Court	21st Street	0.17	Shared use path, Bicycle Signal
Michigan Avenue Neighborhood Greenway ▶ Michigan	21st Street	Bergamot Station	1.85	Contraflow bike lane, Buffered bike lanes, Bike lanes, Shared lane markings, Bike path
Michigan Wiggle Neighborhood Greenway ▶ 19th ▶ Delaware ▶ 22nd ▶ Virginia ▶ Kansas ▶ Yorkshire ▶ Urban ▶ Dorchester ▶ 30th	Michigan Avenue	Ocean Park Blvd	1.69	Neighborhood greenway, Shared lane markings, Neighborhood traffic circles, Median diverter with refuges
Pearl Street Bikeway ▶ Pearl ▶ Bay ▶ Bicknell ▶ Pacific ▶ Hollister	Barnard Way	Centinela Avenue	4.14	Buffered bike lanes, Bike lanes, Climbing bike lanes, Shared lane markings
Ocean Park Boulevard Bikeway ▶ Ocean Park	Main Street	Lincoln Boulevard	0.52	Buffered bike lanes (green)

Figure ES-10 5-Year Implementation Plan Recommended Projects

Bikeway Name (Streets)	From	To	Length (mi)	Facility Type(s)
Ocean Park Boulevard Bikeway ▶ Ocean Park	Cloverfield Boulevard	Centinela Avenue	0.83	Bike lanes, Shared lane markings
Ashland Avenue Neighborhood Greenway ▶ Ashland ▶ 28th Street	Barnard Way	28th Street	1.91	Neighborhood greenway, Shared lane markings
Marine/Navy/Ozone/Dewey/Airport Bikeway ▶ Marine ▶ Navy ▶ Ozone ▶ Dewey ▶ Airport Way	Barnard Way	Bundy	4.85	Climbing bike lane, Shared lane markings, Full closure retrofit
Marvin Braude Bike Trail	North City Limit	South City Limit	3.07	Bike path, wheel troughs
Ocean/Barnard Way Bikeway ▶ Ocean	North City Limit	Pico Boulevard	1.89	Climbing bike lane, Double bike lanes, Buffered bike lanes (green)
Ocean/Barnard Way Bikeway ▶ East Ocean ▶ Barnard Way	Pico Boulevard	Neilson Way	1.11	Bike lanes, Climbing bike lane, Shared lane markings
2nd/Main Bikeway ▶ 2nd Street	Montana Avenue	South City Limit	1.02	Buffered bike lanes (green), Intersection redesign
3rd Street Bikeway ▶ 3rd Street	Main Street	South City Limit	0.88	Shared lane markings
4th Street and 5th Street Shared Lane Markings ▶ 4th Street ▶ 4th Court ▶ 5th Street	California Avenue	Olympic Boulevard	1.42	Shared lane markings
6th Street / 7th Street Bikeway ▶ 6th Street ▶ 7th Street	North City Limit	Olympic Boulevard	1.76	Buffered bike lanes, Climbing bike lane, Shared lane markings

Figure ES-10 5-Year Implementation Plan Recommended Projects

Bikeway Name (Streets)	From	To	Length (mi)	Facility Type(s)
6th Street / 7th Street Bikeway ▶ 6th Street ▶ 7th Street ▶ Pico ▶ Bay ▶ Raymond ▶ Highland	Michigan Avenue	South City Limit	1.17	Shared lane markings, Bicycle Signal, Bicycle access enhancement
11th Street Bikeway ▶ 11th Street	San Vicente Boulevard	Wilshire Boulevard	1.14	Climbing bike lane, Shared lane markings
11th Street Bikeway ▶ 11th Street	Wilshire Boulevard	Marine Street	1.86	Buffered bike lanes (green), Climbing bike lane, Shared lane markings
14th Street Bikeway ▶ 14th Street	San Vicente Boulevard	Ashland Avenue	1.58	Climbing bike lane, Shared lane markings
14th Street Bikeway ▶ 14th Street	Wilshire Boulevard	Pico Boulevard	1.29	Buffered bike lanes (green)
17th Street / 16th Street Bikeway ▶ 17th Street	San Vicente Boulevard	Wilshire Boulevard	1.20	Climbing bike lane, Shared lane markings
17th Street / 16th Street Bikeway ▶ 17th Street ▶ Pico	Wilshire Boulevard	Pico Boulevard	1.25	Side path, Cycle track
17th Street / 16th Street Bikeway ▶ 17th Street ▶ 16th Street ▶ Hill	Pico Boulevard	Marine Street	1.66	Climbing bike lanes, Shared lane markings
20th Street Bikeway ▶ 20th Street	Montana Avenue	Ocean Park Blvd	2.12	Shared lane markings
22nd Street and 21st Street Shared Lane Markings ▶ 21st Street ▶ 22nd Street	Virginia Avenue	Dewey Street	1.02	Climbing bike lane, Shared lane markings
23rd Street Bikeway ▶ 23rd Street	Ocean Park Boulevard	Dewey Street	0.19	Buffered bike lane, Climbing bike lane, Shared lane markings

Figure ES-10 5-Year Implementation Plan Recommended Projects

Bikeway Name (Streets)	From	To	Length (mi)	Facility Type(s)
24th Street Shared Lane Markings ▶ 24th Street ▶ La Mesa Way/Drive ▶ Chelsea ▶ Park	26th Street	Broadway	1.91	Shared Lane Markings
26th Street Shared Lane Markings 26th Street	North City Limit	Exposition Bike Path	1.88	Shared Lane Markings
Yale/Stewart/28th Bikeway ▶ Yale	Montana Avenue	Colorado Avenue	1.03	Climbing bike lane, Shared lane marking, Neighborhood traffic circle
Yale/Stewart/28th Bikeway ▶ Stewart ▶ Colorado	Colorado Avenue	Kansas Avenue	0.34	Cycle Track, Buffered bike lanes, Median Bicycle Only Turn Pocket
Yale/Stewart/28th Bikeway ▶ Stewart ▶ 28th Street	Kansas Avenue	Santa Monica Airport	0.75	Buffered bike lane, Climbing bike lanes, Shared lane markings, Half closure
Dorchester Tunnel Improvements ▶ N/A - Off-Street	Virginia Avenue	Urban Avenue	N/A	Tunnel enhancements



The 20-Year Vision includes all projects outside of the 5-year Plan. The 20-year Vision is flexible in that the City can implement 20-year projects earlier if funding is available.

Figure ES-11 20-Year Vision Plan Recommended Bikeway Projects

Bikeway Name (Streets)	From	To	Length (mi)	Facility Type(s)
San Vicente Bikeway ▶ San Vicente	Ocean Avenue	26th Street	2.02	Bike path, Buffered bike lanes
Washington Avenue Neighborhood Greenway ▶ Washington ▶ Stanford ▶ Lipton ▶ Berkeley	Ocean Avenue	Arizona Avenue	2.65	Neighborhood greenway, Shared lane markings, Neighborhood traffic circles, Bicycle access enhancement
California Avenue Bikeway ▶ California	Ocean Avenue	17th Street	1.20	Buffered bike lanes
Arizona Avenue Bikeway ▶ Arizona	Ocean Avenue	26th Street	2.41	Buffered bike lanes, Neighborhood traffic circles
Nebraska Avenue Bikeway ▶ Nebraska	26th Street	Centinela Avenue	0.68	Buffered bike lanes, Shared lane markings
Michigan Avenue Neighborhood Greenway ▶ N/A – Off-street	Marvin Braude Bike Trail	Appian Way	0.08	Bike Path
Michigan Avenue Neighborhood Greenway ▶ N/A – Off-street	Bergamot Station parking lot	Stewart Street	0.16	Shared use path
Pearl Street Bikeway ▶ Pearl	Barnard Way	Centinela Avenue	0.67	Buffered bike lanes, Neighborhood traffic circles, Intersection refuge
Ocean Park Boulevard Bikeway ▶ Ocean Park	Barnard Way	Main Street	0.13	Buffered bike lanes
Ocean Park Boulevard Bikeway ▶ Ocean Park	Lincoln Boulevard	Cloverfield Boulevard	1.22	Buffered bike lanes, Bike lanes
Ocean Park Boulevard Bikeway ▶ Ocean Park	Cloverfield Boulevard	Centinela Avenue	0.67	Buffered bike lanes, Raised median extension
Ashland Avenue Neighborhood Greenway ▶ N/A – Off-street at Clover Park	Barnard Way	Douglas Loop	0.03	Shared use path, Shared lane markings

Figure ES-11 20-Year Vision Plan Recommended Bikeway Projects

Bikeway Name (Streets)	From	To	Length (mi)	Facility Type(s)
Marine/Navy/Ozone/Dewey/Airport Bikeway ▶ Dewey Street alley	Lincoln Boulevard	Dewey Street closure	0.48	Shared use path, Shared lane markings
Virginia Avenue Shared Lane Markings ▶ Virginia	Stewart Street	Dorchester Tunnel	0.19	Shared lane markings
Marvin Braude Bike Trail	North City Limit	South City Limit	3.06	Bike path, Stair troughs (partnering with LA County/City of LA)
3rd Street Bikeway ▶ 3rd Street	Pico Boulevard	South City Limit	0.13	Bike path
6th Street / 7th Street Bikeway ▶ 6th Street	Michigan Avenue	South City Limit	0.06	Bike/pedestrian bridge, Neighborhood greenway, Bike path/Cycle track
17th Street Bikeway ▶ Pearl ▶ 16th Street ▶ Pico	Pico Boulevard	Pearl Street	0.43	Side path/Bike path
20th Street Bikeway ▶ 20th Street	Wilshire Avenue	Pico Boulevard	1.12	Buffered bike lanes
24th Street Neighborhood Greenway ▶ La Mesa Drive ▶ La Mesa Way ▶ 24th Street ▶ Chelsea ▶ Park	26th Street	Broadway	N/A	Neighborhood greenway, Curb ramps, Intersection enhancements, Crossing treatments
26th Street Bikeway ▶ 26th Street	North City Limit	Exposition Bike Path	1.88	Buffered bike lanes (green)
Airport Loop (Bikeway)	Recreational loop roughly circumnavigating Santa Monica Airport site, Airport Park, and Clover Park		3.00	Shared use path

Figure ES-12 Santa Monica Bicycle Action Plan Performance Indicators

Indicator	Trend	Data Source	Frequency	Baseline	Costs/Time Consumption to Monitor*
Mode Share					
Journey to Work – Bicycle Usage	Increase over time (to 15%)	US Census American Community Survey 3- and 5-year estimates	Annual	3.4% (2009 Estimate)	Low
Bicycle Ownership	Increase over time	Resident survey	2 years	62% own a bicycle (2011)	Low
Frequency of Bicycle Riding	Increase over time	Resident survey	2 years	5% daily riders; 16% a few times a week (2011)	Low
Bike Mode Share	Increase over time	Employer Emission Reduction survey	Annual	66% drove alone; 3.3% bicycle (FY09-10)	Low
Walk/Bike Trips by Children	Increase over time	Bikelt! Day participation; student surveys	Bi-Annual (Bikelt! Day); every 2-3 years (surveys)	Bikelt! Day: 270 participants (Santa Monica High School and Lincoln MS, Oct .2010) No baseline for surveys	Low; High
Safety					
Perception of Safety when Riding	Increase over time (to 50% in FY2012-13)**	Resident survey	2 years	19% very safe; 24% somewhat safe; 39% neutral (2011)	Low
Bicyclist Crash Rate	Decrease over time	City of Santa Monica, Police Department	Annual	Baseline for crash, injury, or, fatality rates: 134 total crashes (2010), 126 total injuries (2010), 0 total fatalities(2010)	Low
Infrastructure and Services					
Bicycle Network Completeness	Increase over time (5 new miles per year in FY2011-12 and FY2012-13)**	Bikeway Recommendations map	Annual	37 miles of bikeways	Low
Bicycle Deficiencies	Decrease over time	Walking and Bicycling Demand GIS model	2 years	Travel Demand Model -map in Chapter 3 (2010)	Med
Bicycle Parking	Increase over time (150 new spaces in both FY2011-12 and FY2012-13 plus 4 new bike corrals in FY2011-12)**	Work orders and purchase records	Annual	920 spaces (December 2010)	Med
Bicycle Valet	Increase over time	Transportation staff	Annual	25,100 bikes valeted and 157 bike valet events (FY10-11)	Low

* Low – already being done, Medium – can be implemented easily; High – will be costly and/or time consuming

** City of Santa Monica, Planning and Community Development Budget Goal