Mobility Plan 2035

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Los Angeles Department of City Planning
General Plan Mobility Element

Contents

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Introduction

Overview

A city as diverse as Los Angeles requires a transportation system that offers equally diverse and viable choices to accommodate all.

Los Angeles has historically been a bustling center where people from all over the world have come to explore the possibilities this city has to offer. For the 3.8 million who have made it their home; they have given this city its unique identity comprised of distinct neighborhoods. Numerous places to go, things to do, warm weather, and a strong economic base all contribute to making Los Angeles a great place to live and work in. A city as diverse as Los Angeles requires a transportation system that offers equally diverse and viable choices to accommodate all.

Mobility Plan 2035 (Plan) provides a roadmap for achieving a transportation system that balances the needs of all road users. As an update to the City's General Plan Transportation Element (last adopted in 1999), Mobility Plan 2035 incorporates "Complete Streets" principles and lays the policy foundation for how future generations of Angelenos interact with their streets.

In 2008, the California State Legislature adopted AB 1358, The Complete Streets Act, which requires local jurisdictions to, "plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban or urban context."

The City's transportation system will continue to evolve to fit the context of the time and situation. Today, we are faced with environmental constraints, public health issues, and some of the longest traffic delays in the nation. The way Mobility Plan 2035 addresses these issues through policy initiatives today will set the stage for the way we move in the future.

This Plan is both a working guide and a reference document that serves as a guiding tool for making sound transportation decisions as the City matures and evolves. It is intended to help the City and other agencies contemplate future actions such as transportation infrastructure improvements or

open street events. The policies located throughout the Plan are interrelated and should be examined comprehensively when making planning decisions. As a part of the General Plan, this Plan is also the basis for land use decisions and findings by the City Planning Commissions, other boards and commissions, and the City Council.

Key Policy Initiatives

>> Lay the foundation for a network of Complete Streets and establish **new Complete Street standards** that will provide safe and efficient transportation for pedestrians (especially for vulnerable users such as children, seniors and the disabled), bicyclists, transit riders, and car and truck drivers

>> Consider the strong **link between land use and transportation**

>> Promote **"first mile-last mile" connections**

>> Improve **interdepartmental and interagency communications and coordination** with respect to street design and maintenance

>> Identify **potential funding options** for regular street maintenance as well as infrastructure changes

>> Increase the use of **technology** (applications, real time transportation information) and **wayfinding** to expand awareness of and access to parking options and a host of **multi-modal options** (car share, bicycle share, car/van pool, bus and rail transit, shuttles, walking, bicycling, driving)

>> Identify potential future mobility and **goods movement** investments

>> Expand the role of the **street as a "public place"**

>> Increase the role of low-tech "green street" solutions to treat and infiltrate **stormwater**

Plan Organization

Mobility Plan 2035 includes six **goals** that highlight the City's mobility priorities. Each of the goals contains **objectives** (targets used to help measure the progress of the Plan) and **policies** (broad strategies that guide the City's achievement of the Plan's goals). Policies have **programs** linked to them that are the action items which will implement this Plan.

Six Goals:

1. Safety First
2. World Class Infrastructure
3. Access for All Angelenos
4. Collaboration, Communication and Informed Choices
5. Clean Environments
6. Smart Investments

The Plan is organized into nine chapters. Each chapter is further organized into sections that address specific topics described below. Chapters one through six introduce the six goals of the Plan with relevant policies. Each policy includes a discussion that highlights the rationale for the policy and the intended change that would result from implementation of the policy.

Introduction. This initial Chapter describes the role of transportation and provides a brief timeline of transportation. The chapter also outlines the Plan's six goals, highlights the Plan's organizational format, describes the Plan's relationship to the City's General Plan as well as plans developed by other City agencies and regional jurisdictions.

Chapter 1: Safety First focuses on topics related to crashes, speed, protection, security, safety, education, and enforcement.

Chapter 2: World Class Infrastructure focuses on topics related to the Complete Streets Network (walking, bicycling, transit, vehicles, green streets, goods movement), Great Streets, Bridges, Street Design Manual, and demand management.

Chapter 3: Access for All Angelenos focuses on topics related to affordability, accessibility, land use, operations, reliability, transportation demand management and community connections .

Chapter 4: Informed Choices focuses on topics related to real-time information, open source data, transparency, monitoring, reporting, emergency response, departmental and agency cooperation and data base management.

Chapter 5: Clean Environments and Healthy Communities focuses on topics related to the environment, health, benefits of active transportation, clean air, clean fuels and fleets.

Chapter 6: Smart Investments focuses on topics related to fiscal responsibility, sustainable long-term funding, economic development, performance-based analysis and prioritization criteria.

Chapter 7: Action Plan describes the various actions that, funding and staff permitting, will be prioritized for implementation. The actions are organized into the following 17 categories: Communication, Data & Analysis, Education, Enforcement, Engineering, Funding, Land use, Legislation, Maintenance, Management, Operations, Parking/Loading, Planning, Projects, Public Space, Schools, Support Features.

Chapter 8: Mobility Atlas contains a collection of maps. It tells a visual narrative of where the City's transportation system is now and where it plans to go in 2035.

Chapter 9: Complete Street Manual is included as a separately bound document. The Manual describes, and identifies implementation procedures for, the City's expanded Street Standards and Guidelines. The Chapter includes information on the roadway, intersections, pedestrian crossings, sidewalks, bus stops, and other placemaking elements. The Technical Design Handbook that was developed in conjunction with the 2010 Bicycle Plan adopted on March 1, 2011 has been integrated into the Complete Street Manual so technical design information for all modes will be in one document.

The **2010 Bicycle Plan** goals and policies have been folded into the Mobility Plan to reflect a commitment to a multi-modal viewpoint. Bicycle Plan programs have been incorporated into Chapter 7: Action Plan.

Appendix A: Inventory of Designated Scenic Highways and Guidelines

Appendix B: Funding Resources

Appendix C: Bicycle Transportation Account Checklist

Appendix D: Glossary of Transportation Terms and Acronyms

Context

The City of Los Angeles has grown from its modest size of 50,000 people and 28 square miles in 1890, to 3,800,000 persons and 463 square miles today. While population growth has slowed during the last few years, the City's population is still projected to increase to 4,300,000 persons by 2035. Collectively, Los Angeles, Anaheim, and Long Beach rank as one of the nation's top economic powerhouses.[1] A robust transportation system that offers multiple options and quality infrastructure will be crucial to achieving economic prosperity, especially in a city and region so large and expansive. In addition to being the second largest city in the country, Los Angeles is also one of the most diverse. Meeting the transportation and mobility needs of such a diverse, growing population requires a comprehensive package of transportation strategies.

Today, 71 % of trips in Los Angeles County are made by a driver alone in a car. 11% carpool, 12% take transit, and 6% of trips are by other modes (walking, biking) according to the 2009 NHTS. Distance, weather, comfort, time costs usually dictate our mode of travel. But whether we walk, bike, board a bus/train/taxi, drive a car, or fly on an airplane, we rely on transportation to get us where we want to go.

Not only does transportation move people from one place to another, it also moves goods and materials. Cargo ships and airplanes deliver products made in far flung places to our harbor and airport, freight rail and large semi-trailers distribute goods to warehouse distribution points, and local delivery trucks bring these goods to our home and work places. The multifaceted nature of our goods movement industry keeps our economy humming by not only delivering goods to retail businesses for our consumption, but also providing bountiful employment opportunities in the logistics sector.

While Los Angeles' reputation as a car culture is not unfounded, this legacy has often ignored the early and continued presence of pedestrians, bicyclists, trains, streetcars, and delivery trucks traveling throughout the City. (See timeline on page 14) Certainly the popularity of each of these other transportation modes has varied over time, as economics and lifestyle preferences continually change. However, for today (2014) and for the foreseeable future (2035), a transportation system that offers multiple modal choices (with respect to time, cost, convenience, energy, etc.) will foster a culture of smarter, better informed road users.

For many, the car is the only viable form of transportation and this Plan acknowledges the necessary and continued investments that are needed to maintain our roadways. Likewise, there are many who cannot, or desire not to, use a car every day. This Plan therefore, also acknowledges the necessary and continued investments that are needed to improve the variety of safe, comfortable, and attractive transportation choices.

Even a relatively minor incremental shift in mode choice can yield large rewards. Cars and trucks contribute to 40% of greenhouse gas emissions. Therefore, reductions in vehicle miles traveled (VMT) will reduce the amount of carbon emissions and improves the region's air quality. Safer and more comfortable streets that encourage the use of active transportation (biking, walking) can improve a person's overall health.

This Plan recognizes the importance of our City's streets as the lifeblood of our health and economy and seeks to prioritize resources to transform and maintain our streets as Complete Streets that serve all users, now and into the future.

This evolution will not happen overnight. Upgrading technology and modifying or adapting street and/or rail infrastructure is not easy or cheap. It's a commitment that we're making for future generations.

Key Forces, Trends, and Concepts in 21st Century Mobility Planning

Changing Demographics

This plan responds to changing demographics, a younger population desirous of safe and accessible active transportation options (bike, walk), a growing number of residents and employees seeking alternatives to the car, and an aging population that may need to rely more and more on transportation alternatives to the automobile. In 2030, senior citizens will make up one fifth of LA County's population. This older population (as well as children and the disabled) will benefit from longer pedestrian crossing times, shorter street crossing distances, wider, shaded sidewalks, street benches, and separated bicycle facilities. In droves today's teens are delaying getting their drivers' license. According to a 2012 survey, 56% of respondents did not get their license within one year of being age-eligible and only 54 percent had acquired their license before turning 18 years old.[2] When they do get their drivers' license they are driving fewer miles than previous generations did at the same age. Young people between the ages of 16 and 34 drove 23 percent fewer miles on average in 2009 than they did previously in 2001.[3] Fewer of today's households have two cars as more are deciding (for financial and/or environmental reasons) to get by with one car or less.

Transportation, Health and Land Use Connection

Information is also becoming increasingly available regarding the relationship between the built environment, health, and the

economy. Improved urban design (wider sidewalks, street trees, street lighting, parking design, and better access to transit) increases both the utilization of active transportation modes and spurs community interaction, which in turn can improve the health of an area's residents and increases economic activity.

Goods Movement

Goods movement involves the transportation of produce or goods through ship, aircraft, train, and truck. Goods movement is important to the circulation flow of any city and plays a critical role in the economic development for the City of Los Angeles in particular. The safe and efficient movement of goods relies on the LA region's expansive network of freeways, streets, and rail. With LA being one of the most traffic congested city in the nation, it is imperative to find solutions to the struggle for road space between travelers and goods while improving safety and efficiency for all road users.

Technology

Technology is also dramatically altering the way we think about travel and our relationship with streets. Technology permits us to attend a meeting remotely, and thus maybe bypass the morning's commute,"thereby reducing a trip. Increasingly, new transportation network companies are using mobile technology to connect ordinary drivers with passengers needing a ride. Carsharing companies provide easy, temporary access to a rental car. Both of these new options offer a convenient and cost-effective alternative to buying and owning a car. Increasingly, technology informs us about real-time travel options so that tomorrow's trip decisions can be aided by information as to the cost, length of trip, health benefits, departure and arrival time of multiple transportation options.

Streets as Places

In today's cities, streets not only facilitate movement but also provide "places" to gather, to congregate, to sit, to watch, and to interact. This expanded definition has fundamentally changed our relationship with streets and will factor into future transportation discussions. The success of CicLAvia, coupled with the desire for improved sidewalks and more public gathering spaces speaks to the community's increasing interest in using their streets for more than just transportation. Streets are the City's public face, the places that connect us to work, entertainment, shopping, recreation, and each other. Complete street policies will help carve out a new vision for how we think about streets.

Mobility Timeline

Transportation in Los Angeles has undergone a number of major revolutions since the days of unpaved city streets and horse-drawn streetcars. Each new technology has brought about changes in lifestyles and in the physical form of the city.

The following timeline presents a broad overview of the past, present, and future of mobility in Los Angeles. Each entry is classified by type (historical event, project, legislation, or plan/study) and by mode (active, multi-modal, rail, roads/vehicles, and transit).

L.A. Mobility Timeline

1850–1900

The timeline is divided into three sections: early years up to the adoption of the 1999 Transportation Element, years following adoption to the present, and future of the City/regional transportation system.

- Historical Event
- Project
- Legislation
- Plan or Study

- Active
- Multi-modal
- Rail
- Roads/vehicles
- Transit

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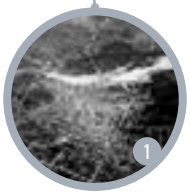
1900

1850 **Los Angeles incorporated** as a municipality. California achieves statehood.



1869 **Transcontinental Railroad** completed, linking California (San Francisco) to the rest of the nation for the first time.

1869 21-mile **Los Angeles & San Pedro Railroad** completed, connecting downtown Los Angeles to the harbor for the first time and opening the door to **global trade**. The tracks ran along the same path as today's Alameda Corridor.

1874 **First street car line** in the city opens, consisting of two open cars **drawn by horses** along a 2.5-mile track running from Temple Street down Spring to 6th Street.

1876 **Southern Pacific Railroad** completed, **linking the city to the national rail network for the first time** and setting the stage for an era of **explosive urban growth**. Los Angeles successfully competed against San Diego to become the terminus of the railroad.

1880 Main Street becomes the **first paved roadway** in the city.

1887 **Santa Fe Railroad** completed, further spurring immigration to Southern California from the East and Midwest.

1887 The Los Angeles Electric Railway introduces the city's **first electric-powered streetcars**. The line goes out of business the following year when its power plant boiler bursts.

1895 Los Angeles Railway (Yellow Cars) inaugurates the city's **first interurban trolley** line, running between Los Angeles and Pasadena.

1896 State's **Bureau of Highways** issues its first plan, laying the foundation for the California highway system as it exists today.

1897 The **city's first dedicated bikeway** opens, an elevated wooden turnpike connecting Downtown Los Angeles to Pasadena. Only 4.5 of the planned 9 miles are built.

1900–1950

- Historical Event
- Project
- Legislation
- Plan or Study

- Active
- Multi-modal
- Rail
- Roads/vehicles
- Transit

1900

1901

1902 Henry E. Huntington's **Pacific Electric** trolley line begins service from downtown Los Angeles to Long Beach, along the path of today's Metro Blue Line.

1903
1904
1905
1906
1907

1907 Subdivision Map Act enacted, giving the City legal authority to exact land dedications for street rights-of-way.

1908
1909

1907 A **100 mile-per-hour monorail** running from Pasadena to Santa Monica is proposed the idea does not get beyond the planning stage.

1910

1911
1912
1913
1914

1907 Port of Los Angeles officially founded with the creation of the Los Angeles Board of Harbor Commissioners. That year, the Port handled $2 million worth of cargo. In 2012, the Port handled more than $280 billion worth of cargo.

1915 "**Jitneys**," automobiles operated by private citizens, offer customers flexible service and routes, threatening the business of fixed rail lines.

1916
1917
1918
1919

1923 State approves **first gas tax** to fund maintenance and construction of state and county roads.

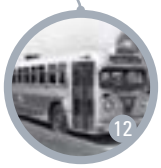
1920

1921

1923 First gasoline-fueled buses in the city introduced by the People's Motor Bus Company.

1922
1923
1924

1924 Rapidly growing automobile ownership leads to **increasing congestion and conflicts with streetcars**. In response, a private group commissions the "Major Traffic Street Plan" by renowned city planners Frederick Law Olmsted, Jr., Charles H. Cheney, and Harland Bartholomew.



1925
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1929

1925 City adopts its **first traffic sign and signal plan.**

1925 Huntington introduces the city's **first subway**, the Hollywood Subway.

1930

1931

1925 United States Highway System establishes the **first nationwide system of standardized routes.**

1932
1933
1934

1928 The city's **first airport** opens on a 640-acre bean field in Westchester. Today, LAX is the sixth busiest airport in the world and third busiest in the United States, serving 64 million passengers per year.

1935
1936
1937
1938
1939

1939 Union Station opens.

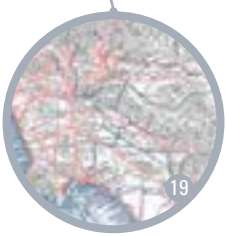
1940

1941

1940 California's **first non-toll highway, or "freeway,"** completed, the six-mile **Arroyo Seco Parkway** (later renamed the Pasadena Freeway).

1942
1943
1944
1945

1945 The Pacific Electric has its peak ridership, and is the **world's largest electric rail system**, with 1,164 miles of track serving 125 cities throughout Southern California.

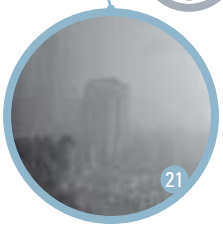


1946

1947 Following a severe "**smog attack**" in 1943, the Los Angeles County Board of Supervisors establishes the **nation's first air pollution control program.**

1947

1947 The City enacts its **first parking requirements**, requiring residential units to provide at least one off-street parking spot.



1948
1949

1950

1950–1975

- Historical Event
- Project
- Legislation
- Plan or Study
- Active
- Multi-modal
- Rail
- Roads/vehicles
- Transit

1950

1951 **1951** Los Angeles County Metropolitan Transit Authority (LAMTA) established.

1952

1953 **1953** **Four-level interchange** is completed, a marvel of civil engineering, connecting the Hollywood, Pasadena, and Harbor Freeways.

1954


22

1955

1956 **1956** President Eisenhower signs the **Federal-Aid Highway Act of 1956**, establishing the Highway Trust Fund and spurring a national wave of highway building.


23

1957

1958

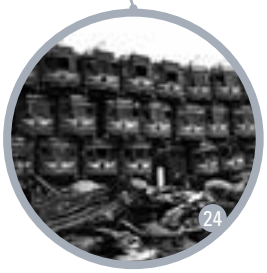
1959 **1959** City adopts the **Highway and Freeways Element**, the first transportation element to be included in the City's general plan. The element focuses on expanding the transportation network through investments in highway and freeway infrastructure.

1960

1961

1962

1963 **1963** Undercut by buses and private automobiles, the **Pacific Electric discontinues service** on its last remaining line, from Los Angeles to Long Beach.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1964 **1964** The state legislature creates the **Southern California Rapid Transit District** (RTD), tasked with designing, building, and operating a regional transit system. Unlike the Los Angeles County Metropolitan Transit Authority (LAMTA) that preceded it, the RTD is authorized to levy taxes and use eminent domain.

1965


25

1966

1967

1968

1969

1970

1970 **1970** Congress enacts an expanded **Clean Air Act** and creates the **Environmental Protection Agency** to administer it.
1970 **National Environmental Policy Act** (NEPA) and **California Environmental Quality Act** (CEQA) enacted.

1971

1972 **1972** Federal **Clean Water Act** enacted.
1972 Acknowledging shifting priorities, the state legislature establishes the California Department of Transportation (aka Caltrans) to replace the Division of Highways. The new agency is charged with planning and implementing a **multi-modal transportation** system.


26

1973

1974 **1974** Voters approve a measure allowing gas tax revenue to be used for **non-highway projects** for the first time. The federal **Urban Mass Transit Administration** allocates funds for multimodal regional transit systems.

1975

1975–2000

Historical Event
Project
Legislation
Plan or Study

Active
Multi-modal
Rail
Roads/vehicles
Transit

1975

1976 **1976** The **first carpool (HOV) lanes** are installed on the I-10.

1977 **1977** City adopts its **first Bicycle Plan**, establishing a 600-mile citywide system of bikeways intended to serve both recreational and transportation needs. Included within the citywide system was a 300-mile backbone system.

1978

1979 **1979 Los Angeles Department Of Transportation** (LADOT) formed, consolidating most transportation-related functions into a single department.

1980

1980 Los Angeles County voters approve **Proposition A, the first tax specifically intended to fund public transportation.**

1981

1982

1983

1984 **1984** The **Automated Traffic Surveillance and Control** (ATSAC) is initiated by the City to provide traffic congestion relief during the Olympic Games, using a combination of traffic engineering measures and traffic operation control procedures.

1985

1986

1987

1988

1989 **1989** The State establishes the **Congestion Management Program** (CMP), requiring regions to examine the impact of land use and growth on the regional transportation system.

1990

1990 The **Port of Los Angeles becomes the nation's busiest port**, overtaking New York City.

1990 The **Blue Line** light rail system begins service downtown Los Angeles and Long Beach, the first interurban transit service to operate since 1963.

1991

1992 **1992** The **Metrolink** regional commuter train system begins service, operated by the Southern California Regional Rail Authority.

1993 **1993** The **I-105 freeway opens**, the last new freeway to be constructed in the Los Angeles region. Other once-planned freeways including the Beverly Hills Freeway and the Laurel Canyon Freeway remain unbuilt.

1993 The state legislature establishes the **Los Angeles County Metropolitan Transportation Authority** (MTA, or Metro), consolidating the RTD and Los Angeles County Transportation Commission (LACTC).

1994

1995

1993 Metro opens the **Red Line** subway, with service between Union Station and Westlake.

1995 Metro's **Green Line** begins service between Norwalk and Redondo Beach, running largely within the median of the I-105 Freeway.

1996 **1996** The City adopts a **new bicycle plan**, designating 673 miles of bikeways plus 69 miles of study corridors.

1997

1998

1999 **1999** The City adopts the **Transportation Element** of the general plan. The new Mobility Element updates and replaces this plan.

2000


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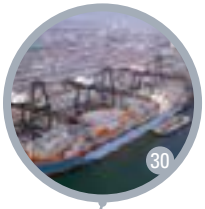
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2000–2010

Historical Event
Project
Legislation
Plan or Study

Active
Multi-modal
Rail
Roads/vehicles
Transit

2000

2000 Metro's **Rapid Bus Service** pilot program begins.

2001

2002 The **Alameda Corridor** begins operations, linking the ports of Long Beach and Los Angeles to rail yards near downtown LA via a 20-mile-long, below-grade "rail expressway." The Corridor reduces the share of cargo moved by truck on the 710 freeway, thereby reducing congestion and emissions.

2003

2003 Metro's **Gold Line** begins operation from Union Station to Sierra Madre Villa.

2004

2005

2005 Metro's **Orange Line** bus rapid transit (BRT) service begins, connecting North Hollywood to Warner Center. The 14-mile busway is a less expensive alternative to fixed-rail transit.

2006

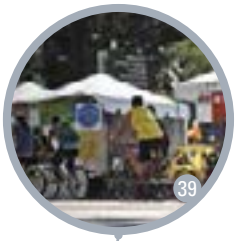
2006 AB 32 (the California Global Warming Solutions Act) enacted, setting a statewide target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050.

2007

2007 Low Carbon Fuel Standard established, setting a target ofreducing the carbon intensity of fuels sold in California by at least 10 percent by 2020.

2008

2008 SB 375 (Sustainable Communities Strategy) adopted, requiring regional planning that links transportation with land use, as a strategy for meeting the state's greenhouse gas reduction goals.
2008 Los Angeles County voters pass **Measure R** with a two-thirds majority, implementing a half-cent sales tax to finance various transportation improvements in the region.
2008 AB 1358 (Complete Streets Act) signed into law, requiring all cities and counties to account for all roadway users when updating transportation plans.



2009

2010 The City adopts its third **bicycle plan, the most ambitious to date** in its commitment to bikeways.

2010

2010 The **first CicLAvia event** takes place, opening up streets in downtown Los Angeles to all modes of non-motorized transportation for a single day.

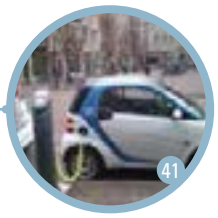
2010–2020

- Historical Event
- Project
- Legislation
- Plan or Study
- Active
- Multi-modal
- Rail
- Roads/vehicles
- Transit

2010

2011

2011 Metro **Gold Line extension** from Union Station to Atlantic Station opens.



2012

2012 The California Air Resources Board (CARB) approves the **Advanced Clean Cars** program, setting targets for adoption of zero-emission vehicles.

2012 Initial phase of Metro's Expo Line opens, connecting Downtown Los Angeles to Culver City.

2012 Metro's **Orange Line is extended** to Northridge (Chatsworth Station).

2013

2013 The **Greenway 2020** campaign launches, with the vision of a continuous, 51-mile greenway adjacent to the Los Angeles River.

2013 The City adopts a **Bicycle Parking Ordinance**, requiring development projects to provide bike parking and allowing reductions in required vehicular parking.

2013 **ExpressLanes/High Occupancy Tolling** (HOT) begin on the I-110 and I-10.

2013 Lyft, Uber, Sidecar and other **ridesharing services** launch in Los Angeles.

2014

2014 Expected completion of the City's **first protected bike lanes (cycle tracks)** along sections of the 4.5-mile **MyFigueroa** Project.

2014 Expected adoption of the City's new **Mobility Element**. Expected adoption of the **Westside Mobility Plan**, a transportation blueprint for the Westside. Expected adoption of the **Transit Neighborhood Plans** for the Exposition and Crenshaw/LAX Lines.

2015

2015 Expected completion of **Phase 2 of the Expo Line**, extending from Culver City to Santa Monica.

2015 Expected completion of **Phase 2a of the Gold Line Foothill Extension**, from Pasadena to Azusa.

2019 Expected completion of the **Crenshaw/LAX Line**, connecting the Expo and Green Lines via LAX.

2016

2020 Planned completion of the **Regional Connector**, providing a one-seat ride for travel across Los Angeles County.

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Sources:

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28. Los Angeles Public Library Photo Collection
29. Photo by Eric Richardson
30. A.P. Moller-Maersk Group
31. Photo by Alan Weeks
32. Los Angeles County Metropolitan Transportation Authority Library & Archive
33. LADCP
34. Photo by Dave Proffer
35. Photo by Thomas Brightbill
36. http://www.flickr.com/photos/waltarrrrr/3982965199/
37. Photo by Gary Leonard courtesy of Los Angeles Metro.
38. Photo by Gary Leonard courtesy of Los Angeles Metro.
39. http://commons.wikimedia.org/wiki/File:Ciclav ia_family_October_2012.jpg
40. Photo by Melissa Wall
41. Ludovic Hirlimann
42. Los Angeles River Revitalization Corp.
43. Photo by Sergio Ruiz

Projects and Future Milestones with Unknown Timelines or Completion Dates

→ ***Gold Line Foothill Extension.** Will extend the existing Gold Line to Montclair. The current extension to Azusa will be completed in 2015; however a timeline has not been released for the phases to Montclair and the Ontario Airport.

→ **Bike Share.** The City is examining the feasibility of bike share opportunities; examining funding alternatives.

→ ***Sepulveda Pass Corridor.** Metro is studying various modal alternatives for the regional transportation corridor.

→ **Purple Line Extension** Metro plans to extend the purple line to the westside.

→ **California High Speed Rail** (CAHSR). The system would transport passengers between Los Angeles and San Francisco in under three hours.

Mobility by the Numbers

The City	
3.8 million	population
468.7 square miles	land area

Infrastructure	
7,500 miles 60% "local" streets 40% "arterial" and "collector" streets	streets
86.5 square miles (28% of City's developed land area)	land area occupied by streets
10,750 miles 42% are in disrepair	sidewalks
800 miles	alleys
181 miles	freeways
40,000	intersections
22,000	marked crosswalks
4,398	traffic signals
38,011	parking meters
75.2 million miles 53% on freeways 47% on surface streets	driven in the City on an average day

Goods Movement
(Ports of Los Angeles and Long Beach)

$1.1 billion per day = more than $700,000 per minute	value of cargo handled in 2012
39,000 per day = one every 2.2 seconds	number of containers handled in 2012 (Twenty-foot Equivalent Units)
1st	busiest port in the US
8th	busiest port in the world
> 40%	of the nation's containerized imports pass through the Ports
300%	projected increase in cargo volume at Ports by 2035
48% truck 32% truck-to-rail 20% rail	onward goods movement from the Ports
1/3	of jobs in the region are directly and indirectly supported by the goods movement industry

Air Travel
(LAX)

63.7 million = 175,000 per day	passengers in 2012
1,659 = one every 52 seconds	takeoffs and landings per day in 2012
6th	busiest airport in the world (by passenger traffic)

Economic, Environmental, and Health Impacts

Obesity	
6%	increase in the likelihood of obesity for each additional hour per day spent in a car
$6 billion	annual cost of obesity in LA County (health care and lost productivity)
25%	of children are obese in the City of LA
Collisions	
36,000 + = 100 every day	Angelenos injured or killed in motor vehicle collisions per year
48%	of traffic fatalities are pedestrians and bicyclists
1/3	of collisions in the City are hit-and-runs
double the national average	pedestrian fatality rates for children under age 4 and seniors over age 70
5%	of pedestrians die when hit by a vehicle moving < 20 MPH
80%	of pedestrians die when hit by a vehicle moving > 40 MPH
Cost of Living	
$9,122	average annual cost of vehicle ownership
15-20%	of household income is typically spent on transportation

Economic, Environmental, and Health Impacts

Air Pollution	
57	unhealthy air quality days in 2012, when air pollution levels in LA County exceeded federal standards
$22 billion	annual cost of health impacts from air pollution in the South Coast Air Basin
2,000+	premature deaths per year in greater Los Angeles attributed to air pollution from vehicles
Greenhouse Gas Emissions	
160 million tons	of greenhouse gas emissions per year from vehicles in California
38%	of California's greenhouse gas emissions come from transportation
Water Pollution	
4 in 10	of California's most polluted beaches are in Los Angeles County
48%	of beaches in LA County received an F grade for wet weather water quality (2008-2012 average)

Signs of Change

Walking and Biking

64,000	people walk to work every day in the City of LA
16,000	people bike to work every day in the City of LA
56%	increase in biking to work, 2000 – 2010

Transit

1.5 million	people ride Metro rail and buses on a typical weekday
2.1 billion miles	traveled on Metro rail and buses in 2013
3rd	in public transit usage of cities nationwide
80	Metro rail stations currently in service
15,967	Metro bus stops currently in service
100%	of Metro's bus fleet is powered by clean-burning CNG

Future Potential

Walking and Biking

47%	of all trips in greater Los Angeles are less than 3 miles (within walking/ biking distance)
84%	of these trips are currently made by car
87%	of all roads in Los Angeles are relatively flat (less than a 5% grade)
300	days per year with favorable weather conditions for active transportation (sunshine, moderate temperatures)

Transit

5 Expo Line Phase 2 Crenshaw/LAX Line Gold Line Foothill Extension Purple Line Extension Regional Connector	new Metro rail lines currently planned or under construction
116	Metro rail stations planned to be in service by 2035

Partners

The management of such a sprawling and complex transportation network as Los Angeles requires the coordination between State, Regional, County, and multiple local jurisdictions, agencies, and departments. Below follows a summarized list of the various players who impact the City's transportation system and who will be active partners in implementing the future changes envisioned by this Plan.

Transit

Los Angeles County Metropolitan Transportation Authority (Metro)

The Los Angeles County Metropolitan Transportation Authority (Metro) serves as a transportation planner and coordinator, funder, designer, builder, and operator for the 1,433 square mile transit and track service area within the Los Angeles County. It is responsible for the planning, design, and implementation of the region's Metro Rail, Metro Liner and Metro Bus systems.

Los Angeles Department of Transportation (LADOT)

The Los Angeles Department of Transportation is the second largest provider of transit within the City, serving over 30 million passenger boardings per year. The LADOT Bureau of Transit Programs manages a fleet of nearly 400 vehicles that operate over 800,000 revenue hours and over two billion passenger miles.

Regional Transit Providers

In addition to the Metro bus and rail system portions of the City are served by other local operators.

Santa Monica Big Blue Bus (BBB)

The Santa Monica Big Blue Bus (BBB) operates a fleet of over 200 buses. Spanning more than 51 square miles across Santa Monica and portions of the Westside (including UCLA/Westwood, Century City, Culver City, LAX, and more), BBB serves more than 20 million people annually.

Culver City Bus

Operating a fleet of 52 buses, Culver City Bus system is comprised of 7 routes spanning nearly 26 miles on the Westside, including Venice, Culver City, Westwood, Palms, and Century City. The system serves over 5 million riders annually.

Foothill Transit

Foothill Transit, a joint powers authority of 22 cities in the San Gabriel and Pomona Valleys, serves 14 million passengers annually and currently operates 33 bus lines covering 327 square miles.

Other Agencies Serving Downtown Los Angeles

Other local agencies such as *City of Santa Clarita Transit, Gardena Municipal Bus Lines, Montebello Bus Lines,* and *Torrance Transit* outside the City of LA carry express service to Downtown Los Angeles.

Ports

Los Angeles World Airport (LAWA)

The Los Angeles World Airports (LAWA) is a proprietary department of the City of Los Angeles, under the management and control of a seven-member Board of Airport Commissioners appointed by the Mayor and confirmed by the City Council. LAWA operates three airports in the Los Angeles Air Trade Area: Los Angeles International Airport (LAX), LA/Ontario International Airport (ONT), and Van Nuys Airport (VNY). LAWA also maintains the LA/Palmdale Regional Airport (PMD).

Port of Los Angeles (POLA)

The Port of Los Angeles is the nation's premier gateway for international commerce, generating more than 3 million jobs nationally. Almost 1 million jobs are related to Port-related commerce in California alone. The Port of Los Angeles spearheads many innovative environmental initiatives and security measures, and boasts a bevy of historic and recreational facilities.

Street Design, Operations, Planning and Maintenance

California Department of Transportation (Caltrans)

The California Department of Transportation (Caltrans) is responsible for planning, design, construction, maintenance, and operation of the state highway system. The City of Los Angeles is located within the jurisdiction of Caltrans District 7, which includes Los Angeles and Ventura counties. District 7 is responsible for 42 freeways and highways consisted of 915 freeway and highway miles in Los Angeles County and 273 miles in Ventura County. On average, 100 million vehicle miles are traveled daily on District 7 freeways.

Los Angeles Department of City Planning (DCP)

The Department of City Planning (DCP) is responsible for preparing, maintaining, and implementing a General Plan that guides development in the City of Los Angeles. The department sets citywide and community-specific goals and policies to guide future growth and promote the social and physical health, safety, and welfare of Angelenos. DCP also helps manage ongoing residential and commercial growth along the City's corridors, in high activity centers, and around transit opportunities.

Los Angeles Department of Public Works

Bureau of Engineering (BOE)

The Bureau of Engineering is responsible for the City's vast network of infrastructure within the public right of way, and includes the planning, design, and construction of public facilities, and the management and delivery of voter-approved public bond funds, Federally funded projects, and the delivery of cross-sector local government programs, that serve millions of residents and businesses in diverse neighborhoods and industries.

Bureau of Street Lighting (BSL)

The Bureau of Street Lighting is responsible for the design, construction, operation, maintenance and repair of the street lighting system within the City of Los Angeles. There are currently more than 220,000 lights in the City consisting of more than 400 designs.

Bureau of Sanitation (BOS)

The primary responsibility of the Bureau of Sanitation is to collect, clean and recycle solid and liquid waste generated by residential, commercial and industrial users in the City of Los Angeles and surrounding communities.

Bureau of Street Services (BSS)

The Bureau of Street Services is responsible for maintenance, repairing, resurfacing, and cleaning improved streets, alleys, bridges, tunnels, pedestrian subways, and related structures. The Bureau also maintains street trees and landscaped median islands and embankments.

Los Angeles Department of Transportation (LADOT)

The Los Angeles Department of Transportation is a leader in the planning, design, construction, and operation of the transportation system in the City of Los Angeles. The Department partners with sister agencies to improve transportation service and infrastructure in the City and the region.

Relationship to Other Plans

General Plan

California State Law requires that cities prepare and adopt a comprehensive, integrated, long-term General Plan to direct future growth and development. The General Plan is the fundamental policy document of a city. It defines how a city's physical and economic resources are to be managed and utilized over time. Decisions by a city with regard to the use of its land, design and character of buildings and open spaces, conservation of existing and provision of new housing, provision of supporting infrastructure and public and human services, and protection of residents with natural and man-caused hazards are guided by and must be consistent with the General Plan.

The General Plan may be adopted either as a single document or as a group of related documents organized either by subject matter or by geographic section within the planning area [Government Code Section 65301 (b)]. The General Plan must be periodically updated to assure its relevance and usefulness.

Changes to the law over the past thirty years have vastly boosted the importance of the General Plan to land use decision making. A General Plan may not be a "wish list" or a vague view of the future but rather must provide a concrete direction.

State law requires that the General Plan must contain seven mandatory elements: land use, transportation, housing, conservation, open space, noise, and safety. All of the elements must be internally consistent.

Framework Element

In addition, the City has adopted an overarching "Framework Element" that sets forth a strategy for long-range growth and development, setting a citywide context for the update of community plans and the citywide elements. The Framework is focused around seven guiding principles: grow strategically; conserve existing residential neighborhoods; balance the distribution of land uses, enhance neighborhood character through better development standards; create more small parks, pedestrian districts, and public plazas; improve mobility and access; and identify a hierarchy of commercial districts and centers.

Land Use Element- 35 Community Plans and 2 Special Use Districts

The City's 35 Community Plans and two Special Purpose Districts (LAX and Port Master Plans) constitute the Land Use Element of the City's General Plan. While the Plan provides a citywide approach to enhancing safe, accessible transportation options, the area plans that comprise the Land Use Element provide the opportunity

for a more focused and nuanced transportation discussion at a community level. In this way, localized recommendations that address community-specific conditions can be developed in each of the Plans/Districts that are consistent with and complementary to this citywide Plan.

Community Plans

The Community Plans implement, at a community level, the citywide goals and policies established in the overarching General Plan Framework and all other elements of the General Plan. They are intended to promote an arrangement of land uses, streets and services which will encourage and contribute to the economic, social and physical health, safety, welfare and convenience of the people who live and work in each of the communities.

Special Purpose Districts

The LAX Plan is intended to promote an arrangement of airport uses that encourages and contributes to the modernization of the airport in an orderly and flexible manner within the context of the City and region. It establishes a framework for the development of facilities that promote the movement and processing of passengers and cargo within a safe and secure environment while continuing to serve as the region's principal international gateway.

The Port of Los Angeles Plan is the official guide to the continued development and operation of the Port. The plan promotes an arrangement of land and water uses, circulation and services that will encourage and contribute to the economic, social and physical health, safety, welfare and convenience of the Port. The Plan also provides for additional public recreation facilities within the Port of Los Angeles consistent with sound and compatible port planning. The Plan is designed to be consistent with the Port Master Plan.

Circulation Element

Under California Government Code § 65302(b), the general plan requires the inclusion of a circulation element, which consists of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities. The Mobility Element covers goals, objectives, policies and programs for major thoroughfares, transportation routes, and terminals; existing planning documents by operational departments cover goals, objectives, policies and programs for utilities, airports, ports and harbors.

MAJOR THOROUGHFARES Streets, Roads, and Highways Transit and Railroads Transportation Operations Management **TRANSPORTATION ROUTES** Truck Routes Pedestrian and Bicycle Routes Transit Routes **TERMINALS** Railroad Depots Public and Private Transit Terminals Freight Truck Terminals and Warehouses	Addressed in Mobility Element Update
UTILITIES Energy Water Sewer / Wastewater Drainage / Stormwater Solid Waste **TERMINALS** General and Commercial Airports Ports and Harbors	Addressed by Operating Departments

Sample List of Existing Infrastructure Planning Documents

LADWP Power Integrated Resources Plan (2010)

LADWP Urban Water Management Plan (2010)

LADWP Water Supply Action Plan (2008)

Bureau of Sanitation (BOS) 5-Year Strategic Plan (2011)

BOS Wastewater, Recycled Water and Stormwater Management Integrated Resources Plan (2006)

BOS Water Quality Compliance Master Plan for Urban Runoff Water Quality Compliance Master Plan (2009)

BOS Solid Waste Integrated Resources Plan (2009)

Consistent with the policies of the adopted Air Quality Management Plan, the Mobility 2035 Plan promotes strong linkages between land use, transportation and air quality. The Land Use Element is intended to guide the location and intensity of the private and public use of land and to promote an arrangement of land uses, streets, and services which will encourage and contribute to the economic, social and physical health, safety, welfare, and convenience of the people who live and work in the City. The Community Plans, which comprise the Land Use Element, incorporate the Mobility Plan's Highways and Freeways system and also designate collector streets.

The Plan recognizes the contribution of a proper juxtaposition of land uses to the reduction of vehicle trips. Locating uses that better serve the needs of the population closer to where they work and live reduces the number and distance of vehicle trips and a decrease in pollution from mobile sources. The Mobility Plan provides goals, objectives, policies and programs to continually meet the changing mobility, air quality and health challenges faced by the City.

Other Citywide Plans

In addition to the General Plan, the City occasionally adopts long-range vision plans that provide further guidance to the City in establishing priorities for funding future policy decisions and staff resources.

Los Angeles River Revitalization Master Plan (2007)

The Los Angeles River Revitalization Master Plan (LARRMP) provides a vision for the 32 miles of the Los Angeles River within the City limits. This vision balances multiple goals including flood protection, water quality, open space, habitat, recreation and non-motorized transportation opportunities. The LARRMP calls for the continued "development of non-motorized transportation and recreation elements including bicycle and pedestrian paths and multi-use trails in the River and tributary rights-of-way." The Los Angeles River plays a significant role in Los Angeles' environmental, non-motorized transportation and recreational identity.

Link to Los Angeles River Revitalization Master Plan:
http://boe.lacity.org/lariverrmp/CommunityOutreach/pdf/LARRMP_Final_05_03_07.pdf

Los Angeles Department of Recreation and Parks Community-Wide Needs Assessment (2009)

The Los Angeles Department of Recreation and Parks' Community-Wide Needs Assessment identifies, quantifies and prioritizes residents' needs for recreation and open space throughout the City

of Los Angeles. The Needs Assessment is the first step in a citywide park master plan and a five-year capital improvement plan. The Needs Assessment underwent an extensive community outreach process that included community leaders, stakeholders and other members of the public in interviews, focus groups, community forums and surveys. When asked which parks and recreation facilities residents experienced a need for, the majority of the community (63%) identified the need for walking and bicycling trails.

Link to Community-Wide Needs Assessment (2009):
http://www.laparks.org/planning/pdf/finalReport.pdf

Short Range Transit Plan 2011-12 (March 2012)

The Short Range Transit Plan provides an overview of the City of Los Angeles' transit system. It includes information about the City's transit services, areas served, ridership, and fleet and equipment inventory. The Plan also discusses budget and financial resources to support the Department's goals and objectives for fiscal years 2011-14.

The City of Los Angeles, through LADOT's Transit Bureau, provides fixed-route and demand-response (paratransit) services throughout the City.

Link to the Short Range Transit Plan:
http://ladot.lacity.org/pdf/PDF261.pdf

Other Agency Plans

When preparing or revising a general plan, cities and counties should carefully analyze the implications of regional plans for their planning area. General plans are required to include an analysis of the extent to which the general plan's policies, standards and proposals are consistent with regional plans.

Regional plans prepared by the Southern California Association of Governments (SCAG) and other designated regional agencies (e.g. Metro) provide the legal basis for allocating state and federal funds, as in the case of transportation and water quality facilities. Other regional plans, such as air quality plans, detail measures which local governments may institute in order for the region to meet state and federal standards.

The General Plan Framework and Land Use Elements serve as subregional input to SCAG's Regional Comprehensive Plan (RTP) and Sustainable Community Strategy (SCS) and provide a context for cooperative planning efforts between the City, adjacent cities, and the five county region.

California Transportation Plan

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce greenhouse gas (GHG) emissions. The CTP defines performance-based goals, policies, and strategies to achieve our collective vision for California's future, statewide, integrated, multimodal transportation system. The CTP is prepared in response to Federal and State requirements and is updated every five years.

Southern California Association of Governments (SCAG) Regional Transportation Plan (2012) and Non-Motorized Transportation Report (2008)

The 2012 Regional Transportation Plan (RTP) is a $524.7 billion plan that provides a regional investment framework to address the region's transportation and related challenges. SCAG's vision for the region focuses on three interrelated principles (mobility, economy, and sustainability), all of which aim create efficient transportation systems, healthier communities, and a thriving economy. The RTP outlines a plan to meet state and federal environmental goals, implement emission-free transportation technologies, develop investment strategies for sustainable economic growth, amongst other things.

The Non-Motorized Transportation Report of the RTP is a technical and policy document that guides, supports and encourages the development of county and city bicycle and pedestrian networks, facilities and other non-motorized programs for the SCAG region. Particular emphasis is placed on increasing bicycling and walking as a commute option and improving safety for all forms of non-motorized transportation.

Link to Regional Transportation Plan:
http://rtpscs.scag.ca.gov/Documents/2012/final/f2012RTPSCS.pdf

Metro Long Range Transportation Plan (2009)

Metro's 2009 Long Range Transportation Plan provides a 30-year vision for Los Angeles County's transportation system to the year 2040. The Plan identifies public transportation and highway projects, funding forecasts over a 30-year timeframe, multi-modal funding availability, sub-regional needs, and project performance measures.

Link to the Long Range Transportation Plan:
http://media.metro.net/projects_studies/images/final-2009-LRTP.pdf

Metro Bicycle Transportation Strategic Plan (2006)

Metro's 2006 Bicycle Transportation Strategic Plan (BTSP) aims to help municipalities and agencies in the region plan for bicycling in their jurisdictions as a viable mode of transportation.

The plan contains an inventory of "bike-transit" hubs in Los Angeles County. It assists in the identification of routes that may eventually provide continuity for bicyclists, while also outlining a strategy for prioritizing regional bikeway projects. As the regional transportation planning authority for Los Angeles County, Metro is the primary local funding source for bicycle transportation.

Link to the Bicycle Transportation Strategic Plan:
http://media.metro.net/projects_studies/bikeway_planning/images/BTSP.pdf

Los Angeles County Master Bicycle Plan (2012)

As an update to the to the 1975 Los Angeles County Bikeway Plan, the 2012 Los Angeles County Bicycle Plan seeks to both promote greater ridership and expand the mobility options for all riders throughout the county. The plan outlines proposed network expansions, ridership strategies, funding sources, and programming and implementation. In addition, the plan also addresses issues related to missing gaps, problematic areas, and regional connectivity

Link to LA County Bicycle Master Plan:
http://dpw.lacounty.gov/pdd/bike/masterplan.cfm

Public Participation

Community participation and feedback have been critical to forming the direction of the Mobility Plan 2035. An open public dialogue has been integral to each step of the planning process, from visioning and analyzing to goal and policy formulation.

The Mobility Plan is a citywide document and community outreach for a city as large and spread out as Los Angeles is no easy undertaking. A strategic approach was used to engage citizens at the community level in order to inform them on citywide issues.

Since the inception of the Mobility Plan in the Fall of 2011, project staff have participated in over 80 community meetings throughout the city, held four "think lab" workshops, two scoping meetings, maintained a project website for easy access to materials, implemented an online town hall to hear from those unable to go to traditional meetings, and worked with various agencies, nonprofits, and community groups.

Online All the Time

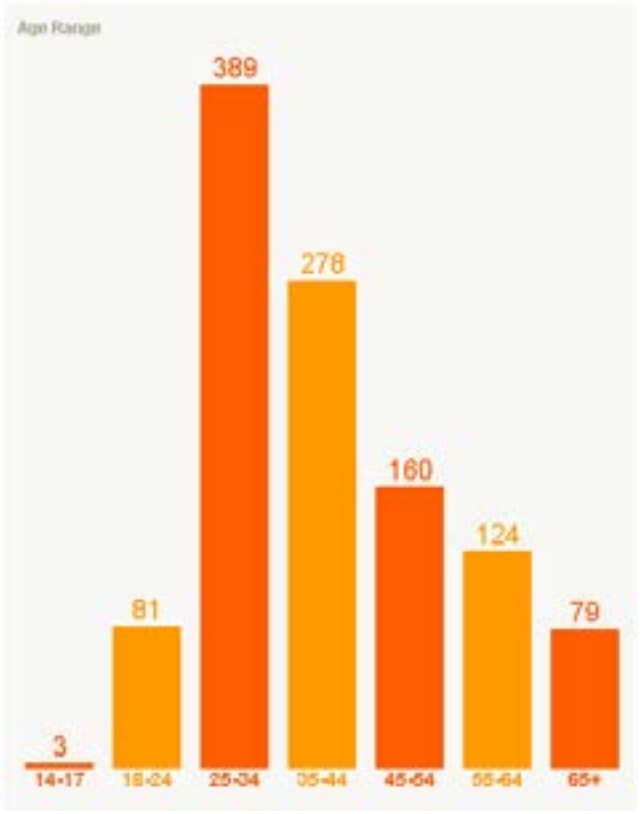
Project Website: LA2B.org

LA2B.org has been the main source of information for the Mobility Plan with regular updates on the status of the plan. From the website, the public has been able to download important documents released along the process and become more informed about the analysis behind each step by reading blog posts. Website visitors can read about the project, learn how to get involved, and contact planning staff online to give their comments.

Online Town Hall : Ideas.la2b.org

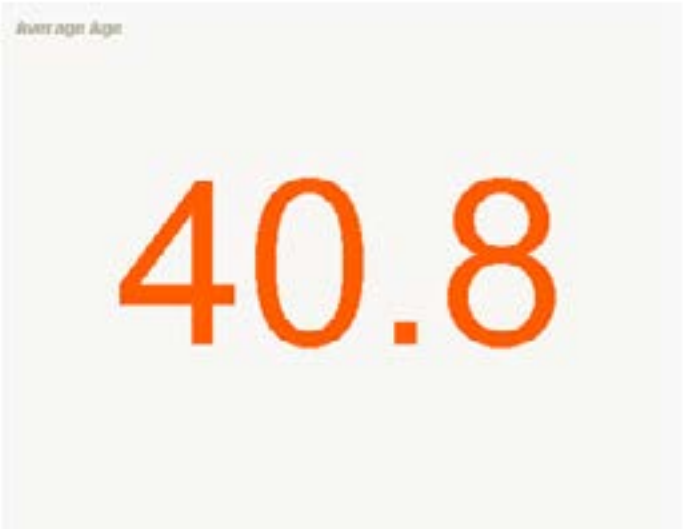
As a new way of expanding the number and diversity of stakeholders, the Mobility Plan introduced an online town hall through ideas.la2b.org. This online format provided an opportunity for community members to share thoughts and opinions about the streets of Los Angeles.

The virtual town hall has allowed for a wider range of citizens to participate outside of traditional workshops and focus groups. The largest participant group was in the 25-45 age range. In addition, participants represented 79 of the 108 (73%) zip codes associated with the City of Los Angeles as well as additional participants from Culver City, Long Beach, Pasadena, Santa Monica, and the South Bay. The online format also allowed staff to identify geographical areas where there was limited participation and focus additional outreach efforts in those communities.



There are 809 Ideas in this Project

There are 1114 Active Participants in this Project



Activated Communities

To ensure widespread distribution of information, materials were disseminated at the Council District and Neighborhood Council levels. The Mobility Plan Team worked with the Department of Neighborhood Empowerment and Council staff to reach out to the community on a citywide scale. In addition, a Task Force of interested stakeholders was formed to guide the direction of the Plan as well.

Task Force

The Mobility Task Force was put into place to guide this citywide effort and community-wide discussion. The Task Force played a pivotal role in assisting the City to generate significant engagement and input for the plan. Over 50 organizations were invited including: community groups, nonprofits, major transit providers, and civic, business, and environmental transportation leaders throughout the City.

Great Streets, Great Neighborhood Activity Kit

To obtain participation on an overarching citywide scale, an activity kit was sent to over 100 Neighborhood Councils and civic organizations. This pen-and-paper activity, with a one fourth response rate, was meant to supplement the dialogue of our online town hall and included a series of brief exercises to help give input toward the development of the draft goals, objectives, policies, and programs of the Mobility Plan.

Public Workshops

In early 2012, the Departments of City Planning and Transportation held community workshops in different neighborhoods across the City: Van Nuys, the Miracle Mile, Downtown, and Pacoima. These "Think Labs", encouraged participants to explore L.A.'s existing mobility system through a gallery of maps that convey key information about the City's streets and demographics. Community members also shared ideas that complemented those submitted onto LA/2B's online Town Hall.

Scoping Meetings

The environmental analysis of the plan required a scoping period to receive input from the public and other agencies on what should be studied in the Environmental Impact Report. Two scoping meetings held in the spring of 2013 focused the conversation around the potential impacts and benefits of the proposed enhanced networks.

Future Participation

Throughout the 90 day public comment period, a series of seven meetings held citywide will take place to take comments and answer questions on the Plan. Once the comment period is over, the draft plan will go through revision to reflect input and a final plan will be released to be adopted at Planning Commission and City Council. Each phase will include additional opportunities to give input.

Photo: auntjojo, Flickr

Safety First

1

crashes
speed
protection
security
education
enforcement

Discussion

Safety is at the foundation of a Complete Streets policy – to design and operate streets in a way that enables safe access for all users, regardless of age, ability, or transportation mode choice. Safety consistently ranks as a top priority for many in the City of Los Angeles and is an important factor in creating livable neighborhoods. People want streets to be safe, stress-free places for all ages and all modes of travel. In terms of transportation, concerns for physical safety stem from traffic speeds, roadway conflict between different modes of travel, and infrastructure. Safety is a key issue when deciding whether to walk, bike, drive, or take transit somewhere.

"Safety would be a top priority for all forms of transportation."

"A livable neighborhood is one where you need not fear that your children will be hit by cars."

"Public streets would be used to safely transport people and goods."

- Angelenos

Safety and the Built Environment

Street quality and infrastructure have a role in improving transportation safety. Street paving in disrepair poses a safety threat for pedestrians, vehicles, and bicyclists. Sidewalks that are uneven, narrow, or physically obstructed can also force pedestrians closer to vehicle traffic or on alternate routes that are not always obvious. Safer crossings at intersections and at the middle of larger blocks are an additional area of pedestrian concern. Furthermore, pedestrians can perceive areas with lower levels of street activity, trees and plants, and lighting as unsafe due to physical and psychological discomfort. While these built environment issues are fundamental to improving transportation safety, they will be further addressed in the next chapter.

Transportation Safety in Los Angeles

In recent years, there has been a shift towards creating a healthier LA that allows people to make more environmentally sustainable transportation choices. To do that, other transportation options have to be seen as a safe, attractive, and convenient mode choice. With active modes of transportation on the rise as people's everyday choice, safety measures must take into account the most vulnerable users. A city that is safe for pedestrians is safe for all.

Creating safe streets requires a multifaceted approach. Roadway engineering, education, and enforcement all play an important role in building a safe transportation system. Roadway enhancements such as separated bicycle lanes protect cyclists, while more visible crosswalks and bulb-outs provide added safety for pedestrians. Educational programs to inform students on how to cross the

road or drivers to share the road make for a more pleasant travel experience while reducing collisions. Enforcing traffic laws such as speed limits underpins all the pieces that work together to make streets safe for all. Safety measures strategically implemented throughout the city can dramatically reduce the number and severity of collisions in Los Angeles.

Vehicle speed is a significant factor in traffic collisions. Higher speeds pose a two-fold problem: 1) the faster a car is moving, the smaller the field of vision the driver can process, and 2) increased speed increases the force of collision impact, increasing the likelihood of a severe injury or fatality. As a result, faster traffic poses a higher safety risk to others on the road, especially pedestrians and bicyclists because they are smaller and less visible than vehicles.

Many policies and programs are in place and in development to promote transportation safety in Los Angeles. In recent years, the Department of City Planning authored its Urban Design Guidelines and Walkability Checklist to encourage better site design that increases safety and accessibility for the general public, regardless of mode of travel.

City policy and specifically the Mobility Plan 2035 can promote increased roadway safety by adopting new standards for streets, development, and engineering that will ensure vehicles move at safe, reasonable speeds, and consider the needs of all roadway users and travel modes. Objectives can be set that will reduce crash and injury rates and eliminate crash fatalities. Programs can be continued that promote safe driving, walking, and bicycling by influencing both travel behavior and the design of the roadway network. Furthermore, monitoring of these safety measures and programs can evaluate their impact and ensure that complete streets strategies are making streets a safer place for all roadway users.

Declaring safety first makes it a priority to reduce the number of collisions and work towards eliminating injuries and fatalities on our streets.

Objectives

>> Decrease pedestrian and bicycle collisions with vehicles to 50% of 2010 numbers by 2020.

>> Increase the number of adults and children who receive in-person safety education by 10% annually.

>> Increase the number of street segments operating at target speeds by 5% annually (Refer to Complete Streets Manual for targeted operating speeds).

>> Increase the number of roadway safety public service announcements annually.

>> Improve safety and increase overall walkability through targeted enhancements at 50 locations annually.

Policies

1.1 Roadway User Vulnerability

Consider the most vulnerable roadway user first.

In designing and planning roadways, safety considerations for the most vulnerable person should be taken into account first. In roadway operations and everyday interaction, yielding to the most exposed user as a standard is best practice since design and planning alone cannot completely lessen traffic hazards. Accordingly, roadway users must operate in a manner that firsts considers the well-being of pedestrians, the elderly, school aged children, mobile-impaired, and more.

1.2 Complete Streets

Implement a balanced transportation system using a layered network approach to achieving Complete Streets Standards to ensure the safety and mobility of all users, including pedestrians, cyclists, motorists, children, seniors, homeless, and people with disabilities.

In 2008, Assembly Bill 1358, The Complete Streets Act, was signed into law and mandates that complete street policies and standards be incorporated into a city's general plan.

A transportation system that accommodates the needs and considers the safety of all users is at the foundation of a well designed city. A good transportation system facilitates the utilization of multiple modes with the end result giving a variety of options for people to move around in ways that best suit them.

The approach to implementing complete streets in the City of Los Angeles has taken shape through a layered network concept. The Complete Street Network layers roadway systems that prioritize a certain mode (transit/bicycle/vehicle) within each layer. While each street will still accommodate all modes, layering networks serves to emphasize a particular mode on a particular street as part of a larger system. A layered network approach has the benefit of increasing connectivity between modes.

Expanding the active transportation network increases opportunities for the transit dependant by better connecting people to work, education, and recreation. A transportation system that is more balanced is also more equitable by providing a means of cost effective travel. Implementing complete street policies will ensure that more options for travel are actually viable in the City of Los Angeles.

1.3 Safe Routes to Schools

Consider the safety of school children as a priority over vehicular movement on all streets regardless of street classifications, especially near schools.

The current focus of accommodating vehicular mobility has resulted in street configurations that disadvantage other users, especially pedestrians and children. Reduced crossing times, increased vehicle lanes, wide curb radii at intersections, and reduced visibility at crosswalks has made walking even a short distance to school fraught with hazards.

School age children are a particularly vulnerable group of roadway users. In the City of LA, school age children (ages 5-17) account for 19% of all pedestrian-related collisions and 18% of all fatally or severely injured pedestrians. In order to increase the safety of school children as they are traveling to and from school, the city initiated a Safe Routes to School Strategic Plan during the Fall of 2013 that works to ensure no child shall be injured or killed by a vehicle when walking or biking to/from schools.

The Los Angeles Unified School District (LAUSD) has the second largest population of any public school system in the United States. There are 495 LAUSD schools within the City of LA which contributes to a large amount of vehicle trips every morning. By working to implement safe routes to school, the City hopes to create more opportunities for children to walk or bike to school which in turn would decrease vehicle trips.

According to data from LADOT, many students are already inclined to use active forms of transportation on their commute to school. 33% of all LAUSD Students either walk or bike to school, which is almost 10% higher than the State average (26%). This trend becomes stronger when a student lives within a half-mile proximity of their school. Of those who live between a quarter-mile and half-mile of their school, 50% walk or bike to school. Of those a quarter-mile or less, 73% walk or bike to school. Even of those students that live over a mile from their school, 19% still walk or bike. By focusing on increased safety measures to and from school, the percentage of walkers/bikers within close proximity to their school has the potential to rise even higher.

1.4 Walk-able Bike-able Communities

Prioritize the implementation of bicycling and pedestrian safety improvements around community facilities and locations with a strong presence of pedestrians.

Approximately one third of all trips in Los Angeles County are less than three miles in distance and one fourth are less than a mile, according to the 2009 National Household Travel Survey. These numbers are estimated to be even larger within the City of LA. In order to better facilitate walking and biking within the City, safety improvements and the quality of the environment should be considered to make these active modes of transportation a more viable option. If streets were improved with trees, wider sidewalks, lighting, speed humps, etc, to reduce vehicle travel speeds and make it a more comfortable experience, more people would be encouraged to walk and bike for short errands. Including features that support walking, bicycling and transit use can go a long way towards encouraging greater use of these options.

Street design greatly effects livability and perception of safety. Communities with street improvements oriented towards human activity are neighborhoods that generally feel more safe and accessible to pedestrians. The benefits extend beyond an increased number of people walking and biking. More people on the streets raises overall community safety and activity levels go up thereby reducing obesity and increasing social interaction in the community.

Safety is a concern in the development and accommodation of any part of the transportation system, but safety for pedestrians and other vulnerable users should be given priority where conflicts exist with other modes of transportation. Even when the bulk of a trip is by transit, automobile or bicycle, at one point or another nearly every traveling person is a pedestrian.

Just as a driver may consider a particular car for the quality and comfort of its interior, or carefully examine a car's safety record and performance measures before leasing or buying a new or used car pedestrians, bicyclists and transit riders make similar decisions when selecting which route to walk home, or which road to bike on to work, or which bus to take to the doctors. Features that enhance a travel modes safety and comfort go a long way towards encouraging someone to select that mode over another.

1.5 Traffic Safety Campaigns

Promote awareness on safe driving, walking, and bicycling habits to decrease transportation risks and increase safe, efficient and enjoyable travel in the City.

Educational efforts aimed at drivers, pedestrians, and bicyclists can improve safety overall. All of these modes of transportation can benefit from an awareness of risky habits in order to lead to improved behaviors.

According to the LAPD, the top five traffic violations causing collisions are:

1. following too close
2. failing to stop for red signal lights
3. driving under the influence
4. speeding
5. left turns

Users of active modes of transportation can also do their part to decrease transportation risks. Being aware of what is going on at all times and looking both ways can increase safety. Pedestrians can avoid mid-block crossings and bicyclists can stop at red lights and stop signs in order to promote safe travel habits. Overall, common courtesy and rational behavior can go a long way in creating a safe and pleasant environment to travel in.

1.6 Design Safe Speeds

Design streets and enforce speed laws so that motorists adhere to intended speeds on all City roadways.

Context sensitive roadway design is important to the safety of all roadway users. The way a street is designed has much to do with how it functions. A completely straight road with multiple lanes on each side allows for a high capacity of fast moving vehicles, whereas a roadway with narrow travel lanes, a winding path, greenery, and pedestrian activity calls for slower travel speeds.

Speed limits have been on the rise due to State speed limit requirements. The 85th percentile rule dictates that the speed limit be set at or below the 85th percentile operating speed, meaning that if most people drive faster than the posted speed limit on a particular road, the speed limit can and will be raised. This law has grave consequences to street safety and performance as it does not take into account other factors like land use context and other modes of transportation.

Given that excessive speed is a highly cited factor in collisions, targeted reductions in speed could have a big impact on reducing the number of collisions in Los Angeles. Pedestrians and bicyclists are particularly vulnerable in collisions with cars, especially when those vehicles are traveling at increased speeds. The problem of speed is two-fold – at higher speeds bicyclists and pedestrians become less visible and more vulnerable. Since the human brain can only process a finite amount of visual information, the field of vision reduces significantly as the speed of travel increases. At faster speeds the field of vision narrows and the periphery, often where pedestrians or bicycles would be located, fades from view. The second problem with increased speed is the likelihood of injury and death quickly increases from a 40% chance of death when a vehicle is traveling at 30 mph up to an 80% chance of death when the speed increases to 60 mph.

1.7 Railroad Crossings

Reduce conflicts and improve safety at railroad crossings.

Railroad crossings can be a particularly hazardous place to be during times of heavy traffic. Railroad shipping is fundamental for the movement of goods across the nation but can cause conflicts with other users of the transportation system. The safety of all road users should be considered at railroad crossings to minimize collisions.

Southern California leads the nation in fatal collisions at railroad crossings (source). Cars often stack up at these crossings and sometimes cannot clear out when trains come through, potentially leading to disastrous situations. For this reason, separated crossings should become a safety standard when redesigning railway intersections. Keeping traffic from driving across railroad tracks with a bridge or underpass takes away any chance for conflict and is the most effective way to reduce conflicts at railroad crossings. This type of configuration also has the added benefits of decreasing vehicle and emergency response delay and improving the performance of rail.

1.8 Multi-Modal Detour Facilities

Design detour facilities to provide safe passage for vehicles, pedestrians, emergency vehicles, and bicyclists.

Current standards call for the consideration of all users when streets are temporarily blocked for construction. The California Manual on Uniform Traffic Control Devices for Streets and Highways provides guidelines for temporary traffic control that provide for the safety of all (vehicles, bicyclists, pedestrians, construction workers) when designing detour facilities.

During times of roadway construction, lane and sidewalk space are often reduced. This puts all roadway users at risk by making them more vulnerable to potential conflicts. Pedestrians can be exposed to oncoming traffic if sidewalk space is blocked off while bicyclists and vehicles are left to fight over remaining roadway space. Detour facilities are meant to provide safe passage during roadway construction.

Awareness of these guidelines is paramount to increasing safety in construction zones. All city and private constructions projects must be aware of proper detour design to uphold the safety of everyone,

1.9 Regularly Maintained Streets

Enhance roadway safety by maintaining the public right-of-ways in adequate condition to facilitate the movement of those reliant on the system.

At the very core of a safe street system is proper maintenance. Streets that are not regularly maintained can damage vehicles that traverse over them. In addition, inadequate streets can lead to dangerous situations for drivers and place bicyclists and pedestrians in vulnerable spots trying to maneuver around obstacles. It is important to keep streets and sidewalks in good condition to improve circulation and decrease conflicts.

Perception also plays a role in safety. Well maintained streets feel safer to travel on and attract more users. Properly maintained streetscapes are essential to making livable neighborhoods and creating streets that are welcoming to people.

1.10 Goods Movement Safety

Ensure that goods movement sector is integrated with the rest of the City / transportation system that does not endanger the health and safety of residents and roadway users.

The concept of complete streets extends to goods movement as well. As transportation systems evolve, the economic necessity of moving goods to places with large trucks on City streets will still be an important issue to consider in the balancing act of roadway prioritization. Truck movement should be limited to the arterial street network as much as possible since these streets have the lanes and turning radii to accommodate these heavy large vehicles. Land uses along heavily used truck routes should also coincide with goods movement priorities and limit interaction with residential uses.

1.11 Recreational Trail Separation

Ensure that equestrian trails are separate from other future trails established for mountain bicycling and/or motorized vehicles.

Recreational trails provide opportunities for healthy and relaxing activity. Equestrian uses call for slower speeds than mountain bicycling and other off road vehicles. In order to keep harmony among a variety of users, separated facilities are ideal to minimize conflicts. The 1968 Major Equestrian and Hiking Trails Plan done for the City of Los Angeles addresses the issue of equestrian trails and other users by allowing hikers shared use of the trails but prohibiting bicycles, motorcycles, and other vehicles except maintenance vehicles.

Photo: ladotbikeblog, Flickr

World Class **Infrastructure**

2

Complete Streets Network
(walking, bicycling, transit, vehicles, goods movement)
bridges
highways

Discussion

Infrastructure is the physical underpinning of the City's transportation system. A well maintained and connected network of streets and trails provides Angelenos with the optimum variety of mode choices. This Plan sets to establish a Complete Streets Network of individual roads enhanced for a particular mode (bicycles, transit, vehicles, trucks). It also focuses attention on needed future goods movement improvements. In addition, the Plan highlights the City's bridges as an important, but often overlooked, component of our street infrastructure.

Objectives

>> Implement 25 percent of the Transit Enhanced Network (TEN) every five years.

>> Implement 25 percent of the Bicycle Enhanced Network (BEN) every five years.

>> Implement 25 percent of the Vehicle Enhanced Network (VEN) every five years.

>> Implement at least two new mobility hub projects each year for the next 10 years.

>> Increase the miles of roadways, paths, and sidewalks that are repaired every five years.

>> Expand plaza or parklet locations.

>> Expand the bike parking and corral program.

>> Bring City-owned bridges to good condition by 2035.

Policies

2.1 Multiple Functions of Streets

Consider the multiple purposes that streets serve, throughout the planning, design, capital investment, and maintenance process.

Streets are often thought of as conduits for travelling from one place to another, whether it is by foot, bicycle, or motorized vehicle. While complete streets policy is about enabling safe access for all transportation users, streets also serve many other functions beyond mobility. As public spaces, they are vibrant settings for social interaction. As retail corridors, they promote local economic development and often become destinations in their own right. As ecological infrastructure, they offer opportunities to enhance the City's sustainability with trees and stormwater collection. The City's roadway network is more than just a transportation system – it is an urban ecosystem, a complex set of interactions among objects, people, and their environment.

Numerous City departments, each with different perspectives and objectives, have a role in shaping and managing streets. However, it is vital to keep in mind the multiple purposes and benefits provided by streets, and to adopt a multi-faceted approach in the planning and design process. Ideally, designs should be flexible in their nature to accommodate a diversity of uses and adapt to future needs.

2.2 Pedestrian Areas

Establish a variety of Pedestrian Enhanced Destination (PED) areas that are prioritized for pedestrian improvement.

Due to the scale of the city, the Plan focuses not on establishing a citywide pedestrian network but on promoting pedestrian activity and safety on streets within identified Pedestrian Enhanced Destination Areas (PEDs). PEDs are locations that have, or have the potential to have, a high number of pedestrians due to their proximity to transit, retail or community services, business districts, schools, parks, or hospitals. Promoting pedestrian enhancements in neighborhood districts and regional centers should be considered.

Consider the full suite of pedestrian safety strategies, including longer crossing times, median refuge islands, automatic pedestrian crossing signals, way-finding, street trees, pedestrian-scaled street lighting, enhanced crosswalks at all legs of the intersection, mid-block crosswalks, bulb-outs, wider sidewalks (> 15' where feasible), and specialty paving and seating areas where special maintenance funding exist, as well as audible or tactile elements in areas with a steady presence of pedestrians, vulnerable roadway users, or where the context demands improvements.

The schedule of PED improvements should be annually updated and prioritized based on funding criteria and assessments done by LADOT.

2.3 Transit Network

Establish the Transit Enhanced Network (TEN) within the City's arterial system to improve the performance and reliability of existing and future bus service.

The Transit Enhanced Network (TEN) will improve existing and future bus service on 237 miles of arterial streets (or in limited locations- the freeway) by prioritizing improvements for transit providers relative to other roadway users including, but not limited to, dedicated corridors, transit signal timing, and transit shelters. The Transit-Enhanced streets aim to provide reliable and frequent transit service that is convenient and safe; increase transit mode share; reduce single-occupancy vehicle trips; and integrate transit infrastructure investments with the identity of the surrounding street. The Transit Enhanced Network (TEN) was conceived primarily as a bridge between the rail system and the Rapid Bus system. There are select corridors such as the 405 (Valley to LAX to San Pedro) where the long-term strategy would be to upgrade the corridor to subway and/or light rail treatments but these are most likely outside the horizon year of this plan.

Since the adoption of the Transportation Element in 1999, transit use within the City has increased, both in numbers and as a percentage of all trips generated. Transit continues to be used more frequently in the City than in the rest of Los Angeles County. The addition of new rapid bus lines, as well as substantial investment to the fixed guideway (rail and bus) system has accommodated a growing number of the City's new transit trips. On a daily basis, about 11% of all trips in the City made from home to work are taken on transit, whereas the rest of the County's transit usage for such commutes is less than half that at 5%.

Today's transit system, which is a combination of rail, busway, rapid bus, and local bus moves 1.5 million riders each workday. With changing demographics (millennials, aging baby-boomers) and the regular support that transit has seen over the years, (including Measure R, and J) it is believed that there is latent demand/opportunity to increase transit riders.

Given the cost of building light rail and subway lines, it is not realistic to expect that, at any time in the near or distant, future we are going to be able to provide a rail system that is as extensive as the bus network. In response to this, Metro introduced the Rapid Bus System with its limited stops and ability to preempt signal timing.

Despite the advantages of the Rapid Bus over a local bus, with its numerous stops, the Rapid Bus still provides a relatively slow and lengthy ride- especially compared to the automobile. Due to traffic

congestion at peak hours the Rapid Bus is often unable to maintain its schedule resulting in situations where a half hour or more can pass before a bus arrives and then multiple buses will arrive within a few minutes. This "bunching" creates system inefficiencies and leaves bus riders frustrated.

Bus service in the TEN will be improved with infrastructure improvements in the right-of-way, signal timing and technology improvements, and stop enhancements. While the provision of a dedicated corridor is expected to provide the most time saving benefits- delays, resulting from the current on-board payment system contribute to 25% of the delay on a particular corridor. Therefore, a pre-boarding payment system, as is used in many other cities worldwide, can provide substantial travel time benefits.

It is expected that improvements within the TEN will be incremental as funding and ridership increases. While many of the most congested bus lines within the TEN will, ultimately, have their own dedicated corridor, either during the peak hours or all of the time, initial treatments many include such enhancements as on-time arrival information, pre-payment boarding platforms, wayfinding, lighting, increased service, and improved transit shelters.

TEN improvements should be prioritized based upon a variety of criteria that will evolve: priorities of funding source, adjacency to areas with a high number of households with one or no cars, adjacency to a mix of land uses, connections to destinations and jobs, equity, and more.

2.4 Bicycle Networks

Establish and maintain a series of interconnected bicycle networks (Bicycle Enhanced Network, Backbone, Neighborhood Network) within the City's street system to provide safe, convenient, and comfortable local and regional facilities for cyclists of all types and abilities.

The Bicycle Enhanced Network (BEN) is a 180 mile subset of the larger citywide street system. The Bicycle-Enhanced streets will work in conjunction with existing bicycle paths and neighborhood streets to provide a low-stress network of bikeways for all type of riders.

While the 2010 Bicycle Plan (Chapter 9 of the 1999 Transportation Element- and incorporated herein) established a 1680 mile Citywide Bikeway System comprised of three networks; Green, Backbone, and Neighborhood, there has subsequently been increasing demand for the City to establish a network of Cycle Tracks (greater physical segregation from traffic, bicycle signals) on which someone could travel on safely and comfortably. The Bicycle Enhanced Network was conceived in direct response to this demand.

The original three networks were intended to serve a variety of bicyclists. The 139 mile Green Network comprised of bicycle paths (physically segregated from roadway traffic), was expected to appeal to the greatest range of cyclists- from experienced cyclists who enjoyed the luxury of riding longer distances unimpeded by roads, and traffic signals, to cyclists commuting to work, to families with children appreciating a safe, comfortable place to ride, even if for only a short distance. The 719 mile Backbone Network, comprised primarily of arterials (high traffic volume streets), would be the focus of bicycle lane improvements and improved street maintenance, was expected to appeal to "advanced" as well as some " basic", or less confident adult riders. The 825 mile Neighborhood Network, made up primarily of local and collector (slower moving and lower volume) streets would add street calming features (bulb-outs, way-finding, traffic diverters, round-a-bouts) that would be most attractive to families with children and basic riders as well as more experienced riders traveling short distances.

Given the interest in safe, long distance bikeways that essentially equals the comfort and safety of a bicycle path (akin to the Green Network) it makes sense first and foremost to establish a network that links to and expands upon the Green Network. Instead of identifying a whole new set of streets, it made sense, given the extent of the roadways identified for bicycle lane improvements on the Backbone Network, to look at whether a sub-set of existing

or future bicycle lanes on the Backbone Network could be selected for the BEN. These streets will be upgraded, as time and money permit, to buffered/protected bicycle lanes and/or cycle-tracks. In a few locations, in particularly congested areas of the City with high-transit use, the roadway widths on the identified segments of the Backbone Network were not sufficient to meet the needs of multiple roadway users. In these instances a parallel facility from the Neighborhood Network was selected to be included on the BEN. Instead of cycle track improvements these streets would instead be prioritized for street-calming improvements to ensure that the street provides a low-stress bicycling experience for any person of every age.

Backbone Streets included on the BEN will typically receive such treatments as wide bicycle lanes with pavement markings, raised bicycle lanes, or cycle tracks. In addition, these streets will be upgraded with colored lane markings at conflict areas (driveways, intersections) as well as bicycle boxes (bicycle staging area in front of traffic at traffic stop line), street lighting, and two-stage turn queue boxes.

Neighborhood Streets included on the BEN will typically receive such treatments as mini-roundabouts, cross-street stop signs, curb bulbouts, high visibility crosswalks, diagonal diverter, bicycle signals and crossing islands at major intersection crossings, bicycle boxes, street lighting, and bicycle-only left turn pocket.

BEN improvements should be prioritized based upon a variety of criteria that will evolve: availability of funding source, adjacent to areas with a high number of households with one or no cars, adjacent to a mix of land uses, connections to destinations and transit, collisions, equity, and more. The designation and prioritization of streets on the bicycle networks will continue to evolve based on these factors.

2.5 Vehicle Network

Establish the Vehicle Enhanced Network (VEN) on a sub-set of the City's arterial system to provide access to the regional freeway system.

The Freeway system envisioned in the 1950s met the fate of many long-term vision plans when confronted with fiscal and political constraints, and was never fully completed. Of the originally planned system, 527 miles were built countywide and 181 miles were built citywide. The system designed on the heels of the 1956 Federal Highway Act that focused on implementing a freeway system that emphasized speeds and straight paths and took little account of the physical and social disruptions to the local context was, not surprisingly, met by resistance in many of the City's wealthiest neighborhoods. The result was that many communities that would have been torn apart by the freeway's path were preserved. But, these communities are today bombarded by regional traffic traversing to or from the freeways.

In response to this problem the Vehicle Enhanced Network (VEN) identified 79 miles of arterials, important to vehicular movement, that carry between 30,000 and 80,000 vehicles per day, traverse 10 miles or more through the City, and provide access to freeways and critical facilities. Even as the Mobility Plan establishes a Complete Streets Network that provides new choices (transit use, walking, biking), the Plan also addresses access for vehicular users particularly by addressing these gaps in the regional freeway system.

The VEN, as implemented over time, would prohibit utility work and construction filming activity during weekdays. Night or weekend construction would be required except under special circumstances. Streets on the VEN would typically also include limited turning movements, the active enforcement of tow-away zones, time-limited parking areas, and loading zones and where practical, reverse flow and peak period lanes.

2.6 Goods Movement

Implement projects that would provide regionally significant transportation improvements for goods movement.

Goods movement is a core economic engine in Southern California, providing one of the largest employment bases in the County. In California, 76 percent of all freight is shipped by truck. Trucks also transport 98 percent of all finished goods to final destinations, according to the California Trucking Association.

The Ports of Los Angeles and Long Beach form the largest container ports complex in the country, third largest in the World, and handled 10 million Twenty-Foot Equivalent (TEU) containers in 2001. The Port of Los Angeles alone is ranked fourth worldwide for volume of total cargo and second largest in the nation behind Anchorage. Most of the region's air cargo (78%) moves through LAX, making it the third busiest air cargo airport in the world. The County is also a major rail hub with both Union Pacific and BNSF operating mainlines linking the region to the national rail network. Goods movement by all these modes is projected to increase by over 80% between 1995 and 2020 (SCAG). In addition to this, the greater Los Angeles area is now the largest manufacturing center in the United States. All of this activity generates an enormous and growing volume of truck and rail trips in the City.

It has been demonstrated that business is attracted to and retained in areas where business-related goods deliveries, including small package delivery, are convenient and reliable. But goods movement improvements are not only good for business, they are good for the entire City community because they alleviate congestion and mobile air emissions, improve mobility, remove traffic safety hazards and promote economic health. The transportation of goods is critical to business vitality, and every effort, policy and project that helps improve goods movement also makes the City safer, cleaner and economically stronger.

Beyond the port itself, dedicated lanes for zero-emission trucks are being contemplated as part of the I-710 Corridor Project, led by Metro in partnership with several other agencies.[1] These lanes would be part of the larger Regional Clean Freight Corridor System, extending from the ports to downtown Los Angeles and then eastward to the Inland Empire.[2]

2.7 Loading Areas

Facilitate the provision of adequate on and off-street loading areas.

Many businesses depend on being able to receive deliveries, often multiple times per day. When loading and unloading areas are mismanaged or poorly designed, businesses may experience delays that can lead to greater costs, operational inefficiencies, and customer dissatisfaction.

A common problem is a lack of sufficient space (either on- or off-street) to reasonably accommodate delivery trucks and allow for their unloading. Illegally parked vehicles present another problem when they prevent delivery trucks from parking in the ideal location to load and unload goods. In some cases, parking lot owners cite concerns about vehicle size and access as reasons for not allowing delivery trucks to lease spaces on their lots for loading and unloading.

When considering the design of our roadways, it is important to accommodate the delivery and unloading of goods upon which businesses depend, while also seeking to minimize the impacts of large trucks in the urban environment. Loading areas should be strategically located and designed in order to best facilitate the commercial needs of the businesses they are meant to serve. In addition, these loading and unloading areas should consider all potential vehicle maneuvers that delivery trucks can make, so as to not encroach or block the public right-of-way.

2.8 Transit Right-of-Way Design

Consider opportunities to grade-separate and incorporate bikeways, into all transit projects located within an exclusive right-of-way.

Transit right-of-ways, such as the Blue Line and Orange Line and segments of the Gold Line and Exposition lines that are at-grade are problematic for a number of reasons. The at-grade configuration increases the potential for delays and/or collisions between the train and other roadway users (cars, trucks, bicyclists and pedestrians). Resulting delays further degrade the on-time performance and reliability of the train. Grade separating these facilities will increase the ability for trains to run on-time and with reduced delays which will further attract users.

2.9 Bridges

Maintain the City's Bridges in quality condition and consider pedestrian and bicycle enhancements when retrofitting or installing a new bridge.

Bridges provide vital connections between areas separated by otherwise impassable barriers such as rivers, rail lines, and freeways. They also have the potential to significantly enhance the experience of passing through the city, serving as neighborhood gateways and often providing impressive panoramic vistas from their elevated vantage points. Many bridges, notably those spanning the Los Angeles River near downtown, have become iconic features of the urban landscape and are designated historic landmarks.

However, many of the City's bridges provide very little space for pedestrians and bicyclists – often a narrow, poorly maintained sidewalk squeezed beside multiple lanes of high-speed traffic – putting the safety of non-motorized users in serious jeopardy. A number of bridges also have structural deficiencies and will require major retrofits or replacement in the near future. These upgrading projects represent a unique opportunity to incorporate pedestrian and bicycle enhancements, thereby making the City's bridges more accommodating of all users.

2.10 Highway Preservation and Enhancement

Support preservation and enhancement of the State highways consistent with the RTP/SCS and the goals/policies of this General Plan.

The state highway system is an essential component of the City's transportation network. As such, the City has a vested interest in the network performance and maintenance of these highways. Developing a specific strategy for how the City and Caltrans will interact on all aspects of state highway planning, maintenance, operations, and expansion can aid in streamlining the development review process. Where possible and feasible, the City will work with Caltrans on State highway improvements that directly contribute to achieving the goals and policies of SCAG's Regional Transportation Plan/Sustainable Communities Strategy as well as the City's General Plan.

Photo: ladotbikeblog, Flickr

Access for All Angelenos

3

affordability
vulnerable users
land use
operations
reliability
demand management
community connections

Discussion

A transportation system is only useful insofar as it is accessible.

A transportation system is only useful insofar as it is accessible.

There are a number of different dimensions within the concept of accessibility. One aspect of accessibility relates to the design of the built environment. The 3.8 million people who live in the City have widely varying levels of physical ability. They include large numbers of children, seniors, and people with disabilities. A fair and equitable system must be accessible to all, and must pay particularly close attention to accommodating the most vulnerable users. These issues can be addressed by standards for streets and sidewalks, as well as site planning.

Land use is another component of accessibility. One measure of this is the percentage of destinations – such as jobs, services, residences – that can be conveniently accessed via non-vehicular modes. Current planning efforts seek to increase this percentage by expanding transit service, and by aligning higher-density land uses with existing and planned transit infrastructure.

A related concept is connectivity: how comprehensive and complete each modal network is, and how well the various networks fit together. Many trips involve using more than one mode of transportation, and a well-connected mobility network facilitates transferring from one to another as seamlessly as possible.

Still another piece of accessibility is affordability. The City's population varies widely in terms of income levels. For many families, transportation is among the most significant expenditures, along with food and housing.

Objectives

>> Increase percent of population with access to high quality transit every 5 years.

>> Increase walk, bike, and transit trips per capita annually.

>> Decrease share of household income spent on transportation costs annually.

>> Increase number of transit passes included with event ticket sales annually.

>> Reduce share of single-occupancy vehicle trips annually.

>> Increase the number of curb cuts, high-visibility crosswalks, and other features that accommodate disabled and other vulnerable users.

>> Increase the annual ridership of the transit system.

Policies

Each of us is, everyday, a pedestrian.

3.1 Pedestrians

Consider walking as a component of every trip, and ensure high-quality pedestrian access in all site planning and public right-of-way modifications.

Walking is the earliest form of transportation, and yet in today's car-centric world the environment can often be downright dangerous for pedestrians, and especially for children, seniors, and the people with disabilities. Whether heading out for a long recreational stroll, walking a few blocks to the bus or train, or even just traversing the parking lot to get from your car to the store, each of us is, everyday, a pedestrian.

Making changes in the built environment can in turn bring about dramatic shifts in behavior, such as increasing the distance someone is willing or able to walk. Today, we often get in the car even for local errands, because walking would entail negotiating a narrow, broken sidewalk with no tree canopy for shade; crossing a wide intersection with four or more lanes of fast-moving vehicles; and finally braving the vast parking lot in front of the store's entry. But reimagine that walk now with a wider, smooth sidewalk lined with mature trees that provide shade; disabled access ramps and street calming features at the intersection to moderate vehicle behavior, reduce the crossing distance and increase the visibility of the pedestrian; and a store entrance made more accessible by including a well-marked pedestrian pathway or relocating the parking behind the store. Communities whose environment more closely resembles the second scenario have higher rates of pedestrian mobility, with all the associated benefits: lower rates of obesity, improved air quality, and more opportunities to encounter neighbors and friends.

3.2 People with Disabilities

Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way.

Everyone, regardless of their level of ability or disability, should be able to move about the City's sidewalks and streets without undue difficulty.[1] Besides being a matter of basic fairness, equal access to the public right-of-way is mandated by state and federal laws, including the Rehabilitation Act of 1973 (Section 504) (29 U.S.C. Section 794) and Title II of the Americans with Disabilities Act of 1990 (ADA) (42 U.S.C. Section 12131-12164).

Future reconstruction, widening, resurfacing, and other upgrades to the City's streets and sidewalks must include measures to improve pedestrian access and remove physical barriers. Seemingly minor modifications such as adding curb cuts and audible signals at intersections, providing an occasional bench to rest at, and ensuring that pathways are free of obstacles, can do much to increase the comfort and safety of all pedestrians, particularly those with disabilities.[2]

The Americans with Disabilities Act of 1990 (ADA) defines disability as "a mental or physical impairment that substantially limits one or more major life activities."" ADA protection extends to individuals who currently have a disability and those with a record of a mental or physical impairment.

3.3 Land Use Access and Mix

Support land use decisions that result in fewer vehicle trips by providing greater proximity and access to jobs, destinations, and other neighborhood services.

While the quality of the streetscape plays a large part in someone's decision to walk or not, so too does the proximity of the most commonly frequented neighborhood destinations, such as supermarkets and schools. A community with a mix of uses clustered close together makes it much easier for someone to accomplish a number of daily errands by walking or bicycling. Better still is when these uses are clustered around a transit station, offering people the opportunity to easily take care of errands on their way to work or home, without having to go out of the way.

Neighborhoods with frequent, reliable transit seven days a week are the ideal place to cluster uses and services so that area residents, students and/or employees can complete a number of errands within a single walk or bike trip. Likewise, it makes sense for land uses situated near major transit stops to be of the intensity and type that they attract a high number of transit riders. A major transit stop adjacent to a cluster of single family homes on 5,000 square foot lots or larger is not going to generate the same number of riders as a regional destination such as museum, university/college, shopping, office, or apartment complex. The greatest benefits of transit accrue when the greatest number of potential riders can be located within easy access of the transit service.

3.4 Transit Services

Provide all residents, workers and visitors with affordable, efficient, convenient, and attractive transit services.

Transit services, whether buses, trains, commuter shuttles, or paratransit, offer a mobility alternative for residents, employees, students and visitors who either do not have access to, or prefer not to use, a car.

The costs of car ownership are large; in addition to the cost of the vehicle itself, one must also factor in the costs of fuel, maintenance, parking, and insurance. For these reasons, a number of households in the City cannot afford to own a car or choose not to. Others may feel compelled to own a car, and consequently are forced to cut back on things such as housing, food, and health care, for example.

Compared to a private vehicle, transit is more affordable. However, in order for it to be a viable alternative, it must be reasonably efficient, convenient, safe, and comfortable. The more that our regional transit system meets this description, the better it will serve its existing customer base, and the more it will succeed at attracting new riders (especially those not driven by economic necessity). When private vehicles are no longer considered to be a necessity, the cost of living decreases and quality of life improves for everyone.

3.5 Multi-Modal Feature

Support "first-mile, last-mile solutions" such as multi-modal transportation services, organizations, and activities in the areas around transit stations and major bus stops (transit stops) to maximize multi-modal connectivity and access for transit riders.

While many of our daily trips can be well served by transit, it is rare that one's origin and destination are both located directly adjacent to a transit stop. In transportation planning, the issue of how to make these connections at the beginning and end of each journey is known as the "first-mile, last-mile" problem. As an analogy, a typical vehicle trip across the City involves driving on the freeway for most of the distance, but using local streets at the beginning and end.

A wide variety of solutions have been developed to meet these needs. The options run the gamut from simply enhancing the public realm around transit stations to encourage walking (sidewalks, street trees, street lights, wayfinding), to providing racks for bicycles on buses and trains, to bicycle share programs, taxis and car shares, and high-frequency local shuttle service. By providing a robust array of options, a variety of different needs can be accommodated, greatly increasing the number of destinations reachable by transit.

3.6 Union Station

Continue to promote Union Station as the major regional transportation hub linking Amtrak, Metrolink, Metro Rail, and high-speed rail service.

Union Station has, since 1939, been the center of the region's transportation system. Union Station serves as the hub for Amtrak, Metrolink, and Metro Rail trains, as well as numerous local and long-distance buses and the Flyaway shuttle to LAX. In the future, high-speed rail is expected to join this list as well. Currently, Union Station handles a combined total of about 60,000 boardings per day, and once all Measure R Projects are completed it is estimated that this number will exceed 100,000.

Metro, the agency which has owned and operated Union Station since 2011, is currently developing a master plan for the area that will identify long-term strategies for improving multi-modal connections within the station, as well as enhancing the quality of its public spaces. The plan will also highlight mixed-use development opportunities on the 40-acre site, and propose ways to strengthen the station's connections to the downtown core, the river, and surrounding neighborhoods. The vision is for a station that serves as an impressive gateway, one of the city's foremost landmarks, and a destination in itself rather than simply a place to pass through.

3.7 Regional Transit Connections

Improve transit access and service to major regional destinations, job centers, and inter-modal facilities.

In addition to the general principle of focusing neighborhood services and a mix of uses around transit stations – creating destinations around transit – an important parallel is improving transit service to the major regional destinations that already exist.

Currently, a number of the region's foremost attractions have only limited transit service. These include: the Getty Center, the Valley Performing Arts Center, Griffith Park, Sepulveda Basin; Venice Beach, San Pedro, LAX, major sports venues, and major employment centers such as Century City. Because of the large numbers of trips associated with these places, improvements in transit service in these key locations could lead to significant mobility benefits.

Key Connections:

Sepulveda Pass/405 Corridor: While not an actual destination, the 405 Corridor through the Sepulveda Pass represents a vital connection between the San Fernando Valley and the West side of Los Angeles. It carries 331,000 cars daily.[3] Despite the freeway widening to make room for an HOV lane, both short-term and long-term transit options are urgently needed to provide drivers with an alternative to driving.

Los Angeles International Airport: Based off a 2006 passenger survey, 55% of individuals travel to LAX by private car, 11% by rental car, 10% by on-call shuttle or van, 9% by taxi, 3% by Flyaway, and 1% by transit.[4] Increasing the amount of transit access and service to LAX would offer a viable non-vehicular option. In addition to accommodating passenger service a new rail connection to LAX can assist a portion of the 50,000 employees that come to the airport for work.

North/South Connectivity: The continuation of the Crenshaw Light Rail line north to the Hollywood Bowl would expand area residents', employees' and visitors' travel options. A visitor could arrive at LAX and travel directly north to Hollywood. The addition of this leg to Metro's rail network would greatly contribute to the flexibility and fluidity with which travelers could move about the region.

Harbor Subdivision: The Harbor Subdivision, which is an existing freight rail corridor, provides an opportunity to improve the non-vehicular mobility of residents in the South Bay, Harbor, and southern portions of the City. The rail corridor can fit seamlessly into the regional transportation network, connecting to other

existing stations (Green, Blue, Union Station), stopping at major destinations (Downtown LA, LAX), and providing rail service where it is currently lacking (South LA, South Bay cities).

Employment Centers: Employment hubs in the city, such as Warner Center, Downtown, Century City, and Hollywood experience greater-than-average levels of congestion because of the density of employees working there. Transit access to not only these hubs, but future sites of clustered employment in the city, require adequate transit access and service.

Educational Institutions: There are numerous universities and colleges across Los Angeles that would benefit from improved transit access. While there are current examples of those that have convenient transit access near their sites (e.g., Expo Line to USC, Blue Line to LA Trade Tech, Orange Line to Valley/Pierce College, Metrolink to Cal State LA), there are still many institutions that could benefit from better service and access.

Parks and Recreation Centers: Iconic places as Venice Beach and Griffith Park are only a few of Los Angeles' many parks and recreational centers. As important places of leisure and community, all of Los Angeles' parks and rec centers require better transit access.

Hospitals: The city's many hospitals play an important role not only with regard to our health care needs, but also in terms of our economy. Nationally, hospitals create over 2 trillion dollars in economic activity.[5]

Shopping Centers: Los Angeles' many retail attractions generate valuable sales tax revenue and foster social gatherings. Providing better transit access and service to these attractions would help contribute toward the economic viability of our city by providing consumers with an alternative means of travel.

Sports Venues: Special attention should be paid to large sporting events to offer additional transit service before and after games. For example, Metro operates a dedicated shuttle bus service (Dodger Stadium Express) from Union Station to Dodger Stadium before the game, and vice-versa afterwards. Also, rail line schedules should be tailored to absorb the additional demand for riders traveling to attend Lakers/Clippers/Kings and USC/UCLA games. These special accommodations, especially when well publicized can provide much-needed congestion relief when a game or event begins close to, or during, the evening rush-hour.

3.8 Bicycle Parking

Provide bicyclists with convenient, secure and well-maintained bicycle parking facilities.

Just as the availability of vehicle parking at a destination influences one's decision about whether or not to drive there, so too does the availability of bicycle parking play a major role in making bicycling an attractive option. With the knowledge that there will be a place to safely and conveniently secure his/her bicycle for the duration of a visit, a bicyclist is much more likely to ride. Conversely, fear of theft and difficulty finding suitable parking discourage the use of bicycles for commuting and errands.

Outdoor bicycle racks are the most basic and most common parking option. These should be located as close as possible to building entrances, without obstructing pedestrian pathways, and should ideally be sheltered and well-illuminated. Educating riders on the proper ways to secure their bicycle reduces the likelihood of theft. Bicycle lockers and indoor bicycle parking offer a greater level of security, as well as protection from the elements. Regardless of the type of facility, bicycle parking should be easy to locate; signage is helpful.

The Los Angeles Department of Transportation (LADOT) Sidewalk Bike Parking Program installs bicycle racks in the public right-of-way at the request of local business owners or citizens.[6] Metro also provides bicycle racks and/or lockers at most transit stations, facilitating the use of bicycles for first- and last-mile connections. Metro is planning to open its first "Bike Hubs" in 2014, facilities which will provide secure indoor parking along with repair stands, air pumps, and other tools and resources. Similar facilities already exist in a number of other cities in Los Angeles County.[7]

Bicycle Parking Ordinance

In 2013, the City adopted a new Bicycle Parking Ordinance. The Ordinance expands bicycle parking requirements for new developments and additions, and establishes design standards. It also includes a provision allowing bicycle parking to substitute for up to 30% of required automobile parking.[8]

Bicycle Parking as Public Art

Bicycle racks can be designed so that they are not only functional, but also sculptural – works of art that contribute to placemaking and add visual interest to the streetscape. "Bicycle Stops Here" was a cooperative project of the Community Redevelopment Agency (CRA), Southern California Institute of Architecture (SCI-Arc), and the Los Angeles Department of Transportation (LADOT). The project included the development of functional works of art at 10 different locations that can be used as bicycle racks.[9]

3.9 Increased Network Access

Discourage the vacation and/or closure of public streets, alleys, and right-of-ways.

The idea behind increased network access is to improve the mobility of travelers by breaking up long blocks and providing short-cuts that reduce the distance required to get from one point to another. Unused streets, alleys, and other right-of-ways can be perceived as eyesores and locations of high levels of crime; however, they play an important role in the City's street system by facilitating better connectivity.

Alleys provide access to loading areas; without them, this activity would take place on primary streets, interrupting traffic flows (vehicular, transit, and bicycle) or taking up on-street parking spaces. Alleys also provide access to off-street parking facilities, reducing the need for curb cuts that can pose a safety hazard for pedestrians and detract from the quality of the streetscape.

Some alleys that have little use for vehicles could be modified as "paseos" to accommodate only pedestrians and bicyclists. Design improvements can make the public right-of-ways more inviting and attractive community amenities. Alleys can also be retrofitted with "green infrastructure" to treat and infiltrate stormwater (see Policy 5.5).

3.10 Cul-de-sacs

Discourage the use of cul-de-sacs. At a minimum, incorporate pedestrian/bicycle connectivity improvements into their design.

Cul-de-sacs are designed with the intention of excluding through traffic. However, while they may succeed at limiting traffic on an individual street, at the neighborhood and city level they actually generate more traffic, by requiring trips to follow a longer, more circuitous path. This leads to increased fuel usage and emissions and longer commute times. Moreover, cul-de-sacs channel all traffic onto a small number of congested arterials, by not providing alternative routes between two points as a grid system does.

This reduced network connectivity has greater impacts on pedestrians and bicyclists, as the increased trip distances discourage active modes of transportation. From a civic standpoint, cul-de-sacs create isolated areas with little if any interaction with the larger community.

A daylighted cul-de-sac is an alternative to the conventional closed-off design. Daylighting refers to modifying a dead end street to allow for pedestrian and bicycle through access. In addition, there are a number of preferable design tools available to reduce and calm through traffic without worsening street connectivity.

3.11 Adaptive Reuse of Streets

Facilitate regular "street opening" events and repurposing of the roadway.

In many of the City's neighborhoods, open space is in short supply. Only 52% of the City's residents live within walking distance (1/2 mile) of a park, compared to 98% in San Francisco, 96% in New York, and 90% in Chicago.[10] In a city where public gathering spaces are at a minimum, creative solutions have to be employed. The flexible nature of streets can allow an underutilized space to be converted to other uses fitting to the situation.

Short-term repurposing of streets for non-vehicular purposes can be a highly effective means of encouraging people to get outside, promoting both physical activity and social connections. The CicLAvia event series is an excellent example of this potential.

Roadway repurposing can also take the form of longer-term design interventions, as in the case of the People St. program, which repurposes under-utilized parts of streets into small-scale public spaces.

CicLAvia

Organized by a non-profit group in collaboration with the City of Los Angeles, CicLAvia is a day-long event in which selected streets are closed to motorized traffic and opened to people. The event is not a race, as there is no designated start or finish point and movement flows in both directions along the route. Besides riding bicycles, people participate in many different ways: running, rollerblading, walking dogs, picnicking, and socializing. A variety of impromptu events and performances take place along the route. The first Ciclovía took place in Bogotá, Colombia, over thirty years ago.

People St.

People St. is program designed to facilitate partnerships between the community and the City to implement projects that transform under-used areas of street into high-quality public space. The program operates as a public-private partnership. Each project requires the active participation of neighborhood sponsors to identify a site, conduct outreach, and raise funds for implementation and maintenance.

The first People St. demonstration project, Sunset Triangle Plaza, debuted on Griffith Park Boulevard in Silver Lake in March 2012. A one-block stretch of the street has been closed to traffic and is filled with café tables and chairs, planters, a bike corral, and a basketball hoop. The plaza has hosted events including summer movie nights and a weekly farmers market.

In August 2012 the Los Angeles City Council passed a motion to assist with the installation of parklet demonstration projects, and the City's Department of Transportation (LADOT) is taking the lead on finalizing the People St. Program.

Photo: Max Thelander

Informed **Choices**

4

real time information
open source data
transparency
communication
monitoring and reporting
inter-departmental cooperation
database management
parking options
loading and unloading
goods movement

Discussion

It is not enough to merely produce the data. It must be stored, organized, and made accessible in user-friendly formats so that it can be queried and utilized without complication.

Whether it is providing information about the cost and availability of a public parking space, the arrival of the next bus, or the current speeds on a freeway, real-time technology is changing the way we think about our travel. In recent years, the advent of mobile phone applications has resulted in better management of travel decisions due to the predictability that real-time technology provides. The impact of new technologies on our day-to-day mobility demands will continue to become increasingly important in the future.

The amount of information made available by new technologies must be managed responsibly in the future. It is not enough to merely produce the data. It must be stored, organized, and made accessible in user-friendly formats so that it can be queried and utilized without complication. As we dive into the next 20 years, information dissemination and new technologies will play a major role in our communities by creating a culture of more educated, informed users.

Improved mobility through communication is not limited to technological innovations. New signage and traditional forms of media will continue to play an important role in wayfinding and providing place-based information on things such as parking availability, bike facilities, and local destinations.

Understanding the role that technology plays in our transportation needs is crucial to building better communication channels across the city. Whether it is communication between people and government, the private and public sector, or amongst various government agencies, effective communication will be paramount in streamlining processes at every level. More importantly, technology will be a vital tool for collaboration, ensuring that the policies and programs guiding our region's future are closely coordinated and intelligently integrated.

Objectives

- Manage and disseminate real-time information about disruptions and changes in the transportation system through a centralized database.
- Improve coordination and cooperation with regional transportation agencies and neighboring jurisdictions.
- Increase wayfinding information provided by the City.
- Continue to engage Angelenos on transportation projects and outreach using more accessible digital platforms.
- Provide real-time information at all major transit stations by 2020.
- Expand Express Park program to Westwood by 2015, Venice by 2016, and Hollywood by 2017.
- Expand on street parking occupancy detection capability by 50% in 10 years.

Policies

4.1 Dynamic Transportation Information

Support a comprehensive, integrated transportation database and digital platform that manages existing assets and dynamically updates users with new information.

Informed users create a cleaner, smarter, and more efficient transportation system. Information regarding road closures, traffic conditions, and arrival times for public transit is important for making better, smarter travel choices. This information affords individuals more flexibility to adjust their travel choices as changes occur in real-time.

A wide variety of relevant transportation data already exists; however, it is scattered across many different sources and sometimes is not publicly available. By utilizing emerging spatial and communication technologies, a dynamic, comprehensive transportation database and digital platform could seamlessly manage and share, in real-time, the many types of data gathered locally. In addition to real-time information, the system could use historical trends to predict near-future conditions.

The database should communicate information to the public effectively through a simple, user-friendly interface. It should be customizable, giving users the opportunity to save frequently visited destinations. By offering a side-by-side comparison of the monetary, time, and environmental costs of various modal alternatives, the database would promote more informed decision making.

4.2 Improved Communication

Facilitate communications between citizens and the City in reporting and receiving responses on non-emergency street improvements.

An open communication platform where citizens have a venue to input street improvements allows for a transparent catalogue that is easily accessible for both the front and back end users. In March, 2013, the City released a mobile phone app titled "My LA 311" that allowed residents to submit service requests for potholes, graffiti, broken street lights, and fallen trees in their communities. The City will continue to strive to provide open platforms for communication and transfer of critical data.

4.3 Transportation Demand Management Strategies

Encourage employers to adopt Transportation Demand Management (TDM) strategies such as commuter incentives, telecommuting programs, and flexible work schedules.

In the City of Los Angeles, 67% of commuters drive alone to their workplaces. The percentage of commuters who carpool has been steadily declining since the 1970s, mirroring a national trend. This highly inefficient mode of travel results in severe delays from traffic congestion, among other problems.

A variety of programs and strategies, which are collectively referred to as Transportation Demand Management (TDM), can reduce the percentage of commuters who drive alone by raising awareness of available alternatives, and offering incentives to make those alternative more attractive options.

The elements of a TDM program are already in place today among major employers. The City of Los Angeles' TDM Ordinance (LAMC 12.26.J), adopted in 1993, mandates that businesses that exceed certain square footage thresholds must implement certain TDM measures. Similarly, the South Coast Air Quality Management District's Rule 2202 requires that employers with more than 250 employees at a worksite implement an emission reduction program designed to reduce vehicle miles travelled (VMT) and/or increase average vehicle ridership (AVR).

Transportation Demand Management (TDM) Program Elements

Telecommuting (employees): Telecommuting programs give employees the flexibility to work from home as opposed to in an office that they would have to travel to. Individually, the benefits of working from home can yield more productive results, as it allows for work to be done within the comforts of one's own home and affords more flexibility in one's personal schedule. Moreover, employees also bypass the stress and costs (e.g. gas, car maintenance, etc.) of having to commute, especially during the rush hour.

Telecommuting (employers): Employers can also benefit from telecommuting programs. By promoting flexible work schedules, they can cut down on the amount of employee absences and tardies that occur from long-distance commutes or morning traffic. Additionally, telecommuting can compensate for a company's limited office space, equipment, and resources that employees may already have at home.

Carpool/Vanpool: Users that utilize carpool and vanpool services save money on gas and parking costs. In addition, they can reap the time benefits of a carpool lane and help improve overall air quality from fewer greenhouse gas emissions.

Unbundled parking/parking cash out: A "parking cash out" program can help reduce the amount of solo drivers by requiring employers to offer their workers the option of accepting a cash payment in lieu of a subsidized parking space. A 1997 study revealed that a parking cash out program implemented by eight employers resulted, on average, in a 12% reduction in vehicle emissions.

Transit pass subsidy: An employer-subsidized transit pass program can help promote alternative modes of transportation amongst employees or residents, especially in areas with limited parking availability. At the same, it reduces the amount of cars on the road and can save the user money on car-related expenses.

Bicycle facilities (parking/lockers): Adequate bicycle parking is important because it encourages more bike trips. The inability to find bike parking can discourage bicyclists from making the trip at all, or alternatively, convince them to drive instead.

Parking for rideshare/carshare users: Special parking accommodation for rideshare/carshare users not only make these services more attractive, but also diminish the need to purchase one's own car.

Parking for scooter/moped/motorcycle users: Compared to regular car parking, parking for scooters, mopeds, and motorcycles take up less space that could be used to accommodate more single-occupancy users.

Transportation information center: A transportation information center would assist residents, employees, and visitors with information on transit schedules, commute planning, ridesharing, telecommuting, taxis, para-transit, on-site services, and bicycle and pedestrian routes and facilities.

Guaranteed ride home: A Guaranteed Ride Home (GRH) plan ensures that participating employees that do not drive to work will have access to an emergency ride service when needed. For example, this service can be utilized during the day in cases of a family emergency, or at night if employees are asked to work late into the evening past the hours that their transit service operates.

Flex work hours: Flexible work hours, or "flextime," allows employees to arrive and depart outside of traditional peak-time hours. Flexible work hours help promote trips (especially vehicle trips) during non-peak hours, when roads are less congested.

Commuter club (various benefits and incentives): Members of commuter clubs (i.e., individuals that choose not to drive) can benefit from many transportation services, such as subsidized vanpool or transit passes, discounted daily parking permits, carshare credit, and many more.

4.4 Transportation Management Organizations

Partner with the private sector to foster the success of Transportation Management Organizations (TMOs) in the City's commercial districts.

Because our City's commercial districts serve as major employment hubs, they face many transportation challenges that warrant specific demand management and mitigation strategies.

Transportation Management Organizations (TMOs) are nonprofit organizations comprised of private employers, property owners, and developers who work together to educate local employees about the benefits of alternative commuting solutions. TMOs function in much the same way as TDM programs, but at the larger scale of a district, rather than an individual workplace. By assuming responsibility for the operation of these programs, TMOs make it easier for smaller businesses to offer TDM benefits to their employees.

Transportation Management Organizations

In the City of Los Angeles, the Warner Center and Century City TMOs effectively work toward improving the traffic conditions and mobility options for employees in their respective areas. Their efforts provide other commercial districts in the City with a blueprint on how to manage and implement the many facets of a successful TMO.

Warner Center TMO

The Warner Center TMO in the San Fernando Valley has developed successful transportation programs that have resulted in better, more efficient circulation in the area. Created in 1988, the nonprofit coalition has developed a robust corporate membership that includes over 30,000 employees. Currently, nearly 1 in 3 Warner Center employees participate in ridesharing, which is considerably more than the regional average. Over the years, the Warner Center TMO has worked to acquire and maintain bicycling-related amenities, bus transit service from multiple agencies (including the Metro Orange Line), a comprehensive vanpool fleet, and a convenient carpooling database. In addition, the TMO works closely with commercial property owners to track ridesharing statistics and travel patterns, in order to meet long-term trip reduction goals.

Century City TMO

Century City TMO's web-based platform, Commute 90067, allows companies and their employees to log trips and accumulate points based on ridesharing participation and the number of miles saved from reduced trips. Companies and individual employees can track their commute behavior and see how they rank amongst their Century City peers. The TMO's useful trip planner feature allows commuters to compare the cost, time, distance, and carbon footprint of their trips in order to help them make the best travel decision. Additionally, the TMO sets an overall "smart commute" goal for all its members to collectively strive for and publicly displays their progress toward that goal on their website.

4.5 Public-Private Partnerships

Encourage partnerships with community groups (residents and business/property owners) to initiate and maintain public rights-of-way enhanced projects.

The successful planning and implementation of future projects will hinge on the critical partnerships forged between the City and its citizens. Through public-private partnerships, the public sector teams up with the private sector and/or community-based groups on new projects that would otherwise be difficult to undertake single-handedly. For instance, the 2012 unveiling of the Sunset Triangle Plaza in Silver Lake has proven how the City and local community groups can work collectively to bring new, exciting projects to fruition in a shorter time period. A partnership that mutually emphasizes transparent, conscientious decision making at every step of the process will ultimately yield successful, long-standing projects.

The City should continue to build and maintain strong partnerships with local community groups in a collaborative effort to develop new projects and sustain their long-term viability. These partnerships will allow both parties to carve out a unified vision for projects from the outset. Additionally, they will also help accelerate project timelines by ensuring that the associated risks and responsibilities will not fall squarely on only one party's shoulders. For example, potential issues related to liability insurance, financing mechanisms, and facility management will be negotiated early on by both parties. Moreover, the success of these partnerships will rely on strong leadership from elected officials and community leaders that will see the development process through its entirety and ensure the long-term sustainability of these projects.

4.6 Cohesive Regional Mobility

Communicate and partner with the Southern California Association of Governments (SCAG), Los Angeles County Metropolitan Transportation Authority (Metro), adjacent cities and local transit operators to plan and operate a cohesive regional mobility system.

Most people's daily journeys take them across multiple jurisdictional boundaries. For a transportation system to serve their needs effectively, it must work seamlessly. This can only be accomplished through close cooperation between government agencies representing cities and counties throughout the region, along with relevant state and federal partners.

These partnerships must emphasize the importance of having clear communication lines, so as to avoid duplicative services, bureaucratic roadblocks, and conflicting visions. Regularly scheduled coordination meetings between agencies can help ensure that all parties are on the same page. Agencies would also benefit from a web-based application designed to keep all parties up-to-date on the status and timeline of ongoing projects.

Moreover, each agency and department should recognize that data and research produced internally could also be valuable to their partner agencies in accomplishing shared goals. The unobstructed sharing of expertise across jurisdictions will benefit the region as a whole and allow transportation projects to avoid unnecessary delays.

4.7 Goods Movement

Increase public awareness about the importance and economic value of goods movement in the Los Angeles region.

Goods movement represents a vital component of our regional economy. Industries directly and indirectly dependent on goods movement (e.g., manufacturing, wholesale trade, retail trade, construction, warehousing) account for over a third of Southern California's jobs and a third of our region's gross domestic product. These industries are expected to grow substantially in the next 20 years, as greater consumer demand is expected to follow increases to population and employment figures.

The Ports of Los Angeles and Long Beach make up the nation's largest container port complex, moving 43% of the nation's containerized cargo. In 2012, the ports collectively handled nearly $384 billion worth of cargo, or more than $1 billion per day. In addition, both ports generate billions in local and state tax revenue annually.

The logistics industry is highly dependent on a well-organized, multimodal system of local streets, interstate highways, seaports, and rail lines to facilitate the efficient transportation of goods throughout our region and onward to points nationwide.

Going forward, significant investment in goods movement infrastructure will be needed to sustain the viability of this important economic base. Without such investment, existing freight networks will not be able to accommodate future growth, resulting in costly delays and increased environmental impacts.

4.8 Parking and Land Use Management

Balance on-street and off-street parking supply with other transportation and land-use objectives.

Parking in Los Angeles is a crucial, but often overlooked element of the larger mobility system in the City and region at large, with significant implications for travel behavior as well as urban form.

An oversupply of parking can undermine broader, regional goals of creating vibrant public spaces and a robust multi-modal mobility system.

An abundance of free parking has the effect of incentivizing automobile trips and making alternative modes of transportation relatively less attractive.

Moreover, parking consumes a vast amount of space in the urban environment, land which could otherwise be put to any number of valuable alternative uses. Large parking lots create significant environmental impacts, detract from neighborhoods' visual quality, and discourage walking by increasing the distances between services and facilities.

When planning for parking-related needs, it is imperative to consider ways of effectively managing parking demand. By appropriately pricing short-term on-street and off-street parking, mobility needs can be accommodated while reducing adverse impacts.

4.9 Wayfinding

Provide widespread, user-friendly information about mobility options and local destinations, delivered through a variety of channels including traditional signage and digital platforms.

First-time visitors and long-time residents alike depend on wayfinding signage to navigate through a vast metropolis. The essential function of wayfinding is to facilitate reaching one's destination by indicating directions and distances. The most effective wayfinding not only serves this purpose, but also provides information on alternative ways of getting there, and highlights additional points of interest along the way. When designed well, wayfinding can enhance its surroundings and contribute to a neighborhood's civic pride and unique sense of place, in addition to providing information.

Wayfinding should be a ubiquitous element of the cityscape so as to always be readily accessible. It is particularly important in and around key destinations; along major corridors and at intersections; and at multi-modal mobility hubs such as transit stations.

In addition to traditional signage, technology serves an increasingly valuable role in wayfinding, enabling directions to be individually customized, and delivering a wealth of place-based information.

4.10 Fair and Equitable Treatment

Assure the fair and equal treatment of people of all races, cultures, incomes and education levels with respect to the development and implementation of citywide transportation policies and programs.

Keeping open communication lines between the City and its residents is crucial. In order to facilitate the fair and equal treatment of its residents, the City should strive to inform and involve environmental justice groups, community-based organizations, and all concerned residents in the planning and monitoring process of new and ongoing transportation policies and programs. Soliciting and incorporating resident feedback will contribute toward citywide transportation policies and programs that emphasize the fair distribution of resources as well as equitable outcomes.

4.11 Performance Evaluation

Evaluate effectiveness of new strategies through the collection and analysis of information on the transportation system.

Data collection, analysis, and monitoring are instrumental to the smart investment in, and development of, programs and strategies that will improve the Citywide transportation system. Information such as collision rates, traffic flows, ridership rates and roadway capacities are quantifiable factors that reflect the overall effectiveness of a program; consistently tracking the progress and performance of new changes to a system (such as added bicycle lanes or new transit lines) allows for refinements to complement the existing system.

Much of the transportation data that monitors traffic flows during peak travel times, ridership rates on various transit lines, and collision rates is collected by LADOT and Metro and is used to analyze the performance of roadway and highway improvements, new transit lines, and increased service. Such monitoring, tracking, and performance review is central to the implementation of programs that diversify the City's transportation system to include pedestrians, bicycles, transit, and vehicles; they provide hard numbers and statistics over time that can support investment in multi-modal transportation systems.

In the past, the City has focused much of its transportation funds on the improvement of roadway for motorized vehicles. However, the growing problem of traffic congestion, air pollution, and decreasing quality of life has created an impetus for new and innovative strategies that reimagine the City's transportation future. Examples of new strategies include:

>> The use of data collected through bicycle and pedestrian counts track the increase in non-motorized travel (citywide) that can be used to improve bike and pedestrian infrastructure on heavily used streets.

>> LADOT's shared lane markings study measured the changes in driver and bicycle interactions; that sharrows improved driver behavior.

>> Metro's FasTrak Express Lanes follow the growth of users and impact to daily travel (average speed) during peak hours.

Photo: OregonDOT, Flickr

Clean **Environments** for a Healthy Community

5

public health
clean air
stormwater management
clean fuels and fleets

Discussion

Transportation is deeply implicated in the health of both human beings and natural systems. Mobility directly impacts human health and wellness, both physical and mental. Active transportation modes such as bicycling and walking can significantly improve personal fitness and create new opportunities for social interaction, while lessening impacts on the environment.

The transportation sector is by far the largest source of greenhouse gas (GHG) emissions and the largest consumer of energy. Transportation is also among the most significant sources of air, water, and noise pollution in the urban environment.

Air Pollution

Despite significant improvements in the last several decades, the Los Angeles region continues to suffer from the worst air quality in America.[1] Los Angeles residents are at greater risk for asthma attacks, heart attacks and premature deaths due to air pollution. The Los Angeles Basin is uniquely predisposed to poor air quality, as atmospheric inversions and the surrounding mountain ranges trap air pollutants.

Researchers estimate that air pollution is responsible for more than 7,500 premature deaths per year in the Los Angeles metro area, of which more than 2,000 can be attributed to vehicle emissions alone.[2] Statewide, vehicle emissions result in more than twice as many premature deaths as car crashes.[3] The economic impact of this public health burden is estimated at $22 billion per year in the South Coast Air Basin (in lost days at work, lost days at school, health care, and premature death).[4]

Increases in both the regional population and the stringency of federal air quality standards will pose a significant challenge to cities throughout Southern California. As of August 2013, the South Coast Air Basin is in non-attainment of federal standards for three of the six criteria pollutants: ozone, lead, and fine particulate matter (PM2.5). Under the Clean Air Act, non-attainment areas are required to develop implementation plans outlining specific measures they will take to reduce pollution levels sufficiently to meet the standards. Additionally, all federally supported highway and transit project activities in non-attainment areas are required to demonstrate that they will not cause new air quality violations, worsen existing violations, or delay timely attainment of the standards.[5] The AQMD's 2012 Air Quality Management Plan focuses on bringing the Basin into attainment with the 24-hour PM2.5 standard.[6]

In addition to the National Ambient Air Quality Standards (NAAQS) established by the U.S. EPA, the state of California has set standards for certain pollutants (such as particulate matter and ozone) which are more stringent than the corresponding federal standards. California has also set standards for some pollutants that are not addressed by federal standards.

In 2010, transportation accounted for more than 34% of California's greenhouse gas emissions, the largest by far of any sector.[7] 80% of the transportation-related emissions come from passenger vehicles, equivalent to 160 million tons of carbon dioxide per year.[8]

Water Pollution

Urbanization and community development patterns have degraded Los Angeles' local water resources over time in two ways. One is the physical alteration of creeks and streams when they were channelized or buried underground so that development could occur on top of them. This prevents natural ecological and water purification processes from occurring. The second is the runoff from impermeable surfaces, such as streets and parking lots. This increases the volume of water in the creeks and streams during storm events, which makes restoring a natural condition in those waterways difficult. It is also the most the most significant source of water pollution in local rivers and beaches.

When rain falls on paved surfaces, it picks up an array of pollutants, including pesticides and fertilizers, oil and automotive fluids, heavy metals, animal waste, and litter, before entering the storm drain system. This water is not treated before being released into the ocean, and as a result, Los Angeles County is home to 7 of the 10 most polluted beaches in California.[9] These pollutants endanger the health of plants and animals that inhabit local ecosystems, as well as humans who engage in recreational water based activities.

Green infrastructure" and "low impact development" rethink how streets and parking lots are designed. These approaches have the potential to address many problems in the urban environment simultaneously – reducing water pollution levels, flooding problems, and the urban heat island effect; increasing local groundwater supplies; and improving habitat quality and aesthetics.[10]

Noise Pollution

Automobile and truck traffic is a leading source of noise in the urban environment, increasing stress levels and reducing quality of life. In contrast, non-motorized modes of transportation such as walking and bicycling generate little or no noise.

Human Health

A 2004 analysis found that each additional hour spent in a car per day was associated with a six percent increase in the likelihood of obesity.[11] Walking to transit or biking adds a fitness element to an everyday routine.

Long commutes can also take a toll on mental health – each hour spent alone in a car is an hour not spent with friends or family. Commuters ensconced in their own cars are deprived of opportunities for serendipitous encounters with neighbors, of the sort that happens on a sidewalk. The stresses associated with commuting can occasionally manifest in episodes of "road rage."

Objectives

>> Zero net increase in VMT per capita beyond 2013 base year.

>> Increase the % mode share of active transportation (ped, bike) by 1% every year.

>> Meet a 9% per capita GHG reduction for 2020 and a 16% per capita reduction for 2035 (SCAG RTP).

>> Convert 100% of City fleet to renewable fuels by 2020.

>> Convert 100% of City refuse collection trucks and street sweepers to renewable fuels by 2020.

>> Reduce transportation-related energy use by 95% and reduce maintenance requirements.

>> Reduce port-related diesel particulate matter emissions by 77%, NOx by 59%, and SOx by 93% by 2023, relative to 2005.

>> Reduce the number of unhealthy air quality days per year.

>> Reduce the pollutant load of stormwater and urban runoff to meet Total Maximum Daily Load and water quality standards.

>> Reduce the percentage of impervious surface area within parking lots and roadways by 1 % every five years.

Policies

5.1 VMT

Support ways to reduce vehicle miles traveled (VMT) per capita.

Greenhouse gas (GHG) emissions are closely correlated with Vehicle Miles Traveled (VMT).[12] Reducing VMT is therefore an important component of the overall strategy to reduce GHG emissions. Efficient fuels and alternative vehicle technologies, which produce fewer GHG emissions per mile traveled, are another component. These are discussed in more detail under Policy 5.3.

Reducing VMT requires a combination of sustainable approaches working together:

- Land use policies aimed at shortening the distance between housing, jobs, and services can reduce the need to travel long distances on a daily basis
- Offering more attractive non-vehicle alternatives, including transit, walking, and bicycling
- Transportation Demand Management (TDM) programs that encourage ride-sharing
- Pricing mechanisms that encourage commuters to consider alternatives to driving alone, including:
  - Congestion or cordon pricing, which would charge vehicles entering into a congested area (such as downtown during rush hour)

5.2 Alternative Metrics

Support the adoption of alternatives to the traditional Level of Service (LOS) metric for evaluating impacts from development projects.

Many jurisdictions have traditionally used the "level of service" (LOS) metric to evaluate potential transportation impacts from development projects. LOS measures vehicle delay at intersections and on roadways, and is represented as a letter grade A through F, with F representing congested conditions.

Because the LOS metric only considers impacts on vehicular movement, it often has the effect of discouraging projects that support alternatives to driving such as public transit, bicycle lanes, pedestrian safety features, and urban infill development. Roadway widening is the typical mitigation required for projects that exceed LOS standards. However, wider roads can result in adverse environmental, public health, and fiscal impacts. Wider roads are more expensive to maintain and enable driving at faster speeds in the short term, which leads to more pollution, noise, and higher risks to bicyclists and pedestrians in the long term.

SB 743

Senate Bill (SB) 743, enacted in September 2013, creates a process to change the way that transportation impacts are analyzed. The bill tasks the Governor's Office of Planning and Research with proposing an alternative to LOS for evaluating transportation impacts from development projects, particularly in areas served by transit. The new criteria "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." Potential metrics may include vehicle miles traveled (VMT) and automobile trips generated, both overall and per capita. Once developed, the new metrics will be implemented through an amendment to CEQA (California Environmental Quality Act) Guidelines and Thresholds of Significance.[13]

5.3 Clean Fuels and Vehicles

Continue to encourage the adoption of alternative fuels and mobility technologies, and supporting infrastructure.

Alternative fuels and vehicles are a way of reducing greenhouse gas emissions and air pollution. Reducing vehicle miles traveled is one approach to meeting these outcomes (Policy 5.1). However, because vehicles will likely continue to be a common mode of transportation for the foreseeable future, improving their efficiency is an important complementary policy.

Adoption of new technologies

As new technologies are developed, the City should encourage their rapid, widespread adoption. The City has upgraded much of its fleet to alternative fuel vehicles, and this transition is ongoing.[14] By adopting new technologies early on, public agencies can serve as highly visible models of best practice.

Supporting infrastructure

Much in the way that traditional vehicles depend on a ubiquitous network of gas stations, new technologies will require their own supporting infrastructure, such as charging stations for electric vehicles. It may be possible to "piggyback" on the existing network, by simply adding charging stations alongside gas pumps. It will also be important to provide people with convenient ways of locating alternative fuel / charging stations (for example, wayfinding signage and/or a smartphone app), particularly before these stations become widespread.

5.4 Air Pollution Mitigation

Limit exposure to air pollution from transportation-related sources.

Air pollution from transportation-related sources poses a major threat to public health and well-being. Numerous studies have linked common air pollutants to a variety of health impacts affecting the respiratory, cardiac, and immune systems, and to increased risk of cancer. Certain population groups, such as children and the elderly, are especially sensitive to the effects of poor air quality.[15]

A growing body of research points to ultrafine particulate matter from diesel exhaust as a leading cause for concern.[16]

While numerous initiatives now being implemented target sources of air pollution, the transition to cleaner technologies is a long-term process. In the interim, various mitigation measures can reduce the public health hazards by limiting exposure of human populations to pollutants.

Set-backs from Roadways

Concentrations of some air pollutants have been found to be two to ten times higher near high-traffic roadways, compared to background levels.[17] Land use planning can help to limit the public health risks associated with exposure to these pollutants, by ensuring adequate separation between sensitive land uses (such as residences, schools, daycare centers, playgrounds, or medical facilities) and major pollution sources. The California Air Resources Board (CARB) recommends a minimum buffer of 500 feet between new sensitive land uses and freeways or urban roads with more than 100,000 vehicles/day. For schools, this buffer is required by state law, with some exceptions.[18]

Truck Routes

Mapping streets with high volumes of truck traffic ("de facto" truck routes) can provide valuable information for land use planning, by highlighting areas that should be avoided by residential development and other sensitive land uses.

Building and Site Mitigation Measures

A recent review by CARB found high efficiency air filtration to be the next most effective method of reducing exposure to pollutants, after set-backs from roadways. However, these systems have limitations including maintenance requirements and the fact that unfiltered air can enter through windows and doors.[19]

Goods Movement

Activities associated with goods movement are a significant contributor to the region's air pollution, especially particulate matter from diesel exhaust.[21] By 2035, the volume of cargo at the Ports of Los Angeles and Long Beach is expected to triple, meaning that emissions controls will be critical to avoid severe health impacts on the surrounding communities.[22]

In 2006, the Ports adopted a Clean Air Action Plan, which includes a number of programs aimed at reducing emissions from ships and trucks.[23] These include:

- Electric power connections that allow ships to turn off their diesel-powered auxiliary engines while at berth (Plugging in one container ship for one day is the equivalent of taking 42,000 cars off the road.)
- Financial incentives and awards for green ships"
- Financial incentives for ships to reduce their speed while approaching the port
- Bans on older, more polluting trucks
- Emissions inventories and air quality monitoring

Since 2008, the South Coast Air Quality Management District (SCAQMD) has funded the installation of air filtration units at a number of schools in areas with significant air pollution (including Boyle Heights, Wilmington and San Pedro).[20]

Sound walls and vegetation barriers are site-based mitigation measures that may also help reduce exposure to pollutants, however further study is needed to understand how these design features affect pollutant dispersal.

5.5 Green Streets

Maximize opportunities to capture and infiltrate stormwater within the City's public right-of-ways.

Impervious surfaces such as streets and alleys disrupt the natural hydrological cycle, with numerous consequences. Rain that falls on these surfaces picks up an array of pollutants and carries them into local bodies of water. This stormwater cannot soak into the ground, meaning that local groundwater supplies are not replenished. It also increases the volume of runoff entering storm drains and streams during storm events, which creates the need for engineered flood control channels. This type of engineered feature has no urban design or amenity value, but is required to handle the excess amounts of runoff.

The City's Green Streets Initiative is a program that seeks to address these interrelated problems through the use of stormwater Best Management Practices (BMPs) that mimic natural hydrological functions. Goals of the program include:

>> Reducing pollutant levels in stormwater through natural filtration, to improve local water quality and meet regulatory requirements

>> Increasing local water supplies by recharging groundwater basins, thereby decreasing dependence on imported water

>> Improving air quality and reducing the heat island effect

>> Enhancing aesthetics, which can increase pedestrian use of sidewalks and encourage the use of bicycles

>> Design mobility pathways that daylight and restore creeks and streams where they have been buried under ground

>> Reduce stormwater runoff to restore the natural stormwater runoff hydrograph of the land mobility pathways occupy.

>> Reduce flooding.

Best Management Practices include canopy trees, planters, bioswales, pervious pavers, infiltration trenches, and curb extensions. These BMPs vary in terms of their cost, effectiveness, and the applications for which they are best suited.

While the City's Standard Urban Stormwater Mitigation Plan (SUSMP) and Low Impact Development (LID) Ordinance address water quality impacts from private development projects, the Green Streets Initiative targets improvements for the public right-of-way.

Specifically, the program focuses on "parkway" areas between the roadway and sidewalk, where stormwater can be easily directed from streets and sidewalks.

5.6 Parking Lot Design Standards

Develop design standards for new and retrofitted parking lots and parking structures.

Like streets, parking lots and structures, with their large expanses of impervious surface, are associated with many environmental impacts. Many of the same Best Management Practices (BMPs) utilized in the Green Streets initiative can be also be incorporated into the design of parking lots and structures.

In addition to stormwater management, parking lots also provide additional unique design opportunities to improve the environment. Landscaping can be used strategically to improve both aesthetics and pedestrian safety, breaking up large open expanses and delineating clear pathways. Landscaping can also help mitigate heat island effect, noise, and air pollution. Reflective pavements are another way of reducing heat island effect.[21]

Parking lots can reduce their energy usage and reduce light pollution through efficient lighting and cutoff fixtures. As large, open sites, parking lots may also be prime sites for solar power generation.

Parking lots can also be designed to accommodate a variety of uses beyond storing vehicles, especially in areas where open space is in short supply. During off-peak hours, parking lots can host activities such as festivals, markets, and sporting activities.[22]

Photo: metrola, Flickr

Smart **Investments**

6

fiscal responsibility
sustainable long-term funding
economic development
placemaking
performance-based analysis and prioritization

Discussion

Transportation funding plays a critical role in the City's ability to implement innovative changes and enhancements to existing and proposed facilities. Like the majority of municipalities in the region and state, there has been a greater demand for more transportation options and networks, resulting in an increase in transportation related projects and funding needs. However, the growing need to maintain our existing streets and networks is offset by the City's ability to generate revenue through new funding strategies and to invest those monies in improvements that will benefit a wide range of users.

This Chapter examines the City's current transportation funding structure in the larger context of regional and state trends and outlines policies that call for smart investments through fiscal responsibility, sustainable sources of funding, and performance-based analysis and prioritization.

The Current State of Transportation Funding in the City

The funds available to finance the City's transportation infrastructure are derived from two major sources: the General Fund and Special Funds.

General Fund monies consist of major taxes and user fees (i.e. general tax revenue such as property, sales, and utility users' tax) that are not tied to specific restrictions or uses.

The majority of transportation related costs and programs are funded by various Special Revenue Funds. These Special Revenue Funds derive money from various fees, taxes, or state or federal funds that are restricted to certain eligible transportation expenditures. The largest of these restricted funding sources is the State gas tax (motor vehicle fuel tax) and the Proposition A and C "local return" sales tax, which comprise 35.7% of all transportation revenue in the City's fiscal year 2013-2014 budget. The Traffic Safety Fund provides for 4% of the transportation budget and Local Return Funds from the collection of Measure R sales tax comprise 2%. While Proposition A and C do not expire, Measure R will expire in 2039.

Restrictions

Because many of the City's transportation funding sources (those behind Special Funds) have restricted eligible uses, the funding link to the City's transportation programs is, to a large extent, determined in State law or local ordinance. For example, the City's gas tax revenue must be spent in accordance with the California Streets and Highways Code, which generally restricts expenditures to street and highways repaving, projects that increase capacity, and bus ways. Proposition A sales tax revenue must be spent on public transit, including bus, rail, paratransit, and improvements that exclusively benefit public transit. The City also receives certain federal transportation revenues that have restricted uses (as set forth in federal law) that serve to create a funding link between the revenue and the transportation program it supports.

The use of other large State and federal transportation funding sources is further restricted as a result of local policy. Much of the dedicated State and federal transportation funding that the City receives is programmed by the Los Angeles County Metropolitan Authority (Metro) through the Transportation Improvement Program (TIP) Call for Projects. The Call for Projects Program allocates discretionary federal, state, and local funds to the region using funding criteria that support eight modal categories:

- >> Regional Surface Transportation Improvements
- >> Goods Movement Improvements
- >> Signal Synchronization & Bus Speed Improvements
- >> Transportation Demand Management
- >> Bicycle Improvements
- >> Pedestrian Improvements
- >> Transit Capital
- >> Transportation Enhancement Activities

Recent Trends

The City's primary transportation funding sources have remained relatively unchanged over the past 15 years. The City's largest dedicated funding sources, the State gas tax and the Proposition A and C sales taxes have, on average, steadily increased since fiscal year 1990-2000. However, the rising cost of gas, growing fuel efficiency of vehicles, and increasing use of alternative modes of transportation have greatly impacted the revenue of the State gas tax.

Funding Sources for Transportation and Infrastructure Related Projects/Programs

General Fund

- > Property Tax
- > Utility Users Tax
- > Business Tax
- > Transient Occupancy Tax

Special Fund

- > Measure R Local Return
- > Proposition A Local Transit Fund
- > Proposition C Anti-Gridlock
- > Transit Fund
- > Proposition O Traffic Safety Fund
- > Special Gas Tax Street Improvement Fund
- > Street Damage Restoration Fee
- > Stormwater Pollution Abatement Fund
- > Mobile Source Air Pollution Reduction Fund
- > Sewer Capital
- > Solid Waste Resources Revenue Fund
- > Special Parking Revenue Fund (SPRF)
- > Street Lighting Maintenance Assessment Fund (SLMAF)
- > Coastal Transportation Corridor Fund
- > Permit Parking Revenue Fund
- > Proposition 1B Infrastructure Bond
- > West Los Angeles TIMP
- > Ventura Cahuengha Corridor Plan
- > Warner Center Transportation Dev.

Significance of Measure R

Measure R is a countywide, half-cent sales tax that funds local and countywide transportation projects and programs. This 30-year tax is expected to generate $40 billion. The City receives a 15 percent Local Return share that is projected at an estimated $2 billion over the life of Measure R initiative. Voters approved this sales tax increase in 2008, reflecting the region's growing call for improved transportation options and infrastructure. As the City seeks to build up its transportation system, new fee structures and sustainable revenue streams will need to be identified.

Transportation Revenue and Funding Links

State Motor Vehicle Tax
- > Street Maintenance
- > Street and Highway Improvements

Proposition A Sales Tax
- > Public Transit

Proposition C Sales Tax
- > Public Transit
- > Street and Highway Improvements

Federal Gas Tax
- > State Highway Account
- > LACMTA (Metro)
  - > Public Transit
  - > Street & Highway Improvements

City Parking Revenue
- > Parking System

The State gas tax is levied on the sale of gasoline and diesel fuel, which has been stable over the last 15 years, as demographic, transportation, and economic trends, both in Los Angeles County and the state as a whole, have worked together to maintain the gas tax as a steady revenue source. Future gas tax revenue will be driven by the amount of vehicle travel in California and the fuel economy of those vehicles. Based on current projections by Caltrans, vehicle travel is projected to steadily increase over the next 20 years; increasing 26% in 2010-2019 and 22% in 2020-2035.[1] However, the increases in fuel efficiency contributed to an overall decrease in potential revenue from fuel. Furthermore, because the State gas tax is not indexed to inflation, gas tax revenue may lose purchasing power over time, even if revenues grow at the same rate as transportation demand.[2]

The Proposition A and C sales tax have also provided a relatively stable source of revenue. The sales tax is dependent on retail sales in Los Angeles County, which in turn are impacted by general economic conditions. The County has experienced stable growth in taxable sales over the last decade, with a significant decrease in revenue during the nationwide 2008 financial crisis. However, sales tax revenue from Proposition A and C has been rising since 2009 and are expected to be stable sources of funds for future transportation and infrastructure improvements. Forecasts of future Proposition A and C revenue are available from Metro, as well as various economic institutions such as the University of California at Los Angeles regional economic forecast.

Next Steps And Policies To Make Smart Investments

The overall goal of the Plan is to make smart investments in transportation infrastructure with the few dollars we have, repurposing those dollars to provide enhanced streets for pedestrians, bicyclists, transit users, and vehicles. By making necessary improvements to accommodate all users, we have the opportunity to increase the safety and value of our transportation infrastructure. More importantly investing in diverse forms of infrastructure enhancements can lead to more opportunities for funding and financing future projects.

Objectives

>> Annually report on transportation investments; every 5 years report on estimated transportation Return on Investment (ROI).

>> Increase share of Measure R local return funds to 20% for active transportation investments.

>> Annually increase the number of segments that are an average level of B (Average Pavement Condition Index of 80) or better by 2035.

>> Allocate 10% of road re-construction budgets for green street improvements.

>> Dedicate 10% of road re-construction budgets towards complete street improvements.

>> Increase proportion of freight transportation provided by railroad and intermodal services by 20 percent over next 20 years.

Policies

6.1 Capital Improvements

Seek sustainable funding resources for capital improvements such as the maintenance and operations of streets and bridges.

The City's streets and bridges are central to an effective, quality transportation system. They are crucial to our daily travel, the transport of commercial goods, and the overall mobility of the region. Future street improvement projects should maximize the efficiency of the City's limited funds by prioritizing integrated projects that achieve multiple objectives and benefits. Besides being a more efficient use of resources, multi-benefit projects can potentially tap into a larger number of funding sources.

Pavement Maintenance

The Bureau of Street Services (BSS) assesses the degree of pavement distress on each of 69,000 individual street segments in the City. Using this data, BSS scores each segment on a 100-point scale called the Pavement Condition Index, and these scores correspond with letter grades.[3]

Currently, the average citywide grade is a C (PCI 61.5). 38% of streets in the City are graded D or F, meaning they require resurfacing or complete reconstruction. BSS has set a goal of improving the citywide average to a B (PCI 80). By maintaining pavement at this level, far more costly repairs can be avoided. However, the estimated cost of raising the average grade to B is $2.6 billion, owing to a chronic shortfall in funding and a resulting maintenance backlog.[4]

In the past, the City relied on federal ($53 million from the American Recovery and Reinvestment Act of 2009) and state ($124 million from the California Transportation Bond – Proposition 1B) monies to temporarily fill the gap in funding. Rather than relying on federal and state sources, the City must identify ways to raise revenue locally. Long term solutions shift the cost of roadway maintenance and improvement on all users and promote a direct investment in City infrastructure.

Funding Capital Improvements

The main (consistent) sources of revenue for the **Pavement Preservation Plan** are:

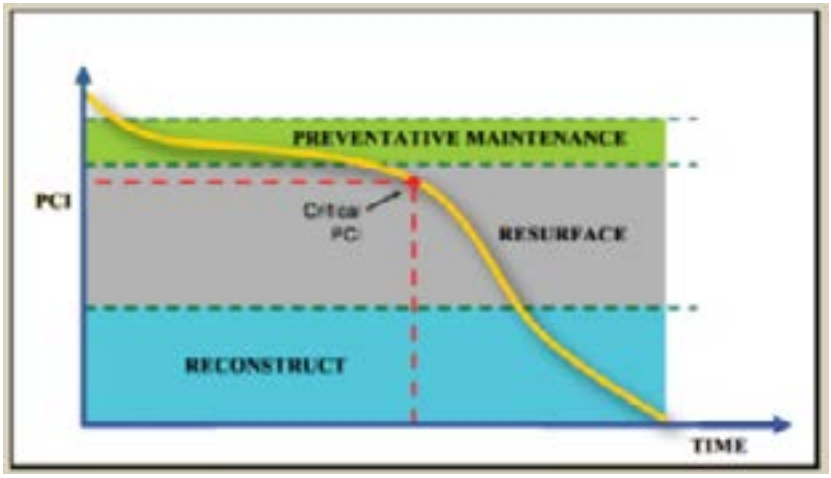
- General Fund
- Special Gas Tax
- Street Damage Restoration Fee
- Measure R

The City of Los Angeles **Bridge Program** is funded primarily through a $307 million Bridge Improvement Program (BIP):

- Seismic Bond (Prop G)
- Federal Highway Bridge Program (HBP) Funds
- Local Seismic Safety Retrofit Program (LSSRP) State Funds
- *State Prop 1B Funds, local matching through Prop C and Measure R Funds, and transportation grants (local, state, federal) through various agencies (Caltrans, LADOT, Metro, and FHWA).

Green Infrastructure and the City's **Green Streets Program** do not have a dedicated source of funds, but rely on grant funding for capital costs (property owners work are responsible for maintaining the streets. *Of the $500 million in Proposition O funds $439.5 million are earmarked for water quality improvement projects (approximately $60.5 million has not been issued).

Pavement Condition Index			
Grade / Pavement Condition Index	% of City streets currently in this condition	Physical condition	Maintenance required
A Good" (PCI 86 to 100)	21%	No cracking, no oxidation and no structural failure	No maintenance required
B Satisfactory" (PCI 71 to 85)	23%	Minimal cracking, no oxidation and no structural failure	Slurry seal required
C " Fair" (PCI 56 to 70)	18%	Minimal cracking, zero to 5% of structural failure	Blanketing (repaving) required
D " Poor" (PCI 41 to 55)	13%	Some cracking, 6% to 35% of structural failure	Resurfacing required
F " Very Poor" (PCI 0 to 40)	25%	Major or unsafe cracking, 36% to more than 50% of structural failure	Resurfacing or reconstruction required



Person Throughput

Person throughput is a measurement used to determine the movement of people; across various modes and during different periods of travel time ; for instance, the analysis of commuters by bicycle, transit, and vehicle during peak periods of travel. During peak travel times, transit (buses/BRT and rail) is expected to move more people along a heavily congested corridor than single occupant vehicles.

In June 2013, the City opened the first segment of the **Wilshire BRT Project**; the 12.5 miles of peak period curbside bus lanes is expected to increase transit ridership between 15 and 20 percent. The conversion of curb lanes to peak period bus only lanes is anticipated to increase person throughput between 1,725 to 1,800 persons per lane per hour for buses in each curbside bus lane, compared to the maximum of 1,056 persons per lane per hour (based on 800 cars per lane per hour with an average of 1.32 persons/car).

The **Exposition and Crenshaw Lines** reflect a smart investment in transportation infrastructure that is expanding the Citywide transportation system and extending transit access and connections to a wider demographic of users. With ten new stations open as of 2012, the Expo Line includes areas of high population and employment densities, provides service to a transit dependent yet underserved community, will relieve peak hour congestion along traffic heavy east-west corridors, and is forecasted to capture a high level of population and employment growth (according to 2020 forecasts by SCAG).

6.2 Prioritize Multi-Benefit Projects

Make the most of limited financial resources by prioritizing capital improvements that achieve multiple objectives and benefits.

Because financial resources are constrained, it is necessary to strategically prioritize improvements to the City's transportation network. Preference should be given to integrated projects that achieve multiple objectives and benefits. Besides being a more efficient use of resources, multi-benefit projects can potentially tap into a larger number of funding sources.

This approach will require considering a wider array of data beyond vehicular throughput, which has traditionally been a primary factor guiding transportation investments. A more comprehensive set of criteria should account for the full range of benefits and impacts associated with any given investment.

These alternative/additional metrics can lead to different conclusions. For example, converting a curb lane to a peak period bus only lane may significantly increase person throughput (persons per lane per hour), even as vehicular throughput is slightly reduced.

6.3 Allocation of Measure R Funds

Expand funding to improve the built environment for bicyclists, pedestrians, and vulnerable users: Dedicate at least 20% of the Measure R local return set-asides for bicycle and pedestrian facilities.

The maintenance of streets and roadways benefits all users: bicyclists, transit users, and cars. However, it is important to set aside funding specifically for the development of bikeways and pedestrian facilities because sidewalks and bikeways connect all users to transit, commercial centers, neighborhoods, and parks and recreational areas; they act as first mile and last mile solutions for a wide range of users (ages 8-80) and trips throughout the day.

To date, the City has received over $225.7 million in local returns and $8.5 million in bus operation funds from Measure R.[5] The City devotes a large portion of its local return money to the Bureau of Street Services (BSS), which appropriates more than 50% of its budget for street resurfacing and reconstruction projects.[6] However, Measure R funds appropriated for the Bicycle and Pedestrian Programs combined remained below 10 percent of the total Local Return Fund. Increasing the allocation to 20 percent would provide more funds for the planning, maintenance, and construction of active transportation facilities, and creates greater opportunities to leverage or match funds.

6.4 New Funding Options

Study possible new funding sources for feasibility and effectiveness.

Acquiring new funding options is vital to ensuring the successful planning and implementation of crucial projects and programs in the region. Funding can come in various forms, including:

>> fuel taxes, vehicle miles traveled charges, or other user fees

>> sales taxes, bond measures, a citywide infrastructure fee; or other general public financing mechanisms

>> developer fees, assessment districts, public-private partnerships, or other private sector financing programs

Commercial vehicles are vital to local, regional, and national goods movement. However, the constant movement of heavy trucks and vehicles along highways and commercial corridors significantly degrades the City's air quality, increases traffic congestion, and is responsible for much of the damage to local streets and highways (a 40-ton vehicle does as much damage as 9,600 cars).[7]

Commercial vehicles are subject to Commercial Vehicle Registration Act fees (which generate $700-$800 million annually)[8] and weight fees (estimated $946 million annually).[9] However, the City does not directly benefit from these state-imposed fees. Much of the revenue is not directly invested in local highways and roadway improvements; instead these monies are combined into the State Highway Account or General Fund. There are currently no fees imposed on commercial vehicles that would directly mitigate their impact on local roadways, air quality, and traffic.

The following are direct revenue sources that can be modified to benefit the City:

>> The Diesel Fuel Sales Tax (State tax) [10]

>> Container Fees (Port of LA Clean Trucks Program)

>> Cargo Infrastructure Fee (2008)

>> Heavy Vehicle Use Tax

>> Commercial Vehicle Mileage Fees (Federal Level) [11]

Fuel Tax Swap

In March 2012, the State Legislature enacted Chapter 1, Statues of 2010 (ABX8 6, Committee on Budget) and Chapter 12, Statutes of 2010 (ABX8 9, Committee on Budget) and other legislation, which is commonly known as the "fuel tax swap." This swap eliminated the sales tax on gasoline and replaced it with a neutral excise tax that is adjusted annually by the Board of Equalization to ensure that the revenue equal the loss of sales tax. The swap also allowed the State to divert revenue generated from Vehicle Weight Fees to the General Fund (to replace the loss of gasoline sales tax). A portion of the new excise tax is used to backfill the lost weight fee revenue. Since eliminating the sales tax reduced the amount of money available for mass transportation funding, the State Legislature increased the Diesel Fuel Sales Tax (and reduced the Diesel Excise Tax).

California funds Caltrans and its various transportation programs through the State Highway Account (SHA), which receives revenue through the State Fuel Excise Tax, Truck Weight Fees, Article XIX Revenues and Federal Apportionments; SHA funds are then allocated to the State Transportation Improvement Project (STIP), State Highway Operation and Protection Plan (SHOPP) and Local Assistance Program.

Local streets, arterials, collectors, and neighborhood streets are maintained primarily by the City's Bureau of Street Services through the Pavement Preservation Plan.

6.5 Economic Revitalization

Promote economic revitalization and growth through smart investments in the Great Streets Initiative and the development of transit-oriented development (TOD) corridors.

Streets are a defining feature of the public realm. Beyond their function as corridors for travel, they also serve as settings for commercial activity and spaces for chance encounters. Pedestrian and retail activity along street corridors is vital to the economic health of neighborhoods. As the City continues to expand and invest in its transit network, improvements must also be made to enhance the pedestrian realm, creating attractive environments for commercial activities near transit connections. Vibrant retail corridors can strengthen the local tax base while also increasing transit ridership by developing new destinations around major hubs.

Great Streets Initiative

Variations of the Great Streets Program have been implemented in cities to boost the local economy through streetscape projects, street/sidewalk maintenance, green street enhancements, grant opportunities for small businesses, and financial incentives for new projects. By focusing improvement and enhancement projects on key streets and districts, cities are able to effectively invest limited funds. For example, Washington, D.C. launched a $116 million Great Streets program to catalyze redevelopment along major commercial corridors through small business grants (up to $85,000) and tax increment financing zones in retail priority areas.[12]

TOD Corridors

Transit-oriented development (TOD) has taken off in the City. However TOD refers to more than just the properties immediately adjacent to stations; the corridors themselves should be developed as destinations and job centers that add value to the area. Investing in elements such as first/last mile strategies, pedestrian-friendly street infrastructure, and bicycle parking increases the appeal and walkability of transit corridors. Corridors linked to transit have the capacity to accommodate greater densities of residential and commercial uses, while increasing access to transit connections.

Potential Funding Mechanisms

Tax increment financing (TIF) is a common tool that can be used to finance infrastructure/streetscape improvements

Bond Measures are tax exempt and can access lower interest rates; require voter approval.

Business Improvement Districts (BIDS) use assessment fees (paid by property owners) to fund streetscape projects, maintenance, and improvements to the defined area.

Grants (local/state/federal) are available for a wide range of projects that improve pedestrian/bicycle infrastructure, encourage transit use, create jobs, and stimulate economic growth. The following federal grants are available for TOD infrastructure:

- Congestion Mitigation and Air Quality Improvement (CMAQ) Program
- Transportation Alternatives (TA) Program
- Community Development Block Grants (CDBG)
- Economic Development Administration (EDA) grants

Benefits of Investing in Complete Streets

Expanding and enhancing the City's network of complete streets can result in direct and indirect benefits.

Low cost and available funding

The cost of implementing and maintaining complete streets policies are minimal compared to the cost of widening roadways.

Economic revitalization

Investing in streetscape improvements can enliven commercial corridors and boost the local economy (and increase sales tax revenue).

Improve safety

Improving the right-of-way for a wider range of modes makes safer environments and corridors for pedestrians and the most vulnerable users. Traffic calming coupled with the presence of multiple modes can help reduce vehicle speeds and the rate of collisions.

Reduce GHG emissions and congestion

Multi-modal streets encourage the use of transit and active modes, decreasing the volume of vehicles in the roadway. The National Complete Streets Coalition reported an estimated savings for individuals in cities range from $2.3 billion (Chicago) to $19 billion (New York City) per year.

6.6 Smart Roadway Management

Manage capacity before investing in additional roadway capacity.

Widening roadway space is a large infrastructural cost that doesn't consider the long-term. There becomes a point where a roadway widening becomes ineffective and another widening must occur again. This way of managing City streets is not sustainable both economically and environmentally (as mentioned in Policy 5.2). New solutions need to be explored. A smarter investment is to manage travel demand through an array of options to manage capacity.

TDM strategies can include modifications to the physical realm to encourage walking, bicycling, or the use of transit (bicycle racks, wider sidewalks, signage, shade trees, transit shelters, bus-arrival information) as well as incentives that encourage an employee or resident to modify their transportation choices (bus passes, van or car pools, improved communication about transit options).

Photo: ladotbikeblog, Flickr

Action Plan

7

Discussion

An implementation program is an action, procedure or program which carries out General Plan policies. The Mobility Plan 2035 is implemented by a broad range of programs which encompass amendments to existing plans, ordinances, development standards and design guidelines; capital investments/projects; coordination of economic development/development review processes; and interagency/interjurisdictional coordination. The Action Plan describes each of the implementation programs and identifies the City agencies responsible for implementation. The programs are organized into 17 categories and each program includes reference to the pertinent policies that it implements.

Categories:

1. Communication
2. Data + Analysis
3. Education
4. Enforcement
5. Engineering
6. Funding
7. Land Use
8. Legislation
9. Maintenance
10. Management
11. Operations
12. Parking/Loading Zones
13. Planning
14. Projects
15. Public Space
16. Schools
17. Support Features

The Action Plan includes the programs that were originally included as part of the 2010 Bicycle Plan and those programs have subsequently been integrated into this plan.

Program implementation is in large part contingent upon the availability of adequate funding. Funding is likely to change over time due to economic conditions and to fluctuations in the priorities of federal, state and regional funding agencies. None of the projects included here can be implemented unless specific funding is made available.

In order to assist the City in prioritizing annual transportation related funding the various departments including, planning, transportation and public works will collectively prepare for Council a sub-set of programs to be implemented in each annual budget cycle.

Implementation of the Plan depends on four factors:

1. Significant and sustained funding for projects and staff, particularly by prioritizing projects in federal, state, and local transportation programs

2. A commitment by key city agencies to implement the recommended strategies

3. A strong partnership with the community

4. Political support

A prioritized list of programs will be a part of a yearly package, updated based upon the four factors mentioned above. A public survey on the prioritization of these programs done Summer 2013 resulted in the majority of commenters expressing the need for improved connections (between modes and networks), favored improvements to existing infrastructure, and strongly supported programs that focus on user safety, performance analysis, and expanding access to multi-modal networks. Although each category in the Action Plan Series received its fair share of traffic, engineering was by far the most viewed on the online town hall and received over 150 comments.

Prog. #	Program Description	City Depts.	Policy #	Topic
Communication				
C.1	**Bicycle Ambassador Program.** Develop a Bicycle Ambassadors program to attend public events including health fairs and communitiy bike rodeos to broaden awareness of bicycling and provide safety information.	DOT, bicycle non-profits.	1.4, 2.4	Communication
C.2	**Bicycle Buddy Program.** Develop and operate a Bicycle Buddy Program to encourage the use of the bicycle for commuting purposes on the Backbone Network and other bikeway facilities. Work with the City and Metro to disseminate information about the Program.	DOT	1.4, 2.4	Communication
C.3	**Bike to Work Week.** Expand the City of Los Angeles Bike-to-Work Week efforts by providing City sponsored events and pit stops in every council district and supporting bicycling to school for students. Provide information, support services and incentives for bicyclists to bicycle to work and school. Distribute materials and post information on Bicycle Website.	Mayor, Council, LAUSD, DOT	1.4, 2.4	Communication
C.4	**Bus Arrival Information.** Work with Metro, municipal transit providers, and local businesses and organizations to provide bus arrival information near station and stop areas.	Metro, DOT, Mayor's Office	4.1, 4.6	Communication
C.5	**Car Free Days.** Coordinate a Car-Free Day on a regular basis each month. Provide information and incentives for drivers to leave the car behind for a day. Work with Metro and City Council offices to provide incentives and disseminate materials to event participants.	DOT, DPW, Council, Mayor	1.4, 4.3	Communication
C.6	**Citywide Active Transportation Map.** Provide and distribute physical and electronic copies of the City's existing bikeway facilities and neighborhood greenways along with information about public bicycle parking facilities and mobility hub facilities.	DOT Systems	4.9	Communication
C.7	**Citywide Bikeway Plan Website.** Continue to maintain the BicycleLA.org website to provide bicyclists with current information about safety, future improvements, events, network maps, route information and suggestions, maintenance and other relevant information. Provide enhanced tools for hazard reporting, mapping of reported hazards and tracking of repairs.	DOT	4.9, 1.8	Communication
C.8	**Multi-Modal Access Campaign.** Develop a Multi-Modal Access Campaign, in collaboration with Metro and other transportation providers, to highlight the availability (all day, every day) of multiple transportation options (transit, carpool, car share, bikeshare, bicycling, walking, etc.) across the region.	Metro, DOT, BBB, Culver City Bus, Metrolink, Foothill Transit	3.5, 4.6	Communication

Prog. #	Program Description	City Depts.	Policy #	Topic
C.9	**Neighborhood Network Maps.** Work with local Business Improvement Districts, Neighborhood Councils, and Chambers of Commerce to develop, fund, and distribute physical and electronic maps of localized portions of the existing bikeways and neighborhood greenways.	DOT	4.9	Communication
C.10	**Poster Campaigns.** Promote awareness of the various networks, streetscape, and green or "great street" improvements through the installation of posters and/or banners. Installation could be either temporary or permanent and could be used to inform the community about the Networks as well as focus on a variety of topics including safe driving practices and/or bicycling encouragement.	DOT, Mayor's Office, Council	4.9	Communication
C.11	**Roadway Safety Campaigns.** Continue to participate in the Watch/Share the Road Campaign or other Public Service Announcements dedicated to increasing traffic safety and mobility in the Los Angeles region, and expand the campaigns to include advertisements in multiple languages.	DOT, LAPD	1.5	Communication
C.12	**Timely Information.** Provide timely information on current roadway work, including scheduled maintenance, work in progress and completed projects. Use temporary signage, media, and web banners to warn users and provide detour strategies for vehicles and bicycles (per the CA MUTCD). Promote the Statewide 511 Real Time Travel Information System.	DOT, BOE, BSS	4.2, 1.8, 4.9	Communication
C.13	**Wayfinding.** Develop and install a comprehensive way-finding program throughout the City to provide information about transportation routes, schedules, bikeways urban trails, and area amenities including schools, parks, cultural and retail activities. (prioritize signage along Backbone and Neighborhood Networks).	DOT, DCP, Mayor's Office, BSS	4.9	Communication
Data & Analysis				
D.1	**Analysis of Existing Paths**. Identify paved paths within City parks suitable for bicycling and incorporable into either the Green, Backbone or Neighborhood Networks.	RAP, DCP	2.4	
D.2	**Annual Counts of Bicyclists and Pedestrians (Active Transportation).** Initiate a long term strategy to count the number and type (by sex, age, disability, income and geography) of bicyclists and pedestrians traveling for work and non-work trips on the Networks and other City streets each year . Identify a specific date and locations for the annual count. The number of locations that are included each year should increase as funding increases. Utilize the locations, date, and time of the count conducted by the Los Angeles County Bicycle Coaliton (LACBC) in 2009 as the baseline; implement a methodology that is consistent with SCAG and Metro.	DOT, DCP, Mayor's Office of Technology	4.11, 3.1, 1.4, 2.2, 6.3	Data & Analysis

Prog. #	Program Description	City Depts.	Policy #	Topic
D.3	**Annual Survey.** Conduct in-person and on-line interviews annually about implementation. In particular, identify on-going concerns and listen to suggested improvements. Collect data on problem areas (not just where collisions have occurred but where "near-misses" frequently occur) and identify solutions.	DOT, DCP	4.11, 1.5	Data & Analysis
D.4	**Collision Monitoring and Analysis.** Annually identify locations with high levels of auto, pedestrian, and bicycle collisions and develop and implement strategies to improve the safety of these areas and reduce overall collision rates. Analyze bicycle crash data from the Statewide Integrated Traffic Records System (SWITRS) and other sources to evaluate the impacts of prior improvements. Use collision data to produce hot zone maps (GIS maps that reflect crash data citywide) and to conduct case studies of potential improvments to reduce collisions. Coordinate engineering and enforcement reporting systems to avoid duplication and/or overlooked data; with support and data from LAPD, LAFD and LAUSD.	DCP, DOT, LAPD	1.1, 1.5	Data & Analysis
D.5	**Economic Benefits of Complete Streets Modifications.** Measure the economic impact (change in retail revenue) on "main street" and commercial corridors resulting from the implementation of Complete Street modifications (e.g. wider sidewalks, bicycle facilities, and improvments that increase non-motorized mobility). Conduct before and after studies of implemented projects in order to gauge the effectiveness of engineering interventions.	DOT, DCP	1.2, 2.1, 6.5	Data & Analysis
D.6	**Goods Movement Information.** Compile goods movement data from the Port of Los Angeles, Los Angeles World Airport and regional goods movement providers to monitor and assess economic fluctuations.	Port, LAWA	4.7	Data & Analysis
D.7	**Greenhouse Gas Emission Tracking Program.** Quantify total reduction in GHG from bicycle use and vehicle miles traveled reductions. Include data in the Citywide Climate Action Plan and the Climate Action Registry. Maintain a database of completed infrastructure projects; track and apply offset credits (resulting from GHG and VMT reductions) towards the city's compliance with SB 375, AB 32 and the region's Sustainable Community Strategy.	Mayor's Office on Environment and Sustainability, DCP, Council	5.1, 5.3, 5.4, 4.11	Data & Analysis
D.8	**Mountain Trail Spillover and Conflict Resolution Analysis.** Conduct a spillover analysis to determine the extent to which mountain biking use spills over onto trails where biking is prohibited. Examine other jurisdictions to understand how they accommodate mountain biking and how they have managed conflicts.	RAP, DPW	1.11	Data & Analysis

Prog. #	Program Description	City Depts.	Policy #	Topic
D.9	**Off-Road and Park Trail Bicycle Database.** Develop a database and create maps of mountain and park bicycling trails within and adjacent to the City of Los Angeles.	RAP, DCP, DOT	1.11	Data & Analysis
D.10	**Revised Traffic Analysis Methodology.** Establish a revised Traffic Analysis Methodology (TAM) that takes into consideration a project's location, design and density, based on CEQA revisions, OPR guidelines, and other state/regional authorities	DOT, DCP	5.2	Data & Analysis
D.11	**Unimproved/Off-Road Database.** Inventory all unimproved roads and determine their suitability for mountain biking and off-road facilities.	RAP, DCP, DOT, LAFD	1.11	Data & Analysis
Education				
ED.1	**Bicycle Parking Training.** Develop a Bicycle Parking Requirement Training Presentation and Handbook and post on the Bicycle website. Provide training sessions to the Department of Building and Safety and other City staff on the LAMC bicycle parking requirements.	DBS, DOT	3.8	Education
ED.2	**Design Workshops.** Host/participate in workshops on active transportation facility design.	DOT	1.4, 1.5, 1.6	Education
ED.3	**Goods Movement Awareness.** Develop and implement strategies to increase coordination of issues relating to goods movement and increase awareness of economic role of goods movement.	POLA	4.7, 2.6, 1.10	Education
ED.4	**Lane Enforcement Program.** Train LAPD Traffic Officers and Bureau of Sanitation drivers to identify bicycle lane parking violations and issue citations. LAPD will train and certify officers to conduct patrols of bicycle paths on bicycles.	LAPD, DOT, DPW	1.1	Education
ED.5	**LAPD Officer Training.** Train officers on the rights and responsibilities of all roadway users and improve their ability to evaluate conflicts and collisions between different modal users.	LAPD		Education
ED.6	**Rail Crossing Safety.** Work with local and regional passenger and freight services to educate all users about safe at-grade crossing practices.	DOT, Mayor's Office	1.7, 1.5	Education
ED.7	**Roadway Safety Education.** Educate law enforcement, heavy duty bus and truck operators, taxis, motorists, all City employees, and roadway users on the rights of, and need for safe motoring skills, around non-motorized active transportation uses. Develop educational/promotional materials to inform roadway users about the benefits of active transportation facilities.	DOT, POLA, LAUSD, GSD	1.1, 1.5, 1.2, 1.6	Education

Prog. #	Program Description	City Depts.	Policy #	Topic
ED.8	**Roadway Safety Public Service Announcements.** Continue to produce a series of Roadway Safety Public Service Announcements (PSA's) for distribution on television, radio, and outdoor signage.	DOT, LAPD, ITA	1.5	Education
Enforcement				
ENF.1	**Commercial Loading Zones**. Target enforcement efforts against parking by vehicles not in the act of loading/unloading in Commercial Loading Zones.	LAPD, DOT	2.7	Enforcement
ENF.2	**Enforcement Stings.** Target enforcement efforts against unsafe behavior by roadway users, especially in school and commercial loading zones. Publicize the stings to encourage healthy interaction among all roadway users.	LAPD	1.1	Enforcement
ENF.3	**Local Truck Use.** Target enforcement efforts against truck use on local streets where cut-through traffic has been expressly forbidden.	DOT	1.10	Enforcement
ENF.4	**Speed Limit Enforcement.** Execute speed limit enforcement checks 48 hours prior to calculating prevailing speeds in Engineering and Traffic Surveys used for adjusting speed limits.	LAPD	1.6	Enforcement
ENF.5	**Truck Inspection Areas.** Develop a Truck Inspection Program in coordination with Highway Patrol and Port of Los Angeles.	DOT, POLA, LAPD	1.10	Enforcement
Engineering				
ENG.1	**ATSAC.** Continue to implement the City's signal management program (ATSAC) to monitor and manage the traffic flows.	DOT	4.11, 4.1	Engineering
ENG.2	**Bicycle-Sensitive Detectors.** Continue to install bicycle sensitive detectors at all actuated signal controlled intersections, including pavement markings for bicyclists.	DOT	1.4, 2.1, 1.2	Engineering
ENG.3	**Boarding/Alighting.** Work with transit, para-transit, and taxi providers to develop and implement safe and efficient boarding/alighting design, location, and signage standards.	DOT, DCP	3.2, 2.7, 2.3	Engineering
ENG.4	**Bridge Design Program.** Consider bicycle facilities when designing new or retrofitting bridges. Particular attention to bridge underpasses that cross existing or future bicycle paths to ensure design integration.	DOT, DPW	2.9	Engineering
ENG.5	**Caltrans Design.** Work with Caltrans to design improvements to freeway entrances and exit ramps to warn motorists on presence of vulnerable roadway users.	DOT	1.1, 6.6, 1.6	Engineering
ENG.6	**Enhanced Bicycle Routes: Shared Lane Markings.** Upgrade existing routes with shared lane markings and signage to increase motorist awareness of bicycle presence.	DOT	1.4, 2.4, 4.9	Engineering

Prog. #	Program Description	City Depts.	Policy #	Topic
ENG.7	**Flexible Installation Standards.** Use engineering judgement and the approval of the City transportation engineer or designee, in lieu of warrants, to install facilities that will improve safety and comfort for pedestrians.	DOT	1.6, 2.2	Engineering
ENG.8	**Grade Crossing Elimination.** Work with Southern California Regional Railroad Association (Metrolink) as well as with freight rail operators to eliminate rail/highway at-grade crossings on regional passenger rail and freight lines.	BOE, Port of LA, DOT	1.7	Engineering
ENG.9	**Green Alleys Program.** Continue the Green Alleys program to introduce low-impact development stormwater features and improve the overall quality and safety of neighborhood alleys.	BOS	3.9	Engineering
ENG.10	**Industrial Street Infrastructure**. Provide adequate street infrastructure in established industrial areas; revise geometric design standards for intersections in/around industrial areas with high truck volumes.	DOT, DCP, BOE	1.9, 1.10	Engineering
ENG.11	**Innovative Engineering**. Incorporate innovative engineering standards and traffic control devices (for all modes of transportation) into the City's Street Design Manual as they are adopted by the California Traffic Control Devices Committee in the MUTCD and/or Federal Highway Administration.	BOE, DOT, DCP	2.1, 1.6	Engineering
ENG.12	**Non-Motorized Crossing Upgrades.** Prioritize existing uncontrolled and mid-block crossing locations for implementation of crosswalk markings, signals, and other enhancements, starting with hot spots or areas exhibiting high-crash rates (freeway off-ramps, tight curves with cross-streets present) or pedestrian volumes.	DOT	3.1, 3.2	Engineering
ENG.13	**Transit/ Bikeway Priority Streets.** Establish Major Class II Streets within the Backbone Network that have Rapid Bus Service as Transit/Bicycle Priority Streets. Review the need for a peak hour travel lane on Transit/Bicycle Priority Streets. Install transit/bicycle only lanes where feasible.	DOT	2.7, 2.3, 2.4	Engineering
Funding				
F.1	**Commercial Vehicle Related Revenue:** Dedicate revenues generated by commercial vehicle fees to roadway-related purposes	DOT	6.4, 6.1, 6.6	Funding
F.2	**Congestion and Cordon Pricing.** Evaluate potential revenues and performance improvements in congestion relief from the implementation of congestion or cordon pricing. Identify the boundaries of, and access points in and out of cordon pricing districts on which to implement congestion pricing.	DOT, DCP, Mayor's Office, SCAG	6.1, 6.6	Funding

Prog. #	Program Description	City Depts.	Policy #	Topic
F.3	**Coordinated Grant Application.** Establish a coordinated effort to apply for and administer federal, state, and local transportation enhancement grants to provide additional funding to support transportation and streetscape efforts.	Mayor's Office	6.1, 6.4	Funding
F.4	**County Congestion Mitigation Fee.** Work with Metro to amend the County Congestion Management Program (CMP) to include revised transportation measurement standards that evaluate the impact on all modes of transportation and not just vehicle delay.	DOT, DCP, Mayor's Office, SCAG	6.6, 4.11	Funding
F.5	**Funding Needed.** Identify the total amount of funding needed to design, construct and maintain transportation related priority projects on an on-going basis. Identify existing sources of funds and evaluate funding gaps.	CAO, DOT, BOE, BSS, BOS	6.1, 6.4	Funding
F.6	**Maintenance Options.** Establish procedures and protocols to facilitate partnerships with community groups and the private sector to provide maintenance of street investments; encourage the utilization of assessment districts by local non-profits or businesses to fund and maintain specific infrastructure improvements	DOT, BOE, BSS	6.2, 4.5, 6.1	Funding
F.7	**Priority Grading System (PGS).** Pursue funding for projects based upon the criteria established by the PGS as defined by the Streets Working Group.	DCP, DOT, DPW, City Council, Mayor	6.2, 6.1	Funding
F.8	**State Highway Control.** Identify funding, and initiate process with Caltrans to transfer oversight of, and improve State Highways within the City limits including Lincoln, Santa Monica, Venice and Topanga Canyon Boulevards.	Mayor's Office, DOT, DCP	2.10, 6.1, 6.6	Funding
F.9	**State Highway Funding.** Coordinate with Caltrans, other local, regional, state and federal agencies, and the private sector to identify and implement funding alternatives for the City's transportation network including the State highway system.	Mayor's Office, DOT, DCP	2.10, 4.6, 6.1	Funding
Legislation				
L.1	**Advocacy for Funding Multi-Modal Infrastructure Projects.** Aggressively advocate for continued and expanded Federal, State, Regional, and Local funding for multi-modal transportation programs and infrastructure projects in transportation legislation. Ensure representation of issues with City's lobbyists in Sacramento and DC.	Mayor's Office, City Council, CLA	3.5, 6.2, 6.3, 6.1, 6.4	Legislation
L.2	**Legislation Monitoring.** Continually monitor and develop state and federal legislation to support or oppose legislation that could impact plan implementation.	DOT, DCP, Mayor's Office, CLA	4.6, 6.4, 6.1	Legislation

Prog. #	Program Description	City Depts.	Policy #	Topic
L.3	**Posted Speed Limit Reductions.** Develop and advocate for state legislation to support reducing posted traffic speeds. Revised methodology should account for all roadway users (including pedestrians and bicyclists), adjacent land uses, and street user demand.	Mayor's Office, CLA	1.6, 1.2, 3.2	Legislation
L.4	**Resetting Speed Limits**. Evaluate the effectiveness of the State's speed limit requirements on street safety and performance.	DOT, City Attorney	1.6	Legislation
L.5	**Tailpipe Emission Legislation.** Support legislation to reduce tailpipe emissions from cars and trucks.	Mayor's Office, CLA	5.3, 5.4	Legislation
L.6	**Vehicular Travel Safety Training.** Work with the Los Angeles County Superior Court to develop a program that offers training on driving behavior around other users of the roadway to motorists receiving citations and/or involved in collisions with non-auto modes.	DOT, City Attorney	1.5	Legislation
Maintenance				
MT.1	**Bicycle Path Maintenance Inspection and Cleaning Program.** Develop a regular inspection and cleaning program to maintain Class I bicycle paths.	DOT, BOE, BSS, RAP, Contractor	1.9	Maintenance
MT.2	**Crosswalk Maintenance.** Implement a crosswalk upgrade and maintenance program to ensure all crosswalks are kept to City standards. See Street Design Manual.	DOT	3.2, 1.9	Maintenance
MT.3	**Mandeville Canyon Park.** Maintain off-road bicycle trails in Mandeville Canyon.	RAP	1.11	Maintenance
MT.4	**Notification System**. Develop a coordinated interdepartmental maintenance and response program for the city's network of roads amd bikeways; continue to utilize DPW service request forms and the 311 System so the public can directly inform the City.	Mayor's Office, BSS, BOE	4.1	Maintenance
MT.5	**Pavement Preservation Program.** Annually fund a baseline pavement preservation program that provides for major rehabilitation (resurface and reconstruction) and preventive maintenance (crack and slurry seal). Make annual schedule public and easily accessible on the BSS website.	BSS	1.9, 6.1	Maintenance
MT.6	**Sidewalk Cleaning.** Work with local businesses and community organizations to maintain sidewalks, along arterials, free of debris	Mayor's Office, BSS	1.9, 4.5	Maintenance

Prog. #	Program Description	City Depts.	Policy #	Topic
MT.7	**Sidewalk Repair.** Implement a sidewalk improvement program to bring up all existing degraded sidewalk sections to City standards and implement a program to ensure that future degraded sidewalk sections are promptly identified and repaired in a timely manner.	BSS	1.9	Maintenance
MT.8	**Street Services Budget Allocation Formula.** Continue to utilize the Bureau of Street Services' Budget Allocation Formula that allows for the equalization of pavement conditions citywide.	BSS	1.9	Maintenance
MT.9	**Street Trees.** Implement a tree trimming cycle for all street trees within the public ROW. Use Priority Grading System to prioritize streets.	BSS-UF	1.9, 3.2, 2.1, 2.2	Maintenance
Management				
MG.1	**Annual Mobility Plan Implementation Report.** Develop and submit annual report detailing accomplishments of prior year and prepare a proposed work plan and budget for the upcoming fiscal year.	DOT, DCP, BOE, BSS, BSL, BOS,	4.11	Management
MG.2	**External Streets Working Group**. Establish an external working group comprised of community organizations, city staff, County of Los Angeles, Metro, LAUSD and other municipalities on an as-needed basis to monitor project activities and provide technical support for issues and projects that cross boundary lines.	DOT, DCP	4.11, 4.6	Management
MG.3	**Green Streets Committee.** Continue the Green Streets Committee to identify and evaluate the effectiveness of existing green street features and to continue to identify funding and location options in which to upgrade with green street features.	DOT, DCP, BOE, BSS	5.5, 4.11, 6.3, 6.4	Management
MG.4	**Internal Streets Working Group**. Establish a Capital Implementation Working Group comprised of a citywide team plus seven geographical teams from the Departments of Planning, Transportation and Public Works to prioritize (using the Priority Grading System) and cooordinate the funding, design and implementation of complete, green, and "great" street features.	DCP, DOT, CAO, BOE, BSS	4.11, 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 6.6	Management
MG.5	**Off-Peak Deliveries**. Identify and Implement incentives to encourage off-peak hour delivery operations.	DOT, Mayor's Office	2.6	Management
MG.6	**Public Hearing Process for Bicycle Facility Removal.** Require a public hearing with the City Council's Transportation Committee) for any proposed bicycle lane, path removal or street improvement that would preclude an existing or designated bicycle lane or path.	DOT, DCP, City Attorney, CLA	1.4	Management

Prog. #	Program Description	City Depts.	Policy #	Topic
MG.7	**Regional Cooperation.** Work cooperatively with adjoining jurisdictions and agencies to coordinate transportation related planing and implementation activities to ensure regional connectivity.	DOT, DCP, Metro, Mayor's Office	3.7, 4.6	Management
MG.8	**State Highway Management contd.**Cooperate with Caltrans to identify State highway deficiencies and associated improvement plans, to be used in the City's long range planning and individual project review.	DOT, DCP, Caltrans	2.10, 4.6	Management
MG.9	**State Highway Management.** Collaborate with Caltrans on any modifications to the State highway system necessary to accommodate new development or on any modifications to City's transportation network.	DOT, DCP, Caltrans	2.10	Management
MG.10	**Transportation Management Organizations.** Continue to work with businesses and future development projects to establish geographically and/or industry based Transportation Management Organizations throughout the City for the purposes of implementing a coordinated transportation demand management program.	DCP, DOT	4.4	Management
Operations				
O.1	**City Fleet.** Develop, fund, and implement an actionable strategic plan with accompanying timeline for converting the City's, including proprietary departments, fleets into low and zero-emission vehicles.	GSD	5.3, 5.4	Operations
O.2	**City Work-related Trips.** Instruct departments to establish protocols to facilitate the use of transit for short trips (< 5 miles during work hours when the employee does not need to transport materials). Facilitate non-vehicular alternatives to City employees for work-related trips.	Mayor's Office	4.3, 4.4	Operations
O.3	**Construction Zone Standards.** Implement standard procedures as defined in the MUTCD to ensure safe bicycle and pedestrian travel through construction zones and detours.	DOT, BSS, BOE, DWP	1.8	Operations
O.4	**Feeder Network/Transit Circulator (DASH System and Commuter Express).** Coordinate local bus transit services so as to provide neighborhoods with local feeder buses where the roadway system permits.	DOT	3.4	Operations
O.5	**Flyaway Shuttle.** Continue the Flyaway Shuttle service from Westwood, Van Nuys, Expo, La Brea and Union Station locations, and evaluate other regional locations for expanded service.	Metro	3.4, 3.6, 3.7	Operations

Prog. #	Program Description	City Depts.	Policy #	Topic
0.6	**Operational Efficiencies.** Establish and strengthen public/private partnerships (with the goods movement industry) to coordinate and improve operational efficiencies for the movement of goods. Work could include the implementation of incentives to encourage off-peak and extended hour Port operations, an appointment system, the consideration of short-haul intermodal rail operations, and the establishment of an Advanced Transportation Management and Information System (ATMIS) which would include changeable message signs and video surveillance.	POLA, Mayor's Office	2.6, 4.5	Operations
0.7	**Region-Wide Traffic Control Center.** Link all of the traffic control centers in region on a 24 hour basis.	Mayor's Office, ITA, DOT	4.1, 6.6	Operations
0.8	**Shuttle Bus.** Work with special event providers, employers and community-based organizations to identify and implement shuttle bus programs to serve as a first-mile, last-mile solution between transit stations and special events and/or specific populations. Continue programs like Cityride, to provide transportation assistance for senior citizens and individuals with disabilities.	DOT, Mayor's Office, DOA	3.2, 3.4, 3.5	Operations
0.9	**Signal Timing.** Identify opportunities to re-time street signals to reduce speeds, improve safety for all, and create smoother traffic throughput. Identify opportunities to re-time street signals to allow longer crossing times for cyclists and pedestrians in large intersections.	DOT	1.6	Operations
0.10	**Technology.** Implement on-going technology improvements to maximize the efficiency and utilization of transportation assets.	Metro, DOT, ITA, GSD	4.1, 3.4	Operations
0.11	**Transit Coordination.** Actively collaborate with regional transit partners to achieve seamless transfers between systems, including scheduling, ticketing, shared fare systems, and stops and loading areas.	DOT, IT, and other transit providers, Mayor's Office	3.4, 4.6	Operations
0.12	**Transit/Event Coordination**. Facilitate collaboration between regional transit partners and event providers to provide and promote awareness of additional and timely transit service before and after large events.	DOT	4.1, 3.4	Operations
0.13	**Truck Access.** Permit the use of the roadway for turning movements in and out of properties in industrial areas.	DOT	2.6	Operations
0.14	**Truck Inspections and Service Patrol**. Identify locations for temporary and long-term truck inspection stations and Implement a Truck Service Patrol Program to remove disabled commercial trucks from freeway lanes.	DCP	2.6	Operations

Prog. #	Program Description	City Depts.	Policy #	Topic
Parking/Loading Zones				
PL.1	**Creative Parking Solutions**. Work with communities, businesses, and organizations to identify and implement creative strategies to resolve parking conflicts in areas with high-parking demand.	DCP, DOT	4.8, 4.5	Parking/Loading Zones
PL.2	**Curb Parking Conversion.** Develop processes to facilitate the conversion of curb parking spaces for bike corrals and docking stations for bicycle sharing especially in mixed-use areas.	DOT, BOE, DCP	3.8, 3.11	Parking/Loading Zones
PL.3	**Individualized Parking Requirements.** Permit businesses to identify their respective parking demand and establish criteria whereby projects can reduce on-site parking through the inclusion of a package of transportation demand management strategies.	DCP, DOT	4.8, 5.6, 4.4	Parking/Loading Zones
PL.4	**LA Express Park.** Continue LA Express Park system using reak-time technology to increase awareness of the availability of parking spaces.	DOT	4.8	Parking/Loading Zones
PL.5	**Meter Pricing.** Establish demand based meter pricing to maximize efficient use of on-street meters.	DOT	4.8	Parking/Loading Zones
PL.6	**Neighborhood Parking Districts.** Explore modifying some Neighborhood Parking Districts to permit the utilization of residential streets for metered commercial parking and direct revenue to specific neighborhood improvements.	DOT, DCP	4.8	Parking/Loading Zones
PL.7	**Off-Street Loading**. In non-industrial areas, require off-street dock and/or loading facilities for all new non-residential buildings and for existing non-residential buildings and undergoing extensive renovations and/or expansion, whenever practical.	DCP	2.7	Parking/Loading Zones
PL.8	**On-Street Loading.** Encourage the designation of on-street loading areas, through removal of curb parking, in established industrial areas where off-street loading facilities are lacking. Update the Commercial Loading Zone Ordinance (see B-2, page 6, 2-14 of Mayor's Task Force-Mar 2004)	DOT, DCP	2.7	Parking/Loading Zones
PL.9	**Pedestrian Design Features in Parking Areas**. Update zoning code to require the inclusion of pedestrian design features into all parking lots and provide safe, clear paths of travel from parking lots and/or structures to the associated buildings and/or uses. Ensure that all features are ADA compliant.	DCP	3.1, 5.6	Parking/Loading Zones
PL.10	**Pedestrian Improvement Incentives.** Establish an incentive program to encourage projects to retrofit parking lots, structures and driveways to include pedestrian design features.	DCP	2.2, 3.1, 4.8, 5.6	Parking/Loading Zones

Prog. #	Program Description	City Depts.	Policy #	Topic
PL.11	**Reduced Size Parking**. Develop parking, design, and replacement parking standards for reduced size vehicles (e.g. sub-compact cars, scooters, motorcycles) in residential and non-residential developments as well as public parking facilities and public rights-of-way.	DCP	5.6, 4.8	Parking/Loading Zones
PL.12	**Shared Off-Street Parking**. Facilitate the shared utilization of privately owned off-street parking facilities.	DOT	4.8	Parking/Loading Zones
PL.13	**Transit Area Parking Reductions**. Reduce parking requirements for developments that locate near transit (e.g. within a half-mile of a transit stop)or a major bus stop and provide facilities to enable pedestrian, bicycle and disabled access.	DCP	4.8	Parking/Loading Zones
PL.14	**Unbundled Parking Options.** Require all new multi-family developments to unbundle the cost of parking from rental or purchase contracts.		4.8	Parking/Loading Zones
Planning & Land Use				
PL.15	**Driveway Access.** Require driveway access to buildings from non-arterial streets or alleys (where feasible) in order to minimize interference with pedestrian access and vehicular movement.	DCP	3.9, 3.10	Planning & Land Use
PL.16	**Local Access.** Explore opportunities to incorporate community assets (food, retail) in locations immediately adjacent to residential areas to promote local walking and biking trips and reduce VMT.	DCP	3.3, 1.4, 5.1	Planning & Land Use
PL.17	**Mixed-Use**. Encourage mixed-use residential, employment and commercial serving uses where appropriate to facilitate increased utilization of walking, bicycling, and transit use.	DCP	3.3, 1.2	Planning & Land Use
PL.18	**Network Additions**. Identify and designate bicycle, and transit enhanced streets and pedestrian enhanced designation areas in Community Plan updates to provide local complements to the Citywide Transit and Bicycle Enhanced Networks, and Pedestrian Enhanced Destinations and increase access to area amenities including medical facilities through continuous, predictable and safe sidewalks, intersections, bikeways, and transit support facilities.	DOT, DCP	3.3, 2.2, 2.3, 2.4, 1.2	Planning & Land Use
PL.19	**Pedestrian Safety Action Plan.** Develop a Pedestrian Safety Action Plan for that enhances mobility and accessibility for pedestrians.	DOT, Mayor	3.1, 2.2	Planning & Land Use
PL.20	**Regional Transportation Plan.** Coordinate with Metro and SCAG on the development of the Regional Transportation Plan, Sustainable Communities Strategy, and the Long Range Transportation Plan.	DCP, DOT	4.6	Planning & Land Use

Prog. #	Program Description	City Depts.	Policy #	Topic
PL.21	**Transit Coordination.** Work with Metro and various Construction Authorities on station location, portal siting, station access, support features and parking strategies that maximize ridership and transit revenue.	DCP, DOT	4.6, 3.7, 4.6	Planning & Land Use
PL.22	**Transit Neighborhood Plans.** Create Transit Neighborhood Plans that enhance access to transit stations and set new zoning regulations to effectuate appropriate mixes and scales of uses as well as site design.	DCP	3.3	Planning & Land Use
PL.23	**Transportation Demand Management Ordinance Revision (TDM).** Update the TDM ordinance (LA Municipal Code 12.26.J) to expand the number and type of projects required to incorporate TDM strategies and expand the number and variety of available TDM strategies. Include bicycle parking and other bicycle use incentives as a TDM measure to mitigate traffic/vehicle trips for purposes of CEQA compliance for commercial, residential and mixed-use development projects. Continue to require eligibile projects to provide work-trip reduction plans and parking cash-out programs in compliances with ACMD's Regulation XV.	DCP	4.3	Planning & Land Use
PL.24	**Truck Staging Facilities**. Identify locations within the City where regional truck staging and service facilities are permitted.	DOT, DCP	1.10, 2.6	Planning & Land Use
PL.25	**Union Station Master Plan.** Continue to work with Metro to complete the Union Station Master Plan.	DCP, DOT, Mayor's Office	3.6	Planning & Land Use
Public Space				
PS.1	**Car-Free Zones/Paseos.** Identify temporary and/or permanent opportunities to establish car free zones and/or paseos in select locations around the City.	DCP, DOT	3.11	Public Space
PS.2	**Great Streets.** Continue to support the Mayor's Great Streets Initiative by creating a comprehensive matrix of project elements and associated costs, outlining an implementation timeline, tracking project impacts, evaluating funding strategy, and strategizing the coordination of city services to Great Streets.	DOT, BOE, BSS, BOS, RAP, DCP, DCA, DPW, BSL, EDD	6.5, 3.11	Public Space
PS.3	**Pedestrian Loops.** Explore the development of a connected network of walking passageways utilizing both public and private spaces, local streets and alleyways to facilitate circulation.	DOT, BOE, BSS, RAP, DCP, DPW	3.9, 3.10, 3.11	Public Space
PS.4	**People St.** Continue the People St. program to repurpose underused portions of streets into plazas, parklets, bike corrals, and other public spaces.	DOT, BOE, BSS, BOS, RAP	4.5, 3.11	Public Space

Prog. #	Program Description	City Depts.	Policy #	Topic
PS.5	**Recreational Rides.** Organize and lead local and citywide recreational rides ranging from 5-30 miles. Prioritize routes that include the Green, Bicycle Enhanced or Neighborhood Networks.	RAP, Mayor's Office, City Council, DOT, BOE,	2.4, 1.4	Public Space
PS.6	**Street Openings.** Establish procedures and protocols to facilitate regular street opening events, and create guidelines to identify corridors for expansion of existing events (i.e. CicLAvia). Support and expand non-profit efforts to coordinate and plan these events.	Mayor's Office, City Council, RAP, DOT, DPW, LAPD, LAFD	3.11	Public Space
Schools				
S.1	**Active Transportation Education.** Continue to coordinate with LAUSD to continue the City' s School Active Transportation Education program (for children ages 4-18). Provide annual report to T-committee and distribute safety materials to all users.	DOT, LAUSD	1.3, 1.5	Schools
S.2	**Bike, Walk, and Roll Weeks.** Expand the City of Los Angeles Bike, Walk, and Roll Week (multiple throughout the year) efforts by providing City sponsored events and pit stops in every council district and supporting bicycling to school for students. Provide information, support services and incentives for bicyclists to bicycle to work and school. Distribute materials, post information, and evaluate the progress of the program.	DOT, LAPD, LAUSD	6.3, 1.3, 1.4, 3.1	Schools
S.3	**Safe Routes to School.** Continue to work/partner with LAUSD, (with support from PTAs and traffic officers) to develop an education program, develop and implement a *safe routes to school* program and a Comprehensive SRTS Strategic Plan to calm traffic in communities surrounding all elementary, middle and high schools to maximize pedestrian and bicycle convenience and safety. Refer to the Citywide Safe Routes to School Strategic Plan	DOT, DPW, support from LAPD, and LAUSD	1.3	Schools
S.4	**School Locations.** Work with LAUSD and other school providers to site new schools in appropriate locations that can be easily accessed and integrated into the surrounding community.		1.3, 3.3	Schools
Support Features				
S.5	**Artist Designed Bicycle Parking Standards.** Support and develop creative bicycle parking solutions in the public rights-of-way.	DOT	3.8, 3.11	Support Features

Prog. #	Program Description	City Depts.	Policy #	Topic
SF.1	**Bicycle Parking at Exisiting Major Destinations.** Work with special event facilities' managers to provide convenient, secure, good quality and well-lit bicycle parking facilities at special event venues such as Dodger Stadium, the Staples Center/LA Convention Center, and the LA Memorial Coliseum/Sports Arena.	DOT	3.8	Support Features
SF.2	**Bicycle Path Landscaping.** Incorporate drought tolerant and low maintainence plant materials along bicycle paths.	DOT, DPW	2.4, 5.4, 5.5	Support Features
SF.3	**Bicycle Path Lighting.** Adopt and install standard lighting designs for bicycle paths and grade separated bikeways.	DOT, BSL	2.8, 1.4	Support Features
SF.4	**Bicycle Path Mile Markers.** Continue to install and retrofit mile markers along bike paths; work with LAPD and LAFD to facilitate emergency response on paths.	DOT, LAPD, LAFD	2.4, 2.8	Support Features
SF.5	**Bicycle Racks on Taxis.** Investigate the integration of bicycles with taxi service by adding bicycle racks on to all of the taxi cabs that are permitted through DOT.	DOT	3.5, 3.8	Support Features
SF.6	**Bicycle Sharing Network (JARC Grant- initial opportunity).** Work with Metro and other area jurisdictions to launch a Bicycle Share Program.	Metro, DOT, DCP, City Council, Office of the Mayor	2.4, 4.6	Support Features
SF.7	**Bicycle Valet.** Work with special event providers, employers and community-based organizations to provide bicycle valet services at large public and private special events.	DOT	3.8	Support Features
SF.8	**Bike Racks (on/off-board).** Work with transit providers to install on-board, wall-mounted, bike rack systems to accommodate at least three bicycles on-board the bus. Permit bicyclists to board with their bicycles at the rear of the bus.	DOT Transit, Metro	3.8, 3.5, 4.6	Support Features
SF.9	**Essential Transit Components.** Include short-term and long-term bicycle parking and way finding as essential components of all stations.	Metro, DOT	3.8	Support Features

Prog. #	Program Description	City Depts.	Policy #	Topic
SF.10	**Increase Publicly Available Bicycle Parking and Pedestrian Facilities.** Review all City-owned, operated, and leased facilities for compliance with the City's bicycle parking standards. Increase bicycle parking to meet LAMC requirements where deficiencies are present.Continue to implement bicycle parking and corrals at destinations including schools, museums, parks, libraries, employment, civic facilities, and retail locations. Encourage the Los Angeles Unified School District (LAUSD), local four-year universities, and the Los Angeles Community College District (LACCD) to install quality bicycle parking at public schools within the City of Los Angeles. Work with schools to identify bicycle parking needs and solutions.		3.8, 1.3, 1.4	Support Features
SF.11	**LED Street Lighting.** Continue to retrofit existing street lighting infrastructure with energy-efficient LEDs.	BSL	1.9, 2.2, 3.2	Support Features
SF.12	**Mobility Hubs/Multi-Modal Transit Plaza.** Facilitate the implementation of multi-modal transportation support activities and services in proximity to transit stations and major bus stops, including but not limited to: adequate bus stop and layover space, transit shelters with real-time bus arrival information, bike share docking stations, car share facilities, taxi-waiting/call areas, Wi-Fi service, public showers/toilets, bicycle storage and repair facilities, and food and beverage providers.Develop a coordinated permitting proceess for the installation of the support features identified above.	DOT/Metro, City Council, DCP, Office of the Mayor, DPW	3.5, 4.1	Support Features
SF.13	**Off-Street Alternative Energy Charging.** Support the development of off-street alternative energy charging and fueling stations within privately and city-owned parking and/or fueling facilities.	DOT, DCP, Mayor's Office	5.3, 5.4	Support Features
SF.14	**On-Board Storage.** Work with transit providers to provide an on-board location for the storage of shopping bags and/or luggage.	Metro, DOT	3.4, 4.6	Support Features
SF.15	**On-Street Bicycle Corrals.**Develop bicycle parking corrals in on-street parking spaces as a public-private partnership. Implement a pilot installation and evaluate the feasibility and criteria for widespread use. Prioritize Network streets as potential locations for corrals as well as locations where businesses request a corral.	DOT, BSS, BOE	3.8, 3.11	Support Features
SF.16	**Operator Judgements (Bicycles on Buses).** Work with Metro and local transit operators in the City of Los Angeles to allow operators to make decisions regarding allowing bicycles on buses when space on bus allows, racks are full, service is last of the day or in inclement weather	DOT, City Council, Mayor's Office, BAC	3.5, 3.8, 4.6	Support Features

Prog. #	Program Description	City Depts.	Policy #	Topic
SF.17	**Parking Meter Posts.** As existing parking meters are eliminated citywide maintain a minimum of 25% of existing parking meter posts and retrofit for bicycle parking.	DOT Parking	3.8	Support Features
SF.18	**Sidewalk Bicycle Parking Program.** Continue to install and maintain City-standard bicycle racks on sidewalks. Identify areas with demand for bicycle racks and implement an installation schedule. Prioritize the installation of racks on streets where businesses request the racks as well as within either the Backbone and/or Neighborhood Networks.	DOT	3.8	Support Features
SF.19	**Street Furniture Definition.** Include bicycle racks in the definition of street furniture to utilize streetscape funding opportunities	City Attorney, BSS	1.9, 3.8, 6.3, 6.4	Support Features
SF.20	**Street Lighting.** Support equitable distribution of funds for appropriate street and/or pedestrian lighting, especially in areas of high crime rate and high volume of pedestrian activities.	BSL, DCP, DOT	1.9, 2.2, 3.2	Support Features
SF.21	**Transit District Curbside Management.** Manage curb areas adjacent to transit stops to facilitate the loading and unloading of buses, para transit, smart shuttles, van/car pools and taxi queuing. Include curb areas for bike storage and car share facilities where space warrants.	DCP, DPW, Metro & other transit providers	3.5, 3.8, 3.2	Support Features
SF.22	**Transit Furniture.** Transit furniture shall be prioritized on corridors with the highest rates of public transit ridership; design features shall incorporate aesthetic, comfort, and protection from the elements (sun and rain) considerations. Target the equitable provision of transit furniture throughout the City. Evaluate and pursue all possible alternatives to increase transit furniture in underserved corridors.	DPW	1.9	Support Features
SF.23	**Transit Pass.** Collaborate with Metro to encourage schools, employers, and residential developers to provide monthly or annual transit passes for their respective students, employees, and residents.	DOT, DCP, LAUSD, Metro	4.3, 4.4, 4.6	Support Features
SF.24	**Trash Facilities.** Increase the number of trash cans on sidewalks. Work with local business and community organizations to develop an adopt-a-trash can program.	DPW-BOS	1.9	Support Features
SF.25	**Tree Canopy.** Continue to expand the City's tree canopy using tree species that are appropriate for the location, climate, water supply, planting conditions and existing street infrastructure.	DPW-BSS, Tree People, NCs	1.9, 3.2, 2.2, 3.1	Support Features
SF.26	**Turnstile Design.** Work with Metro and local transit agencies to ensure that all turnstiles can accommodate a bicycle.	DOT, City Council, Mayor's Office, BAC	3.5, 4.6	Support Features

Photo: metrola, Flickr

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Inventory of Designated Scenic Highways and Guidelines

Scenic Highways Guidelines

Corridor Plans for each designated Scenic Highway should be prepared in accordance with each corridor's individual character or concept. These Corridor Plans may be incorporated into specific plan or district plan ordinances. In the absence of such adopted Scenic Corridor Plans, the following interim guidelines are established as part of this Plan:

1. **Roadway**
   a. Design and alignment of a Scenic Highway roadway must include considerations of safety and capacity as well as preservation and enhancement of scenic resources. However, where a standard roadway design or roadway realignment would destroy a scenic feature or preclude visual access to a scenic feature cited in Appendix E of this Element, design alternatives must be considered through preparation of an environmental impact report.
   b. Design characteristics such as curves, changes of direction and topography which provide identity to individual Scenic Highways shall be preserved to the maximum extent feasible.

2. **Earthwork / Grading**
   a. Grading for new cuts or fills shall be minimized. Angular cuts and fills shall be avoided to the maximum extent feasible.
   b. All grading shall be contoured to match with the surrounding terrain.
   c. In order to negate the environmental impacts of grading in designated Hillside Areas (as depicted on Bureau of Engineering Basic Grid Map No. A-13372), maximum effort shall be made to balance cut and fill on-site.

3. **Planting / Landscaping**
   a. Fire-resistant native plants and trees shall be utilized in any parkway landscaping along Scenic Highways located within designated Hillside Areas.
   b. In designated Hillside Areas, where previous plant material has been washed away or destroyed (due to excessive rainfall, fire, grading, etc.) erosion-controlling plants shall be planted to prevent erosion and mud/land slides. Such Hillside parkways and slope easements shall either be hydro-seeded, or terraced and then planted, with native fire-resistant plants.
   c. Outstanding specimens of existing trees and plants located within the public right-of-way of a Scenic Highway shall be retained to the maximum extent feasible within the same public right-of-way.
   d. Low-growing ground cover and/or shrubs shall be utilized as parkway planting along Scenic Highways in order to avoid blocking a desirable view of a scenic feature listed in Appendix E of this Element. Plant material size at maturity

as well as overall scale of plants within the landscaped area must be carefully studied in the site analysis and design stages.

e. Landscaped medians of Scenic Highways shall not be removed. Such medians may be reduced in width (1) to accommodate left turn channelization within one hundred feet of a signalized intersection; or (2) to accommodate a designated Class II bikeway provided that there is compliance with Guideline 3c above, and that the resulting median width is not less than eight (8) feet.

4. Signs / Outdoor Advertising

a. Only traffic, informational, and identification signs shall be permitted within the public right-of-way of a Scenic Highway.

b. Off-site outdoor advertising is prohibited in the public right-of-way of, and on publicly-owned land within five hundred feet of the center line of, a Scenic Highway.

c. A standard condition for discretionary land use approvals involving parcels zoned for non-residential use located within five hundred feet of the center line of a Scenic Highway shall be compliance with the sign requirements of the CR zone.

d. Designated Scenic Highways shall have first priority for removal of nonconforming billboards or signs. Such priority extends to properties located along, or within five hundred feet of the center line of, designated Scenic Highways.

5. Utilities

a. To the maximum extent feasible, all new or relocated electric, communication, and other public utility distribution facilities within five hundred feet of the center line of a Scenic Highway shall be placed underground.

b. Where undergrounding of such utilities is not feasible, all such new or relocated tilities shall be screened to reduce their visibility from a Scenic Highway.

Scenic Byways Guidelines

Guidelines for Scenic Byways designated in the Community Plans should be established as part of the Community Plan Update or Revision process, with guidelines tailored to local considerations. Such guidelines may be incorporated into the Community Plan text or into a Community Design Overlay (CDO). Guidelines for scenic byway protection and/or enhancement should consider the following aspects:

1. Roadway Design and Alignment
2. Parkway Planting / Landscaping
3. Signs / Outdoor Advertising Restrictions
4. Utilities (e.g. undergrounding of new or relocated utility facilities)
5. Opportunity for Enhanced Non-motorized Circulation

Inventory of Designated Scenic Highways

Street Name	Alignment	Former Street Designation	Scenic Features or Resources / Comment
Adams Blvd	Figueroa to Crenshaw	Major highway Class II	
Avenue of the Stars	Santa Monica to Pico	Divided major highway Class II	Wide landscaped median, fountains
Balboa Blvd	1.Fwy. 5 to Sesnon; 2.Victory to Burbank Blvd	Major highway Class II Divided major highway Class II	Streets should be designed so as to least disrupt the scenic qualities of the area it traverses. Sepulveda Basin, park access
Barham Blvd	Fwy. 101 to Forest Lawn Dr.	Major highway Class II	Dramatic pass with northerly Valley views
Beverly Glen Blvd.	Ventura Blvd. to Sunset Blvd.	Secondary highway	Winding cross mountain road; valley views
Big Tujunga Canyon Blvd.	Fwy. 210 to northerly City boundary	Secondary highway	Canyon road with impressive views of rugged mountains
Brand Blvd	Sepulveda to City boundary	Divided major highway Class II	Landscaped median
Broadway	98th St. to 112th St.	Divided major highway Class II	Wide landscaped median
Burbank Blvd	Balboa to Fwy. 405	Divided major highway Class II	Sepulveda Basin, park access
Burton Way	Le Doux Rd to City boundary with Beverly Hills	Divided major highway Class II	Wide landscaped median
Coldwater Canyon Dr	Ventura Blvd to City boundary with Beverly Hills	Secondary highway	Winding cross mountain road providing access to the Mulholland Scenic Parkway
Colorado Blvd	Eagledale to Monte Bonito	Major highway/ divided major highway Class II	(Specific Plan Ord. No. 168,046)
Crenshaw Blvd	Fwy. 10 to Slauson	Major highway Class I	
Culver Blvd	Vista Del Mar to Ballona Creek	Secondary highway	Ocean and Marina views, Ballona wetlands
Eagle Rock Blvd	NE'ly Verdugo Rd to Colorado Blvd	Divided major highway Class II	Landscaped median

Street Name	Alignment	Former Street Designation	Scenic Features or Resources/ Comment
Forest Lawn Dr	Barham to Griffith Park Dr.	Major highway Class II	Winding road past Hollywood Hills; gateway to Griffith Park
Fwy. 5	Fwy. 210 to N'ly City limit	Freeway	State Scenic Highway
Fwy. 101	Topanga Canyon Blvd to W'ly City limit	Freeway	State Scenic Highway
Fwy, 118	DeSoto Ave to W'ly City limit	Freeway	State Scenic Highway
Fwy. 210	Fwy. 5 to E'ly City limit	Freeway	State Scenic Highway
Glendale Blvd	LA River Bridge to City Boundary with Glendale	Divided major highway Class II	Wide landscaped median
Harbor Blvd	Vincent Thomas Bridge to Crescent Ave + future alignment to Shepard St	Major highway Class II	Views of historic San Pedro and the Port
Highland Ave	Wilshire to Melrose	Divided secondary highway	Landscaped median, significant palm trees
Huntington Dr N	Monterey Rd to E'ly City limit	Divided major highway Class II	Wide landscaped median
John S. Gibson Blvd	Harry Bridges Blvd to Pacific Ave	Major highway Class II	Views of harbor activities, Vincent Thomas Bridge
La Tuna Canyon Blvd	Sunland Blvd to Fwy. 210	Secondary highway	Views of ranches in Verdugo Hills
Laurel Canyon Blvd	Ventura Blvd to Hollywood Blvd	Secondary highway	Winding cross mountain road through rustic area
Leimert Blvd	MLK to 43rd Place	Divided major highway Class II	Landscaped median
Lincoln Blvd (Highway Route 1)	Venice Blvd to City boundary with Santa Monica	Major highway Class II	State Scenic Highway
Los Feliz Blvd	Riverside Dr to Western Ave	Secondary highway	Hillside and city views
Monterey Rd	Hardison Way to Huntington Dr	Secondary Highway	
Mountaingate Dr	Canyonback Sepulveda	Divided secondary highway	Landscaped median

Street Name	Alignment	Former Street Designation	Scenic Features or Resources/ Comment
Mullholland Dr	1.Fwy. 101 westerly to Mulholland Hwy; 2.Mulholland Hwy to Valley Circle Blvd	Scenic Parkway Major highway Class II	(Specific Plan Ord. No. 167,943) Panoramic views, "ribbon of park"
Pacific Avenue/Front St	John S. Gibson Blvd to Harbor Blvd	Major highway Class II	Views of Vincent Thomas Bridge; views of historic San Pedro and Port
Pacific Coast Highway (Highway Rte. 1)	Entire alignment N. of Fwy. 10 (City portion)	Major highway Class II	State Scenic Highway
Palisades Dr	Sunset Blvd to N'ly terminus	Divided secondary highway	Wide mountain road; good landscaping and ocean views
Paseo del Mar	Western Ave to Gaffey St	Secondary highway	Hillside bluff route with ocean views, park access
Plummer St	Valley Circle to Topanga Canyon	Secondary highway	(LAMC 17.05-T)
Porter Ranch Streets Corbin Ave Mason Ave Rinaldi St Sesnon Blvd Winnetka Ave	(future streets)	Major highways Class II	(Specific Ord. No. 166,-068)
Reseda Blvd	1.Portion N. of Rinaldi; 2.Ventura Blvd. to S'ly terminus	Major highway Class II Secondary highway/Collector street	Street should be designed so as to least disrupt scenic qualities of the hillside area it traverses
Rinaldi St *	Fwy. 405 to Corbin Ave	Major highway Class II	Hillside street with good mountain, Valley Views
Riverside Dr	Los Feliz Blvd to Stadium Way	Major highway Class II	Essential link in "chain of parks" concept
Santa Monica Blvd	Sepulveda to City Boundary with Beverly Hills	Divided major highway Class I	
Santa Susana Pass Rd	Entire alignment within City	Secondary highway	Dramatic pass; hillside and Valley views
San Vicente Blvd	1.Pico Blvd to Colgate Ave; 2.Goshen Ave to 26th St	Divided major highway Class II Divided secondary highway	Wide street with landscaped median [Specific Plan Ord. No. 161,766]; wide landscaped median

Street Name	Alignment	Former Street Designation	Scenic Features or Resources/ Comment
Sepulveda Blvd	1.Fwy 405 to Sunset Blvd; 2.Rayen St. to Devonshire St	Major highway Class II Divided major highway Class II	Old cross mountain road with tunnel, views of mountains and Valley Wide street with landscaped median
Sesnon Blvd *	Winnetka Ave to Balboa Blvd	Major highway Class II	Street should be designed so as to least disrupt the scenic qualities of the hillside area it traverses
Sherman Way	Variel to Kester	Divided major highway Class II	Wide street, landscaped median
Shepard Street	Pacific Ave to Gaffey St	Secondary highway	Views of harbor, ocean
Silverlake Blvd	Duane St to Armstrong Ave	Secondary highway	Views to and from Reservoir; landscaped setbacks
Stadium Way	Fwy. 5 to Fwy. 110	Secondary highway/Collector street	Winding drive through Elysian Park
Sunland Blvd	Chivers Ave. to Fwy. 210	Major highway Class II	Hillside views
Sunset Blvd	PCH to City Boundary with Beverly Hills	Major highway Class II	Views of mountains, estates, UCLA campus
Tampa Ave	Portion N. of Devonshire St	Major highway Class II	Street should be designed so as to least disrupt the scenic qualities of the hillside area it traverses
Temescal Canyon Rd	PCH to Sunset Blvd	Major highway Class II	Broad avenue lined with parks and amenities
Topanga Canyon Blvd (Highway Rte. 27)	PCH to Mulholland Dr (City portion)	Major highway Class II	State Scenic Highway
Valley Circle Blvd	Mulholland Dr. to Plummer St.	Major highway Class II	"country road" winding past Chatsworth Reservoir with views of "Twelve Apostles" rock formations (LAMC 17.05-T.)
Venice Blvd	Longwood to Abbot Kinney	Divided major highway Class II	Wide street, landscaped median
Ventura Blvd	Valley Circle to Fwy. 405	Major highway Class II	(Specific Plan Ord. No. 166,650)
Vermont Ave	Gage to Gardena Blvd	Divided major highway Class II	Wide street, landscaped median

Street Name	Alignment	Former Street Designation	Scenic Features or Resources/ Comment
Vineland Ave	Ventura Blvd to Magnolia	Divided major highway Class II	Landscaped median
Vista del Mar	Culver Blvd to Imperial Highway	Major highway Class II	Sand dunes and ocean views
Wentworth St	Sheldon St to Fwy. 210	Secondary highway	Views of hills, Hansen Dam and Tujunga Wash
Western Ave	1.25th St to Paseo del Mar; 2. Franklin Ave to Los Feliz	Major highway Class II Secondary highway	Hillside and ocean views Hillside and city views
White Oak Ave	Rinaldi to Devonshire	Major highway Class II	Deodar trees cultural-historic monument
Wilshire Blvd	1.Beverly Hills boundary to Malcom Ave; 2.Sycamore to Fairfax	Major highway Class I Major highway Class II	(Specific Plan Ord. No. 155,044) Miracle Mile; landscaped median
Woodley Ave	Victory to Burbank Blvd	Major highway Class II	Park access; Sepulveda Basin
25th St	Western Ave to W'ly City boundary	Major highway Class II	Hillside and ocean views
Avenue 64	York Blvd to N'ly City boundary	Secondary highway	

Funding Resources and Opportunities

Transportation improvements are funded through multiple departments and are subject to prioritized project lists. As the part of the discussion about smart investments in Chapter 6, it is necessary to identify a diverse cross section of revenue sources that can feasibly implement the improvements proposed in the Plan. This section outlines potential funding opportunities at the federal, state, regional, and local level and discusses various options that are currently being explored or studied by regional and City agencies. The following also includes revenue sources that are currently used to fund Transportation related projects.

Federal Funding Sources

Many of the enhancements proposed in the Mobility Element qualify for Federal Aid

National Highway System (NHS)

These funds are typically restricted to projects located on the National Highway System.

Surface Transportation Program (STP)

STP funds can be used on any public roads that are not classified as local roads or minor collectors. Such roads are referred to as federal-aid roads or highways. However projects or improvements to bridges, safety, carpool related, and bicycle/pedestrian infrastructure care exempt from the highway restriction.[1]

Congestion Mitigation and Air Quality (CMAQ) Improvement

The CMAQ program funds transportation projects and programs that help meet the requirements of the Clean Air Act. Eligible projects include: transit improvements, travel demand strategies, traffic flow improvements, and fleet conversions to cleaner fuels.[2]

Transportation Investment Generating Economic Recovery (TIGER)

The United States Department of Transportation invests in road, rail, transit, and port projects that will have a significant impact

1 State of California Department of Transportation, Division of Local Assistance. Local Assistance Program Guidelines: Processing Procedures for Implementing Federal and/or State Funded Local Public Transportation Projects. December 2008.

2 Ibid

on the Nation, region, or a metropolitan area. To date, Congress has dedicated $1.5 billion for TIGER I, $600 million for TIGER II, $526.944 million in 2011, and $500 million in 2012. The TIGER Discretionary Grants have awarded projects that are multi-modal, multi-jurisdictional, or are difficult to fund through existing programs.[3]

Fixed Guideway Capital Investment Grants Program (New Starts and Small Starts)

The New Starts program provides funds for the construction of fixed guideway systems or extensions to existing guideway systems. The Small Starts program provides funds to capital projects that either (a) meet the definition of a fixed guideway for at least 50 percent of the project length in the peak period or (b) are corridor-based bus projects with 10 minute peak/15 minute off-peak headways or better while operating at least 14 hours per weekday. New Starts projects must cost more than $75 million and have a total capital cost of more than $250 million, while Small Starts projects must cost less than $75 million and have a total capital cost of less than $250 million.

The New Starts and Small Starts programs were funded through the Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users (SAFETEA-LU), and was reauthorized through the Moving Ahead for Progress in the 21st Century Act (MAP-21). Map-21 authorized $1.9 billion for 2013 and $1.9 billion for 2014. Funds are available for five years (the fiscal year in which the amount is made plus four additional years).[4]

Land & Water Conservation Fund (LWCF)

The LWCF program provides matching grants to States and local governments for the acquisition and development of public outdoor recreation areas and facilities. The program is intended to create and maintain a nationwide legacy of high quality recreation areas and facilities and to stimulate non-federal investments in the protection and maintenance of recreation resources. The LWCF could fund the development of river-adjacent bicycle facilities.

Petroleum Violation Escrow Account (PVEA)

PVEA funds come from fines paid by oil companies in the 1970's for violating oil price caps set by the federal government.

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3 United States Department of Transportation. TIGER Grants. www.dot.gov/tiger.

4 U.S. Department of Transportation Federal Transit Administration. Notice of FTA Transit Program Changes, Authorized Funding Levels and Implementation of the Moving Ahead for Progress in the 21st Century Act (MAP-21) and FTA Fiscal Year 2013 Apportionments, Allocations, Program Information and Interim Guidance. http://www.fta.dot.gov/documents/2012-10-10_MAP-21_FINAL.pdf

The Department of Energy's State Energy and Weatherization Assistance Program distribute the money at the state level through grants. PVEA funds projects with an emphasis on energy saving including public transportation and bridge construction or maintenance.

State Funding Sources

California's principal source of state revenue for transportation is the state excise tax on motor vehicle fuels; this includes motor vehicle fuel, diesel fuel, and alternative fuels on a per-gallon basis. Approximately 49.7% of the State's transportation funding was attributed to the State Fuel Excise Tax, 20.8% to the sales tax on Motor Vehicle Fuel

Much of the money available at the State level is funded through the State Transportation Improvement Program (STIP), which includes revenue from the State Highway Account (SHA) and TEA-21 fund allocated to the State.

Bicycle Transportation Account (BTA)

The Bicycle Transportation Account (BTA) is an annual program that provides state funds for local and regional projects that improve safety and convenience for bicycle commuters. All projects must be designed and developed to meet the commuting needs and physical safety of all bicyclists, in accordance with the Streets and Highways Code (SHC) Section 890-894.2 – California Bicycle Transportation Act. Projects include, but are not limited to, the following:

- New bikeways serving major transportation corridors
- New bikeways removing travel barriers to potential bicycle commuters
- Secure bicycle parking at employment centers, park-and-ride lots, rail and transit terminals, and ferry docks and landings
- Bicycle-carrying facilities on public transit vehicles
- Installation of traffic control devices to improve the safety and efficiency of bicycle travel
- Elimination of hazardous conditions on existing bikeways
- Planning
- Improvement and maintenance of bikeways
- Project planning

– Preliminary engineering

– Final design

– Right of way acquisition

– Construction engineering

– Construction and/or rehabilitation

BTA funds are allocated to cities and counties on a matching basis, with the applicant providing at least 10 percent of the total project cost. The State appropriates approximately $7.2 million annually for BTA projects, funded through the Highway User's Tax Account (HUTA) and the Transportation Tax Fund.[5]

Environmental Enhancement and Mitigation Program (EEMP)

The Environmental Enhancement and Mitigation (EEM) Program has a total of $10 million each year to local, state, and federal governmental agencies and to nonprofit organizations. Projects must be directly or indirectly related to the environmental impact of the modification of an existing transportation facility or construction of a new transportation facility. The four categories of the grant are:

– Highway landscaping and urban forestry projects

– Resource lands projects

– Roadside recreation projects

– Mitigation projects beyond the scope of the lead agency

All projects are funded on a reimbursement basis of the state's proportionate share of actual costs. No matching funds, cost shares, or other funding sources are required to apply from the EEM grant. However, projects that include the greatest proportion of other moentary sources of funding are rated highest. Grants are limited to $350,000.[6]

Office of Traffic Safety (OTS) Grant

Office of Traffic Safety Grants (OTS) fund safety programs and equipment. Bicycle and Pedestrian Safety is a specifically identified priority. This category of grants includes enforcement

5 State of California Department of Transportation. Bicycle Transportation Account. http://dot.ca.gov/hq/LocalPrograms/bta/btawebPage.htm

6 Caltrans. EEM Program Information. http://dot.ca.gov/hq/LocalPrograms/EEM/program-info2.htm

and education programs, which can encompass a wide range of activities, including bicycle helmet distribution, design and printing of billboards and bus posters, other public information materials, development of safety components as part of physical education curriculum, or police safety demonstrations through school visitations. The grant cycle typically begins with a request for proposals in October, which are due the following January. In 2009, OTS awarded $82 million to 203 agencies.

Recreational Trails Program (RTP)

The Recreational Trails Program provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized as well as motorized uses. Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails;
- Development and rehabilitation of trailside and trailhead facilities and trail linkages;
- Purchase and lease of trail construction and maintenance equipment;
- Construction of new trails (with restrictions for new trails on federal lands);
- Acquisition of easements or property for trails;
- State administrative costs related to this program (limited to seven percent of a State's funds); and
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds).

Safe Routes to Schools (SR2S)

The Safe Routes to Schools (SR2S) program provides funds to local governments to improve safety and efforts that promote walking and bicycling within communities. The main objective of the SR2S grant is to increase the number of children walking and bicycling to school by removing barriers such as lack of infrastructure, unsafe infrastructure, and lack of programs to educate children, parents, and members of the community. The program rates proposals on the following factors:

- Demonstrated need of the applicant.

- Potential of the proposal for reducing child injuries and fatalities.
- Potential of the proposal for encouraging increased walking and bicycling among students.
- Identification of safety hazards.
- Identification of current and potential walking and bicycling routes to school.
- Consultation and support for projects by school-based associations, local traffic engineers, local elected officials, law enforcement agencies, and school officials.

The State's SR2S program is authorized through Streets & Highways Code Section 2330-2334 and was extended indefinitely through AB 57. In 2012, SR2S awarded $48.5 million in funds to 139 projects; about $24.45 million is available annually.[7]

Regional Funding Sources

A major portion of state funding from the State Transportation Improvement Program (STIP) is allocated to Regional Transportation Planning Agencies (RTPAs). In California, 75 percent of STIP funds are sent to the Regional Transportation Improvement Programs (RTIP).[8] The City of Los Angeles falls under the jurisdiction of the Los Angeles County Metropolitan Transportation Authority (Metro). Metro works with the Southern California of Governments (SCAG), the Metropolitan Planning Organization (MPO), to develop a Regional Transportation Plan (RTP) every four years. The RTP is critical to the region's transportation projects because without it, proposed projects would not qualify for Federal and State funding.

Metro: Call for Projects Program

Much of the funds available for local transportation programs are funded through Metro's Call for Projects program. Metro accepts project applications every other year in eight modal categories[9]:

- Regional Surface Transportation Improvements
- Goods Movement Improvements
- Signal Synchronization & Bus Speed Improvements

7 Caltrans. Safe Routes to School program information. http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/sr2s.htm

8 Caltrans. Global Gateways Program. http://www.dot.ca.gov/hq/tpp/offices/ogm/products_files/GGDP_Final_Report.pdf

9 Los Angeles County Metropolitan Transportation Authority (METRO). Call for Projects Overview. http://www.metro.net/projects/call_projects/.

– Transportation Demand Management

– Bicycle Improvements

– Pedestrian Improvements

– Transit Capital

– Transportation Enhancement Activities

Approved projects are ranked, prioritized, and integrated into the Los Angeles County Transportation Improvement Program (TIP) as part of the five-year program of scheduled projects.[10]

Transportation Development Act (TDA), Article 3

The Transportation Development Act (TDA), Article 3 funds are administered by Metro, to local jurisdictions annually. 15 percent of the TDA funds are allocated to the City and County; 30 percent going to the City and 70 percent to the County. TDA Article 3 funds may be used for the following activities related to the planning and construction of bicycle and pedestrian facilities:

– Engineering expenses leading to construction.

– Right-of-way acquisition.

– Construction and reconstruction.

– Retrofitting existing bicycle and pedestrian facilities, including installation of signage to comply with the Americans with Disabilities Act (ADA).

– Route improvements such as signal controls for cyclists, bicycle loop detectors, rubberized rail crossings and bicycle-friendly drainage grates.

– Purchase and installation of bicycle facilities such as secure bicycle parking, benches, drinking fountains, changing rooms, restrooms and showers which are adjacent to bicycle trails, employment centers, park-and-ride lots, and/or transit terminals and are accessible to the general public.

Congestion Mitigation Fee Program

The Congestion Mitigation Fee Program was proposed by Metro (through a joint study effort with local jurisdictions and agencies) to meet the state mandated Congestion Management Program

10 Los Angeles County Metropolitan Transit Authority (Metro). Call for Projects Overview. http://www.metro.net/projects/call_projects/

(CMP) Deficiency Plan requirements. The one-time fee would be applied to all types of new development projects to help mitigate the impact of growth on the regional transportation network through transportation improvements. A feasibility study was completed in 2008, yet the program has not yet been adopted.[11]

Local Funding Sources

While the availability of Federal and State grants are adequate sources to fill the gap in necessary funds, they only provide a temporary fix to the ongoing deficit in funding. Regional and local sources can provide a more stable, reliable, and long-term solution to the shortage in transportation improvement funds. However, the limited supply of funds available for transportation improvements and programs are already stretched thin and will require additional sources of revenue to supplement new projects and programs. The following are City's major sources of revenue that fund transportation related projects and programs:

Proposition A Local Transit Assistance Fund

The Proposition A Local Transit Assistance Fund consists of money allocated by the County, based on population. Revenue generated from the ½ cent sales tax is used for the planning administration, and operation of citywide public transportation programs.

Proposition C Transit Improvement Fund

The Proposition C Transit Improvement Fund receives funds from the ½ cent sales tax increase approved in Los Angeles County in 1990. The funds are allocated on a per capita basis and may be used for public transit, paratransit, and the repair and maintenance of streets used by public transit.

Measure R Local Traffic Relief and Rail Expansion Fund

Measure R is a countywide, ½ cent sales tax that funds local and countywide transportation projects and programs. Passed in 2008, this 30-year tax is expected to generate $40 billion, create 210,000 construction jobs, fund vital county and local transportation projects, and accelerate the timeline of projects in development. Measure R local return funds are a key source of revenue used to fund street maintenance and improvement projects, traffic relief, transit programs and upgrades, and bicycle and pedestrian programs.

Measure J and Extension of Measure R

Measure J was an effort to extend the Measure R Transit Sales Tax

11 LACMTA Congestion Management Program. (2013). Metro – Congestion Management Program. http://www.metro.net/projects/congestion_mgmt_pgm/

by another 30 years. The Measure was put on the ballot in June 2012, but failed to receive the necessary 2/3s vote to pass. Revenue from the 30-year period was expected to be approximately $90 billion from 2039-2069. While Measure R will not expire until 2039, there is still a need to plan for a funding mechanism or tax that will replace it.

Additional Funding and Leveraging Opportunities

In addition to sources of transportation funding that it has not traditionally relied upon, the City may be able to secure transportation dollars in the future through several existing, but as yet untapped or underutilized, sources of funds. Moreover, the City could potentially benefit from entirely new sources- sources that do not yet exist but are being considered by transportation policymakers and stakeholders.

Special Revenue Funds

According to the City Controller's Office, as of June 30, 2012 there are over 500 Special Revenue Funds in the City of Los Angeles. These funds consist of fees and monies collected for specific purposes and have specific expenditure provisions. While many accounts are actively being used, there is a possibility that the balances of many inactive funds can be used for transportation improvements.

Bicycle Plan Trust Fund

Following the adoption of the Citywide Bicycle Plan in 2010, the City created the Bicycle Trust Fund in 2011 to collect developer mitigation fees. These fees are used to fund the implementation of bicycle projects and programs of the Bicycle Plan. The City requires conditions of approvals or development agreements, for land use projects, that include the contribution of funds to implement improvements that benefit surrounding communities.

Developer Trust Funds

The City has created 10 trust funds (funded primarily with the Transportation Impact Assessment Fee) that are dedicated for specific transportation projects.

High Priority Projects

There may be an opportunity for the City to obtain 80% of the funding for its unfunded capital projects from Congressional earmarks for "High Priority Projects." The process for obtaining High Priority Project funding is highly discretionary and may not

be dependent on well-defined funding criteria. The City would benefit by seeking support for projects through a congressional representative .

Congestion Pricing (Currently being studied by SCAG)

Utilizing a fee or charge to make the best use of existing/future investments in highway, roadway, and/or parking infrastructure. Fees would depend on congestion at the time of use; users would pay more during peak periods of travel or high demand. Different types of congestion pricing include:

- **Facility Pricing.** Charges a toll for the use of all lanes of a road, a bridge, or a short road segment
- **Express Lanes.** HOT lanes; separate lanes of freeway
- Cordon Pricing. Fee is charged every time a vehicle crosses a boundary in/out of a congested area
- **Express Parking.** Pricing of parking varies by weekday, weekend, and availability
- **Area Wide Pricing.** Charge is applied to vehicle driving anywhere in a larger area)county or region)
- **VMT.** Fee is applied based on the number of miles traveled (used instead of the gas tax, see below)
- **Emissions Fees.** Variable fees based on the level and type of emissions/pollutants a classification of vehicles produce (encourage a shift to cleaner burner engines..) [12]

Congestion Mitigation Fee

Metro proposed a countywide Congestion Mitigation Fee Programs to meet the State-mandated requirements of the Congestion management Program (CMP) Deficiency Plan to mitigate the impact of new development (2003). The Congestion Mitigation Fee would be applied to new development projects seeking a building permit. This one-time fee would be used to fund transportation projects in each jurisdiction's project list. Each jurisdiction determines the specific fee-per-trip by developing a transportation list that takes into account expected growth in the city and would also generate a fee schedule by land use type.[13]

12 Southern California Association of Governments SCAG. (2011). *Express travel choices Study*. http://www.expresstravelchoices.org/docManager/1000000066/FAQ_110113.pdf

13 Metro. Congestion Management Program: Congestion Mitigation Fee Study. http://media.metro.net/board/Items/2013/05_may/20130515p&pitem15.pdf

Although Metro is the Congestion Management Agency, revenue collected by each jurisdiction would stay in the City; control over projects and spending would stay in the local government.

Container Fees

Metro proposed, subject to State legislative approval, the imposition of $30 fee on each container entering the Port of Los Angeles. This fee would generate $300 million annually for the County, of which the City would receive $116.2 million .

Rental Car Fees

Many states and cities across the country assess a rental car tax to offset the impact of those cars on streets and highways- the State of California and the City of Los Angeles do not. If the City were to levy a 2% tax on all car rentals in the City it could generate $7 million annually.

Developer Mitigations

Funding through mitigation fees or development agreements can be used strictly for street improvement in the area, rather than beautification projects.

Trash Franchise Fees

The fees collected through a Franchise Fee could be used to repair roads used by private and/or public haulers. There would be a logical nexus between the fee and the use of revenue because a truck carrying 10 times the weight of a car does 1,000 times more damage to a road than a car.

General Obligation Bond (Street/Infrastructure Bond)

Is backed by revenue from property taxes and requires a two-thirds voter approval.

Incremental Sales Tax Assessment

In July 2011, the State Tax dropped 1 percent, reducing Los Angeles County's Sales Tax to 8.75. A voter-approved increase of 1/4th of 1 percent by the City would result in $100 million annually. **However, it is significant to note that in 2012 voters failed to approve (Measure J) an extension of the current half-cent tax (Measure R). Measure R will expire in 2039.*

Special Tax Assessment

An assessment district can be created, at the request of a majority of property owners, to finance improvements in the defined area. All

property owners that benefit from improvements would be subject to an assessment (based on how much the property is expected to benefit from the improvement).

Mello-Roos District

The City can form a special, community facilities district (subject to two-thirds approval of property owners in the area) that can finance public infrastructure through the sale of bonds.

Infrastructure Financing District (IFD)

The City or County can create IFDs to pay for regional scale public works projects. IFDs divert property tax increment revenue for up to 30 years. These funds cannot be used for maintenance, repairs, operating costs, and services. The City must first develop an infrastructure plan, send copies to all landowners, consult with local governments, hold a public hearing, and gain approval from all local agencies that will contribute its property tax increment to IFD. In addition two-thirds voter approval is required to form an IFD and issue bonds.

Mark Roos District

Local government facilities can be financed by bank bond pools, funded by bond proceeds. The pool (formed under a Joint Powers Authority) can buy any legally issued debt instrument within or without its geographic area.

General Road User Fees

Similar to tolls implemented on highways, user fees can be applied to City streets.

Transportation Utility Fees

Legal difference between fee and tax, using the "rational nexus test"

- Service needs must be directly relatable to those bearing the cost
- The cost must be allocated proportionally to benefits
- The facilities funded must be part of a comprehensive plan; the fee must account for taxes paid toward transportation so property owners are not double-billed
- The fee revenues must be used for their intended purposes in a timely manner

*proposes a direct fee on those using road/ similar to toll roads

America Fast Forward

In response to the growing need for federal financing to improve transportation infrastructure, Metro, the City of Los Angeles, and a number of municipalities in the US proposed legislation to provide more flexible federal bond and loan programs. America Fast Forward proposes a new federal financing approach to leverage transportation projects by using tax code incentive s and credit assistance through two pieces of legislation: Qualified Transportation Improvement Bonds (QTIB) and the Enhanced Transportation Infrastructure Finance and Innovation Act Program (TIFIA). While TIFIA was adopted in 2012, QTIB has yet to be approved. However, QTIB has the support of mayors across the US and provides an opportunity for state and local governments to maximize infrastructure investment through public-private financing mechanisms.

Qualified Transportation Improvement Bonds (QTIB)

Qualified Transportation Improvement Bonds (QTIB) would create a new class of qualified tax credit bonds, similar to those created for forestry, conservation, renewable energy projects, energy conservation, qualified zone academics, and new school construction. The qualified tax credit bonds would be issued by state, local, or other eligible issuers where the federal government subsidizes most or all the interest cost through granting investors annual tax credits in lieu of interest payments. Annual bond authorizations would be $4.5 billion annually; unissued amounts could be carried forward to a future year.[14] The QTIB proposal has not been adopted by Congress, but it reflects the growing demand for more flexible transportation financing.

Enhanced Transportation Infrastructure Finance and Innovation Act Program (TIFIA)

The Transportation Infrastructure Finance and Innovation Act (TIFIA) authorizes the federal government to make conditional credit commitments to large projects or programs that meet national infrastructure investment goals. The U.S. Department of Transportation (USDOT) can provide: secured/direct loans, loan guarantees, and lines of credit. Reauthorization of the Transportation Bill (MAP-21) increased the maximum federal share on projects from 33 percent to 49 percent.[15] This guarantees lower interest rates for transportation agencies and decreases the overall cost of projects. Eligible projects must have costs that equal or exceed at least one of the following:

14 Metro. America Fast Fordward. http://americafastforward.net/

15 Metro. America Fast Forward: The TIFIA Provision. http://americafastforward.net/wp-content/uploads/2013/03/AFF_TIFA.pdf

- $50 million;
- $25 million for a rural project;
- $15 million for an intelligent transportation system (ITS) project; or
- 1/3 of the most recently-completed fiscal year's formula apportionments for the States in which the project is located.

Bicycle Transportation Account Matrix

To be eligible for Bicycle Transportation Account (BTA) funds, a city or county must prepare and adopt a Bicycle Transportation Plan (a component integrated into the Mobility Plan) that addresses items a. - k. in the CA Streets and Highways Code Section 891.2.

a) The estimated number of existing bicycle commuters in the plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the plan.

b) A map and description of existing and proposed land use and settlement patterns which shall include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, and major employment centers.

c) A map and description of existing and proposed bikeways.

d) A map and description of existing and proposed end-of-trip bicycle parking facilities. These shall include, but not be limited to, parking at schools, shopping centers, public buildings, and major employment centers.

e) A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These shall include, but not be limited to, parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.

f) A map and description of existing and proposed facilities for changing and storing clothes and equipment. These shall include, but not be limited to, locker, restroom, and shower facilities near bicycle parking facilities.

g) A description of bicycle safety and education programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the Vehicle Code pertaining to bicycle operation, and the resulting effect on accidents involving bicyclists.

h) A description of the extent of citizen and community involvement in development of the plan, including, but not limited to, letters of support.

i) A description of how the bicycle transportation plan has been coordinated and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, programs that provide incentives for bicycle commuting.

j) A description of the projects proposed in the plan and a listing of their priorities for implementation.

k) A description of past expenditures for bicycle facilities and future financial needs for projects that improve safety and convenience for bicycle commuters in the plan area.

The locations of where the required items (a-k) can be found in the Plan will be displayed in the final version of this Plan, after the comment period closes.

Glossary Of Common Transportation Terms

Accessibility: Accessibility is the ability to reach destinations. While mobility focuses on *how* you are getting somewhere, accessibility emphasizes *where* you are going and incorporates land use aspects within transportation planning. Accessibility is the goal of a good transportation system with the end result of increasing the ease of traveling to desired destinations such as jobs, recreation, and other resources.

Active Transportation: consists of pedestrians and bicyclists. Active transportation refers to an interconnected system of pedestrians and bicyclists that are better integrated with and more likely to use public transit.

Alignment: identifies the general location of a current or future roadway.

At-grade crossing: A junction where bicycle path or sidewalk users cross a roadway at the same level as motor vehicle traffic, as opposed to a grade-separated crossing where users cross over or under the roadway using a bridge or tunnel.

ATSAC: Automatics Traffic Surveillance and Control. Developed during the 1984 Olympics, the System monitors and adjusts the traffic signal system based on real-time data to help alleviate traffic congestions.

Bicycle-Enhanced Network (BEN): The BEN is a network of streets that will receive treatments that prioritize bicyclists. This network is a subset of the 2010 Bicycle Plan and will supplement the system.

Bicycle facilities: A general term used to describe all types of bicycle-related infrastructure including linear bikeways and other provisions to accommodate or encourage bicycling, including bicycle racks and lockers, bikeways, and showers at employment destinations.

Bicycle Friendly Street (BFS): A new Class III facility introduced by this Plan a BFS will include at least two engineering street calming treatments in addition to signage and shared lane markings.

Bicycle Lane: A striped lane for one-way bicycle travel on a street or highway. Caltrans refers to this facility as a Class II bikeway.

Bicycle Path: A paved pathway separated from motorized vehicular traffic by an open space or barrier and either within the highway rights-of-way or within an independent alignment. Bicycle paths may be used by bicyclists, skaters, wheelchair users, joggers, and other non-motorized users. Caltrans refers to this facility as a Class I Bikeway which "Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with cross flow of

motorists minimized."

Bicycle Route: A shared roadway specifically identified for use by bicyclists, providing a superior route based on traffic volumes and speeds, street width, directness, and/or cross-street priority, denoted by signs only. Caltrans refers to this facility as a Class III Bikeway – "Provides for shared use with pedestrian or motor vehicle traffic."

Bike Boulevard: A roadway that motorists may use, but that prioritizes bicycle traffic through the use of various treatments to slow motorists and enhance the bicycle level of service. Directional signage, bicycle amenities, and other enhancements are most often used together.

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

California Department of Transportation (Caltrans): State agency responsible for the design, construction, operation, and maintenance of the State highway system (includes interstate and state highways)

California Environmental Quality Act (CEQA): CEQA was enacted in 1970 to protect the environment by requiring public agencies to analyze and disclose the potential environmental impacts of proposed land use decisions. Any public or private project with potential adverse effects upon the environment is subject to CEQA and must be reviewed by decision makers and the public. For more information, visit the California Natural Resources Agency page on CEQA Guidelines.

CA MUTCD: The CALTRANS Manual on Uniform Traffic Control Devices, which designates standards for signage and pavement markings.

Capacity: Capacity is the measure of a transportation facility's ability to accommodate a moving stream of people or vehicles in a given period of time.

Class I Bikeway: CALTRANS HDM designation. See "bicycle path".

Class II Bikeway: CALTRANS HDM designation. See "bicycle lane".

Class III Bikeway: CALTRANS HDM designation. See "bicycle route".

Clearance, lateral: Width required for safe passage of bicycle path users as measured on a horizontal plane.

Clearance, vertical: Height required for safe passage of bicycle path users as measured on a vertical plane.

Complete streets: Also known as living streets, complete streets are designed to be safe and comfortable for road users of all modes, ages, and abilities. This includes: pedestrians, public transit vehicles and riders, bicyclists, and motorists.

Complete Streets Networks: A layering of different street networks based on mode of transportation, with each layer incorporating complete streets principles. The concept of Complete Streets Networks is being utilized in this update of the Mobility Element.

CTCDC: The California Traffic Control Devices Committee establishes standards and designs for the signs, stripping, pavement markings and signalization included in CA MUTCD.

CROW Manual: Bicycle facility and design manual from the Netherlands.

Enhanced Complete Street System: Is a network of major streets that facilitate multi-modal mobility within the citywide transportation system. This system consists of four networks: Pedestrian-Enhanced Districts (PEDs), Bicycle-Enhanced Network (BEN), Transit-Enhanced Network (TEN), and the Vehicle-Enhanced Network (VEN). The four proposed networks work together as a layered network of complete streets.

Environmental Impact Report (EIR): An environmental impact report is a document that describes and analyzes the significant environmental effects of a project and discusses ways to mitigate or avoid these effects (California Code of Regulations §15362). An EIR is required under CEQA if an initial study indicates that a proposed project may cause one or more significant effects on the environment.

"First-mile, last-mile" solutions: A term used in transportation planning to illustrate the hurdle of getting people to and from a transportation hub and their final destination. An example of a first/last-mile solution in the city of Los Angeles is the DASH system in Downtown. It connects people from Union Station to their workplace and vice versa on their commutes home. Another solution could be compact, foldable bikes that can easily be brought onto buses, rail, or trains. First and last mile solutions encourage the use of public transport by offering easy ways to connect people to and from their final destinations. See the City's 2009 "Maximizing Mobility in Los Angeles" for more information about first-mile, last-mile solutions in LA.

Gaps

Connection Gaps: Connection gaps are missing segments (1/4 mile long or less) on a clearly defined and otherwise well-connected bikeway. Major barriers standing between bicycle destinations and clearly defined routes also represent connection gaps.

Linear Gaps: Similar to connection gaps, linear gaps are 1/2-to one-mile long missing link segments on a clearly defined and otherwise well-connected bikeway.

Corridor Gaps: On clearly defined and otherwise well-connected bikeway, corridor gaps are missing links longer than one mile. These gaps will sometimes encompass an entire street corridor where bicycle facilities are desired but do not currently exist.

System Gaps: Larger geographic areas (e.g., a neighborhood or business district) where few or no bikeways exist would be are identified as system gaps. A geographic gap is identified where the density of bikeways in one part of the City is less than the density of bikeways in another part of the City.

General Plan: The policy foundation for all growth and land development in a jurisdiction. The City of Los Angeles General Plan consists of the Framework Element, eight additional elements, and 35 Community Plans forming the Land Use Element. The Mobility Element will replace the City's 1999 Transportation Element.

Geographic Information System (GIS): A collection of computer hardware, software, and geographic data for capturing, storing, manipulating, analyzing, and displaying all forms of geographically referenced information.

Geometry: The vertical and horizontal characteristics of a transportation facility, typically defined in terms of gradient, degrees, and super elevation.

Goods movement: The transport of for-sale products from their manufacturing origin to their final destination where they will be sold. Moving goods can involve many different types of transport such as airplanes, cargo ships, trains, and trucks.

Grade-separated crossing: A bridge or tunnel allowing pedestrians and bicyclists to cross a major roadway without conflict.

Green streets: Streets that incorporate environmentally-friendly design or infrastructure. Examples of green street measures are permeable paving and native plant landscaping, which can both

help conserve water and reduce urban runoff without sacrificing aesthetic quality.

Highway Design Manual (HDM): Caltrans Highway Design Manual for the design of transportation facilities including streets and bikeways.

Lead Agency: The primary public agency responsible for managing and carrying out a project. (The City of Los Angeles Department of City Planning is the Lead Agency in the Mobility Element Update project)

Level of service (LOS): Term for the measurement of how well automobile traffic "flows" on a roadway system or how well an intersection functions.

Livable neighborhood: The concept that a neighborhood that meets the needs and desires of its residents, businesses, and visitors. Factors impacting livability include safety, affordability, health, access, sustainability, diversity, or businesses. A livable neighborhood is often described as a neighborhood that kids can play safely in or where people enjoy spending time in their local community.

Loop detector: A device placed in the pavement at intersections to detect a vehicle or bicycle and trigger a signal or provide green time.

Medians: Area in the center of the roadway that separates directional traffic. Medians may be painted and leveled with the surrounding roadway or "raised" using curb and gutter. Medians may include landscaping, concrete, striping or any combination thereof.

Mitigation Measure: If a proposed project is subject to CEQA, mitigation measures are proposed to eliminate, avoid, rectify, compensate for, or reduce that effect on the environment.

Mobility: Mobility is the ability to move around. It takes into consideration how people are getting from place to place (i.e. walking, biking, bus, auto, etc) and how fast. In general, improving mobility improves accessibility.

Mode share: Also called mode split, refers to the number or percentage of travelers using a certain mode of transportation.

MPP LADOT: Manual of Policies and Procedures used by the City's Department of Transportation

Multi-modal transportation: Refers to a transportation system

that considers various modes or ways of getting around (public transit, walking, biking, car, etc.)

MUTCD: Federal Manual on Uniform Traffic Control Devices, which designates standards for signage and pavement markings. CA MUTCD has jurisdiction in California.

Non-Motorized Transportation: Refers to modes of travel such as walking and biking. (also includes equestrians)

Notice of Preparation (NOP): A Notice of Preparation is a document stating that an EIR will be prepared for a particular project. It is the first step in the EIR process (14 California Code of Regulations §15082). The NOP includes a description of the project, location indicated on an attached map, probable environmental effects of the project.

Paved shoulder: The outer edge of the roadway beyond the outer stripe edge that provides a place for bicyclists when it is wide enough (3 ft. minimum), free of debris, and does not contain rumble strips or other obstructions.

Pavement marking: Any marking on the surface of the pavement that gives directions to motorists and other road users in the proper use of the road. The MUTCD determines the standard marking in California for state and local use.

Pedestrian-Enhanced Destinations (PEDs): The PEDs are areas where pedestrian improvements are prioritized relative to other modes. These areas may be located near schools, transit stations, areas of high pedestrian activity, areas with high collision frequency, or other placemaking opportunity areas.

Performance metrics: Standards and measurements for performance results. In transportation planning, the most commonly used performance metrics measure vehicle throughput and delay (congestion).

Refuge islands: Raised medians which may be used by pedestrians or bicyclists at intersections or mid-block for assistance with crossing wide streets or signalized intersections.

Regional Transportation Plan (RTP): A plan to meet the region's long-term mobility needs by connecting transportation and land use policy decisions. The RTP is prepared by the Southern California Association of Governments (SCAG), which is the Metropolitan Planning Organization (MPO) of this region.

Right of way (ROW): The legally granted access that a roadway or other transportation facility can use. It is important to note that the

right of way can extend beyond the asphalt in a street and can also include non-street land such as former railroad lines.

Sensitive receptors: A term from the Environmental Protection Agency that refers to areas with occupants more susceptible to the adverse effects of exposure to toxic chemicals, pesticides, and other pollutants. Sensitive receptors include (but are not limited to) hospitals, schools, daycare facilities, elderly housing and convalescent facilities.

Shared pathway: A path that permits more than one type of user, such as a path designated for use by both pedestrians and bicyclists.

Shared roadway: A roadway where bicyclists and motor vehicles share the same space with no striped bicycle lane. Any roadway where bicycles are not prohibited by law (i.e. interstate highways or freeways) is a shared roadway.

Sight distance: The distance a person can see along an unobstructed line of sight.

Single-occupancy vehicle: A private car that is being used to transport only one person, the driver.

Southern California Association of Governments (SCAG): SCAG is a Joint Powers Authority and the Metropolitan Planning Organization (MPO) for this region. Their main task is to develop a Regional Transportation Plan (RTP) and Federal Transportation Improvement Program (FTIP) every four years. These documents identify transportation priorities for the region.

Street classifications: Arterial – Major streets that are very wide with multiple lanes; Non Arterial – Local streets that are not very wide. These are the type of streets that usually run through neighborhoods. Learn more about street classifications here.

Streetscape: The visual appearance, physical forms, and character of a street. Examples of streetscape elements include roadways, medians, sidewalks, street furniture, crosswalks, signs, open space, and landscaping, among many other factors. View common street features in our Street Features Glossary.

Traffic calming: Changes in street alignment, installation of barriers, and other physical measures employed to reduce traffic speeds and/or cut-through traffic volumes in the interest of street safety, livability, and other public purposes.

Traffic control devices: Signs, signals, or pavement markings whether permanent or temporary, placed on or adjacent to a travel

way by authority of a public body having jurisdiction to regulate, warn, or guide traffic. CA MUTCD/MUTCD designates standards.

Traffic volume: The number of vehicles that pass a specific point for a specific amount of time (hour, day, year).

Transit-Enhanced Network (TEN): The proposed TEN will improve existing and future bus service on arterial streets by prioritizing improvements for transit riders.

Transportation Demand Management (TDM): Strategies that influence long-term travel behavior. The aim of TDM is to improve mobility and decrease negative impacts such as traffic congestion and air pollution. TDM strategies can include: ride-sharing, providing commuter subsidies, promoting walking and biking, and encouraging flexible work schedules.

Transportation System Management (TSM): Strategies that make better use of the existing transportation system by improving signalization, re-striping lanes for turning vehicles, or providing real-time traffic information. TSM strategies aim to increase efficiency and capacity in the short-term.

Utilitarian trips: Trips that are not for recreational purposes, such as running errands.

Vehicle Enhanced Network (VEN): The proposed VEN consists of enhancements, on a select group of streets, to prioritize the efficient movement of motor vehicles.

Wayfinding signs: Signs typically placed at road and bicycle path junctions (decision points) to guide bikeway users toward a destination or experience.

Walkable neighborhood: A neighborhood in which people can safely and easily walk to a variety of local destinations and resources.

Wide curb lane: A 14 foot (or greater) wide outside lane adjacent to the curb of a roadway, that provides space for bicyclists to ride next to (to the right of) motor vehicles. Also referred to as a "wide outside lane". If adjacent to parking, 22 feet in width may also be considered a wide curb lane.

Glossary Of Acronyms

AASHTO	American Association of State Highway and Transportation Officials
AB	Assembly Bill
APC	Area Planning Commission
BAC	Bicycle Advisory Committee (City of Los Angeles)
BFS	Bicycle Friendly Street
BLOS	Bicycle Level of Service
BoE	Bureau of Engineering (Department of Public Works)
BoS	Bureau of Sanitation (Department of Public Works)
BP	Bicycle Plan
BPIT	Bicycle Plan Implementation Team
BRT	Bus Rapid Transit
BSL	Bureau of Street Lighting (Department of Public Works)
BSS	Bureau of Street Services (Department of Public Works)
BTA	Bicycle Transportation Account (Caltrans)
BTSP	Bicycle Transportation Strategic Plan (Metro)
CA DMV	California Department of Motor Vehicles
CA MUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CDL	Commercial Driver License
CEQA	California Environmental Quality Act
CFP	Call for Projects (Metro)
CMAQ	Congestion Mitigation and Air Quality
CRA	Community Redevelopment Agency
CSHTS	California Statewide Household Travel Survey

CTCDC	California Traffic Control Device Committee
DBS	Department of Building and Safety
DCP	Department of City Planning
DEIR	Draft Environmental Impact Report
DOT	Department of Transportation
DPW	Department of Public Works
DUI	Driving Under the Influence (of alcohol or drugs)
EAD	Environmental Affairs Department
EIR	Environmental Impact Report
GHG	Greenhouse Gas
GIS	Geographic Information System
GSD	General Services Department
HDM	Highway Design Manual (Caltrans)
HSIP	Highway Safety Improvement Program
ITA	Information Technology Agency
LACMTA	Los Angeles County Metropolitan Transportation Authority (also Metro)
LAMC	Los Angeles Municipal Code
LAPD	Los Angeles Police Department
LAUSD	Los Angeles Unified School District
LAWA	Los Angeles World Airports
LOS	Level of Service
Metro	Los Angeles County Metropolitan Transportation Authority (also LACMTA or MTA)
MUTCD	Manual on Uniform Traffic Control Devices (Federal)
NHTS	National Household Travel Survey
OTS	Office of Traffic Safety (State of California)

PBCAT	Pedestrian and Bicycle Crash Analysis Tool
PMS	Pavement Management System
POLA	Port of Los Angeles
PSA	Public Service Announcement
RAP	Recreation and Parks
ROW	Right-of-Way
RTP	Recreational Trails Program
RTPA	Regional Transportation Planning Agency
RUS	Recreational Use Statute
SAFTEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SB	Senate Bill
SCAG	Southern California Association of Governments
SCS	Sustainable Community Strategy
SLM	Shared Lane Marking (also "sharrow")
SLPP	State Local Partnership Program
SR2S	Safe Routes to School (CA State Program)
SRTS	Safe Routes to School (Federal Program)
SWITRS	Statewide Integrated Traffic Records System
TDA	Transportation Development Act
TEA-21	Transportation Equity Act of the 21st Century
TIMP	Traffic Impact and Mitigation Studies
VMT	Vehicle Miles Traveled