metro.net/longrangeplan

I want a mobile future.

2009 Long Range Transportation Plan

Metro®

Board of Directors

Ara Najarian	*Board Chair, City Council Member, Glendale*
Don Knabe	*First Vice Chair, Los Angeles County Supervisor, Fourth Supervisorial District*
Antonio R. Villaraigosa	*Second Vice Chair, Mayor of City of Los Angeles*
Michael D. Antonovich	*Los Angeles County Supervisor, Fifth Supervisorial District*
Diane DuBois	*City Council Member, Lakewood*
John Fasana	*City Council Member, City of Duarte*
José Huizar	*City Council Member, City of Los Angeles*
Richard Katz	*City of Los Angeles Mayor Appointee*
Gloria Molina	*Los Angeles County Supervisor, First Supervisorial District*
Pam O Connor	*Mayor Pro Tempore, Santa Monica*
Mark Ridley Thomas	*Los Angeles County Supervisor, Second Supervisorial District*
Rita Robinson	*City of Los Angeles Mayor Appointee*
Zev Yaroslavsky	*Los Angeles County Supervisor, Third Supervisorial District*

To the People of Los Angeles County:

Just as our parents invested in the interstate highway system to provide for the mobility needs of future generations, we are investing in our transportation system to provide a legacy for our children and grandchildren. Thanks to Los Angeles County voters who overwhelmingly passed Measure R in November 2008, a wide range of new transit and highway projects will be built across the County. These projects have now been added to the 2009 Long Range Transportation Plan, which will serve as Metro's vision for improving mobility over the next thirty years.

The Plan responds to our emerging environmental challenges by providing alternatives to driving alone. This Plan will improve mobility, stimulate our local economy, and create jobs. It is an ambitious countywide transportation program that continues to enhance our public transit program by investing in our bus system while expanding our rail system by building 15 major transit corridor projects. The Plan looks toward highway investments that will untie gridlock, such as new carpool lanes and other improvements that ease both auto and truck traffic. And the Plan also invests in many other programs, including arterial capacity and speed improvements, transit operations, highway maintenance, bicycle and pedestrian improvements, carpool programs, and transit services for the disabled.

The Plan also contains various new innovative initiatives. We have secured federal funds to implement the Congestion Reduction Demonstration Project, a congestion pricing initiative on the I-10 and I-110 freeways. The goal is to improve mobility on these two corridors through high occupancy toll (HOT) lanes, as well as to provide improved transit and vanpool services. We have reported on how the Plan works toward reducing greenhouse gas emissions by funding alternatives to driving alone. And beyond the Plan, we will assist our subregions and cities in understanding and implementing the greenhouse gas requirements of SB 375. Now that the federal government has proposed $2.3 billion toward construction of a high-speed rail system in California, we will continue to actively work with state and federal agencies in planning for its implementation.

ANGELENOS ARE FED UP WITH **TRAFFIC** AND WANT **RELIEF** **SOONER** RATHER THAN LATER.

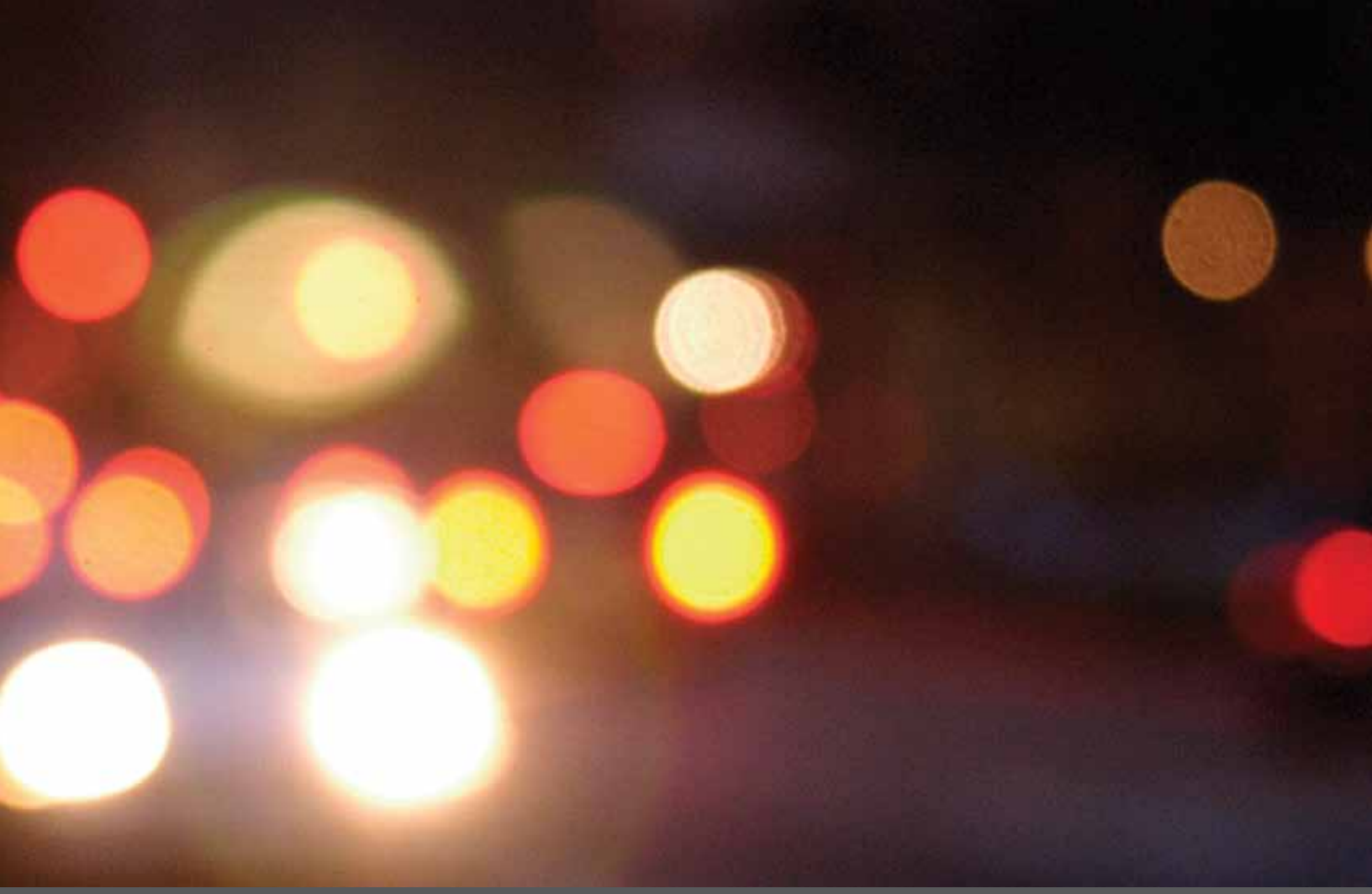
Angelenos are fed up with traffic and want relief, sooner rather than later. Metro is proud to be entrusted with building this legacy, one that will reshape the urban landscape and enhance the quality of life in a metropolitan area that is destined to be not only the nation's most populous but its most vibrant. It all comes together in a $300 billion Plan that is a springboard into the future.

We have adopted a Plan that includes a strong local funding commitment – perhaps the largest locally financed Plan in the country. But there is more work to be done. This Plan cannot be successful resting on the efforts of the citizens of Los Angeles alone. If projects are to move forward on schedule, we must also be able to rely on getting our fair share of funds from our state and federal partners. Also key to the Plan's success is a robust rebound of our local economy. If our assumptions on federal, state and local funds are not met, the ability to deliver this Plan is at risk. Metro will be calling upon our partners in the environmental, labor, and business communities, as well as our legislative leaders in Sacramento and Washington, to speak with one voice and ensure that we have the resources that we need to make our hard-won local efforts a reality.

Arthur T. Leahy
Chief Executive Officer

Table of Contents

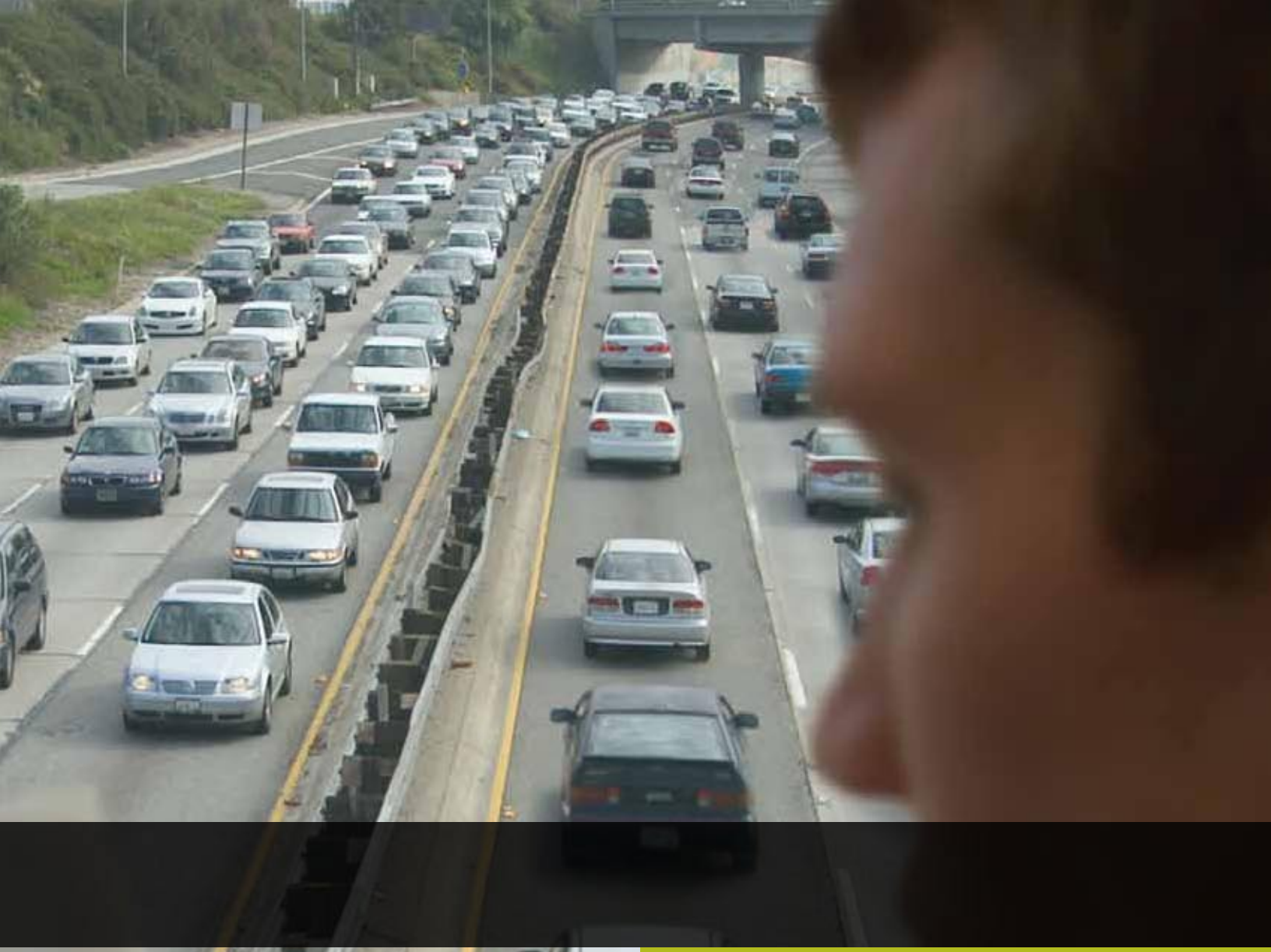
List of Illustrations



Maps

Tables


I want a better commute.



> Whether you re going to work or to the grocery store, everyone wants faster travel, more transportation options, and less traffic.

> However, freeway traffic speeds could drop an average of 16 miles per hour by 2040, largely because of population and employment growth.

> This 2009 Plan will invest nearly $300 billion over the next 30 years to develop a balanced transportation system that will provide new options for travel.

> This 2009 Plan calls for investments to expand the Metro Rail system by another 105 miles and build 170 more miles of carpool lanes.

> The success of this 2009 Plan relies not only on local funding but on receiving our fair share of state and federal funds.


I want a better quality of life.

- More than 81 percent of Los Angeles County residents surveyed in 2008 agree that air pollution is a serious problem, and the threat of climate change to the economy and our quality of life is serious.
- This 2009 Plan builds upon Metro s actions as a leader in more sustainable transportation options, transit-oriented development, and renewable power.
- The single most e ective action a household can take to reduce their carbon emissions footprint* (up to 30 percent) is replacing one car in a two-car family with transit and bicycling.
- Metro is exploring all conservation and smart growth opportunities at our transit stations to meet the environmental challenge.

* A carbon footprint is the total amount of carbon dioxide (CO_2) and other greenhouse gases emitted over the full life cycle of a product or service consumed.

I want clean and safe goods

movement.

> Our local ports are the busiest container ports in the country.

> Truck miles traveled in the County are projected to grow by 33 percent on our crowded freeways by 2030.

> Our freeways will see more trucks on them in the future. The I-710 Freeway alone carries over 38,000 trucks each day.

> This 2009 Plan will support improved operational practices and will utilize the most efficient and environmentally friendly means of transporting goods destined for consumption within and outside the County.

> A regional action plan will help our environment, economy and transportation system prosper and ensure that goods make it to market on time.


I want to fund mobility.

> Nearly $300 billion will be spent over the next 30 years to keep Los Angeles County moving. However, it won t be enough to meet all of our mobility goals.

> We need Sacramento to return the gasoline sales tax funding the voters ratified twice to improve the transportation system, first in 2002 (Proposition 42), and again in 2006 (Proposition 1A).

> We also need to explore new sources of funding, such as public-private partnerships, congestion mitigation fees, and all self-help approaches that would fund new projects that reduce gridlock and keep us moving.

> In the end, we must all re-double our e orts to increase transportation funding and maintain existing resources. Our region s mobility and quality of life depend on it.

FIGURE A

Highways 1980

FIGURE B

Highways 2009

We imagined a real system.

Thirty years is a long time. However, with vision and commitment, we've made major improvements to LA County's transportation system.

That's the objective of this 2009 Plan. To see how much can be accomplished in 30 years, one only has to look back to 1980. (FIGURES A-D).

Highway and Arterials

In 1980, Los Angeles County had one carpool lane on the El Monte Busway. Since then, we've made a significant number of improvements to our roadway system. We've added 491 miles of carpool lanes that criss-cross the region. In addition, we've built SR-118 and I-105 and closed the I-210 gap. More than 100 route miles of major arterials have been added, and over 5,000 intersections have had signal timing equipment installed that keeps major streets moving in a coordinated fashion.

Metro Rail and Transitways

Since 1980, the Metro Rail system has become one of the largest urban rail systems in the United States. The Metro Blue Line began operation in 1990, followed by the Metro Red Line openings in 1993, 1996, 1999, and 2000, the Metro Green Line in 1995, the Metro Gold Line in 2003, and the Metro Gold Line Eastside Extension in 2009. Today, the 79-mile Metro Rail system moves nearly 290,000 passengers each weekday.

We've also expanded our transitway system an additional 24 miles by opening the Harbor Transitway in 1996 and the Metro Orange Line in 2005.

Metro Rapid

The Metro Rapid program provides a new type of bus service throughout the County. Implemented in June 2000, the Metro Rapid program has expanded to operate along a total of 27 corridors and carry over 220,000 passengers daily.

Metrolink

The Metrolink regional commuter rail system was developed, providing long-distance train service throughout the Los Angeles region. Since the first three lines began service in 1992, Metrolink has expanded its service to six counties and 512 route miles. Today, Metrolink carries

FIGURE C

Fixed Guideways/Transitways 1980

FIGURE D

Fixed Guideways/Transitways 2009

And we built it.

an average of 42,000 passenger trips daily, improving congestion on freeway facilities such as I-5 and I-10.

The Bottom Line

Since 1980, we've seen population grow by 32 percent, with 2.4 million new residents in the County. With the improvements made to the transportation system over the past 30 years, we've been able to hold the line on congestion and traffic. The Texas Transportation Institute's (TTI) 2009 Urban Mobility Report shows that Los Angeles remains one of the most congested urban areas, but it also shows that our transportation investments have paid off. The TTI study shows that although annual highway delay per person increased by 25 hours between 1982 and 1997, it has increased by only one hour since 1997. The study also shows our public transportation system now reduces 32.3 million hours of travel time and saves our bus and rail riders nearly $590 million in costs.

The past 30 years show that a balanced approach to planning can make a difference in traffic and congestion, even as we add more residents to the County. Our collective challenge is to keep up the good work for the next 30 years and beyond.

Accomplishments Since the 2001 Plan

Public Transportation

> Began service in 2002 on Metrolink's 91 Line
> Started EZ transit pass program in 2002
> Opened Metro Gold Line in 2003
> Opened Metro Orange Line in 2005 and began construction on the Canoga Extension in 2009
> Began construction on Exposition Light Rail Line in 2006
> Opened Metro Gold Line Eastside Extension in 2009
> Converted Metro bus fleet from 47 percent diesel to almost 100 percent alternate fuel
> Expanded Metro Rapid Program by 25 lines

Highway

> Added 114 lane miles to the carpool system including lanes on the I-5, I-10, SR-14, I-210 and I-405
> Completed the I-210 Extension in 2002
> Completed five Major Corridor Studies, including the I-710, US-101, I-5, I-405, and I-5/SR-14/SR-138, and the SR-710 North Extension (Tunnel) Feasibility Assessment

We're creating a better world.

> In the last 30 years, Metro has built or funded one of the most extensive public transit, carpool, and bicycle lane networks in the country.

> This 2009 Plan will fund bikeways and transit, which can remove about six metric tons of air pollution and about 1,370 metric tons of greenhouse gas emissions (GHGe) daily.

> Metro will partner with local, state and federal agencies, businesses and community stakeholders to learn and identify new opportunities to meet this challenge.

Local Air Quality Challenge

In 2009, Los Angeles had the worst air quality in the nation. Metro has made significant investments in clean air programs, including the largest compressed natural gas (CNG) bus fleet in the nation. Buses fueled by CNG are up to 97 percent cleaner than diesel buses, because they emit little cancer-causing particulate matter. These actions alone have made significant contributions toward reducing air pollution; however, the Los Angeles region still needs to do more.

Through new transit, bicycling and carpool projects, this 2009 Plan reduces air pollution by an estimated six metric tons daily by 2040. Through its public-private partnerships, Metro will help to build nearly 4,000 units of mixed-income housing at its transit stations, providing the opportunity to reduce car trips and air pollution. The combined investments in transit, transit-oriented development (TOD) with pedestrian and bicycle-oriented streets, and clean goods movement strategies will help the County to improve air quality.

FIGURE E

Greenhouse Gas Emissions

METRIC TONS OF CO_2 EQUIVALENT PER DAY

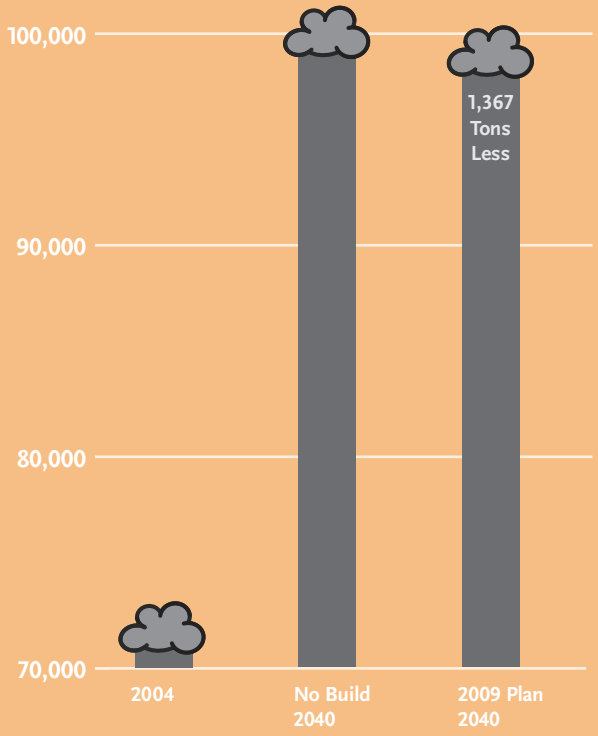
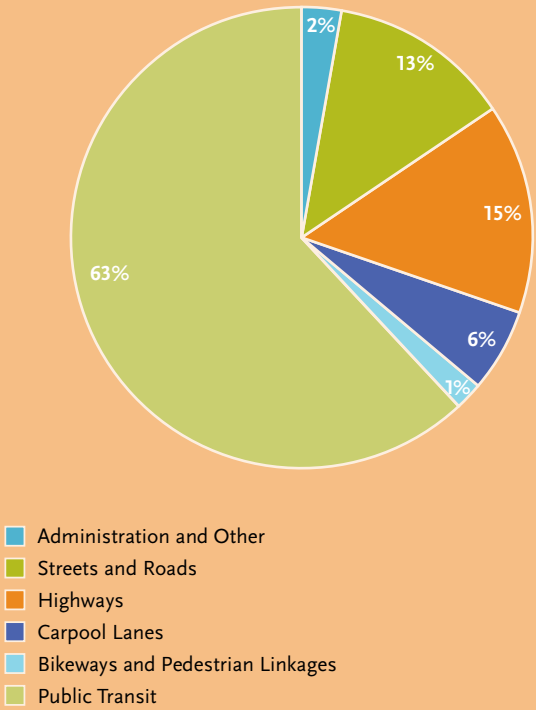


FIGURE F

Metro Funds by Mode



Global Climate Change Challenge

Los Angeles County's 10 million residents generated approximately 29 million daily trips in 2004, resulting in almost 160 million daily vehicle miles traveled (VMT). By 2040 this would grow to almost 230 million daily VMT. This 2009 Plan will help reduce the growth in daily VMT by three million which is substantial considering the 33 percent growth in population and employment.

Based on the average vehicle, one VMT emits approximately one (1) pound of CO2; therefore, this 2009 Plan reduces GHGe by nearly 1,370 metric tons of CO2 equivalent (FIG. E). Increases in vehicle efficiency and implementation of congestion pricing may further reduce GHGe.

In November 2006, Assembly Bill 32 (The California Global Warming Solutions Act of 2006) was signed into law to reduce the state's GHGe. This Act requires a 25 percent reduction in California's GHGe to 1990 levels by 2020. The California Air Resources Board (CARB) is charged with overseeing AB 32. Since transportation is the largest contributor (41 percent) of GHGe in California, Metro's role in providing transportation solutions to meet the 2020 target reductions will become increasingly important.

Metro is committed to continuing our work partnering with residential and commercial/retail development at our transit stations, reducing the carbon footprint of our operations and facilities, and participating with local agencies to increase public transit, bicycling, carpooling, and other ridesharing choice.

Metro's Clean Air and Greenhouse Gas Emissions Reduction Actions

Metro continues to be an environmental leader by investing the majority of its funds (two-thirds) for transit, carpool lanes, ridesharing programs, bikeways, pedestrian linkages (FIG. F) and implementation of transit-oriented development at its transit stations. Increased funding opportunities will be needed in order to help further reduce the growth in VMT and GHGe.

Metro's system will include:

> The largest fleet of CNG-powered buses in the nation;
> More than 228 miles of fixed-guideway/busway including amenities such as bicycle parking facilities at stations;
> More than 634 lane-miles of carpool lanes;
> More than 421,000 metric tons of CO_2 equivalent emissions reduced by getting solo drivers to ride our system (2007 estimate);
> More than 400 miles of Metro Rapid service;
> More than 1,250 miles of bicycle lanes (a bicycle trip does not have GHGe) with an additional 1,145 miles proposed by local jurisdictions;
> An electric bicycle commuter program (a 2007 program showed a reduction of 6,000 vehicle trips and 104,000 annual VMT from 39 electric bicycles);
> Metro's policy of a minimum LEED™* silver-rating for our new facilities, and new joint developments at our transit stations;
> The most solar power generated in the transit industry (2 megawatts) and up to 31 megawatts of capacity;
> More than 30 TODs providing greater access to transit, walking and bicycling; and
> The use of recycled materials and low GHG components in the construction of new projects.

* The Leadership in Energy and Environmental Design green building standards rating system (certified, silver, gold & platinum) developed by the U.S. Green Building Council.

Smart Growth Partnerships are Key to Meeting the Environmental Challenge

Vehicle fuel efficiency, fuel carbon content, and VMT are the key transportation variables of air pollution and GHGe. However, there is no one source of GHGe and air pollution that can be pinpointed; in fact, there are approximately 10 million sources – each and every one of us. The actions and choices we personally make, whether individually or as a family, directly affect the amount of GHGe produced or reduced.

This 2009 Plan and Metro's environmental stewardship alone cannot meet the region's air quality and GHGe reduction targets. Metro must partner with state, federal, and local jurisdictions in reducing local air pollution and GHGe. The federal government regulates vehicle efficiency and allowable fuel emissions. The state and local governments have responsibilities for land use and transportation infrastructure which influence VMT.

The Metro Board has established the Ad-Hoc Sustainability Committee and the Clean Air Task Force. These groups establish guidelines on Metro's role in advancing our region's sustainability. The Metro Board recently adopted an Environmental Management System. This tool allows Metro to set environmental goals and methods to measure the cost impacts and benefits for implementing identified sustainability and climate change strategies. The Metro Board has also established the Ad-Hoc Congestion Pricing Committee to oversee implementation of a congestion pricing demonstration project which could include the collection of tolls to reduce congestion in the urban core while raising revenue.

Metro's influence on the following sustainability actions and measures, in partnership with other agencies and stakeholders, will help reduce congestion, VMT, air pollution and GHGe:

> Cleaner-burning fuels and vehicles, and green construction that uses recycled and other less-polluting materials (the Metro Orange Line, located in the San Fernando Valley, used 100 percent recycled materials for the roadway base, and planted thousands of trees to reduce urban runoff – the model for future Metro projects);
> Sustainable transit projects;
> Demand management (vanpooling, ridesharing, and pricing road and parking use to reduce congestion and emissions);
> Smart growth (mixed-use zoning so people can live near their jobs, schools and the goods and services they need, and get there without relying solely on an automobile); and
> "Complete streets" (designed to serve drivers, transit riders, pedestrians and bicyclists, as well as seniors, children, and persons with disabilities).

METRO MUST **CONTINUE** AS AN ENVIRONMENTAL **LEADER** TO **REDUCE** AIR **POLLUTION** AND GHGE.

The Process

1 ESTABLISH PERFORMANCE CRITERIA

Identify how the benefits of the Plan and new projects will be measured

2 EVALUATE "NO BUILD" SCENARIO

Measure what the future looks like without new transportation investments

3 HONOR PAST COMMITMENTS

Measure what the future looks like with Metro Board funding priorities, including the Constrained 2001 Plan

4 DETERMINE FINANCIAL CAPACITY

> Estimate how much revenue will be available from federal, state, and local sources

> Identify cost to operate transportation system

> Identify remaining revenue available for new projects

We're moving step by step.

The Process

As the state-designated transportation planning and programming agency for Los Angeles County, Metro develops a long-range vision for the transportation system that reflects both regional needs and local concerns. This is an update to the 2001 Long Range Transportation Plan that honors past Board commitments and serves as the primary transportation-planning tool to guide future transportation investments in Los Angeles County through 2040. This 2009 Plan is developed through a process that strives for a balanced transportation program that can meet the needs of a growing County.

How was the Plan Developed?

The development of this 2009 Plan began with a thorough assessment of the analytical tools and assumptions that are used to evaluate transportation solutions. This includes developing a clear picture of Los Angeles today and coming up with a forecast of the future. This 2009 Plan addresses significant changes that have occurred since the 2001 Plan, including projected growth patterns, the latest technical assumptions, and the uncertain transportation funding environment.

During the planning process, data was reviewed which predict where and what the current challenges are on the existing transportation system, where mobility issues could arise in 2040, and how the transportation system could be improved with new investments. This 2009 Plan was built on six key analytical steps as shown above. These are 1) Establish Performance Criteria, 2) Evaluate "No-Build" Scenario, 3) Honor Past Commitments, 4) Determine Financial Capacity, 5) Evaluate Potential New Projects and, 6) Develop Draft Plan Recommendations. These steps are discussed in greater detail in this 2009 Plan's Technical Document.

Public Review Process

The development of this 2009 Plan included public outreach to subregional organizations and local governments to ascertain transportation priorities and unmet needs in their part of Los Angeles County. These are reflected in the Technical Document. Caltrans was also consulted to clarify highway priorities and needs over the next 30 years. This 2009 Plan was circulated for a 45-day public review and comment period. Metro conducted outreach meetings during this review period. Comments were also solicited through Metro's website, e-mail correspondence, and the 2009 Long Range Plan hotline.

What's Next?

This 2009 Plan becomes the guiding policy behind funding decisions on subsequent transportation projects and programs in Los Angeles County. Major capital projects and programs that are identified in this 2009 Plan have priority for future programming of funds. While these projects and programs require further Board approval at various stages of their development, they are priorities for further planning, design, construction, and the pursuit of additional funding.

This 2009 Plan reflects our mobility priorities to regional, state, and federal governments as we try to get our fair share of transportation funds. Metro's long-range priorities will be included in the Southern California Association of Governments' (SCAG) 2008 Regional Transportation Plan, a six-county plan for the region that is required by the federal government. This will ensure that our transportation priorities are eligible for federal funding.

We're building today...

This 2009 Plan lays out a 30-year vision for Los Angeles County's transportation system to 2040.

It is a balanced plan that strategically expands and enhances the current infrastructure and makes the most of our previous transportation resources. It honors past Metro commitments for now and the future, and builds new priorities into the new 30-year Plan (FIG. 6).

This 2009 Plan will:

> Expand the Metro fixed guideway/busway network to over 177 stations covering nearly 230 miles
> Expand the Metro Rapid network to provide over 400 miles of service through 35 cities and the County of Los Angeles
> Continue the commitment to operate and expand the Metrolink commuter rail system
> Continue the commitment to operate the paratransit bus system
> Expand and improve bus and rail transit services throughout the County
> Add 170 carpool lane-miles that fill in critical gaps along the carpool lane network
> Build freeway interchanges and carpool lane connectors
> Expand the Metro Freeway Service Patrol
> Fund arterial, signal synchronization, transportation demand management, bikeway, pedestrian, transit capital and transportation enhancements through the Call for Projects
> Promote rideshare and other Transportation Demand Management strategies that provide options to driving alone

Can we build everything needed? No. This 2009 Plan is a constrained plan that identifies the projected costs of running this transportation system based on a financial forecast of future revenue assumptions. This 2009 Plan also lays out Strategic Unfunded transit and highway projects and programs that reflect the remaining unmet transportation needs for Los Angeles County. These Strategic Unfunded projects and programs, including higher funding for the Call for Projects, could be funded in the event additional transportation resources become available and the Recommended Plan projects are moved to an optimal implementation schedule.

FIGURE G

Public Transportation and Highways – Recommended Plan[1]

and planning for tomorrow.

This 2009 Plan provides mobility for Los Angeles County's future by providing new travel options that will serve us for the next 30 years and beyond. It will improve highway speeds by almost 20 percent and arterial speeds by 15 percent countywide over the no-build scenario. However, meeting the travel needs of over 13 million people in 2040 will require more than new infrastructure and programs outlined in this Plan.

As a County, we must advocate for and implement incentives to encourage alternatives to driving alone, including:

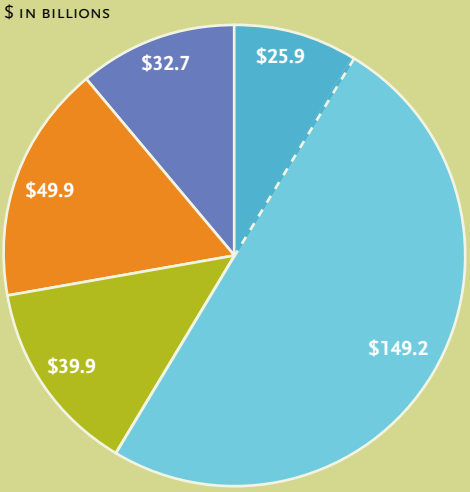
> Smart growth
> Transit Oriented Development
> Congestion pricing/toll lanes or other roadway pricing options
> Increased occupancy requirements for carpool lanes
> Transit/Rideshare incentives
> Flex-schedules and home offices
> Restructured transit to maximum connectivity
> Increased use of Transportation Demand Management
> Promotion of more Transportation System Management
> Use of new technology, including the internet, to help reduce the need for travel and car trips during the peak period
> Energy efficiency and conservation/sustainability
> "Complete Street" design

Only with these kinds of substantial shifts in our everyday behavior can we hope to maintain and even improve traffic in the future. Past Metro studies have shown that we can maintain today's level of mobility and double transit ridership, if we pursue these types of strategies. This should be the ultimate objective for all of us as we move forward in the 21st century.

FIGURE H

Countywide Sources of Funds

$ IN BILLIONS



- Local Return
- Other Local
- Federal
- State
- Measure R

75% of the forecasted funds come from sales tax revenues and competitive grants. Vibrant economic growth and effective grant competition are essential to the Plan.

Total Plan $297.6
FY 05-40

We're using resources wisely...

This 2009 Long Range Transportation Plan lays out a 30-year strategy for keeping Los Angeles County moving and is based on financial forecast of continued economic growth and moderate in ation.

Building, operating, and maintaining the transportation system can only be achieved with available financial resources. This 2009 Plan identifies a $297.6 billion investment in Los Angeles County's transportation system through 2040 (FIG. I). However, even this isn't enough to keep pace with growth, and without the state, federal, and local revenues assumed in this 2009 Plan, delivery of the Plan's projects could be at risk.

Revenue Assumptions

This 2009 Plan is funded with more than 45 sources of federal, state and local revenue (FIG. H). A majority of funding is locally generated through three half-cent voter initiatives, Propositions A and C and now Measure R. In November 2008, more than two-thirds of Los Angeles County voters approved Measure R, providing up to $40 billion in new funding to build many new highway and transit projects.

These local initiatives, other local sources of revenue such as passenger fares, advertising, real estate rentals, bonding, and competitive grants account for 75 percent of Metro's 35-year financial forecast. State funding such as the California voter-approved initiatives Proposition 42 and Proposition 1B is assumed to help fund past commitments in the highway and rail programs.

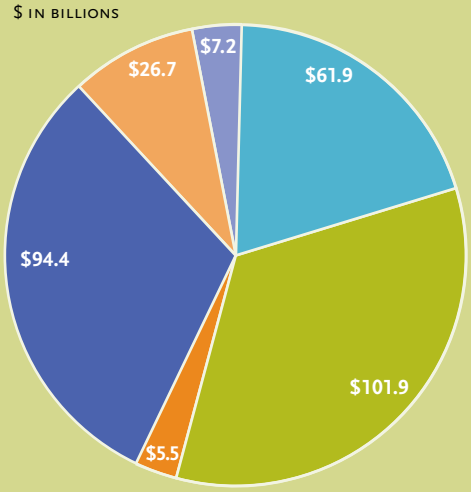
As stated above, an economic recovery and continuation of local, state, and federal transportation funding are critical to the Plan. As of this date, the recovery has not been robust and the state has continued to propose transit funding reductions. We will vigorously pursue our fair share of available and additional funding.

Metro transit fare revenues currently pay for only 29 percent of our cost to operate transit services. Cost savings are essential to improving this percentage to the planned level of 33 percent. Specific cost strategies are being implemented, but fare adjustments will be necessary to avoid serious deterioration in transit service.

FIGURE I

Countywide Use of Funds

$ IN BILLIONS



- Rail Capital and Operations
- Bus Capital and Operations
- Other
- Highways, Streets, Roads, Multimodal
- Debt Service
- Unallocated

Total Plan $297.6
FY 05-40

FIGURE J

Phasing of Forecasted Funds

ESCALATED $ IN BILLIONS

Committed Funds	FY 05 09	FY 10 19	FY 20 29	FY 30 40	PLAN TOTAL
Bus					
Operations	7.0	17.7	24.2	34.2	83.1
Capital	1.8	4.6	5.2	7.2	18.8
Subtotal	**8.8**	**22.3**	**29.4**	**41.4**	**101.9**
Rail and Transit Corridors					
Operations	1.4	4.3	6.9	10.5	23.1
Capital	2.0	15.0	7.6	14.2	38.8
Subtotal	**3.4**	**19.3**	**14.5**	**24.7**	**61.9**
Highway, Streets, Roads, Multimodal					
Operations	3.3	9.7	12.2	16.4	41.6
Capital	5.4	18.9	18.1	10.4	52.8
Subtotal	**8.7**	**28.6**	**30.3**	**26.8**	**94.4**
Debt Service					
Subtotal	**1.5**	**5.7**	**8.8**	**10.7**	**26.7**
Other					
Subtotal	**0.5**	**1.1**	**1.6**	**2.3**	**5.5**
Unallocated					
Subtotal	**0.0**	**0.2**	**1.4***	**5.6**	**7.2**
Total Committed Funds	**22.9**	**77.2**	**86.0**	**111.5**	**297.6**

* Transit-only funding beginning FY2023.

but more are needed.

The state is proposing that the redirection of transit funding be made permanent. This would dramatically reduce Metro's borrowing capacity at the same time the state is announcing the suspension of their transportation bond programs. This twofold loss reinforces the need for a economic recovery.

The Plan assumes the continuation of federal formula funds and that additional assistance will be sought to address transit operating and Americans with Disabilities Act (ADA) mandates, with the intent of minimizing future fare adjustments. The Plan also assumes the need for federal discretionary funds, especially for heavy rail transit and major freeway improvements.

Key Commitments

Metro has programming authority for most transportation funds in Los Angeles County and has a say in about 68 percent of the County's transportation funding. Cities and other public entities fund other projects and programs with federal, state, and local funds. About $106 billion is projected to operate bus and rail services countywide. Highway, roadway, signal, bicycle and pedestrian programs will require another $41.6 billion to operate (FIG. J).

Address the Current Funding Crisis

Many more projects and programs are needed in Los Angeles County than the transportation funding is available. These additional needs constitute the Strategic Unfunded Plan (see page 39). However, both the funded 2009 Plan and the Strategic Unfunded Plan will require new funding in order to add projects and services and/or accelerate projects identified for funding.

Metro's commitment to maintain and improve Los Angeles County's transportation system will depend on funding availability and strategies for obtaining new or increased funding.

> Metro will be vigilant in protecting existing state and federal funding.
> Metro will explore new transportation revenues such as public-private partnerships and a congestion mitigation fee.

All potential new funding options will be explored with a renewed sense of urgency. The Metro Board will set the direction for determining the feasibility for any strategy to help our region come together for securing the funding to keep Los Angeles County moving for the next 30 years.

We're seeking new funding...

The 2009 Long Range Transportation Plan calls for exploring new options to fund more projects. Two promising strategies are public-private partnerships and congestion pricing.

The 2009 Plan development process has shown us that public resources are extremely limited and that more could be done if new funding becomes available. As funds generated from traditional federal and state sources are limited, it is important to look at new locally-controlled sources or alternative project delivery methods to meet our future mobility and air quality needs. Public-private partnerships and congestion pricing are two particularly noteworthy strategies.

Public-Private Partnerships

Our Public-Private Partnership Program is well into the initial stages of implementation, with its principal objective to explore opportunities for partnering with the private sector to (1) attract new capital sources for our transportation program through private financial participation in selected projects, and (2) explore concepts that allow private parties to assist Metro in accelerating project development through risk-sharing mechanisms such as design-build delivery.

The purpose of the Public-Private Partnership Program is to identify specific highway and/or transit projects that are best suited for project delivery by means of a partnership with the private sector. The Public-Private Partnership concept encompasses several project delivery approaches, all of which are basically variations of the design-build model. The common objective of these approaches is to facilitate private sector participation in the provision of public works projects, thereby sharing with private partners some or all of the traditional public responsibility and risks for financing, designing, constructing, maintaining and/or operating infrastructure projects. Public-Private Partnerships have been successfully implemented in other cities in the U.S. and in countries around the world for both highways and transit development.

FIGURE K

Candidates for Private Sector Financial Participation[1]	
Transit Projects	**Highway Projects**
Crenshaw/LAX Transit Corridor[2]	I-5 North Capacity Improvements: SR-14 to Kern County Line *(HOV and Truck Lane Improvements)* (Note: SR-14 to Pico Canyon has environmental clearance and is under design)
Metro Gold Line Foothill Extension: Azusa to Montclair (Phase 2B)	SR-14: 1-5 to Kern County Line *(HOV/Mixed Flow Improvements*
Metro Purple Line Westside Subway Extension: Wilshire/Western Station to Westwood via Wilshire Bl Alignment[2]	SR-14 Carpool Lanes: Avenue P-8 to Avenue L
Regional Connector: Light Rail from Los Angeles Union Station to 7th Street/Metro Center[2]	High Desert Corridor[2]
Union Bus Division	I-5 Carpool & Mixed Flow Lanes: I-605 to I-710
Metro Gold Line Eastside Light Rail Transit Extension: Atlantic/Pomona Station eastward *(At Grade or Elevated)*	I-710 South *(Including I-710 South Early Action Projects)*[2]
South Bay Metro Green Line Extension *(Redondo Beach Bl to South Bay Corridor)*	SR-710 North Extension[2]

[1] Candidate list includes Measure R projects, Draft 2008 LRTP funded projects and draft 2008 LRTP unfunded (strategic element) projects.

[2] Focus of Strategic Assessment and Business Case Development.

through innovative approaches.

By seeking private sector financial participation to develop and deliver some of our Measure R and 2009 Plan projects, we could supplement available funds or utilize more flexible funding methods. More importantly, this project delivery approach could also accelerate the construction of projects, with repayment to the private sector by project funds programmed for later years and/or by project-generated revenues. Such an approach provides potentially greater flexibility to Metro in leveraging existing revenue sources than the more common and traditional mechanisms such as bonding.

A Public-Private Partnership consultancy team was retained and is assisting with the evaluation and development of projects for private sector participation. The projects with the most promise for the Public-Private Partnership Program are being determined through the following process:

Step 1 – Project Feasibility. Transit and highway projects from Measure R and the 2009 Plan are being reviewed to determine their potential as Public-Private Partnerships. This is a multi-step process which includes identifying those projects with the highest potential and then performing more detailed assessments of a subset of promising projects. A significant consideration is the current status of a project in terms of project readiness, defined as the status of environmental studies. Additionally, financial feasibility, risk, and private sector interest are key factors.

Step 2 – Develop Detailed Project Definition. During the final environmental review process, key areas will be addressed regarding the optimization of project delivery options, opportunities for technical innovations, operations and maintenance policy, potential revenue generation, phasing of the project, and if necessary, enabling legislation.

FIGURE L

Congestion-Reduction Demonstration Program

Step 3 – Public-Private Partnership Contract Agreement. If Step 2 efforts confirm a project could succeed as a Public-Private Partnership, the Board may direct that we initiate a solicitation process, conducting contract negotiations to clearly outline project roles and responsibilities, structure and standards, including risk allocations. Successful negotiations would result with Board approval of project funding and executing a Public-Private Partnership agreement.

As part of the effort to develop the highway program for the 2009 Plan, high-level discussions were undertaken with our consultants as to the amount and form of private sector financial participation that could be anticipated (FIG. K). Based on the consulting team's extensive international experience and the types of projects under consideration, it was estimated that between $350 and $450 million in annual total revenue is needed to deliver these projects and could be anticipated through implementation of partnerships with the private sector. These estimates were included in the financial assumptions of the 2009 Plan. With regard to transit projects, private sector financing could be used to accelerate project delivery, with reimbursement taking the form of availability payments that best leverage Measure R revenues and other dedicated public funding sources.

Congestion-Reduction Demonstration Iniative

Congestion pricing is a travel demand management strategy that has the potential for assisting Los Angeles County in meeting its mobility, air quality, and funding challenges. It charges a fee for the use of a transportation facility, based on the level of demand.

According to the U.S. Department of Transportation, key congestion pricing benefits include reduction in delay, an increase in predictability of trip times, improvements to transit speed and reliability of service, increases in transit ridership, reductions in fuel consumption and vehicle emissions, and increased revenues for transportation improvements. Managing travel demand through congestion pricing has been successfully implemented in other cities across the nation and around the world, including nearby in Orange County on SR-91 and San Diego County on I-15.

Since June 2007, we have been pursuing congestion pricing initiatives by partnering with Caltrans, SCAG, and other local agencies to develop a congestion pricing demonstration project. As a result of these united efforts, the U.S. Department of Transportation has awarded Los Angeles County $210.6 million in federal funds to implement the Los Angeles Region Congestion-Reduction Demonstration Initiative (ExpressLanes).

Funding for the ExpressLanes will be used to implement a package of solutions to increase traffic flow and provide better travel options on the I-10 and I-110 Freeways in Los Angeles County (FIG. 1). The project goal is to improve mobility and provide congestion relief on these two corridors through the introduction of congestion pricing by converting existing High Occupancy Vehicle (HOV) lanes to High Occupancy Toll (HOT) lanes, improving transit service and transit facilities, funding the creation of additional vanpools, improving roadways, and implementing an intelligent parking management system in downtown Los Angeles. This project is unique in that it offers improved transportation options and the new choice to pay to travel in a carpool lane. General-purpose lanes will not be tolled. The aim of the program is to foster incentives for sustainable change that creates time savings and cost savings, reduces pollution, and effectively manages our current roadway network.

Our congestion pricing project is based on a concept of toll collection called dynamic pricing. Tolls are continually adjusted throughout the day according to traffic conditions and are designed to keep the traffic moving in the HOT lanes at speeds of at least 45 mph. The toll rates will vary by the level of traffic congestion as measured by travel speeds, with higher rates being charged when congestion levels are high, such as peak travel periods, and lower rates when congestion levels drop off.

In July 2009, the Metro Board approved the following toll policy:

Goals

> Provide a safe, reliable, predictable commute for the ExpressLanes

> Reinforce Metro's ongoing efforts to increase vehicle occupancy rates and transit ridership

> Optimize vehicle throughput at free-flow speeds through dynamic pricing

> Generate sufficient revenue to sustain the financial viability of the ExpressLanes

Toll Rates

Minimum Toll per Mile	$0.25
Maximum Toll per Mile	$1.40

Business Rules

> Toll-free travel for vehicles meeting minimum vehicle occupancy requirement, motorcycles, and privately-operated buses; all existing carpools would continue to access the lanes without charge

> Trucks are not allowed (other than 2-axle)

> Minimum peak tolls shall be no less than 150 percent of Metro transit fare on the ExpressLanes

> Every vehicle is a customer and required to have a transponder

> Toll/Transit Credits available to frequent ExpressLanes transit riders

> Tolling will shut-down (i.e., toll users will not be permitted to enter the ExpressLanes) when travel speeds fall below 45 mph for more than 10 minutes

> Emergency vehicles may use the ExpressLanes when responding to incidents

Key Performance Measures

> Arriving at the destination in less time via either the ExpressLanes or general-purpose lanes (travel-time savings, average vehicle speed)

> Change from driving alone to carpooling, riding transit, and/or Metro vanpool (mode shift)

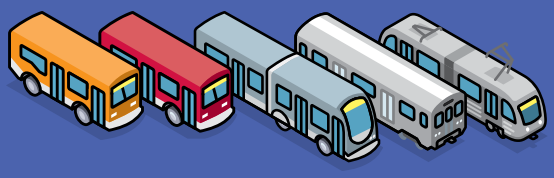
> Increase in efficiency by moving more people on the ExpressLanes in a specified period of time (person throughput)

> Improved transportation access for the low-income commuter (public surveys, credit redemption)

Gross revenues collected from the HOT lane will pay for operating and maintenance expenses. State law requires that excess revenues are reinvested in transit and carpool lane improvements in the corridor where generated.

Outreach will educate the public during implementation of the Demonstration project. A low-income commuter assessment is also underway to address the impact of the project on low-income commuters. This project is anticipated to be deployed by December 31, 2010 and in operation as a Demonstration project for a one-year period. Upon its completion, the success of the project will be evaluated based upon performance measures to determine if it should be continued, and if similar projects could be implemented in other parts of the county.

Public Transportation



> The Metro Gold Line Eastside Extension to East Los Angeles has opened.

> New Metro Rail services will be opening on the Exposition Line to Culver City.

> Metro Rapid will expand to cover 400 miles of service, with potential new corridors under study.

> Metro will continue to invest in Metrolink Commuter Rail Service.

> Metro will coordinate with High-Speed Rail at Union Station.

The public transportation system in Los Angeles County will provide services over the next 30 years that provide faster, more convenient ways to travel without a car.

According to the National Transit Database (NTD), Los Angeles County's transit providers operate over 4,000 buses and serve 1.6 million bus passengers daily. Metro Rail and the Metrolink commuter train system combined carry over 330,000 passengers daily and operate nearly 300 miles of rail. Metro operates the second largest bus system and the largest clean fuel fleet in the United States. Metro also administers funding for fixed-route transit, dial-a-ride and paratransit programs throughout the County.

This 2009 Plan proposes to build 15 major transit corridor projects. Please refer to the Public Transportation map (FIG. M) and table (FIG. N) for this 2009 Plan's Recommended projects. Figure O summarizes the Strategic Unfunded Plan projects. The first tier includes projects that have significant analysis and could be considered for new funding initiatives. The second tier identifies other projects that have little study completed, but may prove to provide mobility benefits upon further analysis.

Metro Rail

The Metro Rail network will continue to mature and attract riders as new services are added. The Eastside Extension of the Metro Gold Line to Atlantic and Pomona Boulevards opened in late 2009. The first segment of the Exposition light rail line is under construction and is scheduled to open in 2010. Over the next ten years, the Regional Connector will improve connectivity by linking our light rail lines. Other Metro Rail projects to be completed near-term include Exposition Phase II to Santa Monica, Metro Gold Line Foothill Extension, Crenshaw/LAX Transit Corridor, and the next segment of the Metro Purple Line. The 2009 Plan will expand the Metro Rail network to over 150 stations covering nearly 185 miles.

The Strategic Unfunded Plan includes a number of other rail projects and improvements to the existing system that could be considered, if additional funding becomes available. These rail projects have conceptual alignments and costs that could be the subject of further study to determine their feasibility, alignment and cost.

Busways

Busways that emulate rail on rubber tires by using buses on dedicated transit lanes are an important element to the County's transit system. The Metro Orange Line, in the San Fernando Valley between the North Hollywood Metro Red Line Station and the Warner Center Transit Hub, began operation in October 2005. Articulated 60-foot CNG Metro Liner buses operate along the 14-mile long route and serve 13 stations. A four-mile northern

FIGURE M

Public Transportation – Recommended Plan[1]

extension of the Metro Orange Line to the Chatsworth Metrolink Station is under construction and is scheduled to open in 2012.

Metro Rapid

Metro Rapid provides fast regional bus travel in Los Angeles County. Key features include simple route layouts, frequent service, fewer stops, low-floor buses to facilitate boarding and alighting, color-coded buses and stations, headway-based schedules, and bus signal priority.

When complete, the Metro Rapid network will provide over 400 miles of service through 35 cities and the County of Los Angeles. In addition to Metro, Santa Monica's Big Blue Bus and Culver CityBus also operate Rapid service.

Additionally, Metro has been working in partnership with the Los Angeles Department of Transportation (LADOT) and the Los Angeles County Department of Public Works (LACDPW) to prepare the Los Angeles Bus-Speed and Street Design Improvement Study. The study will evaluate ways to improve bus speeds including signal priority and locations where speeds could be improved through the establishment of bus-only lanes.

Local Bus

The local bus system provides the largest share of public transportation options in Los Angeles County. In 2008, Metro and municipal bus operators provided service to over 1.6 million passengers on an average weekday. Local buses also provide feeder services by carrying passengers to regional transit facilities such as rail lines and Metro Rapid stations.

This 2009 Plan will promote improvements in the quality and reliability of local bus service over the next 30 years. Both municipal operators and Metro will increase the use of higher capacity buses to expand system capacity while limiting operating costs. Meanwhile, Metro will complete the transition to alternative fuel buses, operating the largest fleet of compressed natural gas buses in the country. Both Metro and municipal operators will participate in the move toward zero-emission transit vehicles through advanced technologies such as hybrid-electric and fuel-cell propulsion systems.

Passenger convenience will be a focus, as bus operators implement a Universal Fare System/Transit Access Pass (TAP) that will enhance seamless transfers between systems using "smart card" technology that allows value to be credited or debited at fareboxes and ticket vending machines.

Public Transportation

FIGURE N

Recommended Plan[8]

	$ IN MILLIONS ESCALATED TO YEAR OF EXPENDITURE	OPEN YEAR[7]
Buses[5]		
Metro Bus Fleet of 2,911[1]	$ 10,084.8	2005-2040
Muni Bus Fleet of 1,596[2,4]	8,246.4	2005-2040
Transit Corridors[5]		
Metro Gold Line Eastside Extension	$ 899	OPEN
Exposition Light Rail Transit (LRT) Phase I *(from 7th Street Metro Center to Culver City)*	862	2010/2011
San Fernando Valley North-South Metro Orange Line Canoga Extension (R)	221	2013
San Fernando Valley East North-South Rapidways (R)	170	2018
Exposition LRT Phase II: Culver City to Santa Monica (R)	1,300-1,632**	2015
Exposition LRT Phase II Bikeway	10	2015
Wilshire Boulevard Bus Rapid Transitway	124	2015
Metro Gold Line Foothill LRT Extension[6,10,(R)]	851	2017
Crenshaw/LAX Transit Corridor (LRT)[10,(R)]	1,715	2018
Metro Green Line LRT Extension to LAX *(Aviation/Century Bl to Lot C)* (R)	330	2028 (depending on LAX contribution)
Regional Connector (R)	1,073	2019
Westside Subway Extension (Metro Purple Line) (R)		
Segment 1 to Fairfax	1,950	2019
Segment 2 to Century City	2,450	2026
Segment 3 to Westwood	1,615	2036
South Bay Metro Green Line Extension *(Redondo Beach Bl to South Bay Corridor)* (R)	555	2035
Metro Gold Line Eastside Transit Corridor Phase 2 (R)	2,490	2035
San Fernando Valley I-405 Corridor Connection *(mode is TBD)*[3,(R)]	2,468	2039
West Santa Ana Branch ROW Corridor (R)	649*	2027
High-Speed Rail		
Los Angeles/Anaheim corridor (S)	$ 3,000	2019
Los Angeles/Palmdale corridor (T)	TBD	TBD
San Diego/Los Angeles corridor *(via Inland Empire up the 15/215 to the 60/10 corridor)* (T)	TBD	TBD
Other Miscellaneous Public Transportation Projects		
Access Services Incorporated *(paratransit)*–Metro subsidy	$ 4,775	2005-2040
Safety Net *(Immediate Needs)* Program	386	2005-2040
Metrolink-subsidy[9,(R)]	4,545	2005-2040
Rail rehabilitation and replacement[5]	9,206	2005-2040
Union bus division[5]	95	2005-2012
Planning for Transit Projects		
Short-Term	25	2011-2012
Longer-Term	50	2025-2028
Transit contingency/new rail yards/additional rail cars[5]	225	2010-2012
Rail System Improvements[5,(R)]	754	2010-2040
Eastside Light Rail Access *(Gold Line)*[5,(R)]	30	2013
New airport bus division[5]	156	2019-2022
Metro and Municipal Regional Clean Fuel Bus Capital Facilities and Rolling Stock *(Metro's share to be used for clean fuel buses)*[5,(R)]	150	2010-2039

[1] 2,911 40-Foot Equivalent Metro Buses in 2040. The actual number of buses operated is 2,411.

[2] 1,596 40-Foot Equivalent Muni Buses in 2040. The actual number of buses operated is 1,660.

[3] Technology to be determined; cost assumes LRT.

[4] Does not include Muni Operators Measure R potential acquisitions.

[5] Capital costs only.

[6] Measure R funds estimated to fund initial segment, including yard and vehicles.

[7] Fiscal Year (July to June).

[8] Listed by Open Year.

[9] Includes operations, rehabilitation and capital; does not include Metrolink fares and other non-Metro funds.

[10] First priority for new funding to close any funding gaps.

(R) Projects included in Measure R.

(S) Project conditioned upon obtaining federal/state funding.

(T) Funding is for planning only to be paid for by others.

* Partial cost includes funds subject to approval of Measure R Subregional equity assumptions. Assumes Public-Private Partnerships and/or other new funds.

** Final cost is to be determined. Higher cost would remain consistent with Measure R.

FIGURE O

Strategic Unfunded Plan[1]
Tier 1: Currently Under Planning Study/Environmentally Cleared/Route Refinement Study/Previously Studied
Burbank/Glendale LRT from LA Union Station to Burbank Metrolink Station
Crenshaw Boulevard Corridor Extension *(beyond segment funded by Measure R)*
Metro Gold Line Eastside Transit Corridor Phase 2 Branch *(alignment not funded by Measure R)*
Metro Gold Line Foothill LRT Extension *(beyond segment funded by Measure R)* [2]
Metro Green Line LRT Extension between Norwalk Station and Norwalk Metrolink Station *(Elevated or Underground Light Rail)*
South Bay Metro Green Line Extension *(beyond segment funded by Measure R)*
Westside Subway Extension *(beyond segment funded by Measure R)*
Tier 2: Candidates for Further Project Definition
Metro Green Line LRT Extension from LAX to Expo Santa Monica Station
Metro Red Line Extension from North Hollywood Station to Burbank Airport Metrolink Station
"Silver" Line LRT between Metro Red Line Vermont/Santa Monica Station and City of La Puente
SR-134 Transit Corridor between Metro Red Line North Hollywood Station and Metro Gold Line Del Mar Station
Streetcar Circulator Systems *(for example, Downtown Los Angeles Streetcar, San Pedro, and others)*
Vermont Corridor Subway
"Yellow" Line LRT between Metro Red Line North Hollywood Station and Regional Connector
Countywide Transit Programs
Additional Metro and other Bus and Rail Capital System Improvements *(Rail cars, yards, buses)*
Additional Metrolink Expansion Beyond Funded Plan
Additional Sub-regional and other projects not included in Metro's performance evaluation *(see Technical Document)*
Metro Rapid Bus Expansion Corridors Beyond Funded Plan

[1] Listed in alphabetical order.

[2] First priority for new funding to close any funding gaps.

Operating Funds – As with many transit agencies nationwide, Metro is faced with an operating deficit as a result of a reduction in operating subsidies, fare revenue, and other factors. With the passage of Measure R, the voters of Los Angeles County have provided an opportunity to fund significant improvements to mobility throughout the region. However, Measure R's success will be contingent on building from a solid, stable, and sustainable transit base.

Creating a coordinated and integrated transit system requires significant collaboration with key stakeholders. Therefore, Metro Operations has established a Blue Ribbon Committee consisting of service providers (municipal operators, local cities, and Metro governance councils) as well as beneficiaries (Metro's Citizens Advisory Council, employers, educators, etc.). This committee will help guide the development of a regional transit service concept to improve the integration of services between Metro bus and rail, and the municipal operators and Metrolink.

The Strategic Plan element also identifies that more funds are needed to provide an optimal level of bus yard and facility modernization for Metro and municipal operators.

FIGURE P

Call for Projects

Transit Capital Recommendations	$ IN MILLIONS ESCALATED TO YEAR OF EXPENDITURE
Constrained Plan	
$15.7 m/yr in 2009 dollars	$ 395
Strategic Plan	
$8.1 m/yr in 2009 dollars	$ 196

Local Return Program

The Proposition A and Proposition C Local Return Programs are funded from two half-cent sales tax measures that Los Angeles County voters approved in 1980 and 1990, respectively. Twenty-five percent of Proposition A revenues, twenty percent of Proposition C revenues, and fifteen percent revenues of Measure R designated for the Local Return Program are returned to the Cities and Unincorporated Los Angeles County, so that they may be used for developing and/or improving public transit, paratransit and related transportation infrastructure.

The Local Return Programs support fixed-route shuttles, demand-responsive dial-a-ride and other specialized services. These local transit services provide an essential community-based link to the regional transportation network. Many of the locally funded systems submit their data for inclusion in the National Transit Database which brings additional Federal Section 5307 funding to the region.

Complementary Paratransit

Metro provides funding for countywide complementary paratransit service for the elderly and disabled, operated by Access Services, Incorporated. The transportation needs of the growing population of older adults could be one of the future challenges that the County needs to address.

Metrolink

The Metrolink system provides high-speed, long-distance regional commuter rail service traveling at a system average (including stops) of 41 mph over 512 route miles. Metrolink carries an average of 42,000 passenger trips and removes an average of 26,510 auto trips each weekday.

This 2009 Plan will help Metrolink continue to deliver high quality commuter rail service by maintaining the commitments of the 2001 LRTP. This plan provides $3.3 billion of total expenditures of which $2.288 billion is Metro's subsidy, including approximately $50.3 million per year for operations, and $22.5 million per year for rehabilitation. The funding amounts for capital vary by year, but on average the plan includes $14.9 million per year for expansion capital through 2040.

As part of the Strategic Unfunded Plan element, Metrolink is seeking $225 million in additional funding to implement service expansion and safety enhancements. To increase service levels, Metrolink will need to purchase rolling stock, expand the Eastern Maintenance Facility, and construct additional track where double-track gap closure needs exist. Metrolink will also need to add and upgrade sidings, crossovers, signals, communications, and make station platform and pedestrian improvements to increase safety, speed, reliability and capacity. Parking needs at the stations are a responsibility of local jurisdictions and are an eligible use for Call for Projects funds.

Three important safety programs have also been initiated. Positive Train Control (PTC) is a predictive collision avoidance technology system designed to stop a train before an accident occurs. Approximately $201 million will be required to implement PTC in the Metrolink service area. In February 2009, the Board adopted as policy that PTC is the most immediate, highest priority use of Measure R three percent funds. Up to $105 million has already been committed for PTC, including front-funding other counties' shares for PTC, if needed.

The "sealed corridor" program will identify rail corridors with several at-grade crossings and work to restrict vehicular access to the right-of-way along the entire corridor. The "crash energy management" program will work to minimize the impact of collisions to the passenger compartments of trains.

LOSSAN (Los Angeles to San Diego to San Luis Obispo) Corridor

The Los Angeles to San Diego to San Luis Obispo (LOSSAN) corridor stretches 351 miles from San Diego to Los Angeles and San Luis Obispo and is the nation's second busiest passenger rail corridor, serving more than 8 million passengers annually. Both passenger and freight rail operate in the corridor. Passenger service is composed of COASTER, Metrolink and Amtrak Pacific Surfliner. Both the Amtrak Southwest Chief (Chicago to Los Angeles) and the Coast Starlight (Seattle to Los Angeles) also operate along the corridor.

The state plans additional intercity rail service that, together with the increases planned by Metrolink, will dramatically increase the number of trains running along the corridor over the next twenty years. The California High-Speed Rail Authority (CHSRA) is planning the addition of two dedicated high-speed train tracks in the LOSSAN corridor between Burbank and Anaheim. Without capacity improvements, there is a limit to the amount of daily train service that can be operated in the corridor. A thorough review of all services will be required to ensure that the needs of customers are met.

LOSSAN is a Joint Powers Authority (JPA), formed in 1989, to increase ridership, revenue, capacity, reliability, and safety. LOSSAN is governed by a Board of Directors whose nine voting members include Metro, Caltrans, and other transportation agencies in the corridor.

Capacity projects, station improvements, and purchases of rail rights-of-way have been completed in the LOSSAN corridor. Intercity rail investments can be leveraged with goods movement and Metrolink investments because of the shared nature of the corridor. In 2007, LOSSAN released the LOSSAN Corridorwide Strategic Business Plan, identifying capital improvements for passenger and freight services along the corridor.

Planning and programming responsibilities are split between agencies. Investment strategies rest with the state and the county transportation agencies. Corridor services are operated by three passenger rail and two freight rail operators while seven agencies own portions of the rail right-of-way As a result, no single entity is responsible for administering the overall corridor. In an effort to move towards a more strategic and corridor-wide approach, in late 2009, the LOSSAN Board and member agencies approved a Memorandum of Understanding (MOU) that articulates a shared vision for the corridor and will lead to the development of a strategic action plan.

In the short-term, the LOSSAN Board has identified "early action items," including a consolidated timetable and a LOSSAN corridor website. These two improvements alone should help resolve the complexities associated with riding a train in this corridor. The MOU will allow better

FIGURE Q

coordination of short- and long-term responsibilities between the operators that provide service along this Corridor.

California High-Speed Rail

On November 4, 2008, California voters passed Proposition 1A, the Safe, Reliable High-Speed Passenger Train Bond Act and elected to commit $9.95 billion through the issuance of bonds to develop a clean, efficient high-speed train system that would link Southern California to Sacramento and the San Francisco Bay Area through the San Joaquin Valley. In early 2009, the U.S. Congress approved $8 billion as part of the American Recovery and Reinvestment Act (ARRA) to support the development and construction of a nationwide system of High-Speed Rail (HSR) corridors and to improve inter-city rail infrastructure in key corridors around the country. Union Station in Los Angeles has been identified as one of the major California High-Speed Rail (CHSR) hubs. We have regional transportation investments that should fully integrate with and benefit from the opportunities that HSR could bring to Los Angeles County.

The CHSR Authority has completed an Alternatives Analysis (2008) for an alignment between Anaheim and Los Angeles and is expected to issue a draft Environmental Impact Report/Environmental Impact Study for the Los Angeles to Anaheim corridor by early 2010.

The HSR Southern California alignments for three corridors (Los Angeles/Anaheim, Los Angeles to Palmdale, and San Diego to Los Angeles via the Inland Empire Corridor-215/15) are centered at Union Station in downtown Los Angeles (FIG. Q). Union Station and its immediate area is also the region's rail and bus center, including services for the Metro Red/Purple lines, Metro Gold/Blue lines via the proposed Regional Connector, Amtrak's western terminus, Metrolink and over 2,000 daily buses inclusive of most regional bus operators.

The 2009 Plan includes the HSR alignments for these three corridors. Funding for the Los Angeles/Anaheim corridor is anticipated to be composed of $2.2 billion in Proposition 1A and $2.2 billion in ARRA funds. The ARRA funds for the Los Angeles/Anaheim corridor require a Record of Decision/Notice of Determination by September 2011, funds be obligated by September 2012, construction expenditures be completed by 2018, and operations begun by 2019.

Highways

- This 2009 Plan invests $94 billion to close gaps in the carpool system, improve congested freeway interchanges, build carpool lane "connectors," and manage freeway incidents.
- TSM strategies will help improve traffic flow through better management and operation of existing transportation facilities.
- Freeway Service Patrols (FSP) will clear accidents and breakdowns on crowded freeways.
- Operational improvements like FSP, freeway ramp metering, and signal timing reduce more than 61 million hours of travel.
- The Big Rig Service Patrol program will expand to respond to freeway incidents caused by disabled heavy-duty vehicles on congested freeway corridors.

This 2009 Plan focuses on closing gaps in the carpool lane system, using technology to maximize roadway capacity, and clearing traffic accidents and stalled vehicles from our crowded freeways quickly.

The average Angeleno spends 70 hours delayed in traffic per year, more than any other region in the nation. The Texas Transportation Institute, however, finds that the rate of delay has actually slowed down. Since 1997, we have seen annual delay per traveler increase by just one hour. Most major cities across the country have seen driver delay increase at a higher rate during that period. Operational improvements like the Freeway Service Patrol, freeway ramp metering, and signal timing reduce almost 61 million hours of travel and save $1.2 billion for the regional economy, greater savings than any other area in the country.

While our transportation investments help curb congestion, the challenge of continued growth means this 2009 Plan must find new ways to stay one step ahead. Moving toward the completion of a countywide system that promotes carpools and vanpools, this 2009 Plan proposes to add 170 carpool lane-miles to the 464 carpool lane-miles already funded, filling in critical gaps along some of the most congested corridors. Please refer to the Recommended Plan Highway Map (FIG. R) and table (FIG. S) to locate the projects included. Figure T summarizes the Strategic Unfunded Plan projects. First-tier projects have undergone significant analysis and could be candidates for new funding initiatives. Second-tier projects have undergone little analysis, but may prove to provide mobility benefits upon further analysis.

Detailed studies will look at future opportunities to improve and expand the carpool lane system beyond this 2009 Plan's funding commitments. Local jurisdictions, the County, and Caltrans have identified additional unfunded priorities. For a list of these projects, see the Technical Document.

This 2009 Plan also identifies funding for carpool lane connectors that will allow carpools and transit vehicles to move from one freeway to another without having to merge with mixed-flow traffic. These will reduce the need to weave across multiple lanes of traffic and ultimately reduce the potential for traffic accidents. To reduce bottlenecks on our busiest freeways, this 2009 Plan also proposes interchange improvements at critical choke points where major freeways come together and result in traffic delays.

More and more, keeping our freeways moving will rely on Transportation System Management (TSM) strategies that maximize the capacity of our existing and planned roadways. Over the next 30 years, this 2009 Plan proposes the continued development and deployment of TSM

FIGURE R

Highways – Recommended Plan[1,2]

programs that range from freeway service patrols that remove disabled cars from freeways, to high-tech signal timing and real-time traveler information that help motorists plan their travel more intelligently. This 2009 Plan also supports continued development of Intelligent Transportation System (ITS) technologies that monitor real-time traffic flow and congestion points on freeways, and inform the traveling public about congestion locations and alternate routes through changeable message signs, special radio frequencies, radio traffic reports, websites, and handheld devices.

Metro Freeway Service Patrol

This 2009 Plan also focuses on reducing delay caused by traffic incidents (disabled vehicles and accidents) which are responsible for as much as 43 percent of the travel delay on our freeways. The Metro Freeway Service Patrol (FSP) program, jointly managed by Metro, the California Highway Patrol and Caltrans, operates a fleet of tow trucks that patrol over 450 miles of Los Angeles County freeways to provide assistance, free of charge, to stranded motorists. Currently, Metro operates 41 tow-truck beats and assists on average, 25,600 motorists per month. By removing disabled vehicles from the freeway, FSP tow trucks help reduce traffic delays and the probability of further accidents and congestion caused by impatient drivers and onlookers stuck in traffic. Metro will work with Caltrans and other partners to expand the benefits of providing FSP-type assistance for larger tractor-trailer sized vehicles. Services like the Big Rig Service Patrol on the I-710 and SR-91 Freeways can efficiently address congestion caused by increasing freight/goods movement in heavily traveled truck freeway corridors.

Call Box

In 1988, the Los Angeles County Service Authority for Freeway Emergencies (SAFE) was formed to provide motorist services and manage the call box system within Los Angeles County. The Kenneth Hahn Call Box system currently includes 2,750 call boxes throughout the County that receive approximately 3,000 calls per month from motorists. Call box usage has been decreasing as cell phone use increases. More and more motorists are using their cell phones to call 911 to report an emergency along the freeway or to call for assistance. As a result, the call box system was restructured from the primary means of requesting roadside assistance to a secondary safety-net system for motorists. In addition, the entire call box system was upgraded from an analog to a digital-based wireless system.

Other Motorist Services

SAFE will continue to develop and enhance its #399 motorist-aid service. This service allows motorists to use their wireless phones to request non-emergency, roadside assistance by dialing #399. Services include

Highways

FIGURE S

Recommended Plan[1]

	$ IN MILLIONS ESCALATED TO YEAR OF EXPENDITURE	OPEN YEAR[2]
Freeway Improvements and Gap Closures		
Extend SR-90 Freeway to halfway between Culver Bl & Mindanao Way	$ 20	OPEN
I-710 Freeway Improvements: Pacific Coast Hwy to Downtown Long Beach	7	OPEN
SR-138 Widening *(remaining 7 segments)*	217.1	2007-2020
SR-71 Freeway: I-10 to Mission Bl	115	2027
SR-71 Freeway: Mission Bl to Rio Rancho Rd	330	2029
I-5 North Capacity Enhancements [3,(R)]	5,271*	
Phase I – from SR-14 to Pico Cyn		2014
Phase II – from Pico Cyn to Parker Rd		2025
Phase III – from Parker Rd to Kern County		2039
SR-138 Capacity Enhancements *(additional segments)* [3,(R)]	325	2012-2020
SR-710 North Extension *(tunnel)* – Preliminary estimate to be refined in future analysis/studies [3,(R)]	5,636	2025+
I-710 South and/or Early Action Projects [3,(R)]		
I-710 Early Action Projects	687	2022
I-710 South	6,264	2025
High Desert Corridor *(environmental)* [3,(R)]	33	2014
High Desert Corridor *(construction)*	3,031	2020
Carpool Lanes		
I-5 Carpool Lanes: SR-14 to SR-118	$ 134	OPEN
SR-14 Carpool Lanes: Pearblossom Hwy to Avenue P-8	40.8	OPEN
I-405 Carpool Lanes: I-105 to SR-90	50	OPEN
I-405 NB Carpool Lane: Greenleaf St to Burbank Bl	6.4	OPEN
I-405 SB Carpool/Auxiliary Lane: Waterford St to I-10	50	OPEN
SR-60 Carpool Lanes: I-605 to Brea Canyon Rd	153.3	2010
I-405 Carpool Lanes: SR-90 to I-10	169.5	2010
I-5 Carpool Lanes: SR-118 to SR-170	250.9	2012
I-5 Carpool Lanes: SR-170 to SR-134 *(includes SR-170 direct connector)* [(R)]	699.7	2012
I-10 Carpool Lanes: I-605 to Puente Av	168.6	2012
I-405 NB Carpool Lanes: I-10 to US-101	1,034	2013
I-10 Carpool Lanes: Puente Av to Citrus Av	182.8	2015
I-10 Carpool Lanes: Citrus Av to SR-57	170	2015
I-5 Carpool & Mixed-Flow Lanes: I-605 to Orange County Line [(R)]	1,240.5	2017
SR-14 Carpool Lanes: Avenue P-8 to Avenue L	120	2027
Freeway Interchanges		
US-101 Freeway & Ramp Realignment to Center St	$ 40.9	OPEN
I-5/SR-126 Interchange Reconstruction *(Phases I and II)*	72.2	2010
I-5/Carmenita Rd Interchange Improvement [(R)]	379.7	2015
SR-57/SR-60 Mixed-Flow Interchange	475	2029
I-405, I-110, I-105 and SR-91 Ramp and Interchange Improvements in South Bay [3,4,6,(R)]	1,512	2014+
I-605 Corridor "Hot Spot" Interchanges in Gateway Cities [3,6,(R)]	3,200	2015-2025
Carpool Connectors		
SR-57/SR-60: Carpool Lane Direct Connector	$ 70.5	OPEN
I-405/US-101: Connector Gap Closure near Greenleaf St	45.7	OPEN
I-5/SR-14: Carpool Lane Direct Connector [(R)]	161.1	2013
I-5/I-405: Carpool Lane Partial Connector	330	2029
Other Freeway Improvements		
Countywide Soundwalls *(Metro regional list and Monterey Park/SR-60)* [3,5,6,(R)]	$ 2,400	2005-2039
Highway Operational Improvements in Arroyo Verdugo Subregion [3,4,6,(R)]	260	2014+
Highway Operational Improvements in Las Virgenes/Malibu Subregion [3,4,6,(R)]	253	2014+
Freeway Rehabilitation		
Caltrans-administered SHOPP	$ 6,302	2005-2040
Highway Operations		
Freeway Service Patrol	$ 1,026	2005-2040
SAFE	303	2005-2040

Goods Movement		
Alameda Corridor East *(Metro Funds)* Phase I	$ 281	2005-2019
Alameda Corridor East Grade Separations Phase II [3,6,(R)]	1,123	2005-2017
BNSF Grade Separations in Gateway Cities [3,6,(R)]	270	2017+
1st Grade Separation		
Remaining three Grade Separations		

[1] Listed by Open Year.

[2] Fiscal Year (July to June).

[3] The Plan assumes other local, State and federal funding, including opportunities to fund with fees, public-private partnerships or tolls. See Technical Document for more funding details.

[*] Cost estimate includes truck lanes only.

[(R)] Projects included in Measure R.

[4] Subregional COGs project lists and construction costs are pending.

[5] Includes Measure R funding of $250 million.

[6] Projects not mapped on Figure R.

FIGURE T

Strategic Unfunded[1]

Tier 1: Currently Under Planning Study/Environmentally Cleared/Previously Studied
I-5 Carpool and Mixed-Flow Lanes: I-605 to I-710
I-5 North Capacity Enhancements *(additional funding beyond Measure R)*
SR-14: I-5 to Kern County Line *(Mixed-flow improvements)*
US-101 Corridor: Add carpool lane in each direction between SR-27 (Topanga Canyon Bl) and SR-2 in Downtown Los Angeles and restripe for mixed-flow lane in each direction between SR-27 and Ventura County Line
US-101: Add carpool lane in each direction between SR-27 and the Ventura County Line *(This would be in addition to the mixed-flow lane proposed in the project above)*
SR-138: I-5 to SR-14 *(Add 2 mixed-flow lanes in each direction)*
Additional Soundwalls Beyond Funded Plan
Tier 2: Candidates for Further Project Definition
I-5/SR-2 Interchange
I-5/I-10 Interchange
I-5/SR-14 Interchange
I-5/SR-134 Interchange
I-5/I-405 Interchange
I-10/I-605 *(partial HOV connector – from east to south and from west to south)*
I-10 Carpool Lanes: Lincoln Bl to I-5
SR-57 Carpool Lanes: SR-60 to I-210
SR-60/I-605 *(partial HOV connector – from east to south and from east to north)*
SR-60 Carpool Lanes: US-101 to I-605
SR-91/I-110 *(partial HOV connector – from east to south and from east to north)*
US-101/SR-170/SR-134 *(complete two connectors)* Interchange
US-101/SR-170 Interchange
I-405/US-101 Interchange
I-605 Carpool Lanes: I-210 to I-10
Additional Caltrans corridors not included in Metro's performance evaluation *(see Technical Document)*
Additional Sub-regional and other projects not included in Metro's performance evaluation *(see Technical Document)*

[1] Listed in alphabetical order.

towing, connection to an automobile club, and reporting freeway hazards. SAFE will also be implementing the Los Angeles regional 511 Traveler Information System. The goal of 511 is to provide users with information to make informed travel decisions through an automated phone system and companion website.

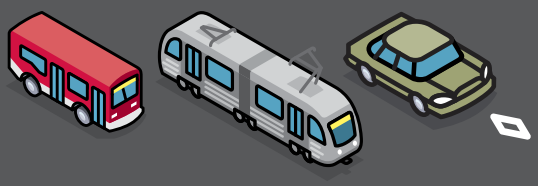
Types of information available include real-time freeway traffic, transit, rideshare and other general traffic information. SAFE and Metro will continue to evaluate other motorist aid services and projects for potential implementation within Los Angeles County.

Soundwall Retrofit Program

Another challenge facing Metro will be to construct freeway soundwall retrofit projects, where warranted, for major highway projects to reduce freeway noise levels. Currently, there are 230 miles of freeway that are eligible for soundwalls, which could cost over $2.4 billion to design and build. Metro will use its "Soundwall Implementation Policy" to prioritize funding and construction. To expedite construction of soundwalls, $220 million from Measure R will be utilized for delivery of soundwall projects. The Soundwall Retrofit Program requires an additional $1.2 billion as part of a funding strategy to secure potential federal, state, and local resources for soundwall design and construction.

Strategic Unfunded

Public Transportation/Highways



> Metro will explore innovative funding options.

> New revenues would first be used to accelerate the schedules for projects and programs funded in this Plan.

> Additional new revenues could be used to fund projects in the Tier 1 Strategic Unfunded Plan.

This 2009 Long Range Plan proposes funding an ambitious transportation program of nearly $300 billion through 2040 and will continue funding for those projects already identified in Metro's 2001 Long Range Transportation Plan.

This 2009 Plan identifies "strategic" priorities for projects and programs that are regionally significant, but require new revenue sources to be implemented. The Tier 1 Strategic Unfunded projects are considered high-priority projects and are shown in Figures U and V. At a minimum, these projects have been the focus of preliminary planning studies (e.g., currently under planning study, environmentally cleared, route refinement study, previously studied). The Tier 2 Strategic Unfunded projects are also included in this 2009 Plan. These projects are more conceptual in nature and have not had preliminary studies completed. The Strategic Unfunded projects are candidates for additional study or funding in the longer-term (see pages 31 and 37).

In December 2009, the Metro Board directed staff to coordinate with each subregion to review the Strategic Plan Projects and update the Strategic Plan Project list. An updated Strategic Plan Project list will be presented to the Board in May 2010 for possible inclusion into the 2009 Plan.

THE STRATEGIC UNFUNDED PLAN IDENTIFIES ADDITIONAL TRANSIT, HIGHWAY, AND CALL FOR PROJECTS MODAL CATEGORIES THAT COULD BE FUNDED IF NEW REVENUE BECOMES AVAILABLE.

FIGURE U

Tier 1 Strategic Unfunded – Public Transportation[1]

[1] *Some projects funded by this Plan have opened; please refer to Figure N for the current status of projects.*

FIGURE V

Tier 1 Strategic Unfunded – Highways[1]

[1] *Some projects funded by this Plan have opened; please refer to Figure S for the current status of projects.*

Arterials

- Half of all vehicle trips in the County occur on arterial roadways.
- By 2030, traffic on local roadways is projected to increase by 30 percent.
- Congestion is projected to increase over 200 times faster than new roadway capacity.
- This 2009 Plan focuses on maximizing the arterial system s capacity through technology and capital investments.
- ITS will be integrated with local street and transit systems to provide motorists with real-time information on travel options.

This 2009 Plan focuses on improving arterials by adding capacity and using technology to increase the efficiency of our roadway network.

During the last decade, significant improvements were made to our roadway system, including the widening of over 100 route miles of major arterials, signal timing and coordination at over 5,000 intersections and deploying advanced technology to monitor and manage real-time traffic flow.

SCAG indicates that traffic on local streets is projected to increase 30 percent by 2030. There are many likely reasons, including continued growth in population and jobs, spillover from increasing freeway congestion, and more goods movement-related truck traffic. Over the next 30 years, this 2009 Plan will focus on improving arterial traffic flow by implementing capital improvements and better use of advanced technology. Through the Call for Projects, Metro will help local governments improve traffic flow by providing funding for major arterial projects that are beyond the resources of local agencies. The projects funded in the Regional Surface Transportation Improvements (RSTI) category are major capital improvements such as street widenings, realignments, grade separations and freeway ramp modifications. There will also be stepped-up efforts to integrate the freeway and arterial systems by funding interchange improvements and improving the efficiency of the roadway network through operational improvements to the signal system. This 2009 Plan contains funding for grade separation projects such as the Alameda Corridor East, to minimize arterial-freight conflicts.

Countywide Significant Arterial Network

In 2006, Metro, local jurisdictions, transit operators and subregional agencies identified a regional arterial network for Los Angeles County called the Countywide Significant Arterial Network (CSAN). The CSAN was developed to assist in guiding future transportation planning and helping target arterial improvements through the Call for Projects.

Transportation System Management – ITS, Signal Synchronization and Bus Speed Improvements

This program focuses on improving arterial traffic flow without major capital investment, by taking advantage of Intelligent Transportation Systems (ITS), which relies on computer technology to manage traffic on a multi-jurisdictional basis and by optimizing signal timing and providing bus priority on a system of arterials. This 2009 Plan calls for synchronizing and optimizing signal timing, sharing traffic and signal data among jurisdictions

using the Los Angeles County Information Exchange Network (IEN), the City of Los Angeles Automated Traffic Surveillance and Control (ATSAC) System and other jurisdictions' traffic control systems. ITS projects like these help coordinate arterial signals and provide incident management and information about traffic jams, alternate routes and transit arrival times. This 2009 Plan also promotes state-of-the-art bus signal priority systems that can integrate with regional traffic management systems. This is important to the expansion of the Metro Rapid program and the enhancement of other high-volume regional transit services. Through the Call for Projects, Metro can implement improvements to the arterial ITS network.

Information Exchange Network

In order to realize benefits beyond specific improvements, Metro, in partnership with the Los Angeles County Department of Public Works and local jurisdictions, is deploying the County Information Exchange Network (IEN). The IEN allows for the collection and distribution of arterial street-level operational and planning data to facilitate signal coordination between and through jurisdictions. The system also provides the capability for smaller agencies to share limited control of their traffic control system with another agency for off-hours support. Thus, a single agency can serve as the after-hours coordination center for neighboring agencies.

Metro will continue funding and supporting the expansion and updating of local jurisdictions' signal synchronization programs and adding new functionality. Examples include further enhancement and expanded deployment of IEN interfaces with local jurisdictions' traffic control systems, adding wireless and fiber optic communication, video feeds and improving traveler information.

THIS PLAN FOCUSES ON IMPROVING ARTERIALS BY ADDING **CAPACITY** AND USING **TECHNOLOGY** TO INCREASE THE **EFFICIENCY** OF OUR ROADWAY NETWORK.

Call for Projects

FIGURE W

Regional Surface Transportation Improvements

	$ IN MILLIONS ESCALATED TO YEAR OF EXPENDITURE
Constrained Plan	
$29.2 m/yr in 2009 dollars	$ 754
Strategic Plan	
$12.5 m/yr in 2009 dollars	$ 302

FIGURE X

Transportation System Management

	$ IN MILLIONS ESCALATED TO YEAR OF EXPENDITURE
Constrained Plan	
$33.9 m/yr in 2009 dollars	$ 862
Strategic Plan	
$15.0 m/yr in 2009 dollars	$ 363

Bus Speed Improvement Program

Metro also is committed to enhancing the Bus Speed Improvement Program (BSIP) by establishing closer coordination between local traffic operating agencies and transit operators on jointly developed projects which increase transit operating speeds and improve total person-trip movement in the region. Metro will continue to fund arterial-specific signal projects to improve transit running times by expanding the interface between the County IEN and BSIP, partnering with the local municipal transit operators, and expanding signal priority on Metro Rapid Services.

Arterial Pavement System Preservation

Metro assessed the pavement conditions and costs reported by all jurisdictions with public roads in Los Angeles County. This assists Metro in coordinating with the County's local jurisdictions to advocate for maintaining current funding levels and to seek additional dollars to address this critical under-funded need, which is currently estimated at about $1.2 billion in 2009 dollars.

Goods Movement

> Our local ports are the busiest container ports in the nation, and when combined, the fifth busiest in the world, handling more than 40 percent of all U.S. containerized trade.

> LAX is the second busiest air cargo airport in the U.S. and sixth busiest air cargo airport in the world.

> Some of the most heavily used freeways in the County, including I-5, SR-60, SR-91, I-605, and I-710, are also major routes used to move goods to our stores and warehouses.

> Metro is working with other stakeholders to develop regional solutions that promote new infrastructure and operational improvements.

Efficient, reliable, and safe transportation of goods is critical to the County's mobility and continued economic growth and quality of life.

More and more, the movement of freight affects all of us. Whether you are stuck at a rail crossing or in traffic with double-trailer semis, expecting an overnight shipment from a mail-order company, or one of the hundreds of thousands of people employed in the industry, keeping passengers and freight moving is a tall order. This 2009 Plan seeks to promote comprehensive planning that will lead to investments and operational improvements that can keep people, freight, and our economy moving without sacrificing the environment or our quality of life.

Over the last decade, the County has positioned itself as a primary freight destination and distribution center for the rest of the country. As a major economic driver, the freight industry employs about 400,000 people countywide and moves more than $340 billion worth of goods annually over the County's transportation system. In fact, 43 percent of the seaborne container traffic imported into the U.S. moves through the Ports of Los Angeles and Long Beach (FIG. Y).

Freight is distributed over a massive transportation network consisting of 915 miles of freeways and highways, two world-class seaports, two major railroads, two regional commercial freight airports, and the busiest intermodal rail facilities in the nation. The Alameda Corridor eliminated 200 railroad-roadway intersections, enhancing safety and relieving congestion, and now speeds delivery of $100 billion in goods throughout the County. While the County's transportation network has accommodated the growth in freight, it has been pushed towards its limits.

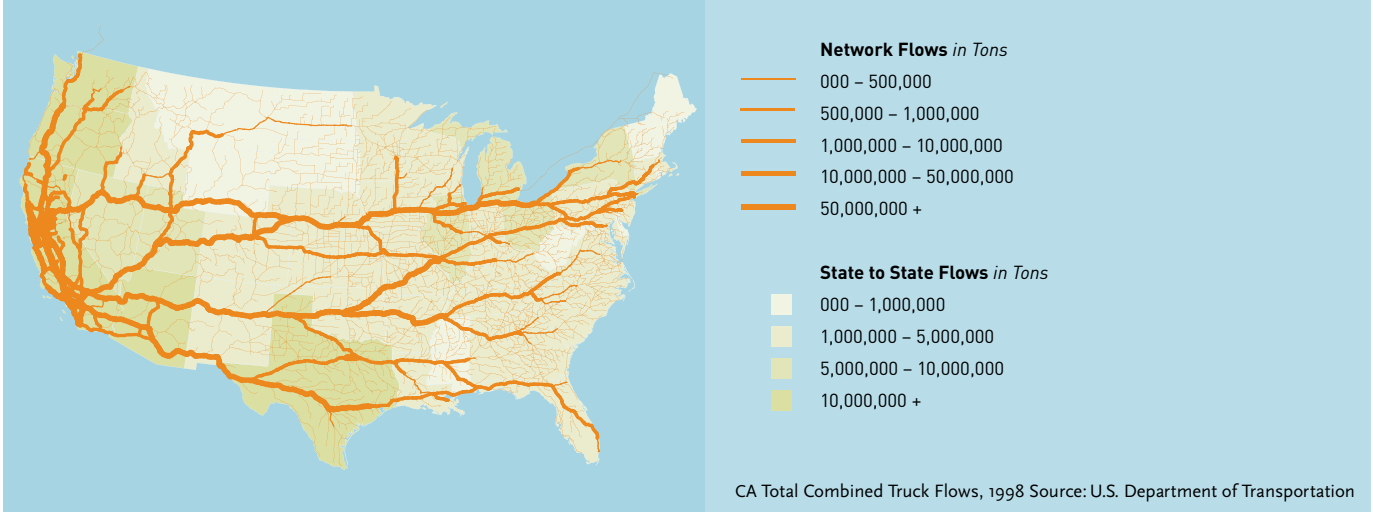
And there's more coming. Studies indicate the County's trade with the rest of the world is expected to increase dramatically over the next 25 years. This increase in international trade is projected to more than double the number of containers currently being handled at the Ports of Los Angeles/Long Beach, from 14.3 million 20-foot Equivalent Units (TEUs) in 2008 to 43.2 million TEUs by the year 2035. This trade activity, in turn, will result in daily port-generated truck traffic increasing from 60,000 in 2005 to 140,000 truck trips per day by 2030 despite significant efforts by the Ports to increase on-dock rail capacity and usage. Equally important is the corresponding increase in goods that travel from manufacturers, warehousing and distribution centers that serve the domestic and local markets and account for about two-thirds of all freight movement in the region.

Multi-County Goods Movement Action Plan

Recognizing the significance of goods movement, Metro has taken steps to address the goods movement challenges facing the region. In May 2008, the Metro Board adopted the Multi-County Goods Movement Action Plan (MCGMAP),

FIGURE Y

Truck Flows and Two-Way Surface Trade Between California and Regions of the United States



CA Total Combined Truck Flows, 1998 Source: U.S. Department of Transportation

which was prepared in partnership with Caltrans, SCAG, and Orange, Riverside, San Bernardino, San Diego, and Ventura Counties. The MCGMAP recommends four actions: 1) Accelerate environmental mitigation; 2) Relieve congestion and improve mobility; 3) Improve operational efficiency; and 4) Develop equitable public-private funding strategy, as well as over $28 billion in projects and programs within the County through 2030. For more information on the MCGMAP, please see *metro.net/mcgmap*.

In November 2006, California voters approved Proposition 1B, which included $2 billion in goods movement-related infrastructure improvements and $1 billion in goods movement-related mitigation funding statewide. Subsequently, the California Transportation Commission (CTC) increased the infrastructure component of the Trade Corridor Investment Fund (TCIF) to $3 billion. Los Angeles County received an allocation of approximately $1 billion for grade separation projects, roadway and bridge improvements, and enhancement of the Ports' rail system. CARB has begun to disburse funds for the first round of goods movement environmental mitigation project applications, of which $98 million has been awarded to the Ports.

In addition, Metro, Caltrans, Riverside County Transportation Commission, and San Bernardino Associated Governments conducted the Goods Movement Environmental Justice Analysis and Outreach Study. This effort examined the environmental and community impacts of goods movement in greater detail and developed strategies to mitigate those impacts.

Metro, in conjunction with the Gateway Council of Governments, Caltrans, SCAG, the Ports, and the I-5 Joint Powers Authority, is developing the I-710 Corridor Project EIR/EIS which addresses congestion from truck traffic and analyzes the potential of advanced technologies for moving containers along a dedicated freight corridor from the Ports to nearby rail intermodal facilities. The North Los Angeles

Call for Projects

FIGURE Z

Goods Movement Program

	$ IN MILLIONS ESCALATED TO YEAR OF EXPENDITURE
Constrained Plan	
$26.2 m/yr in 2009 dollars	$ 682
Strategic Plan	
$12.0 m/yr in 2009 dollars	$ 290

County and South Bay goods movement studies provide important analysis on the issues and needs facing those subregions. Metro will initiate the Goods Movement Strategic Plan for Los Angeles County to supplement the analysis conducted for the MCGMAP.

Other projects and programs are moving ahead. The Alameda Corridor East Project (ACE) will provide congestion relief to drivers along a 35-mile stretch of the San Gabriel Valley by planning 20 grade separations and improving the operation of 36 other railroad intersections. Metro will continue its commitment to ACE to fund 17 percent of the 2007 project cost estimate.

Other priorities include: 1) coordinating with the subregions to ensure consistent corridor planning and project development; 2) supporting environmental and environmental justice initiatives that promote quality of life; 3) supporting regionally significant freight movement projects such as further investigation of an inland port strategy, shuttle trains, and the accelerated implementation of clean air technologies; 4) improving highways/roadways utilized for goods movement and increasing track capacity along rail lines utilized by both freight and commuter rail trains; and, 5) determining the appropriate freight movement policies and financing strategies jointly with freight stakeholders (i.e., public-private partnerships, container fees, and user fees directed at potential dedicated freight guideways).

System Management

- > **The RIITS Network enables multimodal transportation agencies to e ectively coordinate their operations, respond to incidents, and improve the operation and management of their systems.**
- > **The RIITS Network will provide continuous and real-time traffic congestion and incident data flow to the Los Angeles 511 Traveler Information System.**
- > **The RIITS Network supports the implementation of corridor management, congestion pricing, and goods movement initiatives and strategies.**

ITS management improves mobility by efficiently and effectively coordinating multimodal transportation systems.

Intelligent Transportation Systems (ITS)

ITS is the application of computer-based traffic management technology used to optimize freeway operations and signal timing, provide transit vehicles with traffic signal priority, provide real-time management of transit dispatching operations, and provide the traveling public with real-time information about congestion locations, accident sites, and alternate routes. The purpose of ITS technology is to improve the flow of traffic along existing streets and highways. According to the U.S. Department of Transportation, peak period travel time can be reduced by up to 11 percent through the implementation of ITS improvements.

Los Angeles County Regional ITS Network

At the regional level, the objective of ITS technology deployment is to maximize the efficient use of existing surface transportation systems and infrastructure through multimodal transportation system integration and operational data sharing in real-time. Metro developed the Regional Integration of Intelligent Transportation Systems (RIITS) Network as a common communication network for multimodal intelligent transportation systems in Los Angeles County and across county boundaries.

The RIITS Network has integrated Caltrans District 7's freeway management system, LADOT's traffic signal control system, the California Highway Patrol's incident reporting system, and the Metro bus and rail systems. The continual expansion of the RIITS Network facilitates information exchange in real-time along freeways and city streets for transit and emergency services. Current efforts include the addition of transit data from Long Beach Transit and Foothill Transit, and signal status and arterial traffic congestion data from Los Angeles County's Information Exchange Network (IEN).

The RIITS Network is an essential ITS tool for multimodal data exchange and retrieval, enabling transportation agencies to coordinate and improve the operation and management of their services. Near real-time traffic congestion and incident information is also made available to the public through the Real Time Traffic webpage hosted by *metro.net* and private sector Information Service Providers (ISPs). ISPs collect transportation data from a variety of sources, integrate and then distribute the data through the Internet, personal data devices, portable global positioning system (GPS) units, kiosks, radio and television.

Los Angeles County Regional ITS Program

The Regional ITS Program, established in 2005 and administered by Metro's Countywide Planning and Development Department, implements the Metro Board-approved Los Angeles County ITS Policy and Procedures. The Program coordinates with data-contributing partner agencies and manages, operates, and maintains the RIITS Network. The data-contributing partner agencies and Metro have entered into an Inter-Agency Traffic Operation and Management Memorandum of Understanding and formed a Configuration Management Committee. This committee guides the development of multimodal interface standards and ensures that the RIITS Network, which constitutes the functional Los Angeles County Regional ITS Architecture, is in conformance with the National ITS Architecture and Standards.

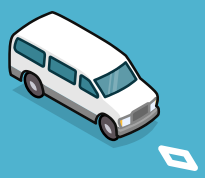
The Program has accomplished system redundancy to ensure that the network provides continuous congestion and incident data flow on a 24/7 basis to support the implementation of Los Angeles County's 511 traveler information program. The reliability provided by system redundancy benefits transportation and transit agencies which utilize data from the RIITS Network for system performance evaluation, planning and policy analysis, and the enhancement of traffic management operations.

This 2009 Plan provides $36.3 million of total expenditures. Metro will be developing a specific long range plan for the Regional ITS Program to identify new transportation initiatives, further define ongoing commitments, expand the Network through partnerships with new data source agencies, and develop a data archiving system to enable the Regional ITS Program to continue its valuable multimodal data management role. The development of a Regional ITS Long Range Plan will provide a blueprint for the expansion of the RIITS Network and support Metro's corridor management, congestion pricing, and goods movement planning efforts.

As a part of the Strategic Plan element, the Los Angeles County Regional ITS Program is seeking $36 million (2009 dollars) in additional funding to expand RIITS Network multi-modal and geographic coverage, augment data source management capability, and support the implementation of corridor-based improvement initiatives. Enchancement to the Los Angeles Regional ITS Program would include real-time data archiving, multi-modal corridor performance measurement and evaluation, travel forecasts, goods movement and incident management applications and network integration with neighboring counties.

ACCORDING TO THE US. DEPARTMENT OF TRANSPORTATION, PEAK PERIOD **TRAVEL TIME** CAN BE **REDUCED** BY UP TO **11 PERCENT** THROUGH IMPLEMENTATION OF **ITS IMPROVEMENTS.**

Demand Management



- Significant mobility improvements require major shifts away from driving alone.
- Metro will promote alternative forms of transportation through the creation of new employer rideshare programs.
- The Metro Call for Projects will promote land use/transportation coordination.
- Metro will continue to promote more TODs that make public transit an increasingly real option for a new generation of Angelenos.

The success of this 2009 Plan depends heavily on whether Transportation Demand Management strategies can move us into carpools, reduce our need to drive alone, and even change our ideas about where to live and work.

Studies have long shown that significant improvements in reducing traffic jams and enhancing mobility rely on major shifts away from driving alone. Transportation Demand Management (TDM) strategies are designed to promote alternatives to drive-alone vehicle travel. They include improving the efficiency of existing transportation infrastructure, eliminating or combining vehicle trips and encouraging the deployment of new technologies that support these objectives. These TDM programs are generally programmed through the biennial Call for Projects process and through an ongoing countywide rideshare program. Other strategies are geared toward promoting smarter growth in the future that encourage more housing and job development in areas where the transportation network can adequately serve them.

The following are examples of TDM projects and programs supported by this 2009 Plan:

- Countywide TDM Implementation through the Call for Projects
- Regionwide Metro Rideshare and Commute Services Programs
- Metro Parking Policy
- Smart Growth Initiatives
- Congestion Management Program

Countywide TDM Implementation

TDM efforts through 2040 will continue to focus on the most cost-effective strategies for decreasing the demand on the transportation system by providing incentives for use of transit, carpooling, vanpooling, bicycling, walking, shortening trips and avoiding trips altogether.

Metro Rideshare Program

One of the most cost-effective strategies, commute services have been provided to residents and employers in Los Angeles County for almost 30 years. Metro's countywide rideshare program assists commuters in finding alternatives to driving alone. This program includes:

- Transit, carpool and vanpool information and ridematching;
- Outreach to Los Angeles County employers to encourage ridesharing to employment sites;
- Incentive and promotional programs such as specialized transit-pass programs geared toward business;
- Vanpool support programs; and
- Market research on travel behavior and service performance to improve options.

The countywide rideshare program will continue to enhance transportation alternatives for employers and commuters. This 2009 Plan provides $350 million of total expenditures that will focus on providing new state-of-the-art, web-based rideshare and transit trip planning information systems to continually improve the efficiency and effectiveness of these services. New programs will enhance outreach beyond the 1,000 employers currently using Metro services through improved transit pass programs and programs that reward employees for trying an alternative to driving alone. Individual commuters will be targeted through campaigns, promotions, improved information on alternative transportation services and web-based travel information. This 2009 Plan will also focus on implementing strategies to expand vanpool use. Finally, further research on service performance, customer satisfaction and general public opinion will be conducted to develop strategies for enhancing transit and other rideshare services offered to Los Angeles County commuters.

As part of the Strategic Plan element, the rideshare program is seeking $105 million (2008 dollars) in additional funding to implement service expansion and increase market research efforts. Enhancements to the rideshare program would include vanpool service growth, increased outreach, new programs to further encourage ridesharing and specialized market research.

Metro Parking Policy

Metro recognizes that to support a high level of demand for ridesharing and to make the transition to and from public transit as seamless as possible, adequate parking must be available for patrons to easily move from one mode to the next. Providing parking facilities at key locations is critical to accommodate the growth in usage as the public responds to TDM strategies. Our existing Metro Station parking program helps manage parking resources and anticipates future parking demand. Metro will continue to investigate other options, including technological solutions, to increase the supply of parking facilities in key sites to make this alternative as attractive as possible. This approach may also utilize privately owned parking facilities and develop parking facilities that are located near freeways with carpool lanes or busways. Continuous work is needed to plan the growth of the network of park-and-ride lots that are safe and convenient for travelers to use.

Smart Growth Initiatives

Studies throughout the United States confirm the strong link between land use planning and the transportation system. Research shows that travel and congestion can be substantially reduced by creating better jobs-housing balances, walkable communities, and encouraging the development of TODs. Integrating land use and transportation decisions has profound benefits for the community and the transportation system. This shift in the way we grow will be critical, given the projected growth of over three million more residents in Los Angeles County by 2040.

Call for Projects

FIGURE AA

Transportation Demand Management

	$ IN MILLIONS ESCALATED TO YEAR OF EXPENDITURE
Constrained Plan	
$6.0 m/yr in 2009 dollars	$ 158
Strategic Plan	
$5.0 m/yr in 2009 dollars	$ 121

The Call for Projects Program will prioritize projects that promote improved land use and transportation connections. This will help local governments fund transportation projects that can mitigate the transportation impacts of projected population growth.

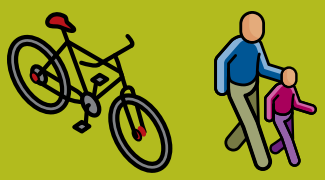
In addition, Metro will continue to promote more TODs through public-private partnerships. Metro will explore opportunities to integrate smart land use developments at a number of existing and new stations. An example is the Wilshire/Vermont Metro Purple Line Station development which will integrate a middle school, childcare facility, general commercial space, and housing. Future developments are planned at several new rail stations, including the Wilshire/Western, Westlake/MacArthur Park, and Hollywood/Vine Stations.

Congestion Management Program

In accordance with State statute, Metro implements the Congestion Management Program (CMP) for Los Angeles County. The CMP monitors congestion within the County, promotes actions to minimize congestion, and links local land use decisions with their impact on the regional transportation system.

The CMP Deficiency Plan is one of the most important tools for ensuring effective coordination of land use and transportation decisions. As part of its approval of the 2003 Short Range Transportation Plan, the Metro Board authorized a nexus study to explore the feasibility of working with local jurisdictions to implement a congestion mitigation fee. If implemented, a Congestion Mitigation Fee Program would generate new revenue for local governments to build transportation projects that address future regional congestion. After adoption of the final study report in September 2008, Metro is working with local jurisdictions to identify local projects with a regional benefit that could be funded through a fee program.

Bicycles and Pedestrians



- > There are more than 1,250 miles of bikeways in Los Angeles County.
- > The Metro Call for Projects will fund an expansion of the bicycle network.
- > Metro will focus on improving bicycle safety and bicycle access on buses and trains, and at transit hubs.
- > Coordinating pedestrian links between transit and the user's final destination is critical to an e ective transportation system.
- > Metro will improve pedestrian linkages to bus centers and rail stations.

This 2009 Long Range Plan promotes the development of bicycle facilities and pedestrian improvements throughout Los Angeles County.

Bicycle and pedestrian programs are critical components of a successful transit system, as transit riders should be able to access buses and trains without having to drive a vehicle to and from transit stations. The sustainability of our transportation system depends upon the interface between modes.

According to SCAG's Year 2000 Post-Census Travel Survey, nearly 12 percent of all trips in the SCAG region are bicycling and walking trips. According to the 2001 National Household Travel Survey, many trips in metropolitan areas are three miles or shorter. These trips are targets for bicycling and walking, if facilities are available and safe.

Bicycling and walking produce zero emissions as no fossil fuels are used. These trips can eliminate the "cold start" of a vehicle engine and reduce GHGe, VMT, and energy consumption.

Bicycle Programs

This 2009 Plan will help implement the 2006 Metro Board-adopted Bicycle Transportation Strategic Plan (BTSP). It describes a vision for Los Angeles County to improve bicycling as a viable transportation mode. The BTSP outlines a bicycle infrastructure that improves overall mobility, air quality and access to opportunities. It also shifts the focus in countywide bicycle planning from long arterial bikeways to improvements for bicycle access to 167 bike-transit hubs throughout the County. Focusing improvements at bike-transit hubs is a relatively simple way to link bikes with transit and extend the reach of transit without the use of a car. It increases the viability of public transportation and facilitates ridership without a huge investment in infrastructure and right-of-way.

In 2006, the inventory of existing bicycle facilities in the County totaled 1,252 miles, including facilities such as the Metro Orange Line Bike Path, San Gabriel and Los Angeles River Bike Paths, Whittier Greenway Bike Path, Ballona Creek Bike Path, Santa Monica and Venice Boulevard bicycle lanes and hundreds more miles of bicycle lanes and routes. Another 1,145 miles of bikeway projects have been proposed in local agency bicycle plans that would nearly double the current bikeway system. Further, Metro identified 53 gaps in the inter-jurisdictional bikeway system that can be filled by on-street or off-street bicycle facilities.

Bicycle parking at transit stations is essential to encourage the use of bicycles with transit. Bicycle parking at employment centers and local destinations also help reduce the expanding need for costly automobile parking,

particularly in dense urban areas where space is limited. As many as 36 bicycles can be parked in the space of one automobile.

Local governments will continue to build bicycle facilities using their Transportation Development Act (TDA) Article 3 and Proposition C local return funding, while Metro will provide regional funds through the Call for Projects. Eligible projects include on- and off-street bicycle improvements, bicycle parking, safety education, bicycle racks on buses, bicycle stations and other bicycle access improvements. Other sources of funds are Safe Routes to School and State BTA (Bicycle Transportation Account) Grant funds. While acknowledging its role in coordinating bicycle facility planning in the region, Metro recognizes the importance of local bicycle planning and strongly encourages cities to develop their own plans. Metro provides technical assistance to develop those plans and qualify them for BTA funding.

Pedestrian Priority Improvement Program

Nearly all trips within Los Angeles County, regardless of purpose, include a non-motorized component. Although almost nine percent of all the trips within Los Angeles County are exclusively pedestrian trips and about half of these are walking trips to and from home to work, the pedestrian system can be improved further. All non-motorized transport modes should connect to an efficient, aesthetically pleasing and safe pedestrian system that enables a person to successfully complete a trip. Motorized transport modes should seamlessly link to the pedestrian system in a way that efficiently allows people to access primary and secondary destinations as well as to make connections to the public transit system.

Several factors combine to create a pedestrian-friendly environment. Examples include: a wayfinding signage system, ease of access to destinations from the sidewalk network, appropriate street-crossing safety features, and easy connection to public transport modes. Physically attractive features and amenities facilitate the flow of pedestrian movement and encourage people to walk.

The primary challenge to improving the quality of the pedestrian environment is retrofitting the existing built form to make walking a more viable option for more people, more often. Since much of the built form is orientated to access by automobiles and the set of development standards and regulations governing land development are primarily focused on maintaining auto accessibility, significantly increasing the share of non-motorized trips will require time, coordinated policy and program development, and a sustained funding approach. Many cities in Los Angeles County have begun to initiate activities to improve the livability of their neighborhoods, including reducing traffic congestion and improving

Call for Projects

FIGURE BB

Bicycle Program

	$ IN MILLIONS ESCALATED TO YEAR OF EXPENDITURE
Constrained Plan	
$11.7 m/yr in 2009 dollars	$ 287
Strategic Plan	
$12.5 m/yr in 2009 dollars	$ 302

FIGURE CC

Pedestrian Program

	$ IN MILLIONS ESCALATED TO YEAR OF EXPENDITURE
Constrained Plan	
$11.7 m/yr in 2009 dollars	$ 287
Strategic Plan	
$10.0 m/yr in 2009 dollars	$ 242

FIGURE DD

Transportation Enhancements Program

	$ IN MILLIONS ESCALATED TO YEAR OF EXPENDITURE
Constrained Plan	
$2.3 m/yr in 2009 dollars	$ 72

THE SUSTAINABILITY OF OUR TRANSPORTATION SYSTEM DEPENDS UPON THE INTERFACE BETWEEN MODES.

overall mobility. The linkages between development and transportation modes are a critical factor in improving overall mobility while maintaining the economic and social viability and attractiveness of these communities.

Metro's Pedestrian Priority Improvement Program is designed to achieve a qualitative improvement in the pedestrian environment in Los Angeles County. The approach focuses on the development of public policy and adoption of appropriate regulatory standards and targeted funding to develop more safe, connected and walkable pedestrian environments that promote non-motorized transport as a viable alternative for an increasing share of trips made by residents and visitors of Los Angeles County.

Subregional Partners

> The nine subregions have identified their transportation challenges and unfunded priorities.

> A mobility project implemented in one subregion may also benefit the other subregions due to regional travel patterns.

> Understanding each subregion s mobility challenges and needs can improve coordination throughout the regional system and expand the benefit of subregional infrastructure enhancements.

> Strengthening the subregional partnerships will improve the flow of communication and increase the responsiveness to mobility issues.

Los Angeles County is a diverse region with more than 10 million residents in 89 local jurisdictions.

Each of these local governments has distinctive transportation needs, challenges, and opportunities. Although they share common concerns, particularly when it comes to transportation, air quality, economic vitality, and quality of life, the nature and scale of transportation issues vary considerably across the County. For planning purposes and to more effectively address the unique challenges affecting differing areas of the County, nine geographic subregions have been identified (FIG. EE). The subregions are comprised of the geographic area's local government representatives and deal with a variety of policy issues, including long-range planning.

Los Angeles County is expected to grow by at least three million residents by 2040. As a result, each subregion will face new mobility challenges that arise from this population growth and the resultant demands on the transportation system. This growth will also increase demands for a variety of mobility improvements, including an expansion of the capacity of our local and regional transportation system.

Arroyo Verdugo

The Arroyo Verdugo subregion sits against a backdrop of the San Gabriel Mountains, on the northern edge of the Los Angeles Basin. This subregion covers 60 square miles and is home to five cities.

Central Los Angeles

The Central Los Angeles subregion is located in the center of Los Angeles County. This subregion covers 126 square miles and is home to 13 local communities.

Gateway Cities

The Gateway Cities subregion is located at the southeastern end of Los Angeles County. This subregion covers 226 square miles and is home to 27 cities.

Las Virgenes/Malibu

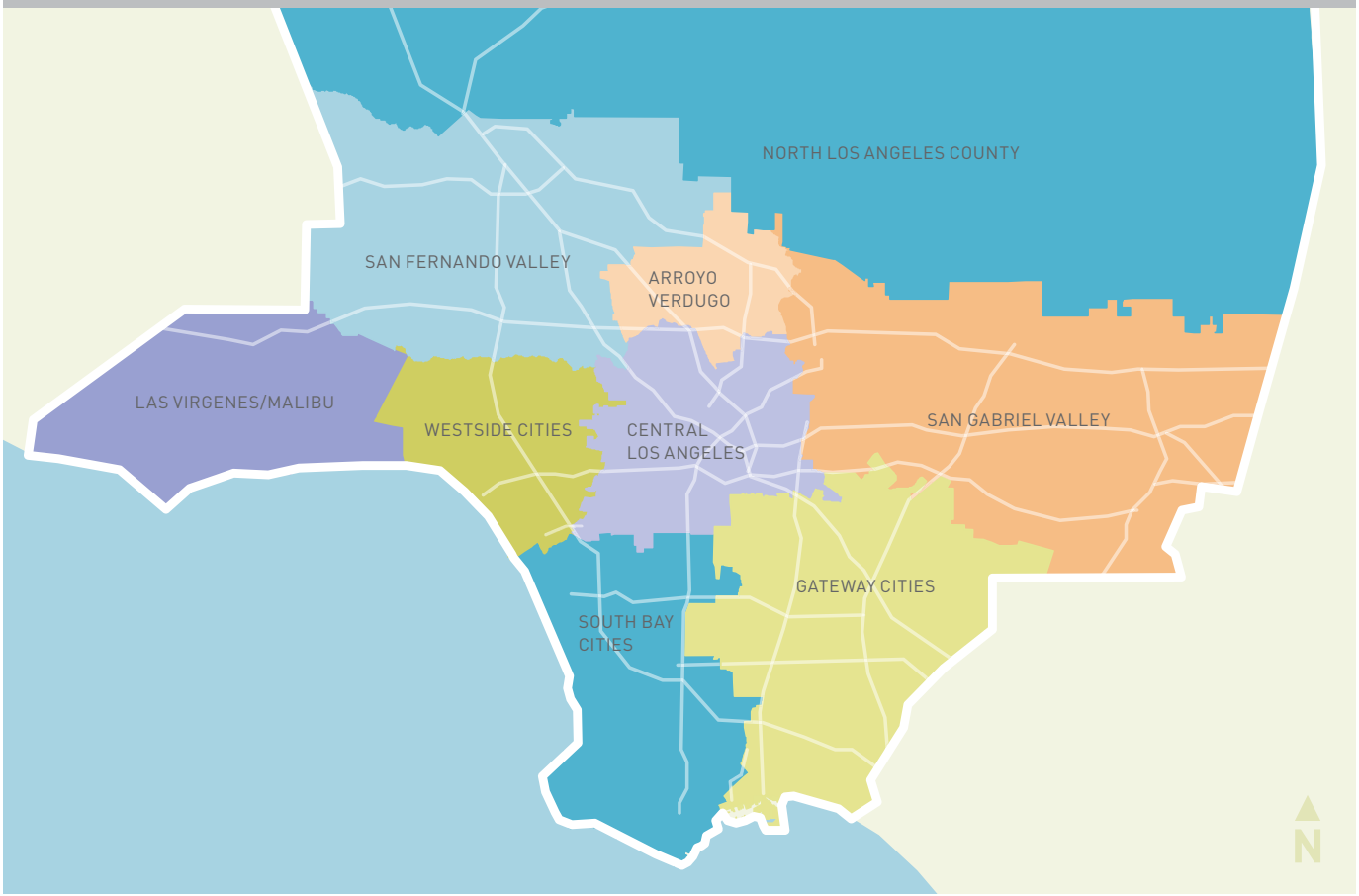
The Las Virgenes/Malibu subregion occupies the westernmost portion of Los Angeles County. This subregion covers 162 square miles and is home to five cities and unincorporated areas.

North Los Angeles County

The North Los Angeles County subregion comprises the Los Angeles County area north of the San Fernando Valley. This subregion covers 2,503 square miles and includes three cities and unincorporated areas.

FIGURE EE

Los Angeles County Subregions



San Fernando Valley

The San Fernando Valley subregion fans north of the Hollywood Hills and Santa Monica, west to the Las Virgenes/Malibu area and eastward towards Arroyo Verdugo. This subregion covers 250 square miles and is home to two cities and numerous Los Angeles City communities.

San Gabriel Valley

The San Gabriel Valley subregion sits in the easternmost portion of Los Angeles County. This subregion covers 345 square miles and is home to 30 cities.

South Bay Cities

The South Bay Cities subregion is located at the southern end of the Santa Monica Bay. This subregion covers 183 square miles and is home to 16 cities and unincorporated County areas.

Westside Cities

The Westside Cities subregion is bounded by Mulholland Drive to the north, the Pacific Ocean to the west, the South Bay Cities subregion to the south and the Central Los Angeles subregion to the east. This subregion covers 103 square miles and is home to five cities and numerous Los Angeles City communities.

What's in Store for the Future

This 2009 Plan looks at the benefits to different parts of the County from implementation of the recommended projects and programs. The nine subregions identified unfunded highway, interchange, transit, non-motorized, and other priorities (see Technical Document). The unfunded priorities could be used as potential candidates for future funding opportunities.

ALTHOUGH THEY **SHARE COMMON CONCERNS,** THE NATURE AND SCALE OF TRANSPORTATION ISSUES **VARY CONSIDERABLY** ACROSS THE COUNTY.

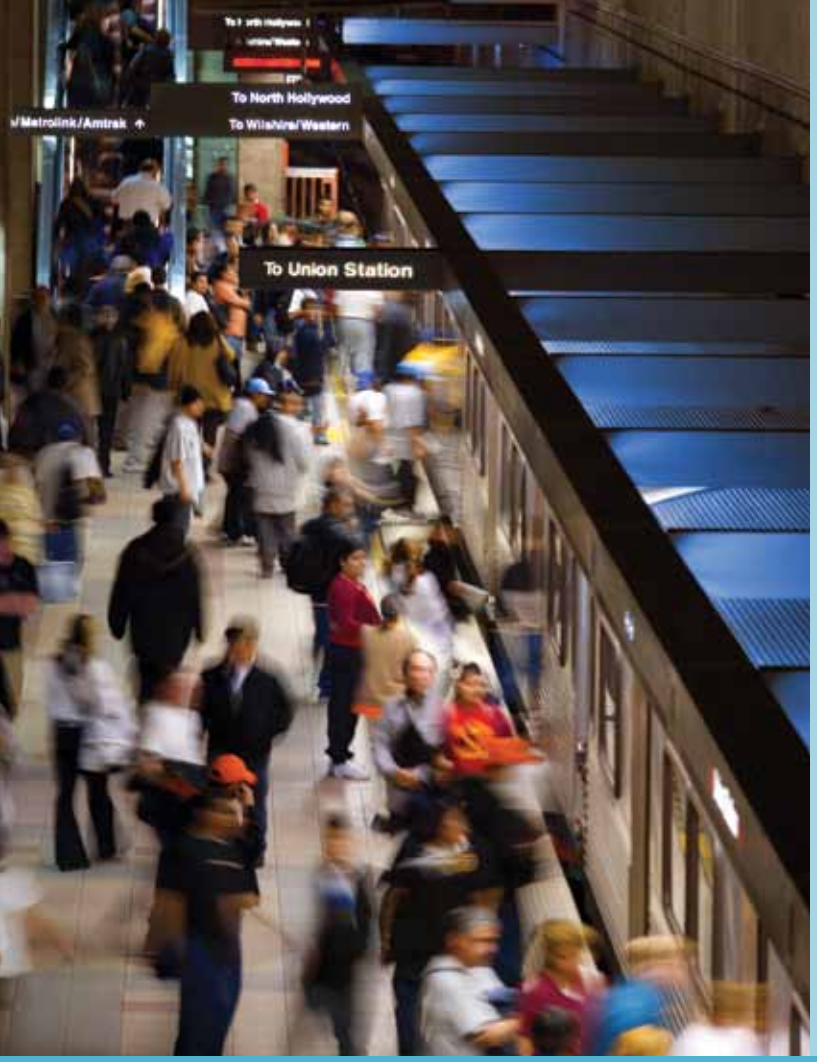
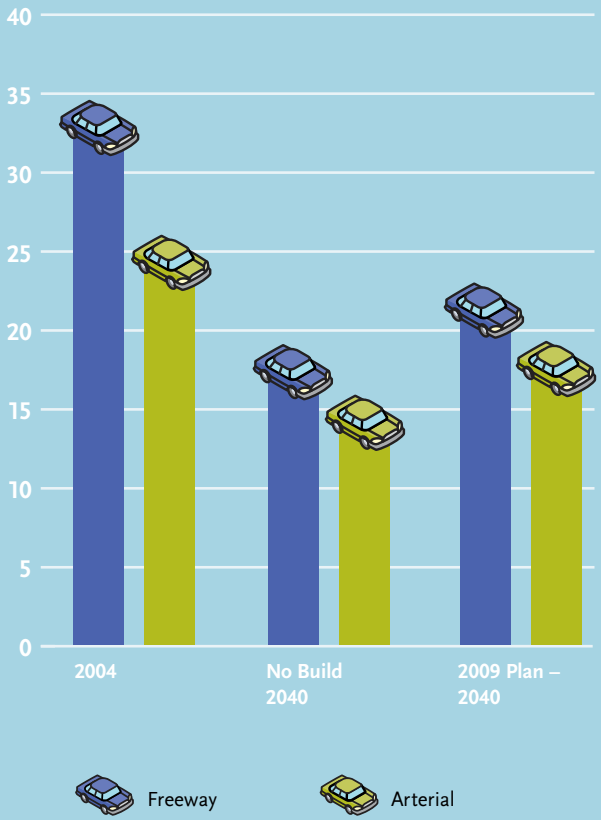


FIGURE FF

AM Peak Period Speeds

MILES PER HOUR



We want the plan to work.

- This 2009 Plan s transportation investments will improve mobility and air quality, and promote environmental justice.
- Average freeway speeds are expected to increase from 19 to 22 mph in 2040.
- The transportation system will move more people faster by improving passenger "throughput."
- This 2009 Plan will help reduce mobile source emissions by over two percent.
- All segments of the population, including the transit-dependent and low-income groups, will enjoy more transit access and benefits.

A 30-year Long Range Transportation Plan can be judged on how it helps maintain and enhance our region's quality of life.

The Metro Board adopted measures to evaluate this 2009 Plan on whether it improves mobility, improves air quality, and promotes environmental justice. When compared against the 2040 "No Build" scenario, improvements are seen in all three areas.

Mobility

Mobility is a fundamental gauge of how a transportation plan benefits the region. A plan that increases traffic flow and relieves congestion improves mobility. Mobility is measured in this 2009 Plan in two key ways. First, this 2009 Plan looks at how average travel speeds on our roadways will be improved through this 2009 Plan's investments. When compared to the "No Build" scenario, this 2009 Plan will increase average peak period travel speeds on freeways from 19 mph to 22 mph in 2040 (FIG. FF).

FIGURE GG

Mobility Index

THE HIGHER THE NUMBER, THE BETTER

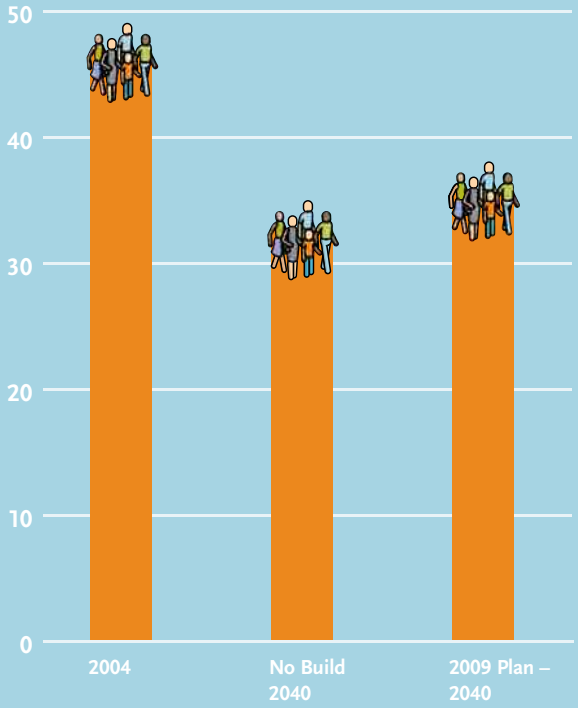
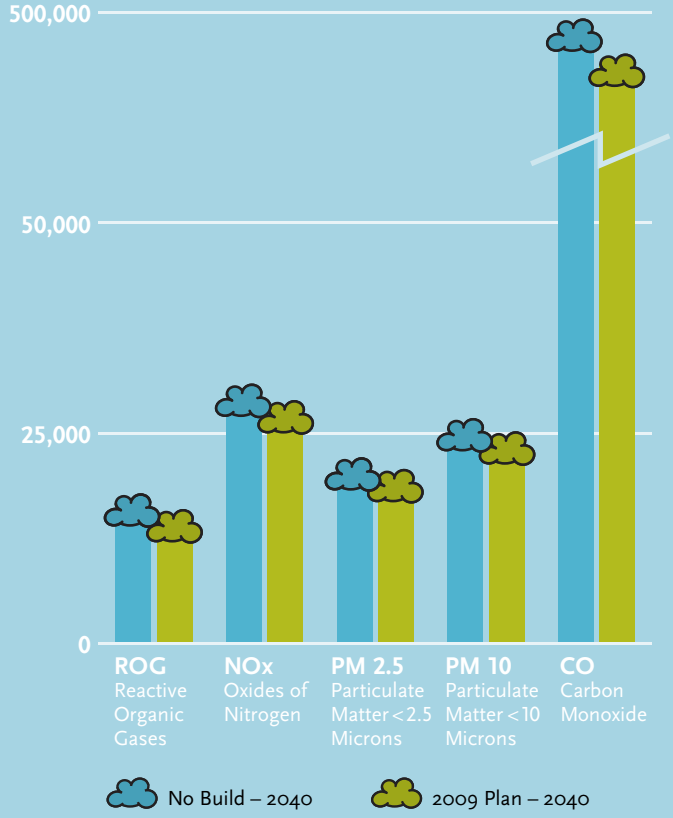


FIGURE HH

Air Quality Benefits

CUMULATIVE EMISSIONS LB/DAY



Second, a Mobility Index is used to determine the flow of passengers throughout the transportation system. The Mobility Index takes the travel speeds that are projected and factors in vehicle occupancy of automobiles and transit. The higher the index number, the more effective the transportation system in moving more people. When compared against the 2040 "No Build" scenario, this 2009 Plan improves the Mobility Index by nearly 14 percent (FIG. GG).

Air Quality

A transportation plan that improves mobility and reduces congestion should improve air quality by reducing mobile source emissions. This can be attributed to the following. First, mobile sources are a large contributor to regional smog. By cutting traffic jams and improving mobility, this 2009 Plan helps to reduce the two pollutants that contribute to ozone (i.e., oxides of nitrogen and reactive organic gases). Second, localized air pollution is often caused by traffic jams on freeways and busy streets. By speeding up freeway and street traffic, emissions of carbon monoxide and particulates are reduced for those communities adjacent to these crowded roadways. When compared to current conditions, mobile source emissions are reduced due to a combination of mobility benefits and improved clean air technologies. Further, when compared to the "No Build" scenario in 2040, this 2009 Plan reduces mobile source emissions by another 7.1 percent (FIG. HH).

Environmental Justice

A balanced transportation plan must provide equivalent transportation benefits to all parts of our population, including the transit dependent and minority groups. There are two key ways this 2009 Plan measures how it promotes environmental justice objectives.

First, this 2009 Plan evaluates how much additional transit service would be provided in areas with high transit dependency and minority populations. When compared to a "No Build" scenario in 2040 with no new improvements, the percentage of work-related trips that can be completed

FIGURE II

Job Accessibility by Population Subgroup

% OF WORK TRIPS WITHIN 60 MINUTES BY TRANSIT

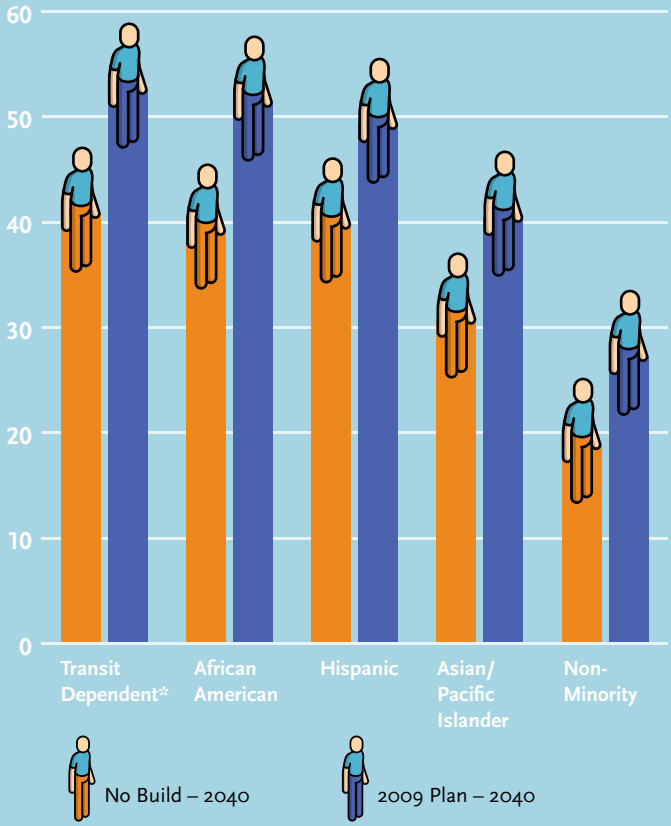
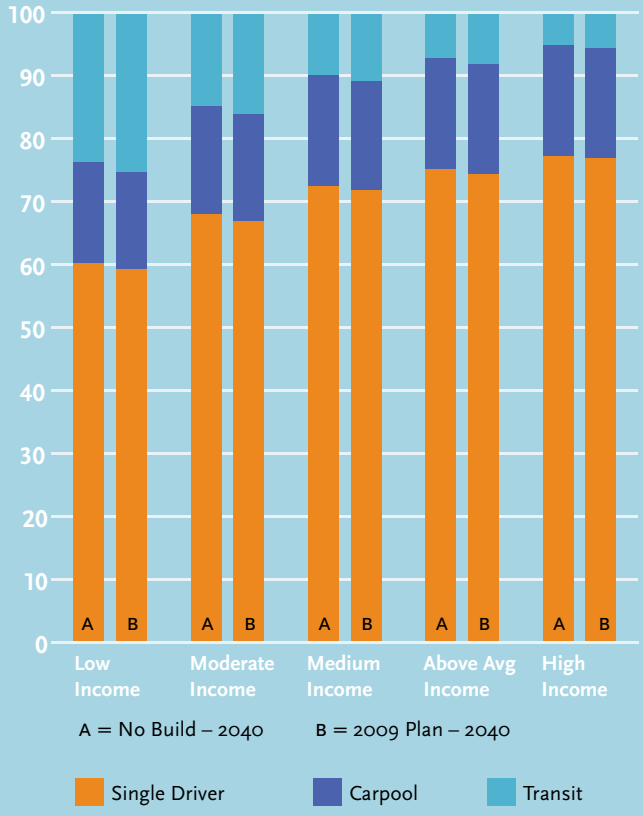


FIGURE JJ

Mode Choice by Income Quintile

% OF HOME TO WORK PEAK TRIPS



* Transit-dependent census tracts have a higher number of low-income, zero-car, or senior households than the countywide average.

by transit within one hour increases from 47 to 59 percent in areas with high transit dependency (FIG. II). Minority populations also see increases in transit access. This is due to this 2009 Plan's extensive transit investments and their proximity to areas with lower-income populations and job opportunities that support those areas.

Second, this 2009 Plan will provide improved transit access to low-income groups. While all income groups benefit by improved transit access, low-income residents in Los Angeles County are expected to benefit the most from increased transit use (FIG. JJ).

In Conclusion

Developing an efficient, cleaner and greener transportation system remains a daunting challenge, but this 2009 Plan shows us what we can do in the next 30 years if we use our existing resources wisely. However, the Plan also assumes the return of a robust economy to support the financial forecasts contained in this Plan.

This 2009 Plan process has demonstrated that shortages of transportation funds exist in Los Angeles County. Voters have done their part; now our state and federal funding partners will need to do theirs. Along with our partners in the environmental, labor, and business communities, and legislative leaders in Sacramento and Washington, we will need to speak with one voice to make our vision become reality.


Let’s get moving.

Los Angeles County
Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012-2952

Metro®