



Board Report

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**PLANNING AND PROGRAMMING COMMITTEE
OCTOBER 14, 2015
EXECUTIVE MANAGEMENT COMMITTEE
OCTOBER 15, 2015**

**SUBJECT: LONG RANGE TRANSPORTATION PLAN - DRAFT POTENTIAL BALLOT
MEASURE FRAMEWORK, ASSUMPTIONS, AND INPUT**

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE:

- A. The draft **Long Range Transportation Plan (LRTP) Potential Ballot Measure Framework** in Attachment A and draft Assumptions in Attachment B;
- B. Stakeholder Input in Attachment C, Attachment D, and Attachment E, as described below; and,
- C. The Roadmap to a Potential Ballot Measure in Attachment F.

ISSUE

Since Fall 2012, Metro has explored the feasibility of pursuing a new potential ballot measure in conjunction with updating the 2009 LRTP. By participating in over 190 meetings, Metro staff has worked with subregional representatives and other stakeholders including, but not limited to, business, public health, labor, environmental groups, Active Transportation stakeholders, and numerous other groups. These various stakeholders were asked to submit their priorities and policy input by September 1, 2015.

While all projects submitted are anticipated to be included in the LRTP update, they must be categorized in one of two ways: financially constrained or financially unconstrained. These financial constraints are defined in federal planning regulations as revenues that can be reasonably expected to be available. The purpose of the LRTP draft Potential Ballot Measure Framework and Assumptions in Attachment A is to assess the performance metrics of major highway and transit projects for potential funding through the 2017 LRTP, which could include funding from a potential ballot initiative, if the Board decides to proceed with placing it on the November 2016 ballot and it is approved by the voters. Specifically, Attachment A describes the performance analysis for assessing highway and transit projects, including the major themes, goals, objectives, and performance

measures that will be used in assessing and scheduling major transportation projects. Attachment B describes staff assumptions used in the Stakeholder Input Process, and Attachment C describes the feedback received through the Stakeholder Input process. Attachment D summarizes the constrained subregional stakeholder priorities and Attachment E summarizes the unconstrained Regional Facilities Needs. The Roadmap in Attachment F describes the steps staff plans to take before the Metro Board considers agendizing a potential ballot measure. The Board is being asked to receive and file this information now. The draft Framework and Assumptions will be brought back for approval in December 2015.

DISCUSSION

Through various correspondences, meetings, and actions, the Metro Board directed that a proposed ballot measure follow a “bottoms-up” process that began with the Mobility Matrix process. The Mobility Matrices, as directed by the Board in February 2014, were completed in collaboration with the subregions and received by the Board in April 2015. This process identified over 2,300 projects totaling over \$273 billion in 2015 dollars. In January 2015, the Metro Board also created a Regional Facilities category that includes Burbank Bob Hope Airport, Los Angeles World Airports (LAX), Long Beach Airport, Palmdale Airport, the Ports of Long Beach and Los Angeles, and Union Station. Concurrent with the work of the subregional and regional facilities groups, staff worked closely with other stakeholder groups described above to determine their priorities and policy considerations. Metro executives attended several productive meetings with coalitions of leadership representatives from environmental, active transportation, business, and disadvantaged community organizations. These leaders jointly expressed significant support for a potential ballot measure, if it properly balances their mobility, economic development, and environmental justice concerns.

Proposed LRTP Performance Metrics

To balance these stakeholder concerns, the process going forward should include an analysis of projects based on the recommended LRTP draft performance metrics found in Attachment A. The LRTP draft performance metrics enable Metro staff to provide a performance-based recommendation for a potential ballot measure ordinance and expenditure plan. The authorizing legislation for the LRTP potential ballot measure, SB 767 (de León), requires that an expenditure plan be developed using a transparent process to determine the most recent cost estimates for each project and program identified in the expenditure plan. Metro’s transparent, inclusive, and bottoms-up process to date provided high and low cost estimates to aid stakeholders in making their priority setting decisions. Staff will continue to refine these costs in that same transparent manner and plans to use the draft performance metrics to guide our ultimate recommendations.

Expenditure Plan Requirements in Authorizing Legislation

SB 767 (de León) was passed on September 15, 2015 and is on the Governor’s desk as of this writing. In addition to transparent process requirements, SB 767 (de León) requires that the expenditure plan include the following elements: the most recent cost estimates for each project and program; the identification of the accelerated cost, if applicable, for each project and program; the approximate schedule during which Metro anticipates funds will be available for each project and program; and, the expected completion dates for each project and program within a three-

year range. To meet these requirements and the bottoms-up process requirements originally directed by the Metro Board, a number of assumptions must be used in developing the expenditure plan, including a tax increase, tax extension, tax sunset, project cost inflation, revenue growth, subregional revenue targets, and population and employment data as described in Attachment B, the draft Framework Assumptions.

Potential Ballot Measure Process Characteristics and Results

The Potential Ballot Measure Funding Targets examined current (2017) and projected (2047) population and employment figures, which were given to each subregion to inform their ultimate funding target. As discussed in detail in Attachment B, if current population was the highest percentage figure for a specific subregion, that figure was used to develop that subregion's target. If another subregional percentage figure was higher, such as future employment, that figure was used instead. This funding allocation formula was deemed feasible because Metro staff anticipates additional revenue from other LRTP resources will be available to meet the relatively modest demand for supplemental funding. After establishing a consensus with all the subregional representatives on the Potential Ballot Measure Funding Targets earlier this year, Metro staff initiated the next steps in the process by requesting subregional priorities that were constrained to the Framework Funding Targets.

As of September 1, 2015, Metro received the project priority and policy input found in Attachment C to this report. Attachments D and E contain draft Stakeholder Input project lists that staff has attempted to synthesize in order to summarize the subregional and Regional Facilities priorities. Together, these attachments complete one phase of a multi-phase stakeholder and public input process summarized in the Roadmap in Attachment F. In addition to the input identified in Attachment C, many stakeholders also provided policies for Metro's consideration going forward. These are included in Attachment C as well.

Non-Project Needs and Contingencies: The Other Half of the Pie

Further defining the other funding priorities not captured in the input process to date must now begin. This was reiterated in some of the Stakeholder Input received as part of Attachments C. These needs include, but are not limited to, transit operating and state-of-good repair needs; countywide bus system, Metrolink and paratransit services; local return, including local streets and roads and local transit; highway innovation and operating needs such as ExpressLane system improvements, highway systems and operations management, and other transportation needs not captured in any other way.

In addition to non-capital project needs, a contingency strategy will be needed to handle fluctuations in project costs and revenue forecasts that will arise over a four decade planning horizon. A reliable strategy to make allowances for variations in revenue and cost uncertainties, contingencies, escalation and assumptions in debt service costs will be developed within the recommended sequencing plan and then incorporated as necessary in the recommended Expenditure Plan to support the potential ballot measure and LRTP update.

Public Opinion Research Background

Staff embarked on general public opinion research on the region's transportation priorities to supplement information gathered from stakeholders. In February 2015, four focus groups were conducted to help shape the survey questionnaire. Some of the main points expressed by participants included that traffic congestion is considered a serious problem and that it is getting worse due to the perceived increases in population and drivers on the road. They also believed that there is a need for new funding and that the public transportation system needs to be better connected.

In March 2015, a follow-up survey of 1,400 respondents was conducted with statistically significant sub-samples representing seven county sub-areas. This was not a traditional voter poll, but a sample representative of the general public. A sub-sample of self-reported likely November 2016 voters was also analyzed. Some of the key findings included: concern over the growth in the driver population and traffic congestion; and, the belief that a transportation plan must include a package of local roads, freeways and public transit projects. The transportation improvements that resonated with respondents most included traffic congestion relief, freeway improvements, keeping fares low for seniors the disabled and students, bridge and tunnel safety improvements, and pothole repair and repaving local streets. Finally, support for a transportation ballot measure appeared relatively strong among survey respondents, slightly above the two-thirds threshold.

NEXT STEPS

Consultant support for the LRTP process was secured and kicked-off on September 15, 2015 and staff is now working on travel demand modeling and other related tasks to enable the Potential Ballot Measure Framework in Attachment A and the subsequent Expenditure Plan and Ordinance processes to be completed by June 2016. Though staff proposes a final decision by the Metro Board of Directors on whether to support the agendizing of a November 2016 Ballot Measure in June 2016, the Metro Board must make a go/no go decision no later than the regularly scheduled meeting in July 2016 in order to ensure placement on the November 2016 ballot. The next steps in the LRTP and potential ballot measure framework are as follows:

1. Continue stakeholder outreach in October/November/December 2015;
2. Adopt Framework in December 2015;
3. Finalize non-project needs assessment and constraints in January 2016;
4. Conduct final needs and performance metrics and project scheduling analysis February 2016;
5. Release preliminary Expenditure Plan and Ordinance in March 2016;
6. Subregional and stakeholder outreach in April/May 2016;

7. Approve final Expenditure Plan and Ordinance in June 2016; and
8. Submit final Expenditure Plan and Ordinance to the County of Los Angeles Board of Supervisors in July/August 2016.

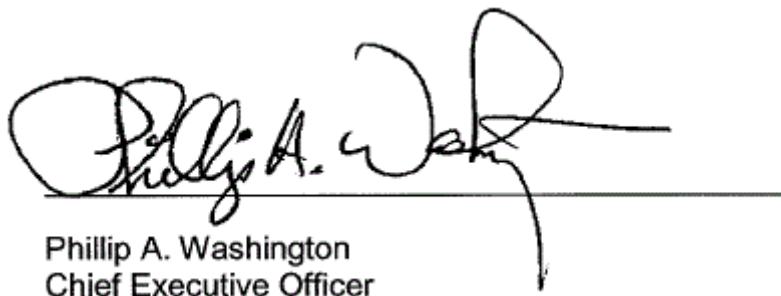
The LRTP update will be finalized and provided to the Board for adoption in 2017, after the results of the potential ballot measure process are known.

ATTACHMENTS

Attachment A: LRTP Potential Ballot Measure Framework Performance Metrics;
Attachment B: LRTP Potential Ballot Measure Framework Assumptions;
Attachment C: Stakeholder Process Input (through an On-Line Link);
Attachment D: Subregional Stakeholder Draft Project Priorities (Constrained);
Attachment E: Regional Facility Provider Draft Needs Lists (Unconstrained): and,
Attachment F: Roadmap for LRTP Potential Ballot Measure Process.
Attachment G: LRTP Potential Ballot Measure Framework Presentation

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**2017 LRTP Update
Proposed Performance Metrics Framework**

Metro Theme	Goals and Objectives	Performance Measures
Accessibility	<ul style="list-style-type: none"> • Increase population served by facility • Increase service to transit-dependent, cyclist, pedestrian populations including youth, seniors, and people with disabilities • Improve first-last mile connections 	<ul style="list-style-type: none"> • Job accessibility by population subgroup • Mode choice by income quintile • SB 535 Disadvantaged Communities mapping (CalEnviroScreen)
Economy	<ul style="list-style-type: none"> • Increase economic output • Support job creation & retention • Support goods movement 	<ul style="list-style-type: none"> • Linkages to major employment/activity centers • Number of jobs • REMI Model economic benefit results • Vehicle hours of delay for trucks
Mobility	<ul style="list-style-type: none"> • Increase travel by transit & active modes (such as bicycle & pedestrian travel) • Improve travel times • Improve system connectivity • Increase person throughput • Improve effectiveness & reliability for core riders 	<ul style="list-style-type: none"> • AM peak period speeds • Mobility index (throughput measure) • Annual boardings per mile • Annual boardings per \$million • Annual hours of delay savings/mile • Annual hours saved per \$million
Safety	<ul style="list-style-type: none"> • Reduce incidents • Improve personal safety 	<ul style="list-style-type: none"> • Fatalities per miles traveled • Injuries per miles traveled
State of Good Repair	<ul style="list-style-type: none"> • Operating and life cycle costs • Extend life of facility or equipment • Balance maintenance & rehabilitation 	<ul style="list-style-type: none"> • State of Good Repair condition ratings
Sustainability	<ul style="list-style-type: none"> • Reduce Green House Gases (GHG) • Reduce Vehicle Miles Travelled (VMT) • Improve quality of life: address high rates of air pollution and public health disparities 	<ul style="list-style-type: none"> • Vehicle hours of delay • Criteria pollutants tracked by EPA for air quality conformity • VMT (best available proxy for GHG)

Long Range Transportation Plan and Potential Ballot Measure Assumptions

October 1, 2015

Augment, Extend, and Sunset Assumptions

The 2017 LRTP is currently assumed to cover the time period from 2017 – 2057 (forty years) and incorporate projects funded by the Metro Board in the 2009 LRTP that sunsets in the year 2039 with Measure R. The three principle alternatives to this assumption revolve around these decisions: extend the existing tax or not; augment the existing tax or not; and, place a sunset on the new tax or not.

SB 767 (de León) provides the Metro Board maximum flexibility for all three of these alternatives. For example, the Metro Board could alternatively elect to propose an extension only, like Measure J, or it could elect to propose only an increase, without an extension, like Measure R. Finally, the Metro Board could change the sunset year of the tax (now tentatively assumed to be 2057) or eliminate it altogether, like Proposition A and Proposition C.

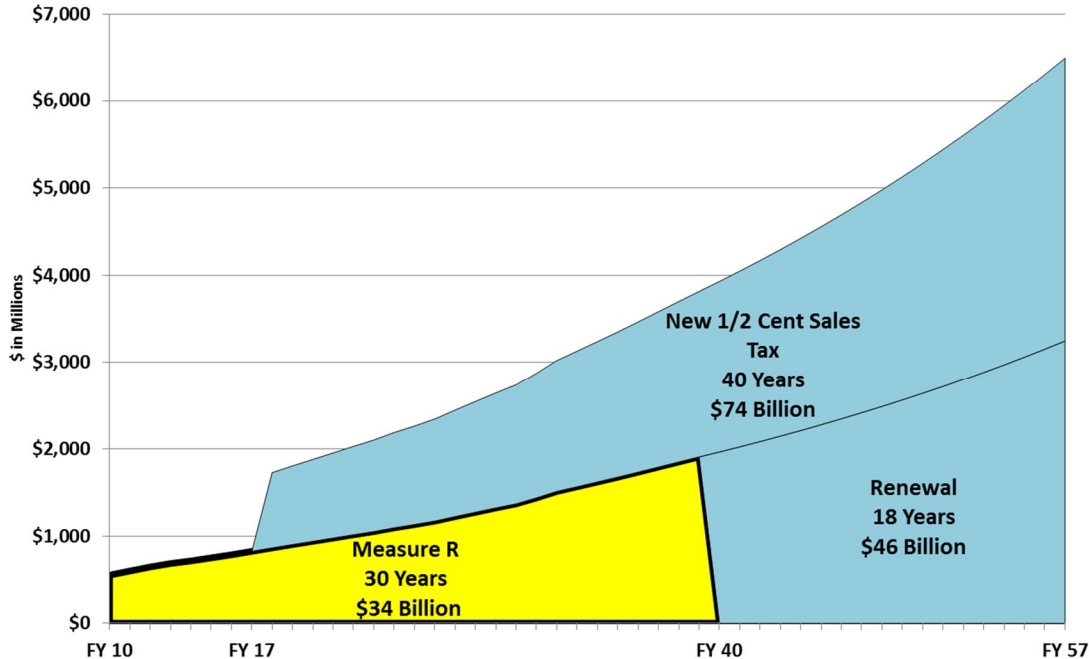
Three considerations led staff to the 2057 LRTP augment, extend, and sunset assumption, as follows:

- Unmet transportation infrastructure improvement needs: The Mobility Matrix process concluded that the entire inventory of needs for transportation capital improvements countywide was between \$157 and \$273 billion (in 2015 dollars). Shorter sunsets did not provide enough resources to develop the necessary level of consensus given this need;
- Market research indicates public support for transportation improvements: Past statistically reliable quantitative surveys conducted found no significant advantage to including a sunset clause in a Los Angeles County transportation sales tax ballot measure; and,
- Alameda County super majority: In November 2014, 70% of voters in Alameda County approved a ballot measure that augmented an existing ½ cent transportation sales tax while at the same time extending the original ½ cent transportation sales tax when it expired.

As a result of these considerations, the LRTP Framework assumes an augment and extend approach similar to the Alameda County strategy, as shown in Table 1, below:

Potential Ballot Measure Structure

Sales Tax Increase with Renewal of Existing



Augmenting Metro's existing transportation sales taxes for at least a 40 year period (through the year 2057) and also extending an existing sales tax (Measure R) expiring in 2039 will provide the best opportunity to secure the necessary resources to address the public's desire for transportation improvements. Prior to making a final decision next year, the results of further market research will be provided to the Metro Board.

Project Cost Inflation and Sales Tax Revenue Growth Assumptions

The SB 767 (de León) expenditure plan requirement to schedule projects and show approximate completion dates raises the need to assume the impact of inflation over time on project and program costs. The initial project costs were requested in 2015 dollars and our cost inflation assumption is 3% per year.

The sales tax revenue growth assumption is 3.8% per year through 2040 and 3% thereafter. The difference between inflation cost growth and revenue growth through 2040 is primarily economic growth from the UCLA Anderson School Forecast of taxable sales for Los Angeles County. Countywide Planning staff has found the UCLA Anderson School Forecast to be the best available for our long term planning needs.

Optimal Subregional Target Assumptions

The transparent process required by SB 767 (de León) and the bottoms-up process directed by the Metro Board required Countywide coordination of subregional revenue assumptions. To prioritize the enormous unmet transportation capital needs identified in the Mobility Matrix process, the subregions needed to know roughly what they could expect for capital improvements from the assumed augment and extend approach to the potential ballot measure.

Staff worked with the subregions to develop subregional revenue targets they could use for their priority setting process. To divide revenues into subregional targets, staff considered prior discussions with the subregions before developing a new approach. The purely current population and employment approach in Measure R led to later disagreements about extending that approach beyond 2039 in Measure J. Representatives from high population and/or employment growth areas felt the 2005 data used for Measure R was inequitable for taxes that would extend well beyond 2039, as proposed in Measure J.

To respond to these very valid concerns, staff interpolated Southern California Association of Governments 2008 population and 2035 employment information to establish 2017 and 2047 population and employment data points, as shown in Table 2:

Basis for Optimal Targets Vary by Subregion

Optimization Will Require Supplemental Non-Measure Funds by the LRTP Horizon Year							
40 Years		12.11% =				\$4.5 billion	
Subregion	Population		Employment		Pop/Emp, 2017/2047 Blend	Optimal Sub-Regional Share %	Δ%
	2017	2047	2017	2047			
Arroyo Verdugo	4.99%	4.79%	7.54%	7.82%	6.28%	7.82%	1.53%
Central Los Angeles	18.98%	19.12%	18.05%	18.01%	18.54%	19.12%	0.58%
Gateway Cities	19.84%	19.27%	16.63%	16.15%	17.97%	19.84%	1.87%
Las Virgenes/Malibu	0.85%	0.81%	1.38%	1.42%	1.12%	1.42%	0.30%
North Los Angeles County	7.42%	9.40%	5.42%	6.84%	7.27%	9.40%	2.13%
San Fernando Valley	14.66%	14.19%	14.21%	14.09%	14.29%	14.66%	0.37%
San Gabriel Valley	16.17%	16.14%	13.10%	12.76%	14.54%	16.17%	1.63%
South Bay	10.62%	10.13%	10.60%	10.16%	10.38%	10.62%	0.24%
Westside Cities	6.46%	6.14%	13.06%	12.75%	9.60%	13.06%	3.46%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%	112.11%	12.11%

- Source Data: SCAG RTP12 Socio-economic Data (SED)
- 2017 and 2047 year data interpolated/extrapolated from SCAG 2008 and 2035 Projections. Back-up data available on request.
- In this version, Arroyo Verdugo consists of Burbank, La Crescenta-Montrose, La Canada Flintridge, Glendale, Pasadena and South Pasadena. That means both Pasadena and South Pasadena have been taken out of San Gabriel Valley to be included in Arroyo Verdugo subregion.

REVISION #3

As one can see from the data in Table 2, at least one subregion had a credible argument to use each of four differing basis for the targets. To avoid disagreements over the basis of the targets to be used, Metro staff offered a blended approach and an optimal approach. The blended approach added-up to 100%, but the optimal approach would not at 112%. This meant the optimal approach would require approximately \$4.5 billion in non-measure funds from existing taxes beyond the 2009 LRTP planning horizon of 2039, but within the new LRTP planning horizon of 2057. The subregion's all preferred the optimal target approach and Metro staff found it to be workable and concurred, making the optimal basis the consensus choice for the initial subregional priority setting exercise.

Before calculating the subregional revenue targets, assumptions were also needed about how much of the anticipated revenue from the augment and extend approach might be dedicated to multi-modal capital improvement purposes. Measure R had 55% dedicated to these purposes. It should be emphasized that for discussion purposes, staff assumed that roughly half of the new tax, about \$60 billion, could go for multi-modal capital improvement purposes, though we cautioned that this was ultimately a decision expressly reserved for the Metro Board when more information about all needs were known.

Roughly half the tax, about \$60 billion, is on a year of expenditure basis while the project cost data identified in the Mobility Matrices is based on current year dollars instead. This required that the value of the \$60 billion, again roughly half the tax, be deescalated before being made available to each subregion as a target on a current dollar basis. This enabled the subregions to directly compare their target to the project cost data they already possessed.

Table 3 shows the end result of the target setting consensus, subregional targets in deescalated dollars comparable to project cost data on the same basis:

Table 3, Consensus Subregional Targets:

Optimal Capital Improvement Targets

Year of Expenditure \$'s (includes inflation) vs. Current \$'s (excludes inflation)

Subregion	Optimal Sub-regional Share %	Pay-Go (YOE, No Bonds)			De-escalated to Current 2014 \$		
		Tier 1 - New 1/2 Cent 40 Years (FY 18-57)	Tier 2 - 1/2 Cent Renewal 18 Years (FY 39-57)	Total	Tier 1 - New 1/2 Cent 40 Years (FY 18-57)	Tier 2 - 1/2 Cent Renewal 18 Years (FY 39-57)	Total
Arroyo Verdugo	7.82%	\$ 2,889	\$ 1,772	\$ 4,661	\$ 1,125	\$ 506	\$ 1,631
Central Los Angeles	19.12%	\$ 7,062	\$ 4,332	\$ 11,394	\$ 2,750	\$ 1,237	\$ 3,987
Gateway Cities	19.84%	\$ 7,328	\$ 4,495	\$ 11,823	\$ 2,853	\$ 1,284	\$ 4,137
Las Virgenes/Malibu	1.42%	\$ 525	\$ 322	\$ 842	\$ 204	\$ 92	\$ 296
North LA County	9.40%	\$ 3,472	\$ 2,130	\$ 5,602	\$ 1,352	\$ 608	\$ 1,960
San Fernando Valley	14.66%	\$ 5,415	\$ 3,321	\$ 8,736	\$ 2,108	\$ 949	\$ 3,057
San Gabriel Valley	16.17%	\$ 5,973	\$ 3,663	\$ 9,636	\$ 2,325	\$ 1,046	\$ 3,371
South Bay Cities	10.62%	\$ 3,923	\$ 2,406	\$ 6,329	\$ 1,527	\$ 687	\$ 2,214
Westside	13.06%	\$ 4,824	\$ 2,959	\$ 7,783	\$ 1,878	\$ 845	\$ 2,723
Subregional Total	112.11%	\$ 41,411	\$ 25,399	\$ 66,810	\$ 16,123	\$ 7,255	\$ 23,378

- 1) Optimal targets are each subregion's share of the proposed revenues based on the greatest percentage of four possible measures: i) current population; ii) future population; iii) current employment; or, iv) future employment. The following table has more information.
- 2) Dollars in millions.
- 3) YOE = Year of Expenditure.
- 4) Santa Clarita included in North LA County.
- 5) Arroyo Verdugo includes Burbank, Glendale, Pasadena, So. Pasadena and La Canada-Flintridge, and La Crescenta-Montrose.

ATTACHMENT C

Stakeholder Process Input

Document Available Online at:

http://media.metro.net/projects_studies/images/lrtp_stakeholder_input.pdf

Subregional Stakeholder Draft Project Priorities

ATTACHMENT D

(Constrained)

(2015 \$ in thousands)

Project	Notes	Cost Assumption	Draft Subregional Target (2015\$)	Difference
Arroyo Verdugo				
North Hollywood to Pasadena Bus Rapid Transit Corridor	a	\$ 283,000	\$ 283,000	\$ -
Traffic Congestion Relief and Improvement Program	b	\$ 1,348,000	\$ 1,348,000	\$ -
Arroyo Verdugo Subtotal		\$ 1,631,000	\$ 1,631,000	\$ -
San Fernando Valley				
Active Transportation Program	c,d	\$ 65,000	\$ 65,000	\$ -
Complete East Valley Transit Corridor Project as LRT		\$ 1,000,000	\$ 1,000,000	\$ -
North Hollywood to Pasadena Bus Rapid Transit Corridor	a	\$ 230,000	\$ 230,000	\$ -
Orange Line BRT Improvements		\$ 300,000	\$ 300,000	\$ -
Orange Line Conversion to Light Rail		\$ 1,400,000	\$ 62,000	\$ 1,338,000
Sepulveda Pass Transit Corridor	e	\$ 3,390,000	\$ 1,400,000	\$ 1,990,000
San Fernando Valley Subtotal		\$ 6,385,000	\$ 3,057,000	\$ 3,328,000
Westside				
Active Transportation and First/Last Mile Connections Prog.	f	\$ 700,000	\$ 700,000	\$ -
Crenshaw Line Extension to West Hollywood/Hollywood	g	\$ 580,000	\$ 300,000	\$ 280,000
Lincoln Blvd BRT		\$ 307,000	\$ 307,000	\$ -
Purple Line Extension to Santa Monica		\$ 2,647,100	\$ 16,000	\$ 2,631,100
Sepulveda Pass Transit Corridor	e	\$ 3,390,000	\$ 1,400,000	\$ 1,990,000
Westside Subtotal		\$ 7,624,100	\$ 2,723,000	\$ 4,901,100
Central Cities				
Crenshaw Line Extension to West Hollywood/Hollywood	g	\$ 1,750,000	\$ 1,610,000	\$ 140,000
DASH Program	c	\$ 260,000	\$ 260,000	\$ -
Freeway Interchange and Operational Improvements	c	\$ 205,000	\$ 205,000	\$ -
Historic Streetcar and Bus Rapid Transit Program	c	\$ 147,000	\$ 147,000	\$ -
LA River Bikepath	c	\$ 375,000	\$ 375,000	\$ -
Los Angeles Safe Routes to School Initiative	c	\$ 250,000	\$ 250,000	\$ -
LA Streetscape Enhancements & Great Streets Program	c	\$ 475,000	\$ 475,000	\$ -
Active Transportation, 1st/Last Mile, & Mobility Hubs	c	\$ 215,000	\$ 215,000	\$ -
Public Transit State of Good Repair Program	c	\$ 450,000	\$ 450,000	\$ -
Central Cities Subtotal		\$ 4,127,000	\$ 3,987,000	\$ 140,000
North County				
Active Transportation Program	c	\$ 264,000	\$ 264,000	\$ -
Arterial Program	c	\$ 378,000	\$ 378,000	\$ -
Goods Movement Program	c	\$ 104,000	\$ 104,000	\$ -
High Desert Corridor (HDC) Right-of-Way		\$ 270,000	\$ 270,000	\$ -
Highway Efficiency Program	c	\$ 349,000	\$ 349,000	\$ -
I-5 North Capacity Enhancements (Parker Rd. + 1.5 miles)		\$ 785,000	\$ 268,000	\$ 517,000
Multimodal Connectivity Program	c	\$ 239,000	\$ 239,000	\$ -
Transit Program	c	\$ 88,000	\$ 88,000	\$ -
North County Subtotal		\$ 2,477,000	\$ 1,960,000	\$ 517,000
Las Virgenes-Malibu				
Active Transportation, Transit, and Technology Program	c	\$ 29,600	\$ 29,600	\$ -
Highway Efficiency Program	c	\$ 177,600	\$ 177,600	\$ -
Modal Connectivity Program	c	\$ 88,800	\$ 88,800	\$ -
Las Virgenes-Malibu Subtotal		\$ 296,000	\$ 296,000	\$ -

for reference only - not priority order



Subregional Stakeholder Draft Project Priorities (Constrained)

ATTACHMENT D

(2015 \$ in thousands)

for reference only - not priority order	Project	Notes	Cost Assumption	Draft Subregional Target (2015\$)	Difference
46	Gateway Cities				
47	Gold Line Eastside Extension Phase II - Washington Blvd.	h	\$ 1,500,000	\$ 543,000	\$ 957,000
48	Green Line Eastern Extension (Norwalk)		\$ 500,000	\$ 500,000	\$ -
49	I-5 Corridor Improvements (I-605 to I-710)		\$ 1,100,000	\$ 1,059,000	\$ 41,000
50	I-605 Corridor "Hot Spot" Interchange Improvements		\$ 850,000	\$ 300,000	\$ 550,000
51	I-710 South Corridor Project	i	\$ 4,000,000	\$ 500,000	\$ 3,500,000
52	SR 60/I-605 Interchange HOV Direct Connectors	j	\$ 260,000	\$ 200,000	\$ 60,000
53	West Santa Ana Branch (Eco Rapid Transit Project)-Phase 1		\$ 1,000,000	\$ 535,000	\$ 465,000
54	West Santa Ana Branch (Eco Rapid Transit Project)-Phase 2		\$ 1,000,000	\$ 500,000	\$ 500,000
55	Gateway Cities Subtotal		\$ 10,210,000	\$ 4,137,000	\$ 6,073,000
56	San Gabriel Valley				
57	Active Transportation Program (Bicycle/Pedestrian Facilities)	c	\$ 231,000	\$ 231,000	\$ -
58	Bus System Improvement Program	c	\$ 55,000	\$ 55,000	\$ -
59	Goods Movement Program (Improvements & RR Xing Elim.)	c	\$ 33,000	\$ 33,000	\$ -
60	Highway Demand Based Program (HOV Ext. & Connectors)	c	\$ 231,000	\$ 231,000	\$ -
61	Highway Efficiency Program	c	\$ 534,000	\$ 534,000	\$ -
62	I-605/I-10 Interchange		\$ 126,000	\$ 126,000	\$ -
63	ITS/Technology Program (Advanced Signal Technology)	c	\$ 66,000	\$ 66,000	\$ -
64	Metro Gold Line Eastside Transit Corridor Phase II - SR-60	h	\$ 1,500,000	\$ 543,000	\$ 957,000
65	Metro Gold Line Foothill Light Rail Extension - Phase 2B		\$ 1,130,000	\$ 1,019,000	\$ 111,000
66	First/Last Mile and Complete Streets	c	\$ 198,000	\$ 198,000	\$ -
67	SR 60/I-605 Interchange HOV Direct Connectors	j	\$ 130,000	\$ 130,000	\$ -
68	SR-57/SR-60 Interchange Improvements		\$ 205,000	\$ 205,000	\$ -
69	San Gabriel Valley Subtotal		\$ 4,439,000	\$ 3,371,000	\$ 1,068,000
70	South Bay				
71	Green Line Extension to Crenshaw Blvd in Torrance		\$ 607,500	\$ 607,500	\$ -
72	I-105 Hot Lane from I-405 to I-605		\$ 350,000	\$ 350,000	\$ -
73	I-110 Express Lane Ext South to I-405/I-110		\$ 81,500	\$ 81,500	\$ -
74	I-405 South Bay Curve Widening		\$ 120,000	\$ 120,000	\$ -
75	I-405/I-110 Int. HOV Connector Ramps & Intrchnng Improv		\$ 355,000	\$ 355,000	\$ -
76	South Bay Highway Operational Improvements	c	\$ 1,100,000	\$ 350,000	\$ 750,000
77	Transportation System and Mobility Improvements Program	c	\$ 350,000	\$ 350,000	\$ -
78	South Bay Subtotal		\$ 2,964,000	\$ 2,214,000	\$ 750,000
79	GRAND TOTAL		\$ 40,153,100	\$ 23,376,000	\$ 16,777,100

- Cost Assumption equals subregional funding share proposed by the Arroyo Verdugo and San Fernando Valley areas.
- Arroyo Verdugo Traffic Congestion Relief and Improvement Program includes projects in the following modal categories: Active Transportation, Arterials, Complete Streets, First and Last Mile Programs, Goods Movement, Highway Efficiency, ITS/Technology.
- Cost Assumption equals Draft Subregional Target.
- Program includes City of San Fernando Bike Master Plan and LA River Bike Path Across the Valley projects.
- Final cost, scope, and subregional shares will be determined by the environmental process. The working assumption here for any existing available LRTP funding is 50% San Fernando Valley area and 50% Westside.
- Includes Active Transportation Networks and First/Last Mile Connections and I-10 Multimodal Circulation Improvement Project
- Final cost, scope, and subregional shares will be determined by the environmental process. The working assumption here is 75% Central-25% Westside.
- Final cost, scope, and subregional shares will be determined by the environmental process. The working assumption here for any existing available LRTP funding is 50% Gateway area and 50% San Gabriel Valley area.
- At least \$3.5 B in funding needs for this project is not shown here. We are pursuing a strategy to fund 12.5% from existing resources, 12.5% from State resources, 12.5% from Federal resources, & 12.5% from subregional target. The remaining 50% is to come from private tolls or fees originating from freight.
- Final cost, scope, & subregional shares will be determined by the environmental process. The working assumption here is 2/3 Gateway & 1/3 San Gabriel Valley.

Regional Facility Provider Draft Needs List (Unconstrained)

ATTACHMENT E

(2015 \$ in thousands)

	Project	Cost Estimate
1	Bob Hope Airport	
2	Burbank/Glendale LRT	\$ 1,604,000
3	Clybourn Ave: Grade separation at railroad tracks / Vanowen St / Empire Ave	\$ 60,000
4	Hollywood Way/San Fernando Rd Metrolink station pedestrian bridge	\$ 8,350
5	I-5/Buena Vista Ave: Reconfigure ramps and connect with Winona Ave	\$ 30,000
6	Metro Red Line Extension: North Hollywood to Burbank Airport	\$ 1,800,000
7	North Hollywood to Bob Hope Airport to Pasadena Transit Corridor	\$ 2,550,000
8	Subtotal	\$ 6,052,350
9	Long Beach Airport	
10	3138-Bellflower Blvd./ Spring St. Improv.	\$ 5,000
11	9078-Lakewood Blvd./ Rosemead Blvd. (59) signals-San Gabriel Blvd. to Stearns St.	\$ 10,325
12	3137-Lakewood Blvd. / Spring St. Improv.	\$ 5,000
13	9659-LGB Bicycle access improvements	\$ 50,000
14	3082-Wardlow Rd. / Cherry Ave. Intersection Widening	\$ 5,000
15	9094-Willow St. (23) signals from I-710 to I-605	\$ 2,450
16	Subtotal	\$ 77,775
17	Los Angeles Airport	
18	Automated People Mover (APM) system	\$ 175,000
19	Connection: Manchester Square to I-405 southbound and I-105 eastbound ramp	\$ 450,000
20	Gateway LAXpress Employee Transport: capital cost of existing/new transit vehicles	\$ 50,000
21	Gateway LAXpress Employee Transport: Mobility Hubs at Regional Transit Centers	\$ 75,000
22	Gateway LAXpress Employee IT Platform Services	\$ 250
23	I-405: Construct LAX Expressway	\$ 1,120,000
24	Interstate 405 (I-405) Direct High Occupancy Vehicle (HOV) Connector to LAX	\$ 135,000
25	Provide an on-ramp to I-405 northbound from northbound La Cienega Boulevard	\$ 90,000
26	Trench Cover (Crenshaw/LAX Transit Corridor)	TBD
27	Subtotal	\$ 2,095,250
28	Palmdale Airport	
29	Bicycle/Pedestrian Connector from the Palmdale Regional Airport	\$ 50,000
30	High Desert Corridor from SR 14 to 50th Street East	\$ 670,000
31	People Mover from PTC to the Palmdale Regional Airport	\$ 100,000
32	RVB Roadway Improvements from 15th Street East to 50th Street East	\$ 75,000
33	Rancho Vista Grade Separation Project from Fairway Drive to 15th Street East	\$ 100,000
34	Subtotal	\$ 995,000






Regional Facility Provider Draft Needs List (Unconstrained)

ATTACHMENT E

(2015 \$ in thousands)

Project	Cost Estimate
Port of Los Angeles	
Alameda Corridor Terminus - Cerritos Channel Bridge (5004)	\$ 170,000
Alameda Corridor POLA/POLB Access Rail (Thenard Junction Connection)	\$ 20,000
Alameda Corridor Terminus/SR 47 Rail Crossing Advanced Warning System.	\$ 5,000
Alameda Corridor Terminus-West Basin Railyard Expansion (additional tracks)	\$ 45,000
Alameda Corridor Terminus - West Basin Track (West Basin 2 nd Mainline Track)	\$ 5,000
Alameda Corridor Terminus/California Coastal Trail Extension Grade Separation	\$ 15,000
California Coastal Trail - Ports O' Call Promenade	\$ 29,000
Container Movement Efficiency Program	\$ 383,000
New Terminal Island On-dock railyard	\$ 150,000
Pier 300 On-Dock Railyard Expansion (2 additional loading tracks)	\$ 35,000
Pier 400 On-Dock Railyard Expansion (2 additional loading tracks)	\$ 75,000
Pier 400 Second Lead Track	\$ 12,000
San Pedro Waterfront Regional Access Improvement:	\$ 41,000
SR 47/V. Thomas Bridge/Harbor Blvd. Interchange	\$ 25,000
SR 47/Navy Way Interchange	\$ 50,000
Terminal Island Container Transfer Facility Expansion (additional loading track)	\$ 4,000
Terminal Island Rail Support Yard	\$ 50,000
West Basin Container Terminal Automated/Electrified On-Dock Railyard	\$ 86,000
Subtotal	\$ 1,200,000
Port of Long Beach	
Coastal Trail Gap Closure Projects (Regional Connectivity)	\$ 21,800
Gerald Desmond Bridge Replacement Project	\$ 200,000
Pico Avenue Freight Corridor Street Improvements	\$ 160,000
Port Area Advanced Transportation Management and Information System 2.0	\$ 6,000
Port Access Road Improvements	\$ 50,015
Rail Efficiency Improvement Project at Pier B	\$ 440,000
Rail Efficiency Improvement at Pier G South Rail Yard	\$ 66,000
Terminal Island On-Dock Rail Efficiency Improvements	\$ 173,710
Subtotal	\$ 1,117,525
Union Station	
Los Angeles Union Station-40 year component State of Good Repair Cost	\$ 106,260
Southern California Regional Interconnector Project (Metrolink Run-Through)	\$ 150,000
Union Station Linkages Program (Connect US Action Plan)	\$ 26,000
Union Station Master Plan (USMP) Stage 2A Multi Modal Passenger Concourse	\$ 300,000
USMP Enabling Development (Stage 2C)	\$ 12,000
USMP Enabling Development and Open Space Network (Stage 2E and 2F)	\$ 114,000
USMP Perimeter Improvements (Stage 1)	\$ 31,111
USMP Relocated Patsaouras Bus Plaza (Stage 2B)	\$ 770,000
Subtotal	\$ 1,509,371
GRAND TOTAL	\$ 13,047,271

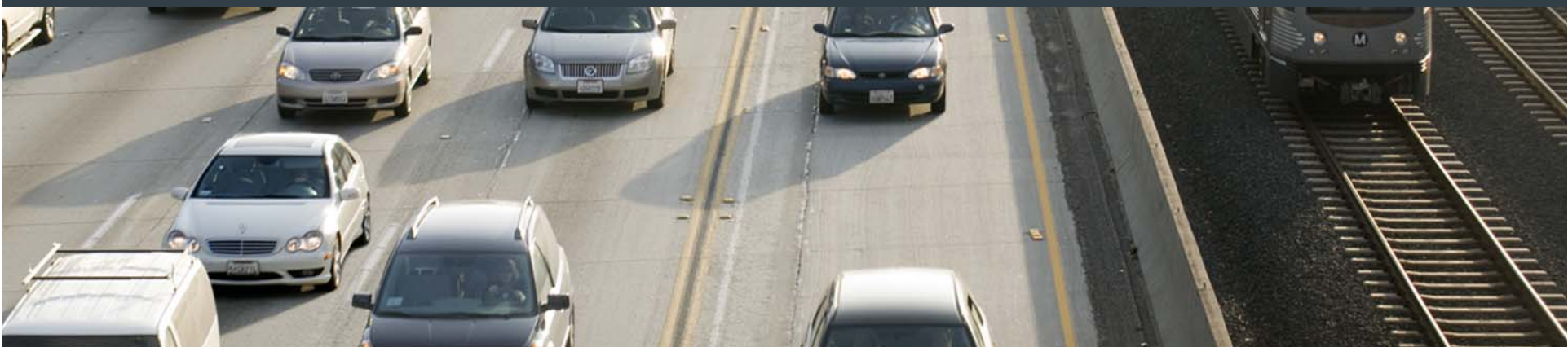
Transportation Plan Roadmap

	OCTOBER 2015	NOVEMBER— DECEMBER 2015	JANUARY— MARCH 2016	APRIL— JUNE 2016	JULY— SEPTEMBER 2016	OCTOBER— DECEMBER 2016
EXPENDITURE PLAN 	> Plan Framework	> Finalize Framework	> Evaluate Project Sequencing	> Finalize Project Sequencing	> Submit Ballot Measure	 ELECTION NOV 8, 2016
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Long Range Transportation Plan

**DRAFT POTENTIAL BALLOT MEASURE FRAMEWORK,
ASSUMPTIONS, AND INPUT**



Metro Board Meeting
October 22, 2015

Progress to Date:

- Stakeholder Feedback Received
- Subregional Priorities Identified
- Regional Facilities Priorities Received
- Senate Bill 767 Signed by Governor Brown

Current Status:

- Performance Metrics Framework Proposed
- LRTP and Potential Ballot Measure Working Assumptions Presented
- Travel Demand Modeling Underway

Senate Bill 767 Expenditure Plan Requirements

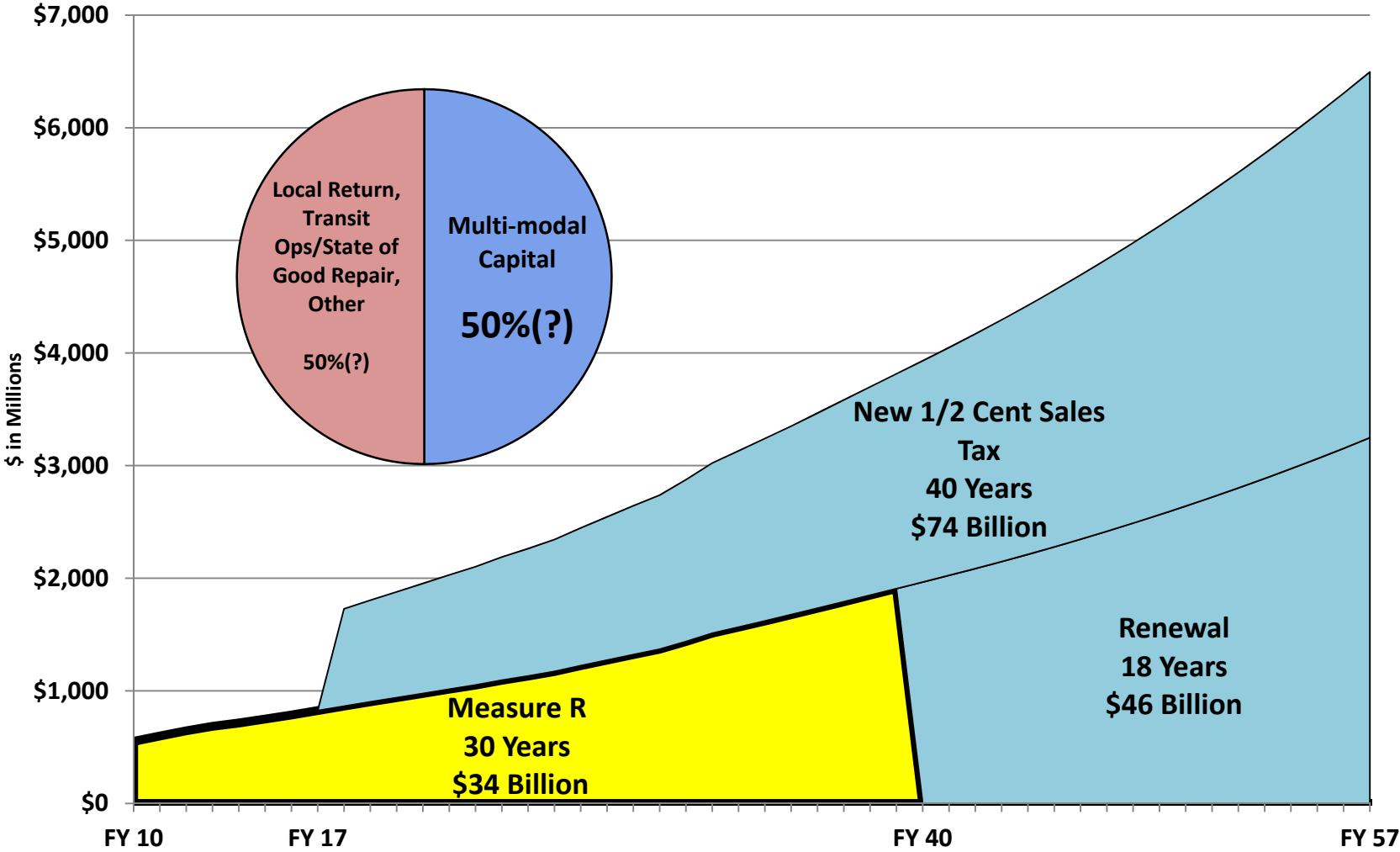
- The most recent cost estimates for each project and program;
- Identification of the accelerated cost, if applicable, for each project and program;
- The approximate schedule during which Metro anticipates funds will be available for each project and program; and
- Expected completion dates for each project and program within a three-year range.

Draft Proposed Performance Metrics Framework

Theme	Goals and Objectives	Performance Measures
Accessibility	<ul style="list-style-type: none"> • Increase population served by facility • Increase service to transit-dependent, cyclist, pedestrian populations including youth, seniors, and people with disabilities • Improve first-last mile connections 	<ul style="list-style-type: none"> • Job accessibility by population subgroup • Mode choice by income quintile • SB 535 Disadvantaged Communities mapping (CalEnviroScreen)
Economy	<ul style="list-style-type: none"> • Increase economic output • Support job creation & retention • Support goods movement 	<ul style="list-style-type: none"> • Linkages to major employment/activity centers • Number of jobs • REMI Model economic benefit results • Vehicle hours of delay for trucks
Mobility	<ul style="list-style-type: none"> • Increase travel by transit & active modes (such as bicycle & pedestrian travel) • Improve travel times • Improve system connectivity • Increase person throughput • Improve effectiveness & reliability for core riders 	<ul style="list-style-type: none"> • AM peak period speeds • Mobility index (throughput measure) • Annual boardings per mile • Annual boardings per \$million • Annual hours of delay savings/mile • Annual hours saved per \$million
Safety	<ul style="list-style-type: none"> • Reduce incidents • Improve personal safety 	<ul style="list-style-type: none"> • Fatalities per miles traveled • Injuries per miles traveled
State of Good Repair	<ul style="list-style-type: none"> • Operating and life cycle costs • Extend life of facility or equipment • Balance maintenance & rehabilitation 	<ul style="list-style-type: none"> • State of Good Repair condition ratings
Sustainability	<ul style="list-style-type: none"> • Reduce Green House Gases (GHG) • Reduce Vehicle Miles Travelled (VMT) • Improve quality of life: address high rates of air pollution and public health disparities 	<ul style="list-style-type: none"> • Vehicle hours of delay • Criteria pollutants tracked by EPA for air quality conformity • VMT (best available proxy for GHG)

Potential Ballot Measure Structure

Sales Tax Increase with Renewal of Existing



Optimizing Subregional Targets

Population and/or Employment?

- High employ. areas: “Employment”
- High population areas: “Population”

Current or Future?

- Low growth areas: “Current”
- High growth areas: “Future”

Solution: Provide optimum percentage using regional funds

Optimization Will Require Supplemental Non-Measure Funds by the L RTP Horizon Year							
40 Years				12.11% =		\$4.5 billion	
Subregion	Population		Employment		Pop/Emp, 2017/2047 Blend	Optimal Sub-Regional Share %	Δ%
	2017	2047	2017	2047			
Arroyo Verdugo	4.99%	4.79%	7.54%	7.82%	6.28%	7.82%	1.53%
Central Los Angeles	18.98%	19.12%	18.05%	18.01%	18.54%	19.12%	0.58%
Gateway Cities	19.84%	19.27%	16.63%	16.15%	17.97%	19.84%	1.87%
Las Virgenes/Malibu	0.85%	0.81%	1.38%	1.42%	1.12%	1.42%	0.30%
North Los Angeles County	7.42%	9.40%	5.42%	6.84%	7.27%	9.40%	2.13%
San Fernando Valley	14.66%	14.19%	14.21%	14.09%	14.29%	14.66%	0.37%
San Gabriel Valley	16.17%	16.14%	13.10%	12.76%	14.54%	16.17%	1.63%
South Bay	10.62%	10.13%	10.60%	10.16%	10.38%	10.62%	0.24%
Westside Cities	6.46%	6.14%	13.06%	12.75%	9.60%	13.06%	3.46%
Grand Total	100.00%	100.00%	100.00%	100.00%	100.00%	112.11%	12.11%

- Source Data: SCAG RTP12 Socio-economic Data (SED)
- 2017 and 2047 year data interpolated/extrapolated from SCAG 2008 and 2035 Projections. Back-up data available on request.
- In this version, Arroyo Verdugo consists of Burbank, La Crescenta-Montrose, La Canada Flintridge, Glendale, Pasadena and South Pasadena. That means both Pasadena and South Pasadena have been taken out of San Gabriel Valley to be included in Arroyo Verdugo subregion.

Subregion	Optimal Sub-regional Share %	Pay-Go (YOE, No Bonds)			De-escalated to Current 2014 \$		
		Tier 1 - New 1/2 Cent 40 Years (FY 18-57)	Tier 2 - 1/2 Cent Renewal 18 Years (FY 39-57)	Total	Tier 1 - New 1/2 Cent 40 Years (FY 18-57)	Tier 2 - 1/2 Cent Renewal 18 Years (FY 39-57)	Total
Arroyo Verdugo	7.82%	\$ 2,889	\$ 1,772	\$ 4,661	\$ 1,125	\$ 506	\$ 1,631
Central Los Angeles	19.12%	\$ 7,062	\$ 4,332	\$ 11,394	\$ 2,750	\$ 1,237	\$ 3,987
Gateway Cities	19.84%	\$ 7,328	\$ 4,495	\$ 11,823	\$ 2,853	\$ 1,284	\$ 4,137
Las Virgenes/Malibu	1.42%	\$ 525	\$ 322	\$ 842	\$ 204	\$ 92	\$ 296
North LA County	9.40%	\$ 3,472	\$ 2,130	\$ 5,602	\$ 1,352	\$ 608	\$ 1,960
San Fernando Valley	14.66%	\$ 5,415	\$ 3,321	\$ 8,736	\$ 2,108	\$ 949	\$ 3,057
San Gabriel Valley	16.17%	\$ 5,973	\$ 3,663	\$ 9,636	\$ 2,325	\$ 1,046	\$ 3,371
South Bay Cities	10.62%	\$ 3,923	\$ 2,406	\$ 6,329	\$ 1,527	\$ 687	\$ 2,214
Westside	13.06%	\$ 4,824	\$ 2,959	\$ 7,783	\$ 1,878	\$ 845	\$ 2,723
Subregional Total	112.11%	\$ 41,411	\$ 25,399	\$ 66,810	\$ 16,123	\$ 7,255	\$ 23,378






- 1) Optimal targets are each subregion's share of the proposed revenues based on the greatest percentage of four possible measures: i) current population; ii) future population; iii) current employment; or, iv) future employment. The following table has more information.
- 2) Dollars in millions.
- 3) YOE = Year of Expenditure.
- 4) Santa Clarita included in North LA County.
- 5) Arroyo Verdugo includes Burbank, Glendale, Pasadena, So. Pasadena and La Canada-Flintridge, and La Crescenta-Montrose.

Year of Expenditure versus Current Dollars

Optimal shares had to be consistent with Project cost

- Current dollars are to be used until schedules are known
- Year of Expenditure dollars include inflation
- Confusion between the two needs to be avoided

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