Metro

Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
3rd Floor Board Room

Metro

Agenda - Final

Wednesday, November 20, 2019

11:00 AM

One Gateway Plaza, Los Angeles, CA 90012,
3rd Floor, Metro Board Room

Planning and Programming Committee

Hilda Solis, Chair
Jacquelyn Dupont-Walker, Vice chair
Mike Bonin
Janice Hahn
Ara Najarian
John Bulinski, non-voting member

Phillip A. Washington, Chief Executive Officer

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(ALSO APPLIES TO BOARD COMMITTEES)

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A member of the public may address the Board on agenda items, before or during the Board or Committee's consideration of the item for one (1) minute per item, or at the discretion of the Chair. A request to address the Board must be submitted electronically using the tablets available in the Board Room lobby. Individuals requesting to speak will be allowed to speak for a total of three (3) minutes per meeting on agenda items in one minute increments per item. For individuals requiring translation service, time allowed will be doubled. The Board shall reserve the right to limit redundant or repetitive comment.

The public may also address the Board on non agenda items within the subject matter jurisdiction of the Board during the public comment period, which will be held at the beginning and/or end of each meeting. Each person will be allowed to speak for one (1) minute during this Public Comment period or at the discretion of the Chair. Speakers will be called according to the order in which their requests are submitted. Elected officials, not their staff or deputies, may be called out of order and prior to the Board's consideration of the relevant item.

Notwithstanding the foregoing, and in accordance with the Brown Act, this agenda does not provide an opportunity for members of the public to address the Board on any Consent Calendar agenda item that has already been considered by a Committee, composed exclusively of members of the Board, at a public meeting wherein all interested members of the public were afforded the opportunity to address the Committee on the item, before or during the Committee's consideration of the item, and which has not been substantially changed since the Committee heard the item.

In accordance with State Law (Brown Act), all matters to be acted on by the MTA Board must be posted at least 72 hours prior to the Board meeting. In case of emergency, or when a subject matter arises subsequent to the posting of the agenda, upon making certain findings, the Board may act on an item that is not on the posted agenda.

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a. Disorderly behavior toward the Board or any member of the staff thereof, tending to interrupt the due and orderly course of said meeting.
b. A breach of the peace, boisterous conduct or violent disturbance, tending to interrupt the due and orderly course of said meeting.
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NOTE: ACTION MAY BE TAKEN ON ANY ITEM IDENTIFIED ON THE AGENDA

CALL TO ORDER

ROLL CALL

5. SUBJECT: TWENTY-EIGHT BY '28 PILLAR PROJECTS QUARTERLY UPDATE 2019-0760

RECOMMENDATION

RECEIVE AND FILE quarterly update on the Twenty-Eight by '28 Initiative pillar projects.

Attachments: Attachment A - Pillar Projects Baseline Planning Schedule
Attachment B - Pillar Projects Connectivity to 2028 Olympic Venues
Presentation

(ALSO ON EXECUTIVE MANAGEMENT COMMITTEE)

6. SUBJECT: SEPULVEDA TRANSIT CORRIDOR FEASIBILITY STUDY 2019-0759

RECOMMENDATION

RECEIVE AND FILE Sepulveda Transit Corridor Feasibility Study.

Attachments: Attachment A - Feasibility Study Executive Summary
Attachment B - Project Timeline
Presentation

7. SUBJECT: MEASURE R ORDINANCE PRELIMINARY 10-YEAR REVIEW AND POTENTIAL AMENDMENTS 2019-0629

RECOMMENDATION

RECEIVE AND FILE the Measure R Ordinance Preliminary Ten-Year Review and Potential Amendments.

(ALSO ON EXECUTIVE MANAGEMENT COMMITTEE)

8. SUBJECT: 2019 SHORT RANGE PLANNING MODEL UPDATE 2019-0630

RECOMMENDATION

RECEIVE AND FILE information on the 2019 Short Range Financial Forecast planning model, which identifies the high-level planning and programming of funds.

Attachments: Attachment A - Short Range Financial Forecast (FY 2020 to FY 2034).pdf
Attachment B - Project Profiles.pdf

9. SUBJECT: LONE HILL TO WHITE DOUBLE TRACK 2019-0519

RECOMMENDATION

CONSIDER:

A. APPROVING the programming of $7.5 million in Measure R 3% commuter rail funds for final design including third party costs of the Lone Hill to White (LHW) Double Track Project; and

B. AUTHORIZING the Chief Executive Officer to negotiate and execute all agreements for the LHW final design.

Attachments: Attachment A - Map of LHW Double Track Project Corridor.pdf
Attachment B - Letter of Support from City of San Dimas.pdf
Attachment C - Letter of Support from City of La Verne.pdf
Presentation.pdf

10. SUBJECT: THIRD PARTY REQUEST FOR DEVIATIONS FROM SYSTEMWIDE STATION DESIGN STANDARDS POLICY 2019-0618

RECOMMENDATION

APPROVE Third Party Request for Design Deviation from Systemwide Station Design Standards.

Attachments: Attachment A - Systemwide Station Design Standards Policy
Attachment B - Supplemental Modifications to Transit Projects Poli
Presentation

11. SUBJECT: EXPO/CRENSHAW JOINT DEVELOPMENT 2019-0624

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to execute an amendment to the Exclusive Negotiation Agreement and Planning Document with Watt Companies, doing business as WIP-A, LLC, and the County of Los Angeles for 12 months with the option to extend for an additional four months for the joint development of 1.77 acres of Metro-owned property and 1.66 acres of County-owned property at the Expo/Crenshaw Station.

Attachments: Attachment A - Site Map
Presentation

13. SUBJECT: I-405 SEPULVEDA PASS (PHASE 1) EXPRESSLANES PROJECT APPROVAL/ENVIRONMENTAL DOCUMENT, CONCEPT OF OPERATIONS, AND DESIGN DEVELOPMENT CONTRACT AWARD 2019-0659

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to award and execute a 36-month, firm fixed price Contract No. AE61156000 to WSP USA, Inc. in the amount of $27,494,005.21 for Architectural and Engineering services to produce the I-405 Phase 1 Sepulveda Pass ExpressLanes Project Approval/Environmental Document, the Concept of Operations report and 30% design, subject to resolution of protest(s), if any.

Attachments: Attachment A - Procurement Summary
Attachment B - DEOD Summary

14. SUBJECT: GRANT ASSISTANCE 2019-0661

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to award and execute a 36-month, firm fixed price Contract No. PS63023000 to WSP USA, Inc. in the amount of $6,372,356 for preparing 84 grant applications and 40 additional grant applications as well as optional tasks, such as greenhouse gas analysis, drone and aerial photography, and simulations. This will support Metro and local jurisdiction grant applications to discretionary federal and state funding opportunities, subject to resolution of protest(s), if any.

Attachments: Attachment A - Procurement Summary
Attachment B - DEOD Summary

16. SUBJECT: SR-71 GAP CLOSURE PROJECT CONSTRUCTION, PHASE 1 2019-0703

RECOMMENDATION

CONSIDER:

A. APPROVING the programming of $105,072,000 in local funds for the construction of Phase 1; and

B. AMENDING the 2009 Long Range Transportation Plan to restate the project's southern limit from Rio Rancho Road to the Los Angeles/San Bernardino County Line (SBCL).

Attachments: Attachment A - Location Map
Presentation

17. SUBJECT: MEASURE M MULTI-YEAR SUBREGIONAL PROGRAM - GATEWAY CITIES SUBREGION 2019-0740

RECOMMENDATION

CONSIDER:

A. APPROVING programming of $27,764,900 in Measure M Multi-Year Subregional Program (MSP) - I-605 Corridor “Hot Spot” Interchange Improvements Program (Expenditure Line 61); and

B. AUTHORIZING the Chief Executive Officer (CEO) or his designee to negotiate and execute all necessary agreements for approved projects.

Attachments: Attachment A - I-605 Corridor 'Hot Spot' Interchange Improvement Program Pro

18. SUBJECT: TRANSIT AND INTERCITY RAIL CAPITAL PROGRAM GRANT APPLICATIONS 2019-0758

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to prioritize projects, commit funding match and submit grant applications to California’s Transit and Intercity Rail Capital Program as detailed in Attachment A.

Attachments: Attachment A - 2020 TIRCP Evaluative Criteria Framework

SUBJECT: GENERAL PUBLIC COMMENT 2019-0810

RECEIVE General Public Comment

Consideration of items not on the posted agenda, including: items to be presented and (if requested) referred to staff; items to be placed on the agenda for action at a future meeting of the Committee or Board; and/or items requiring immediate action because of an emergency situation or where the need to take immediate action came to the attention of the Committee subsequent to the posting of the agenda.

COMMENTS FROM THE PUBLIC ON ITEMS OF PUBLIC INTEREST WITHIN COMMITTEE’S SUBJECT MATTER JURISDICTION

Adjournment

Los Angeles County
Metropolitan Transportation
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One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2019-0760, **File Type:** Informational Report **Agenda Number:** 5.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 20, 2019
EXECUTIVE MANAGEMENT COMMITTEE
NOVEMBER 21, 2019

SUBJECT: TWENTY-EIGHT BY '28 PILLAR PROJECTS QUARTERLY UPDATE

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE quarterly update on the Twenty-Eight by '28 Initiative pillar projects.

ISSUE

This item is an ongoing status report of the pursuit of the Twenty-Eight by '28 Initiative with a focus on the four identified "pillar projects." In addition, this item responds to Board requests during the July 2019 quarterly update to establish a Metro task force, provide additional detail on specific strategies to accelerate the projects, identify the tipping point where projects cannot be delivered, and determine what is not financially feasible.

BACKGROUND

The Reimagining of LA County staff report, which identified assumptions and priorities to deliver the Twenty-Eight by '28 Initiative, was submitted to the Board in February 2019 and recommended quarterly status reports. The Metro Board provided direction in response to The Reimagining of LA County report to prioritize the four pillar projects and prepare a financial forecast and constructability analysis. Staff submitted the pillar projects financial forecast and constructability analysis to the Board in July 2019. This report represents the third quarterly status report to the Board.

DISCUSSION

This report provides an update on the pillar projects baseline planning schedule (Attachment A) and strategies that staff is pursuing to accelerate the pillar projects. In particular, we are providing information on the recommended Metro task force, project updates, specific acceleration strategies, tipping points, and what is not feasible.

Establish a Task Force

Metro staff set up a task force comprised of representatives of our CEO, including Office of Extraordinary Innovation), Government Relations, Program Management, Finance, Countywide Planning and Development, and Operations departments. The task force has met, identified action items, and contributed to the update and development of detailed strategies to accelerate the pillar

projects.

Provide Updates Including Value Capture Strategy
Metro Countywide Planning and Development initiated a value capture strategy that was presented to the Board in July 2019. The goal of the strategy is to identify and implement value capture mechanisms for development of Metro assets. Staff is working with real estate and financial consultants on this effort and has issued a Request for Proposals to the Countywide Planning and Development consultant bench. Proposals were received at the end of October 2019.

Tipping Point Where Projects Cannot Be Accelerated/
What is Feasible and Does Not Usurp Other Projects?
Staff reported in July 2019 that the pillar projects must begin construction no later than calendar year 2023 to have a chance of completion and revenue operations by 2028. From a financial standpoint, the July 2019 report identified a $3.3 billion funding shortfall for capital, interest cost related to an additional $10.0 billion of debt financing, and a funding shortfall for operations of $1.2 billion (over a 10 year period). If the 2023 date is not met or new funding for the shortfall is not obtained, this will have a material effect on realizing the acceleration.

It should be noted that the identified funding gap is based on the pillar project capital costs as estimated in 2016 for the Measure M Expenditure Plan. Should the actual costs of the pillar projects differ, this will directly affect the amount of the capital funding shortfall.

How Can Staff and the Board Cut the Project Development Process?
There are several critical path, project development tasks needed to achieve construction start - environmental clearance, preliminary (i.e. pre-procurement) engineering, and procurement. As reported in July 2019, Metro staff and the Board can help accelerate the project development by working with local, state and federal stakeholders to provide timely review and approval of environmental documents, conceptual design, cost estimates and preliminary engineering. General strategies that Metro has undertaken to expedite the project development process include:

- Developing phasing strategies which will help accelerate projects from current schedules developed in the Measure M Expenditure Plan;
- Accelerating and integrating the project development/engineering and environmental schedules for each project - getting projects ready for implementation;
- Working with the task force to develop a funding strategy for “best case” project acceleration for all four pillar projects;
- Engaging technical advisors to assist with scheduling, preliminary design, and procurement;
- Engaging P3 financial advisors to prepare business case and value for money assessments;
- Seeking state grant funding in advance of final design and construction;
- Seeking CEQA reform to exempt or reduce state environmental requirements for transit projects;
- Seeking expedited federal capital investment grant funding; and
- Funding FTA capacity to support review of Metro projects.

Note that each strategy may not be applicable to all projects.

Metro staff has also initiated the development of an action plan to identify additional items that can help reduce the duration and number of iterations for regulatory agency reviews and approvals. The action plan will be presented as part of the next quarterly status report.

Detail on Specific Strategies
The following table lists the strategies that staff is currently implementing to accelerate each of the pillar projects.

LA Metro Pillar Projects Strategies to Accelerate Projects	
Gold Line Eastside Extension Phase 2	
Strategies Being Pursued:	• Limit environmental review to state CEQA
Progress to Date:	• Developed funding plan that does not rely on federal dollars
Potential Benefit:	• Reduces time required for federal review
Green Line Extension to Torrance	
Strategies Being Pursued:	• Pursue SB1 state funding
Progress to Date:	• State awarded $231.3 million in 2018
Potential Benefit:	• Provides sufficient construction funding at current cost estimate; will mitigate impact of Measure M restriction on construction funding prior to FY26
Sepulveda Transit Corridor	
Strategies Being Pursued:	• Enter into pre-development agreement (PDA) • Pursue accelerated state and federal grant funding • Add resources to FTA to support NEPA review process
Progress to Date:	• RFP for PDA to be issued in 2019, with goal of commencing P3 delivery in 2025 • Working with FTA to identify accelerated grant funding availability • Funded additional FTA resources
Potential Benefit:	• PDA goal of balancing project costs, performance, and key risks particularly on an accelerated schedule • Accelerated grant funding to support early construction costs • Increased staff available for FTA review of Metro projects

West Santa Ana Branch to Downtown LA	
Strategies Being Pursued:	• Develop accelerated schedule that overlaps key activities • Identify funding strategy to accelerate funds • Procure a design-build-finance-operate-maintain P3 • Identify a range of scope options that are likely to be feasible • Pursue accelerated state and federal grant funding • Add resources to FTA to support NEPA review process
Progress to Date:	• Obtained SB 1 funds in advance of final design and construction • Hired technical advisors to assist with accelerated project scheduling, preliminary design, and P3 procurement • Reduced the level of pre-procurement preliminary design to support innovation • Hired P3 financial advisors to prepare comprehensive business case, value for money assessment, and P3 procurement strategy • Pursuing Initial Operating Segment with plan for subsequent delivery of full project scope • Working with FTA to identify accelerated funding availability • Funded additional FTA NEPA review resources
Potential Benefit:	• Condensed, accelerated schedule minimizes project development time • Conceptual design and engineering strategy supports earlier procurement and innovation in final design • P3 delivery can add time efficiencies and potentially reduce costs and enhance financial capacity • Accelerated grant funding reduces funding gap • Increased staff available for FTA review of Metro projects

When Would a Bond Rating Downgrade Occur?
Most of the bonds that Metro issues to finance capital projects have ratings from Standard & Poor's and Moody's. The Metro sales tax bonds are "senior-lien," which means they are paid before any other Metro indebtedness. As shown in the following table, the senior-lien bonds carry ratings of AAA and Aa1, which are of the highest credit quality for a transit agency. Bond ratings that are "investment grade" range from BBB- (lowest quality) to AAA (highest quality).

LA Metro
Senior-Lien Sales Tax Bond Ratings
As of October 2019

Bond Issue Type	Standard & Poor's	Moody's
Proposition A First Tier Senior Lien Bonds	AAA	Aa1
Proposition C Senior Sales Tax Revenue Bonds	AAA	Aa1
Measure R Senior Sales Tax Revenue Bonds	AAA	Aa1
Measure M Senior Sales Tax Revenue Bonds	*	*

*To be determined; bonds not yet issued or rated.

One factor in determining the rating is "debt service coverage," which is the number of times that revenues pledged to repay the debt exceed the debt payments. Metro has maintained debt service coverage that is, on average, 3 to 4 times the debt payments. The rating agencies have stated in their assessment of Metro debt that if debt service coverage were to decrease to an amount lower than historically achieved, this would be a factor leading to a downgrade, or lowering, of the rating. Under the pillar projects financial plan, the debt service coverage for Measure M debt would be 2.5 times in FY 2028, much lower than the baseline financial forecast of 4.7, and would create a risk of a future downgrade.

Projects That Get People to and from Olympic Venues
There are six areas, or "parks" in LA County where Olympic venues are located: Sepulveda Basin, UCLA, downtown LA, Inglewood, Carson Stub Hub Center, and Long Beach. Of the four pillar projects, the Sepulveda Transit Corridor may have a station at UCLA and get people directly (i.e., within walking distance) to an Olympic venue. The other three pillar projects do not have planned stations at Olympic venues. However, the pillar projects would connect to existing Metro transit that does get to an Olympic venue. The Gold Line Eastside Extension Phase 2 will connect to Union Station, and the Green Line Extension to Torrance and West Santa Ana Branch to downtown LA will connect to the Blue Line, as well as to the to-be-opened Crenshaw Line, in addition to various bus connections. A map showing the Olympic venues in relation to the pillar projects is attached to this report (Attachment B).

Financial Feasibility
In July 2019, Metro staff prepared a pillar projects financial forecast that attempts to fund delivery of the pillar projects by FY28. The pillar projects financial forecast showed a funding gap for capital and operating costs, and without additional yet-to-be-identified funding, it would be difficult to support the

accelerated schedule. The funding gaps occur because the planned funding for the pillar projects needs to be accelerated and it is not possible to accelerate all of the funding within certain financial constraints. The financial forecast also utilized a significant amount of debt, and the repayment of debt impacts funding for other Metro purposes. Metro is now developing an action plan to create new funding that can address the pillar projects funding gap.

FINANCIAL IMPACT

This is an information item and does not have a direct financial impact on Metro. The implementation of accelerated funding for major capital projects would have a financial impact on Metro, and these impacts will be identified in the event the Board considers approval of the funding plans.

Impact to Budget

This is an information item and does not impact the FY 2020 budget.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This item helps ensure fiscal responsibility in how funding determinations are made and transparency in the agency's investment decisions (Goal #5).

ATTACHMENTS

Attachment A - Pillar Projects Baseline Planning Schedule
Attachment B - Pillar Projects Connectivity to 2028 Olympic Venues

Prepared by: Craig Hoshijima, DEO, Countywide Planning & Development, (213) 928-3384
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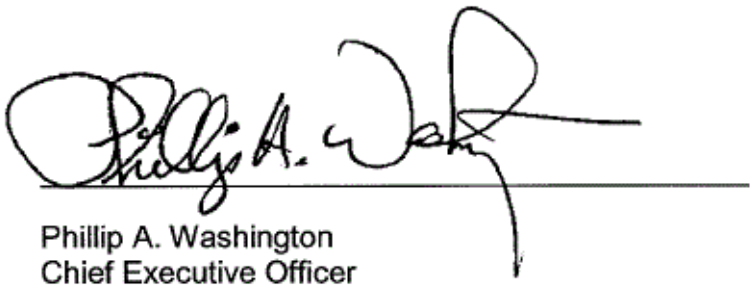
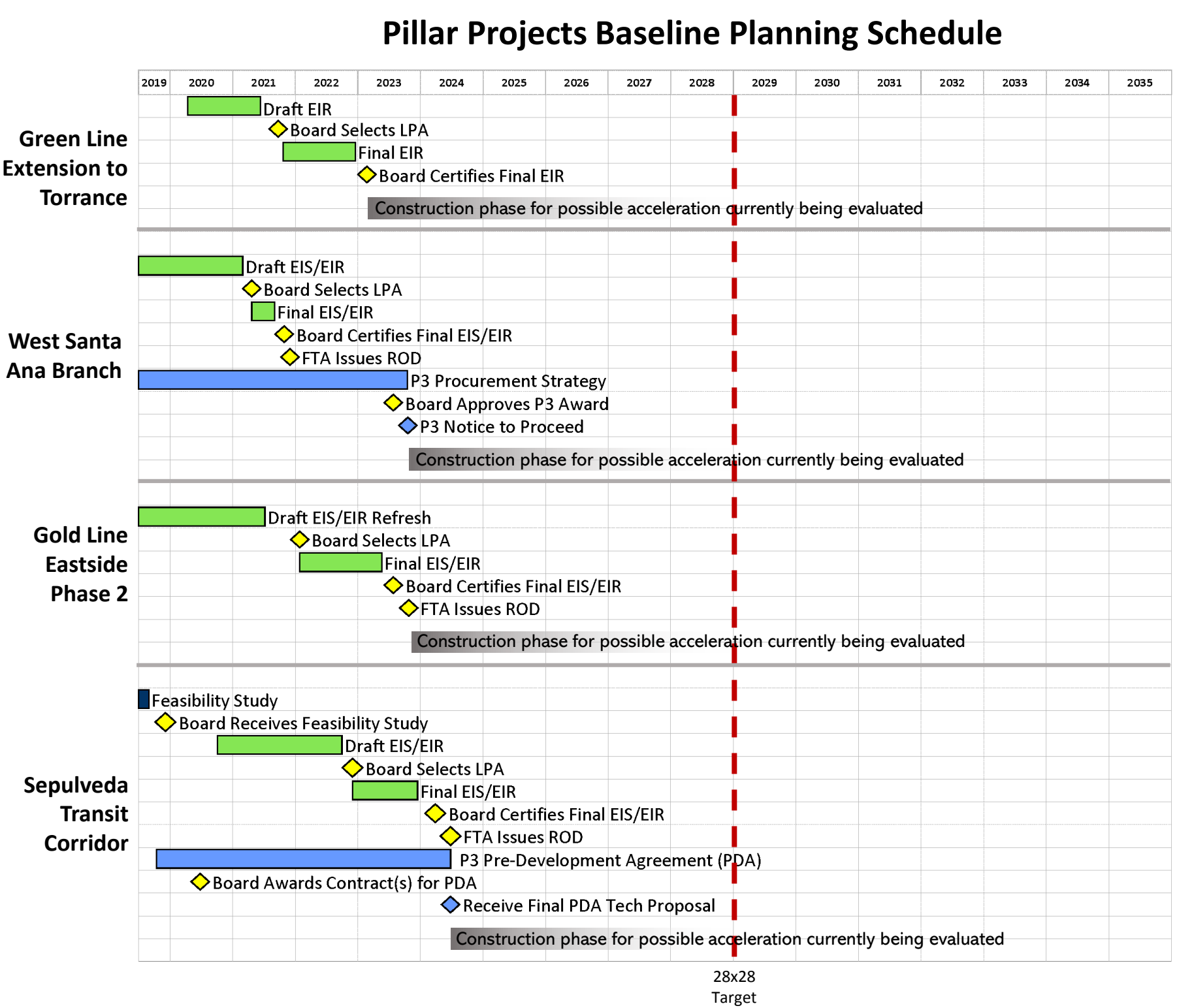


Phillip A. Washington
Chief Executive Officer

Pillar Projects Baseline Planning Schedule

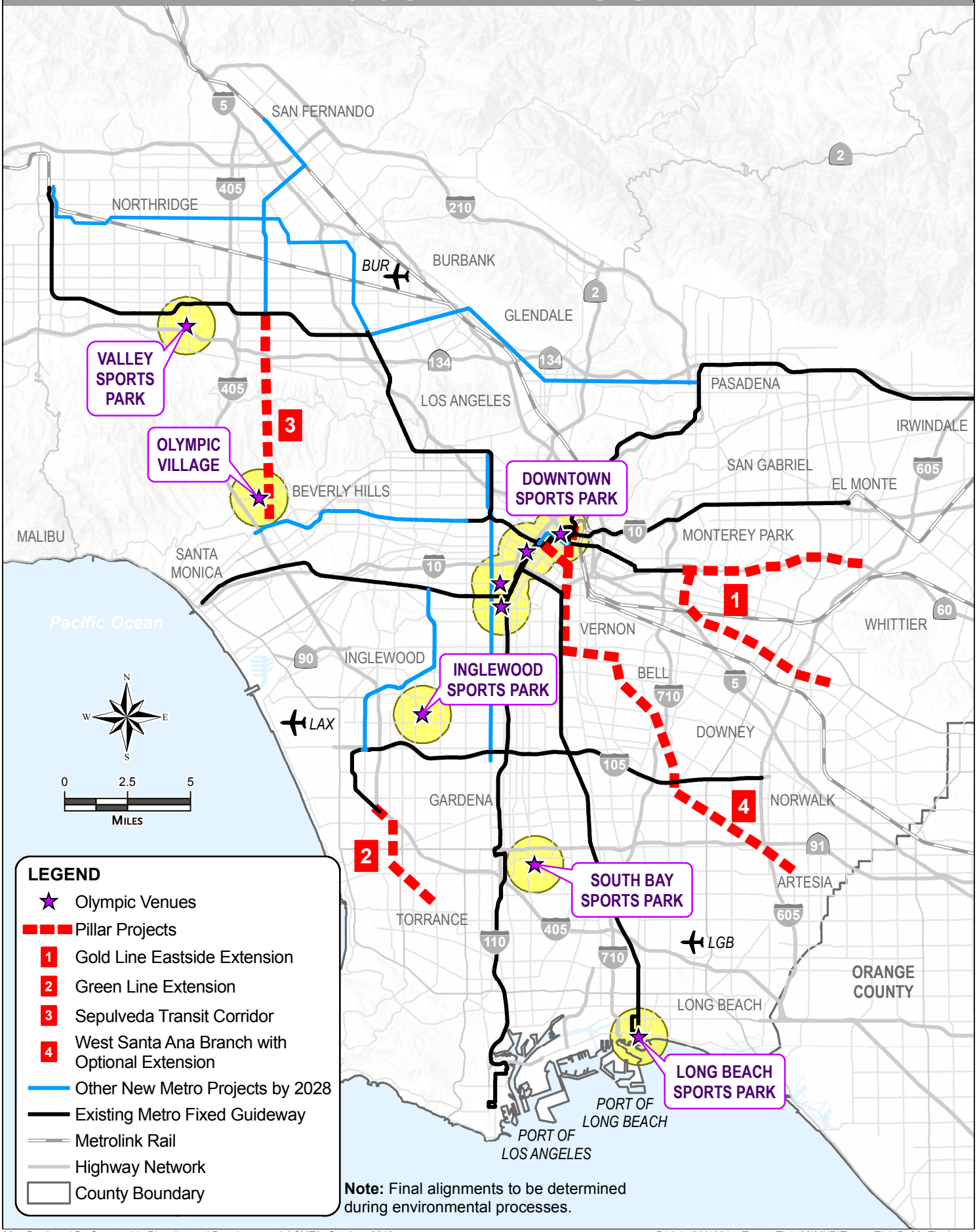


Measure M Opening Dates 3-year window
FY 2030 – 2033
FY 2028 – 2031 (Initial Segment Slauson to Artesia) FY 2041 – 2044 (Second Segment)
FY 2035 – 2038 (Initial Segment) FY 2057 – 2060 (Second Segment)
FY 2033 – 2036 (Initial Segment) FY 2057 – 2060 (Second Segment)

ATTACHMENT A

PILLAR PROJECTS CONNECTIVITY TO 2028 OLYMPIC VENUES

ATTACHMENT B



Note: Final alignments to be determined during environmental processes.

Map Produced By Countywide Planning and Development, LACMTA, October, 2019
Thomas Bros. Data Used With Permission

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Los Angeles County
Metropolitan Transportation Authority

Twenty-Eight by '28 Pillar Projects Quarterly Update

Agenda Item #5

Planning and Programming
November 20, 2019

Metro

Overview

This is the third quarterly status report to the Board on the financial forecast and constructability analysis of the four pillar projects

- Task force
- Value capture strategy
- What is feasible and does not usurp?
- Project development process
- Impact on bond rating
- Accessibility to and from Olympic venues
- Financial feasibility

Pillar Projects Update

Establish a Task Force

- Cross-departmental staff have met, identified action items, and reported strategies to accelerate the pillar projects

Update on Value Capture Strategy

- Staff is hiring market experts to identify value capture opportunities

Where projects cannot be accelerated/What is feasible?

- Pillar projects must begin no later than 2023
- Capital and operating funding shortfall

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Pillar Projects Update (cont.)

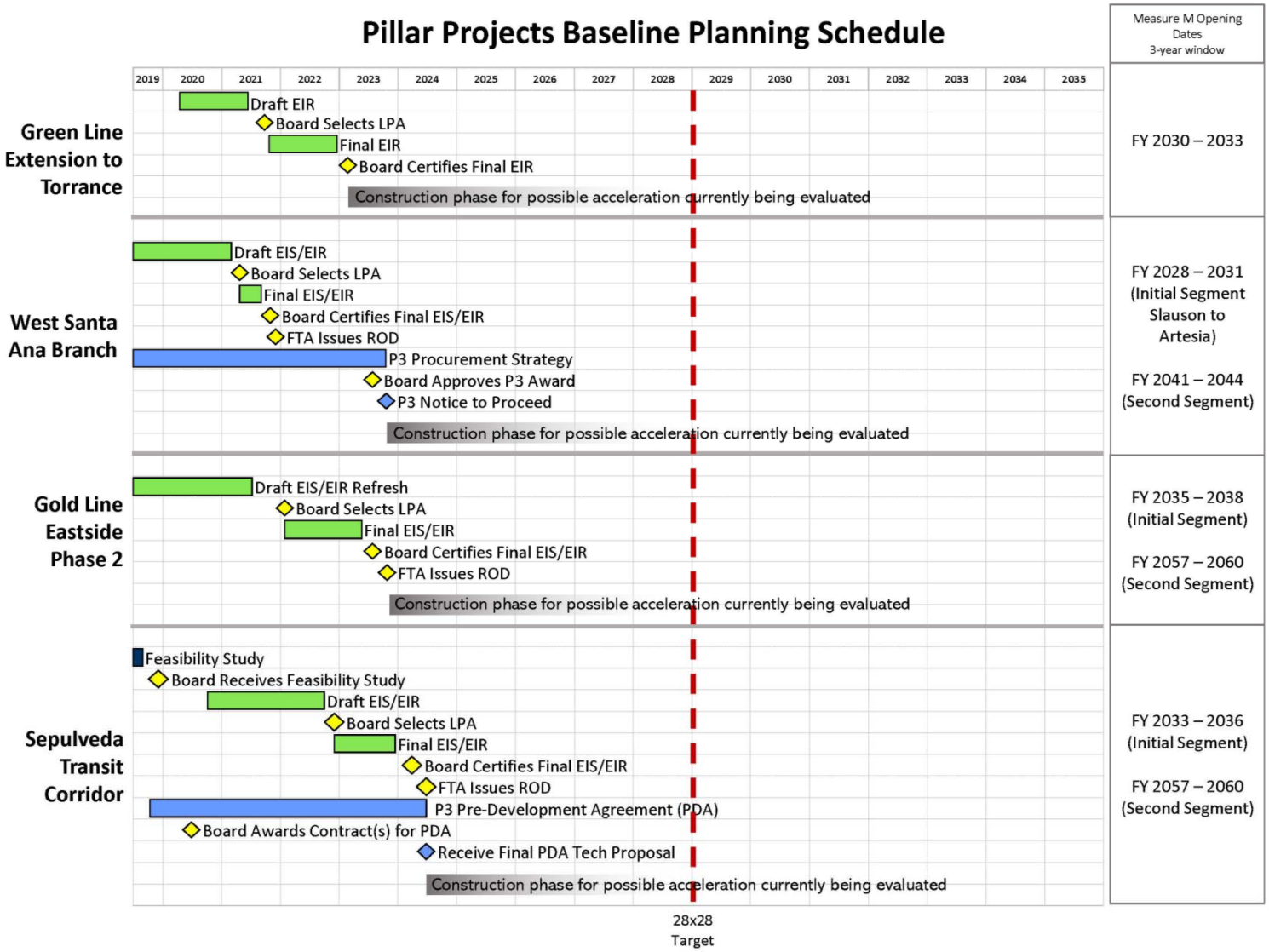
Expediting project development process

- Using phased strategies; integrating project development/engineering and environmental schedules for each project
- Engaging technical advisors for design and procurement; financial advisors for alternative project delivery and financing

Impact on bond rating

- Current senior-lien bond issues carry AAA and AA1 ratings and debt service coverage of 3x to 4x
- Under the pillar projects financial plan, debt service coverage would be 2.5x in FY 2028

Pillar Projects Update (cont.)



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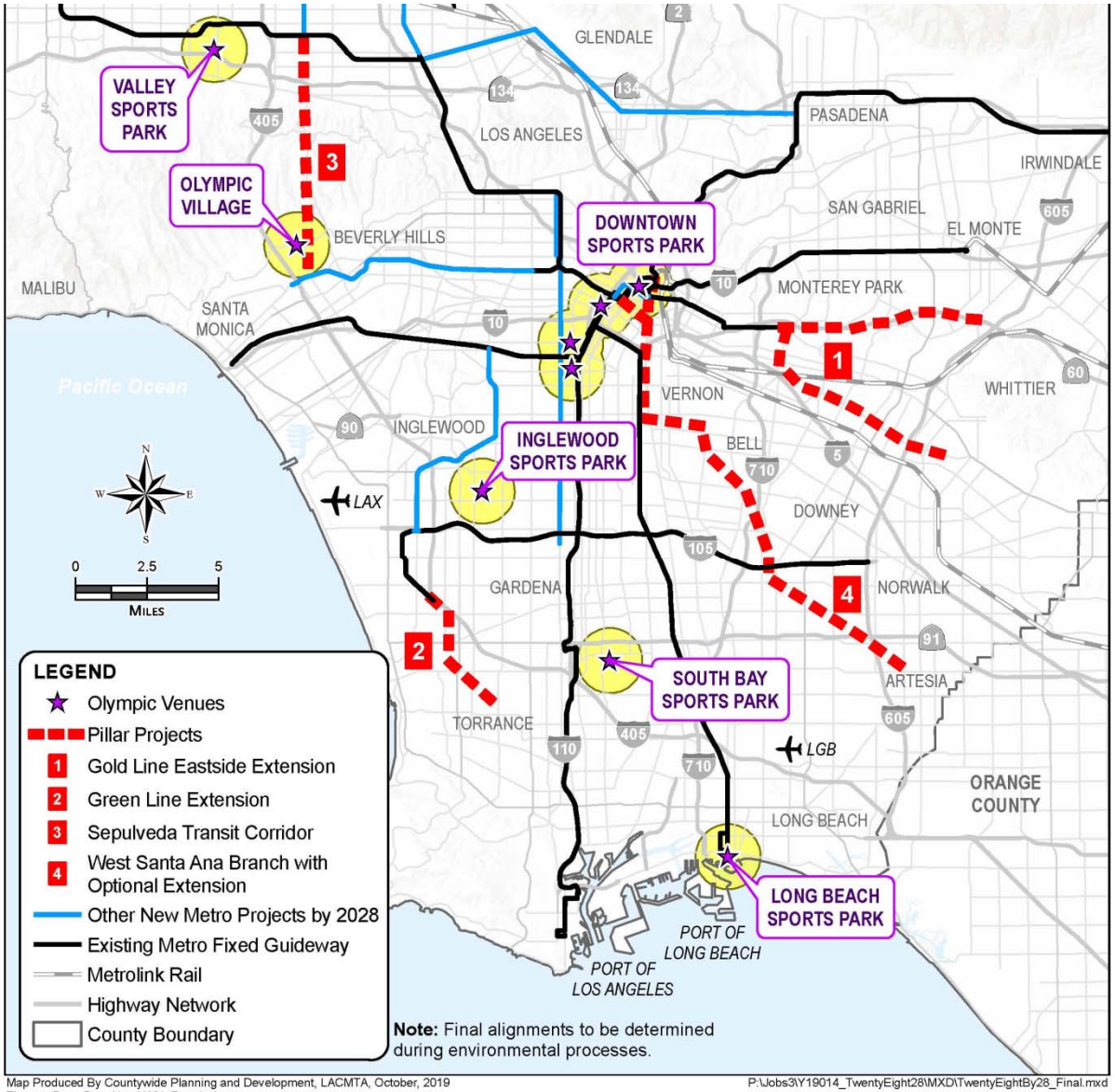
Pillar Projects Update (cont.)



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Summary

- Staff has implemented several initiatives to accelerate the pillar projects and will pursue an action plan on additional steps
- Any acceleration will require that the pillar projects begin construction in 2023
- There is a funding shortfall for the capital and operating cost of the pillar projects, based on Expenditure Plan cost estimates
- The higher amount of debt used to accelerate the projects may impact the ratings on Metro senior lien bonds

Los Angeles County
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File #: 2019-0759, **File Type:** Project **Agenda Number:** 6.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 20, 2019

SUBJECT: SEPULVEDA TRANSIT CORRIDOR FEASIBILITY STUDY

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE Sepulveda Transit Corridor Feasibility Study.

ISSUE

On November 30, 2017, Metro awarded a contract to conduct a technical feasibility study of alternatives for the Sepulveda Transit Corridor (Project). The study was completed in November 2019 and is now available for Board consideration and to inform future phases of the Project.

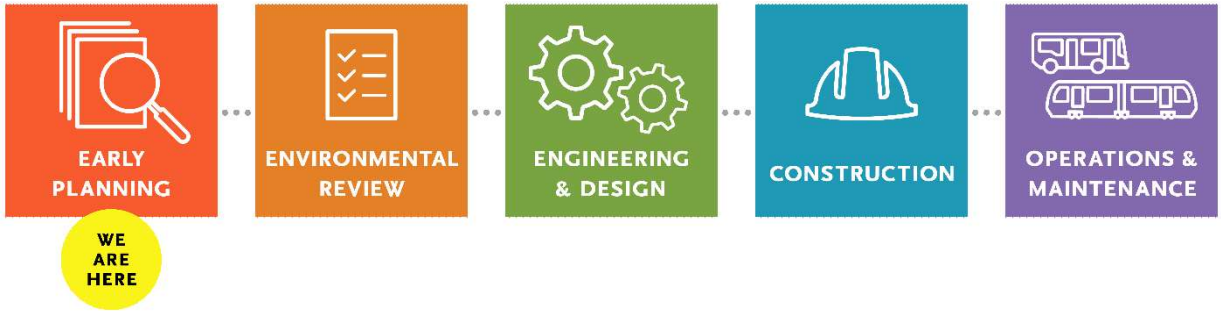
BACKGROUND

The Sepulveda Transit Corridor Project will provide an essential transportation link across the Santa Monica Mountains, connecting the heavy concentration of households in the San Fernando Valley with major employment and activity centers on the Westside, including the Los Angeles International Airport (LAX).

The Project is included in Metro's 2009 Long Range Transportation Plan (LRTP) and was accelerated by the Measure M expenditure plan approved in 2016. The Measure M Expenditure Plan identified funding for a transit project in the Sepulveda Corridor in two phases. The first phase, Valley-Westside, has $5.7 billion in identified funding and a target opening year of FY 2033. The second phase, Westside-LAX, has $3.8 billion in identified funding and a target opening year of FY 2057.

Figure 1 below shows the current Project status along the overall project development process. The Project concludes the early planning phase with the completion of the feasibility study.

Figure 1: Project Development Process - Current Status



DISCUSSION

The Project Study Area encompasses approximately 60 square miles on both sides of the I-405 freeway and is split into the two phases identified in Measure M: Valley-Westside and Westside-LAX. More than 400,000 people pass through the Study Area every day to commute to work, school, and other destinations; yet, there are few travel options for people to move between the San Fernando Valley and the Westside aside from the highly congested I-405 freeway. The Project's feasibility study alternatives were developed in response to the mobility needs for the two areas of the corridor.

The purpose of the Project is to provide high-quality transit service that effectively serves a large and growing travel market between the San Fernando Valley and the Westside, including the LAX area.

Development and Screening of Valley-Westside Alternatives

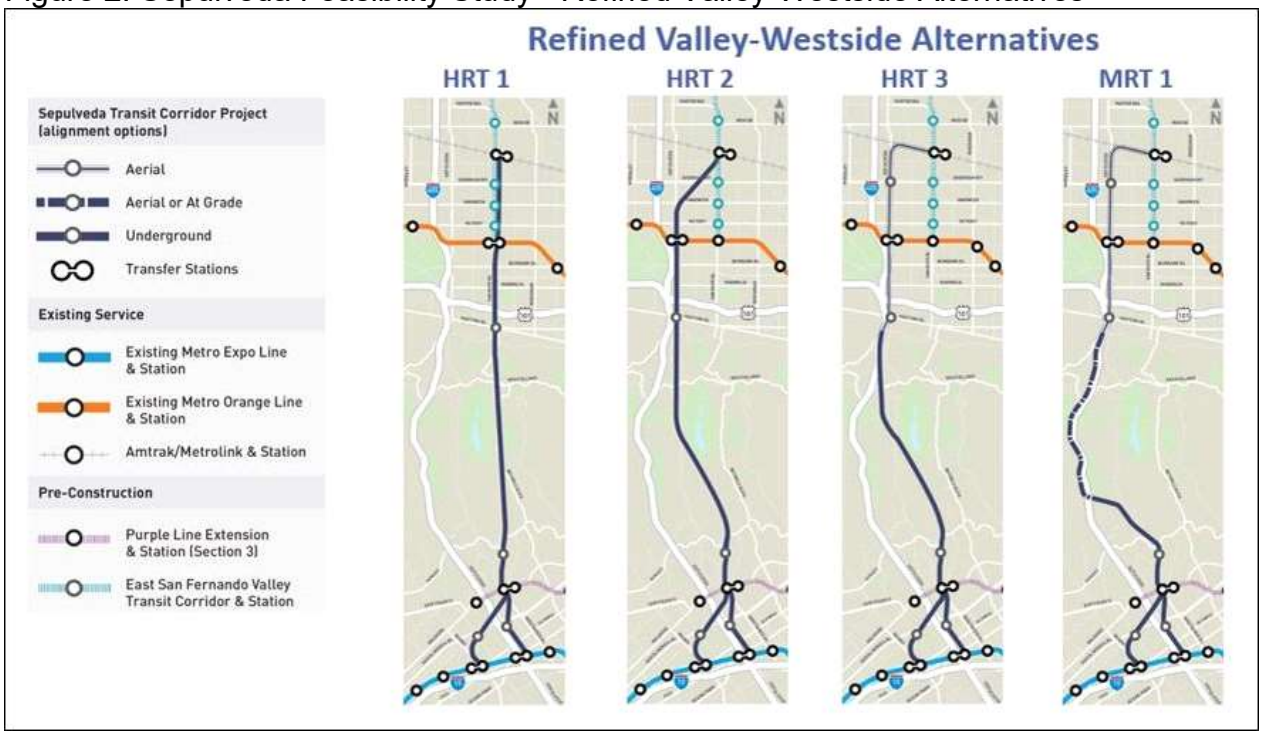
The Project aims to serve the different travel markets within the Study Area by connecting key activity centers and by connecting major existing or planned transit between the San Fernando Valley and the Westside (such as the planned East San Fernando Valley (ESFV) Light Rail Transit Line, the Orange Line, the Expo Line, and the future Purple Line extension). The Santa Monica Mountains present technical and physical challenges to make those connections. A review of various transit technologies was conducted to examine options for either tunneling underneath the mountains or for going over the mountains through the Sepulveda Pass. The analysis resulted in the selection of four transit modes for the development of the initial transit concepts for Valley-Westside: heavy rail transit (HRT), light rail transit (LRT), and monorail or rubber-tire transit (MRT). The initial Valley-Westside transit concepts also considered design configurations that included at grade (or street-running), aerial (or elevated), and below grade (tunnel).

Passenger ridership forecasts for the initial Valley-Westside concepts revealed that demand on the Sepulveda Corridor would be substantial enough to cause all initial concepts to increase the ridership demand on the ESFV LRT Line near or beyond its capacity. The over-capacity conditions would be most severe for the initial LRT concepts that proposed extending the planned ESFV LRT Line through the Santa Monica Mountains and into the Westside. To serve the capacity issues on the ESFV LRT Line caused by the initial HRT and MRT concepts, the initial alignments were extended further north to include a connection at the Metrolink Van Nuys station, thereby potentially mitigating the overcrowding on the ESFV LRT Line.

The refined Valley-Westside alternatives have varying characteristics: HRT 1 and 2 each measure

about 13 miles in length and each have seven underground stations; HRT 3 and MRT 1 each measure nearly 15 miles and each include four underground stations and four aerial stations. All Valley-Westside alternatives include connections to Metrolink, the planned ESFV LRT line, the Orange Line, the future Purple Line extension, and the Expo Line. Figure 2 below provides a map of the refined Valley-Westside alternatives.

Figure 2: Sepulveda Feasibility Study - Refined Valley-Westside Alternatives



Source: Sepulveda Mobility Partners, 2019

A maintenance and storage facility (MSF) will be required for any of the alternatives under consideration. Three potential MSF sites were identified for the Valley-Westside alternatives. Additional MSF sites may be identified during the environmental review phase.

The Feasibility Study Executive Summary (Attachment A) describes the four refined Valley-Westside alternatives and potential MSF sites in greater detail.

Development and Screening of Westside-LAX Concepts

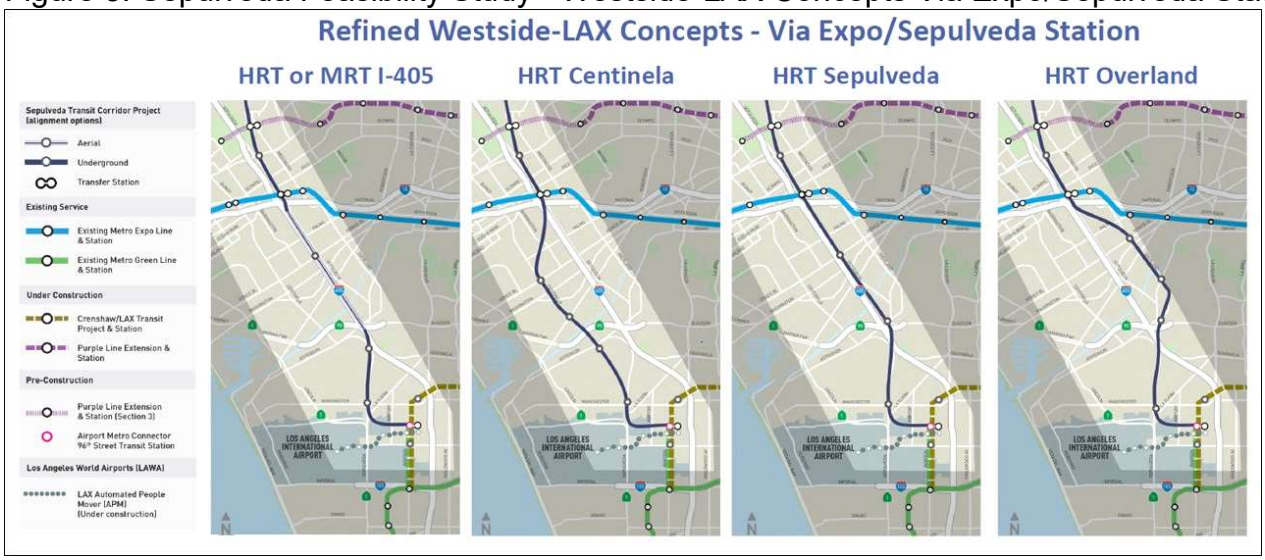
The Westside-LAX concepts were developed primarily as extensions of the refined Valley-Westside alternatives. The extensions would begin from the Expo/Bundy Station or the Expo/Sepulveda Station. Figure 3 shows the Westside-LAX concepts that extend from the Expo/Sepulveda Station, and Figure 4 shows the Westside-LAX concepts that extend from the Expo/Bundy Station.

The Westside-LAX concepts generally follow the major north-south roadways within the southern part of the Study Area. The Airport Metro Connector (AMC) 96th Street Transit Station on the future Crenshaw/LAX was identified as the logical endpoint and connection for all Westside-LAX concepts.

At this location, the Project could connect with the Crenshaw/LAX and Green Lines, the future LAX automated people mover, and multiple local bus lines serving this intermodal transfer facility.

The Westside-LAX concepts have varying characteristics: the alignments range in length from about 8 to 10 miles and include four to six stations each. All but one of the stations along I-405 would be underground.

Figure 3: Sepulveda Feasibility Study - Westside-LAX Concepts Via Expo/Sepulveda Station



Source: Sepulveda Mobility Partners, 2019

Figure 4: Sepulveda Feasibility Study - Westside-LAX Concepts Via Expo/Bundy Station

Source: Sepulveda Mobility Partners, 2019

More information on the six Westside-LAX concepts can also be found in Attachment A.

Consistency with Metro's Equity Platform Framework

To help address disparities in access to opportunity across Los Angeles County, the Metro Board adopted the Equity Platform policy framework in February 2018 and a working definition of Equity Focus Communities (EFC) in June 2019. The Sepulveda Transit Corridor is consistent with the Metro Equity Platform in that the alternatives help address accessibility for residential and employment centers, support for transit-oriented communities policies, support for first/last-mile connections, and investment in disadvantaged communities. In addition, ridership estimates suggest that a large share of the ridership demand would include low-income riders. Going forward, the Project will use the working definition of EFC along with other metrics as appropriate to guide analyses and to conduct robust community engagement.

Public Outreach and Agency Coordination

Metro engaged in a robust public outreach process for this Feasibility Study, guided by Metro's Equity Platform. Metro designed a wide range of opportunities for feedback in an inclusive and transparent way and provided multiple forums in-person and online for bilingual English and Spanish community engagement. This included engaging stakeholders at a variety of events and locations in the Valley and on the Westside, reaching thousands of stakeholders in person. Metro also conducted significant outreach with many public agencies that have jurisdiction throughout the Study Area. Coordination with these agencies allowed concerns to be identified early in the process.

Public Meetings

Metro hosted three rounds of public meetings (for a total of 10 individual public meetings) as part of the public outreach efforts for the study. Meetings were held to coincide with the introduction, refinement, and evaluation of the transit concepts. All materials were available in English and Spanish, and interpreters were available to translate and assist with submission of comments.

To promote each round of public meetings, Metro distributed thousands of take-ones with information about the meetings in English and Spanish on bus routes that operate in the Study Area. Electronic versions of each meeting notice, with a link to a Spanish translation, were distributed via e-blast to all contacts included in the Project database, and a targeted social media campaign using Metro's Facebook account was conducted to promote the Project video and to share meeting notices. Support was also requested from elected offices, cities, public facilities, and other key stakeholders to promote public meetings through their own communication tools.

Additionally, targeted outreach in Spanish based on a careful analysis of Spanish speakers with limited English proficiency in the Study Area was conducted to encourage attendance of Spanish speakers.

Outreach at Community Events

Many factors may prevent in-person attendance at public meetings; therefore, the outreach was conducted at places where community stakeholders already gather. This included making announcements and presentations at community meetings, such as neighborhood councils and homeowners associations. In addition, the outreach team staffed information booths at approximately

20 free or low-cost community festivals that drew thousands of diverse attendees throughout the Study Area.

Public Agency Meetings

Metro coordinated with many public agencies that have jurisdiction throughout the Study Area, holding both multi-agency briefings and individual meetings. This effort was designed to present information on the Project concepts, to discuss relevant issues related to each agency's jurisdiction, and proactively consult with these agencies prior to formal agency consultation, which is a prerequisite under the National Environmental Policy Act (NEPA) environmental review process.

Additional outreach information is available on the Project website.

DETERMINATION OF SAFETY IMPACT

This item does not impact the safety of Metro's customers or employees.

FINANCIAL IMPACT

This item does not impact the Metro budget.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Sepulveda Transit Corridor Project will support the first goal of the Vision 2028 Metro Strategic Plan by providing high-quality mobility options that enable people to spend less time traveling. Travel times for the Feasibility Study alternatives are less than 30 minutes for Valley-Westside (from the Ventura County Metrolink Line in the north to the Expo Line in the south), and less than 40 minutes for Valley-Westside-LAX (from Metrolink to the Crenshaw/LAX Line). This performance is highly competitive with travel by car on the I-405 freeway.

ALTERNATIVES CONSIDERED

No decisions are required at this time.

NEXT STEPS

The next steps for the Project include awarding the PDA and the environmental contracts and selecting the alternatives for environmental clearance. Attachment B provides a general overview of the Project timeline through the start of the environmental review phase. To allow the Board to consider the full range of alternatives that may enter into the environmental process, Metro will seek Board selection of Project alternatives to be studied in the environmental process in June/July 2020. Robust public outreach to all stakeholders, particularly Equity Focus Communities, will continue to be a critical element of the Project as it advances. A separate community outreach contract will be awarded in summer 2020 to support the environmental review process.

ATTACHMENTS

Attachment A - Feasibility Study Executive Summary
Attachment B - Project Timeline

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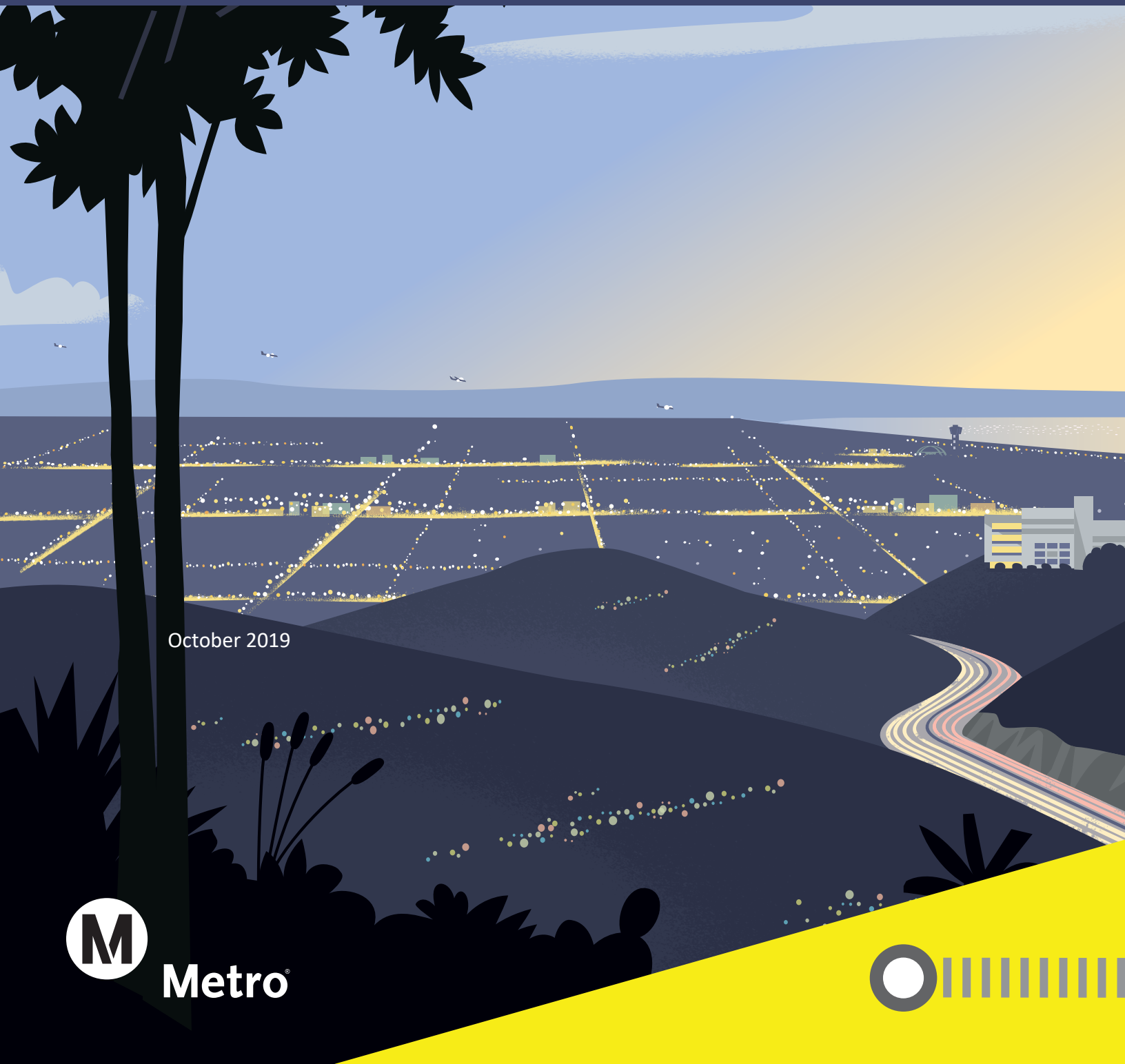
Phillip A. Washington
Chief Executive Officer

ATTACHMENT A - FEASIBILITY STUDY EXECUTIVE SUMMARY

Los Angeles County
Metropolitan Transportation Authority

Final Feasibility Report

SEPULVEDA TRANSIT CORRIDOR PROJECT



October 2019

Metro

List of Acronyms

AMC	Airport Metro Connector
APM	Automated People Mover
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CIG	Capital Investment Grants
EJ	environmental justice
ESFV	East San Fernando Valley Light Rail Transit Corridor
FTA	Federal Transit Administration
HOT	high-occupancy toll
HOV	high-occupancy vehicle
HRT	heavy rail transit
I-	Interstate
LACFCD	Los Angeles County Flood Control District
LADCP	Los Angeles Department of City Planning
LADOT	Los Angeles Department of Transportation
LADWP	Los Angeles Department of Water and Power
LAX	Los Angeles Airport
LEP	limited English proficiency
LOSSAN	Los Angeles – San Diego – San Luis Obispo
LRT	light rail transit
LRTP	Long-Range Transportation Plan
Metro	Los Angeles County Metropolitan Transportation Authority
mph	miles per hour
MRT	monorail/rubber-tire transit
MSF	maintenance and storage facility
MWD	Metropolitan Water District
NEPA	National Environmental Policy Act
O&M	operations and maintenance
Q&A	question and answer
SMMC	Santa Monica Mountains Conservancy
SR	State Route
TBM	tunnel boring machine
TOC	transit-oriented communities
UCLA	University of California, Los Angeles
USACE	United States Army Corps of Engineers
VHT	vehicle hours traveled
VMT	vehicle miles traveled

Sepulveda Transit Corridor Project Final Feasibility Report, October 2019

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Executive Summary

The Feasibility Study for the Sepulveda Transit Corridor Project reviewed transportation conditions and travel patterns in the Sepulveda corridor to identify mobility problems affecting travel between the San Fernando Valley, the Westside, and the LAX area. Using an iterative evaluation process, feasible transit solutions for the Valley-Westside segment and the Westside-LAX segment were developed to address the Project's Purpose and Need.

ES-1 Introduction

The Los Angeles County Metropolitan Transportation Authority (Metro) has prepared a Final Feasibility Report for the Sepulveda Transit Corridor Project (the Project). The corridor extends between the San Fernando Valley and the Westside of Los Angeles, including the Los Angeles International Airport (LAX) area of Los Angeles County. The purpose of the Project is to provide a high-quality transit service that effectively serves the large and growing travel demand between the San Fernando Valley and the Westside, including the LAX area. For transit to be a competitive travel option that attracts new riders, there is a need to increase the speed, frequency, capacity, and reliability of transit service and provide convenient connections to existing and planned transit lines.

The Sepulveda corridor has been the major transportation corridor between the San Fernando Valley and the Westside for 90 years. As Los Angeles' San Fernando Valley and Westside have grown, Metro, the California Department of Transportation (Caltrans), and their predecessor agencies have undertaken multiple efforts to improve mobility in the Sepulveda corridor. In 2016, the voters of Los Angeles County approved Measure M, the Los Angeles County Traffic Improvement Plan, to fund transportation improvements throughout the County. The *Measure M Expenditure Plan* (Metro, 2016a) provides for implementation of the Sepulveda Transit Corridor Project in two phases: the first segment between the San Fernando Valley and the Westside of Los Angeles (Valley-Westside) by 2033-2035 and an extension to LAX (Westside-LAX) by 2057-2059. Figure ES-1 shows the Study Area for the Sepulveda Transit Corridor Project in the context of other Measure M projects in the San Fernando Valley and the Westside.

This Sepulveda Transit Feasibility Study is being conducted so that the study can be referenced during scoping under the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) in the next phase of the Project. The intent is for the results and decisions of this study to support the environmental review process by informing the purpose and need or goals and objectives. To meet the requirements of 23 Code of Federal Regulations Part 450 – Linking the Transportation and NEPA Processes, the study is being conducted with input from an extensive public outreach effort and through close coordination with local, state, and federal agencies and by ensuring that the process for developing and screening of alternatives, the level of definition of the alternatives, and the types and level of analyses are commensurate with the decisions that need to be made.

ES-2 Purpose and Need

Study Area Characteristics

The Sepulveda Transit Corridor Project Study Area encompasses approximately 60 square miles on both sides of I-405 between Roscoe Boulevard in the San Fernando Valley and 111th Street near LAX. Within the Study Area, there are three distinct, yet interrelated, geographic areas: the San Fernando Valley (the Valley), the Westside, and the LAX area.

The Valley, the northernmost part of the Study Area, is located north of Mulholland Drive. Within the Study Area, the San Fernando Valley has a well-defined arterial grid, with major streets every half mile, lined largely with a combination of apartment buildings and businesses. The Valley portion of the Study Area is bisected by the Metro Orange Line, which has three stations in the Study Area. The Ventura Freeway (US 101) provides east/west connections through the Valley. The Los Angeles – San Diego – San Luis Obispo (LOSSAN) Rail Corridor, in which both Amtrak and Metrolink provide passenger service, runs through the northern part of the Study Area.

The Westside within the Study Area is generally between Mulholland Drive and the Santa Monica Freeway (I-10) and includes a major regional attractor, the University of California, Los Angeles (UCLA). I-10 runs through the southern part of the Westside within the Study Area, and the Metro Expo Line includes three stations in the Study Area. The Metro Purple Line is being extended into the Westside in the Study Area and is slated to open in 2026. Between the Valley and the Westside lies the Sepulveda Pass, a highly constrained area with steep hillsides, some of which have been cut back to accommodate I-405 and are retained by walls. Within the Pass, I-405 has grades of five percent, with one section steeper than six percent.

The southernmost portion of the Study Area includes another major regional attractor, LAX. The Metro Crenshaw/LAX Line, currently under construction, will connect the LAX area to the Metro Expo Line at the Expo/Crenshaw Station about 4.5 miles outside of the Study Area, as well as to the South Bay via the Metro Green Line.

Figure ES-1. Study Area and Related Projects

Source: Sepulveda Mobility Partners, 2019

As shown in Figure ES-2, while residential land uses are spread throughout the Study Area, commercial land uses (both retail and office) that support high levels of employment tend to be clustered in a limited number of geographic areas, primarily in the Westside and the LAX area. This type of land use pattern can result in frequent travel by residents outside of their communities for work, leisure, or educational purposes.

Patterns of population and employment density follow from the distribution of land uses: areas with high concentrations of residential land uses, particularly multi-family residential uses, have high population densities; similarly, areas with high concentrations of commercial land uses, particularly office uses, have high employment densities.

As shown in Figure ES-3, several portions of the Study Area are densely populated, with the highest density located in parts of Westwood, West Los Angeles, and Brentwood on the Westside. As shown in Figure ES-4, the Westside also has the greatest concentration of jobs within the Study Area. Although there are some job centers within the Study Area in the Valley and the LAX area, those areas generally have substantially less density than the Westside. When population centers and employment centers are in different areas, many people's daily activities require them to travel between the two areas.

Vehicle ownership is a key factor influencing transit ridership, as households without access to a personal vehicle are more likely to utilize transit. The Valley has the highest concentration of zero-vehicle households in the Study Area. In several areas, such as along Van Nuys Boulevard, more than 20 percent of households do not have a vehicle.

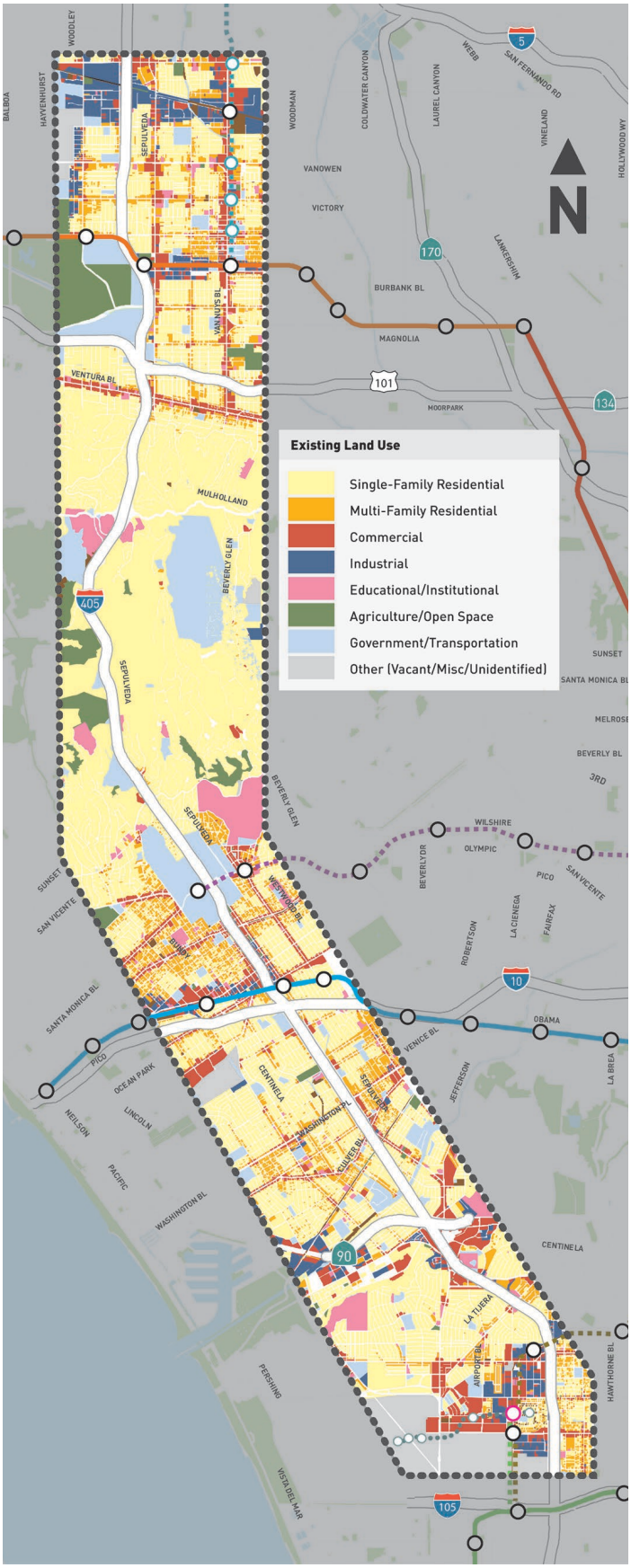


Figure ES-2. Existing Land Uses

Source: Los Angeles County Office of the Assessor, Property Tax Assessment Roll, 2016; Terry A. Hayes Associates, 2018

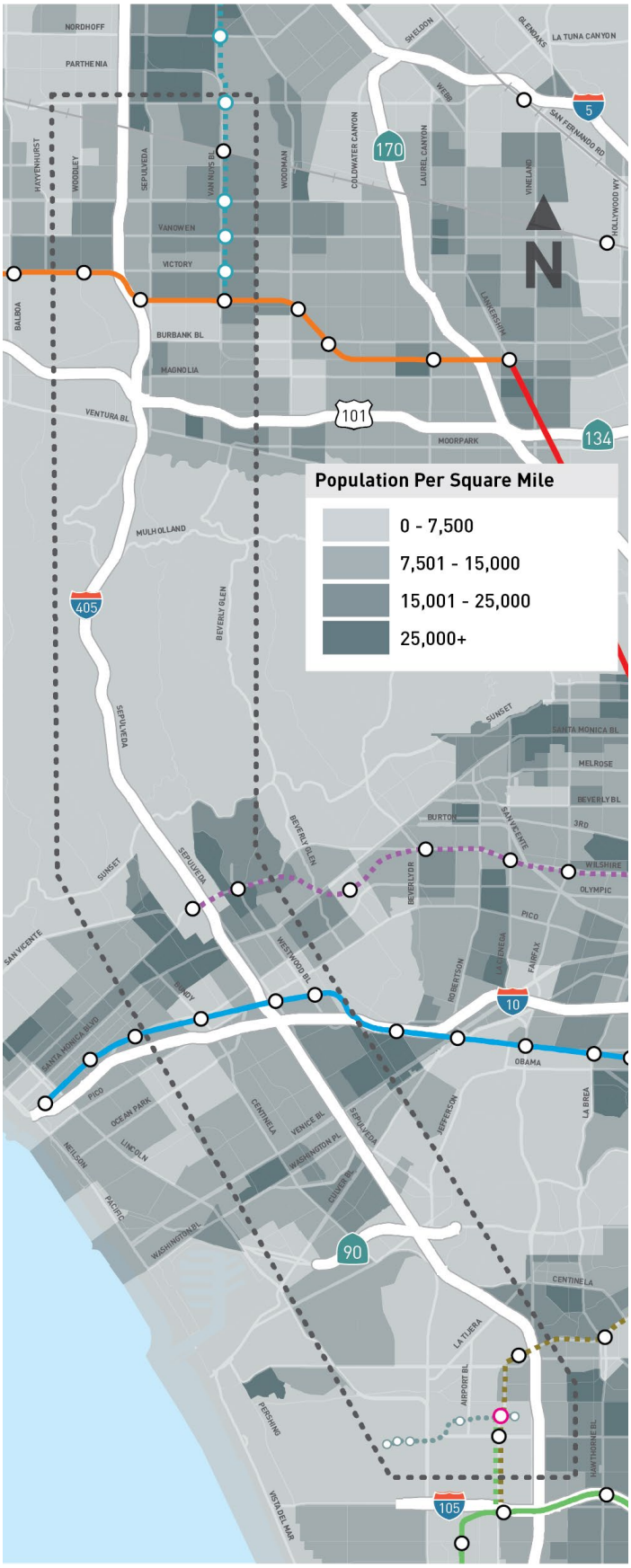


Figure ES-3. Population Density

Source: US Census American Community Survey, 2017; Fehr & Peers, 2018

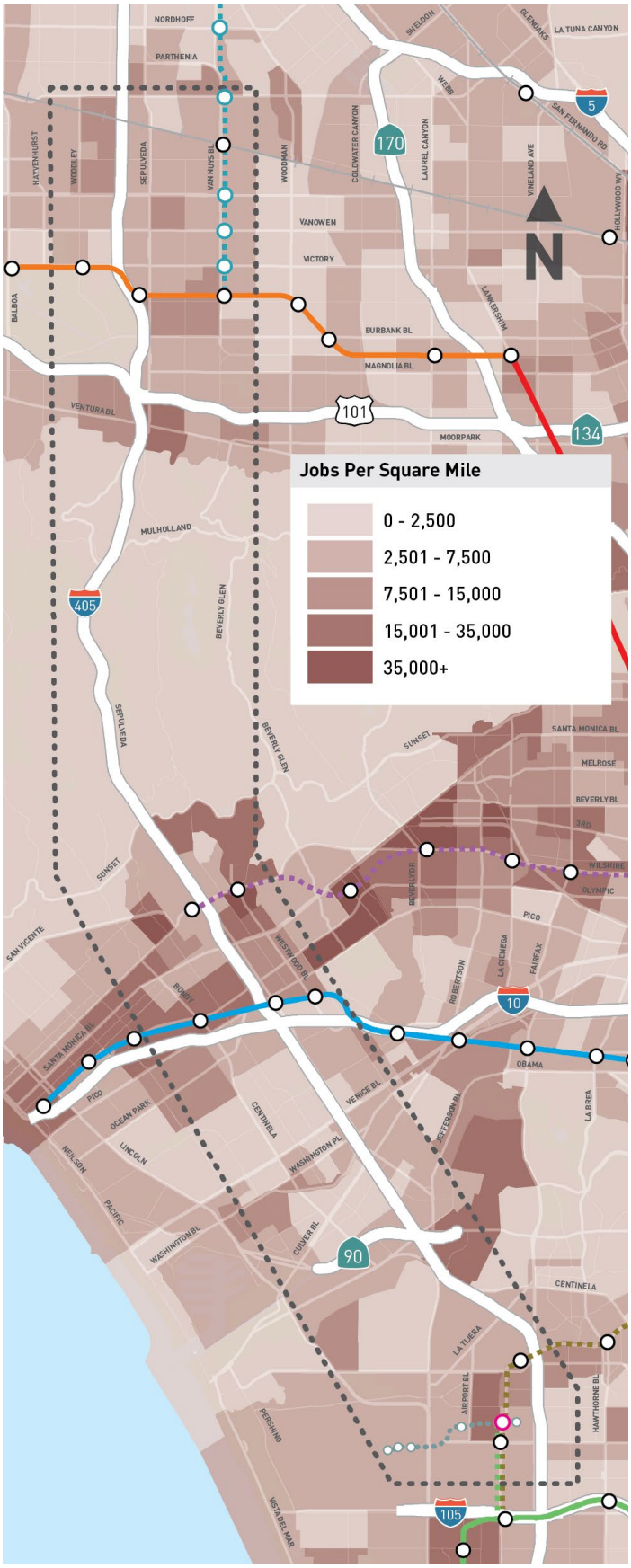


Figure ES-4. Job Density

Source: Longitudinal Employer-Household Dynamics, 2014; Fehr & Peers, 2018

Existing Transportation Conditions

To provide a measure of the volume of daily travel through the Sepulveda corridor made by private vehicles and by transit, total daily person throughput (all people moving through a corridor, whether carried in private vehicles or by transit) was calculated at two points along the Sepulveda corridor: in the Sepulveda Pass just north of Getty Center Drive and at Ballona Creek just north of SR 90. Figures ES-5 and ES-6 summarize the daily person throughput of the roadways at these two points, revealing a transit mode share of about two percent at each location.

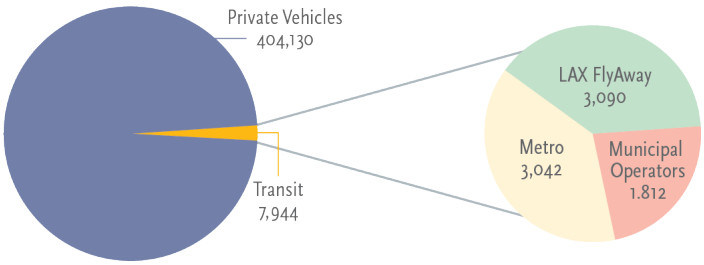


Figure ES-5. Daily Corridor Throughput in Sepulveda Pass

Source: Metro; Municipal operators; Los Angeles World Airports; Fehr & Peers, 2018

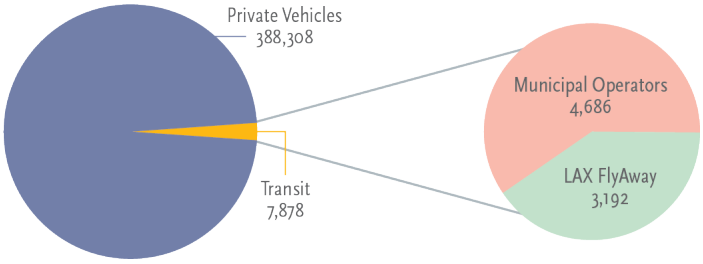


Figure ES-6. Daily Corridor Throughput at Ballona Creek

Source: Culver CityBus, Los Angeles World Airports; Fehr & Peers, 2018

Freeway Conditions

I-405 is heavily traveled throughout the Study Area, with daily volumes of over 300,000 vehicles and daily person throughput of over 400,000 people at some locations within the Study Area. The direction of the peak traffic demand varies over the course of the day, with the greatest demand for travel occurring from the Valley and LAX areas to the Westside during the morning commute period and the reverse pattern during the evening commute period.

The high level of demand on I-405 results in congestion and low travel speeds. Figure ES-7 shows travel speeds during the evening peak hour on I-405; the slowest speeds are generally for travel out of the Westside.

Transit Service

While Metro and municipal transit providers offer a broad range of services within the Study Area, transit connections between the Valley and the Westside are limited. Figure ES-8 displays the frequency of transit service on major corridors throughout the Study Area. The link through the Sepulveda Pass is currently served by routes offering infrequent service or by express services that operate only during peak commuter periods. These are summarized in Table ES-1.

Bus boardings are greatest along corridors that have higher-frequency service throughout the Study Area. Within the Valley, transit ridership is highest around the Metro Orange Line and north of the Metro Orange Line, with ridership decreasing southward until Ventura Boulevard. Boardings for local transit in the Valley are greatest along Van Nuys Boulevard.

Table ES-1. Performance Statistics for Rapid and Express Routes between the San Fernando Valley and the Westside

Route	Description	Span of Service	Peak-Period Headway	Average Speed	On-time Performance
Metro Rapid 734	Sylmar to Metro Expo Line	18 hours per day	15-20 minutes	<15 mph	<50%
Metro Rapid 788	Panorama City to Metro Expo Line	Peak period only	15-20 minutes	<15 mph	<50%
LADOT Commuter Express 573	Granada Hills to Century City	Peak period only	10-15 minutes	17 mph	73%
LADOT Commuter Express 574	Sylmar to Redondo Beach	Peak period only	25-30 minutes	24 mph	65%
LAX FlyAway	Van Nuys to LAX	24 hours per day	15 minutes	N/A	N/A

Source: Metro on-time performance data, February-November 2017

Notes: Metro's *Transit Service Policy* (Metro, 2015) defines "on-time" as a bus arriving no more than 1 minute early or 5 minutes late at each time-point along a route.

LADOT = Los Angeles Department of Transportation; mph = miles per hour; N/A = not available

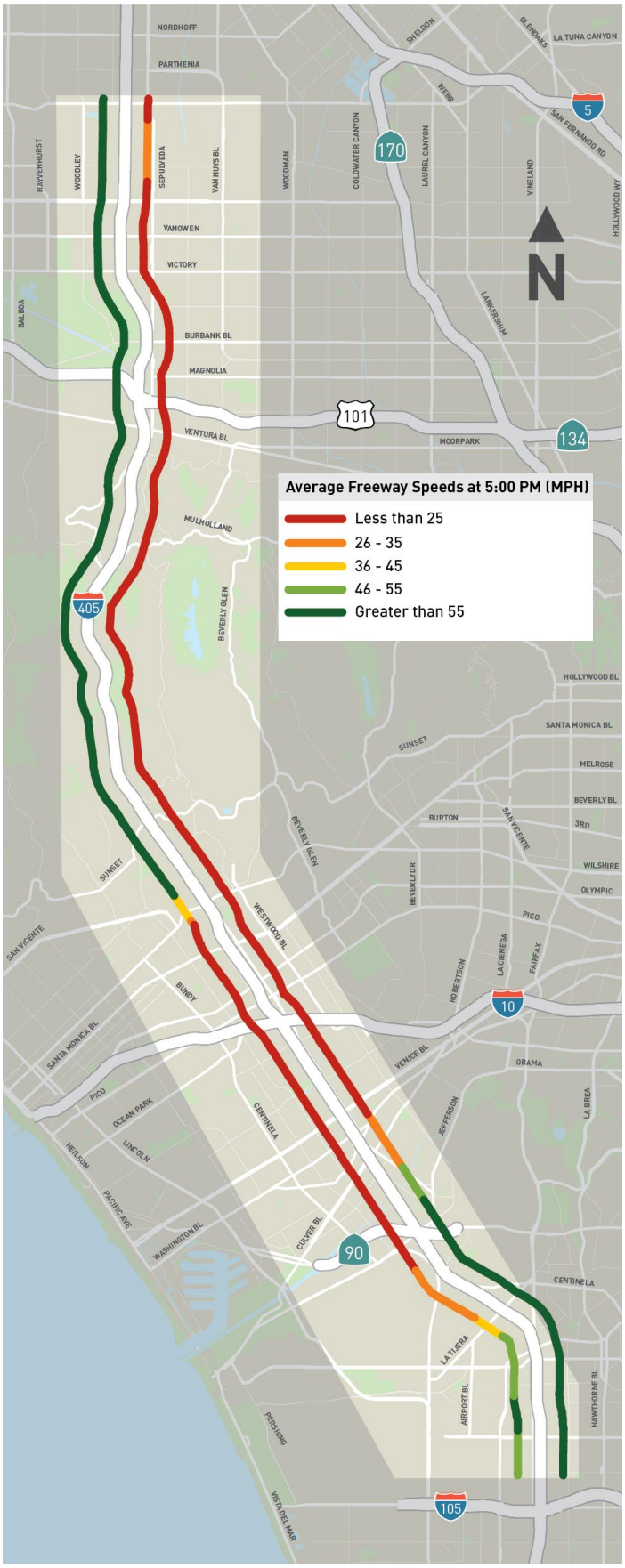


Figure ES-7. Average Speeds on I-405, PM Peak Hour

Source: INRIX; System Metrics Group, 2018

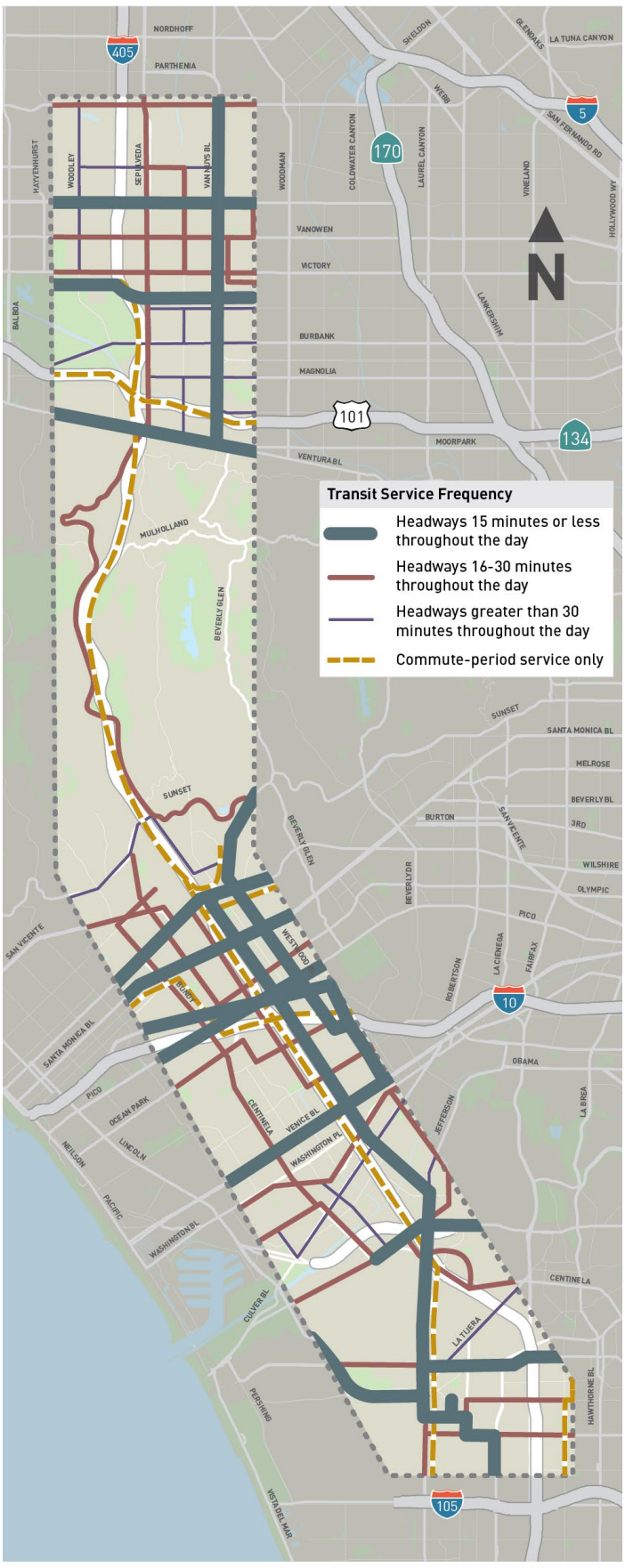


Figure ES-8. Transit Service Frequency

Source: Metro and Municipal Operators, 2018, Fehr & Peers, 2018

On the Westside, the greatest concentrations of transit boardings are in Westwood and on the UCLA campus where frequent headways are maintained throughout the day. Major roads with transit services at headways of 15 minutes or less also have many boardings.

Existing transit ridership is not as high in the LAX area as in the Valley or the Westside. The greatest concentrations of boardings within this area occur along Venice and Sepulveda Boulevards, as well as in the area immediately adjacent to LAX. As throughout the Study Area, these are the corridors with the most frequent transit service for this area, all with headways of 15 minutes or less.

Congestion on roadways and freeways in the Study Area affects transit service as well as privately operated vehicles, making travel times unpredictable and transit service unreliable. As shown in Table ES-1, the Metro bus services that currently operate on I-405 and Sepulveda Boulevard between the Valley and the Westside are on time less than 50 percent of the time during the morning and evening peak periods, and those operated by the Los Angeles Department of Transportation are on time less than 75 percent of the time.

Travel Patterns

In 2017, the Study Area produced approximately 2.26 million trips and attracted approximately 3.04 million trips each day. As much of the travel in the Study Area has an origin and/or destination outside the Study Area, a broader look at trips in the region is required to understand the type of travel demand served by the Sepulveda corridor.

Every trip has two ends—an origin and a destination. Pairs of trip ends with large numbers of trips between them constitute major travel markets. Figure ES-9 illustrates the primary travel markets for trips through the Sepulveda Pass and across Ballona Creek.

Forecast Growth in Travel

Travel to and from the Study Area is forecast to increase; the total number of trips generated within the Study Area is forecast to grow by approximately 17 percent by 2042 and a total of 24 percent by 2057. This increase is in part the result of expected population and employment growth throughout the areas illustrated in Figure ES-9 that generate the most trips through the Sepulveda corridor, as summarized in Table ES-2.

Project Purpose

The Sepulveda corridor provides a crucial transportation link across the Santa Monica Mountains and through the Westside of Los Angeles, connecting the heavy concentration of households in the San Fernando Valley with major employment and activity centers on the Westside, including such major travel destinations as Westwood, UCLA, Century City, and LAX. More broadly, the corridor serves trips from throughout western Los Angeles County and beyond.

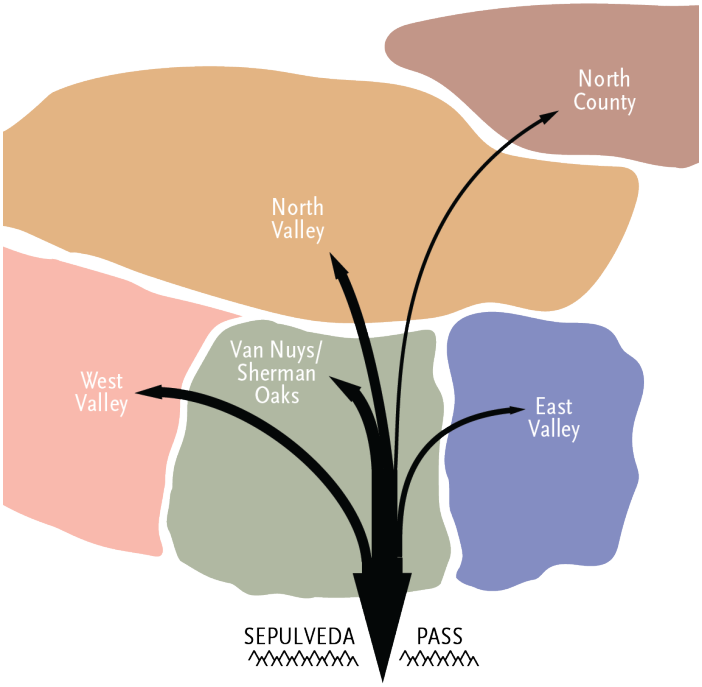
Based on the considerations discussed in this report, Metro has identified the following purpose for the Sepulveda Transit Corridor Project:

The purpose of the Project is to provide a high-quality transit service that effectively serves a large and growing travel market between the San Fernando Valley and the Westside, including the LAX area. For transit to be a competitive travel option that attracts new riders, there is a need to increase the speed, frequency, capacity, and reliability of transit service and provide convenient connections to existing and planned transit corridors.

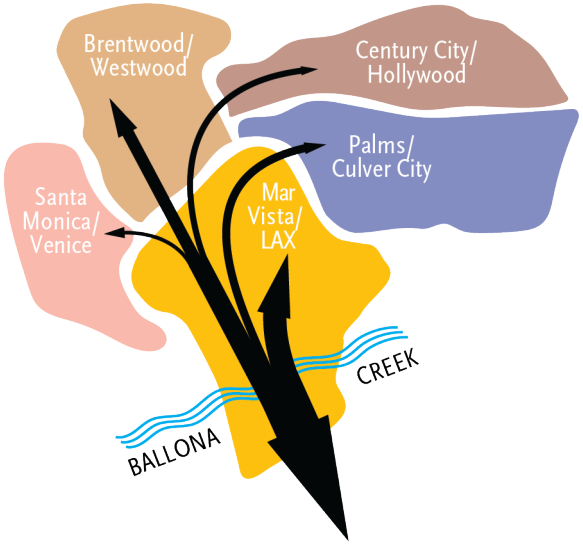
Table ES-2. Population and Employment Growth in Primary Areas Served by the Sepulveda Corridor

	2017	2042	Growth 2017-2042	2057	Growth 2017-2057
Population	7,741,310	8,807,877	13.8%	9,447,803	22.0%
Employment	3,370,911	4,058,268	20.4%	4,470,618	32.6%

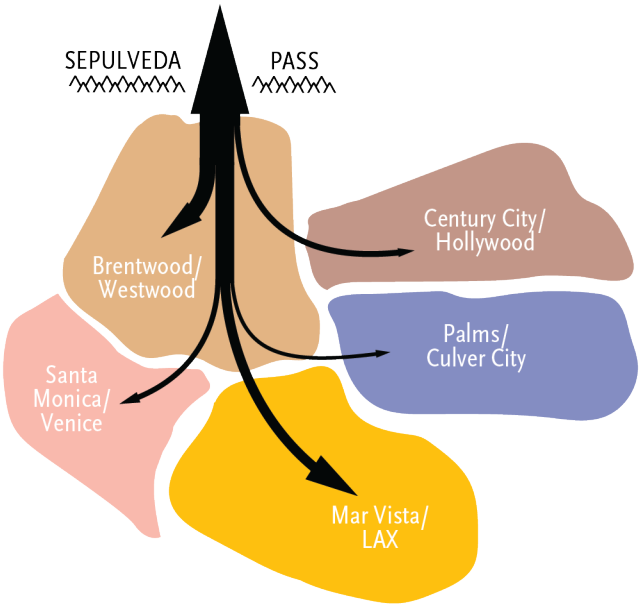
Source: Metro Travel Demand Model, 2017a



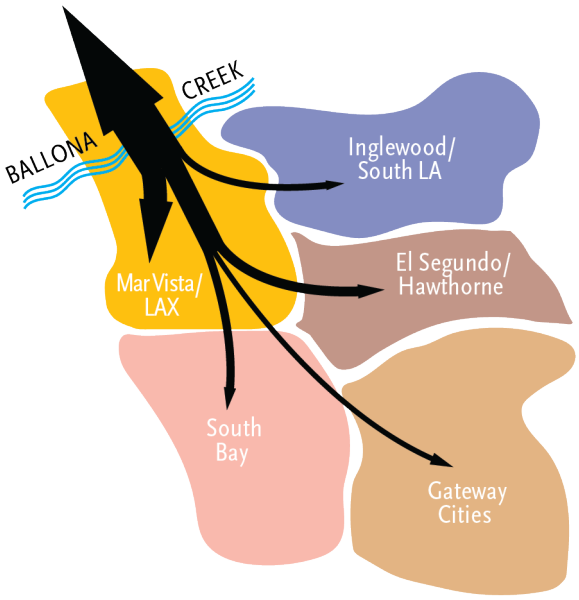
Panel A. The northern ends of trips through the Sepulveda Pass are primarily located in Van Nuys/Sherman Oaks, North Valley, West Valley, East Valley, and North County.



Panel C. The northern ends of trips across Ballona Creek are primarily located in Brentwood/Westwood, Mar Vista/LAX, Century City/ Hollywood, Palms/Culver City, and Santa Monica/Venice.



Panel B. The southern ends of trips through the Sepulveda Pass are primarily located in Brentwood/Westwood, Mar Vista/LAX, Century City/ Hollywood, Santa Monica/Venice, and Palms/Culver City.



Panel D. The southern ends of trips across Ballona Creek are primarily located in Mar Vista/LAX, El Segundo/Hawthorne, the South Bay, Gateway Cities, and Inglewood/South Los Angeles.

Figure ES-9. Primary Sources of Trips Through the Sepulveda Pass and Across Ballona Creek

Source: Sepulveda Mobility Partners, 2019

Note: Widths of arrows are proportional to the number of trips to/from each area.

ES-3 Evaluation Methodology

Goals and Objectives

Based on Metro's adopted *Performance Metrics Framework for Major Projects* (Metro, 2017b) and the Project's Purpose and Need, Metro has established the five goals listed in Table ES-3 for the Sepulveda Transit Corridor Project, along with objectives that support each goal.

Table ES-3. Project Goals and Objectives

Improve Mobility
> Increase transit ridership by directly serving locations with the greatest potential for attracting new riders
> Increase transit frequency and operating speeds
> Reduce the need to transfer and/or the time spent transferring for the most common trips
> Improve on-time performance
> Provide sufficient capacity to accommodate anticipated demand
> Provide convenient connections between existing and planned transit lines
Improve Equity of Access
> Improve accessibility for residential and employment centers
> Support transit-oriented communities (TOC) policies
> Support first/last-mile connections
> Promote investment in disadvantaged communities
Protect the Environment and Support Community and Economic Development
> Reduce vehicle miles traveled (VMT)
> Reduce air pollutant emissions
> Minimize effects to communities
> Minimize impacts to transportation network
> Minimize other environmental impacts
Provide a Cost-Effective Solution
> Minimize cost to achieve benefits
> Match cost to available funding
Minimize Project Delivery Risk
> Minimize potential for cost increases and delays

Source: Sepulveda Mobility Partners, 2018

Evaluation Process

The sequential evaluation process began with transit concepts for the Valley-Westside segment, followed by extensions of those concepts in the Westside-LAX segment. Qualitative and quantitative evaluation criteria were derived from the Project's goals and objectives. At the initial screening stage, the measures relied on either qualitative or high-level quantitative data appropriate to the level of detail available about the transit concepts. During the detailed evaluation, alignments and station locations were more precisely defined, with ridership forecasts and community impacts reflecting this increased detail and the addition of cost and risk-related evaluation criteria.

Figure ES-10 illustrates the process of development and evaluation of the transit concepts. The development and evaluation of the concepts were informed by three rounds of public meetings and extensive agency coordination.

A set of initial transit concepts for the Valley-Westside segment was first evaluated using the high-level evaluation criteria, measuring performance on improving mobility, improving equity of access, and protecting the environment and supporting community and economic development.

Following the evaluation of the Valley-Westside concepts, transit concepts for the Westside-LAX segment were developed as extensions of those concepts. These concepts were then evaluated using the same high-level evaluation criteria.

The Valley-Westside concepts were developed into full alternatives, including specification of operating plans and support facilities, and conceptual designs were prepared for each alternative. Detailed evaluation was then conducted of the alternatives, and evaluation criteria for performance on all goals and objectives were applied for both the Valley-Westside segment and the Westside-LAX segment.

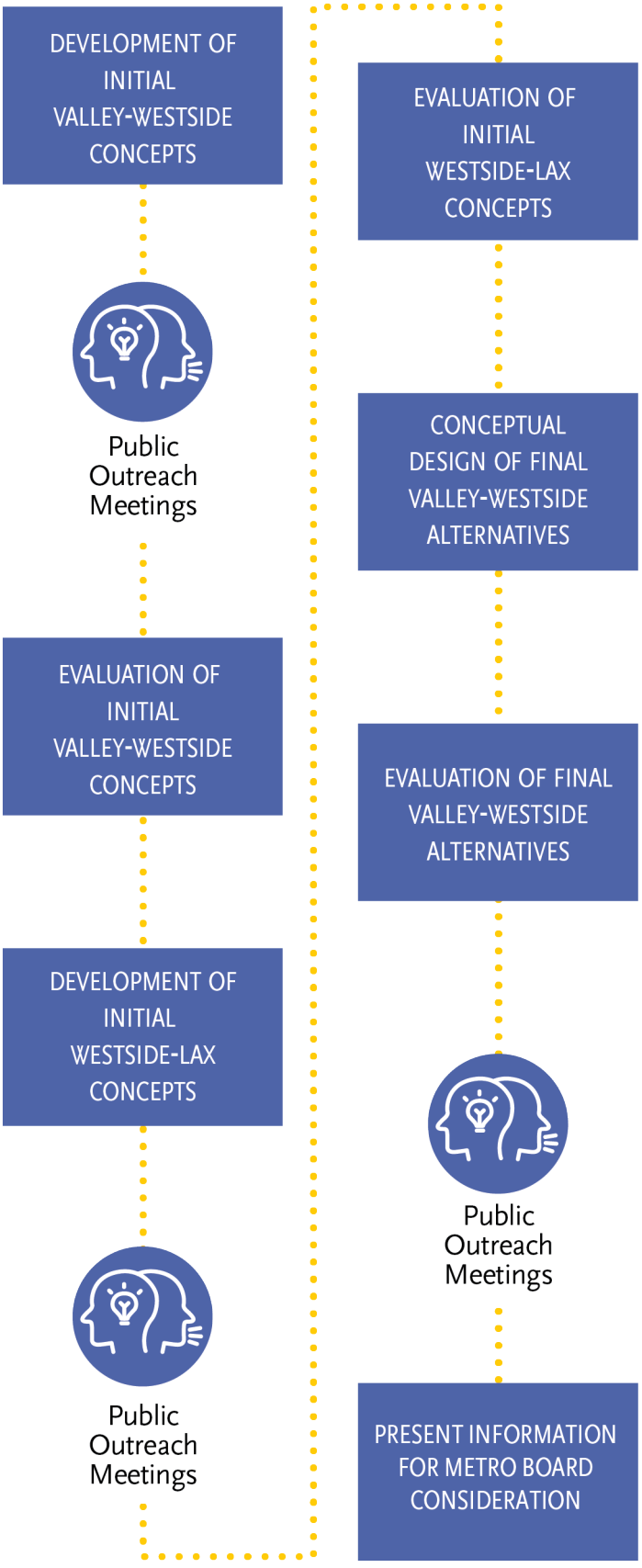


Figure ES-10. Process for Developing and Evaluating Transit Concepts

Source: Sepulveda Mobility Partners, 2018

ES-4 Development and Screening of Initial Concepts

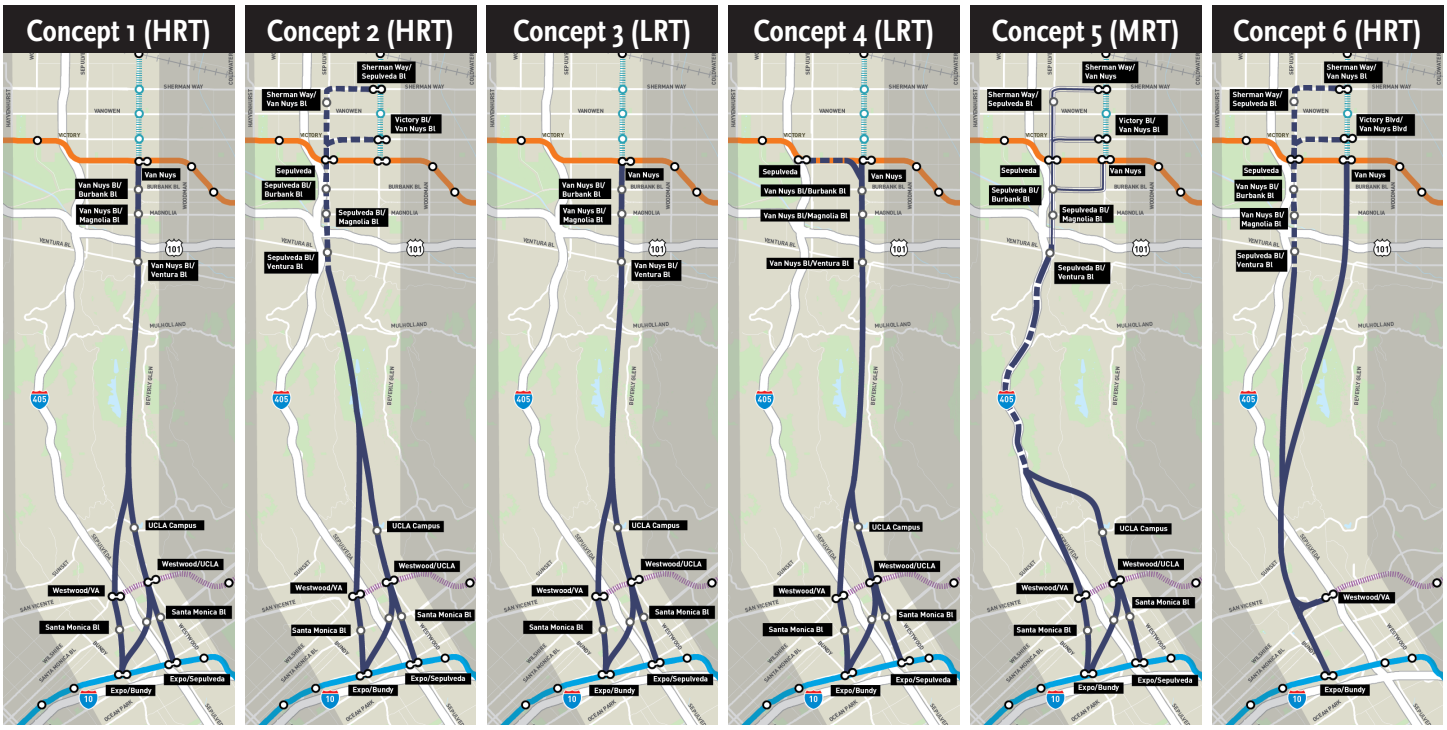
Screening of Modes, Termini, Alignment Segments, and Configurations

After a review of the characteristics of a variety of transit technologies and their applicability in the Sepulveda corridor, four modes that were proven in revenue operations, able to operate at high speeds, and that employ a vehicle design capable of quickly loading and unloading passengers were selected for development of the initial transit concepts: heavy rail transit (HRT), light rail transit (LRT), monorail, and rubber-tire trains. The monorail and rubber-tire modes were selected for evaluation because of their unique ability to traverse the grades in the Sepulveda Pass. Because of the similar performance characteristics of these two modes, they were identified as monorail/rubber-tire transit (MRT) and considered to be equivalent in the evaluation of the transit concepts.

Following the selection of modes to study, southern termini at each of the Metro Expo Line stations within the Study Area were considered, and connection points to the Metro Orange Line at each of the Metro Orange Line stations within the Study Area were considered. The significantly lower existing ridership of the Metro Expo Line Westwood/Rancho Park Station and the Metro Orange Line Woodley Station compared to the other stations on their respective lines and the low density, residential nature of their surrounding land uses led these potential termini to be dismissed from consideration early in the alternative development process.

Alignments were identified that followed roadway rights-of-way or connected potential termini directly. These alignments were screened based on major physical constraints and the ability to connect key activity centers. The design configurations considered for the initial Valley-Westside transit concepts included at grade, aerial, and below grade; the applicability of each configuration was determined based on the physical characteristics of the alignment.

The screening of alignments and configurations resulted in the development of several HRT, LRT, and MRT concepts for initial evaluation, including public review and comment. The initial alignment concepts, alternative termini, and general station locations are shown in Figure ES-11. Transit concepts considered included new lines for the Metro system, extensions of the East San Fernando Valley Light Rail Transit Corridor, and an extension of the Metro Purple Line.



Concept 1 (HRT)

> Northern terminus at Metro Orange Line Van Nuys Station

> Total alignment length of approximately 10 miles

Concept 2 (HRT)

> Northern terminus at Metro East San Fernando Valley Light Rail Transit Corridor Sherman Way or Victory Boulevard Stations

> Total alignment length of approximately 9 to 14 miles (3 to 5 miles of aerial guideway)

Concept 3 (LRT)

> Northern endpoint at Sylmar/San Fernando Metrolink Station

> Two train routings. Every other train would:

- Continue north to serve East San Fernando Valley Light Rail Transit Corridor stations
- Turn around at Metro Orange Line Van Nuys Station and continue southbound service

> Total new alignment length of approximately 10 miles

Concept 4 (LRT)

> Northern endpoints at both Sylmar/San Fernando Metrolink Station and Metro Orange Line Sepulveda Station

> Two train routings. Every other train would:

- Continue north to serve East San Fernando Valley Light Rail Transit Corridor stations
- Branch west to Metro Orange Line Sepulveda Station

> Total new alignment length of approximately 11 miles, including up to 1 mile of aerial guideway

Concept 5 (MRT)

> Northern endpoint at either:

- Sherman Way
- Victory Boulevard
- Metro Orange Line Van Nuys Station

> Total alignment length of approximately 10 to 15 miles (7 to 9 miles of aerial guideway)

Concept 6 (HRT)

> Extension of Purple Line to Metro Orange Line

> Northern endpoint at Metro Orange Line Van Nuys Station or East San Fernando Valley Light Rail Transit Corridor Sherman Way or Victory Boulevard Station

> Trains would follow three routings:

- Metro Orange Line to Downtown LA
- Metro Orange Line to Metro Expo Line
- Downtown LA to Metro Expo Line

> Total alignment length of approximately 9 to 15 miles (4 to 5 miles of aerial guideway)

Figure ES-11. Initial Valley-Westside Concepts

Source: Sepulveda Mobility Partners, 2018

Initial Screening

To evaluate the project goal to improve mobility, ridership forecasts were conducted for the year 2042 and included all projects identified as being completed by 2042 in the *Measure M Expenditure Plan* (Metro, 2016a). Figure ES-12 compares the ridership performance of each concept.

Closer inspection of the ridership forecasts revealed that demand in the Sepulveda corridor would be so great that all concepts would increase the demand on the East San Fernando Valley Light Rail Transit Corridor near or beyond its planned capacity, as shown in Figure ES-13. The over-capacity conditions would be most severe for the LRT concepts (Concepts 3 and 4), on which the peak passenger load between the Metrolink Van Nuys Station and the Metro Orange Line would exceed the line's hourly capacity by thousands of riders.

Because of the inability of the connecting service on the East San Fernando Valley Light Rail Transit Corridor to accommodate the demand attracted by the Sepulveda Transit Corridor Project, none of the initial transit concepts would be able to fully address the Project's Purpose and Need. Therefore, refined concepts were developed for the Valley-Westside.

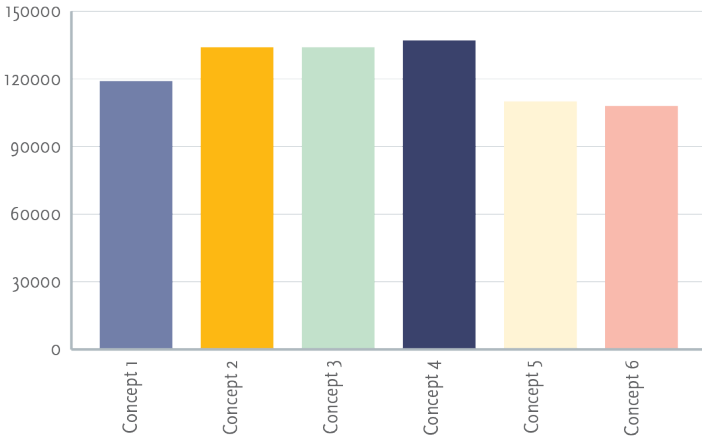


Figure ES-12. Daily Boardings on Initial Concepts

Source: Sepulveda Mobility Partners, 2018

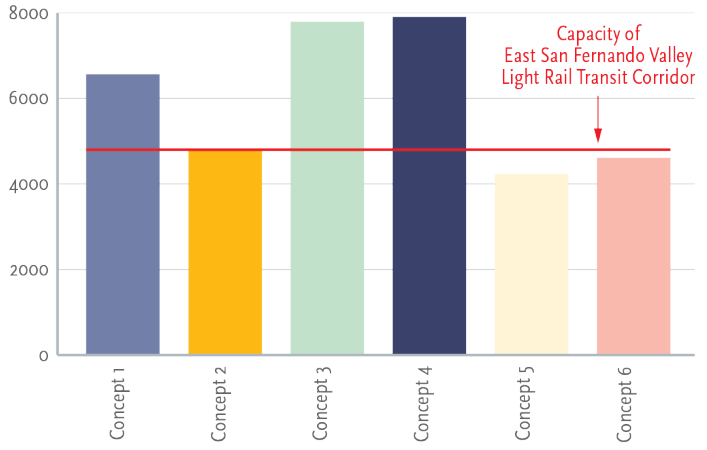


Figure ES-13. East San Fernando Valley Light Rail Transit Corridor Peak Load

Source: Sepulveda Mobility Partners, 2018

Note: LRT capacity of 4,800 passengers per hour is based on a 3-car train running at a 5-minute headway, with each car accommodating approximately 133 passengers.

Refined Valley-Westside Concepts

To serve the demand to access the Sepulveda corridor from the north, the HRT and MRT initial concepts were refined and extended farther north, alleviating passenger loads on the East San Fernando Valley Light Rail Transit Corridor. Additionally, because the option to connect to the Purple Line at the Westwood/VA Station performed poorly in terms of ridership compared to the option to connect at the Westwood/UCLA Station, this option was eliminated from consideration. The refined concepts are illustrated in Figure ES-14.

The LRT concepts (Concepts 3 and 4) were eliminated from further consideration because they could not be refined to provide additional capacity between the Metrolink Van Nuys Station and the Metro Orange Line. The Purple Line Extension (Concept 6) was eliminated because its inability to support a UCLA campus station resulted in the lowest ridership. The remaining concepts were regrouped by mode.

Why not refine LRT?

> Additional capacity cannot be provided by operating longer LRT trains because longer trains and station platforms on the East San Fernando Valley Light Rail Transit Corridor would block cross streets in the San Fernando Valley.

> Changing the design of the East San Fernando Valley Light Rail Transit Corridor to support longer trains and/or more frequent service would require grade separations and reduction in the number of stations, changing the local-serving nature of the planned line.

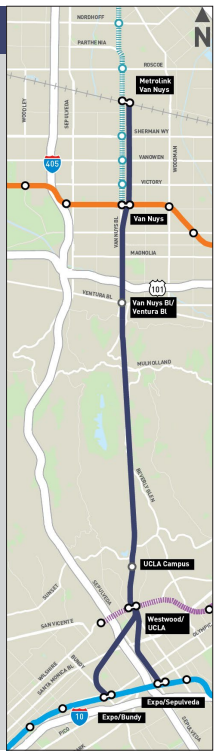
Why not refine the Purple Line extension?

> An extension of the Purple Line past the Westwood/VA Station would not allow for a station on the UCLA campus, resulting in lower ridership than other concepts.

> An extension of the Purple Line providing service to both the north and the south would require a complex three-way junction, which would increase property and construction impacts.

HRT 1

> Refined and extended version of Concept 1 with a northern terminus at the Metrolink Van Nuys Station
> Total alignment length of approximately 12.5 miles
> Entirely underground
> Stations at:
- Metrolink Van Nuys Station
- Metro Orange Line Van Nuys Station
- Van Nuys Boulevard/Ventura Boulevard
- UCLA Campus
- Westwood/UCLA Station
- Expo/Sepulveda Station or Expo/Bundy Station



HRT 2

> Variation on refined and extended version of Concept 1 with a northern terminus at the Metrolink Van Nuys Station
> Total alignment length of approximately 13 miles
> Entirely underground
> Stations at:
- Metrolink Van Nuys Station
- Metro Orange Line Sepulveda Station
- Sepulveda Boulevard/Ventura Boulevard
- UCLA Campus
- Westwood/UCLA Station
- Expo/Sepulveda Station or Expo/Bundy Station

HRT 3

> Refined and extended version of Concept 2 with a northern terminus at the Metrolink Van Nuys Station
> Total alignment length of approximately 14 miles
> Aerial configuration parallel to LOSSAN Rail Corridor and on Sepulveda Boulevard
> Underground south of Ventura Boulevard
> Stations at:
- Metrolink Van Nuys Station
- Sepulveda Boulevard/Sherman Way
- Metro Orange Line Sepulveda Station
- Sepulveda Boulevard/Ventura Boulevard
- UCLA Campus
- Westwood/UCLA Station
- Expo/Sepulveda Station or Expo/Bundy Station

MRT 1

> Refined and extended version of Concept 5 with a northern terminus at the Metrolink Van Nuys Station
> Total alignment length of approximately 15 miles
> Aerial configuration parallel to LOSSAN Rail Corridor, on Sepulveda Boulevard, and west of I-405
> Underground south of Getty Center Drive
> Stations at:
- Metrolink Van Nuys Station
- Sepulveda Boulevard/Sherman Way
- Metro Orange Line Sepulveda Station
- Sepulveda Boulevard/Ventura Boulevard
- UCLA Campus
- Westwood/UCLA Station
- Expo/Sepulveda Station or Expo/Bundy Station

Aerial or At Grade Alignment & Station
Underground Alignment & Station
Aerial Alignment & Station
Transfer Station

Figure ES-14. Refined Valley-Westside Concepts

Source: Sepulveda Mobility Partners, 2018

Note: Alignment lengths are for option to Expo/Sepulveda. Alignments to Expo/Bundy are approximately 0.5 mile longer.

Evaluation of Refined Concepts

To evaluate the performance of the refined concepts and to confirm that all address the Project's Purpose and Need, the same evaluation criteria that had been applied to the initial concepts were applied to the refined concepts.

Improve Mobility

HRT 3 is forecast to have the highest ridership, as shown in Figure ES-15. However, it would attract some of its riders from people who might otherwise use the East San Fernando Valley Light Rail Transit Corridor. Although all concepts would increase ridership on the East San Fernando Valley Light Rail Transit Corridor, boardings on that project would be lower under HRT 3 than under the other HRT concepts. HRT 1 would have the fastest end-to-end travel time, as shown in Figure ES-16. The concepts all performed similarly on the other objectives for this goal.

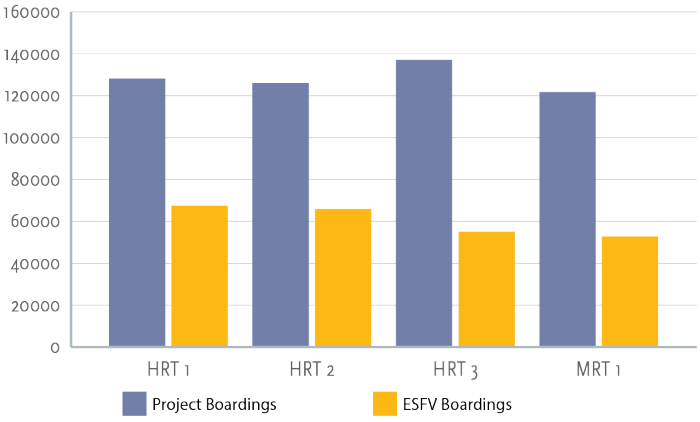


Figure ES-15. Daily Boardings on Refined Concepts

Source: Sepulveda Mobility Partners, 2018

Note: ESFV = East San Fernando Valley Light Rail Transit Corridor

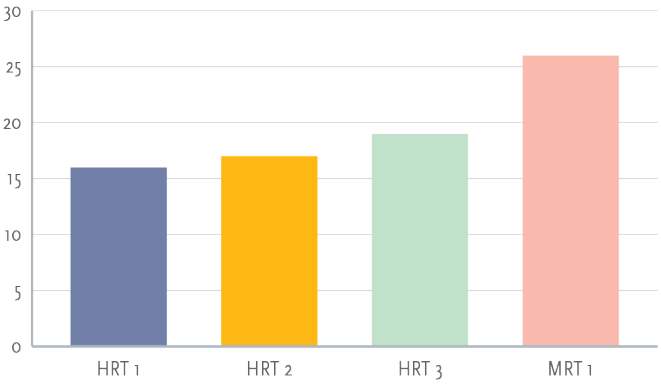


Figure ES-16. Travel Time (in Minutes) for Refined Concepts, Metrolink to Metro Expo Line

Source: Sepulveda Mobility Partners, 2018

Improve Equity of Access

All refined concepts have the same station options on the Westside and the same northern terminus at the Metrolink Van Nuys Station. Therefore, the evaluation of equity of access measures focused on stations that differ across the concepts—intermediate stations on Van Nuys Boulevard and Sepulveda Boulevard in the Valley. Stations on Van Nuys Boulevard generally perform better on equity of access measures than do stations on Sepulveda Boulevard, with more zoning supportive of transit-oriented communities (TOC) and proximity to more minority, low-income, and zero-car households.

Protect the Environment and Support Community and Economic Development

The refined concepts that attract greater ridership also reduce vehicle miles traveled (VMT) and vehicle hours traveled (VHT) the most, which would in turn reduce particulate and greenhouse gas emissions. With the highest ridership, HRT 3 would provide the greatest reductions in VMT and VHT. HRT 1 and HRT 2 would be entirely underground, limiting most potential environmental and community impacts to station areas. HRT 3 and MRT 1, which have aboveground segments, have greater potential visual, construction, and transportation impacts.

Recommendation of Concepts for Further Study

All four concepts were recommended for further study and development into conceptual alternatives, including preparation of conceptual drawings, development of operating plans, and identification of ancillary facilities, for the following reasons:

> HRT 1 would have the fastest end-to-end travel time and preserves an option on Van Nuys Boulevard in the Valley if any engineering challenges on Sepulveda Boulevard prove to be prohibitive.

> HRT 2 preserves a tunnel option on Sepulveda Boulevard if any engineering challenges on Van Nuys Boulevard prove to be prohibitive.

> HRT 3 would have the highest daily project boardings, and its aerial section has the potential to provide a lower-cost alternative to the other HRT concepts.

> MRT 1 has a longer aerial section with the potential to provide a lower-cost alternative to the HRT concepts.

ES-5 Final Valley-Westside Alternatives

The four refined concepts were developed into final alternatives, including the identification of ancillary facilities and development of operating plans. The alignments of each of the final alternatives extend between the Metro Expo Line in the south and the Metrolink Van Nuys Station in the north. The alignments and station locations of the four final alternatives are illustrated in Figure ES-17. All stations would be underground or aerial, depending on the vertical configuration of the alignment at each station location.

In the Westside, the base alignment for all alternatives was defined as having a southern terminus at the Expo/Sepulveda Station and a connection to the Metro Purple Line Westwood/

HRT 1

> 12.8 miles from end to end, including tail tracks

> Entirely underground heavy rail transit line

> Includes seven stations:

- Metrolink Van Nuys Station
- Metro Orange Line Van Nuys Station
- Van Nuys Boulevard/Ventura Boulevard
- UCLA Campus
- Westwood/UCLA
- Santa Monica Boulevard
- Expo/Sepulveda

HRT 2

> 13.4 miles from end to end, including tail tracks

> Entirely underground heavy rail transit line

> Includes seven stations:

- Metrolink Van Nuys Station
- Metro Orange Line Sepulveda Station
- Sepulveda Boulevard/Ventura Boulevard
- UCLA Campus
- Westwood/UCLA
- Santa Monica Boulevard
- Expo/Sepulveda

HRT 3

> 14.5 miles from end to end, including tail tracks

> Mixed aerial and underground heavy rail transit line

> Includes eight stations:

- Metrolink Van Nuys Station
- Sepulveda Boulevard/Sherman Way
- Metro Orange Line Sepulveda Station
- Sepulveda Boulevard/Ventura Boulevard
- UCLA Campus
- Westwood/UCLA
- Santa Monica Boulevard
- Expo/Sepulveda

MRT 1

> 15.4 miles from end to end, including tail tracks

> Mixed aerial, at grade, and underground monorail or rubber tire line

> Includes eight stations:

- Metrolink Van Nuys Station
- Sepulveda Boulevard/Sherman Way
- Metro Orange Line Sepulveda Station
- Sepulveda Boulevard/Ventura Boulevard
- UCLA Campus
- Westwood/UCLA
- Santa Monica Boulevard
- Expo/Sepulveda

Aerial or At Grade Alignment & Station

Underground Alignment & Station

Aerial Alignment & Station

Transfer Station

Figure ES-17. Final Valley-Westside Alternatives

Source: Sepulveda Mobility Partners, 2019

Note: Alignment lengths are for option to Expo/Sepulveda. Alignments to Expo/Bundy are approximately 0.5 mile longer.

Figure ES-18. Westside Alignment Option

Source: Sepulveda Mobility Partners, 2019

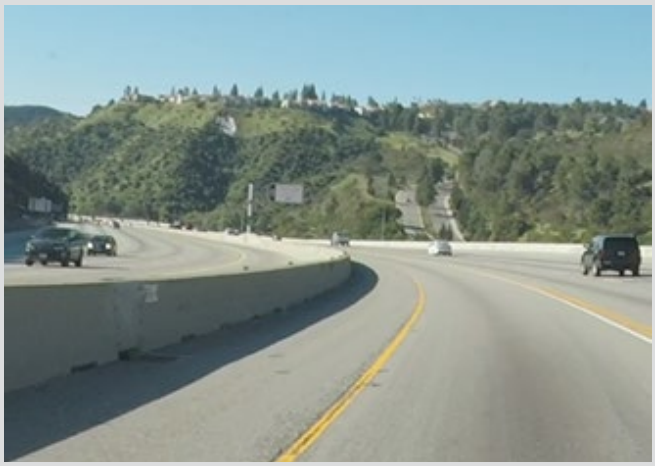
UCLA Station at Westwood Boulevard. Two additional alignment options on the Westside, illustrated in Figure ES-18, were developed to provide different ways to connect to the Metro Purple Line and Metro Expo Line:

> Sepulveda-Gayley Alignment Option

- Southern terminus at Expo/Sepulveda Station
- Santa Monica Boulevard Station at Bentley Avenue
- Station directly under Metro Purple Line Westwood/UCLA Station at Gayley Avenue/Midvale Avenue

> Bundy-Veteran Alignment Option

- Southern terminus at Expo/Bundy Station
- Santa Monica Boulevard Station at Purdue Avenue
- Station under Veteran Avenue at Wilshire Boulevard with underground pedestrian connection to Metro Purple Line Westwood/UCLA Station



Could an alignment be located in the I-405 median?

A number of major constraints would make an aerial alignment in the median of I-405 challenging:

> **I-405 ExpressLanes Project.** The combination of an aerial transit guideway and the addition of one lane in each direction would require widening of the freeway in this very constrained area.

> **Columns in the median supporting the transit guideway.** On curves, these columns would block drivers' view of stopped vehicles or other obstructions, violating Caltrans' safety and design standards.

> **I-405 has no median between US 101 and Sherman Way.** Adding columns to support a transit guideway in this area would require widening the freeway, which is constrained in this area.

> **Drainage Infrastructure.** In many parts of the freeway, storm drains are in the median and a drainage pipe is underneath the median to prevent flooding. The foundations of columns for a transit guideway would conflict with these facilities.

Tunnel Configuration Options

Metro's standard tunnel configuration consists of two tunnels, each approximately 20 feet in diameter. This "twin-bore" configuration, illustrated in Figure ES-19, accommodates one set of tracks in each tunnel and would require mining of cross-passages between the tunnels and up to two vertical shafts in the mountains for ventilation to meet Metro safety standards. A tunnel configuration option consisting of twin-bore 27-foot-diameter tunnels, illustrated in Figure ES-20, would allow for a longitudinal ventilation duct to be incorporated into each tunnel, eliminating the need for ventilation shafts in the mountains but would still require mining of cross-passages. Alternatively, a single-bore 40-foot-diameter tunnel, illustrated in Figure ES-21, would accommodate both sets of tracks and ventilation ducts in a single tunnel, eliminating the need for mined cross-passages and for ventilation shafts.

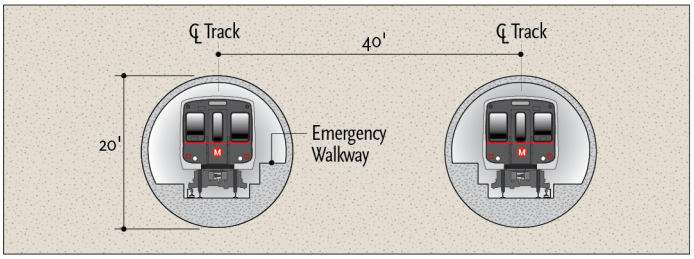


Figure ES-19. Twin-Bore Tunnel Configuration (20' Diameter)

Source: Sepulveda Mobility Partners, 2019

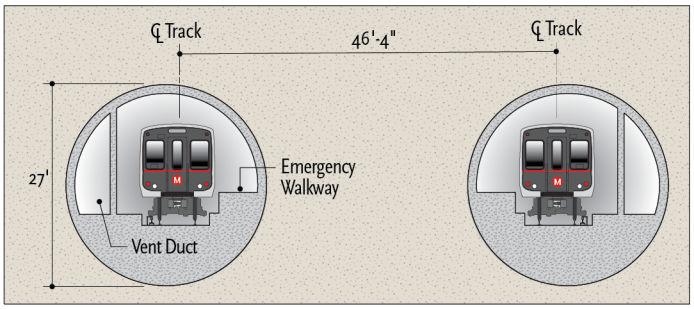


Figure ES-20. Twin-Bore Tunnel Configuration (27' Diameter)

Source: Sepulveda Mobility Partners, 2019

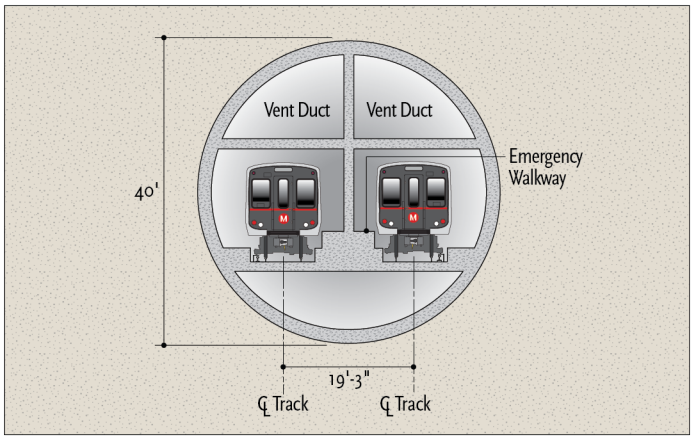


Figure ES-21. Single-Bore Tunnel Configuration (40' Diameter)

Source: Sepulveda Mobility Partners, 2019

Tunnels would generally be constructed using tunnel boring machines (TBM) operating below the ground surface, leaving the ground above the tunnel undisturbed (except at the TBM launch and retrieval locations). Underground stations and crossovers to allow trains to switch tracks would generally be constructed by excavating from the ground surface. With the single-bore configuration, crossovers can be constructed within the tunnel created by the TBM since both tracks are in the single tunnel, further reducing disruption at the surface.

Maintenance and Storage Facility

All alternatives would require a maintenance and storage facility (MSF) sized to accommodate its fleet. The MSF would be a stand-alone facility capable of performing all levels of service and maintenance of the HRT or MRT vehicles, including overnight storage of vehicles. The MSF would also include facilities for the storage and maintenance of equipment for maintaining the guideway and right-of-way.

During the development of the alternatives, the availability of suitable, industrially zoned land adjacent to the refined concepts was reviewed, and three potential MSF sites were identified:

> Sepulveda Boulevard at Nebraska Avenue: This 26-acre site is located between I-405 and Sepulveda Boulevard, south of Nebraska Avenue and north of Olympic Boulevard. It could serve all alternatives.

> Van Nuys Boulevard at Arminta Street: This 25-acre site is located on the north side of Arminta Street, east of Van Nuys Boulevard. It could serve HRT 1 and HRT 2.

> Metrolink at Woodman Avenue: This 39-acre site is located south of the LOSSAN Rail Corridor, west of Hazeltine Avenue and east of Woodman Avenue. It could serve HRT 3 and MRT 1.

ES-6 Comparative Performance Analysis of Valley-Westside Alternatives

The alternatives were evaluated for their ability to meet the five project goals—improve mobility, improve equity of access, protect the environment and support community and economic development, provide a cost-effective solution, and minimize risk—using evaluation criteria more detailed than those used to evaluate the initial and refined concepts. Table ES-4 compares key results of the evaluation by alternative.

Improve Mobility

HRT 1 and HRT 3 each perform strongly on different measures of mobility improvement. Overall, HRT 3 would have the highest number of daily boardings, new transit trips, and hours of daily time savings, while HRT 1 links major origins and destinations most quickly and directly.

Table ES-4. Performance of Alternatives on Select Project Objectives and Evaluation Measures

Measure		HRT 1	HRT 2	HRT 3	MRT 1
Improve Mobility					
Objective: Increase transit ridership by directly serving origin-destination pairs with greatest potential for attracting new riders					
Daily boardings		128,246	126,078	137,177	121,740
New transit trips		54,108	53,691	57,608	49,815
Objective: Increase transit frequency and operating speeds					
Average operating speed (miles per hour)		45.4	42.2	43.6	34.5
Travel time from Metrolink to Expo Line		16 minutes	17 minutes	19 minutes	26 minutes
Daily time savings (hours)		41,307	41,180	43,826	40,400
Improve Equity of Access[1]					
Objective: Improve accessibility for residential and employment centers					
2042 population density (persons per square mile)	Metro Orange Line	17,176		7,129	
	Ventura Boulevard	12,809		11,480	
2042 employment density (jobs per square mile)	Metro Orange Line	12,862		13,275	
	Ventura Boulevard	12,050		21,974	
Objective: Investment in disadvantaged communities					
Low-income residents		3,977		792	
Minority residents		8,791		3,070	
Zero-car households		761		190	
Number of low-income riders		81,500	80,200	87,600	79,900
Protect the Environment and Support Community and Economic Development					
Objective: Reduce VMT					
Regional VMT reduction		991,600	985,900	1,038,600	861,800
Objective: Reduce air pollutant emissions					
Regional VHT reduction		69,500	68,700	72,000	60,100
Objective: Minimize effects to communities					
Potential for property impacts		Likely impact	Likely impact	Likely impact	Likely impact
Potential for visual impacts		Unlikely to impact	Unlikely to impact	Likely impact	Likely impact
Objective: Minimize other environmental impacts					
Environmental justice		Potential impact	Potential impact	Likely impact	Likely impact
Noise and vibration		Potential impact	Potential impact	Likely impact	Likely impact
Provide a Cost-Effective Solution					
Objective: Minimize cost to achieve benefits					
Capital cost		$10.9 to $13.4 billion	$11.0 to $13.6 billion	$10.0 to $12.4 billion	$9.4 to $11.6 billion
Annual O&M cost		$112 to 119 million	$112 to $129 million	$123 to $137 million	$84 to $92 million
Annualized capital and O&M cost per project trip		$9.85 to $11.69	$10.13 to $12.28	$9.27 to $11.11	$9.26 to $11.15
Cost per hour of time savings		$30.58 to $36.30	$31.03 to $37.61	$29.02 to $34.77	$27.90 to $33.58

Table ES-4. Performance of Alternatives on Select Project Objectives and Evaluation Measures (continued)

Measure	HRT 1	HRT 2	HRT 3	MRT 1
Minimize Risk				
Objective: Minimize potential for cost increases and delays				
Qualitative assessment of unresolved major engineering challenges	> Potential construction conflict with East San Fernando Valley Light Rail Transit Corridor	> Potential construction conflict with East San Fernando Valley Light Rail Transit Corridor	> Major utility constraints under Sepulveda Boulevard	> Major utility constraints under Sepulveda Boulevard > High-capacity MRT would be new technology in United States

Source: Connetics Transportation Group, 2019; Fehr & Peers, 2018; Sepulveda Mobility Partners, 2019; Terry A. Hayes Associates, 2019; Torti Gallas + Partners, 2019

[1] All equity of access metrics reflect population within one-half mile of the station site. For evaluation purposes, HRT 2, HRT 3, and MRT 1 are considered to have identical station locations.

Notes: Table summarizes major differences among alternatives. Detailed data presented in Appendix C.

Twin-bore tunnel configuration assumed for all alternatives to present largest potential project footprint and impacts; alternative configurations could reduce potential impacts.

Costs shown in 2019 dollars. Costs are for 20-foot diameter twin-bore tunnel configuration. Cost per project trip considers only 2042 ridership forecasts.

O&M = operating and maintenance; VHT = vehicle hours traveled; VMT = vehicle miles traveled

The disparity in ridership between MRT 1 and the HRT alternatives is a result of the slower speeds of MRT technology and its longer route through the Sepulveda Pass. These factors also result in MRT 1 requiring the longest travel times between major origin-destination pairs.

Improve Equity of Access

As with the refined concepts, differences in station access occur in the Valley, where HRT 1 follows Van Nuys Boulevard and HRT 2, HRT 3, and MRT 1 generally follow Sepulveda Boulevard. Therefore, the evaluation of equity of access measures focused on stations that differ across the alternatives.

HRT 1 would serve higher population densities, while HRT 2, HRT 3, and MRT 1 would serve higher employment densities. HRT 1 would also have better bicycle access and have better pedestrian connections with fewer walking barriers. However, while more low-income residents live near Van Nuys Boulevard, HRT 3 along Sepulveda Boulevard serves the most low-income riders because of its overall higher ridership. Overall, HRT 1 is more supportive of TOC than HRT 2, HRT 3, and MRT 1 because of the land uses and development potential around the different Metro Orange Line Stations that would be served by each alternative. Existing zoning around the Metro Orange Line Sepulveda Station does not support TOC to the same degree as the zoning around the Van Nuys Station.

Protect the Environment and Support Community and Economic Development

Reduction in VMT and VHT for each alternative is directly correlated with the ridership it attracts. As a result, reductions are greatest for HRT 3, which has the highest ridership, and are least for MRT 1, which has the lowest ridership.

The potential for traffic, visual, noise, and environmental justice (EJ) impacts are generally greater for alternatives with more aboveground configurations because of the physical space they occupy in a community. Aerial structures are also more susceptible to seismic impacts than are tunnel or at-grade alignments. As a result, HRT 3 and MRT 1 have the most potential for impact in these categories. HRT 1 would also have an increased potential for traffic impact during construction because of overlap with the construction and operation of the East San Fernando Valley Light Rail Transit Corridor.

Many of the potential impacts of the alternatives are associated with the locations of stations and crossovers, which have been assumed to be excavated from above. The potential property impacts could be reduced through refinement of the alignments, changes to guideway or tunnel design, or the use of alternative construction methods. With a single-bore configuration, crossovers can be constructed inside the bored tunnel rather than excavated from the ground above. In certain geological conditions, and for additional cost, stations and crossovers could be mined from underground. Both

methods would decrease the amount of surface, thus property, disturbed during construction.

Provide a Cost-Effective Solution

Cost estimates were prepared for each alternative using a methodology consistent with Federal Transit Administration (FTA) guidelines for estimating capital costs. Because no MRT systems with the capacity required for the Project have been constructed or operated in the United States, MRT 1 costs were based on HRT costs, modified to reflect the unique characteristics of MRT.

Since underground construction is more expensive than aboveground construction, the main factors influencing the capital cost of the alternatives are the overall length of the alignment and the amount of the alignment that is underground. Additionally, annual operating and maintenance (O&M) costs would be lower for MRT 1 than for the HRT alternatives, in part because the industry standard of driverless operations of monorails has been assumed in estimating costs.

Because of the lower capital and O&M costs, MRT 1 performs better than the HRT alternatives in terms of cost per hour of time savings, even though it has lower ridership. However, because MRT 1 has lower ridership, the cost per project trip for HRT 1, HRT 3, and MRT 1 are relatively similar.

Because the preliminary cost of the Sepulveda Transit Corridor Project is greater than the funding identified in the *Measure M Expenditure Plan*, additional funding would be sought from other sources. Two key potential sources of additional funding are the FTA's Capital Investment Grants (CIG) program, which will consider funding transit projects that achieve an annualized cost per project trip of $10 or less, and partnerships with private business entities. Because design is still in the early stages, all alternatives are therefore considered relatively equally competitive for CIG funding. Additionally, because all alternatives could be operated and maintained independently of other Metro transit facilities, all alternatives are considered equally likely to attract private investment.

Minimize Risk

All large infrastructure projects face risks along the process from project development through design and construction to the commencement of operations. Therefore, the alternatives were evaluated for the ability to minimize risk—issues that may affect the ability of each alternative to achieve project objectives.

Overall risk associated with HRT 3 and MRT 1 is higher than that of HRT 1 and HRT 2, primarily because of the need to relocate parts of the Metropolitan Water District (MWD) Sepulveda Feeder water transmission line. Additionally, the lack of experience in the United States constructing and operating MRT with the capacity required for the Project creates additional uncertainty for MRT 1.

MSF Options

MSF options were also evaluated during this step of the evaluation process. Because riders do not directly interact with MSFs, only the goals to protect the environment and support community and economic development, provide a cost-effective solution, and minimize risk are applicable.

Protect the Environment and Support Community and Economic Development

Because the Metrolink at Woodman and Van Nuys at Arminta sites are primarily occupied by large-scale industrial and commercial uses, fewer businesses would be displaced than at the Sepulveda at Nebraska site. The Sepulveda at Nebraska site also has potential impacts associated with potentially historic structures (buildings over 50 years old with architectural characteristics of the time and culture in which they were built) and water resources (as a result of excavation).

The Van Nuys at Arminta site is in an EJ census tract that does not contain residences, although it is adjacent to EJ communities. It also has a potentially historic structure on the site. The Metrolink at Woodman site is in an EJ census tract that does not contain residences and has the fewest potential impacts of the three options.

Provide a Cost-Effective Solution

The Sepulveda at Nebraska site would be four to five times more costly than either the Metrolink at Woodman site or the Van Nuys at Arminta site because it would have to be constructed below the level of the existing ground to allow rail access to the site while avoiding MWD's Sepulveda Feeder line under Sepulveda Boulevard. Additionally, real estate is more costly in the vicinity of the Sepulveda at Nebraska site than at the other sites.

Minimize Risk

While the MSF options at the Metrolink at Woodman and Van Nuys at Arminta sites do not have additional risks associated with them, the Sepulveda at Nebraska site does. These additional risks are related to excavating the site, crossing a major water transmission line, and vacating public roadways.

ES-7 Identification and Screening of Westside-LAX Concepts

Development of Westside-LAX Concepts

The Westside-LAX concepts were developed as extensions of the refined Valley-Westside concepts, or, in one case, as an extension of the Metro Purple Line. Therefore, each Westside-LAX concept must be compatible with the mode and the terminus of a Valley-Westside concept or the Metro Purple Line. As a consequence, only HRT and MRT concepts connecting to the Expo/Bundy Station, Expo/Sepulveda Station, or Westwood/VA Station were considered.

The Airport Metro Connector (AMC) 96th Street Transit Station on the future Metro Crenshaw/LAX and Metro Green Lines was identified as the logical southern terminus of the Westside-LAX concepts. The Westside-LAX concepts generally follow the major north-south corridors within the southern part of the Study Area: Centinela Avenue, Sepulveda Boulevard, I-405, and Overland Avenue.

An aerial configuration was only considered along I-405 since the refined Valley-Westside segment concepts all end in a tunnel configuration and all the arterial corridors to the south have extensive segments in which the right-of-way is not sufficient to accommodate the addition of an aerial guideway without removal of travel lanes and/or substantial property impacts.

Westside-LAX Concepts

The six Westside-LAX concepts are illustrated in Figure ES-22. Four of the concepts are extensions of Valley-Westside HRT alternatives from the Expo/Sepulveda Station, one is an extension of the Valley-Westside MRT alternative from the Expo/Sepulveda Station, and one is an extension of the Metro Purple Line from the Westwood/VA Station. In addition, one HRT extension concept includes an option to connect to the Expo/Bundy Station instead of the Expo/Sepulveda Station.

Additional rail vehicles would be needed to operate any of the Westside-LAX concepts. None of the MSF sites identified for the Valley-Westside segment of the Project would be large enough to accommodate these additional vehicles. Because land uses change over time, a suitable site to accommodate an expanded fleet should be identified closer to the anticipated date of construction of the Westside-LAX segment.

Evaluation of Westside-LAX Concepts

The Westside-LAX concepts were evaluated in the same manner as the refined Valley-Westside concepts, as well as on cost and cost-effectiveness measures.

Improve Mobility

Ridership forecasts for the entire Project between the Valley and LAX are shown in Figure ES-23. While the Purple Line Extension concept would result in the greatest number of daily boardings, this is in part because passengers using both the Valley-Westside and Westside-LAX segments of the Project would be forced to transfer to complete their journey, and their boardings are counted twice in the ridership since they must board two trains.

In addition, the Purple Line Extension would result in substantially lower ridership on the Valley-Westside segment than the other HRT concepts because it requires an extra transfer for passengers traveling between the Valley or UCLA and LAX. As a result, the Purple Line Extension would also generate fewer new transit trips on the Metro system than the other HRT concepts.

Travel times from the Expo Line to AMC 96th Street Transit Station range from 10.5 to 12.5 minutes across concepts, with HRT Sepulveda being the fastest and MRT I-405 being the slowest.

Improve Equity of Access

Since the Westside-LAX concepts are along three primary corridors (Centinela Avenue, I-405/Sepulveda Boulevard, and Overland Avenue), the concepts were grouped by corridor and the equity of access evaluation was conducted for each of these corridors.

The HRT Overland concept would provide the greatest equity of access benefits. Its intermediate stations at Overland/Venice and Overland/Jefferson are forecast to have employment densities greater than comparable stations on the other corridors. The Overland/Venice Station is also surrounded by transit-supportive land uses and a significant number of low-income, minority, and zero-car households. The Centinela corridor (HRT Centinela and Purple Line Extension) would perform the lowest on this measure because it would provide the weakest opportunities for bicycle and pedestrian access.

Protect the Environment and Support Community and Economic Development

Concepts that are entirely underground perform better than those with aerial sections (HRT I-405 and MRT I-405) on measures of protecting the environment and supporting community and economic development since they have lower potential for property, construction, transportation, noise, vibration, and historic impacts.

HRT Sepulveda and HRT Centinela concepts perform best at protecting the environment because they would not pass through potentially hazardous oil fields or Methane and

HRT Overland

> Entirely underground HRT extension from Expo/Sepulveda Station
> Adds 8.0 miles of guideway and four intermediate stations:
- Overland Av/Venice Bl
- Overland Av/Jefferson Bl
- Culver City Transit Center
- Sepulveda Bl/Manchester Av

HRT Sepulveda

> Entirely underground HRT extension from Expo/Sepulveda Station
> Adds 7.7 miles of guideway and three intermediate stations:
- Sepulveda Bl/Venice Bl
- Culver City Transit Center
- Sepulveda Bl/Manchester Av

HRT I-405

> Partially underground, partially aerial HRT extension from Expo/Sepulveda Station
> Adds 7.3 miles of guideway and three intermediate stations:
- Sepulveda Bl/Venice Bl
- Howard Hughes Center
- Sepulveda Bl/Manchester Av

HRT Centinela

> Entirely underground HRT extension from Expo/Sepulveda Station or Expo/Bundy Station
> Adds 7.8 miles of guideway and four intermediate stations:
- Centinela Av/Venice Bl
- Centinela Av/Culver Bl
- Centinela Av/Jefferson Bl (Playa Vista)
- Sepulveda Bl/Manchester Av

Purple Line Extension

> Entirely underground HRT extension of Metro Purple Line from Westwood/VA Station
> Adds 10.2 miles of guideway and five intermediate stations:
- Expo/Bundy (transfer station)
- Centinela Av/Venice Bl
- Centinela Av/Culver Bl
- Centinela Av/Jefferson Bl (Playa Vista)
- Sepulveda Bl/Manchester Av

> Only feasible if Valley-Westside segment terminates at Expo/Sepulveda

MRT I-405

> Partially underground, partially aerial HRT extension from Expo/Sepulveda Station
> Adds 7.3 miles of guideway and three intermediate stations:
- Sepulveda Bl/Venice Bl
- Howard Hughes Center
- Sepulveda Bl/Manchester Av

Aerial Alignment & Station
Underground Alignment & Station
Transfer Station

Figure ES-22. Westside-LAX Concepts

Source: Sepulveda Mobility Partners, 2019

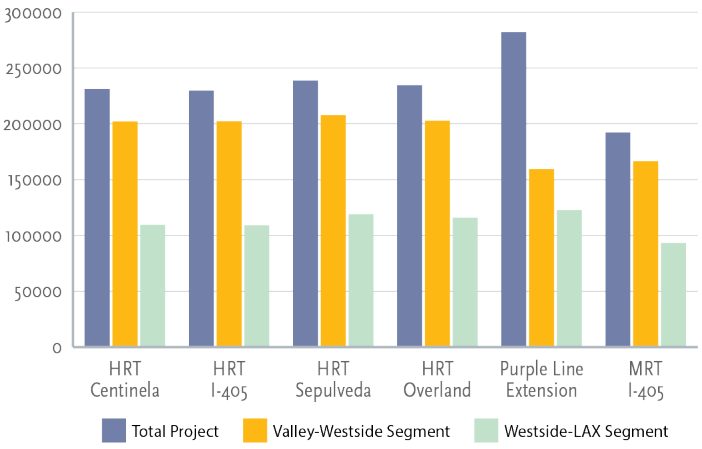


Figure ES-23. Project Trips on Westside-LAX Concepts (2057)

Source: Sepulveda Mobility Partners, 2019

Note: Total project trips are less than the sum of Valley-Westside trips and Westside-LAX trips because some trips use both segments of the Project.

Methane Buffer Zones as other tunnel concepts would. Additionally, the Purple Line Extension concept also has increased potential for historic impacts near the West Los Angeles Veterans Affairs Medical Center and seismic impacts along the portion of its alignment through the Santa Monica Fault Zone.

Provide a Cost-Effective Solution

The main factors influencing the cost of the Westside-LAX concepts are the overall length of the alignment, the amount of the alignment that is underground, and the amount of right-of-way acquisition required.

ES-8 Public Outreach and Agency Coordination

Metro engaged in a robust public outreach process for this Feasibility Study, guided by Metro's Equity Platform. Metro designed a wide range of opportunities for feedback in an inclusive and transparent way and held multiple forums for bilingual English and Spanish community engagement. This included engaging stakeholders at a variety of events and locations in the Valley and on the Westside, reaching thousands of stakeholders in person. Metro also conducted significant outreach with many public agencies that have jurisdiction throughout the Study Area. Coordination with these agencies allowed concerns to be identified and addressed early in the process.

Project Materials and Resources

To inform and update stakeholders about the Project's progress, the outreach team developed collateral materials for distribution through various channels and means of communication. A Project website https://www.metro.net/projects/sepulvedacorridor/ serves as a central location where the public can go to obtain all project-related information.

The project team also conducted two online bilingual surveys. The first survey focused on learning about those who travel in the Study Area and the characteristics of their travel. The second survey focused generally on the concepts that had been presented at the second round of public meetings in January/February 2019.

Public Meetings

Metro hosted three rounds of informational public meetings (for a total of 10 individual public meetings) as part of the public outreach efforts for the study. Meetings were held to coincide with the introduction, refinement, and evaluation of the transit concepts. All materials were available in English and Spanish, and interpreters were available to translate and assist with submission of comments.

To promote each round of public meetings, Metro distributed thousands of take-ones with information about the meetings in English and Spanish on bus routes that operate in the Study Area. Electronic versions of each meeting notice, with a link to a Spanish translation, were distributed via e-blast to all contacts included in the project database. Support was also requested from elected offices, cities, public facilities, and other key stakeholders to promote public meetings through their own communication tools.

Additionally, targeted outreach in Spanish based on a careful analysis of Spanish speakers with limited English proficiency in the Study Area was conducted to encourage attendance of Spanish speakers.

Throughout the study, hundreds of community members attended public meetings to learn about the Project and provide input.

Source: Arellano Associates, 2019

Outreach at Community Events

Many factors may prevent in-person attendance at public meetings; therefore, the outreach was conducted at places where community stakeholders already gather. This included making announcements and presentations at community meetings, such as neighborhood councils and homeowners' associations. In addition, the outreach team staffed information booths at approximately 20 free or low-cost community festivals that drew thousands of diverse attendees throughout the Study Area.

Public Agency Meetings

Metro coordinated with many public agencies that have jurisdiction throughout the Study Area, holding both multi-agency briefings and individual meetings. This effort was designed to present information on the project concepts, to discuss relevant issues related to each agency's jurisdiction, and proactively consult with these agencies prior to formal agency consultation, which is a prerequisite under the NEPA environmental review process.

Metro held individual meetings with the following agencies to discuss issues related to the Project and resources under each agency's jurisdiction:

> Caltrans

> County of Los Angeles Department Regional Planning

> Los Angeles Department of City Planning (LADCP)

> Los Angeles Department of Transportation

> Los Angeles Department of Water and Power

> Metropolitan Water District

> Santa Monica Mountain Conservancy

> Southern California Regional Rail Authority (Metrolink)

> United States Army Corps of Engineers

> UCLA

Feedback Received

Although the public meetings were not formal public hearings, Metro received comments at the public meetings and via the project email address and website and through postal mail, with almost unanimous support to move forward with the study and interest in seeing the Project completed as quickly as possible. Public comments generally fell into four different topical area:

> Alternative concepts and modes

- Interest in a convenient ride without needing to transfer from the San Fernando Valley to LAX

Many people who travel in the Sepulveda corridor live and work outside the Study Area, so Metro engaged the community at popular events such as the Santa Monica Summer SOULstice in June 2018.

Source: Arellano Associates, 2019

- Connectivity to other destinations, including Santa Clarita, Santa Monica and the Santa Monica Airport, Culver City, and Playa Vista
- Changes to the East San Fernando Valley Light Rail Transit corridor to improve connectivity
- Stakeholders in the Mar Vista area expressed strong support for the Sepulveda alignment for the Westside-LAX segment
- Sherman Oaks stakeholders expressed opposition to aboveground options and support for an underground option

> Stations

- Strong desire for a station at UCLA
- Interest in both the Expo/Sepulveda and Expo/Bundy Stations as possible southern termini
- Requests for a station between the Purple and Expo Lines on Santa Monica Boulevard or another point in between
- Interest in a station at The Getty
- Preference for a Centinela/Washington station option over Centinela/Venice
- Evaluation of parking
- Support for transit connectivity and transit-oriented development around stations

> Evaluation criteria

- Concerns regarding noise and vibration during construction and operation of aerial segments
- Concerns regarding tunneling

> Study scope

- Some suggested extending the geographic scope of the analysis and physical boundaries of the Project farther north and south

ES-9 Next Steps

This Feasibility Study has determined that a reliable, high-capacity fixed-guideway transit system connecting the San Fernando Valley to the Westside and the LAX area could be constructed along several different alignments. Such a transit system, operated as either HRT or MRT, would serve the major travel markets in the Sepulveda corridor and would provide travel times competitive with the automobile. While not recommending a particular alternative, this study has also identified potential environmental and community impacts that could result from construction and operation of this transit line and developed cost estimates for construction and operations.

The Metro Board of Directors will select alternatives to be included in the environmental process based on this study and upcoming proposals resulting from Metro's predevelopment agreement process. These alternatives will be presented to the public and public agencies for feedback through the NEPA and CEQA scoping process; all reasonable alternatives will be considered during environmental review.

Any fixed-guideway system in the corridor, whether an alternative developed during this study or one developed independently, will confront many of the same key challenges. Based on the design and analysis conducted during this study, the following steps should be taken to address the key challenges:

> Seek additional community input on station locations and designs

> Consider interactions with and connections to other Metro Lines

> Advance engineering studies of key design issues

> Identify ways to reduce impacts, including further evaluation of tunnel configurations

> Identify cost reductions and consider project phasing

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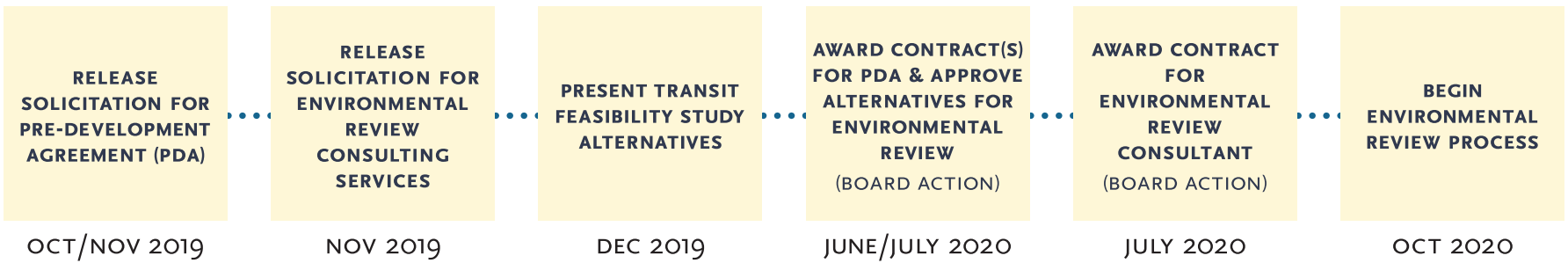
ATTACHMENT B - PROJECT TIMELINE



Next stop: exploring alternatives to the 405.

SEPULVEDA TRANSIT CORRIDOR PROJECT

Planning & Programming Committee

November 20, 2019

Legistar #2019-0759

Metro

Refined Valley-Westside Alternatives

Sepulveda Transit Corridor Project (alignment options)

- Aerial
- Aerial or At Grade
- Underground
- Transfer Stations

Existing Service

- Existing Metro Expo Line & Station
- Existing Metro Orange Line & Station
- Amtrak/Metrolink & Station

Pre-Construction

- Purple Line Extension & Station (Section 3)
- East San Fernando Valley Transit Corridor & Station

HRT 1

HRT 2

HRT 3

MRT 1

Metro

Refined Westside-LAX Concepts

Via Expo/Sepulveda Station

HRT or MRT I-405

HRT Centinela

HRT Sepulveda

HRT Overland

Sepulveda Transit Corridor Project (alignment options)

- Aerial
- Underground
- Transfer Station

Existing Service

- Existing Metro Expo Line & Station
- Existing Metro Green Line & Station

Under Construction

- Crenshaw/LAX Transit Project & Station
- Purple Line Extension & Station

Pre-Construction

- Purple Line Extension & Station (Section 3)
- Airport Metro Connector 96th Street Transit Station

Los Angeles World Airports (LAWA)

- LAX Automated People Mover (APM) (Under construction)

Metro

Refined Westside-LAX Concepts

Via Expo/Bundy Station

HRT Centinela

Purple Line Extension

Sepulveda Transit Corridor Project (alignment options)

- Aerial
- Underground
- Transfer Station

Existing Service

- Existing Metro Expo Line & Station
- Existing Metro Green Line & Station

Under Construction

- Crenshaw/LAX Transit Project & Station
- Purple Line Extension & Station

Pre-Construction

- Purple Line Extension & Station (Section 3)
- Airport Metro Connector 96th Street Transit Station

Los Angeles World Airports (LAWA)

- LAX Automated People Mover (APM) (Under construction)

Metro

Next Steps / Q&A

- November 2019 – Federal, state and municipal staff roundtables
  - Monday, November 18, 2:00-3:30; webcast and live at Culver City Hall
  - Tuesday, November 19, 11:00-12:30; Van Nuys State Office Building, Auditorium
- November 2019 – Release RFP for EIS/EIR
- December 2019 – Present Feasibility Study to Metro Board of Directors
- Spring 2020 – Procure Outreach Contractor through Metro Communications Bench
- June/July 2020
  - Award PDA contract(s)
  - Award EIS/EIR contract
  - Approve alternatives for environmental review
- Fall 2020 – Begin NEPA/CEQA Scoping Process

Metro

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2019-0629, **File Type:** Informational Report **Agenda Number:** 7.

2nd REVISED
PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 20, 2019
EXECUTIVE MANAGEMENT COMMITTEE
NOVEMBER 21, 2019

SUBJECT: MEASURE R ORDINANCE PRELIMINARY 10-YEAR REVIEW AND POTENTIAL AMENDMENTS

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE the Measure R Ordinance Preliminary Ten-Year Review and Potential Amendments.

ISSUE

The Measure R Ordinance ("Ordinance") permits the Board to amend the Ordinance not more than once every ten years, beginning in 2020, to transfer sales tax revenue between the transit and highway capital subfunds. This Board item provides preliminary staff findings regarding the transfer. In addition, information is given on possible additional amendments to transfer funding among existing projects or add funding for new projects.

No recommendations for amendments to the Ordinance are being made at this time.

BACKGROUND

The Measure R Ordinance, which became effective in January 2009, identifies the allowable uses for the 0.5% countywide sales tax that funds Metro capital projects and transit operations. The Ordinance created both transit and highway capital subfunds that receive a percentage of the Measure R sales tax revenue and fund the capital projects listed on the Expenditure Plan (Attachment A of the Ordinance). One of the capital projects is a Capital Project Contingency ("Contingency"). Per the Ordinance, the Contingency is to be used, among other things, to pay interest on debt.

DISCUSSION

The amount available for Contingency is currently estimated to be significantly lower than identified in

the Expenditure Plan, as the total amount of Measure R sales tax is less than initially anticipated. The following table shows the current estimate of Contingency (from the November 2019 Short Range Financial Forecast, or "2019 Financial Forecast") versus the amount in the Expenditure Plan. Contingency has decreased from $3.3 billion to $694 million for transit and $2.6 billion to $1.1 billion for highway (based on actual receipts and the most recent forecast of sales tax revenue over the 30-year term of Measure R, minus total spending for all other capital projects identified in the Expenditure Plan).

Measure R Capital Project Contingency
Expenditure Plan vs. 2019 Financial Forecast
30-Year Totals (Fiscal Years 2010 to 2039)

($ in millions)	Expenditure Plan	2019 Financial Forecast
Transit Capital Projects	$ 10,514	$ 10,514
Transit Capital Project Contingency	$ 3,276	**$ 694**
Total Transit Revenue (35%)	$ 13,790	$ 11,208
Highway Capital Projects	$ 5,304	$ 5,304
Highway Capital Project Contingency	$ 2,576	**$ 1,101**
Total Highway Revenue (20%)	$ 7,880	$ 6,405

Metro has issued debt payable from the transit capital subfunds, and this outstanding debt has and will continue to accrue interest. No debt has yet been issued that is payable from the highway capital subfund. In the 2019 Financial Forecast, an additional $3.5 billion of debt is estimated to be needed to complete the projects in the Measure R Expenditure Plan, payable from both transit and highway capital subfunds. As shown in the table below, the total estimated interest payable from transit debt including outstanding debt is $2.0 billion. For highway debt the total interest payable is $513 million. The amount of transit interest payable exceeds the amount available for Contingency.

Measure R Debt Interest
Outstanding and Planned Debt Issuance
(2019 Financial Forecast)

($ in millions)	Interest Payable
Outstanding Transit Debt	$ 1,360
Planned Transit Debt	$ 662
Total Transit Debt	$ 2,022
Outstanding Highway Debt	$ -
Planned Highway Debt	$ 513
Total Highway Debt	$ 513

Given the amounts allocated to capital projects in the Expenditure Plan (other than the Contingency)

there is insufficient future sales tax revenue to pay the transit interest, including planned future transit debt. This may require a transfer of funds from the highway to transit capital subfund.

The amount of the transfer cannot be determined precisely now as it will depend on actual sales tax receipts and debt issuances over the next 20 years. If sales tax is higher or lower than forecasted, this may cause less or more future debt issues and resulting interest. In addition, there are three transit projects (Expo II, Purple Line Extension, Airport Metro Connector) that are not currently allocated the total amount of Measure R identified in the Expenditure Plan. In the 2019 Financial Forecast, the Measure R surplus on these projects is being used to pay interest on the debt issued for the projects (in accordance with the Board-approved “Fiscal Responsibility Policy,” recommendation A, May 2011). Two of the projects are not yet completed and may require additional Measure R funding. The Purple Line Extension will likely require additional Measure R funding for an expanded Division 20.

At this time, a future $500 million transfer is estimated to be needed from highway to transit. However, the transfer is not needed immediately, as there are sufficient Measure R sales tax receipts and debt capacity to fund the transit capital projects on schedule over the next 10 years without the transfer. Staff recommends that any transfer is postponed. The timing and amount of the transfers will be monitored annually and a future recommendation will be provided to the Board when the need to make a transfer appears more definitive.

Transfer of Funds to Other or New Projects

In addition to the possible transfer of highway and transit Contingency, several Measure R projects have not fully utilized all Measure R funding in the Expenditure Plan, and the funding for these projects could potentially be transferred to other existing or new projects. The Metro Board has adopted policies that affect the future transfer of funds, including the aforementioned Fiscal Responsibility Policy, as amended. This policy requires that interest on debt is allocated to the project financed, reducing the surplus, or if the project is accelerated, offsetting the amount spent on capital costs. For any transfer for a new or augmented project, a proportional amount of the Contingency is also transferred. These and other policy requirements will need to be followed, in consideration of the Ordinance provisions and contractual obligations related to Metro debt financing.

The following projects may have surpluses that could be transferred.

- **Interstate 5 North Capacity Enhancements from SR-14 to Kern County Line (Truck Lanes)**: $410 million in Expenditure Plan. Current project under development ends at Parker Rd. Approximately $267 million of Measure R available for future project. Funds may be needed for current project if cost increases. Any surplus would be eligible for uses identified by the subregion.
- **Interstate 405, I-110, I-105, and SR-91 Ramp and Interchange Improvements (South Bay):** $906 million in Expenditure Plan. Approximately $92 million spent through fiscal 2019. Use of funds determined in conjunction with South Bay subregion. Funds could be transferred for transit or other uses of regional benefit.

Projects were funded prior to the passage of Measure R. The surplus has been either programmed after 2029 through previous Board action, or on new projects identified by the subregion with Metro approval.

- **San Fernando Valley North-South Rapidways (Canoga Corridor)**: $182 million of Measure R transit funds available. Currently programmed for use after 2029.

The following project, which was expected to be completed with a Measure R surplus, will have the Measure R funding used instead of Proposition C 25% sales tax funds that were programmed for the project prior to the adoption of Measure R. This was approved by previous Board action (#2015-1763) ~~(#2017-1763)~~. The Proposition C 25% "replacement credits" have been programmed after 2029 in the Board-adopted short range transportation plan.

- **Interstate 5 Capacity Enhancement from I-605 to Orange County Line, from SR-134 to SR-170, and Carmenita Road Interchange Improvement**: $108.4 million of Measure R surplus, or replacement credits, allocated to West Santa Ana Branch per Expenditure Plan. A total of $122.9 million of Measure R surplus programmed after 2029. All or a portion of the surplus may be needed if the project cost increases, or to address the impact of prior scope reductions.

Findings

As discussed herein, the following are key findings of this report.

- A transfer of Measure R funds, estimated to be $500 million, from the highway to transit capital subfund appears necessary. The actual transfer can be postponed and not affect the immediate funding of transit or highway capital projects.
- Staff will monitor the status of the transfer requirement annually and make a future recommendation should a transfer be needed.
- Several Measure R projects have actual or forecasted surplus Measure R revenues. Prior Board action has programmed much of the surplus after 2029.
- Staff will monitor the status of the projects and report back to the Board when they can be officially closed and the funding can be reprogrammed. The existence of surplus funds may not be confirmed at this time.
- For the South Bay highway program, staff with work with the South Bay subregion and determine if the subregion recommends closing the remaining funding in this program and reprogram the funds to another project or projects of regional benefit.

FINANCIAL IMPACT

This is an informational item and does not have a direct financial impact.

Impact to Budget

There is no direct impact to the FY20 budget.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This item helps ensure fiscal responsibility in how funding determinations are made and transparency in the agency's investment decisions (Goal #5).

NEXT STEPS

Subsequent to the filing of this Board item, Metro staff will seek feedback from the Board and stakeholders, and may bring forward specific amendments to the Ordinance for the Board's approval. Metro staff will concurrently develop a detailed amendment process that identifies the steps and responsibilities required to identify and potentially implement amendments to the Measure R Ordinance.

Any amendment would require 2/3 Board approval and notification to the cities and county.

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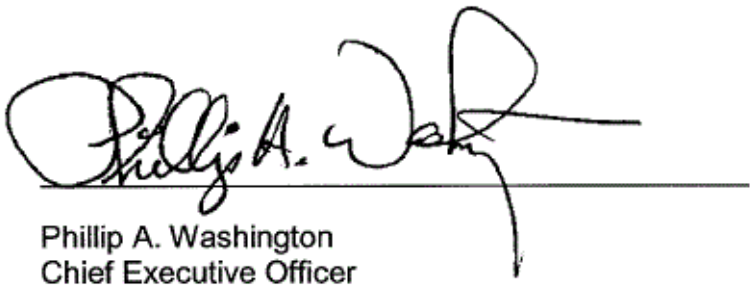

Phillip A. Washington
Chief Executive Officer

Los Angeles County
Metropolitan Transportation Authority

Measure R Ordinance Preliminary 10-Year Review and Potential Amendments

Agenda Item #7

Executive Management Committee
November 21, 2019

Metro

Background

- Measure R sales tax revenue can be transferred between transit and highway capital subfunds with Board approval
- Capital Project Contingency is used to pay interest on debt
- Measure R Ordinance permits Board to amend Ordinance NO MORE than once every 10 years
-

Expenditure Plan vs 2019 Forecast

Measure R Capital Project Contingency Expenditure Plan vs. 2019 Financial Forecast 30-Year Totals (Fiscal Years 2010 to 2039)		
($ in millions)	Expenditure Plan	2019 Financial Forecast
Transit Capital Projects	$ 10,514	$ 10,514
Transit Capital Project Contingency	$ 3,276	**$ 694**
Total Transit Revenue (35%)	$ 13,790	$ 11,208
Highway Capital Projects	$ 5,304	$ 5,304
Highway Capital Project Contingency	$ 2,576	**$ 1,101**
Total Highway Revenue (20%)	$ 7,880	$ 6,405

Metro

Potential Transfers

- A $500M transfer from highway to transit may be needed for debt interest
- Projects with Measure R funding surplus
  - Previously funded projects (prior to Measure R)
  - Proposition C funds (replacement credits) to be used instead of Measure R
  - Any surplus is eligible for use within subregion; may be needed for final cost of project

Metro

Potential Surplus

Projects with potential Measure R surplus
• I-5N enhancements from SR-14 to Kern County Line
• I-405, I-110, I-105, and SR-91 Ramp and Interchange Improvements
Previously funded projects
• San Fernando Valley N/S Rapidways (Canoga Corridor)
Replacement Credits
• Interstate 5 Capacity Enhancement from I-605 to Orange County Line, from SR-134 to SR-170, and Carmenita Road Interchange Improvement

Metro

Summary

- Potentially insufficient future sales tax revenue to pay for transit interest
- Precise amount of transfer will depend on actual sales tax receipts and debt issuances
- Any project surplus is eligible for use by subregion; depends on project completion and ultimate cost

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2019-0630, **File Type:** Informational Report **Agenda Number:** 8.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 20, 2019

SUBJECT: 2019 SHORT RANGE PLANNING MODEL UPDATE

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE information on the 2019 Short Range Financial Forecast planning model, which identifies the high-level planning and programming of funds.

ISSUE

The Long Range Transportation Plan Financial Forecast (LRTP Financial Forecast) and 2019 Short Range Financial Forecast (2019 SRFF), which is the first 15-years of the LRTP Financial Forecast, is Metro's plan for funding capital that is updated and presented to the Board annually. The 2019 LRTP Financial Forecast will be used to program funds in the Transportation Improvement Program (TIP) and as the financial baseline for the pending LRTP update.

BACKGROUND

Metro maintains a 40-year LRTP Financial Forecast, which is a financial plan focusing on all Metro capital projects and programs. The plan assumes known and potential local, state, and federal revenue to meet the capital needs.

The 2019 SRFF represents the first 15-years of the LRTP Financial Forecast. The 2019 SRFF includes Board-approved spending included in the adopted transportation plans (2009 LRTP, and 2014 Short Range Transportation Plan, or "SRTP"), Measure R and Measure M sales tax ordinance Expenditure Plans, separate Board action, and the adopted budget, using the baseline construction schedules that have been approved by the Board, including those that are identified in the Measure M Expenditure Plan. Spending on bus and rail operations is estimated by Metro staff assuming the same level of bus service as today and future rail ridership based on when new rail lines open and service need based on rail ridership projections.

Revenues from Metro's local sales tax measures and state and federal grants are estimated by Metro staff using supporting forecasts from economists and state and federal agencies. The 2019 SRFF programs future funding to projects and programs and assigns grant funding (as needed based on the regulatory requirements of each grant source) in the federally-mandated TIP. The federal funds need to be included in the TIP to be eligible for receipt.

Existing Board policies, including those in the adopted LRTP and SRTP, the “LRTP Priorities” (April 2011), and “Measure R Fiscal Responsibilities” (May 2011), guide the Financial Forecast assumptions and require the reporting of fund assignments back to the Board.

DISCUSSION

The 2019 SRFF shows the following Metro cash flows and proposed programming of funds and are included in Attachment A.

- sales tax, operating revenue, grant revenue, and debt financing;
- expenditures for Metro capital, operations, and subsidies; and
- Enterprise Fund cash flows.

Future funding actions such as grant applications and TIP programming should generally align with the 2019 SRFF to ensure that funding decisions consider the availability of funding and the needs for all eligible Board-approved spending.

The 2019 SRFF shows a viable plan to fund all Board-approved projects and programs, given assumed sales tax growth, farebox recovery (i.e., fares offsetting operating costs), capital cost estimates, identified projects in the capital program, and state and federal grant receipts.

Going forward, as Metro implements the Measure R and Measure M capital plans, the 2019 SRFF shows a growing amount of debt and use of cash balances, which will reduce Metro’s liquidity and debt capacity. Metro also faces cost pressures from higher bus and rail operating expenses, increases in the estimated cost of major capital projects, the acceleration of existing projects, and the addition of new projects that will require additional funding resources. Staff is working to manage these factors and will be making presentations to our Board during the next several months to allow Metro to successfully execute its wide-ranging capital program.

Capital Costs

Metro has programmed funding in the LRTP Financial Forecast for the various capital projects and programs based on estimated costs that have been approved by the Board, including those in the Measure M Expenditure Plan. Some of the cost estimates are very detailed, for those projects that have received construction bids or have gone through a detailed design, while others are very preliminary, as the project may not yet be well defined. The actual costs will be driven by many factors, and if higher, could potentially involve additional Metro debt financing and/or the consideration of funding from other Metro priorities.

During FY 2019, Metro experienced cost increases exceeding $100 million on several major transit and highway projects. The preliminary cost estimate for some large-scale Metro capital projects is trending higher. In addition, Metro is moving capital projects forward during a highly active construction period in Los Angeles County. The ongoing construction demand is placing upward pressure on unit costs for land, labor, and materials that are incurred as part of Metro construction and may result in higher than anticipated project costs.

Over and above the Board-approved capital projects and programs, Metro continues to identify new capital needs. Some projects that have been identified in concept and may be presented to the Board for funding include:

- Re-scoped Division 20 turnback facility
- Electrification of the bus system by 2030
- Rail Operations Center (ROC) expansion
- I-210 Median Barrier
- Additional Tier 1 Express Lanes

Metro has not identified funding for these projects in the LRTP Financial Forecast model, and the projects will require new local, state, and/or federal sources, additional debt financing, or spending reallocated from other planned Metro projects. The financial feasibility and impact of each of these projects will be evaluated if and when the projects are submitted to the Board for approval.

State and Federal Grants

Metro benefits from state and federal grant funding and has historically been successful in competing for the discretionary components of this funding. Metro received state and federal grant awards in April and May 2018 of $1.7 billion through the SB-1 and INFRA grant programs. However, Metro must continue to succeed in obtaining new discretionary state and federal grant funding in order to complete the planned capital program. The 2019 SRFF assumes ongoing state and federal grant receipts over the next 15 years totaling $23.7 billion.

As part of the assumptions of federal discretionary grants, the 2019 SRFF includes project specific assumptions of New Starts funding under the Federal Transit Administration Section 5309 Capital Investment Grant (CIG) program. These assumptions are consistent with the “Local, State, Federal, Other Funding” amounts incorporated in the 2016 Measure M Expenditure Plan. Over the coming months Metro staff will return to the Board with a focused assessment of project priorities for all of the CIG programs and strategies to position priority projects for these funding opportunities. This will include an assessment of opportunities under the traditional CIG programs including New Starts, Small Starts, and Core Capacity as well as under the Expedited Project Delivery (EPD) Pilot Program.

Risk Assessment

To aid in the Board’s evaluation of future decisions, Metro’s CEO and staff will return to the Board in the Spring of 2020 to quantify the impact of Metro’s primary financial risks and prepare hypothetical scenarios of potential upside and downside outcomes of our revenues and costs and the resulting impacts. We look forward to that discussion.

DETERMINATION OF SAFETY IMPACT

Approval of this item will have no negative impact to the safety standards of Metro.

FINANCIAL IMPACT

Impact to Budget

This item does not involve the expenditure of funds and has no impact to the FY 2020 budget. The 2019 SRFF programming of funds are generally consistent with the adopted FY 2020 budget.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This item supports the adopted Metro Vision 2028 Strategic Plan Goal #5, which seeks to "Provide responsive, accountable, and trustworthy governance within the Metro organization." The SRFF helps ensure fiscal responsibility in how fund assignments are made and transparency in the agency's investment decisions.

NEXT STEPS

The programming of funds in the 2019 SRFF will be the basis for planned grant funding to Metro projects and programs. This grant funding includes state and non-Capital Investment Grant (CIG) federal discretionary funding as presented to the Board in the September 2019 report on state and federal funding opportunities and strategies. Metro staff will return to the Board over the coming months with a focused assessment of project priorities for the CIG programs and strategies to position priority projects for these funding opportunities.

Metro staff will include the programming of planned federal formula, approved state formula, and approved state and federal discretionary grant funding in the TIP. The projects with these fund assignments must be included in the TIP to be eligible for federal grant assistance.

In addition, the LRTP Financial Forecast, which extends the 2019 SRFF over 40 years, will be used as the financial forecast for the LRTP update. This includes assumptions regarding projects, schedules, costs, and funding amounts. The Draft LRTP will be presented to the Board in Spring 2020.

ATTACHMENTS

Attachment A - Short Range Financial Forecast (FY 2020 to FY 2034)
Attachment B - Project Profiles

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Attachment A

Countywide Financial Forecasting Model

Short Range Financial Forecast
FY 2020 – FY 2034

November 2019

For Planning Purposes Only

Countywide Planning and Development
Strategic Financial Planning and Programming

Table 1
15-Year Funding for Metro Capital Projects

($ in millions)	TOTAL (FY20-FY34)	Federal	State	Local
AGENCY WIDE CAPITAL				
Agency Wide - Capital	778.0	28.0	130.4	619.6
Subtotal-Agency wide Capital	**$ 778.0**	**$ 28.0**	**$ 130.4**	**$ 619.6**
BUS CAPITAL				
BRT Connector Orange-Red Line to Gold Line - AV/SF	312.2	-	50.0	262.2
Bus Capital - Metro Bus Fleet Replacement	2,686.1	912.4	83.9	1,689.9
Bus Capital - Metro El Monte Transit Center Improvements	0.2	-	-	0.2
Bus Capital - Metro Patsaouras Plaza Improvements	17.3	-	-	17.3
Bus Capital - Metro SGR Buses and Bus Facilities	718.7	244.8	187.2	286.7
Bus Capital - Metro SGR Needs (TAM Database)	238.8	238.8	-	-
Bus System Improvement Program	20.5	-	-	20.5
North San Fernando Valley Bus Rapid Transit Improvements	203.5	-	-	203.5
Orange Line BRT Improvements - SF	314.4	-	75.0	239.4
Union Stn Cesar Chavez Bus	0.5	-	-	0.5
Vermont Transit Corridor - CC	522.1	55.0	267.6	199.6
Subtotal-Bus Capital	**$ 5,034.3**	**$ 1,450.9**	**$ 663.7**	**$ 2,919.7**
HIGHWAY CAPITAL				
Active Transportation Projects	20.9	-	-	20.9
ATP Policy (450006)	0.2	-	-	0.2
Complete LA River Bikepath - SF	69.6	-	9.6	60.1
Environmental Enhancement & Mitigation Projects	10.5	-	10.5	-
ExpressLanes Maintenance and Repair (I-105)	3.2	-	-	3.2
High Desert Multi-Purpose Corridor (HDMC) - NC	381.0	-	-	381.0
Highway Efficiency, Noise Mitig. and Arterial Projects	1.1	-	-	1.1
I-105 Express Lane from I-405 to I-605 - SC	524.2	38.9	45.0	440.3
I-210 Barrier Replacement Project	7.9	-	-	7.9
I-405 Carpool Lanes - I-10 to US-101	0.1	-	-	0.1
I-5 - SR-14 Capacity Enhancement	1.3	-	-	1.3
I-5 - SR-14 Capacity Enhancement Subregional Repayment	83.8	-	-	83.8
I-5 and I-405 Carpool Lane Connector	330.0	75.9	254.1	-
I-5 North Capacity Enhancements (Lake Hughes Rd to Kern Co) - NC	322.7	21.1	-	301.6
I-5 North Capacity Enhancements (SR-14 to Lake Hughes Rd) - NC	628.1	56.8	232.6	338.6
I-5 North Capacity Enhancements (SR-14 to Lake Hughes Rd) - Truck Lanes	4.8	-	-	4.8
I-5 North Carpool Lanes - SR-134 to SR-170, NB & SB	94.9	12.6	7.4	74.9
I-5 North from SR-134-SR-170 Enhancements	10.8	-	-	10.8
I-5 South Carpool and Mixed Flow Lanes I-605 to OCL	156.5	-	-	156.5
I-5 South Corridor Improvements - I-605 to I-710 - GC	20.6	-	-	20.6
I-710 South Corridor Project (Ph 1) - GC	1,018.9	3.3	206.0	809.5
I-710 South Corridor Project (Ph 2) - GC	277.8	-	6.0	271.7
LA River Waterway & System Bikepath - CC	429.5	-	67.3	362.1
LA Union Station Forecourt & Esplanade Improvements	16.3	-	14.7	1.6
Los Angeles Safe Routes to School Initiative	30.7	-	-	30.7
Metro Bicycle & Pedestrian Programs	8.0	-	-	8.0
Metro Bike Share	284.8	-	0.5	284.3
Multimodal Connectivity Program	29.4	-	-	29.4
Rail to Rail/River Active Transportation Corridor	40.2	15.0	-	25.2

Table 1
15-Year Funding for Metro Capital Projects

($ in millions)	TOTAL (FY20-FY34)	Federal	State	Local
Regional Admin (Highway Planning 405522)	79.2	-	-	79.2
Regional Admin (Mobility - Air Quality 405544)	12.3	-	-	12.3
Retrofit Soundwalls Phase 1	196.5	-	37.6	158.9
Rideshare-Vanpools	185.5	-	-	185.5
RIITS-Regional Integration of ITS (405526)	33.5	-	-	33.5
Rosecrans-Marquardt grade separation	99.8	15.0	59.4	25.4
Sepulveda Pass Transit Corridor (Ph 1) - SF/W	310.5	-	-	310.5
SR-138 Capacity Enhancements	140.1	-	-	140.1
SR-138 Widening (remaining 7 segments)	130.7	19.8	111.0	-
SR-14 Carpool Lane Ave P-8 to Ave L	120.0	-	-	120.0
SR-57 - SR-60 Interchange Improvements - SG	417.3	18.0	198.6	200.7
SR-71 Gap-I-10 to Rio Rancho Rd. - SG	357.2	41.5	67.1	248.6
SR-710 North	1,035.1	152.4	150.2	732.5
Subtotal-Highway Capital	**$ 7,925.3**	**$ 470.2**	**$ 1,477.7**	**$ 5,977.4**
RAIL CAPITAL				
Airport Metro Connector 96th St. Station - Green Line Ext LAX - SC	515.2	6.0	190.0	319.2
Blue Line Pedestrian Active Grade Crossing	1.2	-	-	1.2
Blue Line Track and System Refurbishment	80.3	-	-	80.3
Brighton to Roxford Double Track	5.1	-	-	5.1
Business Interruption Fund Program	46.0	-	-	46.0
Crenshaw Northern Extension - CC/W	2.1	-	-	2.1
Crenshaw/LAX Locally Funded Activities Project	52.0	-	-	52.0
Crenshaw/LAX Transit Corridor	209.4	50.0	10.3	149.0
Crenshaw/LAX Transit Corridor Pre-revenue Service	31.2	-	-	31.2
Crenshaw-LAX Track Enhancement Project - SC	55.8	-	-	55.8
Division 20	247.0	9.9	98.3	138.8
East SF Valley Transit Corridor Project - SF	1,553.0	-	407.1	1,145.9
Eastside Light Rail Access (pedestrian)	9.0	6.3	-	2.7
Exposition LRT - Phase II	3.0	-	-	3.0
Fare Gates (210090)	2.4	-	2.4	-
Gold Line Eastside Extension (One Alignment) - GC/SG	3,759.5	40.4	1,227.9	2,491.2
Gold Line Foothill Extension to Azusa (2A)	2.5	-	-	2.5
Gold Line Foothill Extension to Claremont (2B) - SG	1,470.9	-	290.2	1,180.7
Green Line Extension to Crenshaw Blvd in Torrance - SB	1,158.6	-	231.3	927.3
Green Line Train Control Track Circuits	25.8	-	-	25.8
Heavy Rail Vehicles	546.3	-	-	546.3
Light Rail Vehicles	338.3	24.0	49.2	265.1
Link Union Station (formerly SCRIP)	424.0	-	407.3	16.7
Rail System Improvements, Yards, Cars - Future	81.4	0.5	-	80.9
Red-Purple Line System Improvements	631.2	80.0	250.0	301.2
Regional Connector	669.9	458.3	-	211.7
Regional Connector Concurrent non-FFGA Activities	23.6	-	-	23.6
Sepulveda Pass Transit Corridor (Ph 2) - SF/W	7,353.6	1,267.6	1,146.2	4,939.8
SGR-Blue Line Signal System Improvements	66.3	-	20.0	46.3
SGR-Heavy and Light Rail Needs (TAM Database)	687.6	-	34.7	652.9
SGR-Heavy Rail Vehicle Midlife	47.6	13.9	-	33.7

Table 1
15-Year Funding for Metro Capital Projects

($ in millions)	TOTAL (FY20-FY34)	Federal	State	Local
SGR-Light Rail Vehicle Midlife	344.3	68.3	-	276.0
SGR-Rail (Future Projects)	0.0	-	-	0.0
SGR-Rail Facilities	10.7	-	10.0	0.7
Southwestern Light Rail Yard (not in project budgets)	3.0	-	-	3.0
Transfer of Funds to Rail Capital	287.0	-	-	287.0
Transit Oriented Development Planning Grants	3.9	-	-	3.9
West Santa Ana Transit Corridor LRT FY28	1,219.7	1.4	317.6	900.8
West Santa Ana Transit Corridor LRT FY41	861.8	300.0	90.0	471.8
Westside Purple Line Extension Section 1	1,745.8	1,208.7	-	537.1
Westside Purple Line Extension Section 2	1,629.7	1,024.7	-	605.0
Westside Purple Line Extension Section 3 - W	3,641.3	1,873.4	31.8	1,736.1
Willowbrook-Rosa Parks Station	12.1	4.1	8.0	-
Subtotal-Rail Capital	**$ 29,859.0**	**$ 6,437.5**	**$ 4,822.4**	**$ 18,599.1**
REGIONAL RAIL CAPITAL				
Metrolink - Capital Projects	516.3	-	60.8	455.5
Metrolink - Rehab	275.3	-	-	275.3
Subtotal-Regional Rail Capital	**$ 791.6**	**$ -**	**$ 60.8**	**$ 730.8**
TOTAL	**$ 44,388.2**	**$ 8,386.6**	**$ 7,155.0**	**$ 28,846.6**

Table 2
Revenues by Major Category

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
SALES TAX, TDA, STA REVENUES												
Proposition A	13,087.2	665.5	682.8	703.0	733.8	764.2	796.4	832.1	866.2	897.1	930.7	5,215.5
Proposition C	13,862.5	720.2	719.0	740.4	775.4	807.3	842.4	881.5	916.5	949.5	985.5	5,524.8
Measure R	14,914.9	744.0	763.1	785.8	820.1	854.1	890.1	930.0	968.1	1,002.7	1,040.2	6,116.4
Measure M	14,289.6	726.7	745.5	767.6	801.2	834.4	869.6	908.5	945.7	979.6	1,016.2	5,694.7
Transportation Development Act(TDA)	7,878.9	402.9	411.1	423.3	441.7	460.0	479.4	500.8	521.3	539.9	560.1	3,138.3
State Transit Assistance (STA)	3,269.8	215.8	215.8	215.8	215.8	215.8	218.0	218.0	218.0	218.0	218.0	1,100.8
Subtotal, Sales Tax, TDA, STA Revenues	**$ 67,302.9**	**$ 3,475.1**	**$ 3,537.4**	**$ 3,636.0**	**$ 3,788.1**	**$ 3,935.8**	**$ 4,095.9**	**$ 4,270.9**	**$ 4,435.8**	**$ 4,586.8**	**$ 4,750.6**	**$ 26,790.6**
OPERATING & OTHER REVENUE												
Passenger Fares	6,574.7	284.5	303.2	318.8	337.9	367.4	387.4	412.0	431.0	463.8	478.1	2,790.6
ExpressLanes Tolls	1,925.7	58.4	59.0	59.6	60.2	60.8	61.4	118.0	157.2	171.8	178.5	940.8
Advertising	454.7	25.6	26.3	27.0	27.7	28.3	29.0	29.6	30.2	30.9	31.6	168.5
Other Revenue	2,076.1	146.7	83.2	115.7	165.7	247.1	142.3	101.4	77.9	114.0	400.7	481.4
Subtotal, Operating & Other Revenue	**$ 11,031.2**	**$ 515.3**	**$ 471.7**	**$ 521.1**	**$ 591.4**	**$ 703.6**	**$ 620.1**	**$ 661.0**	**$ 696.3**	**$ 780.5**	**$ 1,088.9**	**$ 4,381.4**
CAPITAL & DEBT FINANCING RESOURCES												
Grant Receipts	25,706.4	1,345.4	2,553.1	2,183.5	1,851.3	1,874.2	2,425.9	1,864.1	1,794.0	1,474.4	1,355.2	6,985.2
Bond Proceeds and TIFIA	17,442.3	789.0	1,203.5	938.1	1,107.9	1,334.7	1,227.7	1,609.0	1,446.9	1,320.9	1,167.1	5,297.3
Prior Year Carryover	(234.7)	779.4	64.8	88.3	193.2	24.9	15.9	(75.3)	(101.1)	(241.6)	(110.6)	(872.5)
Subtotal, Capital & Debt Financing Resources	**$ 42,914.0**	**$ 2,913.7**	**$ 3,821.4**	**$ 3,209.9**	**$ 3,152.3**	**$ 3,233.9**	**$ 3,669.5**	**$ 3,397.9**	**$ 3,139.9**	**$ 2,553.7**	**$ 2,411.7**	**$ 11,410.1**
TOTAL REVENUES	**$ 121,248.1**	**$ 6,904.2**	**$ 7,830.5**	**$ 7,366.9**	**$ 7,531.8**	**$ 7,873.3**	**$ 8,385.5**	**$ 8,329.7**	**$ 8,272.0**	**$ 7,921.0**	**$ 8,251.2**	**$ 42,582.0**

Table 3
Expenditures by Major Category

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
METRO OPERATIONS												
Bus	23,369.3	1,268.6	1,331.3	1,405.9	1,435.6	1,465.8	1,494.0	1,521.8	1,551.1	1,581.0	1,638.1	8,676.3
Rail	13,109.3	542.8	593.3	616.2	651.0	723.8	747.5	788.2	868.5	959.9	980.7	5,637.3
Regional Rail	1,510.8	81.2	85.5	88.3	91.4	93.8	96.1	98.5	100.8	103.1	105.5	566.7
Subtotal-Metro Operations	**$ 37,989.4**	**$ 1,892.6**	**$ 2,010.1**	**$ 2,110.4**	**$ 2,178.0**	**$ 2,283.4**	**$ 2,337.6**	**$ 2,408.4**	**$ 2,520.4**	**$ 2,643.9**	**$ 2,724.3**	**$ 14,880.2**
METRO CAPITAL												
Bus Capital	5,034.3	346.0	530.6	246.1	271.3	356.6	480.3	375.9	462.0	337.5	332.0	1,296.1
Rail Capital	29,859.0	2,311.9	2,594.3	2,246.0	2,073.6	1,980.6	2,142.8	2,483.9	2,153.8	1,773.6	2,101.9	7,996.7
Regional Rail	791.6	41.1	60.8	-	28.4	38.1	41.6	32.6	54.2	57.5	61.1	376.1
Highway	7,925.3	274.3	674.6	694.8	833.7	1,086.5	1,093.0	634.7	358.5	310.6	208.1	1,756.4
Subtotal-Metro Capital	**$ 43,610.2**	**$ 2,973.3**	**$ 3,860.3**	**$ 3,186.9**	**$ 3,207.0**	**$ 3,461.8**	**$ 3,757.7**	**$ 3,527.1**	**$ 3,028.4**	**$ 2,479.2**	**$ 2,703.1**	**$ 11,425.4**
SUBSIDY FUNDING PROGRAMS												
Bus Operations	10,694.4	624.7	597.0	610.8	629.7	648.1	667.0	687.1	706.6	725.2	745.0	4,053.2
Bus Capital	2,216.8	105.9	163.3	151.0	132.0	136.8	136.3	140.7	139.8	144.2	143.4	823.6
Rail Capital	374.2	-	32.1	23.5	15.5	17.5	12.6	10.4	10.6	28.6	33.8	189.7
Highway	5,868.4	161.1	308.6	372.7	396.5	322.8	320.3	369.5	469.1	434.9	349.0	2,363.7
Call for Projects	652.1	50.1	46.8	61.8	67.8	98.5	132.1	71.3	56.3	50.3	11.9	5.1
Subtotal-Subsidy Funding Programs	**$ 19,806.0**	**$ 941.8**	**$ 1,147.8**	**$ 1,219.9**	**$ 1,241.5**	**$ 1,223.7**	**$ 1,268.3**	**$ 1,278.9**	**$ 1,382.5**	**$ 1,383.2**	**$ 1,283.1**	**$ 7,435.3**
AGENCY WIDE												
Administration	2,523.5	251.1	117.8	135.4	130.8	144.9	149.4	154.2	158.9	163.3	167.9	949.7
Capital	778.0	142.9	25.9	10.1	12.8	11.2	31.2	31.2	61.2	31.2	61.3	358.9
Subtotal-Agency Wide	**$ 3,301.5**	**$ 394.0**	**$ 143.7**	**$ 145.5**	**$ 143.6**	**$ 156.2**	**$ 180.6**	**$ 185.5**	**$ 220.2**	**$ 194.5**	**$ 229.2**	**$ 1,308.6**
OTHER PROGRAMS/EXPENDITURE												
Congestion Management	1,541.7	105.6	95.9	97.3	98.6	100.0	101.3	102.0	102.7	103.3	104.0	531.1
Other	132.1	19.2	(11.0)	3.6	7.1	7.5	8.7	10.2	9.4	9.7	10.3	57.3
Debt Service	14,867.2	577.7	583.7	603.3	656.0	640.8	731.2	817.6	1,008.4	1,107.2	1,197.2	6,944.1
Subtotal-Other Programs/Expenditure	**$ 16,541.0**	**$ 702.5**	**$ 668.6**	**$ 704.2**	**$ 761.7**	**$ 748.2**	**$ 841.3**	**$ 929.8**	**$ 1,120.5**	**$ 1,220.3**	**$ 1,311.5**	**$ 7,532.5**
TOTAL EXPENDITURES	**$ 121,248.1**	**$ 6,904.2**	**$ 7,830.5**	**$ 7,366.9**	**$ 7,531.8**	**$ 7,873.3**	**$ 8,385.5**	**$ 8,329.7**	**$ 8,272.0**	**$ 7,921.0**	**$ 8,251.2**	**$ 42,582.0**

Table 4
Grant Receipts by Program

SOURCE	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
STATE REVENUE												
Active Transportation Program	816.2	-	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	291.5
Air Quality Vehicle Registration Fee (AB 2766) (MSRC)	9.5	-	1.5	-	-	-	2.0	-	2.0	-	-	4.0
Environmental Enhancement and Mitigation (Revenue)	10.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	3.5
Interregional Improvement Program Funds (IIP)	131.5	7.3	60.8	60.8	-	2.5	-	-	-	-	-	-
Low Carbon Transit Operations Program (LCTOP)	441.9	36.6	36.6	20.5	26.2	29.3	29.3	29.3	29.3	29.3	29.3	146.3
Other State Revenue	61.3	5.1	28.8	19.6	2.8	-	-	5.0	-	-	-	-
Prop 1B - CMIA	3.9	-	-	-	0.4	3.5	-	-	-	-	-	-
Prop 1B - State-Local Partnership (SLPP)	1.0	-	-	-	-	1.0	-	-	-	-	-	-
Prop 1B - Transit System Safety and Security	5.2	5.2	-	-	-	-	-	-	-	-	-	-
Regional Improvement Program Funds (RIP)	1,280.3	17.7	156.1	94.8	200.1	5.0	21.0	130.9	78.6	75.8	83.0	417.2
SAFE-Service Authority for Freeway Emergencies Vehicle Registration Revenue	117.6	8.0	7.7	7.8	7.7	7.8	7.9	7.9	7.9	7.9	7.9	39.3
SB1 - Freeway Service Patrol	72.7	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	27.0
SB1 - Local Partnership Program	916.0	20.1	84.4	71.8	81.8	59.4	113.4	38.9	49.2	30.4	84.5	282.1
SB1 - Solutions for Congested Corridors Program	1,044.7	34.2	5.3	95.6	32.3	50.3	25.0	125.0	100.0	82.2	81.4	413.3
SB1 - Trade Corridors Program	794.2	-	52.5	112.1	101.0	159.8	245.8	81.3	13.9	21.8	-	6.0
STA--State Transit Assistance TIF	504.9	31.6	29.0	29.7	30.3	31.4	32.2	33.0	33.6	34.2	34.9	185.0
Traffic Congestion Relief Program Funds (TCRP)	3.1	-	3.1	-	-	-	-	-	-	-	-	-
Transit and Intercity Rail Capital Program (TIRCP)	3,285.1	122.2	169.5	120.2	136.2	259.9	336.4	391.7	555.9	215.0	150.0	828.1
Subtotal-State Revenue	**$ 9,499.7**	**$ 293.0**	**$ 698.6**	**$ 696.3**	**$ 682.3**	**$ 673.4**	**$ 876.6**	**$ 906.7**	**$ 934.1**	**$ 560.5**	**$ 534.9**	**$ 2,643.2**
FEDERAL REVENUE												
Capital Grant Receipt Revenue Bonds	1,726.6	-	467.5	425.0	166.6	215.9	427.2	24.6	-	-	-	-
Congestion Mitigation & Air Quality Program (CMAQ)	1,934.0	150.4	326.5	134.9	138.1	136.4	148.5	119.4	138.0	134.0	86.7	421.3
FASTLANE/INFRA Grants	82.0	-	47.0	-	-	15.0	20.0	-	-	-	-	-
FHWA ATCMTD Grant	2.3	1.0	0.9	0.4	-	-	-	-	-	-	-	-
Homeland Security Grants	28.0	-	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	10.0
Other Federal Funds	17.9	17.9	-	-	-	-	-	-	-	-	-	-
Section 5307 Urbanized Formula	3,958.5	245.9	248.4	250.9	253.4	255.9	258.5	261.0	263.7	266.3	269.0	1,385.7
Section 5309 New Starts	3,961.2	400.9	400.0	375.6	300.0	300.0	300.0	285.0	200.0	199.7	200.0	1,000.0
Section 5337 State of Good Repair - Fixed Guideway	1,551.4	129.0	98.8	95.8	96.8	97.8	98.7	99.7	100.7	101.7	102.8	529.4
Section 5337 State of Good Repair -High Intensity Motorbus	89.3	-	5.9	6.0	-	6.1	12.2	6.2	6.3	-	6.4	40.1
Section 5339 Bus and Bus Facilities	403.7	23.2	30.3	23.3	27.8	22.0	24.0	24.3	24.5	29.2	23.1	152.0
Section 5340 Growing States - High Density Formula	145.5	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	50.9
Surface Transportation Block Grant Program (STBGP) formerly RSTP	2,272.3	71.0	198.0	154.1	175.1	140.5	248.6	125.6	115.0	171.2	120.5	752.7
TIGER Grants	34.1	4.1	20.0	10.0	-	-	-	-	-	-	-	-
Subtotal-Federal Revenue	**$ 16,206.7**	**$ 1,052.4**	**$ 1,854.4**	**$ 1,487.2**	**$ 1,169.0**	**$ 1,200.9**	**$ 1,549.3**	**$ 957.4**	**$ 859.9**	**$ 913.9**	**$ 820.3**	**$ 4,342.0**
TOTAL GRANT RECEIPTS	**$ 25,706.4**	**$ 1,345.4**	**$ 2,553.1**	**$ 2,183.5**	**$ 1,851.3**	**$ 1,874.2**	**$ 2,425.9**	**$ 1,864.1**	**$ 1,794.0**	**$ 1,474.4**	**$ 1,355.2**	**$ 6,985.2**

Table 5
Funding by Project - Local Revenue

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
Measure M												
Active Transportation 1st-Last Mile Connections Prog.	142.6	-	9.0	4.7	4.8	4.2	4.3	4.4	4.5	13.9	14.3	78.4
Active Transportation Program - Measure M project	105.0	-	4.5	6.5	3.0	3.1	3.2	3.2	3.3	10.2	10.5	57.5
Active Transportation Program (Including Greenway Proj.)	94.3	-	7.0	5.1	2.6	2.7	2.8	2.8	2.9	8.9	9.2	50.3
Active Transportation Projects	20.9	-	4.1	-	-	-	-	-	-	-	-	16.8
Active Transportation, 1st-Last Mile, & Mobility Hubs	85.0	-	5.4	2.8	2.9	2.5	2.6	2.6	2.7	8.3	8.5	46.7
Active Transportation, Transit, and Tech. Program	30.5	7.8	5.1	4.2	2.4	2.5	2.5	2.6	2.7	0.7	-	-
Agency Wide - Administration	89.4	5.5	4.6	4.7	5.0	5.2	5.4	5.6	5.9	6.1	6.3	35.2
Airport Metro Connector 96th St. Station - Green Line Ext LAX - SC	296.6	34.2	37.4	4.8	158.6	61.6	-	-	-	-	-	-
BRT Connector Orange-Red Line to Gold Line - AV/SF	262.2	3.2	-	-	4.4	65.8	124.7	64.2	-	-	-	-
Bus Operations - ADA-Paratransit	333.8	12.9	17.6	18.2	19.0	19.7	20.6	21.5	22.4	23.2	24.0	134.7
Bus Operations - Metro Operations	2,016.8	126.9	130.9	134.8	140.7	146.6	152.7	159.6	166.1	172.1	106.1	580.3
Bus System Improvement Program	20.5	0.2	0.3	0.3	0.6	0.6	0.7	0.7	0.7	2.1	2.2	12.0
Complete LA River Bikepath - SF	60.1	0.1	-	-	10.7	27.8	21.5	-	-	-	-	-
Countywide BRT Projects Ph 1 (All Subregions)	50.0	-	32.8	17.2	-	-	-	-	-	-	-	-
Countywide BRT Projects Ph 2 (All Subregions)	71.3	-	-	-	-	-	-	-	-	-	-	71.3
Crenshaw Northern Extension - CC/W	2.0	2.0	-	-	-	-	-	-	-	-	-	-
Crenshaw-LAX Track Enhancement Project - SC	49.6	-	-	11.8	18.6	19.2	-	-	-	-	-	-
East SF Valley Transit Corridor Project - SF	810.5	-	83.6	46.5	30.0	110.0	233.5	247.9	59.0	-	-	-
First-Last Mile and Complete Streets	89.5	-	9.4	9.6	2.2	2.3	2.4	2.4	2.5	7.7	7.9	43.1
Gold Line Eastside Extension (One Alignment) - GC/SG	1,416.4	-	-	-	-	-	34.3	48.1	59.5	74.9	36.3	1,163.4
Gold Line Foothill Extension to Claremont (2B) - SG	1,138.5	155.0	153.8	196.0	193.0	149.2	149.4	79.9	42.2	20.0	-	-
Green Line Extension to Crenshaw Blvd in Torrance - SB	617.2	-	2.5	4.3	7.9	10.8	7.1	0.9	59.3	141.7	280.2	102.4
High Desert Multi-Purpose Corridor (HDMC) - NC	250.8	-	0.5	0.5	0.2	0.2	0.2	0.2	0.2	-	-	248.8
Highway Demand Based Prog. (HOV Ext. & Connect.)	111.0	1.6	5.0	6.5	7.5	7.0	8.5	10.0	5.0	6.5	7.0	46.4
Highway Efficiency Program	188.4	1.6	5.0	5.8	4.0	6.5	12.5	9.5	3.5	3.5	3.5	133.0
Highway Efficiency, Noise Mitig. and Arterial Projects	1.1	-	1.0	0.2	-	-	-	-	-	-	-	-
I-105 Express Lane from I-405 to I-605 - SC	222.6	2.5	19.3	19.7	-	-	-	-	15.6	21.7	24.2	119.7
I-5 North Capacity Enhancements (Lake Hughes Rd to Kern Co) - NC	24.3	-	-	-	-	-	-	-	-	-	-	24.3
I-5 North Capacity Enhancements (SR-14 to Lake Hughes Rd) - NC	254.4	-	62.4	56.1	62.7	34.4	38.8	-	-	-	-	-
I-5 South Corridor Improvements - I-605 to I-710 - GC	20.6	0.5	1.3	1.9	3.9	5.0	5.2	2.8	-	-	-	-
I-605 Corridor 'Hot Spot' Interchange Improvements	559.4	-	-	69.0	89.9	12.3	43.9	39.1	137.5	-	-	167.6
I-710 South Corridor Project (Ph 1) - GC	322.8	-	-	-	-	-	-	93.5	37.1	123.7	34.0	34.4
I-710 South Corridor Project (Ph 2) - GC	79.3	-	-	-	-	-	-	-	-	-	-	79.3
LA River Waterway & System Bikepath - CC	362.1	8.1	15.8	15.0	13.0	70.5	97.3	76.4	66.1	-	-	-
Light Rail Vehicles	72.8	64.8	8.0	-	-	-	-	-	-	-	-	-
Los Angeles Safe Routes to School Initiative	30.7	-	-	-	-	-	-	-	-	-	-	30.7
Metro Active Transport, Transit 1st-Last Mile Program	350.2	-	14.5	14.7	15.0	15.3	15.5	10.5	10.8	33.1	34.1	186.6
Metro Bicycle & Pedestrian Programs	7.2	2.4	2.4	2.5	-	-	-	-	-	-	-	-
Metro Bike Share	3.1	3.1	-	-	-	-	-	-	-	-	-	-
Metrolink - Operations	169.1	8.6	8.8	9.1	9.5	9.9	10.3	10.7	11.2	11.6	12.0	67.4
Modal Connectivity and Complete Streets Projects	75.4	-	2.0	0.7	2.7	2.9	2.4	2.5	2.5	7.8	8.0	43.9
Multimodal Connectivity Program	29.4	-	-	-	-	-	-	-	-	-	-	29.4
Municipal and Non-Metro Operators	4.3	4.3	-	-	-	-	-	-	-	-	-	-
Municipal Operators Expansion	871.4	44.3	45.5	46.8	48.9	50.9	53.0	55.4	57.7	59.7	62.0	347.3
North San Fernando Valley Bus Rapid Transit Improvements	177.6	3.4	3.0	17.1	51.4	68.5	34.2	-	-	-	-	-

Table 5
Funding by Project - Local Revenue

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
Orange Line BRT Improvements - SF	239.4	21.3	13.6	18.1	34.6	106.8	45.0	-	-	-	-	-
Rail Operations - Metro Operations	1,337.6	43.0	44.1	45.4	47.4	49.4	51.4	53.7	55.9	57.9	132.5	756.8
Rail System Improvements, Yards, Cars - Future	4.1	4.1	-	-	-	-	-	-	-	-	-	-
Regional Connector Concurrent non-FFGA Activities	5.7	5.7	-	-	-	-	-	-	-	-	-	-
Sepulveda Pass Transit Corridor (Ph 1) - SF/W	260.0	-	-	-	-	100.5	103.5	56.0	-	-	-	-
Sepulveda Pass Transit Corridor (Ph 2) - SF/W	3,299.9	3.7	-	-	0.0	0.3	44.6	615.8	670.2	834.1	668.8	462.4
SGR-Heavy and Light Rail Needs (TAM Database)	268.7	-	-	-	-	20.0	20.7	21.6	22.4	23.2	24.1	136.7
SGR-Heavy Rail Vehicle Midlife	8.7	-	5.0	3.7	-	-	-	-	-	-	-	-
SGR-Light Rail Vehicle Midlife	48.4	1.4	12.9	14.8	19.2	-	-	-	-	-	-	-
SGR-Rail Facilities	0.6	0.6	-	-	-	-	-	-	-	-	-	-
South Bay Highway Operational Improvements	155.4	-	0.6	1.2	4.5	3.7	4.1	6.4	10.9	4.7	5.3	114.0
SR-57 - SR-60 Interchange Improvements - SG	200.7	23.4	6.7	1.6	25.0	54.3	35.1	28.5	26.2	-	-	-
SR-71 Gap-I-10 to Rio Rancho Rd. - SG	248.6	-	-	61.4	80.9	95.3	10.9	-	-	-	-	-
Street Car and Circulator Projects	33.3	-	14.7	15.3	3.3	-	-	-	-	-	-	-
Transit Program	56.4	-	9.8	2.5	6.7	8.1	1.1	1.1	1.1	3.4	3.5	19.2
Transit Projects	97.1	-	7.6	3.2	2.9	3.6	3.1	3.2	3.3	3.4	10.4	56.7
Transportation System and Mobility Improve. Program	155.0	1.5	8.5	8.5	8.0	8.5	9.0	9.5	10.5	11.5	11.5	68.0
Transportation System and Mobility Improve. Program(a)	378.1	-	-	1.5	8.5	8.0	8.5	9.0	9.5	10.5	11.5	311.1
Vermont Transit Corridor - CC	23.2	1.2	7.7	3.4	3.0	7.9	-	-	-	-	-	-
Visionary Project Seed Funding	12.5	-	-	2.5	-	-	2.5	-	-	2.5	-	5.0
West Santa Ana Transit Corridor LRT FY28	532.5	-	8.1	40.7	62.9	58.0	39.3	149.1	102.6	71.8	-	-
Westside Purple Line Extension Section 3 - W	871.5	207.2	126.4	209.4	213.1	95.6	19.8	-	-	-	-	-
Debt Service	3,595.5	-	-	13.5	31.7	62.1	109.2	151.9	223.0	283.0	355.5	2,365.5
Measure R												
Agency Wide - Administration	254.8	17.8	7.9	13.8	12.6	15.0	15.7	16.4	17.0	17.6	18.3	102.6
Agency Wide - Capital	14.3	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	5.2
Airport Metro Connector 96th St. Station - Green Line Ext LAX - SC	5.2	0.4	-	-	-	4.8	-	-	-	-	-	-
Alameda Corridor East	163.0	39.4	40.2	30.1	30.0	23.3	-	-	-	-	-	-
Brighton to Roxford Double Track	5.1	2.6	2.5	-	-	-	-	-	-	-	-	-
Bus Capital - Metro Bus Fleet Replacement	46.8	6.6	28.7	11.5	-	-	-	-	-	-	-	-
Bus Capital - Municipal and Non-Metro Operators	18.2	-	-	2.6	-	2.6	-	2.6	-	2.6	-	7.8
Bus Operations - Metro Operations	2,497.6	122.7	130.5	134.4	140.3	146.1	152.3	159.1	165.6	171.5	177.9	997.1
Business Interruption Fund Program	18.4	3.0	2.9	6.5	-	-	3.0	3.0	-	-	-	-
Crenshaw/LAX Transit Corridor	(17.7)	-	12.3	(15.0)	-	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	-	-
Crenshaw/LAX Transit Corridor Pre-revenue Service	31.2	31.2	-	-	-	-	-	-	-	-	-	-
Division 20	88.8	-	-	-	-	17.2	28.7	42.9	-	-	-	-
East SF Valley Transit Corridor Project - SF	57.4	27.2	30.2	-	-	-	-	-	-	-	-	-
Eastside Light Rail Access (pedestrian)	2.7	2.7	-	-	-	-	-	-	-	-	-	-
Gold Line Eastside Extension (One Alignment) - GC/SG	481.1	-	-	-	-	-	-	-	-	-	-	481.1
Gold Line Foothill Extension to Azusa (2A)	2.5	2.5	-	-	-	-	-	-	-	-	-	-
Green Line Extension to Crenshaw Blvd in Torrance - SB	272.0	-	-	-	-	-	-	-	-	57.1	150.9	64.1
Heavy Rail Vehicles	35.0	-	-	-	10.0	-	-	-	25.0	-	-	-
High Desert Multi-Purpose Corridor (HDMC) - NC	1.5	1.5	-	-	-	-	-	-	-	-	-	-
Highway Operational Improvements in Arroyo Verdugo Subregion	138.4	13.7	10.0	11.0	11.0	12.0	12.0	15.0	15.0	16.0	16.0	6.7
Highway Operational Improvements in Las Virgenes-Malibu Subregion	62.2	15.2	8.5	8.5	7.2	8.0	7.0	7.9	-	-	-	-
I-5 - SR-14 Capacity Enhancement	1.3	1.3	-	-	-	-	-	-	-	-	-	-

Table 5
Funding by Project - Local Revenue

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
I-5 - SR-14 Capacity Enhancement Subregional Repayment	83.8	0.2	2.3	12.2	28.9	21.4	7.7	11.0	-	-	-	-
I-5 North Capacity Enhancements (Lake Hughes Rd to Kern Co) - NC	277.2	-	-	-	-	-	-	-	-	-	17.6	259.6
I-5 North Capacity Enhancements (SR-14 to Lake Hughes Rd) - NC	84.2	20.7	16.5	28.1	16.0	-	1.4	1.6	-	-	-	-
I-5 North Capacity Enhancements (SR-14 to Lake Hughes Rd) - Truck Lanes	4.8	-	1.4	1.9	1.4	-	-	-	-	-	-	-
I-5 North Carpool Lanes - SR-134 to SR-170, NB & SB	58.4	18.6	21.0	11.9	-	1.4	5.3	0.2	-	-	-	-
I-5 North from SR-134-SR-170 Enhancements	10.8	3.3	2.2	3.0	2.0	0.3	-	-	-	-	-	-
I-5 South Carpool and Mixed Flow Lanes I-605 to OCL	43.8	25.6	4.6	5.9	5.1	1.3	0.6	0.4	0.2	0.1	-	-
I-605 Corridor 'Hot Spot' Interchange Improvements	485.2	41.3	19.5	5.6	36.8	69.4	19.4	88.5	97.8	106.9	-	-
I-710 South Corridor Project (Ph 1) - GC	452.0	30.6	40.3	80.4	41.1	71.3	188.3	-	-	-	-	-
Light Rail Vehicles	32.6	3.3	12.0	17.3	-	-	-	-	-	-	-	-
Link Union Station (formerly SCRIP)	16.7	3.4	-	-	-	-	-	13.3	-	-	-	-
Metro Call for Projects	27.2	5.5	-	8.7	4.5	8.5	-	-	-	-	-	-
Metrolink - Capital Projects	455.5	41.1	-	-	28.4	29.6	30.9	19.0	33.6	34.8	36.1	202.1
Municipal Operators Expansion	890.3	55.9	45.9	47.2	49.3	51.3	53.5	55.9	58.2	60.3	62.5	350.3
Rail Operations - Metro Operations	845.3	43.0	44.1	45.4	47.4	49.4	51.4	53.7	55.9	57.9	60.1	336.9
Rail System Improvements, Yards, Cars - Future	41.7	0.2	-	-	-	-	2.7	2.6	2.7	3.5	5.0	25.0
Rail to Rail/River Active Transportation Corridor	6.0	6.0	-	-	-	-	-	-	-	-	-	-
Red-Purple Line System Improvements	55.0	-	-	-	-	27.2	3.3	18.7	-	-	-	5.9
Regional Connector	24.3	6.2	18.1	-	-	-	-	-	-	-	-	-
Regional Connector Concurrent non-FFGA Activities	6.0	6.0	-	-	-	-	-	-	-	-	-	-
Retrofit Soundwalls Phase 1	151.2	24.3	43.0	29.6	20.7	21.1	12.5	-	-	-	-	-
Rosecrans-Marquardt grade separation	18.4	18.4	-	-	-	-	-	-	-	-	-	-
Sepulveda Pass Transit Corridor (Ph 2) - SF/W	992.1	-	-	-	1.8	-	-	-	-	-	-	990.2
SGR-Heavy and Light Rail Needs (TAM Database)	60.0	-	-	-	-	-	-	-	-	-	20.0	40.0
South Bay Ramp and Interchange	398.4	20.5	31.5	-	-	1.2	-	25.1	26.7	38.0	40.5	214.9
SR-138 Capacity Enhancements	140.1	27.6	20.2	16.9	18.9	16.9	14.0	12.0	12.0	1.5	-	-
SR-710 North	732.5	0.8	47.5	78.5	99.9	120.1	105.0	96.8	76.1	46.8	35.9	25.0
Transfer of Funds to Rail Capital	287.0	-	-	-	-	-	-	-	-	-	-	287.0
West Santa Ana Transit Corridor LRT FY28	330.8	48.8	-	-	-	-	-	-	171.4	110.5	-	-
Westside Purple Line Extension Section 1	508.1	218.6	80.0	114.9	84.9	16.3	(6.6)	-	-	-	-	-
Westside Purple Line Extension Section 2	605.0	142.3	205.2	262.9	190.3	33.2	6.3	(35.6)	(100.0)	(99.7)	-	-
Westside Purple Line Extension Section 3 - W	768.2	150.1	109.0	-	-	141.6	179.3	175.3	13.0	-	-	-
Debt Service	5,782.9	222.0	219.7	234.2	252.9	266.4	286.8	326.9	425.1	454.8	488.2	2,605.9
Proposition A												
Agency Wide - Administration	880.3	65.7	44.8	46.1	48.1	50.1	52.2	54.6	56.8	58.8	61.0	342.0
Agency Wide - Capital	10.8	10.8	-	-	-	-	-	-	-	-	-	-
Bus Capital - Metro SGR Buses and Bus Facilities	35.9	-	3.7	3.7	3.6	3.6	3.6	3.6	3.6	1.5	1.5	7.5
Bus Operations - Metro Operations	3,956.3	182.3	197.3	203.7	212.5	223.8	223.9	247.2	261.2	274.6	286.7	1,643.1
Crenshaw Northern Extension - CC/W	0.0	0.0	-	-	-	-	-	-	-	-	-	-
Crenshaw/LAX Locally Funded Activities Project	15.0	-	15.0	-	-	-	-	-	-	-	-	-
Division 20	47.6	47.6	-	-	-	-	-	-	-	-	-	-
East SF Valley Transit Corridor Project - SF	61.7	-	-	-	-	-	1.3	30.0	30.4	-	-	-
Gold Line Eastside Extension (One Alignment) - GC/SG	344.1	-	-	-	-	30.2	-	-	-	-	-	313.9
Growth Above CPI	80.0	19.2	-	-	2.6	2.5	3.7	5.2	4.4	4.7	5.3	32.3
Heavy Rail Vehicles	511.3	10.3	62.1	24.1	105.3	104.8	61.9	74.8	67.9	-	-	-
Incentive Program (Seniors & Disabled)	326.1	16.6	17.0	17.5	18.3	19.0	19.8	20.7	21.6	22.4	23.2	130.0

Table 5
Funding by Project - Local Revenue

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
Light Rail Vehicles	130.9	1.0	49.2	9.7	-	42.2	28.8	-	-	-	-	-
Municipal and Non-Metro Operators	2,148.5	121.1	124.2	127.4	130.7	133.9	136.9	139.9	142.9	145.9	149.1	796.4
Rail Operations - Metro Operations	3,243.8	133.5	93.5	113.7	136.3	184.1	179.0	181.6	226.6	214.8	244.1	1,536.8
Rail System Improvements, Yards, Cars - Future	17.4	2.0	4.4	4.9	1.0	3.5	1.6	-	-	-	-	-
Red-Purple Line System Improvements	146.6	-	-	-	-	10.0	13.1	35.4	32.9	11.8	-	43.3
Sepulveda Pass Transit Corridor (Ph 2) - SF/W	366.6	-	20.2	37.0	47.4	6.0	6.0	-	-	-	-	250.1
SGR-Blue Line Signal System Improvements	46.3	15.7	30.6	-	-	-	-	-	-	-	-	-
SGR-Heavy Rail Vehicle Midlife	20.7	1.4	11.0	8.2	-	-	-	-	-	-	-	-
SGR-Light Rail Vehicle Midlife	15.8	-	-	-	5.8	-	10.0	-	-	-	-	-
SGR-Rail (Future Projects)	0.0	-	-	-	-	-	-	-	-	-	-	0.0
Southwestern Light Rail Yard (not in project budgets)	3.0	3.0	-	-	-	-	-	-	-	-	-	-
Street Car and Circulator Projects	2.6	-	-	-	2.6	-	-	-	-	-	-	-
Transit Program	43.8	-	-	-	-	-	-	-	-	-	19.9	23.9
Wayfinding Signage Grant Program	0.0	0.0	-	-	-	-	-	-	-	-	-	-
Debt Service	1,922.1	165.6	166.9	145.3	148.4	116.3	124.6	118.2	123.2	116.6	107.4	589.7
Proposition C												
Agency Wide - Administration	549.7	52.2	27.3	28.0	28.9	29.8	30.7	31.7	32.6	33.5	34.5	220.5
Agency Wide - Capital	333.3	89.7	-	-	3.5	2.5	2.5	22.5	22.5	22.5	22.5	145.0
Anticipated Savings-Prop C Admin	(13.9)	-	(13.9)	-	-	-	-	-	-	-	-	-
ATP Policy (450006)	0.2	0.2	-	-	-	-	-	-	-	-	-	-
Blue Line Pedestrian Active Grade Crossing	1.2	0.1	1.1	-	-	-	-	-	-	-	-	-
Blue Line Track and System Refurbishment	80.3	22.9	22.0	35.4	-	-	-	-	-	-	-	-
Bus Capital - Metro Bus Fleet Replacement	1,363.0	182.4	111.7	29.4	46.2	0.7	39.9	40.3	73.0	73.9	200.7	565.0
Bus Capital - Metro Patsaouras Plaza Improvements	17.3	14.7	2.6	-	-	-	-	-	-	-	-	-
Bus Capital - Metro SGR Buses and Bus Facilities	199.5	24.0	-	-	-	-	-	-	-	-	-	175.5
Bus Operations - ADA-Paratransit	1,625.9	97.4	94.9	97.5	99.9	102.3	104.4	106.4	108.3	110.2	112.2	592.5
Bus Operations - Metro Operations	1,879.7	126.4	163.8	132.1	121.3	176.4	125.2	149.3	117.5	95.7	141.3	530.8
Business Interruption Fund Program	26.7	3.0	6.2	2.5	9.0	6.0	-	-	-	-	-	-
Countywide BRT Projects Ph 1 (All Subregions)	3.1	-	2.0	1.1	-	-	-	-	-	-	-	-
Crenshaw Northern Extension - CC/W	0.0	0.0	-	-	-	-	-	-	-	-	-	-
Crenshaw/LAX Locally Funded Activities Project	37.0	-	37.0	-	-	-	-	-	-	-	-	-
Crenshaw/LAX Transit Corridor	100.6	116.4	(0.9)	(15.0)	-	-	-	-	-	-	-	-
Crenshaw-LAX Track Enhancement Project - SC	6.2	-	-	6.2	-	-	-	-	-	-	-	-
Earmark Exchange Program for Cities	50.3	5.5	10.0	10.0	12.5	5.0	7.3	-	-	-	-	-
East SF Valley Transit Corridor Project - SF	169.8	-	-	-	-	-	-	82.9	87.0	-	-	-
Exposition LRT - Phase II	3.0	3.0	-	-	-	-	-	-	-	-	-	-
Freeway Service Patrol	396.2	22.3	22.9	23.5	24.1	24.7	25.2	25.8	26.4	26.9	27.5	146.8
Gold Line Eastside Extension (One Alignment) - GC/SG	107.2	-	-	-	-	-	-	-	-	-	-	107.2
High Desert Multi-Purpose Corridor (HDMC) - NC	128.6	-	-	-	-	-	-	-	-	-	-	128.6
I-210 Barrier Replacement Project	7.9	7.9	-	-	-	-	-	-	-	-	-	-
I-405 Carpool Lanes - I-10 to US-101	0.1	0.1	-	-	-	-	-	-	-	-	-	-
I-5 North Carpool Lanes - SR-134 to SR-170, NB & SB	16.5	-	6.6	6.2	1.6	2.1	-	-	-	-	-	-
I-5 South Carpool and Mixed Flow Lanes I-605 to OCL	112.8	-	70.1	26.0	15.5	0.8	0.4	-	-	-	-	-
I-710 South Corridor Project (Ph 1) - GC	34.7	-	-	-	5.0	7.5	22.1	-	-	-	-	-
I-710 South Corridor Project (Ph 2) - GC	192.5	-	-	-	-	-	-	-	-	-	-	192.5
Light Rail Vehicles	28.7	13.7	10.0	5.0	-	-	-	-	-	-	-	-

Table 5
Funding by Project - Local Revenue

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
Metro Bike Share	51.4	5.0	3.4	3.1	3.2	3.3	3.4	3.5	3.5	3.6	3.7	15.7
Metro Call for Projects	259.1	44.6	1.1	15.4	9.2	-	53.9	51.3	36.3	30.3	11.9	5.1
Metrolink - Operations	1,341.8	72.6	76.7	79.3	81.9	83.9	85.8	87.7	89.6	91.5	93.5	499.3
Metrolink - Rehab	275.3	-	-	-	-	8.5	10.8	13.7	20.6	22.7	25.1	174.0
Municipal and Non-Metro Operators	1,000.2	68.0	55.0	56.5	58.3	60.0	61.7	63.5	65.3	67.1	69.0	375.7
North San Fernando Valley Bus Rapid Transit Improvements	25.9	-	-	1.6	6.5	11.0	6.7	-	-	-	-	-
Open Street Grant Program	3.4	3.4	-	-	-	-	-	-	-	-	-	-
Rail Operations - Metro Operations	780.9	-	30.7	39.4	21.5	11.5	26.3	34.1	71.4	113.9	34.0	398.1
Rail System Improvements, Yards, Cars - Future	2.1	2.1	-	-	-	-	-	-	-	-	-	-
Rail to Rail/River Active Transportation Corridor	19.2	-	19.2	-	-	-	-	-	-	-	-	-
Rapid Bus Phase II Subsidy Projects	0.4	0.4	-	-	-	-	-	-	-	-	-	-
Regional Admin (Highway Planning 405522)	79.2	4.9	4.5	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.5	29.2
Regional Admin (Mobility - Air Quality 405544)	12.3	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.9	4.6
Retrofit Soundwalls Phase 1	7.7	-	7.7	-	-	-	-	-	-	-	-	-
Revenue Delta	40.0	-	-	-	-	-	10.0	10.0	10.0	10.0	-	-
Rideshare-Vanpools	185.5	11.4	10.7	10.9	11.2	11.5	11.8	12.0	12.3	12.5	12.8	68.4
RIITS-Regional Integration of ITS (405526)	33.5	4.9	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.1	2.1	11.3
Sepulveda Pass Transit Corridor (Ph 2) - SF/W	66.3	-	-	-	14.7	13.9	37.8	-	-	-	-	-
SGR-Heavy and Light Rail Needs (TAM Database)	324.2	-	-	-	-	-	-	-	-	-	-	324.2
South Bay Highway Operational Improvements	216.4	-	0.9	5.3	5.5	8.3	8.4	8.6	9.1	20.3	19.7	130.3
South Bay Ramp and Interchange	135.4	-	-	30.0	-	-	27.3	10.8	7.9	-	-	59.4
SR-14 Carpool Lane Ave P-8 to Ave L	120.0	-	-	-	-	-	-	-	-	-	-	120.0
Taylor Yard Pedestrian Bridge	21.7	0.7	6.3	8.4	6.3	-	-	-	-	-	-	-
Transit Program	43.5	-	-	-	-	5.8	6.0	6.1	6.3	19.3	-	-
Union Stn Cesar Chavez Bus	0.5	0.5	-	-	-	-	-	-	-	-	-	-
Vermont Transit Corridor - CC	159.0	-	-	3.9	9.0	6.3	23.5	10.2	103.8	2.3	-	-
Wayfinding Signage Grant Program	0.1	0.1	-	-	-	-	-	-	-	-	-	-
West Santa Ana Transit Corridor LRT FY41	471.8	-	-	-	-	-	-	-	-	-	132.8	339.0
Debt Service	3,276.8	190.1	197.1	210.2	223.0	196.0	210.6	204.9	207.5	220.7	213.0	1,203.7
Transportation Development Act (TDA)												
Agency Wide - Administration	195.0	20.0	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	62.5
Agency Wide - Capital	233.3	23.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	165.0
Bus Capital - Metro Bus Fleet Replacement	259.2	30.0	-	19.1	13.4	-	-	46.7	50.0	50.0	50.0	-
Bus Capital - Metro El Monte Transit Center Improvements	0.2	0.2	-	-	-	-	-	-	-	-	-	-
Bus Capital - Metro SGR Buses and Bus Facilities	50.8	8.6	21.2	9.3	-	-	11.7	-	-	-	-	-
Bus Capital - Municipal and Non-Metro Operators	393.5	-	23.5	24.1	24.8	25.8	26.8	27.4	28.0	28.6	29.2	155.4
Bus Operations - Metro Operations	4,937.9	212.2	276.7	296.3	303.9	241.1	314.2	293.9	320.3	341.6	356.6	1,981.1
Crenshaw Northern Extension - CC/W	0.0	0.0	-	-	-	-	-	-	-	-	-	-
Division 20	2.4	-	-	-	-	2.4	-	-	-	-	-	-
Green Line Train Control Track Circuits	25.8	1.6	9.8	8.2	6.2	-	-	-	-	-	-	-
Municipal and Non-Metro Operators	943.9	64.2	41.8	43.3	46.4	49.3	52.7	56.7	60.4	63.7	67.3	398.2
Municipal Operators Expansion	666.2	37.8	38.9	39.9	40.8	41.6	42.3	43.2	44.2	45.1	46.1	246.4
Rail System Improvements, Yards, Cars - Future	11.9	1.5	1.5	1.5	1.5	1.5	4.4	-	-	-	-	-
Regional Connector Concurrent non-FFGA Activities	6.2	-	4.6	1.5	-	-	-	-	-	-	-	-
SGR-Heavy Rail Vehicle Midlife	4.3	4.3	-	-	-	-	-	-	-	-	-	-
SGR-Light Rail Vehicle Midlife	211.8	7.7	30.2	7.4	20.4	56.1	36.6	22.0	7.5	-	-	24.0

Table 5
Funding by Project - Local Revenue

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
SGR-Rail Facilities	0.0	0.0	-	-	-	-	-	-	-	-	-	-
Wayfinding Signage Grant Program	0.0	0.0	-	-	-	-	-	-	-	-	-	-
State Transit Assistance (STA)												
Bus Operations - Metro Operations	1,367.9	96.7	89.8	89.8	89.8	89.8	90.7	90.7	90.7	90.7	90.7	458.2
Fare Gates (210090)	2.4	2.4	-	-	-	-	-	-	-	-	-	-
Municipal and Non-Metro Operators	465.7	24.4	31.2	31.2	31.2	31.2	31.5	31.5	31.5	31.5	31.5	159.1
Rail Operations - Metro Operations	1,423.8	82.4	94.8	94.8	94.8	94.8	95.7	95.7	95.7	95.7	95.7	483.5
SGR-Rail Facilities	10.0	10.0	-	-	-	-	-	-	-	-	-	-
Passenger Fare												
Bus Operations - Metro Operations	4,294.2	204.3	215.4	227.5	239.4	251.9	264.5	277.5	283.1	297.2	308.2	1,725.2
Rail Operations - Metro Operations	2,280.5	80.2	87.7	91.3	98.5	115.5	122.9	134.5	147.9	166.6	169.9	1,065.4
ExpressLanes Tolls												
Agency Wide - Administration	4.6	4.6	-	-	-	-	-	-	-	-	-	-
ExpressLanes Improvements in Eligible Corridors	10.6	10.6	-	-	-	-	-	-	-	-	-	-
ExpressLanes Maintenance and Repair (I-105)	3.2	-	-	-	-	-	-	0.4	0.4	0.4	0.4	1.8
ExpressLanes Toll Collection Costs	935.6	59.9	60.5	61.1	61.7	62.3	63.0	63.0	63.0	63.0	63.0	315.0
Municipal and Non-Metro Operators	111.1	6.9	7.0	7.0	7.1	7.2	7.3	7.3	7.4	7.5	7.5	38.9
Sepulveda Pass Transit Corridor (Ph 1) - SF/W	50.5	-	-	-	-	-	-	50.5	-	-	-	-
Advertising												
Bus Operations - Metro Operations	378.7	23.6	23.3	23.3	22.5	23.1	23.7	24.3	24.9	25.4	26.0	138.8
Rail Operations - Metro Operations	75.9	2.1	3.0	3.6	5.2	5.2	5.3	5.3	5.4	5.5	5.6	29.8
Other Revenue												
Agency Wide - Administration	455.3	57.9	16.7	26.2	19.7	27.3	27.9	28.5	29.1	29.7	30.3	161.9
Agency Wide - Capital	28.0	13.7	2.9	2.1	1.2	0.7	0.7	0.7	0.7	0.7	0.7	3.7
Airport Metro Connector 96th St. Station - Green Line Ext LAX - SC	17.4	-	-	-	17.4	-	-	-	-	-	-	-
Bus Capital - Metro Bus Fleet Replacement	20.8	20.8	-	-	-	-	-	-	-	-	-	-
Bus Capital - Metro SGR Buses and Bus Facilities	0.5	0.5	-	-	-	-	-	-	-	-	-	-
Bus Operations - Metro Operations	77.2	16.1	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	21.9
Business Interruption Fund Program	1.0	1.0	-	-	-	-	-	-	-	-	-	-
Call Box Programs	1.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5
Call for Projects Fund Swap Reserve	11.9	-	-	-	-	11.9	-	-	-	-	-	-
Crenshaw/LAX Transit Corridor	66.2	11.2	10.0	30.0	-	3.0	3.0	3.0	3.0	3.0	-	-
East SF Valley Transit Corridor Project - SF	46.4	-	-	(0.6)	-	47.0	-	-	-	-	-	-
Freeway Service Patrol	7.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.5
Gold Line Eastside Extension (One Alignment) - GC/SG	142.4	9.2	-	-	-	-	-	-	-	-	108.9	24.3
Gold Line Foothill Extension to Claremont (2B) - SG	42.2	-	7.0	7.0	7.0	7.0	7.0	7.2	-	-	-	-
Green Line Extension to Crenshaw Blvd in Torrance - SB	38.2	3.2	-	-	-	-	-	-	-	35.0	-	-
LA Union Station Forecourt & Esplanade Improvements	1.6	1.6	-	-	-	-	-	-	-	-	-	-
Light Rail Vehicles	0.0	0.0	-	-	-	-	-	-	-	-	-	-
Metro Bicycle & Pedestrian Programs	0.8	0.8	-	-	-	-	-	-	-	-	-	-
Metro Bike Share	229.9	11.8	13.1	13.1	13.5	13.9	14.3	14.8	15.2	15.7	16.1	88.3
Metro Call for Projects	66.5	-	1.0	4.1	4.1	43.3	14.1	-	-	-	-	-
Rail Operations - Metro Operations	175.5	-	14.1	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	62.1
Rail System Improvements, Yards, Cars - Future	3.6	3.6	-	-	-	-	-	-	-	-	-	-
Red-Purple Line System Improvements	99.6	-	-	-	45.2	-	-	-	-	-	-	54.4
Regional Connector	187.4	108.3	69.6	3.6	5.9	-	-	-	-	-	-	-

Table 5
Funding by Project - Local Revenue

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
Regional Connector Concurrent non-FFGA Activities	5.7	4.0	0.6	0.7	0.5	-	-	-	-	-	-	-
Revenue Delta	4.2	-	-	-	-	-	4.2	-	-	-	-	-
Rosecrans-Marquardt grade separation	7.0	-	-	4.4	2.6	-	-	-	-	-	-	-
Sepulveda Pass Transit Corridor (Ph 2) - SF/W	214.8	-	-	-	(0.0)	-	-	-	-	-	214.8	-
STPL Program	6.0	6.0	-	-	-	-	-	-	-	-	-	-
The SEED School of Los Angeles County	66.0	-	2.9	3.6	4.5	5.0	5.0	5.0	5.0	5.0	5.0	25.0
Transit Oriented Development Planning Grants	3.9	3.9	-	-	-	-	-	-	-	-	-	-
Vermont Transit Corridor - CC	17.4	-	-	-	-	-	-	17.4	-	-	-	-
West Santa Ana Transit Corridor LRT FY28	37.5	-	-	-	-	-	37.5	-	-	-	-	-
Westside Purple Line Extension Section 1	29.0	-	-	(19.7)	25.0	8.9	14.9	-	-	-	-	-
Westside Purple Line Extension Section 3 - W	96.4	-	-	-	-	96.4	-	-	-	-	-	-
TOTAL FUNDING - LOCAL REVENUE	**$ 95,034.2**	**$ 5,558.8**	**$ 5,277.4**	**$ 5,183.4**	**$ 5,585.8**	**$ 5,887.6**	**$ 5,948.0**	**$ 6,450.0**	**$ 6,448.2**	**$ 6,414.4**	**$ 6,863.0**	**$ 35,417.6**

Table 6
Grant Receipts by Project - State Revenue

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
Active Transportation Program												
Active Transportation Projs - Local Agencies	726.1	-	54.6	48.8	48.7	28.0	49.3	30.4	58.3	58.3	58.3	291.5
Complete LA River Bikepath - SF	9.6	-	-	-	9.6	-	-	-	-	-	-	-
LA River Waterway & System Bikepath - CC	67.3	-	-	-	-	30.4	9.0	27.9	-	-	-	-
LA Union Station Forecourt & Esplanade Improvements	13.2	-	3.7	9.6	-	-	-	-	-	-	-	-
Air Quality Vehicle Registration Fee (AB 2766) (MSRC)												
Bus Capital - Metro Bus Fleet Replacement	9.5	-	1.5	-	-	-	2.0	-	2.0	-	-	4.0
Environmental Enhancement and Mitigation (Revenue)												
Environmental Enhancement & Mitigation Projects	10.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	3.5
Interregional Improvement Program Funds (IIP)												
Agency Wide - Administration	7.3	7.3	-	-	-	-	-	-	-	-	-	-
I-5 North Carpool Lanes - SR-134 to SR-170, NB & SB	2.5	-	-	-	-	2.5	-	-	-	-	-	-
Link Union Station (formerly SCRIP)	60.8	-	-	60.8	-	-	-	-	-	-	-	-
Metrolink - Capital Projects	60.8	-	60.8	-	-	-	-	-	-	-	-	-
Low Carbon Transit Operations Program (LCTOP)												
Municipal and Non-Metro Operators	50.4	-	5.0	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	17.5
Rail Operations - Metro Operations	391.4	36.6	31.6	17.0	22.7	25.8	25.8	25.8	25.8	25.8	25.8	128.9
Other State Revenue												
Agency Wide - Capital	0.0	0.0	-	-	-	-	-	-	-	-	-	-
LA Union Station Forecourt & Esplanade Improvements	1.5	1.5	-	-	-	-	-	-	-	-	-	-
Link Union Station (formerly SCRIP)	8.9	3.1	0.8	-	-	-	-	5.0	-	-	-	-
Metro Bike Share	0.5	0.5	-	-	-	-	-	-	-	-	-	-
Rosecrans-Marquardt grade separation	50.4	-	28.0	19.6	2.8	-	-	-	-	-	-	-
Prop 1B - CMIA												
I-5 North Carpool Lanes - SR-134 to SR-170, NB & SB	3.9	-	-	-	0.4	3.5	-	-	-	-	-	-
Prop 1B - State-Local Partnership (SLPP)												
I-5 North Carpool Lanes - SR-134 to SR-170, NB & SB	1.0	-	-	-	-	1.0	-	-	-	-	-	-
Prop 1B - Transit System Safety and Security												
Agency Wide - Capital	5.2	5.2	-	-	-	-	-	-	-	-	-	-
Regional Improvement Program Funds (RIP)												
Agency Wide - Administration	69.3	2.3	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	25.0
Bus Capital - Metro Bus Fleet Replacement	50.7	-	37.6	4.7	-	-	8.3	-	-	-	-	-
Crenshaw/LAX Transit Corridor	10.3	10.3	-	-	-	-	-	-	-	-	-	-
East SF Valley Transit Corridor Project - SF	202.1	-	34.6	32.7	104.8	-	-	30.0	-	-	-	-
I-5 and I-405 Carpool Lane Connector	86.9	-	-	-	-	-	-	19.2	23.0	15.2	29.5	-
I-605 Corridor 'Hot Spot' Interchange Improvements	39.2	-	9.2	30.0	-	-	-	-	-	-	-	-
I-710 South Corridor Project (Ph 1) - GC	6.0	1.6	-	4.4	-	-	-	-	-	-	-	-
Light Rail Vehicles	49.2	3.5	45.7	-	-	-	-	-	-	-	-	-
Sepulveda Pass Transit Corridor (Ph 2) - SF/W	299.5	-	-	-	-	-	-	-	-	-	-	299.5
South Bay Ramp and Interchange	76.5	-	-	-	12.0	-	-	-	-	7.4	25.6	31.5
SR-138 Widening (remaining 7 segments)	111.0	-	25.0	19.0	67.0	-	-	-	-	-	-	-
SR-71 Gap-I-10 to Rio Rancho Rd. - SG	20.0	-	-	-	12.3	-	7.7	-	-	-	-	-
SR-710 North	150.2	-	-	-	-	-	-	24.9	30.6	10.7	22.9	61.1
Vermont Transit Corridor - CC	77.6	-	-	-	-	-	-	20.0	20.0	37.6	-	-
Westside Purple Line Extension Section 3 - W	31.8	-	-	-	-	-	-	31.8	-	-	-	-
SAFE-Service Authority for Freeway Emergencies Vehicle Registration Revenue												

Table 6
Grant Receipts by Project - State Revenue

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
Call Box Programs	117.6	8.0	7.7	7.8	7.7	7.8	7.9	7.9	7.9	7.9	7.9	39.3
SB1 - Freeway Service Patrol												
Freeway Service Patrol	72.7	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	5.0	27.0
SB1 - Local Partnership Program												
Agency Wide - Capital	125.0	-	15.0	-	-	-	20.0	-	30.0	-	30.0	30.0
Bus Capital - Metro SGR Buses and Bus Facilities	187.2	7.5	53.3	42.0	8.2	-	46.0	22.3	8.0	-	-	-
Division 20	29.1	-	-	-	29.1	-	-	-	-	-	-	-
Gold Line Eastside Extension (One Alignment) - GC/SG	123.0	-	-	-	-	-	-	-	-	-	35.1	87.9
I-5 and I-405 Carpool Lane Connector	167.2	-	-	-	-	-	25.6	1.0	11.2	30.4	-	98.9
I-605 Corridor 'Hot Spot' Interchange Improvements	111.6	1.2	-	-	-	24.1	20.8	15.6	-	-	19.4	30.5
Orange Line BRT Improvements - SF	75.0	-	-	24.0	37.7	12.4	1.0	-	-	-	-	-
Retrofit Soundwalls Phase 1	37.6	-	2.0	5.9	6.7	23.0	-	-	-	-	-	-
SGR-Heavy and Light Rail Needs (TAM Database)	34.7	-	-	-	-	-	-	-	-	-	-	34.7
West Santa Ana Transit Corridor LRT FY28	17.6	3.4	14.1	-	-	-	-	-	-	-	-	-
Willowbrook-Rosa Parks Station	8.0	8.0	-	-	-	-	-	-	-	-	-	-
SB1 - Solutions for Congested Corridors Program												
Airport Metro Connector 96th St. Station - Green Line Ext LAX - SC	150.0	34.2	5.3	95.6	4.9	9.9	-	-	-	-	-	-
Gold Line Eastside Extension (One Alignment) - GC/SG	366.9	-	-	-	-	-	-	-	-	-	-	366.9
I-105 Express Lane from I-405 to I-605 - SC	45.0	-	-	-	-	20.0	25.0	-	-	-	-	-
Sepulveda Pass Transit Corridor (Ph 2) - SF/W	396.8	-	-	-	-	-	-	125.0	100.0	75.0	75.0	21.8
South Bay Ramp and Interchange	86.1	-	-	-	27.4	20.4	-	-	-	7.2	6.4	24.7
SB1 - Trade Corridors Program												
I-5 North Capacity Enhancements (SR-14 to Lake Hughes Rd) - NC	232.6	-	5.6	79.0	74.0	74.0	-	-	-	-	-	-
I-605 Corridor 'Hot Spot' Interchange Improvements	104.0	-	10.1	12.6	9.3	-	15.0	21.3	13.9	21.8	-	-
I-710 South Corridor Project (Ph 1) - GC	200.0	-	-	-	-	50.0	150.0	-	-	-	-	-
I-710 South Corridor Project (Ph 2) - GC	6.0	-	-	-	-	-	-	-	-	-	-	6.0
Rosecrans-Marquardt grade separation	9.0	-	9.0	-	-	-	-	-	-	-	-	-
SR-57 - SR-60 Interchange Improvements - SG	198.6	-	22.0	-	-	35.8	80.8	60.0	-	-	-	-
SR-71 Gap-I-10 to Rio Rancho Rd. - SG	44.0	-	5.8	20.5	17.7	-	-	-	-	-	-	-
STA--State Transit Assistance TIF												
Agency Wide - Capital	0.2	0.2	-	-	-	-	-	-	-	-	-	-
Bus Capital - Municipal and Non-Metro Operators	69.2	5.8	3.8	3.9	4.0	4.2	4.3	4.4	4.5	4.6	4.7	25.0
Bus Operations - Metro Operations	170.1	12.5	10.5	10.6	10.8	10.9	11.0	11.1	11.2	11.3	11.4	58.8
Rail Operations - Metro Operations	265.5	13.2	14.6	15.1	15.5	16.4	16.9	17.5	17.9	18.3	18.8	101.2
Traffic Congestion Relief Program Funds (TCRP)												
SR-71 Gap-I-10 to Rio Rancho Rd. - SG	3.1	-	3.1	-	-	-	-	-	-	-	-	-
Transit and Intercity Rail Capital Program (TIRCP)												
Airport Metro Connector 96th St. Station - Green Line Ext LAX - SC	40.0	-	37.1	-	-	2.9	-	-	-	-	-	-
BRT Connector Orange-Red Line to Gold Line - AV/SF	50.0	-	-	-	25.0	25.0	-	-	-	-	-	-
Bus Capital - Metro Bus Fleet Replacement	23.7	-	-	23.7	-	-	-	-	-	-	-	-
Division 20	69.2	37.4	-	-	7.2	11.9	12.8	-	-	-	-	-
East SF Valley Transit Corridor Project - SF	205.0	-	-	-	-	51.3	51.3	51.3	51.3	-	-	-
Gold Line Eastside Extension (One Alignment) - GC/SG	738.1	-	-	-	-	-	-	-	-	-	-	738.1
Gold Line Foothill Extension to Claremont (2B) - SG	290.2	-	87.0	56.0	64.0	43.9	22.4	8.0	9.0	-	-	-
Green Line Extension to Crenshaw Blvd in Torrance - SB	231.3	-	-	-	-	-	5.0	65.6	120.7	40.0	-	-
Link Union Station (formerly SCRIP)	337.6	64.8	45.4	35.5	40.0	50.0	60.0	41.8	-	-	-	-

Table 6
Grant Receipts by Project - State Revenue

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
Red-Purple Line System Improvements	250.0	-	-	-	-	25.0	50.0	75.0	75.0	25.0	-	-
Sepulveda Pass Transit Corridor (Ph 2) - SF/W	450.0	-	-	-	-	-	-	-	150.0	150.0	150.0	-
SGR-Blue Line Signal System Improvements	20.0	20.0	-	-	-	-	-	-	-	-	-	-
Vermont Transit Corridor - CC	190.0	-	-	5.0	-	-	45.0	70.0	70.0	-	-	-
West Santa Ana Transit Corridor LRT FY28	300.0	-	-	-	-	50.0	90.0	80.0	80.0	-	-	-
West Santa Ana Transit Corridor LRT FY41	90.0	-	-	-	-	-	-	-	-	-	-	90.0
TOTAL GRANT RECEIPTS - STATE REVENUE	**$ 9,499.7**	**$ 293.0**	**$ 698.6**	**$ 696.3**	**$ 682.3**	**$ 673.4**	**$ 876.6**	**$ 906.7**	**$ 934.1**	**$ 560.5**	**$ 534.9**	**$ 2,643.2**

Table 7
Grant Receipts by Project - Federal Revenue

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
Capital Grant Receipt Revenue Bonds												
Sepulveda Pass Transit Corridor (Ph 2) - SF/W	667.6	-	-	-	-	215.9	427.2	24.6	-	-	-	-
Westside Purple Line Extension Section 1	523.7	-	323.1	200.6	-	-	-	-	-	-	-	-
Westside Purple Line Extension Section 3 - W	535.4	-	144.5	224.4	166.6	-	-	-	-	-	-	-
Congestion Mitigation & Air Quality Program (CMAQ)												
Agency Wide - Administration	6.1	6.1	-	-	-	-	-	-	-	-	-	-
Airport Metro Connector 96th St. Station - Green Line Ext LAX - SC	3.6	-	2.6	-	0.3	0.7	-	-	-	-	-	-
Bus Capital - Metro Bus Fleet Replacement	327.0	-	125.5	-	-	-	30.0	-	50.0	44.5	17.4	59.6
Crenshaw/LAX Transit Corridor	50.0	50.0	-	-	-	-	-	-	-	-	-	-
Division 20	9.9	-	-	-	1.2	8.7	-	-	-	-	-	-
Gold Line Eastside Extension (One Alignment) - GC/SG	5.5	-	5.5	-	-	-	-	-	-	-	-	-
I-105 Express Lane from I-405 to I-605 - SC	3.9	-	3.9	-	-	-	-	-	-	-	-	-
I-5 and I-405 Carpool Lane Connector	75.9	-	-	-	-	-	20.0	20.0	20.0	-	-	15.9
Light Rail Vehicles	24.0	24.0	-	-	-	-	-	-	-	-	-	-
Metro Call for Projects	150.7	-	26.6	25.0	41.5	26.3	31.4	-	-	-	-	-
Rail Operations - Metro Operations	625.2	-	31.1	32.9	43.2	52.2	52.0	64.4	43.1	79.5	69.2	157.6
Rapid Bus Phase II Subsidy Projects	0.3	0.3	-	-	-	-	-	-	-	-	-	-
Red-Purple Line System Improvements	70.0	-	-	-	-	-	-	-	-	-	-	70.0
Regional Connector	182.7	-	83.0	70.1	29.5	-	-	-	-	-	-	-
Revenue Delta	40.0	-	-	-	-	-	10.0	10.0	10.0	10.0	-	-
South Bay Ramp and Interchange	33.2	-	-	-	-	-	-	-	-	-	-	33.2
SR-710 North	50.9	-	-	-	22.4	28.5	-	-	-	-	-	-
Transit Program	85.0	-	-	-	-	-	-	-	-	-	-	85.0
Vermont Transit Corridor - CC	20.0	-	-	-	-	20.0	-	-	-	-	-	-
Westside Purple Line Extension Section 2	125.0	70.0	48.2	6.8	-	-	-	-	-	-	-	-
Westside Purple Line Extension Section 3 - W	45.0	-	-	-	-	-	5.1	25.0	14.9	-	-	-
FASTLANE/INFRA Grants												
I-105 Express Lane from I-405 to I-605 - SC	35.0	-	-	-	-	15.0	20.0	-	-	-	-	-
I-5 North Capacity Enhancements (SR-14 to Lake Hughes Rd) - NC	47.0	-	47.0	-	-	-	-	-	-	-	-	-
FHWA ATCMTD Grant												
I-710 South Corridor Project (Ph 1) - GC	2.3	1.0	0.9	0.4	-	-	-	-	-	-	-	-
Homeland Security Grants												
Agency Wide - Capital	28.0	-	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	10.0
Other Federal Funds												
Agency Wide - Administration	8.7	8.7	-	-	-	-	-	-	-	-	-	-
Eastside Light Rail Access (pedestrian)	6.3	6.3	-	-	-	-	-	-	-	-	-	-
I-710 South Corridor Project (Ph 1) - GC	1.0	1.0	-	-	-	-	-	-	-	-	-	-
Rail System Improvements, Yards, Cars - Future	0.5	0.5	-	-	-	-	-	-	-	-	-	-
West Santa Ana Transit Corridor LRT FY28	1.4	1.4	-	-	-	-	-	-	-	-	-	-
Section 5307 Urbanized Formula												
Agency Wide - Administration	0.8	0.8	-	-	-	-	-	-	-	-	-	-
Bus Capital - Metro Bus Fleet Replacement	553.2	-	58.8	-	-	-	21.7	50.0	50.1	61.5	30.7	280.4
Bus Capital - Municipal and Non-Metro Operators	1,611.5	100.1	101.1	102.1	103.1	104.2	105.2	106.3	107.3	108.4	109.5	564.1
Bus Operations - Metro Operations	1,793.0	145.0	88.5	148.7	150.2	151.7	131.5	104.8	106.2	96.4	128.7	541.1
Section 5309 New Starts												
Rapid Bus Phase II Subsidy Projects	0.9	0.9	-	-	-	-	-	-	-	-	-	-

Table 7
Grant Receipts by Project - Federal Revenue

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
Regional Connector	275.6	100.0	100.0	75.6	-	-	-	-	-	-	-	-
Sepulveda Pass Transit Corridor (Ph 2) - SF/W	600.0	-	-	-	-	-	-	-	-	-	100.0	500.0
West Santa Ana Transit Corridor LRT FY41	300.0	-	-	-	-	-	-	-	-	-	-	300.0
Westside Purple Line Extension Section 1	685.0	100.0	100.0	100.0	100.0	100.0	100.0	85.0	-	-	-	-
Westside Purple Line Extension Section 2	899.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	-	-
Westside Purple Line Extension Section 3 - W	1,200.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	200.0
Section 5337 State of Good Repair - Fixed Guideway												
Rail Operations - Metro Operations	1,518.3	99.8	94.9	95.8	96.8	97.8	98.7	99.7	100.7	101.7	102.8	529.4
SGR-Heavy Rail Vehicle Midlife	13.9	10.0	3.9	-	-	-	-	-	-	-	-	-
SGR-Light Rail Vehicle Midlife	19.2	19.2	-	-	-	-	-	-	-	-	-	-
Section 5337 State of Good Repair -High Intensity Motorbus												
Bus Capital - Metro SGR Buses and Bus Facilities	89.3	-	5.9	6.0	-	6.1	12.2	6.2	6.3	-	6.4	40.1
Section 5339 Bus and Bus Facilities												
Agency Wide - Administration	2.2	2.2	-	-	-	-	-	-	-	-	-	-
Bus Capital - Metro Bus Fleet Replacement	7.2	-	7.2	-	-	-	-	-	-	-	-	-
Bus Capital - Metro SGR Buses and Bus Facilities	155.4	20.9	23.1	23.3	-	8.8	24.0	24.3	24.5	-	6.4	-
Bus Capital - Metro SGR Needs (TAM Database)	238.8	-	-	-	27.8	13.1	-	-	-	29.2	16.7	152.0
Section 5340 Growing States - High Density Formula												
Rail Operations - Metro Operations	145.5	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	50.9
Surface Transportation Block Grant Program (STBGP) formerly RSTP												
Airport Metro Connector 96th St. Station - Green Line Ext LAX - SC	2.4	-	2.4	-	-	-	-	-	-	-	-	-
Bus Capital - Metro Bus Fleet Replacement	25.0	-	25.0	-	-	-	-	-	-	-	-	-
Bus Operations - ADA-Paratransit	1,256.5	71.0	73.0	74.8	76.5	78.2	79.8	81.5	83.3	85.1	87.1	466.3
Gold Line Eastside Extension (One Alignment) - GC/SG	34.9	-	-	11.4	23.5	-	-	-	-	-	-	-
I-5 North Capacity Enhancements (Lake Hughes Rd to Kern Co) - NC	21.1	-	-	-	-	-	-	-	-	19.4	1.7	-
I-5 North Capacity Enhancements (SR-14 to Lake Hughes Rd) - NC	9.8	-	-	-	-	-	-	9.8	-	-	-	-
I-5 North Carpool Lanes - SR-134 to SR-170, NB & SB	12.6	-	-	-	12.6	-	-	-	-	-	-	-
Metro Call for Projects	52.5	-	18.2	8.6	8.6	8.6	8.6	-	-	-	-	-
Red-Purple Line System Improvements	10.0	-	-	-	-	10.0	-	-	-	-	-	-
SGR-Light Rail Vehicle Midlife	49.1	-	-	-	-	-	-	-	-	-	-	49.1
South Bay Ramp and Interchange	46.0	-	-	-	-	10.0	-	-	-	-	-	36.0
SR-138 Widening (remaining 7 segments)	19.8	-	19.8	-	-	-	-	-	-	-	-	-
SR-57 - SR-60 Interchange Improvements - SG	18.0	-	11.1	6.6	0.3	-	-	-	-	-	-	-
SR-71 Gap-I-10 to Rio Rancho Rd. - SG	41.5	-	6.2	10.4	20.0	-	4.9	-	-	-	-	-
SR-710 North	101.4	-	10.7	10.7	2.0	2.0	30.6	2.6	-	-	-	42.8
STPL Program	443.8	-	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	158.5
Vermont Transit Corridor - CC	35.0	-	-	-	-	-	-	-	-	35.0	-	-
Westside Purple Line Extension Section 3 - W	93.0	-	-	-	-	-	93.0	-	-	-	-	-
TIGER Grants												
Rail to Rail/River Active Transportation Corridor	15.0	-	15.0	-	-	-	-	-	-	-	-	-
Rosecrans-Marquardt grade separation	15.0	-	5.0	10.0	-	-	-	-	-	-	-	-
Willowbrook-Rosa Parks Station	4.1	4.1	-	-	-	-	-	-	-	-	-	-
TOTAL GRANT RECEIPTS - FEDERAL REVENUE	**$ 16,206.7**	**$ 1,052.4**	**$ 1,854.4**	**$ 1,487.2**	**$ 1,169.0**	**$ 1,200.9**	**$ 1,549.3**	**$ 957.4**	**$ 859.9**	**$ 913.9**	**$ 820.3**	**$ 4,342.0**

Table 8
Enterprise Fund
Bus & Rail Operations

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
BUS OPERATIONS RESOURCES												
Federal Revenue	1,793.0	145.0	88.5	148.7	150.2	151.7	131.5	104.8	106.2	96.4	128.7	541.1
Local Revenue	20,038.4	1,014.4	1,142.4	1,156.7	1,184.8	1,213.3	1,260.8	1,315.2	1,342.9	1,382.5	1,407.2	7,618.2
State Revenue	1,538.0	109.2	100.4	100.5	100.6	100.7	101.7	101.8	101.9	102.0	102.2	517.0
Subtotal-Bus Operations Resources	**$ 23,369.3**	**$ 1,268.6**	**$ 1,331.3**	**$ 1,405.9**	**$ 1,435.6**	**$ 1,465.8**	**$ 1,494.0**	**$ 1,521.8**	**$ 1,551.1**	**$ 1,581.0**	**$ 1,638.1**	**$ 8,676.3**
RAIL OPERATIONS RESOURCES												
Federal Revenue	2,288.9	108.9	135.1	138.0	149.3	159.4	160.3	173.7	153.5	191.1	181.9	737.9
Local Revenue	8,739.6	301.7	317.3	351.3	368.7	427.5	448.8	475.4	575.6	629.0	658.5	4,185.8
State Revenue	2,080.7	132.2	141.0	126.9	133.0	136.9	138.4	139.0	139.4	139.8	140.3	713.6
Subtotal-Rail Operations Resources	**$ 13,109.3**	**$ 542.8**	**$ 593.3**	**$ 616.2**	**$ 651.0**	**$ 723.8**	**$ 747.5**	**$ 788.2**	**$ 868.5**	**$ 959.9**	**$ 980.7**	**$ 5,637.3**
TOTAL TRANSIT OPERATIONS RESOURCES	**$ 36,478.6**	**$ 1,811.4**	**$ 1,924.6**	**$ 2,022.1**	**$ 2,086.6**	**$ 2,189.6**	**$ 2,241.5**	**$ 2,309.9**	**$ 2,419.6**	**$ 2,540.8**	**$ 2,618.8**	**$ 14,313.6**
TRANSIT OPERATIONS EXPENSES												
Bus Operations	23,369.3	1,268.6	1,331.3	1,405.9	1,435.6	1,465.8	1,494.0	1,521.8	1,551.1	1,581.0	1,638.1	8,676.3
Rail Operations	13,109.3	542.8	593.3	616.2	651.0	723.8	747.5	788.2	868.5	959.9	980.7	5,637.3
Subtotal-Transit Operations Expenses	**$ 36,478.6**	**$ 1,811.4**	**$ 1,924.6**	**$ 2,022.1**	**$ 2,086.6**	**$ 2,189.6**	**$ 2,241.5**	**$ 2,309.9**	**$ 2,419.6**	**$ 2,540.8**	**$ 2,618.8**	**$ 14,313.6**
TOTAL TRANSIT OPERATIONS EXPENSES	**$ 36,478.6**	**$ 1,811.4**	**$ 1,924.6**	**$ 2,022.1**	**$ 2,086.6**	**$ 2,189.6**	**$ 2,241.5**	**$ 2,309.9**	**$ 2,419.6**	**$ 2,540.8**	**$ 2,618.8**	**$ 14,313.6**
TRANSIT OPERATIONS (DEFICIT)/SURPLUS	**$ (0.0)**	**$ (0.0)**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
I-110/I-10 EXPRESSLANES TOLL REVENUES												
Tolls & Related Fees	940.1	58.4	59.0	59.6	60.2	60.8	61.4	62.0	62.6	63.2	63.9	329.1
Subtotal-I-110/I-10 ExpressLanes Toll Revenues	**$ 940.1**	**$ 58.4**	**$ 59.0**	**$ 59.6**	**$ 60.2**	**$ 60.8**	**$ 61.4**	**$ 62.0**	**$ 62.6**	**$ 63.2**	**$ 63.9**	**$ 329.1**
TRANSIT OTHER OPERATIONS EXPENSES												
Bus Operations	111.1	6.9	7.0	7.0	7.1	7.2	7.3	7.3	7.4	7.5	7.5	38.9
ExpressLanes Operations	946.2	70.5	60.5	61.1	61.7	62.3	63.0	63.0	63.0	63.0	63.0	315.0
Subtotal-Transit Other Operations Expenses	**$ 1,057.3**	**$ 77.4**	**$ 67.5**	**$ 68.2**	**$ 68.8**	**$ 69.5**	**$ 70.2**	**$ 70.3**	**$ 70.4**	**$ 70.5**	**$ 70.5**	**$ 353.9**
ExpressLanes Beginning Balance		135.5	111.8	103.3	94.8	86.1	77.3	68.5	60.2	52.4	45.2	137.1
ExpressLanes Toll Revenues (Deficit)/Surplus		(23.7)	(8.5)	(8.6)	(8.7)	(8.8)	(8.8)	(8.3)	(7.8)	(7.2)	(6.7)	(24.8)
ExpressLanes Ending Balance		-	-	-	-	-	-	-	-	-	-	-

Table 9
15-Year Metro Capital Program Expenditures

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
AGENCY WIDE CAPITAL												
Agency Wide - Capital	778.0	142.9	25.9	10.1	12.8	11.2	31.2	31.2	61.2	31.2	61.3	358.9
Subtotal-Agency wide Capital	**$ 778.0**	**$ 142.9**	**$ 25.9**	**$ 10.1**	**$ 12.8**	**$ 11.2**	**$ 31.2**	**$ 31.2**	**$ 61.2**	**$ 31.2**	**$ 61.3**	**$ 358.9**
BUS CAPITAL												
BRT Connector Orange-Red Line to Gold Line - AV/SF	312.2	3.2	-	-	29.4	90.8	124.7	64.2	-	-	-	-
Bus Capital - Metro Bus Fleet Replacement	2,686.1	239.8	396.0	88.3	59.6	0.7	101.9	137.0	225.1	229.8	298.8	909.1
Bus Capital - Metro El Monte Transit Center Improvements	0.2	0.2	-	-	-	-	-	-	-	-	-	-
Bus Capital - Metro Patsaouras Plaza Improvements	17.3	14.7	2.6	-	-	-	-	-	-	-	-	-
Bus Capital - Metro SGR Buses and Bus Facilities	718.7	61.5	107.3	84.3	11.8	18.6	97.6	56.4	42.4	1.5	14.3	223.0
Bus Capital - Metro SGR Needs (TAM Database)	238.8	-	-	-	27.8	13.1	-	-	-	29.2	16.7	152.0
Bus System Improvement Program	20.5	0.2	0.3	0.3	0.6	0.6	0.7	0.7	0.7	2.1	2.2	12.0
North San Fernando Valley Bus Rapid Transit Improvements	203.5	3.4	3.0	18.7	57.9	79.5	41.0	-	-	-	-	-
Orange Line BRT Improvements - SF	314.4	21.3	13.6	42.1	72.3	119.1	46.0	-	-	-	-	-
Union Stn Cesar Chavez Bus	0.5	0.5	-	-	-	-	-	-	-	-	-	-
Vermont Transit Corridor - CC	522.1	1.2	7.7	12.3	12.0	34.2	68.5	117.6	193.8	74.9	-	-
Subtotal-Bus Capital	**$ 5,034.3**	**$ 346.0**	**$ 530.6**	**$ 246.1**	**$ 271.3**	**$ 356.6**	**$ 480.3**	**$ 375.9**	**$ 462.0**	**$ 337.5**	**$ 332.0**	**$ 1,296.1**
HIGHWAY CAPITAL												
Active Transportation Projects	20.9	-	4.1	-	-	-	-	-	-	-	-	16.8
ATP Policy (450006)	0.2	0.2	-	-	-	-	-	-	-	-	-	-
Complete LA River Bikepath - SF	69.6	0.1	-	-	20.3	27.8	21.5	-	-	-	-	-
Environmental Enhancement & Mitigation Projects	10.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	3.5
ExpressLanes Maintenance and Repair (I-105)	3.2	-	-	-	-	-	-	0.4	0.4	0.4	0.4	1.8
High Desert Multi-Purpose Corridor (HDMC) - NC	381.0	1.5	0.5	0.5	0.2	0.2	0.2	0.2	0.2	-	-	377.4
Highway Efficiency, Noise Mitig. and Arterial Projects	1.1	-	1.0	0.2	-	-	-	-	-	-	-	-
I-105 Express Lane from I-405 to I-605 - SC	524.2	2.5	23.2	19.7	94.7	146.4	56.5	-	15.6	21.7	24.2	119.7
I-210 Barrier Replacement Project	7.9	7.9	-	-	-	-	-	-	-	-	-	-
I-405 Carpool Lanes - I-10 to US-101	0.1	0.1	-	-	-	-	-	-	-	-	-	-
I-5 - SR-14 Capacity Enhancement	1.3	1.3	-	-	-	-	-	-	-	-	-	-
I-5 - SR-14 Capacity Enhancement Subregional Repayment	83.8	0.2	2.3	12.2	28.9	21.4	7.7	11.0	-	-	-	-
I-5 and I-405 Carpool Lane Connector	330.0	-	-	-	-	-	45.6	40.2	54.2	45.6	29.5	114.8
I-5 North Capacity Enhancements (Lake Hughes Rd to Kern Co) - NC	322.7	-	-	-	-	-	-	-	-	19.4	19.4	283.9
I-5 North Capacity Enhancements (SR-14 to Lake Hughes Rd) - NC	628.1	20.7	131.5	163.2	152.7	108.4	40.2	11.4	-	-	-	-
I-5 North Capacity Enhancements (SR-14 to Lake Hughes Rd) - Truck Lanes	4.8	-	1.4	1.9	1.4	-	-	-	-	-	-	-
I-5 North Carpool Lanes - SR-134 to SR-170, NB & SB	94.9	18.6	27.6	18.0	14.6	10.5	5.3	0.2	-	-	-	-
I-5 North from SR-134-SR-170 Enhancements	10.8	3.3	2.2	3.0	2.0	0.3	-	-	-	-	-	-
I-5 South Carpool and Mixed Flow Lanes I-605 to OCL	156.5	25.6	74.7	31.9	20.6	2.1	1.0	0.4	0.2	0.1	-	-
I-5 South Corridor Improvements - I-605 to I-710 - GC	20.6	0.5	1.3	1.9	3.9	5.0	5.2	2.8	-	-	-	-
I-710 South Corridor Project (Ph 1) - GC	1,018.9	34.2	41.2	85.2	46.1	128.9	360.5	93.5	37.1	123.7	34.0	34.4
I-710 South Corridor Project (Ph 2) - GC	277.8	-	-	-	-	-	-	-	-	-	-	277.8
LA River Waterway & System Bikepath - CC	429.5	8.1	15.8	15.0	13.0	100.9	106.4	104.3	66.1	-	-	-
LA Union Station Forecourt & Esplanade Improvements	16.3	3.1	3.7	9.6	-	-	-	-	-	-	-	-
Los Angeles Safe Routes to School Initiative	30.7	-	-	-	-	-	-	-	-	-	-	30.7
Metro Bicycle & Pedestrian Programs	8.0	3.1	2.4	2.5	-	-	-	-	-	-	-	-
Metro Bike Share	284.8	20.4	16.5	16.2	16.7	17.2	17.7	18.2	18.8	19.3	19.9	103.9
Multimodal Connectivity Program	29.4	-	-	-	-	-	-	-	-	-	-	29.4
Rail to Rail/River Active Transportation Corridor	40.2	6.0	34.2	-	-	-	-	-	-	-	-	-

Table 9
15-Year Metro Capital Program Expenditures

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
Regional Admin (Highway Planning 405522)	79.2	4.9	4.5	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.5	29.2
Regional Admin (Mobility - Air Quality 405544)	12.3	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.9	4.6
Retrofit Soundwalls Phase 1	196.5	24.3	52.7	35.4	27.4	44.1	12.5	-	-	-	-	-
Rideshare-Vanpools	185.5	11.4	10.7	10.9	11.2	11.5	11.8	12.0	12.3	12.5	12.8	68.4
RIITS-Regional Integration of ITS (405526)	33.5	4.9	1.7	1.8	1.8	1.9	1.9	2.0	2.0	2.1	2.1	11.3
Rosecrans-Marquardt grade separation	99.8	18.4	42.0	34.0	5.4	-	-	-	-	-	-	-
Sepulveda Pass Transit Corridor (Ph 1) - SF/W	310.5	-	-	-	-	100.5	103.5	106.6	-	-	-	-
SR-138 Capacity Enhancements	140.1	27.6	20.2	16.9	18.9	16.9	14.0	12.0	12.0	1.5	-	-
SR-138 Widening (remaining 7 segments)	130.7	-	44.7	19.0	67.0	-	-	-	-	-	-	-
SR-14 Carpool Lane Ave P-8 to Ave L	120.0	-	-	-	-	-	-	-	-	-	-	120.0
SR-57 - SR-60 Interchange Improvements - SG	417.3	23.4	39.8	8.1	25.3	90.1	115.9	88.5	26.2	-	-	-
SR-71 Gap-I-10 to Rio Rancho Rd. - SG	357.2	-	15.1	92.4	130.9	95.3	23.5	-	-	-	-	-
SR-710 North	1,035.1	0.8	58.2	89.2	124.3	150.7	135.6	124.4	106.7	57.5	58.8	129.0
Subtotal-Highway Capital	$ 7,925.3	$ 274.3	$ 674.6	$ 694.8	$ 833.7	$ 1,086.5	$ 1,093.0	$ 634.7	$ 358.5	$ 310.6	$ 208.1	$ 1,756.4
RAIL CAPITAL												
Airport Metro Connector 96th St. Station - Green Line Ext LAX - SC	515.2	68.8	84.9	100.5	181.1	80.0	-	-	-	-	-	-
Blue Line Pedestrian Active Grade Crossing	1.2	0.1	1.1	-	-	-	-	-	-	-	-	-
Blue Line Track and System Refurbishment	80.3	22.9	22.0	35.4	-	-	-	-	-	-	-	-
Brighton to Roxford Double Track	5.1	2.6	2.5	-	-	-	-	-	-	-	-	-
Business Interruption Fund Program	46.0	7.0	9.0	9.0	9.0	6.0	3.0	3.0	-	-	-	-
Crenshaw Northern Extension - CC/W	2.1	2.1	-	-	-	-	-	-	-	-	-	-
Crenshaw/LAX Locally Funded Activities Project	52.0	-	52.0	-	-	-	-	-	-	-	-	-
Crenshaw/LAX Transit Corridor	209.4	188.0	21.4	-	-	-	-	-	-	-	-	-
Crenshaw/LAX Transit Corridor Pre-revenue Service	31.2	31.2	-	-	-	-	-	-	-	-	-	-
Crenshaw-LAX Track Enhancement Project - SC	55.8	-	-	18.1	18.6	19.2	-	-	-	-	-	-
Division 20	247.0	85.0	-	-	37.5	40.1	41.5	42.9	-	-	-	-
East SF Valley Transit Corridor Project - SF	1,553.0	27.2	148.4	78.5	134.8	208.3	286.1	442.0	227.6	-	-	-
Eastside Light Rail Access (pedestrian)	9.0	9.0	-	-	-	-	-	-	-	-	-	-
Exposition LRT - Phase II	3.0	3.0	-	-	-	-	-	-	-	-	-	-
Fare Gates (210090)	2.4	2.4	-	-	-	-	-	-	-	-	-	-
Gold Line Eastside Extension (One Alignment) - GC/SG	3,759.5	9.2	5.5	11.4	23.5	30.2	34.3	48.1	59.5	74.9	180.2	3,282.7
Gold Line Foothill Extension to Azusa (2A)	2.5	2.5	-	-	-	-	-	-	-	-	-	-
Gold Line Foothill Extension to Claremont (2B) - SG	1,470.9	155.0	247.8	259.0	264.0	200.0	178.8	95.1	51.2	20.0	-	-
Green Line Extension to Crenshaw Blvd in Torrance - SB	1,158.6	3.2	2.5	4.3	7.9	10.8	12.1	66.6	180.0	273.8	431.1	166.5
Green Line Train Control Track Circuits	25.8	1.6	9.8	8.2	6.2	-	-	-	-	-	-	-
Heavy Rail Vehicles	546.3	10.3	62.1	24.1	115.3	104.8	61.9	74.8	92.9	-	-	-
Light Rail Vehicles	338.3	110.3	125.0	32.1	-	42.2	28.8	-	-	-	-	-
Link Union Station (formerly SCRIP)	424.0	71.3	46.2	96.3	40.0	50.0	60.0	60.1	-	-	-	-
Rail System Improvements, Yards, Cars - Future	81.4	14.1	5.9	6.4	2.5	5.0	8.6	2.6	2.7	3.5	5.0	25.0
Red-Purple Line System Improvements	631.2	-	-	-	45.2	72.2	66.4	129.1	107.9	36.8	-	173.6
Regional Connector	669.9	214.5	270.6	149.4	35.4	-	-	-	-	-	-	-
Regional Connector Concurrent non-FFGA Activities	23.6	15.7	5.2	2.2	0.5	-	-	-	-	-	-	-
Sepulveda Pass Transit Corridor (Ph 2) - SF/W	7,353.6	3.7	20.2	37.0	63.9	236.0	515.5	765.4	920.2	1,059.1	1,208.6	2,524.0
SGR-Blue Line Signal System Improvements	66.3	35.7	30.6	-	-	-	-	-	-	-	-	-
SGR-Heavy and Light Rail Needs (TAM Database)	687.6	-	-	-	-	20.0	20.7	21.6	22.4	23.2	44.1	535.6
SGR-Heavy Rail Vehicle Midlife	47.6	15.7	19.9	12.0	-	-	-	-	-	-	-	-

Table 9
15-Year Metro Capital Program Expenditures

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
SGR-Light Rail Vehicle Midlife	344.3	28.4	43.1	22.2	45.4	56.1	46.6	22.0	7.5	-	-	73.1
SGR-Rail (Future Projects)	0.0	-	-	-	-	-	-	-	-	-	-	0.0
SGR-Rail Facilities	10.7	10.7	-	-	-	-	-	-	-	-	-	-
Southwestern Light Rail Yard (not in project budgets)	3.0	3.0	-	-	-	-	-	-	-	-	-	-
Transfer of Funds to Rail Capital	287.0	-	-	-	-	-	-	-	-	-	-	287.0
Transit Oriented Development Planning Grants	3.9	3.9	-	-	-	-	-	-	-	-	-	-
West Santa Ana Transit Corridor LRT FY28	1,219.7	53.7	22.2	40.7	62.9	108.0	166.8	229.1	354.0	182.3	-	-
West Santa Ana Transit Corridor LRT FY41	861.8	-	-	-	-	-	-	-	-	-	132.8	729.0
Westside Purple Line Extension Section 1	1,745.8	318.6	503.1	395.8	209.9	125.1	108.3	85.0	-	-	-	-
Westside Purple Line Extension Section 2	1,629.7	312.3	353.4	369.7	290.3	133.2	106.3	64.4	-	-	-	-
Westside Purple Line Extension Section 3 - W	3,641.3	457.3	479.9	533.8	479.6	433.6	397.1	332.1	128.0	100.0	100.0	200.0
Willowbrook-Rosa Parks Station	12.1	12.1	-	-	-	-	-	-	-	-	-	-
Subtotal-Rail Capital	**$ 29,859.0**	**$ 2,311.9**	**$ 2,594.3**	**$ 2,246.0**	**$ 2,073.6**	**$ 1,980.6**	**$ 2,142.8**	**$ 2,483.9**	**$ 2,153.8**	**$ 1,773.6**	**$ 2,101.9**	**$ 7,996.7**
REGIONAL RAIL CAPITAL												
Metrolink - Capital Projects	516.3	41.1	60.8	-	28.4	29.6	30.9	19.0	33.6	34.8	36.1	202.1
Metrolink - Rehab	275.3	-	-	-	-	8.5	10.8	13.7	20.6	22.7	25.1	174.0
Subtotal-Regional Rail Capital	**$ 791.6**	**$ 41.1**	**$ 60.8**	**$ -**	**$ 28.4**	**$ 38.1**	**$ 41.6**	**$ 32.6**	**$ 54.2**	**$ 57.5**	**$ 61.1**	**$ 376.1**
TOTAL	**$ 44,388.2**	**$ 3,116.2**	**$ 3,886.2**	**$ 3,197.0**	**$ 3,219.8**	**$ 3,473.0**	**$ 3,788.9**	**$ 3,558.3**	**$ 3,089.7**	**$ 2,510.4**	**$ 2,764.4**	**$ 11,784.3**

Table 10
15-Year Metro Regional Subsidy Program

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
CALL FOR PROJECTS												
Call for Projects Fund Swap Reserve	11.9	-	-	-	-	11.9	-	-	-	-	-	-
Metro Call for Projects	556.0	50.1	46.8	61.8	67.8	86.6	107.9	51.3	36.3	30.3	11.9	5.1
Revenue Delta	84.2	-	-	-	-	-	24.2	20.0	20.0	20.0	-	-
Subtotal, Call for Projects	**$ 652.1**	**$ 50.1**	**$ 46.8**	**$ 61.8**	**$ 67.8**	**$ 98.5**	**$ 132.1**	**$ 71.3**	**$ 56.3**	**$ 50.3**	**$ 11.9**	**$ 5.1**
REGIONAL SUBSIDY PROGRAM - BUS CAPITAL												
Bus Capital - Municipal and Non-Metro Operators	2,092.4	105.9	128.5	132.8	132.0	136.8	136.3	140.7	139.8	144.2	143.4	752.3
Countywide BRT Projects Ph 1 (All Subregions)	53.1	-	34.8	18.2	-	-	-	-	-	-	-	-
Countywide BRT Projects Ph 2 (All Subregions)	71.3	-	-	-	-	-	-	-	-	-	-	71.3
Subtotal, Regional Subsidy Program - Bus Capital	**$ 2,216.8**	**$ 105.9**	**$ 163.3**	**$ 151.0**	**$ 132.0**	**$ 136.8**	**$ 136.3**	**$ 140.7**	**$ 139.8**	**$ 144.2**	**$ 143.4**	**$ 823.6**
REGIONAL SUBSIDY PROGRAM - HIGHWAY												
Active Transportation 1st-Last Mile Connections Prog.	142.6	-	9.0	4.7	4.8	4.2	4.3	4.4	4.5	13.9	14.3	78.4
Active Transportation Program - Measure M project	105.0	-	4.5	6.5	3.0	3.1	3.2	3.2	3.3	10.2	10.5	57.5
Active Transportation Program (Including Greenway Proj.)	94.3	-	7.0	5.1	2.6	2.7	2.8	2.8	2.9	8.9	9.2	50.3
Active Transportation Projs - Local Agencies	726.1	-	54.6	48.8	48.7	28.0	49.3	30.4	58.3	58.3	58.3	291.5
Active Transportation, 1st-Last Mile, & Mobility Hubs	85.0	-	5.4	2.8	2.9	2.5	2.6	2.6	2.7	8.3	8.5	46.7
Active Transportation, Transit, and Tech. Program	30.5	7.8	5.1	4.2	2.4	2.5	2.5	2.6	2.7	0.7	-	-
Alameda Corridor East	163.0	39.4	40.2	30.1	30.0	23.3	-	-	-	-	-	-
Earmark Exchange Program for Cities	50.3	5.5	10.0	10.0	12.5	5.0	7.3	-	-	-	-	-
First-Last Mile and Complete Streets	89.5	-	9.4	9.6	2.2	2.3	2.4	2.4	2.5	7.7	7.9	43.1
Highway Demand Based Prog. (HOV Ext. & Connect.)	111.0	1.6	5.0	6.5	7.5	7.0	8.5	10.0	5.0	6.5	7.0	46.4
Highway Efficiency Program	188.4	1.6	5.0	5.8	4.0	6.5	12.5	9.5	3.5	3.5	3.5	133.0
Highway Operational Improvements in Arroyo Verdugo Subregion	138.4	13.7	10.0	11.0	11.0	12.0	12.0	15.0	15.0	16.0	16.0	6.7
Highway Operational Improvements in Las Virgenes-Malibu Subregion	62.2	15.2	8.5	8.5	7.2	8.0	7.0	7.9	-	-	-	-
I-605 Corridor 'Hot Spot' Interchange Improvements	1,299.4	42.4	38.7	117.2	136.0	105.9	99.1	164.5	249.2	128.7	19.4	198.2
Metro Active Transport, Transit 1st-Last Mile Program	350.2	-	14.5	14.7	15.0	15.3	15.5	10.5	10.8	33.1	34.1	186.6
Modal Connectivity and Complete Streets Projects	75.4	-	2.0	0.7	2.7	2.9	2.4	2.5	2.5	7.8	8.0	43.9
Open Street Grant Program	3.4	3.4	-	-	-	-	-	-	-	-	-	-
Rapid Bus Phase II Subsidy Projects	1.7	1.7	-	-	-	-	-	-	-	-	-	-
South Bay Highway Operational Improvements	371.8	-	1.5	6.5	10.0	12.0	12.5	15.0	20.0	25.0	25.0	244.3
South Bay Ramp and Interchange	775.6	20.5	31.5	30.0	39.4	31.6	27.3	35.9	34.6	52.6	72.5	399.7
STPL Program	449.8	6.0	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	158.5
Taylor Yard Pedestrian Bridge	21.7	0.7	6.3	8.4	6.3	-	-	-	-	-	-	-
Transportation System and Mobility Improve. Program	155.0	1.5	8.5	8.5	8.0	8.5	9.0	9.5	10.5	11.5	11.5	68.0
Transportation System and Mobility Improve. Program(a)	378.1	-	-	1.5	8.5	8.0	8.5	9.0	9.5	10.5	11.5	311.1
Wayfinding Signage Grant Program	0.2	0.2	-	-	-	-	-	-	-	-	-	-
Subtotal, Regional Subsidy Program - Highway	**$ 5,868.4**	**$ 161.1**	**$ 308.6**	**$ 372.7**	**$ 396.5**	**$ 322.8**	**$ 320.3**	**$ 369.5**	**$ 469.1**	**$ 434.9**	**$ 349.0**	**$ 2,363.7**
REGIONAL SUBSIDY PROGRAM - TRANSIT												
Street Car and Circulator Projects	35.9	-	14.7	15.3	5.9	-	-	-	-	-	-	-
Transit Program	228.7	-	9.8	2.5	6.7	13.9	7.0	7.2	7.4	22.7	23.4	128.0
Transit Projects	97.1	-	7.6	3.2	2.9	3.6	3.1	3.2	3.3	3.4	10.4	56.7
Visionary Project Seed Funding	12.5	-	-	2.5	-	-	2.5	-	-	2.5	-	5.0
Subtotal, Regional Subsidy Program - Transit	**$ 374.2**	**$ -**	**$ 32.1**	**$ 23.5**	**$ 15.5**	**$ 17.5**	**$ 12.6**	**$ 10.4**	**$ 10.6**	**$ 28.6**	**$ 33.8**	**$ 189.7**
TOTAL	**$ 9,111.6**	**$ 317.2**	**$ 550.8**	**$ 609.1**	**$ 611.7**	**$ 575.6**	**$ 601.2**	**$ 591.8**	**$ 675.9**	**$ 658.0**	**$ 538.0**	**$ 3,382.2**

Table 11
Fund Balances - Sales Tax

($ in millions)	TOTAL (FY20-FY34)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	BEYOND (FY30-FY34)
REVENUES												
Sales Tax	81,528.8	4,197.9	4,280.6	4,402.7	4,587.4	4,767.9	4,962.7	5,176.3	5,378.0	5,562.6	5,763.0	32,449.8
Proceeds from Financing	17,094.8	786.2	1,202.2	935.0	1,010.0	1,220.1	1,212.4	1,554.0	1,441.7	1,314.8	1,160.0	5,258.4
Subtotal-Revenues	**$ 98,623.6**	**$ 4,984.1**	**$ 5,482.8**	**$ 5,337.7**	**$ 5,597.4**	**$ 5,988.0**	**$ 6,175.2**	**$ 6,730.3**	**$ 6,819.7**	**$ 6,877.4**	**$ 6,923.0**	**$ 37,708.2**
EXPENDITURES												
Agency Wide	2,568.9	293.2	103.1	111.2	116.6	121.1	125.0	149.2	153.3	157.0	161.1	1,078.1
Capital Expenditures	38,970.8	2,546.1	2,552.0	2,411.5	2,603.5	2,698.4	2,722.8	3,056.3	2,798.1	2,529.7	2,538.2	12,514.1
Operating Expenditures	37,465.0	1,915.8	2,014.2	2,067.5	2,119.1	2,201.8	2,278.1	2,362.5	2,498.0	2,582.9	2,649.4	14,775.5
Debt Service	14,867.2	577.7	583.7	603.3	656.0	640.8	731.2	817.6	1,008.4	1,107.2	1,197.2	6,944.1
Metrolink	2,241.6	122.2	85.5	88.3	119.8	131.9	137.7	131.1	155.0	160.6	166.6	942.8
Other	2,940.2	165.4	136.0	154.4	163.8	170.3	178.6	187.9	194.6	201.7	209.7	1,177.7
Subtotal-Expenditures	**$ 99,053.7**	**$ 5,620.5**	**$ 5,474.6**	**$ 5,436.1**	**$ 5,778.8**	**$ 5,964.3**	**$ 6,173.5**	**$ 6,704.8**	**$ 6,807.4**	**$ 6,739.2**	**$ 6,922.3**	**$ 37,432.2**
Net Change in Fund Balance		(628.4)	8.2	(98.5)	(181.4)	23.7	1.7	41.1	42.0	170.4	33.7	455.2
Fund Balance - Beginning of Year		1,304.9	676.6	684.8	586.3	405.0	428.6	430.3	471.4	513.4	683.8	4,691.1
Fund Balance - End of Year		676.6	684.8	586.3	405.0	428.6	430.3	471.4	513.4	683.8	717.5	5,146.4

Attachment B

Countywide Financial Forecasting Model

Short Range Financial Forecast
Project Profiles – 10 Largest Projects
FY 2020 – FY 2034

November 2019

For Planning Purposes Only

Countywide Planning and Development
Strategic Financial Planning and Programming

Sepulveda Pass Transit Corridor Project (Ph 2) - SF/W

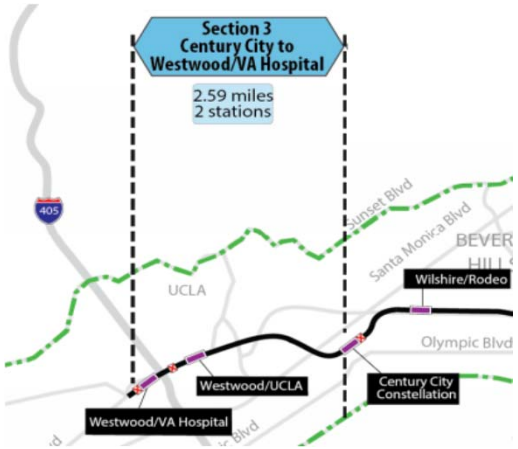
15-YEAR CASH FLOW ($ in millions)	Years Prior-'34	Prior Years	2019 2020	2020 2021	2021 2022	2022 2023	2023 2024	2024 2025	2025 2026	2026 2027	2027 2028	2028 2029	Years '30-'34
USES OF FUNDS													
Guideways etc	$ 1,604.0	-					51.0	93.0	150.0	280.0	290.0	290.0	450.0
Stations	$ 1,400.0	-					50.0	90.0	140.0	180.0	190.0	200.0	550.0
Systems	$ 1,171.0	-					50.0	90.0	140.0	180.0	190.0	190.0	331.0
Right of Way	$ 410.0	-							10.0	30.0	140.0	180.0	50.0
Vehicles	$ 576.0	-								25.0	25.0	25.0	501.0
Professional Services	$ 1,602.0	9.4	3.7	20.2	37.0	63.9	85.0	242.5	325.4	225.2	224.1	223.6	142.0
CGRRB Debt Service	$ 600.0	-	-	-	-	-	-	-	-	-	-	100.0	500.0
TOTAL USES	**$ 7,363.0**	**$ 9.4**	**$ 3.7**	**$ 20.2**	**$ 37.0**	**$ 63.9**	**$ 236.0**	**$ 515.5**	**$ 765.4**	**$ 920.2**	**$ 1,059.1**	**$ 1,208.6**	**$ 2,524.0**
SOURCES OF FUNDS													
Federal Revenue													
Section 5309 New Starts	600.0	-	-	-	-	-	-	-	-	-	-	100.0	500.0
Capital Grant Receipt Revenue Bonds (CGRRB)	667.6	-	-	-	-	-	215.9	427.2	24.6	-	-	-	-
Federal Revenue Subtotal	$ 1,267.6	$ -	$ -	$ -	$ -	$ -	$ 215.9	$ 427.2	$ 24.6	$ -	$ -	$ 100.0	$ 500.0
Local Revenue Subtotal	$ 4,948.2	$ 8.4	$ 3.7	$ 20.2	$ 37.0	$ 63.9	$ 20.1	$ 88.3	$ 615.8	$ 670.2	$ 834.1	$ 883.6	$ 1,702.8
State Revenue													
Transit and Intercity Rail Capital Program (TIRCP)	$ 450.0	-	-	-	-	-	-	-	-	150.0	150.0	150.0	-
Regional Improvement Program Funds (RIP)	$ 300.5	1.0	-	-	-	-	-	-	-	-	-	-	299.5
SB1 - Solutions for Congested Corridors Program	$ 396.8	-	-	-	-	-	-	-	125.0	$ 100.0	75.0	75.0	21.8
State Revenue Subtotal	$ 1,147.2	$ 1.0	$ -	$ -	$ -	$ -	$ -	$ -	$ 125.0	$ 250.0	$ 225.0	$ 225.0	$ 321.2
TOTAL SOURCES	**$ 7,363.0**	**$ 9.4**	**$ 3.7**	**$ 20.2**	**$ 37.0**	**$ 63.9**	**$ 236.0**	**$ 515.5**	**$ 765.4**	**$ 920.2**	**$ 1,059.1**	**$ 1,208.6**	**$ 2,524.0**

Total Project Cost:	$5,674 million estimated cost in Measure M plus inflation. Life of Project budget pending.
Description:	Transit corridor will connect to existing and planned Metro bus and rail lines, including the Orange, Purple and Expo Lines. A feasibility study to identify rail alternatives is underway with work concluding Fall 2019.
Funding Status:	Total funding extends beyond this 15 year window due to payment schedule of planned new starts grant. Measure R funding of $1,000 million beginning FY 30 for prior project "San Fernando Valley I-405 Corridor Connection." Allocated to Sepulveda Pass Ph 1, Ph 2, and Ph 3. Measure M funding of $2,540 million plus inflation starting in FY24 (spending for preconstruction costs can commence sooner).
Subregion:	San Fernando Valley, Westside
Metro Project Number:	#460305

Westside Purple Line Extension Section 3

15-YEAR CASH FLOW ($ in millions)	Years Prior-'34	Prior Years	2019 2020	2020 2021	2021 2022	2022 2023	2023 2024	2024 2025	2025 2026	2026 2027	2027 2028	2028 2029	Years '30-'34
USES OF FUNDS													
Guideway & Track Elements	$ 490.7	26.5	46.4	81.5	102.7	103.1	82.6	48.0	-	-	-	-	
Stations, Stops, Terminals, Intermodal	$ 625.0	-	48.5	86.8	114.5	123.9	114.5	88.4	48.5	-			
Sitework & Special Conditions	$ 491.8	55.1	59.4	56.4	75.7	82.3	75.7	57.5	29.6	-			
Systems	$ 130.8	0.1	0.2	0.2	0.2	0.2	2.9	58.9	67.7	0.6			
ROW, Land, Existing Improvements	$ 466.9	100.1	209.6	95.5	61.7	-	-	-	-	-			
Vehicles	$ 38.1	-	-	2.9	-	-	-	4.2	31.0	-			
Professional Services	$ 504.5	77.7	77.8	67.5	72.7	72.7	52.3	41.2	27.6	15.1			
Unallocated Contingency	$ 464.1	8.0	14.0	82.0	87.8	79.5	69.5	64.1	46.9	12.3			
Project Costs Subtotal	**$ 3,211.9**	**267.4**	**455.8**	**472.9**	**515.2**	**461.6**	**397.5**	**362.2**	**251.4**	**28.0**			
Non-FFGA Activities	$ 11.7	2.6	1.5	7.0	0.6	-	-	-	-	-			
Finance Charges	$ -	-	-	-	-	-	-	-	-	-			
CGRRB Debt Service	$ 687.8	-	-	-	18.0	18.0	36.1	34.9	80.7	100.0	100.0	100.0	200.0
TOTAL USES	**$ 3,911.4**	**$ 270.1**	**$ 457.3**	**$ 479.9**	**$ 533.8**	**$ 479.6**	**$ 433.6**	**$ 397.1**	**$ 332.1**	**$ 128.0**	**$ 100.0**	**$ 100.0**	**$ 200.0**
SOURCES OF FUNDS													
Federal Revenue													
Section 5309 New Starts	$ 1,300.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	200.0
Capital Grant Receipt Revenue Bonds (CGRRB)	$ 535.4	-	-	144.5	224.4	166.6	-	-	-	-	-	-	
Surface Transportation Block Grant Program (STBGP)	$ 93.0	-	-	-	-	-	-	93.0	-	-	-	-	
Congestion Mitigation & Air Quality Program (CMAQ)	$ 45.0	-	-	-	-	-	-	5.1	25.0	14.9	-	-	
Federal Revenue Subtotal	$ 1,973.4	$ 100.0	$ 100.0	$ 244.5	$ 324.4	$ 266.6	$ 100.0	$ 198.1	$ 125.0	$ 114.9	$ 100.0	$ 100.0	$ 200.0
Local Revenue													
Measure R - Transit Capital (35%)	$ 805.5	37.3	150.1	109.0	-	-	141.6	179.3	175.3	13.0	-	-	-
Local Agency Transit Project Contributions	$ 96.4	-	-	-	-	-	96.4	-	-	-	-	-	-
Repayment of Capital Project Loans (Fund 3562)	$ 10.0	10.0	-	-	-	-	-	-	-	-	-	-	-
Measure M -Transit Construction (35%)	$ 994.3	122.8	207.2	126.4	209.4	213.1	95.6	19.8	-	-	-	-	-
Local Revenue Subtotal	$ 1,906.1	$ 170.1	$ 357.3	$ 235.4	$ 209.4	$ 213.1	$ 333.6	$ 199.0	$ 175.3	$ 13.0	$ -	$ -	$ -
State Revenue													
Regional Improvement Program Funds (RIP)	$ 31.8	-	-	-	-	-	-	31.8	-	$ -	-	-	
State Revenue Subtotal	$ 31.8	$ -	$ -	$ -	$ -	$ -	$ -	$ 31.8	$ -	$ -	$ -	$ -	$ -
TOTAL SOURCES	**$ 3,911.4**	**$ 270.1**	**$ 457.3**	**$ 479.9**	**$ 533.8**	**$ 479.6**	**$ 433.6**	**$ 429.0**	**$ 300.3**	**$ 128.0**	**$ 100.0**	**$ 100.0**	**$ 200.0**

Total Project Cost:	$3,223.6 million Life of Project budget, excluding debt service.
Description:	The last section of the Purple Line Extension Transit Project, Section 3, will add 2.56 miles of new rail to Metro's Rail system and connect downtown Los Angeles to the Westside. The two new stations will be added at Wilshire/Westwood and on the U.S. Department of Veterans Affairs property.
Funding Status:	Measure M funding of $994.251 million. Measure R funding of $4,074 million, less allocations to Sections 1, 2, and Division 20. New Starts funding of $1,300 million pending Full Funding Grant Agreement.
Subregion:	Westside
Metro Project Number:	# 865523



Bus Capital - Metro Bus Fleet Replacement

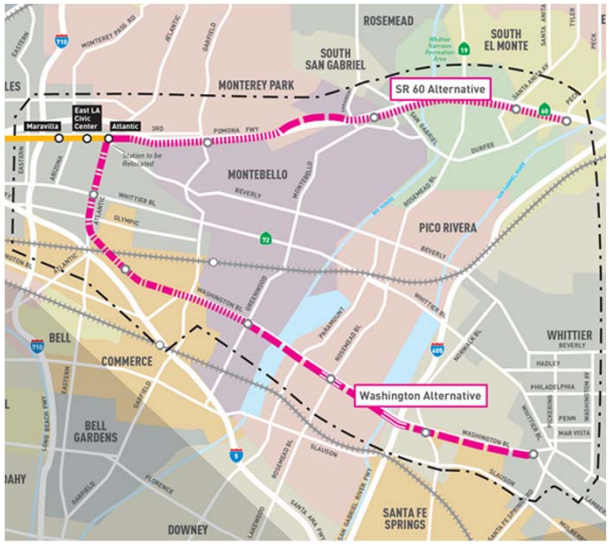
15-YEAR CASH FLOW ($ in millions)	Years Prior-'34	2019 2020	2020 2021	2021 2022	2022 2023	2023 2024	2024 2025	2025 2026	2026 2027	2027 2028	2028 2029	Years '30-'34
USES OF FUNDS												
Replacement 40' Buses (Group A) (201057)	$ 363.3	145.0	217.0	0.7	0.7							
Zero Emission Bus/SLEB Buy (201057)	$ -	-										
60' Articulated Zero Emission Bus (Group D) (201073)	$ 80.0	25.7	54.4									
CNG 60' (Group B) (201076)	$ 146.1	62.7	82.5	0.5	0.5							
60' Articulated Zero Emission Bus (201074)	$ 5.1	0.6	4.5									
Zero Emission 40' Bus (Group C) (201077)	$ 128.7	5.9	37.6	83.9	0.7	0.7						
Future Bus Replacements	$ 1,962.8	-		3.4	57.8	-	101.9	137.0	225.1	229.8	298.8	909.1
TOTAL USES	**$ 2,686.1**	**$ 239.8**	**$ 396.0**	**$ 88.3**	**$ 59.6**	**$ 0.7**	**$ 101.9**	**$ 137.0**	**$ 225.1**	**$ 229.8**	**$ 298.8**	**$ 909.1**
SOURCES OF FUNDS												
Federal Revenue												
Section 5307 Urbanized Formula	$ 553.2	-	58.8	-	-	-	21.7	50.0	50.1	61.5	30.7	280.4
Section 5339 Lo-No	$ 7.2	-	7.2	-	-	-	-	-	-	-	-	
Surface Transportation Block Grant Program (STBGP)	$ 25.0		25.0	-	-	-	-	-	-	-	-	
Congestion Mitigation & Air Quality Program (CMAQ)	$ 327.0	-	125.5	-	-	-	30.0	-	50.0	44.5	17.4	59.6
Federal Revenue Subtotal	$ 912.4	$ -	$ 216.4	$ -	$ -	$ -	$ 51.7	$ 50.0	$ 100.1	$ 105.9	$ 48.2	$ 340.1
Local Revenue Subtotal	$ 1,689.9	$ 239.8	$ 140.4	$ 59.9	$ 59.6	$ 0.7	$ 39.9	$ 87.0	$ 123.0	$ 123.9	$ 250.7	$ 565.0
State Revenue												
Air Quality Vehicle Registration Fee (AB 2766) (MSRC))	$ 9.5	-	1.5	-	-	-	2.0	-	2.0	-	-	4.0
STA--State Transit Assistance TIF	$ -	-	-	-	-	-	-	-	-	-	-	
Prop 1B - PTMISEA	$ -	-	-	-	-	-	-	-	-	-	-	
Transit and Intercity Rail Capital Program (TIRCP)	$ 23.7	-	-	23.7	-	-	-	-	-	-	-	
Regional Improvement Program Funds (RIP)	$ 50.7	-	37.6	4.7	-	-	8.3	-	-	-	-	
SB1 - Local Partnership Program	$ -	-	-	-	-	-	-	-	-	-	-	
State Revenue Subtotal	$ 83.9	$ -	$ 39.1	$ 28.4	$ -	$ -	$ 10.3	$ -	$ 2.0	$ -	$ -	$ 4.0
TOTAL SOURCES	**$ 2,686.1**	**$ 239.8**	**$ 396.0**	**$ 88.3**	**$ 59.6**	**$ 0.7**	**$ 101.9**	**$ 137.0**	**$ 225.1**	**$ 229.8**	**$ 298.8**	**$ 909.1**

Total Project Cost:	$784.3 million Life of Project budget for all existing bus acquisition contracts.
Description:	Metro Bus capital improvement program FY20 to FY29 from Bus 10-Year CIP. Future CNG Bus Replacements based on 12-year replacement cycle.
Funding Status:	Allocated $12.2 million of Section 5339 and awarded $4.275 million from "LoNo" program for zero emission buses. Programmed $47.3 million in RIP for new buses.
Subregion:	Countywide
Metro Project Number:	#201057, #201073, #201076, #201074, #201077

Gold Line Eastside Extension (One Alignment) - GC/SG

15-YEAR CASH FLOW ($ in millions)	Years Prior-'34	Prior Years	2019 2020	2020 2021	2021 2022	2022 2023	2023 2024	2024 2025	2025 2026	2026 2027	2027 2028	2028 2029	Years '30-'34
USES OF FUNDS													
Construction	$ 3,427.8	-	-	-	-	-	-	-	-	-	-	145.1	3,282.7
Preconstruction costs	$ 361.9	30.2	9.2	5.5	11.4	23.5	30.2	34.3	48.1	59.5	74.9	35.1	
TOTAL USES	**$ 3,789.7**	**$ 30.2**	**$ 9.2**	**$ 5.5**	**$ 11.4**	**$ 23.5**	**$ 30.2**	**$ 34.3**	**$ 48.1**	**$ 59.5**	**$ 74.9**	**$ 180.2**	**$ 3,282.7**
SOURCES OF FUNDS													
Federal Revenue													
Surface Transportation Block Grant Program (STBGP)	$ 34.9	-	-	-	11.4	23.5	-	-	-	-	-	-	-
Congestion Mitigation & Air Quality Program (CMAQ)	$ 5.5	-	-	5.5	-	-	-	-	-	-	-	-	-
Federal Revenue Subtotal	$ 40.4	$ -	$ -	$ 5.5	$ 11.4	$ 23.5	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Local Revenue Subtotal	$ 2,521.4	$ 30.2	$ 9.2	$ -	$ -	$ -	$ 30.2	$ 34.3	$ 48.1	$ 59.5	$ 74.9	$ 145.1	$ 2,089.9
State Revenue													
Transit and Intercity Rail Capital Program (TIRCP)	$ 738.1	-	-	-	-	-	-	-	-	-	-	-	738.1
SB1 - Solutions for Congested Corridors Program	$ 366.9	-	-	-	-	-	-	-	-	-	-	-	366.9
SB1 - Local Partnership Program	$ 122.9	-	-	-	-	-	-	-	-	-	-	35.1	87.9
State Revenue Subtotal	$ 1,227.8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 35.1	$ 1,192.8
TOTAL SOURCES	**$ 3,789.7**	**$ 30.2**	**$ 9.2**	**$ 5.5**	**$ 11.4**	**$ 23.5**	**$ 30.2**	**$ 34.3**	**$ 48.1**	**$ 59.5**	**$ 74.9**	**$ 180.2**	**$ 3,282.6**

Total Project Cost:	$3,000 million estimated cost per ordinance, plus inflation. Life of Project budget pending.
Description:	Extends Gold Line Rail east from Atlantic Station. This project profile is one of two alignments planned for construction, one along SR-60 to South El Monte, and the other along Washington Bl to Whittier.
Funding Status:	Measure R funding of $1,271 million. Measure M funding of $1,086 million, including inflation adjustments (if less than 2/3rds spent prior to FY27).
Subregion:	Gateway Cities/ San Gabriel Valley
Metro Project Number:	#460232



Westside Purple Line Extension Section 1

15-YEAR CASH FLOW ($ in millions)	Years Prior-'34	Prior Years	2019 2020	2020 2021	2021 2022	2022 2023	2023 2024	2024 2025	2025 2026	2026 2027	2027 2028	2028 2029	Years '30-'34
USES OF FUNDS													
Design/Construction	$ 2,739.5	1,578.7	318.6	403.1	295.8	109.9	25.1	8.3	-	-	-	-	-
Planning/Environmental	$ 39.4	39.4	-	-	-	-	-	-	-	-	-	-	-
CGRRB Debt Service	$ 585.0	-	-	100.0	100.0	100.0	100.0	100.0	85.0	-	-	-	-
TOTAL USES	**$ 3,363.9**	**$ 1,618.0**	**$ 318.6**	**$ 503.1**	**$ 395.8**	**$ 209.9**	**$ 125.1**	**$ 108.3**	**$ 85.0**	**$ -**	**$ -**	**$ -**	**$ -**
SOURCES OF FUNDS													
Federal Revenue													
Section 5309 New Starts	$ 1,250.0	565.0	100.0	100.0	100.0	100.0	100.0	100.0	85.0	-	-	-	-
Capital Grant Receipt Revenue Bonds	$ 523.7	-	-	323.1	200.6	-	-	-	-	-	-	-	-
Section 5339 Alternatives Analysis	$ 0.5	0.5	-	-	-	-	-	-	-	-	-	-	-
Congestion Mitigation & Air Quality Program (CMAQ)	$ 12.2	12.2	-	-	-	-	-	-	-	-	-	-	-
Federal Revenue Subtotal	$ 1,786.4	$ 577.7	$ 100.0	$ 423.1	$ 300.6	$ 100.0	$ 100.0	$ 100.0	$ 85.0	$ -	$ -	$ -	$ -
Local Revenue													
Measure R - Transit Capital (35%)	$ 1,495.5	987.4	218.6	80.0	114.9	84.9	16.3	(6.6)	-	-	-	-	-
Local Agency Transit Project Contributions	$ 75.3	1.3	-	-	5.0	25.0	22.0	22.0	-	-	-	-	-
Repayment of Capital Project Loans (Fund 3562)	$ (0.0)	45.0	-	-	(24.7)	-	(13.1)	(7.1)	-	-	-	-	-
Transportation Development Act (TDA) - Admin	$ 4.1	4.1	-	-	-	-	-	-	-	-	-	-	-
Local Revenue Subtotal	$ 1,574.9	$ 1,037.8	$ 218.6	$ 80.0	$ 95.2	$ 109.9	$ 25.1	$ 8.3	$ -	$ -	$ -	$ -	$ -
State Revenue													
Regional Improvement Program Funds (RIP)	$ 2.6	$ 2.6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
State Revenue Subtotal	$ 2.6	$ 2.6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TOTAL SOURCES	**$ 3,363.9**	**$ 1,618.1**	**$ 318.6**	**$ 503.1**	**$ 395.8**	**$ 209.9**	**$ 125.1**	**$ 108.3**	**$ 85.0**	**$ -**	**$ -**	**$ -**	**$ -**

Total Project Cost:	$2,778.9 million Life of Project budget, excluding debt service.
Description:	Section 1 will add three stations and 3.92 miles of new rail to Metro's Rail system. They will be located at Wilshire/La Brea, Wilshire/Fairfax, and Wilshire/La Cienega. The project will extend the current Purple Line from Koreatown through Miracle Mile and is expected to begin operations in 2023.
Funding Status:	Measure R funding of $1,495.5 million (of $4,200 million allocated to Sections 1, 2, 3, and Division 20) and Section 5309 New Starts funding of $1,250.0 million (grant agreement in May 2014).
Subregion:	Central City, Westside
Metro Project Number:	#865518, #465518

Westside Purple Line Extension Section 2

15-YEAR CASH FLOW ($ in millions)	Years Prior-'34	Prior Years	2019 2020	2020 2021	2021 2022	2022 2023	2023 2024	2024 2025	2025 2026	2026 2027	2027 2028	2028 2029	Years '30-'34
USES OF FUNDS													
Project Costs	$ 2,436.6	807.1	312.1	353.4	369.7	290.3	133.2	106.3	64.4	-	-	-	-
Concurrent non-FFGA Activities	$ 4.4	4.1	0.2	-	-	-	-	-	-	-	-	-	-
TOTAL USES	**$ 2,441.0**	**$ 811.3**	**$ 312.3**	**$ 353.4**	**$ 369.7**	**$ 290.3**	**$ 133.2**	**$ 106.3**	**$ 64.4**	**$ -**	**$ -**	**$ -**	**$ -**
SOURCES OF FUNDS													
Federal Revenue													
Section 5309 New Starts	$ 1,187.0	287.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	-	-
Congestion Mitigation & Air Quality Program (CMAQ)	$ 169.0	44.0	70.0	48.2	6.8	-	-	-	-	-	-	-	-
Federal Revenue Subtotal	$ 1,356.0	$ 331.3	$ 170.0	$ 148.2	$ 106.8	$ 100.0	$ 100.0	$ 100.0	$ 100.0	$ 100.0	$ 99.7	$ -	$ -
Local Revenue													
Measure R - Transit Capital (35%)	$ 1,030.2	425.2	142.3	205.2	262.9	190.3	33.2	6.3	(35.6)	(100.0)	(99.7)	-	-
Repayment of Capital Project Loans (Fund 3562)	$ 54.8	54.8	-	-	-	-	-	-	-	-	-	-	-
Grade Crossing Improvements	$ 1,085.0	$ 480.0	$ 142.3	$ 205.2	$ 262.9	$ 190.3	$ 33.2	$ 6.3	$ (35.6)	$ (100.0)	$ (99.7)	$ -	$ -
TOTAL SOURCES	**$ 2,441.0**	**$ 811.3**	**$ 312.3**	**$ 353.4**	**$ 369.7**	**$ 290.3**	**$ 133.2**	**$ 106.3**	**$ 64.4**	**$ -**	**$ -**	**$ -**	**$ -**

Total Project Cost:	$2,441.0 million Life of Project budget.
Description:	Section 2 adds 2.59 miles of tracks to Metro's Rail system and two new stations at Wilshire/Rodeo and Century City/Constellation. Project received full funding grant agreement from the U.S. Department of Transportation in January 2017 and is currently under construction. Expected to begin operations by 2025 and will continue the Purple Line from Miracle Mile through Beverly Hills and into Century City.
Funding Status:	Section 5309 New Starts funding of $1,187.0 million. Measure R Transit Capital 35% funding of $1,030.2 million.
Subregion:	Westside
Metro Project Number:	#465522, #865522

East SF Valley Transit Corridor Project

15-YEAR CASH FLOW ($ in millions)	Years Prior-'34	Prior Years	2019 2020	2020 2021	2021 2022	2022 2023	2023 2024	2024 2025	2025 2026	2026 2027	2027 2028	2028 2029	Years '30-'34
USES OF FUNDS													
Construction costs	$ 1,428.2	-	-	50.8	78.5	134.8	208.3	286.1	442.0	227.6	-	-	-
Preconstruction costs	$ 139.5	14.7	27.2	97.6	-	-	-	-	-	-	-	-	-
TOTAL USES	**$ 1,567.7**	**$ 14.7**	**$ 27.2**	**$ 148.4**	**$ 78.5**	**$ 134.8**	**$ 208.3**	**$ 286.1**	**$ 442.0**	**$ 227.6**	**$ -**	**$ -**	**$ -**
SOURCES OF FUNDS													
Federal Revenue													
Section 5339 Alternatives Analysis	$ 1.0	1.0	-	-	-	-	-	-	-	-	-	-	-
Congestion Mitigation & Air Quality Program (CMAQ)	$ -	-	-	-	-	-	-	-	-	-	-	-	-
Federal Revenue Subtotal	$ 1.0	$ 1.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Local Revenue Subtotal	$ 1,158.8	$ 13.0	$ 27.2	$ 113.8	$ 45.9	$ 30.0	$ 157.1	$ 234.8	$ 360.7	$ 176.4	$ -	$ -	$ -
State Revenue													
Traffic Congestion Relief Program Funds (TCRP)	$ 0.8	$ 0.8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transit and Intercity Rail Capital Program (TIRCP)	$ 205.0	$ -	$ -	$ -	$ -	$ -	$ 51.3	$ 51.3	$ 51.3	$ 51.3	$ -	$ -	$ -
Regional Improvement Program Funds (RIP)	$ 202.1	$ -	$ -	$ 34.6	$ 32.7	$ 104.8	$ -	$ -	$ 30.0	$ -	$ -	$ -	$ -
State Revenue Subtotal	$ 407.9	$ 0.8	$ -	$ 34.6	$ 32.7	$ 104.8	$ 51.3	$ 51.3	$ 81.3	$ 51.3	$ -	$ -	$ -
TOTAL SOURCES	**$ 1,567.7**	**$ 14.7**	**$ 27.2**	**$ 148.4**	**$ 78.5**	**$ 134.8**	**$ 208.3**	**$ 286.1**	**$ 442.0**	**$ 227.6**	**$ -**	**$ -**	**$ -**

Total Project Cost:	$1,331 million estimated cost per Ordinance, plus inflation. Life of Project budget pending.
Description:	Metro, in coordination with the cities of Los Angeles and San Fernando, are evaluating this transit project that would operate in the center of Van Nuys Bl. from the Van Nuys Metro Orange Line Station north to San Fernando Rd. where it would proceed northwest to the Sylmar/San Fernando Metrolink station – a distance of 9.2 miles. Metro Board selected the Locally Preferred Alternative in June 2018.
Funding Status:	A Measure R project, "San Fernando Valley East North-South Rapidways" receives $64.0 million in Measure R 35%. Measure M funding of $810.5 million starting FY21 (expenditures for preconstruction costs may commence sooner). TIRCP award of $205.0 million in April 2018. RIP award of $202.1 million.
Subregion:	San Fernando Valley
Metro Project Number:	#465521

Gold Line Foothill Extension to Claremont (2B)

15-YEAR CASH FLOW ($ in millions)	Years Prior-'34	Prior Years	2019 2020	2020 2021	2021 2022	2022 2023	2023 2024	2024 2025	2025 2026	2026 2027	2027 2028	2028 2029	Years '30-'34
USES OF FUNDS													
Pre-Construction	$ 40.0	40.0	-	-	-	-	-	-	-	-	-	-	-
MCA	$ 54.0	-	9.0	9.0	9.0	9.0	9.0	9.0	-	-	-		
Construction DB2	$ 757.7	22.0	61.7	157.2	155.1	137.8	92.5	91.9	39.5	-	-		
Construction DB3	$ 120.0	-	-	-	20.0	40.0	40.0	20.0	-	-	-		
Construction San Bernardino	$ 41.0	-	-	-	-	8.0	8.0	8.0	8.0	9.0	-		
Right of Way	$ 124.0	25.0	35.0	31.0	20.0	13.0	-	-	-	-	-		
Professional Services	$ 210.0	16.0	17.3	17.6	21.9	23.2	23.5	23.9	23.6	23.0	20.0		
Project Contingency	$ 85.0	-	10.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0	-		
Authority Costs Subtotal	***$ 1,431.7***	***103.0***	***133.0***	***225.8***	***237.0***	***242.0***	***184.0***	***163.8***	***81.1***	***42.0***	***20.0***		
Metro Costs	$ 113.0	-	18.0	18.0	18.0	18.0	12.0	11.0	10.0	8.0	-		
Metro Contingency	$ 29.2	-	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.2	-	-	-
TOTAL USES	**$ 1,573.9**	**$ 103.0**	**$ 155.0**	**$ 247.8**	**$ 259.0**	**$ 264.0**	**$ 200.0**	**$ 178.8**	**$ 95.1**	**$ 51.2**	**$ 20.0**	**$ -**	-
SOURCES OF FUNDS													
Local Revenue													
Measure R - Transit Capital (35%)	$ 96.5	96.5	-	-	-	-	-	-	-	-	-	-	-
Local Agency Transit Project Contributions	$ 42.2	-	-	7.0	7.0	7.0	7.0	7.0	7.2	-	-	-	-
Measure M -Transit Construction (35%)	$ 1,145.0	6.5	155.0	153.8	196.0	193.0	149.2	149.4	79.9	42.2	20.0	-	-
Local Revenue Subtotal	$ 1,283.7	$ 103.0	$ 155.0	$ 160.8	$ 203.0	$ 200.0	$ 156.2	$ 156.4	$ 87.1	$ 42.2	$ 20.0	$ -	$ -
State Revenue													
Transit and Intercity Rail Capital Program (TIRCP)	$ 290.2	-	-	87.0	56.0	64.0	43.9	22.4	8.0	9.0	-	-	-
State Revenue Subtotal	$ 290.2	$ -	$ -	$ 87.0	$ 56.0	$ 64.0	$ 43.9	$ 22.4	$ 8.0	$ 9.0	$ -	$ -	$ -
TOTAL SOURCES	**$ 1,573.9**	**$ 103.0**	**$ 155.0**	**$ 247.8**	**$ 259.0**	**$ 264.0**	**$ 200.0**	**$ 178.8**	**$ 95.1**	**$ 51.2**	**$ 20.0**	**$ -**	**$ -**

Total Project Cost:	$1,532.9 million Life of Project budget to Pomona per funding agreement with Foothill Construction Authority. Excludes costs in San Bernardino County.
Description:	The Metro Gold Line Foothill Extension has extended the Gold Line east from Pasadena. The first phase now travels more than 11 miles from Sierra Madre Villa Station to Azusa. Phase 2B of the Gold Line Foothill Extension Project will continue the line for 12 miles east from Azusa to Pomona.
Funding Status:	Measure M funding of $1,019 million, plus $126 million from "Subregional Equity Program." Awarded TIRCP funding of $290.2 million in April 2018 which includes $41 million only for extension to Montclair.
Subregion:	San Gabriel Valley
Metro Project Number:	#465202, #865202

West Santa Ana Transit Corridor LRT FY28

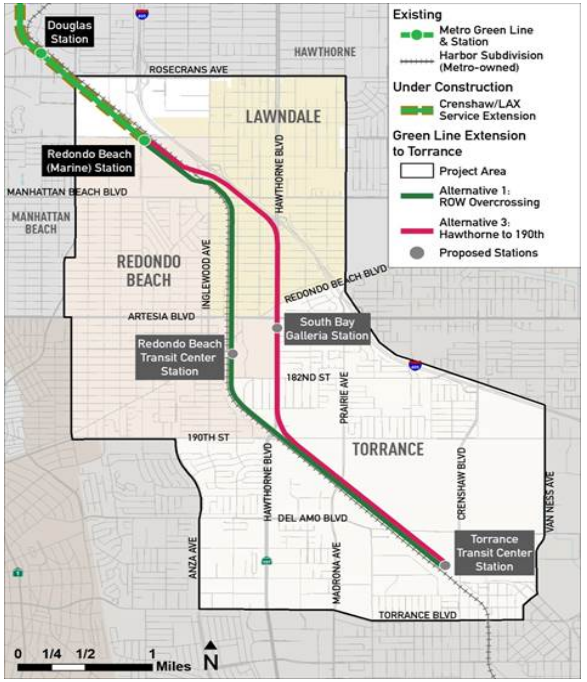
15-YEAR CASH FLOW ($ in millions)	Years Prior-'34	Prior Years	2019 2020	2020 2021	2021 2022	2022 2023	2023 2024	2024 2025	2025 2026	2026 2027	2027 2028	2028 2029	Years '30-'34
USES OF FUNDS													
Construction costs	$ 1,143.9	-	-	-	40.7	62.9	108.0	166.8	229.1	354.0	182.3	-	-
Preconstruction costs	$ 106.3	30.5	53.7	22.2	-	-	-	-	-	-	-	-	-
TOTAL USES	**$ 1,250.2**	**$ 30.5**	**$ 53.7**	**$ 22.2**	**$ 40.7**	**$ 62.9**	**$ 108.0**	**$ 166.8**	**$ 229.1**	**$ 354.0**	**$ 182.3**	**$ -**	**$ -**
SOURCES OF FUNDS													
Federal Revenue													
Other Federal Funds	$ 3.8	2.4	1.4	-	-	-	-	-	-	-	-	-	-
Federal Revenue Subtotal	$ 3.8	$ 2.4	$ 1.4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Local Revenue Subtotal	$ 922.5	$ 21.7	$ 48.8	$ 8.1	$ 40.7	$ 62.9	$ 58.0	$ 76.8	$ 149.1	$ 274.0	$ 182.3	$ -	$ -
State Revenue													
Transit and Intercity Rail Capital Program (TIRCP)	$ 300.0	-	-	-	-	-	50.0	90.0	80.0	80.0	-	-	-
SB1 - Local Partnership Program	$ 23.9	6.4	3.4	14.1	-	-	-	-	-	-	-	-	-
State Revenue Subtotal	$ 323.9	$ 6.4	$ 3.4	$ 14.1	$ -	$ -	$ 50.0	$ 90.0	$ 80.0	$ 80.0	$ -	$ -	$ -
TOTAL SOURCES	**$ 1,250.2**	**$ 30.5**	**$ 53.7**	**$ 22.2**	**$ 40.7**	**$ 62.9**	**$ 108.0**	**$ 166.8**	**$ 229.1**	**$ 354.0**	**$ 182.3**	**$ -**	**$ -**

Total Project Cost (First Segment):	$1,035 million estimated cost per Ordinance, plus inflation. Life of Project budget pending.
Description:	New light rail transit line that will connect downtown Los Angeles to southeast LA County, serving Florence-Graham community of LA County, Vernon, Huntington Park, Bell, Cudahy, South Gate, Downey, Paramount, Bellflower and Artesia. Transit Corridor Project is a 20-mile corridor. There are two segments in Measure M. The FY28 project is the first segment.
Funding Status:	42% of total project cost is funded by Measure M, up to $535 million. Measure R funding of $240 million, plus $108.4 million that may be available from the I-5 South HOV Lanes from I-605 to Orange County Line. Awarded TIRCP funding of $300 million in April 2018. Allocated $23.9 million of SB 1 Local Partnership funds.
Subregion:	Gateway Cities
Metro Project Number:	#460201

Green Line Extension to Crenshaw Blvd in Torrance - SB

15-YEAR CASH FLOW ($ in millions)	Years Prior-'34	Prior Years	2019 2020	2020 2021	2021 2022	2022 2023	2023 2024	2024 2025	2025 2026	2026 2027	2027 2028	2028 2029	Years '30-'34
USES OF FUNDS													
Construction costs	$ 1,060.8	-	-	-	-	-	-	-	49.3	152.4	261.6	431.1	166.5
Preconstruction costs	$ 105.9	8.1	3.2	2.5	4.3	7.9	10.8	12.1	17.2	27.6	12.2	-	-
TOTAL USES	**$ 1,166.8**	**$ 8.1**	**$ 3.2**	**$ 2.5**	**$ 4.3**	**$ 7.9**	**$ 10.8**	**$ 12.1**	**$ 66.6**	**$ 180.0**	**$ 273.8**	**$ 431.1**	**$ 166.5**
SOURCES OF FUNDS													
Local Revenue Subtotal	$ 935.5	$ 8.1	$ 3.2	$ 2.5	$ 4.3	$ 7.9	$ 10.8	$ 7.1	$ 0.9	$ 59.3	$ 233.8	$ 431.1	$ 166.5
State Revenue													
Transit and Intercity Rail Capital Program (TIRCP)	$ 231.3	-	-	-	-	-	-	5.0	65.6	$ 120.7	40.0	-	-
State Revenue Subtotal	$ 231.3	$ -	$ -	$ -	$ -	$ -	$ -	$ 5.0	$ 65.6	$ 120.7	$ 40.0	$ -	$ -
TOTAL SOURCES	**$ 1,166.8**	**$ 8.1**	**$ 3.2**	**$ 2.5**	**$ 4.3**	**$ 7.9**	**$ 10.8**	**$ 12.1**	**$ 66.6**	**$ 180.0**	**$ 273.8**	**$ 431.1**	**$ 166.5**

Total Project Cost:	$891 million estimated cost per Ordinance, plus inflation. Life of Project budget pending.
Description:	This extension will provide congestion relief along the busy I-405 corridor. It will also improve mobility in southwestern LA County by accessing the regional rail network through connections to the Metro Blue and Expo Lines.
Funding Status:	Measure M funding of $619 million including inflation adjustments (if less than 2/3rds spent prior to FY27). Measure R funding of $272 million beginning FY28 for prior project "Green Line Extension: Redondo Beach Station to South Bay Corr." Southwest Yard 6.7% share of $285.2 million = $19 million to reimburse heavy rail system improvements deferred in 2011. TIRCP of $231.3 million awarded in April 2018.
Subregion:	South Bay
Metro Project Number:	#460304



Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2019-0519, **File Type:** Program **Agenda Number:** 9.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 20, 2019

SUBJECT: LONE HILL TO WHITE DOUBLE TRACK

ACTION: APPROVE PROGRAMMING OF FUNDS FOR FINAL DESIGN

RECOMMENDATION

CONSIDER:

A. APPROVING the programming of $7.5 million in Measure R 3% commuter rail funds for final design including third party costs of the Lone Hill to White (LHW) Double Track Project; and

B. AUTHORIZING the Chief Executive Officer to negotiate and execute all agreements for the LHW final design.

ISSUE

In June 2019, the Metro Board approved staff to file the Notice of Exemption (NOE) with the Los Angeles County Clerk for the Lone Hill to White (LHW) Double Track Project. The CEQA environmental process is complete and was certified on July 29, 2019. The Southern California Regional Rail Authority (also known as Metrolink) and the cities of San Dimas and La Verne have requested that the LHW Double Track Project proceed to final design. Staff is requesting programming authority of $7.5 million for final design including third party costs for the LHW Double Track Project.

DISCUSSION

The LHW Double Track Project is located along the Metrolink San Bernardino Line (MSBL), in the cities of San Dimas and La Verne (Attachment A). The MSBL is the busiest Metrolink commuter rail line with approximately a total of 11,000 passengers on 38 weekday trains. The existing rail infrastructure on the MSBL is 67 percent single track, which creates a bottleneck and significant operational challenges. In order to improve reliability and on-time performance, more of the MSBL needs to be double tracked.

Completion of the LHW Double Track Project will provide an additional 3.9 miles of continuous double track to further reduce the single track bottleneck on the MSBL, minimize delays due to trains waiting on a siding for another train to pass, and provide operational flexibility to recover from delays.

Preliminary Engineering Phase
In June 2017, environmental studies and 30% preliminary engineering design was completed for the LHW Double Track Project. The main components of the project include the following:

1. New 3.9 miles of second mainline track between Lone Hill Avenue and Control Point (CP) White.
2. Extension of the existing platform at the Pomona Fairgrounds Station to provide more platform capacity for seasonal and special event service.
3. Ten new railroad turnouts and relocation of one industrial track and modification to one industrial track.
4. New control point at Lone Hill Avenue with a new train control signal and communication infrastructure to support the LHW Double Track Project configuration.
5. Twelve at-grade crossings to be modified with Quiet Zone ready improvements.

Quiet Zone Opportunity
As part of the LHW Double Track Project, twelve existing at-grade street crossings, five in the City of San Dimas and seven in the City of La Verne, will be designed for Quiet Zone ready improvements. Quiet Zone ready improvements are additional supplemental safety measures (SSM) that mitigate the need for trains to sound their horns. These SSMs include improvements such as flashing lights, quad gates, center medians, etc., to enhance vehicular and pedestrian safety at the crossing.

Once the SSMs are constructed, trains passing through these 12 at-grade street crossings would no longer be required to blow their horns. A Quiet Zone in the LHW corridor would significantly improve quality of life for residents of San Dimas and La Verne since there is more service on the MSBL, including late night service, than any other line.

During the preliminary engineering design phase, diagnostic meetings were held with California Public Utilities Commission (CPUC) staff and SSMs were identified that will meet the Federal Railroad Administration's (FRA) approval of future Quiet Zones at these at-grade crossings, should the cities of San Dimas and La Verne wish to file the Notice of Intent (NOI) for Quiet Zones. The cites of San Dimas and La Verne have jurisdictional authority over these twelve at-grade crossings.

Community Meetings
During the 30% preliminary engineering phase, community meetings were held with the cities of San Dimas and La Verne in November 2016 and May 2017. Approximately 200 people attended the four combined meetings. The LHW Double Track Project was generally well received, with 64 neutral or positive comments towards the project and 13 expressing concerns having to do with noise and vibration or their desire to implement Quiet Zones. In July 2019, staff presented to the city councils of both the City of San Dimas and the City of La Verne. Both cities provided letters of support for the LHW Double Track Project advancing to final design (See Attachment B and C).

Metrolink SCORE
In 2018 SCRRA received $876 million in funding from the State for the first phase of its Southern California Optimized Rail Expansion (SCORE) program. When fully built out, the $10 billion SCORE program will provide 15 to 30 minute bi-directional service and a major expansion of service by 2028.

In SCRRA's application to the State for SCORE funding, the LHW Double Track Project was identified as a key early completion project, to provide reliability and capacity, leading to 30 minute bi-directional service along the MSBL.

Staff anticipates heavy utilization of the MSBL for the 2028 Olympics. Mountain biking events will be hosted in San Dimas near the MSBL station in Pomona. Additionally, the MSBL will be an important feeder line to enable people in the San Gabriel Valley to easily get to downtown Los Angeles to access the many Olympic venues in the greater Los Angeles area. Staff's recommended approval of the final design for LHW Double Track Project will make the project shovel ready to increase the opportunity for other local, State and Federal grants.

DETERMINATION OF SAFETY IMPACT

Once constructed, the LHW Double Track Project will reduce the risk of train-on-train collisions. SSMs at the 12 crossings with Quiet Zone ready improvements will benefit cars, trucks, pedestrians and the surrounding communities of San Dimas and La Verne.

FINANCIAL IMPACT

The anticipated cash flow of Measure R 3% commuter rail funds for final design and third party costs is as follows:

MEASURE R 3% FUNDS FOR LONE HILL TO WHITE FINAL DESIGN & 3RD PARTY COSTS			
FY 20	FY 21	FY 22	FY 23
$500,000	$2,500,000	$3,000,000	$1,500,000

There is no impact to the FY 2019-20 Metro Budget as $500,000 is budgeted for the LHW Double Track Final Design in department 2415, Regional Rail, project number 460068. Since this is a multi-year project, the Senior Executive Officer, Regional Rail, will be responsible for budgeting project costs in future fiscal years.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Staff's recommendations A and B support strategic plan goals 1, 3 and 4. These actions support Metro's partnership with other rail operators to improve service reliability and mobility, provide better transit connections throughout the network and serves to implement the following specific strategic plan goals:

- Goal 1.2: Improve LA County's overall transit network and assets;
- Goal 3.3: Genuine public and community engagement to achieve better mobility outcomes for the people of LA County; and
- Goal 4.1: Metro will work with partners to build trust and make decisions that support the goals of the Strategic Plan.

ALTERNATIVES CONSIDERED

The alternative would be for the Board to not advance the LHW Double Track Project to final design. This is not recommended since environmental review and preliminary engineering have been completed and the LHW Double Track Project has received broad support from the Cities of San Dimas and La Verne.

NEXT STEPS

With Board approval of the staff recommendations, staff will issue a task order using the Regional Rail on-call services for the LHW final design. During the final design process, staff will work with the local cities, the San Gabriel Valley Council of Governments (SGVCOG), elected officials, and SCRRA to seek Federal and State grant funds for construction.

ATTACHMENTS

Attachment A - Map of LHW Double Track Project Corridor
Attachment B - Letter of Support from City of San Dimas
Attachment C - Letter of Support from City of La Verne

Prepared by: Jay Fuhrman, Manager, Transportation Planning, Regional Rail, (213) 418-3179
Jeanet Owens, Senior Executive Officer, Regional Rail (213) 418-3189

Reviewed by: Richard Clarke, Chief Program Management Officer, (213) 922-7557

Phillip A. Washington
Chief Executive Officer

ATTACHMENT A

LONE HILL TO WHITE DOUBLE TRACK PROJECT LOCATION

Attachment B

CITY OF San Dimas CALIFORNIA

June 11, 2019

Phillip A Washington
Chief Executive Officer LA Metro
1 Gateway Plaza
Los Angeles, CA 90012

Dear Mr. Washington:

The City of San Dimas appreciates the Metro initiated Lone Hill to White Double Track Project. We would like to reiterate our support in advancing this project to final design because we see the potential positives to lessen train noise and improve crossing safety. If the project advances to final design, we look forward to continued participation in the review of this project to explore further noise analysis measures and mitigations as part of the final design for this project.

During final design we look forward to further discussions regarding the following concerns our Community has specifically:

- The final design phase of the project will involve further detailed noise analysis. We look forward to reviewing that analysis. We encourage the installation of sound mitigations beyond the minimum FRA requirements when those additional mitigations can provide a significant difference to an adjacent resident or neighborhood along the alignment in terms of quality of life and well-being.

- We also request further risk management review of the transfer of liability associated with the sponsorship of a Quiet Zone Crossing. The operator currently bears the liability associated with the existing crossings - the new Quiet Zone crossings will be much safer and present a lower liability risk. We desire to explore these issues further because we believe there is an opportunity for an effective approach to the transfer of liability issue.

We continue to support advancing the Lone Hill to White Double Track Project into final design. The quiet zone and additional noise mitigation improvements represent a means to address some issues of significant community concern. We look forward to continued participation in the final design process.

Sincerely,

Curtis W Morris

Curt Morris
Mayor
City of San Dimas

245 EAST BONITA AVENUE • SAN DIMAS • CALIFORNIA 91773-3002 • [909] 394-6200 • FAX [909] 394-6209

Attachment C

CITY OF LA VERNE
CITY HALL

3660 "D" Street, La Verne, California 91750-3599
www.ci.la-verne.ca.us

June 13, 2019

Metro
Attn: Phillip A. Washington
One Gateway Plaza
Los Angeles, CA 90012

RE: Confirmation of Support for Double Track and Quiet Zone Project to Fulton Road

Dear Mr. Washington,

I have been made aware that the Metro Board will be considering moving the Double Track and Quiet Zone Project through San Dimas and La Verne on the Metrolink San Bernardino line forward to receive funding for the final design. I would like to reiterate the City of La Verne's support for that effort.

In September of 2017 the City provided a letter supporting the Lone Hill Avenue to Fulton Road Double Track Project. I have attached a copy of the letter signed by Mayor Don Kendrick as the City's support still remains unchanged as previously stated.

We want to thank you and the LA Metro Board in advance for consideration of prioritizing the funding for this project and look forward to our continued work with the metro staff through any aspects of the final design.

Sincerely,

Bob Russi
City Manager

Attachment: Support Letter from La Verne 9/2017

Lone Hill to White Double Track

A. APPROVE the programming of $7.5 million in Measure R 3% commuter rail funds for final design including third party costs of the Lone Hill to White (LHW) Double Track Project; and,

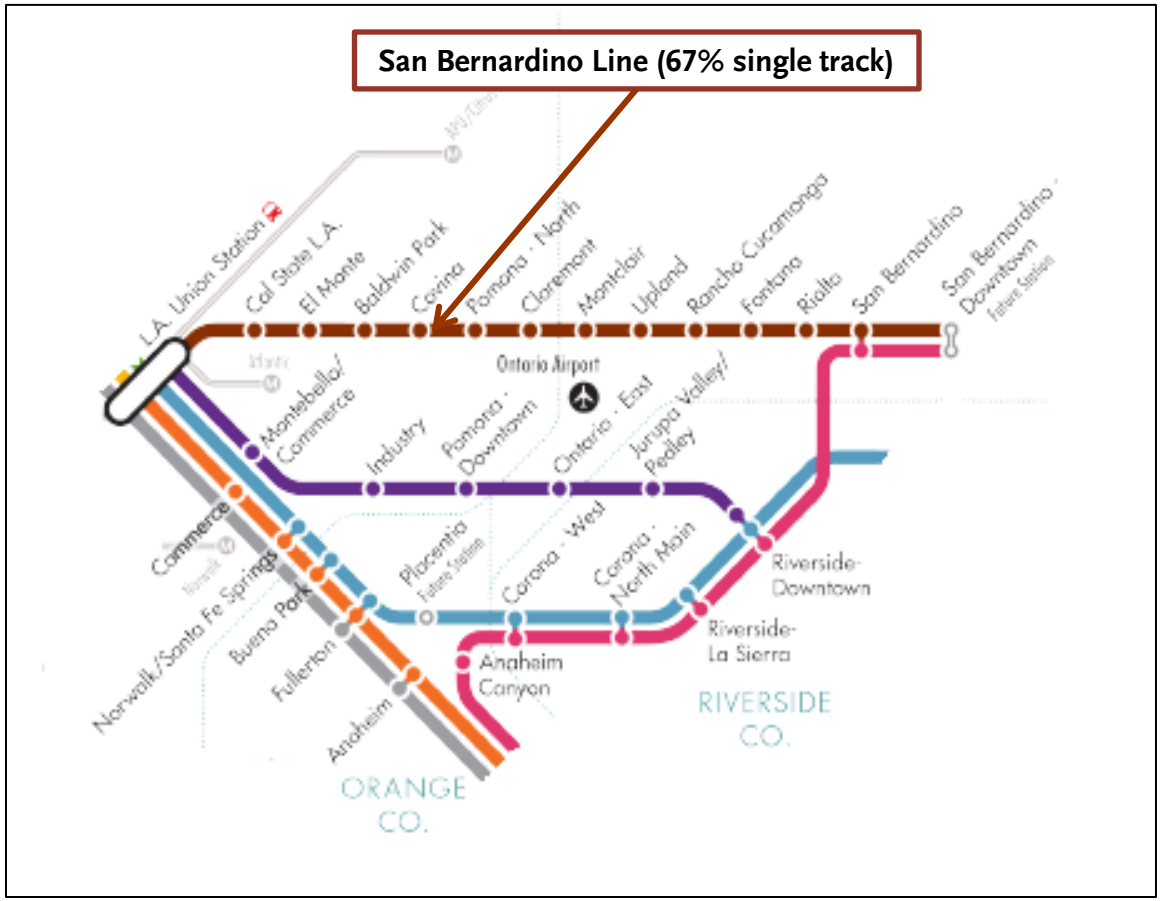
B. AUTHORIZE the Chief Executive Officer to negotiate and execute all agreements for the LHW final design.

Planning and Programming Committee

November 20, 2019

Project Background

1) The San Bernardino Line is Metrolink's busiest line, with 38 weekday trains and 10,000 weekday boardings.
2) The LHW Double Track Project will increase double track on the San Bernardino Line from 33% to 40%.



Metro

LHW Double Track Project Features and Benefits

1) 3.9 miles of double track in the Cities of San Dimas and La Verne will enable trains to better recover from delay, reduce overall travel time, and improve on-time performance.
2) A total of 12 grade crossings (5 in San Dimas and 7 in La Verne) will be improved to the latest Metrolink Quiet Zone ready standards, to improve safety at the crossings and along the right-of-way, and provide quality of life benefits to the local communities.
3) The Pomona Fairground Station platform will be lengthened to improve safety.

Project Status and Next Steps

1) In June 2019 the Metro Board determined that the LHW Double Track Project is Statutorily Exempt, pursuant to CEQA Guidelines Section 15275 (a) and (b), and directed staff to file a CEQA Notice of Exemption with the Los Angeles County Clerk.

2) The LHW Double Track Project environmental process is cleared.

3) SCRRA and the cities of San Dimas and La Verne have requested that the Project advance to final design.

4) Subject to Board approval, staff will issue a task order for LHW final design.

Metro

Quiet Zone Opportunity

LHW will design 12 at-grade crossings to the latest Metrolink Quiet Zone Ready standards. Five crossings are located in the City of San Dimas and seven are located the City of La Verne. A Quiet Zone is one or more crossings in which trains would not be required to sound their horns.

Source: The Burlingame Voice

1) **Since the train horns would no longer be sounded, Supplemental Safety Measures (SSMs), such as raised center medians, quad gates, pedestrian gates, signalization, etc., are required to make the crossings safer.**

2) **The cities of San Dimas and La Verne are the jurisdictional authorities for these grade crossings and the lead agencies to implement Quiet Zones.**

Metro

File #: 2019-0618, **File Type:** Contract **Agenda Number:** 10.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 20, 2019

SUBJECT: THIRD PARTY REQUEST FOR DEVIATIONS FROM SYSTEMWIDE STATION DESIGN STANDARDS POLICY

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

APPROVE Third Party Request for Design Deviation from Systemwide Station Design Standards.

ISSUE

The Board-adopted Systemwide Station Design Standards (SWSD) Policy (Attachment A) requires all new Metro rail and BRT stations be in compliance with Metro's SWSD Standards, unless otherwise approved by the Board. The University of California, Los Angeles (UCLA) has requested deviations from the SWSD Standards for the northwest entrance structure and plaza finishes at the future Westwood/UCLA Purple Line Station.

BACKGROUND

In January 2018, the Board adopted the SWSD Policy, which requires all new Metro station designs to be consistent with the SWSD Standards. The SWSD Policy calls for a consistent and integrated design approach, while allowing variability in the public art and sustainable landscaping elements. The SWSD Standards include a modular "kit of parts" that is streamlined and adaptable, allowing stations to be more cost-effective to design, construct, operate and maintain. The SWSD standardized materials and elements generally consist of high-performance architectural elements including stainless-steel finishes, low-iron fritted structural glass panels, architectural-grade concrete in three tones of gray, and a limited number of factory-finished painted surfaces. The result is a consistent architectural identity that is easy for transit riders to recognize and navigate, and more readily maintainable as part of a world-class transit system.

The SWSD Policy does contemplate that local jurisdictions and other third parties may request, subject to Board approval, design modifications or enhancements to Metro's station design standards for individual stations, contingent on the requestor providing full funding related to additional design and construction costs, as well as additional operation and maintenance costs resulting from accommodating the modifications or enhancements. Such design modifications and enhancements are also subject to the provisions of Metro's Supplemental Modifications to Transit Projects Policy

(Attachment B).

As part of Westside Purple Line Extension Section 3 Project ("Project"), Metro is currently in negotiations with UCLA to acquire real property interests to construct and operate the northwest entrance to the Westwood/UCLA Station ("Station Entrance") at the intersection of Wilshire Blvd and Gayley Ave. The property interests include a permanent easement for the station entrance and plaza and temporary construction easements on an adjacent university-owned parking lot. Following construction of the Project, UCLA intends to construct a development on the parking lot that may integrate with the Station Entrance. In the interim, UCLA has requested deviations from the SWSD Standards for above-ground structure materials and surface finishes at the Station Entrance in order to more closely match the common architectural palette found elsewhere on the UCLA campus and its future adjacent development.

DISCUSSION

Findings

The requested UCLA deviations include:

- Replacing the SWSD standard stainless steel finish on the station entrance portal canopy structure with a similar high performance metal cladding to match the UCLA standard beige concrete color;
- Replacing the SWSD standard three-toned gray concrete randomized rectangular patterned plaza finish with integral color concrete of beige and light red in a similar randomized rectangular pattern, but interspersed with bands of red brick pavers.

Considerations

In compliance with SWSD Standards Policy, UCLA has agreed to pay for these incremental costs to ensure there would be no financial impact to Metro or adverse impacts to the Project. Discussions over each party's maintenance responsibilities are still underway, however, consistent with the SWSD policy, Metro will not incur any additional cost as a result of the requested deviations. If the Board approves the deviation request, staff will memorialize design deviation-related terms and obligations-including full Metro-cost recovery-into the real estate acquisition agreements, and execute necessary contract changes orders to effectuate the work.

This deviation request, including UCLA's agreement to pay for the related costs, is also consistent with the provisions of the Board-adopted Supplemental Modifications to Transit Projects Policy, which is referenced in the SWSD Standards Policy.

Since incorporation of the SWSD into Metro architectural standards, Metro has consistently maintained the SWSD Standards in working with community stakeholders of all types. Staff took into consideration several factors in bringing this request for deviation from the SWSD Standards to the Board, including that UCLA is the fee property owner of the northwest station entrance, and that the proposed deviations are temporary in nature as the station entrance will ultimately be integrated into a future UCLA facility.

As with community stakeholders on all transit corridor projects, Metro is also working with UCLA on SWSD elements of variability, including selection of landscaping materials for the northwest entrance, and engaging UCLA and other community stakeholders in the artist selection process.

DETERMINATION OF SAFETY IMPACT

The deviation request would not present any major safety concerns, as the requested materials and finishes are found in older stations in the Metro system and generally do not present safety hazards to Metro riders or staff.

FINANCIAL IMPACT

There is no financial impact to Metro if the recommendation is approved.

Impact to Budget

There would be no impact to the budget if the recommendation is approved.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This request is related to Goal #2: “Deliver outstanding trip experiences for all users of the transportation system.”

ALTERNATIVES CONSIDERED

The Board may choose not to approve the recommended deviation. UCLA has been advised that any decision to allow deviations from the SWSD Standards is a Board decision, which staff is obligated to enforce.

NEXT STEPS

Should the Board approve the requested deviation, the Project team would negotiate final terms and enter into an agreement with UCLA to cover design and construction costs and determine maintenance obligations. The Project team would also work with the Project contractor to incorporate the related material and finish changes into the design drawings.

ATTACHMENTS

Attachment A - Systemwide Station Design Standards Policy
Attachment B - Supplemental Modifications to Transit Projects Policy

Prepared by: Adam Light, Senior Director, Countywide Planning & Development, (213) 922-6926
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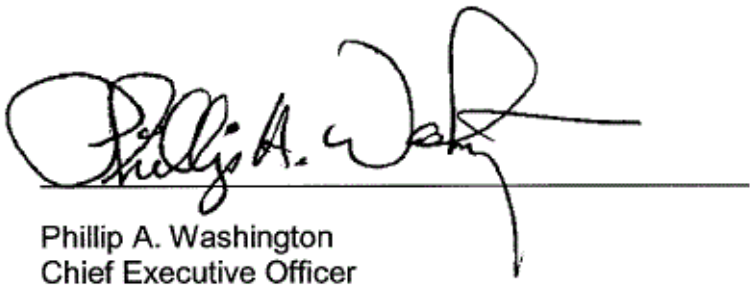
Kimberly Ong, EO, Projects Engineering, (213) 312-3143
Holly Rockwell, Sr. Exec. Officer - Real Estate, Transit Oriented Communities and Transportation

Reviewed by: James de la Loza, Chief Planning Officer, (213) 922-2920
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #:2017-0605, **File Type:**Policy Agenda Number:20.

PLANNING AND PROGRAMMING COMMITTEE
JANUARY 17, 2018

SUBJECT: SYSTEMWIDE STATION DESIGN STANDARDS

ACTION: ADOPT SYSTEMWIDE STATION DESIGN STANDARDS POLICY

RECOMMENDATION

ADOPT the Metro Systemwide Station Design Standards Policy.

ISSUE

As Metro expands its transit system, a state-of-the-art systemwide design approach is needed to ensure that existing and future station facilities are safe, smart, clean and green. Adoption of the Systemwide Station Design Policy (Attachment A) will ensure all future Metro Rail and Bus Rapid Transit (BRT) stations follow a consistent, streamlined systemwide design, with integrated public art and sustainable landscaping as variable elements. This policy would take precedence over prior Metro policies regarding architectural design for Metro Rail and BRT station public areas.

DISCUSSION

Background

As the Metro system has expanded over the years, unique station architecture and design features have led to increased long term maintenance challenges with higher costs for the agency. As a result of these unique designs, ordering or stocking of special replacement materials or fabrication of custom features is costly and time intensive. This has also resulted in alterations that are not compatible with original design aesthetics of a particular station or line, and over time has led to the deterioration or loss of these unique designs and features, making some station public areas unsightly. In some cases, station public areas can become unsafe and universal access and efficient transit operations can be adversely affected.

In 2012, following a thorough review and evaluation of other leading state-of-the-art transit systems and international best practices for transit station design, and with an interdepartmental team, Metro developed the Systemwide Station Design using a modular system, or “kit-of-parts”. This kit-of-parts helps to ensure that stations are streamlined and adaptable for varying site conditions, allowing stations to be more cost-effective to design, construct, and maintain.

The Systemwide Station Design Kit-of-Parts

Consisting of high quality, high performance architectural materials and elements, the kit-of-parts can be configured to respond to varying station site conditions, as well as the functional and capacity needs of individual stations. These standardized materials and elements generally consist of low-iron fritted glass panels, stainless steel railings and cladding, architectural grade concrete, and a limited number of factory finished surfaces.

Importantly, while the Systemwide Station Design allows Metro to create a consistent, recognizable architecture, it also provides dedicated areas for elements of variability at each station. Metro's award winning station art program, as well as sustainable landscaping tailored to the county's various microclimates, are elements of variability developed in consultation with and responsive to the surrounding community.

Benefits of the Systemwide Station Design

Metro stations designed in compliance with the Systemwide Station Design Standards will be safer, smarter, cleaner and greener: safer for all riders and operators; intelligently laid out so that stations are easier to access and navigate; simpler and more cost-effective to clean and maintain; and more sustainable in terms of architectural materials, energy usage, and landscaping.

The benefits and advantages of the Systemwide Station Design include:

- Station entrances and public areas that are uncluttered, resulting in safer, more comfortable, and more open spaces;
- Station layouts coordinated with Metro Rail Operations and System Security to ensure visibility through and across stations for transit operators and security personnel;
- Intuitive station layouts to ensure station environments are easier for transit riders to recognize and navigate;
- Locations of station amenities and operational equipment that better accommodate the full range of passengers with various functional limitations as well as those who are highly functional;
- Streamlined integration of lighting, seating, operational equipment, wayfinding, customer information;
- Integration and prominent display of public art;
- A concise palette of durable, high quality materials integrated into station area designs that will be simpler to maintain and are more likely to remain attractive over time;
- Glass canopies and enclosures designed with green sustainable practices in mind to increase natural light access for station interiors and exterior station platforms;
- A modular "kit-of-parts", which will more easily adapt to various site constraints, facilitating the incorporation of new or changing elements and features required by federal, state or local statutes, transit design best practices, and Metro standards; and
- Improved maintainability

Consistency vs. Flexibility

Lessons learned over nearly 30 years of rail design and construction underscore the need for a more consistent and ultimately sustainable approach to station design, construction and maintenance.

That said, consistency does not translate into rigidity. The highly adaptable kit-of-parts, including station entrance plaza design, entrance structure orientation, as well as equipment and amenity configurations, allow for easier integration of adjacent development and first/last mile connections with the station site. As mentioned previously, the modules that make up the Systemwide Station Design kit-of-parts are flexible to accommodate visual connections to the identity and character of the surrounding communities, who are increasingly engaged in the design process. The kit-of-parts creates a framework with which Metro can engage stakeholders to ensure both the quality and safety of station design while being responsive to specific urban design goals and community character, in particular with the variable components of public art and landscaping.

Upon adoption of the policy, all future Metro station design contracts will require that station designs be consistent with the most current Systemwide Station Design Standards. Any accessory station building types not currently included in the Systemwide Station Design Standards are encouraged to use the Metro kit-of-parts materials wherever practicable, and follow similar architectural language as outlined in the current design standards. While not currently required, doing so will help ensure consistency in Metro station branding, improve durability of these facilities, and reduce design, construction and maintenance costs.

The policy also provides that local jurisdictions and other third parties may request, subject to Board approval, design modifications or enhancements to Metro's station design standards for individual stations, contingent on the requestor providing full funding. The policy stipulates that such design modifications and enhancements shall be subject to the provisions of Metro's Supplemental Modifications to Transit Projects Policy, and that third party funding shall cover all related additional design and construction costs, as well as additional operation and maintenance costs for these modifications or enhancements, as required by the Board.

Current Status of Implementation

The Systemwide Station Design Standards were vetted through internal coordination with Metro departments, and implementation of the Systemwide Station Design is well underway. Currently, Metro has 18 stations in either the design or construction phase that are largely compliant with the Systemwide Station Design Standards. The implementation process outlined in the Systemwide Station Design Policy will allow for continual improvement of these standards, through updates to the Metro Rail Design Criteria (MRDC), as appropriate.

Integration with Metro's Transit-Oriented Communities (TOC) Program

The adoption of the Systemwide Station Design Policy is part of a host of new and existing policies, programs and processes that together will make up Metro's TOC Program. Over the next six months, staff will work through the Measure M Policy Advisory Council (PAC) to develop a TOC Policy and more clearly define Metro's overall TOC Program. Among other objectives, the TOC Policy will provide direction on eligibility of Metro spending on both TOC activities as well as Local Return funds. The TOC Program will be part of the Long Range Transportation Plan (LRTP) process and will provide clarity on the policies, programs and processes that drive Metro's TOC work. Both of these documents will be brought to the Board for consideration and then adoption, in late winter 2017 and summer 2018. The Board can expect to see other portions of the TOC Program rollout prior to spring 2018, including actions to implement various components of the First/Last Mile Program. Going forward, all Board reports and recommendations that relate to the TOC Program will include

reference to such.

DETERMINATION OF SAFETY IMPACT

An adopted Systemwide Station Design Standards Policy will help ensure that future Metro stations are safer for transit riders and employees. Stations following these standards will have uncluttered public areas with clear site lines making them safer, more accessible, spacious, and comfortable.

FINANCIAL IMPACT

Adoption of the Systemwide Station Design Policy itself has no direct financial impact, as the Systemwide Station Design Standards are already part of the MRDC, Metro Bus Rapid Transit Design Criteria (MBRTDC) and related Architectural Standard/Directive Drawings, and new Metro stations under construction are already complying with most provisions of these standards.

Through implementation of this policy, Metro can expect economies of scale and reduced costs for station maintenance and replacement needs. Currently, unique architectural design and features in station public areas have led to ongoing maintenance challenges and costs. As a result, ordering or stocking of special replacement materials and fabrication of custom features is costly and time intensive. The Systemwide Station Design uses a modular kit-of-parts that is streamlined and adaptable, allowing stations to be more cost-effective to design, construct, and maintain.

ALTERNATIVES CONSIDERED

The Board could elect to not adopt the new policy, and rely on the current Metro design standards to guide station design. This is not recommended because although Metro design requirements already include the Systemwide Station Design Standards, Metro often receives requests for customized station architectural styles. Adoption of the policy reinforces Metro's commitment to a consistent, integrated systemwide design approach and the creation of a safer, smarter, cleaner and greener transit system.

NEXT STEPS

With Board approval, the policy will help ensure that all future Metro Rail and BRT stations, as well as renovations of existing stations where appropriate, are consistent with the Systemwide Station Design Standards as contained in the MRDC, MBRTDC and related Architectural Standard/Directive Drawings.

ATTACHMENTS

Attachment A - Metro Systemwide Station Design Standards Policy

Prepared by: Rachelle Andrews, Principal Transportation Planner, (213) 922-3896
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Jenna Hornstock, Executive Officer, (213) 922-7437

Reviewed by: Therese W. McMillian, Chief Planning Officer, (213) 922-7077

Phillip A. Washington
Chief Executive Officer

ATTACHMENT A

METRO SYSTEMWIDE STATION DESIGN STANDARDS POLICY

POLICY STATEMENT

In order to continue building and maintaining a state-of-the-art transit system, the Los Angeles County Metropolitan Transportation Authority (Metro) has determined that all future Metro Rail and Bus Rapid Transit (BRT) station designs shall follow a consistent, integrated systemwide design approach, with integrated public art and sustainable landscaping as variable elements. This policy takes precedence over prior Metro policies regarding architectural design for Metro Rail and BRT station public areas.

Station designs shall be in compliance with Metro's Systemwide Station Design Standards, as set forth in the Metro Rail Design Criteria (MRDC), Metro BRT Design Criteria (MBRTDC) and related Architectural Standard/Directive Drawings, which may be amended from time to time. Accordingly, Metro will no longer develop unique architectural styles for future stations, unless specifically directed otherwise by the Metro Board of Directors.

PURPOSE

Metro stations designed in substantial compliance with the Systemwide Station Design Standards will be safer, smarter, cleaner, and greener. The Systemwide Station design uses a modular "kit-of-parts" that is streamlined and adaptable, allowing stations to be more cost-effective to design, construct, operate, and maintain. Stations following these standards will have uncluttered public areas, making them safer, more accessible, spacious, and comfortable. Consistent architecture, signage, and intuitive wayfinding will make it easier for riders to recognize and navigate stations. The highly adaptable "kit-of-parts" allows for easier integration with adjacent development and first/last mile connections to the station site. Metro's award-winning public art program, as well as sustainable landscaping, will serve as elements of variability developed in consultation with, and responsive to the surrounding community.

APPLICATION

This policy applies to all BRT, Light Rail, and Heavy Rail stations, and shall be adhered to by all Metro employees, consultants, contractors and vendors.

1.0 BACKGROUND

Metro's objective is to provide for the continuous improvement of an efficient and effective transportation system for Los Angeles County. Achieving this mission requires designing, constructing and operating a dependable, safe, convenient, comfortable and state-of-the-art intermodal transportation system. Accordingly, station architecture and site design must be consistent with this mission.

As the Metro system has expanded over the years, unique architectural design and features in station public areas have led to a lack of visual unity and in many cases, have contributed to long term maintenance challenges with higher costs. As a result, ordering or stocking of special replacement materials, or fabrication of custom features is costly and time intensive, and can result in alterations that are not compatible with the original design aesthetic for a given transit line or individual station. Over time, the challenging maintenance issues lead to deterioration or loss of these unique designs and features. This can result in station conditions that are unsightly, and in some cases can become unsafe,

making stations difficult to access and navigate and sometimes creating obstacles to safe and efficient transit operations.

Changing federal, state and local government requirements (such as the Americans with Disabilities Act (ADA), transportation funding rules, and building codes), as well as those of Metro, have resulted in many existing Metro stations that do not meet current standards. Alterations to conform these stations to current standards can result in significant impacts to station functionality, as well as adversely impacting unique architectural finishes and features in station public areas.

In 2012, following a thorough review and evaluation of other leading state-of-the-art transit systems and international best practices for transit station design, Metro developed the Systemwide Station Design using a modular system, or "kit-of-parts". This kit-of-parts consists of high quality, high performance architectural materials and elements that can be configured to respond to varying station site conditions, as well as the functional and capacity needs of individual stations. These standardized materials and elements generally consist of low-iron fritted glass panels, stainless steel railings and cladding, architectural grade concrete finishes, and a limited number of factory finished surfaces.

The Systemwide Station Design also provides for integrated public art and sustainable landscaping, as elements of variability developed in consultation with, and responsive to the surrounding community.

Metro's Systemwide Station Design layouts provide for open plaza, concourse and platform designs, with streamlined integration of lighting, operational equipment, wayfinding, and customer information, as well as prominent display of integrated public art. Benefits and advantages of the Systemwide Station Design include, but are not limited to the following:

- Station entrances and public areas that are safer, more comfortable, and will feel more open and spacious;
- Intuitive station layouts to ensure station environments are easier for transit riders to recognize and navigate;
- Location of station amenities and operational equipment that better accommodate the full range of passengers with various functional limitations as well as those who are highly functional;
- Station layouts coordinated with Metro Operations, Safety, and Security Departments to ensure visibility through and across stations;
- A concise palette of durable, high quality materials integrated into station area designs that will be simpler to maintain and are more likely to remain attractive over time;
- Glass canopies and enclosures designed with green sustainable practices in mind to increase natural light access for station interiors and exterior station platforms;
- A modular "kit-of-parts" which will more easily adapt to various site constraints facilitating the incorporation of new or changing elements and features required by federal, state or local statutes, transit design best practices and Metro standards;
- A highly adaptable "kit-of-parts" allows for easier integration with adjacent development and first/last mile connections to the station site; and
- Improved maintainability.

The Systemwide Station Design Standards were vetted through internal coordination with Metro departments and implementation of the Systemwide Station Design began with the Regional Connector,

Crenshaw/LAX Line, and Purple Line Extension projects, which are largely compliant with the Systemwide Station Design Standards. The implementation process will allow for continual improvement of these standards, through updates to the MRDC and MBRTDC, as appropriate.

2.0 PROCEDURES

2.1. Contracts for New Metro Stations

Effective as of the date of this policy, all future Metro station design contracts shall require that station designs be consistent with the Systemwide Station Design Standards as contained in the most current MRDC, MBRTDC, and related Architectural Standard/Directive Drawings at the contract award date.

Deviations from certain provisions of this standard, such as station site layouts or equipment types, may be allowed to address unique site constraints, new technology, or specific station needs, but only after a thorough review process and with concurrence among affected Metro departments.

Station designs shall remain consistent with the most current Systemwide Station Design Standards throughout the preliminary design phases, including Preliminary Engineering, BAFO, and contract award. Any station vertical building types not covered specifically within the MRDC, MBRTDC and related Architectural Standard/Directive Drawings are encouraged to use the Metro Kit-of-Parts materials, and follow similar architectural language as outlined in the current design standards, however, these facilities are not required to follow the Systemwide Station Design.

Notwithstanding the preceding provisions of this section 2.1, the Board may at its discretion provide specific direction to Metro staff that certain new stations, such as major regional transfer hubs, have a unique architectural style or language, instead of strictly following the Systemwide Station Design Standards.

Local jurisdictions and other third parties may request, subject to Board approval, design modifications or enhancements to Metro's station design standards for individual stations, contingent on the requestor providing full funding. Such design modifications and enhancements shall be subject to the provisions of Metro's Supplemental Modifications to Transit Projects Policy. Third party funding shall cover all related additional design and construction costs, as well as additional operation and maintenance costs in perpetuity for these modifications or enhancements, as required by the Board.

2.2 Station Retrofit Contracts

Design contracts for retrofit projects that update, enhance or otherwise impact the public areas of existing stations shall require that designs comply wherever feasible with the MRDC, MBRTDC and related Architectural Standard/Directive Drawings. All attempts will be made to ensure that new materials incorporated into the design shall meet current standards, and be consistent with the Metro Kit-of-Parts family of standardized systemwide materials and finishes. As the public areas of existing stations within the Metro system vary greatly, a systematic design approach shall be taken during the design and construction process of each retrofit project. Strict application of the Systemwide Station Design Standards materials and/or layout may not be appropriate in all cases, as a number of existing stations and rail lines have a unique or specific architectural design language. When replacement of existing materials, finishes, or features, or introduction of new equipment is required, ad-hoc alterations in station public areas shall be avoided. Instead, through coordination with Capital Project Engineering,

Countywide Planning and Development, and Operations, impacts of such alterations on station public areas shall be considered holistically, and integrated into the station environment in a streamlined and aesthetically appropriate manner. In particular, and wherever feasible, addition of equipment within or visible from station public areas shall be integrated into station walls or other enclosures that match the Metro Kit-of-Parts architectural finishes (or that are appropriate for the finishes and features of existing stations with unique architecture) to ensure that alterations are in keeping with the streamlined approach of the Systemwide Station Design Standards. Art & Design shall be included in the review process to ensure impacts to pre-existing artworks are avoided or minimized.

2.3. Updates to MRDC and Standard/Directive Drawings

The Systemwide Station Design Standards provide a consistent basis for Metro transit station architectural design, and shall be kept up to date with current building, accessibility, fire and life safety codes and other statutory requirements as they change. Additional updates may be appropriate as innovative new practices are developed and implemented at stations, to improve the usability and functionality of stations. Any revisions or amendments to the MRDC, MBRTDC and related Architectural Standard/Directive drawings as they relate to the Systemwide Station Design Standards or affect station public areas must go through the Systemwide Baseline Change Notice (SBCN) process. Once adopted, new or revised standards shall be circulated as appropriate to design and engineering teams for all ongoing new station and existing station retrofit projects.

3.0 DEFINITION OF TERMS[1]

Architectural Directive Drawings – Set of technical drawing sheets defining and illustrating the specific design details of Metro stations, including light and heavy rail stations. Standard technical detailed drawings must be followed. Actual station design elements contained in these drawings may vary depending on specific site requirements.

Architectural Standard Drawings – Set of technical drawing sheets defining Metro's standard design details of Metro stations, including light and heavy rail stations. Standard technical detailed drawings must be followed.

Contract Change Notice (CN) – Official document issued by Metro to a contractor that authorizes a change or addition to contract requirements, in regard to a specific design as outlined in the MRDC, and/or Architectural Standard/Directive Drawings. Changes are issued to ensure contracts meet up-to-date requirements.

Elements of Variability – Defined areas and features within Metro transit stations and station sites that provide unique designs within specified parameters. In the case of the Systemwide Station Design Standards, the elements of variability are primarily public art and landscaping.

Metro Kit-of-Parts – Collection of integrated modular elements, features, materials and finishes provided in the Systemwide Station Design Standards, which can be configured in a variety of ways to respond to station type, unique site conditions, expected customer volumes, and other variables.

[1] Definitions in this section are for the purpose of providing clarity for this policy document, do not supersede definitions in the Metro Rail Design Criteria and Metro Bus Rapid Transit Design Criteria, and do not set new requirements as part of this policy.

Metro Bus Rapid Transit Design Criteria (MBRTDC) – Metro's formal written design standards for bus rapid transit (BRT) stations, which provide a consistent basis for the design of Metro BRT projects.

Metro Rail Design Criteria (MRDC) – Metro's formal written design standards for transit stations, which provide a consistent basis for the design of Metro Rail Transit Projects, including both Heavy Rail Transit (HRT) and Light Rail Transit (LRT).

Systemwide Station Design – Metro's established architectural design concept and material palette for rail and BRT transit stations.

Systemwide Station Design Standards – Metro's established criteria, layouts, materials, features and details contained in the MRDC and Architectural Standard/Directive Drawings that specify how Metro stations are to be designed or retrofitted in keeping with the Systemwide Station Design. These standards must also be refined from time to time to respond to statutory requirements, industry best practices, and the needs of the Metro system.

Systemwide Baseline Change Notice (SBCN) – Revisions made to the MRDC and/or Architectural Standard/Directive Drawings to ensure Metro's design requirements meet current state and federal requirements, and integrate innovative technology. SBCNs require justification and approval signatures from necessary Metro departments before adoption.

4.0 RESPONSIBILITIES RELATED TO IMPLEMENTATION OF SYSTEMWIDE STATION DESIGN STANDARDS

Systemwide Design, Countywide Planning and Development reviews station design submittals to ensure compliance where applicable with Systemwide Station Design Standards as contained in the most up-to-date versions of the MRDC, MBRTDC and related Architectural Standard/Directive Drawings, and assists in coordinating design comments from other Countywide Planning and Development departments. Initiates and coordinates updates and revisions to the Systemwide Station Design Standards with Engineering, Operations, Safety, and Security.

Engineering coordinates regularly with internal Metro staff to make updates as required to the Systemwide Station Design Standards as contained in the MRDC, MBRTDC and related Architectural Standard/Directive Drawings. Circulates draft revisions to ensure updates are approved by all required Metro departments, and adopted by project contract teams.

Transit Project Delivery ensures station construction projects are designed and constructed in conformance with the Systemwide Station Design Standards as contained in the MRDC, MBRTDC and related Architectural Standard/Directive Drawings, while maintaining cost effectiveness and an on-time delivery. Coordinates with internal Metro departments to circulate station design submittals for review and comment, to ensure projects meet Metro's requirements.

Operations ensures new station designs and modifications to existing stations meet operational and maintenance requirements. With respect to this role, Operations reviews and provides input on proposed updates to the Systemwide Station Design Standards.

Art & Design manages integration of site specific station artworks, and rotating exhibitions that engage communities, create a sense of place, and improve the transit customer experience. The department also advises on a range of design elements and establishes integrated environmental graphic design standards to assist customer navigation and wayfinding. Art & Design reviews and provides input on proposed updates to the Systemwide Station Design Standards and to proposed retrofits to the system.

Safety & Security provides station design teams with critical safety requirements, security information, best practices, and regulatory guidance information to maintain a safe environment within station public areas. Reviews and provides input on proposed updates to the Systemwide Station Design Standards, and coordinates any issues with the Systemwide Design team, Engineering, and Operations.

Office of Civil Rights ensures federal, state and local accessibility requirements for station public areas are being met, and additional accommodations are established within the Metro system to accommodate the full spectrum of passengers with various functional limitations, including mobility, visual, cognitive or similar impairments and limited language proficiency. Reviews and provides input on proposed updates to the Systemwide Station Design Standards, and coordinates any issues with the Systemwide Design team, Engineering, and Operations.

Office of Extraordinary Innovation coordinates with Metro departments to develop innovative methods, and new technology to increase the usability and maintainability of stations, including the implementation and updating of the Systemwide Station Design Standards.

5.0 PROCEDURE HISTORY

1992 Board adopts Rail Station Design Policies

2001 Board adopts Bus Rapid Transit Design Standards

2005 Baseline Metro Rail Design Criteria (MRDC) updated for light rail implementation, further refining design standards to incorporate maintenance, operations and regulatory requirements

2010 Baseline MRDC updated for systemwide implementation, further refining design standards to incorporate maintenance, operations and regulatory requirements

2012 Systemwide Station Design Standards are developed and incorporated into updated MRDC and Architectural Standard/Directive Drawings to unify systemwide identity, integrate new fare equipment, regulatory requirements and updated systemwide signage standards, and to improve maintainability.

Metro Systemwide Station Design Standards Policy

Planning and Programming Committee

January 17, 2018

Metro

Design Standards Development

- Systemwide Station Design “kit-of-parts” developed in 2012
- Project goals:
  - improve legibility and maintainability
  - raise the bar on station design
- Design Standards developed with Metro inter-departmental coordination
- 18 new stations under construction or design apply kit-of-parts design elements and materials

Design Principles for New Stations

Safe

Open lines of sight for passengers and customers

Smart

Contemporary design that is easy to identify, access and navigate

Clean

High Performance Materials

Green

Sustainable building materials and landscaping

Materials

CONCRETE *STAINLESS STEEL* *GLASS*

Portal Entrance - Systemwide Station Design

Wilshire/Western Prototype Canopy

Crenshaw/LAX

Downtown Inglewood Station

Purple Line Extension

Regional Connector

1st/Central Station

Design Variances from Kit-of-Parts

- Local jurisdictions and other third parties may request design modifications or enhancements for individual stations.

- Requests for design modifications and enhancements are subject to Board Approval and Metro's Supplemental Modifications and Betterments Policy.

- Requestors shall cover related additional design, construction, operation and maintenance costs, as required by Board.


Thank you.
Metro

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Metro

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 20, 2013

SUBJECT: SUPPLEMENTAL MODIFICATIONS TO TRANSIT PROJECTS POLICY

ACTION: ADOPT POLICY

RECOMMENDATION

Adopt the policy contained in Attachment A which provides direction for considering requests from local jurisdictions, third parties, and other stakeholders for supplemental modifications to transit corridor projects at various stages in the project development process.

ISSUE

Supplemental Modifications to transit corridor projects such as betterments or enhancements to the project scope are often requested by cities, other agencies, and outside parties – sometimes after the project definition is approved and the environmental review is certified by the Board, after the project has received a Record of Decision (ROD) from the Federal Transit Administration (FTA), or after the design is frozen at the release of advanced design and construction procurement documents.

For our two most recent projects, the Crenshaw/LAX and Regional Connector, we have received such requests. This will become more prevalent as we continue to deliver the Measure R Transit projects.

A policy is needed to clearly outline the formal process Metro will follow upon receipt of any request, including the process for evaluating the Supplemental Modification, agreement on the scope, cost allocation and Board approval. This will ensure that all parties receive the same consideration. The Policy is designed to be consistent with all existing processes (such as environmental review), policies (such as the Grade Crossing Safety Policy and Uniform Cost Management Process and Policy), and agreements (such as Master Cooperative Agreements with local cities and utilities), which contain requirements related to Betterments. This Policy codifies existing practices and processes associated with Master Cooperative Agreements (MCAs) with cities. It does not override the MCAs. It is intended to clarify existing practice and to highlight a consistent approach. Further, it is consistent with the Uniform Cost

Management Process and Policy with regard to how scope reductions are addressed. Board approval of the Policy is being requested.

DISCUSSION

Metro currently addresses "Betterments" in its Master Cooperative Agreements. As we move through the delivery of the Measure R Transit Corridors, we are receiving requests to make design modifications or enhancements to the approved project definition. These requests which may be much larger in scope than utility infrastructure are being made after the design has been frozen and procurements released and/or awarded to contractors. They could result in contract modifications which may require Board approval and increased cost and risk to project delivery and potentially to federal funding and loans. This policy is intended to encourage early stakeholder participation so that the appropriate analysis can be performed earlier, minimizing the need to request Supplemental Modifications late in the project development process.

DETERMINATION OF SAFETY IMPACT

The adoption of this policy will have no impact on the safety of our customers and employees.

FINANCIAL IMPACT

There is no impact to the FY14 budget. This policy captures and clarifies past Board policy, practices, and agreements. It clarifies roles and responsibilities as well financial responsibility for supplemental modifications to the scope of a project requested by other entities.

Impact to Bus and Rail Operating and Capital Budget

There is no impact to the bus and rail operating and capital budget.

ALTERNATIVES CONSIDERED

The Board could choose not to adopt the Policy. This is not recommended. As we develop and implement the Measure R Transit Corridor projects, requests for changes to the approved Project Definition will continue to be received. A consistent framework for addressing these requests is needed for uniformity and to avoid last-minute requests that cannot be considered. Further, a policy as to who is financially responsible for the changes also needs to be adopted to ensure clarity.

NEXT STEPS

Upon Board approval, we will continue applying all existing policies, processes, and procedures within this adopted framework. We will also share this policy with cities, entities, and stakeholders affected by all Measure R Transit Corridor projects in the

planning and design phase to provide clarity as to how supplemental modifications are to be considered.

ATTACHMENT

A. Supplemental Modifications to Transit Projects Policy

Prepared by: Roderick Diaz, Director, Systemwide Planning (213) 922-3018
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Chief Planning Officer

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Chief Executive Officer

ATTACHMENT A

Supplemental Modifications to Transit Projects Policy

Introduction

The Los Angeles County Metropolitan Transportation Authority (LACMTA) will follow a uniform process and policy for defining and evaluating whether requests by outside entities for Supplemental Modifications to a Transit Project (Project) may be incorporated into the Project's scope of work either as part of the Project itself or as a separate activity that might be implemented concurrently with the Project.

Definition of Supplemental Modifications

For the purpose of this Policy, Supplemental Modifications are defined as physical elements or features that are being requested to be added to the Project Scope of Work and which are outside of the approved scope (definition) of a transit project, as they were not included in the most recent project description or requirements approved under the Project's most recent environmental review documents and under the Project's Record of Decision (for projects completing federal [National Environmental Policy Act – NEPA] review), but are being requested to be implemented with the Project by a local jurisdiction, agency, or a third party.

Supplemental Modifications typically fall under two general categories – Betterments and project revisions:

- A Betterment is specifically defined in the LACMTA's Master Cooperative or Utility Agreements as an upgrade of an existing city or utility's facility or the property of a Third Party, be it a public or private entity, that will increase or upgrade the service capacity, capability, appearance, efficiency or function of such a facility or property of a third party. Examples of facilities that can be classified as betterments would include such items as utilities, street infrastructure, development sites, and other types of infrastructure elements within a community.
- Project Revisions are defined as potential revisions to a Project's Scope of Work that may or may not have been originally considered during the environmental review process, but were either rejected or were raised after the Project's Notice of Determination or after the issuance of a Project's Record of Decision. Project Revisions may or may not ultimately be classified as Betterments depending upon what kind of infrastructure is identified in the request for inclusion. Project Revisions may also include requests for improvements where the primary feature is something other than another element of infrastructure. Project Revisions might include features which benefit the Transit Project, but are not necessary for its implementation, purpose or usefulness and were not included in the LACMTA Board approved Project Definition or Life-of-Project budget.

LACMTA defines Betterments in Master Cooperative Agreements (MCAs) established with local, regional and state related jurisdictions or third parties wherein the Project will be constructed. This policy is not intended to override or supersede MCAs with partner entities. For ease of use, many of the principles, processes, and terms that define how Betterments are addressed may be applied to Project Enhancements as well.

Entities Requesting Supplemental Modifications

Requests for Supplemental Modifications may come from a single source or a combination of sources. Examples of groups that have requested Supplemental Modifications include, but are not limited to:

- Private individuals
- Private entities (e.g., developers, businesses, etc.)
- Utilities
- Other Governmental entities
- Elected Officials
- Community Groups
- Other Third Parties

When considering a request for a Supplemental Modification, it is important to note whether or not the Supplemental Modification should be considered as an element of another entity's own work program or could be classified as an additional requirement for mitigation of another entity's work program. In these cases, whether or not implementation has already been approved, such a requested Supplemental Modification should be referred to the other entity.

Stages of Project Definition and Supplemental Modification Consideration

Projects are defined with an increasing level of detail through several stages. While coordination with stakeholders, third parties and other entities is ongoing, specific milestones define discrete points at which the scope of a Project is defined or refined.

Milestone	**Level of Scope Definition**
At the end of Alternatives Analysis	Definition of Alternatives for Environmental Review (Received by Board)
At the end of Draft Environmental Review	Adopted Locally Preferred Alternative (LPA) and preliminary mitigations
At the end of Final Environmental Review (Environmental Impact Statement/Environmental Impact Report [EIS/EIR])	Adopted Project Definition and Mitigation Monitoring Plan, Notice of Determination (per CEQA), and Record of Decision (for federally cleared projects)

Milestone	Level of Scope Definition
DESIGN FREEZE – At the end of Preliminary Engineering/issuance of Procurement Documents	Preliminary Engineering Design (incorporating design refinements and value engineering) and additional detail on Project Mitigations are finalized for contract purposes. (Preliminary Engineering is defined in Master Cooperative Agreements, Exhibit C.)
Award of Construction Contracts	Detailed Design of the Project and Project mitigations. For Design/Build Contractors, the Contractor will complete the design and construction begins.

Requests for a Supplemental Modification

Any entity which desires to request a Supplemental Modification to a Project Scope of Work shall do so at the earliest possible point in the project development process. However, LACMTA is not obligated, nor does this Policy require it to accept or implement the requested Supplemental Modification. The timing of the request for a Supplemental Modification, with respect to certain Project Milestones, will affect how it may be evaluated:

- Supplemental Modifications that are requested after the adoption of the Project Definition, relevant mitigation measures and certification of the EIR and Record of Decision, are more likely to require additional environmental review and have the potential for significant Project construction delays associated with them than if they were offered up prior to these final project milestones.
- Supplemental Modifications which are not incorporated into a Project prior to implementation of the Design Freeze milestone, and especially after the award of a contract, are expected to have significantly higher costs due to greater schedule impacts, and could ultimately jeopardize funding or loan agreements, and therefore introduce significant financial risk.
- Supplemental Modifications that are not included and incorporated into the Project's construction contract for implementation by the award of the construction contract (including design/build contracts) can only be added by way of a contract change, which will likely result in higher Project costs, require additional funding source(s) beyond the Board approved project budget, and may require further consideration and approval by the LACMTA Board of Directors. Requests for changes to a Project which rise to the level of a Supplemental Modification and are proposed toward the end of the procurement process may

also contain the potential for reopening the procurement process, or at least may necessitate a contract change.

LACMTA is under no obligation to accept or implement any Supplemental Modifications. Such modifications may:

- Create a delay in obtaining Project approval by the LACMTA Board of Directors, or any state and/or federal agency responsible for approving and funding the Project;
- Require deferring or delaying approval of a Project's Notice of Determination and/or Record of Decision;
- Require additional environmental review, resulting in cost and schedule impacts;
- Require use of a Project's unallocated contingency and/or changes to the approved Project's Life-of-Project Budget;
- Conflict with the requirements of any grant or loan obtained in support of the Project;
- Require a material redesign of the Project, which would necessarily involve a significant delay in implementation of the Project Contract or the need to initiate an entirely separate solicitation and contract.

Evaluation Process

The proposed process for evaluating the viability of a Supplemental Modification will consist of a methodical review that will be undertaken in accordance with the particular point in the process described in the previous chart and will not require an additional set of rules or criteria. The final determination will be made after assessing whether a requested Supplemental Modification should be included as part of the Project Work Scope, treated as an element to be handled and addressed separate from the Project, or dropped from further consideration.

Should a Supplemental Modification be recommended prior to reaching a Project milestone, LACMTA will consider each requested Supplemental Modification subject to a three-part evaluation. The three parts of the evaluation process are intended to ensure that:

(1) Requests for Supplemental Modifications are evaluated according to a consistent and rigorous analysis to determine a) whether they are necessary, b) whether they will have an impact on the provision of the particular service provided by the Project or c) whether the added work can be incorporated without significantly delaying or altering the nature of the Project;

(2) Elements that are determined not to be necessary to accomplish the Project will only be included in the work scope if LACMTA receives written commitments (including any associated and necessary funding) by the requesting entity that are sufficient to ensure there is no risk to the Project's schedule and budget; and

(3) Board direction is required to authorize any Supplemental Modification in all other circumstances.

The three parts of the evaluation are described below:

PART 1 – Evaluation of Necessity of Supplemental Modifications

The first step in the evaluation of a Supplemental Modification is a determination of whether a requested modification should be added to the Project Definition. A modification to the Project Definition may occur if it is required by ANY of the criteria described below:

- **Physical Necessity**: Essential for the basic function or operation of the project;
- **Capacity:** Required to provide the level of capacity (throughput) required for projected demand or projected operation of the system for the horizon year of analysis;
- **Policy:** Required to satisfy LACMTA's existing Policies related to planning and design of transit facilities (e.g., the Grade Crossing Safety Policy) and the operation of service on those facilities;
- **Environmental Mitigation:** Required as a result of analysis of the environmental impacts which will only be resolved through the approval of the modification
- **Standards:** Required by existing adopted and published standards which are identified and incorporated into the contractually established Design Freeze. Such standards must be adopted and published prior to or by the Design Freeze date and must also be determined to apply to LACMTA.

If a requested Supplemental Modification meets any of these requirements and fits within the project budget and is not part of another entity's required work program or mitigation requirements, it shall be considered necessary in the case that the full Project is implemented as proposed.

The inclusion of the Supplemental Modification depends upon LACMTA's ability to accommodate the cost of the modification within the Project Budget. Should the Project Budget be insufficient to cover the cost of the inclusion of the entire scope of the

Project plus the requested modification, then the entire Project (if a Measure R project) shall be analyzed in accordance with the Unified Cost Management Process and Policy for Measure R Transit Projects.

In following the Unified Cost Management Process and Policy, it is important to note that should existing project features be removed from the Project Definition in order to accommodate a requested Supplemental Modification, such a decision must also be analyzed using the criteria outlined in Part I. Elements that are determined not to be "necessary" per these criteria may be eligible to be removed from the Project scope. Depending on the size of the requested Supplemental Modification or the significance of the impacts arising from its incorporation into the Project, findings shall be reported to the Board.

In the case that the analysis according to the Unified Cost Management Process and Policy finds that additional funding is still required to implement the Project with the Supplemental Modification, staff shall analyze whether funding for the inclusion of the modification would require :

a. Cost reductions within the same transit corridor; and/or
b. Cost reductions within the same sub-region;

In either of these two cases, prior to the submission of a staff recommendation regarding funding for the proposed Supplemental Modification for a final decision by the LACMTA's Board, the Board shall seek the concurrence from the sub-region either through the sub-regional Council of Governments (COG) or the established entity representing the subregion.

PART 2 – Consideration of Non-Required Supplemental Modifications

For Supplemental Modifications which, upon initial review, are determined not to be included as part of the Project per the Part 1 analysis, then the requested modification will be analyzed in accordance with all of the conditions below, prior to incorporation of into the Project Work Scope:

- Funding – The Modification is (1) cost neutral, (2) results in a reduction in the Project cost, or (3) committed funding is identified from sources outside the Project Budget to cover the cost of the full Supplemental Modification and all related Project cost impacts;
- Lack of Need for Additional Environmental Review – Upon review of the modification request, it is determined that there is no basis for additional changes or supplements to the environmental review that could jeopardize the

implementation of the Project. (Supplemental Modifications that do require additional public disclosure and environmental analysis may create additional schedule risk and may increase the scope of the project and thus the cost and therefore may be found unacceptable);

- Lack of Impact to Contract Procurement – Analysis indicates that implementation of the modification will cause no delays or negative impacts on the procurement process for final design and construction of the project;
- Lack of Schedule Impact –The analysis indicates that implementation of the modification will cause no delays, have no negative impacts on the Contractor's approved schedule and will not extend the Project beyond the projected Revenue Service Date;
- Adopted Agreement – An agreement is adopted between Metro and the requesting entity that defines roles, responsibilities and funding contributions for the Supplemental Modification. In the case of Betterments, Master Cooperative Agreements define how Betterments are negotiated and incorporated; and
- Funding and Program Requirements – That the cost and associated schedule issues required by inclusion of the Supplemental Modification will not jeopardize the ability of LACMTA to meet any project requirements for any funding, grant programs (e.g., New Starts), or loan programs (e.g., TIFIA [Transportation Infrastructure Finance and Innovation Act loans] that apply to the Project.

If a Supplemental Modification meets ALL of these requirements, it may be recommended for inclusion into the Project Work Scope (either as a modification to the Project Definition or as a parallel work effort to the defined Project.) This would need LACMTA Board approval and the approval of any project implementation and funding partners (e.g., appropriate state and federal agencies involved with environmental review and grant and loan programs).

PART 3 – Supplementary Board Direction

The LACMTA Board may consider the inclusion of additional work scope at any publicly-noticed meeting and as such, may provide additional direction to the Project staff that either supplements, rejects or overrides the analytical criteria described in Parts 1 and 2 above. LACMTA Board direction to pursue any specific Supplemental Modification shall include and identify all relevant funding to cover the cost of inclusion of the Supplemental Modification in the same action. It is important to note that LACMTA Board direction is required for any Supplemental Modification that exceeds the contractually-specified dollar value limit after the award of Project Construction Contracts (including Design/Build Contracts) because such a modification would necessarily result in contract change orders.

Funding Supplemental Modifications

As indicated by the evaluation process described above, LACMTA will not pay for or bear the Cost of any Supplemental Modification that is not explicitly required by any policy, standard, regulation, or law in operation relied upon to define any element of the approved Project. Funding shall be committed by requestors of Betterments or Supplemental Modifications in those cases where the request results in an increase in cost, except as otherwise directed by the Board.

Third Party Request for Deviations from Systemwide Station Design Standards Policy

Purple Line Extension
Westwood/UCLA Station

Planning & Programming Committee

Agenda Item #: XXX

Metro

Recommendation

APPROVE UCLA third-party request for design deviations from Systemwide Station Design (SWSD) Standards at Purple Line UCLA/Westwood Station northwest entrance plaza.

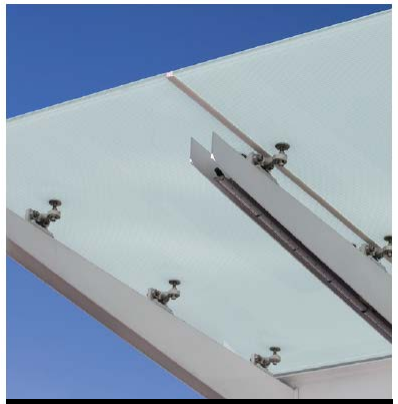
Per Board Policy, all new Metro rail and BRT stations shall be in compliance with Metro's SWSD standards, unless otherwise approved by the Board.

Systemwide Station Design Standard Subway Station Entrance Plaza

Metro

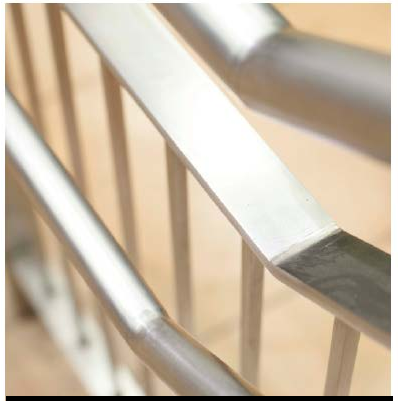
Systemwide Station Design Standards Policy

- Board Adopted – January 2018
- Consistent streamlined “kit-of-parts” architecture that is safe, smart, clean, and green
- High performance materials
- Accommodates varying site conditions
- Allows stations to be more cost-effective to design, construct and maintain
- Variable Elements:
  - Landscaping
  - Artwork



Glass Canopy

3-Toned Concrete



Stainless Steel

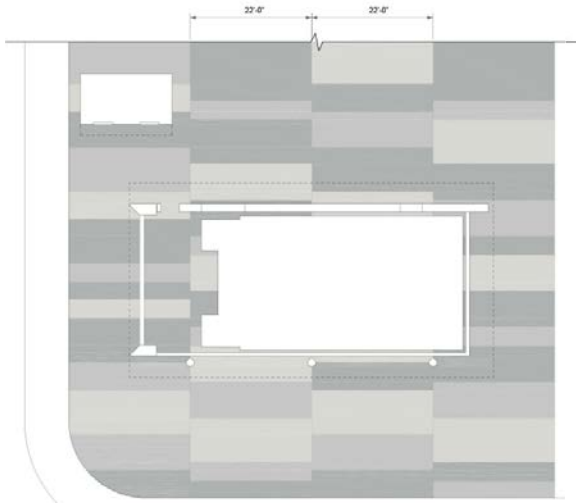
LED Lighting

Metro

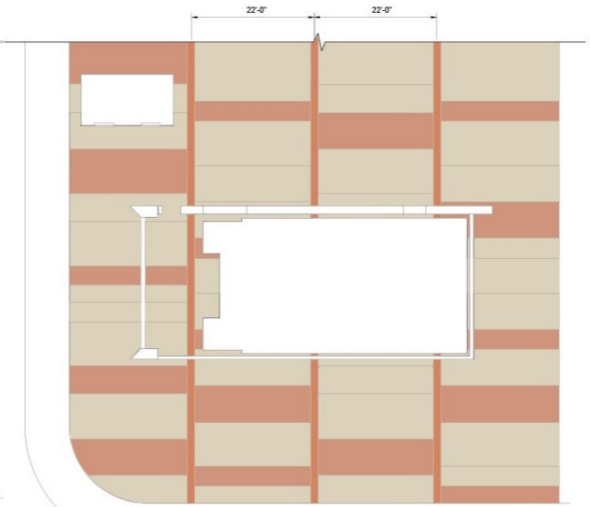
Design Deviations Requested by UCLA

Station entrance with Metro standard finishes

Station entrance with UCLA requested finishes



Metro standard plaza paving



UCLA requested plaza paving

Deviations include:

- Change Metro standard three-toned gray concrete plaza finish to beige and light red concrete.
- Change Metro station entrance portal canopy finish from standard silver-colored stainless steel to beige tinted stainless steel.

Metro

Considerations

- UCLA is the fee owner of the northwest station entrance plaza property.
- Requested deviations are temporary. Station plaza proposed to be integrated into a future UCLA facility.
- UCLA has agreed to pay for additional costs resulting from deviations.
- Metro is working with UCLA on SWSD elements of variability—landscaping and artwork.

File #: 2019-0624, **File Type:** Agreement **Agenda Number:** 11.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 20, 2019

SUBJECT: EXPO/CRENSHAW JOINT DEVELOPMENT

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to execute an amendment to the Exclusive Negotiation Agreement and Planning Document with Watt Companies, doing business as WIP-A, LLC, and the County of Los Angeles for 12 months with the option to extend for an additional four months for the joint development of 1.77 acres of Metro-owned property and 1.66 acres of County-owned property at the Expo/Crenshaw Station.

ISSUE

Metro, the County of Los Angeles (County) and Watt Companies, doing business as WIP-A, LLC (Developer) are parties to an Exclusive Negotiation Agreement and Planning Document (ENA) for the development of a mixed-use project adjacent to the Expo/Crenshaw Station (See Attachment A - Site Map). The development program includes a minimum of 400 total rental units (15% of which will be restricted to households earning 30% or less of area median income, and 5% of the total units restricted to households earning 30-80% of area median income), and at least 40,000 square feet of commercial and community space (Project). The ENA is set to expire on December 15, 2019. An extension of the ENA term is necessary to allow the Developer sufficient time to fully entitle and environmentally clear the Project with the City of Los Angeles and finalize the Joint Development Agreement (JDA) and Ground Lease (GL) terms, subject to Metro Board of Directors (Metro Board) and County Board of Supervisors (County Board) approval.

BACKGROUND

Following a competitive solicitation process, the Metro Board and County Board approved entering into a six-month ENA in late 2017/early 2018 with the Developer for joint development of Metro and County-owned parcels at the Expo/Crenshaw Station (Site). The six-month ENA provided an interim period before executing a long-term ENA so that the community could provide input on the Project and the Developer could identify a community-based organization to partner with on the development of the Project.

In the spring of 2018, the Developer entered into an agreement with West Angeles Community

Development Corporation (WACDC) to partner in the execution and operation of the Project. On September 25, 2018 the County Board approved entering into an ENA with the Developer and Metro for a term of 18 months with the option to extend up to 30 months. On September 27, 2018 the Metro Board approved entering into a 14-month ENA with the Developer and the County with the request that staff provide a progress report which was issued in March 2019. The tri-party ENA was executed on October 15, 2018 and will expire on December 15, 2019.

DISCUSSION

The Developer has diligently performed its obligations under the ENA including performing extensive, on-going community outreach, refining the conceptual development plan, and submitting the Project for entitlements with the City as further described below.

Community Outreach
After the 14-month ENA was executed, the Developer held several meetings with local residents, community organizations and government officials to provide updates on the proposed Project. An online survey aimed at gathering input on the Project was circulated and over 200 responses were received. Given the Project will be required to comply with the County's Local Hire Policy, in June 2019 the Developer, in partnership with WACDC, Vernon-Central/LATTC WorkSource Center and Coalition for Responsible Community Development, hosted a local hire "listening session". At this meeting the Developer and their partners obtained feedback on past experiences with local hire programs and began to share information on future employment resources associated with the Project.

Concept Development
Metro and the County, with support from an urban design consultant, have extensively reviewed the Developer's Project plans and provided feedback on the design. The review has focused on conformance with the community vision as outlined in the Expo/Crenshaw Station Joint Development Guidelines, responsiveness to community input received, and on ensuring compatibility between the Project and Metro infrastructure. On July 11, 2019, the Developer and WACDC hosted a workshop where they unveiled the revised conceptual plans based on stakeholder and Metro/County feedback. Over 200 stakeholders attended. Participants engaged with the Developer's architectural/urban design team and expressed that they were generally pleased with the Project's progress. Although the Project has been refined, the Project scope as approved by the Metro Board and County Board in September 2018 remains unchanged.

Entitlements
The Developer submitted for entitlements from the City of Los Angeles in September 2019. Metro Joint Development Policy and relevant case law do not allow the Metro Board to approve JDA and GL terms nor authorize Metro to enter into related agreements until a project has received an environmental clearance under the California Environmental Quality Act. The recommended 12-month ENA term extension (with an option to extend an additional four months) will allow the Developer to complete the entitlements process, environmentally clear the Project, and begin to assemble the Project's financing sources. Metro staff, with support from a financial consultant and County Counsel, have been diligently negotiating a term sheet outlining the JDA and GL terms, subject to Metro and County Board approval.

Equity Platform

Consistent with the Equity Platform pillar “listen and learn”, the Project has gone through a lengthy community engagement process beginning with the creation of Development Guidelines which set the vision for these publicly-owned properties. The Developer continues to maintain a commitment to engaging with stakeholders, and has refined the Project in response to feedback. Furthermore, the Project is an opportunity to “focus and deliver” by adding much needed, transit-oriented affordable housing and other community benefits in the Crenshaw community.

DETERMINATION OF SAFETY IMPACT

Approval of this item will have no adverse impact on safety as it only seeks a time extension for the ENA period during which no improvements will be constructed. An analysis of safety impacts will be completed and presented to the Metro Board for consideration if and when negotiations result in proposed terms for a JDA and GL.

FINANCIAL IMPACT

Funding for joint development activities related to the ENA and the Project is included in the adopted FY20 budget in Cost Center 2210, Project 401045.

Impact to Budget
There is no impact to the FY20 budget. The ENA executed in October 2018 required the Developer to pay Metro a non-refundable fee of $25,000, as well as a $50,000 deposit to cover third-party expenses. The Developer must replenish that deposit when it reaches a balance of less than $25,000.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This recommendation supports the Strategic Plan Goal to “enhance communities and lives through mobility and access to opportunity”, specifically Initiative 3.2 which states “Metro will leverage its transit investments to catalyze transit-oriented communities and help stabilize neighborhoods where these investments are made.” The proposed Project will deliver a number of community benefits, including transit-accessible housing and new commercial/community space.

ALTERNATIVES CONSIDERED

The Board could chose not to extend the ENA term, in which case the ENA would expire in December 2019. Metro could then choose to solicit a new developer and proposal for the Site. Staff does not recommend this alternative due to the fact that the Developer, Metro, and the County have worked diligently and in good faith as partners to advance the Project. Furthermore, the recommended action builds upon the significant community input and procurement process that has transpired thus far. A new procurement process would delay the development of Site, and Metro and the County may fail to take advantage of currently favorable conditions in the real estate market.

NEXT STEPS

Upon approval of the recommended action, staff will prepare and execute an amendment to the ENA extending the term for 12 months with the option to extend an additional four months. Metro staff, with support from a financial consultant and County Counsel, will continue working with the Developer to finalize negotiations for a JDA and GL. Following the Developer's completion of the entitlements and environmental clearance process with the City of Los Angeles and before the end of the ENA period, staff will return to the Board with recommended JDA and GL terms. The Developer and WACDC, together with Metro and County staff, will continue to engage with the community as the Project advances. During the ENA period the Developer will begin to assemble financing for the Project including affordable housing resources.

ATTACHMENTS

Attachment A - Site Map

Prepared by: Nicole Velasquez Avitia - Manager, Countywide Planning & Development, (213) 922-7439
Nick Saponara - Executive Officer (Interim), Countywide Planning & Development, (213) 922-4313
Holly Rockwell - Sr. Exec. Officer, Real Estate, Transit Oriented Communities and Transportation Demand Management, (213) 922-5585

Reviewed by: James de la Loza - Chief Planning Officer, (213) 922-2920

Phillip A. Washington
Chief Executive Officer

ATTACHMENT A

SITE MAP

SITE A

Owner: Los Angeles County
Site: 1.66 acres
Use: County Probation Department

SITE B

Owner: Metro
Site: 1.77 acres
Use: Construction staging

Expo/Crenshaw Joint Development Project

Planning and Programming Committee

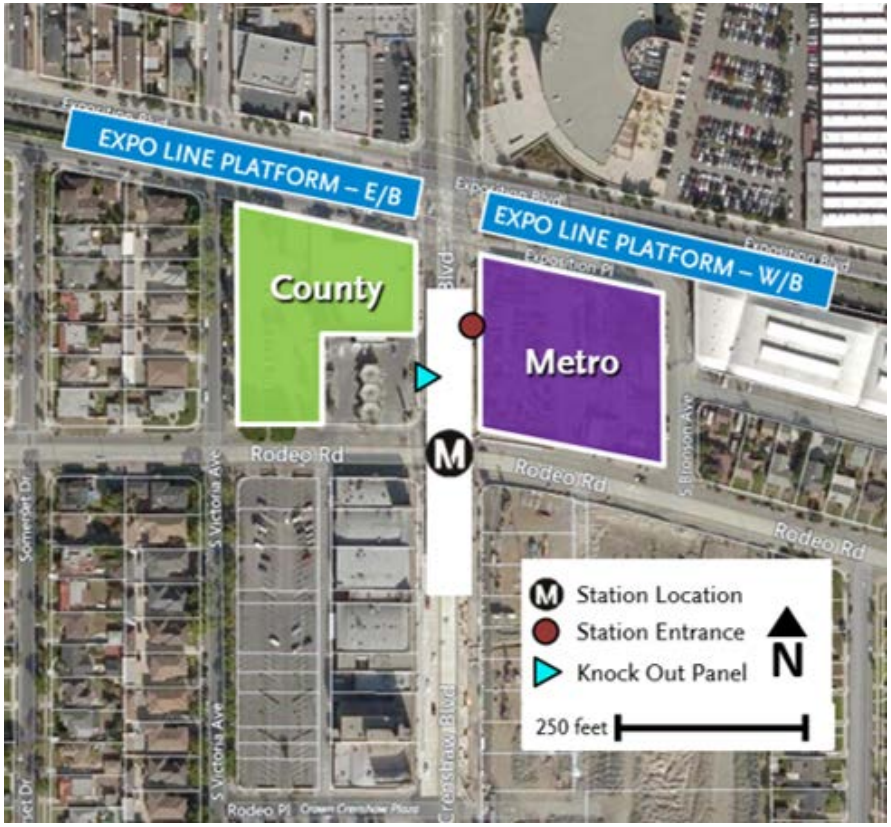
November 20, 2019

Legistar #2019-0624, Agenda Item 11

Metro

Recommendation

- Amend the Exclusive Negotiation Agreement and Planning Document (ENA) with Watt Companies to extend it 12 months with an option to extend an additional 4 months.



Metro

Background

- **June 2016:** Board adopted Development Guidelines following more than 25 community meetings.
- **Late 2017/Early 2018:** After a competitive RFP process, Metro and County Boards approved a 6-month Short-Term Exclusive Negotiation Agreement (ENA) with Watt Companies.
- **September 2018:** Metro Board approved entering into a 14-month ENA which will expire December 15, 2019.

Metro

Project Progress

During 14-month ENA period, Developer has made significant progress in fulfilling its obligations under the ENA:

- Held several meetings with community stakeholders including hosting a local hire "listening session" and a public workshop with more than 200 attendees
- Conducted an online survey aimed at gathering input with over 200 responses received
- Advanced project design in response to community feedback
- Submitted for entitlements from City of Los Angeles in September 2019

Metro

Project Scope

- 401 total rental units (20% affordable set aside)
  - 15% restricted to households earning 50% or less of AMI
  - 5% restricted to households earning 30-80% of AMI
- 40,000 sq. ft. of commercial and community space
  - Proposed tenants include a grocery store and local small businesses
- Nearly an acre of public open space
- Preserves opportunity to build second entrance to Expo/Crenshaw underground station

Metro

Next Steps

- **Late 2020** – Entitlements and environmental clearances expected.

- **On-going through 2020**
  - Negotiate term sheet for Joint Development Agreements and Ground Leases with Metro and County
  - Public hearings and continued community engagement
  - Secure project financing

- **Early 2021** – Return to Metro and County Boards for consideration of final transaction terms

File #: 2019-0659, **File Type:** Contract **Agenda Number:**

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 20, 2019

SUBJECT: I-405 SEPULVEDA PASS (PHASE 1) EXPRESSLANES PROJECT APPROVAL/ENVIRONMENTAL DOCUMENT, CONCEPT OF OPERATIONS, AND DESIGN DEVELOPMENT CONTRACT AWARD

ACTION: AWARD CONTRACT

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to award and execute a 36-month, firm fixed price Contract No. AE61156000 to WSP USA, Inc. in the amount of $27,494,005.21 for Architectural and Engineering services to produce the I-405 Phase 1 Sepulveda Pass ExpressLanes Project Approval/Environmental Document, the Concept of Operations report and 30% design, subject to resolution of protest(s), if any.

ISSUE

The Metro Board previously directed the Congestion Reduction department to initiate planning studies for the conversion of High Occupancy Vehicle (HOV) lanes into High Occupancy Toll (HOT) lanes for those projects within Tier 1 of the ExpressLanes Strategic Plan, adopted in January 2017. Interstate 405 (I-405) between I-10 and US-101 (I-405 Phase 1 Sepulveda Pass) ExpressLanes is among the Tier 1 projects slated for near term implementation.

To continue the planning efforts required for I-405 Sepulveda Pass Phase 1 ExpressLanes, professional services are required to support the development of the Project Approval/Environmental Document (PA/ED), Concept of Operations and Preliminary Design. During the PA/ED phase, more detailed studies including traffic analysis and an environmental assessment will be conducted to further refine the information in the PSR-PDS and develop the Project Report and Environmental Document.

BACKGROUND

In November 2014, the Board directed the preparation a Countywide ExpressLanes Strategic Plan (the Plan) based on the previous success of the I-110 and I-10 ExpressLanes. In January 2017, the Board approved the Plan which screened, organized, and ranked possible ExpressLanes projects in Los Angeles County into three tiers based on time horizon (Tier 1 within 5-10 years, Tier 2 within 15 years, and Tier 3 within 25 years). This project was prioritized as a Tier 1 near-term project.

Simultaneously, the Board directed staff to initiate planning studies for the Tier 1 projects listed in the Strategic Plan.

As an initial step, a PSR/PDS for projects in the Tier 1 Network, inclusive of the I-405 Sepulveda Pass ExpressLanes, is underway with an anticipated completion in late 2019/early 2020. The Interstate 405 Sepulveda Pass ExpressLanes has $260 million in Measure M dedicated funding and is included in the Twenty-Eight by '28 Initiative.

DISCUSSION

The next phase in the planning process for the I-405 Sepulveda Pass is the Project Approval & Environmental Document (PA/ED). The PA/ED consists of two components, the Project Report (PR) and Environmental Document (ED). The PR will prepare preliminary engineering of the studied alternatives at a level of detail such that the potential impacts of those alternatives can be identified. It includes a traffic report, surveys, mapping, geometric plans, and cost estimates and will identify right of way and utilities needs/impacts. The ED will include the necessary reports/analysis required by the California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA), including air quality, noise, hazardous waste, biological, and cultural resource studies.

Additionally, this procurement will develop a Concept of Operations report which will describe and document operating policies, facility design, and tolling infrastructure for the project. This effort will also include 30% level design development for the project.

Caltrans will provide review and oversight on the Environmental Document through a Cooperative Agreement currently under development. An Investment Grade Traffic & Revenue Study and an Outreach Contractor will also be procured as a part of the I-405 planning process through separate procurements not undertaken here.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Strategic Goal 1: Provide high quality mobility options that enable people to spend less time traveling. ExpressLanes provides drivers with the option of a more reliable trip while improving the overall operational efficiency of the freeway network.

FINANCIAL IMPACT

Funds in the amount of $2 million needed to conduct this work are available in the FY20 budget in cost center 2220. Because this is a multi-year program, the cost center manager and the Executive Officer, Congestion Reduction programs, will be responsible for budgeting for future years.

Impact to Budget

Funds for this action will come from dedicated Measure M funding. No other funds were considered for this activity.

ALTERNATIVES CONSIDERED

The Board could choose not to award this contract. This is not recommended as it would delay the PA/ED phase and jeopardize the overall project completion schedule as necessitated by inclusion

in Twenty-Eight by '28 Initiative. Additionally, this alternative is not recommended since the I-405 Sepulveda Pass (Phase 1) Project is a Metro ExpressLanes Strategic Plan Tier 1 prioritized project with Measure M dedicated funding ($260 million).

NEXT STEPS

Upon Board approval, staff will execute the contract with WSP USA, Inc., and will initiate, carry-out and complete the scope of work for the project.

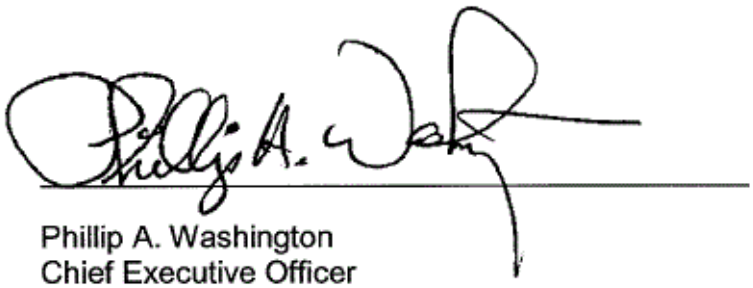
ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - DEOD Summary

Prepared by: Alice Tolar, Sr. Manager, Transportation Planning, Congestion Reduction, 213.418.3334
Mark Linsenmayer, Deputy Executive Officer, Congestion Reduction, 213.922.5569

Reviewed by: Shahrzad Amiri, Executive Officer, Congestion Reduction, 213.922.3061
Debra Avila, Chief Vendor/Contract Management Officer, 213.418.3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

I-405 SEPULVEDA PASS PHASE I EXPRESSLANES PROJECT APPROVAL/ ENVIRONMENTAL DOCUMENT (PA/ED), CONCEPT OF OPERATIONS, AND DESIGN DEVELOPMENT/AE61156000

1.	**Contract Number**: AE61156000	
2.	**Recommended Vendor**: WSP USA, Inc.	
3.	**Type of Procurement (check one):** ☐ **IFB** ☐ **RFP** ☒ **RFP–A&E** ☐ **Non-Competitive** ☐ **Modification** ☐ **Task Order**	
4.	**Procurement Dates**:	
	A. Issued : 4/16/19	
	B. Advertised/Publicized: 4/16/19	
	C. Pre-Proposal Conference: 4/23/19	
	D. Proposals Due: 5/29/19	
	E. Pre-Qualification Completed: 9/16/19	
	F. Conflict of Interest Form Submitted to Ethics: 6/3/19	
	G. Protest Period End Date: 11/26/19	
5.	**Solicitations Picked-up/ Downloaded**: 105	**Proposals Received**: 3
6.	**Contract Administrator**: **Andrew Conriquez**	**Telephone Number**: **213-922-3528**
7.	**Project Manager**: **Alice Tolar**	**Telephone Number**: **213-418-3334**

A. Procurement Background

This Board Action is to approve Contract No. AE61156000 issued to provide the PA/ED, Concept of Operations (ConOps), and Design Development for the I-405 Sepulveda Pass Expresslanes. Board approval of contract award is subject to resolution of any properly submitted protest(s).

This Architectural and Engineering (A&E) qualifications-based Request for Proposal (RFP) was issued in accordance with Metro's Acquisition Policy and the contract type is firm fixed price.

A pre-proposal conference was held on April 23, 2019. There were 40 people from 17 companies who attended the pre-proposal meeting. There were 18 questions asked and responses were released prior to the proposal due date.

Three amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1 issued on April 26, 2019, removed the Medium Size Business Set-Aside (MSZ) Program, as it does not apply to A&E;
- Amendment No. 2 issued on May 10, 2019, increased the number of pages allowed in the Proposal;
- Amendment No. 3 issued on May 22, 2019, added SP-17 Payment and Reporting of Prevailing Wage.

A total of 105 firms downloaded the RFP and were included in the planholders list. A total of three proposals were received on May 29, 2019.

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Metro Congestion Reduction Department and Caltrans District 7 was convened and conducted a comprehensive technical evaluation of the proposals received.

The proposals were evaluated based on the following evaluation criteria and weights:

- Project Manager, Key Staff and Subcontractors Qualifications 20 percent
- Firms/Team Qualifications 20 percent
- Work Plan 30 percent
- Project Understanding and Approach 30 percent

The evaluation criteria are appropriate and consistent with criteria developed for other, similar A&E procurements. Several factors were considered when developing these weights, giving the greatest importance to the Work Plan and Project Understanding and Approach.

This is an A&E, qualifications based procurement; therefore, price cannot be used as an evaluation factor pursuant to state and federal law.

On June 4, 2019, the PET completed its independent evaluation of the proposals. All three firms were invited to be interviewed and are listed below in alphabetical order:

1. HNTB Corporation
2. WKE, Inc.
3. WSP USA, Inc.

During the week of July 8, 2019, the evaluation committee met and interviewed the firms. The firms' project managers and key team members had an opportunity to present each team's qualifications and respond to the evaluation committee's questions. In general, the firms elaborated on their experience, their approach to the Project, cost-effective project delivery solutions, risk mitigation, and discussed their plan and ability to meet the project schedule.

In addition, each firms' presentation addressed the requirements of the RFP, experience with all aspects of the required tasks, and stressed each firm's commitment to the success of the project. Also highlighted were staffing plans, work plans, and perceived project issues. Each team was asked questions relative to each firm's proposed alternatives and previous experience, and ability to coordinate between different public stakeholders.

Qualifications Summary of Recommended Firm:

WSP USA, Inc.

WSP USA, Inc. has been involved with cross disciplinary strategies and solutions across energy, structures, transportation, water and environmental projects around the globe. WSP USA, Inc., has numerous offices across the United States and has worked on every aspect of roads, airports, bridges, tunnels, maritime, transit systems, roads and bridges.

In their oral presentation, WSP USA, Inc., described their experience with developing Concept of Operations (ConOps) for Expresslanes and numerous PA/ED projects throughout Southern California. They demonstrated how they will manage and assist Metro in engaging and successfully developing relationships with key stakeholders. In addition, WSP USA, Inc. has worked on multiple projects in Los Angeles County such as the I-105 Expresslanes PA/ED and ConOps and the I-405 Expresslanes Level II Traffic and Revenue Study.

Final scoring determined that WSP USA, Inc., is the highest qualified firm. Below is a summary of the scores in order of rank:

	Firm	Weighted Average Score	Factor Weight	Average Score	Rank
1	**WSP USA, Inc.**				
2	Project Manager, Key Staff, Subconsultants Qualifications	84.33	20.00%	16.87	
3	Firms/Team Qualifications	82.85	20.00%	16.57	
4	Work Plan	80.86	30.00%	24.26	
5	Project Understanding & Approach	79.54	30.00%	23.86	
6	**Total**		**100.00%**	**81.56**	**1**
7	**HNTB Corporation**				
8	Project Manager, Key Staff, Subconsultants Qualifications	77.25	20.00%	15.45	
9	Firms/Team Qualifications	79.47	20.00%	15.89	
10	Work Plan	77.89	30.00%	23.37	
11	Project Understanding & Approach	75.19	30.00%	22.56	

12	**Total**		**100.00%**	**77.27**	**2**
13	**WKE, Inc.**				
14	Project Manager, Key Staff, Subconsultants Qualifications	71.67	20.00%	14.33	
15	Firms/Team Qualifications	72.83	20.00%	14.57	
16	Work Plan	75.89	30.00%	22.77	
17	Project Understanding & Approach	73.94	30.00%	22.18	
18	**Total**		**100.00%**	**73.85**	**3**

C. Cost Analysis

The recommended price has been determined to be fair and reasonable based upon an independent cost estimate (ICE), cost analysis, technical analysis, fact finding, and negotiations. Staff successfully negotiated a cost savings of $3,278,916.79 for the agency.

Proposer Name	Proposal Amount	Metro ICE	Negotiated
WSP USA, Inc.	$30,772,922	**$30,103,685**	**$27,494,005.21**

D. Background on Recommended Contractor

The recommended firm, WSP USA, Inc., is a professional consultancy firm with 100 offices nationwide, and during its history, the firm has planned and designed some of the nation's most significant infrastructure, including bridges, tunnels, transit systems, highways, airports, buildings, stadiums and energy storage facilities.

The proposed project manager has over 35 years of experience in transportation planning and design field, including multiple decades of experience working with Caltrans District 7. With most of the project manager's experience in the Southern California region, the project manager demonstrated an understanding of how to involve local, state, federal and community partners into the PA/ED process. In addition, the project manager has completed projects with the California Transportation Commission (CTC), Caltrans, Metro and Riverside County Transportation Commission. These projects include the support for the Expresslanes Toll Authorization, I-105 HOV Lane PA/ED, and SR-91 Corridor PA/ED.

Key personnel average over 28 years of experience. Project experience include

I-605 Concept of Operations, I-710 South Corridor PA/ED, I-5 Managed Lanes and Concept of Operations, I-10 HOV Lane Addition PA/ED, I-405 Improvements PA/ED, and I-15 Corridor PA/ED for the San Bernardino County Transportation Authority.

DEOD SUMMARY

I-405 SEPULVEDA PASS PHASE I EXPRESSLANES PROJECT APPROVAL/ ENVIRONMENTAL DOCUMENT (PA/ED), CONCEPT OF OPERATIONS, AND DESIGN DEVELOPMENT/AE61156000

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established a 21% Small Business Enterprise (SBE) and 3% Disabled Veteran Business Enterprise (DVBE) goal for this solicitation. WSP USA exceeded the goal by making a 21.80% SBE commitment and a 3.17% DVBE commitment.

SMALL BUSINESS GOAL	21% SBE 3% DVBE	SMALL BUSINESS COMMITMENT	21.80% SBE 3.17% DVBE

	SBE Subcontractors	% Committed
1.	Del Richardson & Associates	1.66%
2.	Diaz Yourman & Associates	3.75%
3.	D'Leon Consulting Engineers	0.69%
4.	Guida Surveying, Inc.	4.95%
5.	Kal Krishnan Consulting Services, Inc.	0.48%
6.	System Metrics Group	4.68%
7.	Value Management Strategies	0.19%
8.	V&A Inc.	5.40%
	Total SBE Commitment	**21.80%**

	DVBE Subcontractors	% Committed
1.	OhanaVets, Inc.	3.17%
	Total DVBE Commitment	**3.17%**

B. Prevailing Wage Applicability

Prevailing Wage requirements are applicable to this project. DEOD will monitor contractors' compliance with the State of California Department of Industrial Relations (DIR), California Labor Code, and, if federally funded, the U S Department of Labor (DOL) Davis Bacon and Related Acts (DBRA).Trades that may be covered include: surveying, potholing, field, soils and materials testing, building construction inspection, construction management and other support trades.

C. Living Wage Service Contract Worker Retention Policy Applicability

The Living Wage / Service Contract Worker Retention Policy is not applicable to this contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. Project Labor Agreement/Construction Careers Policy is applicable only to construction contracts that have a construction contract value in excess of $2.5 million.

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2019-0661, **File Type:** Contract **Agenda Number:** 14.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 20, 2019

SUBJECT: GRANT ASSISTANCE

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to award and execute a 36-month, firm fixed price Contract No. PS63023000 to WSP USA, Inc. in the amount of $6,372,356 for preparing 84 grant applications and 40 additional grant applications as well as optional tasks, such as greenhouse gas analysis, drone and aerial photography, and simulations. This will support Metro and local jurisdiction grant applications to discretionary federal and state funding opportunities, subject to resolution of protest (s), if any.

ISSUE

In September 2019, the Metro Board of Directors (Board) received and filed a report on federal and state funding opportunities and strategies which communicated the approach Metro staff will take to evaluate and select projects for application to discretionary grant funding programs (File #: 2019-0601). In October 2019, the Metro Board approved the Active Transportation Program (ATP) Cycle 5 Priorities Framework to establish the eligibility and project selection process for Metro's ATP Grant Assistance Program (File #: 2019-0671). Both of these efforts to maximize discretionary grant funding for Metro and Los Angeles County projects require grant assistance services. This report recommends that the Board authorize the Chief Executive Officer to approve a contract for these services.

BACKGROUND

In November 2017, the Metro Board approved Contract No. PS44597-0000 in the amount of $2,170,485 for grant writing services to prepare up to 93 grant applications and perform greenhouse gas analysis. While the period of performance is through December 2020, the remaining contract capacity only allows for completion of up to 35 more grant applications. Staff is exploring ways to optimize this remaining capacity by directing it to upcoming time-sensitive opportunities and other strategic initiatives.

To date, grant assistance under Contract No. PS44597-0000 supported grant awards of over $1.8 billion to Metro projects and, through the Metro ATP Grant Assistance Program, local jurisdictions'

projects. Grant assistance services provided under previous contracts specifically targeted for the ATP Grant Assistance Program supported grant awards of over $161.8 million to Metro's and local jurisdictions' bicycle and pedestrian projects. Staff anticipates similar positive impacts with services funded by the recommended contract.

DISCUSSION

On June 26, 2019, Metro staff released a Request for Proposals for a consultant to provide grant assistance services for federal and state discretionary grant programs including the Better Utilizing Investments to Leverage Development program (BUILD), the Infrastructure for Rebuilding America program (INFRA), ATP, Transit and Intercity Rail Capital Program, Road Repair and Accountability Act of 2017 (SB 1) Programs, and other programs to be identified. The Scope of Services sought a consultant team with experience and knowledge in various project types and modes in order to secure a team with the capability to prepare applications for any of the various projects identified through the Evaluative Criteria Framework for which Metro may pursue funding.

Required tasks include: managing grant development process, supporting project selection, reviewing program and project documents, and developing draft and final applications. Optional tasks include: conducting greenhouse gas analysis; performing photography, videography, and/or simulation; and preparing application support collateral.

Equity Platform

This report supports the third pillar of the Equity Platform: Focus and Deliver. The projects that will be supported by the recommended grant assistance services will be identified through Metro's Evaluative Criteria Framework or ATP Cycle 5 Grant Assistance Framework. Both frameworks include equity considerations. Therefore, the resources that would be approved under this contract will be focused on and delivered to projects selected through an equity lens.

DETERMINATION OF SAFETY IMPACT

The recommendations in this report will provide resources to seek funding to improve safety, comfort, and convenience to Metro customers who would benefit from federal- and state-supported investments including active transportation, public transit, and goods movement projects.

FINANCIAL IMPACT

The FY20 budget includes $750,000 under Cost Center 4420 (Federal/State Policy and Programming), Project 405510 (Other P&P Planning) for grant assistance services under this Contract. Because this is a multi-year contract, the Cost Center Manager and the Chief Planning Officer will be responsible for budgeting funds for grant writing services in future years.

Impact to Budget

Funding sources for this contract are Proposition A, Proposition C, Transportation Development Act (TDA) administration funds and State Transportation Improvement Program (STIP) Program and

Project Management (PPM) funds, which are not eligible for bus and rail operations and capital.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This recommendation supports the Metro Vision 2028 Strategic Plan Goal #1: Provide high-quality mobility options that enable people to spend less time traveling. Approval of this recommendation would secure resources that will help obtain funding to provide high-quality mobility options that enable people to spend less time traveling.

ALTERNATIVES CONSIDERED

The Board may consider not approving the contract and requiring staff to prepare Metro's discretionary federal and state grant applications and Metro ATP Grant Assistance Program applications using existing contracted grant writing services. This is not recommended as there is only enough capacity to complete 35 applications. This is not sufficient to address the numerous Metro and local jurisdiction projects seeking funding from multiple discretionary opportunities.

NEXT STEPS

Upon Board approval of these recommendations, staff will execute Contract No. PS63023000 with WSP USA, Inc. for grant assistance. Staff will also manage and coordinate grant assistance services to pursue federal and state discretionary funds for Metro and Los Angeles County projects.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary

Prepared by: Shelly Quan, Senior Transportation Planner, Countywide Planning & Development, (213) 922-3075
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Reviewed by: James de la Loza, Chief Planning Officer, (213) 922-2920
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051

Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

GRANT ASSISTANCE/PS63023000

1.	**Contract Number**: **PS63023000**	
2.	**Recommended Vendor**: WSP USA, Inc.	
3.	**Type of Procurement (check one):** ☐ **IFB** ☒ **RFP** ☐ **RFP–A&E** ☐ **Non-Competitive** ☐ **Modification** ☐ **Task Order**	
4.	**Procurement Dates**:	
	A. Issued: 6/26/19	
	B. Advertised/Publicized: 6/26/19	
	C. Pre-Proposal Conference: 7/10/19	
	D. Proposals Due: 8/05/19	
	E. Pre-Qualification Completed: 10/21/19	
	F. Conflict of Interest Form Submitted to Ethics: 8/20/19	
	G. Protest Period End Date: 11/25/19	
5.	**Solicitations Picked up/Downloaded**: 41	**Bids/Proposals Received**: 4
6.	**Contract Administrator**: **Gina Romo**	**Telephone Number**: **(213) 922-7558**
7.	**Project Manager**: **Shelly Quan**	**Telephone Number**: **(213) 922-3075**

A. Procurement Background

This Board Action is to approve Contract No. PS63023000 issued to prepare 84 grant applications and 40 additional grant applications and optional tasks, such as greenhouse gas analysis, drone and aerial photography and simulations, to support Metro and local jurisdiction grant applications for discretionary federal and state funding opportunities. Board approval of contract awards are subject to resolution of any properly submitted protest.

Request for Proposals (RFP) No. PS63023 was issued in accordance with Metro's Acquisition Policy and the contract type is a firm fixed price.

One amendment was issued during the solicitation phase of this RFP to clarify the scope of services, price schedule and to extend the proposal due date.

A pre-proposal conference was held on July 10, 2019 and was attended by 10 participants representing 9 firms. There were 21 questions submitted and responses were released prior to the proposal due date.

A total of 41 firms downloaded the RFP and were included on the plan holders list. A total of four proposals were received by the due date of August 5, 2019.

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Metro's Countywide Planning and Development Department was convened and conducted a comprehensive technical evaluation of the proposals received.

The proposals were evaluated based on the following evaluation criteria and weights:

- Project Understanding 40 percent
- Degree of Project Experience and Staff Skill 40 percent
- Price 20 percent

The evaluation criteria are appropriate and consistent with criteria developed for other, similar grant writing procurements. Several factors were considered when developing these weights, giving the greatest importance to project understanding and degree of project experience and staff skill.

From August 7, 2019 through August 20, 2019 the PET completed its independent evaluation of proposals. On August 21, 2019 the PET interviewed the firms. The firms' project managers and key team members had an opportunity to present each team's qualifications and respond to the PET's questions. In general, each team's presentation addressed the requirements of the RFP, experience with grant writing, revising grant applications, ability to manage requirements, deadlines of the various types of grants, and stressed each firm's commitment to the success of each grant application. Also highlighted were each firm's experience and knowledge base with both federal and state grant programs.

As part of the RFP, firms were required to meet the established SBE/DVBE goal of 27% (24% SBE and 3% DVBE). Of the four proposals received, three met the required SBE/DVBE goal, and were considered responsive. One firm did not meet the SBE/DVBE goal of the RFP and was deemed non-responsive; and as a result, received no further consideration for award.

The firms considered responsive and within the competitive range, are listed below in alphabetical order:

1. Infra Associates
2. KOA Corporation
3. WSP USA, Inc.

Qualifications Summary of Firms within the Competitive Range:

WSP USA Inc.

WSP USA Inc. (WSP) is a New York based firm with offices throughout the nation, including the Los Angeles area. They are a multi-faceted transportation company with a full team of planners, engineers and advisors. WSP has over 40 years of experience in grant writing. WSP's proposal communicated their understanding of the nuances involved in grant development, writing and management for the various grants offered at the state and federal level, including Road Repair and Accountability Act of 2017 (SB 1), Transit and Intercity Rail Capital Program (TIRCP) and Active Transportation Program (ATP) programs by the State of California and BUILD and INFRA offered by the federal government. The WSP proposal demonstrated how the firm intends to grow upon their previous grant writing success by bringing to Metro grant development methodologies and also implementing newer technologies such as drone and simulation presentations to help with greenhouse emissions and corridor visibility.

KOA Corporation

KOA Corporation (KOA) is a southern California based firm, founded in 1987, which specializes in civil engineering, traffic engineering, transportation planning and construction management services. KOA provides on-call grant writing and administration services for Port of Long Beach and several cities including Pasadena, Long Beach, Rialto, San Bernardino, Indio and Menifee. While KOA's price proposal was lower than the highest ranked firm, their proposed implementation plan seemed to rely on a process developed and used for the ATP grant and therefore, did not represent a thorough understanding of the nuances between all the programs included in the scope of services (scope). In addition, the team demonstrated limited experience with the SB 1 Programs.

Infra Associates

Infra Associates (Infra) is an infrastructure development, financial and technical advisory firm located in Manhattan Beach, CA. Infra was awarded a contract by the High Desert Corridor Joint Power (HDCJP) to submit a TIRCP grant for $1 billion in support of LA County Measure-M and Measure-R in late 2017. In response to Metro's RFP, Infra's proposal did not demonstrate a full understanding of the scope. The proposed plan did not account for approaches required for applications of different levels of rigor, and lacked detail on the implementation of each task, including identification of key milestones. The firm demonstrated only surface-level understanding of the grant programs identified in the scope.

The following table summarizes the following scores:

1	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
2	**WSP USA Inc.**				
3	Project Understanding	86.67	40.00%	34.67	
4	Degree of Project Experience and Staff Skill	85.00	40.00%	34.00	
5	Price	20.40	20.00%	4.08	
6	**Total**		**100.00%**	**72.75**	**1**
7	**KOA Corporation**				
8	Project Understanding	78.33	40.00%	31.33	
9	Degree of Project Experience and Staff Skill	75.00	40.00%	30.00	
10	Price	56.90	20.00%	11.38	
11	**Total**		**100.00%**	**72.71**	**2**
12	**Infra Associates**				
13	Project Understanding	63.33	40.00%	25.33	
14	Degree of Project Experience and Staff Skill	58.33	40.00%	23.33	
15	Price	100.00	20.00%	20.00	
16	**Total**		**100.00%**	**68.66**	**3**

C. Cost Analysis

The recommended price has been determined to be fair and reasonable based upon an independent cost estimate (ICE), cost analysis, technical analysis, fact finding, and negotiations.

	Proposer Name	Proposal Amount	Metro ICE	Negotiated Amount
1.	WSP USA Inc.	$16,601,502	**$3,841,690**	**$6,372,356**
2.	KOA Corporation	$5,948,152	**$3,841,690**	N/A
3.	Infra Associates	$3,385,273	**$3,841,690**	N/A

The primary reason for the disparity between Metro's ICE and the negotiated amount is due to the difference between application pricing. In particular, there is difference in the pricing of the new and revised applications within each application type (e.g., moderate, high, and rigorous). The ICE assumed that revised applications would require only half the level of effort of the cost of a new application. However, proposed costs for revised applications are between 55 percent and 68 percent of new applications. In WSP's initial price proposal, the firm

included significant project scope, major program changes and costs that were not required for this effort.

D. Background on Recommended Contractor

The recommended firm, WSP USA Inc. has been in business for over 85 years. WSP is an international architectural and design firm. The organization has divisions specializing in environmental and remediation, highway and road design, economic and market analysis, planning strategy and grants, project development and finance, technology and innovation, among many others. WSP currently provides grant assistance services as a subconsultant under Metro Contract No. PS44597-0000. Under that contract, grant assistance services successfully supported over $1.8 billion in grant awards.

The proposed Project Manager was the lead for a TIRCP and Local Partnership Program (LPP) grant under Metro's current contract and brings strong leadership and grant strategy skills to maximize the best grant opportunities. The proposed Deputy Project Manager brings to the team 14 years of transportation and infrastructure planning experience. WSP has assembled a team of seven subcontractors, three of which are SBEs and two are DVBEs, including Chen Ryan Associates, Deborah Murphy Urban Design + Planning, Evan Brooks Associates, Leland Saylor, OhanaVets, Redman Consulting, and Safe Routes to Schools Partnership. The assembled team has a proven track record and has successfully secured grants for Metro.

DEOD SUMMARY

GRANT ASSISTANCE/PS63023000

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established a 24% Small Business Enterprise (SBE) and 3% Disabled Veteran Business Enterprise (DVBE) goal for this solicitation. WSP USA, Inc. exceeded the goal by making a 24% SBE and 3.61% DVBE commitment.

Small Business Goal	**24% SBE 3% DVBE**	**Small Business Commitment**	**24% SBE 3.61% DVBE**

	SBE Subcontractors	**% Committed**
1.	Chen Ryan Associates	7.40%
2.	Deborah Murphy Urban Design + Planning	5.86%
3.	Evan Brooks Associates	10.74%
	Total SBE Commitment	**24.00%**

	DVBE Subcontractors	**% Committed**
1.	Leland Saylor	0.69%
2.	OhanaVets Inc.	2.92%
	Total DVBE Commitment	**3.61%**

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy (LW/SCWRP) is not applicable to this contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. Project Labor Agreement/Construction Careers Policy is applicable only to construction contracts that have a construction contract value in excess of $2.5 million.

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2019-0703, **File Type:** Program **Agenda Number:** 16.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 20, 2019

SUBJECT: SR-71 GAP CLOSURE PROJECT CONSTRUCTION, PHASE 1

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

A. APPROVING the programming of $105,072,000 in local funds for the construction of Phase 1; and

B. AMENDING the 2009 Long Range Transportation Plan to restate the project's southern limit from Rio Rancho Road to the Los Angeles/San Bernardino County Line (SBCL).

ISSUE

The State Route 71 (SR-71) Project Phase 1 has completed design and Caltrans is in the process of acquiring the Rights-of-Way (ROW). Phase 1 will be ready to be advertised for construction in April 2020. Funding for construction must be programmed before Caltrans can advertise the Phase 1 project.

The Metro 2009 Long Range Transportation Plan listed the southerly limit of the project at Rio Rancho Road. However, per the Caltrans Project Report, the actual southern limit of the Project is the SBCL, which is 0.6 miles south of Rio Rancho Road (Attachment A).

BACKGROUND

The SR-71 corridor is a freeway between I-10 and Mission Blvd and south of the Rio Rancho Road Interchange, through the SR-71/60 Interchange, to the SBCL. The roadway between Mission Blvd and Rio Rancho Road is a two lane in each direction expressway with three at-grade intersections at West Phillips Drive, North Ranch Road and Old Pomona Road. The entire segment of SR-71 between I-10 and Rio Rancho Road was identified for upgrades in the Measure M Expenditure Plan.

During design, it was identified that additional Union Pacific Railroad (UPRR) coordination would be needed in the segment north of Mission Blvd. Caltrans and Metro agreed that SR-71 improvements be delivered in two phases to avoid lapsing of previously programmed funds, and to allow Phase 1 to

compete for federal and state discretionary funds.

Phase 1 adds one high-occupancy vehicle (HOV) lane and an additional mixed-flow lane in each direction between Mission Blvd. and the SBCL, matching the freeway configuration south of SR-60. Additionally, the project closes the at-grade intersections and widens the existing median south of Rio Rancho Road to SBCL to provide for the requisite lanes.

Completion of Phase 1 will allow the Project to tie into the existing eight-lane freeway configuration on the portion of the SR-71 south of SR-60. Phase 2 would construct the portion of the SR-71 between I-10 and Mission Blvd.

As funding for design and ROW were secured with state and federal funds, Caltrans commenced final design with the scope in their approved Supplemental Project Report dated May 2013 and recently completed the design of Phase 1. ROW acquisition for Phase 1 is in progress and will be completed in December 2019. Caltrans expects to advertise Phase 1 in April 2020 and begin construction in FY 2021. Phase 2 is expected to complete the design and ROW acquisition processes in 2022.

DISCUSSION

Prior to Caltrans' advertisement of Phase 1 for construction, funding must be programmed. The current estimate for the construction capital component is $125,072,000 and the construction support component is estimated at $24,000,000 for a total proposed construction budget of $149,072,000. As $44,000,000 in SB-1 Trade Corridor Enhancement Program (TCEP) funds were awarded by the California Transportation Commission in 2018, $105,072,000 in local/other funding is required for complete funding.

The Project, inclusive of Phase 1 and 2, is a Measure M Major Capital Project with $248,557,000 in Measure funds per the Measure M Expenditure Plan. Staff recommends programming $105,072,000 in Measure M (Recommendation A). These funds will provide the required local funding match for the TCEP funds that have been secured for Phase 1 construction. Programming Phase 1 through construction will allow Metro and Caltrans to enter into a Funding Agreement, which must be executed prior to advertising the project for construction.

Also, the Supplemental Project Report that was approved by Caltrans in May 2013 shows the southern limit of the project at the SBCL. The southern limit in the Metro LRTP shown at Rio Rancho Road will be restated as the SBCL because improvements to the median of the freeway south of Rio Rancho Road are necessary to create a seamless connection to the existing HOV lanes in San Bernardino County.

DETERMINATION OF SAFETY IMPACT

The programming of the funds for the Project will have no adverse impact on the safety of Metro's patrons, employees or users of the transportation facility. Caltrans has designed the Project in accordance with their policies and procedures.

FINANCIAL IMPACT

Programming of the local funds will not have an adverse impact to the agency. If approved, $105,072,000 of the $248,557,000 in Measure M funds will be programmed for Phase 1 of the SR-71 project. The remainder of the Measure funds will be available for the delivery of Phase 2.

Since this is a multi-year project, the Project Manager, the Cost Center Manager, and the Senior Executive Officer, Program Management-Highway Program will be responsible for budgeting the remaining cost of the Project in future fiscal years.

Impact to Budget

There is no impact to the FY20 budget as the local funds are not expected to be invoiced before FY21.

The source of funds for this project will be TCEP funds from SB1 and Measure M Highway Construction Capital (17%) funds. These funds are not eligible for bus and rail operating and capital expenditures. No other funds were considered.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The project supports the Metro Vision 2028 Strategic Plan Goal #1: to provide high quality mobility options that enable people to spend less time traveling by alleviating the current operational deficiencies and improving mobility along the highways. This project upgrades the existing expressway to an access-controlled freeway and includes HOV lanes and additional mixed-flow lanes.

ALTERNATIVES CONSIDERED

The Board could choose to defer or to not program funding for the Project's construction, however that is not recommended. This would delay the implementation of much needed improvements on SR-71 and will put the State TCEP funds at risk. This is one of the highest priority highway projects to be delivered under Measure M.

NEXT STEPS

Upon approval of these recommendations, staff will amend the 2009 LRTP. Additionally, staff will prepare and execute the Funding Agreement with Caltrans while they prepare the project for advertisement in April 2020.

ATTACHMENTS

Attachment A - Location Map

Prepared by: Benkin Jong, Senior Manager, Transportation Planning, (213) 922-3053
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Reviewed by:

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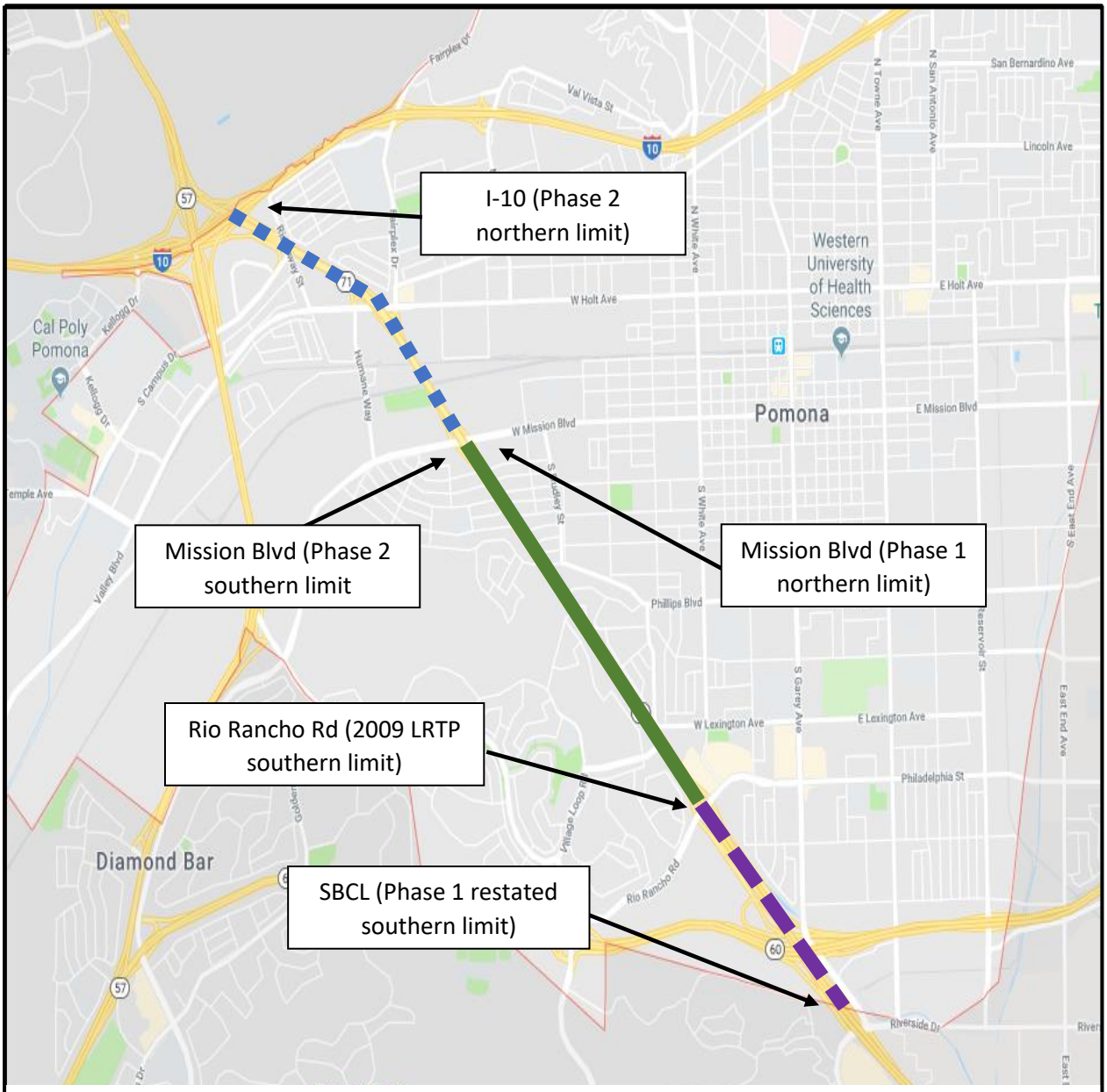
Richard F. Clarke, Chief Program Management Officer, (213) 922-7557

Phillip A. Washington
Chief Executive Officer

Attachment A

SR-71 Gap Closure Project

Location Map



Legend:

- Phase 1: Mission Blvd to Rio Ranch Rd
- Phase 1: Rio Ranch Rd to SBCL Extension
- Phase 2: I-10 to Mission Blvd

State Route 71 Phase 1 Construction Programming

November/December 2019
Planning and Programming Committee
2019-0703

Metro

Background

The SR 71 project has been a long standing priority:

- 2000 Traffic Congestion Relief Program Legislation
- 2009 LRTP
- 2016 Federal Earmark Repurposing
- 2016 Measure M
- 2018 Trade Corridor Enhancement Program Award

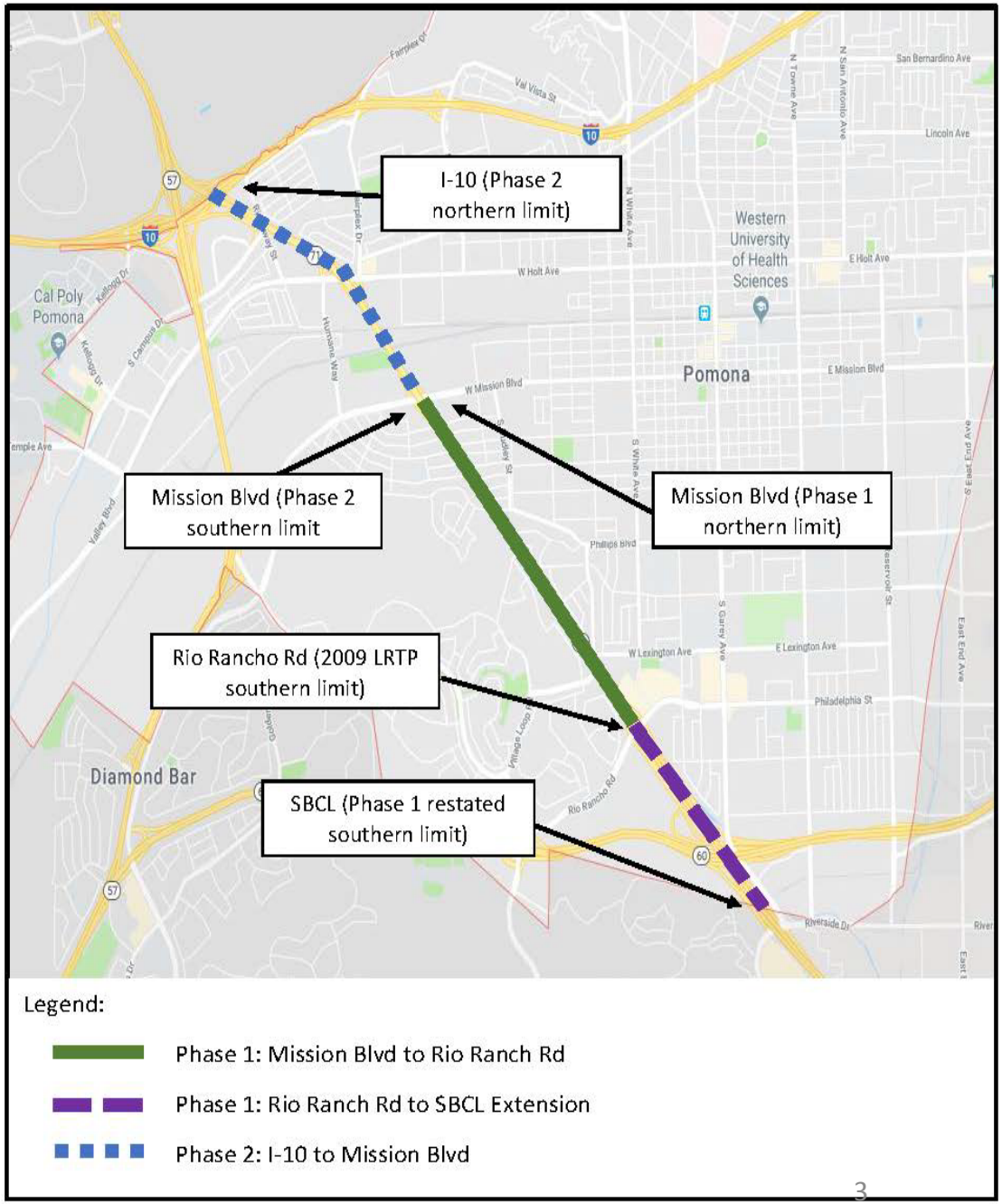
In 2017, the project was phased to:

- Provide more time for necessary coordination with Union Pacific Railroad in Northern Segment
- Avoid lapsing of federal earmarks
- Allow Phase 1 to compete for discretionary grants

Scope

Phase 1:

- Upgrades from an expressway to a freeway.
- Includes one HOV lane and one additional mixed-flow between Mission Blvd. and the San Bernardino County Line (SBCL) in each direction.
- Closes the at-grade intersections and widens the median south of Rio Rancho Road to SBCL.
- Extends to the SBCL as the new southerly limit, connecting to the San Bernardino County Segment recently widened.



Project Schedule

Project Phase	Status
Environmental- Phase 1 and 2	Completed May 2013
Design- Phase 1	To be completed December 2019
Right of Way- Phase 1	To be completed December 2019
Construction- Phase 1	Award in May 2020
Design and Right of Way- Phase 2	Anticipated completion 2022*
Construction- Phase 2	Award in 2022*

* Contingent upon third party issue resolution and funding availability.

Project Funding

SR 71 Phase 1 Construction Funding	
Sources	Dollars
State Trade Corridor Enhancement Program	$44,000,000
Measure M	$105,072,000
Total	$149, 072,000

Measure M Expenditure Plan includes $248,557,000 (2015$s) for the SR 71 (Phase 1 and 2).

Staff Recommendation

CONSIDER:

Approving the programming of $105,072,000 in local funds for the construction of Phase 1; and

Amending the 2009 Long Range Transportation Plan to restate the project's southern limit from Rio Rancho Road to the Los Angeles/San Bernardino County Line (SBCL).

Approval will permit Metro and Caltrans to execute the Funding Agreement, and will allow for the project to be advertised for construction.

File #: 2019-0740, **File Type:** Program **Agenda Number:** 17.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 20, 2019

SUBJECT: MEASURE M MULTI-YEAR SUBREGIONAL PROGRAM - GATEWAY CITIES SUBREGION

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

A. APPROVING programming of $27,764,900 in Measure M Multi-Year Subregional Program (MSP) - I-605 Corridor “Hot Spot” Interchange Improvements Program (Expenditure Line 61); and

B. AUTHORIZING the Chief Executive Officer (CEO) or his designee to negotiate and execute all necessary agreements for approved projects.

ISSUE

Measure M MSPs are included in the Measure M Expenditure Plan. All MSP funds are limited to capital projects. Each subregion is required to develop an MSP five-year plan (Plan) and project list. Based on the amount provided in the Measure M Expenditure Plan, a total amount of $65,255,715 was forecasted to be available for programming, from Fiscal Year (FY) 2017-18 to FY 2021-22, to the Gateway Cities Subregion (Subregion) in the I-605 Corridor “Hot Spot” Interchange Improvements Program (expenditure line 61). Board approval is necessary to program the funds to these projects and allow Metro to enter into Funding Agreements with the respective implementing agencies.

DISCUSSION

In June 2017, the Metro Board of Directors approved the adoption of the Measure M Master Guidelines (Guidelines) with two amendments and five approved motions. Subsequently, the Administrative Procedures for Measure M MSP was signed by the CEO on February 2, 2018.

The Subregion consists of 27 cities and an adjacent unincorporated area of Los Angeles County. The Gateway Cities Councils of Government (GCCOG) led the Plan development process, which included working with the member agencies along with a public participation process. The GCCOG Governing Board also adopted Subregional Qualitative Performance Measures including Mobility, Economic Vitality, Accessibility, Safety and Sustainability & Quality of Life, as required per the

Administrative Procedures.

In the last several months, Metro staff worked closely with the GCCOG and the implementing agencies on eligibility reviews of the proposed projects. All projects submitted by the Subregion are scheduled to start in FY 2019-20 and/or FY 2020-21 (near term - first two programming years). For those projects that are programmed in FY 2019-20 and FY 2020-21, Metro required, during staff review, a detailed project scope of work to confirm eligibility and establish the program nexus during the Plan development process, i.e. project location and limits, length, elements, phase(s), total expenses and funding requested, and schedule, etc. This level of detail will ensure timeliness of the execution of the Project Funding Agreements once the Metro Board approves the Plan.

Equity Platform

Consistent with Metro's Equity Platform, the MSP outreach effort recognizes and acknowledges the need to establish comprehensive, multiple forums to meaningfully engage the community to comment on the proposed projects under all Programs. The GCCOG along with member agencies and adjacent unincorporated area of Los Angeles County undertook an extensive outreach effort and invited the general public to a series of public workshops and meetings. Metro will continue to work with the Subregion to seek opportunities to reach out to a broader constituency of stakeholders.

DETERMINATION OF SAFETY IMPACT

Programming of Measure M MSP funds to the Gateway Cities Subregion projects will not have any adverse safety impacts on Metro's employees or patrons.

FINANCIAL IMPACT

In FY 2019-20, $1.5 million is budgeted in Cost Center 0442 (Highway Subsidies) for the Transportation System Mobility Improvement Program (Project #475502). Upon approval of this action, staff will use the approved FY 2019-20 budget to reallocate necessary funds to appropriate projects within Cost Center 0442. Since these are multi-year projects, Cost Center 0442 will be responsible for budgeting the cost in future years.

Impact to Budget

The sources of funds for these projects are Measure M Highway Construction 17%. These fund sources are not eligible for Metro bus and rail operating and capital expenditures.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendation supports the following goals of the Metro Vision 2028 Strategic Plan:

Goal 1: Provide high-quality mobility options that enable people to spend less time traveling by alleviating the current operational deficiencies and improving mobility along the projects.

Goal 4: Transform LA County through regional collaboration by partnering with the Council of

Governments and the local jurisdictions to identify the needed improvements and take the lead in development and implementation of their projects.

ALTERNATIVES CONSIDERED

The Board could elect not to approve the programming of funds for the Measure M MSP projects for the Gateway Cities Subregion. This is not recommended as the proposed projects are in compliance with the Measure M Ordinance, Guidelines and the Administrative Procedures.

NEXT STEPS

Upon Board approval, respective implementing agencies will be notified, and Funding Agreements will be executed with those who have funds programmed in FY 2019-20. Staff will continue to work with the GCCOG and the implementing agencies to identify and implement projects. Annual updates will be provided to the Board.

ATTACHMENTS

Attachment A - I-605 Corridor “Hot Spot” Interchange Improvements Program Project List

Prepared by: Ernesto Chaves, DEO, Project Management, (213) 418-3142
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Reviewed by: James de la Loza, Chief Planning Officer, (213) 922-2920

Phillip A. Washington
Chief Executive Officer

ATTACHMENT A

Gateway Cities Subregion
Measure M Multi-Year Subregional Plan - I-605 Corridor "Hot Spot" Interchange Improvement (Expenditure Line 61)

	Agency	Project ID No.	Project/Location	Funding Phases	FY 2019-20	FY2020-21	FY2021-22	Total Program
1	Bellflower	MM5509.01	Lakewood Blvd Arterial Improvement Project	PS&E Construction		$ 217,500	$ 1,232,500	$ 1,450,000
2	Cerritos	MM5509.02	Del Amo Blvd Bridge Replacement & Traffic Signal Synch Project	Environmental PS&E Construction	400,000	1,000,000	1,000,000	2,400,000
3	Downey & Pico Rivera	MM5509.03	Telegraph Rd Traffic Safety Enhancements Phase II	PS&E Construction	350,000			350,000
4	LA County	MM5509.04	Carmenita Rd and Imperial Hwy Intersection Improvements	PS&E Construction	300,000	630,000	1,000,000	1,930,000
5	Long Beach	MM5509.05	Studebaker Rd - Loynes Dr Complete Streets	Environmental PS&E	250,000	3,000,000	3,000,000	6,250,000
6	Norwalk	MM5509.06	Firestone Blvd Widening Project, Phase I	Environmental PS&E Construction	3,284,900	5,000,000	5,000,000	13,284,900
7	Whittier	MM5509.07	Beverly Blvd at Norwalk Blvd Realignment Project	PS&E ROW Construction	150,000	550,000	1,400,000	2,100,000
			Total Programming Amount		**$ 4,734,900**	**$10,397,500**	**$12,632,500**	**$ 27,764,900**

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2019-0758, **File Type:** Application **Agenda Number:** 18.

PLANNING AND PROGRAMMING COMMITTEE
NOVEMBER 20, 2019

SUBJECT: TRANSIT AND INTERCITY RAIL CAPITAL PROGRAM GRANT APPLICATIONS

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to prioritize projects, commit funding match and submit grant applications to California's Transit and Intercity Rail Capital Program as detailed in Attachment A.

ISSUE

On October 18, 2019, the California State Transportation Agency (CalSTA) announced its Call for Projects for the 2020 Cycle 4 Transit and Intercity Rail Capital Program (TIRCP). Grant applications are due by January 16, 2020. CalSTA requires applicants to identify and provide evidence of the amount and sources of funds committed to the projects, as well as to prioritize and explain the prioritization of their applications. CalSTA also requires applicants to use project cost estimates approved by the Chief Executive Officer or other authorized officer. Attachment A details the funding match commitment, prioritization, and costs for the three projects we have identified through our Evaluative Criteria Framework and our assessment of the TIRCP Project Evaluation Criteria as being the most competitive for 2020 Cycle 4 grant awards.

BACKGROUND

The TIRCP was authorized by State of California law to fund transformative capital improvements that modernize California's transit systems, including bus and rail, to achieve all of the following policy objectives:

- reduce emissions of greenhouse gases
- expand and improve transit service to increase ridership
- integrate the rail service of the state's various rail operations (including integration with the high speed rail system); and
- improve transit safety

-

It is also the goal of the program to maximize benefits to disadvantaged communities and low-income communities and households. At least 25 percent of the available funding must be for projects that

provide a direct, meaningful, and assured benefit to disadvantaged communities.

CalSTA's fund estimate for the TIRCP Cycle 4 Call for Projects is approximately $450 million to $500 million. This estimate is based on anticipated revenue through Fiscal Year (FY) 2024 25 from Senate Bill 1 (Road Repair and Accountability Act of 2017) and Cap and Trade Program auction proceeds, plus any additional funds approved through the annual budget.

CalSTA will program projects starting with FY 2020-21 and ending with FY 2024-25. However, CalSTA can enter into a multiyear funding agreement with eligible applicants for any duration through a multiyear funding agreement. CalSTA may also use this authority to program funds for a project that would depend on funds received subsequent to the five-year program, primarily intended for projects that have long construction timelines that extend beyond FY 2024-25. CalSTA intends to fund a small number of transformative projects that will significantly reduce vehicle miles traveled, congestion, and greenhouse gas emissions by:

- creating a new transit system;
- increasing the capacity of an existing transit system; or
- significantly increasing the ridership of a transit system.

CalSTA also seeks to fund projects that link housing with key destinations and improve accessibility to economic opportunities.

Metro has been very successful in securing TIRCP grant awards. In the 2018 Cycle 3 we were awarded about $1.1 billion (representing 25 percent of total funding awarded statewide) for "pillar" and other Metro capital projects, including:

- West Santa Ana Branch Light Rail Transit Corridor ($300 million)
- Green Line Light Rail Extension to Torrance ($231.3 million)
- Gold Line Foothill Extension to Montclair ($290.2 million)
- Orange/Red Line to Gold Line BRT Connector ($50 million)
- East San Fernando Valley Transit Corridor ($205 million)
- Vermont Transit Corridor ($5 million)
- Network System Integration ($7 million)

In the 2016 Cycle 2 we were awarded $40 million for the Airport Metro Connector 96th Street Station/Metro Green Lines Extension to LAX and $69.2 million for the Metro Red Line and Purple Line Core Capacity Improvements projects. In the 2015 Cycle 1, we received about $38.5 million for the Willowbrook/Rosa Parks Station & Blue Line Light Rail Operational Improvements Project.

DISCUSSION

Findings

To meet CalSTA's deadline and address its grant requirements and funding priorities, as well as its Project Evaluation Criteria, staff employed the Evaluative Criteria Framework (first shared with the

Board in 2017 and again most recently in September 2019) and met with staff from several Metro departments to help identify projects that could be eligible and most competitive for this TIRCP grant opportunity.

In our assessment of potential projects, we also considered the following:

- project status, approval and funding commitment; and
- the Board's October 2016 Resolution that authorizes the Chief Executive Officer (CEO) or his/her designee to file applications to secure federal, state, regional and local sources of revenue for "Board-approved projects and activities".

Based on this assessment, staff recommends developing TIRCP grant applications for the following three projects (shown in order of priority):

1. Zero-Emission Buses and Charging Infrastructure Deployment & System Integration

The project consists of the procurement and integration in transit revenue service of 220 battery-electric buses and supportive charging infrastructure. The zero-emission buses will replace an equal number of compressed natural gas (CNG) buses that have exceeded their useful life, including CNG tanks. The zero-emission buses will be deployed on several existing routes that are currently served by Metro's Division 9 and Division 18. These routes serve predominantly disadvantaged communities and low-income communities and households ("priority populations"). The project supports the July 2017 prioritization of the Metro Board of Directors of the Strategic Plan for the transition to a zero-emission bus fleet by 2030. The project also supports state's Innovative Clean Transit Regulation that requires transit agencies to transition to a 100% zero-emission bus fleet by 2040 and requires for large transit agencies that starting January 1, 2023, 25% of the total number of new bus purchases in each calendar year must be zero-emission buses with this percent of new purchases growing to 50% by 2026 and 100% by 2029.

The estimated total project cost is $210 million total and the TIRCP grant request is for $105 million. The project's funding plan assumes a commitment by Metro of about: $67.1 M in Regional Improvement Program (RIP) funds, as authorized by the Board of Directors in October 2019 and through prior actions, to be allocated by the California Transportation Commission; $5.4 million in Section 5339 Bus and Bus Facilities Program funds that staff secured from the Federal Transit Administration; and an additional $32.5 million in local and other funds planned for ongoing bus replacements in Metro's Short Range Financial Forecast that we need to commit to the project.

2. Metrolink Antelope Valley Line Capital & Service Improvement Program of Projects

This project addresses the need to provide faster, safer, more reliable and more frequent rail service for Metrolink's Antelope Valley Line (AVL). The project is responsive to the July 2019 Motion 5.1 that the Metro Board of Directors unanimously approved to support the implementation of a key set of infrastructure improvements that will allow Metrolink to operate an improved level of service through collaboration with Metro, subregional governments, and local jurisdictions. The Program of Projects (POP) consists of two major components:

a. Construction of Capital Improvements (excluding Environmental and Engineering)
   - The Balboa Double Track Extension ($41.9 million)
   - Brighton to McGinley Double Track ($72.9 million)
   - Canyon Siding Extension ($57.7 million)
   - Lancaster Terminal Improvements ($31.1 million)

   The estimated total cost of the proposed capital improvements is approximately $203.6 million. The TIRCP grant request is for $102 million. The project's funding plan assumes Metro's commitment of up to $102 million in North County Measure M Transit Multi-year Subregional Program (MSP) funds. Metro staff is continuing to work with Metrolink and the other subregional partners along the AVL corridor to assess opportunities to offset the commitment of North County Measure M Transit MSP funds with other applicable regional and subregional funds that could be available over the project delivery schedule.

b. Implementation of Multiple Unit Train Pilot Project

   The Multiple Unit Train Pilot Project will allow testing the application of new technology to deliver potentially more cost-effective solutions for current and potential augmentation of Metrolink service on the AVL. As this pilot project will be the first test of rail multiple unit technology in Los Angeles County, the proposed scope will also provide a general framework for potential future application of the technology along other rail corridors. The estimated total cost of the proposed pilot is dependent upon the scope, which is still being determined at this time. An updated scope, cost, funding plan and recommendation for Metro's commitment will be provided prior to the November Planning Committee meeting.

3. Los Angeles Metro Light Rail CORE Capacity and System Integration Project

The project addresses **c**apital, **o**perational, **r**ehabilitation, and **e**xpansion (i.e., CORE) needs for the Crenshaw/LAX Line and Green Line necessary to accommodate and allow the operation of three-car trains, including:

a. Platform expansion at Aviation, Douglas, Mariposa, and Redondo Beach stations;
b. Rehabilitation work at the El Segundo Station; and
c. Addition of two new traction power substations (TPSS).

This project is necessary to increase the passenger capacity of trains in anticipation of the opening of the Crenshaw/LAX Line, the Green Line extension to Torrance, and the Airport Metro Connector Station that will serve those light rail transit lines and connect to the LAX Automated People Mover. It is also necessary as it addresses the need for addition capacity to the projected increase in travel demand due to the completion of nearby development projects, mainly the LA Stadium & Entertainment District at Hollywood Park (home of the Rams and Chargers football teams and anticipated to host about 300 major events per year) in the City of Inglewood, as well as other related planned projects, such as the Transit Connector/Automated People Mover that the City of Inglewood is studying for a direct connection to the Metro Crenshaw/LAX Line and to the Metro Green Line. This project also supports Metro's commitment to deliver a robust State of Good Repair (SGR) Program that invests in modernization and enhancements to renew asset life and reduce asset breakdowns

that impact daily service and customer experience. Major rehabilitation of the Green Line is necessary to prevent service degradation, improve passenger experience, and bring its 25-year old assets up to current Metro SGR standards.

The estimated total project cost is $200 million total and the TIRCP grant request is for $70 million. The project's funding plan assumes Metro's commitment of $130 million in in local and other funds planned for ongoing state of good repair in Metro's Short Range Financial Forecast that we need to commit to the project.

Consideration of Twenty-Eight by '28 Initiative Pillar Projects

At the February 2019 Board meeting, the Metro Board approved Motion 32.4 by Directors Garcetti, Butts, Solis and Hahn that affirmed the Board's support for the Twenty-Eight by '28 Initiative and established four "pillar projects" that would be prioritized for acceleration. These projects are the following:

- Gold Line Eastside Extension 2
- Green Line Extension to Torrance
- Sepulveda Transit Corridor
- West Santa Ana Branch to Downtown LA

Staff considered all four of these projects for this TIRCP cycle and determined that these four projects would not be eligible or ready to submit for this current cycle.

CalSTA requires applicants to demonstrate their ability to absorb any cost overruns and deliver the proposed project with no additional funding from the TIRCP beyond its grant award, as well as to fund initial operating costs.

In the 2018 TIRCP Cycle 3, Metro secured funding for two pillar projects - the West Santa Ana Branch to Downtown LA and the Green Line Extension to Torrance. As a result of securing these funds, Metro will not be able to apply for additional funding through TIRCP.

The remaining two pillar projects-the Gold Line Eastside Extension 2 and the Sepulveda Transit Corridor-are not at a strong enough level of "project readiness" to allow Metro to submit competitive applications for these projects in Cycle 4, which funds projects from FY 21 to FY 25.

Staff remains committed to identifying other funding opportunities across other state and federal programs for the four pillar projects. Developing the scope and advancing the Gold Line Eastside Extension 2 and the Sepulveda Transit Corridor in a timely manner will be vital to allowing Metro to pursue these funding opportunities in future cycles.

Other Considerations

Project readiness was a key consideration in our assessment. CalSTA indicated that the most highly rated projects are those with an approved environmental document. With this into consideration, we could not identify Measure M projects and other priorities identified in the Long Range Transportation

that could be competitive for this grant cycle.

While CalSTA does not restrict the number of grant applications an agency may submit, it advises submitting projects that are scalable where practical. CalSTA indicated that it may evaluate projects with clear phases or scalability for a project component that would receive the highest rating if partial funding for the project is under consideration. Due to the relatively limited funding available for Cycle 4 to make grant awards compared to Cycle 3, we limited the number of our agency's grant applications to a total of three. However, each application includes several components and is scalable.

Also, while CalSTA does not require a minimum match requirement, it considers funding leverage as being desirable and to be considered in the evaluation of expected project benefits. If a project is awarded funds, all funds identified as committed to the project may be required as a funding match at the time of project selection. CalSTA may also make some funding available for demonstration projects that are smaller scale efforts with great potential to be expanded.

Equity Platform -

The Evaluative Criteria Framework we used for identifying potential projects comprises six main project assessment parameters focused on developing competitive grant applications, while addressing equity both directly through project priorities and through the emphasis on consistency with Board policies and directives. The first and primary parameter is focused on sustaining Measure M and other pre-Measure M/Long Range Transportation Plan priorities and schedules. Equity-related factors were also considered as part of the five performance measures developed to assess and prioritize projects in the Measure M Expenditure Plan. Specifically, the "Economy" and "Sustainability/ Quality of Life" themes included metrics attached to investments in disadvantaged communities. We also incorporated in our assessment the third pillar ("Focus and Deliver") of Metro's Equity Platform, which emphasizes investment decisions that advance outcomes that promote and sustain opportunities in underserved communities. This pillar aligns with one of the goals of the TIRCP aimed at maximizing the benefits to "priority populations", which include disadvantaged communities, low-income communities and low-income households. Almost all of the service areas of the proposed projects for the TIRCP grant opportunity comprise these priority populations.

DETERMINATION OF SAFETY IMPACT

The three projects recommended for TIRCP Cycle 4 applications, if selected for grant awards and implemented, will have a positive impact on Metro's safety standards, as well of Metrolink (as applicable to the AVL). These buses are designed to comply with all applicable federal, state and local safety standards. The zero-emission buses will include improved safety features and amenities, including enhanced ADA securement provisions, operator barriers, and enhanced video surveillance capabilities. These buses will also replace buses that have reached the end of their useful life and have expiring CNG fuel tanks that are impractical to replace. The POP for Metrolink's AVL and the Los Angeles Metro Light Rail CORE Capacity and System Integration Project will both result in safer and more reliable service, therefore improving the overall customer experience.

FINANCIAL IMPACT

Adoption of the recommended action could result in the award of $277 million to our agency. A grant award for the procurement of zero-emission buses and charging infrastructure will support funding Modification No. 2 to Contract OP28367-002, Part C with BYD Coach & Bus, LLC (BYD) to purchase 40 Contract Option forty-foot ZE buses that the Board of Directors approved in September 2019 in anticipation of receiving state and federal grants. It will also support the procurement and deployment of an additional 180 buses and necessary charging infrastructure. With bus option deliveries not anticipated until FY 2021, and those from new contracts starting to be delivered in FY 2023, there will be no impact to our agency's FY 2020 budget. Similarly, there will be no impact to our agency's FY 2020 budget from the other two projects included in the Recommended Action, as construction activities and Pilot implementation will start after FY 2022.

Since the projects will be implemented through multi-year contracts, the Cost Center Managers and Chief Operations Officer will be responsible for budgeting the costs in future years.

Impact to Budget

There will be no impact to our agency's FY 2020 budget. Any funding committed by our agency for TIRCP Cycle 4 grant applications will be included in future year budgets.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Recommended Action supports multiple goals of the Strategic Plan:

- Goal # 1 to provide high-quality mobility options that enable people to spend less time traveling; and
- Goal # 3 to enhance communities and lives through mobility and access to opportunity.

The proposed projects expand and integrate transit options, as well as improve the quality of the transit network, service and assets. The proposed investments will also benefit those with the greatest mobility needs, as almost all of their service areas comprise disadvantaged communities, low-income communities and low-income households. TIRCP grant awards for the proposed projects will also expedite the delivery of a multimodal program of projects that includes bus, light rail, and commuter rail service in time for the 2028 Summer Olympics. The investment in a world-class bus, light rail, and commuter rail system will result in more reliable and convenient transit service that will attract new users (including those shifting from driving), increase overall ridership, and improve access to jobs and job-related opportunities as well as to educational, health, and recreational destinations.

The proposed Program of Projects for the AVL also implements an action of the first goal of the Vision 2028 Strategic Plan that specifically asks to partner with Metrolink to increase the capacity of the regional transportation system. Overall, the proposed projects will provide access to high-quality transit options to driving, therefore serving not only transit-dependent members of our community but also those who currently depend on their own vehicles for their travel.

ALTERNATIVES CONSIDERED

Staff considered not submitting grant applications for TIRCP Cycle 4. We do not suggest this alternative as it will preclude our agency from applying for a major capital discretionary grant program that could fund some of our identified needs (i.e., procurement of zero-emission buses and charging infrastructure), as well unfunded needs we have identified through our assessment of potential projects (i.e., the AVL POP and the Metro Light Rail CORE Capacity and System Integration Project). As there is no formula or target of funding to be allocated to LA County in TIRCP Cycle 4, any funding not realized by Metro will not be carried over into future cycles.

NEXT STEPS

Upon approval of the Recommended Action by the Board of Directors, staff will expand its stakeholder outreach and seek letters of support for our grant applications. We will finalize and submit the grant applications to CalSTA by the January 16, 2020 deadline.

ATTACHMENTS

Attachment A - Recommended Projects, Funding Match and Priority for TIRCP Cycle 4

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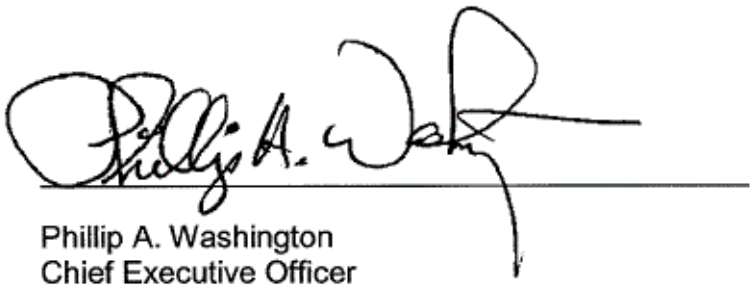

Phillip A. Washington
Chief Executive Officer

Evaluative Criteria Framework to Guide Project Candidate Selection 2020 Transit and Intercity Rail Capital Program

To guide Metro's decision-making process in selecting projects for consideration for competitive grants from the 2020 Transit and Intercity Rail Capital Program (TIRCP), staff employed the Evaluative Criteria Framework. Using this iterative process, staff arrived at a focused list of potential candidate projects that meet the six evaluative criteria considerations.

1. *Sustain Measure M and other Pre-Measure M/LRTP Priorities and Schedules*

Staff reviewed the Measure M Expenditure Plan, focusing on the twenty four major projects and applicable Multi-year Subregional Programs (MSP) that are slated to begin construction within the first twenty years of the plan. Each of the twenty four projects and applicable MSP was then evaluated based on the following three requirements, in the following order:

- Does the Project have eligible scope for TIRCP consideration?
- Is the Project eligible for additional TIRCP funding?
- Can the Project award a construction, procurement or design-build contract within the five-year programming period through FY 2024/25?

To accomplish this evaluation, staff met and discussed candidate projects with staff from various Metro departments, including Regional Rail and Planning, to determine which projects that have not previously been awarded TIRCP funds through construction would be considered eligible for TIRCP based on the specified project eligibility as set forth in the program guidelines, and of those projects, which ones would be able to enter into a construction or design-build (D-B) contract and initiate that phase of work no later than FY 2024/25 as prescribed by the program cycle.

The consideration of projects being eligible for additional TIRCP funding is important as Metro was successful in securing approximately $1.1 billion in TIRCP funding in the 2018 cycle for six major capital projects:

- West Santa Ana Branch Light Rail Transit Corridor ($300 million)
- Green Line Light Rail Extension to Torrance ($231.3 million)
- Gold Line Foothill Extension to Montclair ($290.2 million)
- Orange/Red Line to Gold Line BRT Connector ($50 million)
- East San Fernando Valley Transit Corridor ($205 million)
- Vermont Transit Corridor ($5 million – Environmental Only)

Additionally in the 2016 TIRCP cycle Metro was awarded $40 million for the Airport Metro Connector 96th Street Station project.

Of these prior awards, only the Vermont Transit Corridor would be eligible for additional TIRCP funding as it only received funding for environmental clearance. All other projects are not eligible because CalSTA does not provide additional TIRCP funding beyond its grant awards, including paying for any cost overruns.

Staff subsequently identified four projects[1] from the Measure M Expenditure Plan (see table on the following page) that met all three requirements:

- Westside Purple Line Extension Section 3
- Orange Line BRT Improvements
- Crenshaw/LAX Track Enhancement Project
- Transit Program (North County)

The Transit Program in North County is responsive to the July 2019 Board Motion 5.1 and specifically involves the implementation of capital and service improvements on the Metrolink Antelope Valley Line (AVL). This Board motion prioritized the construction of four capital improvements including:

- Balboa Double Track Extension
- Brighton to McGinley Double Track
- Canyon Siding Extension
- Lancaster Terminal Improvements

The motion also included the implementation of a multiple unit train pilot project to test the application of new technology to deliver potentially more cost-effective solutions for current and potential increased Metrolink service on the AVL.

Following this initial screening, staff looked at near-term capital projects that are standing commitments included in Measure R and the LRTP. Two other projects were found to meet the project type and delivery timeframe conditions for eligibility in the 2020 cycle of the TIRCP:

- Zero-Emission Buses (ZEB) and Charging Infrastructure – Supports State of California Innovative Clean Transit Regulation that requires transit agencies to transition to a 100% zero-emissions bus fleet by 2040 with progressive ZEB purchase requirements as well as the July 2017 Metro Board prioritization of completing the 100% ZEB transition by 2030.

- Green Line and Crenshaw/LAX Line Capacity Improvements – Extension of the platforms at four existing light rail stations to support the operation of three-car trains along the Green and Crenshaw/LAX Lines.

This first step of the Evaluative Criteria revealed six possible candidates to consider further.

[1] Projects listed in priority order from the Measure M Expenditure Plan.

	Measure M Expenditure Plan Projects	Is the Project Definition Eligible for TIRCP Consideration?	Is the Project Eligible for Additional TIRCP Funding?	Can the Project Meet the FY 2024/25 Construction/ D-B Contract Award Date?
Expenditure Plan Major Projects				
1	Airport Metro Connector 96th St. Station/ Green Line Extension to LAX	Yes	No	
2	Westside Purple Line Extension Section 3	Yes	N/A	Yes
3	High Desert Multi-Purpose Corridor (HDMC)	No		
4	I-5 North Capacity Enhancements (SR-14 to Lake Hughes Rd)	No		
5	Gold Line Foothill Extension to Claremont	Yes	No	
6	Orange Line BRT Improvements	Yes	Yes	Yes
7	BRT Connector Orange/Red Line to Gold Line (av/sf)	Yes	No	
8				
9	East SF Valley Transit Corridor Project	Yes	No	
10	West Santa Ana Transit Corridor LRT	Yes	No	
11	Crenshaw/LAX Track Enhancement Project	Yes	Yes	Yes
12	SR-71 Gap from I-10 to Rio Rancho Rd.	No		
13	LA River Waterway & System Bikepath	No		
14	Complete LA River Bikepath	No		
15	Sepulveda Pass Transit Corridor (Phase 1) (sf/w)	No		
16				
17	Vermont Transit Corridor	Yes	Yes	
18	SR-57/SR-60 Interchange Improvements	No		
19	Green Line Extension to Crenshaw Blvd. in Torrance	Yes	No	
20	I-710 South Corridor Project (Phase 1)	No		
21	I-105 Express Lane from I-405 to I-605	No		
22	Sepulveda Pass Transit Corridor (Phase 2) (sf/w)	Yes	Yes	
23				
24	Gold Line Eastside Extension (one alignment) (gc/sg)	Yes	Yes	
25				
26	West Santa Ana Transit Corridor LRT (cc/gc)	Yes	No	
27				
28	I-710 South Corridor Project (Phase 2)	No		
29	I-5 Corridor Improvements (I-605 to I-710)	No		
Multi-year Subregional Programs				
64	Transit Program (nc)	Yes	Yes	Yes

2. *Match Competitiveness of Projects to New/Expanded Programs Criteria*

Following staff's efforts to determine which Measure M/ Measure R/ LRTP Priorities satisfied basic project eligibility criteria, staff refined the list based on the relative competitiveness of these projects given the program's objectives. The intent of the TIRCP is to fund transformative capital improvements that will modernize California's intercity, commuter, and urban rail systems, as well as bus and ferry transit systems, to significantly reduce emissions of greenhouse gases, vehicle miles traveled, and congestion. Accordingly, and based on the TIRCP evaluation criteria, staff determined that the most competitive projects would be those that:

- Create a new transit system, increase the capacity of an existing transit system, or otherwise significantly increase the ridership of a transit system.
- Link key destinations and improve accessibility to economic opportunities.
- Achieve geographic equity, with particular attention in identifying efforts to address underserved communities within our region or service area.
- Fund construction or implementation phases of the project.
- Integrate the services of the state's various rail and transit operations.
- Benefit disadvantaged communities, low-income communities, and/or low-income households.
- Include separable project elements and are scalable to allow implementation if available resources do not permit the full project to be funded.
- Leverage funding from other sources, particularly from other greenhouse gas reduction programs, although there is no minimum match requirement.
- Do not supplant already committed funds.

After reviewing the six potential candidate projects that were initially identified, staff determined that the Crenshaw/LAX Track Enhancement Project and the Orange Line BRT Improvements Project are not competitive for TIRCP funds. The Orange Line BRT Improvements Project was also fully funded through the SB1 Local Partnership Program (LPP) in the 2018 SB1 cycle.

3. *Certainty (Formula) vs. Risk (Competitive/Discretionary)*

As the TIRCP is a competitive grant program, all candidate projects advanced to the application process must be able to withstand the degree of risk involved with securing external funds. Additionally, as the TIRCP is funded solely through state funds, existing project funding plans were examined to assess whether introducing state funding would complement or compromise the other sources planned for. Accordingly, staff elected to:

- Remove the Westside Purple Line Extension Section 3 Project as it is on track to secure a Full Funding Grant Agreement (FFGA) with the Federal Transit

Administration (FTA). Introducing state funding would insert additional timing for coordinating the allocation of TIRCP funds that could compromise the FFGA.

4. *Geographic Balance*

With the three remaining candidate projects, Metro has an opportunity to put forth competitive grant applications that help realize Cap and Trade and SB 1 investments throughout Los Angeles County and support the goal of achieving geographic balance:

- San Gabriel Valley/Gateway Cities/South Bay/Central City Area:
  - Zero-Emission Buses (ZEB) and Charging Infrastructure (Divisions 9 and 18)

- North County/Arroyo Verdugo/San Fernando Valley/Central City Area:
  - Metrolink Antelope Valley Line (AVL) Capital and Service Improvements

- South Bay/Central City Area/Westside Cities:
  - Green Line and Crenshaw/LAX Line Capacity Improvements

5. *Consistency with Board Policies and Directives*

The projects selected for TIRCP applications are consistent with board policies and directives, particularly those to maintain the priority of the Measure M Expenditure Plan and to leverage local sales tax to bring in a competitive share of state and federal funding into Los Angeles County for transportation infrastructure priority projects.

6. *Consistency with Metro Long Range Transportation Plan (LRTP) and SCAG Regional Transportation Plan (RTP)*

All of the projects selected by Metro for TIRCP applications are included in and consistent with the priorities set forth in Metro's LRTP and SCAG's RTP.

Summary of Evaluation of Candidate Projects:

Based on this assessment, the following three projects meet the Evaluative Criteria for candidate project selection and will be eligible and competitive for 2020 TIRCP funds:

1. Zero-Emission Buses (ZEB) and Charging Infrastructure
2. Metrolink Antelope Valley Line (AVL) Capital and Service Improvements
3. Green Line and Crenshaw/LAX Line Capacity Improvements

ATTACHMENT A

2020 CYCLE TRANSIT AND INTERCITY RAIL CAPITAL PROGRAM
PROJECT PRIORITY AND LOCAL MATCH COMMITMENT

Project	Priority	Total Cost ($ millions)	TIRCP Request ($ millions)	Local Match ($ millions)
Zero-Emission Buses and Charging Infrastructure	1	$210	$105	$105
Metrolink Antelope Valley Line Capital and Service Improvements*	2	$204	$102	$102
Green Line and Crenshaw/LAX Line Capacity Improvements	3	$200	$70	$130
Total	N/A	$614	$277	$337

* Multiple unit train pilot project pending final scoping and cost estimate not included in total cost