

Metro

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



Agenda - Final

Thursday, July 27, 2017

9:00 AM

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

Board of Directors - Regular Board Meeting

Eric Garcetti, Chair

Sheila Kuehl, Vice Chair

James Butts, 2nd Vice Chair

Kathryn Barger

Mike Bonin

Jacquelyn Dupont-Walker

John Fasana

Robert Garcia

Janice Hahn

Paul Krekorian

Ara Najarian

Mark Ridley-Thomas

Hilda Solis

Carrie Bowen, non-voting member

Phillip A. Washington, Chief Executive Officer

****A written request to address the Board should be submitted in person at the meeting to the Board Secretary prior to the item being called for discussion. Once discussion on an item begins, requests to speak on that item will no longer be accepted.***

METROPOLITAN TRANSPORTATION AUTHORITY BOARD RULES
(ALSO APPLIES TO BOARD COMMITTEES)

PUBLIC INPUT

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 should be submitted in person at the meeting to the Board Secretary. Individuals requesting to speak on more than three (3) agenda items will be allowed to speak up to a maximum of three (3) minutes per meeting. For individuals requiring translation service, time allowed will be doubled.

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.

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 up to three (3) minutes per meeting and may speak no more than once during the Public Comment period. Speakers will be called according to the order in which the speaker request forms are received. Elected officials, not their staff or deputies, may be called out of order and prior to the Board's consideration of the relevant 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.

CONDUCT IN THE BOARD ROOM - The following rules pertain to conduct at Metropolitan Transportation Authority meetings:

REMOVAL FROM THE BOARD ROOM The Chair shall order removed from the Board Room any person who commits the following acts with respect to any meeting of the MTA Board:

- 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.
- c. Disobedience of any lawful order of the Chair, which shall include an order to be seated or to refrain from addressing the Board; and
- d. Any other unlawful interference with 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

APPROVE Consent Calendar Items: 2, 8, 9, 10, 12, 13, 20, 21, 22, 25, 26, 28, 29, 33, 34, 36, 37, 39, 41, 42, 43, 44, 45 and 47.

Consent Calendar items are approved by one motion unless held by a Director for discussion and/or separate action.

CONSENT CALENDAR

2 APPROVE **Minutes of the Regular Board Meeting held June 22, 2017.** [2017-0473](#)

Attachments: [Minutes of the Regular Board Meeting - June 22, 2017](#)

AD-HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0):

8 CONSIDER: [2017-0384](#)

A. ACKNOWLEDGING completion of the I-5/SR-14 HOV Direct Connector Project and AUTHORIZING to close of the project;

(REQUIRES TWO-THIRDS VOTE OF THE FULL BOARD)

B. AUTHORIZING the Chief Executive Officer to reprogram \$85.8 million dollars of planned \$90.8 million dollars unspent in original Measure R 20% funds for the I-5/SR-14 HOV Capacity Enhancements Project to other eligible highway operational improvement projects in North County;

C. AUTHORIZING retention of \$5 million from the \$90.8 million to remain within the I-5/SR-14 HOV Direct Connector Project for completion of the outstanding workscope with any unspent funds to remain within the North County region, and;

D. AMENDING FY18 budget for \$2 million dollars to create and fund the I-5 / SR-14 Direct Connector Project to address a remaining utility relocation.

Attachments: [Attachment A - Caltrans letter on cost to close the Project](#)
[Attachment B - Revised Unified Cost Management Process and Policy for Meas](#)

**AD-HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE MADE THE FOLLOWING
RECOMMENDATION (3-0):**

9 CONSIDER: [2017-0408](#)

- A. APPROVING up to \$4.7 million in programming for Measure R Line 32, Highway Operational Improvements in Las Virgenes Malibu Subregion for project number MR311.34 - Long Valley Road/Valley Circle/US-101 Northbound (NB) On-Ramp improvements; and
- B. AUTHORIZING the CEO or his designee to negotiate and execute all necessary agreements for approved project.

Attachments: [Attachment A - Aerial Photo](#)
 [Attachment B - Engineers Estimate](#)
 [Attachment C - Letter of confirmation approving funding allocation by LVMCOG](#)

**AD-HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE MADE THE FOLLOWING
RECOMMENDATION (3-0):**

10 PROGRAM \$1,500,000 to Caltrans to prepare Noise Barrier Scope Summary Reports (NBSSRs) for three soundwall segments identified as follows: Westbound I-210 from Orcas Ave to Foothill Blvd (Lake View Terrace), Eastbound I-210 from Yarnell St to Roxford St (Sylmar) and Northbound I-405 north of Devonshire St to the I-405/SR-118 connector crossing (North Hills). [2017-0421](#)

Attachments: [ATTACHMENT A - LOCATION MAP.pdf](#)

FINANCE, BUDGET AND AUDIT COMMITTEE MADE THE FOLLOWING RECOMMENDATION (4-0):

- 12 AUTHORIZE the Chief Executive Officer to execute a seven (7)-year lease agreement (“Lease Agreement”) with The City of Los Angeles Board of Airport Commissioners (“City”), having jurisdiction over Los Angeles World Airports (“LAWA”), allowing Metro to continue leasing 2.0177 acres of land and improvements located at Los Angeles International Airport (“LAX”) Terminal 27, 6111 W. 96th Street, Los Angeles at a rental amount of \$7,770 per month for a total lease value of \$714,448 over the (7)-year lease term including an estimated 3.29% CPI adjustment assessed annually.

[2017-0430](#)

Attachments: [ATTACHEMENT A - SUMMARY OF KEY LEASE TERMS](#)
[ATTACHMENT B - LEASE AREA AND PREMISIS OF TERMINAL 27](#)

FINANCE, BUDGET AND AUDIT COMMITTEE MADE THE FOLLOWING RECOMMENDATION (4-0):

- 13 AUTHORIZE the Chief Executive Officer (CEO) to execute a five-year exclusive lease agreement and a five-year extension option with Bike and Park Santa Monica, LLC (Bike and Park) for the Kiosk S-4 space location at Union Station in the amount of \$1,970.72 monthly base rent plus an annual increase of three percent, common area maintenance (CAM) fees, and a percentage rent of ten percent of gross sales above the base rent, for a total income in excess of \$500,000 over the 10-year lease. Lease will start on the earlier of 60 days from completion of the Metro Bike Hub currently under construction or the day the Bike and Park actually commences conducting business.

[2017-0412](#)

Attachments: [Attachment A - Bike and Park Premises and Patio Area](#)
[Attachment B - Bike and Park Project Area](#)
[Attachment C - Bike and Park Lease Agreement Key Terms](#)

**PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING
RECOMMENDATION (3-0):**

20 CONSIDER:

[2017-0321](#)

- A. APPROVING the recommended federal Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program funding awards totaling up to \$7,374,066 for Traditional Capital Projects and up to \$1,818,271 for Other Capital and Operating Projects, as shown in Attachments A and B, respectively;
- B. APPROVING the recommended federal Section 5316 Job Access and Reverse Commute (JARC) Program funding awards totaling up to \$6,278,036 as shown in Attachment C;
- C. APPROVING the recommended federal Section 5317 New Freedom funding awards totaling up to \$3,254,352, as shown in Attachment D;
- D. AMENDING the FY 2018 Budget to add \$2,953,505 for the recommended Section 5310 funded projects and \$3,000,000 for the recommended Section 5316 JARC Program, once the Federal Transit Administration (FTA) awards the grant funds;
- E. AUTHORIZING the Chief Executive Officer (CEO) or his designee to negotiate and execute pass-through agreements with agencies as sub-recipients approved for funding by FTA;
- F. DELEGATING to the CEO or his designee the authority to administratively approve minor changes to the scope of work of previously-approved Section 5310, Section 5316 and Section 5317 funding awards;
- G. CERTIFYING that the Section 5310, Section 5316 and Section 5317 funds are fairly and equitably allocated to eligible sub-recipients and, where feasible, projects are coordinated with transportation services assisted by other federal agencies; and
- H. CERTIFYING that all projects recommended for Section 5310, Section 5316 and Section 5317 funding are included in the locally-developed 2016-2019 Coordinated Public Transit-Human Services Transportation Plan for Los Angeles County ("Coordinated Plan") that was developed and approved through a process that included participation by seniors and individuals with disabilities, as well as by representatives of public, private, and nonprofit transportation and human service providers and other members of the public.

- Attachments:** [Attachment A - Section 5310 Traditional Capital](#)
[Attachment B - Section 5310 Other Capital and Operating](#)
[Attachment C - Section 5316](#)
[Attachment D - Section 5317](#)
[Attachment E - Evaluation Criteria](#)

PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0):

- 21 AUTHORIZE the implementation of a monthly parking program to non-transit riders at the Expo/Sepulveda Station. [2017-0425](#)
- Attachments:** [Attachment A - Monthly Parking Terms and Conditions](#)

PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0):

- 22 AUTHORIZE the Chief Executive Officer (CEO) to negotiate and execute a Construction Funding Agreement with the City of Los Angeles for the Taylor Yard Bridge with a not-to-exceed amount of \$21,700,000. [2017-0344](#)
- Attachments:** [Attachment A - Design Funding Board Report.pdf](#)
[Attachment B - Site Plan and Rendering.pdf](#)
[Attachment C - Project Scheudle.pdf](#)
[Attachment D - Project Budget.pdf](#)

CONSTRUCTION COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0-1):

25 AUTHORIZE the Chief Executive Officer to negotiate and execute: [2017-0298](#)

- A. a five-year indefinite quantity/indefinite delivery cost plus fixed fee Contract No. PS20655 to TRC Solutions, Inc., for Environmental Waste Handling and Environmentally Related Construction Services on Task Orders, for a base term of three (3) years, plus two one-year options, in an amount not to exceed \$42,274,495 (Base Contract: \$35,100,495; Option Year 1: \$5,037,000 and Option Year 2: \$2,137,000), subject to the resolution of any timely protest; and
- B. all individual Task Orders and changes within the Board approved contract value.

Attachments: [Attachment A Environmental Waste Handling and Construction Services Contr](#)
[Attachment B Procurement Summary.docx](#)
[Attachment C DEOD Summary.docx](#)

CONSTRUCTION COMMITTEE MADE THE FOLLOWING RECOMMENDATION (4-0):

26 CONSIDER: [2017-0427](#)

- A. REAFFIRMING the use of a Power Purchase Agreement (PPA) to implement a design-build project at Divisions 9, 11, 14 (Expo Yard), and 22 (see Funding and Operating Sustainability-Related Infrastructure report, attached as Attachment B) including the design, construction and installation of new roofs for Divisions 11 and 22 to be paid for through a PPA; and
- B. FINDING that use of the design-build contracting delivery approach pursuant to Public Utilities Code Section 130242, et. seq. will achieve certain private sector efficiencies in the integration of the design and construction by providing for the award of a design-build contract to the lowest responsive and responsible bidder for the installation of new roofs at Divisions 11 and 22 and installation of solar photovoltaic ("PV") systems at Divisions 9, 11, 14, and 22, which will be solicited through either an Invitation for Bid (IFB) or Request for Proposal (RFP) procurement method.

Attachments: [Attachment A - Renewable Energy Policy \(9-4-2011\).pdf](#)
[Attachment B - Funding and Operating Sustainability-Related Infrastructure Rep](#)
[Attachment C - Report on Design Build November 19 2015.pdf](#)
[Attachment D - Report on Alt Fin Mechanisms for Energy Projs.pdf](#)

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0):

28 AUTHORIZE the Chief Executive Officer to award a 24-month, indefinite delivery/indefinite quantity Contract no. MA38768002 to JWL Supplies, the lowest responsive and responsible bidder, for shop towels for a total contract amount of \$1,158,984; subject to resolution of protest(s), if any. The award is for a base year amount of \$579,492, inclusive of sales tax, and a one-year option amount of \$579,492, inclusive of sales tax. [2017-0441](#)

Attachments: [Attachment A - Procurement Summary](#)
[Attachment B - DEOD Summary](#)

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE MADE THE FOLLOWING RECOMMENDATION (4-0):

29 APPROVE nominees for membership on Metro's Service Councils. [2017-0273](#)

Attachments: [Attachment A - Listing of Qualifications 7-27-2017](#)
 [Attachment B - Appointing Authority Nomination Letter 7-27-2017](#)

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE MADE THE FOLLOWING RECOMMENDATION (4-0):

33

[2017-0404](#)

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to amend the FY18 Budget to add 59 positions, as shown below:
 - 1. Add 8 (eight) non-contract positions to manage and plan for integrated testing, system readiness drills, asset inspection and acceptance, turnover coordination, opening a new Rail Maintenance Facility and pre-revenue service testing of the Crenshaw Line rail project.
 - 2. Add 51 contract positions to support training and certification, asset inspection and acceptance, turnover coordination, integrated testing, system readiness drills, the opening of a Rail Maintenance Facility, pre-revenue service testing and the opening of the Crenshaw Line to the public.

- B. RECEIVING AND FILING staff analysis of a comprehensive rail expansion staffing plan to add up to a total of 130 positions in FY19 and FY20. The staffing plan assumes a time-phased, milestone-based hiring construct using the best available current scope of work estimates. These FTE requirements will be brought forward for board consideration during the respective FY19 and FY20 budget development cycles.

Attachments: [Attachment A- Crenshaw FTE Summary](#)
 [Attachment B - Crenshaw FTE Staffing Timeline](#)

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE MADE THE FOLLOWING RECOMMENDATION (4-0):

- 34 AUTHORIZE the Chief Executive Officer to award a 60 month, Indefinite Delivery/Indefinite Quantity Contract No. FY34649 for unleaded gasoline to Pinnacle Petroleum, Inc., the lowest responsive and responsible bidder, for a two year base, inclusive of sales tax, for a not-to-exceed amount of \$3,886,980, and three one-year options for a not-to-exceed amount of \$5,830,470, for a total not-to-exceed contract amount of \$9,717,450, subject to resolution of protest(s), if any. [2017-0417](#)
- Attachments: [Attachment A - Procurement Summary](#)
[Attachment B - DEOD Summary](#)

EXECUTIVE MANAGEMENT COMMITTEE MADE THE FOLLOWING RECOMMENDATION (6-0):

- 36 ADOPT staff recommended positions: [2017-0475](#)
- HOUSE RESOLUTION BILL 3001 (LOWENTHAL) - Economy In Motion:**
The National Multimodal And Sustainable Freight Infrastructure Act
SUPPORT
- Attachments: [2017-0475 Attachment A](#)
[2017-0475 Attachment B](#)

EXECUTIVE MANAGEMENT COMMITTEE MADE THE FOLLOWING RECOMMENDATION (6-0):

- 37 ADOPT staff recommended positions: [2017-0483](#)
- A. ~~AB 533 (Holden) - State Highway Route 710 North~~ **WORK WITH AUTHOR**
- B. **AB 1069 (Low) - Local Government: Taxicab Transportation Services**
OPPOSE
- Attachments: [Attachment B - AB 1069 \(Low\)](#)

EXECUTIVE MANAGEMENT COMMITTEE MADE THE FOLLOWING RECOMMENDATION (6-0):

- 39 APPROVE stipend of \$100 per meeting per committee member for the Measure M Independent Taxpayer Oversight Committee, as required by the Ordinance. [2017-0465](#)

AD-HOC CUSTOMER EXPERIENCE COMMITTEE MADE THE FOLLOWING RECOMMENDATION (5-0):

41 CONSIDER:

[2017-0484](#)

- A. RECEIVING AND FILING status report on Bus System Speed and On-Time Performance.

- B. AUTHORIZING the Chief Executive Officer to Develop a Plan to improve speed and on-time performance on key corridors of the Metro transit system, including:
 - Identify the top ten key transit corridors that will benefit the most from speed and on-time performance improvements; and

 - For each corridor, identify the congestion hot spots, develop a series of traffic signal, transit priority, and operational solutions, and evaluate the costs and benefits of solutions.

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE MADE THE FOLLOWING RECOMMENDATION (5-0):

42

[2017-0304](#)

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer (CEO) to award a firm fixed-price contract, Contract No. OP28367-002, Group C, to BYD Coach & Bus, LLC (BYD) for the manufacture and delivery of sixty 40' zero emission (ZE) transit buses, in the amount of \$44,967,874 for the base contract, including spare parts, charging equipment, taxes and delivery; exclusive of any contract option buses, subject to resolution of any properly submitted protest.
- B. AUTHORIZING the CEO to award an additional not-to-exceed amount of \$2,806,849 for Optional Vehicle Features, and Training Aids for a total combined contract amount not-to-exceed \$47,774,723.
- C. ESTABLISHING a life-of-project budget of \$65,900,000 for the purchase of sixty 40' zero emission buses, charging equipment, installation costs, infrastructure upgrades, and contingency under Capital Project no. 201077.

Attachments: [Attachment A - Procurement Summary](#)
 [Attachment B - DEOD Summary](#)
 [Attachment C - Funding and Expenditure Plan](#)

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE MADE THE FOLLOWING RECOMMENDATION (4-1):

43 CONSIDER:

[2017-0303](#)

- A. AUTHORIZING the Chief Executive Officer to award a firm fixed-price contract, Contract OP28367-001, Part D, to New Flyer of America for the manufacture and delivery of thirty-five 60' zero emission transit buses, in the amount of \$51,211,033 for the base contract, including charging equipment, taxes and delivery; exclusive of any contract option buses, subject to resolution of any properly submitted protest.
- B. AUTHORIZING the CEO to award an additional not-to-exceed amount of \$8,839,064 for Optional Vehicle Features, Spare Parts, and Training Aids for a total combined contract amount not-to-exceed \$60,050,097.
- C. ESTABLISHING a life-of-project budget of \$72,101,419 for the purchase of thirty five zero emission buses, charging equipment, installation costs, infrastructure upgrades, and contingency under CP 201073.
- D. FINDING that the award to New Flyer of America is made to the Proposer that provides the agency with the best value and is most advantageous to Metro. The recommended price addresses all contract requirements and represents the best overall value when all RFP evaluation factor are considered.
- E. RECEIVING AND FILING the presentation on the Strategic Planning for Metro's Transition to 100% Zero Emission Bus Fleet by 2030 (Attachment C).

- Attachments:**
- [Attachment A - Procurement Summary](#)
 - [Attachment B - DEOD Summary](#)
 - [Attachment C - Update on Metros ZEB Bus Plans](#)
 - [Attachment D - ZEB Bus Funding-Expenditure](#)

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE MADE THE FOLLOWING RECOMMENDATION (5-0):

44

[2017-0466](#)

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to negotiate and award a firm fixed-price Contract no. OP28367-003, Group B, to New Flyer of America (St. Cloud, MN), for the manufacture and delivery of sixty five 60' CNG transit buses, in a not to exceed amount of \$64,428,454, for the base contract, inclusive of taxes and delivery, exclusive of contract options.
- B. AUTHORIZING the Chief Executive Officer to negotiate and award an additional not to exceed amount of \$3,260,156 for spare parts, optional vehicle features, and training aids for a total combined contract amount not to exceed of \$67,688,610.
- C. ESTABLISHING a life-of-project budget of \$72,200,000, for the sixty five 60' CNG buses under Capital Project no. 201076.

Attachments: [Attachment A - Procurement Summary](#)
 [Attachment B - DEOD Summary](#)
 [Attachment C- Funding and Expenditure Plan](#)

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE MADE THE FOLLOWING RECOMMENDATION (5-0):

45

[2017-0399](#)

AUTHORIZE the Chief Executive Officer to award a three year, indefinite delivery/indefinite quantity Contract No. MA39865000 for Near Zero Emission Natural Gas Fueled Heavy Duty Engines to Cummins Pacific, LLC for a not-to-exceed amount of \$8,160,523, inclusive of sales tax, for the base year; a not-to-exceed amount of \$11,296,774, inclusive of sales tax, for the first one year option; and a not-to-exceed amount of \$7,064,518, inclusive of sales tax, for the second one year option, for a total Contract amount of \$26,521,815.

Attachments: [Attachment A - Procurement Summary](#)
 [Attachment B - DEOD Summary](#)

PLANNING AND PROGRAMMING COMMITTEE MADE THE FOLLOWING RECOMMENDATION AS REVISED (3-0):

47

WE THEREFORE MOVE that the Metro Board:

[2017-0505](#)

AUTHORIZE a study of the Metrolink Antelope Valley Line (AVL) between Burbank and Lancaster that determines a range of frequency of service to maximize regional accessibility throughout the day; assesses the status of existing tracks, culverts, tunnels, crossings and other infrastructure which limits operational flexibility & service reliability; recommends needed infrastructure & capital improvements (in level of priority) to support the range of frequency of service, service reliability, safety, and on-time performance, including latest technologies in rail propulsion, controls and rail stock; estimates the costs associated with the aforementioned improvements; and provides a cost-benefit analysis with prioritization of said improvements that can could be used to help guide both Metro, and Metrolink agencies and the North County Subregion in a direction to best achieve the above stated goals, while ensuring compatibility with future planning processes;

DIRECT staff to coordinate with Metrolink and local North County stakeholders on this study and to incorporate any previous or ongoing efforts such as the Antelope Valley Infrastructure Improvements Strategic Plan, the NCMITS, the Los Angeles-Burbank-Glendale Corridor Feasibility Study and Metrolink efforts to address state of good repair, so as to avoid being duplicative;

ACKNOWLEDGE that execution of this study shall not hinder any efforts currently underway by Metro or Metrolink to deliver capital improvements or address state of good repair on the AVL; and

DIRECT the CEO to report back to the board in September with an update on stakeholder outreach, identification of potential funding sources for the study, along with a timeline for study implementation.

NON-CONSENT

3 RECEIVE report by the **Chair**. [2017-0517](#)

4 RECEIVE report by the **Chief Executive Officer**. [2017-0518](#)

AD-HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE FORWARDED WITHOUT RECOMMENDATION DUE TO ABSENCES AND CONFLICTS:

6 AWARD AND EXECUTE an 18-month, firm fixed price Contract No. AE38849000 with TranSystems Corporation, in the amount of \$4,452,298 for Architectural and Engineering (A&E) services for the preparation of the Project Report Approval (PR) and the Plans, Specifications and Estimates (PS&E) for Southbound Interstate 605 from State Route 91 to South Street Improvements, pending resolution of protest(s), if any. [2017-0307](#)

Attachments: [Attachment A - Procurement Summary](#)
[Attachment B - DEOD Summary](#)
[Attachment C - Location Map](#)

AD-HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0):

7 AWARD AND EXECUTE a 24-month firm fixed price Contract No. AE39064000 with Civil Works Engineers in the amount of \$2,973,023.98 for Architectural and Engineering (A&E) services for the preparation of the Project Report (PR) and the Plans, Specifications and Estimates (PS&E) for Southbound (SB) Interstate 605/Beverly Blvd. Interchange Improvements, pending resolution of protest(s), if any. [2017-0336](#)

Attachments: [ATTACHMENT A Procurement Summary](#)
[Attachment B - DEOD Summary](#)
[ATTACHMENT C - LOCATION MAP.pdf](#)

FINANCE, BUDGET AND AUDIT COMMITTEE MADE THE FOLLOWING RECOMMENDATION (3-0):

11 CONSIDER: [2017-0416](#)

A. AUTHORIZING the Chief Executive Officer to award the direct-pay letter of credit ("LOC") to be provided by Citibank, N.A. ("Citi") for a commitment amount of \$150 million for a three-year term for the

Proposition A Commercial Paper program at an estimated cost of \$4.313 million and enter into a reimbursement agreement and related documents associated with such LOC.

- B. If unable to reach agreement with the recommended bank described above, authorize the Chief Executive Officer to finalize negotiations with each successively ranked bank for an LOC having a three-year term and the estimated costs shown in Attachment A.

- C. ADOPTING a resolution with respect to the Proposition A Commercial Paper program that approves the selection of Citi or such other banks selected by the Chief Executive Officer for the Proposition A commercial paper program, and the form of the reimbursement agreement, fee agreement and reimbursement note in substantially similar form with those on file with the Board Secretary and that makes certain benefits findings in compliance with the Government Code, Attachment B.

(REQUIRES SEPARATE, SIMPLE MAJORITY VOTE OF THE BOARD)

Attachments: [Attachment A - Recommendation Summary](#)
 [Attachment B - Authorizing Resolution](#)

32 RECEIVE AND FILE response to Motion 37 (February 2017) on Blue Line Improvements.

[2017-0407](#)

Attachments: [Attachment A - MBL Motion 37](#)
 [Attachment B - Long Term Imp Summ](#)

48 AUTHORIZE the Chief Executive Officer to:

[2017-0522](#)

- A. EXECUTE a successor collective bargaining agreement with the International Brotherhood of Teamsters Union (Teamsters), effective July 1, 2017;
- B. EXECUTE a successor collective bargaining agreement with the American Federation of state, County and Municipal Employees Union (AFSCME), effective July 1, 2017;
- C. EXECUTE a successor collective bargaining agreement with the Transportation Communications Union (TCU), effective July 1, 2017;
- D. EXECUTE a successor collective bargaining agreement with the Amalgamated Transit Union (ATU) Local 1277, effective July 1, 2017, subject to Union ratification;
- E. EXECUTE a successor collective bargaining agreement with the Sheet, Metal, Air, Rail and Transportation Union (SMART), effective July 1, 2017, subject to Union ratification;
- F. ESTABLISH the merit pool increase for non-contract employees at 3.5% for FY18; and
- G. AMEND the FY18 budget in the amount of \$36,435,476 for the implementation of the wage and benefit changes for the approval of the final collective bargaining agreements and \$7,391,598 for the increase in the merit pool for non-contract employees.

49 CONSIDER: [2017-0479](#)

- A. HOLDING a public hearing on the proposed Resolution of Necessity; and
- B. ADOPTING a Resolution of Necessity authorizing the commencement of an eminent domain action to acquire various interests in the property located at 6700 Crenshaw Blvd., Los Angeles. Metro must proceed with a condemnation action to clear various title issues and acquire the necessary property interests required for the Crenshaw/LAX Transit Corridor Project. The properties sought to be condemned are a 162 square foot permanent roadway easement (Metro Parcel CR-2901) and a 50 square foot temporary construction easement (Metro Parcel CR-2901-1) in a portion of 6700 Crenshaw Blvd., Los Angeles, California (APN 4006-025-032) (hereinafter "Property"). The Property is owned by Noel Dias and Mike Davidyan.

(REQUIRES TWO-THIRDS VOTE OF THE FULL BOARD)

Attachments: [Attachment A- Property Information](#)
 [Attachment B- Staff Report](#)
 [Attachment C- Resolution of Necessity](#)

50 WE THEREFORE MOVE that the Board: [2017-0524](#)

- A. ENDORSE the Strategic Plan for Metro's Transition to Zero Emission Buses;
- B. DIRECT the CEO to create a zero emission bus infrastructure working group comprised of Metro staff, federal and state regulators and local utility companies to track market availability and to cultivate ongoing collaboration among stakeholders. The working group will monitor market rates for emerging zero emission bus technology to support Metro's 2030 transition plan:
 - 1. Working group to report to the Board annually with the latest technology innovations to support the cost/benefit analysis of fleet conversion
 - 2. MTA to host an industry forum to solicit innovative solutions to delivering the 2030 plan;
- C. AMEND the Metro federal legislative plan to advocate for local jobs as a critical factor in the evaluation criteria of MTA procurements; and

-
- D. DEVELOP an equity threshold consistent with Title VI regulations for priority deployment of electric buses in underserved communities.

FURTHER MOVE that the Board direct staff to:

- A. As part of establishing a working group:
1. EXPAND the invitation to regional air quality regulators (e.g. South Coast Air Quality Management District), the American Public Transportation Association and California Transit;
 2. EXAMINE and TRACK vehicle technology and performance, energy production and pricing, infrastructure needs and life-cycle analysis and creative funding opportunities.
- B. COORDINATE with the County of Los Angeles to explore opportunities to develop a countywide incentive structure to promote and attract more companies to manufacture, assemble and produce zero-emission transit vehicles and related infrastructure in Los Angeles County;
- C. Widely PROMOTE and ENCOURAGE municipal transit agencies/operators to participate in the established process by which to co-procure ("piggyback procurement" provisions) zero-emission transit vehicles;
- D. ENSURE that MTA maintains the flexibility to explore the best available technologies that contributes to zero-emissions and/or net-negative emissions in the Los Angeles County public transit sector.

51 CONSIDER:

[2017-0289](#)

- A. RECERTIFYING \$133.2 million in existing Fiscal Year (FY) 2017-18 commitments from previously-approved Countywide Calls for Projects (Call) and AUTHORIZING the expenditure of funds to meet these commitments as shown in Attachment A;
- B. DEOBLIGATING \$18.8 million of previously approved Call funding, as shown in Attachment B, and REPROGRAMMING these dollars to the same modal category from which they came in the 2015 Call;
- C. PROGRAMMING:
1. funds made available from the 2013, 2014 and 2015 Deobligation to the three previously-approved County of Los Angeles Signal Call projects; and
 2. funds released from City of Los Angeles per the November 2007

Board direction on the Proposition 1B funding to the three previously-approved Signal Call projects;

- D. AUTHORIZING the CEO to:
 - 1. negotiate and execute all necessary agreements for approved projects; and
 - 2. amend the FY 2017-18 budget, as necessary, to include the 2017 Countywide Call Recertification and Extension funding in the Regional Programs' budget;

- E. APPROVING changes to the scope of work for:
 - 1. City of Los Angeles - Boyle Heights Chavez Avenue Streetscape/Pedestrian Improvement (#F3643);
 - 2. City of Long Beach - Daisy Corridor and 6th Street Bike Boulevard (#F3518)
 - 3. City of South Gate - Firestone Boulevard Capacity Improvements (#F3124);
 - 4. City of West Hollywood - Melrose Avenue Complete Street Project (#F9601);

- F. REALLOCATING funds originally programmed to the City of Glendale Train Station 1st/Last Mile Regional Improvements Project (#F9624) to the Glendale CNG Fueling and Maintenance Facility Project (#F3432); and

- G. RECEIVING AND FILING:
 - 1. time extensions for the ~~55~~ 56 projects shown in Attachment D; and
 - 2. reprogram for the 24 projects shown in Attachment E.

Attachments: [Attachment A - FY 2017-18 Countywide Call Recertification](#)
[Attachment B - FY 2016-17 Countywide Call Deobligation](#)
[Attachment C - Background Discussion of Each Recommendation REVISED](#)
[Attachment D - FY 2016-17 Countywide Call Extensions REVISED](#)
[Attachment E - FY 2017-18 Countywide Reprogramming](#)
[Attachment F - Result of TAC Appeals Process](#)

(CARRIED OVER FROM JUNE'S REGULAR BOARD MEETING)

- 51.1** WE THEREFORE MOVE that the Board direct the CEO to: [2017-0523](#)
- A. MAINTAIN funding for the Glendale Train Station First-Last Mile Regional Improvements project;

 - B. PROGRAM funding from the cancelled City of Los Angeles project to fill the shortfall in the City of Glendale Compressed Natural Gas Fueling and Maintenance Facility Project, which is estimated to be

\$2.3 million;

C. PROGRAM any remaining funding from the cancelled City of Los Angeles project to the Taylor Yard Bridge design funding agreement; and

D. REPORT to the Planning & Programming Committee in October on the status of MTA's First-Last Mile program.

END OF NON-CONSENT ITEMS

52 CLOSED SESSION:

[2017-0521](#)

- A. Conference with Legal Counsel - Existing Litigation - G.C. 54956.9(d) (1):
Arts District Crossing Owner, LLC v. LACMTA, LASC Case No. BC 169254

- B. Conference with Labor Negotiator - G.C. 54957.6:
Agency Designated Representative: Joanne Peterson or designee
Employee Organizations: SMART, ATU, TCU, AFSCME, and Teamsters

- C. Public Employee Performance Evaluations - G.C. 54957:
Titles: Chief Executive Officer; Board Secretary; General Counsel; Inspector General; Ethics Officer

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



Board Report

File #: 2017-0473, **File Type:** Minutes

Agenda Number: 2

**REGULAR BOARD MEETING
JULY 27, 2017**

SUBJECT: REGULAR BOARD MEETING MINUTES HELD JUNE 22, 2017

RECOMMENDATION

APPROVE Minutes of the Regular Board Meeting held June 22, 2017.

Metro

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



MINUTES

Thursday, June 22, 2017

9:00 AM

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

Board of Directors - Regular Board Meeting

DIRECTORS PRESENT:

John Fasana, Chair

Sheila Kuehl, 2nd Vice Chair

Kathryn Barger

Mike Bonin

James Butts

Jacquelyn Dupont-Walker

Robert Garcia

Janice Hahn

Paul Krekorian

Mark Ridley-Thomas

Hilda Solis

Carrie Bowen, non-voting member

Phillip A. Washington, Chief Executive Officer

CALLED TO ORDER AT: 9:23 a.m.

ROLL CALL

1. APPROVED Consent Calendar Items: 2, 40, 11, 12, 13, 14, 45, 47, 18, 19**, 20, 21, 22, 24, 27, 28, 29, 30, 31, 32, 36, 39, 40, 42, 44 and 45.

Consent Calendar items were approved by one motion except for 10, 15 and 17 which were held by a Director for discussion and/or separate action.

**Item required 2/3 vote

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	Y	Y	A	Y	A	Y	Y	Y	A	Y

2. APPROVED ON CONSENT CALENDAR Minutes of the Regular Board Meeting held May 25, 2017. 2017-0411

3. RECEIVED Report by the Chair. 2017-0409

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
P	P	P	P	P	A	P	A	P	P	P	A	P

4. Report by the Chief Executive Officer. 2017-0410

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
P	P	P	P	P	P	P	A	P	P	P	A	P

5. ELECTED Mayor James Butts as 2nd Vice Chair. 2017-0388

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	Y	Y	Y	Y	A	Y	Y	Y	A	Y

JH = J. Hahn	KB = K. Barger	SK = S. Kuehl	RG = R. Garcia
PK = P. Krekorian	MRT = M. Ridley-Thomas	JB = J. Butts	
JDW = J. Dupont-Walker	JF = J. Fasana	HS = H. Solis	
MB = M. Bonin	EG = E. Garcetti	AN = A. Najarian	

LEGEND: Y = YES, N = NO, C = HARD CONFLICT, S = SOFT CONFLICT ABS = ABSTAIN, A = ABSENT, P = PRESENT

9. SUBJECT: LOCAL RETURN PROPOSITION A AND PROPOSITION C CAPITAL RESERVE **2017-0284**

AUTHORIZED the Chief Executive Officer to negotiate and execute all necessary agreements between Los Angeles County Metropolitan Transportation Authority (LACMTA) and the Cities for their Capital Reserve Accounts as approved; and:

- A. ESTABLISH Proposition A and Proposition C Local Return funded Capital Reserve Account for the Cities of Bell, Duarte and South El Monte, as described in Attachment A; and
- B. APPROVE four-year extension of Proposition A and Proposition C Local Return Capital Reserve Account for the Cities of Arcadia and Lynwood, as described in Attachment A.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	Y	Y	Y	Y	A	Y	Y	Y	A	Y

10. SUBJECT: EXCESS LIABILITY INSURANCE PROGRAM **2017-0306**

AUTHORIZED the Chief Executive Officer to negotiate and award excess liability insurance policies with up to \$300 million in limits at a cost not to exceed \$4.5 million for the 12-month period effective August 1, 2017 to August 1, 2018.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	C	Y	Y	Y	A	C	Y	C	A	C

11. SUBJECT: FISCAL YEAR 2018 TRANSIT FUND ALLOCATIONS **2017-0319**

APPROVED ON CONSENT CALENDAR:

- A. \$2.1 billion in FY2018 Transit Fund Allocations for Los Angeles County jurisdictions, transit operators and Metro operations as shown in Attachment A. These allocations comply with federal, state and local regulations and LACMTA Board - approved policies and guidelines. Measure M allocations are subject to Board approval of Measure M guidelines.

(Continued on next page)

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- B. AUTHORIZING the Chief Executive Officer to adjust FY2018 Federal Section 5307 (Urbanized Formula), Section 5339 (Bus and Bus Facilities) and Section 5337 (State of Good Repair) allocations upon receipt of final apportionment from the Federal Transit Authority and amend FY2018 budget as necessary to reflect the aforementioned adjustment.
- C. fund exchange in the amount of \$6.0 million of Santa Monica's Big Blue Bus' FY2018 Federal Section 5307 formula share allocation with Metro's TDA Article 4 allocation.
- D. fund exchange of Federal Section 5307 discretionary fund awarded to the Southern California Regional Transit Training Consortium (SCRTTC) through Long Beach Transit in the amount of \$300,000 with Metro's TDA Article 4 allocation.
- E. fund exchanges in the amount totaling \$11.2 million of Metro's share of Federal Section 5307 with Municipal Operators' shares of Federal Sections 5339 and 5337.
- F. ADOPTING a resolution designating Transportation Development Act (TDA) and State Transit Assistance (STA) fund allocations are in compliance with the terms and conditions of the allocations (Attachment C); and
- G. AUTHORIZING the Chief Executive Officer to negotiate and execute all necessary agreements to implement the above funding programs.

12. SUBJECT: ACCESS SERVICES PROPOSED FISCAL YEAR 2018 BUDGET

2017-0335

APPROVED ON CONSENT CALENDAR:

- A. local funding request for Access Services (Access) in an amount not to exceed \$91,892,571 for FY18. This amount includes:
 - Operating and Capital funds in the amount of \$89.7 million; and
 - Funds paid directly to Metrolink in the amount of \$2.2 million for its participation in Access' Free Fare Program
- B. AUTHORIZE the Chief Executive Officer to negotiate and execute all necessary agreements between Metro and Access.

**13. SUBJECT: TRANSPORTATION DEVELOPMENT ACT (TDA)
ARTICLE 8 FUND PROGRAM**

2017-0351

ADOPTED ON CONSENT CALENDAR:

- A. FINDINGS AND RECOMMENDATIONS (Attachment A) for allocating fiscal year (FY) 2017-18 Transportation Development Act (TDA) Article 8 funds estimated at \$24,973,370 as follows:
1. In the City of Avalon there are no unmet transit needs that are reasonable to meet, therefore TDA Article 8 funds (Attachment B) in the amount of \$141,320 may be used for street and road projects, or transit projects, as described in Attachment A;
 2. In the Cities of Lancaster and Palmdale, transit needs are met using other funding sources, such as Proposition A and Proposition C Local Return. Therefore, TDA Article 8 funds in the amount of \$6,036,022 and \$6,150,445 (Lancaster and Palmdale, respectively) may be used for street and road purposes and/or transit, as long as their transit needs continue to be met;
 3. In the City of Santa Clarita, transit needs are met with other funding sources, such as Proposition A and Proposition C Local Return. Therefore, TDA Article 8 funds in the amount of \$8,438,112 for the City of Santa Clarita may be used for street and road and/or transit, as long as their transit needs continue to be met;
 4. In the Los Angeles County Unincorporated areas of North County, the areas encompassing both the Antelope Valley and the Santa Clarita Valley, transit needs are met with other funding sources, such as Proposition A and Proposition C Local Return. Therefore, TDA Article 8 funds in the amount of \$4,207,471 may be used for street and road purposes and/or transit, as long as their transit needs continue to be met; and
- B. A RESOLUTION (Attachment C) making a determination of unmet public transportation needs in the areas of Los Angeles County outside the Metro service area.

14. SUBJECT: FY 2017-18 METROLINK ANNUAL WORK PROGRAM BUDGET

2017-0389

APPROVED ON CONSENT CALENDAR:

- A. the Southern California Regional Rail Authority's (SCRRA) FY 2017-18 (FY18) Annual Work Program pursuant to their revised May 16, 2017, budget transmittal (Attachment A);
- B. the Los Angeles County Metropolitan Transportation Authority's (LACMTA) share of SCRRA FY18 Metrolink funding totaling \$84,260,839 for programs detailed in Table 1;
- C. increasing the Antelope Valley Line 100% Fare Enforcement program's FY17 funding contribution from \$1,700,000 to \$2,005,573;
- D. EXTENDING the lapsing dates for funds previously allocated to SCRRA for the Rehabilitation and Renovation Program as follows:
 - FY 2013-14 from June 30, 2017 to June 30, 2018 - \$955,790;
- E. the FY18 Transfers to Other Operators payment rate of \$1.10 per boarding to LACMTA and an EZ Pass reimbursement cap to LACMTA of \$5,592,000; and
- F. AUTHORIZING the Chief Executive Officer to negotiate and execute all necessary agreements between LACMTA and the SCRRA for the approved funding.

15. SUBJECT: FY18 AUDIT PLAN

2017-0370

ADOPTED the FY18 Proposed Audit Plan.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	Y	Y	A	Y	A	Y	Y	Y	A	Y

**16. SUBJECT: WEST SANTA ANA BRANCH TRANSIT CORRIDOR
TRANSIT ORIENTED DEVELOPMENT STRATEGIC
IMPLEMENTATION PLAN**

2017-0281

AWARDED AND EXECUTED an 18-month firm fixed price Contract No. PS36724000 to City Design Studio LLC, in the amount of \$1,632,788, to complete the Transit Oriented Development (TOD) Strategic Implementation Plan for the West Santa Ana Branch (WSAB) Transit Corridor, subject to resolution of protest(s), if any.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	C	C	Y	Y	A	Y	Y	C	A	C

**17. SUBJECT: COUNTYWIDE CALL FOR PROJECTS
RECERTIFICATION AND DEOBLIGATION**

2017-0289

CARRIED OVER TO JULY:

- A. RECERTIFYING \$133.2 million in existing Fiscal Year (FY) 2017-18 commitments from previously-approved Countywide Calls for Projects (Call) and AUTHORIZING the expenditure of funds to meet these commitments as shown in Attachment A;
- B. DEOBLIGATING \$18.8 million of previously approved Call funding, as shown in Attachment B, and REPROGRAMMING these dollars to the same modal category from which they came in the 2015 Call;
- C. PROGRAMMING:
 - 1. funds made available from the 2013, 2014 and 2015 Deobligation to the three previously-approved County of Los Angeles Signal Call projects; and
 - 2. funds released from City of Los Angeles per the November 2007 Board direction on the Proposition 1B funding to the three previously-approved Signal Call projects;
- D. AUTHORIZING the CEO to:
 - 1. negotiate and execute all necessary agreements for approved projects; and
 - 2. amend the FY 2017-18 budget, as necessary, to include the 2017 Countywide Call Recertification and Extension funding in the Regional Programs' budget;

(Continued on next page)

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- E. APPROVING changes to the scope of work for:
 - 1. City of Los Angeles - Boyle Heights Chavez Avenue Streetscape/Pedestrian Improvement (#F3643);
 - 2. City of Long Beach - Daisy Corridor and 6th Street Bike Boulevard (#F3518)
 - 3. City of South Gate - Firestone Boulevard Capacity Improvements (#F3124);
 - 4. City of West Hollywood - Melrose Avenue Complete Street Project (#F9601);

- F. REALLOCATING funds originally programmed to the City of Glendale Train Station 1st/Last Mile Regional Improvements Project (#F9624) to the Glendale CNG Fueling and Maintenance Facility Project (#F3432); and

- G. RECEIVING AND FILING:
 - 1. time extensions for the 55 projects shown in Attachment D; and
 - 2. reprogram for the 24 projects shown in Attachment E.

18. SUBJECT: ROSECRANS/MARQUARDT GRADE SEPARATION PROJECT

2017-0390

APPROVED ON CONSENT CALENDAR an amendment to increase the Fiscal Year (FY) 2017 budget in the amount of \$4,300,000 out of Measure R 20% funds for the Rosecrans/Marquardt Grade Separation Project.

19. SUBJECT: RAIL TO RAIL ACTIVE TRANSPORTATION CORRIDOR SEGMENT A

2017-0383

APPROVED ON CONSENT CALENDAR BY TWO-THIRDS VOTE:

- A. AUTHORIZING the use of Design-Build project delivery method for the Rail to Rail Active Transportation Corridor (ATC) - Segment A (the "Project"), pursuant to Public Utilities Code Section 130242 (a); and

- B. APPROVING a Preliminary Project Funding Plan, which includes additional funding up to \$20 million to be secured from local funds to meet project requirements.

20. **SUBJECT: WESTSIDE PURPLE LINE EXTENSION PROJECT - SECTION 3** **2017-0311**

AUTHORIZED ON CONSENT CALENDAR the CEO to execute Contract Modification No. 62 to Contract No. PS43502000 with WSP USA Inc. (WSP), formerly Parsons Brinckerhoff (PB) Inc., to provide continued engineering support services during solicitation processes and design support services during construction for Section 3 of the Westside Purple Line Extension Project, from July 2017 through June 2019, in an amount not-to-exceed \$15,028,122, increasing the total contract value from \$199,649,637 to \$214,677,759.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
C				C								

21. **SUBJECT: WESTSIDE PURPLE LINE EXTENSION PROJECT - SECTION 3** **2017-0317**

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer (CEO) to enter into a stipend agreement with each of the unsuccessful responsive proposers for **Section 3 of the Westside Purple Line Extension Project for the Stations Trackwork and Systems** design build contract, in an amount of \$1,250,000, to be paid to the unsuccessful responsive and responsible proposers.

22. **SUBJECT: GOLD LINE FOOTHILL EXTENSION PHASE 2A REDUCTION IN LIFE OF PROJECT BUDGET** **2017-0343**

APPROVED ON CONSENT CALENDAR:

- A. APPROVING a Life-of-Project (LOP) budget decrease in the amount of \$26,967,000 for the Gold Line Foothill Extension Phase 2A Project and update the LOP to \$714,033,000; and
- B. AUTHORIZE allocation of \$26,967,000 of available non-federal funds from Gold Line Foothill Extension Phase 2A to Gold Line Foothill Extension Phase 2B

24. **SUBJECT: MEMBERSHIP ON METRO SERVICE COUNCILS** **2017-0036**

APPROVED ON CONSENT CALENDAR nominees for membership on Metro's Service Council as listed in the board report.

27. **SUBJECT: AUTOMATED PUBLIC TOILETS MAINTENANCE SERVICES** **2017-0282**

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer to award a sole source firm fixed price Contract No. OP783190003367 for Automated Public Toilets Maintenance Services with Public Facilities and Services, Inc. This contract not-to-exceed amount is \$1,061,530 for the five year base period, effective July 15, 2017.

28. **SUBJECT: TUNNEL WASHING SERVICES** **2017-0283**

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer to award a firm fixed unit rate Contract No. OP778590003367 for the Metro Red/Purple Line (MRL) and Pasadena Gold Line (PGL) Tunnel Washing services with Parkwood Landscape Maintenance Inc., the lowest, responsive and responsible bidder, for a not-to-exceed amount of \$2,598,727 for the five-year contract, effective July 1, 2017; subject to resolution of protest(s), if any.

29. **SUBJECT: P2550 LIGHT RAIL VEHICLE COMPONENT OVERHAUL** **2016-0741**

APPROVED ON CONSENT CALENDAR:

- A. ESTABLISHING a Life-Of-Project (LOP) Budget for the implementation of a Component Overhaul Program for the P2550 Light Rail Vehicle (LRV) fleet, capital project number 214001 in the amount of \$35,007,546; and
- B. AUTHORIZING the Chief Executive Officer to award a 60 month indefinite quantity/indefinite delivery Contract No. MA27585 to ORX for the overhaul of 103 Ansaldo Breda P2550 light rail vehicle powered axle assemblies for a not-to-exceed amount of \$4,952,654, subject to resolution of protest(s), if any.

30. SUBJECT: CONTRACTED BUS SERVICE - SOUTH REGION **2017-0322**

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer to award a five-year, firm fixed unit price Contract No. OP38384000 to MV Transportation, Inc. (MV) for contracted bus services in the South Region in an amount not-to-exceed \$127,280,617, effective July 1, 2017, subject to resolution of protest(s), if any.

31. SUBJECT: CONTRACTED BUS SERVICE - EAST REGION **2017-0299**

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer to award a five-year, firm fixed unit price Contract No. OP38382000 to Southland Transit, Inc. for contracted bus services in the East Region in an amount not-to-exceed \$65,245,597 effective July 1, 2017, subject to resolution of protest(s), if any.

32. SUBJECT: GLENDALE BEELINE ROUTE 3 / LADOT DASH 601, DASH 602 AND COMMUTER EXPRESS 422, AND PVPTA LINE 225/226 TRANSIT SERVICE OPERATION AGREEMENTS **2017-0300**

APPROVED ON CONSENT CALENDAR:

- A. EXTENDING the Transit Service Operation Agreement between LACMTA and the City of Glendale for the Glendale Beeline Route 3 for an additional two years inclusive of \$1,091,577;
- B. EXTENDING the Transit Service Operation Agreement between LACMTA and the City of Los Angeles Department of Transportation (LADOT) for Dash 601, Dash 602, and Commuter Express 422 for an additional two years inclusive of \$8,900,520;
- C. EXTENDING the Transit Service Operation Agreement between LACMTA and the Palos Verdes Peninsula Transportation Authority (PVPTA) for operation of the Line 225/226 for two years inclusive of \$485,705;
- D. AUTHORIZING the Chief Executive Officer, or their designee, to negotiate and execute all necessary agreements between LACMTA and the City of Glendale for funding approval;

(Continued on next page)

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- E. AUTHORIZING the Chief Executive Officer, or their designee, to negotiate and execute all necessary agreements between LACMTA and the LADOT; and
- F. AUTHORIZING the Chief Executive Officer, or their designee, to negotiate and execute all necessary agreements between LACMTA and the PVPTA for funding approval.

35. SUBJECT: LEASE OF METRO PROPERTY FOR CROSSROADS SCHOOL FOR ARTS & SCIENCES 2017-0147

AUTHORIZED the Chief Executive Officer (CEO) to execute a seven (7) -year lease agreement ("Lease Agreement") with The Crossroads School for Arts & Sciences, ("Crossroads") to continue leasing Metro-owned property located adjacent to the Expo Light Rail Line, near 17th Street and Colorado Avenue, in Santa Monica ("Premises"). Anticipated total rent income over the 7-year lease term is \$1,974,000.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	A	Y	Y	Y	Y	Y	A	C	Y	Y	A	Y

36. SUBJECT: 1ST AND LORENA JOINT DEVELOPMENT 2017-0301

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer to execute an amendment to the Exclusive Negotiations and Planning Agreement with A Community of Friends to extend its term for an additional 24 months, for the joint development of Metro-owned property at 1st and Lorena Street along the Metro Gold Line Eastside Extension.

38. SUBJECT: MEASURE M MASTER GUIDELINES 2017-0280

APPROVED AS AMENDED:

- A. RECEIVED AND FILED report from the Policy Advisory Council (PAC) on the Draft Measure M Master Guidelines (Attachment A);
- B. ADOPTED the Measure M Master Guidelines; and

(Continued on next page)

(Item 38 – continued from previous page)

- C. AUTHORIZE the Chief Executive Officer to enter into Memorandums of Understanding (MOUs) and Assurances and Understandings with Included and Eligible Municipal Operators, Metrolink, Access Services and Los Angeles County jurisdictions for Measure M funding allocations and distribution, consistent with applicable Measure M Guideline provisions.

Amendment by Solis to remove the following text under “3% Local Contribution to Major Transit Projects” (page 4, bullet 4 of the report):
“...this may include assignment of this obligation to the Supervisorial District in which the project is located.”

Amendment by Krekorian that on pages 70 and 71 of the guidelines, the allocation methodology for ADA and student discounts be locked in at 75% ADA and 25% student discounts.

38.1 SUBJECT: SUBSTITUTE MOTION BY HAHN, BUTTS AND GARCIA 2017-0443
REGARDING MEASURE M REVISED LOCAL RETURN
GUIDELINES

TO AMEND the Measure M Guidelines to allow for consideration of projects that fall outside of the “1 mile restriction” in the Highway Operational Improvement Sub-funds Category on a case-by-case basis. The process should be included in the administrative procedures for Multi-year Subregional Programs.

38.2 SUBJECT: MOTION BY DIRECTORS GARCETTI AND BUTTS 2017-0453
REGARDING MEASURE M MASTER GUIDELINES
- VISIONARY PROJECTS

DIRECTED the CEO to:

- A. Allow private organizations to be eligible for Visionary Project Seed funding for predevelopment purposes. An MTA policy shall be established to oversee the use of these funds.
- B. To maximize pioneering transportation solutions, include under the “Eligible Projects” section, the following criteria:
 - 1. Connectivity to major trip generators
 - 2. Use new and innovative technology solutions, beyond transit solutions.
 - 3. Provides innovation and reduces project costs compared to conventional delivery methods.
- C. Allow the use of unsolicited proposals using MTA existing policies.
- D. The criteria and selection process shall be developed and adopted within 6 months.

38.3 SUBJECT: SUBSTITUTE MOTION BY GARCIA, BONIN, SOLIS AND HAHN REGARDING MEASURE M MASTER GUIDELINES HIGHWAYSUBFUNDS **2017-0459**

AUTHORIZED Metro to:

- A. remove any reference in this section of the guidelines to "Level of Service". We intend that, in accordance with Metro's Complete Streets policy, Multi-Year Highway Subfunds shall prioritize the movement of people traveling on foot, by bike, or by transit, in addition to automobile travel, in order to optimize the safe movement of people by all modes.
- B. allow the Gateway Cities COG to discuss and prioritize Active Transportation and Complete Streets during the Measure M Guidelines Administrative Development, including a report back to the Board of Directors at the conclusion of the development of these procedures.
- C. direct Metro staff to include Active Transportation and Complete Streets, Innovative Mobility Technology, and Greenways in the Measure M Guidelines Administrative Development for the Highway Subfund 2% System Connectivity Projects, including a report back to the Board of Directors at the conclusion of the development of these procedures.

38.4 SUBJECT: MOTION BY GARCIA, BUTTS AND HAHN REGARDING MEASURE M MASTER GUIDELINES - 3% LOCAL CONTRIBUTION FOR TRANSIT SYSTEM CONNECTIVITY PROJECTS **2017-0460**

AUTHORIZED Metro, during its continued development of Measure M Master Guidelines noted in the guidelines' Attachment D, to Metro develop further options for the identification and utilization of funding sources, separate from Local Return, that could be available to any local jurisdictions to partially or fully fund the 3% local match for those major transit projects designated for system connectivity purposes.

38.5 SUBJECT: MOTION BY SOLIS, FASANA, RIDLEY-THOMAS, HAHN, GARCIA AND BARGER **2017-0467**

AUTHORIZED expansion of the Highway Sub-Fund eligibility to include state highways that have been or will be relinquished to local jurisdictions.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	Y	Y	Y	Y	A	Y	Y	Y	A	Y

39. SUBJECT: Foothill Gold Line Extension Phase 2B

2017-0338

APPROVED ON CONSENT CALENDAR:

- A. a Life of Project Budget for the Foothill Gold Line Extension Phase 2B Light Rail Project in the amount of \$1,406,870,758.
- B. AUTHORIZING the Chief Executive Officer to enter into a Project Funding Agreement (Attachment A) with the Foothill Gold Line Extension Construction Authority including provisions to apply for \$249.2 million in Transit and Intercity Rail Capital Program funds as a Metro priority.
- C. AUTHORIZING the Chief Executive Officer to enter into a Master Cooperative Agreement (Attachment B) with the Gold Line Foothill Extension Construction Authority.

40. SUBJECT: SUPPLEMENTAL ENGINEERING SERVICES (SES) CONSULTANT SERVICE CONTRACT

2017-0262

AUTHORIZED ON CONSENT CALENDAR the Chief Executive Officer to EXECUTE:

- A. a three-year cost plus fixed fee type contract for AE36687 with Mott MacDonald Group for Supplemental Engineering Services for Engineering Design of Rail and Highway Transportation Projects on a task order basis, plus two one-year options. The amount for the three years base contract is \$15,000,000 and the amount for the two one-year options is \$5,000,000 for a total contract value not to exceed \$20,000,000; subject to resolution of protest(s), if any; and
- B. individual Task Orders and changes within the Board approved contract amount.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
				C				C				C

42. SUBJECT: 295 FORTY FOOT CNG TRANSIT BUS CONTRACT

2016-0988

APPROVED ON CONSENT CALENDAR:

- A. AUTHORIZING the Chief Executive Officer to award a firm fixed-price contract, Contract No. OP28367-000 - Part A, to El Dorado National-California, Inc. (ENC) of Riverside, CA, for the manufacture and delivery of 295 40' CNG transit buses, in the amount of \$199,067,748 for the base contract, including taxes and delivery; exclusive of contract options, subject to resolution of any properly submitted protest.
- B. AUTHORIZING the CEO to award an additional not-to-exceed amount of \$4,500,000 for Optional Vehicle Features, Spare Parts, and Training Aids for a total combined contract amount not-to-exceed \$203,567,748.
- C. ESTABLISHING a life-of-project budget of \$207,567,748, for the 295 40' CNG buses under project no. CP 201057.
- D. FINDING that the award to ENC, Inc. is made to the Proposer that provides the agency with the best value and is most advantageous to Metro. The recommended price addresses all contract requirements and represents the best overall value when all RFP evaluation factors are considered, including advantages in the Local Employment Program incentives.

43. SUBJECT: BOARD RULES AND PROCEDURES

2017-0424

APPROVED AS AMENDED Section 6.6 (Board Travel Expenses), Board Rules and Procedures of the Los Angeles County Metropolitan Transportation Authority ("Metro"), as set forth in Attachment A.

43.1 SUBJECT: AMENDMENT BY FASANA AND KUEHL REGARDING BOARD RULES AND PROCEDURES

2017-0455

That the Board AMEND Section 6.6 (Board Travel Expense) of the Board Rules and Procedures to include the following text:

(Continued on next page)

(Item 43.1 – continued from previous page)

Metro will reimburse the travel expenses, in conformance with Metro Travel and Business Expense Policy (Policy #FIN14), for Board deputies' travel to Washington D.C. and Sacramento for Metro legislative purposes when accompanying the Director to whom the deputy reports or when acting on that Director's behalf. Exception to this Travel Policy may be made only with the approval of the Chairman of the Board.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	Y	Y	Y	Y	A	Y	Y	Y	A	Y

44. SUBJECT: MEASURE M INDEPENDENT TAXPAYER OVERSIGHT COMMITTEE SELECTIONS 2017-0426

APPROVED ON CONSENT CALENDAR:

- A. Emilie Elias, the recommended nominee for Retired Federal or State judge;
- B. Carlos Bohorquez, the recommended nominee for Professional from the field of municipal/public finance and/or budgeting with a minimum of ten (10) years of relevant experience;
- C. Ryan Campbell, the recommended nominee for Professional with a minimum of ten (10) years of experience in management and administration of financial policies, performance measurements, and reviews;
- D. Scott Hood, the recommended nominee for Professional with a minimum of ten (10) years of experience in management and administration of financial policies, performance measurements, and reviews;
- E. Kyungwoo Kris Kim, the recommended nominee for Professional with demonstrated experience of ten (10) years or more in the management of large-scale construction projects;
- F. Virginia Tanzmann, the recommended nominee for Licensed architect or engineer with appropriate credentials in the field of transportation project design or construction and a minimum of ten (10) years of relevant experience; and
- G. Linda Briskman, the recommended nominee for Regional association of business representative with at least ten (10) years of senior-level decision making experience in the private sector.

45. SUBJECT: STATE LEGISLATION

2017-0432

ADOPTED ON CONSENT CALENDAR staff recommended position:

- A. TBD - California Global Warming Solutions Act of 2006:
Market-Based Compliance Mechanisms **SUPPORT**

48. SUBJECT: PROGRAM MANAGEMENT SUPPORT SERVICES

2017-0419

APPROVED:

- A. AUTHORIZING the Chief Executive Officer to award a five-year cost reimbursable fixed fee contract plus a two-year option, Contract No. AE35279, to Kal Krishnan Consulting Services/Triunity Engineering & Management Joint Venture (KKCS/Triunity JV), the most qualified proposer, for Program Management Support Services (PMSS) for a not-to-exceed amount \$24,970,960 through Fiscal Year 2019; and
- B. AUTHORIZING the Chief Executive Officer to execute individual Contract Work Orders and Contract Modifications within the Board approved contract funding amount.

JH*	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	C	C	Y	Y	A	Y	Y	C	A	C

*Selected to vote under the Rule of Necessity

49. SUBJECT: HIGHWAY PROGRAM PROJECT DELIVERY SUPPORT SERVICES FOR LOS ANGELES COUNTY

2017-0096

AUTHORIZED the Chief Executive Officer to:

- A. AWARD three, three-year on-call contracts, Contract Nos. AE30673000, AE30673001, and AE30673002, to AECOM Technical Services, Inc., CH2M Hill, Inc., and Parsons Transportation Group, Inc., respectively, for a total not-to-exceed amount of \$30,000,000, for **Highway Program Project Delivery Support Services for Los Angeles County**, subject to resolution of protest(s), if any; and
- B. AWARD Task Orders within the approved not to exceed cumulative value of \$30,000,000

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG*
C	C	Y	C	Y	Y	Y	A	C	Y	Y	A	Y

*Selected to vote under the Rule of Necessity

50. SUBJECT: CONSULTANT BENCH FOR RAIL VEHICLE & SYSTEMS ENGINEERING SUPPORT 2016-1004

AUTHORIZED the Chief Executive Officer to:

- A. AWARD Bench Contract No.PS37755 to consultant firms CH2M Hill, Inc., LTK Engineering Services, Mott McDonald, LLC, WSP/Parsons Brinkerhoff, and STV Inc., to establish a general account for consultant support services that will be utilized for **Rail Vehicle and Rail Systems Engineering Consultant Services**, for an amount not-to-exceed \$8,027,100, subject to resolution of protest, if any; and
- B. EXECUTE Task Work Orders within the approved total not-to-exceed amount of the Contract.

JH*	PK*	JDW	MB	KB	MRT*	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	C	C	Y	Y	A	C	Y	Y	A	C

*Selected to vote under the Rule of Necessity

51. SUBJECT: METRO BLUE LINE SIGNALING REHABILITATION AND OPERATIONAL IMPROVEMENTS PROJECT 2017-0132

AUTHORIZED the CEO to award Contract No. C1081 to Mass Electric Construction Co/Parsons, the selected best value contractor to design and construct the **Blue Line State of Good Repair signaling rehabilitation and operational improvements** for a contract value of \$81,513,000.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
C	Y	Y	Y	C	Y	Y	A	Y	Y	Y	A	C

52. SUBJECT: ORAL UPDATE ON STATE LEGISLATION SENATE BILL 268 (MENDOZA) 2017-0456

RECEIVED oral report on State Legislation Senate Bill 268.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
P	P	P	P	A	A	P	A	P	P	P	A	P

53. **CLOSED SESSION:**

2017-0457

A. Public Employee Discipline/Dismissal/Release

NO REPORT.

B. Public Employment: Ethics Officer

NO REPORT.

C. Conference with Legal Counsel - Anticipated Litigation - G.C. 54956.9(d)(4)

Initiation of Litigation (One Case)

NO REPORT.

D. Conference with Labor Negotiator - G.C. 54957.6

Agency Designated Representative: Joanne Peterson or designee
Employee Organizations: SMART, ATU, TCU, AFSCME and Teamsters

NO REPORT.

E. Conference with Real Property Negotiator - G.C. 54956.8

1. Property Description: 1940 Century Park East, Los Angeles, CA
Agency Negotiator: Carol A. Chiodo
Negotiating Party: Vinci Academy L.L.C. (Tenant)
Under Negotiation: Price and Terms

APPROVED settlement in the amount of \$3,381,545.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	Y	C	A	Y	A	Y	A	Y	A	Y

(Continued on next page)

(Item 53 – continued from previous page)

2. Property Description: 13720 Rosecrans Ave., Santa Fe Springs
Agency Negotiator: Carol A. Chiodo
Negotiating Party: D. P. Milroy, LLC
Under Negotiation: Price and Terms

APPROVED settlement in the amount of \$4,118,100.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	Y	Y	A	Y	A	C	A	Y	A	Y

3. Property Description: 13750 Rosecrans Ave., Santa Fe Springs
Agency Negotiator: Carol A. Chiodo
Negotiating Party: Miriam Arato, As Trustee of The Arato Family Trust Utd. May 16, 1986
Under Negotiation: Price and Terms

APPROVED settlement in the amount of \$3,910,400.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	Y	Y	A	Y	A	C	A	Y	A	Y

4. Property Description: 590 Santa Fe Avenue, Los Angeles, CA
Agency Negotiator: Velma C. Marshall
Negotiating Party: Bennett Greenwald
Under Negotiation: Price and Terms

APPROVED settlement in the amount of \$3,000,000.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	Y	Y	A	Y	A	C	A	Y	A	Y

(Continued on next page)

(Item 53 – continued from previous page)

- 5. Property Description: 6141 Century Boulevard, Los Angeles, CA
 Agency Negotiator: Velma C. Marshall
 Negotiating Party: Debbie Bowers, Los Angeles World Airport
 Under Negotiation: Price and Terms

APPROVED settlement in the amount of \$20,130,000.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	Y	Y	A	Y	A	Y	A	Y	A	Y

- 6. Property Description: 432 E. Temple, Los Angeles, CA
 Agency Negotiator: Carol A. Chiodo
 Negotiating Party: Richard Harasick and Reynan Ledesma, DWP
 Under Negotiation: Price and Terms

APPROVED settlement in the amount of \$1,963,000.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	Y	Y	A	Y	A	Y	A	Y	A	Y

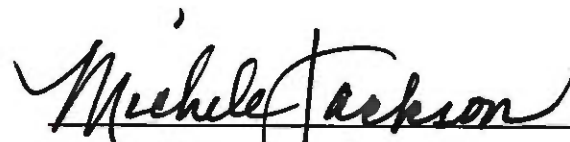
- 7. Property Description: 14 No. La Cienega, Beverly Hills, CA
 Agency Negotiator: Carol A. Chiodo
 Negotiating Party: Adolfo Suraya
 Under Negotiation: Price and Terms

APPROVED settlement in the amount of \$4,770,000.

JH	PK	JDW	MB	KB	MRT	JF	EG	SK	JB	HS	AN	RG
Y	Y	Y	Y	Y	A	Y	A	Y	A	Y	A	Y

Adjourned at 2:19 p.m. in honor of Ricky John Best and Taliesin Myrddin Namkai Meche, Portland Trimet stabbing victims.

Prepared by: Deanna Phillips
Board Specialist


 Michele Jackson, Board Secretary



Board Report

File #: 2017-0384, File Type: Contract

Agenda Number: 8

AD-HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE JULY 19, 2017

**SUBJECT: INTERSTATE 5/STATE ROUTE 14 HOV DIRECT
CONNECTOR PROJECT - PROJECT CLOSURE AND
RELEASE OF UNSPENT FUNDS**

ACTION: APPROVE PROGRAMMING RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. ACKNOWLEDGING completion of the I-5/SR-14 HOV Direct Connector Project and AUTHORIZING to close of the project;

(REQUIRES TWO-THIRDS VOTE OF THE FULL BOARD)
- B. AUTHORIZING the Chief Executive Officer to reprogram \$85.8 million dollars of planned \$90.8 million dollars unspent in original Measure R 20% funds for the I-5/SR-14 HOV Capacity Enhancements Project to other eligible highway operational improvement projects in North County;
- C. AUTHORIZING retention of \$5 million from the \$90.8 million to remain within the I-5/SR-14 HOV Direct Connector Project for completion of the outstanding workscope with any unspent funds to remain within the North County region, and;
- D. AMENDING FY18 budget for \$2 million dollars to create and fund the I-5 / SR-14 Direct Connector Project to address a remaining utility relocation.

ISSUE

On December 23, 2012, the I-5/SR-14 HOV Direct Connector was opened to traffic. All major activities related to the project have been completed except for the final relocation of Southern California Edison (SCE) powerlines for an estimated Rough Order Magnitude (ROM) cost of \$5 million. Delays in relocation of SCE's power lines to outside the State right-of-way has caused delay in closing the project. As such, the remaining Project funds are tied up. With the opening of the project in 2012, Metro wishes to release those funds from the Project and reprogram the funds to other highway operational improvement projects in North County, only when the Metro Board

determines the project is complete.

DISCUSSION

In 2016, Metro requested California Department of Transportation's (Caltrans) approval to close the project. This would have enabled Metro to reprogram the unspent funds to other projects in North County.

In a letter dated May 26, 2017, Caltrans requested Metro to leave \$5 million of the original programmed funds in the Project to pay for the SCE utility relocation costs and approved release of the remaining balance (Attachment A). Approval of the \$5 million cost is consistent with the Revised Unified Cost Management Process and Policy for Measure R projects amended January 22, 2015 (Attachment B).

Construction of an HOV direct connector at the I-5/SR-14 interchange was deemed complete by Caltrans as of August 20, 2015. State policy requires that existing longitudinal utilities within the project limits be relocated to outside the State right-of-way. Caltrans temporarily permitted the SCE utility poles to stay within the freeway right-of-way to allow the project construction to commence in a timely manner without any costly delays and to be relocated to their ultimate location after completion of construction. Now that the construction is complete, the power lines need to be relocated to an adjacent private property via an easement. Caltrans has been in communication with SCE to expedite the relocation efforts. Based on a letter from Caltrans, they determined that setting aside an amount not to exceed \$5 million would be sufficient for the relocation of the SCE power lines and to complete the project.

The Measure R Ordinance states that for projects funded from other sources on or before December 31, 2008, the funds freed-up by passage of the sales tax shall remain within the subregion in which the project is located for projects or programs of regional significance (per Assembly Bill 2321). The Measure R Ordinance requires that the Metro Board of Directors determine by a two-thirds vote whether a highway capital project in the Measure R program is complete. Following this action any surplus revenues allocated to that highway capital project may be credited to the Measure R Highway Capital Subfund for expenditure on highway capital projects within the same subregion as the completed project. The \$90.8 million in Measure R (MR) 20% funding was programmed for the I-5/SR-14 HOV Capacity Enhancements project in line 26 of the Measure R Expenditure Plan. The original I-5/SR-14 HOV Capacity Enhancements project was developed and entitled as I-5/SR-14 HOV Direct Connector Interchange Project and was eligible for MR20% funding. Under recommendation B, these funds are assumed as Measure R highway capital project credits for the to-be-determined projects late in the third decade of Measure R (2030-2039) through Metro Board action on the 2009 Long Range Transportation Plan and the 2014 Short Range Transportation Plan.

Upon completion of the SCE power lines relocation, any unspent funds or savings from the \$5 million funds retained in the I-5/SR14 project under recommendation C shall remain in the North County subregion for allocation to other eligible North County project(s).

DETERMINATION OF SAFETY IMPACT

There are no impacts to safety of the users of the highways by approving this action.

FINANCIAL IMPACT

The SCE utility relocation effort for this project was not planned in the FY18 budget. Upon approval of recommendation D, FY18 budget will be amended for \$2 million dollars to initiate the project in the system and to start the outstanding project workscope. With approval of recommendation C, the budget for the I-5 /SR-14 HOV Direct Connector Construction Project will be amended to a cumulative amount of \$5 million dollars in MR20% funds budgeted under Account 54001 Subsidies - in cost center 0442, Task 5.4.100. Caltrans anticipates that the proposed utility relocation will be completed over an 18 month period.

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 costs in future years for Metro's share within the updated project budget.

Impact to Budget

With approval of recommendation B, \$85.8 million dollars of MR 20% savings from the project will be reprogrammed to other North County sub-region project(s).

Under Line 26 of the Measure R Ordinance, \$90.8 million in MR 20% Highway funds were programmed for the original I-5/SR 14 HOV Capacity Enhancements project. Recommendation C cumulatively reduces the \$90.8 million dollars to \$5.0 million dollars of MR20% funding planned for I-5 / SR14 HOV Direct Connector project. Prior to FY18, CMAQ and TIP funds were used to construct the project.

The source of funds for recommendations B, C and D is MR 20% Highway funds, which is not eligible for bus or rail operations. No other funds were considered.

ALTERNATIVES CONSIDERED

The Board may choose not to approve staff recommendations state herein. This option is not recommended as the resulting delays will be neither to the advantage of the Project nor the other projects that might be advanced by the availability of funds released from the Project.

NEXT STEPS

Upon Board approval of the staff recommendation an amendment to the funding agreement with Caltrans will be executed to maintain \$5 million in the Project. The remaining \$85.8 million will be released from the Project and reprogrammed to other eligible highway improvement projects in North County.

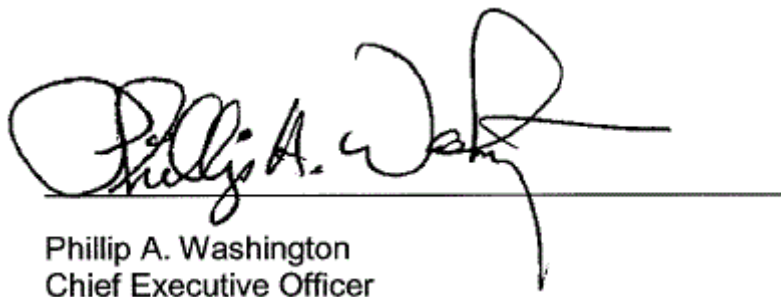
ATTACHMENTS

Attachment A -Caltrans letter on cost to close the Project

Attachment B -Revised Unified Cost Management Process and Policy for Measure R Projects

Prepared by: Ayokunle Ogunrinde, Senior Manager, Transportation Planning (213) 922-8830
Wil Ridder, Executive Officer, Strategic Financial Planning and Programming
(213) 922-2887
Abdollah Ansari, Senior Executive Officer, Highway Program (213) 922-4781
Bryan Pennington, Deputy Chief Program Management Officer, Program
Management (213) 922-7449

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



Phillip A. Washington
Chief Executive Officer

DEPARTMENT OF TRANSPORTATION

DISTRICT 7

100 S. MAIN STREET, SUITE 100

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May 26, 2017

Mr. Abdollah Ansari
Managing Executive Officer
Los Angeles County Metropolitan Transportation Authority (Metro)
One Gateway Plaza
Los Angeles, CA 90012

Dear Mr. Ansari:

This letter is in reference to your request to expedite the close out of the Interstate 5 / State Route 14 High Occupancy Vehicles (HOV) Connector Project and our letter dated April 4, 2017 regarding a budget reserve to cover the cost of the Southern California Edison's (SCE) project related powerlines relocation activities.

Caltrans has been in communication with SCE to expedite the relocation redesign effort and provide a detailed estimate for its work for accurate budgeting purposes as you have requested.

SCE however, advised of the need for the final relocation design to be completed before any detailed estimate could be provided and indicated that August of 2017 would be the earliest date for such estimate.

As we recognize the urgent need to close this project, please set aside a \$5 million budget to cover all costs associated with the relocation of the SCE powerlines.

Such budget should be added to the project's right of way capital budget via amendment No. 4 of the funding agreement (FA) No. 4764.

Mr. Ansari
May 26, 2017
Page 2

Please contact Osama Megalla, Alternative Delivery Projects Manager at 213-897-0520 if you have any question(s) or need additional information regarding this request

Sincerely,



Robert So
Deputy District Director
Division of Program and Project Management

CC: G. Farr (Caltrans)
O. Megalla (Caltrans)
W. Ridder (Metro)
T. Oyewole (Metro)
A. Ogunrinde (Metro)

REVISED

Unified Cost Management Process and Policy for Measure R Projects (amended January 22, 2015)

(Note: Underlines and strike-outs that were from original Board-adopted Policy document were inadvertently included in this Attachment. These have been removed. Only the language in Section 11 is new and remains underlined).

Introduction

The MTA will follow a unified cost management process and policy for the control and minimization of project costs for the Measure R transit and highway projects. At the core of the unified cost control management process and policy is a commitment to follow a new step-by-step evaluation of project costs against possible resources to address project shortfalls. Shortfalls that cannot be addressed at the project level by value engineering or other measures, such as changes in the scope of the project, will be subject to a new stepwise evaluation process.

The new step-by-step cost management process will require the MTA Board to review and consider approval of project cost estimates against funding resources at key milestone points throughout the environmental, design, and construction phases of the Measure R transit and highway projects. At each milestone, MTA staff is directed to: (1) submit a project that is consistent with the budget; (2) identify any issues when a project is not consistent with the budget; and (3) propose corrective actions before the project advances further, if it is not consistent with the budget. For Measure R funds, the planned funding resources (including any prior Measure R expenditures) shall not exceed the amount shown in the "New Sales Tax Total" column of the Measure R expenditure plan. At each milestone, the planned funding resources shall not exceed the amounts shown. These key milestones include the following decision points:

- 1) Selection of conceptual design alternatives to be studied in the environmental phase;
- 2) Selection of the Locally Preferred Alternative and entrance into the Preliminary Engineering phase;
- 3) Approval of the final environmental document and entrance into the final design phase;
- 4) Establishment of a life-of-project budget prior to construction; and,
- 5) Any amendment to the life-of-project budget.

If increases in cost estimates occur, the MTA Board must approve a plan of action to address the issue prior to taking any action necessary to permit the project to move to the next milestone. Increases in cost estimates will be measured against the 2009 Long Range Transportation Plan as adjusted by subsequent actions on cost

estimates taken by the MTA Board. Shortfalls will first be addressed at the project level prior to evaluation for any additional resources using these methods in this order:

- 1) Value Engineering and or scope reductions;
- 2) New local agency funding resources;
- 3) Shorter segmentation;
- 4) Other cost reductions within the same transit or highway corridor;
- 5) Other cost reductions within the same sub-region; and finally,
- 6) Countywide transit cost reductions or other funds will be sought using pre-established priorities.

The objective of the cost management process and policy is to insure the prompt development and consideration of project cost alternatives that genuinely address the cost controls necessary to successfully deliver all Measure R transit and highway corridor projects.

Process and Policy Detail

The unified cost management processes and policies that are proposed controls are as follows:

- 1) A regional long-range transportation plan (covering at least 20 years) for Los Angeles County shall be adopted at least once every five years. For interim years, staff will report on changes affecting the major financial assumptions of the plan and progress toward the implementation of new projects and programs. The plan update report shall also highlight Board approved actions taken during the interim period that affect the plan outcomes or schedules (*from Financial Stability Policy*);
- 2) MTA shall complete projects accelerated through the 30/10 Initiative in the same sequence as the adopted 2009 Long Range Transportation Plan (LRTP) (*from 30/10 Initiative Position Statement*);
- 3) MTA shall only utilize pledged federal assistance from the 30/10 Initiative if the construction and financing costs are less than the available funds (adjusted for inflation) planned in the adopted 2009 LRTP, unless those costs are being adjusted by the minimum necessary to accomplish an operable segment for the corridor (*from 30/10 Initiative Position Statement*);
- 4) Measure R transit corridor and highway projects shall be presented separately for approval by the Board in a step-by-step cost control process that will evaluate project cost estimates against funding resources at key milestones points throughout the environmental, design, and construction phases of the 30/10 transit projects. For Measure R funds, the planned funding resources (including any prior Measure R expenditures) shall not exceed the amount shown in the "New Sales Tax Total" column of the Measure R expenditure plan. These key milestones include the following decision points:
 - a. Selection of conceptual design alternatives to be studied in the environmental phase;

- b. Selection of the Locally Preferred Alternative and entrance into the Preliminary Engineering phase;
 - c. Approval of the final environmental document and entrance into the Final Design phase;
 - d. Establishment of a life-of-project budget prior to construction; and,
 - e. Any amendment to the life-of-project budget.
- 5) At any of the milestones above, the MTA will seek to control and minimize Measure R transit and highway project costs prior to taking any action necessary to permit the project to move to the next milestone. Cost minimization efforts will be measured against the 2009 Long Range Transportation Plan as adjusted by subsequent actions on cost estimates taken by the MTA Board. Shortfalls will first be addressed at the project level prior to evaluation for any additional resources using these methods in this order:
- a. Value engineering and/or scope reductions;
 - b. New local agency funding resources;
 - c. Shorter segmentation;
 - d. Other cost reductions within the same transit or highway corridor (see Attachment B);
 - e. Other cost reductions within the same sub-region (See Attachment B); and,
 - f. Countywide transit and highway cost reductions and/or other funds will be sought using pre-established priorities, as follows:
 - i. Where applicable, Measure R Transit Capital Subfund Contingency-Escalation Allowance funds (Measure R Expenditure Plan, Page 2 of 4, Line 18);
 - ii. Where applicable, Measure R Highway Capital Subfund Contingency-Escalation Allowance funds (Measure R Expenditure Plan, Page 3 of 4, Line 39); and,
 - iii. Where Line 18 is not applicable, the LRTP Near-Term Strategies and Priority Setting Criteria will be followed (Item 9, as Adopted by the Board of Directors in March 2010).

Each Measure R transit or highway project will be considered on a case-by-case basis at each milestone and a rationale developed if resources from the prior step above are insufficient or not recommended for good reason. The MTA Board will be presented with all viable options and will have the sole authority to make any final funding and project delay decisions.

- 6) Prior to inclusion in the annual budget, Measure R transit corridor and highway projects shall be presented separately for approval by the Board for a life-of-project budget. Subsequently, capital projects with life-of-project budget changes that cause the project to exceed \$1 million or if the change exceeds \$1 million shall be presented to the Board for approval (*from Financial Stability Policy*);
- a. Prior to life-of-project budget approval, the MTA shall compare the sum of the cost of the Measure R transit and highway projects to date and the

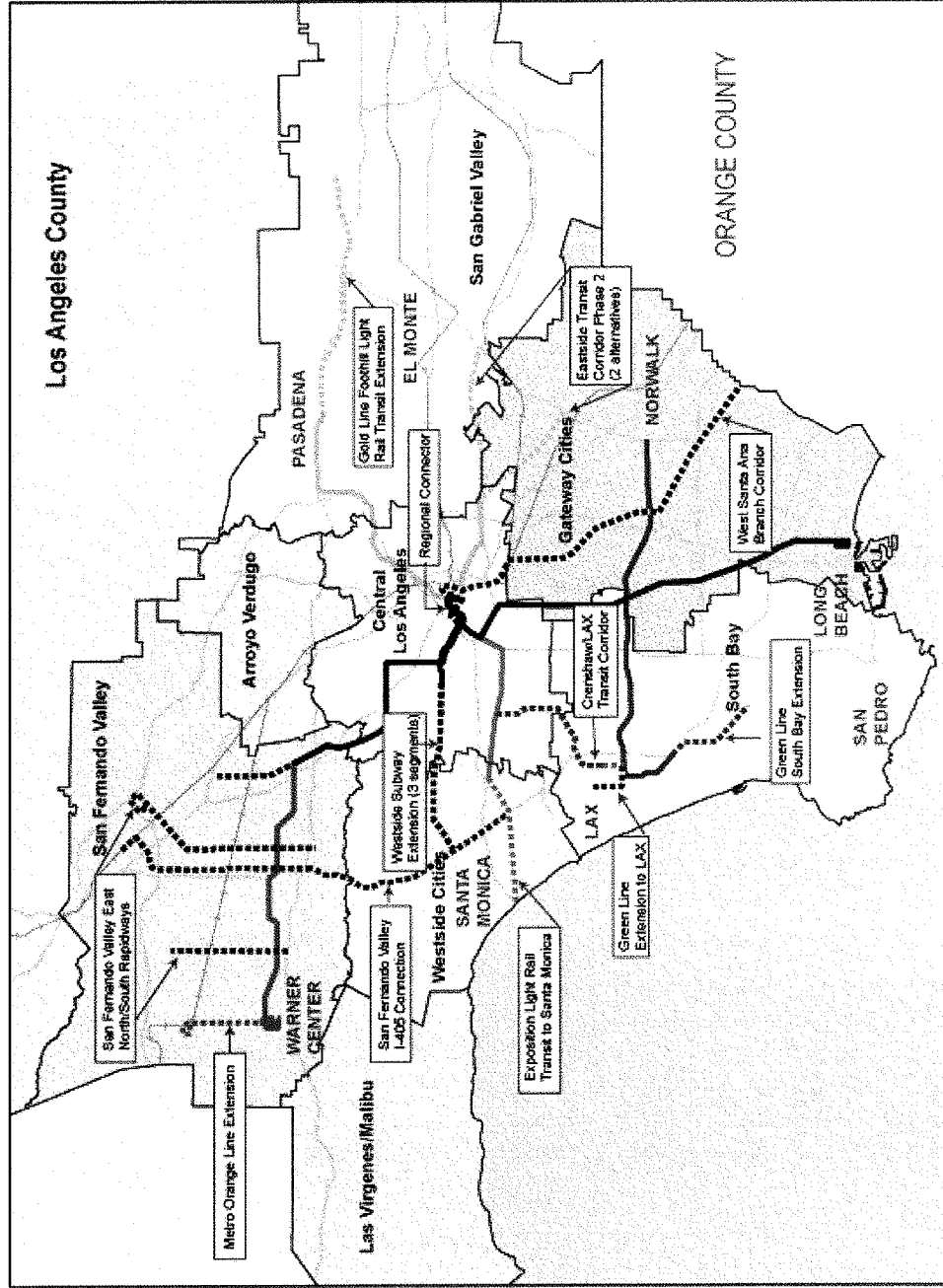
proposed life of project budget (as de-escalated) to the most up-to-date LRTP funding forecast for Measure R transit and highway projects. If the life-of-project budget is less than the anticipated funds available as compared to the up-to-date LRTP funding forecast, then MTA can approve the life of project budget. If the life-of-project budget are more than the available funds, then MTA would not execute a construction contract unless the MTA Board approved cost reductions, project delays or other funding to make up the difference (*modifies and would supersede language from the body of 30/10 Initiative Position Statement*);

- 7) Prior to approval of a life-of-project budget that exceeds currently committed revenues and prior to approval of a life-of-project budget cost increase, MTA staff will evaluate the possibility of securing the necessary cost savings or revenues for the project. Within the parameters of the MTA Board's policy not to seek transit funds from highway resources, or vice-versa, staff will first seek to identify cost and/or additional funds in a step-by-step manner from:
 - a. Value engineering and/or scope reductions;
 - b. New local agency funding resources;
 - c. Shorter segmentation;
 - d. Other cost reductions within the same transit or highway corridor;
 - e. Other cost reductions within the same sub-region; and,
 - f. Countywide transit cost reductions and/or other funds will be sought using pre-established priorities, as follows:
 - i. Where applicable, Measure R Transit Capital Subfund Contingency-Escalation Allowance funds (Measure R Expenditure Plan, Page 2 of 4, Line 18);
 - ii. Where applicable, Measure R Highway Capital Subfund Contingency-Escalation Allowance funds (Measure R Expenditure Plan, Page 3 of 4, Line 39); and,
 - iii. Where Line 18 is not applicable, the LRTP Near-Term Strategies and Priority Setting Criteria will be followed (Item 9, as Adopted by the Board of Directors in March 2010).
- 8) A specific MTA Board action is required to re-program highway capital project funding for use on transit or highway capital projects as a result of 30/10, unless such re-programming does not result in a net decrease to the highway capital project funding (*from 30/10 Initiative Position Statement*);
- 9) Likewise, a specific MTA Board action is required to re-program transit capital project funding for use on highway capital projects as result of 30/10, unless such re-programming does not result in a net decrease to the transit capital project funding (*from 30/10 Initiative Position Statement*); and,
- 10) Any capital project savings above \$200,000 must return to the Board for approval prior to the reprogramming or transfer of funds to other projects or programs (from Financial Stability Policy).

- 11) **A Regional Facility Area has been established, separate from subregional planning areas, which include Los Angeles International Airport (LAX), Burkank Bob Hope Airport, Long Beach Airport, Palmdale Regional Airport; the Ports of Long Beach and Los Angeles; and Los Angeles Union Station. Any capital project cost increases to Measure R funded projects within the boundaries of these facilities are exempt from the corridor and subregional cost reduction requirements of 7(d) and 7(e) above. Cost increases regarding these projects will be addressed from the regional programs share.**

ATTACHMENT B

Measure R Transit Corridor Map With Sub-regional Boundaries





Board Report

File #: 2017-0408, File Type: Program

Agenda Number: 9

**AD-HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE
JULY 19, 2017**

**SUBJECT: HIGHWAY OPERATIONAL IMPROVEMENTS IN
LAS VIRGENES MALIBU SUBREGION**

**ACTION: APPROVE UP TO \$4.7 MILLION OF ADDITIONAL PROGRAMMING FOR THE
SUBREGIONAL PROJECT LIST**

RECOMMENDATION

CONSIDER:

- A. APPROVING up to \$4.7 million in programming for Measure R Line 32, Highway Operational Improvements in Las Virgenes Malibu Subregion for project number MR311.34 - Long Valley Road/Valley Circle/US-101 Northbound (NB) On-Ramp improvements; and
- B. AUTHORIZING the CEO or his designee to negotiate and execute all necessary agreements for approved project.

ISSUE

Long Valley Rd. is a combined city street/on-ramp to NB US-101 and provides access to Hidden Hills. During the morning peak hours, Long Valley Rd. is heavily congested, resulting in queuing on adjacent Valley Circle Blvd. Currently, the Long Valley Rd. and Valley Circle Blvd. intersection operates at a Level of Service F during peak morning traffic. To reduce traffic congestion on Long Valley Rd. and Valley Circle Blvd., the City of Hidden Hills proposes to construct a right turn pocket at the stop-controlled NB US 101 On-ramp/Long Valley Road intersection and purchase right-of-way for a parking/staging area on Long Valley Rd. to minimize congestion on the freeway ramp and local streets.

DISCUSSION

Long Valley Rd., which provides access to NB US-101 from Valley Circle Blvd. and ingress/egress to Hidden Hills, is heavily congested during peak traffic hours. This road provides two lane NB access to US-101 and one lane access from Hidden Hills to Valley Circle Blvd.

Due to the high traffic demand accessing both the US-101 and Hidden Hills during morning peak traffic hours, traffic queues up from the stop-controlled NB U.S. 101 on-ramp to Valley Circle Blvd. on

Long Valley Rd. A traffic study conducted by the City of Hidden Hills shows that average queue lengths on Long Valley Rd. measure up to 778 ft., impeding turning movements at the intersection of Long Valley Rd. and Valley Circle Blvd.

Additionally, Long Valley Rd. currently has unpaved shoulders making pedestrian access to bus stops on Valley Circle Blvd. and the neighboring shopping center on Calabasas Road difficult. The existing conditions also lead to safety concerns as pedestrians use non-designated crossings on Long Valley Rd.

Proposed Improvements

This project proposes the following improvements (Attachment A):

- Construction of a right-turn pocket at the stop-controlled NB US 101 On-ramp/Long Valley Rd. intersection.
- Right-of-Way acquisition for construction of a parking/staging area on Long Valley Rd. outside the Hidden Hills gatehouse to reduce queuing of vehicles on the freeway ramp waiting to enter Hidden Hills.
- Construction of an ADA compliant sidewalk on Long Valley Rd. and Valley Circle Blvd. from the stop-controlled NB US-101/Long Valley Rd. intersection to Valley Circle Blvd./Ventura Blvd. intersection.

Cost Estimate

The City of Hidden Hills estimates that development and implementation of the project will cost approximately \$5.7 Million (Attachment B)

Funding Sources MR311.34 - Long Valley Rd./Valley Circle/101 On-Ramp Improvements

Funding Sources	Amount	Fiscal Year	Comments
Metro Board-Approved Measure R Hwy Operational Improvements Funds Las Virgenes Malibu (LVM)	\$1,000,000	FY15-16 & FY16-17	Programmed by Metro Board in May 2015
Requested Metro Board Approval of additional Measure R Hwy Operational Improvement Funds Las Virgenes Malibu In this Board Report.	\$2,700,000	FY17-18	Approved allocation by LVMCOG Governing Board to City of Hidden Hills. (Attachment C)
Total Measure R	\$3,700,000		
SHORTFALL: LVMCOG Measure R Hwy Op. Imp. and/or other sources	\$2,000,000		Contribution by County of Los Angeles.
Total	\$5,700,000		

Nexus to Measure R Highway Operational Improvements:

This project is a roadway improvement project providing a right turn pocket on Long Valley Rd. thereby reducing traffic congestion and providing better access to NB US-101. This is an eligible Measure R Highway Operational Improvement project.

Considerations

Additional funds and programming are being requested to ensure the City can bid on and acquire the right-of-way necessary for the project.

DETERMINATION OF SAFETY IMPACT

Approval of additional programming capacity will have no adverse impact on the safety of Metro's patrons and employees.

FINANCIAL IMPACT

Funding for this Highway Operational Improvement project is from the Measure R 20% Highway Capital Subfund earmarked for the Cities of Agoura Hills, Calabasas, Hidden Hills, Malibu, Westlake Village and the County of Los Angeles in Las Virgenes Malibu subregion (Project No. 460311). This program is under Cost Center 0442 in Account 54001 (Subsidies to Others). All programmed funds are based on estimated revenues.

The Measure R 20% Highway Capital Improvement Subfund for the Las Virgenes Malibu Subregion, earmarked \$175,000,000 for Highway Operational Improvement Projects over the 30 year life of Measure R. To date, \$141,851,000 has been programmed and Metro has incurred \$85.5 million in expenditures for the subfund and 5 projects have been completed. Staff is seeking to increase the programmed funding threshold in an amount not to exceed \$4.7 million, allocating \$146,551,000 to the subregion.

Impact to Budget

FY18 budget for \$65,000 resides in account 54001, cost center 0442, under project number 460311, Task MR311.34. Should additional funds be required during FY18, staff will revisit the budgetary needs using the mid-year budget processes. Since this is a multi-year contract/project, the Project Manager, the Cost Center Manager and the Senior Executive Officer, Program Management - Highway Program will be accountable for budgeting the cost in future years for Metro's share within the updated project budget.

The source of funds for this project is Measure R 20% Highway Capital which is not eligible for Bus and Rail Operations or Capital expenses.

NEXT STEPS

Prior to commencement of right-of-way acquisition, the City will establish and demonstrate to Metro a full funding plan with multi-jurisdictional commitments. Upon approval of the funding plan by Metro, a Funding Agreement will be executed with the City of Hidden Hills.

ATTACHMENTS

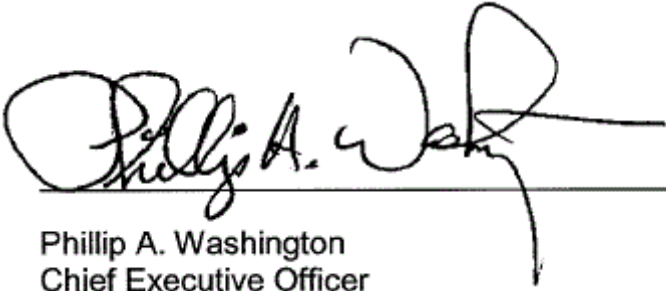
Attachment A - Aerial Photo

Attachment B - Engineer's Estimate

Attachment C - Letter of confirmation approving funding allocation by LVMCOG

Prepared by: Isidro Panuco, Mgr. Transportation Planning,
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Reviewed by: Richard F. Clarke, Chief Program Management Officer, (213) 922-7557



Phillip A. Washington
Chief Executive Officer

LOCATION MAP



ATTACHMENT B

Hidden Hills - Long Valley Road Improvements Preliminary Cost Estimate

Item Description	Unit	Qty.	Unit Cost	Item Total
CONSTRUCTION:				
Remove Existing				
1 16" TREE	EA	4	3,000	12,000
2 32" TREE	EA	1	5,000	5,000
3 SHRUBS	LS	1	5,000	5,000
5 CURB AND GUTTER	LF	130	10	1,300
6 DRIVEWAY	EA	1	2,000	2,000
7 CL FENCE	LF	685	10	6,850
8 GREENHOUSE	LS	2	3,000	6,000
Relocate Existing				
9 ROADSIDE SIGN, SINGLE POST	EA	3	400	1,200
10 ELECTRICAL PULLBOX	EA	3	2,000	6,000
11 MISC VENTS	EA	2	5,000	10,000
12 PETROLEUM PIPELINE SIGN	EA	1	500	500
13 POWER POLE W/ METER	EA	1	10,000	10,000
14 CALTRANS METER BOX	EA	2	5,000	10,000
15 CALTRANS PULLBOX	EA	2	5,000	10,000
16 FIRE HYDRANT	EA	1	8,000	8,000
17 FREEWAY/STREET SIGN, DOUBLE POST	EA	5	3,000	15,000
18 SPRINKLER BOX	EA	1	2,000	2,000
19 30' STREETLIGHT W/ PULLBOX	EA	6	8,000	48,000
20 UTILITY BOX	LS	1	5,000	5,000
21 TRAFFIC SIGNAL CABINET	LS	2	20,000	40,000
New Installation				
22 GREENHOUSE	EA	2	10,000	20,000
23 GRADING AND CLEAR AND GRUB	LS	1	80,000	80,000
24 BOX CULVERT EXTENSION AND MODIFICATION	LS	1	300,000	300,000
25 RETAINING WALL	SF	2,900	100	290,000
26 CATCH BASIN	EA	1	8,000	8,000
27 STORM DRAIN	LS	1	30,000	30,000
28 CURB AND GUTTER	LF	220	50	11,000
29 AGG BASE	SF	2,000	4	8,000
30 ASPHALT CONCRETE	SF	2,000	6	12,000
31 SIDEWALK	SF	7,800	15	117,000
32 CURB RAMP	EA	2	6,000	12,000
33 CHAIN LINK FENCE	LF	395	25	9,875
34 HANDRAIL ON RET WALL	LF	290	30	8,700
35 TRAFFIC STRIPING	LS	1	5,000	5,000
36 ROADSIGNS	EA	6	500	3,000
37 EROSION CONTROL, SWPPP, WQMP	LS	1	15,000	15,000
38 CONSTRUCTION STAKING	LS	1	10,000	10,000
39 TRAFFIC CONTROL	LS	1	20,000	20,000
TOTAL CONSTRUCTION:				1,163,425
ROW:				
ROW Acquisition (3,900 SF), appraisal, legal				200,000
TOTAL ROW				200,000
ENGINEERING:				
Environmental				50,000
Geotechnical				50,000
PS&E				174,514
Construction Management, Inspection, Materials Testing				139,611
TOTAL ENGINEERING				414,125
PLAN REVIEW AND PERMIT FEES				
				100,000
SUBTOTAL				
				1,877,550
PARK AND RIDE LOT (SEE NEXT PAGE)	LS	1	2,827,524	2,827,524
20% CONTINGENCY				
				941,015
TOTAL (INCLUDE PARK AND RIDE LOT)				
				5,646,089

**Hidden Hills - Parking/Staging Lot
Preliminary Cost Estimate**

Item Description	Unit	Qty.	Unit Cost	Item Total
IMPROVEMENTS:				
1 REMOVE TREES AND SHRUBS	LS	1	8,000	8,000
2 GRADING AND CLEAR AND GRUB	LS	1	5,000	5,000
3 GRADING	LS	1	22,000	22,000
4 DRIVEWAY	EA	2	5,000	10,000
5 AGG BASE	SF	17,600	4	70,400
6 POROUS AC PAVEMENT	SF	17,600	8	140,800
7 INFILTRATION TRENCH AND DRAINS	SF	4,400	15	66,000
8 CURB AND GUTTER, INTERIOR	LF	460	50	23,000
9 LANDSCAPE AND IRRIGATION	LS	4,400	20	88,000
10 WATER METER AND CONNECTION	LS	1	5,000	5,000
11 STRIPING AND SIGNAGE	LS	1	6,000	6,000
12 SOUND WALL	LF	185	200	37,000
13 EROSION CONTROL AND WQMP	LS	1	10,000	10,000
14 CONSTRUCTION STAKING	LS	1	8,000	8,000
15 TRAFFIC CONTROL	LS	1	2,000	2,000
TOTAL CONSTRUCTION:				501,200
ROW:				
LOT PURCHASE				2,000,000
FEES AND LEGAL				160,000
TOTAL ROW				2,160,000
ENGINEERING:				
Environmental				5,000
Geotechnical				6,000
PS&E				75,180
Construction Management, Inspection, Materials Testing				60,144
TOTAL ENGINEERING				146,324
PLAN REVIEW AND PERMIT FEES				20,000
TOTAL				2,827,524

ATTACHMENT C

Las Virgenes-Malibu Council of Governments

Member Cities: Agoura Hills, Calabasas, Hidden Hills, Malibu & Westlake Village
6165 Spring Valley Road, Hidden Hills, California 91302 • (818) 968-9088

June 20, 2017

Abdollah Ansari
Managing Executive Officer, Highway Program
Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza,
Los Angeles, CA 90012

Re: Hidden Hills' US 101 Freeway/ Long Valley Road Improvements

Dear Mr. Ansari:

Today, the Las Virgenes-Malibu Council of Governments (COG) approved and reaffirmed a total of \$5.7 million in Measure R funds for Hidden Hills' proposed improvements of the Northbound US-101 On-Ramp at Valley Circle/Long Valley Road. The City of Hidden Hills has prepared the scope, preliminary design and an engineer's estimate of \$5,646,088 for the Project.

In this action, the Governing Board reaffirmed the \$2.2 million in Measure R Subregional Highway funds that the COG has previously approved for the project and added \$1.5 million of Measure R Subregional Highway funds for a total of \$3.7 million for the Project. Additionally, Governing Board approved \$2 million of the County's Las Virgenes-Malibu COG Measure R Subregional Highway funds that Supervisor Kuehl agreed to contribute to complete the required funding for the Project.

The revised Project includes a right-turn pocket to relieve the recurring congestion on the freeway ramp/Long Valley Road, acquisition of the parcel for the proposed parking lot/staging area and the necessary striping, signage, etc.

Please let me know if you want to discuss any remaining details of the Project.

Yours truly,



Terry Dipple
Executive Director



Board Report

File #: 2017-0421, File Type: Program

Agenda Number: 10

AD HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE JULY 19, 2017

**SUBJECT: FUNDING FOR PREPARATION OF NOISE BARRIER
SCOPE SUMMARY REPORTS (NBSSRs) FOR
SOUNDWALLS ON I-210 AND I-405**

ACTION: APPROVE PROGRAMMING \$1.5 MILLION FOR NBSSRs

RECOMMENDATION

PROGRAM \$1,500,000 to Caltrans to prepare Noise Barrier Scope Summary Reports (NBSSRs) for three soundwall segments identified as follows: Westbound I-210 from Orcas Ave to Foothill Blvd (Lake View Terrace), Eastbound I-210 from Yarnell St to Roxford St (Sylmar) and Northbound I-405 north of Devonshire St to the I-405/SR-118 connector crossing (North Hills).

ISSUE

The proposed soundwalls have been deemed eligible for implementation by Caltrans. Caltrans will seek funds under SB-1 for the design, right-of-way and construction of those soundwalls but needs assistance with funds for the NBSSRs.

DISCUSSION

Preparation of NBSSRs entails assessment of the feasibility of soundwall projects and defines the project scope by recommending the locations, lengths and heights of soundwalls; identification of the right-of-way needs; and development of cost estimates for proposed projects. Upon completion of NBSSRs, soundwalls meeting all thresholds of eligibility will be designed in accordance with the parameters set in the NBSSR. For the referenced projects, Caltrans will fund the design, right-of-way and construction of the proposed soundwall projects. Metro's contribution toward preparation of the NBSSRs will leverage a larger amount of State funds. The cost of design, potential right-of-way and construction of those projects will be estimated by the NBSSRs.

The I-405 soundwalls are continuation of walls built under Phase 1, Priority 2, Package 5. The eligibility of the proposed extension will be determined by the NBSSR.

DETERMINATION OF SAFETY IMPACT

The proposed action has no known adverse impact on the safety of Metro's patrons, employees or

users of the facility. Caltrans' highway safety standards will be adhered to in the design and construction of the proposed improvements. Any exceptions to the standards will be incorporated in accordance with Caltrans and Federal Highway Administration (FHWA) procedures.

FINANCIAL IMPACT

Approval of the recommendation will program up to \$1,500,000 for the NBSSRs for a multi-year period. The Highway Program is funded in FY18 for the anticipated approval of this item. Upon approval of this action, staff will use approved FY18 budget to allocate \$750,000 in Highway Subsidies Cost Center 0442, Soundwall Program Project 410040, Task 01.01, Subsidies to Others Account 54001. Since this will be a multi-year project, the Project Manager, Cost Center Manager and the Senior Executive Officer, Program Management-Highway Program will be responsible for budgeting the remaining costs of the project in future fiscal years.

Impact to Budget

The source of funds for the project is Proposition C Administration. These funds are not eligible for bus and rail operation and capital expenditures.

ALTERNATIVES CONSIDERED

The Board may choose to not fund the NBSSRs. This is not recommended as Projects can't be implemented without completed NBSSRs. Caltrans' significant participation in funding these projects justifies NBSSR funding by Metro.

NEXT STEPS

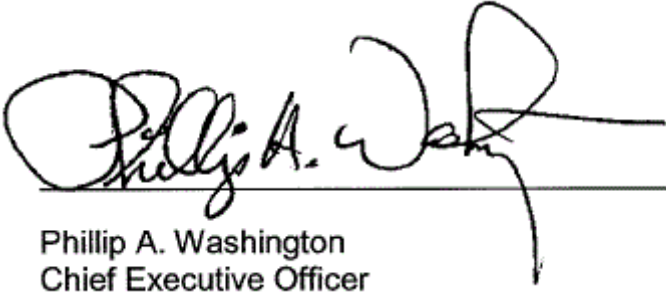
Upon approval by the Board, staff will execute the Funding Agreement with Caltrans to program the funds for the NBSSRs.

ATTACHMENTS

Attachment A - Location Map

Prepared by: Benkin Jong, Senior Transportation Manager (213) 922-3053
Abdollah Ansari, Senior Executive Officer (213) 922-4781
Bryan Pennington, Deputy Chief Program Management Officer (213) 922-7449

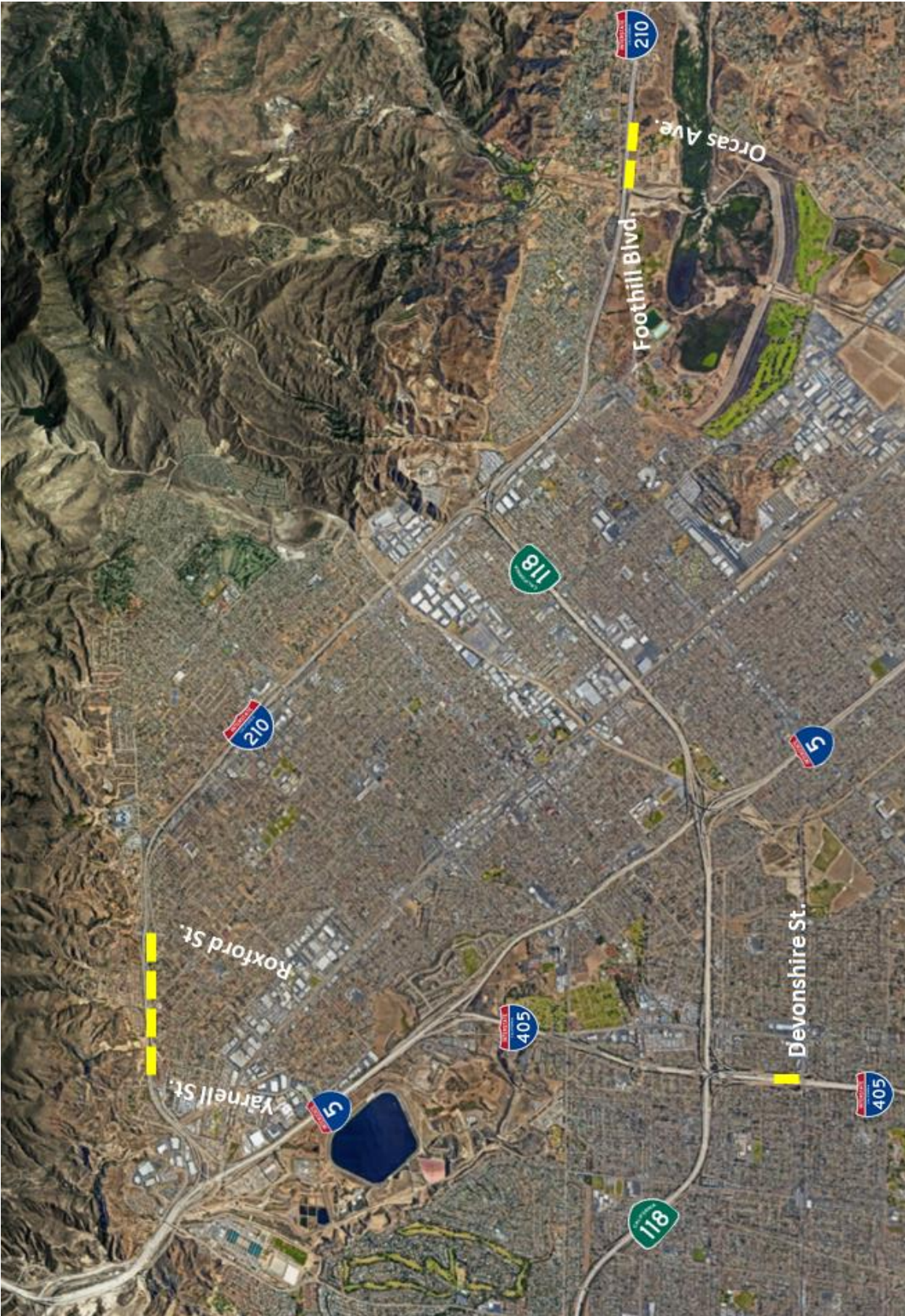
Reviewed by: Richard F. Clarke, Chief Program Management Officer (213) 922-7557



Phillip A. Washington
Chief Executive Officer

**ATTACHMENT A
LOCATION MAP**

I-210 WB Orcas Ave. to Foothill Blvd.
I-210 EB Yarnell St. to Roxford St.
I-405 N/O Devonshire





Board Report

File #: 2017-0430, File Type: Agreement

Agenda Number: 12

FINANCE, BUDGET AND AUDIT COMMITTEE JULY 19, 2017

**SUBJECT: LEASE AGREEMENT WITH THE CITY
OF LOS ANGELES DEPARTMENT OF AIRPORTS
BOARD OF COMMISSIONERS FOR PUBLIC
TRANSIT USE OF LAX TERMINAL 27**

ACTION: AUTHORIZE EXECUTION OF SEVEN (7)-YEAR LONG-TERM LEASE

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to execute a seven (7)-year lease agreement ("Lease Agreement") with The City of Los Angeles Board of Airport Commissioners ("City"), having jurisdiction over Los Angeles World Airports ("LAWA"), allowing Metro to continue leasing 2.0177 acres of land and improvements located at Los Angeles International Airport ("LAX") Terminal 27, 6111 W. 96th Street, Los Angeles at a rental amount of \$7,770 per month for a total lease value of \$714,448 over the (7)-year lease term including an estimated 3.29% CPI adjustment assessed annually.

ISSUE

Metro operates Terminal 27 at LAX under an expired five-year lease last approved by the Metro Board on April 28, 2004. Terminal 27 lease expired on June 30, 2009. Upon expiration of the term in 2009, the lease continued on a month-to-month basis as a successor agreement was negotiated with LAWA's Real Estate Department.

LAWA has embarked on an airport modernization program at LAX. A component of this is the Landside Access Modernization Project ("LAMP") which provides for an automated people mover on the land currently occupied by Terminal 27. Within the next two years, LAMP plans require that Terminal 27 be relocated to a new site situated adjacent to the current location under a new configuration but comprised of approximately the same dimensions (See Figures 1 & 2 in Attachment B for details).

DISCUSSION

Terminal 27 is an integral part of the transportation network serving the City of Los Angeles and the LAX area. Terminal 27 has served as the hub of public transportation at LAX in its present location for 33 years. Terminal 27 serves several Metro bus lines and additional bus lines from the cities of Torrance, Culver City, and Santa Monica as well as Beach Cities Transit.

The new Lease Agreement provides for the City to relocate Terminal 27 to a site owned by LAWA during the lease term to accommodate the proposed automatic people mover project, pay the cost of the replacement facility, and to work with Metro to assure a smooth transition to the new site for the remainder of the lease term. The seven-year term coincides with the timing for Metro's development of the Airport Metro Connector and bus terminal after which time Terminal 27 will no longer be needed.

DETERMINATION OF SAFETY IMPACT

The proposed lease will have no impact on safety.

FINANCIAL IMPACT

The new Lease Agreement provides for monthly payment of \$7,770 (annually \$93,240) and will cost \$714,448 over the life of the Lease Agreement including provisions for annual CPI adjustments. The new annual lease payment represents a 2.56% increase over the expired Lease Agreement. Staff anticipated this increase and finds it to be in line with expected costs of escalation of rent. Funding for the new Lease Agreement includes general operating funds such as fares and sales tax and has been included in the Fiscal Year 2018 budget and will continue until lease termination.

ALTERNATIVES CONSIDERED

The alternative to continuing to lease at this site are abandon the site and discontinue service, or relocate to another location. These alternatives are neither practical nor recommended. Terminal 27 is an active terminal providing a covered facility for bus patrons loading and unloading and transferring to other bus lines in an otherwise restricted environment at LAX. The discontinuance of this Terminal would greatly inconvenience patrons utilizing public transportation to and from LAX. Metro-initiated relocation of Terminal 27 is also not advisable because of the significant financial investment required to develop the replacement terminal which will be required for a relatively short time.

NEXT STEPS

Upon approval as to form by County Counsel, the Metro-executed lease will be delivered to the City for counter-signature and placed on the agenda for full approval by the Airport Board of Directors at their September 2017 meeting.

ATTACHMENTS

Attachment A - Summary of Key Lease Terms
Attachment B - Lease Area Terminal 27

Prepared by: John Beck, Senior Real Estate Officer, (213) 922-4435
John Potts, Deputy Executive Officer, (213) 922-2435
Calvin Hollis, Senior Executive Officer, (213) 922-7319

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

ATTACHMENT A - SUMMARY OF KEY LEASE TERMS

LEASE AGREEMENT FOR TERMINAL 27

PREMISES	36,000 square feet (SF) of land and 522 SF of Restroom Space ("Exclusive Use Area"), and 51,891 SF of land and 4,128 SF of Canopy ("Non-Exclusive Use Area").
TERM	Seven years with provision for month-to-month upon expiration with a 30-day notice by either party.
COST	Monthly rent amount of \$7,770 or an annual amount of \$93,240.

Figure 1 Existing Configuration

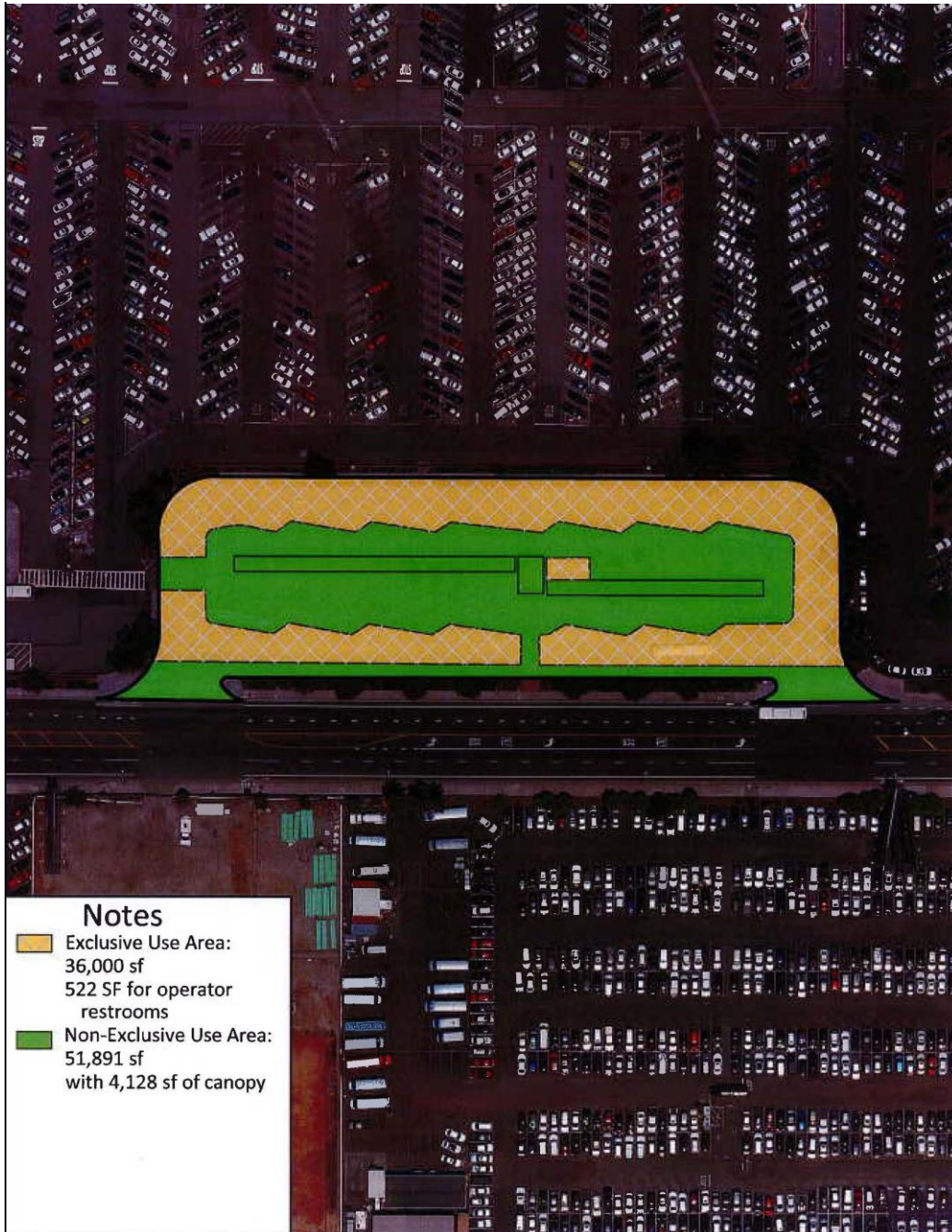


Figure 2 Reconfiguration



**Board Report**

File #: 2017-0412, **File Type:** Informational Report**Agenda Number:** 13

**FINANCE, BUDGET AND AUDIT COMMITTEE
JULY 19, 2017****SUBJECT: LEASE OF RETAIL SPACE TO BIKE AND PARK
SANTA MONICA, LLC****ACTION: AUTHORIZE EXECUTION OF LEASE AGREEMENT****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer (CEO) to execute a five-year exclusive lease agreement and a five-year extension option with Bike and Park Santa Monica, LLC (Bike and Park) for the Kiosk S-4 space location at Union Station in the amount of \$1,970.72 monthly base rent plus an annual increase of three percent, common area maintenance (CAM) fees, and a percentage rent of ten percent of gross sales above the base rent, for a total income in excess of \$500,000 over the 10-year lease. Lease will start on the earlier of 60 days from completion of the Metro Bike Hub currently under construction or the day the Bike and Park actually commences conducting business.

ISSUE

Following a competitive selection process, six vendors submitted proposals in August 2015. Three proposers were found to best meet the experience requirements including having implemented similar projects at transit hubs. The bidders' proposals were evaluated on the basis of thoroughness of their responses, historical retail experience, profitability, resourcefulness of their business plans, previous work with other public agencies, proposed organization and staff, and commitment to a quality store and program.

Staff, with assistance of County Counsel, have recently concluded negotiations with Bike and Park, a successful retail and services trade name shop that thoroughly complements the adjacent Metro Bike Hub at the Union Station. The lease retail area is 904 square feet within the Bike Hub Park facility currently under construction, and includes non-exclusive use of the common area (see Attachments A and B). Metro will be providing a shell and heating capacity when complete. The proposed tenant is expected to invest approximately \$75,000 in tenant improvements. Completion of the Bike Hub construction is expected within the next six months pending permitting and licensing.

Over the proposed 10-year term (5 years plus one 5-year option dependent on performance per Attachment C term sheet), this lease is anticipated to generate in excess of \$500,000 in base rent and percentage rent. Board authorization is requested because the expected lease revenue exceeds the CEO's current authority.

DISCUSSION

Bike and Park is a retail bike shop in the business of selling, renting, repairing, and valet parking bicycles; providing bike and Segway tours; selling bike-related apparel and supplies and grab 'n go snacks and drinks; and providing services and activities related to three key areas of education (e.g., confident city cycling that is smart and safe), stakeholder engagement and customer service. They are passionate about increasing bicycle use for transportation and inspiring people to ride. This Bike Hub-user amenity is expected to increase bike and transit trips and achieve first/last mile strategies which are key objectives of the Metro Bike Hub program.

DETERMINATION OF SAFETY IMPACT

The proposed lease will have no impact on safety.

FINANCIAL IMPACT

Adoption of the proposed lease could generate an excess of \$500,000 in rent including the 3 percent annual increase, CAM charges, and percentage rents, over the initial 5 years of the lease and 5-year option.

Impact to Budget

Adoption of the recommended action will have no impact on the FY18 budget for bus or rail operations.

ALTERNATIVES CONSIDERED

The Board may choose to disapprove the lease agreement. Staff does not recommend this since it would likely leave the retail space vacant at the time of opening with no income or operator to assist Bike Hub customers. The Board may instead decide to go back to the open market to find an alternate tenant. This is not recommended as staff has already conducted an exhaustive RFP process, held interviews with the qualified candidates and selected the best candidate.

NEXT STEPS

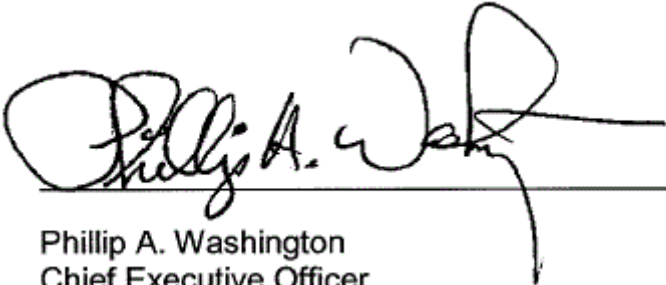
The proposed terms and conditions of the lease agreement have been negotiated and approved by County Counsel and Lessee. The remaining step is approval by the Metro Board of Directors.

ATTACHMENTS

- Attachment A - Bike and Park Premises and Patio Area
- Attachment B - Bike and Park Project Area
- Attachment C - Bike and Park Lease Agreement Key Terms

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



Phillip A. Washington
Chief Executive Officer

EXHIBIT "A"

DEPICTION OF THE PREMISES and PATIO AREA (plan not to scale)

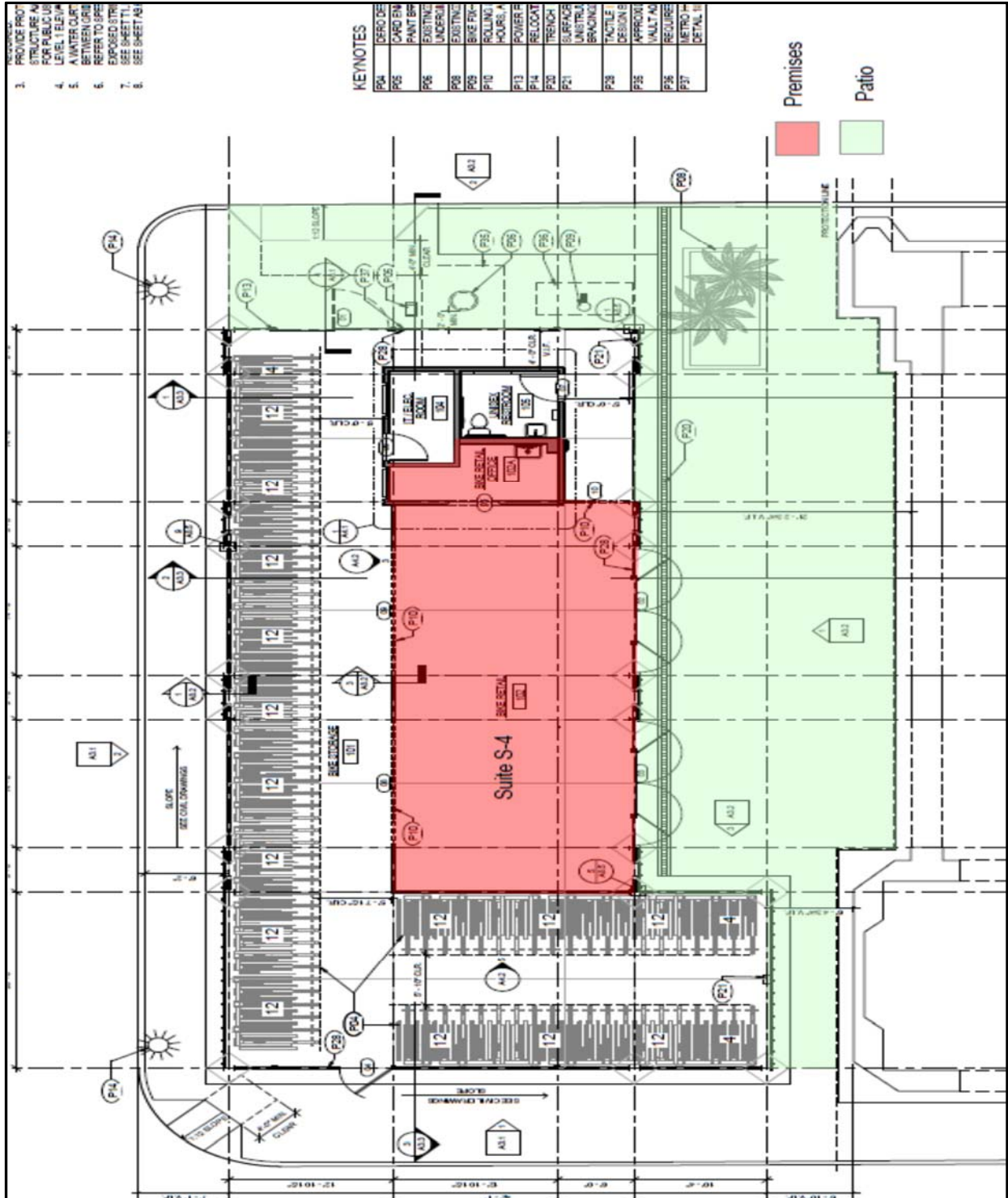
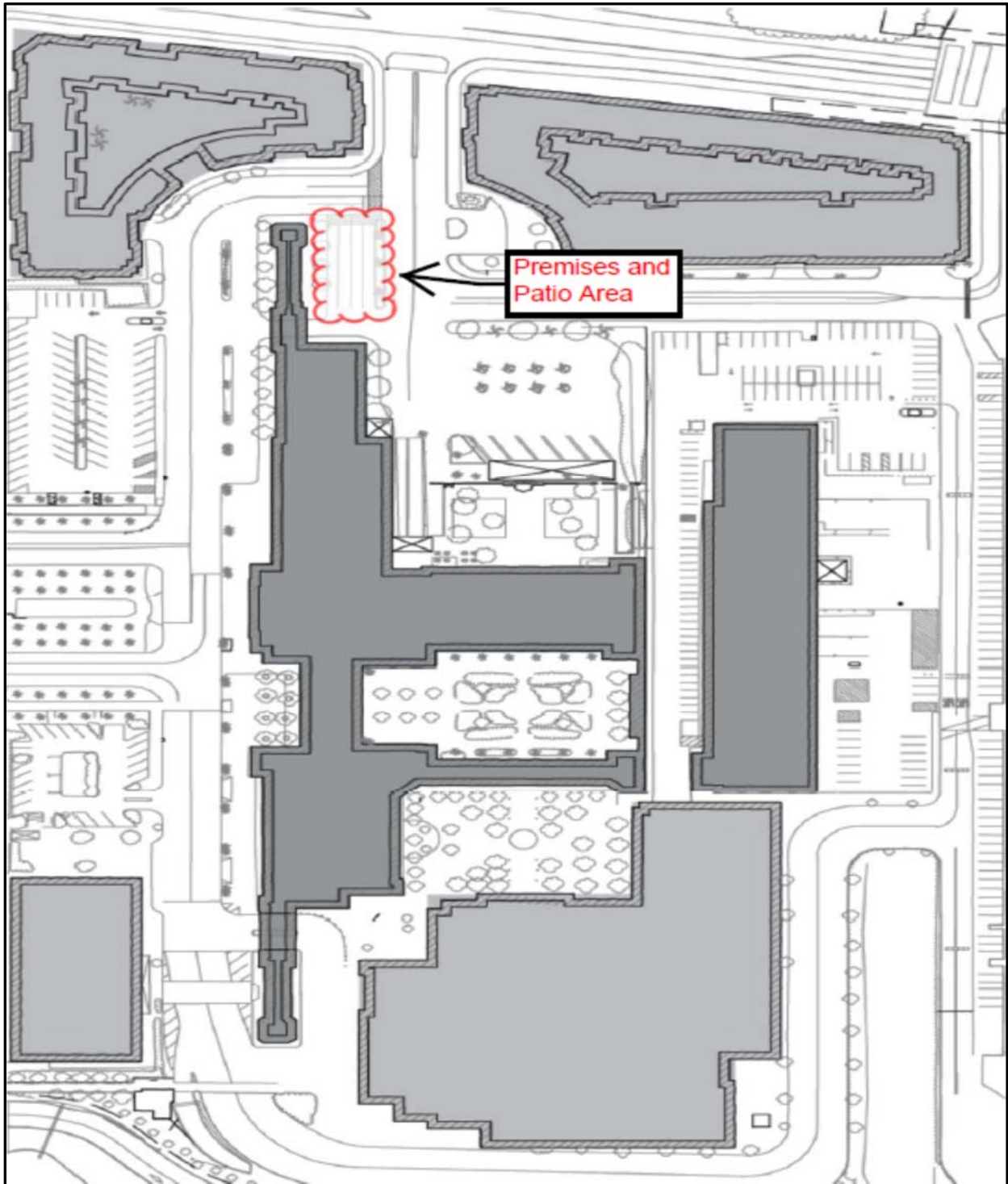


EXHIBIT "B"

THE PROJECT
(plan not to scale)



SUMMARY OF LEASE AGREEMENT KEY TERMS

<p>Premises</p>	<p>The Premises consists of <u>904 square feet</u> with retail tenant improvements installed by Bike and Park.</p>
<p>Term</p>	<p>Lease Agreement is <u>five (5) years</u> commencing on the earlier of 60 days from completion of Landlord's work OR the day Tenant actually commences conducting business in the Metro Bike Hub Park facility currently under construction, and allowing for a <u>five (5)-year extension</u> for a total term of ten (10) years.</p>
<p>Rent</p>	<p>Bike and Park will pay Metro a base rent of <u>\$23,648.64</u> for the first year. Total rental income, including common area maintenance fees and annual escalations of 3% for each consecutive year, over the ten (10) year lease term is <u>\$478,787</u>. The percentage rent total over 10 years is estimated at <u>\$54,713</u>. Altogether, the full term income is estimated to be <u>\$533,499</u>.</p>
<p>Indemnification</p>	<p>Tenant will indemnify and hold Landlord and its agents harmless from all claims, liabilities and damages resulting from its use of the Premises.</p>
<p>Termination Clause</p>	<p>Terminable with <u>three (3) months' written notice</u> if required for Metro's transportation or master plan project purposes only.</p>



Board Report

File #: 2017-0321, File Type: Program

Agenda Number: 20

PLANNING AND PROGRAMMING COMMITTEE
JULY 19, 2017

**SUBJECT: FUNDING AWARD RECOMMENDATION FOR
FEDERAL TRANSIT ADMINISTRATION (FTA)
SECTION 5310, SECTION 5316 AND SECTION 5317
GRANT PROGRAM FUNDS**

ACTION: APPROVE FUNDING AWARD RECOMMENDATIONS AND RELATED ACTIONS

RECOMMENDATION

CONSIDER:

- A. APPROVING the recommended federal Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities Program funding awards totaling up to \$7,374,066 for Traditional Capital Projects and up to \$1,818,271 for Other Capital and Operating Projects, as shown in Attachments A and B, respectively;
- B. APPROVING the recommended federal Section 5316 Job Access and Reverse Commute (JARC) Program funding awards totaling up to \$6,278,036 as shown in Attachment C;
- C. APPROVING the recommended federal Section 5317 New Freedom funding awards totaling up to \$3,254,352, as shown in Attachment D;
- D. AMENDING the FY 2018 Budget to add \$2,953,505 for the recommended Section 5310 funded projects and \$3,000,000 for the recommended Section 5316 JARC Program, once the Federal Transit Administration (FTA) awards the grant funds;
- E. AUTHORIZING the Chief Executive Officer (CEO) or his designee to negotiate and execute pass-through agreements with agencies as sub-recipients approved for funding by FTA;
- F. DELEGATING to the CEO or his designee the authority to administratively approve minor changes to the scope of work of previously-approved Section 5310, Section 5316 and Section 5317 funding awards;
- G. CERTIFYING that the Section 5310, Section 5316 and Section 5317 funds are fairly and equitably allocated to eligible sub-recipients and, where feasible, projects are coordinated with transportation services assisted by other federal agencies; and

- H. CERTIFYING that all projects recommended for Section 5310, Section 5316 and Section 5317 funding are included in the locally-developed 2016-2019 Coordinated Public Transit-Human Services Transportation Plan for Los Angeles County (“Coordinated Plan”) that was developed and approved through a process that included participation by seniors and individuals with disabilities, as well as by representatives of public, private, and nonprofit transportation and human service providers and other members of the public.

ISSUE

The Los Angeles County Metropolitan Transportation Authority (Metro) is the Designated Recipient of FTA Section 5310, Section 5316 and Section 5317 Program funds in urbanized areas of Los Angeles County. As such, Metro is responsible for fund planning, programming, distribution, management and sub-recipient oversight. In January 2017, the Board approved the competitive FY 2017 solicitation process. Applications were due on April 28, 2017. This report presents the resulting funding recommendations for Board review and approval and summarizes the evaluation process in response to this solicitation.

DISCUSSION

Program Description

Three funding categories were available to eligible agencies through competitive solicitation. The federal Section 5310 Program provides funds for “traditional” capital or “other” capital and/or operating projects that support the transportation needs of seniors and individuals with disabilities. The competitive grant process also included repurposed federal Section 5316 JARC and Section 5317 New Freedom funds previously-approved for agencies that later indicated they would not implement their projects or did not need their full grant award. The Section 5316 JARC Program seeks to improve access to transportation services to employment and employment-related activities by welfare recipients and eligible low-income individuals. The Section 5317 New Freedom Program seeks to reduce barriers to transportation services and expand the mobility options available to people with disabilities, including transportation to and from employment and employment services.

Funding Availability

A total of \$9,692,287 in Section 5310 funds were made available through the solicitation process, with specific amounts allocated to the Los Angeles-Long Beach, Santa Clarita and Lancaster-Palmdale Urbanized Areas. The Board also approved a total of \$8,013,181 in Section 5316 JARC and \$665,305 in Section 5317 New Freedom repurposed funds for the solicitation. However, subsequent to the solicitation’s release, staff was notified that a sub-recipient agency would be returning additional Section 5317 grant funds. Therefore the recommendation proposes to award an additional \$2,589,046 in repurposed Section 5317 funds for a total of \$3,254,352 in grant awards for that funding category. It is important to note that under MAP-21, the Section 5316 and Section 5317 Programs were repealed, thus no new funding apportionments will be made under these programs. Due to the age of these funds, added eligibility restrictions apply and special conditions may be required for some sub-recipients receiving these grant funds.

Application Process

On February 3, 2017, a notice of funding availability with a link to the Board-approved application package was sent out to over 4,000 potential applicants. Staff also coordinated with the stakeholder group assisting staff on the Board approved Action Plan to address the transportation needs of older adults and people with disabilities to ensure strong awareness of the funding opportunity within the community. The solicitation information was also posted on the Metro website. Metro hosted three informational workshops attended by more than 75 agencies to review program requirements, the Application Package, project evaluation and the selection process. Staff participated in one-on-one meeting requests and fielded over 300 technical inquiries in support of application development. Forty-nine responsive applications requesting over \$23 million in federal grants were received by the April 28, 2017 deadline.

Evaluation and Ranking

Three evaluation panels were convened to evaluate applications. The panels were comprised of volunteers representing public transit agencies, the Bus Operations Subcommittee, the Local Transit Systems Subcommittee, the Southern California Association of Governments and private non-profit organizations (Move LA and Communities Actively Living Independent and Free). Metro staff facilitated the panel discussions but did not score applications. The average score of each evaluation panel and corresponding ranking for each project is shown in Attachments A - D. Attachment E contains the Board-approved evaluation criteria applied by panel members in scoring proposals.

Consistent with Board-approved guidelines, funding awards are limited to proposals with a final competitive score of 70-100. Where program funds were undersubscribed and eligibility allowed, Metro applied funds across all grant programs to maximize the number of projects recommended for award. A total of 39 projects are recommended for funding. Nine projects failed to achieve the minimum score required for grant award while one project achieved the minimum score however insufficient funds are available in the grant category. Preliminary funding recommendations were distributed to proposing agencies on May 26, 2017.

Technical Advisory Committee (TAC) Appeals

On June 7, 2017, TAC heard applicant appeals from three agencies. Two agencies, Logan Marsh Neal Care Foundation and Administrative Services Co-operative, did not score within the competitive range. The third agency, Good Samaritan Hospital, presented to TAC to support their preliminary fund award. After hearing the presentations, TAC approved a motion supporting the preliminary funding recommendation and recommended that the City of Alhambra be offered a partial award with the remaining unallocated Section 5310 balance for the LA-Long Beach UZA.

Administrative Scope Changes

Grant sub-recipients may request to re-scope their project(s) from what was approved by the Board. The proposed recommendation will delegate to the CEO or his designee the authority to administratively approve minor changes to the scope of work. Minor changes include those which meet all the following criteria: 1) The scope change is consistent with the defined project limits as approved by the Board; 2) the scope of work, as modified, continues to meet the original intent of the approved project scope; 3) to the extent that the scope change results in a reduced total project cost, the new total project cost shall be within 15% of the original total project cost; and 4) the parties shall maintain the original grant to grantee funding commitment ratio (for example, if the grantee originally

committed 20% of the total project cost and Metro committed 80%, those percentages shall apply to the new total project cost).

DETERMINATION OF SAFETY IMPACT

Approval of the recommendation will have no impact on safety.

FINANCIAL IMPACT

The FY18 budget includes a total of \$11,442,929 for the federal Sections 5310, 5316 and 5317 Programs in Cost Center 0441, Subsidies to Others, under Projects 500005 (Seniors and Disabilities - S5310), 500003 (JARC Program Capital and Ops) and 500004 (New Freedom Capital and Operating). The proposed action will add \$5,953,505 to the FY18 budget, with \$2,953,505 for the Federal Section 5310 Program and \$3,000,000 for the JARC Program once the FTA awards the grants.

Since these are multi-year projects, the cost center manager and the Chief Planning Officer will be responsible for budgeting project expenses in future years.

Impact to Budget

The sources of funds for these Programs are Federal Section 5310, Section 5316 and Section 5317, which are not eligible for Metro's bus and rail operating and capital budgets..

ALTERNATIVES CONSIDERED

The Board may choose not to approve all or some of the recommended actions. Staff does not recommend this alternative because, without Board approval, Metro cannot fulfill its responsibilities as the Designated Recipient of Section 5310, Section 5316 and Section 5317 Program funds and the projects recommended for funding awards in Attachments A through D would not be implemented. Without Board approval, Metro also could risk losing approximately \$7 million in Section 5310 Program funds that will lapse if not obligated through FTA grant approval by September 30, 2018.

NEXT STEPS

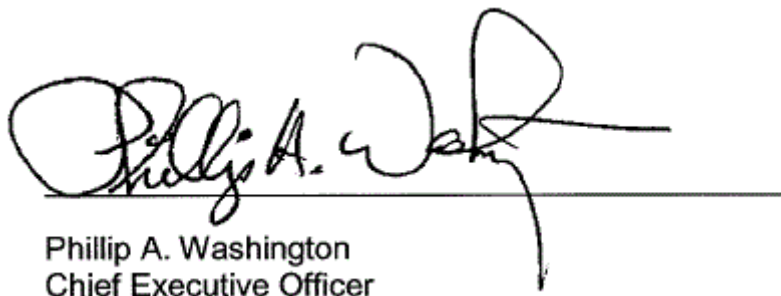
With Board approval, staff will send a notification of final funding award to each project sponsor and will submit Section 5310, Section 5316 and Section 5317 grant applications or grant revisions to FTA on their behalf. Once the FTA awards the grants, staff will develop and execute grant pass-through agreements with those agencies as sub-recipients and amend the FY 2018 Budget as required. As the Designated Recipient for these funds, staff will work to ensure that sub-recipients comply with all federal rules, regulations and requirements. At the conclusion of this programming cycle, there were remaining balances in Section 5316 funds (approx. \$1.7 million) and Section 5310 fund apportionments for the Lancaster-Palmdale UZA (approx. \$357,000) and Santa Clariata UZA (approx. \$129,000). Appropriate steps to further program these balances will be pursued and reported to the Board.

ATTACHMENTS

- Attachment A - Section 5310 Traditional Capital Project Funding Recommendations
- Attachment B - Section 5310 Other Capital and Operating Project Funding Recommendations
- Attachment C - Section 5316 Capital and Operating Project Funding Recommendations
- Attachment D - Section 5317 Capital and Operating Project Funding Recommendations
- Attachment E - FY 2017 Section 5310, 5316, 5317 Solicitation for Proposals Evaluation Criteria

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Phillip A. Washington
Chief Executive Officer

**FTA SECTION 5310 ENHANCED MOBILITY OF SENIORS AND INDIVIDUALS WITH DISABILITIES PROGRAM
FY 2017 SOLICITATION FOR PROPOSALS
Funding Award Recommendations- Traditional Capital Projects**

AGENCY/ FUNDING RECOMMENDATION	PROJECT	SCORE	ELIGIBLE COST (\$)	LOCAL MATCH (\$) ³	VEHICLES	AWARD
RECOMMENDED FOR FUNDING AWARD						
1. Pomona Valley Transportation Authority	Get About Vehicle Replacement: Capital assistance to procure six (6) Class C large buses for replacement	97.50	\$480,000	\$48,000	6	\$432,000
2. City of Pasadena	Aging Vehicle Replacement: Capital assistance to procure four (4) Class B medium buses for replacement	97.50	\$298,744	\$29,875	4	\$268,869
3. AltaMed Health Services Corporation	Vehicle Replacement: Capital assistance to procure nine (9) Class B medium buses for replacement	97.25	\$666,000	\$66,600	9	\$599,400
4. Valley Village	Replace Old Paratransit Vans: Capital assistance to procure four (4) Class K small buses and equipment for replacement	96.50	\$311,175	\$31,117	4	\$280,058
5. Tarzana Treatment Centers, Inc.	TTC Transportation Services [Replacement Vehicles]: Capital assistance to procure four (4) Class A small buses and one (1) Class D minivan for replacement	94.75	\$339,000	\$33,900	5	\$305,100
6. City of Azusa	DAR/Paratransit Enhancement Project: Capital assistance to procure four (4) Class B medium buses for replacement	94.50	\$353,241	\$35,324	4	\$317,917
7. Los Angeles Jewish Home for Aging	Transportation Services for Frail Seniors in the San Fernando Valley: Capital assistance to procure three (3) Class A small buses for replacement and one (1) Class A small bus for service expansion	94.00	\$288,000	\$28,800	4	\$259,200
8. Therapeutic Living Centers for the Blind	Vehicle Replacement Project: Capital assistance to procure three (3) Class K small buses for replacement	91.75	\$195,000	\$19,500	3	\$175,500
9. City of Whittier	DAR Replacement Vehicles: Capital assistance for the procurement of one (1) Class A small bus and three (3) Class D minivans for replacement	91.25	\$225,000	\$22,500	4	\$202,500
10. City of Los Angeles Department of Transportation (LADOT)	Cityride Replacement Vehicles: Capital assistance to procure fourteen (14) Class B medium buses for replacement	90.25	\$1,358,000	\$458,000	14	\$900,000
11. Institute for the Redesign of Learning	Institute for the Redesign of Learning [Vehicle Replacement]: Capital assistance to procure seven (7) Class A small buses and one (1) Class M low floor buses for replacement	88.00	\$559,000	\$55,900	8	\$503,100
12. City of Inglewood	Vehicle Replacement Project: Capital assistance to procure six (6) Class C large buses, two (2) Class E larger buses, and equipment for replacement	84.25	\$841,780	\$84,178	8	\$757,602
13. County of Los Angeles - Department of Public Works	Replacement Vehicles for DAR Services: Capital assistance for the procurement of three (3) Class B medium buses and five (5) Class M low floor buses for replacement	84.25	\$566,000	\$56,600	8	\$509,400
14. East Los Angeles Remarkable Citizens Association Inc.	Special Needs Transportation Program Vehicle Expansion: Capital assistance for the procurement of two (2) Class D minivans and six (6) Class V raised top vans for service expansion	80.75	\$420,000	\$42,000	8	\$378,000
15. Pomona Valley Community Services dba Community Senior Services	Community Senior Services Mobility Management: Capital assistance to support development and implementation of new mobility management program	80.50	\$467,478	\$53,277	-	\$414,201
16. Pomona Valley Transportation Authority ¹	Pomona Valley Mobility Manager: Capital assistance to support development and implementation of new mobility management program	79.50	\$99,854	\$9,985	-	\$89,869
17. Good Samaritan Hospital	Transportation Program at Good Samaritan Hospital: Capital assistance to support development and implementation of new mobility management program	75.75	\$771,502	\$231,452	-	\$540,050
18. Villa Esperanza Services	Transportation for Adults with Intellectual/Developmental Disabilities: Capital assistance to procure four (4) Class D minivans for replacement	73.00	\$204,000	\$20,400	4	\$183,600
19. City of Alhambra	Senior Ride Fleet Replacement project: Capital assistance to procure three (3) Class D minivans for replacement	71.50	\$153,000	\$15,300	3	\$137,700
20. Santa Clarita Valley Committee of Aging (Senior Center)	Vehicle Replacement: Capital assistance for the procurement of two (2) Class C larger buses for replacement	70.00	\$160,000	\$40,000	2	\$120,000
TOTAL /AVERAGE SCORE		87	\$8,756,774	\$1,382,708	98	\$7,374,066

FTA SECTION 5310 ENHANCED MOBILITY OF SENIORS AND INDIVIDUALS WITH DISABILITIES PROGRAM
 FY 2017 SOLICITATION FOR PROPOSALS
 Funding Award Recommendations- Traditional Capital Projects

AGENCY/ FUNDING RECOMMENDATION	PROJECT	SCORE	ELIGIBLE COST (\$)	LOCAL MATCH (\$) ³	VEHICLES	AWARD
NOT RECOMMENDED FOR FUNDING AWARD						
1. City of Compton ²	Senior Transit Fixed Route Bus Purchase: Capital assistance to procure two (2) Class E large buses for service expansion	70.50	\$220,000	\$22,000	2	\$0
2. Logan Marsh Neal Care Foundation	Vehicle Replacement: Capital assistance to procure one (1) Class C large bus for replacement	64.75	\$80,000	\$8,000	1	\$0
3. City of Gardena	People Moving People Paratransit for Seniors and Individuals with Disabilities: Capital assistance to procure two (2) Class D minivans for service expansion	45.50	\$102,000	\$12,000	2	\$0
TOTAL /AVERAGE SCORE		60	\$402,000	\$42,000	5	\$0

¹Project partially expensed and recommended for funding award in eligible Section 5317; see Attachment D.

²Although project proposal score achieved within the competitive funding range, the federal funding request of \$198,000 exceeds Los Angeles County UZA funding available balance of \$14,418.

³Minimum required local match is 10% of eligible cost. The City of Los Angeles Department of Transportation, Good Samaritan Hospital, and Santa Clarita Valley Committee of Aging proposed overmatch.

FTA SECTION 5310 ENHANCED MOBILITY OF SENIORS AND INDIVIDUALS WITH DISABILITIES PROGRAM
 FY 2017 SOLICITATION FOR PROPOSALS
 Funding Award Recommendations- Other Capital and Operating Projects

ATTACHMENT B

AGENCY/ FUNDING RECOMMENDATION	PROJECT	SCORE	ELIGIBLE COST (\$)	LOCAL MATCH (\$) ²	VEHICLES	AWARD
RECOMMENDED FOR FUNDING AWARD						
1. Pomona Valley Transportation Authority (PVTA)	One Step Over the Line Transportation: Operating assistance to support service expansion	96.50	\$588,000	\$294,000	-	\$294,000
2. Pomona Valley Transportation Authority (PVTA) ¹	Ready Now Continuation: Operating assistance to support service expansion	94.50	\$343,272	\$171,636	-	\$171,636
3. Los Angeles County Metropolitan Transportation Authority (LACMTA)	On The Move Riders Program: Operating assistance to continue, enhance, and expand senior travel training program	90.50	\$579,410	\$144,853	-	\$434,557
4. Pomona Valley Community Services/ Community Senior Services ¹	Community Senior Services Volunteer Driver Program: Operating assisting to enhance volunteer driver reimbursement program	87.50	\$23,730	\$6,925	-	\$16,805
5. Disabled Resources Center, Inc. (DRC)	Mobility Program Continuation: Operating assistance to continue mobility training program	86.50	\$87,540	\$21,885	-	\$65,655
6. Rancho Research Institute	Enhance Mobility of Seniors and Individuals with Disabilities: Operating assistance to continue transportation services	84.00	\$548,444	\$137,111	-	\$411,333
7. New Horizons	Green Light to Mobility Service Expansion: Operating assistance to continue and expand travel training program	82.50	\$268,380	\$67,095	-	\$201,285
8. Westside Pacific Villages	Vehicle to Enhance WPV Transportation Services: Other Capital assistance to procure one (1) Class D Minivan to implement new vehicle services	78.50	\$57,750	\$6,750	1	\$51,000
9. Westside Pacific Villages	Enhancements to WPV Volunteer Driving Program: Operating assistance to support new vehicle expansion and volunteer driving program expansion	78.50	\$144,000	\$36,000	-	\$108,000
10. City of Bell Gardens	Vehicle Replacement: Other Capital assistance for the procurement of one (1) Class C Large Bus	71.25	\$80,000	\$16,000	1	\$64,000
TOTAL /AVERAGE SCORE		85	\$2,720,526	\$902,255	2	\$1,818,271
NOT RECOMMENDED FOR FUNDING AWARD						
1. City of Compton	Operating- Senior Transit Fixed Route: Operating assistance to support service expansion	65.00	\$514,668	\$128,667	-	\$0
2. Administrative Services Co-Op	Service Expansion: Other Capital assistance to procure ten (10) Class M low floor buses for service expansion	64.00	\$577,000	\$115,000	10	\$0
3. City of Lynwood	Service Expansion: Other Capital assistance to procure two (2) Class C Large Buses and three (3) Class D Minivans for service expansion	59.50	\$313,000	\$31,300	5	\$0
4. City of Gardena	People Moving People - Paratransit for Seniors and Individuals with Disabilities: Operating assistance to support the continuation of existing service	32.50	\$171,565	\$37,427	-	\$0
TOTAL /AVERAGE SCORE		55	\$1,576,233	\$312,394	15	\$0

¹Project partially expensed and recommended for funding award in eligible Section 5317; see Attachment D.

²Minimum required local match is 10% of eligible capital cost and 25% of eligible operating costs. Pomona Valley Transportation Authority, Pomona Valley Community Services, and Administrative Services Co-Op proposed overmatch.

**FTA SECTION 5316 JOB ACCESS AND REVERSE COMMUTE PROGRAM
FY 2017 SOLICITATION FOR PROPOSALS
Funding Award Recommendations- Capital and Operating Projects**

AGENCY/ FUNDING RECOMMENDATION	PROJECT	SCORE	ELIGIBLE COST (\$)	LOCAL MATCH (\$)	VEHICLES	AWARD
RECOMMENDED FOR FUNDING AWARD						
1. City of Pasadena	Vehicle Replacement to Relieve Significant Overcrowding: Capital assistance for the procurement of two (2) 35-ft low floor CNG buses for replacement	97.33	\$1,078,540	\$215,710	2	\$862,830
2. City of Pasadena	Sunday Service to Address Mobility Gaps: Operating assistance to support the addition of Sunday service and reverse commute service	95.00	\$1,326,669	\$331,669	-	\$995,000
3. City of Los Angeles Department of Transportation (LADOT)	LADOT Reverse Commuter Express (Union Station to Redondo Beach): Capital assistance for procurement of one (1) 45' electric bus for service expansion	92.00	\$844,377	\$168,875	1	\$675,502
4. City of Los Angeles Department of Transportation (LADOT)	LADOT Reverse Commuter Express (Union Station to Redondo Beach): Operating assistance to support the addition of a reverse commute route	92.00	\$1,000,000	\$500,000	-	\$500,000
5. City of Compton ¹	Compton Renaissance Transit Peak Hour Enhancements: Operating assistance to support the expansion of peak hour service	90.00	\$256,233	\$64,058	-	See Note ¹
6. Access Services ^{1,2}	Access to Work - Extension Program (Capital): Capital assistance for the procurement of thirty-eight (38) Class A small buses for replacement	87.67	\$2,721,215	\$408,182	38	\$2,313,033
7. The Information and Referral Federation of Los Angeles County, Inc. (211 LA County)	Travel Voucher Expansion Pilot Program: Operating assistance to support the expansion of existing travel voucher program	83.67	\$949,846	\$237,461	-	\$712,384
8. City of Calabasas	Calabasas Shuttle Procurement: Capital assistance for the procurement of two (2) Class E larger buses for replacement	79.67	\$292,383	\$73,096	2	\$219,287
TOTAL /AVERAGE SCORE		90	\$8,469,263	\$1,999,051	43	\$6,278,036
NOT RECOMMENDED FOR FUNDING AWARD						
1. City of South Gate	Continuation of GATE Services: Capital assistance for vehicle replacement/backup- Purchase three (3) Class F low floor buses. Two (2) for replacement and one (1) for expansion	63.67	\$540,000	\$81,000	3	\$0
2. New Horizons	Vehicles for Inclusion Program: Capital assistance for vehicle service expansion- Purchase one (1) Class A small bus and four (4) Class D minivans	55.33	\$289,800	\$57,960	5	\$0
TOTAL /AVERAGE SCORE		60	\$829,800	\$138,960	8	\$0

¹Project sponsor is an ineligible recipient of restricted available grant funds; project proposed to be funded at \$192,174 through an exchange of a previously budgeted local fund source.

²Project partially funded through Section 5317; see Attachment C.

FTA SECTION 5317 NEW FREEDOM PROGRAM
 FY 2017 SOLICITATION FOR PROPOSALS
 Funding Award Recommendations- Capital and Operating Projects

AGENCY/ FUNDING RECOMMENDATION	PROJECT	SCORE	ELIGIBLE COST (\$)	LOCAL MATCH (\$)	VEHICLES	AWARD
RECOMMENDED FOR FUNDING AWARD						
1. Pomona Valley Transportation Authority ¹	Ready Now Continuation: Operating assistance to support service expansion	94.50	\$244,728	\$122,364	-	\$122,364
2. Access Services ²	Access to Work - Extension Program Vehicle Replacement: Capital assistance for the procurement of ten (10) Class A small buses for replacement	87.67	\$734,785	\$110,218	10	\$624,567
3. Pomona Valley Community Services dba Community Senior Services ¹	Community Senior Services Volunteer Driver Program: Operating assisting to enhance volunteer driver reimbursement program	87.50	\$830,415	\$249,125	-	\$581,290
4. Access Services	Access to Work - Extension Program: Operating assistance to support the continuation of existing service	87.33	\$3,276,000	\$1,638,000	-	\$1,638,000
5. Pomona Valley Transportation Authority ³	Pomona Valley Mobility Manager: Capital assistance to support development and implementation of new mobility management program	79.50	\$320,146	\$32,015	-	\$288,131
TOTAL /AVERAGE SCORE		87	\$5,406,074	\$2,151,722	10	\$3,254,352
NOT RECOMMENDED FOR FUNDING AWARD						
1. New Horizons	Aides for Access (Travel Escorts): Operating Assistance	60.50	\$526,428	\$132,357	-	\$0
TOTAL /AVERAGE SCORE		61	\$526,428	\$132,357	-	\$0

¹Project partially expensed and recommended for funding in eligible Section 5310 Other Capital and Operating; see Attachment B.

²Project partially expensed and recommended for funding in eligible Section 5316; see Attachment C.

³Project partially expensed and recommended for funding in eligible Section 5310 Traditional Capital; see Attachment A.

FY 2017 Section 5310, 5316, 5317 Solicitation for Proposals & Application**EVALUATION CRITERIA**

The following summarizes general project narrative application requirements and the corresponding maximum points possible for each segment of the application (100 points maximum)

A. Scope of Work, Need, Objectives, Coordination and Outreach (Up to 40 points)

- Existing services and target populations served; detail proposed scope of work including: need, objectives, changes, improvements, and how it is aligned with program goals; present project readiness/schedule; explain how program funds requested will apply to meet project requirements (20 points).
- Project goals aligned with goals and strategies of the 2016-2019 Coordinated Public Transit – Human Services Transportation Plan for Los Angeles County (10 points).
- Specific details demonstrating project development and/or implementation coordination with others (5 points).
- Marketing, promotion, public awareness plans (5 points).

B. Project Implementation, Operating and Management Plans (Up to 20 points)

- Project management plan, project milestones and deliverables, and role and experience of key personnel.
- Contingency plan details: service, staffing, mechanical, and technical.
- Prior experience and performance providing similar/same transportation related services and managing federal pass through grants. Where none, prior experience and performance in non-transit services to target populations.

C. Performance Indicators and Project Effectiveness (Up to 20 points)

- Quantitative and applicable qualitative project performance measures over the life of project showing methodology to develop estimates.
- Evaluation of project effectiveness and strategies to mitigate poor performance.
- Tools & procedures to collect, track, and report project performance.

D. Budget Justification (Up to 20 points)

- Assumptions used to prepare project budget.
- Identification of all sources and amounts of revenue and/or grants to support project
- Identification & eligibility of federal fund program requested.
- Commitment letter with amount and source of non-USDOT local match funds committed to project.



Board Report

File #: 2017-0425, File Type: Program

Agenda Number: 21

PLANNING AND PROGRAMMING COMMITTEE JULY 19, 2017

SUBJECT: EXPO/SEPULVEDA STATION PARKING

ACTION: AUTHORIZE A MONTHLY PARKING PROGRAM AT THE EXPO/SEPULVEDA STATION

RECOMMENDATION

AUTHORIZE the implementation of a monthly parking program to non-transit riders at the Expo/Sepulveda Station.

ISSUE

Commuter parking occupancy has remained at approximately 33% since the implementation of the Parking Management Pilot Program ("Pilot Program") at the Expo/Sepulveda Metro Expo Line station. LA Urban Housing recently requested to use parking spaces available at the Expo/Sepulveda station garage for an adjacent development project. Staff is requesting authorization to provide a monthly parking program to non-transit riders. If approved, staff will implement this program by September 2017.

BACKGROUND

On March 2017, the Board authorized the implementation of the Pilot Program at all three new Expo II stations including the Expo/Sepulveda station. The approval for implementing the Pilot Program was based on the criteria of transit patron parking only. Implementation of the program began at the opening of the Expo II extension on May 22, 2016.

LA Urban Housing recently started the construction of a development adjacent to the Expo/Sepulveda station. However, due to the limited parking inventory nearby, construction staff has had difficulty finding parking. Recently, LA Urban Housing inquired on the possible use of parking spaces at the Expo/Sepulveda garage for its construction staff during construction hours.

DISCUSSION

There are currently 260 parking spaces available (77 monthly and 183 daily) at the Expo/Sepulveda station garage. As of June 2017, 49 monthly permits have been issued and 28 monthly permits are still available. Parking Management staff conducts surveys of this station on an ongoing basis. On average, 20 monthly and 65 daily parking spaces are utilized on a weekday basis; parking utilization remains at 33%.

Based on staff's assessment, 100 parking spaces can easily be made available for monthly parking. On a typical weekday, 175 spaces remain unused on a daily basis. In addition, the closure of the Culver City Expo station parking has not significantly increased the parking utilization at the Expo/Sepulveda station as had been expected.

If authorized, the 100 parking spaces will be allocated to the top two floors of the parking garage to minimize impact to Metro transit patrons. These spaces would be available on a monthly basis. Staff will re-evaluate parking demand and monthly parking spaces on an on-going basis to determine transit patron parking demand. Future assessment findings may determine whether to further limit the number of spaces made available to LA Urban Housing. Metro may also determine to terminate the contract if transit parking demand increases. Monthly parking terms and conditions are listed in Attachment A.

Underutilization of commuter parking spaces at this station may be attributed to the commuting patterns in the community. Based on a 2016 Metro survey, over 65% percent of patrons of the Expo Line station arrive by walking, 13% by driving and five percent by biking.

Supportive Transit Parking Program Master Plan

The Supportive Transit Parking Program ("STPP") master plan study is currently underway. Staff will bring the STPP master plan to the Board with recommendations from the Pilot Program performance findings and a new parking policy for adoption in late 2017. Based on work completed to date, staff may recommend that facilities with transit utilization under 69% be considered for non-transit paid parking, such as event parking, construction parking and open for public shared use.

DETERMINATION OF SAFETY IMPACT

Making parking spaces available for the proposed use at the Expo/Sepulveda Metro station will not have any safety impacts.

FINANCIAL IMPACT

Metro Parking Management staff will operate the 100 parking spaces through a paid monthly public parking program using current staffing. The program will generate approximately \$144,000 per year in gross revenue.

Impact to Budget

Staff anticipates this agreement will generate approximately \$144,000 a year in revenues in the Metro Park and Ride Fund (Fund 1230).

ALTERNATIVES CONSIDERED

The Board may choose not to authorize staff's recommendations to make 100 parking spaces available for monthly parking. This is not recommended as over half of the commuter spaces at this station have remained unused since the facility opened. Utilization of the garage for temporary construction parking will result in increased revenues that can support parking operations. Experience with this use can also contribute to findings from the Pilot Program and the STPP master plan currently underway.

NEXT STEPS

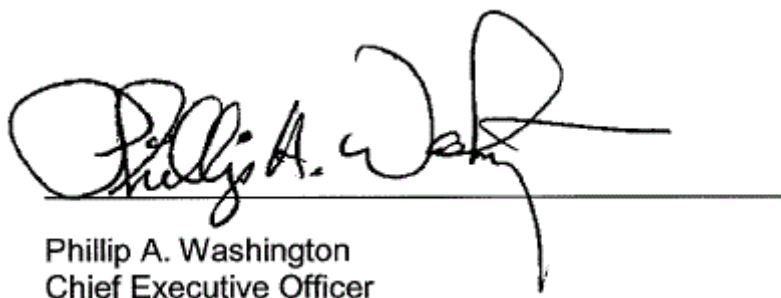
Upon approval by the Board, staff will start implementation of the program by September 2017.

ATTACHMENTS

Attachment A - Monthly Parking Terms and Conditions

Prepared by: Adela Felix, Principal Transportation Planner (213) 922-4333
Frank Ching, Senior Director, Countywide Planning & Development, (213) 922-3033
Calvin E. Hollis, Senior Executive Officer, Countywide Planning & Development, (213) 922-7319

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



Phillip A. Washington
Chief Executive Officer

Los Angeles County Metropolitan Transportation Authority Monthly Permit Parking Terms and Conditions

The following Terms and Conditions (“Agreement”) govern your account with Metro. If you have any questions about the information listed in this Agreement, please contact Metro Parking Management at Parking@metro.net.

By using the site and any services under the Metro Preferred Parking Permit Program, you agree that you are an individual person at least eighteen (18) years of age; you possess the legal authority to create and/or enter into a legal binding obligation and your use of this site and the Metro Permit services comply with the terms and conditions of this Agreement in addition to any obligations that are posted on the Metro’s website.

1. Account Information

When registering your Metro parking account, you may create and manage one (1) account for all vehicles, and all the monthly permit parking cost will be billed to the same account. You are exclusively responsible for managing this account and safeguarding your username, password and manage all the permits. It is your responsibility to ensure that all registered information is current and accurate. You agree to notify iParq immediately in the event you learn of unauthorized use of your account.

2. User Conduct and Compliance

All patrons shall follow the rules and regulations while using Metro’s property and parking facilities. Metro’s Administrative Code Title 8 (Parking Ordinance) and Metro’s Administrative Code Title 6 (Customer Code of Conduct) can be found at www.metro.net. You are responsible for your continued compliance with this Agreement and Administrative Codes 6 and 8.

In the event that Metro determines, in its sole discretion, that your conduct has violated this Agreement, Administrative Code Title 8 or Administrative Code Title 6, or has been unlawful in any way, Metro reserves the right to revoke your permit privilege, including seeking all available legal and equitable remedies against you.

3. Account Communication

Any communication regarding the permit parking account may be transmitted with the account holder either electronically, by phone or by mail via the registered email address, phone number or mailing address, respectively.

4. Pricing, Payments, Cancellations and Refunds

Parking space is rented on a calendar month basis, running from the first through the last day of the month. Payment is due on the first day of each month. Monthly parking fees will be charged to your credit card or bank account each month, unless approved by Metro and arranged with iParq in advance. On, or around the 1st of each month, parking fees for the current month will be automatically charged to you via the payment methods you have

ATTACHMENT A

provided. If, for any reason, the payment is not honored at that time, you will be emailed at the address you provided in your parking registration. You will have one week (7 calendar days) after the original payment attempt to update your payment information before your permit is cancelled and your space is resold.

Permit Cancellation

If you wish to discontinue your monthly charges and cancel your monthly permit for the following month, you may do so by emailing Metro Parking Management at parking@metro.net before the 25th of the current month stating that you no longer require your parking permit. Please include your full name, permit number and station that you park at.

Only after you complete the above step and receive a cancellation confirmation email will your permit be cancelled. Failure to cancel by the 25th of the current month may result in charges for the following month.

All Sales Are Final. No pro-rations, credits or allowances will be made.

Monthly Parking Rate

Expo/Sepulveda \$120.00 per month per vehicle

5. **Monthly Permit Parking**

Permit holders are only authorized to park in any space within the designated parking levels for non-transit users.

Monthly Permit Parking privileges are non-transferable. Your parking permit entitles you to occupy one parking stall only. Monthly parking is on a first come, first served basis. All parked vehicles shall display a valid permit. Permits must be displayed on the lower left hand corner of the front windshield. Vehicles parked without a valid permit and a corresponding registered license plate will be cited and/or towed in accordance with Metro's Administrative Code Title 8, other applicable code, or pursuant to this agreement.

Registration Requirements

Vehicle make, model and valid license plate number are required to be entered into your online account when registering for a Monthly Parking Permit. A minimum of one license plate must be registered to each permit. A maximum of two license plates may be registered per permit.

If a vehicle does not have a license plate the last five (5) digits of the vehicle identification number (VIN) are required in lieu of the license plate number. When a license plate is obtained for the vehicle, or within 60 days, whichever is first, the permit holder must update their permit record with the new license plate information. Failure to update the license plate information can result in immediate cancellation of your parking permit.

6. **Program Notifications**

ATTACHMENT A

Monthly Permit Parking is based on a month to month basis. Metro reserves the right to cancel or modify permits and/or this program at any time. Metro will make every effort to give written notice at least thirty (30) days prior to any cancellations or modifications except in the case of (i) circumstances beyond Metro's control, or (ii) if you are in violation of applicable Metro rules, regulations and ordinances.

Metro reserves the right to transfer permit holders to another location if deemed necessary.

It is prohibited to duplicate any monthly, daily or temporary parking permit.

By purchasing a Monthly Permit Parking you agree to these terms and conditions. Please contact Metro Parking Management at parking@metro.net with any questions.



Board Report

File #: 2017-0344, File Type: Agreement

Agenda Number: 22

PLANNING AND PROGRAMMING COMMITTEE JULY 19, 2017

**SUBJECT: TAYLOR YARD BRIDGE CONSTRUCTION
FUNDING AGREEMENT**

**ACTION: AUTHORIZE EXECUTION OF TAYLOR YARD BRIDGE CONSTRUCTION FUNDING
AGREEMENT WITH THE CITY OF LOS ANGELES**

RECOMMENDATION

AUTHORIZE the Chief Executive Officer (CEO) to negotiate and execute a Construction Funding Agreement with the City of Los Angeles for the Taylor Yard Bridge with a not-to-exceed amount of \$21,700,000.

ISSUE

In a 1992 settlement agreement pertaining to the development of the Taylor Yard Commuter Rail Facility (1992 Settlement), the former Los Angeles County Transportation Commission (LACTC), a predecessor agency to Metro, agreed to design, finance, and construct a pedestrian access system linking the communities to the east and west of Taylor Yard over the Los Angeles River.

In January 2012, the Metro Board approved the award of funds to the City of Los Angeles (City) for the design of the Taylor Yard Bicycle/Pedestrian Bridge over Los Angeles River (Bridge). The 2012 Board Report is included as Attachment A. Accordingly, Metro has provided the funds for the design of the Bridge, the City has completed 50% design, and the City will complete design from the remaining balance of the design grant and City funds by the end of this calendar year. A site plan and rendering are included in Attachment B.

Execution of the Construction Funding Agreement and completion of the Bridge by the City would fulfill Metro's commitment as part of the 1992 Settlement.

The Bridge will be funded by Metro, subject to terms in the Construction Funding Agreement, programmed over three years, starting Fiscal Year (FY) 2019. The City will construct, own, operate, and maintain the Bridge. The preliminary budget and schedule for the construction of the Bridge are included as Attachments C and D.

DISCUSSION

Background

Following the 1992 Settlement, the parties agreed that the City would design and construct the Bridge with funding from Metro via a grant mechanism. Metro granted the City various Call for Projects grants to build the Bridge and a related bike path, however all funds were subsequently deobligated due to delay in performance by the City.

At the January 2012 meeting of the Metro Board, Metro awarded \$1,073,000 to the City for the design of the Bridge, programmed for FY 2011-12 and FY 2012-13 through a Design Funding Agreement which included preliminary conceptual design, environmental documentation, right-of-way, environmental clearance permits, and final design and bid package preparation. The Design Funding Agreement was extended twice and now expires June 30, 2018.

The City has completed 50% drawings for the Bridge design and is responsible for all required permits and rights-of-way required for the construction of the Bridge as a part of the 2012 funding agreement.

Agreement Terms

- The Bridge will be funded by Metro, with funds advanced every six months based on expected expenditures, and recalculated every six months based on actual expenditures reflected in quarterly progress reports
 - Up to \$21,700,000 will be programmed over three fiscal years starting with FY 2019.
 - The City will provide supporting documentation in the form of Quarterly Progress/Expenditure Reports documenting expenditures from each advance.
- The City is responsible for the construction and completion of the Bridge as described in the Scope of Work of the Construction Funding Agreement.
- Metro will review the Bridge design before the City bids the construction, for purposes of ensuring the project is consistent with the limited scope of the Bridge.
- In the event the final budget (based upon approved bids) exceeds the current estimate of \$21,700,000, Staff will return to the Metro Board for its approval or disapproval.
- Metro shall be responsible for costs overruns due to unforeseen conditions associated with construction.
- The City shall be responsible for cost overruns due to avoidable delays in the project schedule or changes to the project scope initiated by the City.
- Metro will have the right to approve any change orders over \$100,000, following a procedure agreed to by Metro staff.
- The Bridge will be owned, operated, and maintained by the City at no cost to Metro.

DETERMINATION OF SAFETY IMPACT

Approval of this item will have no impact on safety.

FINANCIAL IMPACT

Adoption of the Construction Funding Agreement will require up to \$21,700,000 over three fiscal years. Because the Bridge will be owned and operated by the City, the project will not be considered as a Metro capital project.

Impact to Budget

There will be no impact to the FY 2018 budget. Since this is a multi-year agreement, the Chief Program Management Officer will ensure the project construction funding is included in future annual budget requests.

ALTERNATIVES CONSIDERED

The Board could choose not to authorize negotiation and execution of the Construction Funding Agreement. This is not recommended because it does not support Metro's legal commitment made in the 1992 Settlement.

NEXT STEPS

Upon Board approval, negotiations will be finalized and the Construction Funding Agreement executed.

ATTACHMENTS

Attachment A - Design Funding Board Report (January 18, 2012)

Attachment B - Site Plan and Rendering

Attachment C - Preliminary Project Design and Construction Schedule

Attachment D - Preliminary Project Budget

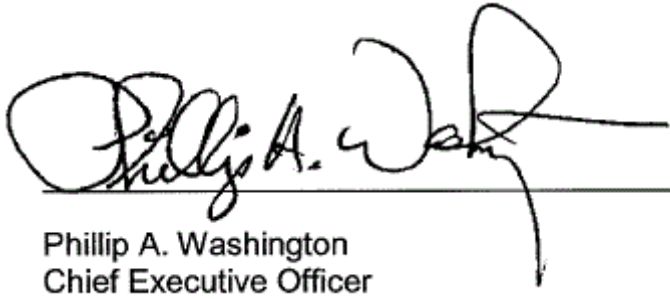
Prepared by: Christina Baghdasarian, Transportation Associate, Countywide Planning & Development, (213) 922-7685

Marie Sullivan, Principal Transportation Planner, Countywide Planning & Development (213) 922-5667

Cal Hollis, SEO, Countywide Planning & Development, (213) 922-7319

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

Rick Clarke, Chief Program Management Officer, (213) 922-7557



Phillip A. Washington
Chief Executive Officer

**Metro**Los Angeles County
Metropolitan Transportation AuthorityOne Gateway Plaza
Los Angeles, CA 90012-2952213.922.2000 Tel
metro.net

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**PLANNING & PROGRAMMING COMMITTEE
JANUARY 18, 2012****SUBJECT: TAYLOR YARD BIKEWAY/PEDESTRIAN BRIDGE OVER LOS ANGELES RIVER****ACTION: AWARD FUNDS FOR DESIGN****RECOMMENDATION**

- A. Approve grant of \$1,073,000 to the City of Los Angeles (City) for design of Taylor Yard Bikeway/Pedestrian Bridge over Los Angeles River with the City providing \$327,000 in matching funds.
- B. Authorize the Chief Executive Officer (CEO) to enter into a Memorandum of Understanding (MOU) with the City for Taylor Yard Bikeway/Pedestrian Bridge; and
- C. Add \$400,000 to the FY12 budget for the Taylor Yard Bikeway/Pedestrian Bridge project.

ISSUE

The City recently requested funding for the design of the Taylor Yard Bikeway/Pedestrian Bridge project. The funds requested would fulfill our commitment as part of a 1992 settlement agreement pertaining to the development of the Taylor Yard Commuter Rail Facility for the Southern California Regional Rail Authority (SCRRA).

As part of that settlement agreement, the former Los Angeles County Transportation Commission (LACTC), one of our precursor agencies, agreed to design, finance and construct a pedestrian access system, linking the communities to the east and west of Taylor Yard and providing access to rail service, including a pedestrian bridge across the Los Angeles River.

Based on discussions with the City, it was agreed that the requested grant would provide funding for the design of the Taylor Yard Bikeway/Pedestrian Bridge. We are requesting Board approval of a grant of \$1,073,000 to the City, authorizing the CEO to enter into the necessary MOU for the grant funds and adding \$400,000 to the FY 12 budget, to allow the City to complete the design for the project.

DISCUSSION

As part of the 1993-94 Call for Projects and in an effort to meet the conditions of the settlement agreement, we were awarded \$2,000,000 to construct a bikeway/pedestrian bridge over the Los Angeles River.

As part of the 1995 Call for Projects, the Board programmed an additional \$843,000 to the City of Los Angeles Department of Transportation (LADOT) to construct a 3 mile long bike path between the Golden State Freeway, the SCRRA Central Maintenance Facility, and Fletcher Drive Bridge. Attachment B of Exhibit A shows the project area.

In November 2000, we proposed that LADOT assume management responsibility for the bikeway/pedestrian bridge project as well as the bike path. LADOT agreed.

Due to circumstances beyond their control regarding the Union Pacific railroad right of way, LADOT was unable to meet the timely use of funds provision and the funding was first lapsed by the California Transportation Commission (CTC) and subsequently by the Board in July 2010. (Call for Projects #738 & #2077).

The requested funding of \$1,073,000 will enable the City of Los Angeles to complete the design portion for this project. The funds will be programmed in FY 12 and 13. The project will fill a critical bicycle and pedestrian gap between the communities on the east and west sides of the Los Angeles River and help fulfill our commitment to the project. As part of the project, the City will provide \$327,000 in matching funds. Completion of design will provide an accurate estimate of the bridge's construction cost. Nothing in this MOU precludes or commits us to providing funding for the bridge's construction.

FINANCIAL IMPACT

The funding of \$400,000 for the Taylor Yard Bikeway/Pedestrian Bridge will be added to cost center 0441 NON-DEPARTMENTAL- CDP in FY12. Since this is a multi-year project, the cost center manager and Executive Director, Countywide Planning will be accountable for budgeting the remaining \$673,000 in FY13.

Impact to Budget

The General Funds (FAU Cash) funding requested for this purpose will be added to the FY 12 budget from our fund balance and not diverted from any existing program.

The funds in the recommended programming action are eligible for bus and rail capital and operating projects.

We are exploring eligibility and availability of other sources of funding for future bike related projects.

ALTERNATIVES CONSIDERED

The Board could choose not to provide funding for this project. This is not recommended because this bicycle/pedestrian bridge is a critical link in the regional bike and pedestrian network and because of our settlement agreement commitment.

NEXT STEPS

Upon Board approval, CEO will execute the attached MOU.

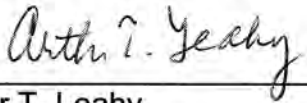
ATTACHMENTS

Exhibit A (Memorandum of Understanding)
Attachment B of Exhibit A (Project Site Map)

Prepared by: Silva Mardrussian, Transportation Planning Manager
Shahrzad Amiri, Deputy Executive Officer, Countywide Planning
Diego Cardoso, Executive Officer, Countywide Planning



Martha Welborne, FAIA
Executive Director, Countywide Planning



Arthur T. Leahy
Chief Executive Officer

**TAYLOR YARD BIKEWAY/PEDESTRIAN BRIDGE OVER LOS ANGELES RIVER
MEMORANDUM OF UNDERSTANDING**

This Memorandum of Understanding ("MOU") is dated for reference purposes only November 1, 2011, and is by and between the Los Angeles County Metropolitan Transportation Authority ("LACMTA") and City of Los Angeles ("Grantee") for the design of Taylor Yard Bikeway/Pedestrian Bridge Over Los Angeles River.

WHEREAS, in July 1992, as part of a settlement agreement pertaining to the development of the Taylor Yard Commuter Rail Facility, the Los Angeles County Transportation Commission (LACTC), the precursor agency to LACMTA, agreed to design, finance and construct a pedestrian access system, linking the communities to the east and west of Taylor Yard and providing access to rail service, including a pedestrian bridge across the Los Angeles River; and

WHEREAS, as part of the 1993-94 Call for Projects, LACMTA was awarded over \$2 million to construct a bikeway/pedestrian bridge over the Los Angeles River (Call for Projects #738); and

WHEREAS, as part of the 1995 Call for Projects, LACMTA awarded \$843,000 to the City of Los Angeles Department of Transportation (LADOT) to construct Phase I, a 1.5 mile long bike path between the Golden State Freeway crossing at the south and the existing bike path access to the Metrolink Central Maintenance Facility at the north; and Phase II an additional 1.5 mile bike path between the existing bike path access to the Metrolink Central Maintenance and Fletcher Drive Bridge at the north (Call for Projects #2077); and

WHEREAS, LACMTA worked with the City to refine the project cost and identify sources for the approximately \$2 million in additional funding that was determined to be needed and requested that the City of Los Angeles apply for grant funds through future Calls; and

WHEREAS, as part of the 2006 Supplemental Call for Projects, at the request of LACMTA, LADOT applied for funds for the Taylor Yard Bridge on behalf of LACMTA with no local match requirement; and

WHEREAS, \$4.5 million was awarded to LACMTA with a 10% match requirement from LADOT; and

WHEREAS, a portion of this grant funding was \$744,000 in State Transportation Improvement Program dollars programmed for 2006-07 for engineering work, which could not be obligated by the deadline due to the inability to obtain at-grade crossing approval by Union Pacific Railroad; and

WHEREAS, during this period, LACMTA requested that the City of Los Angeles enter into an agreement to cover project responsibilities and funding, however, when the grant funds were deobligated, the agreement was abandoned; and

WHEREAS, an accurate engineering estimate is necessary to determine costs to construct the pedestrian bridge and the City of Los Angeles has identified \$1.4 million as necessary to complete the design of the project and will include preliminary conceptual design; and environmental documentation; right-of-way agreements and environmental clearance; and final design and bid package preparation;

WHEREAS, LACMTA Board of Directors, at its meeting on January 26, 2012, authorized a grant to Grantee, subject to the terms and conditions contained in this MOU.

NOW, THEREFORE, the parties hereby agree as follows:

The terms and conditions of this MOU consist of the following and each is incorporated by reference herein as if fully set forth herein:

1. Part I - Specific Terms of the MOU
2. Part II - General Terms of the MOU
3. Attachment A - Project Funding
4. Attachment B - intentionally omitted
5. Attachment C - Scope of Work
6. Attachment D - Reporting and Expenditure Guidelines
7. Attachment D1 - Quarterly Progress/Expenditure Report
8. Attachment E - Federal Transportation Improvement Program (FTIP) Sheet
9. Any other attachments or documents referenced in the above documents

In the event of a conflict, the Special Grant Conditions, if any, shall prevail over the Specific Terms of the MOU and any attachments and the Specific Terms of the MOU shall prevail over the General Terms of the MOU.

IN WITNESS WHEREOF, the parties have caused this MOU to be executed by their duly authorized representatives as of the dates indicated below:

LACMTA:

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

By: _____ Date: _____
Arthur T. Leahy
Chief Executive Officer

APPROVED AS TO FORM:

Andrea Sheridan Ordin
County Counsel

By: _____ Date: _____
Deputy

GRANTEE:

City of Los Angeles Department of Transportation

By: _____ Date: _____
Jaime de la Vega
General Manager

By: _____ Date: _____
Carmen A. Trutanich
City Attorney

PART I
SPECIFIC TERMS OF THE MOU

1. Title of the Project (the "Project"): Taylor Yard Bikeway/Pedestrian Bridge Over Los Angeles River.
2. To the extent the Funds are available, LACMTA shall make to Grantee a one-time grant of the General Funds in the amount of \$1,073,000 (the "Funds") for the design. LACMTA Board of Directors' action of January 26, 2012, granted the Funds to Grantee for the Project. The Funds are programmed over 2 years, Fiscal Years FY 2011-12 and FY 2012-13. LACMTA Board of Directors' action approved Funds for FY 2011-12 only in the amount of \$400,000. LACMTA Board of Directors' action approved Funds for FY 2012-13 only in the amount of \$673,000. LACMTA Board of Directors' action will be required annually to approve Funds for each subsequent Fiscal Year prior to those Funds being allocated to Grantee.
3. This one time grant shall be paid on a reimbursement basis. Grantee must provide the appropriate supporting documentation with the Quarterly Progress/Expenditure Report. Grantee Funding Commitment must be spent in the appropriate proportion to the Funds with each quarter's expenditures. LACMTA will withhold 'five percent (5%)' of eligible expenditures per invoice as retainage pending an audit of expenditures and completion of scope of work.
4. The "Project Funding" documents all sources of funds programmed for the Project as approved by LACMTA and is attached as **Attachment A**. The Project Funding includes the total programmed budget for the Project, including the Funds programmed by LACMTA and the Grantee Funding Commitment (local match). The Project Funding also includes the fiscal years in which all the funds for the Project are programmed.
5. Grantee shall complete the Project as described in the "Scope of Work." The Scope of Work for the Project is attached to this MOU as **Attachment C**. The Scope of Work includes a description of the Project, a detailed description of the work to be completed by Grantee including, without limitation, Project milestones consistent with the lapsing policy, and a set schedule. Work shall be delivered in accordance with that schedule unless otherwise agreed to by the parties in writing. If a Grantee is consistently behind schedule in meeting milestones or in delivering the Project, then LACMTA will have the option to terminate this MOU for default as described in Part II, Section 9. **Any changes in the Scope of Work must be made by amendment.**
6. The "FTIP PROJECT SHEET (PDF)" is attached as **Attachment E** and is required to ensure that the Project is programmed correctly in the most up-to-date FTIP document. The FTIP PROJECT SHEET (PDF) can be found in ProgamMetro FTIP database under the reports section at <http://program.metro.net>. All projects that receive funding through the LACMTA Call For Projects must be programmed into the FTIP which includes locally funded regionally significant projects for information and air quality modeling purposes.

Grantee shall review the Project in ProgramMetro each year and update or correct the Project as necessary during a scheduled FTIP amendment or adoption. Grantee will be notified of amendments and adoptions to the FTIP via e-mail. Changes to the FTIP through ProgramMetro should be made as soon as possible after Grantee is aware of any changes to the Project, but no later than October 1 of the year the change or update is effective. Should Grantee fail to meet this date, it may affect Grantee's ability to access funding, delay the Project and may ultimately result in the Funds being lapsed.

7. No changes to the (i) grant amount, (ii) Project Funding, (iii) the Scope of Work, or (iv) the lapse date of the Funds shall be allowed without a written amendment to this MOU, approved and signed by the LACMTA Chief Executive Officer or his/her designee and Grantee. Modifications that do not materially affect the terms of this MOU, such as redistributing Funds among existing budget line items or non-material schedule changes must be formally requested by Grantee and approved by LACMTA in writing. Non-material changes are those changes, which do not affect the grant amount, Project Funding, Financial Plan, the Scope of Work, including schedule, or the lapse date of the Funds.

8. LACMTA's Address:
Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012
Attention: Silva Mardrussian, Mail Stop 99-22-65

9. Grantee's Address:
City of Los Angeles
1149 S. Broadway Street, Suite 740
Los Angeles, CA 90015
Tim Fremaux, 213-972-4957, Tim.Fremaux@lacity.org

PART II
GENERAL TERMS OF THE MOU

1. **TERM:**

1.1 The term of this MOU shall commence on the date this MOU is fully executed and, shall terminate upon the occurrence of all of the following, unless terminated earlier as provided herein: (i) the agreed upon Scope of Work has been completed; (ii) all LACMTA audit and reporting requirements have been satisfied; and (iii) the final disbursement of the Funds has been made to Grantee. All eligible Project expenses as defined in the Reporting and Expenditure Guidelines (Attachment D), incurred after the MOU is executed shall be reimbursed in accordance with the terms and conditions of this MOU unless otherwise agreed to by the parties in writing.

1.2 **Should LACMTA determine there are insufficient Funds available for the Project, LACMTA may terminate this MOU by giving written notice to Grantee at least thirty (30) days in advance of the effective date of such termination. If this MOU is terminated pursuant to this section, LACMTA will not reimburse Grantee any costs incurred after the termination date, except those necessary to return any facilities modified by the Project's construction to a safe state. LACMTA's share of these costs will be consistent with the established funding percentages outlined in the MOU.**

2. **INVOICE BY GRANTEE:** Unless otherwise stated in this MOU, the Quarterly Progress/Expenditure Report, with supporting documentation of expenses and Project progress as described in Part II, Sections 5.1 of this MOU, and other documents as required, shall satisfy LACMTA invoicing requirements.

Send invoice with supporting documentation to:

Los Angeles County Metropolitan Transportation Authority

Accounts Payable

P. O. Box 512296

Los Angeles, CA 90051-0296

Re: LACMTA Project: Taylor Yard Bikeway/Pedestrian Bridge Over Los Angeles River

Silva Mardrussian, MS 99-22-65

3. **USE OF FUNDS:**

3.1 Grantee shall utilize the Funds to complete the Project as described in the Scope of Work and in accordance with the Reporting and Expenditure Guidelines.

3.2 Attachment C shall constitute the agreed upon Scope of Work between LACMTA and Grantee for the Project. The Funds, as granted under this MOU, can only be used towards the completion of the Scope of Work originally adopted by the LACMTA Board of Directors and detailed in Attachment C.

3.3 Grantee shall not use the Funds to substitute for any other funds or projects not specified in this MOU. Further, Grantee shall not use the Funds for any expenses or activities above and beyond the approved Scope of Work (Attachment C) without an amendment to the MOU approved and signed by the LACMTA Chief Executive Officer or his designee.

3.4 Grantee must use the Funds in the most cost-effective manner. If Grantee intends to use a consultant or contractor to implement all or part of the Project, LACMTA requires that such activities be procured in accordance with Grantee's contracting procedures and consistent with State law. Grantee will also use the Funds in the most cost-effective manner when the Funds are used to pay "in-house" staff time. Grantee staff or consultant with project oversight roles can not award work to companies in which they have a financial or personal interest. This effective use of funds provision will be verified by LACMTA through on-going Project monitoring and through any LACMTA interim and final audits.

3.5 If Grantee desires to use the Funds to purchase/lease equipment (i.e., vehicles, computers, etc.) necessary to perform or provide the services disclosed in the Scope of Work, Grantee must obtain LACMTA's written consent prior to purchasing/leasing specific equipment. Equipment purchased/leased without such prior written consent shall be deemed an unallowable expenditure of the Funds. If a facility, equipment (such as computer hardware or software), vehicle or property, purchased or leased using the Funds, ceases to be used for the proper use as originally stated in the Scope of Work, or the Project is discontinued, any Funds expended for that purpose must be returned to LACMTA as follows: Grantee will be required to repay the Funds in proportion to the useful life remaining and in an equal proportion of the grant to Grantee Funding Commitment ratio.

4. **DISBURSEMENT OF FUNDS:** Disbursements shall be based on a reimbursement basis in accordance with the Quarterly Progress/Expenditure Report. LACMTA will make all disbursements electronically unless an exception is requested in writing. Disbursements via Automated Clearing House (ACH) will be made at no cost to Grantee. Grantee must complete the ACH form and submit such form to LACMTA before grant payments can be made. ACH Request Forms can be found at www.metro.net/projects_studies/call_projects/ref_docs.htm. Grantee must provide detailed supporting documentation with its Quarterly

Progress/Expenditure Report. Grantee Funding Commitment must be spent in direct proportion to the Funds with each quarter's payment.

5. REPORTING AND AUDIT REQUIREMENTS/PAYMENT ADJUSTMENTS:

5.1 Grantee shall submit the Quarterly Progress/Expenditure Report (Attachment D1) within 60 days after the close of each quarter on the last day of the months November, February, May and August. Should Grantee fail to submit such reports within 10 days of the due date and/or submit incomplete reports, LACMTA will not reimburse Grantee until the completed required reports are received, reviewed, approved. The Quarterly Progress/Expenditure Report shall include all appropriate documentation (such as contractor invoices, timesheets, receipts, etc.). All supporting documents must include a clear justification and explanation of their relevance to the Project. If no activity has occurred during a particular quarter, Grantee will still be required to submit the Quarterly Progress/Expenditure Report indicating no dollars were expended that quarter. If a request for reimbursement exceeds \$500,000 in a single month, then Grantee can submit such an invoice once per month with supporting documentation.

5.2 LACMTA, and/or its designee, shall have the right to conduct audits of the Project, as deemed appropriate, such as financial and compliance audits; interim audits; pre-award audits, performance audits and final audits. LACMTA will commence a final audit within six months of receipt of acceptable final invoice, provided the Project is ready for final audit (meaning all costs and charges have been paid by Grantee and invoiced to LACMTA, and such costs, charges and invoices are properly documented and summarized in the accounting records to enable an audit without further explanation or summarization including actual indirect rates for the period covered by the MOU period under review). Grantee agrees to establish and maintain proper accounting procedures and cash management records and documents in accordance with Generally Accepted Accounting Principles (GAAP). Grantee shall reimburse LACMTA for any expenditure not in compliance with the Scope of Work and/or not in compliance with other terms and conditions as defined by this MOU. Grantee's expenditures submitted to LACMTA for this project shall be in compliance with Federal Acquisition Regulations, Subpart 31 (FAR). Findings of the LACMTA audit are final. When LACMTA audit findings require Grantee to return monies to LACMTA, Grantee agrees to return the monies within thirty (30) days after the final audit is sent to Grantee.

5.3 Grantee's records shall include, without limitation, accounting records, written policies and procedures, contract files, original estimates, correspondence, change order files (including documentation covering negotiated settlements), invoices, and any other supporting evidence deemed necessary by LACMTA to substantiate charges related to the Project (all collectively referred to as "records") shall be open to inspection and subject to

audit and reproduction by LACMTA auditors or authorized representatives to the extent deemed necessary by LACMTA to adequately permit evaluation of expended costs. Such records subject to audit shall also include, without limitation, those records deemed necessary by LACMTA to evaluate and verify, direct and indirect costs, (including overhead allocations) as they may apply to costs associated with the Project. These records must be retained by Grantee for three years following final payment under this Agreement. Payment of retention amounts shall not occur until after the LACMTA's final audit is completed.

5.4 Grantee shall cause all contractors to comply with the requirements of Part II, Section 5, paragraphs 5.2 and 5.3 above. Grantee shall cause all contractors to cooperate fully in furnishing or in making available to LACMTA all records deemed necessary by LACMTA auditors or authorized representatives related to the Project.

5.5 LACMTA or any of its duly authorized representatives, upon reasonable written notice shall be afforded access to all of the records of Grantee and its contractors related to the Project, and shall be allowed to interview any employee of Grantee and its contractors through final payment to the extent reasonably practicable.

5.6 LACMTA or any of its duly authorized representatives, upon reasonable written notice, shall have access to the offices of Grantee and its contractors, shall have access to all necessary records, including reproduction at no charge to LACMTA, and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the terms and conditions of this MOU.

5.7 In addition to LACMTA's other remedies as provided in this MOU, LACMTA shall withhold the Funds and/or recommend not to award future Call for Projects grants to Grantee if the LACMTA audit has determined that Grantee failed to comply with the Scope of Work (such as misusing Funds or failure to return Funds owed to LACMTA in accordance with LACMTA audit findings) and/or is severely out of compliance with other terms and conditions as defined by this MOU, including the access to records provisions of Part II, Section 5.

5.8 When business travel associated with the Project requires use of a vehicle, the mileage incurred shall be reimbursed at the mileage rates set by the Internal Revenue Service, as indicated in the United States General Services Administration Federal Travel Regulation, Privately Owned Vehicle Reimbursement Rates.

6. **ONE TIME GRANT:** This is a one time only grant subject to the terms and conditions agreed to herein. This grant does not imply nor obligate any future funding commitment on the part of LACMTA.

7. **SOURCES AND DISPOSITION OF FUNDS:**

7.1 The obligation for LACMTA to grant the Funds for the Project is subject to sufficient Funds being made available for the Project by the LACMTA Board of Directors. If such Funds are not made available for the Project, this MOU shall be void and have no further force and effect, and LACMTA shall have no obligation to provide the Funds for the Project, unless otherwise agreed to in writing by LACMTA.

7.2 Grantee shall fully fund and contribute the Grantee Funding Commitment, as identified in the Project Funding (Attachment A), towards the cost of the Project. If the Funds identified in Attachment A are insufficient to complete the Project, Grantee agrees to secure and provide such additional non-LACMTA programmed funds necessary to complete the Project.

7.3 Grantee shall be responsible for any and all cost overruns for the Project.

7.4 Grantee shall be eligible for the Funds up to the grant amount specified in Part I, Section 2 of this MOU subject to the terms and conditions contained herein. **Any Funds expended by Grantee prior to the execution of this MOU (prior to the LACMTA Chief Executive Officer's signature) shall not be reimbursed nor shall they be credited toward the Grantee Funding Commitment requirement, without the prior written consent of LACMTA. Grantee Funding Commitment dollars expended prior to the year the Funds are awarded shall be spent at Grantee's own risk.**

7.5 If Grantee receives outside funding for the Project in addition to the Funds identified in the Project Funding at the time this grant was awarded, this MOU shall be amended to reflect such additional funding. If, at the time of final voucher, funding for the Project (including the Funds, Grantee Funding Commitment, and any additional funding) exceeds the actual Project costs, then the cost savings shall be applied in the same proportion as the sources of funds from each party to this MOU as specified in the Project Funding and both the Funds and Grantee Funding Commitment required for the Project shall be reduced accordingly.

8. **TIMELY USE OF FUNDS / REPROGRAMMING OF FUNDS:**

8.1 Grantee must demonstrate timely use of the Funds by:

- (i) executing this MOU within ninety (90) days of receiving formal transmittal of the MOU from LACMTA, or by

- December 31 of the first Fiscal Year in which the Funds are programmed, whichever date is later; and
- (ii) meeting the Project milestones due dates as agreed upon by the LACMTA and Grantee in Attachment C (Scope of Work) of this MOU. Contracts for construction or capital purchase shall be executed within nine (9) months from the date of completion of design. Project design (preliminary engineering) must begin within six (6) months from the identified milestone start date. Funds programmed by LACMTA for Project development or right-of-way costs must be expended by the end of the second fiscal year following the year the Funds were first programmed; and
 - (iii) submitting the Quarterly Progress/Expenditure Report as described in Part II, Section 5.1 of this MOU; and
 - (iv) expending the Funds granted under this MOU for allowable costs within 36 months from July 1 of the Fiscal Year in which the Funds are programmed, unless otherwise stated in this MOU. All Funds programmed for FY 2011 - 12 are subject to lapse by June 30, 2014. All Funds programmed for FY 2012 - 13 are subject to lapse by June 30, 2015.

If Grantee fails to meet any of the above conditions, the Project shall be considered lapsed and will be submitted to the LACMTA Board of Directors for deobligation. **Expenses that are not invoiced within 60 days after the lapsing date are not eligible for reimbursement.**

8.2 In the event that the timely use of the Funds is not demonstrated as described in Part II, Section 8.1 of this MOU, the Project will be reevaluated by LACMTA as part of its annual Call for Projects Recertification/Deobligation process and the Funds may be deobligated and reprogrammed to another project by the LACMTA Board of Directors. If Grantee does not complete one element of the Project, as described in the FTIP Project Sheet, due to all or a portion of the Funds lapsing, the entire Project may be subject to deobligation at LACMTA's sole discretion. In the event that all the Funds are reprogrammed, this MOU shall automatically terminate.

9. **DEFAULT:** A Default under this MOU is defined as any one or more of the following: (i) Grantee fails to comply with the terms and conditions contained herein; or (ii) Grantee fails to perform satisfactorily or makes a material change, as determined by LACMTA at its sole discretion, to the Financial Plan, the Scope of Work, or the Project Funding without LACMTA's prior written consent or approval as provided herein.

10. **REMEDIES:**

10.1 In the event of a Default by Grantee, LACMTA shall provide written notice of such Default to Grantee with a 30-day period to cure the Default. In the event Grantee fails to cure the Default, or commit to cure the Default and commence the same within such 30-day period to the satisfaction of LACMTA, LACMTA shall have the following remedies: (i) LACMTA may terminate this MOU; (ii) LACMTA may make no further disbursements of Funds to Grantee; and/or (iii) LACMTA may recover from Grantee any Funds disbursed to Grantee as allowed by law or in equity.

10.2 Effective upon receipt of written notice of termination from LACMTA, Grantee shall not undertake any new work or obligation with respect to this MOU unless so directed by LACMTA in writing. Any Funds expended after termination shall be the sole responsibility of Grantee.

10.3 The remedies described herein are non-exclusive. LACMTA shall have the right to enforce any and all rights and remedies herein or which may be now or hereafter available at law or in equity.

11. **COMMUNICATIONS:**

11.1 Grantee shall ensure that all Communication Materials contain recognition of LACMTA's contribution to the Project. Grantee shall ensure that at a minimum, all Communications Materials shall include (i) the phrase "This project was partially funded by Metro" or alternative acceptable minimum language; and (ii) the Metro logo, with the exception of press releases, which do not require a Metro logo.

11.2 If Grantee produces any Communication Materials that do not contain the information set forth in Section 11.1 above, Grantee must provide an opportunity for prior review and written comment by the Chief Communications Officer of LACMTA or its designee before such materials can be produced. If Grantee does not receive a response from LACMTA Communications within seven (7) working days from the day of receipt by LACMTA Communications staff, Grantee may proceed with producing the Communications Materials as proposed.

11.3 For purposes of this MOU, "Communications Materials" include, but are not limited to, literature, newsletters, publications, websites, advertisements, brochures, maps, information materials, video, radio and public service announcements, press releases, press event advisories, and all other related materials.

11.4 For signage on Project structures, facilities, vehicles and construction sites, Grantee shall use the phrase, "Funded in part by [Metro logo]" or "Your tax dollars at work [Metro logo]" or **alternative acceptable language**.

Further guidance on acknowledging LACMTA contribution is provided in the Communications Materials guidelines available from the LACMTA Communications Division.

11.5 Grantee shall notify the LACMTA Chief Communications Officer or its designee of all press events related to the Project in such a manner that allows LACMTA to participate in such events, at LACMTA's sole discretion.

11.6 The Metro logo is a trademarked item that shall be reproduced and displayed in accordance with specific graphic guidelines available from the LACMTA Communications Division.

11.7 Grantee shall ensure that any subcontractor, including, without limitation, public relations, public affairs, and/or marketing firms hired to produce Project Communications Materials will comply with the requirements contained in this Section 11.

12. **OTHER TERMS AND CONDITIONS:**

12.1 This MOU, along with its Attachments, constitutes the entire understanding between the parties, with respect to the subject matter herein. The MOU shall not be amended, nor any provisions or breach hereof waived, except in writing signed by the parties who agreed to the original MOU or the same level of authority.

12.2 Grantee is obligated, to continue using the Project dedicated to the public transportation purposes for which the Project was initially approved. The Project right-of-way, the Project facilities constructed or reconstructed on the Project site, and/or Project property purchased excluding construction easements and excess property (whose proportionate proceeds shall be distributed in an equal proportion of the grant to Grantee Funding Commitment ratio) shall remain dedicated to public transportation use in the same proportion and scope and to the same extent as described in this MOU. Equipment acquired as part of the Project, including office equipment, transit vehicles, shall be dedicated to that use for their full economic life cycle, including any extensions of that life cycle achieved by reconstruction, rehabilitation, or enhancements.

12.3 In the event that there is any legal court (e.g., Superior Court of the State of California, County of Los Angeles, or the U.S. District Court for the Central District of California) proceeding between the parties to enforce or interpret this MOU, to protect or establish any rights or remedies hereunder, the prevailing party shall be entitled to its costs and expenses, including reasonable attorney's fees.

12.4 Neither LACMTA nor any officer or employee thereof shall be responsible for any damage or liability occurring by reason of anything done or

committed to be done by Grantee under or in connection with any work performed by and or service provided by Grantee, its officers, agents, employees, contractors and subcontractors under this MOU. Grantee shall fully indemnify, defend and hold LACMTA, and its officers, agents and employees harmless from and against any liability and expenses, including without limitation, defense costs, any costs or liability on account of bodily injury, death or personal injury of any person or for damage to or loss of risk of property, any environmental obligation, any legal fees and any claims for damages of any nature whatsoever arising out of the Project, including without limitation: (i) misuse of the Funds by Grantee, or its officers, agents, employees, contractors or subcontractors; (ii) breach of Grantee's obligations under this MOU; or (iii) any act or omission of Grantee, or its officers, agents, employees, contractors or subcontractors in the performance of the work or the provision of the services, in connection with the Project including, without limitation, the Scope of Work, described in this MOU.

12.5 Neither party hereto shall be considered in default in the performance of its obligation hereunder to the extent that the performance of any such obligation is prevented or delayed by unforeseen causes including acts of God, acts of a public enemy, and government acts beyond the control and without fault or negligence of the affected party. Each party hereto shall give notice promptly to the other of the nature and extent of any such circumstances claimed to delay, hinder, or prevent performance of any obligations under this MOU.

12.6 Grantee shall comply with and insure that work performed under this MOU is done in compliance with Generally Accepted Accounting Principles (GAAP), all applicable provisions of federal, state, and local laws, statutes, ordinances, rules, regulations, and procedural requirements including Federal Acquisition Regulations (FAR), and the applicable requirements and regulations of LACMTA. Grantee acknowledges responsibility for obtaining copies of and complying with the terms of the most recent federal, state, or local laws and regulations, and LACMTA requirements including any amendments thereto.

12.7 Grantee agrees that the applicable requirements of this MOU shall be included in every contract entered into by Grantee or its contractors relating to work performed under this MOU and LACMTA shall have the right to review and audit such contracts.

12.8 Grantee shall not assign this MOU, or any part thereof, without prior approval of the LACMTA Chief Executive Officer or his designee, and any assignment without said consent shall be void and unenforceable.

12.9 This MOU shall be governed by California law. If any provision of this MOU is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way.

12.10 The covenants and agreements of this MOU shall inure to the benefit of, and shall be binding upon, each of the parties and their respective successors and assigns.

12.11 If any software/Intelligent Transportation Systems ("ITS") is developed with the Funds and if Grantee ceases to use the software/ITS for public purposes or Grantee sells, conveys, licenses or otherwise transfers the software/ITS, LACMTA shall be entitled to a refund or credit, at LACMTA's sole option, equivalent to the amount of the Funds spent developing the software/ITS. Such refund or credit shall not be required, subject to LACMTA approval of the intended use, if Grantee reinvests the proceeds of such sale, conveyance, license or transfer into the Project to offset operating or systems management costs.

12.12 Implementation of any ITS project shall be consistent with the Regional ITS Architecture. ITS projects must comply with the LACMTA Countywide ITS Policy and Procedures adopted by the LACMTA Board of Directors including the submittal of a completed, signed self-certification form in the form of Attachment F-1. For the ITS policy and form, see www.metro.net/projects_studies/call_projects/other_resources.htm.

12.13 If any parking facilities are designed and/or constructed using the Funds, Grantee shall coordinate with LACMTA parking program staff (see METRO.net for staff listing) in the planning, design and management of the facility and shall ensure that its implementation is consistent with the LACMTA adopted parking policy. For the parking policy, see www.metro.net/projects_studies/call_projects/other_resources.htm.

12.14 Grantee will advise LACMTA prior to any key Project staffing changes.

12.15 Notice will be given to the parties at the address specified in Part I, unless otherwise notified in writing of change of address.

12.16 Grantee in the performance of the work described in this MOU is not a contractor nor an agent or employee of LACMTA. Grantee attests to no organizational or personal conflicts of interest and agrees to notify LACMTA immediately in the event that a conflict, or the appearance thereof, arises. Grantee shall not represent itself as an agent or employee of LACMTA and shall have no powers to bind LACMTA in contract or otherwise.

ATTACHMENT A - PROJECT FUNDING

CFP#
FTIP#:

MOU.P000F
PPNO:

MEMORANDUM OF UNDERSTANDING

PROJECT TITLE:TAYLOR YARD BIKEWAY/PEDESTRIAN BRIDGE OVER LOS ANGELES RIVER

GRANTEE/ PROJECT SPONSOR:

(\$ in Actual Dollars)

(LACMTA Programmed Funding and Sponsors Match Only)

PROGRAMMED FUNDS	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	TOTAL BUDGET	% OF BUDGET
LACMTA PROGRAMMED FUNDING:								
SELECT:								
Proposition C 5%								
Proposition C 10%								
Proposition C 25%								
Proposition C 40%								
FAU CASH					400,000	673,000	1,073,000	76.6%
LACMTA SUBTOTAL							1,073,000	76.6%
GRANTEE/SPONSOR MATCH:								
Grantee Funding Commitment (specify type)								
(Write specific type of funding match)								
SELECT:								
City General Fund								
Prop A or C Local Return								
STPL								
Other *						327,000	327,000	23.4%
GRANTEE / PROJECT SPONSOR MATCH SUBTOTAL							327,000	23.4%
TOTAL PROGRAMMED FUNDING					\$400,000	\$1,000,000	\$1,400,000	100.0%

*LADWP has committed funding

Rev: 12.15.08

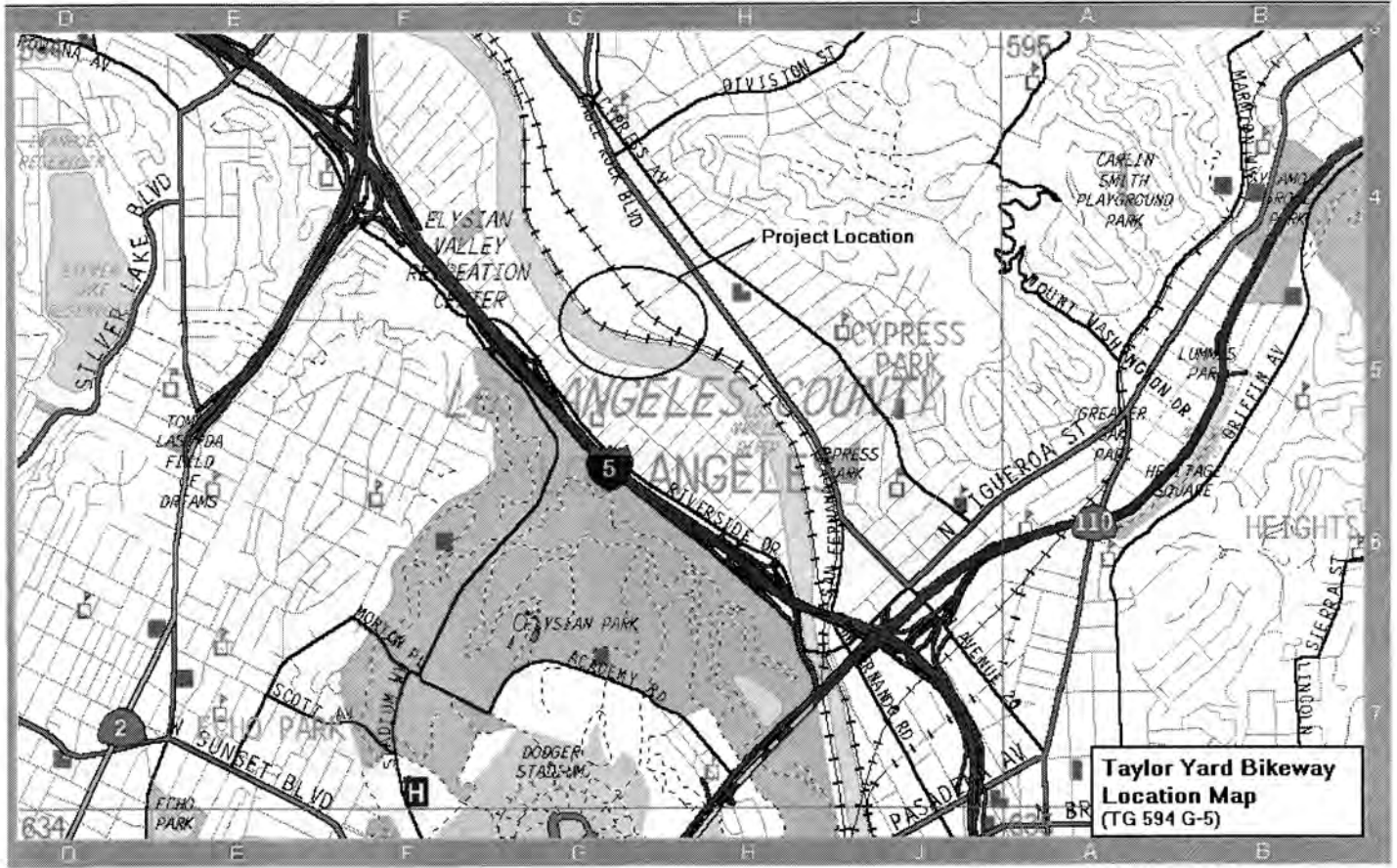
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1,400,000

MOU Attachment A

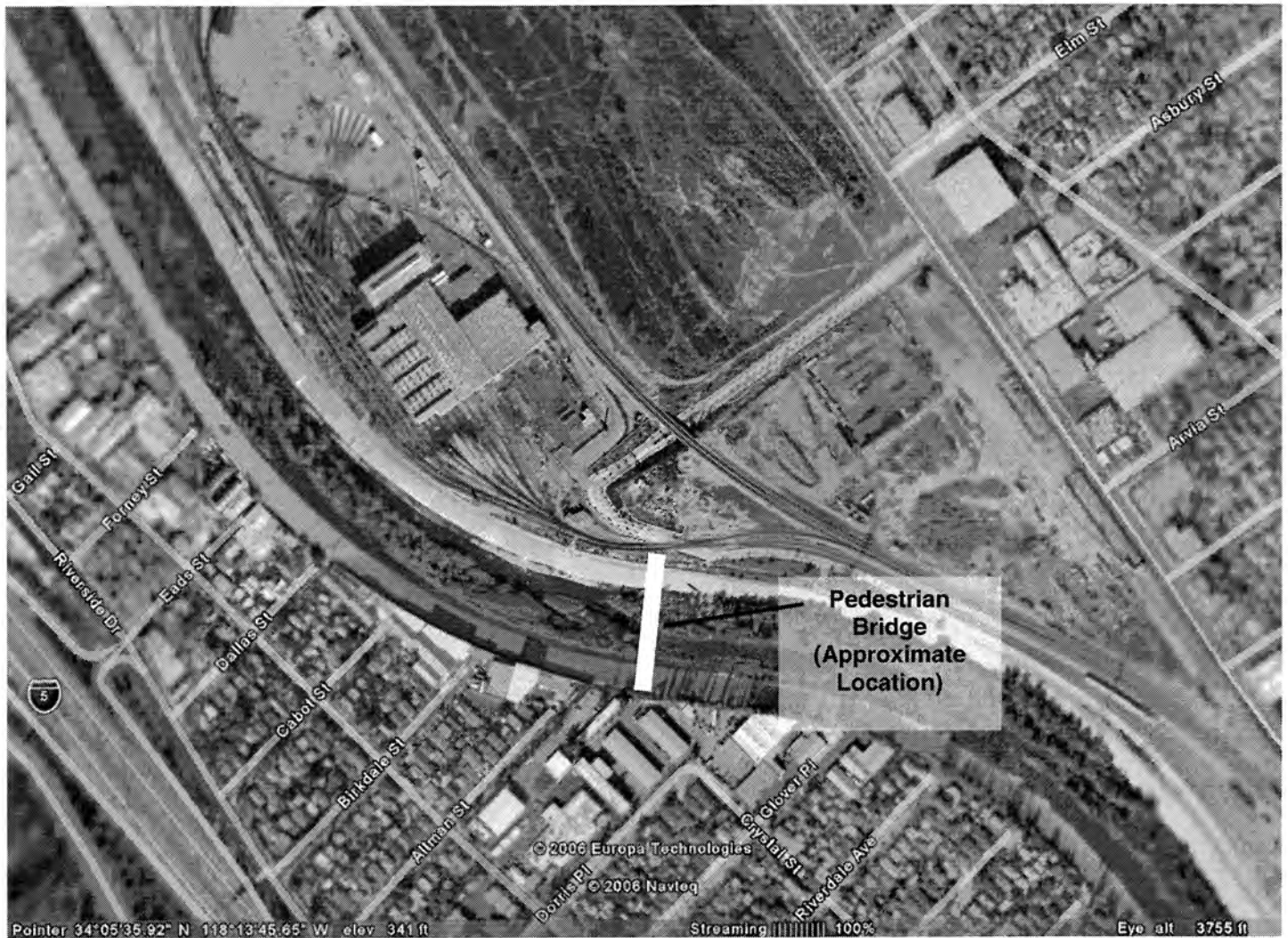
ATTACHMENT B

Figure 1: Vicinity Map



Source: Thomas Brothers Maps

Figure 2: Site Map (with approximate location of bridge)



Source: Google Earth

Figure 3: Bridge Detail (Approximate Location)



Source: Google Earth

SCOPE OF WORK
Taylor Yard Bikeway/Pedestrian Bridge Over Los Angeles

River

Location

The Taylor Yard Bikeway/Pedestrian Bridge over Los Angeles River (LAR) Project (the "Project") is located within the City of Los Angeles (the "city") in the community of Cypress Park. The bridge will cross the LAR, between the Metrolink railroad maintenance facility in Taylor Yard on the east bank and the city-owned property on the west bank. The proposed project right of way will be crossing properties owned by Union Pacific Railroad (UPRR), Metro, City of Los Angeles, and possibly private entities.

Project Description

The funds identified in this agreement will enable the completion of design for this project. The project will provide a gap closure between communities on the east and west sides of the LAR. The project features an approximately 400-foot bikeway/pedestrian and shared-use bridge across the LAR linking the existing Taylor Yard access road with the western bank of the LAR. The clear width of the bridge will be approximately 17 feet. The vertical clearance of the bridge at the centerline of the river will be determined jointly with Army Corp of Engineers, Los Angeles County Flood Control and other appropriate governmental agencies. The City will be the owner of this bridge.

The abutment location on both banks of the LAR, will be finalized after completion of the detailed engineering survey and the functionality for the bicyclists and pedestrians.

Between the existing Taylor Yard service road and the proposed bridge there will be a new at-grade crossing required for UPRR service track.

The Project's funding will complete the following services and activities: engineering design; preparation of plans, specifications and estimates (PS&E); right-of-way engineering; environmental impact analysis of the river and railroad crossings;

The design of the Project will be in conformity with the following governmental standards: City of Los Angeles; State of California Department of Transportation; and the *American Association of State Highway and Transportation Officials (AASHTO)*.

Project Funding

The City of Los Angeles has responsibility for the milestones, and MTA has the responsibility of the funding allocations.

Milestones	Duration (months)	Cost
Project Kick-off (Execute MOU Field Review.)	3	\$100,000
Preliminary Conceptual Design & Environmental documentation <i>(City will consult with Metro for various elements of the design)</i>	12	\$400,000
R/W Agreements (primarily air rights) & Environmental Clearance <i>(City will consult with Metro on the Environmental Documentation)</i>	12-18	\$500,000
Final Design and Bid Package	16	\$400,000
Total	36	\$1,400,000

- LACMTA Contribution: \$1,073,000
- LADWP Contribution: \$327,000

MOU ATTACHMENT D
REPORTING & EXPENDITURE GUIDELINES

REPORTING PROCEDURES

- Quarterly Progress/Expenditure Report (Attachment D1) is required for all projects. The Grantee shall be subject to and comply with all applicable requirements of the funding agency regarding project-reporting requirements. In addition, Grantee will submit a quarterly report to the LACMTA at **P.O. Box 512296, Los Angeles, CA 90051-0296**. Please note that letters or other forms of documentation may not be substituted for this form.
- The Quarterly Progress/Expenditure Report covers all activities related to the project and lists all costs incurred. It is essential that Grantee provide complete and adequate response to all the questions. The expenses listed must be supported by appropriate documentation with a clear explanation of the purpose and relevance of each expense to the project. Expenses must reflect the proportionate share of local match, including in-kind, charged to the grant.
- In cases where there are no activities to report, or problems causing delays, clear explanation, including actions to remedy the situation, must be provided.
- Grantees are required to track and report on the project schedule. LACMTA will monitor the timely use of funds and delivery of projects. Project delay, if any, must be reported each quarter. Projects not delivered in a timely manner will be reevaluated by LACMTA as part of the annual Call for Projects Recertification process and the Funds may be deobligated and reprogrammed by the LACMTA Board.
- The Quarterly Progress/Expenditure Report is due to the LACMTA as soon as possible after the close of each quarter, but no later than the following dates for each fiscal year:

<i>Quarter</i>	<i>Report Due Date</i>
July –September	November 30
October - December	February 28
January - March	May 31
April - June	August 31

Upon completion of the Project a final report that includes project’s final evaluation must be submitted.

EXPENDITURE GUIDELINES

- Any activity or expense charged above and beyond the approved Scope-of-Work (MOU Attachment C) **is considered ineligible** and will not be reimbursed by the LACMTA unless **prior written authorization** has been granted by the LACMTA Chief Executive Officer or his designee.
- Any expense charged to the grant or local match, including in-kind, must be clearly and directly related to the project.
- Any activity or expense charged as local match cannot be applied to any other LACMTA-funded or non-LACMTA-funded projects; activities or expenses related to a previously funded project cannot be used as local match for the current project.
- Administrative cost is the ongoing expense incurred by the Grantee for the duration of the project and for the direct benefit of the project as specified in the Scope-of-Work (Attachment C). Examples of administrative costs are personnel, office supplies, and equipment. As a condition for eligibility, all costs must be necessary for maintaining, monitoring, coordinating, reporting and budgeting of the project. Additionally, expenses must be reasonable and appropriate to the activities related to the project.
- LACMTA is not responsible for, and will not reimburse any costs incurred by the Grantee prior to the execution of the MOU, unless **written authorization** has been granted by the LACMTA Chief Executive Officer or her designee.
- The MOU is considered executed when the LACMTA Chief Executive Officer or her designee signs the document.

DEFINITIONS

- Local Participation: Where local participation consists of “in-kind” contributions rather than funds, the following contributions may be included:
 - Costs incurred by a local jurisdiction to successfully complete the project. Examples include engineering, design, rights-of-way purchase, and construction management costs.
 - Donations of land, building space, supplies, equipment, loaned equipment, or loaned building space dedicated to the project.
 - Donations of volunteer services dedicated to the project.
 - A third-party contribution of services, land, building space, supplies or equipment dedicated to the project.

- Allowable Cost: To be allowable, costs must be reasonable, recognized as ordinary and necessary, consistent with established practices of the organization, and consistent with industry standard of pay for work classification.
- Excessive Cost: Any expense deemed “excessive” by LACMTA staff would be adjusted to reflect a “reasonable and customary” level. For detail definition of “reasonable cost”, please refer to the Federal Register *OMB Circulars A-87 Cost Principals for State and Local Governments; and A-122 Cost Principals for Nonprofit Organizations*.
- In-eligible Expenditures: Any activity or expense charged above and beyond the approved Scope-of-Work is considered in eligible.

**LACMTA MOU ATTACHMENT D1
 QUARTERLY PROGRESS / EXPENSE REPORT**

Grantee To Complete	
Invoice #	
Invoice Date	
MOU#	
Quarterly Report #	

**GRANTEES ARE REQUESTED TO MAIL THIS REPORT TO
 P.O. Box #512296, Los Angeles, CA 90051-0296** after the close
 of each quarter, but no later than November 30, February 28,
May 31 and August 31. Please note that letters or other forms
 of documentation may **not** be substituted for this form. Refer to the
 Reporting and Expenditure Guidelines (Attachment D) for further information.

SECTION 1: QUARTERLY EXPENSE REPORT

Please itemize grant-related charges for this Quarter on Page 5 of this report and **include totals in this Section.**

	LACMTA Grant \$	Local Match (Incl. In-Kind) \$	Local Match %	Total \$
Project Quarter Expenditure				
This Quarter Expenditure				
Retention Amount				
Net Invoice Amount (Less Retention)				
Project-to-Date Expenditure				
Funds Expended to Date (Include this Quarter)				
Total Project Budget				
% of Project Budget Expended to Date				
Balance Remaining				

SECTION 2: GENERAL INFORMATION

PROJECT TITLE: _____

MOU #: _____

QUARTERLY REPORT SUBMITTED FOR:

Fiscal Year : 2004-2005 2005-2006 2006-2007
 2007-2008 2008-2009 2009-2010

Quarter : Q1: Jul - Sep Q2: Oct - Dec
 Q3: Jan - Mar Q4: Apr - Jun

DATE SUBMITTED: _____

LACMTA MODAL CATEGORY:

- Freeway RSTI Signal Synchronization
 TDM Bikeway Pedestrian
 Transit TEA

LACMTA Area Team Representative / Project Mgr.	Name:	
	Area Team:	
	Phone Number:	
	e-mail:	

Project Sponsor Contact / Project Manager	Contact Name:	
	Job Title:	
	Department:	
	City / Agency:	
	Mailing Address:	
	Phone Number:	
	e-mail:	

SECTION 3 : QUARTERLY PROGRESS REPORT

1. DELIVERABLES & MILESTONES

List all deliverables and milestones as stated in the MOU, with start and end dates. Calculate the total project duration. **DO NOT CHANGE THE ORIGINAL MOU MILESTONE START AND END DATES SHOWN IN THE 2ND AND 3RD COLUMNS BELOW.**

Grantees must make every effort to accurately portray milestone dates in the original MOU Scope of Work, since this will provide the basis for calculating any project delay. If milestone start and/or end dates change from those stated in the Original MOU Scope of Work, indicate the new dates under Actual Schedule below and re-calculate the project duration. However, this does not change the original milestones in your MOU. **PER YOUR MOU AGREEMENT, ANY CHANGES TO THE PROJECT SCHEDULE MUST BE FORMALLY SUBMITTED UNDER SEPARATE COVER TO LACMTA FOR WRITTEN CONCURRENCE.**

MOU Milestones	Original MOU Schedule in Scope of Work		Actual Schedule	
	Start Date	End Date	Start Date	End Date
Total Project Duration (Months)				

2. PROJECT COMPLETION

A. Based on the comparison of the original and actual project milestone schedules above, project is (select only one) :

- On schedule per original MOU schedule
 Less than 12 months behind original schedule
 Between 12-24 months behind original schedule
 More than 24 months behind original schedule

B. Was the project design started within 6 months of the date originally stated in the MOU?

- Yes
 No
 Not Applicable

C. Was a construction contract or capital purchase executed within 9 months after completion of design / specifications?

- Yes
 No
 Not Applicable

3. TASKS / MILESTONES ACCOMPLISHED

List tasks or milestones accomplished and progress made this quarter.

4. PROJECT DELAY

If project is delayed, describe reasons for delay (this quarter). Pay particular attention to schedule delays. If delay is for the same reason as mentioned in previous quarters, please indicate by writing "Same as Previous Quarter".

5. ACTION ITEMS TO RESOLVE DELAY

If the project is delayed (as described in #4), include action items that have been, or will be, undertaken to resolve the delay.

SECTION 4: ITEMIZED LISTING OF EXPENSES AND CHARGES THIS QUARTER

All expenses and charges, including grant and local match, must be itemized and listed below. Each item listed must be verifiable by an invoice and/or other proper documentation. The total amounts shown here must be equal to this quarter's expenditures listed on page 1 of this report. All expenses and charges must be reflective of the approved budget and rates as shown in the MOU Attachment C, Scope of Work. Use additional pages if needed.

ITEM	INVOICE #	TOTAL EXPENSES / CHARGES	\$ CHARGED TO LACMTA GRANT	\$ CHARGED TO LOCAL MATCH
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
TOTAL				

Notes:

- Local match spent in each quarter, must be in the appropriate proportion to LACMTA grant.
- All receipts, invoices, and time sheets, attached and included with this Expense Report must be listed and shown under the Invoice Number column of the Itemized Listing (above).

Invoice Payment Information:

LACMTA will make all disbursements electronically unless an exception is requested in writing.
 ACH Payments require that you complete an ACH Request Form and fax it to Accounts Payable at 213-922-6107.
 ACH Request Forms can be found at www.metro.net/callforprojects.
 Written exception requests for Check Payments should be completed and faxed to Accounts Payable at 213-922-6107.

I certify that I am the responsible Project Manager or fiscal officer and representative of _____
 _____ and that to the best of my knowledge and belief the information
 stated in this report is true and correct.

Signature

Date

Name

Title

ATTACHMENT E

Federal Transportation Improvement Program (FTIP) Project Sheet Instructions

PLEASE GO TO THE **ProgramMetro** FTIP DATABASE LINK BELOW:

<http://program.metro.net>

- ✓ Review & Update your projects in the FTIP through the ProgramMetro database
- ✓ Click on the **REPORTS** link -----<http://program.metro.net/reports.asp>
- ✓ Click on the **FTIP PROJECT SHEET (PDF)** link
- ✓ Under the File menu select "**Save As**" and save the PDF on your computer or network
- ✓ Attach your FTIP PROJECT SHEET (PDF) to the MOU/LOA as Attachment E
- ✓ Use typewriter tool in Adobe to Label Attachment accordingly as "Attachment E"

FTIP CONTACTS

Contact Person	Phone/FAX Information	Email:
Herman Cheng	213.922.2453 FAX 213.922.2476	Chengh@metro.net
Nancy Marroquin	213.922.7237 FAX: 213.922.2476	Marroquinn@metro.net
Avital Shavit	213.922.7518 FAX: 213.922.2476	Shavita@metro.net

SAMPLE FTIP PROJECT SHEET (PDF)

Los Angeles Metropolitan Transportation Authority
2009 Federal Transportation Improvement Program (\$000)

Submitting Agency: **Burbank, City of**

Form ID: LAE0119 BCAD RTP Project #: _____ FTRC: _____ SA Number: _____ BCAD Model #: T267		Project Title: CNG TRANSIT VEHICLES PURCHASE FOR LOCAL TRANSIT NETWORK EXPANSION Project Description: CNG TRANSIT VEHICLES PURCHASE FOR LOCAL TRANSIT NETWORK EXPANSION																																										
System: Transit Route: _____ Facility: _____ Program Code: BUN94 - BUSES-EXPANSION-ALTERNATIVE FUEL Environmental Document: CATEGORICALLY EXEMPT - 10/20/2005 Consistency Category: NON-EXEMPT Air Basin: SCAB Project Completion Date: 12/31/2011 Current Implementation Status: No Project Activity - 05/24/2007 Project Manager: _____ Last Modified By: _____	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Fiscal Year</th> <th>Revenue Source</th> <th>Engineering</th> <th>Right of Way</th> <th>Construction</th> <th>Total Revenue</th> </tr> </thead> <tbody> <tr> <td>06/07</td> <td>5309c - FTA Bus Discretionary</td> <td></td> <td></td> <td>\$177</td> <td>\$177</td> </tr> <tr> <td>07/08</td> <td>5309c - FTA Bus Discretionary</td> <td></td> <td></td> <td>\$98</td> <td>\$98</td> </tr> <tr> <td>08/09</td> <td>5309c - FTA Bus Discretionary</td> <td></td> <td></td> <td>\$102</td> <td>\$102</td> </tr> <tr> <td>09/07</td> <td>CITY - City Funds</td> <td></td> <td></td> <td>\$18</td> <td>\$18</td> </tr> <tr> <td>09/07</td> <td>054 - General Funds - Locally Generated</td> <td></td> <td></td> <td>\$225</td> <td>\$225</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">\$0</td> <td style="text-align: center;">\$0</td> <td style="text-align: center;">\$640</td> <td style="text-align: center;">\$640</td> </tr> </tbody> </table>	Fiscal Year	Revenue Source	Engineering	Right of Way	Construction	Total Revenue	06/07	5309c - FTA Bus Discretionary			\$177	\$177	07/08	5309c - FTA Bus Discretionary			\$98	\$98	08/09	5309c - FTA Bus Discretionary			\$102	\$102	09/07	CITY - City Funds			\$18	\$18	09/07	054 - General Funds - Locally Generated			\$225	\$225			\$0	\$0	\$640	\$640	Total Cost: \$640
Fiscal Year	Revenue Source	Engineering	Right of Way	Construction	Total Revenue																																							
06/07	5309c - FTA Bus Discretionary			\$177	\$177																																							
07/08	5309c - FTA Bus Discretionary			\$98	\$98																																							
08/09	5309c - FTA Bus Discretionary			\$102	\$102																																							
09/07	CITY - City Funds			\$18	\$18																																							
09/07	054 - General Funds - Locally Generated			\$225	\$225																																							
		\$0	\$0	\$640	\$640																																							

Page 1

Wednesday, October 2, 2007

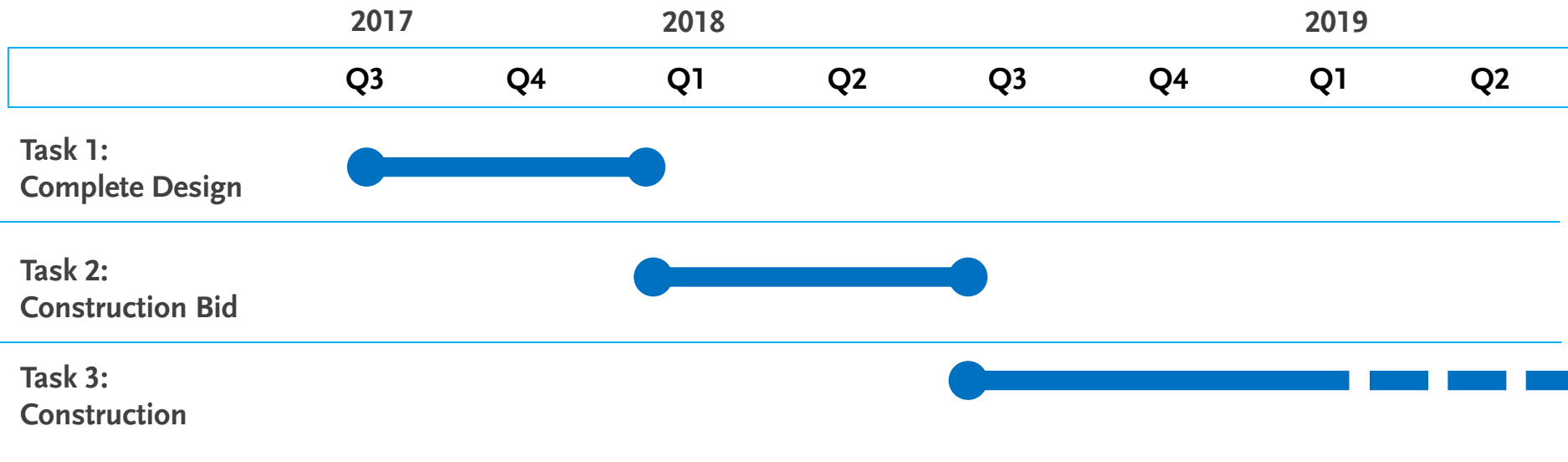
Site Plan and Rendering



Site Plan and Rendering



Project Schedule



Project Budget

Date: 05/25/2017

To: Marie Sullivan
Metro, Principal Transportation Planner

From: Nur Malhis
Bureau of Engineering, Architectural Division

Subject: **TAYLOR YARD BIKEWAY/PEDESTRIAN BRIDGE OVER LA RIVER
CONSTRUCTION FUNDING OUTLOOK**

FUNDS NEEDED FOR CONSTRUCTION		
Item	Cost	Comments
TAYLOR YARD BRIDGE (ORIGINAL SCOPE)		
Construction Cost	\$16 M	Escalation at 5% / Year, assuming construction mid point date of Nov 2019
Construction Contingency	\$3.2 M	20% of Construction Cost
TOTAL Construction (Hard Cost)	\$19.2 M	
TOTAL Construction Engineering-Administration /Indirect Costs (PM, CM, Consultant, Inspection, Mitigation Monitoring)	\$2.5 M	Approximately 15% of Total Construction Cost
TOTAL Construction Cost	\$21.7 M	
<i>Assuming July 2018 Start Date</i>		



Board Report

File #: 2017-0298, **File Type:** Contract

Agenda Number: 25

**CONSTRUCTION COMMITTEE
JULY 20, 2017**

SUBJECT: ENVIRONMENTAL WASTE HANDLING AND ENVIRONMENTALLY RELATED CONSTRUCTION SERVICES

ACTION: AWARD PROFESSIONAL SERVICES CONTRACT

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to negotiate and execute:

- A. a five-year indefinite quantity/indefinite delivery cost plus fixed fee Contract No. PS20655 to TRC Solutions, Inc., for Environmental Waste Handling and Environmentally Related Construction Services on Task Orders, for a base term of three (3) years, plus two one-year options, in an amount not to exceed \$42,274,495 (Base Contract: \$35,100,495; Option Year 1: \$5,037,000 and Option Year 2: \$2,137,000), subject to the resolution of any timely protest; and
- B. all individual Task Orders and changes within the Board approved contract value.

RATIONALE

Nearly every capital project and all transit projects undertaken by Metro, require evaluation of hazardous substances, contamination, or a need for regulatory compliance under federal, state and local law. Metro must comply with all environmental laws to avoid fines, and civil or criminal liability. The **Environmental Waste Handling and Environmentally Related Construction Services** Contract assist with emergency response for evaluation, hazardous substances abatement, transport and disposal of encountered hazardous and non-hazardous classified soil and liquid wastes which also includes asbestos and lead based paint. The Contract also includes environmental demolition services for Metro owned properties in addition to environmentally related construction services which includes fuel storage tank system upgrades, repairs, removals, replacements in order to remain in regulatory compliance with local, state and federal regulatory requirements. Additional contract requirements include permit assistance, remediation system construction, implementation, and installation; as well as maintenance and operation.

As the need for specific environmental waste handling and construction services arises, staff will

issue Contract Work Orders, Task Orders and changes, from their associated project-specific budgets, considering the information available and applicable time constraints on performance of the work. Most of the work will be negotiated and paid on a fixed price or cost plus fixed fee. Staff will closely monitor the Contractor's budget and schedule using existing project management controls. No funds are obligated until a Task Order is awarded against a valid project. This Contract will replace the existing Environmental Engineering contract, EN077, which expires on December 31, 2017.

Attachment A summarizes the projected costs and associated Projects this contract will be supporting in the next five years. Since this is a multi-year contract, budgeting for future year expenditures that reflect an increase to the award value, will be brought back to the Board for approval.

IMPACTS TO OTHER CONTRACTS

The Contract will continue to support the Metro Purple Line Extension, Crenshaw, Regional Connector and will also be supporting the upcoming Measure M; Large Capital, Highway, Regional Rail and Large Capital Projects in addition to smaller capital projects and the UST/AST Capital Program. The Contract will also support existing projects that because of changed and/or unforeseen site conditions would require the services that are within the scope of work of this Contract.

FINANCIAL IMPACT

As specific environmental waste handling and environmentally related construction services needs arise, Task Orders will be issued and funded from their associated project budgets, upon approval by the responsible Project Managers. The forecasted project efforts from FY18 through FY22 includes support on Environmental Capital Projects related to the environmental demolition of Division 20 Rail Buildings for PLE Section 1 track welding, demolition and remediation of Bus Division 6 TOD and AAA Building for PLE Section 2. In addition this Contract will also be used for the continued management (upgrades due to new regulatory requirements and/or major maintenance repairs) of the Underground Storage Tank systems to current code requirements at all bus and rail divisions and facilities (Project Number 202212). Emergency and Non-Emergency waste handling, transport and disposal services that may be required for the Crenshaw and Regional Connector, Location 61S (Red Line Maintenance of Way), Link US, Redline Portal Widening Projects, and on various capital bus division expansion projects funded through the Site Remediation Project No. 300012.

ALTERNATIVES CONSIDERED

If Contract No. PS20655 is not awarded then Metro could experience increased liability for Contractor claims for delay to schedule completion milestones or risk fines due to violation of order by a regulatory agency. The Metro Board may reject the recommended action and direct staff to do all environmental waste handling and construction support work in house. Metro would have to hire additional staff with expertise in many different subjects, such as waste profiling, trucking and construction crews and laboratory science. Metro would also need to purchase specialized equipment such as loaders, excavators and drill rigs which are not practical or cost effective to acquire or maintain. Metro, in effect, would incur more cost to do the work internally than by employing consultants.

ATTACHMENTS

Attachment A - Forecasted Work, FY18-22

Attachment B - Procurement Summary

Attachment C - DEOD Summary

Prepared by:

Cris B. Liban, Executive Officer, Environmental Compliance/Sustainability

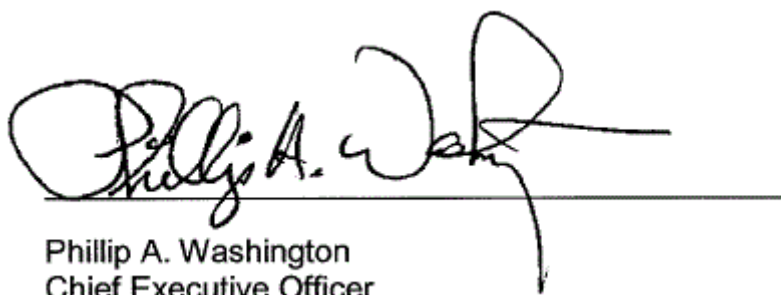
(213) 922-2471

Tom Kefalas, Sr. Director, Environmental Compliance (213) 922-4887

Daniel Robb, Sr. Contract Administrator (213) 922-7074

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

Debra Avila, Chief Vendor/Contract Management Officer (213) 418-3051



Phillip A. Washington
Chief Executive Officer

Attachment A. Forecasted Work, FY18-FY22

Contract No. PS20655, Environmental Waste Handling and Construction Services Contract

Future Projects	FY18	FY19	FY20	FY21	FY22	Total Estimated Contract Value
	Total FY Value	Total FY Value	Total FY Value	Total FY Value	Total FY Value	
Contractor Consultancy Only						
a. UST						
1. D1 - UST Upgrades/Repairs			\$ 150,000		\$ 150,000	\$ 300,000
2. D2 - UST Upgrades/Repairs		\$ 249,000		\$ 20,000		\$ 269,000
3. D3 - UST Upgrades/ 1 EG AST Installation	\$ 25,000	\$ 123,495				\$ 148,495
4. D5 - UST Upgrades/Repairs			\$ 100,000	\$ 250,000	\$ 50,000	\$ 400,000
5. D7 - UST Upgrades/Repairs	\$ 200,000		\$ 500,000		\$ 50,000	\$ 750,000
6. D8 - UST Upgrades/Lid Replacements	\$ 974,000			\$ 200,000		\$ 1,174,000
7. D9 - UST Upgrades/OWS repairs		\$ 460,000		\$ 250,000	\$ 20,000	\$ 730,000
8. D10 - UST Upgrades/Repairs	\$ 150,000		\$ 450,000			\$ 600,000
9. D11 - UST Upgrades/Repairs			\$ 200,000			\$ 200,000
10. D15 - UST Upgrades/Repairs			\$ 190,000		\$ 250,000	\$ 440,000
11. D18 - UST Removals	\$ 750,000	\$ 750,000		\$ 500,000		\$ 2,000,000
12. D20,D22,D61 - AST Installs				\$ 500,000		\$ 500,000
13. D99 - UST Upgrades		\$ 50,000	\$ 100,000			\$ 150,000
14. Permitting & CNG Tank	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000
15. Waste Antifreeze& CNG tank replacements (AST)	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 400,000	\$ 800,000
16. Emergency Task Order	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 250,000
b. Compliance						
1. AST SPCC Inspections	\$ 100,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 700,000
2. AST repairs	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 500,000
3. SPCC development/review	\$ 10,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 70,000
4. Third Party Testing	\$ 10,000	\$ 77,000	\$ 77,000	\$ 77,000	\$ 77,000	\$ 318,000
5. Division 6 Abatement and Demo	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000
6. PLE 1 waste handling remediation	\$ 500,000	\$ 500,000	\$ 400,000	\$ 300,000	\$ 300,000	\$ 2,000,000
7. PLE D20 Abatement and Demo	\$ 3,000,000	\$ 2,000,000				\$ 5,000,000
8. General METRO Haz Waste Handling	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 1,250,000
9. Waste Water and Vault Water Pump Outs	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 375,000
10. Crenshaw	\$ 100,000	\$ 100,000	\$ 100,000			\$ 300,000
11. Regional Connector	\$ 100,000	\$ 100,000	\$ 100,000			\$ 300,000
12. Regional rail		\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 400,000
13. D4 Decommissioning			\$ 2,000,000	\$ 2,000,000		\$ 4,000,000
14. I710		\$ 250,000	\$ 250,000			\$ 500,000
15. D1 Improvements	\$ 2,000,000	\$ 2,000,000				\$ 4,000,000
16. El Monte Busway	\$ 250,000					\$ 250,000
17. Pavement Replacements D7,D8, CMF	\$ 400,000	\$ 250,000	\$ 250,000			\$ 900,000
18. Bus Facilities Deferred Maintenance	\$ 250,000	\$ 250,000				\$ 500,000
19. Div 3 Master Plan		\$ 200,000				\$ 200,000
20. Metro Redline to OL Underpass		\$ 100,000				\$ 100,000
21. 7th and Metro BLOC	\$ 75,000					\$ 75,000
22. d22 Paint and Body Shop		\$ 100,000				\$ 100,000
23. Highways		\$ 100,000	\$ 100,000			\$ 200,000
24. PLE 2 – 8 properties with 6 buildings - ACM/LBP abatement & Foreseen/unforeseen investigation & remediation	\$ 2,500,000	\$ 2,000,000				\$ 4,500,000
25. PLE 3 – 2 properties with 2 buildings - ACM/LBP abatement & Foreseen/unforeseen investigation & remediation		\$ 650,000				\$ 650,000
26. Metro Facilities Roof Replacement Program		\$ 250,000				\$ 250,000
27. Pavement Improvements Phase 2		\$ 200,000				\$ 200,000
28. A13 HVAC System Replacement		\$ 25,000				\$ 25,000
29. New Central Cash Counting Office (Cash Room)		\$ 75,000				\$ 75,000
30. Red/Purple Line Portal Widening		\$ 1,000,000				\$ 1,000,000
31. Expo Supplemental Building		\$ 500,000				\$ 500,000
32. Red Line/Purple Line Warehouse Expansion High Density Storage Equipment		\$ 75,000				\$ 75,000
33. Airport Metro Connector		\$ 750,000				\$ 750,000
Overall ROM	\$ 15,069,000	\$ 14,124,495	\$ 5,907,000	\$ 5,037,000	\$ 2,137,000	\$ 42,274,495

PROCUREMENT SUMMARY

ENVIRONMENTAL WASTE HANDLING AND ENVIRONMENTALLY RELATED
CONSTRUCTION SERVICES / PS20655

1.	Contract Number: PS20655	
2.	Recommended Vendor: TRC Solutions, Inc.	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input type="checkbox"/> RFP <input checked="" type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 2/03/17	
	B. Advertised/Publicized: 2/03/17	
	C. Pre-Proposal Conference: 2/15/17	
	D. Proposals Due: 3/29/17	
	E. Pre-Qualification Completed: 6/27/17	
	F. Conflict of Interest Form Submitted to Ethics: 4/04/17	
	G. Protest Period End Date: 7/24/17	
5.	Solicitations Picked up/Downloaded: 71	Proposals Received: 4
6.	Contract Administrator: Daniel A. Robb	Telephone Number: (213) 922-7074
7.	Project Manager: Emmanuel Liban	Telephone Number: (213) 922-2471

A. Procurement Background

This Board Action is to approve the award of Contract No. PS20655 issued in support of professional engineering services for environmental waste handling and environmentally related construction services projects. Board approval of contract awards are subject to resolution of any properly submitted protest.

The RFP was issued on February 3, 2017, in accordance with Metro's Acquisition Policy and California Government Code §4525 - 4529.5.

The Contract is a Cost Plus Fixed Fee. The Contract period of performance is three years plus two one-year options.

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

- Amendment No. 1, issued on February 27, 2017, extended the proposal due date.
- Amendment No. 2, issued on March 21, 2017, clarified submittal requirements.

Metro advertised the RFP in the Los Angeles Daily News on February 3, 2017, and, in the Los Angeles Sentinel, Rafu Shimpo, World Journal and La Opinion on February 9, 2017. Metro's Client/Vendor Relations sent out post card notices through

either regular mail or e-mail to firms listed in Metro's vendor database, notifying them of this procurement. Additionally, the RFP was listed on Metro's internet website.

On February 15, 2017, a pre-proposal conference was held with 36 representatives from 33 firms in attendance. Seventy one individuals from various firms picked up the RFP.

Metro received four proposals on the March 29, 2017 due date.

1. TRC Solutions, Inc.
2. Burns and McDonnell
3. Arcadis- US., Inc.
3. Parsons Transportation Group, Inc.

B. Evaluation of Proposals

A Proposal Evaluation Team (PET), consisting of staff from Metro's Environmental Compliance and Sustainability Department (ECSD), was convened and conducted a comprehensive technical evaluation of the proposals received.

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

- | | |
|---|------------|
| • Proposer teams capabilities and experience | 26 percent |
| • Role and relevant experiences and capability of the firms on the Prime contractors team | 25 percent |
| • Staff positions identified in the Scope of Services | 25 percent |
| • Project management approach | 20 percent |
| • SBE/DVBE or DBE Contracting Outreach and Mentor Protégé Approach | 4 percent |

The evaluation criteria are appropriate and consistent with criteria developed for other similar Architect and Engineers (A&E) procurements. Several factors were considered when developing the weights, giving the greatest importance to the Proposer team's capabilities and experience.

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

Of the four proposals received, all four were determined to be within the competitive range. The four firms within the competitive range are listed below in alphabetical order:

1. Arcadis - US.,Inc.
2. Burns and McDonnell

3. Parsons Transportation Group, Inc.
4. TRC Solutions, Inc.

On April 26, 2017, the PET conducted oral presentations with 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 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.

Qualifications Summary of Recommended Firm:

The evaluation performed by the PET, in accordance with the criteria set forth in the RFP, determined TRC Solutions, Inc. to be the most qualified firm to provide the services. TRC Solutions, Inc. proposal demonstrated the necessary competence and professional qualifications for the satisfactory performance of the services required.

TRC Solutions, Inc. showed a thorough understanding of Metro's processes and demonstrated the capability to perform the services as reflected by their technical training and education. TRC Solutions, Inc. provided a management plan that demonstrated a thorough approach, and comprehensive understanding of the implementation of the Scope of Services.

TRC Solutions, Inc. demonstrated an experienced tank team that shall substantially benefit the agency in installing and managing storage tanks. The proposed tank subcontractor has extensive experience and demonstrated superior capability in the installation and removal of tanks.

TRC Solutions, Inc. demonstrated an established working relationship with subcontractors and emphasized their contributions by explaining in their Management Plan the strong subcontractor integration into the team. TRC Solutions, Inc. provided examples of past teaming efforts with the proposed subcontractors, showing the capability to work well together.

The PET ranked the proposals and assessed strengths, weaknesses and associated risks of each of the Proposers and recommends TRC Solutions, Inc. as the most qualified firm.

1	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
2	TRC Solutions, Inc.				
3	Proposers Team Capabilities and Experience.	86.67	26%	22.53	
4	Role and Relevant Experience and Capability of the firms on the Prime Contractors Team.	85.00	25%	21.25	
5	Staff Positions Identified in the Scope of Services.	84.00	25%	21.00	
6	Project Management Approach	79.33	20%	15.87	
7	SBE/DVBE or DBE Contracting Outreach and Mentor Protégé Approach.	34.43	4%	1.38	
8	Total		100.00%	82.03	1
9	Burns and McDonnell				
10	Proposer's Team Capabilities and Experience.	76.33	26%	19.85	
11	Role and Relevant Experience and Capability of the Firms on the Prime Contractors Team.	76.67	25%	19.17	
12	Staff Positions Identified in the Scope of Services.	73.67	25%	18.42	
13	Project Management Approach	75.00	20%	15.00	
14	SBE/DVBE or DBE Contracting Outreach and Mentor Protégé Approach.	91.89	4%	3.68	
15	Total		100.00%	76.12	2
16	Arcadis-US				
17	Proposers Team Capabilities and Experience.	73.33	26%	19.07	
18	Role and Relevant Experience and Capability of the Firms on the Prime Contractors Team.	75.00	25%	18.75	
19	Staff Positions Identified in the Scope of Services.	73.00	25%	18.25	
20	Project Management Approach	73.33	20%	14.67	
21	SBE/DVBE or DBE Contracting Outreach and Mentor Protégé Approach.	62.16	4%	2.49	
22	Total		100.00%	73.23	3

23	Parsons				
24	Proposers Team Capabilities and Experience.	73.33	26%	19.07	
25	Role and Relevant Experience and Capability of the Firms on the Prime Contractors Team.	73.00	25%	18.25	
26	Staff Positions Identified in the Scope of Services.	71.67	25%	17.92	
27	Project Management Approach.	70.00	20%	14.00	
28	SBE/DVBE or DBE Contracting Outreach and Mentor Protégé Approach.	62.16	4%	2.49	
29	Total		100.00%	71.73	4

C. Cost/Price Analysis

A cost analysis of labor rates, indirect rates and other costs was completed in accordance with Metro's Procurement Policies and Procedures to negotiate a fair and reasonable price. The analysis includes among other things, (1) a comparison with similar firms offering the same services; (2) an analysis of audited rates and factors for labor, equipment and other prices that will comprise the rates upon which the Contractor will base its invoices, and (3) compliance with both the Federal Acquisition Regulation (FAR) guidelines and Generally Accepted Accounting Principles (GAAP). Metro negotiated and established direct labor rates plus provisional indirect rates and a factor for calculating a fixed fee. The pricing for each task order will utilize the rates, plus the negotiated fixed fee factor, to establish a lump sum price or a not-to-exceed cost reimbursable amount plus a fixed fee.

An audit request has been submitted to the Metro Management Audit Services Department (MASD). In order to prevent any unnecessary delay in contract award, provisional rates have been established, subject to retroactive adjustments upon completion of any necessary audits. In accordance with FTA Circular 4220.1.F, if an audit has been performed by any other cognizant agency within the last twelve month period, Metro will receive and accept that audit report for the above purposes rather than perform another audit.

Proposer Name		Proposal Amount*	Metro ICE*	Recommended NTE Amount
TRC Solutions	Base Contract for Years 1-3	N/A	\$35,100,495.00	\$35,100,495.00
	Option for Years 4-5	N/A	\$7,174,000.00	\$7,174,000.00
	Total Contract Value (Base + Option)	N/A	\$42,274,495.00	\$42,274,495.00

***Note:** A proposal amount was not applicable. This is a Cost Plus Fixed Fee (CPFF) Task Order Contract with no definable level of effort for the Scope of Work. As described in the cost analysis section one, hourly labor rates, overhead and fee, were negotiated and determined to be fair and reasonable. The total contract amount shall not be greater than the recommended NTE amount.

D. Background on Recommended Contractor

The recommended firm, TRC Solutions, Inc. is a publicly-traded Irvine, CA based consulting firm that has been providing environmental consulting services for over forty years to clients nationwide. TRC has successfully worked for Metro in the past on projects of a similar size and scope. In addition, TRC provides environmental services to such clients as BNSF Railway, ConocoPhillips Petroleum, Sempra Energy and Kinder Morgan Energy Partners.

DEOD SUMMARY

**ENVIRONMENTAL WASTE HANDLING AND ENVIRONMENTALLY RELATED
CONSTRUCTION SERVICES/ PS20655**

A. Small Business Participation

The Diversity & Economic Opportunity Department established a SBE goal of 30%, inclusive of a 27% SBE and 3% DVBE goal, and a 25% DBE goal. TRC Solutions, Inc.'s (TRC) proposal included Small Business Enterprise (SBE), Disabled Veteran Business Enterprise (DVBE) and Disadvantaged Business Enterprise (DBE) firms without schedules or specific dollar commitments prior to the establishment of the this on-call contract. TRC Solutions exceeded the goal by making a 32% SBE, 3% DVBE and 30% DBE commitment.

This on-call contract has federal, state, and Measure M funding. Overall SBE/DVBE and DBE participation for this on-call contract will be determined based on the funding source and the aggregate of all Task Orders awarded.

Small Business Goal	27% SBE 3% DVBE 25% DBE	Small Business Commitment	32% SBE 3% DVBE 30% DBE
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Prime: TRC Solutions, Inc.

	SBE Subcontractors	% Committed
1.	Acoustics Group	TBD
2.	A-Tech Consulting, Inc.	TBD
3.	Calvada Surveying	TBD
4.	GCAP Services, Inc.	TBD
5.	HTS Environmental Services	TBD
6.	Martini Drilling Corp.	TBD
7.	SunWest Engineering Constructors	TBD
8.	The R.E.M. Engineering Co., Inc.	TBD
9.	The Sanberg Group	TBD
10.	The Sierra Group	TBD
	Total SBE Commitment	32%

	DVBE Subcontractors	% Committed
1.	Calvada Surveying	TBD
2.	The R.E.M. Engineering Co., Inc.	TBD
3.	The Sanberg Group	TBD
	Total DVBE Commitment	3%

	DBE Subcontractors	Ethnicity	% Committed %
1.	A-Tech Consulting	Caucasian Female	TBD
2.	GCAP Services, Inc.	Hispanic American	TBD
3.	Global Probe, Inc.	Hispanic American	TBD
4.	Martini Drilling Corp.	Hispanic American	TBD
5.	SunWest Engineering Constructors	Caucasian Female	TBD
6.	The Sanberg Group	Caucasian Female	TBD
7.	The Sierra Group	Hispanic American Female	TBD
	Total DBE Commitment		30%

B. Contracting Outreach and Mentoring Plan

TRC Solutions, Inc. submitted a Contracting Outreach and Mentoring Plan (COMP) and committed to mentor four (4) firms as required to be responsive.

C. Living Wage and Service Contract Worker Retention Policy Applicability

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

D. 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).

E. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract.

**Board Report**

File #: 2017-0427, **File Type:** Informational Report

Agenda Number: 26

**CONSTRUCTION COMMITTEE
JULY 20, 2017**

**SUBJECT: ALTERNATIVE FINANCING MECHANISM FOR
RENEWABLE ENERGY AND ROOF REPLACEMENT**

**ACTION: REAFFIRM THE USE OF POWER PURCHASE AGREEMENT TO IMPLEMENT
A DESIGN-BUILD PROJECT AND APPROVE USE OF DESIGN-BUILD
PROJECT DELIVERY METHOD FOR ROOF REPLACEMENTS AND SOLAR
PHOTOVOLTAIC SYSTEMS**

RECOMMENDATION

CONSIDER:

- A. REAFFIRMING the use of a Power Purchase Agreement (PPA) to implement a design-build project at Divisions 9, 11, 14 (Expo Yard), and 22 (see Funding and Operating Sustainability-Related Infrastructure report, attached as Attachment B) including the design, construction and installation of new roofs for Divisions 11 and 22 to be paid for through a PPA; and
- B. FINDING that use of the design-build contracting delivery approach pursuant to Public Utilities Code Section 130242, et. seq. will achieve certain private sector efficiencies in the integration of the design and construction by providing for the award of a design-build contract to the lowest responsive and responsible bidder for the installation of new roofs at Divisions 11 and 22 and installation of solar photovoltaic ("PV") systems at Divisions 9, 11, 14, and 22, which will be solicited through either an Invitation for Bid (IFB) or Request for Proposal (RFP) procurement method.

ISSUE

Pursuant to Metro's Renewable Energy Policy attached as Attachment A, Metro has committed to a 66% renewable energy use goal by 2020. One of the strategies that Metro has employed to achieve that goal is to install solar PV systems on its facilities at various Metro properties (see Funding and Operating Sustainability-Related Infrastructure report, attached as Attachment B). That authority allows the use of Renewable Energy Power Purchase Agreements (PPAs). This mechanism allows for guaranteed revenue to repay the investment of renewable energy systems or rental of land or roof

space to 3rd party providers.

Staff's assessments and evaluation studies conclude that four of the optimal locations among Metro's real property assets for the installation of solar PV systems are Metro Divisions 9, 11, 22, and the Expo Yard. Staff also determined that based on available utility programs at these locations as well as available incentives, use of a PPA (discussed further below) would be appropriate ("**Solar PPA Project**"). The Solar PPA Project would generate energy for Metro's consumption that will offset a portion of the utility-provided energy at such sites, and is projected to result in energy cost savings.

Roof replacement work ("**Roof Replacement Work**") is necessary to support the installation of solar PV equipment at Divisions 11 and 22. The roofs at these Divisions are at the end of their useful life and are already being scheduled to be replaced. Existing structures at these divisions also need to be reinforced to accommodate the future solar PV systems load.

DISCUSSION

As described above, the proposed Roof Replacement Work is necessary in order to facilitate the installation of the Solar PPA Project. This section of the report provides a discussion of how the PPA works as well as the additional details on the justification of the Roof Replacement work.

Solar PPA Project

Staff anticipates that the Solar PPA Project will be implemented by way of a public-private partnership in the form of a solar PV PPA transaction authorized pursuant to Government Code ("GC") Section 4217.10 *et seq.* A PPA transaction is among the various alternative financing strategies that have been identified by staff for project delivery, as described in the attached report on Alternative Financing Mechanisms for Energy Projects dated May 15, 2013, attached as Attachment D. In a PPA transaction, Metro would license or lease its property to a third party solar energy provider ("**Power Provider**"). The Power Provider installs the solar PV system on Metro's property, and Metro purchases solar energy from the Power Provider at a negotiated cost, which cost is projected to be less than the anticipated marginal cost to the agency that would have otherwise been consumed from other sources. The Power Provider, selected through a competitive solicitation process pursuant to the contracting authority sought hereunder, will design, finance, and furnish the solar PV system, and maintain the system for at least twenty (20) years. The amount of energy produced by the solar PV system and the net monetary savings to Metro shall be guaranteed in the form of PPA performance incentives that focus on kilowatt hours to be generated and costs avoided.

Upon completion of the analysis of the best Solar PPA Project, staff will seek Board approval for the award of the PPA contract in compliance with the requirements of GC Section 4217.10 *et seq.*

Roof Replacement Work

The roofs at Divisions 11 and 22 were installed approximately 26 and 21 years ago, respectively. Maintenance service requests files reviewed by staff show repairs made due to roof leaks, drywall repair, repainting, and mold remediation among others. It is therefore timely that the repair of these roofs occurs in conjunction with the Solar PPA Project. The Roof Replacement Work will be conducted according to or consistent with all applicable codes, and furthermore, the technical specifications will require that the roofs have the structural capacity to accommodate solar PV system facilities.

The Roof Replacement Work will be solicited as part of the PPA solicitation and will be installed as part of the awarded contract resulting from the solicitation.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an adverse impact on safety standards for Metro. It will however increase safety for Metro maintenance and contractor personnel that may be required to maintain the PV equipment as well as other projects that should become more energy and operationally efficient.

FINANCIAL IMPACT

Funding for staff support of this project will come from Project Number 450003, Miscellaneous Contingency-Capital Construction, in Cost Center 8510. Since the roof is to be funded through the PPA, there will be no additional funding that is required of Metro for capital and operations and maintenance during the life of the solar panels.

Since this is a multi-year capital project, the cost center manager and Chief Program Management Officer and the Executive Officer, Environmental Compliance and Sustainability will be responsible for budgeting in future years.

Impact to Budget

FY18 funding required for this project comes from Proposition A 35% cash/bonds.

The Solar PPA Project and the Roof Replacement Work will be funded and financed by the Power Provider who will be awarded the PPA contract at a later date, following Board approval. Staff will provide additional information at the time that staff seeks Board approval for awarding of the contract for the Roof Replacement Work and Solar PPA Project.

ALTERNATIVES CONSIDERED

Metro has committed to using up to 66% of its energy from renewable energy sources. Installation of

solar panels at our facilities has been employed for some time. We have an opportunity through this project to replace roofs that are at the end of their useful life at Divisions 11 and 22 as an integral part of our renewable energy program.

The Board may reject the request to use the PPA alternative financing mechanism contract for Solar PPA Work and the Roof Replacement Work; and consequently force Metro to simply replace the roof at our own cost and in the future retrofit for the installation future installation of solar panels. This series of steps will have a cumulative effect on our achievement of our renewable energy use goal, protecting employee health, and replacing our infrastructure with as small capital outlay to our agency as possible.

NEXT STEPS

After the recommended Board Action is approved, staff will release an Invitation for Bids (IFB) to solicit a design-build contractor for the PPA and to install the new roofs at Divisions 11 and 22. Upon evaluation of the IFB bids, staff will seek Board approval prior to award of contract.

ATTACHMENTS

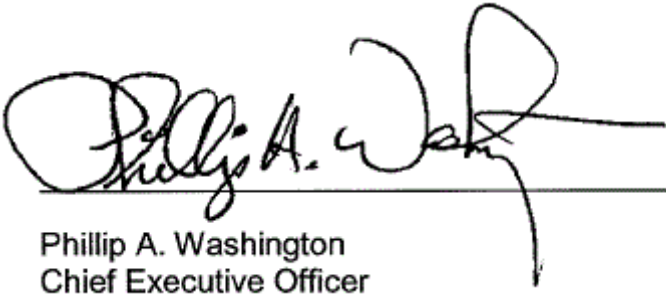
- Attachment A - Renewable Energy Policy
- Attachment B - Funding and Operating Sustainability-Related Infrastructure report
dated September 18, 2014
- Attachment C - Report on Design Build, November 19, 2015
- Attachment D - Report on Alternative Financing Mechanisms for Energy Projects
dated May 15, 2013

Prepared by:

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Phillip A. Washington
Chief Executive Officer

**Metro**Los Angeles County
Metropolitan Transportation AuthorityOne Gateway Plaza
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metro.net**AD HOC SUSTAINABILITY COMMITTEE
SEPTEMBER 14, 2011****SUBJECT: RENEWABLE ENERGY POLICY****ACTION: ADOPT RENEWABLE ENERGY POLICY****RECOMMENDATION**

Adopt the Los Angeles County Metropolitan Transportation Authority (LACMTA) Renewable Energy Policy to develop and implement renewable energy technology applications, where feasible and practicable, to minimize non-renewable energy use in all of LACMTA capital assets or projects.

ISSUE

Sustainability and energy efficiency is a central LACMTA focus and commitment, cutting across virtually all aspects of the agency's mission, vision, values, and core business goals. We annually spend on average approximately \$26 million for electricity. About \$7 million of this total amount is for operation of bus and rail maintenance facilities, layovers, terminals, and headquarter buildings. The remaining are for propulsion power.

As the years progress, we have seen electricity costs rise due to periodic utility rate adjustments. We believe that in the volatile and costly energy market, embracing sustainability, energy efficiency, conservation, and implementation of renewable energy sources is a primary pathway towards gaining control of, and reducing our energy usage and costs and gaining energy independence.

LACMTA has already deployed and is using over two megawatts of electricity from renewable energy sources (i.e., photovoltaic sources exclusively) at three of our Bus Divisions and the Metro Support Services Center. One megawatt of power can power approximately 800 to 1,000 homes. This current portfolio represents approximately 2% of the energy needs of our agency.

A motion was passed by our Board of Directors in February 2011 calling for the establishment of a "Metro Renewable Energy Policy". The motion recognized that

under Measure R and the 30/10 plan, the projected expansion of the Metro system, including approximately 70 miles of light and heavy rail lines, will have substantial effect upon the projected cost of energy required in order to operate the Metro system.

The motion called for a review of the following elements:

- Assessment of technical feasibility for off-track, and on-track renewable power, including canopies, substations, parking lots and park 'n rides, landscaped areas, utility poles, tunnels, garages, maintenance buildings, etc., as well as creative renewable energy solutions.
- Life-cycle financial considerations including cost (i.e., initial capital as well as maintenance and replacement costs and life-cycle cost analysis).
- Use of creative financing mechanisms (such as Feed-in-Tariff, Power Purchase Agreements, ground leases, Public/Private Partnerships and State and Federal grants).
- Inclusion of life-cycle cost analyses for renewable energy use in awarding construction contracts for new lines.
- Existing industry and government guidelines for evaluating renewable energy and energy efficiency in new transit projects and discussion of their potential application to Metro projects.
- Retrofitting existing light rail, subway and bus rapid transit corridors for solar and other renewable power systems.
- Opportunities to partner with local power utilities.

The motion also called for a proposed plan of action and identification of specific opportunities for incorporating renewable energy (solar and other renewable power systems) and energy efficiency measures into existing and new transit projects. The motion requires that the Renewable Policy and plan should include the installation of a demonstration renewable energy system (preferably but not limited to solar panels) on at least one existing station as a demonstration project.

An amendment to the motion further indicated that the review and study of a proposed agency Policy, plan of action, and identification of specific opportunities be initially assigned to the Ad Hoc Sustainability Committee in order to put a greater focus on the issues during the development period. Once the policy has been developed with a Plan of Action and opportunities identified, the Renewable Energy Policy and project opportunities would return to the Operations Committee for the pursuit of implementation.

DISCUSSION

There have already been a number of staff initiated assessments on the subject of renewable energy such as the completion of a Solar Assessment Feasibility Study for all facilities; the completion of a Wind Energy Feasibility Study for our North San Fernando Valley bus divisions; and the completion of a wind energy study in our subway tunnels. Staff is also currently conducting an on-board energy conservation and technology study for rail vehicles; and an energy efficiency assessment of all Metro facilities to assess utility use and cost baseline as part of a feasibility study on opportunities to deploy energy-efficiency strategies leading to the Leadership in Energy and Environmental Design-Existing Building Operations and Maintenance (LEED®-EBOM) certification of the buildings.

Staff is developing a comprehensive Energy Conservation and Management Plan (Energy Plan) that outlines both our supply and demand strategies to reduce energy use and costs in the maintenance and operation of our overall system. The Energy Plan further provides the guiding principles and implementation procedures in the management of the use and supply of electricity and natural gas, and identifies a proposed management plan to implement the identified energy strategies.

Renewable energy-related pilot or demonstration efforts are currently being planned or underway such as the following:

1. Wind Tunnel Energy – Subway Lines – projected to be installed along Red Line: Staff has conducted tests to understand the feasibility of wind tunnel renewable energy generation at our Red Line subway tunnel. Results indicate the potential of the technology. Staff had recently completed a Transit Investment for Greenhouse Gas and Energy Reduction (TIGGER) grant application for use in a pilot scale demonstration. A related procurement will be carried out to implement the pilot project when TIGGER funds are secured.
2. Solar Panels – Buildings – project selected at El Monte Station on Silver Line: Solar panels will be deployed at the new facility being constructed at our El Monte Station on the Silver Line and procurement will soon be advertised. This project will be used to demonstrate how solar panels are installed on new transit infrastructures.
3. Renewable Energy Project – Transit Facilities/Large Scale – project not yet selected: Following adoption of the proposed policy, LACMTA will begin the evaluation of one or more large-scale demonstration projects. The relatively large size and type of these projects will most likely require the approval of the procurement by the LACMTA Board in advance of issuing a solicitation document. While a potential scope of work has been considered, Metro will need further consultation with our agency's procurement team to better understand the types of proposals that may be feasible for such a comprehensive and large scale renewable energy project. Examples of the

types of parcels where this can be implemented include, but are not limited to: linear right of way corridors; vacant or excess land not currently in use; park and ride lots; and similar types of parcels.

4. Solar Panels – Transit Facilities/Small Scale – project selected along the Blue Line: It has been suggested that the Pico Station be the initial location for this pilot. This project will illustrate implementation of solar installations at relatively small scale structures. However, there is likelihood that the Pico Station would be modified when the proposed football stadium plans are finalized. As this policy will already be in place at that time; along with a requirement to rebuild the Pico Station, there should be a consideration of a much larger cost-neutral renewable energy source at the location. Other locations will be considered for possible implementation of this type of pilot project.

While there is now significant staff initiated momentum in exploring renewable energy sources and implementation of energy efficiency strategies, the adoption of a focused Renewable Energy Policy allows for the strategic implementation and expansion of functional and cost-effective renewable energy technologies within the Metro system. The provisions of the proposed Renewable Energy Policy complement the intent of our existing Environmental Policy and Energy and Sustainability Policy.

Staff further recommends that a measurable goal be incorporated into the Renewable Energy Policy to accomplish the policy's intentions. LACMTA currently uses approximately 20% of its total energy from renewable energy sources. These come from within our own renewable energy portfolio as well as those from the utilities.

There is already a state mandate for California utility companies to procure 33% of their total energy supplies from certified renewable resources by the year 2020. However, factors such as:

- local constraints that includes current and near-term economic conditions;
- decreasing availability and amount of energy rebates;
- viability of incorporating renewable energy projects in the context of accelerated Measure R projects' implementation;
- lack of control over unit costs of energy;
- as well as fast evolving renewable technology advances that may create operations and maintenance challenges if deployment of existing technologies is carried out significantly ahead of more cost-effective ones

altogether present challenges for a non-utility organization like the LACMTA.

Nonetheless, staff recommends a stretch goal of an additional 13% renewable energy use by 2020 above our current usage baseline of 20%. This will be achieved through the continued deployment of applicable, feasible, and practicable renewable energy sources at our sites as well as accounting for the increase in renewable energy portfolios of utilities supplying energy to our agency.

Staff recommends that this renewable energy goal be reviewed every five years to assess the continued viability of such a goal and make adjustments, if needed, to ensure the continued incorporation of renewable energy into Measure R and other agency capital assets and projects.

FINANCIAL IMPACT

Renewable energy project development and deployment requires higher up-front capital investment than conventional energy sources. At the same time, the associated benefits are not necessarily reflected in these project capital costs. Innovative strategies are needed to increase investment, spread cost over the life-cycle, and reflect the multiple benefits of renewable energy and energy efficiency.

Cost is however one of the primary considerations in the selection of appropriate renewable energy technologies that will be considered in any of our capital assets and projects. The Cost criteria examines the cost-competitiveness of the renewable energy technology based upon the cost of constructing the project(s) or retrofitting existing facilities or equipment; their on-going short-term and long-term operation and maintenance; and their overall life-cycle expenses costs relative to the baseline cost of non-renewable energy to achieve the same functional objective. In existing facilities, energy efficiency retrofits and retro-commissioning shall be compared together with renewable energy technology applications for combined life-cycle cost-effectiveness.

Staff will be examining various financial mechanisms, including incentives, subsidies, and deal structures that can aid in the development and deployment of renewable energy projects. Included in the analysis are financial mechanisms that are available to renewable energy developers including incentives and subsidies (feed-in tariffs, rebate programs, state and federal grants, and loans) and deal structures (power purchase agreements, ground leases and public-private partnerships). Any of these mechanisms are applicable and feasible to aid in the development and deployment of renewable energy in any of our capital assets and projects.

No Measure R funds will be used in the implementation of renewable energy projects. Staff will deploy renewable energy projects that will be as close to cost-neutral to the agency as possible.

ALTERNATIVES CONSIDERED

Rejection of the recommended Board action is inconsistent with the intent of the Board approved motion to develop a comprehensive renewable energy policy for Metro. LACMTA will also miss the revenue-generation opportunities that may be associated with some of the incentives or deal structures, for example feed-in-tariffs. Feed-in-tariff

revenue can possibly offset maintenance costs associated with previously deployed renewable energy projects.

NEXT STEPS

After the proposed Renewable Energy Policy is adopted by the LACMTA Board, staff will continue the procurement of the identified pilot or demonstration renewable energy projects. The finalized Energy Plan will also be implemented as the guide to manage our use and management of energy resources in general; including the increase in our renewable energy portfolio.

A Request for Information and Qualification will be developed to solicit interest in developing the most comprehensive renewable energy program that can be implemented at LACMTA both short-term and long-term to achieve our renewable energy goal as close to cost-neutral as possible.

ATTACHMENT

- A. Los Angeles County Metropolitan Transportation Authority Renewable Energy Policy

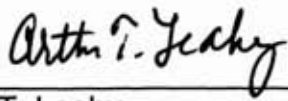
Prepared by: Cris B. Liban, Environmental Compliance and Services Department
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**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
RENEWABLE ENERGY POLICY**

POLICY STATEMENT

The Los Angeles County Metropolitan Transportation Authority (LACMTA) will develop and implement renewable energy technology applications, where feasible and practicable, to reduce non-renewable energy use in all LACMTA capital assets or projects.

PURPOSE

This policy provides guidance in 1) identifying criteria that can be applied to the feasibility, selection and application of a renewable energy technologies; 2) applicability of the Renewable Energy Policy; and 3) collaborative opportunities for funding the implementation of feasible and practicable renewable energy-related projects on or any LACMTA capital asset or project.

COMMITMENT

This Renewable Energy Policy complements the implementation of the LACMTA Environmental Policy and Sustainability and Energy Policy to identify cost-effective solutions to reducing non-renewable energy usage and increasing costs; and to ensure that our current and future energy-related activities would have minimal human health, environmental, and climate change impacts.

The LACMTA also commits to a renewable energy use stretch goal of 13% above its current baseline of 20% by the year 2020. This goal will be measured as the percentage of energy use from any renewable source (including those from the utilities' sources) compared to the amount of total energy used by LACMTA. This goal will be revisited every five years and will be adjusted accordingly to ensure the continued implementation of Measure R projects. Measure R funds will not be used to achieve this goal nor to implement the intent of this policy.

RENEWABLE ENERGY SELECTION CRITERIA

The LACMTA will consider the feasibility, selection, and implementation of applicable, feasible, and practicable renewable energy technologies at any of our capital assets and projects by comparing renewable energy technologies to one another considering the following criteria:

- 1) Cost: Potential renewable energy applications shall be analyzed for cost competitiveness based upon the cost of constructing the project(s) or retrofitting existing facilities or equipment; their on-going short-term and long-

term operation and maintenance; and their overall life-cycle expenses costs relative to the baseline cost of non-renewable energy to achieve the same functional objective. In existing facilities, energy efficiency retrofits and retro-commissioning shall be compared together with renewable energy technology applications for combined life-cycle cost-effectiveness.

- 2) Environmental Benefit: Renewable energy alternatives or low emissions high-efficiency energy applications, shall be analyzed for environmental benefits relative to the baseline utility electricity (or natural gas, for some solar water heat systems) based on greenhouse gas emissions that would be avoided, and as appropriate, environmental and public health and safety benefits.
- 3) Land Use Efficiency: Renewable energy applications shall reflect efficient land use in terms of the area a renewable energy project or system occupies for each unit of power it can generate.
- 4) Peak Shaving Benefit: The ability for renewable energy alternatives to offset peak non-renewable energy consumption shall be quantified.
- 5) Hedging Benefit: Renewable energy alternatives shall have their ability to contribute to or enhance price and supply certainty to LACMTA quantified relative to baseline energy use.
- 6) Local Content Use: Renewable energy applications shall utilize, where cost-effective and appropriate, equipment manufactured within Southern California.

APPLICABILITY

Once the field of possible renewable energy projects have been evaluated and compared to one other and applicable, feasible, and practicable renewable energy technologies are selected, they will be applied to capital assets and projects as follows:

- New Facilities and Transit Corridors and Projects: Selected renewable energy technologies shall be considered in all new projects from the early development, design and procurement stages, where practicable and feasible. Where applicable, feasible, and practicable, the selected project level renewable energy technology shall be combined with energy efficiency technologies.
- Existing Facilities and Capital Assets: Energy efficiency retrofits and retro-commissioning shall precede renewable energy technology applications. Renewable energy technology considerations will only commence after energy use is optimized. The LACMTA recognizes that renewable energy applications may precede energy efficiency retrofits if upfront cost and life-cycle benefits of renewable energy applications significantly outweigh those of energy efficiency retrofits.

In both cases, selected renewable energy technologies shall be compared with baseline energy supply for life-cycle benefits and costs to determine whether to proceed with the renewable energy technology for the project.

FUNDING AND COOPERATIVE OPPORTUNITIES

LACMTA shall work cooperatively with Federal, State, and local jurisdictions, Energy Services Corporations, utility companies, and other third parties to explore, develop, and engage in the innovative financing strategies to increase renewable energy investment and usage, spread cost over the life-cycle, and reflect the multiple benefits of renewable energy and energy efficiency in all LACMTA capital assets and projects. Deployment of any renewable energy technology at any capital asset or project shall be to the maximum benefit of the LACMTA.

QUANTIFICATION AND REPORTING OF RENEWABLE ENERGY USAGE AND BENEFITS

No later than 18 months after policy adoption and annually thereafter, LACMTA shall incorporate in the annual Sustainability Report the information generated from the implementation and operation of this Renewable Energy Policy including:

- 1) A description of the renewable energy projects planned or deployed;
- 2) Quantification of the resulting greenhouse gas emissions, cost savings, and revenue generated (if any) resulting from the use of renewable energy technologies and energy retrofits (in the case of existing buildings, facilities and equipment);
- 3) A description of other appropriate measures of progress;
- 4) A description of implementation challenges; and
- 5) Recommendations for any policy changes.



Metro

Los Angeles County
Metropolitan Transportation Authority

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**EXECUTIVE MANAGEMENT COMMITTEE
SEPTEMBER 18, 2014**

**SUBJECT: FUNDING AND OPERATING SUSTAINABILITY-RELATED
INFRASTRUCTURE**

**ACTION: ADOPT METRO SUSTAINABILITY INFRASTRUCTURE
IMPLEMENTATION AND OPERATIONAL PLAN**

RECOMMENDATION

Authorize the Chief Executive Officer (CEO) to:

1. adopt and implement a long-term financial and operational plan for sustainability-related projects to maintain their optimum performance and maximize environmental benefits; and
2. use proceeds from Low Carbon Fuel Standard (LCFS) credits sales along with any cost-savings, utility allowances and incentives, and any interest earned from the investment of these funds that are generated from sustainability-related infrastructure to specifically continue the implementation, operations, and maintenance of Metro's sustainability-related infrastructure.

ISSUE

Metro's ongoing investment in its sustainability-related infrastructure continues an almost decade-long commitment to dedicating resources to further advance resource-saving assets. Since 2005, Metro has completed 37 projects, realizing nearly \$2 million in yearly cost savings from the operation of these assets.

On February 27, 2014, the Metro Board of Directors approved a motion by Director Ridley-Thomas on Sustainability-Related Infrastructure, Operations and Maintenance. This Board Report is a response to Section 2 of the Motion to: a) assess how the current sustainability-related infrastructure (including renewable energy projects, green buildings and related assets) are operated and maintained; and b) develop a long-term financial and operational plan to maintain the optimum performance of sustainability related-infrastructure which includes a plan to use the Low Carbon Fuel Standard (LCFS) credits, along with any cost-savings generated from current and future

sustainability-related infrastructure to specifically continue the implementation, operations, and maintenance of Metro's sustainability-related infrastructure; and a comprehensive implementation plan to ensure that financial, infrastructural, and operational elements of sustainability-related infrastructure are incorporated in all of Metro's activities.

The Board's continued support of our on-going sustainability-related infrastructure demonstrates its confidence in the value that these projects bring to our agency. In addition, these projects reflect Metro's continued commitment to continually reduce the agency's environmental impacts while simultaneously creating cost-effective and resource conserving value to the projects that we are building to expand our current rail and bus system.

All of our best practices are concurrently being documented through the Federal Transit Administration (FTA) initiated Environmental Management System (EMS) under a process of continual improvement. As evidenced by numerous and varied recognitions and financial support from Federal, state and local funding organizations, *Metro has evolved as a world class sustainability and environmental leader in the transit industry.*

Large-scale investments in solar photovoltaic systems dominate our current sustainability-related infrastructure. These are valuable assets that are devoid of any electricity costs and contribute toward meeting Metro's Renewable Energy Policy goals of 33% renewable energy use by 2020. A more recent focus on implementing energy efficiency, energy cost management, and implementation of other utility cost-saving protocols and processes in new and existing buildings has resulted in a more balanced and diversified portfolio of sustainability-related assets. Such a shift allows Metro to implement future cost-savings projects while meeting concurrent Environmental, Energy, Sustainability, and Renewable Energy Policy goals. In addition, staff has also recognized other opportunities in the areas of water conservation, storm water re-use, energy recovery processes, and reduction in waste generation that are being developed (and in many cases already being implemented) as future sustainability assets.

Annual Board authorized funding to implement cost-saving ideas has been the cornerstone of these innovations; and serve to continually feed new feasible construction and operationally cost-effective projects, such as those being built as part of Measure R-funded infrastructure. More importantly, as their implementation are managed through the plan-do-check-act protocol of the EMS, agency-wide barriers are broken down and projects ideally should be conceptualized and planned, constructed or installed, and operated and maintained seamlessly.

The assessment of the existing sustainability-related infrastructure at Metro (Attachment A) identified gaps in the current approach; specifically for maintaining the current asset base to ensure the realization of projected cost-savings. This therefore requires action to address different aspects of current and future sustainability investments and maintain them in a state of good repair. These gaps provide a very clear signal that continued maintenance deferment of sustainability-related infrastructure will reduce and

eventually eliminate the unique benefits that arise from investments made by our agency in these assets.

A sustainability infrastructure implementation and operational plan that details a transparent process to evaluate, implement, and maintain the portfolio of potential future sustainability project investments; and a financial plan for identifying and securing funding for these investments that mitigates the financial impact on our agency are necessary to ensure ongoing implementation and proper operation and maintenance of sustainability-related projects under a comprehensive continual improvement process in an EMS framework.

DISCUSSION

As a public transportation agency, Metro is, at its core, a sustainability asset. Specifically throughout the last ten years, Metro's longstanding commitment to improving operational efficiency and reducing the financial and environmental impact of its operations has also yielded an extensive inventory of assets that must be both maintained and kept in a state of good repair. However, along with other public transportation agencies throughout the country, Metro also faces the challenge of simultaneously addressing:

- Aging infrastructure and deferred maintenance;
- Decreasing operational budgets;
- Expanding system resource demands; and
- Increasing regulations.

Metro's environmental program and organizational sustainability initiatives have operated under an ISO 14001-certified EMS framework and benefited from a comprehensive process of evaluating and implementing value-creating and cost-saving projects. Within this framework, staff at all levels of the organization in any Metro business unit are able to collaboratively provide input for the implementation of innovative ideas that reduce overall Metro environmental impacts from its operations while simultaneously enhancing the safety of our existing and future system. In the past six years since the FTA's technical assistance to establish EMS here at Metro, staff was able to identify and address many of the long-term operational environmental and safety issues through sustainability-related capital improvements and projects. If not for these efforts, many repeatedly identified issues would not have been solved due primarily to the lack of available funding that can be programmed for the forthcoming fiscal year.

Metro's structural deficit is real and implementing cost-saving measures to create greater operational and infrastructural value will further reduce costs to operate the current and future expansion of our system. Identification of a number of resource efficiency and cost saving measures in the past few years through studies, pilots, and audits has enhanced the robustness of our sustainability efforts. We are now able to implement many of these projects initially as pilots, and once proven to be of significant benefit and feasible for agency-wide implementation are rolled out agency-wide into

existing facilities and into new major construction or part of capital improvement projects.

Metro sustainability-related infrastructure includes investments that are made in Metro's facilities, technologies, fleet, people, and processes that:

- directly contribute to the reduction in resource usage beyond an established baseline for electricity, natural gas, other non-renewable fuels, water, hazardous substances, or
- directly reduce greenhouse gas emissions (GHGs), other air emissions, wastewater, solid waste, other environmental impacts, or
- directly increase operational efficiency, staff productivity and well-being, and customer satisfaction beyond standard operations, while maintaining safety and system reliability.

Given the breadth of Metro's sustainability activities in all facets of the organization, we establish boundaries of this definition (for the purposes of the use of available future self-funding mechanisms) to include direct impacts from a capital program, like reduced energy and water usage in operations, and leave out the numerous indirect benefits associated with operating a public transit system.

Metro's list of sustainability-related assets includes, for example, the construction of energy efficient buildings, generation of approximately two megawatts of renewable energy through solar photovoltaic systems, energy recovery and materials recycling projects, water and water-reuse conservation projects (including those that recycle carwash water and store or re-use storm water), and recycling of construction and demolition debris (such as the use of recycled concrete from the I-405 demolition for use as sub-base in the Metro Orange Line Extension). These efforts have reduced energy and resource use, generated operational cost savings, created productive work spaces, and reduced the environmental impacts of Metro's construction and operations. Utility partners have also paid Metro cash incentives to buy down the cost and enhance the region's resource efficiency. Staff continues to explore new and innovative technologies to improve the agency's environmental performance and reduce costs.

Metro contributes to the sustainability of the Los Angeles region by improving air quality, reducing congestion, and providing mobility. In the past few years, the agency has fully developed existing sustainability-related infrastructure that has and continues to generate significant value and cost-savings to our overall operations. Investment in projects that actually reduce operational costs is critical and very important as Metro phases in the forthcoming operation of Measure R projects. Funding for any planned sustainability and sustainability-related projects is approved on an annual basis.

Reporting of our progress in these projects is provided through the annual Sustainability/Energy and Resource Report as well as through the Annual Energy Management Program update. Metro measures itself against metrics that have been developed through the American Public Transportation Association (APTA)

Recommended Practice process. Metro is the first and currently only Platinum Level APTA Sustainability Commitment Recognition awardee in the whole nation. This serves as testament to our excellence in environmental stewardship.

All capital projects are now also required to develop and implement a Sustainability Plan with required reporting to advise Metro of the project's adherence to Metro adopted policies. Such reporting encourages the development and implementation of innovative ideas and tasks within any size construction project; and ensures the steady progression towards the completion of these projects in the most cost-effective way.

The Office of Management and Budget manages Metro's annual capital program to successfully meet the needs of Metro's operations. Staff has conformed to these guidelines in the implementation of sustainability capital projects. Metro's EMS framework provides for a mechanism to regularly monitor and report sustainability infrastructure performance in addition to the identification and implementation of future opportunities. The recently concluded sustainability-related infrastructure assessment identified lower than expected performance from several key sustainability assets such as Metro's solar photovoltaic (PV) systems.

Sustainability-related infrastructure can and will increasingly directly affect operations in ways that may be outside standard operating procedures. New sustainability assets are likely to involve greater technology sophistication and alternative systems and processes. To maximize their benefits, there is a need to ensure that proper maintenance requirements of these assets are also instituted. Metro's solar PV systems represent a primary example of this challenge.

Solar PV systems require a specific set of maintenance procedures to operate properly. Until recently, Metro made limited provisions to provide staff with the appropriate training in this area because the cost and responsibility to do so has not been properly planned and assigned. Metro currently has installed solar PV systems at five locations, with a sixth location at Division 13. Historically, the project costs of all new solar PV systems, with the exception of the Central Maintenance Facility (CMF), only accounted for the upfront cost of construction. The project costs did not allocate funds for future operations and maintenance that falls outside of the standard operations for this new technology.

By way of comparison, the solar PV project at CMF included a Full-Time Equivalent to maintain the system. This system has never underperformed its projected electric generation targets; and is a successful model for Metro's ability to properly maintain this valuable asset.

As sustainability-related investments often bring new technologies and innovative process improvements into the Metro system, staff is proactively addressing the challenges associated with the current maintenance of solar PV systems so future sustainability infrastructure does not suffer similar challenges.

Based on the recently concluded assessment, we observed that more collaborative and detailed upfront project development can allow for proper troubleshooting of issues and execution of preventative maintenance practices. Requiring the incorporation of anticipated future costs and development of skill sets into the project life-cycle is an important first step in mitigating these challenges. Evaluation of these future costs and requirements must occur in close coordination with the division and system-level managers and staff responsible for the future asset maintenance. Metro's EMS framework provides a clear foundation from which to further improve the ongoing maintenance of these valuable assets.

The plan to fulfill this goal is provided as Attachment B. This plan further provides for the opportunity to reinvest resource cost savings in the expanding sustainability-related infrastructure across Metro's system. The plan identifies the combination of cost-savings, utility allowances and incentives, and any interest earned from the investment of these funds with the proceeds of Metro's Low Carbon Fuel Standard credit sales into the Green Fund to support both the implementation of sustainability assets and ongoing activities related to these assets. In other words, the combined funds will be restricted for use in the funding of the implementation and operations and maintenance of sustainability-related capital construction/installation projects deployed on any Metro-controlled sites.

These projects would include, but are not limited to:

- energy conservation and energy efficiency projects,
- renewable energy installation/construction and their operation and maintenance,
- resource management initiatives (e.g., water, air, storm water, industrial wastewater impact and cost-reduction; including waste to energy projects such as those derived for example from non-hazardous/non-human biowaste), and
- any other related cost-saving and process efficiency generating activities that result in carbon footprint reductions and are operated and maintained within a Metro facility.

These assets include those that can be implemented and maintained agency-wide and have already been proven through related pilot projects. These are new, innovative, cost-saving, and environmentally friendly and financially sustainable technologies that are pre-determined to be applicable to Metro's operations; but have not been fully integrated agency-wide.

Cost savings reinvestment is a new approach for Metro. This approach will establish an internal accounting process for identifying and re-allocating savings resulting from sustainability-related infrastructure projects. This accounting model for reinvesting resource savings has many different structures. However, staff proposes to implement a Return on Investment (ROI) model wherein the Green Fund accrues the cost-savings on an annual basis up until the project has reached its simple payback.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an impact on safety standards for Metro. The execution of the proposed action will assist in increased safety as new and existing sustainability-related infrastructure will require an integrated operations and maintenance element to maximize use and benefit throughout the life cycle of the asset.

FINANCIAL IMPACT

The initial funding for this project are included in the FY15 budget under Project Number 450004 – Carbon Emissions and Greenhouse, Cost Center 8420 Environmental Compliance and Services, Account 50316 Professional And Technical Services. The initial funding provided under Project Number 450004 will be reimbursed once program funds, as described below, are generated and available. Since this is a multi-year project, the cost center manager and Executive Director, Engineering & Construction will be responsible for budgeting in future fiscal years.

Impact to Budget

There will be no net impact to Bus and Rail Operating Budgets. The initial source of funds for this project is the General Fund which can be used to fund Bus and Rail Operations. The quantification of the amount of savings to be allocated on an annual basis will be predetermined and approved prior to installation or construction of the sustainability-related infrastructure. The verification of the magnitude of an asset's projected savings will be monitored throughout the life-cycle of the project until such time that the asset's full value is achieved by the cost-savings.

Thereafter, the program funds can be designated as self-funded utilizing the combination of other project cost-savings in an amount up to the pre-determined and approved costs associated with implementing sustainability-related infrastructure projects, ongoing operations and maintenance cost for the life of the asset, and cost for periodic measurement and verification of the asset; utility allowances and incentives; any interest earned from the investment of these funds; and combined with the proceeds of Metro's LCFS credits sales to support both the implementation of sustainability assets and ongoing activities related to these assets.

As sustainability-related infrastructure projects are identified, criteria identified under the Sustainability Infrastructure Financial and Operations Implementation and Management Plan (Attachment B) will be used to initially identify classification of the project as a potential sustainability-related infrastructure. Thereafter, Metro's capital selection processes will be used to initiate and request utilization of the modified Green Fund for this purpose. A portion of operations and maintenance costs for existing sustainability related infrastructure installations such as green buildings, renewable energy, and energy efficiency projects can also be drawn from these funds to maintain the infrastructures in a state of good repair.

For example, the cost savings realized from the implementation of the sustainability-related infrastructure assets will be allocated to the Green Fund up to the dollar amount needed for project implementation, ongoing operation and maintenance (O&M), and other related costs. In the example below, the Funding Requirements - Sample Project section identifies the project costs, estimated ongoing O&M and measurement and verification (M&V) costs while the Funding Source section identifies potential funding sources, which adds up to the cost of the project. The total cost of the project (installation, O&M, and M&V) will equal the amount to be recovered from the cost savings. All of the cost estimates in the example below account for the time value of money in the calculation.

Funding Requirements - Sample Project		Lighting Retrofit at Division X	
Project First Costs	\$225,000	one-time	
Ongoing O&M Costs	\$500	annual	
M&V Costs	\$1,000	every 4 years	
Expected Useful Life	20	Years	
Total Life Project Cost (nominal)	\$240,000		
Funding Sources			
OMB FY16 Capital Program	\$175,000	one-time	
Green Fund	\$50,000	one-time	
Green Fund	\$10,000	\$500/yr x 20 yrs	
Alternative Financing Mechanism	\$500	utility incentive	
Total Funding Identified	\$240,000		

ALTERNATIVES CONSIDERED

If the Board chooses not to approve the sustainability infrastructure financial and operations plan and the re-investment of related cost-savings to the implementation and operations and maintenance of the sustainability-related infrastructure project, the agency will effectively continue with the status quo. That is, sustainability-related infrastructure will continually be completed to fulfill the requirements and objectives of Metro Board policies on environment and sustainability. However, full benefits of these investments will be limited given the lack of integrated and consistent process and funding to maintain and operate the infrastructure throughout its life-cycle.

Not combining cost-savings, utility allowances and incentives, and any interest earned from the investment of these funds with the proceeds of Metro's LCFS credits sales will introduce a pronounced vulnerability of a self-funding mechanism to operate and maintain sustainability-related infrastructure over asset life-cycle.

NEXT STEPS

After Board approval of this action, staff will implement the sustainability infrastructure financial and operations plan using identified current and potential resources.

ATTACHMENTS

- A. 2014 Metro Sustainability-Related Infrastructure Assessment
- B. Metro Sustainability Infrastructure Implementation and Operational Plan

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ATTACHMENT A
2014 Metro Sustainability-Related Infrastructure Assessment

2014 Metro Sustainability-Related Infrastructure Assessment

Executive Summary

The February 27, 2014 Los Angeles County Metropolitan Transportation Authority's (Metro) Board motion on Metro's "Sustainability-Related Infrastructure, Operations and Maintenance" directed staff to perform an assessment of the operation and maintenance of Metro's current sustainability-related infrastructure, and requested the development of long-term financial and operational and comprehensive implementation plans for sustainability-related infrastructure.

The comprehensive sustainability-related infrastructure at Metro consists of individual sustainability assets that Metro has installed and implemented to meet environmental, energy, and sustainability goals and objectives. For the purpose of this assessment report, and for future Metro planning, implementation, and ongoing operations and maintenance procedures, the term **sustainability-related assets** are defined as follows:

Investments made in facilities, technologies, fleet, people, and processes that:

- 1) *directly contribute to the reduction in resource usage beyond an established baseline for: electricity, natural gas, other non-renewable fuels, water, hazardous substances, or*
- 2) *directly reduce greenhouse gas emissions (GHGs), other air emissions, wastewater, solid waste, other environmental impacts, or*
- 3) *directly increase operational efficiency, staff productivity and well-being, and customer satisfaction beyond standard operations, while maintaining safety and system reliability.*

The term **sustainability-related assets** is intended to include only those investments made or actions taken by Metro to meet internal operational and policy objectives and goals and where Metro operates and oversees the maintenance of the asset over its useful life.

Assessment of sustainability-related assets, as defined above, will occur within the context of Metro's agency-wide mission, vision, and Environmental Policy to operate an efficient transit system by reducing, re-using and recycling all internal resources while reducing greenhouse gas emissions.¹

This sustainability-related infrastructure assessment of existing and under-construction projects intends to support future activities and decision-making related to internal investments in sustainability-related assets. Metro recognizes that external

¹ <http://www.metro.net/about/agency/mission/>

sustainability objectives and projects, such as those addressed under the Countywide Sustainability Planning Policy, are vitally important in the development of a strategic sustainability program. Ongoing coordination between the Environmental Compliances and Services Department (ECSD) and Countywide Planning will continue to take place in support of those goals.

The foundation of Metro's sustainability commitment began with the Board's adoption of the 2007 Energy and Sustainability Policy. In 2008, the Board adopted the Metro Sustainability Implementation Plan to further prioritize project planning and funding. In the years since, Metro has adopted several more policies, plans, and initiatives that support investments in new sustainability infrastructure. These guiding documents lay the framework for strategic sustainability planning and investment across Metro. The management framework for the implementation of Metro's Environmental Policies is structured according to ISO 14001 Environmental Management System (EMS) standards. This assessment has incorporated the resulting projects from each guiding document wherever feasible. Key sustainability guiding documents for Metro include:

- Construction and Demolition Debris Recycling and Reuse Policy
- Energy and Sustainability Policy
- Renewable Energy Policy
- Environmental Policy
- Environmental Liabilities Assessment and Reporting
- Green Construction Policy
- Water Use and Conservation Policy
- Countywide Sustainability Planning Policy.

This report builds upon the foundation laid through the adoption of these policies and plans. In response to the requirements of the February 27, 2014 Board motion, this report includes the following components:

- Inventory of Metro's current sustainability assets
- Assessment of current asset operations and maintenance
- Calculated project level cost benefit analysis from current sustainability assets
- List of potential future sustainability-related projects.

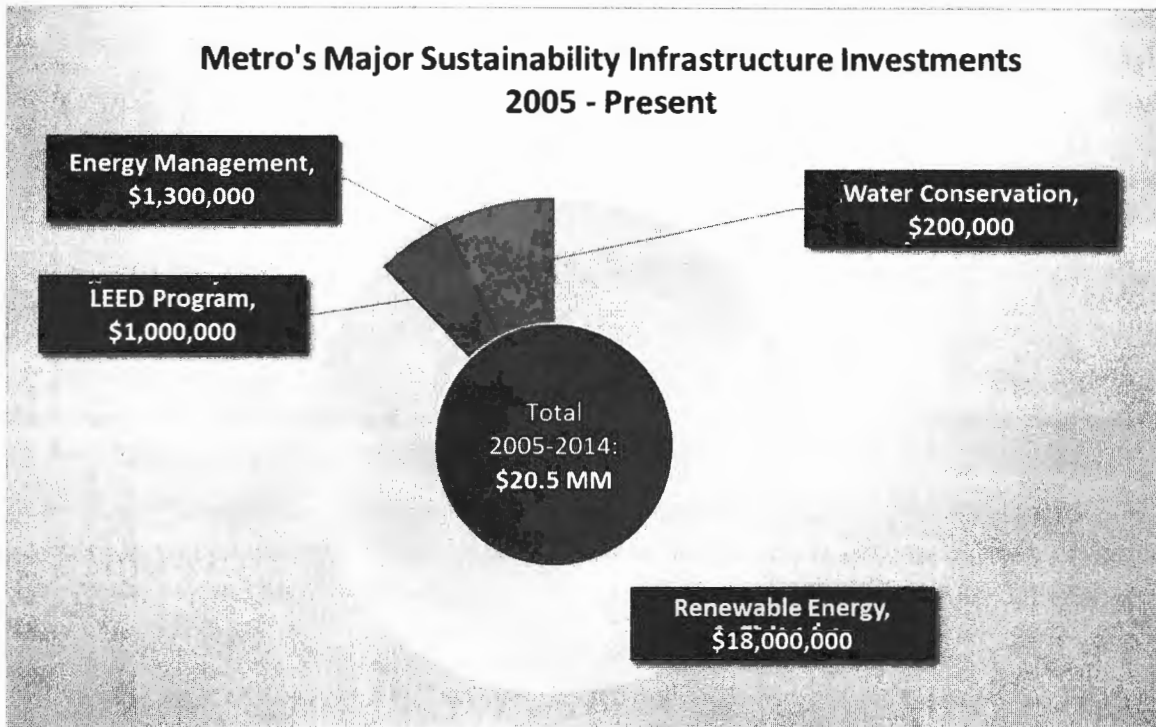
Attachment B: Sustainability Infrastructure Implementation and Operational Plan, describes the structure and process for future planning, development, implementation, and maintenance of sustainability assets, and details a long-term financial management approach for current and future sustainability-related assets.

Summary of Findings

This 2014 assessment report on Metro's sustainability-related infrastructure examined four major program areas managed through the ECSD and in conjunction Metro's agency-wide EMS. These include:

- **Renewable Energy Program** – Includes projects that contribute to meeting Metro’s Renewable Energy Policy Goals and includes the planning, deployment and management of renewable energy technologies. Renewable energy technologies reduce Metro’s electricity purchasing costs.
- **Energy Management Program** – Includes projects that contribute toward meeting Metro’s Energy and Sustainability Policy goals. This program area targets projects that reduce the cost and consumption of fuel and power required to carry out core Metro operations.
- **Leadership in Energy and Environmental Design (LEED™) Program** – Includes projects that contribute to meeting the Energy and Sustainability Policy requirement to achieve U.S. Green Building Council’s LEED Silver Certification or better for Metro facilities. Projects implemented in this program area are designed to achieve LEED Certification for existing and new facilities. LEED Certified Green Buildings operate efficiently and can result in both energy and water usage reduction with resultant cost savings.
- **Water Conservation Program** – Includes projects that contribute toward meeting Metro’s Water Use and Conservation Policy. These projects support the implementation of the Water Action Plan and other projects intended to reduce water use resulting in lower water costs.

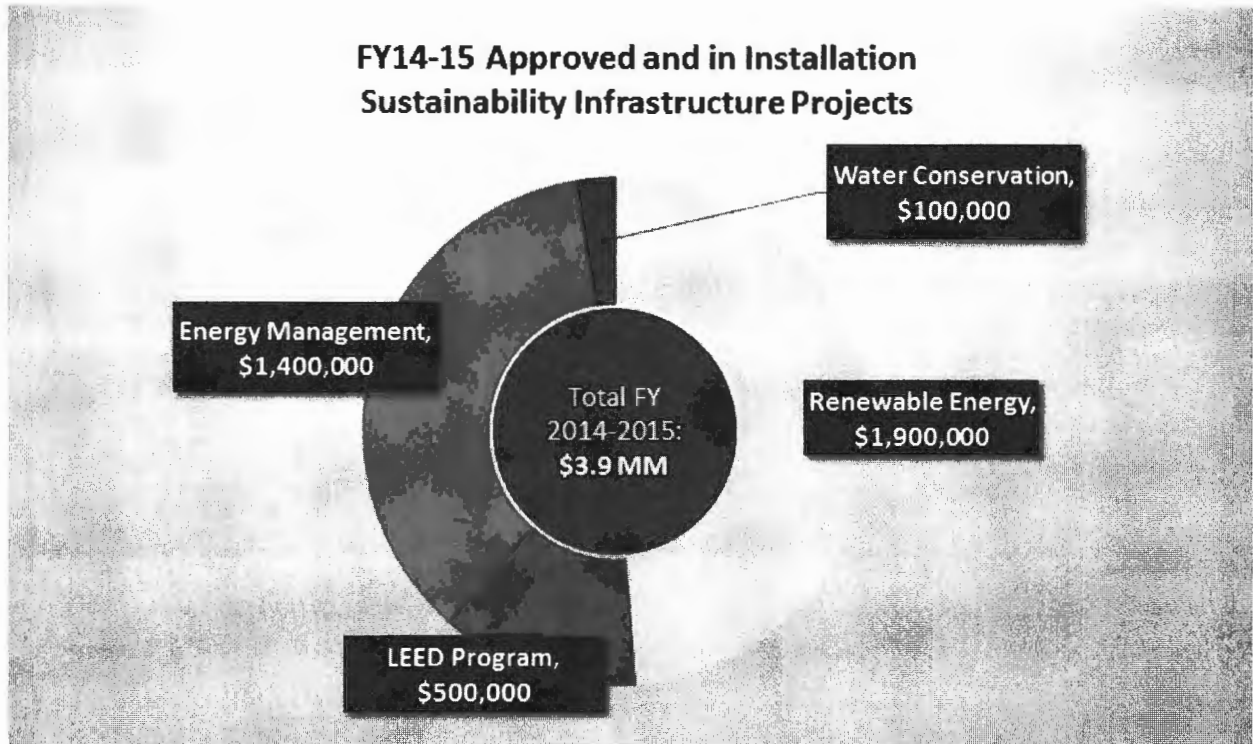
Within each of these programs, Metro has made targeted and strategic investments in sustainability-related assets (projects) that collectively represent the current sustainability-related infrastructure. Metro’s investments in sustainability-related assets predates formal adoption of Environmental Policies and shows the long term interest and commitment of executive leadership and staff to develop a sustainable transit system. Since the first solar PV system installation in 2005, investments in these four program areas have increased to meet Metro’s sustainability policy objectives, while at the same time providing long-term financial returns. ES Figure 1 shows the over \$20 million in major sustainability investments Metro has made since 2005 by program area. Metro’s utility partners have supported the adoption of renewable energy and energy efficiency by offering incentives to buy down the cost of the projects. The projects below received a total of \$6.5 million (about 33% of original capital costs) in utility incentive funding lowering the net costs to \$13.5 million.



ES Figure 1: Metro's Major Sustainability Infrastructure Investments Since 2005

Historically, the costs of the Renewable Energy Program's solar PV systems far exceeded the expenditures in other program areas. In the current fiscal year, the planned expenditures by program area are more diversified across program areas indicating a shift toward cost saving projects such as energy efficiency.

As of August 2014, an additional \$3.9 million of sustainability-related projects are under construction or approved as shown by program area in ES Figure 2. The largest investments within the approved and under construction portfolio are in energy efficiency projects which yield immediate resource cost savings and the installation of a solar PV system at Division 13 which yields avoided electricity purchases. Metro has reserved over \$450,000 of utility incentives for the in-progress projects in ES Figure 2. These incentives decrease the total project implementation costs by nearly 12% to just under \$3.5 million.



ES Figure 2: FY14 - 15 Approved and in Installation Sustainability Infrastructure Projects

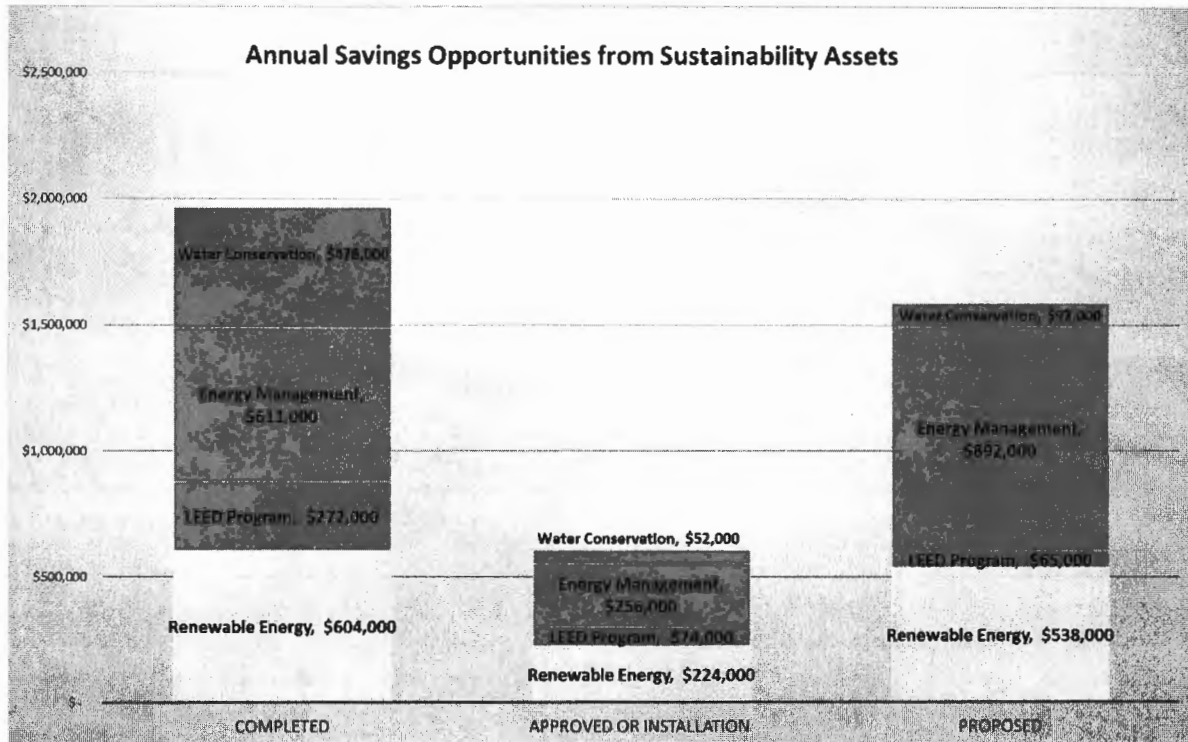
Metro has a robust pipeline of potential future sustainability projects with over \$18 million of proposed projects. The projects are awaiting evaluation, approval and funding and are shown by program area in ES Figure 3. Metro has identified external grants and utility incentives to directly reduce the implementation costs of these resource-saving projects and minimize budget impacts across Metro operations. Metro's utility service providers have already authorized nearly \$7 million of incentives to support the installation of all proposed projects. In addition, ECSD staff is actively pursuing alternative financing mechanisms to avoid capital expenditures by Metro and take advantage of public-private partnerships.



ES Figure 3: FY15 Proposed Sustainability Infrastructure Projects by Program Area

Many of the investments in sustainability assets provide direct costs savings to Metro through the reduced use of energy and water resources, which Metro would otherwise pay for in utility bills. Additionally, once installed, some assets can directly reduce air pollution and greenhouse gas emissions that may fall under tighter State and Regional regulation compliance requirements in the future. LEED Certification of Metro facilities contributes to cost savings through automation of data collection, reducing administrative burdens and enhancing the operability of HVAC systems through Retro-Commissioning processes. Many other benefits such as increased recycling, increasing supply of fresh outdoor air and natural daylighting all produce healthy and more productive work environments.

Metro realizes approximately \$2 million in current annual cost savings from existing sustainability-related assets. ES Figure 4 shows these savings by program area. The savings estimates from approved and current installation projects bring the annual savings estimates to \$2.6 million. Metro has identified an additional annual resource cost savings opportunity of \$1.6 million from the currently proposed projects.



ES Figure 4: Metro's Annual Cost Savings from Sustainability Assets

With a growing and well-maintained sustainability-related infrastructure, the annual aggregate cost savings directly reduces the impact of the upfront investments in future sustainability-related assets. Consideration of green attributes and progress towards meeting sustainability policy objectives further augments the value of these real and measureable cost efficiencies. As the sustainability-related infrastructure is not static, the savings estimates can vary with the varied expected useful life of assets within the portfolio. Maintaining and managing these resources is critical to capturing the long-term savings opportunities from these investments.

By their very nature, sustainability-related assets tend to include technology-based and innovative approaches, which can differ from standard operating procedures. As part of this comprehensive assessment of Metro's sustainability-related infrastructure, staff evaluated the current process of funding, management, and training required to maintain sustainability assets in a state of good repair. The analysis identified key opportunities to update the current processes, such as staff training and a preventative maintenance program that will result in the appropriate resources and skills development for the successful management of current and new sustainability assets. The recent rollout of Metro's EMS with a defined process of continual improvement will provide the foundation on which to build a successful management and oversight approach to ongoing operation and maintenance of these assets. The EMS framework brings together relevant stakeholders to execute the new process and provide oversight into the future.

Attachment B: Metro Sustainability Infrastructure Implementation and Operational Plan, includes a transparent sustainability infrastructure investment plan and an operations

process to effectively manage these unique resources in order to allow Metro to realize their long-term cost and resource savings benefits.

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Introduction

In response to Sections 2a and 2b of Metro Board Motion 57, carried by the Board on February 27, 2014, this report provides an assessment of the sustainability-related infrastructure currently installed and under-construction at Metro. The Board approved Item 48 in May 2014 and represents the formal response to Sections 1a and 1b of Board Motion 57. This document (as well as that of Attachment B) provides the requested additional insight into the maintenance and operations of the existing sustainability-related assets at Metro and to establish implementation and operational plans for investing and managing future sustainability assets.

This document outlines the results of an evaluation that complements the annual agency-wide review of sustainability metrics “Moving Towards Sustainability”. It is intended to evaluate the specific infrastructure investment in projects that result in the creation of “sustainability-related assets” rather than the system aggregate sustainability performance.²

Given the inherent inclusiveness of the term sustainability, it is important to identify what infrastructure at Metro would qualify as a sustainability-related asset versus a non-sustainability-related asset (e.g., code compliance vs high efficiency). In order to make this determination, and to distinguish scope of this assessment, the term **sustainability-related asset** is defined as follows:

Investments made in facilities, technologies, fleet, people, and processes that:

- 1) directly contribute to the reduction in resource usage beyond an established baseline for: electricity, natural gas, other non-renewable fuels, water, hazardous substances, or*
- 2) directly reduce greenhouse gas emissions (GHGs), other air emissions, wastewater, solid waste, other environmental impacts, or*
- 3) directly increase operational efficiency, staff productivity and well-being, and customer satisfaction beyond standard operations, while maintaining safety and system reliability.*

With this definition, the individual sustainability-related asset investments that have been approved and implemented within existing Metro operations to meet Metro’s environmental, energy and sustainability goals and objectives, collectively comprise Metro’s comprehensive sustainability-related infrastructure.

Building a Sustainable Infrastructure at Metro

As a public transportation agency, Metro, is, at its core, a sustainability asset. However, Metro’s longstanding commitment to improving operational efficiency and reducing the

² http://media.metro.net/projects_studies/sustainability/images/Sustainability_Report_2013.pdf

impact of its operations on the environment has already yielded an extensive infrastructure of assets that reduce costs and increase environmental performance.

Along with public transportation agencies throughout the country, Metro faces the challenge of simultaneously addressing:

- Aging infrastructure and deferred maintenance;
- Decreasing operational budgets;
- Expanding system resource demands; and
- Increasing regulations.

In 2010, U.S. transit agencies spent \$16.6 billion on capital investments, of which Federal funding represented only 26.6 percent, with a one-time Federal American Recovery and Reinvestment Act making up another 14.5 percent of the total.³ As a result, passenger fares and other State and local sources must cover nearly 60 percent of the funding for system preservation and expansion capital projects.⁴ Investment in sustainability-related assets offers one potential avenue to achieve both improved performance and significant cost savings over the life of the asset. *However, this only occurs when these assets receive proper maintenance and operate in a state of good repair, ensuring that the investment will reap the full lifecycle benefits.*

This report provides a comprehensive inventory and assessment of Metro's sustainability-related infrastructure. The results will serve as a baseline from which to enhance existing processes, or establish new processes to maintain and effectively manage these valuable resources going forward. To this end, Attachment B: Sustainability Infrastructure Implementation and Operational Plan contains a process and funding mechanism to support the ongoing development and management of Metro's Sustainability Program assets.

This assessment is limited to an internal examination of those investments made under the direct influence or management of Metro's resources. These assets largely resulted from investment decisions aimed at achieving internal sustainability, energy, and environmental policy objectives. At this time, this assessment does not extend to the large scale expansion of the Metro system, Metro Countywide Planning Policy Implementation activities, or wider collaborative efforts that Metro has made with community and partner stakeholders; nor to projects funded by Metro but have not been operated by the agency.

Metro's Road to Sustainability

The current sustainability initiatives at Metro are a result of years of efforts, which primarily stem from two parts of the agency: the Environmental Compliance and Services Department (ECSD) and the Countywide Sustainability Planning (CSP). With

³ <http://www.fhwa.dot.gov/policy/2013cpr/es.htm>

⁴ <http://www.fhwa.dot.gov/policy/2013cpr/es.htm>

complementary approaches, both ECSD and CSP are working to achieve Metro's Vision and Mission for Sustainability, adopted in 2008⁵:

Vision: *We will be the leader in maximizing sustainability efforts and its benefits to Los Angeles County's people, finances, and environment.*

Mission: *We will provide leadership in sustainability within the Los Angeles region without compromising our core mission of moving people efficiency and effectively.*

As Figure 1 illustrates, CSP focuses on the long-range sustainability planning and the necessary external community engagement to achieve large scale and longer term goals. ECSD focuses on the development of sustainability opportunities within Metro's day-to-day operations. ECSD's efforts in evaluating and either directly implementing, or facilitating the implementation of sustainability investments, occur in accordance with multiple core department responsibilities, which include:

- Resource management (air quality, water, energy and waste)
- Climate response (mitigation, adaptation, and resiliency)
- Environmental management (Environmental Management System (EMS), green building, training, storm water and industrial wastewater, and site remediation)



Figure 1: Metro's Sustainability Program Components

Metro's existing sustainability infrastructure was constructed through the work and management of the Engineering & Construction Division. The development of future assets and their ongoing management are now being fully integrated into the EMS framework and includes input and feedback from across the organization.

⁵ Metro Sustainability Implementation Plan, June 17, 2008
http://media.metro.net/about_us/sustainability/images/Sustainability.pdf

Since 2010, Metro has been comprehensively assessing its overall path to sustainability in the annual *Moving Towards Sustainability* and *Energy and Resource Report*, and uses APTA recommended metrics to monitor performance year-over-year.

This 2014 sustainability asset assessment report builds on this effort by providing a targeted analysis into the specific investments made toward meeting Metro's sustainability objectives for those projects that qualify as sustainability assets. The goals of this assessment are to:

- 1) Compile a comprehensive inventory of existing sustainability assets,
- 2) Evaluate the current approach to managing the operation and maintenance of current assets, and
- 3) Present opportunities for expanding Metro's existing sustainability infrastructure.

The result of this assessment informed the development of Attachment B: Sustainability Infrastructure Implementation and Operational Plan, which aims to improve visibility, funding management, and ongoing management of future implementation efforts.

The Sustainability-Related Asset

This assessment is a detailed review of the operating status and the existing processes for maintaining sustainability related infrastructure. Going forward, ECSD is recommending an annual review of sustainability-related assets, as detailed in Attachment B: Metro Sustainability Infrastructure Implementation and Operational Plan.

A Metro sustainability-related asset is defined for this assessment to allow for a clear determination of which investments qualify for inclusion in this assessment, and which investments are part of standard Metro operations. Given the breadth of potential sustainability activities, it is useful to establish boundaries that only include "direct" impacts, such as reduced energy and water usage in operations, and leave out the numerous indirect benefits associated with operating a public transit system.

There are several different types of assets that can fall under the above definition.

Table 1 provides the definitions for the three asset types in this assessment that categorize Metro's investments. Distinguishing between these definitions recognizes that there is considerable variety in sustainability-related asset types. No single solution or approach will, on its own, work for implementing and maintaining future assets. Categorizing asset types in this way affords a better understanding of how sustainability-related investments are improving the existing Metro facility infrastructure and processes.

Table 1: Asset Type Definition

Asset Type	Definition	Example
<i>New Asset</i>	Equipment added to a Metro facility or a new process that was not there previously	Solar PV system, reclaimed water system connection, wayside energy storage system
<i>Process Improvement</i>	Project that improves efficiency/sustainability of an existing process. Can be asset-based or administrative. May change the O&M requirements for existing process.	Air dryer redesign, Domestic Hot Water energy recovery, Heating Ventilation and Air Conditioning (HVAC) redesign, water reclamation
<i>Existing Asset Replacement</i>	Project that replaces existing equipment with a more sustainable option	Boiler replacement, HVAC replacement, lighting retrofit

Historically, investments in the Renewable Energy Program area have resulted in new assets for Metro, whereas the Water Conservation and Energy Management Programs have typically led to process improvements resulting resource cost savings. Replacement projects, while not considered new assets for Metro, upgrade the current infrastructure with an asset that operates more efficiently to reduce resource usage.

Current Sustainability-Related Infrastructure

This section provides results for the assessment of current sustainability infrastructure including assets installed or under construction, and follows this order:

- Overview of Metro’s major sustainability assets that make up the current infrastructure
- Description of the current asset management approach
- Estimation of the cost and resource savings attributable to these assets .

Figure 2 shows the four major program areas that ECSD is managing to support the development of Metro’s sustainability infrastructure.

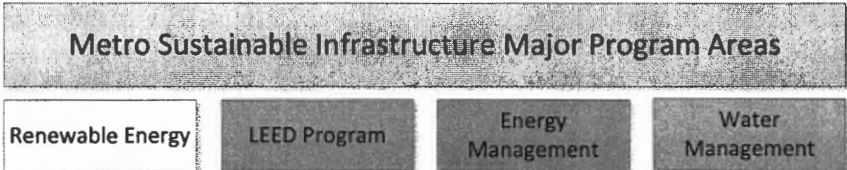


Figure 2: Sustainable Infrastructure Program Areas

Metro’s investments in each of these program areas support existing policy goals and objectives as follows:

Table 2: Metro Sustainability Program Areas

Renewable Energy	Currently consists of only solar photovoltaic systems, but would include any future wind or other renewable energy investments. This program area supports Metro’s Renewable Energy Policy goals.
LEED Program	Includes all investments made to achieve certification of Metro facilities under the U.S. Green Building Council’s LEED green building program. This program area supports Metro’s Energy and Sustainability Policy goals.
Energy Management	Includes energy efficiency and conservation measures and process improvement projects to reduce energy use at Metro facilities. This program area represents Metro’s implementation of the Energy Conservation and Management Plan and supports the Energy and Sustainability Policy goals.
Water Conservation	Includes all investments made to reduce and recycle water used in operations. This program area supports Metro’s Water Use and Conservation Board policy goals.

Since the first solar PV system installation in 2005, Metro has invested over \$20 million in additional sustainability-related projects. The investments in solar panels, facilities upgrades, green building certifications, and water conservation collectively make up the existing sustainability infrastructure at Metro. Figure 3 shows the breakdown of major

investments in sustainability assets since 2005 by program area. With an early focus on solar PV, the large solar investments dwarfed the other program area investments, representing nearly 90 percent of expenditures to date. Metro expects that future expenditures and associated resource cost savings for the sustainability-related infrastructure will achieve more balance across the program areas.

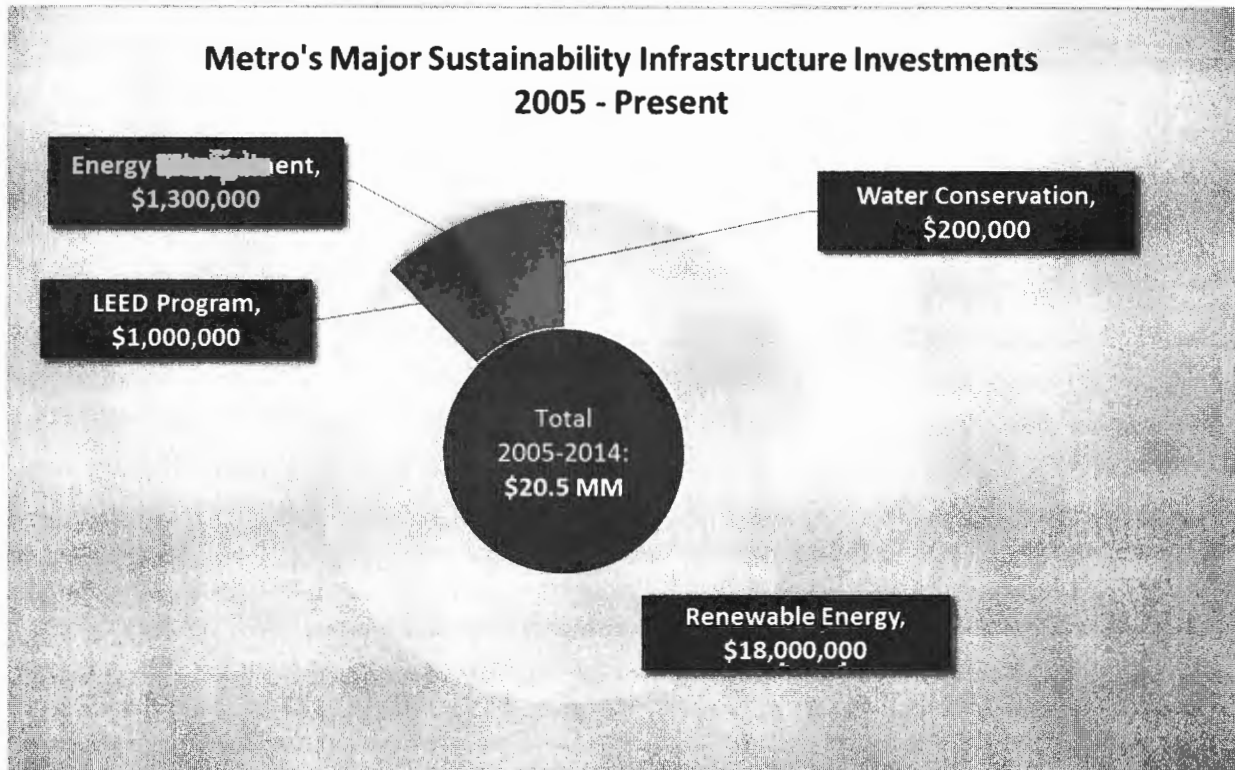


Figure 3: Metro's Major Sustainability Infrastructure Investments Since 2005

Current Sustainability-Related Asset Inventory

Table 3 through Table 6 list Metro's current sustainability-related infrastructure assets by program area. Current sustainability-related assets are those investment projects that are either in the installation phase or completed and operational. Projects listed as "approved" have been funded and approved but have not begun installation. Any projects still in the proposed or design phase are listed as potential future sustainability-related assets.

Table 3: Renewable Energy Assets Completed, Under Construction and Planned

Renewable Energy Assets		
Project Name	Location	Status
Solar PV Project	Division 08	Completed
Solar PV Project	Division 15	Completed
Solar PV Project	Division 18	Completed
Solar PV Project	Location 30	Completed

Renewable Energy Assets (continued)		
Project Name	Location	Status
Solar PV Project	Terminal 19	Completed
Solar PV Project	Division 13	Installation
Wayside Energy Storage	Gold Line	Installation
Wayside Energy Storage	Red Line	Installation

Investments in solar photovoltaics (PV) come at a high price, but provide directly attributable and measureable avoided costs and provide long-term value to Metro. As energy prices increase the yearly benefits increase and provide a strategy for hedging price volatility. Additionally, solar PV is a major infrastructure asset that can receive support from a variety of finance mechanisms, including direct ownership and power-purchase agreements, which have the potential to result in resource cost saving benefits while minimizing the impact Metro's capital budgets. The systems currently in place or under construction represent an important and highly visible opportunity for Metro to meet its sustainability objectives. Collectively, the installed systems are contributing \$604,000 in yearly cost savings. The ECSD team is actively evaluating future opportunities to incorporate more advanced systems to expand solar PV as a mechanism for achieving the Renewable Energy Policy goals within Metro's operations.

Table 4: LEED Program Assets Completed, Under Construction and Planned

LEED Program Assets		
Project Name	Location	Status
LEED-New Construction (NC) Certification – Maintenance Annex	Division 03	Completed
LEED-NC Certification – Maintenance Building Renovation	Division 03	Completed
Sub-metering system	Division 07	Completed
Sub-metering system	Division 08	Completed
Sub-metering system	Division 09	Completed
LEED-NC Certification – Transportation Building	Division 09	Completed
LEED-Existing Building Operation & Maintenance (EBOM) Certification – Division-wide	Division 10	Completed
Sub-metering system	Division 10	Completed
Sub-metering system	Division 15	Completed
Sub-metering system	Division 20	Completed
LEED-NC Certification – Bauchet St. Warehouse	Division 30	Completed
Sub-metering system	Division 30	Completed
Sub-metering system	Location 61	Completed
Sub-metering system	Location 99	Completed
LEED-EBOM Certification – Gateway Building	Location 99	Completed

LEED Program Assets (continued)		
Project Name	Location	Status
LEED-NC Certification – El Monte Terminal	Terminal 19	Completed
LEED-EBOM Certification – Division-wide	Division 07	Installation
Sub-metering system	Division 21	Installation
LEED-EBOM Certification – Division-wide	Division 30	Installation
LEED - EAc3.2 – HVAC System Retro-Commissioning	Division 30	Installation
LEED-NC – Maintenance Building	Expo Maintenance	Installation

Metro’s Energy and Sustainability Policy established the goal to pursue LEED certification in all new construction projects larger than 10,000 square feet. This commitment to green building practices is also facilitating LEED Certification at existing maintenance facilities. The assets produced from these efforts include the acquired certification of the green building or division, installed sub-metering systems, and projects carried out as required for certification such as improvements to HVAC systems through retro-commissioning and low or no-cost energy process improvements.

Typically, LEED Certified Green Buildings contribute cost savings to Metro as result of process improvement implementation. Process improvements may include improved visibility into resource usage through sub-metering system installation, low flow water fixture installations and implementing HVAC system retro-commissioning to optimize their operation and controls. To date, completed projects within the LEED Program contribute \$272,000 in total operational cost savings annually. Additionally, many of the benefits and drivers of the LEED Program are non-financial such as the testing and improvement of outdoor air delivery, increasing recycling rates, use of green cleaning chemicals and improved pest management and irrigation practices. Each contribute to certifying the building as a nationally recognized green building and providing a healthy, productive and efficiently operating working spaces for Metro’s biggest asset, its employees.

The LEED Program supports an ongoing effort to comply with Metro’s Energy and Sustainability Policies, and will remain part of an established ongoing plan to expand Metro’s green building infrastructure.

Table 5: Energy Management Program Assets Completed, Under Construction and Planned

Energy Management Program Assets		
Project Name	Location	Status
High Bay Lighting Retrofit	Division 09	Completed
Tire Shop LED Lighting Upgrades	Division 10	Completed
Bus Wash Air Dryer Process Improvement	Division 10	Completed
Maintenance Building Lighting Upgrades	Division 15	Completed
Maintenance Building T5 Retrofits	Division 18	Completed
Shop Lighting Upgrades	Division 20	Completed
Lighting Retrofits	Location 30	Completed
Compressed Air	Location 30	Completed
Package Unit	Location 30	Completed
Building Management System	Location 30	Completed
Cooling Tower Replacement	Location 99	Completed
3rd Floor LED Lighting Upgrades	Location 99	Completed
Boiler Replacement	Location 99	Completed
RCx Chilled Water Reset	Location 99	Completed
TOU 8 Tariff switch	Division 09	Completed
Interior & Exterior Lighting Upgrades	Division 02	Installation
Interior and Exterior Lighting Upgrades	Division 05	Installation
LED Fixtures & Daylight sensors	Division 07	Installation
HVAC RCx	Division 07	Installation
T8 and LED Retrofits	Division 11	Installation
High Bay Lighting Retrofit	Division 22	Installation
Wireless Lighting Control System	Division 22	Installation
Blue Line 5th Street Station Lighting Retrofit	Blue Line Stations	Installation
Blue Line 1st Street Station Lighting Retrofit	Blue Line Stations	Installation
Blue Line Downtown Long Beach Station Lighting Retrofit	Blue Line Stations	Installation
Blue Line Pacific Av Station Lighting Retrofit	Blue Line Stations	Installation
Blue Line Anaheim Station Lighting Retrofit	Blue Line Stations	Installation
Blue Line Willow Street Station Lighting Retrofit	Blue Line Stations	Installation
Phase II - Full Site Lighting Retrofit	Division 07	Approved
Domestic Hot Water Energy Recovery	Location 99	Approved

The Energy Management Program activities have significantly increased as a result of the implementation of the 2011 Energy Conservation and Management Plan. ECSD has implemented a robust facility audit effort to proactively identify sustainability projects using the EMS framework. Lighting projects represent an immediate opportunity to achieve resource savings, and will continue to do so into the future. However, comprehensive energy efficiency is needed to pull out all opportunities and maximize energy savings and overall energy performance. The volume of potential energy management projects included in this assessment is a direct result of the focused effort on one of the most cost-effective sustainability infrastructure opportunities available to Metro. Installed energy efficiency project savings are already outpacing renewable energy investments with \$611,000 in yearly energy savings, with multiple projects being completed each year.

Table 6: Water Conservation Assets Completed, Under Construction and Planned

Water Conservation Assets		
Project Name	Location	Status
Steam Rack - Water Recycling	Division 09	Completed
Reclaimed Water Project	Division 03	Installation
Div 13 - Water Cistern	Division 13	Installation
Reclaimed Water Project	Orange Line	Installation
Linear Kinetic Cell Project	Division 03	Approved
Linear Kinetic Cell Project	Division 05	Approved
Linear Kinetic Cell Project	Division 08	Approved
Steam Rack Water Recycling	Division 18	Approved

The current water conservation assets represent investments in projects not already included in the other Program activities. In addition to the projects listed in Table 6, Metro has installed low-flow water conservation devices, which were driven and therefore accounted for in LEED Program metrics. Metro anticipates that this program will present the largest growth in opportunities for future sustainability projects, as the agency has not yet addressed the low-hanging fruit for water conservation projects. The annual cost savings Metro currently realizes from completed projects in the four program areas is \$2 million, as Figure 4 shows.



Figure 4: Annual Cost Savings from Current Sustainability-Related Infrastructure

Current Approach to Managing Sustainability Assets

The Office of Management and Budget manages Metro's annual capital program to successfully meet the needs of Metro's capital program and operations. Sustainability-related capital projects have been following this same process, which has led to many successful implementations. Metro's EMS framework provides for oversight to regularly monitor and report sustainability-related infrastructure performance in addition to the identification and implementation of future opportunities. Annual reporting of progress through the EMS framework identified lower than expected performance from several key sustainability assets such as Metro's solar PV systems. This section provides an assessment for how the current sustainability-related infrastructure is operated and maintained.

Metro identifies and implements capital projects to meet day-to-day operational needs. Typical projects may include division expansion, process equipment replacement, or new equipment installation or rotation (e.g., buses). In these cases, the operational state of the installed equipment directly impacts staff's ability to perform the core functions of the organization. Consequently, staff is able to quickly identify, prioritize, and address equipment and maintenance issues. Metro has a well-established process to plan and budget for maintenance support.

Sustainability assets can and will increasingly directly affects operations in ways that may be outside standard operating procedures. New sustainability assets are likely to involve greater technology sophistication and alternative systems and processes.

When this occurs, staff often does not have the budget, training, available time or necessary oversight to effectively address the maintenance requirements of assets outside of standard operations. Metro's solar PV systems represent a primary example of this challenge.

Solar PV systems require a specific set of maintenance procedures to operate properly. Until recently, Metro made limited provisions to provide staff with the appropriate training in this area because the cost and responsibility was have been properly planned and assigned. Metro currently has installed solar PV systems at five locations. Historically, the project costs of all new solar PV systems, with the exception of the Central Maintenance Facility (CMF), only accounted for the upfront cost of construction. The project costs did not allocate funds for future operations and maintenance that falls outside of the standard operations for this new technology. The facilities maintenance resources now responsible for solar PV system operations and maintenance (for most Metro systems) are already over-burdened and must prioritize those projects that support day-to-day operations rather than those that reduce energy and operational costs. In these cases, this assessment marked a decrease in the performance of these installed solar PV systems. The investment of these assets were based on realizing their full cost reducing potential, which are now in jeopardy.

By way of comparison, the solar PV project at CMF included a Full-Time Equivalent to maintain the system. This system has never underperformed its projected electric generation targets and is a successful model for Metro's ability to properly maintain this valuable asset.

As sustainability investments often bring new technologies and innovative process improvements into the Metro system, staff is proactively addressing the challenges associated with the current maintenance of solar PV systems so future sustainability infrastructure does not suffer similar shortfalls.

Based on this assessment, we observed that more collaborative and detailed upfront project development can allow for proper troubleshooting of issues and execution of preventative maintenance practices. Requiring the incorporation of anticipated future costs and development of skill sets into the project lifecycle is an important first step in mitigating these challenges. Evaluation of these future costs and requirements must occur in close coordination with the division-level managers and staff responsible for the future asset maintenance. Metro's EMS framework provides a clear foundation from which to further improve the ongoing maintenance of these valuable assets.

Standardized sustainability project development, implementation, and ongoing oversight through process changes or centralization can provide a clear path towards maintaining a state of good repair for the life of installed equipment. Attachment B: Sustainability Infrastructure Implementation and Operational Plan outlines a step by step implementation process that meets the desire for a long term operational plan for incorporating these recommendations into the current development and ongoing management of future sustainability assets.

Sustainability-Related Asset Cost Savings Estimates

This assessment reports the resource cost savings based on measured savings whenever possible, and includes an estimated cost savings for other assets. Going forward and as described in Attachment B: Sustainability Infrastructure Implementation and Operational Plan, specific measurement and verification (M&V) protocols are recommended for different types of sustainability investments that will allow Metro to regularly track and report on performance of these assets.

Figure 5 shows the overall cost savings on an annual basis for Metro's four major program areas. Annually, the completed assets yield nearly \$2 million in resource cost savings. With the addition of the FY 14-15 approved projects and those currently in the installation phase, the aggregate annual savings resulting from these projects increases to nearly \$2.6 million.

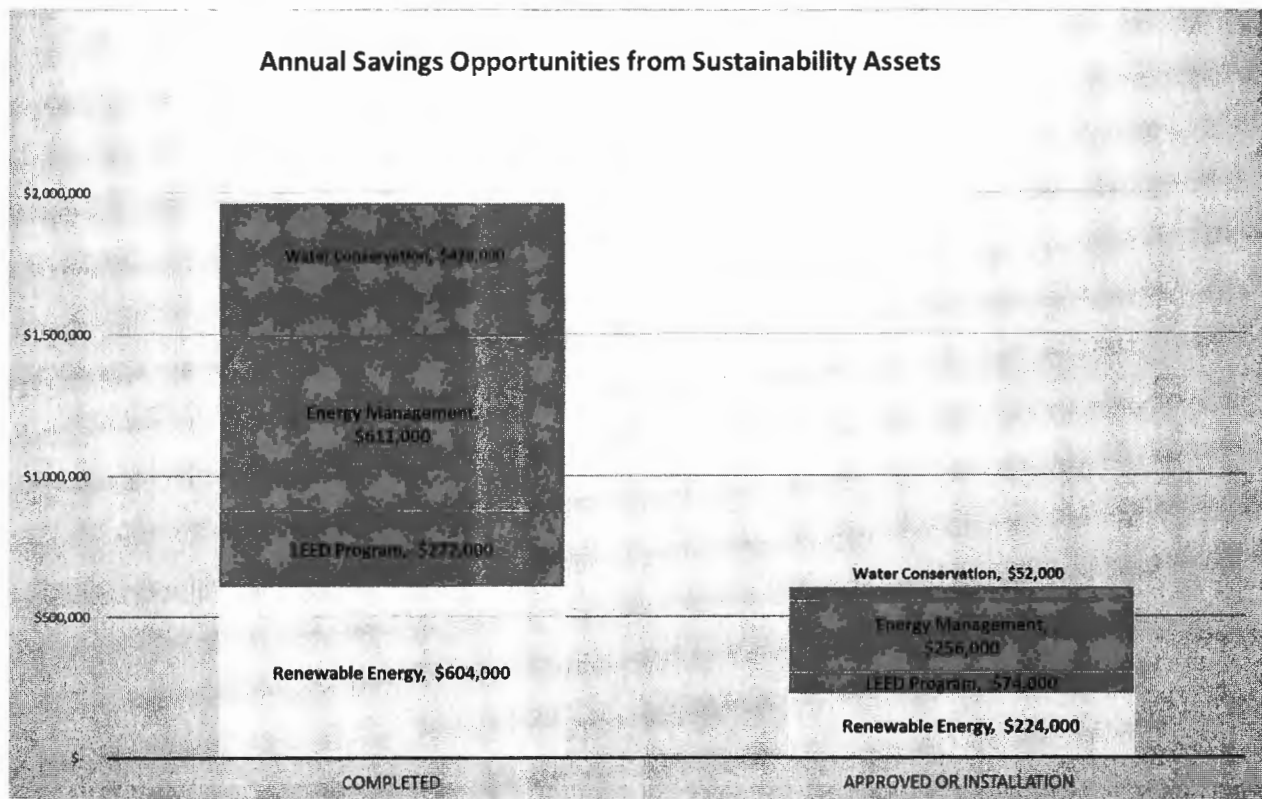


Figure 5: Annual Resource Cost Savings from Metro's Existing Sustainability-Related Infrastructure

Beyond the annual resource cost savings allocated to the various Metro sustainability-related asset investments, these projects secured \$7 million in incentives. Figure 6 and Figure 7 show the incentives secured for all projects that are designated approved, installation or completed. Incentives help reduce future infrastructure investments capital expenditures while still providing attractive annual resource cost savings. Metro will continue to receive utility incentives as revenue to the organization and incorporate these net costs into annual reporting and proposed project metrics.

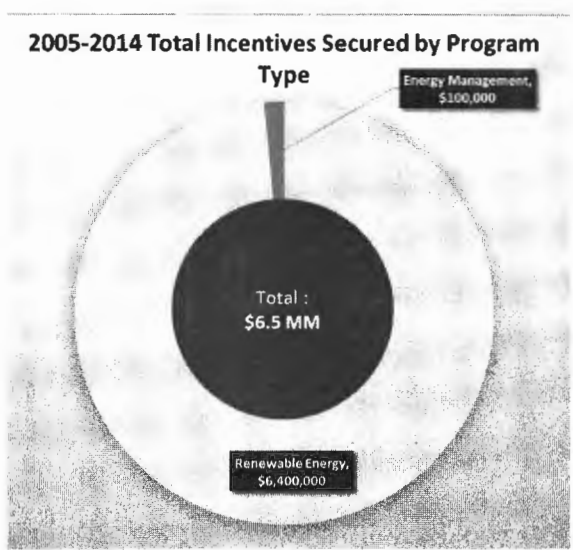


Figure 6: Incentives Received or Reserved for Projects from 2005-2014

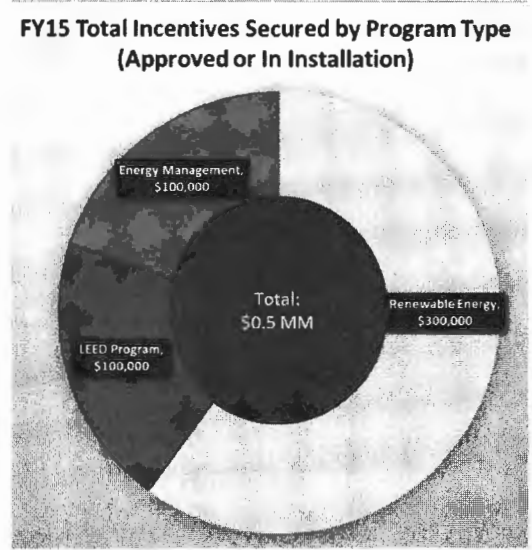


Figure 7: Reserved Incentives for Approved or in Installation Projects

Annual cost savings from the implementation of sustainability-related assets provides a significant benefit to Metro. Figure 8 quantifies the cumulative cost savings realized to date and anticipated by the end of the current fiscal year.

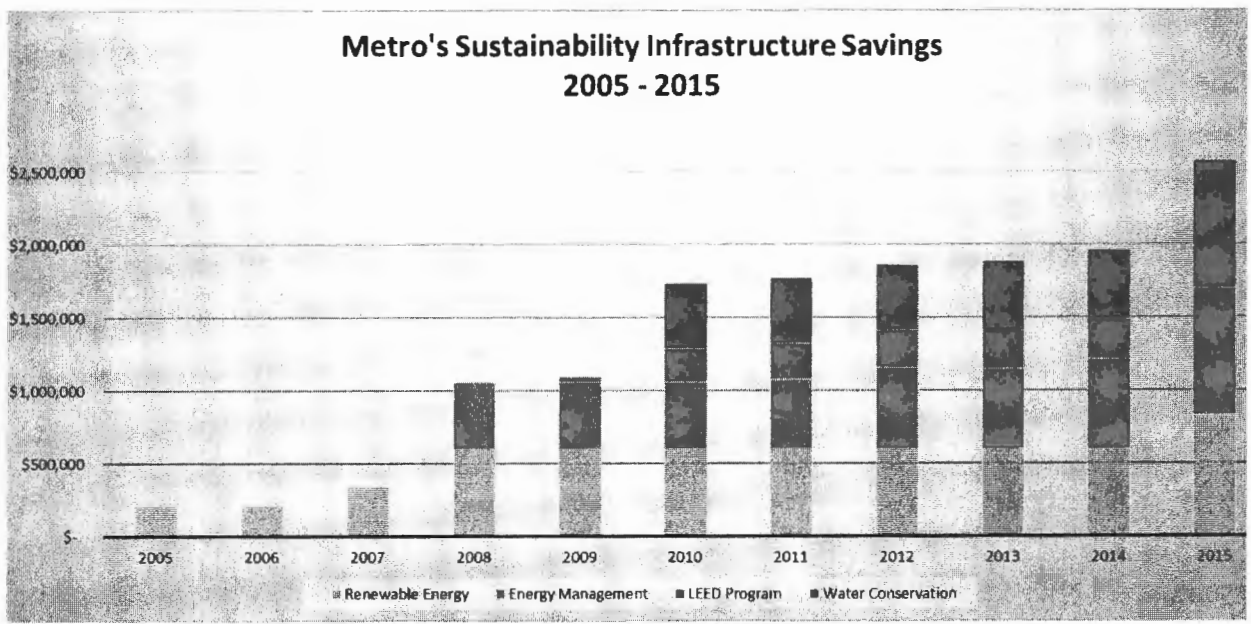


Figure 8: Resource Cost Savings to Date by Program

As a portfolio of assets with varying useful lives and resource savings values, the cumulative benefits from these investments needs to be effectively managed to maintain the cost savings over time. As with any physical asset, degradation and depreciation over time will decrease and ultimately can eliminate the cost savings resulting from that asset. Attachment B: Sustainability Infrastructure Implementation and

Operational Plan shows how the EMS process will support the planning, implementation and oversight of Metro’s existing and future sustainability infrastructure.

Potential Future of Sustainability-Related Assets

Metro’s sustainability and environmental policies ultimately direct the identification and development of projects that comprise the listing potential future sustainability assets. Figure 9 and Figure 10 display the costs and benefits of the range of potential future projects by Program. These projects have been vetted by Metro staff and several have funding and alternative financing mechanisms identified to support their implementation but have not yet been fully approved. All identified projects fall within the definition of a Metro sustainability-related asset and represent only a subset of the potential projects Metro could implement in future years. For example, we have identified Energy Management Program projects through energy audits at only six divisions. These projects represent an average 12% cost reduction at each facility with the opportunity for greater resource cost savings across other Metro facilities.

There is variety in the size, scale and complexity of the potential future sustainability assets but all are designed to result in cost effective reductions in both Metro operating costs and Metro’s impact on the environment.



Figure 9: Proposed Sustainability Infrastructure Project Costs by Program

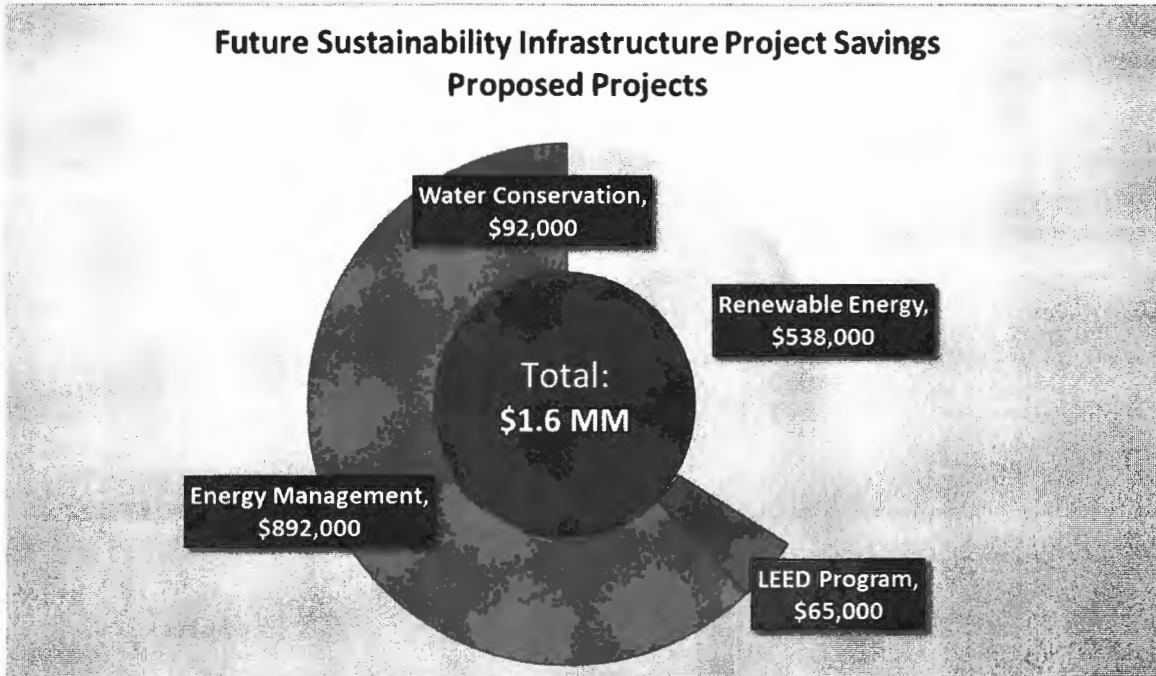


Figure 10: Proposed Sustainability-Related Infrastructure Project Savings by Program

Proposed future projects are geographically distributed and Figure 11 below shows the number of identified projects at each site. The average project cost by program differs greatly but there are performance improvement opportunities at all sites.

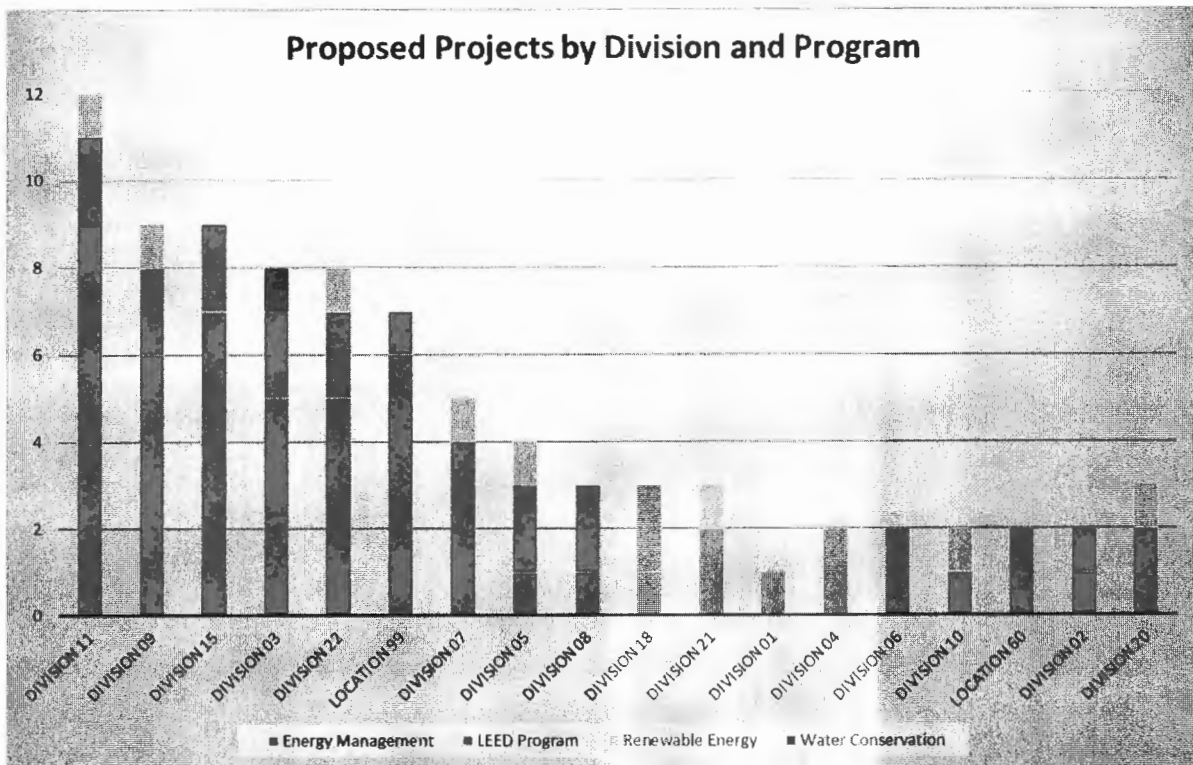


Figure 11: Proposed Project Count by Location

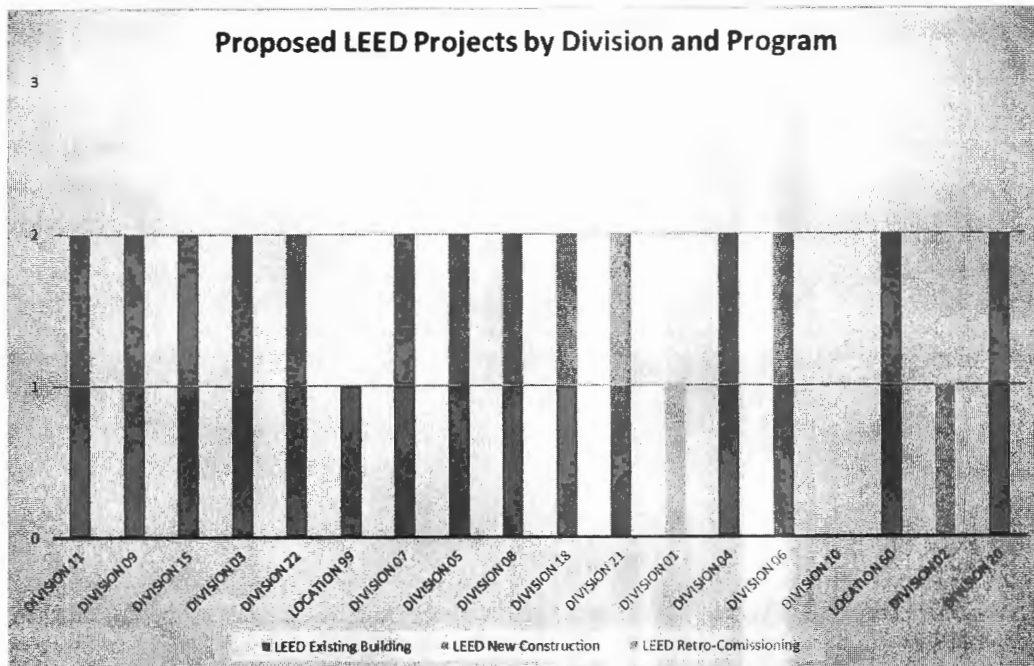
Table 7 shows an inventory of the Future Renewable Energy projects that make up the nearly \$12 million of investment opportunity. Metro has analyzed all potential PV system locations and selected these eight sites as the most cost effective candidates for large scale deployment. Implementation of all systems in Table 7 would increase the existing PV system capacity by 150%.

Table 7: Proposed Future Renewable Energy Projects

Future Renewable Energy Projects		
Project Name	Location	Status
Parking Structure PV Installation	Division 07	Proposed
Solar PV System	Division 09	Proposed
Solar PV System	Division 10	Proposed
Solar PV System	Division 11	Proposed
Solar PV System	Division 22	Proposed
Solar PV System	Division 20	Proposed
Solar PV System	Division 05	Proposed
Solar PV System	Division 21	Proposed

Over the coming years the LEED Program, through the EMS process, will continue to aggressively pursue LEED strategies to fulfill the intent of Metro’s Environmental Policy and Energy and Sustainability Policy. All existing buildings will perform retro-commissioning to optimize HVAC system operation. The collection of no- and low-cost process improvement projects implemented through the LEED strategy implementation will ultimately result in more comfortable and efficient buildings.

Table 8: Proposed Future LEED Program Projects



Metro's most cost-effective option for reducing its resource costs and GHG emissions is through the implementation of energy conservation and efficiency projects. The Energy Management Program projects can be broken down into the building systems affected by a given project. For example, in Metro facilities energy is used for the following purposes:

- Lighting
- Domestic Hot Water (DHW)
- Heating, Ventilating & Air Conditioning (HVAC)
- Compressed Natural Gas (CNG)
- Plug Loads
- Process Equipment (Tools and Machines).

Figure 12 displays the number of projects proposed to date within each of these asset types. Projects range in complexity from full air conditioning system replacement to a light bulb replacements and everything in between. We are continuing to conduct facility audits of existing facilities to identify energy savings projects and expect a three-fold increase in the number of energy efficiency projects for Metro to consider. Figure 13 shows a breakdown of the total Energy Management Program savings for proposed projects by specific project type.

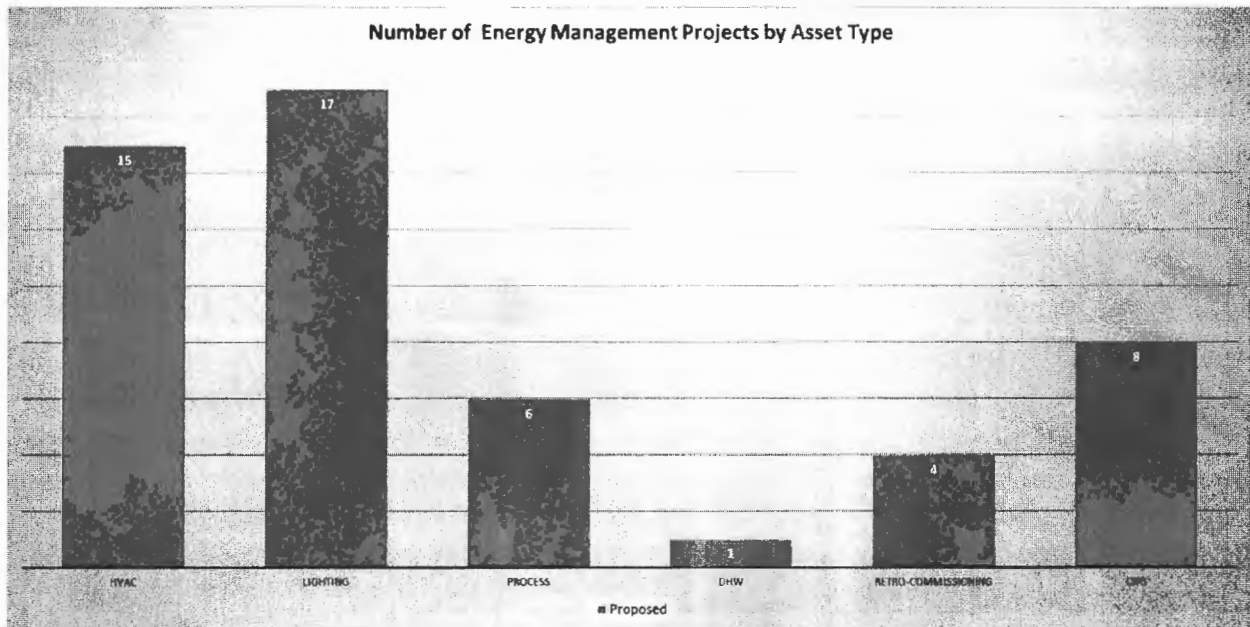


Figure 12: Proposed Energy Management Program Projects by Project Type

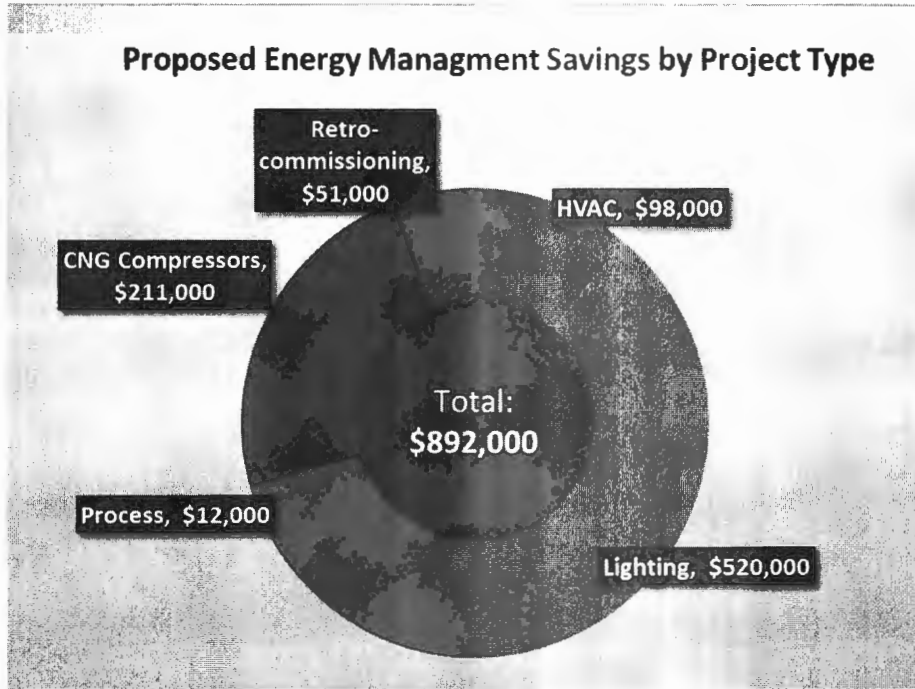


Figure 13: Proposed Energy Management Program Project Savings by Project Type

Water Conservation Program projects aim to reduce the water usage throughout Metro operations. Given the current drought conditions, the importance of these projects is increasing by the day. Metro’s EMS will be focusing intently on increasing the number of water conservation projects.

Table 9: Proposed Future Water Conservation Projects

Future Water Conservation Projects		
Project Name	Location	Status
Bus Wash Recycled Water System Project	Division 01	Proposed
Recycled Water System	Division 03	Proposed

Conclusions

Metro's ongoing investment in its sustainability-related infrastructure continues a decade-long commitment to dedicating resources to further advance resource-saving assets. Since 2005, Metro has completed over thirty-seven projects, realizing nearly \$2 million in yearly cost savings from these assets and \$6.4M in cash rebates from utility partners. The organization is identifying additional projects for implementation through the agency-wide EMS, which is advancing sustainability goals and employee engagement across and at all levels. Continued support for the growth of Metro's Sustainability-Related Infrastructure will continue the implementation of operational cost reduction strategies as evidenced by the targeting of an additional \$1.6M in yearly cost savings.

Large-scale investments in solar PV systems dominate the current infrastructure. These are valuable assets that are devoid of any electricity costs and contribute toward meeting Metro's Renewable Energy Policy goals. A more recent focus on the Energy Management and LEED Program areas has resulted in a more balanced and diversified portfolio of sustainability-related assets, which will allow Metro to implement future cost-savings projects while meeting Energy, Sustainability, and Renewable Energy Policy goals. ECSD also recognizes an opportunity for expansion of the Water Conservation Program area to include future sustainability projects.

This assessment identified gaps in the current approach for maintaining the current asset base. If Metro does not maintain these assets appropriately, the agency will not benefit from the resource cost savings that uniquely arise from investments in sustainability-related assets. Attachment B: Metro Sustainability Infrastructure Implementation and Operational Plan provides a detailed operational plan for a transparent process to evaluate, implement, and maintain the portfolio of potential future sustainability project investments, and a financial plan for identifying and securing funding for these investments that mitigates the financial impact on the Metro organization.

ATTACHMENT B
Metro Sustainability Infrastructure Implementation and Operational Plan

Metro Sustainability Infrastructure Implementation and Operational Plan

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Introduction

Over the past decade, the Los Angeles County Metropolitan Transportation Authority (Metro) has invested in a growing number of capital and operating improvements to improve the long-term environmental sustainability of the agency. Maximizing the benefits of Metro's sustainability infrastructure requires ongoing attention to maintain a state of good repair across the agency, and careful consideration of future sustainability improvements. This plan integrates wherever possible with existing systems to provide a financial and operational process for establishing oversight and identifying financial resources to maintain existing and future sustainability asset performance, along with guidance for identifying needed investment in additional sustainability assets that will benefit Metro into the future.

In the context of this plan, Metro sustainability assets include operational *investments made in Metro facilities, technologies, fleet, people, and processes that:*

- 1) directly contribute to the reduction in resource usage beyond an established baseline for electricity, natural gas, other non-renewable fuels, water, hazardous substances, or*
- 2) directly reduce greenhouse gas emissions (GHGs), other air emissions, wastewater, solid waste, other environmental impacts, or*
- 3) directly increase operational efficiency, staff productivity and well-being, and customer satisfaction beyond standard operations, while maintaining safety and system reliability.*

This sustainability infrastructure implementation and management plan provides for the selection and implementation of sustainability-related investments and the ongoing measurement and verification of investment performance. This plan also identifies an approach for Metro to establishing the necessary funding and ongoing operations and maintenance requirements for sustainability assets prior to implementation.

Sustainability Infrastructure Management

The Environmental Compliance and Services Department (ECSD), within the Engineering & Construction Division in working with key Metro internal stakeholders, will use established procedures and processes to facilitate:

- Sustainability project selection, development, and implementation;
- Measurement and verification of sustainability asset performance;
- Long-term planning (financial and operational);
- Sustainability project-related training;
- Sustainability reporting on infrastructure for Board, Management, and Metro Sustainability Report; and
- Necessary stakeholder engagement related to the sustainability asset management activities (internal and external coordination)

The implementation and management of sustainability-related assets will support the reduction of operational costs over time by increasing operational efficiency and will support the implementation of Metro's Environmental Policies. Metro's ISO 14001 Environmental Management System (EMS) provides the framework for coordinating and organizing the reduction of Metro's impact on the environment. EMS procedures and processes will be used to manage and document the implementation and management of Metro's sustainability infrastructure.

Figure 14 outlines the cross-functional process for the future development of new sustainability-related assets at Metro. The primary Metro groups involved in the implementation and management of sustainability infrastructure are listed in the left column and include existing ECSD staff, Metro Management, Operations (Facilities Maintenance), Office of Management and Budget (OMB), Engineering & Construction, and Procurement Departments.

Roles and Responsibilities

The sustainability infrastructure implementation and management plan will be implemented and managed using existing staff, processes and management systems. This plan calls for a coordinated approach for the continual operations and maintenance of Metro's sustainability assets. The administrative and technical requirements outlined herein will be executed using existing Environmental Compliance and Services Department (ECSD) staff. Management and budget estimates for supporting the implementation of this effort will be considered as part of the ECSD annual budget projections. Such activities will be facilitated through the EMS Admin Team who will have the responsibility of aligning implementation with overall environmental and organizational goals and objectives at the frontline level. This diverse group, as well as the internal stakeholders outlined in Figure 1, will be critical to the success of this plan and long term operation and maintenance of Metro's sustainability-related infrastructure. Numerous variables, including the total number of projects, their complexity, and the rate at which they undergo implementation, will determine the level of effort required.

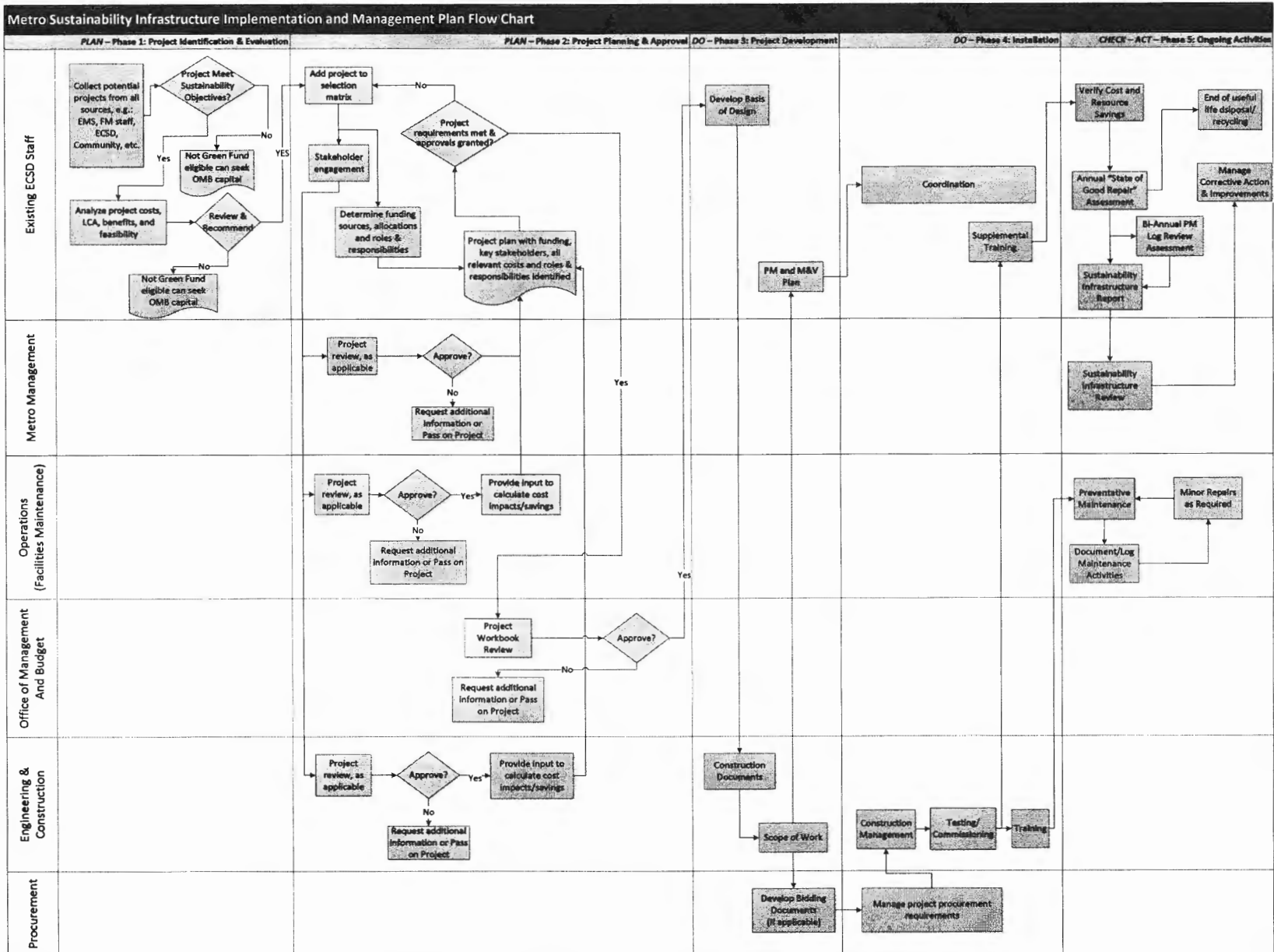


Figure 14: Sustainability Infrastructure Implementation and Management Plan Flow Chart

Sustainability Infrastructure Implementation and Management Plan

The sustainability infrastructure implementation and management plan is designed to be a transparent and collaborative approach. Successful sustainability projects require cross-Agency coordination that begins with initial planning and carries through long-term operations and maintenance. Metro’s agency-wide EMS framework is a proven and successful process for engaging stakeholders across the organization and will be utilized in the support and ongoing management of sustainability assets. The execution of this plan will help Metro anticipate and address challenges throughout each project’s useful life.

The sustainability infrastructure development and management process follows five phases that generally align with Metro’s current capital project planning and conforms to the EMS plan-do-check-act (PDCA) model of continual improvement. Due to the nature of sustainability projects, additional considerations at each phase are highlighted in Table 10. Each phase is described in detail below.

Table 10: Sustainability Infrastructure Implementation and Management Plan Phases and Considerations

	Implementation Phases	Project Considerations
PLAN	Phase 1: Project Identification and Evaluation	<ul style="list-style-type: none"> Potential projects are collected from across the agency through the EMS and not limited by facility location, bus or rail projects Projects undergo basic life-cycle analyses at the outset
	Phase 2: Project Planning & Approval	<ul style="list-style-type: none"> Agency-wide stakeholder engagement as necessary to seek support and buy-in for new projects Detailed costs, savings and ongoing management costs are developed and incorporated Funds identified and allocated through capital program approval process
DO	Phase 3: Project Development	<ul style="list-style-type: none"> Inclusion of preventative maintenance, operations and maintenance (O&M) and measurement and verification (M&V) plans Assignment of roles and responsibilities
	Phase 4: Installation	<ul style="list-style-type: none"> Additional training for assets as required
CHECK – ACT	Phase 5: Ongoing Activities and Continual Improvement	<ul style="list-style-type: none"> Implementing O&M and M&V plans according to approved project plan Savings reinvestment opportunity, state of good repair assessments

Metro's Sustainability Long-Term Financial and Operational Plan

Sustainability Infrastructure Funding Sources

Metro allocates funding for the implementation of sustainability-related assets from a variety of different sources, with the primary funding coming from OMB's annual Capital Program. The existing sources of funding the implementation of sustainability-related infrastructure include:

- **Office of Management & Budget Annual Capital Program:** These allocations have funded most of Metro's existing sustainability infrastructure to date. Represents Metro's annual and off-cycle capital approval process.
- **Sustainability Implementation Program:** This is a capital program that allocates funds annually for sustainability pilot projects.
- **Alternative Financing Mechanisms:** Sustainability projects are often eligible to receive external grants or may enter into cost-sharing arrangements with entities external to Metro. This funding is project-based and can vary widely from year to year. However, it can fund large portions of individual sustainability infrastructure projects.

Metro is seeking to support sustainability project development, maintenance, and operations through the "Green Fund" established as part of the approval of Item 48 of the June 2014 Board meeting. The fund, as described in detail at the end of this document, would have three funding sources in addition to the interest generated from their investment. These include:

- **Low Carbon Fuel Standard (LCFS) Credit Proceeds:** This potential funding source comes from the sale of Metro-earned LCFS credits through a market based system. As requested by the Board during the February 2014 Item 57 Board Motion, Metro has developed a revenue optimization plan for the LCFS credit sales to maximize the potential funding opportunity to maintain sustainability investments. This is a relatively new and small market with highly variable market prices for credits and a potential sunset in year 2020; estimated proceeds range from \$300,000 to \$3M annually. Metro recognizes the inherent volatility of this funding source. This plan presumes that this new source of funding is available for budget planning and will remain so as long as Metro generates credits and the market for these credits continues to operate.
- **Sustainability-Related Infrastructure Cost Savings Reinvestment:** This potential funding source reinvests cost savings generated from the operation of sustainability assets in future projects and the ongoing operation of existing sustainability-related infrastructure. The savings contribution value of each project would be identified as part of an approved project plan explained in Phase 3 and executed in Phase 5 of this plan. Agreed upon and verified savings values would be applied through an internal budget reallocation mechanism.

- **Utility Incentive and Rebate Reinvestment:** Metro’s utility partners are incentivized by the California Public Utility Commission to buy down the cost of the equipment described herein as sustainability-related infrastructure. Nearly \$6.5M of such funding has come in the form of cash revenue to Metro since 2005. Future funding would be applied through an internal deposit or allocation mechanism upon receipt of incentive checks.

Asset (Project) Implementation Funding

The assets included in the 2014 Sustainability Infrastructure Assessment Report represent current assets and a list of identified and proposed future assets. Phase 5: Ongoing Activities and Continual Improvement includes discussion on financial planning for the existing assets. This section details how a potential project becomes a Metro sustainability asset. Table 2 details the three different types of assets and an example of existing Metro examples of each. Asset Types classify the operation and maintenance requirement approach required to ensure it brings desired benefits throughout its useful life.

Table 11: Asset Type Definition

Asset Type	Definition	Examples
<i>New Asset</i>	Equipment added to a Metro facility or a new process that did not previously exist.	<ul style="list-style-type: none"> • Solar photovoltaic (PV) system • Domestic Hot Water Heat Recovery System
<i>Process Improvement</i>	Project that improves efficiency/sustainability of an existing process: can be asset-based or administrative, may change the operations and maintenance (O&M) requirements for existing process.	<ul style="list-style-type: none"> • Bus dryer redesign • Heating Ventilation and Cooling (HVAC) redesign • Control systems • Water Recycling System
<i>Existing Asset Replacement</i>	Project that replaces existing equipment with a more sustainable option.	<ul style="list-style-type: none"> • Boiler replacement • HVAC replacement • Lighting retrofit

Metro’s sustainability project implementation process consists of five iterative phases, each with a corresponding financial decision to inform movement to the next phase. Each phase consists of project review and approval, allowing for transparency and coordination throughout the process. Figure 15 outlines each phase and the corresponding, required decision.

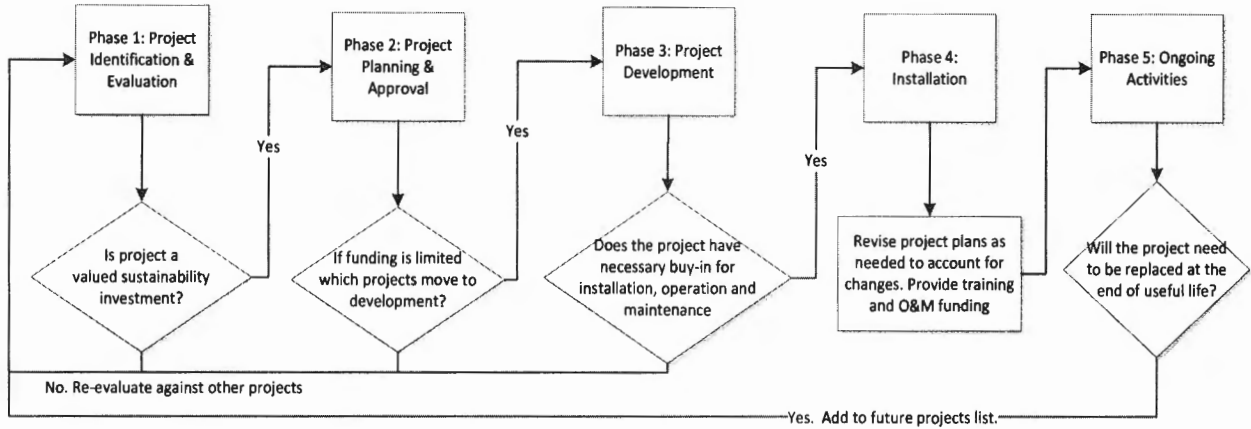
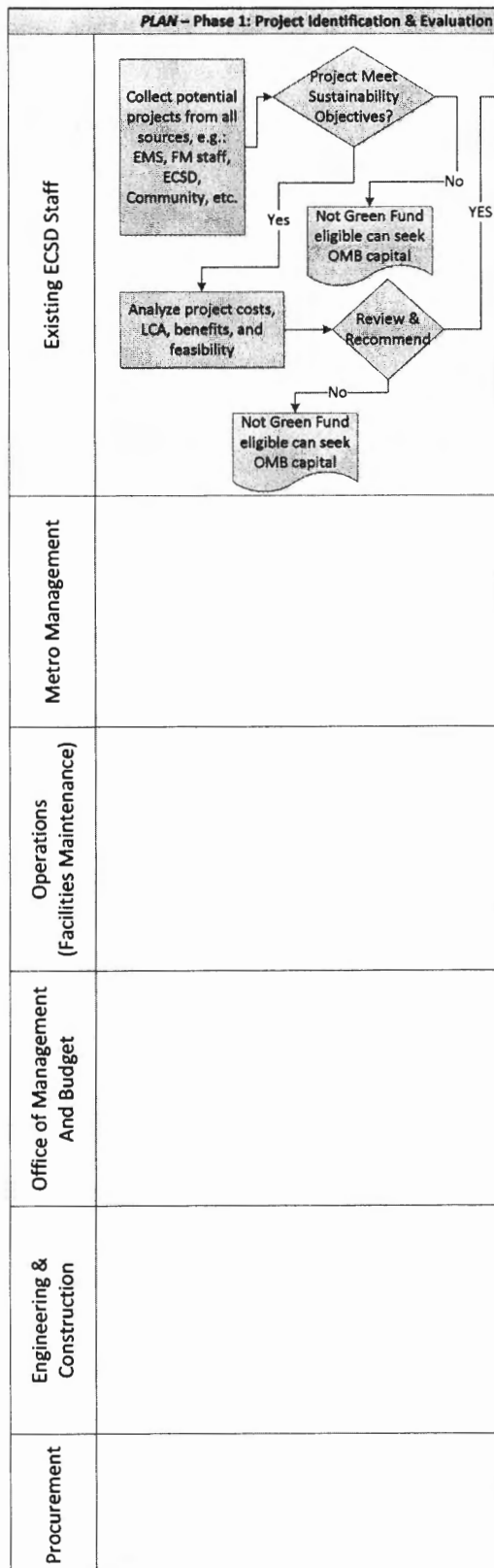


Figure 15: Funding decision flow within implementation and management plan

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Phase 1: Project Identification and Evaluation



In this phase, a list of potential sustainability-related infrastructure projects will be created as they are identified. To include a potential project on the list, staff will verify that the project meets, at a minimum, the definition of a Metro sustainability asset. This early evaluation of potential projects will reveal anticipated results, however a full accounting of the potential costs and benefits of the project investment is not necessary until later in the process.

Potential sustainability projects at Metro can come from several sources including but not limited to:

- initiatives from EMS Administrative Team or Facility EMS Core Teams;
- suggestions from other internal Metro departments (solicited);
- results of energy and resource audits;
- projects requiring additional funding to upgrade from standard to sustainable;
- end-of-useful-life replacement; and
- unsolicited proposals from internal stakeholders and third parties.

Projects will be collaboratively evaluated to determine whether or not the proposed projects will enhance Metro’s sustainability-related infrastructure. The initial evaluation of potential projects will consider both quantitative (e.g., resource cost savings) and qualitative (e.g., fulfillment of policy mandates). For example, will the potential project reduce an environmental impact, increase resource efficiency or generate renewable energy that contributes to meeting the Renewable Energy Policy goals?

At this phase in the process, some evaluation questions may not have sufficient answers. Staff will seek out additional information as needed to determine an expected overall (quantitative and qualitative) project value. Potential projects shall remain in the evaluation phase until enough

information exists to answer the key decision for this phase:

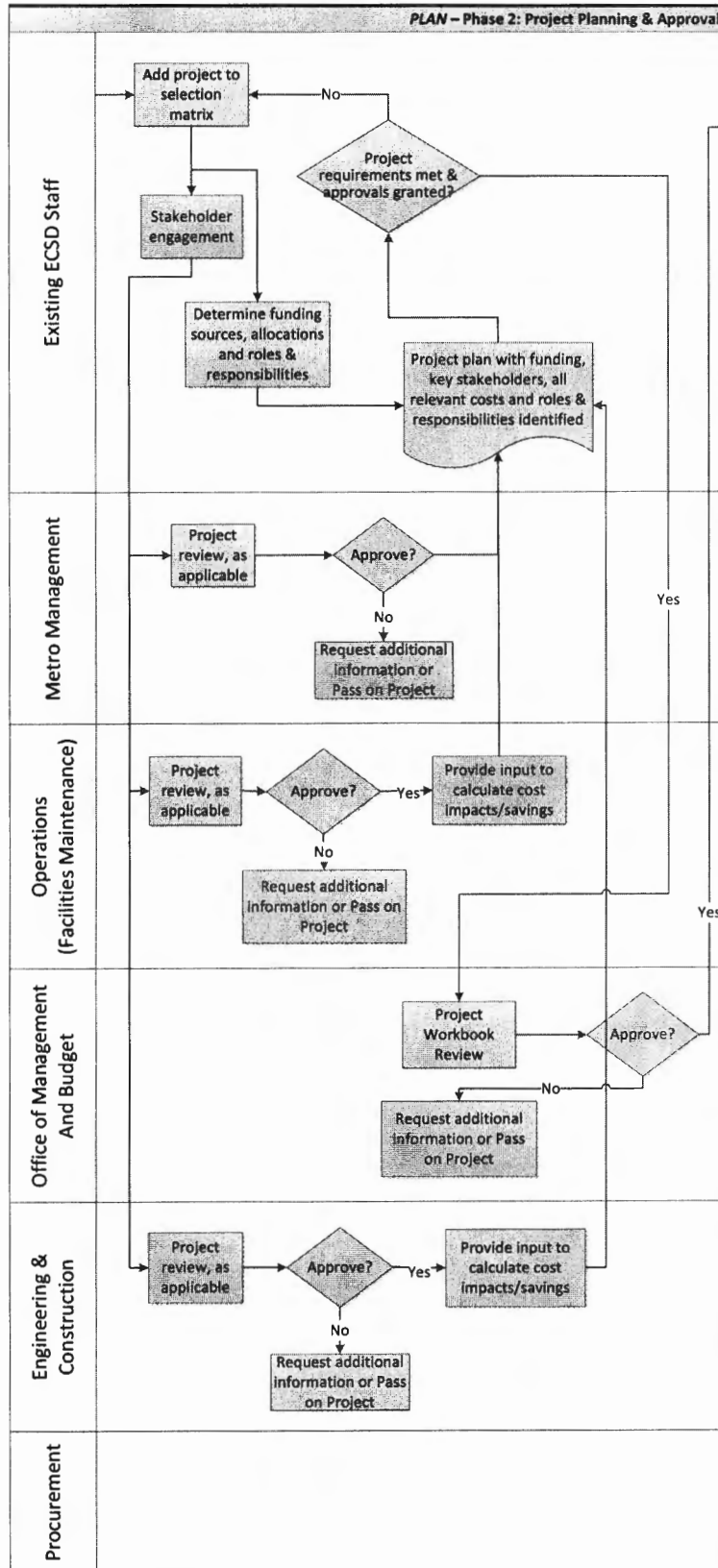
Is this project a valued sustainability investment for Metro?

If the answer is “yes,” then the project is eligible to be moved on to Phase 2: Project Planning and Approval. If the answer is “no”, then the project can either return to the tracking list or removed from further consideration.

ECSD staff will maintain a comprehensive list of potential projects passing through to Phase 2, and will make this list available to Metro internal stakeholders using the existing project dashboard database to allow for easy viewing and ad hoc reporting. The projects on this list are under active consideration for implementation. However, the listing does not indicate that any projects have received budgeting or approval. Phase 2, below, outlines how staff will compare the potential projects against one another for funding consideration that is available in a given fiscal year.

PLAN-DO-CHECK-ACT

Phase 2: Project Planning and Approval



Potential projects that move into Phase 2 will begin the more rigorous planning and budgeting process, including a life-cycle cost evaluation and initial stakeholder assessment to provide a more thorough and comprehensive evaluation. A selection team will be convened to apply standardized project evaluation metrics across all potential projects to allow for accurate comparison of financial performance including cost, savings and ongoing operation. After collecting and evaluating key project information, potential assets will combine to develop a portfolio of projects that most cost-effectively meet Policy and EMS stated objectives and targets. The team will employ a Project Portfolio Management approach to determine which proposed projects move to Phase 3 (Project Development). The key financial question to move through this phase is:

If funding is limited, which projects will move to development?

Project Budgeting

Each project team will develop a detailed project budget and plan, consisting of specific proposed funding sources, and expected time frames for development and installation based on standardized forms and methods. Cost analysis will

incorporate the entire useful life of the equipment. As Table 12 shows, Metro's sustainability-related infrastructure projects face several project funding scenarios that allow for project implementation within specific Metro parameters. In collaboration with other Department sponsors/Project Managers, ECSD staff will seek to identify opportunities to offset Metro's project cost requirement for sustainability-related infrastructure through rebates and other alternative financing mechanisms whenever possible, up to full cost of the proposed project.

Table 12: Internal Metro Project Cost Responsibility Scenarios

Funding Scenarios	Green Fund	Other Funding
<i>Full Cost Responsibility</i>	100% of project costs associated with development, installation and ongoing O&M	None
<i>Cost Share</i>	Partially fund project implementation. Examples could include additional design and commissioning costs, cost of purchasing more efficient equipment, or percentage splits based on budget shortfall	Partial funding for project implementation derived from the use of capital funds as allocated by OMB
<i>No Cost Responsibility</i>	Basic review to gather project information and ensure proper evaluation of O&M costs	100% of project implementation derived from the use of capital funds as allocated by OMB

Working other Department sponsors/Project Managers, ECSD staff will provide support to identify the anticipated project lifecycle cost requirements, available funding sources, and project leads for key roles as part of the overall project plan. Direct input from across the organization will be included to allow for appropriate checks and balances on both project costs and feasibility. As the section below describes, key identified metrics such as cost savings will have supporting documentation. Information will be centrally located for all stakeholders to access and review.

Table 13 presents an example of a Phase 2 level project budget with major costs, funding sources, and project leads identified. Note that project-level leads are project specific, can represent different departments, and do not necessarily assume ongoing asset management responsibilities. The time value of money has been considered in this example.

Table 13: Example Project Budget

Example Project	Lighting Retrofit at Division X	
Project First Costs	\$225,000	one-time
Ongoing O&M Costs	\$500	annual
M&V Costs	\$1,000	every 4 years
Expected Useful Life	20	Years
Total Life Project Cost (nominal)	\$240,000	
Funding Sources		
OMB FY16 Capital Program	\$175,000	one-time
Green Fund	\$50,000	one-time
Green Fund	\$10,000	\$500/yr x 20 yrs
Alternative Financing Mechanism	\$500	utility incentive
Total Funding Identified	\$240,000	
Project Leads		
Metro Project Manager	Project Staff	
Environmental Compliance and Services Lead	ECSD Staff	
Facility Maintenance Lead	FM Staff	
Operations Lead	Division Staff	
Procurement Lead	Procurement Staff	

Proposed sustainability project budgets will be approved and funded through the existing capital projects process. Not all potential projects will be sent to OMB for approval. The sustainability project portfolio selection process will prioritize projects that best meet Metro's financial and sustainability objectives. The selection process explained below is designed to provide a transparent method for determining which projects are eligible for sustainability funds and best meet Metro's overarching policy and agency-wide EMS goals.

Sustainability Project Portfolio Selection

Relying on the principles of portfolio management, the EMS Admin Team and existing ECSD staff will employ a standardized selection approach for potential sustainability-related investments. Companies and organizations use many different models to apply similar principles to maximize benefit and minimize risk for their asset investments. The approach for Metro's future sustainability assets is designed using a pillar of portfolio management theory: Matrix Scoring. Consistent with the EMS process, matrix scoring takes the most important project attributes as determined by the desired outcomes such as cost savings and meeting sustainability goals. Those attributes are weighted to account for their relative importance. A portfolio of potential sustainability-related investment projects will be scored in each project criteria to arrive at a final score. Those scoring the best to represent those projects that minimize risk, whether financial, technology, or customer-based and maximize benefits. This approach will provide additional transparency for accountability, compliance, and other requirements Metro faces as a publicly agency.

As with Metro’s Annual Capital Program, there are several key criteria to consider when making portfolio decisions. This section describes a proposed approach based on interviews and analysis. Collectively, the following criteria are intended to provide a thorough review of the expected financial and organizational costs and benefits of the sustainability investment portfolio.

- **Return on Investment (ROI):** This criterion aligns with Metro’s capital budgeting process and represents the financial value to Metro. Standard Metro assumptions will be documented and used including discount rates, depreciation, tax and other rates used to calculate sustainability project ROI. Sustainability related ROI calculations will also consider the long-term O&M and M&V costs for managing the assets throughout their useful life.
- **Life-cycle Cost-Savings:** This criterion is a calculated estimate of the long-term, or useful life period, cost-savings resulting from the investment in the sustainability project. Staff will use industry-recognized standards along with other protocols for calculating project savings to determine the value for this criterion. Calculations will include all costs associated with O&M, oversight and verification of project savings.
- **Technology Viability:** This criterion is a qualitative measure of the risk of investing in a new technology, system or process. The Project Team shall consider stakeholder support or opposition and any internal and external opportunities and barriers when scoring this criterion.
- **Probability of Success:** This criterion is a qualitative measure of the probability that the project will move to installation, will be operate properly, and will receive appropriate maintenance throughout its useful life. The project team shall consider stakeholder support or opposition and any internal and external opportunities and barriers when scoring this criterion.
- **Sustainability Policy Objectives:** This criterion is a measure of the degree to which the project meets Metro’s approved sustainability policy objectives. (e.g., GHG reductions, water conservation, solid waste reduction). Metro’s EMS selects similar objectives and targets that will also impact the relative importance of the project in relation to others.
- **Mission Criticality:** This criterion captures Metro’s need for the project to be implemented. Projects with a higher project priority value represent immediate or critical infrastructure projects needed to avoid negative operational impacts.

The selection criteria above (and proposed weighting as shown in Figure 3 below) will be used to screen and validate proposed projects’ relative importance to both sustainability and overall organizational goals. A re-evaluation of these criteria will take place periodically to allow for the realignment of the project selection process to respond to any key changes in Metro’s sustainability related objectives and priorities.

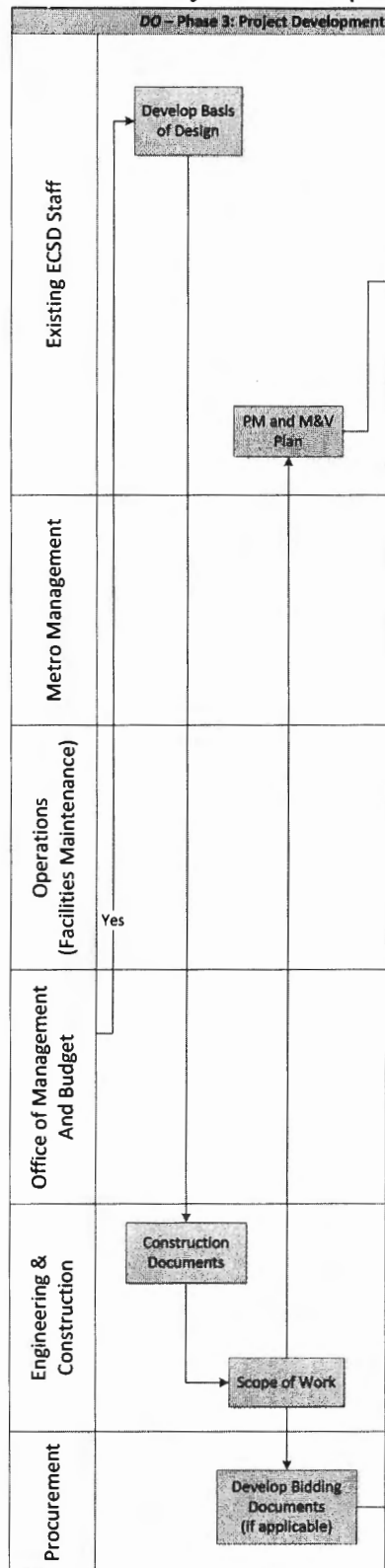
On a rolling basis throughout the year, at least quarterly, the portfolio can accept newly-identified or high-priority projects as available funds allow. An example of the proposed quantitative scoring approach is shown in Figure 3 below. This is an illustrative example of the proposed evaluation and selection matrix. The transparency will minimize confusion and maximize the use of each dollar spent to achieve desired goals. Ranking the potential projects in order of total score from high to low identifies Metro's priorities and an order in which to release funding. Using the results of this evaluation, only the highest impact projects will be submitted for OMB approval using the newly available funds. Projects receiving full implementation budgets will move to Phase 3: Project Development.

<i>Example Criteria Weighting</i>		25%	25%	15%	15%	20%				
Example Project List	Total Budget	Return on Investment	Lifecycle Cost Savings	Technology Viability	Probability of Success	Mission Criticality	Total Score	Remaining Budget Total	Selected?	
Project 1	\$ 25,000	7	7	10	10	10	85	\$ 4,975,000	YES	
Project 2	\$ 575,000	5	5	10	5	5	57.5	\$ 4,400,000	YES	
Project 3	\$ 2,800,000	2	2	10	7	7	49.5	\$ 1,600,000	YES	
Project 4	\$ 1,000,000	5	5	1	5	5	44	\$ 600,000	YES	
Project 5	\$ 80,000	5	5	10	1	5	51.5	\$ 520,000	YES	
Project 6	\$ 650,000	1	3	5	10	2	36.5	\$ (130,000)	NO	
Project 7	\$ 165,000	5	5	5	5	1	42	\$ (295,000)	NO	
Total FY Funds Required	\$ 5,295,000									
FY available funds	\$ 5,000,000	10 = \$\$\$\$	10 = \$\$\$\$	10 = Common Practice	10 = High	10 = Time of essence				
Difference	(\$295,000)	5 = \$\$	5 = \$\$	5 = Emerging but tested	5 = Medium	5 = Future critical need				
		1 = \$	1 = \$	1 = New / untested	1 = Low	1 = No material difference				

Figure 16: Example of Potential Sustainability Infrastructure Portfolio Selection Matrix

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Phase 3: Project Development



The project development phase will align with the existing Metro Capital Project Approval processes. At the conclusion of this phase, funding requirements will be finalized from implementation through the ongoing operations and maintenance.

The following core deliverables for this phase are common to all best practice construction projects:

- Project Basis of Design
- Construction Documents
- Scope of Work

Given the non-standard equipment necessary for some sustainability-related assets, the next set of deliverables under the project development process clearly identifies project requirements and a plan for the operation and maintenance throughout the equipment’s expected useful life:

- Preventative Maintenance Plan
- M&V Plan
- End of Useful Life Assessment.

Preventative Maintenance Plan

The Preventative Maintenance Plan will provide a forum to plan for the incorporation of the proposed asset into day-to-day Metro operations. The project team will use the Metro EMS program framework to identify maintenance, training, safety and other requirements that can be tracked using EMS documentation. This phase will incorporate feedback from stakeholders through existing EMS Core Teams, such as maintenance and operational staff. Different assets will require varying levels of sophistication in the development of this plan. ECSD staff will facilitate the development of technical and financial resource requirements to implement the Preventative Maintenance Plan for the life of the asset within the upfront project costs requiring approval.

Recent work between Facilities Maintenance and ECSD related to existing solar PV systems, demonstrates how

this approach can be successful. Upfront identification and assignment of responsibility provides transparency and accountability in the ongoing maintenance of Metro's existing solar systems. Each asset will have a unique Preventative Maintenance Plan with appropriate staff resources assigned. Future projects will benefit from similar projects already completed and are familiar with the process.

Measurement and Verification (M&V) Plan

The M&V plan will detail the process for measuring and verifying the efficient operation and cost savings of the proposed project. The section below, titled M&V Asset Savings Determination, details the varying approaches that will vary slightly by project depending on variables such as complexity, size or repeatability.

The costs of implementing the approved M&V approach will be finalized by developing this plan as part of the project's development. At this point in the process, the proposed budget includes the estimated level of M&V anticipated. The development of the M&V Plan will finalize the approach and appropriate resource requirements for each specific project. ECSD staff will facilitate through the EMS the execution of the proposed M&V plan as written during this phase of the project's development.

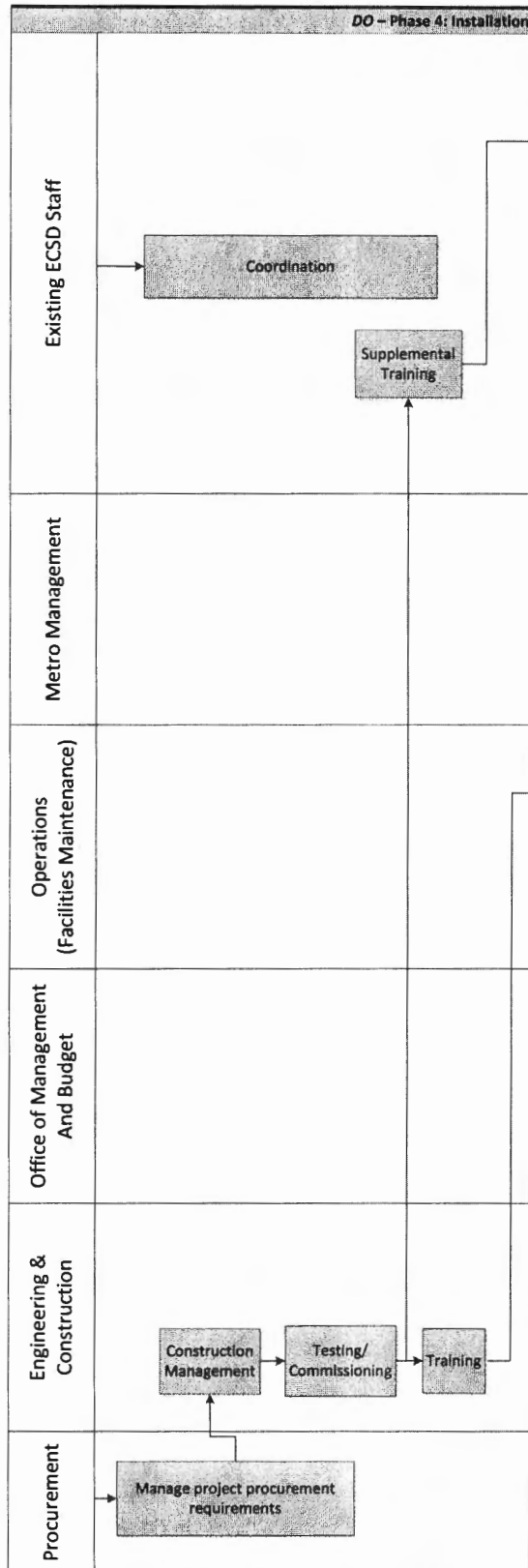
End of Useful Life Assessment

To plan, budget and account for the end-of-useful-life disposal or recycling requirements, the project will follow a life-cycle assessment approach. The expected life-cycle of installed assets will provide a general time horizon for the planning for future projects. An annual state of good repair assessment and funding availability will determine the proper and opportune time to decommission an asset. Sustainability-related assets will continue through the same implementation process outlined above, but may receive priority over the implementation of new assets as project needs warrant.

Project development activities for sustainability-related projects, as well as co-funding of enhanced design or efficient equipment, will be facilitated through ECSD. OMB management's review and approval of the complete project plan documentation represents the completion of Phase 3 activities.

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Phase 4: Installation



Identified project team members will collaborate on the required level of involvement depending on the project delivery mechanism. In many cases existing project delivery approaches and departments will have primary responsibility for the procurement, construction, and commissioning activities needed to implement sustainability assets.

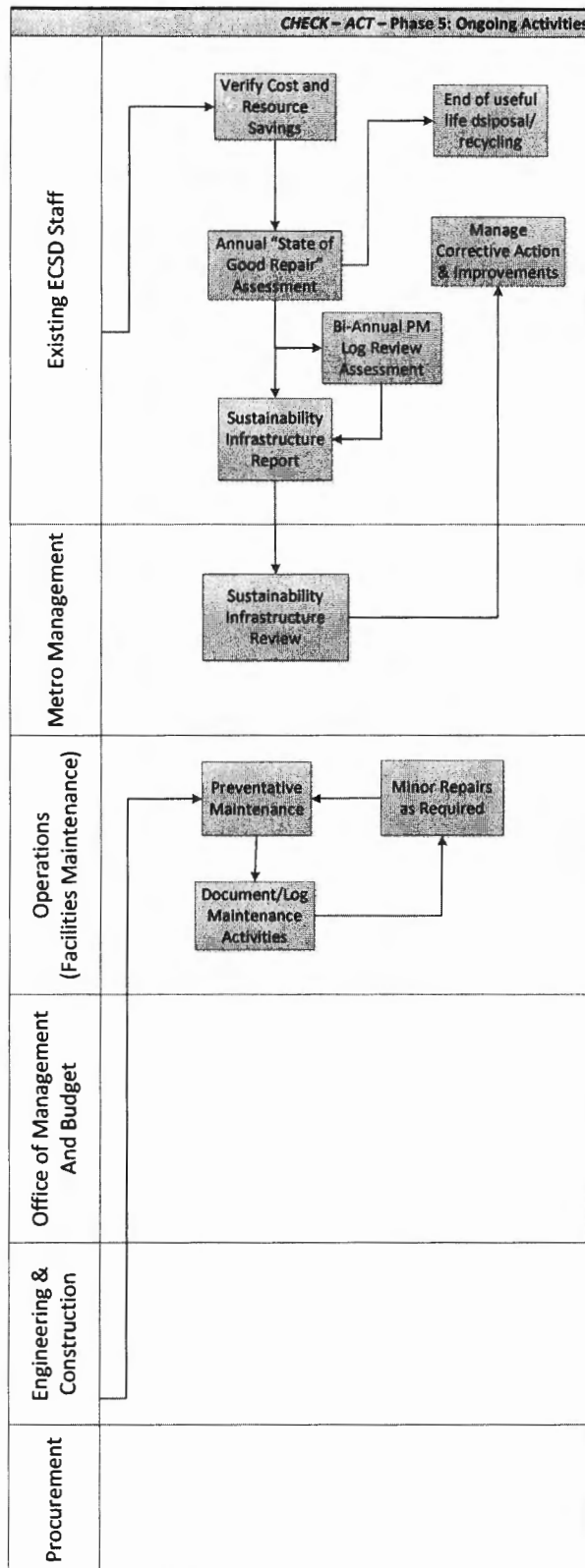
The project team will evaluate any opportunities for alternative financing and delivery mechanisms for sustainability-related projects. However, as with non-sustainability projects at Metro, the Office of Management and Budget will provide project approval and funding while Metro's Procurement department will administer the bidding and purchasing requirements for sustainability projects. This aligned structure provides continuity and affords a series of checks and balances to support transparency throughout the process.

Similar to other capital projects, the primary financial and management hurdles associated with the installation phase is the funding and management of scope changes or project overruns that may occur during the installation, construction, and commissioning of a sustainability project.

ECSD staff will coordinate closely with the implementation team to manage resource needs and changes during this phase. Finally, the EMS Document Control Procedure will guide any necessary changes to project documentation such as those previously developed as part of Phase 3: Project Development.

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Phase 5: Ongoing Activities and Continual Improvement



After a new sustainability-related asset goes through installation and commissioning, it becomes part of Metro’s sustainability infrastructure. An asset remains in this phase through the remainder of its useful life.

Phase 5: Ongoing Activities and Continual Improvement covers the operation of the implemented project and the execution of both the Preventative Maintenance and M&V Plan. ECSD staff will work with internal stakeholders to carry out these plans and continually evaluate their contents to improve future projects and current plans.

The EMS has a strongly documented and controlled process for Monitoring and Measuring environmental performance. This framework will be used to document the following process. Working with Metro Operations, on an annual basis, ECSD will conduct a high-level assessment of the state of good repair requirements for Metro’s existing sustainability asset base. On a two-year rolling basis, the team will review the preventative maintenance performance logs and necessary documentation for the installed portfolio. The documented results can be reviewed by the EMS Admin Team as part of the Check and Act framework. In the case that assets are not maintained in a good state of repair, as could be identified through audits, spec evaluations or corrective action requests, ECSD will conduct a more detailed review of the O&M operations in conjunction with the lead Facilities Maintenance and Operations staff. If this process identifies new projects, those will be added to the future projects list in Phase 1. Table 14 describes the proposed

assessment scale that this process will use which may involve either on-site inspections or surveys with personnel operating the assets for their intended purpose.

Table 14: State of Good Repair Assessment Values by Sustainability Asset Type

Asset Category	1 Poor	2 Marginal	3 Adequate	4 Good	5 Excellent	Assessment Type
Solar PV	<40%	41%-60%	61%-75%	76%-90%	> 91%	of panels + inverter + storage + monitoring equipment in good working order (visual equipment inspection)
Lighting	<40%	41%-60%	61%-75%	76%-90%	> 91%	of lamps, ballasts, controls in good working order (visual equipment inspection)
HVAC	<40%	41%-60%	61%-75%	76%-90%	> 91%	of affected personnel report "good working order" (requires survey)
LEED - Green Buildings	<40%	41%-60%	61%-75%	76%-90%	> 91%	of affected personnel report "good working order" (requires survey)
Water-conservation Devices	<40%	41%-60%	61%-75%	76%-90%	> 91%	of devices in good working order (visual equipment inspection)
Process Improvements	<40%	41%-60%	61%-75%	76%-90%	> 91%	of affected personnel report "good working order" (requires survey)

Installed assets remain in the Ongoing Activities and Continual Improvement phase throughout their useful life or until a new project related to this asset will be identified and sent back to Phase 1 of this process. This can be triggered by a failed state of good repair assessment or when one of the following occur:

- A major maintenance requirement exceeds typical O&M requirements
- A process improvement opportunity is identified
- A partial retrofit is required
- A full-asset replacement is required (due to failure, technology improvement, or other cause)
- End-of-useful life disposal/recycling required
- Other circumstances requiring a change in the status quo.

When one of these conditions are identified, appropriate staff will receive notification so that a new project can be developed and added to the list in Phase 1 of this iterative planning process.

Metro's Green Fund

This plan provides for the opportunity to reinvest resource cost savings into the expanding sustainability infrastructure across Metro's system. The Green Fund is one of several funding sources for supporting both the implementation of sustainability assets and ongoing activities as described in Phase 5: Ongoing Activities and Continual Improvement. The establishment of the Green Fund came with the approval of Item 48 during the May 2014 Board Meeting in response to the first part of the February 2014 Item 57 Motion. The intent of this fund is to support implementation and ongoing management of sustainability assets while minimizing the financial and budgetary impacts on the rest of Metro's operations.

Metro's Green Fund will be funded from the following sources:

1. Any proceeds from the sale of LCFS credits (per the LCFS revenue optimization plan)
2. Savings reinvestment allocations from internal Metro accounting
3. Any up-front capitalized O&M or M&V funds
4. Incentives received for sustainability projects (e.g. utility incentives)
5. Interest earned on Green Fund investments.

The Green Fund will be used for funding the O&M of sustainability-related capital construction/installation projects deployed on any Metro-controlled sites. These projects would include, but are not limited to:

- (a) energy conservation and energy efficiency projects;
- (b) renewable energy installation/construction and their operation and maintenance;
- (c) resource management initiatives (e.g., water, air, stormwater, industrial wastewater impact and cost-reduction; including waste to energy projects such as those derived for example from non-hazardous/non-human biowaste); and
- (d) any other related cost-saving and process efficiency generating activities that has a positive carbon footprint reducing benefit.

Cost Savings Reinvestment to Green Fund

The sustainability asset reinvestment is a new approach for Metro. This approach will establish an internal accounting process for identifying and re-allocating savings resulting from sustainability-related projects. While the actual implementation of the accounting and tracking practices is more complex, the figure below illustrated the basic components.



This accounting model for reinvesting resource savings has many different structures. Metro is seeking to implement a Return on Investment (ROI) model as shown in Figure 17. In the ROI model, the fund accrues savings on an annual basis up until the project has reached its simple payback. Stated another way, savings will accrue until the fund receives the net cost of the project.

The quantification of the amount of savings to be allocated on an annual basis will be pre-determined and approved prior to installation. The verification that an asset's approved savings values are being achieved throughout the approved period will be executed as described in each project's M&V Plan.

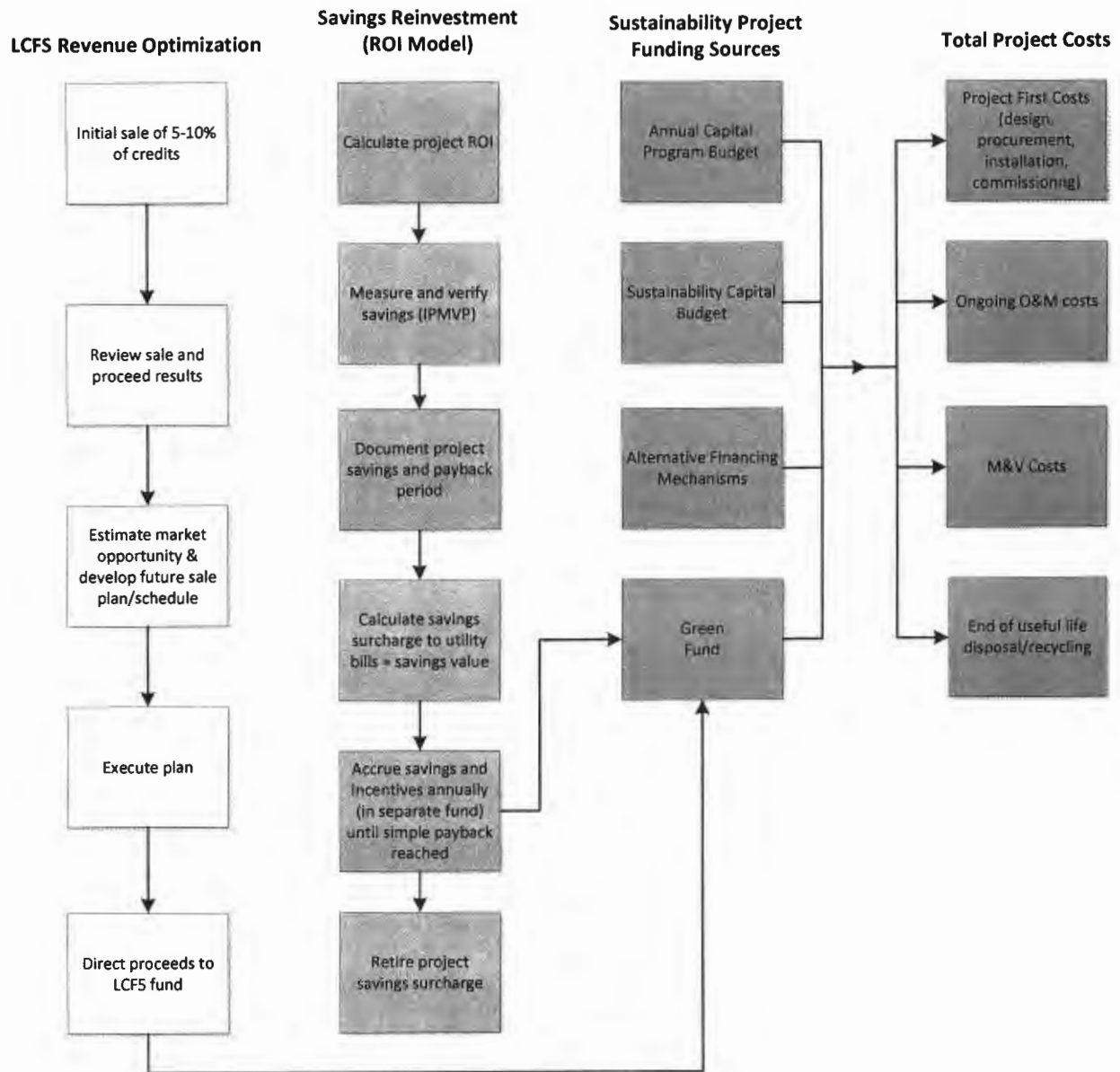


Figure 17: Sustainability Infrastructure Funding Mechanisms

M&V Asset Savings Determination

M&V savings determinations are an important factor in the long-term success of Metro's Sustainability Infrastructure Implementation and Management Plan. Resource cost savings from projects will go through the M&V process and the results will represent the verified savings values that are eligible for reinvestment into the Green Fund. To provide accurate and supported determinations for re-allocation of savings, consistent M&V protocols and international industry established techniques will justify the proposed values.

Project costs may absorb the costs associated with the necessary M&V through the initial purchase of monitoring equipment or through a separate cost incurred throughout the life of the asset. During Phase 2, the project team will estimate these costs and further refine them as applicable in Phase 3, and will include them in the final approved M&V Plan and project budget.

International Performance Measurement and Verification Protocol

Metro's determination of asset savings will be governed by the established International Performance Measurement and Verification Protocol (IPMVP®).⁶ This is an established methodology for estimating and calculating savings of energy and water resources with varying levels of complexity for different types of projects. Both energy and water industries have used and refined the M&V approach to determine resource savings over the last two decades. Accurate and reliable financial accounting for measuring and reporting savings from efficiency projects is critical for continued buy-in and support for energy and water saving projects. In California, the California Public Utilities Commission, California Energy Commission and all the investor owned utilities rely upon the IPMVP as the industry standard to determine resource savings values and progress to efficiency goals. Further, California established the existence of the Database Energy Efficiency Resource (DEER), which lists average savings for thousands of efficiency improvements that are researched, tested and updated regularly. ECSD plans to use these established approaches to determine savings with the IPMVP being the preferred approach.

The IPMVP includes different M&V approaches, or Options. Option A is the simplest method for calculating savings, while Option D is the most complex. The relative level of effort required to conduct the measurement and verification of savings typically aligns with the complexity of the approach. **Error! Reference source not found.** provides an overview of the IPMVP Options A through D, along with an example of how to use each option to measure a current asset.

⁶http://www.evo-world.org/index.php?view=download&alias=641-overviewsummary-of-ipmvp-28-38&option=com_docman&Itemid=1585&lang=en

Table 15: IPMVP Options with Metro Asset Examples

IPMVP Options	Short Description	Savings methodology	Current Asset Example
Option A	Retrofit Isolation	Field measurement of key parameters, estimates for non-key parameters	Gateway Building Low Flow Toilet and Waterless Urinal Retrofit; Division 7 Maintenance Bay Lighting Retrofit
Option B	All parameter measurement	Field measurement of all parameters	Division 8 Solar PV
Option C	Whole Facility	Field measurement and monitoring of the entire facility	Division 10 LEED Certification/Green Building
Option D	Calibrated Simulation	Computer simulation calibrated to the specific conditions of the facility	Gold Line Wayside Energy Storage

During Phase 3 project development activities, the project lead must select an IPMVP Option, or a similarly proven alternative, for any projects seeking to reinvest cost savings during the operational phase of that asset's life. The option selected for an asset should provide a reasonable level of savings estimation assurance for accounting, while maintaining a level-of-effort in-line with the project savings value to Metro. Frequency of performance will depend on the life of the asset combined with its complexity and amount of claimed savings. At a minimum, after initial commissioning and M&V of a new asset, a review of asset conditions will occur as part of the annual state of repair assessment.



Board Report

File #: 2015-1593, Version: 1

**CONSTRUCTION COMMITTEE
NOVEMBER 19, 2015**

**SUBJECT: ROOF REPLACEMENT IN CONJUNCTION WITH SOLAR POWER
PURCHASE AGREEMENT PROJECT**

**ACTION: APPROVE USE OF DESIGN-BUILD CONTRACTING DELIVERY APPROACH
FOR ROOF REPLACEMENTS**

RECOMMENDATION

A. FINDING that utilizing design-build delivery pursuant to Public Utilities Code (“PUC”) Section 130242 will achieve private sector efficiencies in the **integration of the design, project work, and components related to the construction and installation of new roofs at Divisions 11 and 22 to later enable the installation of solar photovoltaic (“PV”) systems at Divisions 9, 11, 22 and the Expo Yard;**

(REQUIRES TWO-THIRDS VOTE)

B. AUTHORIZING the Chief Executive Officer to solicit a design-build contract for **design, construction and installation of new roofs for Divisions 11 and 22**, pursuant to PUC Section 130242

C. INCREASING the Life of Project Budget for the **Lighting Retrofit at two Rail Divisions project** (CP#204801) from \$1,557,000 by \$2,648,100 to include design and construction of new roofs for Divisions 11 and 22; the new LOP amount will be \$4,205,100.

ISSUE

Pursuant to Metro’s Renewable Energy Policy attached as Attachment A, Metro has committed to a 66% renewable energy use goal by 2020. One of the strategies that Metro has employed to achieve that goal is to install solar PV systems on its facilities at various Metro properties (see Funding and Operating Sustainability-Related Infrastructure report, attached as Attachment B). Staff has conducted assessment and evaluation studies to determine optimal locations among Metro’s real property assets for the installation of solar PV systems. As a result of such studies, Metro Divisions 9, 11, 22, and the Expo Yard have been proposed as the sites for the future installation of rooftop solar PV systems by a third party, to be selected through a competitive solicitation process (such proposed project will be referred to in this report as the “Solar PPA Project”). The solar PV systems would generate energy for Metro’s consumption that will offset a portion of the utility-provided energy

at such sites, and result in energy cost savings.

During the investment study conducted at Divisions 9, 11, 22, and the Expo Yard, it was determined that roof replacement (“Roof Replacement Work”) is necessary to support the installation of PV equipment at Divisions 11 and 22. This is necessary for two reasons: 1) the roofs at these Divisions are nearing their end of useful life and are already being scheduled to be replaced and 2) existing structures need to be reinforced to accommodate the future solar PV systems load.

Metro is authorized to enter into design-build contracts pursuant to PUC Section 130242, which requires that the Board make a finding that the work will achieve private sector efficiencies, which is why staff are seeking to use the DB method of construction. As discussed further in this report, staff is seeking Board authority to solicit a design-build contract for the Roof Replacement Work at Divisions 11 and 22, in order to ready these two sites for the future installation of the solar PV systems

DISCUSSION

As described above, the proposed Roof Replacement Work is necessary in order to facilitate the installation of the Solar PPA Project. The Solar PPA Project (and related Roof Replacement Work) is consistent with the agency’s intent to reduce the cost of energy as outlined in Metro’s Environmental Policy and Energy Conservation and Management Plan. Completion of the Solar PPA Project will allow Metro to get closer to fulfilling our renewable energy goals, decrease our carbon footprint, increase our energy independence, and reduce our operational costs. An estimate of projected energy cost savings to be realized from the Solar PPA Project is provided in Attachment C. In order to facilitate the Solar PPA Project, staff will need to issue two concurrent solicitations, one for the Roof Replacement Work (via a design-build contracting delivery approach) and one for the Solar PPA Project (via a power purchase transaction with ancillary property license agreement). This section of the report provides a discussion of these two proposed means of project delivery.

Solar PPA Project

Staff anticipates that the Solar PPA Project will be implemented by way of a public-private partnership in the form of a solar PV Power Purchase Agreement (“PPA”) transaction authorized pursuant to Government Code (“GC”) Section 4217.10 *et seq.* GC Section 4217.10 *et. seq.* permits public agencies (including Metro) to (i) develop energy conservation, cogeneration, and alternate energy supply sources on the public agency’s property, provided that certain findings are met under the statute, and (ii) request proposals from qualified persons for energy conservation projects and award such contracts through a competitive best value Request for Proposal (RFP) selection process that may take into account, among other things, the experience of the contractor, the type of technology employed by the contractor, and the cost to the agency. A PPA transaction is among the various alternative financing strategies that have been identified by staff for project delivery, as described in the attached report on Alternative Financing Mechanisms for Energy Projects dated May 15, 2013, attached as Attachment D. In a PPA transaction, Metro would license or lease its property to a third party solar energy provider (“Power Provider”). The Power Provider installs the solar PV system on Metro’s property, and Metro purchases solar energy from the Power Provider at a negotiated cost, which cost is projected to be less than the anticipated marginal cost to the agency

that would have otherwise been consumed from other sources. The Power Provider, selected through a competitive solicitation process pursuant to Section 4217.10 *et. seq.*, will design, finance, and furnish the solar PV system, and maintain the system for at least twenty (20) years. The amount of energy produced by the solar PV system and the net monetary savings to Metro shall be guaranteed in the form of PPA performance incentives that focus on kilowatt hours to be generated and costs avoided.

Upon completion of the analysis of the best solar PV system/PPA, staff will seek Board approval for the award of the PPA contract compliance with the requirements of GC Section 4217.10 *et seq.*

Roof Replacement Work

The roofs at Divisions 11 and 22 were installed 26 and 21 years ago, respectively. Maintenance service requests files reviewed by staff show repairs made due to roof leaks, drywall repair, repainting, and mold remediation among others. It is therefore timely that the repair off these roofs occur in conjunction with the Solar PPA Project. The Roof Replacement Work will be conducted according to or consistent with all applicable codes, and furthermore, the technical specifications will require that the roofs have the structural capacity to accommodate solar PV system facilities.

The Roof Replacement Work will be solicited via a design-build contracting delivery approach. Utilization of a design-build process is allowed under Public Utilities Code Section 130242, which provides for award of a design-build contract to the lowest responsive and responsible bidder. The primary benefit of the design-build process is a shortened project schedule where the design-builder is able to start demolition/construction while the design is being completed as well as including additional efficiencies in project management, administration and coordination, all of which benefits, facilitate, and expedite project completion.

The design-build contracting delivery approach was selected for the Roof Replacement Work based on the following considerations:

- A single point of responsibility for design and construction will increase the time and management efficiency on the implementation of the projects;
- Staff project development resources are limited, so more budgeted projects can be accomplished by adding design-build capability;
- Metro's design risks are shifted to design-builder, while changes related to design are minimized;
- The project requires standard or minimal design effort and is therefore more conducive to being implemented by design-build contractors with general engineering and contracting capacity.

Approval of the action described in this report would allow staff to proceed with a solicitation utilizing the design-build contracting delivery approach pursuant to Public Utilities Code Section 130242 for the Roof Replacement Work.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an adverse impact on safety standards for Metro. It will however increase safety for Metro maintenance and contractor personnel that may be required to maintain the PV equipment as well as other projects that should become more energy and operationally efficient.

FINANCIAL IMPACT

The current FY16 budget for this project is \$554,000. The FY16 \$1,000,000 funding increase for this project will partially come from Project Number 450003, Miscellaneous Contingency-Capital Construction, in Cost Center 8510. The additional \$1,648,100 will be included as part of the FY17 Capital Program for a total project budget of \$2,648,100.

Since this is a multi-year capital project, the cost center manager and Executive Director, Program Management and the Executive Officer, Environmental Compliance and Sustainability will be responsible for budgeting in future years.

Impact to Budget

The initial \$1,000,000 source of FY16 funds for this project will come from Project 450003, Miscellaneous Contingency-Capital Construction and the Green Fund which is used to support the execution of sustainability-related infrastructure projects. The balance of the FY16 funding required for this project comes from Proposition A 35% cash/bonds. The additional future funding for the LOP increase will also be Proposition A 35% cash / bonds which impacts Rail Operating and Capital budgets.

The Solar PPA Project will be funded and financed by the Power Provider who will be awarded the PPA contract at a later date, following Board approval. Staff will provide additional information at the time that staff seeks Board approval for awarding of the contract for the Roof Replacement Work and Solar PPA Project.

ALTERNATIVES CONSIDERED

Metro has committed to using up to 66% of its energy from renewable energy sources. Installation of solar panels at our facilities has been employed for some time. We have an opportunity through this project to replace roofs that are at the end of their useful life at Divisions 11 and 22 as an integral part of our renewable energy program.

The Board may reject the request to contract for the Roof Replacement Work; and consequently force Metro to wait until an unknown future time that the roofs are replaced before we can install any solar PV systems. This will have a cumulative effect on our achievement of our renewable energy use goal.

NEXT STEPS

After the recommended Board Action is approved, staff will release an Invitation for Bids (IFB) to solicit a design-build contractor to install the new roofs at Divisions 11 and 22. In parallel, staff will also release an RFP to solicit a Power Provider to install, operate and maintain the solar PV systems at Divisions 9, 11, 22 and the Expo Yard. Upon evaluation of the IFB bids and RFP proposals for each respective solicitation, staff will seek Board approval prior to awarding or the two contemplated contracts. Approval of the two contracts will include determinations of compliance with the requirements of PUC Section 13242 (for the Roof Replacement Work) and GC Section 4217.10 *et seq.* (for the Solar PPA Project).

ATTACHMENTS

Attachment A - Renewable Energy Policy

Attachment B - Funding and Operating Sustainability-Related Infrastructure report dated September 18, 2014

Attachment C - Solar PPA Estimated Energy and Operational Costs Avoided Over 25- years

Attachment D - Report on Alternative Financing Mechanisms for Energy Projects dated May 15, 2013

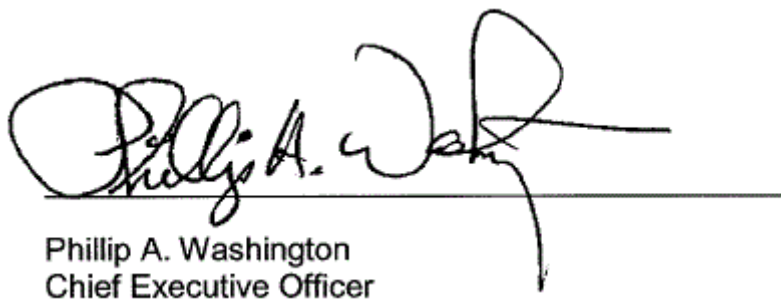
Prepared by:

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Reviewed by:

Richard Clarke, Executive Director, Program Management (213) 922-7557



Phillip A. Washington
Chief Executive Officer

**Metro**Los Angeles County
Metropolitan Transportation AuthorityOne Gateway Plaza
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metro.net**FINANCE, BUDGET AND AUDIT COMMITTEE
MAY 15, 2013****SUBJECT: ALTERNATIVE FINANCING MECHANISMS FOR ENERGY PROJECTS****ACTION: AUTHORIZE CEO TO UTILIZE ALTERNATIVE FINANCING TO
ACCELERATE ENERGY PROJECTS****RECOMMENDATION**

- A. Authorize the Chief Executive Officer (CEO) to Apply Utility-Related Financing in Accelerating Energy Program Implementation; and
- B. Authorize the CEO to use Project Number 450001 funds for administration of projects developed using Utility-Related Financing.

ISSUE

On March 20, 2013, Metro staff presented to the Finance, Budget and Audit Committee its findings from a comprehensive survey of the various alternative financing strategies and identified specific funding mechanisms that can be available for energy and sustainability-related capital projects potentially available to the agency. The Committee responded favorably towards the presentation of alternative financing opportunities and encouraged the pursuit of these opportunities that are easily implemented.

DISCUSSION

Management of the agency's energy and resource consumption and efficiency matters is handled by the Environmental Compliance and Services Department (ECSD). In this capacity, Metro ECSD is working closely with our utility service providers, through the formation of Metro's Energy Blue Ribbon Collaborative (Energy BRC). The Energy BRC is chaired by Metro's CEO and currently consists of executives from the Los Angeles Department of Water and Power, Southern California Edison, Southern California Gas Company and a professor from UCLA's Luskin Institute.

Among other things, the Energy BRC has been working to identify incentives, rebates, and other financing mechanisms to promote the agency's energy efficiency projects. It is also designed to ensure seamless cooperation on all identified energy-related collaborative efforts that simultaneously support regional energy as well as individual Energy BRC member goals. The Energy BRC work is very important to Metro as staff anticipates a significant increase in energy use and most importantly cost (up to 100% increase) during this time of transit and facility expansion. The Energy BRC work is aligned with staff's internal sustainability program.

As presented to the Finance, Budget and Audit Committee, the following are some of the alternative financing opportunities available for energy related projects:

- **On Bill Financing (OBF) / Repayment Programs** – some utilities offer low to no interest "On Bill Financing" to their customers. On Bill Financing or similar financing mechanisms help to fund qualifying energy efficiency projects by providing loans that are repaid as a line item on monthly bills. Qualifying equipment funded through OBF is then eligible for incentives through the rebate programs described above. Some of the anticipated projects noted under the Energy Efficiency Incentive Programs category, may also be eligible for this financing mechanism. These may include:
 - Retrofit of lighting systems
 - Replacement of outdated, inefficient building systems
 - Completion of retro-commissioning activities on energy systems

- **Renewable Energy Programs** – There are three main types of renewable Energy Programs or Financing Structures. Incentive programs like described above offer on time revenue and would be realized if and when LACMTA installs its own renewable energy systems. Project support can be in the form of Renewable Energy Power Purchase Agreements. This mechanism allows for guaranteed revenue to repay the investment of renewable energy systems or rental of land or roof space to 3rd party providers. Feed in Tariff Programs allow for guaranteed revenue from the utility to repay the investment of renewable energy systems that Metro would need to finance. Anticipated projects eligible for this financing mechanism include:
 - Installation of solar (PV) panels as part of the construction of Division 13, a new bus maintenance in the downtown Los Angeles area
 - Installation of solar (PV) panels at two locations as part of the Energy Efficiency and Renewable Energy projects submitted for funding under the FY14 Capital Program

- **Grants and Other Opportunities** – Metro diligently searches for and prepares grant applications to pursue new innovative energy efficiency ideas that may lead to an expanded project that will reap greater energy saving benefits. Some of these grant opportunities are done in partnership with entities who have secured

grants for installation of value-creating or cost-saving projects along our system. Projects currently using this financing mechanism include:

- Metro Red Line Westlake/MacArthur Park Station Wayside Energy Storage System (FTA: \$4.5M)
- Metro Gold Line Wayside Energy Storage System (SCAQMD: \$800,000)
- Metro Electric Vehicle Charger Stations (CEC: \$180,000)

Authorization to use these alternate financing mechanisms will contribute to funding for energy efficiency projects that will increase savings realized from a reduction in energy consumption and an accelerated payback period due to offset of project costs.

In conjunction with the Energy BRC, Metro staff is developing project packages for lighting retrofit and other energy-related projects; and will explore grant opportunities. The energy audits, cost estimates, cost-benefit analysis efforts are intended to identify priority locations to implement all of these anticipated projects.

DETERMINATION OF SAFETY IMPACT

This program will have no impact on safety.

FINANCIAL IMPACT

Administrative funding for these projects are included in the FY13 budget in cost center 8420, Environmental Compliance and Services, under project number 450001, Task Order 1.01.

Since these are going to be multi-year project, the cost center manager and Executive Director, Transit Project Delivery will be accountable for budgeting the cost in future years.

Source of funds

As specific energy-related projects are identified that are associated with utility-related financing, Capital Project workbooks will be developed and request for funding will be requested from the annual capital funding program or if already associated with a capital project, from their associated project budget, upon approval by the responsible Project Manager. If the technology is innovative and a pilot is needed, Board approved Sustainability Capital funding will be used to commence project. Examples of projects that have already been identified in FY13 to FY14 are included in Attachment A.

Impact to Budget

There will be no net impact to the Bus and Rail Operating and Capital Budgets. There will initially be an impact to the budgets from this action as qualifying equipment will be more expensive than lowest cost options. Utility-related financing require better

performing products that command a premium but cost savings over project life cycle will offset these added costs.

ALTERNATIVES CONSIDERED

Rejection of the recommended Board action will reduce staff's ability to pursue alternative financing options that will otherwise be available to Metro. Rejection of the staff recommendation is also inconsistent with the provisions of our Board adopted Environmental Policy, Sustainability and Energy Policy, and Renewable Energy Policy that specifically commits to specific actions in pursuing all available options to reduce energy costs, meet agency-wide renewable energy use of 33% by 2020, and enhance energy performance in all existing facilities.

NEXT STEPS

After Board approval of this action; 1) discuss proposed energy efficiency projects with our Energy BRC partners to identify alternative financing opportunities; 2) prepare project workbooks to establish project budgets; and 3) initiate energy related projects using alternative financing mechanism.

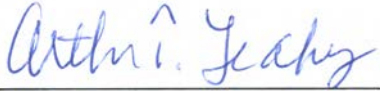
ATTACHMENT

A. Example of Energy-Related Projects

Prepared by: Cris B. Liban, DEO, Environmental Compliance and Services, (213) 922-2471



Krishniah N. Murthy
Executive Director, Transit Project Delivery



Arthur T. Leahy
Chief Executive Officer

Example of Energy-Related Projects

Natural Gas Projects	Facility	Est. Annual Gas Savings (Therms)	Estimated Project Cost	Estimated Annual Cost Savings	Incentive Amount
Boiler Replacement	Gateway Bldg	21,183	\$370,644	\$13,769	\$6,000
RCx: Increase Deadband	Gateway Bldg	2,711	\$8,000	\$1,762	\$2,711
RCx: Boiler Lockout	Gateway Bldg	29,596	\$40,000	\$19,238	\$29,596
New Construction—Comprehensive	Expo Phase II	3,944	\$113,300	\$28,743	\$3,944
		57,434	\$531,944	\$63,512	\$42,251
Electricity Projects	Facility	Est. Annual Electricity Savings (kWh)	Estimated Project Cost	Estimated Annual Cost Savings	Incentive Amount
High Bay Lighting Retrofit	Division 7	638,122	\$226,219	\$70,193	\$19,144
High Bay Lighting Retrofit	Division 9	115,328	\$54,373	\$13,839	\$3,460
Office Retrofit	Division 18	62,862	\$1,660	\$7,229	-
Full Building Lighting Retrofit	Division 11	2,235,832	\$915,088	\$245,942	\$67,075
Full Building Lighting Retrofit	Division 22	1,530,276	\$636,873	\$168,330	\$45,908
Full Building Lighting Retrofit	Division 7	58,473	\$35,888	\$6,432	\$1,754
Full Building Lighting Retrofit	Division 9	682,007	\$332,198	\$75,021	\$20,460
New Construction—Comprehensive	Expo Phase II	117,138	\$267,900	\$28,743	\$59,761
Full Building Lighting Retrofit	Gateway Bldg	1,343,966	\$829,452	\$147,836	\$103,140
Parking Structure Lighting Retrofits	Gateway Bldg	538,600	\$431,800	\$62,700	
Cooling Tower VFD	Gateway Bldg		\$60,000		
3rd Floor RC	Gateway Bldg	3,698	\$30,000	\$444	
HHW VFD - Boiler Replacement	Gateway Bldg		\$22,000		
RCx: Increase Deadband	Gateway Bldg	29,837	\$6,000	\$3,282	\$2,387
RCx: Supply Duct Static Pressure Reset	Gateway Bldg	62,941	\$37,000	\$6,923	\$5,035
RCx: Boiler Lockout	Gateway Bldg	86,667	\$6,000	\$9,533	\$6,933
RCx: Chilled Water Reset	Gateway Bldg	45,693	\$4,000	\$5,026	\$3,655
RCx: Condensor Water Supply Temp. Reset	Gateway Bldg	157,529	\$12,500	\$17,328	\$12,602
Office Retrofit	Division 15	24,866	\$1,545	\$2,984	-
		7,733,835	\$3,910,496	\$871,786	\$351,315
Solar (PV) Panel Projects	Facility	Est. Annual Electricity Production (kWh)	Estimated Project Cost	Est. Annual Cost Savings	Incentive Amount
Rooftop PV Installation - Main Shop	Division 20	1,132,603	\$2,331,829	\$117,677	\$732,860
Rooftop PV Installation - Maintenance Bldg	Division 10	407,316	\$958,392	\$42,320	\$263,558
		1,539,919	\$3,290,221	\$159,998	\$996,418



Board Report

File #: 2017-0427, **File Type:** Informational Report

Agenda Number: 26

**CONSTRUCTION COMMITTEE
JULY 20, 2017**

**SUBJECT: ALTERNATIVE FINANCING MECHANISM FOR
RENEWABLE ENERGY AND ROOF REPLACEMENT**

**ACTION: REAFFIRM THE USE OF POWER PURCHASE AGREEMENT TO IMPLEMENT
A DESIGN-BUILD PROJECT AND APPROVE USE OF DESIGN-BUILD
PROJECT DELIVERY METHOD FOR ROOF REPLACEMENTS AND SOLAR
PHOTOVOLTAIC SYSTEMS**

RECOMMENDATION

CONSIDER:

- A. REAFFIRMING the use of a Power Purchase Agreement (PPA) to implement a design-build project at Divisions 9, 11, 14 (Expo Yard), and 22 (see Funding and Operating Sustainability-Related Infrastructure report, attached as Attachment B) including the design, construction and installation of new roofs for Divisions 11 and 22 to be paid for through a PPA; and
- B. FINDING that use of the design-build contracting delivery approach pursuant to Public Utilities Code Section 130242, et. seq. will achieve certain private sector efficiencies in the integration of the design and construction by providing for the award of a design-build contract to the lowest responsive and responsible bidder for the installation of new roofs at Divisions 11 and 22 and installation of solar photovoltaic (“PV”) systems at Divisions 9, 11, 14, and 22, which will be solicited through either an Invitation for Bid (IFB) or Request for Proposal (RFP) procurement method.

ISSUE

Pursuant to Metro’s Renewable Energy Policy attached as Attachment A, Metro has committed to a 66% renewable energy use goal by 2020. One of the strategies that Metro has employed to achieve that goal is to install solar PV systems on its facilities at various Metro properties (see Funding and Operating Sustainability-Related Infrastructure report, attached as Attachment B). That authority allows the use of Renewable Energy Power Purchase Agreements (PPAs). This mechanism allows for guaranteed revenue to repay the investment of renewable energy systems or rental of land or roof

space to 3rd party providers.

Staff's assessments and evaluation studies conclude that four of the optimal locations among Metro's real property assets for the installation of solar PV systems are Metro Divisions 9, 11, 22, and the Expo Yard. Staff also determined that based on available utility programs at these locations as well as available incentives, use of a PPA (discussed further below) would be appropriate ("**Solar PPA Project**"). The Solar PPA Project would generate energy for Metro's consumption that will offset a portion of the utility-provided energy at such sites, and is projected to result in energy cost savings.

Roof replacement work ("**Roof Replacement Work**") is necessary to support the installation of solar PV equipment at Divisions 11 and 22. The roofs at these Divisions are at the end of their useful life and are already being scheduled to be replaced. Existing structures at these divisions also need to be reinforced to accommodate the future solar PV systems load.

DISCUSSION

As described above, the proposed Roof Replacement Work is necessary in order to facilitate the installation of the Solar PPA Project. This section of the report provides a discussion of how the PPA works as well as the additional details on the justification of the Roof Replacement work.

Solar PPA Project

Staff anticipates that the Solar PPA Project will be implemented by way of a public-private partnership in the form of a solar PV PPA transaction authorized pursuant to Government Code ("GC") Section 4217.10 *et seq.* A PPA transaction is among the various alternative financing strategies that have been identified by staff for project delivery, as described in the attached report on Alternative Financing Mechanisms for Energy Projects dated May 15, 2013, attached as Attachment D. In a PPA transaction, Metro would license or lease its property to a third party solar energy provider ("**Power Provider**"). The Power Provider installs the solar PV system on Metro's property, and Metro purchases solar energy from the Power Provider at a negotiated cost, which cost is projected to be less than the anticipated marginal cost to the agency that would have otherwise been consumed from other sources. The Power Provider, selected through a competitive solicitation process pursuant to the contracting authority sought hereunder, will design, finance, and furnish the solar PV system, and maintain the system for at least twenty (20) years. The amount of energy produced by the solar PV system and the net monetary savings to Metro shall be guaranteed in the form of PPA performance incentives that focus on kilowatt hours to be generated and costs avoided.

Upon completion of the analysis of the best Solar PPA Project, staff will seek Board approval for the award of the PPA contract in compliance with the requirements of GC Section 4217.10 *et seq.*

Roof Replacement Work

The roofs at Divisions 11 and 22 were installed approximately 26 and 21 years ago, respectively. Maintenance service requests files reviewed by staff show repairs made due to roof leaks, drywall repair, repainting, and mold remediation among others. It is therefore timely that the repair of these roofs occurs in conjunction with the Solar PPA Project. The Roof Replacement Work will be conducted according to or consistent with all applicable codes, and furthermore, the technical specifications will require that the roofs have the structural capacity to accommodate solar PV system facilities.

The Roof Replacement Work will be solicited as part of the PPA solicitation and will be installed as part of the awarded contract resulting from the solicitation.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an adverse impact on safety standards for Metro. It will however increase safety for Metro maintenance and contractor personnel that may be required to maintain the PV equipment as well as other projects that should become more energy and operationally efficient.

FINANCIAL IMPACT

Funding for staff support of this project will come from Project Number 450003, Miscellaneous Contingency-Capital Construction, in Cost Center 8510. Since the roof is to be funded through the PPA, there will be no additional funding that is required of Metro for capital and operations and maintenance during the life of the solar panels.

Since this is a multi-year capital project, the cost center manager and Chief Program Management Officer and the Executive Officer, Environmental Compliance and Sustainability will be responsible for budgeting in future years.

Impact to Budget

FY18 funding required for this project comes from Proposition A 35% cash/bonds.

The Solar PPA Project and the Roof Replacement Work will be funded and financed by the Power Provider who will be awarded the PPA contract at a later date, following Board approval. Staff will provide additional information at the time that staff seeks Board approval for awarding of the contract for the Roof Replacement Work and Solar PPA Project.

ALTERNATIVES CONSIDERED

Metro has committed to using up to 66% of its energy from renewable energy sources. Installation of

solar panels at our facilities has been employed for some time. We have an opportunity through this project to replace roofs that are at the end of their useful life at Divisions 11 and 22 as an integral part of our renewable energy program.

The Board may reject the request to use the PPA alternative financing mechanism contract for Solar PPA Work and the Roof Replacement Work; and consequently force Metro to simply replace the roof at our own cost and in the future retrofit for the installation future installation of solar panels. This series of steps will have a cumulative effect on our achievement of our renewable energy use goal, protecting employee health, and replacing our infrastructure with as small capital outlay to our agency as possible.

NEXT STEPS

After the recommended Board Action is approved, staff will release an Invitation for Bids (IFB) to solicit a design-build contractor for the PPA and to install the new roofs at Divisions 11 and 22. Upon evaluation of the IFB bids, staff will seek Board approval prior to award of contract.

ATTACHMENTS

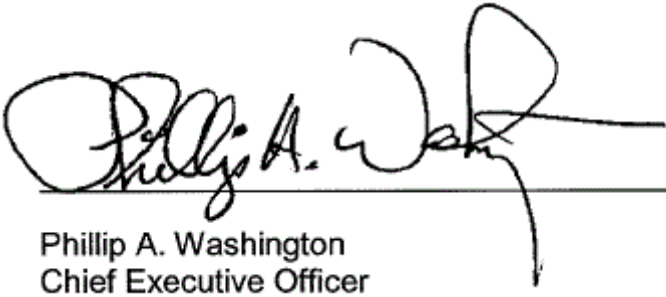
- Attachment A - Renewable Energy Policy
- Attachment B - Funding and Operating Sustainability-Related Infrastructure report
dated September 18, 2014
- Attachment C - Report on Design Build, November 19, 2015
- Attachment D - Report on Alternative Financing Mechanisms for Energy Projects
dated May 15, 2013

Prepared by:

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Reviewed by:

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Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer



Board Report

File #: 2017-0427, **File Type:** Informational Report

Agenda Number: 26

**CONSTRUCTION COMMITTEE
JULY 20, 2017**

**SUBJECT: ALTERNATIVE FINANCING MECHANISM FOR
RENEWABLE ENERGY AND ROOF REPLACEMENT**

**ACTION: REAFFIRM THE USE OF POWER PURCHASE AGREEMENT TO IMPLEMENT
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ISSUE

Pursuant to Metro’s Renewable Energy Policy attached as Attachment A, Metro has committed to a 66% renewable energy use goal by 2020. One of the strategies that Metro has employed to achieve that goal is to install solar PV systems on its facilities at various Metro properties (see Funding and Operating Sustainability-Related Infrastructure report, attached as Attachment B). That authority allows the use of Renewable Energy Power Purchase Agreements (PPAs). This mechanism allows for guaranteed revenue to repay the investment of renewable energy systems or rental of land or roof

space to 3rd party providers.

Staff's assessments and evaluation studies conclude that four of the optimal locations among Metro's real property assets for the installation of solar PV systems are Metro Divisions 9, 11, 22, and the Expo Yard. Staff also determined that based on available utility programs at these locations as well as available incentives, use of a PPA (discussed further below) would be appropriate ("**Solar PPA Project**"). The Solar PPA Project would generate energy for Metro's consumption that will offset a portion of the utility-provided energy at such sites, and is projected to result in energy cost savings.

Roof replacement work ("**Roof Replacement Work**") is necessary to support the installation of solar PV equipment at Divisions 11 and 22. The roofs at these Divisions are at the end of their useful life and are already being scheduled to be replaced. Existing structures at these divisions also need to be reinforced to accommodate the future solar PV systems load.

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Upon completion of the analysis of the best Solar PPA Project, staff will seek Board approval for the award of the PPA contract in compliance with the requirements of GC Section 4217.10 *et seq.*

Roof Replacement Work

The roofs at Divisions 11 and 22 were installed approximately 26 and 21 years ago, respectively. Maintenance service requests files reviewed by staff show repairs made due to roof leaks, drywall repair, repainting, and mold remediation among others. It is therefore timely that the repair of these roofs occurs in conjunction with the Solar PPA Project. The Roof Replacement Work will be conducted according to or consistent with all applicable codes, and furthermore, the technical specifications will require that the roofs have the structural capacity to accommodate solar PV system facilities.

The Roof Replacement Work will be solicited as part of the PPA solicitation and will be installed as part of the awarded contract resulting from the solicitation.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an adverse impact on safety standards for Metro. It will however increase safety for Metro maintenance and contractor personnel that may be required to maintain the PV equipment as well as other projects that should become more energy and operationally efficient.

FINANCIAL IMPACT

Funding for staff support of this project will come from Project Number 450003, Miscellaneous Contingency-Capital Construction, in Cost Center 8510. Since the roof is to be funded through the PPA, there will be no additional funding that is required of Metro for capital and operations and maintenance during the life of the solar panels.

Since this is a multi-year capital project, the cost center manager and Chief Program Management Officer and the Executive Officer, Environmental Compliance and Sustainability will be responsible for budgeting in future years.

Impact to Budget

FY18 funding required for this project comes from Proposition A 35% cash/bonds.

The Solar PPA Project and the Roof Replacement Work will be funded and financed by the Power Provider who will be awarded the PPA contract at a later date, following Board approval. Staff will provide additional information at the time that staff seeks Board approval for awarding of the contract for the Roof Replacement Work and Solar PPA Project.

ALTERNATIVES CONSIDERED

Metro has committed to using up to 66% of its energy from renewable energy sources. Installation of

solar panels at our facilities has been employed for some time. We have an opportunity through this project to replace roofs that are at the end of their useful life at Divisions 11 and 22 as an integral part of our renewable energy program.

The Board may reject the request to use the PPA alternative financing mechanism contract for Solar PPA Work and the Roof Replacement Work; and consequently force Metro to simply replace the roof at our own cost and in the future retrofit for the installation future installation of solar panels. This series of steps will have a cumulative effect on our achievement of our renewable energy use goal, protecting employee health, and replacing our infrastructure with as small capital outlay to our agency as possible.

NEXT STEPS

After the recommended Board Action is approved, staff will release an Invitation for Bids (IFB) to solicit a design-build contractor for the PPA and to install the new roofs at Divisions 11 and 22. Upon evaluation of the IFB bids, staff will seek Board approval prior to award of contract.

ATTACHMENTS

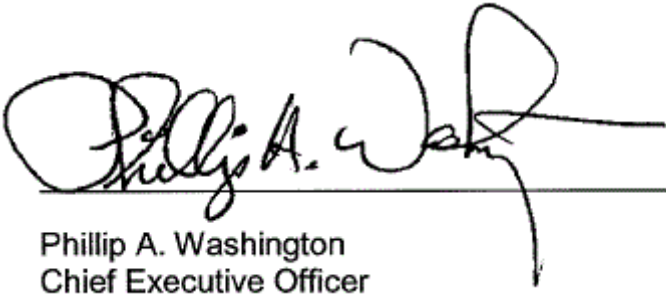
- Attachment A - Renewable Energy Policy
- Attachment B - Funding and Operating Sustainability-Related Infrastructure report
dated September 18, 2014
- Attachment C - Report on Design Build, November 19, 2015
- Attachment D - Report on Alternative Financing Mechanisms for Energy Projects
dated May 15, 2013

Prepared by:

Cris B. Liban, EO Environmental Compliance and Sustainability, (213) 922-2471

Reviewed by:

Richard Clarke, Chief Program Management Officer, (213) 922-7557
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

**Board Report**

File #: 2017-0441, **File Type:** Contract**Agenda Number:** 28

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017****SUBJECT: SHOP TOWELS****ACTION: AWARD CONTRACT FOR SHOP TOWELS****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to award a 24-month, indefinite delivery/indefinite quantity Contract no. MA38768002 to JWL Supplies, the lowest responsive and responsible bidder, for shop towels for a total contract amount of \$1,158,984; subject to resolution of protest(s), if any. The award is for a base year amount of \$579,492, inclusive of sales tax, and a one-year option amount of \$579,492, inclusive of sales tax.

ISSUE

Shop towels are required throughout the Agency by Metro staff on a day-to-day basis for operations to clean and maintain facilities, equipment, rolling stock, and for general purposes.

DISCUSSION

The shop towels purchased under this procurement will be maintained in inventory and managed by Materiel Management. The paper products are used throughout the Agency's Operating Divisions, building and work sites to maintain cleanliness and safety for our employees.

Metro purchases a variety of towels based on the functional requirements of the various user groups. The cellulose paper products are used primarily by mechanics, Bus and Rail Divisions, service attendants and custodians at the CMF, and rail/bus stations because of the product's absorbency qualities and cloth like characteristics needed to clean surfaces, and to pick up oil and grease. The windshield towels are used by the services attendants at the operating division to clean the bus and rail car windshields. Other towels are used by janitorial staff to stock bathrooms, facilities daily cleaning, and for general purpose and cleaning functions based on their individual consumption requirements.

The Contract to be awarded is a "requirements type" agreement in which Metro commits to order up to the specified quantity for a specific duration of time, but there is no obligation or commitment for Metro to order any or all of the shop towels that may be anticipated. The bid quantities are estimates only, with deliveries to be ordered and released as required.

Paper products will be purchased, maintained in inventory and managed by Materiel Management. As the paper products are issued, the appropriate budget project numbers and accounts will be charged.

DETERMINATION OF SAFETY IMPACT

Award of contracts will ensure that all operating divisions have adequate inventory to maintain the bus and rail fleets, equipment, and general purposes according to Metro Maintenance and facility standards, and OSHA standards.

FINANCIAL IMPACT

The funding of \$663,940 for shop towels is included in the FY18 budget in various cost centers for Administration and Bus and Rail Operations. The paper products will be funded from each cost center's Material and Supplies budget line item number 50431 under multiple operating projects.

Since this is potentially a multi-year Contract, the Cost Center Managers and respective SBU Chief will be accountable for budgeting the cost in future fiscal years.

Impact to Budget

The source of funds for this procurement will come from Federal, State and local funding sources including sales tax and fares that are eligible for Bus and Rail Operating Projects. These funding sources will maximize the use of funds for these activities given established funding guidelines.

ALTERNATIVES CONSIDERED

The alternative is to not award the Contract and procure shop towels on the open market at a lower cost. However, this would be contrary to the Board's directives regarding the Set-Aside program.

NEXT STEPS

Metro's requirements for shop towels will be fulfilled under the provisions of the contracts.

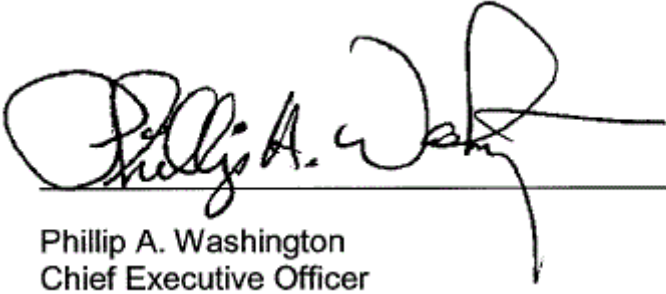
ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - DEOD Summary

Prepared by: Nathan Jones III, Director of Contract Administration, (213)922-6101
Lena Babayan, Sr. Director Facilities Maintenance, (213)922-6765

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 922-4424
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

SHOP TOWELS / MA38768002

1.	Contract Number: MA38768000 (Line 2), MA38768001 (Line 3), MA38768002 (Line 4)	
2.	Recommended Vendor: <ul style="list-style-type: none"> • Ammmm, Inc. 28364 S. Western, Rancho Palos Verde, CA 90275 • Gorilla Stationers 15165 Triton Lane, Huntington Beach, CA 92649 • JWL Supplies, 4569 Don Diego Dr., Los Angeles, CA 90008 	
3.	Type of Procurement (check one): <input checked="" type="checkbox"/> IFB <input type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 2/24/17	
	B. Advertised/Publicized: 2/24/17	
	C. Pre-proposal/Pre-Bid Conference: N/A	
	D. Proposals/Bids Due: 4/13/17	
	E. Pre-Qualification Completed: 5/16/17	
	F. Conflict of Interest Form Submitted to Ethics: 06/19/17	
	G. Protest Period End Date: : July 20, 2017	
5.	Solicitations Picked up/Downloaded: 24	Bids/Proposals Received: 5
6.	Contract Administrator: Tanya Allen	Telephone Number: 213/922-1018
7.	Project Manager: Lena Babayan	Telephone Number: 213/922-5860

A. Procurement Background

This Board Action is to approve multiple Contracts No. MA38768002 to be issued in support of Shop Towels to be used agency-wide. Board approval of contract awards are subject to resolution of any properly submitted protest.

IFB No. MA38768 was issued in accordance with Metro’s Acquisition Policy and the contract type is Indefinite Delivery, Indefinite Quantity (IDIQ).

No amendments to the IFB were issued. A total of five bids were received on April 13, 2017.

B. Evaluation of Bids

This procurement was conducted in accordance, and complies with LACMTA’s Acquisition Policy for a competitive sealed bid. Four bidders were deemed fully responsive and compliant with the requirements of the IFB; Ammmm Incorporated, Gorilla Stationers, RC Consolidated Services and JWL Supplies. Los Angeles Chemical Company’s formal bid was deemed non-responsive to the bid requirements and was not considered in the bid evaluation process.

Metro's IFB No. MA38768 gave the agency the right to choose the lowest bid price from each line item and to award multiple contracts based on the lowest responsive responsible bidder for each bid line item. Firms being recommended for award are Ammmm Incorporated for bid line item 2; Gorilla Stationers for line item 3, and JWL Supplies for line item 4.

Staff will award contracts to bid line items 1, 2 and 3 under its own delegation of authority, and is only presenting bid line item 4 to the Board for award recommendation and approval.

The award of bid line item 1 is not being recommended for award at this time. The apparent low bidder for that bid line item has offered a product that requires further evaluation as an approved equal. Staff has decided to proceed with the award of bid line items 2, 3 and 4 at this time. The estimated price of bid line item 1 is less than \$60,000 and will not require Metro Board approval.

No.	Lowest Responsive Responsible Bidder Name	Bid Amount
1.	TBD	TBD
2.	Ammmm Inc.	\$19,561.00
3.	Gorilla Stationers	\$126,350.00
4.	JWL Supplies	\$1,158,985.00

C. Price Analysis

The recommended bid prices, to be awarded on a line item basis for items 2, 3, and 4 have been determined to be fair and reasonable based upon adequate price competition.

Line item 3, Ammmm Inc., was initially the apparent low bidder but was deemed non-responsive to the technical requirements on line #3 upon completion of Metro full evaluation. Ammmm Inc. was deemed responsive and responsible for Line #2.

Line Item No.	Low Bidder Name	Low Bid Amount	Second Low Bidder Name	Bid Amount	Metro ICE
1	*Item to be awarded separately at a later date under separate authorization.	TBD	TBD	TBD	\$60,000
2	Ammmm Inc.	\$19,561	RC Consolidated Services, Inc.	\$46,013	\$118,688
3	Gorilla Stationers	\$126,350	RC Consolidated Services, Inc.	\$174,524	\$237,375
4	JWL: Supplies	\$1,158,985	RC Consolidated Services, Inc.	\$1,429,947	\$1,136,869

*The product item presented by the apparent low bidder (Ammmm) is being technically evaluated as an approved equal product. The approved equal technical evaluation process will be completed within 60 days.

D. Background on Recommended Contractors

Ammmm, Inc. (MA38768000)

The recommended firm for line item no. 2, Ammmm, Inc., is located in Rancho Palos Verdes, CA and has been in business for nine years. Ammmm, Inc. has provided shop towels and various related products to other agencies including Department of Veteran Affairs – State of California, California State Parks, and California Department of State Hospitals. In the past, Ammmm, Inc. has provided satisfactory products and services to Metro.

Gorilla Stationers (MA38768001)

The recommended firm for line item no. 3, Gorilla Stationers, is located in Huntington Beach, CA and has been in business for five years. In the past, Gorilla Stationers has provided satisfactory products and services to Metro.

JWL Supplies (MA38768002)

The recommended firm for line item no. 4, JWL Supplies is located in Los Angeles, CA and has been in business for 18 years. JWL Supplies has provided safety and various related products to other agencies including UCLA, CBS Television, Pomona Unified School District, and Compton Unified School District. In the past, JWL Supplies has provided satisfactory products and services to Metro.

DEOD SUMMARY

**SHOP TOWELS
CONTRACT NO. MA38768**

A. Small Business Participation

Pursuant to Metro's Board-approved policy, competitive acquisitions with three or more Small Business Enterprise (SBE) certified firms within the specified North American Industry Classification System (NAICS) as identified for the project scope shall constitute a Small Business Set-Aside procurement. Accordingly, the Contract Administrator advanced the solicitation, including posting the solicitation on Metro's website, advertising, and notifying certified small businesses as identified by NAICS code(s) that this solicitation was open to **SBE Certified Small Businesses Only**.

All three recommended bidders are SBE Prime Suppliers, each with a 60% SBE commitment. While the SBE Prime Suppliers are performing 100% of the work with their own workforces, only 60% of the cost of materials and supplies can be credited toward its commitment.

	SBE Prime Contractor	SBE % Committed
1.	JWL Supplies (SBE Prime)	60%
	Total Commitment	60%
2.	Ammmm, Inc. (SBE Prime)	60%
	Total Commitment	60%
3.	Gorilla Stationers (SBE Prime)	60%
	Total Commitment	60%

B. Living/Prevailing Wage and Service Contract Worker Retention Policy Applicability

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

C. Prevailing Wage Applicability

Prevailing wages 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.



Board Report

File #: 2017-0273, **File Type:** Appointment

Agenda Number: 29

**SYSTEMS SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017**

SUBJECT: MEMBERSHIP ON METRO SERVICE COUNCILS

ACTION: APPROVE NOMINEES FOR APPOINTMENT TO METRO SERVICE COUNCILS

RECOMMENDATION

APPROVE nominees for membership on Metro’s Service Councils.

ISSUE

Each Metro Service Council is comprised of nine Representatives that serve a term of three years; terms are staggered so that the terms of three of each Council’s nine members expire annually on June 30. Incumbent Representatives can serve additional terms if re-nominated by the nominating authority and confirmed by the Metro Board.

DISCUSSION

Metro seeks to appoint Service Council members reflective of the demographics of each respective region. The 2010 Census demographics of each of the Service Council regions are as follows:

% Sector Total	Hispanic	White	Asian	Black	Other	Total Pop
San Gabriel Valley	50.0%	19.9%	24.9%	3.3%	2.0%	100.0%
San Fernando Valley	41.0%	42.0%	10.7%	3.4%	2.9%	100.0%
South Bay	42.5%	23.8%	12.0%	18.3%	3.4%	100.0%
Westside/Central	43.5%	30.7%	13.0%	10.0%	2.8%	100.0%
Gateway Cities	63.9%	16.7%	8.5%	8.6%	2.3%	100.0%
Service Area Total	48.5%	26.8%	14.0%	8.2%	2.6%	100.0%

The individuals listed below have been nominated to serve by the Councils’ appointing authorities. If approved by the Board, these appointments will serve a three-year term or the remainder of the seat’s three-year term as indicated. A brief listing of qualifications for the new nominees is provided along with the nomination letters from the nominating authorities:

San Gabriel Valley

The demographic makeup of the San Gabriel Valley Service Council with the appointment of these nominees will consist of four (4) White members, three (3) Hispanic members, one (1) Native American member, and one (1) Asian member as self-identified by the members in terms of

racial/ethnic identity. The gender breakdown of the Council will be eight (8) men and one (1) woman.

- A. Alex Gonzalez, San Gabriel Valley Service Council, Re-Appointment
Nominated by: San Gabriel Valley Council of Governments
Term Ending: June 30, 2020
- B. Tim Sandoval, San Gabriel Valley Service Council, New Appointment
Nominated by: San Gabriel Valley Council of Governments
Term Ending: June 30, 2019

DETERMINATION OF SAFETY IMPACT

Maintaining the full complement of representatives on each Service Council to represent each service area is important. As each representative is to be a regular user of public transit, and each Council is composed of people from diverse areas and backgrounds, this enables each Council to better understand the needs of transit consumers including the need for safe operation of transit service and safe location of bus stops.

FINANCIAL IMPACT

There is no financial impact imparted by approving the recommended action.

ALTERNATIVES CONSIDERED

The alternative to approving this appointment would be for these nominees to not be approved for appointment. To do so would result in reduced effectiveness of the Service Council, as it would increase the difficulty of obtaining the quorum necessary to allow the Service Council to formulate and submit their recommendations to the Board. It would also result in the Service Council having less diverse representation of their service area.

NEXT STEPS

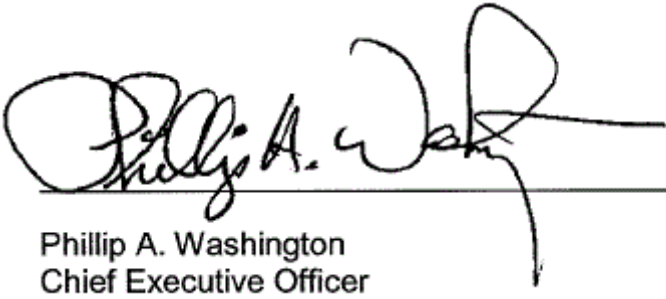
Staff will continue to monitor the major contributors to the quality of bus service from the customer's perspective, and share that information with the Service Councils for use in their work to plan, implement, and improve bus service in their areas and the customer experience using our bus service.

ATTACHMENTS

- Attachment A - New Appointee Biography and Listing of Qualifications
- Attachment B - Appointing Authority Nomination Letter

Prepared by: Conan Cheung, Executive Officer of Transit Operations, (213) 418-3034

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108



Phillip A. Washington
Chief Executive Officer

NEW APPOINTEE BIOGRAPHY AND QUALIFICATIONS

TIM SANDOVAL

Nominee for San Gabriel Valley Service Council



A 35 year Pomona resident, Mayor Tim Sandoval received his Bachelor's degree from University of California, Riverside. After graduating, Tim returned to Pomona to lead Pomona Valley Community Development Center's youth programs, then taught English at a nearby school. In 2001, Tim became a founding member of Bright Prospect, a mentoring organization that has helped more than two thousand at-risk youth become part of the first generation of their family to complete their Bachelor's degrees. Mr. Sandoval serves as chairperson for the Waste and Recycling Moratorium Task Force, and he is a board member of Clean & Green Pomona, the dA Center for the Arts, and the Pomona Public Library Foundation.



June 19, 2017

OFFICERS

- President*
Cynthia Sternquist
- 1st Vice President*
Margaret Clark
- 2nd Vice President*
Vacant
- 3rd Vice President*
Vacant

Mr. Gary Spivack
 Deputy Executive Officer, Metro Service Councils
 1 Gateway Plaza, MS 99-7-2
 Los Angeles, CA 90012

RE: Metro’s San Gabriel Valley Service Council Representatives

MEMBERS

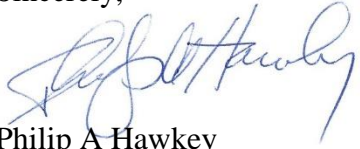
- Alhambra*
- Arcadia*
- Azusa*
- Baldwin Park*
- Bradbury*
- Claremont*
- Covina*
- Diamond Bar*
- Duarte*
- El Monte*
- Glendora*
- Industry*
- Irwindale*
- La Cañada Flintridge*
- La Puente*
- La Verne*
- Monrovia*
- Montebello*
- Monterey Park*
- Pasadena*
- Pomona*
- Rosemead*
- San Dimas*
- San Gabriel*
- San Marino*
- Sierra Madre*
- South El Monte*
- South Pasadena*
- Temple City*
- Walnut*
- West Covina*
- First District, LA County*
Unincorporated Communities
- Fourth District, LA County*
Unincorporated Communities
- Fifth District, LA County*
Unincorporated Communities
- SGV Water Districts*

Dear Mr. Spivack:

At their June 15, 2017 meeting, the San Gabriel Valley Council of Governments’ Governing Board appointed Tim Sandoval (Pomona) as representative for the San Gabriel Valley Metro Service Sector elected official position and Alex Gonzalez (Industry) to continue to serve as the non-elected position. The effective term for Mayor Sandoval July 1, 2017 – June 30, 2019. The effective term for Mr. Gonzalez is July 1, 2017 – June 30, 2020.

Should you have any questions, please feel free to contact me at (626) 457-1800.

Sincerely,



Philip A Hawkey
 Executive Director
 San Gabriel Valley Council of Governments

cc: Tim Sandoval, City of Pomona
 Alex Gonzalez, City of Industry



Board Report

File #: 2017-0404, File Type: Plan

Agenda Number: 33

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE JULY 20, 2017

SUBJECT: STAFFING REQUEST FOR CRENSHAW LINE

ACTION: APPROVE FULL TIME EQUIVALENT (FTE) POSITION INCREASE

RECOMMENDATION

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to amend the FY18 Budget to add 59 positions, as shown below:
1. Add 8 (eight) non-contract positions to manage and plan for integrated testing, system readiness drills, asset inspection and acceptance, turnover coordination, opening a new Rail Maintenance Facility and pre-revenue service testing of the Crenshaw Line rail project.
 2. Add 51 contract positions to support training and certification, asset inspection and acceptance, turnover coordination, integrated testing, system readiness drills, the opening of a Rail Maintenance Facility, pre-revenue service testing and the opening of the Crenshaw Line to the public.
- B. RECEIVING AND FILING staff analysis of a comprehensive rail expansion staffing plan to add up to a total of 130 positions in FY19 and FY20. The staffing plan assumes a time-phased, milestone-based hiring construct using the best available current scope of work estimates. These FTE requirements will be brought forward for board consideration during the respective FY19 and FY20 budget development cycles.

ISSUE

The overall effort to prepare Metro for this new rail line, new maintenance facility, and light-rail vehicles for revenue service beginning no later than October 2019 will require a substantial amount of technical and support staff across several departments. For technical operations staff, Metro must begin recruitment well in advance of actual need in order to ensure adequate training and qualification requirements can be met. These positions will be phased in throughout FY18, FY19 and FY20 and recruitment will be aligned with system safety, critical path activities, systems testing and project milestones.

DISCUSSION

The Crenshaw Line Rail Project is currently under construction and scheduled to commence revenue service in October 2019. Upon completion, Metro will receive one (1) new light-rail Maintenance Facility (Division 16), 8.5 new route miles for passenger service, eight (8) new stations, and employ 29 light-rail vehicles, all of which must be fully-integrated into the existing Metro Rail network prior to the start of revenue service to ensure the new system meets Metro's safety standards.

The Crenshaw line is unique in comparison to existing rail lines within our current system with the Right-Of-Way having a combination of below grade, at grade and aerial sections. 2.9 miles of the line will be below grade, supported by three (3) stations. One (1) station will support the 1.4 miles of aerial Right-Of-Way and the final four (4) stations will support the 4.2 miles of at-grade track. The signaling systems are more complex with an 84 mainline and yard switch machines and 100 mainline and yard signals being added to the infrastructure to support the revenue service and the tie into Metro's Green Line. There will be 17 fully gated crossings to support our new standards and will require a higher level of maintenance compared to the previous design standards.

This project will increase Metro's light-rail system route miles by almost nine (9) percent and stations along the entire Metro Rail network by seven-and-a-half (7.5) percent. Additionally, the new light-rail Maintenance Facility will increase Metro's total light-rail maintenance capacity by 20 percent.

As the full-time "owners" of the line, shop and systems, Operations personnel are required to provide day-to-day decisions and support of the construction and outfitting of the line, yard and shop including systems testing, inspections, development of punch list items and other start-up activities. Pre-revenue service testing of the rail line is scheduled for August 2019. Given Metro's intention to operate full revenue service no later than October 2019, there is an immediate need to recruit, hire and train the staff needed to perform these critical path activities, prevent project delays and eventually deliver daily revenue service.

This agency-wide request for increased staffing in FY18, FY19 and FY20 supports personnel needs for the start-up and operation and maintenance of the Crenshaw Line as well as adjunct departments and considers the time frame needed for recruitment and training of new personnel in conjunction to project deliverables. The comprehensive staffing plan with related rationale is presented in Attachment B: Crenshaw Staffing Timeline. To develop this staffing request, staff considered several factors including revenue service, rail car and infrastructure state of good repair, system complexity, current labor ratios and lessons learned from the recent Gold Line and Expo Line extension start up.

The initial authorization to add positions will allow Metro to hire, provide training and manage critical path activities to prevent project delays and to provide and sustain proper staffing levels to operate and maintain our current rail service. Metro will continue conducting a comprehensive review of budgeted FTEs for Rail Facilities Maintenance, Rail Fleet Services, Rail Transportation, and Wayside. Metro will report back to the Board as part of the FY19 and FY20 Budget process detailing ongoing staffing needs and non-labor expenses for full light rail network integration of the Crenshaw Line.

DETERMINATION OF SAFETY IMPACT

The authorization to add positions will have a positive impact on safety. This authorization will add the staff needed to plan, manage, and implement start-up activities.

Metro staff will monitor and inspect third-party construction, installations and systems testing. For example, Metro personnel will work closely with constructors during integration testing to check all systems for the ability to operate trains safely through stations, switches, ventilation zones, at-grade crossings or other systems. This testing will also include operating and testing multiple train scenarios to examine the integrity, reliability and redundancy of safety systems. This authorization will allow Metro to maintain existing staffing levels for revenue service on the existing rail network and achieve Crenshaw Project milestones in parallel.

FINANCIAL IMPACT

The projected hiring plan and milestones support a Revenue Operations Date (ROD) of October 2019. New staff will begin to arrive during the first three months of FY18. The FY18 annual budget impact is estimated to be \$12,000,000.

Funding for the recruitment and training of the added positions will be supported by Operating projects within respective cost centers. Funding for Systems Integration and Pre-ROD testing estimated at \$8.2 million is included in the Capital Life of Project (LOP) budget for the Crenshaw Line.

Since this is a multi-year effort, the cost center managers, project managers, and Executive Directors will ensure that planned resources are budgeted in future fiscal years. In FY19 and FY20, it is anticipated that additional funds must be identified to complete and sustain the staffing plan. Staff will identify the funding and continuing Operations support requirements for Board consideration during the FY19 and FY20 budget process.

Impact to Budget

Funding for this effort is Measure R Transit Capital New Rail 35%. These funds are eligible for new rail system integration and pre-revenue activities. No other funds were considered for these Measure R Transit Capital projects.

ALTERNATIVES CONSIDERED

Authorization to amend the FY18 Budget to add 59 positions will support Metro's mission for the continuous improvement of an efficient and effective transportation system for Los Angeles County. Delaying the recruitment, hiring, and training of personnel needed to plan, manage, and implement start-up activities could delay the project.

One alternative would be to reassign existing Metro personnel from current duties to support the project. This approach is not recommended because it would have a negative impact on Metro's ability to adequately maintain the current level of staffing to meet required regulatory inspections, maintenance and would significantly increase response times to incidents affecting service on our current rail network .

The impacts of not staffing the Crenshaw Project at suitable levels include, but are not limited to, the following risks: lack of Metro oversight and inspection; foregone opportunities to evaluate safety,

design, and construction activities; third-party reliance for completion of systems to acceptable standards; failure to satisfy acceptance and delivery schedules; insufficient time to hire, recruit and train staff; and delays to project milestones including revenue operations.

NEXT STEPS

If approved, Metro will proceed with the recruitment, hiring and training of personnel. Additionally, Metro will advance start-up planning and activities to ensure timely delivery of the Crenshaw Line.

FY19 and FY20 positions will be requested and added through the FY19 and FY20 Budget process and will be based upon revenue service projections. Metro will continue ongoing efforts to finalize plans for Public Safety, Communications, Marketing, Rail Activation, Fleet Management and Operations for the Crenshaw Line project. These plans document Metro’s strategy including roles and responsibilities for directing and managing work through project closure and beyond.

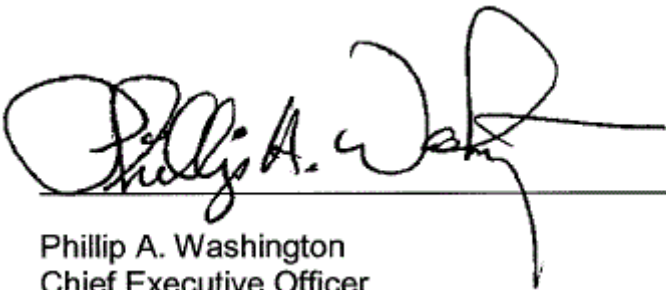
ATTACHMENTS

Attachment A - Agency-Wide Staffing Summary by Department and Union

Attachment B - Crenshaw Staffing Timeline

Prepared by: Carolyn Kreslake, Senior Manager, Transportation Planning, (213)922-7420
Diane Corral-Lopez, Executive Officer, Operations Administration, (213)922-7676

Reviewed by: Debra Avila, Chief Vendor/Contract Management Officer, (213)418-3051
Pauletta Tonilas, Chief Communications Officer, (213)922-3777
Greg Kildare, Chief Risk, Safety & Asset Management Officer, (213)922-4971
Joanne Peterson, Chief Human Capital & Development Officer, (213)418-3088
Dave Edwards, Chief Information Officer, (213)922-5510
Alex Wiggins, Chief Systems Security & Law Enforcement Officer (213)922-4433
Nalini Ahuja, Chief Financial Officer, (213)922-3088
James T. Gallagher, Chief Operations Officer, (213)418-3108
Stephanie Wiggins, Deputy Chief Executive Officer, (213) 922-1023



Phillip A. Washington
Chief Executive Officer

AGENCY-WIDE STAFFING SUMMARY BY DEPARTMENT & UNION

OPERATIONS		Total # of FTEs	FY18 Budget Amendment	FY19	FY20
1	MAINTENANCE OF WAY	20	17	2	1
2	FACILITIES MAINTENANCE	17	1	16	0
3	CENTRAL MAINTENANCE	1	0	1	0
4	TRANSPORTATION	50	16	33	1
5	RAIL FLEET SERVICES	54	21	31	2
6	VEHICLE ENGINEERING & ACQUISITION	4	2	3	0
7	SERVICE PLANNING & SCHEDULING	3	1	2	0
8	Subtotal	149	58	88	4
SUPPORT		Total # of FTEs	FY18 Budget Amendment	FY19	FY20
9	COMMUNICATIONS	3	0	3	0
10	RISK, SAFETY & ASSET MANAGEMENT	3	0	3	0
11	HUMAN CAPITAL & DEVELOPMENT	2	1	1	0
12	INFORMATION TECHNOLOGY SERVICES	6	0	6	0
13	VENDOR/CONTRACT MANAGEMENT	12	0	5	7
14	FINANCE & BUDGET	7	0	7	0
15	SYSTEM SECURITY & LAW ENFORCEMENT	6	0	0	6
16	Subtotal	39	1	25	13
17	Total	188	59	113	17
18					
19					
20					
BY UNION		Total # of FTEs	FY18 Budget Amendment	FY19	FY20
21	SMART	26	0	26	0
22	ATU	66	32	34	0
23	TCU	28	0	17	11
24	AFSCME	32	19	13	0
25	TEAMSTERS	6	0	0	6
26	NON-CONTRACT	30	8	23	0
27	Total	188	59	113	17
28					

CRENSHAW STAFFING TIMELINE

Fiscal Year	FY2018												FY2019												FY2020											
	2017						2018						2019						2020																	
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D						
													Sys. Int. Test 1																							
													Yard Substantial Completion																							
																									Mainline Substantial Completion											
																									Sys. Int. Test 2											
																									Recruitment											

OPERATIONS DEPARTMENT			Total # of FTEs	FY18	FY19	FY20
MAINTENANCE OF WAY						
<i>Signals</i>						
ATU	764	SIGNAL INSPECTOR	4	4		
ATU	757	SIGNAL INSPECTOR LDR	1	1		
AFSCME	4609	RAIL SIGNAL SUPERVISOR	1	1		
NC	7210	MGR, WAYSIDE SYS	1	1		
TCU	891	GENERAL CLERK III	1			1
<i>Track</i>						
ATU	765	TRACK INSPECTOR	2	2		
ATU	756	TRACK INSPECTOR LDR	1	1		
<i>Power</i>						
ATU	766	TRACTION POWER INSPECTOR	5	5		
ATU	755	TRACTION POWER INSPECTOR LDR	1	1		
AFSCME	4610	RAIL TRACTION SUPERVISOR	1	1		
<i>Rail Communications</i>						
ATU	763	RAIL ELECTRO COMM INSP	2		2	
FACILITIES MAINTENANCE						
ATU	789	FACILITIES SYS TECH	2		2	
ATU	790	FACILITIES SYS TECH LDR	1		1	
TCU	898	CUSTODIAN	8		8	
TCU	896	LEAD CUSTODIAN	2		2	
AFSCME	4606	FACILITIES MAINTENANCE SUPV	3		3	
NC	4602	DIR, FACILITIES MAINTENANCE	1	1		

Pre-Revenue Service Simulation

ROD - 10-30-2019

CRENSHAW STAFFING TIMELINE

Fiscal Year	FY2018												FY2019												FY2020											
	2017						2018						2019						2020																	
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D						
													Sys. Int. Test 1																							
													Yard Substantial Completion																							
													Mainline Substantial Completion																							
													Sys. Int. Test 2																							
																									Recruitment											
24	OPERATIONS DEPARTMENT			Total # of FTEs	FY18	FY19	FY20																													
25	CENTRAL MAINTENANCE																																			
26	ATU	775	NON-REV RL EQUIP MECH	1		1														Recruitment Training																
27	TRANSPORTATION																																			
28	<i>Division 16</i>																																			
29	TCU	733	TRANSPORTATION CLERK	1			1													Recruitment																
30	SMART	859	TRAIN OPERATOR	24		24		Recruitment Training																												
31	NC	7204	MGR, RAIL DIV TRANSP	1		1		Recruitment Training																												
32	NC	7203	DIR, RAIL TRANS	1	1			Recruitment Training																												
33	<i>Field Operations</i>																																			
34	AFSCME	7205	RAIL TRANSIT OPS SUPV	6	3	3		Recruitment Training																												
35	<i>ROC</i>																																			
36	TCU	950	CCTV OBSERVER/TCU	3		3		Recruitment Training																												
37	AFSCME	7205	RAIL TRANSIT OPS SUPV	5	5			Recruitment Training																												
38	AFSCME	7205	RAIL TRANSIT OPS SUPV (YARD)	5	5			Recruitment Training																												
39	NC	9597	MGR, OPERATIONS CONTROL	1		1		Recruitment Training																												
40	NC	7203	DIR, RAIL TRANS	1		1		Recruitment Training																												
41	<i>Instruction</i>																																			
42	AFSCME	7205	RAIL TRANSIT OPS SUPV	2	2			Recruitment Training																												
43	RAIL FLEET SERVICES																																			
44	<i>Division 16</i>																																			
45	TCU	891	GENERAL CLERK III	1			1													Recruitment																
46	ATU	829	SERVICE ATTENDANT	13		13		Recruitment Training																												
47	ATU	827	SERVICE ATTENDANT LDR	1		1		Recruitment Training																												
48	TCU	907	EQUIPMENT RECORDS SPECIALIST	1			1													Recruitment																
49	ATU	762	MAINTENANCE SPECIALIST (phase 1)	15	15			Recruitment Training																												
50	ATU	762	MAINTENANCE SPECIALIST (phase 2)	11		11		Recruitment Training																												
51	ATU	769	MAINTENANCE SPECIALIST LDR	3	3			Recruitment Training																												
52	AFSCME	7007	RAIL EQUIP MAINT INSTRUCTOR	1	1			Recruitment Training																												
53	AFSCME	7005	RAIL EQUIP MAINT SUPV	6	1	5		Recruitment Training			Recruitment Training																									
54	NC	7211	MGR, RAIL FLEET SERVICES	1		1		Recruitment Training																												
55	NC	7002	DIR, RAIL FLEET SERVICES	1	1			Recruitment Training																												
56	VEHICLE ENGINEERING & ACQUISITION																																			
57	ATU	743	RAIL WRNTY EQUIP SPCLST	1		1		Recruitment Training																												
58	AFSCME	7005	RAIL EQUIP MAINT SUPV	1		1		Recruitment Training																												
59	NC	3806	SR ENGINEER	1	1			Recruitment Training																												
60	NC	3807	ENGINEER	1		1		Recruitment Training																												

CRENSHAW STAFFING TIMELINE

			Total # of FTEs	FY18	FY19	FY20
OPERATIONS DEPARTMENT						
SERVICE PLANNING & SCHEDULING						
61	NC	7008	SR MGR, DIVISION PERFORMANCE SUPPORT	1	1	
62	SMART	327	SCHEDULE MAKER II	1	1	
63	SMART	853	SCHEDULE CHECKER	1	1	
SUPPORT DEPARTMENTS						
COMMUNICATIONS						
64	NC	4169	PROJECT MANAGER, TRANSIT ASSET MANAGEMEN	1	1	
65	NC	5030	MANAGER, COMMUNITY RELATIONS	1	1	
66	NC	5031	SR COMMUNITY RELATIONS OFFICER	1	1	
RISK, SAFETY & ASSET MANAGEMENT						
67	NC	8012	SR. WKR COMP ANALYST & PL/PD ANALYST	1	1	
68	NC	8019	SR SAFETY SPECIALIST	2	2	
HUMAN CAPITAL & DEVELOPMENT						
69	NC	5227	PRINCIPAL HR ANALYST	1	1	
70	NC	5235	PRINCIPAL DISABILITY COMPLIANCE ADMINISTRAT	1	1	
INFORMATION TECHNOLOGY SERVICES						
71	ATU	701	MASTER SYS COM TECHNICIAN	2	2	
72	NC	3804	SUPERVISING ENGINEER	3	3	
73	NC	5413	SR DIRECTOR, INFORMATION SYSTEMS	1	1	
VENDOR/CONTRACT MANAGEMENT						
74	AFSCME	6211	MATERIEL SUPERVISOR	1	1	
75	TCU	963	STOREKEEPER	2		2
76	TCU	931	TRUCK DRIVER/CLERK	1		1
77	TCU	947	STOCK CLERK	4		4
78	NC	6221	MATERIEL PLANNER	1	1	
79	NC	2403	PRINCIPAL CONTRACT ADMINISTRATOR	1	1	
80	NC	6225	PRINCIPAL INVENTORY CONTROL ANALYST (Rail)	1	1	
81	NC	6212	SR BUYER	1	1	
FINANCE & BUDGET						
82	TCU	903	CASH CLERK	4	4	
83	NC	3807	ENGINEER	1	1	
84	NC	5450	SR DEPTMENTAL SYSTEMS ANALYST	1	1	
85	NC	5404	SR MANAGER, SYSTEMS PROJECTS	1	1	
SYSTEM SECURITY & LAW ENFORCEMENT						
86	TEAMSTERS	363	TRANSIT SECURITY OFFICER II	2		2
87	TEAMSTERS	363	TRANSIT SECURITY OFFICER I	4		4

Fiscal Year	FY2018												FY2019												FY2020											
	2017						2018						2018						2019																	
	Month	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D					
													Sys. Int. Test 1																							
													Yard Substantial Completion																							
																									Mainline Substantial Completion											
																									Sys. Int. Test 2											
													Recruitment Training																							
													Recruitment Training												Recruitment Training											
													Recruitment Training												Recruitment Training											
																									Sys. Int. Test 2											

**Board Report**

File #: 2017-0417, **File Type:** Contract**Agenda Number:** 34

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017****SUBJECT: UNLEADED GASOLINE****ACTION: AWARD CONTRACT FOR UNLEADED GASOLINE****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to award a 60 month, Indefinite Delivery/Indefinite Quantity Contract No. FY34649 for unleaded gasoline to Pinnacle Petroleum, Inc., the lowest responsive and responsible bidder, for a two year base, inclusive of sales tax, for a not-to-exceed amount of \$3,886,980, and three one-year options for a not-to-exceed amount of \$5,830,470, for a total not-to-exceed contract amount of \$9,717,450, subject to resolution of protest(s), if any.

ISSUE

Under this Contract, the recommended contractor is required to provide unleaded gasoline for Metro's non-revenue vehicles (automobiles, trucks, and vans). The use of an Indefinite Delivery/Indefinite Quantity Contract provides Metro with fuel on an as-needed basis. In an environment where future non-revenue vehicles may come in the form of electric automobiles it is prudent to establish maximum flexibility for fuel demand and delivery. Due to the fluctuation and variability in fuel prices the total not-to-exceed price is subject to change but will be in compliance with the prevailing Oil Price Information Service (OPIS) fee per gallon for the Los Angeles Region.

DISCUSSION

This Contract will provide up to approximately five million gallons of unleaded gasoline for 60 months at prevailing Oil Price Information Service (OPIS) pricing. OPIS is a widely accepted fuel price index that is published daily to reflect current market prices in the Los Angeles area for petroleum products. OPIS is a private, independent company with no stake in fuel transactions and is not funded by the oil industry.

Since this is a requirements contract, the bid quantities are estimates only, with deliveries to be ordered and released as required. There is no obligation or commitment on the part of Metro to order any or all of the unleaded gasoline that is anticipated.

DETERMINATION OF SAFETY IMPACT

There is no impact on safety standards for Metro.

FINANCIAL IMPACT

The funding of \$2,872,392 for this service is included in the FY18 budget in multiple bus and rail cost centers under operating projects 306002 (Ops. Maintenance), 306001 (Ops. Transportation), 300040 (Rail Ops. Administration), 300044 (Rail Ops. Red Line) and 450003 (Sustainability Environment) in line item 50405 Fuel Non-Rev. Equipment.

Since this is a multi-year Contract, the cost center manager and Chief Operations Officer will be responsible for budgeting the cost in future years, including any option exercised.

Impact to Budget

The FY18 source of funds for this procurement is from Enterprise operating funds. The source of funds will be Federal, State, and Local funds including sales tax and fares that are eligible for bus and rail operations. These funding sources will maximize the use of funds for these activities.

ALTERNATIVES CONSIDERED

The alternative is to not award the contract and to instead, purchase gasoline on the spot market. This approach is not recommended since it does not provide for a fixed discount on price or a commitment from the supplier to ensure availability and delivery on a timely basis.

NEXT STEPS

Upon approval, staff will execute Contract No. FY34649 to Pinnacle Petroleum, Inc., effective August 1, 2017, to provide unleaded gasoline for Metro's fleet.

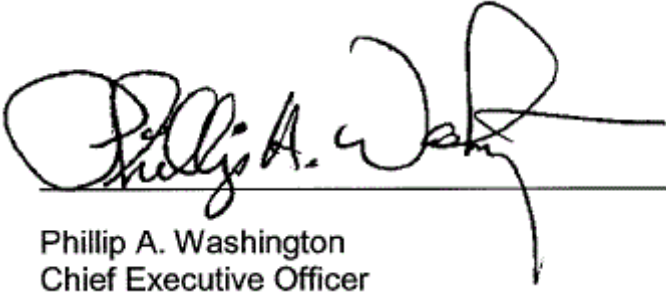
ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - DEOD Summary

Prepared by: Nathan Jones III, Director of Contract Administration, (213) 922-6101
Helen Cosner, Chief Admin Analyst, (213) 922-5934

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108
Debra Avila, Chief Vendor/Contract Management Officer,
(213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

UNLEADED GASOLINE/ FY34649

1.	Contract Number: FY34649	
2.	Recommended Vendor(s): Pinnacle Petroleum, Inc.	
3.	Type of Procurement (check one): <input checked="" type="checkbox"/> IFB <input type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 12/21/16	
	B. Advertised/Publicized: 12/26/16	
	C. Pre-proposal/Pre-Bid Conference: 1/13/17	
	D. Proposals/Bids Due: 3/10/17	
	E. Pre-Qualification Completed: 5/31/17	
	F. Conflict of Interest Form Submitted to Ethics: 5/23/17	
	G. Protest Period End Date: 7/20/17	
5.	Solicitations Picked up/Downloaded: 11	Bids/Proposals Received: 5
6.	Contract Administrator: Juelene Close	Telephone Number: 213-922-1066
7.	Project Manager: Helen Cosner	Telephone Number: 213-922-7634

A. Procurement Background

This Board Action is to approve Contract No. FY34649 for the procurement of unleaded gasoline in support of Metro's non-revenue fleet vehicles. Contract award is subject to resolution to any properly submitted protest.

The IFB was issued in accordance with Metro's Acquisition Policy and the contract type is an Indefinite Delivery, Indefinite Quantity (IDIQ).

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

- Amendment No. 1, issued on December 29, 2016, to establish the pre-bid conference date and to update other IFB critical dates;
- Amendment No. 2, issued on February 1, 2017, to update Metro's standard terms and conditions, and to revised the bid price form;
- Amendment No. 3, issued on February 7, 2017, to revise one of Metro's standard terms and conditions.

A total of six bids were received on March 10, 2017. One bid was deemed non-responsive.

B. Evaluation of Bids

This procurement was conducted in accordance, and complies with Metro's Acquisition Policy for a competitive sealed bid. The five bids received are listed below in alphabetical order:

NO.	Bidder Name	Bid Amount
1.	Falcon Fuels	\$10,000,300.00
2.	Mansfield Oil Company	\$9,912,400.00
3.	Merrimac Energy	\$9,812,208.00
4.	Pinnacle Petroleum, Incorporated	\$9,717,450.00
5.	SC Fuels	\$10,015,453.00

The firm recommended for award, Pinnacle Petroleum, Inc. was found to be technically acceptable and in full compliance with the IFB requirements.

C. Price Analysis

The recommended bid price from Pinnacle Petroleum, Inc. has been determined to be fair and reasonable based upon adequate price competition and the selection of the lowest responsive and responsible bid.

Bidder Name	Bid Amount	Metro ICE
Pinnacle Petroleum, Inc.	\$9,717,450.00	\$11,440,462.00

D. Background on Recommended Contractor

Pinnacle Petroleum, Inc. is located in Huntington Beach, California, and has been in the petroleum business since 1995. Their major areas of business are petroleum and alternative fuels. Pinnacle provides and has fuel contracts with the State of California and the Hertz Corporation in Park Ridge, NJ. Pinnacle Petroleum Inc. has supplied over 400 petroleum products to over 15 different state agencies. Pinnacle Petroleum, Inc. is Metro's current supplier of unleaded gasoline and their performance has been satisfactory.

DEOD SUMMARY

UNLEADED GASOLINE/FY34649

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not recommend a Small Business Enterprise (SBE) goal for this solicitation due to a lack of subcontracting opportunities. As confirmed by the Project Manager, this project involves providing and delivering unleaded gasoline to the underground storage tanks located at the bus divisions. Pinnacle Petroleum, Inc. did not make an SBE commitment.

B. Living/Prevailing Wage and Service Contract Worker Retention Policy Applicability

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

C. Prevailing Wage Applicability

Prevailing Wage is not applicable to this Contract.

Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract.



Board Report

File #: 2017-0475, File Type: Federal Legislation / State Legislation (Position)

Agenda Number: 36

EXECUTIVE MANAGEMENT COMMITTEE
JULY 20, 2017

SUBJECT: FEDERAL LEGISLATION

ACTION: ADOPT STAFF RECOMMENDED POSITION

RECOMMENDATION

ADOPT staff recommended positions:

HOUSE RESOLUTION BILL 3001 (LOWENTHAL) - Economy In Motion: The National Multimodal And Sustainable Freight Infrastructure Act SUPPORT

ATTACHMENTS

Attachment A - H.R. 3001 (A. Lowenthal) Legislative Analysis

Attachment B - H.R. 3001 Legislation

Prepared by: Michael Davies, Sr. Manager, Federal Affairs, (202) 248-5426
Marisa Yeager, Sr. Manager, Federal Affairs, (213) 922-2262

Reviewed by: Pauletta Tonilas, Chief Communications Officer, (213) 922-3777

Phillip A. Washington
Chief Executive Officer

ATTACHMENT A

BILL: HOUSE RESOLUTION BILL 3001

AUTHOR: CONGRESSMAN ALAN LOWENTHAL (D-LONG BEACH)

SUBJECT: ECONOMY IN MOTION: THE NATIONAL MULTIMODAL AND SUSTAINABLE FREIGHT INFRASTRUCTURE ACT

STATUS: HOUSE - TRANSPORTATION AND INFRASTRUCTURE; WAYS AND MEANS COMMITTEES

ACTION: SUPPORT

RECOMMENDATION

Staff recommends that the Board of Directors adopt a SUPPORT position on House Resolution Bill 3001 (Lowenthal) - Economy in Motion: The National Multimodal and Sustainable Freight Infrastructure Act.

ISSUE

H.R. 3001(Lowenthal) - Would establish a Freight Transportation Infrastructure Trust Fund and create a freight specific formula and competitive grant program for multimodal projects. Specifically, H.R. 3001 offers a dedicated revenue source by implementing a proposed national 1% waybill fee. The entity paying for the cargo to be shipped via ground transportation within the United States would be required to pay a fee of 1% of the total cost of transportation.

DISCUSSION

In 2015, Congress passed the bipartisan Fixing America's Surface Transportation (FAST) Act, which for the first time outlined a national freight policy and set up both formula and competitive programs to invest in these systems. The FAST Act funded both of these programs through 2021, but because the Highway Trust Fund is not able to provide the amount of funding necessary to keep up with the nation's infrastructure needs, it is important to identify and support sustainable funding sources that will be dedicated to specific uses that will improve infrastructure.

Goods movement is a significant economic engine in Los Angeles County, with the Ports of Los Angeles and Long Beach handling over 40% of all cargo shipped into the United States. Communities that surround Los Angeles County's ports experience a high level of congestion and environmental impacts as a result of the large amount of cargo exiting the County's two ports as it is transported to rail yards and storage facilities across Los Angeles County and surrounding counties. Through the creation of a program aimed at improving the movement of goods, residents, commuters and businesses will benefit from less congestion and improved air quality.

Consistent with Metro's 2017 Board-approved Federal Legislative Program in support of creating a fully funded federal freight program; H.R. 3001 (Lowenthal), Economy in Motion: The National Multimodal and Sustainable Freight Infrastructure Act, establishes a Freight Transportation Infrastructure Trust Fund, a formula and competitive multimodal grant program for States, Regional and Local Governments, and incorporates these programs into existing FAST Act freight programs. The program would generate funding through the collection of fees for transporting cargo nationally.

The estimated \$8 billion in annual funds collected from this proposed fee would be deposited into a Freight Transportation Infrastructure Trust Fund and then be distributed equally between the existing National Multimodal Freight Funding Formula Program and the National Freight Infrastructure Multimodal Competitive Grant Program created in the FAST Act. Qualifying projects could include capital freight projects on roads, rail, intermodal connectors, including first and last mile connectors, rail grade separations, on-dock rail and landside infrastructure on ports and airports included in a State Freight Plan.

Staff believes that H.R. 3001 could be adopted in any infrastructure package offered by the President and considered by Congress. Staff recommends that the Board adopt a SUPPORT position on H.R. 3001 (Lowenthal).

DETERMINATION OF SAFETY IMPACT

There is no determined safety impact due to the enactment of the proposed legislation.

FINANCIAL IMPACT

This bill could have a positive financial impact on our agency as it provides additional funding that Metro could utilize.

ALTERNATIVES CONSIDERED

Staff has considered adopting an oppose position on the bill. Adopting an oppose position on the bill would be counter to the advocacy efforts as outlined in the Board-approved 2017 Federal Legislative Program.

NEXT STEPS

Should the Board adopt a SUPPORT position on this measure, staff will communicate the Board's position to the author and work with Congress to ensure its adoption into law. Staff will continue to keep the Board informed as this issue is addressed throughout the legislative session.

.....
(Original Signature of Member)

115TH CONGRESS
1ST SESSION

H. R.

To amend title 49, United States Code, to establish a Multimodal Freight Funding Formula Program and a National Freight Infrastructure Competitive Grant Program to improve the efficiency and reliability of freight movement in the United States, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. LOWENTHAL introduced the following bill; which was referred to the Committee on _____

A BILL

To amend title 49, United States Code, to establish a Multimodal Freight Funding Formula Program and a National Freight Infrastructure Competitive Grant Program to improve the efficiency and reliability of freight movement in the United States, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Economy in Motion:
5 The National Multimodal and Sustainable Freight Infra-
6 structure Act”.

1 **SEC. 2. FREIGHT FUNDING PROGRAMS.**

2 (a) IN GENERAL.—Chapter 701 of title 49, United
3 States Code, is amended by adding at the end the fol-
4 lowing:

5 **“§ 70104. Multimodal Freight Funding Formula Pro-**
6 **gram**

7 “(a) IN GENERAL.—The Secretary of Transportation
8 shall establish a Multimodal Freight Funding Formula
9 Program under which the Secretary shall distribute funds
10 to States to improve the efficiency and reliability of freight
11 movement in the United States.

12 “(b) FORMULA APPORTIONMENT.—Of funds made
13 available to the Secretary for a fiscal year to carry out
14 the Multimodal Freight Funding Formula Program under
15 this section, the Secretary shall calculate the amount
16 available to be apportioned to a State based on the fol-
17 lowing:

18 “(1) 6.25 percent in the ratio that—

19 “(A) the number of ports in each State;
20 bears to

21 “(B) the number of ports in all States.

22 “(2) 6.25 percent in the ratio that—

23 “(A) the number of rail track-miles used
24 for the movement of freight in each State; bears
25 to

1 “(B) the number of such rail track-miles in
2 all States.

3 “(3) 6.25 percent in the ratio that—

4 “(A) the number of cargo-handling air-
5 ports in each State; bears to

6 “(B) the number of such airports in all
7 States.

8 “(4) 6.25 percent in the ratio that—

9 “(A) the number of Interstate system
10 miles in each State; bears to

11 “(B) the number of Interstate system
12 miles in all States.

13 “(5) 37.5 percent in the ratio that—

14 “(A) the tonnage of rail, waterborne, high-
15 way, and airport freight moved in each State;
16 bears to

17 “(B) the tonnage of such freight moved in
18 all States.

19 “(6) 37.5 percent in the ratio that—

20 “(A) the value of rail, waterborne, highway
21 and airport freight moved in each State; bears
22 to

23 “(B) the value of such freight moved in all
24 States.

1 “(c) TIER I ELIGIBILITY.—The Secretary shall pro-
2 vide to a State in a fiscal year 40 percent of the amount
3 of the funds available to the State under subsection (b)
4 for that fiscal year if the State—

5 “(1) has an established freight advisory com-
6 mittee in accordance with section 70201;

7 “(2) developed any analyses or plans required
8 for the completion of a State freight plan in accord-
9 ance with section 70202;

10 “(3) has an approved State freight plan;

11 “(4) has conducted a statewide analysis of
12 freight needs and bottlenecks on all modes of trans-
13 portation, including intermodal and last mile needs;

14 “(5) demonstrates use of the statewide analysis
15 of freight needs in prioritizing projects in the State
16 freight plan;

17 “(6) demonstrates that the State will use the
18 funding that it is provided under this paragraph for
19 the highest priority projects identified in the freight
20 investment plan described under section 70202; and

21 “(7) demonstrates that the program of projects
22 will use the strategies and contribute to the goals
23 described in the State freight plan to decrease—

24 “(A) greenhouse gas emissions;

1 “(B) local air pollution, including ozone
2 and ozone precursors, nitrogen oxides, sulfur di-
3 oxide, particulate matter, carbon monoxide, and
4 lead;

5 “(C) water runoff and other adverse water
6 impacts; and

7 “(D) wildlife habitat loss.

8 “(d) TIER II ELIGIBILITY.—The Secretary shall pro-
9 vide to a State in a fiscal year 60 percent of the amount
10 of the funds available to the State under subsection (b)
11 for that fiscal year if the State—

12 “(1) has met the eligibility criteria of subsection
13 (c);

14 “(2) has conducted, in cooperation with at least
15 1 other State, a multistate analysis of freight needs
16 and bottlenecks on all modes of transportation, in-
17 cluding intermodal and last mile needs along a
18 multistate freight corridor; and

19 “(3) has developed, in cooperation with at least
20 one other State or a relevant entity in Canada or
21 Mexico, a regional freight investment plan that fo-
22 cuses on the end-to-end investment needs of critical
23 multistate freight corridors based on the multistate
24 analysis of freight needs and bottlenecks on all

1 modes of transportation, including intermodal and
2 last mile needs.

3 “(e) REDISTRIBUTION OF FUNDS.—The Secretary
4 shall make available under the National Freight Infra-
5 structure Competitive Grant Program under section
6 70105 any funds that—

7 “(1) the Secretary calculated under subsection
8 (b) as available to a State for a fiscal year but did
9 not provide to that State for that fiscal year under
10 subsection (c) or subsection (d); or

11 “(2) the Secretary provided to a State under
12 subsection (c) or subsection (d) but remain unobli-
13 gated in that State at the end of the third fiscal
14 year following the fiscal year in which they were pro-
15 vided to the State.

16 “(f) ELIGIBLE USES.—A State may use funds pro-
17 vided under this section only for—

18 “(1) the development of corridor freight plans
19 or regional freight plans; or

20 “(2) one or more phases of capital projects,
21 equipment, or operational improvements on roads,
22 rails, landside infrastructure on ports and airports,
23 and intermodal connectors included in a State
24 freight plan for projects that—

1 “(A) maintain or improve the efficiency
2 and reliability of freight supply chains;

3 “(B) demonstrate public freight benefits;

4 “(C) improve modal components of a
5 multimodal corridor that is critical to a State or
6 region;

7 “(D) address freight needs to facilitate a
8 regionally or nationally significant economic de-
9 velopment issue;

10 “(E) in accordance with the State freight
11 plan, decrease—

12 “(i) greenhouse gas emissions;

13 “(ii) local air pollution, including
14 ozone and ozone precursors, nitrogen ox-
15 ides, sulfur dioxide, particulate matter,
16 carbon monoxide, and lead;

17 “(iii) water runoff and other adverse
18 water impacts; and

19 “(iv) wildlife habitat loss;

20 “(F) are multimodal, multi-jurisdictional,
21 or corridor-based and address freight needs;

22 “(G) relieve freight or non-freight access,
23 congestion, or safety issues; or

24 “(H) address first and last mile connec-
25 tors.

1 “(g) EPA REPORT.—A State that receives funds
2 under this section shall collect data and, beginning 1 year
3 from the date of the completion of each project or project
4 phase that receives such funds, and annually thereafter
5 for 15 years, report to the Secretary and the Adminis-
6 trator of Environmental Protection Agency on progress
7 made toward greenhouse gas emission reductions and local
8 air pollution reductions in accordance with the State
9 freight plan. All relevant data and reporting shall be col-
10 lected and reported in accordance with guidance developed
11 by the Administrator in consultation with the Secretary.

12 “(h) FEDERAL SHARE.—

13 “(1) IN GENERAL.—The Federal share of the
14 cost of a project carried out by a State using funds
15 provided under this section may not be more than
16 80 percent.

17 “(2) ADDITIONAL FEDERAL SHARE.—The Fed-
18 eral share of the cost of a project carried out by a
19 State using funds provided under this section may
20 be increased by 5 percent if the such 5 percent is
21 used for the mitigation of diesel emissions from con-
22 struction activities associated with the project. The
23 Administrator of Environmental Protection Agency,
24 in consultation with the Secretary, shall develop
25 guidance for eligible equipment and activities con-

1 sistent with existing State, local, and nonprofit clean
2 construction guidelines.

3 “(i) RESERVATION OF FUNDS FOR TERRITORIES.—

4 Before making a calculation under subsection (b), the Sec-
5 retary shall withhold funds for distribution to each terri-
6 tory in an amount based on the freight infrastructure need
7 of the territories, as determined by the Secretary. Such
8 funds shall not otherwise be made available for distribu-
9 tion under this section.

10 “(j) AUTHORIZATION OF APPROPRIATIONS.—There

11 is authorized to be appropriated from the Freight Trust
12 Fund to carry out this section an amount equal to 50 per-
13 cent of the receipts of the Freight Trust Fund for each
14 fiscal year beginning in fiscal year 2018.

15 “(k) ADMINISTRATION AND OVERSIGHT COSTS.—

16 The Secretary may retain up to one-half of 1 percent of
17 the amounts available to carry out this section for each
18 fiscal year for the cost of administration and oversight of
19 projects funded under this section.

20 “(l) AVAILABILITY OF FUNDS.—Amounts authorized
21 under subsection (j) shall be—

22 “(1) available for obligation on October 1 of the
23 fiscal year for which they are authorized; and

24 “(2) available until expended.

1 “(m) APPLICATION OF RATE REQUIREMENTS.—The
2 Secretary shall take such action as may be necessary to
3 apply the requirements described under section 113 of title
4 23, as applicable, to any project receiving funds under this
5 section.

6 “(n) DEFINITIONS.—In this section:

7 “(1) STATE.—The term ‘State’ means each of
8 the 50 States, the District of Columbia, and Puerto
9 Rico.

10 “(2) STATE FREIGHT PLAN.—The term ‘State
11 freight plan’ means the State freight plan described
12 under section 70202.

13 “(3) TERRITORY.—The term ‘territory’ has the
14 meaning given such term in section 165(c)(1) of title
15 23.

16 **“§ 70105. National Freight Infrastructure Competitive**
17 **Grant Program**

18 “(a) ESTABLISHMENT.—The Secretary of Transpor-
19 tation shall establish a National Freight Infrastructure
20 Competitive Grant Program under which the Secretary
21 shall make grants, on a competitive basis, to designated
22 entities for eligible projects to improve the efficiency and
23 reliability of freight movement in the United States.

24 “(b) PROJECT GOALS.—In carrying out the Program,
25 the Secretary shall prioritize projects that—

1 “(1) improve the efficiency and reliability of
2 freight transportation;

3 “(2) reduce the cost of freight transportation;

4 “(3) improve the safety of freight transpor-
5 tation;

6 “(4) relieve bottlenecks in the freight transpor-
7 tation system;

8 “(5) improve the state of good repair of the
9 freight transportation system;

10 “(6) contribute to the environmental goals de-
11 scribed in the State freight plan; and

12 “(7) reduce the adverse impacts of freight
13 transportation on communities traversed by freight.

14 “(c) GRANT APPLICATIONS.—To be eligible to receive
15 a grant under the Program a designated entity shall sub-
16 mit to the Secretary an application at such time, in such
17 form, and containing such information as the Secretary
18 may require.

19 “(d) ELIGIBLE PROJECT.—A project is eligible for a
20 grant under the Program only if the Secretary determines
21 that the project—

22 “(1) that is—

23 “(A) a capital investment project for a
24 transportation infrastructure facility signifi-
25 cantly used for the movement of freight; or

1 “(B) infrastructure necessary to mitigate
2 the adverse impact of freight transportation on
3 communities traversed by freight, including—

4 “(i) a road, rail, or landside air or
5 water facility;

6 “(ii) an intermodal facility such as a
7 seaport or port on the inland waterway
8 system, an airport, or a highway and rail
9 intermodal facility;

10 “(iii) a facility related to an inter-
11 national border crossing;

12 “(iv) is for an operational improve-
13 ment or equipment of a facility described
14 in this paragraph; or

15 “(v) railway-roadway grade separa-
16 tions and related improvements;

17 “(2) will help to achieve the goals set out in
18 subsection (b);

19 “(3) has non-Federal source or sources of com-
20 mitted financing, along with any Federal funds, suf-
21 ficient to complete the project;

22 “(4) has independent utility;

23 “(5) is included in the State freight plan; and

24 “(6) includes the development of project plans
25 and analysis.

1 “(e) GRANT CRITERIA.—The Secretary shall select
2 eligible projects for funding based on the following cri-
3 teria:

4 “(1) The extent to which the project is likely to
5 advance the goals described in subsection (b).

6 “(2) The likely benefits of the project relative
7 to its costs.

8 “(3) The extent to which the project dem-
9 onstrates the use of innovative technology, strate-
10 gies, and practices.

11 “(4) The extent to which the project uses
12 onroad construction vehicles and nonroad construc-
13 tion equipment that meet the emission standards of
14 the Environmental Protection Agency.

15 “(5) The extent to which the project dem-
16 onstrates effective reductions (in accordance with
17 the State freight plan) in—

18 “(A) greenhouse gas emissions;

19 “(B) local air pollution, including ozone
20 and ozone precursors, nitrogen oxides, sulfur di-
21 oxide, particulate matter, carbon monoxide, and
22 lead;

23 “(C) water runoff and other adverse water
24 impacts; and

25 “(D) wildlife habitat loss.

1 “(6) The likely effect of the project on increas-
2 ing United States exports.

3 “(7) The consistency of the project with the na-
4 tional freight strategic plan described under section
5 70102.

6 “(8) The extent to which the project leverages
7 Federal funds by matching State, territorial, local,
8 tribal, or private funds to the Federal funding re-
9 quested under the Program.

10 “(9) The extent to which funds for the project
11 are not available from other Federal sources.

12 “(f) SPECIAL RULE.—A minimum of 5 percent of
13 funds made available under the Program for a fiscal year
14 shall be provided to zero-emission freight demonstration
15 projects, as defined by the Secretary of Transportation,
16 in consultation with the Administrator of the Environ-
17 mental Protection Agency.

18 “(g) RETROSPECTIVE ANALYSIS.—A grant agree-
19 ment made under the Program shall require that the re-
20 cipient collect data and report to the Secretary, at an ap-
21 propriate time as determined by the Secretary, on—

22 “(1) the actual cost of constructing the project;

23 “(2) the time required to complete the project
24 and put it into service;

1 “(3) the level of usage of the facility built or
2 improved by the project;

3 “(4) the benefits of the project, measured in a
4 way that is consistent with the benefits that were es-
5 timated in the application for funding that was sub-
6 mitted to the Secretary; and

7 “(5) any costs resulting from the project in ad-
8 dition to the costs of constructing the project.

9 “(h) EPA REPORT.—A grant agreement made under
10 the Program shall require that the recipient collect data
11 and, beginning 1 year from the date of the completion of
12 the project and annually thereafter for 15 years, report
13 to the Secretary and the Administrator of Environmental
14 Protection Agency on progress made toward greenhouse
15 gas emission reductions and local air pollution reductions
16 in accordance with the State freight plan. All relevant data
17 and reporting shall be collected and reported in accordance
18 with guidance developed by the Administrator in consulta-
19 tion with the Secretary.

20 “(i) PERIOD OF AVAILABILITY.—In entering into
21 agreements under this section, the Secretary shall ensure
22 that any funds made available for a project that are not
23 obligated or expended before the last day of the third fiscal
24 year following the fiscal year in which the funds are made

1 available are transferred back to the Secretary for making
2 grants under the Program.

3 “(j) REDISTRIBUTION OF FUNDS.—If a designated
4 entity that received a grant under this section has made
5 no obligation of funding with respect to such grant by the
6 end of the third fiscal year following the fiscal year in
7 which the Secretary awarded the grant, the Secretary
8 shall—

9 “(1) withdraw the grant from the designated
10 entity; and

11 “(2) apply the funding to another grant under
12 this section.

13 “(k) FEDERAL SHARE.—

14 “(1) IN GENERAL.—The Federal share of the
15 cost of a project for which a grant is made under
16 the Program, as estimated by the Secretary, shall be
17 not more than 80 percent.

18 “(2) ADDITIONAL FEDERAL SHARE.—The Fed-
19 eral share of the cost of a project carried out by a
20 State using funds provided under this section may
21 be increased by 5 percent if the such 5 percent is
22 used for the mitigation of diesel emissions from con-
23 struction activities associated with the project. The
24 Administrator of Environmental Protection Agency,
25 in consultation with the Secretary, shall develop

1 guidance for eligible equipment and activities con-
2 sistent with existing State, local, and nonprofit clean
3 construction guidelines.

4 “(l) ADMINISTRATION AND OVERSIGHT COSTS.—The
5 Secretary may retain up to one-half of 1 percent of the
6 amounts made available to carry out this section for each
7 fiscal year for the cost of administration and oversight of
8 projects funded under the Program.

9 “(m) AUTHORIZATION AND AVAILABILITY OF
10 FUNDS.—

11 “(1) AUTHORIZATION.—There is authorized to
12 be appropriated from the Freight Trust Fund to
13 carry out this section an amount equal to 50 percent
14 of the receipts of the Freight Trust Fund for each
15 fiscal year beginning in fiscal year 2018.

16 “(2) AVAILABILITY.—Amounts authorized
17 under paragraph (1) shall be—

18 “(A) available for obligation on October 1
19 of the fiscal year for which they are authorized;
20 and

21 “(B) available for obligation until ex-
22 pended.

23 “(n) APPLICATION OF RATE REQUIREMENTS.—The
24 Secretary shall take such action as may be necessary to
25 apply the requirements described under section 113 of title

1 23, as applicable, to any project receiving funds under this
2 section.

3 “(o) DEFINITIONS.—In this section:

4 “(1) DESIGNATED ENTITY.—The term ‘des-
5 ignated entity’ means—

6 “(A) a State;

7 “(B) a unit of local government;

8 “(C) a metropolitan planning organization;

9 “(D) a public transportation authority (in-
10 cluding a port authority);

11 “(E) a tribal government; or

12 “(F) or a consortium of the entities de-
13 scribed in this paragraph.

14 “(2) STATE.—The term ‘State’ means any of
15 the 50 States, the District of Columbia, Puerto Rico,
16 American Samoa, the Commonwealth of the North-
17 ern Mariana Islands, Guam, and the United States
18 Virgin Islands.

19 “(3) STATE FREIGHT PLAN.—The term ‘State
20 freight plan’ means the State freight plan described
21 under section 70202.”.

22 (b) CONFORMING AMENDMENT.—The table of sec-
23 tions for chapter 701 of title 49, United States Code, is
24 amended by adding at the end the following:

“70104. Multimodal Freight Funding Formula Program.

“70105. National Freight Infrastructure Competitive Grant Program.”.

1 **SEC. 3. NATIONAL AND STATE FREIGHT PLANS.**

2 (a) NATIONAL FREIGHT STRATEGIC PLAN.—Section
3 70102(b) of title 49, United States Code, is amended—

4 (1) in paragraph (10) by striking “and” at the
5 end;

6 (2) in paragraph (11) by striking the period at
7 the end and inserting “; and”; and

8 (3) by adding at the end the following:

9 “(12) best practices to reduce greenhouse gas
10 emissions, local air pollution, water runoff, and wild-
11 life habitat loss.”.

12 (b) STATE FREIGHT ADVISORY COMMITTEES.—Sec-
13 tion 70201 of title 49, United States Code, is amended—

14 (1) in subsection (a) by striking “representa-
15 tives of ports, freight railroads,” and all that follows
16 through “local governments” and inserting the fol-
17 lowing: “representatives of—

18 “(1) ports;

19 “(2) freight railroads;

20 “(3) shippers;

21 “(4) carriers;

22 “(5) freight-related associations;

23 “(6) third-party logistics providers;

24 “(7) the freight industry workforce;

25 “(8) the transportation department of the State;

26 “(9) metropolitan planning organizations;

1 “(10) local governments;

2 “(11) the environmental protection department of the
3 State, if applicable; and

4 “(12) the air resources board of the State, if applica-
5 ble”;

6 (2) by redesignating subsection (b) as sub-
7 section (c);

8 (3) by inserting after subsection (a) the fol-
9 lowing:

10 “(b) **QUALIFICATIONS.**—Each member of a freight
11 advisory committee established under subsection (a) shall
12 be widely recognized to have qualifications sufficient to
13 represent the interests of such member’s stakeholder
14 group, including, as applicable—

15 “(1) a general business and financial experi-
16 ence;

17 “(2) experience or qualifications in the areas of
18 freight transportation and logistics;

19 “(3) experience in transportation planning;

20 “(4) experience representing employees of the
21 freight industry; or

22 “(5) experience representing a State, local gov-
23 ernment, or metropolitan planning organization.”;

24 (4) in subsection (b)—

1 (A) in paragraph (5) by inserting “, in-
2 cluding advising on the development of the
3 freight investment plan” after “70202”; and

4 (B) by adding at the end the following:

5 “(6) approve the State freight plan under sec-
6 tion 70202, including the freight investment plan.”.

7 (c) STATE FREIGHT PLANS.—Section 70202 of title
8 49, United States Code, is amended—

9 (1) in subsection (b)—

10 (A) in paragraph (9)—

11 (i) by inserting “and section 70104”
12 after “section 167 of title 23”; and

13 (ii) by striking “and” at the end

14 (2) by redesignating paragraph (10) as para-
15 graph (12); and

16 (3) by inserting after paragraph (9) the fol-
17 lowing:

18 “(10) strategies and goals to decrease—

19 “(A) greenhouse gas emissions;

20 “(B) local air pollution, including ozone
21 and ozone precursors, nitrogen oxides, sulfur di-
22 oxide, particulate matter, carbon monoxide, and
23 lead;

24 “(C) water runoff and other adverse water
25 impacts; and

1 “(D) wildlife habitat loss;

2 “(11) strategies and goals to decrease the ad-
3 verse impact of freight transportation on commu-
4 nities traversed by freight railroads; and”;

5 (4) by redesignating subsection (e) as sub-
6 section (f); and

7 (5) by inserting after subsection (d) the fol-
8 lowing:

9 “(e) CERTIFICATION.—The Secretary shall approve a
10 freight plan if such plan meets the requirements of this
11 section and is consistent with the National freight stra-
12 tegic plan described in section 70102. The Secretary, in
13 consultation with the Administrator of the Environmental
14 Protection Agency shall certify any environmental goal or
15 strategy provisions of the plan.”.

16 **SEC. 4. FREIGHT TRUST FUND.**

17 (a) IN GENERAL.—Subchapter A of chapter 98 of the
18 Internal Revenue Code of 1986 is amended by adding at
19 the end the following new section:

20 **“SEC. 9512. FREIGHT TRUST FUND.**

21 “(a) CREATION OF TRUST FUND.—There is estab-
22 lished in the Treasury of the United States a trust fund
23 to be known as the ‘Freight Trust Fund’ (hereinafter in
24 this section referred to as the ‘Fund’) consisting of such

1 amounts as may be appropriated or credited to such Fund
2 as provided in this section or section 9602(b).

3 “(b) TRANSFERS TO THE FUND.—There are hereby
4 appropriated to the Fund amounts equivalent to taxes re-
5 ceived in the Treasury under section 4286.

6 “(c) EXPENDITURES FROM FUND.—Amounts in the
7 Fund shall be made available, as provided by appropria-
8 tion Acts, for making expenditures to meet obligations au-
9 thorized to be paid out of the Fund under section 2 of
10 the Economy in Motion: The National Multimodal and
11 Sustainable Freight Infrastructure Act.”.

12 (b) CLERICAL AMENDMENT.—The table of sections
13 for subchapter A of chapter 98 of the Internal Revenue
14 Code of 1986 is amended by adding at the end the fol-
15 lowing new item:

“Sec. 9512. Freight Trust Fund.”.

16 **SEC. 5. FREIGHT MOBILITY INFRASTRUCTURE TAX.**

17 (a) IMPOSITION OF TAX.—Chapter 33 of the Internal
18 Revenue Code of 1986 is amended by inserting after sub-
19 chapter C the following new subchapter:

20 **“Subchapter D—Ground Transportation**
21 **Freight Tax**

“Sec. 4286. Imposition of tax.

22 **“SEC. 4286. IMPOSITION OF TAX.**

23 “(a) IN GENERAL.—There is hereby imposed upon
24 taxable ground transportation of property within the

1 United States a tax equal to 1 percent of the amount paid
2 for such transportation.

3 “(b) BY WHOM PAID.—

4 “(1) IN GENERAL.—The tax imposed by sub-
5 section (a) shall be paid—

6 “(A) by the person making the payment
7 subject to tax, or

8 “(B) in the case of transportation by a re-
9 lated person, by the person for whom such
10 transportation is made.

11 “(2) DETERMINATIONS OF AMOUNTS PAID IN
12 CERTAIN CASES.—For purposes of this section, rules
13 similar to the rules of section 4271(c) shall apply.

14 “(c) TRANSPORTATION BY RELATED PERSONS.—In
15 the case of transportation of property by the shipper or
16 a person related to the shipper, the fair market value of
17 such transportation shall be the amount which would be
18 paid for transporting such property if such property were
19 transported by an unrelated person, determined on an
20 arms’ length basis.

21 “(d) DEFINITIONS AND SPECIAL RULE.—For pur-
22 poses of this subchapter—

23 “(1) TAXABLE GROUND TRANSPORTATION.—

24 The term ‘taxable ground transportation’ means
25 transportation of property by—

1 “(A) freight rail, or

2 “(B) truck trailer and semitrailer chassis
3 and bodies, suitable for use with a trailer or
4 semitrailer which has a gross vehicle weight of
5 26,000 pounds or more.

6 For purposes of subparagraph (B), the terms ‘truck
7 trailer’ and ‘semitrailer’ have the same meanings as
8 such terms have in section 4051.

9 “(2) RELATED PERSON.—A person (hereinafter
10 in this paragraph referred to as the ‘related person’)
11 is related to any person if—

12 “(A) the related person bears a relation-
13 ship to such person specified in section 267(b)
14 or 707(b)(1), or

15 “(B) the related person and such person
16 are engaged in trades or businesses under com-
17 mon control (within the meaning of subsections
18 (a) and (b) of section 52).

19 For purposes of the preceding sentence, in applying
20 sections 267(b) and 707(b)(1), ‘10 percent’ shall be
21 substituted for ‘50 percent’ each place it appears.

22 “(3) TRANSPORTATION OUTSIDE THE UNITED
23 STATES.—In the case an amount paid for transpor-
24 tation any portion of which is outside the United
25 States, the portion of such amount paid which is al-

1 locable to transportation within the United States
2 shall be determined under regulations prescribed by
3 the Secretary. Such regulations shall include rules to
4 include transportation outside the United States the
5 primary purpose of which is to avoid the tax im-
6 posed by this section.

7 “(e) EXEMPTION FOR UNITED STATES AND POSSES-
8 SIONS AND STATE AND LOCAL GOVERNMENTS.—The tax
9 imposed by subsection (a) shall not apply to amounts paid
10 for transportation of property purchased for the exclusive
11 use of the United States, or any State or political subdivi-
12 sion thereof.”.

13 (b) CREDITS OR REFUNDS TO PERSONS WHO COL-
14 LECTED CERTAIN TAXES.—Section 6415 of such Code is
15 amended by striking “or 4271” each place it appears and
16 inserting “4271, or 4286”.

17 (c) CLERICAL AMENDMENT.—The table of sub-
18 chapters for chapter 33 of the Internal Revenue Code of
19 1986 is amended by inserting after the item relating to
20 subchapter C the following new item:

“SUBCHAPTER D. GROUND TRANSPORTATION FREIGHT TAX”.

21 (d) REGULATIONS.—Not later than 180 days after
22 the date of the enactment of this Act, the Secretary of
23 the Treasury shall issue regulations to carry out the
24 amendments made by this section.

1 (e) EFFECTIVE DATE.—The amendments made by
2 this section shall apply to transportation beginning on or
3 after the last day of the 180-day period beginning on the
4 date of the issuance of regulations under subsection (c).



Board Report

File #: 2017-0483, File Type: Federal Legislation / State Legislation (Position)

Agenda Number: 37

..Meeting_Body

REVISED
EXECUTIVE MANAGEMENT COMMITTEE
JULY 20, 2017

SUBJECT: STATE LEGISLATION

ACTION: ADOPT STAFF RECOMMENDED POSITIONS

RECOMMENDATION

ADOPT staff recommended positions:

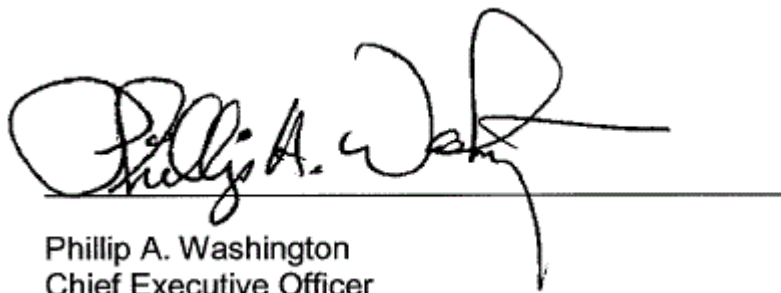
- A. **AB 533 (Holden)** – State Highway Route 710 North **WORK WITH AUTHOR**
- B. **AB 1069 (Low)** - Local Government: Taxicab Transportation Services **OPPOSE**

ATTACHMENTS

- Attachment A – AB 533 (Holden) Legislative Analysis
- Attachment B - AB 1069 (Low) Legislative Analysis

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Reviewed by: Pauletta Tonilas, Chief Communications Officer, (213) 922-3777



Phillip A. Washington
Chief Executive Officer

ATTACHMENT B

BILL: ASSEMBLY BILL 1069 AS AMENDED JUNE 28, 2017

AUTHOR: ASSEMBLYMEMBER EVAN LOW (D-CAMPBELL)

SUBJECT: LOCAL GOVERNMENT: TAXICAB TRANSPORTATION SERVICES

STATUS: SENATE TRANSPORTATION AND HOUSING COMMITTEE
SENATE GOVERNANCE AND FINANCE COMMITTEE - PASSED

ACTION: OPPOSE

RECOMMENDATION

Staff recommends that the Board of Directors adopt an OPPOSE position on Assembly Bill 1069 (Low). This bill would require regional transportation planning agencies in ten large counties in the State to establish regulations and impose fees on taxicab companies and drivers.

Specifically the bill would:

- Authorize each of 10 specified counties to regulate taxi service within the respective county by means of a countywide transportation agency, as defined;
- Prohibit an authorized county from implementing regulatory authority, if not already established by January 1, 2019;
- Require the sheriff in a county that does not regulate taxi service to administer criminal background checks and drug testing for taxicab drivers within that county;
- Require a countywide transportation agency to provide, in its policy for entry into providing taxicab service that the taxicab driver comply with a drug testing program and pass a live scan fingerprint criminal background check;
- Repeal the requirement that a countywide transportation agency set rates and fares;
- Authorize a countywide transportation agency to establish a maximum rate for transportation services;
- Authorize taxicab companies to set fares and flat rates;
- Authorize a countywide transportation agency to impose a charge on a taxicab transportation service that is limited to the reasonable regulatory costs of enforcing the program;
- Authorize a county or city that operates an airport to regulate the access to airports by taxicabs and to set access fees at the airport;

- Authorize a permitted taxicab company to use any device or technology as approved by the Division of Measurement Standards to calculate fares;
- Require a permitted taxicab company to disclose fares, fees or rates to a potential customer and to disclose rates for walkup rides and street hails;
- Authorize a city or county to limit the number of taxicab companies or vehicles that use specified areas within the city or county's jurisdiction;
- Prohibit a city or county or countywide transportation agency from limiting or prohibiting prearranged trips prearranged trips by a licensed taxicab company;
- Require a countywide transportation agency to issue an inspection sticker to a taxicab that complies with specified requirements;
- Require a countywide transportation agency to issue a photo permit to a taxicab driver that complies with specified requirements;
- Authorize a countywide transportation agency to accept a taxi permit issued by another countywide transportation agency as valid and to issue that taxicab an inspection sticker or photo permit to operate within the county; and
- Make it unlawful to operate a taxicab in a participating county without a valid permit and would make a violation of the requirement punishable by a fine.
- Establishes that any city or county operated airport would continue to be authorized to enacts its own regulations.

DISCUSSION

As amended on June 28, 2017, AB 1069 would grant countywide transportation agencies the regulatory authority over the taxicab industry in the state. Existing law provides that the authority to regulate taxicabs lies with the cities and counties. The author has stated that the intent of the bill is to provide remedies for private taxicab operators and drivers that are subject to current regulations under the jurisdiction of local cities and counties. The bill sponsor, the Taxicab Paratransit Association, argues that the regulation on the local level impacts the taxicab industry's ability to compete with transportation network companies (TNCs), like Uber and Lyft. TNCs are currently regulated by the California Public Utilities' Commission.

Metro serves as regional transportation planner and coordinator, designer, builder, funder and operator for one of the country's largest, most populous counties. More than 9.6 million people – nearly one-third of California's residents – live, work and play within its 1,433-square-mile service area. Metro currently does not have any regulatory functions. Los Angeles Metro funds projects and/or operates in LA County's 88 cities.

AB 1069 would specify that ten identified county transportation agencies would be subject to adding a new regulatory function to their current roles and responsibilities. The provision in the legislation, as currently drafted, also has a deadline for implementation. Counties that do not adopt ordinances, implement permitting and fee processes by January 2019 would no longer be able to exercise this regulatory

authority. This would mean that if the specified transportation agencies were not able to enact the full regulations and permitting process by 2019, there would be essentially no regulations on taxis in those counties.

Staff finds this bill and its many provisions to be troubling, because, unlike most counties in Northern California, Los Angeles County, and other surrounding areas in Southern California have multiple jurisdictions within their county limits.

Existing law provides that taxicabs are regulated by local cities and counties, as specified, while transportation network companies are regulated by the California Public Utilities Commission. The taxicab industry has expressed that local municipalities have made it difficult to compete with TNCs. Taxicab companies claim to be subject to an undue burden by adding a layer of regulation, operating boundaries and fees that TNCs are not currently subject to. The intent of the author and bill sponsor is clear; to give taxicab service providers some relief; however, this legislation will not meet that goal. Regulation of taxicabs is not within Metro's current scope.

The legislation would put Metro, as the county's transportation planning agency, at odds with many cities that currently operate and regulate taxis within their jurisdictions. The legislation, as written encroaches on local control, now held by the many cities that rely on taxicab regulation to provide safety and quality assurance to their residents, access to on-demand transportation services and a dedicated revenue stream.

Currently, TNCs are subject to significantly less regulation than the taxicab industry and are not subject to jurisdictional boundaries like taxicab companies. By pursuing the long-term goal of streamlining and aligning taxicab and TNC regulation, the state can ensure a level playing field, regulate safety and service provided by TNCs and taxicabs. We do not believe that this legislation achieves that goal. Metro could also alternatively benefit from future legislation that would seek to grant access to trip data collected by TNCs and taxicabs. Currently, due to privacy laws and protections, TNCs are not subject to share ridership data, which could be helpful in Metro's research into travel patterns and mobility needs.

The bill is currently opposed by the Riverside County Transportation Commission, Alameda County Transportation Commission, Sheriff's Association and the City of Santa Monica. There are on-going discussions statewide among RTPAs about the problematic provisions within the legislation as well.

Staff recommends that the Board adopt an OPPOSE position on the measure AB 1069 (Low) as amended on June 28, 2017.

DETERMINATION OF SAFETY IMPACT

There is no determined safety impact due to the enactment of the proposed legislation.

FINANCIAL IMPACT

The estimated financial impact has yet to be determined.

ALTERNATIVES CONSIDERED

Staff has considered adopting either a support or neutral position on the bill. A support or neutral position would be inconsistent with Metro's current role as the regional transportation planning agency in Los Angeles County.

NEXT STEPS

Should the Board decide to adopt a OPPOSE position on this legislation; staff will communicate the Board's position to the author and work to oppose the bill. Staff will continue to keep the Board informed as this issue is addressed throughout the legislative session.



Board Report

File #: 2017-0304, File Type: Contract

Agenda Number: 42

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017
SUBJECT: SIXTY ZERO EMISSION 40' TRANSIT BUS CONTRACT**ACTION: AWARD CONTRACT FOR REPLACEMENT OF 40' TRANSIT BUSES****RECOMMENDATION**

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer (CEO) to award a firm fixed-price contract, Contract No. OP28367-002, Group C, to BYD Coach & Bus, LLC (BYD) for the manufacture and delivery of sixty 40' zero emission (ZE) transit buses, in the amount of \$44,967,874 for the base contract, including spare parts, charging equipment, taxes and delivery; exclusive of any contract option buses, subject to resolution of any properly submitted protest.
- B. AUTHORIZING the CEO to award an additional not-to-exceed amount of \$2,806,849 for Optional Vehicle Features, and Training Aids for a total combined contract amount not-to-exceed \$47,774,723.
- C. ESTABLISHING a life-of-project budget of \$65,900,000 for the purchase of sixty 40' zero emission buses, charging equipment, installation costs, infrastructure upgrades, and contingency under Capital Project no. 201077.

ISSUE

In October 2016, staff was directed to initiate plans to operate only Zero Emission (ZE) Buses on Metro's Silver Line (MSL) by approximately 2021. Further, between FY18-FY22, Metro will require up to 600 40' buses to replace existing 40' CNG buses reaching the end of their useful life.

This action authorizes the award of a contract for sixty 40' ZE buses to BYD for the replacement of retirement eligible CNG buses, and for the deployment of related charging equipment on the MSL right-of-way, Metro Division 9 in El Monte and Metro Division 18 in Carson.

DISCUSSION

In April 2016, Metro's Board of Directors authorized staff to initiate RFP 28367 for the procurement of up to 1,000 CNG or Zero Emission Transit Buses. RFP 28367, issued in July 2016, consists of four

parts, one for the procurement of each vehicle type:

- Group A, 40' CNG buses (base order of 295, awarded in June 2017, pending resolution of protest)
- Group B, 60' CNG buses (base order of 65, award targeted for July 2017)
- Group C, 40' ZE buses (base order of 60, award targeted for July 2017)
- Group D, 60' ZE buses (base order of 35, award targeted for July 2017)

This recommended Board action pertains solely to Part C, 40' Zero Emission buses.

This procurement supports both Metro's bus fleet management and replacement plans for FY18-22 and Metro's goal to transition to a 100% zero emission fleet by 2030.

To achieve these objectives, Metro's electrification plan consists of near and long term elements. The near term elements are those that may be applied now with limited risk to service while providing Metro with the needed opportunity to evaluate and initiate mitigations for real and possible impacts to service and operations. Metro's plan to transition to a 100% Zero Emission Fleet considers:

- Current status of electric bus technology
- Production
- Impact to Service
- Impact to Facilities and Infrastructure
- Impact to Operating Practices and Operating Environment
- Impact to Operator and Maintainer Training
- Service contracts with energy utilities
- Costs

In brief, it is currently not possible to immediately transition to 100% zero emission operation without significant risks to service and operation:

- Current ZE bus technologies do not permit a 1:1 replacement of CNG buses with ZE buses due to differences in costs and performance. In particular, this includes issues with ZE buses that include operating range and vehicle weight.
- Facilities and infrastructure modifications will be required to support ZE bus operation and maintenance; this will take time and money.
- There are additional unknowns about potential operating impacts related to maturity of ZE technologies, such as ZE technology maturity and battery life durability (i.e. by how much will a ZE bus's operating range degrade over time?).

- Mitigation plans need to be developed for ZE specific situations (i.e., currently there are no mitigation plans in place should a power outage occur and prevent buses from charging overnight or through-out the day).

Near term elements of Metro's ZE bus plans consist of:

1. Electrification of the Metro Orange Line by 2020 (45 ZE buses required)
 - Procurement of five 60' ZE buses from BYD (Not addressed in this Board action)
 - Procurement of 35 60' ZE buses from New Flyer (Not addressed in this Board action)
 - Procurement of five additional 60' ZE buses from New Flyer through a Lo-No Emission Grant (Not addressed in this Board action)
 - Negotiation and establishment of service contracts with energy utilities and PUC
 - Electrification of facilities, operating lines, and infrastructure
2. Electrification of Metro Silver Line by approximately 2021 (60 40' ZE buses required)
 - Procurement of 60 40' ZE buses from BYD through this Board action
 - Coordinate with Foothill Transit for Bus Bay Charging Stations
 - Identify other candidate locations along ROW for installation of opportunity chargers (potentially Harbor Gateway Transit Center in South Bay)
 - Negotiate and establish service contracts with energy utilities
 - Electrify facilities, operating lines, and infrastructure

Long term elements of Metro's ZE bus plans consist of:

- Return to the Board during FY18-FY19 timeframe, and periodically thereafter, to present plans to further expand electrification of Metro's bus transit system;
- Challenge the bus manufacturing and battery industries to develop ZEB designs that exceed Metro's goals for operating range, weight and cost;
- Develop a working group with local utilities (i.e. DWP and SCE) to ensure their support with expanding the bus charging networks at Metro operating locations; negotiate with PUC and local utilities to refine rate structures that are optimized to electric bus charging and operations;
- Work with engineering/design firms to refine optimal procedures for installing and operating bus "Depot" and en-route charging systems;
- Seek funding support for Metro's ZEB program from federal, state and local sources;
- Evaluate alternate options for procuring battery electric bus technologies, such as using

commercial leases to help mitigate operational risks associated with batteries and/or propulsion system technologies.

Procurement Process

Staff prioritized the review of Group C of the solicitation as these 40' zero emission buses are needed to replace 40' CNG buses that have reached the end of their service life and to ensure the electrification of the Metro Silver Line by approximately 2021.

For this contract procurement, Metro used a "Best Value" competitive negotiation process which considered such factors as:

- Broadest possible range of competing products and materials available
- Fitness for purpose
- Manufacturer's warranty
- Performance and Reliability
- Life Cycle Costs
- Delivery Schedules
- Support logistics
- Scoring incentive for local (CA) job creation

For this solicitation, Metro provided an additional scoring incentive for proposers who committed to local job creation. The Local Employment Program (LEP) is a voluntary FTA approved pilot for Metro's Rolling Stock procurements. The LEP provides proposers with incentive points for creating new jobs in California and for geographical preferences to be applied as part of Metro's evaluation scoring. BYD, the recommended awardee, committed to creating 68 new FTEs with wages, benefits, and facility improvements totaling \$4.56 million for the Base award, and \$8.41 million for the Base and Option quantities.

The Diversity and Economic Opportunity Department did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this rolling stock procurement. Transit Vehicle Manufacturers (TVM), as a condition of authorization to bid or propose on FTA-assisted transit vehicle procurements, must certify that it has an FTA approved DBE overall goal methodology in compliance with 49 Code of Federal Regulations (CFR) Part 26.49(a)(1). BYD is currently on FTA's list of eligible TVMs, and is certified at a 7.0% DBE goal level. In compliance with 49 CFR Part 26.49, TVMs report direct to FTA.

DETERMINATION OF SAFETY IMPACT

There will be anticipated safety improvements for operating these new battery electric buses in Metro's bus fleet. These buses will also incorporate the latest safety features and designs, including

improved ADA amenities and boarding ramps. The batteries and high voltage powertrain equipment on these buses includes special safety provisions, and “Locks out” employee access while they are energized. New buses also will provide a safer, cleaner environment for Metro patrons and employees.

FINANCIAL IMPACT

Total LOP funding of \$65,900,000 will be included in Cost Center 3320 - Vehicle Technology, in project 201077. For FY18, \$18,873,000 is programmed to cover expenses for purchasing these buses. Because this is a multi-year contract, the Cost Center Manager will be responsible for ensuring that future year funding is programmed.

Impact to Budget

The current source of funds for this action is Prop C 40% Bonds, which are eligible for this project. This funding source is currently sufficient to award the contract base of this recommendation. Staff is pursuing additional Federal, State and Local funding sources such as Cap and Trade and similar sources as they become available.

ALTERNATIVES CONSIDERED

In addition to this Board action, staff considered awarding 45 additional ZE 60' buses, as included in Group D, to cover Metro's Silver Line BRT service but due to roadway concerns and Caltrans resurfacing of the HOT lanes on the 110 freeway in the next few years, the additional ZE buses will be awarded under a separate Board action.

Staff considered purchasing CNG replacement buses to cover this service, or continue using existing 45' CNG buses. In both cases, these options are not recommended as they would not comply with Metro Board's directives to operate zero emission buses on the Metro's Silver Line corridor.

NEXT STEPS

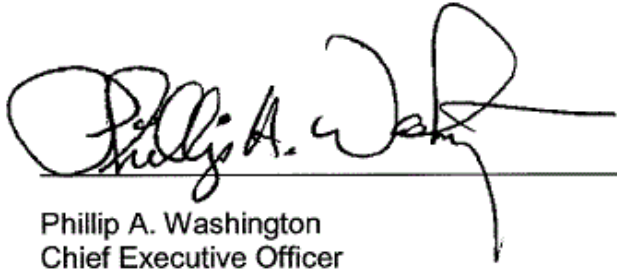
Upon Board approval, staff will execute the contract with BYD and issue a Notice to Proceed.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - Funding/Expenditure Plan

Prepared by: John Drayton, Director of Vehicle Technology, (213) 617-6285
Jesus Montes, Sr. Executive Officer, Vehicle Acquisition (213) 922-3838

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

SIXTY 40-FOOT ZERO EMISSION TRANSIT BUS CONTRACT /
OP28367-002 (Group C)

1.	Contract Number: OP28367-002	
2.	Recommended Vendor: BYD Coach & Bus, LLC (BYD)	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 07.29.16	
	B. Advertised/Publicized: 08.04.16; 08.08.16; 08.12.16; 08.15.16	
	C. Pre-Proposal Conference: 08.30.16	
	D. Proposals Due: 02.10.17	
	E. Pre-Qualification Completed: July 12, 2017	
	F. Conflict of Interest Form Submitted to Ethics: 07.03.17	
	G. Protest Period End Date: 07.28.17	
5.	Solicitations Picked up/Downloaded: 63	Bids/Proposals Received: 3
6.	Contract Administrator: Elizabeth Hernandez	Telephone Number: (213) 922-7334
7.	Project Manager: John Drayton	Telephone Number: (213) 617-6285

A. Procurement Background

This Board Action is to approve Contract No. OP28367-002 issued in support of Metro's bus fleet replacement plan to procure new 40' Zero Emission (ZE) buses for the replacement of retirement eligible CNG buses, and for the initial deployment of related charging equipment on the Metro Silver Line (MSL) right-of-way, Metro Division 9 in El Monte and Metro Division 18 in Carson. The RFP solicitation Group C – 40' ZE bus Base Buy consists of 60 base buy ZE buses, with option orders of up to 40 additional buses for a total of 100 40' ZE buses. Board approval of contract awards are subject to resolution of any properly submitted protest.

The RFP was issued in accordance with Metro's Acquisition Policy and the contract type is a firm fixed unit price.

Thirty amendments (30) were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on 08.03.16, updated the required certifications;
- Amendment No. 2, issued on 08.08.16, provided revised Pre-Proposal Conference date and venue;
- Amendment No. 3, issued on 08.11.16, updated due dates for requests for approved equals and clarifications;
- Amendment No. 4, issued on 08.26.16, edited the submittal forms and technical specifications;
- Amendment No. 5, issued on 09.07.16, extended the proposal and clarifications requests due dates, edited submittal forms and technical

specifications, and established a project data repository for plan holder access to RFP documents;

- Amendment No. 6, issued on 09.16.16, extended the proposal and clarifications requests due dates, edited submittal forms and technical specifications, and scheduled on site bus inspections for proposers;
- Amendment No. 7, issued on 09.30.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 8, issued on 10.14.16, edited pricing and clarification request forms, technical specifications, and commercial terms and conditions;
- Amendment No. 9, issued on 11.02.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 10, issued on 11.07.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 11, issued on 11.10.16, extended the due dates for Groups A and B, 40' and 60' CNG proposals, and edited commercial terms and conditions;
- Amendment No. 12, issued on 11.22.16, edited pricing and submittal forms;
- Amendment No. 13, issued on 12.12.16, extended the due dates for Groups C and D 40' and 60' zero emission bus proposals;
- Amendment No. 14, issued on 01.12.17, edited commercial terms and conditions for Group A;
- Amendment No. 15, issued on 01.13.17, extended the due dates for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 16, issued on 01.26.17, extended the due dates for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 17, issued on 01.31.17, edited pricing forms and technical specifications for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 18, issued on 02.06.17, edited pricing forms for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 19, issued on 02.10.17, solicited best and final offers (BAFO) from Group A proposers;
- Amendment No. 20, issued on 02.24.17, edited documents for Group A;
- Amendment No. 21, issued on 02.28.17, edited documents for Group A;
- Amendment No. 22, issued on 03.30.17, solicited BAFO from Group A proposers;
- Amendment No. 23, issued on 05.05.17, solicited BAFO from Group D proposers;
- Amendment No. 24, issued on 05.05.17, edited documents for Group B proposers;
- Amendment No. 25, issued on 05.09.17, solicited conforming offer for Group B proposer;
- Amendment No. 26, issued on 05.10.17, edited documents for BAFO from Group D proposers;
- Amendment No. 27, issued 05.11.17, edited due date for submittal for Group B proposer;

- Amendment No. 28, issued 06.02.17, edited documents for Group C proposers;
- Amendment No. 29, issued 06.07.17, solicited BAFO from Group C proposers;
- Amendment No. 30, issued 06.13.17, edited documents for BAFO from Group C proposers.

A pre-proposal conference was held on August 30, 2016. On-site bus inspections were performed on October 4, 5, and 6, 2016. A total of three proposals were received for Group C on February 10, 2017.

Questions received throughout the solicitation process and Metro’s responses to those questions were made accessible to the RFP plan holders by posting them at Metro’s project data repository. Nine sets of Questions and Answers were issued for a total of 754 questions and answers uploaded to the repository from August 12, 2016 to December 30, 2016. Proposers for Group C 40’ ZE buses requested, and Metro granted, several extensions changing the proposal due date from the initial date of December 2, 2016 to February 10, 2017.

The proposal evaluation period, from February 13, 2017 through July, 2017, included reviews of the written proposals, clarifications requests and responses, oral presentations, proposers’ manufacturing and engineering site visits, face-to-face and conference call discussions, and transit agency reference checks. These series of evaluation processes were necessary to assess and determine the proposers’ strengths and weaknesses in their respective technical and price proposals.

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Metro’s Vehicle Technology and Acquisition, Maintenance, and Operations was convened and conducted a comprehensive technical evaluation of the proposals received.

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

• Technical Compliance	400 points
• Price	300 points
• Project Management Experience	100 points
• Experience and Past Performance	100 points
• Life Cycle Costs	<u>100 points</u>
Sub-Total	1,000 points
• Voluntary Local Employment Program (Incentive Points)	<u>50 points</u>
Total Available Points	1,050 points

The evaluation criteria are appropriate and consistent with criteria developed for other, similar bus procurements. Several factors were considered when developing these weights, giving the greatest importance to the technical compliance of the proposed bus.

The Local Employment Program (LEP) is a FTA approved pilot for Metro's Rolling Stock procurements. The LEP allows for geographical preferences to be applied as part of Metro's evaluation scoring. The voluntary program provides proposers with incentive points for creating jobs in California. Participation in the voluntary program is not a condition for award.

Proposers are listed below in alphabetical order:

1. BYD Coach & Bus, LLC (BYD)
2. New Flyer of America Inc. (NFA)
3. Proterra Inc. (Proterra)

The PET began its review of the written technical proposals submitted by the three proposers on February 13, 2017. On or about March 13, 2017, based on the PET's initial review, clarification request letters were issued to proposers regarding the proposal submittals. In addition, 167 clarifications on technical submittals for Group C were sent to the proposers and the appropriate responses were received and reviewed accordingly.

As part of the evaluation process the PET conducted site visits of all three proposers in April and May 2017. The agenda for the site visits included facility/plant/site manufacturing process tour. All three proposers provided in depth presentations and discussions by the Proposer's management, engineering and project key personnel on the following topics:

1. Technical Proposal – Detailed presentations of the proposed vehicle systems and sub-systems vis-à-vis Metro's technical specifications;
2. Project Management;
3. Experience and Past Performance;
4. Consolidated comments and discussions of the strengths, weaknesses, deficiencies, and risks in the technical Proposals as noted by the PET in the individual evaluations.

The PET was supported by Consultant Technical Advisors (TAs) with subject matter expertise relative to the review, evaluation, assessments, and recommendations for the Life Cycle Costs (LCC) and Local Employment Program (LEP) submittals. The TAs comments and findings on the strengths, weaknesses, and deficiencies in the proposed Local Employment Plan were discussed with the respective Proposers. All three proposers presented Local Employment Plans.

A total of 88 Requests for Deviations were submitted by the Proposers for Metro's review and consideration. The deviations were discussed individually with the Proposers during negotiation discussions conducted in May and June 2017.

The PET determined all Proposers to be in the competitive range and the invitation to submit their best and final offer was issued on June 7, 2017. Resolution of acceptable and unacceptable deviations necessitated that Best and Final Offers be submitted by the Proposers.

Best and Final Offer (BAFO)

Best and Final Offer (BAFO) submittals were received on June 21, 2017, and were reviewed and evaluated by the PET. The PET reviewed the BAFOs and prepared a recommendation for award memorandum on July 10, 2017.

Qualifications Summary of Firms within the Competitive Range:

BYD Coach & Bus, LLC

BYD Coach & Bus, LLC is a bus and coach manufacturing division under BYD Heavy Industries which has been open at its current location in Lancaster, California since 2013. BYD proposes to build LACMTA bus orders at the Lancaster facility. The U.S. parent company is BYD Motors, Inc. with corporate offices located in downtown Los Angeles. BYD has globally supplied fully electric and plug in hybrid vehicles. BYD has delivered ZE buses to various transit agencies that include Albuquerque, IndyGo, LANE Transit, Tri-Delta, AVTA, Long Beach, Sunline, Soltrans, G-Trans, and LACMTA.

BYD's proposal ranked second in technical compliance and life cycle costs, and third in project management, and experience and past performance. BYD is ranked first in price and ranked first in dollar value for jobs creation and facility capital investment for the Local Employment Plan. BYD was ranked first overall among the Proposers.

New Flyer of America Inc. (NFA)

NFA is a North Dakota corporation organized in October 1989 and is a wholly owned subsidiary of Transit Holdings, a holding company that owns New Flyer of America, Inc. and New Flyer Industries Canada ULC.

NFA proposes to build LACMTA bus orders in its St. Cloud, Minnesota and Ontario, California facilities. The St. Cloud plant is a production and finishing facility. The Ontario, California plant houses production, service and aftermarket parts. NFA's transit agency clients include several cities in Canada and the United States that include WMATA, San Francisco Muni, Maryland Transit, OCTA, MBTA, NYCTA, Foothill Transit and LACMTA.

NFA scored third in technical compliance, second in project management, and first in experience and past performance. NFA is ranked second in price and first in life cycle costs. NFA did not receive any incentive points for its Local Employment Plan due to a deficient Local Employment Plan submittal that was deemed non-responsive. NFA was ranked third overall among the Proposers.

Proterra Inc. (Proterra)

Proterra is a privately held corporation founded in 2004. Proterra currently operates out of three facilities:

1. Burlingame, California - corporate headquarter and Advanced Battery Research and Design Center and Battery Manufacturing facility;
2. City of Industry, Los Angeles, California - West Coast manufacturing facility; and
3. Greenville, South Carolina - East Coast manufacturing facility, vehicle engineering headquarters, and on route charging equipment manufacturing facility.

Proterra builds and manufactures electric buses only. Its transit agency clients include SEPTA, Foothill Transit, RTC Washoe County (Reno), Tri Delta Transit, King County Metro, Santa Clara Valley Transportation Authority, Dallas Area Rapid Transit, San Antonio VIA Metropolitan Transit, and New York City MTA.

Proterra was ranked first in Technical Compliance and Project Management criteria. It ranked second in Experience and Past Performance. Proterra scored third in price and life cycle cost. Proterra did not receive any incentive points for its Local Employment Plan due to a deficient Local Employment Plan that was deemed non-responsive. Proterra was ranked second overall among the Proposers.

1	Firm	Average Score*	Factor Weight	Weighted Average Score	Rank
2	Firm 1 - BYD				
3	Technical Compliance	68.45	400	273.81	
4	Price	100.00	300	300.00	
5	Project Management	61.69	100	61.69	
6	Experience and Past Performance	50.88	100	50.88	
7	Life Cycle Costs	95.62	100	95.62	
8	Local Employment Plan	100.00	50	50.00	
9	Total		1050	832.00	1
10	Firm 2 - NFA				
11	Technical Compliance	68.33	400	273.32	
12	Price	83.85	300	251.55	
13	Project Management	76.75	100	76.75	
14	Experience and Past Performance	71.81	100	71.81	
15	Life Cycle Costs	100.00	100	100.00	
16	Local Employment Plan	0.00	50	0.00	
17	Total		1050	773.43	3
18	Firm 3 - Proterra				
19	Technical Compliance	84.53	400	338.12	
20	Price	78.92	300	236.76	
21	Project Management	76.88	100	76.88	
22	Experience and Past Performance	70.38	100	70.38	
23	Life Cycle Costs	87.26	100	87.26	
24	Local Employment Plan	0.00	50	0.00	
25	Total		1050	809.40	2

* Average score rounded to the nearest the 1/100th.

C. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon adequate price competition, an Independent Cost Estimate (ICE), technical evaluation, fact finding, and negotiations. The Base and Option vehicles are based on Firm Fixed Unit Rate prices. The Optional Vehicle Features are also based on Firm Fixed Unit Prices for total Base Buy and Option Buy quantities. There is no obligation to purchase any Option buses. Option vehicles may be ordered in minimum increments of 10 buses.

	Proposer Name	Initial Proposal Amount**	Base Buy (60)**	Option Buy (40)**	Optional Features***	Negotiated or NTE amount (BAFO)
	Metro ICE*	N/A	\$45,000,000.00	\$30,000,000.00	N/A	\$75,000,000.00
1.	BYD	\$79,371,550.21	\$44,967,873.91	\$30,052,078.53	\$2,806,849.10	\$77,826,801.54
2.	NFA	\$84,453,143.66	\$53,230,780.79	\$33,294,572.42	\$6,289,375.14	\$92,814,728.35
3	Proterra	\$80,612,800.00	\$57,331,254.65	\$37,919,918.10	\$3,361,697.04	\$98,612,869.79

*Note: Metro's estimate for unit pricing of \$750,000 per bus did not include pricing for Optional Features or enroute/opportunity and shop chargers.

** Initial solicitation was for 5 base buy and up to 95 option buses. BAFO solicited for 60 base buy and 40 option buses.

*** Pricing Form for Optional Vehicle Configuration included items for alternative ADA securements, APC, enhanced camera systems, USB, wireless stops, spares, special tools, DTE, training aids, etc.

The PET determined that BYD's proposal provides the Best Value and is most advantageous to Metro. Price analysis shows that BYD's price is \$21 million lower than the second highest overall rated firm, Proterra, and 15 million lower than the third overall rated firm, NFA. BYD's proposal, from a Best Value perspective, offers Metro advantages in Price and local job creation over Proterra and NFA.

Local Employment Program

All three firms submitted proposals for Metro's voluntary Local Employment Program (LEP). This participation is intended to provide incentive points based on total proposed wages, benefits and training of new employees hired in California and also provides points for facility improvements made to facilities in California.

BYD was awarded the full 50 incentive points based on its total commitment of \$8,412,530 in proposed wages, benefits and training of new employees hired in California and facility improvements in its facility in Lancaster, California. The LEP submitted by NFA and Proterra were found to be non-responsive and were not awarded any incentive points.

The table below describes the commitment level for all BYD for new local jobs and facility improvements.

Proposer:	BYD
Total Local Employment, Facility and Training Investment	\$8,412,530

D. Background on Recommended Contractor

The recommended firm, BYD Coach & Bus, LLC (BYD), is a bus manufacturing division under BYD Heavy Industries. BYD opened its North American electric bus manufacturing facility in Lancaster, California in May 2013. BYD proposes to build the LACMTA buses under this Contract at the Lancaster location. BYD is currently conducting a three phase planned major expansion of its manufacturing facility in

Lancaster to increase production capability of the plant. BYD provided five 40' zero emission buses to LACMTA in a prior contract. BYD proposes a bus powered with its self-developed lithium iron phosphate battery.

DEOD SUMMARY

SIXTY ZERO EMISSION 40' TRANSIT BUS CONTRACT / OP28367-002 (Group C)

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this rolling stock procurement. Transit Vehicle Manufacturers (TVM), as a condition of authorization to bid or propose on FTA-assisted transit vehicle procurements, must certify that they have an FTA approved DBE overall goal methodology in compliance with 49 Code of Federal Regulations (CFR) Part 26.49(a)(1). BYD Motors submitted an FY17 TVM Certification with their proposal, and is currently on FTA's list of eligible TVMs. In compliance with 49 CFR Part 26.49, TVMs report directly to FTA.

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy 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.

**Funding and Expenditure Plan
Sixty 40' Zero Emission (ZE) Transit Buses (Part C)**

In Thousands	FY18	FY19	FY20	Total LOP	% of Total
Uses of Funds					
Vehicles	\$4,500,000	\$36,000,000	\$4,467,874	\$44,967,874	68.2%
Chargers - en route	\$1,050,000	\$0	\$0	\$1,050,000	1.6%
En-route Charger Infrastructure Upgrades *	\$7,808,000	\$0	\$0	\$7,808,000	11.8%
Optional Vehicle Features	\$0	\$2,806,849	\$0	\$2,806,849	4.3%
Depot Charger Infrastructure Upgrade*	\$5,000,000	\$0	\$0	\$5,000,000	7.6%
Labor	\$500,000	\$900,000	\$807,277	\$2,207,277	3.3%
Travel/Administration	\$15,000	\$30,000	\$15,000	\$60,000	0.1%
Contingency	\$0	\$0	\$2,000,000	\$2,000,000	3.0%
Total Project Costs	\$18,873,000	\$39,736,849	\$7,290,151	\$ 65,900,000	100.0%

*Estimates Until Contractors are Identified

In Thousands	FY18	FY19	FY20	Total LOP	% of Total
Sources of Funds					
PC40 Bonds	\$ 18,873,000	\$ 39,736,849	\$ 7,290,151	\$ 65,900,000	100.0%
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
Total Project Funding	\$ 18,873,000	\$ 39,736,849	\$ 7,290,151	\$ 65,900,000	100.0%

Current source of funds for this action is PC40 Bonds, which are eligible for this project.

The funding sources under this project are currently sufficient to award the contract base of this recommendation.

Staff is pursuing additional State and Local funding sources such as Cap and Trade and Similar sources as they become available



Board Report

File #: 2017-0303, File Type: Contract

Agenda Number: 43

SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE JULY 20, 2017

**SUBJECT: THIRTY-FIVE 60' ARTICULATED ZERO EMISSION
TRANSIT BUS CONTRACT**

ACTION: AWARD CONTRACT FOR REPLACEMENT OF 60' TRANSIT BUSES

RECOMMENDATION

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to award a firm fixed-price contract, Contract OP28367-001, Part D, to New Flyer of America for the manufacture and delivery of thirty-five 60' zero emission transit buses, in the amount of \$51,211,033 for the base contract, including charging equipment, taxes and delivery; exclusive of any contract option buses, subject to resolution of any properly submitted protest.
- B. AUTHORIZING the CEO to award an additional not-to-exceed amount of \$8,839,064 for Optional Vehicle Features, Spare Parts, and Training Aids for a total combined contract amount not-to-exceed \$60,050,097.
- C. ESTABLISHING a life-of-project budget of \$72,101,419 for the purchase of thirty five zero emission buses, charging equipment, installation costs, infrastructure upgrades, and contingency under CP 201073.
- D. FINDING that the award to New Flyer of America is made to the Proposer that provides the agency with the best value and is most advantageous to Metro. The recommended price addresses all contract requirements and represents the best overall value when all RFP evaluation factor are considered.
- E. RECEIVING AND FILING the presentation on the Strategic Planning for Metro's Transition to 100% Zero Emission Bus Fleet by 2030 (Attachment C).

ISSUE

Between FY18-FY22, Metro is scheduled to retire and replace two-hundred sixty (260) 60' CNG buses that will reach the end of their useful life. Recently, staff was also directed to initiate plans to

operate only Zero Emission Buses on Metro's Orange Line by 2020.

This action authorizes the award of a contract for thirty five 60' buses to New Flyer for the replacement of retirement eligible CNG buses currently operating on the Orange Line, and for the initial deployment of related charging equipment on the MOL right-of-way, and at Metro Division 8 in Chatsworth.

DISCUSSION

In April 2016, Metro's Board of Directors authorized staff to initiate RFP OP28367 for the procurement of up to 1,000 CNG or Zero Emission Transit Buses. RFP OP28367, issued in July 2016, consists of four parts, one separately evaluated procurement of each vehicle type:

- Part A, 40' CNG buses (base order of 295, award targeted for June 2017)
- Part B, 60' CNG buses (base order of 65, award targeted for July 2017),
- Part C, 40' ZE buses (base order of 60, award targeted for July 2017),
- Part D, 60' ZE buses (base order of 35, award targeted for June 2017).

This recommended Board action pertains solely to Part D, 60' Zero Emission buses.

Staff will return later this year with recommendations for the remaining two parts of this solicitation. Staff prioritized the solicitation review of Part D as these 60' zero emission buses are needed as soon as possible to replace 60' CNG buses that have reached the end of their service life and ensure the electrification of the Metro Orange Line by 2020.

For this contract procurement, Metro used a "Best Value" competitive negotiation process which considered such factors as:

- Broadest possible range of competing products and materials available
- Fitness for purpose
- Scoring preference for participation in Metro's Local Employment Program
- Manufacturer's warranty
- Performance and Reliability
- Life Cycle Costs
- Delivery Schedules
- Support logistics

Utilization of a "Best Value" solicitation process for this procurement identified the 60' ZEB bus most suited to Metro's operating needs by permitting discussions with proposers to evaluate performance and reliability of the proposed components, warranty, cost data and delivery schedule.

The Local Employment Program (LEP) is a FTA approved pilot for Metro's Rolling Stock procurements. The LEP allows for geographical preferences to be applied as part of Metro's evaluation scoring. The voluntary program provides proposers with incentive points for creating new jobs in California. The proposed awardee New Flyer of America was unable to participate in this voluntary program for this contract due to the low production volume of only 35 buses.

PLAN TO TRANSITION TO 100% ZEB FLEET BY 2030

This procurement supports both Metro's bus fleet management and replacement plans for FY18 - 22 and supports transition to a 100% zero emission fleet by 2030 (Attachment C).

To achieve these objectives, Metro's electrification plan consists of near and long term elements. The near term elements are those that may be applied now with limited risk to service while providing Metro with the needed opportunity to evaluate and initiate mitigations for real and possible impacts to service and operations. Metro's plan to transition to a 100% Zero Emission Fleet considers:

- Current status of electric bus technology,
- Production,
- Impact to Service,
- Impact to Facilities & Infrastructure,
- Impact to Operating Practices and Operating Environment,
- Impact to Operator and Maintainer Training,
- Service contracts with energy utilities, and
- Costs

In brief, it is currently not possible to immediately transition to 100% zero emission operation without significant risks to service and operation:

- Current ZE bus technologies do not permit a 1:1 replacement of CNG buses with ZE buses due to differences in costs and performance. In particular, this includes issues with ZE buses that include operating range and vehicle weight;
 - Facilities and infrastructure modifications will be required to support ZE bus operation & maintenance; this will take time and money.
 - There are additional unknowns about potential operating impacts related to maturity of ZE technologies, such as ZE technology maturity and battery life durability (i.e. will a ZE buses operating range degrade over time).
- Currently, there are no mitigation plans in place should a power outage occur preventing buses from charging overnight or through-out the day.

Near term elements of Metro's ZEB plans consist of:

1. Electrification of the Metro Orange Line by 2020 (45 ZE buses required)
 - Procurement of 5 60' ZE buses from BYD (Contract awarded)
 - Procurement of 35 60' ZE buses from New Flyer under this request for Contract Award
 - Procurement of 5 additional 60' ZE buses from New Flyer through a Lo-No Emission Grant
 - Negotiation and establishment of service contracts with third-party energy utilities and PUC
 - Electrification of facilities, operating lines, and infrastructure under separate public works procurements

2. Electrification of Metro Silver Line by approximately 2021 (~ 60 ZE buses required)
 - Coordinate with Foothill Transit for Bus Bay Charging Stations
 - Identify other candidate locations along ROW for installation of opportunity chargers (potentially Harbor Gateway Transit Center in South Bay)
 - Negotiate and establish service contracts with third-party energy utilities
 - Electrify facilities, operating lines, and infrastructure under separate public works procurements
 - In approximately FY2019, exercise option for additional ZE buses

Long term elements of Metro's ZEB plans consist of:

- Return to the Board in the FY18-FY19 timeframe, and periodically thereafter, to present plans for further expand electrification of Metro's bus transit system;
- Challenge the bus manufacturing and battery industries to develop ZEB designs that exceed Metro's goals for operating range, weight and cost;
- Develop a working group with local utilities (i.e. DWP and SCE) to ensure their support expanding the bus charging networks at Metro operating locations; negotiate with PUC and local utilities to refine rate structures that are optimized to electric bus charging and operations;
- Work with engineering/design firms to refine optimal procedures for installing and operating bus "Depot" and en-route charging systems;
- Seek funding support for Metro's ZEB program from federal, state and local sources;
- Evaluate alternate options for procuring battery electric bus technologies, such as using

commercial leases to help mitigate operational risks associated with batteries and/or propulsion system technologies.

DETERMINATION OF SAFETY IMPACT

There will be anticipated safety improvements for operating these new battery electric buses in Metro's bus fleet. These buses will also incorporate the latest safety features and designs, including improved ADA amenities and boarding ramps. The batteries and high voltage powertrain equipment on these buses includes special safety provisions, and "Locks out" employee access while they are energized. New buses also will provide a safer, cleaner environment for Metro patrons and employees.

FINANCIAL IMPACT

Total LOP funding of \$72,101,419 is included in Cost Center 3320 - Vehicle Technology, in project 201073. For FY18, there is \$20,993,816 million programmed to cover expenses for purchasing these buses. Because this is a multi-year contract, the Cost Center Manager will be responsible for ensuring that future year funding is programmed.

Impact to Budget

Future funding for this procurement may come from various eligible available Federal, State and local funding sources including financing options and grants that are eligible for Bus Capital Projects. Staff will pursue all sources of funding maximizing their use for these activities.

ALTERNATIVES CONSIDERED

Staff considered awarding an additional 45 ZE 60' buses as part of the initial base award recommendation to cover Metro's Silver Line BRT service. Staff determined that 40' ZE Buses are more suitable for operating on this corridor.

Staff considered purchasing CNG 60' replacement buses to cover this service, or continuing operation of 60' CNG buses. In both cases, these options are not recommended and would not comply with Metro Board's directives to operate zero emission buses on the Metro's Orange Line corridor. New 60 CNG buses would cost about \$42 million, \$20 million less than zero emission electric buses. Extending the service life of existing CNG buses would require an extensive overhaul, including a retrofit of the fuel system Retrofitting a new "Low NOx" CNG engine and transmission PPA package would add another cost. Even with these investments, Metro's older CNG buses do not come close to providing the reliability, passenger & operator comfort, cost effectiveness, and value as new buses do for Metro and our riders.

NEXT STEPS

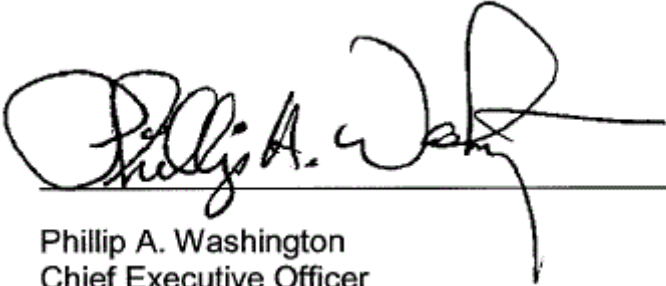
Upon Board approval, staff will execute the Contract with New Flyer and issue a Notice to Proceed. Staff will also report back annually on the status of the Plan to transition to a 100% ZEB fleet.

ATTACHMENTS

- Attachment A - Procurement Summary
- Attachment B - DEOD Summary
- Attachment C - Metro's Zero Emission Bus Plans
- Attachment D - Funding and Expenditure Plan

Prepared by: John Drayton, Director of Vehicle Technology, (213) 617-6285
Jesus Montes, Sr. Executive Officer, Vehicle Acquisition (213) 922-3838

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

THIRTY-FIVE 60 FOOT ZERO EMISSION TRANSIT BUS CONTRACT
/OP28367-001 (Group D)

1.	Contract Number: OP28367-001	
2.	Recommended Vendor: New Flyer of America, Inc.	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 07.29.16	
	B. Advertised/Publicized: 08.04.16; 08.08.16; 08.12.16; 08.15.16	
	C. Pre-Proposal Conference: 08.30.16	
	D. Proposals Due: 02.10.17	
	E. Pre-Qualification Completed: 06.05.17	
	F. Conflict of Interest Form Submitted to Ethics: 05.26.17	
	G. Protest Period End Date: 06.16.17	
5.	Solicitations Picked up/Downloaded: 63	Bids/Proposals Received: 2
6.	Contract Administrator: Elizabeth Hernandez	Telephone Number: (213) 922-7334
7.	Project Manager: John Drayton	Telephone Number: (213) 617-6285

A. Procurement Background

This Board Action is to approve Contract No. OP28367-001 issued in support of Metro's bus fleet replacement plan to procure new 60' Zero Emission (ZE) buses for the replacement of retirement-eligible 60' CNG buses currently operating on the Orange Line. The RFP solicitation Group D – 60' ZE bus Base Buy consists of 35 ZE buses, with Option orders of up to 65 additional buses for a total of 100 60' ZE buses. Board approval of contract awards are subject to resolution of any properly submitted protest.

The RFP was issued in accordance with Metro's Acquisition Policy and the contract type is a firm fixed unit price.

Twenty six amendments (26) were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on 08.03.16, updated the required certifications;
- Amendment No. 2, issued on 08.08.16, provided revised Pre-Proposal Conference date and venue;
- Amendment No. 3, issued on 08.11.16, updated due dates for requests for approved equals and clarifications;
- Amendment No. 4, issued on 08.26.16, edited the submittal forms and technical specifications;
- Amendment No. 5, issued on 09.07.16, extended the proposal and clarifications requests due dates, edited submittal forms and technical

specifications, and established a project data repository for plan holder access to RFP documents;

- Amendment No. 6, issued on 09.16.16, extended the proposal and clarifications requests due dates, edited submittal forms and technical specifications, and scheduled on site bus inspections for proposers;
- Amendment No. 7, issued on 09.30.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 8, issued on 10.14.16, edited pricing and clarification request forms, technical specifications, and commercial terms and conditions;
- Amendment No. 9, issued on 11.02.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 10, issued on 11.07.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 11, issued on 11.10.16, extended the due dates for Groups A and B, 40' and 60' CNG proposals, and edited commercial terms and conditions;
- Amendment No. 12, issued on 11.22.16, edited pricing and submittal forms;
- Amendment No. 13, issued on 12.12.16, extended the due dates for Groups C and D 40' and 60' zero emission bus proposals;
- Amendment No. 14, issued on 01.12.17, edited commercial terms and conditions for Group A;
- Amendment No. 15, issued on 01.13.17, extended the due dates for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 16, issued on 01.26.17, extended the due dates for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 17, issued on 01.31.17, edited pricing forms and technical specifications for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 18, issued on 02.06.17, edited pricing forms for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 19, issued on 02.10.17, solicited best and final offers (BAFO) from Group A proposers;
- Amendment No. 20, issued on 02.24.17, edited documents for Group A;
- Amendment No. 21, issued on 02.28.17, edited documents for Group A;
- Amendment No. 22, issued on 03.30.17, solicited BAFO from Group A proposers.
- Amendment No. 23, issued on 05.05.17, solicited BAFO from Group D proposers.
- Amendment No. 24, issued on 05.05.17, edited documents for Group B proposers.
- Amendment No. 25, issued on 05.09.17, solicited conforming offer for Group B proposers.
- Amendment No. 26, issued on 05.10.17, edited documents for BAFO from Group D proposers.

A pre-proposal conference was held on August 30, 2016. On-site bus inspections were performed on October 4, 5, and 6, 2016. A total of two proposals were received on February 10, 2017.

Questions received throughout the solicitation process and Metro's responses to those questions were made accessible to the RFP plan holders by posting them at Metro's project data repository. Nine sets of Questions and Answers were issued for a total of 754 questions and answers uploaded to the repository from August 12, 2016 to December 30, 2016. Proposers for Group D 60' ZE buses requested, and Metro granted, several extensions changing the proposal due date from the initial date of December 2, 2016 to February 10, 2017.

The proposal evaluation period, from February 13, 2017 through May 26, 2017, included reviews of the written proposals, clarifications requests and responses, oral presentations, proposers' manufacturing and engineering site visits, face-to-face and conference call discussions, and transit agency reference checks. These series of evaluation processes were necessary to assess and determine the proposers' strengths and weaknesses in their respective technical and price proposals.

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Metro's Vehicle Technology and Acquisition, Maintenance, and Operations was convened and conducted a comprehensive technical evaluation of the proposals received.

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

• Technical Compliance	400 points
• Price	300 points
• Project Management Experience	100 points
• Experience and Past Performance	100 points
• Life Cycle Costs	<u>100 points</u>
Sub-Total	1,000 points
• Voluntary Local Employment Program (Incentive Points)	<u>50 points</u>
Total Available Points	1,050 points

The evaluation criteria are appropriate and consistent with criteria developed for other, similar bus procurements. Several factors were considered when developing these weights, giving the greatest importance to the technical compliance of the proposed bus.

The Local Employment Program (LEP) is a FTA approved pilot for Metro's Rolling Stock procurements. The LEP allows for geographical preferences to be applied as part of Metro's evaluation scoring. The voluntary program provides proposers with

incentive points for creating jobs in California. The voluntary LEP may not be used as a basis for award.

Both Proposers are listed below in alphabetical order:

1. BYD Coach & Bus, LLC (BYD)
2. New Flyer of America Inc. (NFA)

The PET began its review of the written technical proposals submitted by the two proposers on February 13, 2016. Based on the PET's initial review, 164 written requests for clarification were sent to the two proposers and the appropriate responses were received and reviewed accordingly.

In April 2017, the PET scheduled site visits to each of the proposers' manufacturing and engineering facilities. The agenda for the site visits included facility/plant/site manufacturing process tour, in depth presentations and discussions by the Proposer's management, engineering and project key personnel on the following topics:

1. Technical Proposal – Detailed presentations of the proposed vehicle systems and sub-systems vis-à-vis Metro's technical specifications;
2. Project Management;
3. Experience and Past Performance;
4. Consolidated comments and discussions of the strengths, weaknesses, deficiencies, and risks in the technical Proposals as noted by the PET in the individual evaluations.

The PET was supported by Consultant Technical Advisors (TAs) with subject matter expertise relative to the review, evaluation, assessments, and recommendations for the Life Cycle Costs (LCC) and Local Employment Program (LEP) submittals. The TAs comments and findings on the strengths, weaknesses, and deficiencies in the proposed Local Employment Plan were discussed with the respective Proposers. BYD voluntarily participated in the LEP by committing to hire new local residents to support this contract and capital investment in facility upgrades and expansion and received the maximum preferential scoring points. For this bus type (Group D 60' ZE), NFA elected not to submit a Local Employment Plan and received no preferential scoring points. NFA has the existing workforce and facility capabilities in place to manufacture this quantity of buses without any expansion to its local workforce in Ontario, CA.

A total of 93 Requests for Deviations were submitted by the Proposers for Metro's review and consideration. The deviations were discussed individually with the Proposers during negotiation discussions conducted through the third week of April.

The PET determined both Proposers to be in the competitive range and the invitation to submit their best and final offer was issued on May 5, 2017. Resolution

of acceptable and unacceptable deviations necessitated that Best and Final Offers be submitted by the Proposers.

Best and Final Offer (BAFO)

Best and Final Offer (BAFO) submittals were received on May 17, 2017, and were reviewed and evaluated by the PET. The PET reviewed the BAFOs and prepared a recommendation for award memorandum on May 24, 2017.

Qualifications Summary of Firms within the Competitive Range:

BYD Coach & Bus, LLC

BYD Coach & Bus, LLC is a bus and coaches manufacturing division under BYD Heavy Industries which has been open at its current location in Lancaster, California since 2013 and proposes to build LACMTA bus orders at this facility. The parent company is BYD Motors, Inc. with corporate offices located in downtown Los Angeles. BYD has globally supplied fully electric and plug in hybrid vehicles. BYD has been awarded contracts to provide 60' ZE vehicles by the City of Albuquerque, IndyGo and LACMTA.

BYD's proposal ranked second in technical compliance, project management, and experience and past performance, and first in price, and life cycle costs. BYD's Local Employment Plan ranked first in dollar value for jobs creation and facility capital investment.

New Flyer of America Inc. (NFA)

NFA is a North Dakota corporation organized in October 1989 and is a wholly owned subsidiary of Transit Holdings, a holding company that owns New Flyer of America, Inc. and New Flyer Industries Canada ULC.

NFA proposes to build LACMTA bus orders in its St. Cloud, Minnesota and Ontario, California facilities. The St. Cloud plant is a production and finishing facility. The Ontario, California facility houses production, service and aftermarket parts. NFA's transit agency clients include Boston, Orange County, San Francisco, Dallas and Washington.

NFA scored first in technical compliance, project management, and experience and past performance, second in price and life cycle costs. NFA did not offer to participate in the voluntary Local Employment Program for the 60' ZE bus Group D due to the low production quantity and received no preferential scoring points.

NFA was ranked first overall between the two Proposers primarily on the strength of its superior technical proposal in the areas of Technical Compliance, Project Management and Experience and Past Performance.

1	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
2	Firm 1 – BYD				
3	Technical Compliance	60.66	400	242.63	
4	Price	100.00	300	300.00	
5	Project Management	61.50	100	61.50	
6	Experience and Past Performance	44.25	100	44.25	
7	Life Cycle Costs	100.00	100	100.00	
8	Local Employment Plan	100.00	50	50.00	
9	Total		1050	798.38	2
10	Firm 2 – NFA				
11	Technical Compliance	76.20	400	304.81	
12	Price	93.5	300	280.50	
13	Project Management	79.90	100	79.90	
14	Experience and Past Performance	74.63	100	74.63	
15	Life Cycle Costs	93.60	100	95.80	
16	Local Employment Plan	0.00	50	0.00	
17	Total		1050	835.64	1

C. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon adequate price competition, an independent cost estimate (ICE), technical evaluation, fact finding, and negotiations. The Base and Option vehicles are based on Firm Fixed Unit Rate prices. The Optional Vehicle Features are also based on Firm Fixed Prices for total Base Buy and Option Buy quantities. There is no obligation to purchase any Option buses. Option vehicles may be ordered in minimum increments of 10 buses.

	Proposer Name	Initial Proposal Amount ***	Base Buy (35)	Option Buy (65)	Optional Features (Base & Option)	Negotiated or NTE amount (BAFO)
	Metro ICE*		\$42,000,000.00	\$78,000,000.00	N/A	\$120,000,000
1.	BYD	\$122,912,239	\$48,967,928	\$89,491,292	\$11,826,827**	\$150,286,047

2.	NFA	\$125,413,592	\$51,211,033	\$94,726,013	\$14,707,828**	\$160,644,874
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*Note: Metro's estimate did not include pricing for Optional Features or enroute/opportunity and shop chargers.

** Pricing Form for Optional Vehicle Configuration included items for alternative ADA securements, APC, enhanced camera systems, USB, wireless stops, spares, special tools, DTE, training aids, etc. The recommended value for the Base Optional Features is \$8,839,064.

*** Initial pricing did not include all necessary charging equipment.

The PET determined that when considering price and non-price factors, NFA's proposal provides the Best Value and is most advantageous to Metro. Price analysis shows that the negotiated amount for the recommended firm, NFA, is \$10 million higher than the price negotiated with BYD. NFA's higher priced proposal, from a Best Value perspective, offers advantages in the areas of technical compliance, project management, and experience and past performance evaluation categories. NFA's higher proposed price is offset by offering a more service-proven bus design, structure, door system, and powerplant, in addition to its proven project management experience and past performance exhibited on the latest Metro bus contract successfully completed in 2016.

Local Employment Program

BYD participated in Metro's **voluntary** Local Employment Program (LEP). This participation resulted in maximum incentive points based on total proposed wages, benefits and training of new employees hired in California. The LEP also provides points for facility improvements made to facilities in California. The table below describes the commitment levels for BYD for new local jobs and facility improvements. BYD received the maximum 50 incentive points for new local jobs, training and facility improvements.

NFA chose not to participate in Metro's voluntary LEP, proposing to fulfill this Group D requirement with existing workers in St. Cloud, MN and Ontario, CA, and received no preferential scoring points.

Proposers:	BYD
Total Local Employment, Facility and Training Investment	\$13,716,747

D. Background on Recommended Contractor

The recommended firm, New Flyer of America Inc. (NFA), is a corporation organized in North Dakota, and is a wholly owned subsidiary of Transit Holdings. NFA is the US operating company in the New Flyer group of companies, and manufactures and sells New Flyer transit buses to U.S. customers.

NFA proposes to support the Metro project with existing workforce in production, manufacturing, engineering, quality assurance and warranty services from its locations in Winnipeg, Canada, St. Cloud, Minnesota and Ontario, California. NFA will build Metro buses from the St. Cloud and Ontario facilities. The 380,000 square foot St. Cloud facility opened in 1999 and has two production lines for full production

and finishing processes. The 100,000 square foot service center Ontario facility will include a production team for finishing and delivery of the buses, field service support for warranty and retrofit activities, and a team for aftermarket parts and materials. NFA recently completed delivery of the 900 40'CNG bus buy to Metro.

NFA's proposed a dedicated Customer Project Manager and primary point of contact for this project who previously worked with Metro staff for the 900 bus buy. NFA's proposed project team has combined extensive years of experience in the transit/bus industry for engineering, manufacturing, quality control, production, testing, systems integration, and field/warranty support delivering buses to major transit agencies such as Boston, New York, Washington, D.C. and Dallas.

DEOD SUMMARY

THRITY-FIVE 60 FOOT ZERO EMISSION TRANSIT BUS CONTRACT/
OP28367-000 (Group D)

A. Small Business Participation

The Diversity and Economic Opportunity Department did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this rolling stock procurement. Transit Vehicle Manufacturers (TVM), as a condition of authorization to bid or propose on FTA-assisted transit vehicle procurements, must certify that they have an FTA approved DBE overall goal methodology in compliance with 49 Code of Federal Regulations (CFR) Part 26.49(a)(1). New Flyer of America submitted a TVM Certification with their proposal, and is currently on FTA's list of eligible TVMs. In compliance with 49 CFR Part 26.49, TVMs report directly to FTA.

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy 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.



Strategic Planning for Metro's Transition to Zero Emission Buses

July 20, 2017

Requirements and Guidelines/Guiding Principles

- Continue to replace aging bus fleet (~200 Buses per Year)
- Upgrade current CNG buses to “Near Zero” Low NOx engines
- Maintain existing bus fleet in a “State of Good Repair”
- Improve Service Quality and Reliability
- Transition Metro Orange Line (MOL) to Zero Emission by 2020
- Transition Metro Silver Line (MSL) to Zero Emission by ~ 2021
- Goal of 100% Zero Emission Bus Fleet by 2030

Challenges to Transitioning to 100% Zero Emissions

1. ZEB Service Requirements: Long term, Metro will need ZE buses that meet/exceed Metro service and operating requirements:
 1. 250+ miles range in CBD duty cycle with 1.4 passenger load factor
 2. Less than 31,000 lbs. curb weight for 40' ZEB
 3. 250+ miles range throughout the 12 year vehicle life
 4. 65mph top speed; ability to sustain 10% grade
2. Facilities and Infrastructure: ZEB program will require up front investment in ZEB charging equipment and related infrastructure.
3. Technology: Known and unknown technology risks with ZEB operation, particularly with battery and propulsion system technologies.
4. Funding: Additional funding needs to be identified for 100% ZEB program.

Impacts to other capital and operating costs, deployment schedule and/or service levels and reliability. May require replacement on greater than 1:1 ratio.

Strategic Approach – Two Phase Plan

Phase 1:

- Award ZEB contracts for MOL and MSL based on service proven products, with a high-probability of success, and minimal impact to service.
- Upgrade to Near Zero CNG engines and RCNG
- Evaluate and mitigate issues that could potentially impact service & operation.
- Develop ZEB Master Plan, including technology assessment, for fleet-wide operation

Key Milestone: ZEB Technology Assessment (2019-2020)

- “Go/No-Go” decision milestone on expanding use of ZEB fleet-wide at Metro in 2019-2020 (i.e. determine whether to move into Phase 2).



Phase 2:

- Continue assessment of ZEB technologies.
- Take measured steps toward full implementation of 100% zero emission bus fleet for use throughout Metro’s operating region.

Current Bus Contracts

Top Level Procurement Schedule (Bus Only)																												
Current Bus Contracts	FY17				FY18				FY19				FY20				FY21				FY22				FY23			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
ZEB Implementation Phase:	Phase 1 (MOL & MSL Electrification) & ZEB Technology Assessment												Phase 2 - ZEB Re-Assessment and Expansion of ZEB Program to Rapid and Local Lines															
CNG 40' Procurement (Group A)	Awarded June 2017				Design, engineering, material sourcing				Delivery 295 Buses				Options (Up to 305 Buses)															
CNG 60' Procurement (Group B)	Solicitation and Award				Design, engineering, material sourcing				Delivery 65 Buses				Options (Up to 335 Buses)															
ZEB 40' Bus Procurement (Group C, MSL)	Solicitation and Award				Design, engineering, material sourcing				Delivery 60 Buses				Options (Up to 40 Buses)															
ZEB 60' Bus Procurement (Group D, MOL)	Solicitation and Award				Design, engineering, material sourcing				Delivery 60' ZEB's 35 Buses				Remaining 60' ZEB Options (Up to 65 Buses)															
New Flyer Low-No Grant (MOL) Five 60' ZEB Contract	Solicitation and Award								Delivery (5 Buses)				Award targeted for Fall 2017															
BYD Five 60' ZEB Contract (MOL) Five 60' ZEB Contract	Solicitation and Award								Delivery (5 Buses)				Awarded March 2017															

ZEB – Phase 1 – Key Program Elements

- Phase 1 ZEB (2017-2020)

- Upgrade CNG fleet to Low NOx engines and RCNG
- Continue to operate and maintain CNG fleet in “State of Good Repair”
- Start MOL and MSL operation using limited range ZE battery electric buses and “En-Route” charging
 - Install opportunity charging on the ROW of BRT Lines (901, 910, 950)
 - Continuous daily operation (no breaks for midday charging)
 - Maximize use of mature ZEB technologies that are commercially available, “Off-the-shelf” hardware
- By 2020, Open Metro Orange Line BRT (45 x 60’ ZE buses)
- By ~ 2021, Open Metro Silver Line BRT (60 x 40’ ZE buses)
- Develop “Master Plan” for fleet-wide ZEB implementation, and establish ZEB investment priorities and goals for Local and Rapid Lines (160+ lines, 2300 buses)

ZEB Phase 1 - ZEB Master Planning

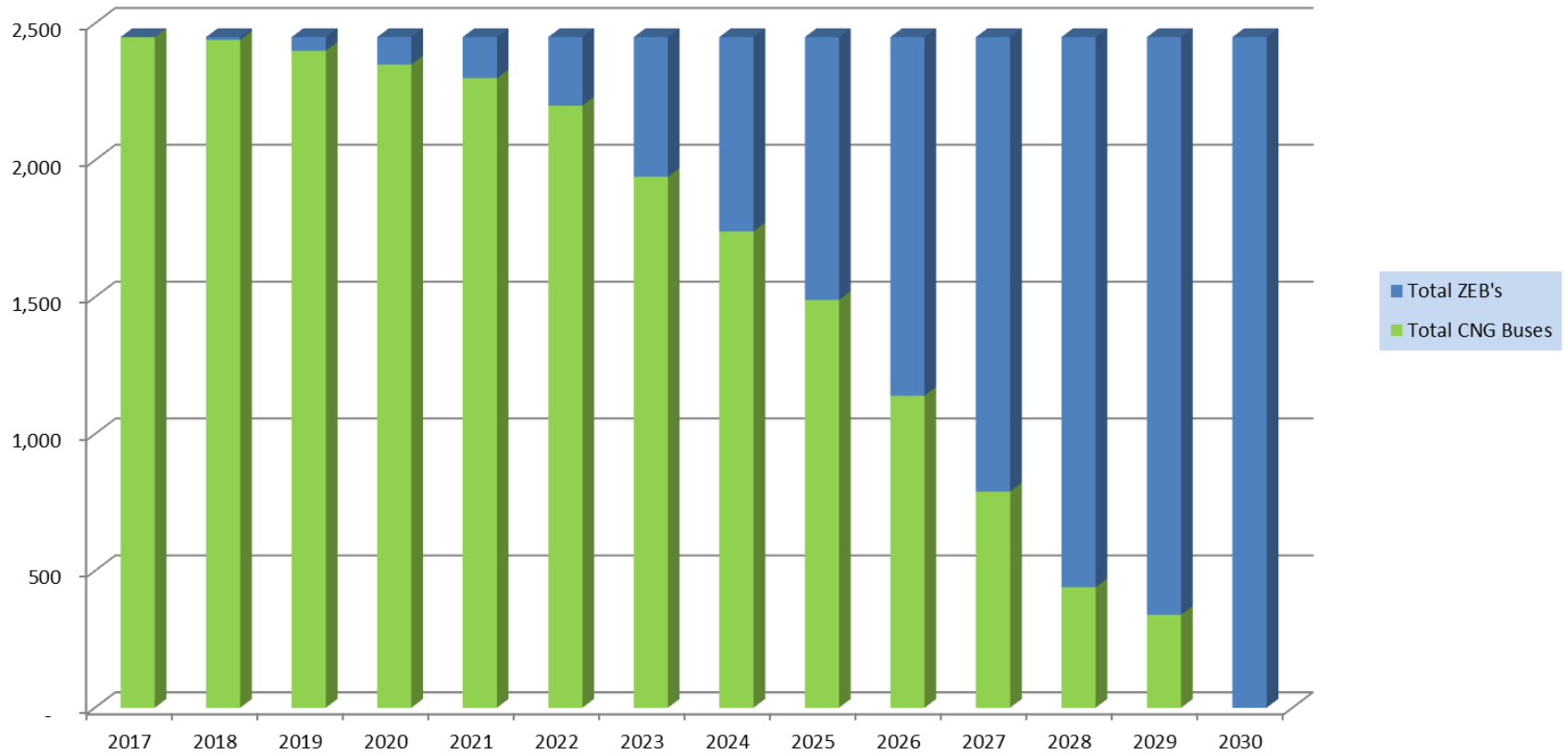
Develop comprehensive plans for deploying ZEB's on Metro Local and Rapid bus routes (i.e. Phase 2 of Metro's ZEB program).

Master plan elements include:

- Life-Cycle and Technology Configurations, Costs
- Utilities and Infrastructure Requirements
- Operating Considerations
- Material Sourcing Strategies and End of Life Recycling/Reuse
- ZEB Program Funding

Metro's Transition to 100% ZEB

Metro Bus Fleet Transition to Zero Emission Buses (ZEB's)



CARB's goal is that by 2040 only ZEB's are in service.
LA Metro's 2030 ZEB plan would be ten years ahead of CARB goals.

ZEB – Phase 2 – Key Program Elements

- **Phase 2 - ZEB Program (2020-2030)**
 - **Infrastructure:** Solicit engineering and design services for installing electric charging infrastructure at all Metro bus operating locations.
 - **Utilities:** Coordinate with PUC, SCE and DWP to ensure support for ZEB programs and new power drops. Negotiate ZEB rate structures.
 - **Range:** Phase 2 will require new longer range 40' and 60' ZE buses that are capable of delivering at least 250 miles in Metro service, and meet seating, axle weight and other operating requirements.
 - **Charging:** Optimize operating assignments around overnight depot charging with minimal breaks for midday or opportunity charging.
 - **Procurement:** Strategies and alternate lease structures to help Metro reduce transition costs and mitigate technology and operating risks (e.g. battery leases).
 - **Funding:** Funding source evaluation and trade-offs



**35 ZEB BUS CONTRACT
FUNDING/EXPENDITURE PLAN**

In Thousands	FY18	FY19	FY20	Total LOP	% of Total
Uses of Funds					
Bus Acquisition	12,010	36,030		48,040	67%
Bus Charging System Installation, Power Drops, Site prep	7,808			7,808	11%
Professional Services	200	100	100	400	1%
Labor	876	876	437	2,189	3%
Travel/Admin	100	200	200	500	1%
Spare Parts, Training, Service Manuals, Charging Equip		6,005	6,005	12,010	17%
Contingency			1,154	1,154	2%
Total Project Cost	20,994	43,211	7,896	72,101	100%

In Thousands	FY18	FY19	FY20	Total LOP	% of Total
Sources of Funds					
Federal					
FTA LoNo Grant	4,275			4,275	6%
Local					
TDA 4/PC40	16,719	43,211		59,930	83%
Measure R 35			7,896	7,896	11%
Total Project Funding	20,994	43,211	7,896	72,101	100%

**Board Report**

File #: 2017-0466, **File Type:** Contract**Agenda Number:** 44

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017****SUBJECT: SIXTY FIVE 60' ARTICULATED CNG TRANSIT
BUS CONTRACT****ACTION: AWARD CONTRACT FOR REPLACEMENT OF 60' TRANSIT BUSES****RECOMMENDATION**

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to negotiate and award a firm fixed-price Contract no. OP28367-003, Group B, to New Flyer of America (St. Cloud, MN), for the manufacture and delivery of sixty five 60' CNG transit buses, in a not to exceed amount of \$64,428,454, for the base contract, inclusive of taxes and delivery, exclusive of contract options.
- B. AUTHORIZING the Chief Executive Officer to negotiate and award an additional not to exceed amount of \$3,260,156 for spare parts, optional vehicle features, and training aids for a total combined contract amount not to exceed of \$67,688,610.
- C. ESTABLISHING a life-of-project budget of \$72,200,000, for the sixty five 60' CNG buses under Capital Project no. 201076.

ISSUE

Between FY18-FY22, Metro is scheduled to retire and replace two-hundred sixty (260) 60' buses that will reach the end of their useful life. This action authorizes the award of a base contract for sixty five 60' replacement CNG buses to New Flyer.

DISCUSSION

In April 2016, Metro's Board of Directors authorized staff to initiate RFP OP28367 for the procurement of up to 1,000 CNG or Zero Emission Transit Buses. RFP OP28367, issued in July 2016, consists of four groups, one separately evaluated procurement of each vehicle type:

- Group A, 40' CNG buses (base order of 295, awarded June 2017, pending successful resolution of protest)
- Group B, 60' CNG buses (base order of 65, award targeted for July 2017),

- Group C, 40' ZE buses (base order of 60, award targeted for July 2017),
- Group D, 60' ZE buses (base order of 35, award targeted for July 2017).

This recommended Board action pertains solely to Group B, 60' CNG buses.

This bus procurement is part of Metro's bus fleet replacement plans for FY18 - 22. During this period, Metro will be replacing 60' buses that were purchased between 2004 and 2008 that have reached the end of their service life.

Separately, staff will be presenting to the Board award recommendations for groups C & D of this solicitation.

Procurement Process

For this contract procurement, Metro used a "Best Value" competitive negotiation process which considered factors such as:

- Broadest possible range of competing products and materials available
- Fitness for purpose
- Manufacturer's warranty
- Performance and Reliability
- Life Cycle Costs
- Delivery Schedules
- Support logistics
- Scoring incentive for local (CA) job creationcontent

Metro provided an additional scoring incentive for proposers who committed to local job creation. The Local Employment Program (LEP) is a FTA approved pilot for Metro's Rolling Stock procurement. The LEP allows for geographical preferences to be applied as part of the evaluation scoring. The voluntary program provides proposers with incentive points for creating new jobs in California. The recommended awardee, New Flyer, has proposed to create \$3.1 million in wages and benefits for an additional 17 new FTEs.

The Diversity and Economic Opportunity Department did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this rolling stock procurement. Transit Vehicle Manufacturers (TVM), as a condition of authorization to bid or propose on FTA-assisted transit vehicle procurements, must certify that it has an FTA approved DBE overall goal methodology in compliance with 49 Code of Federal Regulations (CFR) Part 26.49(a)(1). New Flyer of America is currently on FTA's list of eligible TVMs, and is certified at a 4.10% DBE goal level. In compliance with 49 CFR Part 26.49, TVMs report direct to FTA.

DETERMINATION OF SAFETY IMPACT

There will be anticipated safety improvements for operating these new CNG buses in Metro's bus fleet. These buses will incorporate the latest safety features and designs, including improved ADA amenities and boarding ramps. New buses will provide a safer, cleaner operating environment for Metro's passengers and employees.

FINANCIAL IMPACT

Total LOP funding of \$72,200,000 will be included in Cost Center 3320 - Vehicle Technology, in project 201073 For FY18, there is \$533,658 programmed to cover expenses for purchasing these buses. Since, this is a multi-year contract, the Cost Center Manager will be responsible for ensuring that future year funding is programmed.

In addition to the direct contract award, \$3,260,155 in funding has been included in the contract award recommendation amount to cover costs for spare parts, training aids, optional equipment, including upgraded passenger counters, stop request buttons and USB passenger charging ports.

Impact to Budget

The current source of funds for this action is Prop C 40% Bonds, which are eligible for this project. This funding source is currently sufficient to award the contract base of this recommendation. Staff is pursuing additional State and Local funding sources such as Cap and Trade and similar sources as they become available.

ALTERNATIVES CONSIDERED

Staff considered purchasing exclusively 60' Zero Emission Buses (ZEB's). This is not recommended at this time as a service-proven ZEB program has not been identified that can effectively cover the broad scope of Metro's operational needs without impacting service and operations. Due to vehicle charging requirements and range limitations, battery electric ZEB's are not currently capable of replacing CNG buses on a 1:1 basis. Additionally, significant electrification work would be required to build up the charging infrastructure for Metro's operating lines and facilities to support daily operations of an electric bus fleet.

Staff considered recommending replacement of all 260 60' CNG buses that are scheduled for replacement between 2018-2022. This is not recommended because funding is not available to fully replace all of these buses in 2018-2019. Additionally, staff wants to develop operational experience with ZEB buses to help determine if there will be viable ZEB alternatives to CNG buses after 2020.

Staff also considered replacing CNG fuel tanks on buses that are slated for retirement to extend their service life. This is not recommended as operating CNG buses that are past the end of their useful life will result in degraded quality of service, reduced fleet reliability, and increased operating and maintenance costs. The costs to return retirement eligible CNG buses back to "Service Ready" condition is significant, often \$150-\$200,000 per bus.

NEXT STEPS

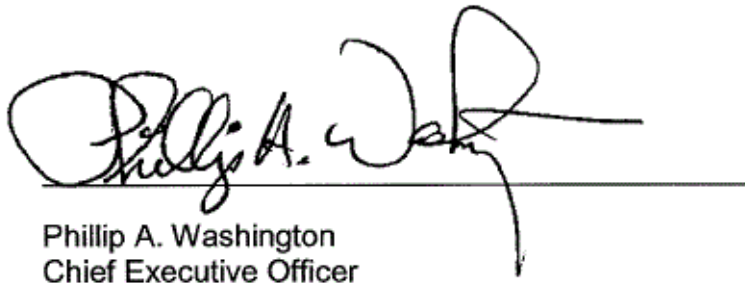
Upon Board approval, staff will finalize negotiations and execute the contract with New Flyer, and issue a Notice to Proceed.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - Funding and Expenditure Plan

Prepared by: John Drayton, Director of Vehicle Technology, (213) 617-6285
Jesus Montes, Sr. Executive Officer, Vehicle Acquisition (213) 922-3838

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

**PROCUREMENT SUMMARY
SIXTY FIVE 60' ARTICULATED CNG TRANSIT BUS / OP28367-003 (Group B)**

1.	Contract Number: OP28367-003	
2.	Recommended Vendor: New Flyer of America, Inc.	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 07/29/16	
	B. Advertised/Publicized: 08/04/16; 08/08/16; 08/12/16; 08/15/16	
	C. Pre-Proposal Conference: 08/30/16	
	D. Proposals Due: 05/19/17	
	E. Pre-Qualification Completed: 06/05/17	
	F. Conflict of Interest Form Submitted to Ethics: 07/14/17	
	G. Protest Period End Date: 07/28/17	
5.	Solicitations Picked up/Downloaded: 63	Bids/Proposals Received: 1
6.	Contract Administrator: Elizabeth Hernandez	Telephone Number: (213) 922-7334
7.	Project Manager: John Drayton	Telephone Number: (213) 617-6285

A. Procurement Background

This Board Action is to approve Contract No. OP28367-003 issued in support of Metro's bus fleet replacement plan to procure new buses for replacement of 60' CNG buses that will reach the end of their useful life. Group B – 60' CNG bus buy base order consists of 65 buses, and option orders of up to 335 additional buses for a total of 400 Sixty Foot CNG buses. Board approval of contract awards are subject to resolution of any properly submitted protest.

The RFP was issued in accordance with Metro's Acquisition Policy and the contract type is a firm fixed unit price.

Twenty seven (27) amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on 08.03.16, updated the required certifications;
- Amendment No. 2, issued on 08.08.16, provided revised Pre-Proposal Conference date and venue;
- Amendment No. 3, issued on 08.11.16, updated due dates for requests for approved equals and clarifications;
- Amendment No. 4, issued on 08.26.16, edited the submittal forms and Technical Specifications;
- Amendment No. 5, issued on 09.07.16, extended the proposal and clarifications requests due dates, edited submittal forms and technical specifications, and established a project data repository for plan holder access to RFP documents;

- Amendment No. 6, issued on 09.16.16, extended the proposal and clarifications requests due dates, edited submittal forms and technical specifications, and scheduled on site bus inspections for proposers;
- Amendment No. 7, issued on 09.30.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 8, issued on 10.14.16, edited pricing and clarification request forms, technical specifications, and commercial terms and conditions;
- Amendment No. 9, issued on 11.02.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 10, issued on 11.07.16, edited pricing forms, technical specifications, and commercial terms and conditions;
- Amendment No. 11, issued on 11.10.16, extended the due dates for Groups A and B, 40' and 60' CNG proposals, and edited commercial terms and conditions;
- Amendment No. 12, issued on 11.22.16, edited pricing and submittal forms.
- Amendment No. 13, issued on 12.12.16, extended the due dates for Groups C and D 40' and 60' zero emission bus proposals;
- Amendment No. 14, issued on 01.12.17, edited commercial terms and conditions for Group A;
- Amendment No. 15, issued on 01.13.17, extended the due dates for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 16, issued on 01.26.17, extended the due dates for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 17, issued on 01.31.17, edited pricing forms and technical specifications for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 18, issued on 02.06.17, edited pricing forms for Groups C and D, 40' and 60' zero emission bus proposals;
- Amendment No. 19, issued on 02.10.17, solicited best and final offers (BAFO) from Group A proposers;
- Amendment No. 20, issued on 02.24.17, edited documents for Group A;
- Amendment No. 21, issued on 02.28.17, edited documents for Group A;
- Amendment No. 22, issued on 03.30.17, solicited best and final offers (BAFO) from Group A proposers;
- Amendment No. 23, issued on 05.05.17, solicited BAFO from Group D proposers;
- Amendment No. 24, issued on 05.05.17, edited documents for Group B proposers;
- Amendment No. 25, issued on 05.09.17, solicited conforming offer for Group B proposers;
- Amendment No. 26, issued on 05.10.17, edited documents for BAFO from Group D proposers;
- Amendment No. 27, issued on 05.11.17, extended the due date for Group B proposals;

A pre-proposal conference was held on August 30, 2016. On-site bus inspections were scheduled on October 4, 5 and 6, 2016. One proposal was received on November 28, 2016.

Questions received throughout the solicitation process and Metro's responses to those questions were made accessible to the RFP plan holders by posting them on Metro's project data repository. Nine sets of Questions and Answers were issued for a total of 754 questions and answers uploaded to the repository from August 12, 2016 to December 30, 2016. Proposers for Group A and Group B, 40' and 60' CNG buses requested, and Metro granted, several extensions changing the proposal due date from the initial date of September 30, 2016 to November 28, 2016.

The technical evaluation of the single proposal was completed on May 4, 2017, and included review of the written proposal, clarification requests and responses, and conference call discussions. This level of technical evaluation was necessary to assess and determine the proposers' compliance with the technical specifications at an acceptable price.

B. Evaluation of Proposals

In the absence of competition, the proposal was evaluated for technical compliance to Metro's requirements. A technical evaluation of the proposal was conducted by the Project Manager who utilized the Proposal Evaluation Team (PET) members as technical advisors, to determine technical acceptance. The RFP evaluation criteria were used as the basis for this technical evaluation in the areas of Technical Compliance, Project Management Experience, and Experience and Past Performance.

The Local Employment Program (LEP) is a FTA approved pilot for Metro's Rolling Stock procurements. The LEP allows for geographical preferences to be applied as part of Metro's evaluation scoring. For this Group B, the single proposer elected to participate in the voluntary LEP.

The initial proposal required clarifications resulting from the technical evaluation. Through discussions, satisfactory responses were obtained and a conformed specification and commercial terms were developed. On May 9, 2017, a conforming offer was requested, and on May 19, 2017, the offer was received. The Project Manager conducted a final technical evaluation and confirmed that the proposal met all technical requirements.

Qualifications Summary of the Firm:

New Flyer of America, Inc. (NFA)

NFA is a North Dakota corporation organized in October 1989 and is a wholly owned subsidiary of Transit Holdings, a holding company that owns New Flyer of America, Inc. and New Flyer Industries Canada ULC.

NFA proposed to build LACMTA bus orders in its St. Cloud, Minnesota and Ontario, California facilities. The St. Cloud plant is a production and finishing facility. The Ontario, California facility houses production, service and aftermarket parts.

NFA has delivered 60' CNG buses to transit agencies such as Orange County Transportation Authority (OCTA), New York MTA, and Omnitrans.

C. Cost/Price Analysis

A cost analysis is currently underway utilizing an audit completed by Metro’s MASD on June 30, 2017. The audit findings are being used as the basis for negotiations to arrive at a fair and reasonable price. In addition to the audit performed by MASD, Metro’s negotiation with the proposed Contractor will factor in a Technical Evaluation performed by Metro’s project management team and Metro’s Independent Cost estimate (ICE). The recommended Contractor’s proposed price of \$408,580,279 will be used as the not-to-exceed cap for these negotiations. The final negotiated Contract for Base and Option vehicles will be based on Firm Fixed Unit Rate prices. The Optional Vehicle Features will also be based on Firm Fixed Prices for total Base Buy and Option Buy quantities.

Proposer Name	Proposal Amount	Base Buy (65)	Option Buy (335)	Optional Features for Base and Options Buys	Negotiated or NTE amount
Metro ICE*		\$58,582,745	\$301,926,455		Not Applicable
NFA	\$408,580,279	\$64,428,454	\$331,132,073	\$13,019,752**	TBD

*Note: Metro’s estimated per unit cost of the vehicle is based upon a bus configuration that did not include the design requirement for electronically driven accessories. Metro is the first transit agency to require electronically driven accessories in a CNG bus configuration. **The recommended value for the Base Optional Features is \$3,260,156.

Local Employment Program

NFA has elected to participate in Metro’s voluntary Local Employment Program (LEP). In the absence of competition, this participation did not result in distribution of any incentive points to NFA based on their proposed wages, benefits, and training of new employees hired in California. The table below describes the commitment level for NFA for new local jobs. This value is currently under negotiations.

Proposers:	NFA
Total Local Employment, Facility and Training Investment	\$3,100,668

D. Background on Recommended Contractor

The recommended firm, New Flyer of America Inc. (NFA), is a corporation organized in North Dakota, and is a wholly owned subsidiary of Transit Holdings. NFA is the US operating company in the New Flyer group of companies, and manufactures and sells New Flyer transit buses to U.S. customers.

NFA proposes to support the Metro project with new and existing workforce in production, manufacturing, engineering, quality assurance and warranty services from its locations in Winnipeg, Canada, St. Cloud, Minnesota and Ontario, California. NFA will build Metro buses from the St. Cloud and Ontario facilities. The 380,000 square foot St. Cloud facility opened in 1999 and has two production lines for full production and finishing processes. The 100,000 square foot service center Ontario facility will include a production team for finishing and delivery of the buses, field service support for warranty and retrofit activities, and a team for aftermarket parts and materials. NFA recently completed delivery of the 900 40' CNG bus buy to Metro.

NFA's proposed a dedicated Customer Project Manager and primary point of contact for this project who previously worked with Metro staff for the 900 bus buy. NFA's proposed project team has combined extensive years of experience in the transit/bus industry for engineering, manufacturing, quality control, production, testing, systems integration, and field/warranty support delivering buses to major transit agencies such as Boston, New York, Washington, D.C. and Dallas.

DEOD SUMMARY

SIXTY FIVE 60' ARTICULATED CNG TRANSIT BUS CONTRACT / OP28367-003
(Group B)

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this rolling stock procurement. Transit Vehicle Manufacturers (TVMs), as a condition of authorization to bid or propose on FTA-assisted transit vehicle procurements, must certify that they have an FTA approved DBE overall goal methodology in compliance with 49 Code of Federal Regulations (CFR) Part 26.49(a)(1). New Flyer of America submitted an FY17 TVM Certification with their proposal, and is currently on FTA's list of eligible TVMs. In compliance with 49 CFR Part 26.49, TVMs report directly to FTA.

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy 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.

**Funding and Expenditure Plan
Sixty Five 60' CNG Transit Buses (Part B)**

In Thousands	FY18	FY19	FY20	Total LOP	% of Total
Uses of Funds					
Vehicles	\$1,060,438	\$59,126,265	\$4,241,751	\$64,428,454	89.2%
Spare parts, optional features, training aids	\$0	\$3,260,156	\$0	\$3,260,156	4.5%
Labor	\$500,000	\$761,390	\$250,000	\$1,511,390	2.1%
Travel/Administration	\$150,000	\$250,000	\$100,000	\$500,000	0.7%
Contingency	\$0	\$0	\$2,500,000	\$2,500,000	3.5%
Total Project Costs	\$1,710,438	\$63,397,811	\$7,091,751	\$72,200,000	100.0%

In Thousands	FY18	FY19	FY20	Total LOP	% of Total
Sources of Funds				\$ -	
PC40 Bonds	\$ 1,710,438	\$ 63,397,811	\$ 7,091,751	\$ 72,200,000	100.0%
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
				\$ -	
Total Project Funding	\$ 1,710,438	\$ 63,397,811	\$ 7,091,751	\$ 72,200,000	100.0%

Current source of funds for this action is PC40 Bonds, which are eligible for this project.
 The funding sources under this project are currently sufficient to award the contract base of this recommendation.
 Staff is pursuing additional State and Local funding sources such as Cap and Trade and Similar sources as they become available

**Board Report**

File #: 2017-0399, **File Type:** Contract**Agenda Number:** 45

**SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JULY 20, 2017****SUBJECT: NEAR ZERO NATURAL GAS FUELED ENGINES****ACTION: APPROVE CONTRACT AWARD****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to award a three year, indefinite delivery/indefinite quantity Contract No. MA39865000 for Near Zero Emission Natural Gas Fueled Heavy Duty Engines to Cummins Pacific, LLC for a not-to-exceed amount of \$8,160,523, inclusive of sales tax, for the base year; a not-to-exceed amount of \$11,296,774, inclusive of sales tax, for the first one year option; and a not-to-exceed amount of \$7,064,518, inclusive of sales tax, for the second one year option, for a total Contract amount of \$26,521,815.

ISSUE

The Cummins ISL G 280 horse power (hp) engines, currently installed in our NABI 45-foot series composite buses, will be replaced with new "Near zero" emission engines that will operate here on Renewable Compressed Natural Gas (RCNG). The Central Maintenance Facility (CMF) engine replacement program is coordinated with Metro's strategic plans for transitioning to Zero Emission Buses. This procurement is required to ensure the current engine replacement program continues without delays and with no impact on revenue service.

DISCUSSION

CMF staff has identified a requirement to purchase up to 395 natural gas fueled heavy duty engines to replace currently installed Cummins ISL G 280 hp engines during the period FY18 through FY20. The Cummins ISL G Near Zero Emission engines delivered under this procurement will be installed as part of the engine replacement program.

The ISL G Near Zero natural gas engine reduces NOx by 90 percent and greenhouse gases by nine percent compared to the standard ISL-G CNG-powered engine. Currently, the Cummins the ISL G Near Zero Emission is the only CNG mid-range engine to receive emissions certifications from the Federal Environmental Protection Agency (EPA) and California Air Resources Board (CARB) for meeting the 0.02 g/bhp-hr optional Near Zero NOx emissions standard. These engines are designed to be operated on either pipeline CNG or bio-gas/RCNG.

The Cummins ISL G Near Zero fueled heavy-duty engines are warranted to be free from defects in design and materials for two-years with unlimited mileage with full parts and labor on all warrantable failures.

DETERMINATION OF SAFETY IMPACT

The award of this Contract will result in a positive impact on safety. Installation of these new engines will ensure that buses are maintained in accordance with Metro Maintenance standards and improve on-road performance and reliability, with beneficial impact on system safety.

FINANCIAL IMPACT

The total contract value is not-to-exceed \$26,521,815. The funding of \$8,160,523 for these engines is included in the FY18 budget in cost center 3366, under project 203036, Bus Midlife Program and line item 50441, Parts- Revenue Vehicle. Since this is a multi-year Contract, the project manager, cost center manager and Chief Operations Officer will be accountable for budgeting the cost in future fiscal years, including any options exercised.

A grant for \$1.875 million was awarded to Metro by the Mobile Source Air Pollution Reduction Committee (MSRC) to offset the cost of installation of the Near Zero engine in 125 buses.

Impact to Budget

The source of funds for this procurement will come from Federal formula funds, State MSRC and local Proposition C 40%. These sources are eligible for Bus Operating or Capital projects. Use of these funding sources maximizes established funding provisions and guidelines.

ALTERNATIVES CONSIDERED

The alternative is not to award this master agreement Contract and procure natural gas fueled heavy-duty engines on an as-needed basis, using the traditional "min/max" replenishment system method. The "min/max" replenishment system method calculates minimum and maximum inventory levels. This strategy is not recommended since it does not provide for a commitment from the supplier to ensure availability, timely delivery, continued supply and a guaranteed fixed price for natural gas fueled heavy-duty engines.

NEXT STEPS

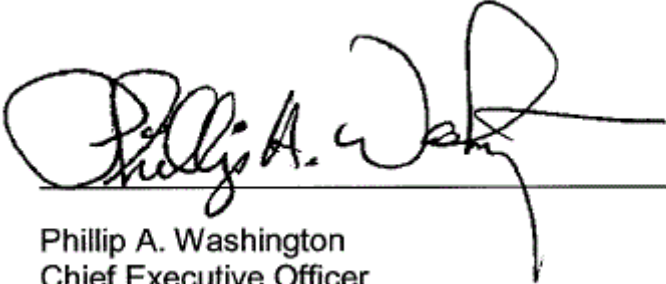
Refurbishment of the NABI bus fleet will continue in accordance with Operations Support Services bus mid-life program and engine replacement program. The engine replacement program utilizing the engines is scheduled to be completed by the end of the second quarter, FY20.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary

Prepared by: Amy Romero, Sr. Director of CMS, (213) 922-5709

Reviewed by: Debra Avila, Chief Vendor/Contract Management Officer, (213)418-3051
James T. Gallagher, Chief Operations Officer, (213)418-3108



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

NEAR-ZERO NATURAL GAS FUELED ENGINES/MA39865000

1.	Contract Number: MA39865000	
2.	Recommended Vendor: Cummins Pacific, LLC	
3.	Type of Procurement (check one): <input checked="" type="checkbox"/> FB <input type="checkbox"/> RFP <input type="checkbox"/> RFP.A&E Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 3/17/17	
	B. Advertised/Publicized: 3/17/17	
	C. Pre-Bid Conference: 3/24/17	
	D. Bids Due: 4/17/17	
	E. Pre-Qualification Completed: 4/26/17	
	F. Conflict of Interest Form Submitted to Ethics: 4/21/17	
	G. Protest Period End Date: 6/26/17	
5.	Solicitations Picked Up/Downloaded: 3	Bids Received: 1
6.	Contract Administrator: Edmund Gonzales	Telephone Number: 213/418-3073
7.	Project Manager: Amy Romero	Telephone Number: 213/922-5709

A. Procurement Background

This Board Action is to approve Contract No. MA39865000 in support of Metro's Natural Gas Fueled Bus Fleet to procure Near-Zero Emissions Bus Engines for bus maintenance and operations.

The IFB was issued in accordance with Metro's Acquisition Policy and the contract type is an Unit Firm Fixed Price Indefinite Delivery/Indefinite Quantity (ID/IQ).

One amendment was issued during the solicitation phase of the IFB:

- Amendment No. 1, issued on April 7, 2017, changed a fuel requirement of the IFB technical specification.

A total of one bid was received on April 17, 2017.

A market survey was conducted shortly thereafter inquiring as to why members on the Planholder's list elected not to participate in the solicitation. Information was collected for the other two Planholder's. One Planholder downloads and redistributes solicitations as their business model and does not respond to solicitations. The other Planholder did not respond, however, their website list the company as a provider of software systems.

B. Evaluation of Bids

This procurement was conducted in accordance, and complies with LACMTA's Acquisition Policy for a competitive sealed bid. The firm recommended for award, Cummins Pacific, LLC, was found to be in full compliance with the bid and technical requirements.

Bidder Name	Bid Amount
Cummins Pacific LLC	\$26,521,814.70

C. Price Analysis

The recommended total price has been deemed fair and reasonable based on Metro's staff conducting an open competition and market research. Staff obtained recent engine pricing data from Orange County Transportation Authority and Santa Monica Municipal Bus Lines and found the total bid price was comparable based on market research data. Although Metro only received one bid, the procurement was an open competition that included formal advertising, a pre-bid conference, and reach out to qualified engine manufacturers.

Bidder Name	Bid Amount	Metro ICE
Cummins Pacific LLC	\$26,521,814.70	\$28,254,000.00

D. Background on Recommended Contractor:

Cummins Pacific LLC, located in Irvine, CA, has been in business for 25 years, is a leader in the field of manufacturing engines and is an aftermarket distributor of bus parts. Cummins Pacific has provided similar products to other transit agencies including Orange County Transportation Authority (OCTA), Santa Monica Municipal Bus Lines (Big Blue Bus), San Diego Metropolitan Transit System, Torrance Transit, and other agencies. To date, Cummins Pacific, LLC has provided satisfactory products and services to Metro on previous purchases.

DEOD SUMMARY

NEAR ZERO NATURAL GAS FUELED ENGINES / MA39865000

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not establish a Small Business Enterprise (SBE) goal for this solicitation due to lack of subcontracting opportunities. Metro's Project Manager confirmed that Cummins Pacific, LLC manufactures engines in-house. Cummins Pacific, LLC did not make an SBE commitment.

B. Living/Prevailing Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy 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.



Board Report

File #: 2017-0517, **File Type:** Oral Report / Presentation

Agenda Number: 3

**REGULAR BOARD MEETING
JULY 27, 2017**

SUBJECT: REPORT OF THE CHAIR

RECOMMENDATION

RECEIVE report by the **Chair**.

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Metro's Plan to Ease Traffic Draft Expenditure Plan Overview

March 24, 2016



Metro

A Collaborative COG Process

- The Metro Board established a process to work with the sub-regional councils of government to identify priority projects
- Metro conducted a bottoms-up process with the nine sub-regions of the county, which submitted projects for evaluation
- Each sub-region was given targets based on their population and employment
- Board adopted highway and transit performance measures; projects scored using weighted themes

Board Approved Performance Metrics

❖ **Mobility: Ease Congestion**

45.0%

- Improve travel times and reliability; increase active transportation

❖ **Accessibility: Provide Access**

17.5%

- Increase service to the transit dependent, cyclists, youths, pedestrians, seniors, and people with disabilities; increase those served by Metro; improve first-last mile

❖ **Safety: Improve Safety**

12.5%

- Enhance personal and public safety; reduce incidents

❖ **Economy: Grow Economic Benefits**

12.5%

- Create jobs; increase goods movement; invest in disadvantaged communities

❖ **Sustainability and Quality of Life: Enhance Quality of Life**

12.5%

- Reduce greenhouse gases; improve air quality; positively impact public health



Metro

Modeling and Cost Estimates

- Modeling Process
 - Scored and ranked highway and transit projects separately
 - Applied Board-approved performance methodology
 - Considered high-performing existing projects for acceleration without impacting other projects
- Cost Estimate Methodology
 - Reviewed current studies, engineering plans and cost estimates
 - Applied comparable, actual cost experience to each infrastructure type and cost category
 - Applied factors for soft costs based on historical experience
 - Applied project contingency



Metro

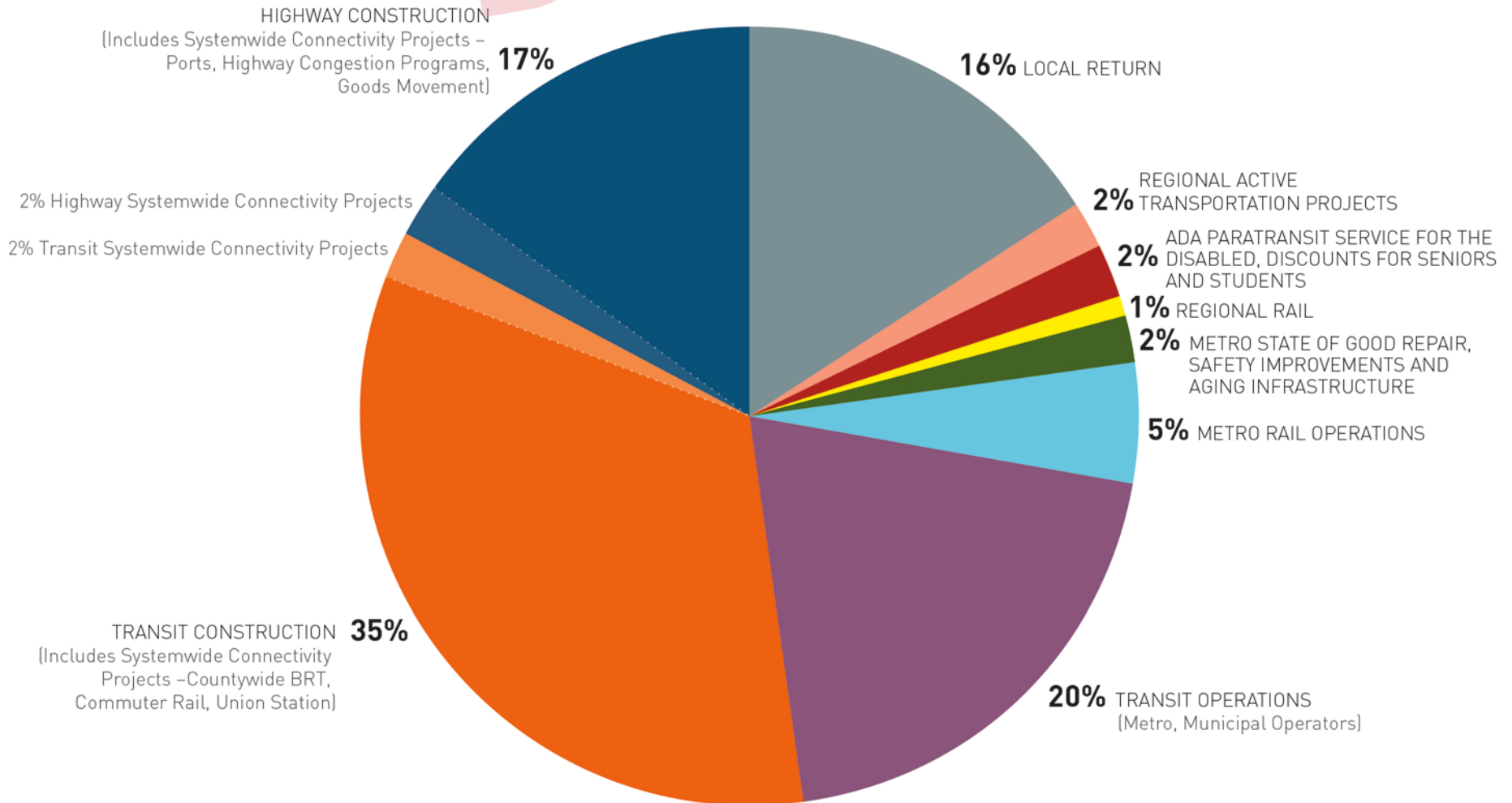
Annual Revenue Assumptions

- New ½ cent tax = \$860 million/year
 - FY18-FY39 – ½ cent building on top of existing Measure R
- New ½ cent and Measure R together – \$1.7 billion/year
 - FY40-FY57 – 1 cent replaces Measure R tax rate
- New revenues would begin in FY18

\$120 billion in YOE dollars would be generated over the 40-year program

Potential Ballot Measure Expenditure Plan

DRAFT



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Capital Projects List



Metro

Transit Construction – 35%

- Capital expenses in support of transit capacity improvements specifically listed in the Measure's project Expenditure Plan
- New rail and/or Bus Rapid Transit (BRT) capital projects whose project definition depends upon the final environmental review process
- Rail yards, rail cars, and start-up buses for new BRT lines are eligible
- Includes 2% for systemwide connectivity projects such as airports, countywide BRT, and Union Station

Highway Construction – 17%

- Capital expenses in support of highway project capacity and safety enhancements and/or highway project elements specifically listed in the Measure's project Expenditure Plan, such as environmental studies, plans, specifications, and estimates, right-of-way (including support), construction (including support)
- Examples include High Desert Corridor, I-5 capacity enhancements, SR-71 capacity enhancements, Express Lane expansion, truck lanes, and auxiliary lanes
- Includes 2% for systemwide connectivity Projects such as ports, highway congestion programs, and goods movement

Regional Active Transportation – 2% (NEW)

- Includes 2% for regional ATP projects
- Projects and programs that encourage walking, biking, and rolling modes
- Eligible projects would include Safe Routes to Schools; complete streets improvements; and first/last mile connections with public transit such as bicycle facilities including bike hubs, protected bike lanes connecting the transportation network, and countywide bike share program
- Expected to generate \$17 million annually in the first year and more than \$2.4 billion over the 40-year life of the measure
- Total of 4.5% of PBM funds are projected for ATP (combo of 2% Regional ATP and 2.5% of locally planned ATP investments)



The Maps



Metro











Projects
Projects

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projects
Projects

nal environmental process.



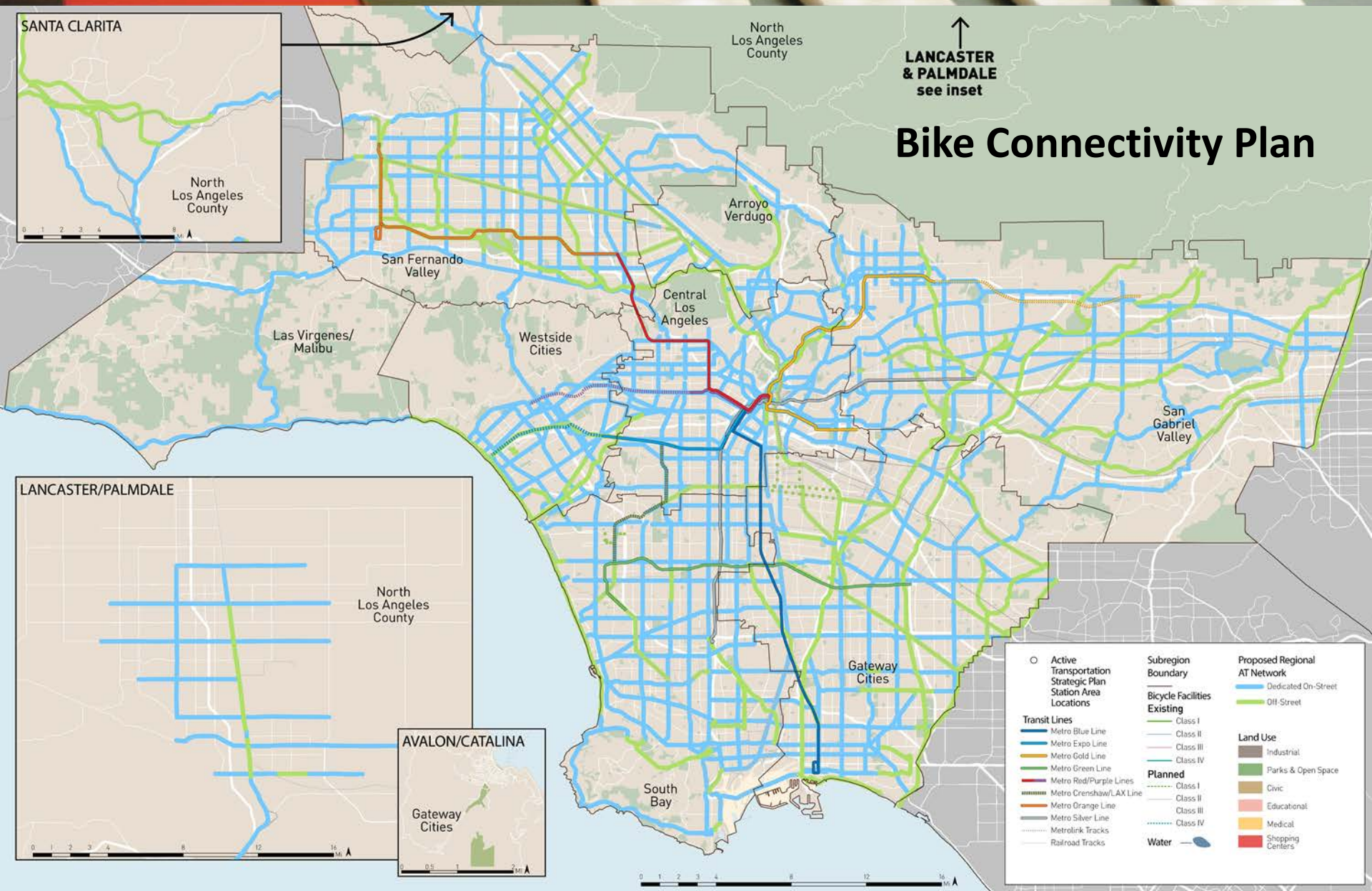
projects
Projects



al environmental process.

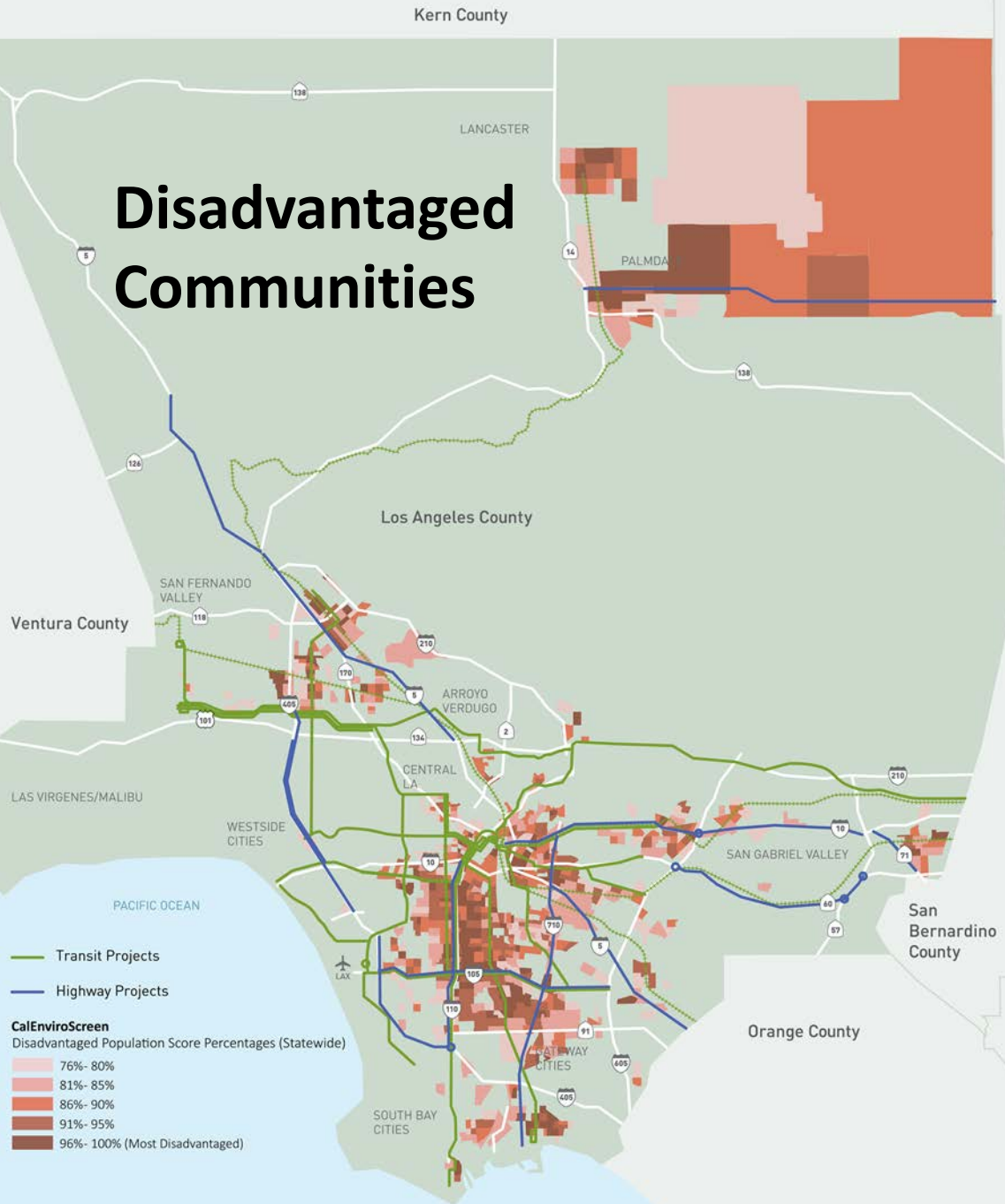
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Bike Connectivity Plan



<ul style="list-style-type: none"> ○ Active Transportation Strategic Plan Station Area Locations 	<ul style="list-style-type: none"> Subregion Boundary Bicycle Facilities Existing <ul style="list-style-type: none"> Class I Class II Class III Class IV Planned <ul style="list-style-type: none"> Class I Class II Class III Class IV Water 	<ul style="list-style-type: none"> Proposed Regional AT Network <ul style="list-style-type: none"> Dedicated On-Street Off-Street Land Use <ul style="list-style-type: none"> Industrial Parks & Open Space Civic Educational Medical Shopping Centers
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Disadvantaged Communities



Exploration and Innovation

Other Opportunities

- Seed Money for Exploratory and Innovative Projects
 - Express Train from LAX to Union Station
 - South Bay Congestion Relief from LAX to Long Beach
- Countywide BRT Projects
- Streetcar and Circulator Projects
 - Capital only



Operations and other Programs



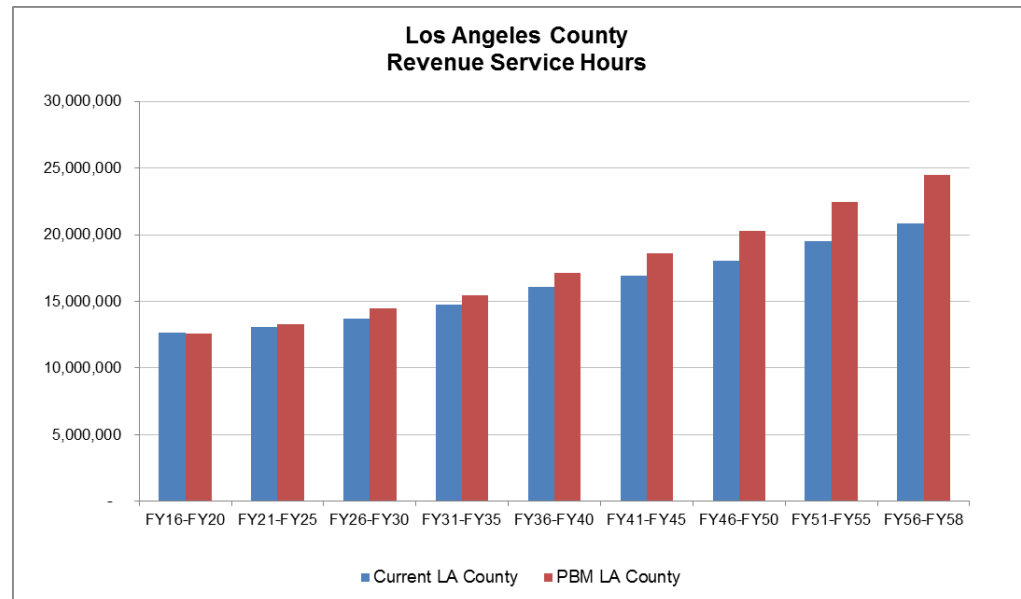
Metro

Transit Operations – 20%

For countywide transit operations (consistent with ridership patterns), Metro and Municipal Operators, allocated through the Formula Allocation Procedure (FAP). Funding will improve system safety, faster/frequent/reliable/accessible services, customer service and fund state of good repair needs

- LA County transit services will more than double, which includes bus rapid transit, Metro rail and municipal operator services
- Increased service levels will have capacity to triple transit usage and ridership
- Metro and municipal operator bus services are critical feeder services and first/last mile connections to new infrastructure expansion
- Shift travel mode to public transit and reduce single occupancy vehicles
- Take advantage of technology advancements to improve customer experience
- Prioritize enhanced services in transit dependent areas
- Improving safety on buses, bus stops, rail lines, and rail stations
- Establishing and improving Express Bus service on freeways

Transit Operations			
(\$ in millions)	Annual Allocation	Annual (\$FY18)	Total (\$YOE)
Existing Measure R (ends FY39)	20% of 1/2 cent	\$170.2	\$5,796.0
Potential Ballot Measure Addition			
FY18 - FY39	20% of 1/2 cent	170.2	5,796.0
FY40 - FY57	20% of 1 cent	340.4	18,127.0
Total PBM Addition			\$23,923.0
Total Measure R + Potential Ballot Measure (FY18 - FY57)			\$29,719.0

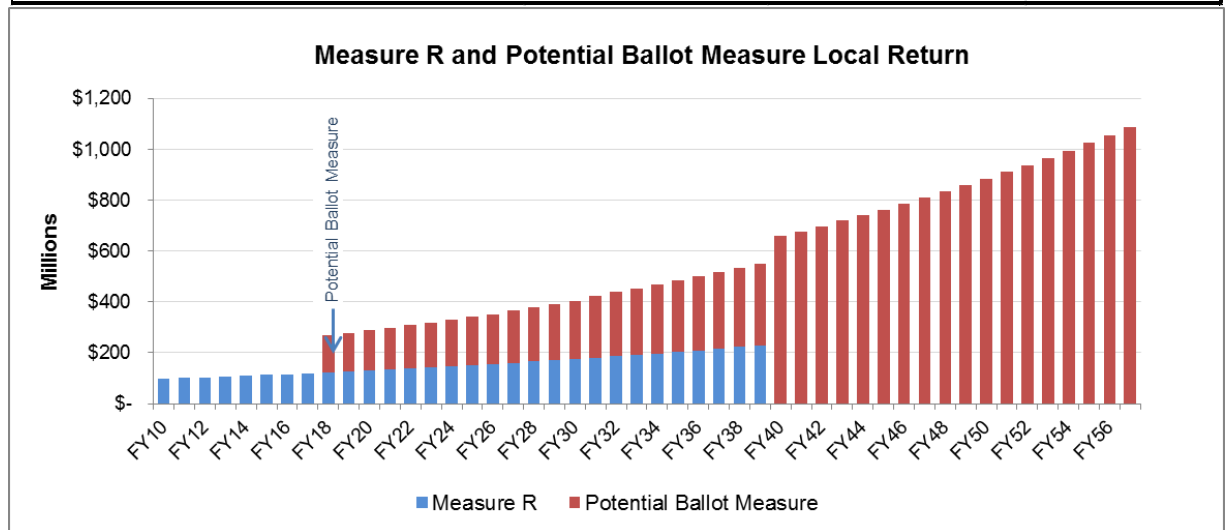


Local Return – 16%

For 88 local jurisdictions and Los Angeles County allocated by population. Funds are used for communities’ transportation needs, including transit, streets & roads, “Green” streets, ATP, Transit Oriented Communities’ Investments and other unmet needs.

- This will double existing Measure R Local Return funding and extend another 18 years
- Provides maximum flexibility for local jurisdictions to meet their transportation priorities and needs
- Funds will be used for repairing potholes and repaving local streets

Local Return			
(\$ in millions)	Annual Allocation	Annual (\$FY18)	Total (\$YOE)
Existing Measure R (ends FY39)	15% of 1/2 cent	\$127.7	\$4,347.0
Potential Ballot Measure Addition			
FY18 - FY39	16% of 1/2 cent	\$136.2	4,637.0
FY40 - FY57	16% of 1 cent	272.4	14,501.0
Total PBM Addition			\$19,138.0
Total Measure R + Potential Ballot Measure (FY18 - FY57)			\$23,485.0

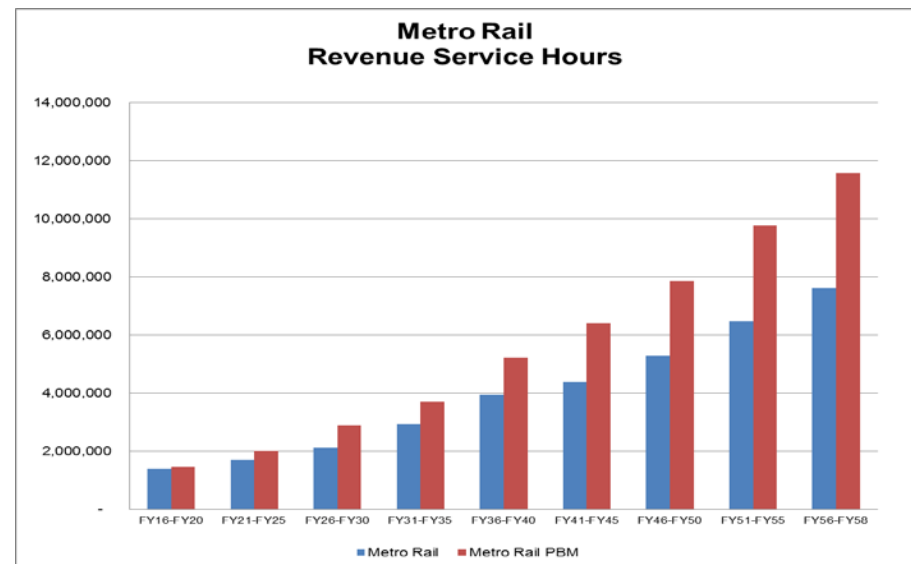


Metro Rail Operations – 5%

For Metro Rail operations, emphasizing system safety, improved customer service and faster, frequent, reliable, and accessible services. To fund growing rail operating needs and rail SGR due to the expansion of the rail system.

- Over the next 40 years, rail service has the capacity to increase up to 10 times, representing half of the county’s transit services
- With over 100 more route miles, over 20 light/heavy lines, and 70 more stations, rail usage and ridership can increase up to 12 times
- Rail service increases system speed and capacity for transit, allowing for more boardings per mile and per hour, and easing congestion and traffic
- Funds can be used to supplement rail state of good repair needs

Metro Rail			
(\$ in millions)	Annual Allocation	Annual (\$FY18)	Total (\$YOE)
Existing Measure R (ends FY39)	5% of 1/2 cent	\$42.6	\$1,449.0
Potential Ballot Measure Addition			
FY18 - FY39	5% of 1/2 cent	42.6	1,449.0
FY40 - FY57	5% of 1 cent	85.2	4,532.0
Total PBM Addition			\$5,981.0
Total Measure R + Potential Ballot Measure (FY18 - FY57)			\$7,430.0



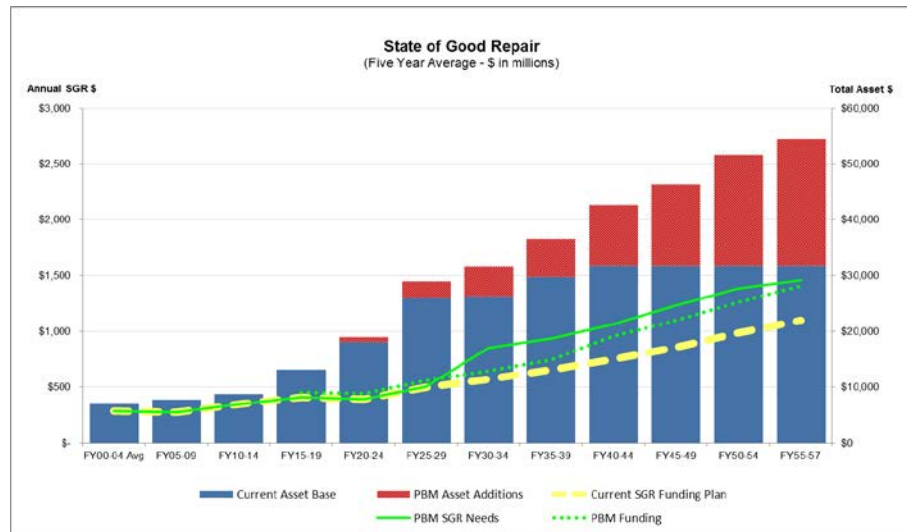
State of Good Repair, Safety Improvements and Aging Infrastructure – 2% (NEW)

A robust SGR funding program is necessary to keep the current aging infrastructure such as Blue Line and the expanding system in top form. A dedicated funding source for SGR will allow us to provide quality, reliable, on-time, and uninterrupted services for our riders. **No dedicated funding for state of good repair exists today.**

- Allocates \$2.39B for SGR
- This dedicated funding will allow us to leverage federal/state grants and bond financing
- The investment in SGR will improve asset condition, safety and extend the useful life of our transit system
- This funding along with the Asset Management Plan (condition-based and asset age-based) will help mitigate the funding gap for SGR
- Earthquake retrofitting bridges, tunnels, and overpasses
- Improving safety on buses, bus stops, rail lines, and rail stations

State of Good Repair, Safety Improvements and Aging Infrastructure			
(\$ in millions)	Annual Allocation	Annual (\$FY18)	Total (\$YOE)
Existing Measure R (ends FY39)	None	-	-
Potential Ballot Measure Addition			
FY18 - FY39	2% of 1/2 cent	17.0	580.0
FY40 - FY57	2% of 1 cent	34.0	1,813.0
Total PBM Addition			\$2,393.0
Total Measure R + Potential Ballot Measure (FY18 - FY57)			\$2,393.0

Note: Create provision where Metro Board can increase SGR percentage based on the condition of assets, after 2039 when approximately 15 rail lines will be in operation.

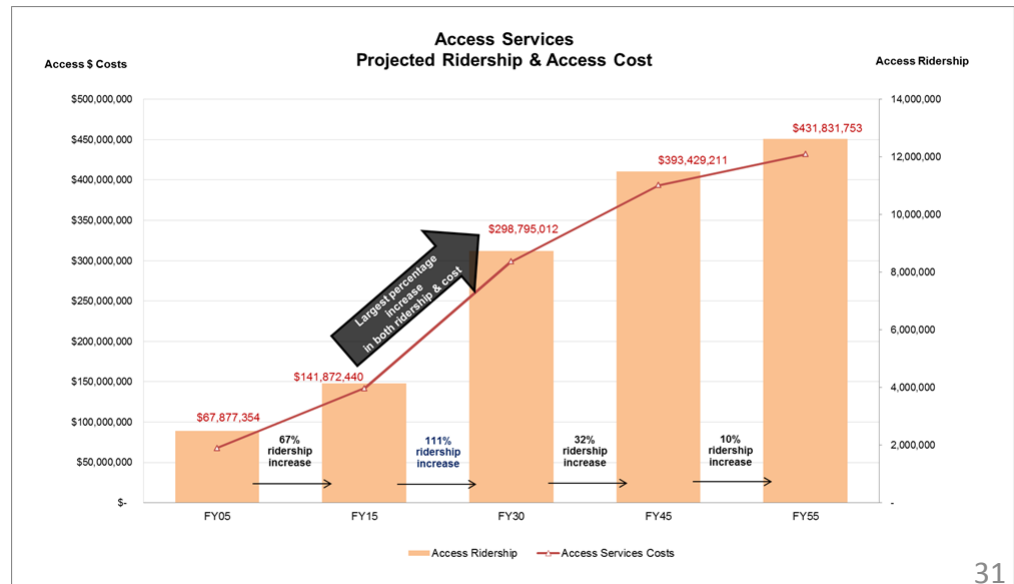


ADA Paratransit Services for the Disabled; Discounts for Seniors and Students– 2% (NEW)

To fund paratransit services mandated by the American with Disabilities Act (ADA).
Currently no dedicated funding for ADA-mandated paratransit exists.

- Secures dedicated funding of \$2.39B for ADA-mandated paratransit services
- Serving people with disabilities is one of the primary challenges of transit systems
- ADA ridership is expected to more than double in the next decade
- Growth is due to aging population of baby boomers and cuts in human services transportation funding

ADA Paratransit Service for the Disabled; Discounts for Seniors and Students			
(\$ in millions)	Annual Allocation	Annual (\$FY18)	Total (\$YOE)
Existing Measure R (ends FY39)	None	-	-
Potential Ballot Measure Addition			
FY18 - FY39	2% of 1/2 cent	17.0	580.0
FY40 - FY57	2% of 1 cent	34.0	1,813.0
Total PBM Addition			\$2,393.0
Total Measure R + Potential Ballot Measure (FY18 - FY57)			\$2,393.0



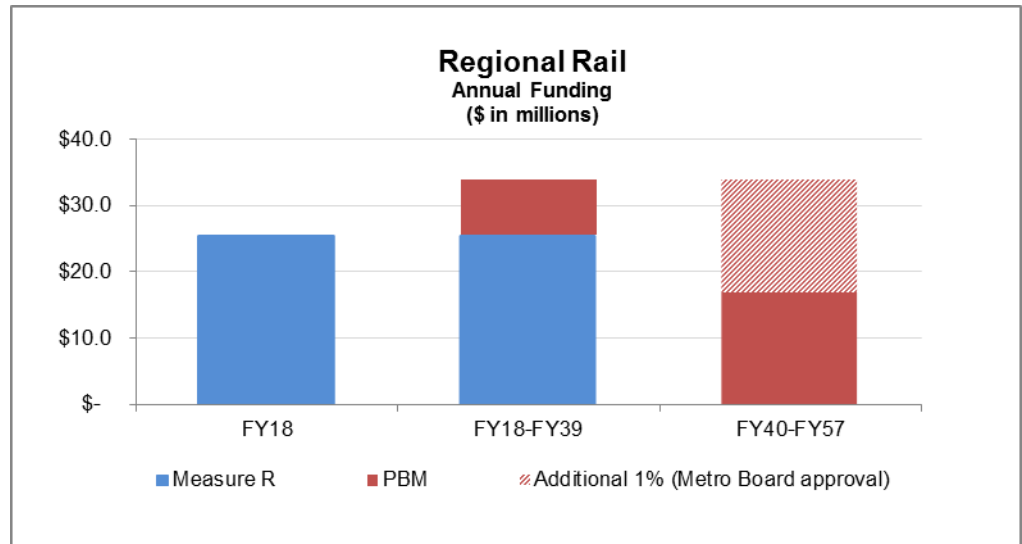
Regional Rail – 1%

Improvements for commuter rail service within LA County, includes operations, maintenance, expansion and state of good repair

- In addition to the 3% allocation from Measure R, adding \$1.19B in total sales tax funding
- Improving & expanding service
- Enhances Regional Rail Service, with an emphasis on Antelope Valley services, providing transit-dependent riders connections from the North County to the LA basin
- Reduced congestion on freeways
- Every \$1 of Metro’s operating funds can be matched by \$3 from other member agencies and fare revenues
- Regional Rail capital projects are eligible to participate in 2% of the systemwide connectivity projects, included in 32% Transit Construction slice

Note: Create provision where Metro Board can increase Regional Rail percentage up to an additional 1% after 2039 based on verifiable service improvements.

Regional Rail			
(\$ in millions)	Annual Allocation	Annual (\$FY18)	Total (\$YOE)
Existing Measure R (ends FY39)	3% of 1/2 cent	\$25.5	\$869.0
Potential Ballot Measure Addition			
FY18 - FY39	1% of 1/2 cent	8.5	290.0
FY40 - FY57	1% of 1 cent	17.0	906.0
Total PBM Addition			\$1,196.0
Total Measure R + Potential Ballot Measure (FY18 - FY57)			\$2,065.0



Taxpayer Oversight

- Much like is the case with Propositions A and C and Measure R, an Oversight Committee will monitor the implementation of the Expenditure Plan, including schedule, budget, and use of funds
- Staff has evaluated other oversight committees in California
- Given the success of the Measure R committee, staff will propose ways to build upon the existing committee structure

Proven Acceleration Strategies

- Federal and State Funds
 - New Starts, TIFIA loans, Cap and Trade, etc.
- Local Funds
 - 3% contribution to transit projects based on benefits
 - Third-party investments
- Private Sector Funds
 - Goods movement or vehicle-miles-traveled fees
 - Express lane or other tolls
 - Private financing and innovation
- Dynamic Shovel Ready Plans and Implementation

Preparing for a Transportation Renaissance

- Managing a Massive Program
 - Creating a Program Management Plan
- Developing our Workforce
 - Getting “people ready”
 - Leadership Academy, MAX Program, trainee programs
 - Leveraging the experience being gained through our current program
- Capturing Lessons Learned
 - Learning from past experiences (cost control methods, schedule adherence, annual program evaluations, etc.)
 - Establishing best practices



Program Benefits

- Eases congestion & improves mobility
- Improves accessibility
- Enhances quality of life
- Expands rail and bus network
- Creates a more balanced, customer-focused transportation system
- Keeps fares low and improves service for seniors, students and people with disabilities
- Enhances investment at the local level for cities to provide alternative modes of transportation
- Increases transit mode share: 7% now; projected to be 20-30% with new infrastructure investments, complete build-out, and innovative marketing and technology



Metro

Public Input Process

- Public meetings
 - Nine traditional meetings, one virtual meeting
- Telephone town hall meetings
 - One for each Board member's district
- Public comments through website and social media
- Elected officials' briefings
- Key stakeholders' briefings
- Media briefings
- Community presentations



Metro

Looking Beyond 40 Years

What else could we accomplish with more years?

45-Year Plan – \$6B current dollars/\$23B YOE

- High Desert Corridor Construction
- Crenshaw Line Northern Extension

50-Year Plan – \$11B current dollars/\$28B YOE

- Gold Line Eastside Extension Phase 2
- Purple Line Extension to Bundy

○ *Note: Can be any combination of projects based on Board direction*

Staff Recommendation

- The 50-year Plan
 - Secures the funding necessary to build significant transportation improvements across the county and keep our system in good working order as LA County positions itself for the future
- Request that the Board authorize the CEO to release the Draft Potential Ballot Measure Expenditure Plan for public input



Questions?



Metro

**Board Report**

File #: 2017-0307, **File Type:** Contract**Agenda Number:** 6

**AD-HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE
JULY 19, 2017****SUBJECT: SOUTHBOUND INTERSTATE 605 FROM STATE
ROUTE 91 TO SOUTH STREET IMPROVEMENTS
(ENGINEERING SERVICES CONTRACT AWARD)****ACTION: APPROVE RECOMMENDATION****RECOMMENDATION**

AWARD AND EXECUTE an 18-month, firm fixed price Contract No. AE38849000 with TranSystems Corporation, in the amount of \$4,452,298 for Architectural and Engineering (A&E) services for the preparation of the Project Report Approval (PR) and the Plans, Specifications and Estimates (PS&E) for Southbound Interstate 605 from State Route 91 to South Street Improvements, pending resolution of protest(s), if any.

ISSUE

Metro, in collaboration with Caltrans and the Gateway Cities Council of Governments (GCCOG), is leading the development of Measure R I-605 "Hot Spots" highway improvement projects. This Contract award will enable Metro to complete the Project Report and the Plans, Specifications and Estimates for the proposed improvements to Southbound Interstate 605 (I-605), from State Route 91 (SR-91) to South Street, in the City of Cerritos.

DISCUSSION

The Metro Board designated \$590 million in Measure R funds for the congestion "Hot Spots" relief improvements along the I-605, SR-91 and I-405 Corridors in the Gateway Cities sub-region. In March 2013, Metro completed a feasibility study of I-605 and crossing corridors (I-405, SR-91, I-105, I-5, and SR-60) to identify congestion "Hot Spots" and develop preliminary improvement concepts. One of the identified congestion Hot Spots was the I-605/SR-91 Interchange. Attachment C provides a map of the study area.

Metro completed a Project Study Report/Project Development Support (PSR/PDS) for the I-605/SR-91 Interchange in July 2014. The PSR/PDS is an initial scoping/ resourcing document that identifies the transportation deficiencies, major elements that should be investigated, and the resources needed to complete the preliminary engineering and environmental process. A total of five

independent projects were identified within the SR-91/I-605 interchange area including the proposed project.

Metro, in cooperation with Caltrans District 7 and the GCCOG, is advancing the development and implementation of an additional auxiliary lane on southbound I-605 between the SR-91 connector and South Street. Caltrans is the lead agency for NEPA/CEQA compliance and will be responsible for preparation of the environmental document and the required clearances.

DETERMINATION OF SAFETY IMPACT

The proposed action has no known adverse impact on the safety of Metro's patrons, employees or users of the facility. Caltrans' highway safety standards will be adhered to in the design of the proposed improvements. Any exceptions to the standards will be incorporated in accordance with Caltrans and Federal Highway Administration (FHWA) procedures.

FINANCIAL IMPACT

In April 2017, Metro Board approved up to \$5,500,000 for the I-605 from SR-91 to South Street Improvements Project within the Gateway Cities I-605 Hot Spots Program. The pending Contract was negotiated at \$4,452,298. Details are included in the attached Procurement Summary (Attachment A). For FY 18, \$1,500,000 has been budgeted in Highway Program Cost Center 4730, in I-605 Corridor Hot Spots Project 460314, Task 02.03, Professional Services Account 50316. 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 costs of the project in future fiscal years.

Impact to Budget

The source of funds will be Measure R Highway Capital (20%) Funds. These funds are not eligible for bus and rail operation and capital expenditures.

ALTERNATIVES CONSIDERED

The Board may elect not to award the Contract. This alternative is not recommended because this project is included in the 2009 Long Range Transportation Plan and reflects regional consensus on the importance of the Project in improving corridor mobility and safety. Approval to proceed with the improvements to Interstate 605 (I-605), from State Route 91 (SR-91) to South Street, in the City of Cerritos is consistent with the goals of Measure R.

NEXT STEPS

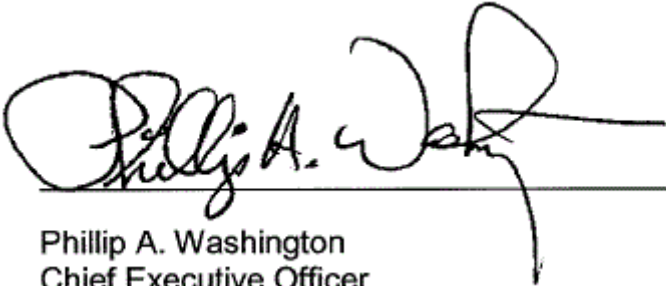
Upon Board approval, staff will execute Contract No. AE38849000 with TranSystems Corporation.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - Location Map

Prepared by: Ayokunle Ogunrinde, Sr. Manager, Transportation Planning, (213) 922-8830
Ernesto Chaves, Senior Director (213) 418-3142
Abdollah Ansari, Sr. Executive Officer (213) 922-4781
Bryan Pennington, Deputy Chief Program Management Officer, (213) 922-7449

Reviewed by: Debra Avila, Chief Vendor/Contract Management Officer (213) 418-3051
Richard F. Clarke, Chief Program Management Officer, (213) 922-7557



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

**SOUTHBOUND I-605 FROM SR-91 TO SOUTH STREET IMPROVEMENTS
CONTRACT NO. AE38849000**

1.	Contract Number: AE38849000	
2.	Recommended Vendor: TranSystems Corporation	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input type="checkbox"/> RFP <input checked="" type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: March 6, 2017	
	B. Advertised/Publicized: March 6, 2017	
	C. Pre-Proposal Conference: March 17, 2017	
	D. Proposals Due: April 6, 2017	
	E. Pre-Qualification Completed: June 9, 2017	
	F. Conflict of Interest Form Submitted to Ethics: April 27, 2017	
	G. Protest Period End Date: July 24, 2017	
5.	Solicitations Picked up/Downloaded: 114	Proposals Received: 5
6.	Contract Administrator: Roxane Marquez	Telephone Number: (213) 922-4147
7.	Project Manager: Kunle Ogunrinde	Telephone Number: (213) 922-8830

A. Procurement Background

This Board Action is to approve Contract No. AE38849000 issued to TranSystems Corporation (TranSystems) in support of developing the Project Report and Plans, Specifications and Estimates for proposed improvements to Interstate 605 (I-605), from State Route 91 (SR-91) to South Street to reduce congestion and improve freeway operations. Board approval of contract award is subject to resolution of any properly submitted protest.

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 a firm fixed price. The RFP was issued with an SBE/DVBE goal of 25% (SBE 22% and DVBE 3%).

One amendment was issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on March 24, 2017, updated Statement of Work to include future support; revised Article IV Compensation and Payment to include retention; updated SP-05 Professional Liability Coverage to add railroad protective coverage; and incorporated SP-17 Payment of Prevailing and Living Wages/Reporting.

A pre-proposal conference was held on March 17, 2017, and was attended by 30 participants representing 22 companies. There were nine questions asked and responses were released prior to the proposal due date.

A total of 114 firms downloaded the RFP and were included in the planholders' list. A total of five proposals were received on April 6, 2017.

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Metro Highway Program, Caltrans and the City of Cerritos 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, Sub-Consultants Qualifications 30 percent
- Work Plan 30 percent
- Firm/Team Qualifications 20 percent
- Project Understanding and Approach 20 percent

The evaluation criteria are appropriate and consistent with criteria developed for similar A&E procurements for the development of Project Report and Plans, Specifications and Estimates. Several factors were considered when developing these weights, giving the greatest importance to the project manager, key staff, sub-consultants qualifications and work plan.

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

On April 19, 2017, the PET completed its independent evaluation of proposals. Of the five proposals received, three were determined to be within the competitive range. Two firms were outside the competitive range and were not included for further consideration. Those firms did not demonstrate significant direct experience as a prime contractor or in project management, and did not demonstrate stakeholder coordination experience in the work plan, or project understanding.

The three firms within the competitive range are listed below in alphabetical order:

1. HDR Engineering, Inc. (HDR)
2. Psomas
3. TranSystems

On April 26, 2017, the PET conducted interviews with the three firms within the competitive range. The project manager and key team members from each firm were invited to present their firm's respective qualifications and respond to the PET's questions. In general, all three firms elaborated on their experience, their innovative approach and cost-effective project delivery solutions, and discussed their plan and ability to meet the 18-month schedule working with outside agencies.

In addition, the project manager and key personnel from each firm responded to the PET's inquiries regarding the firm's approach and ability to address project challenges, negotiating between alternative solutions and statement of work requirements; reconciling between contract requirements and project requirements; and ability to coordinate between different public agencies and stakeholders.

Qualifications Summary of Recommended Firm:

TranSystems

TranSystems is a national engineering firm that provides design, consulting, construction, and management services in transit markets for federal and state agencies and municipalities. TranSystems' proposal and oral presentation demonstrated expertise in a wide range of services in all phases of planning and design services across a wide range of disciplines, including highway construction design, effective project management and a skilled team of project personnel.

TranSystems completed projects that involved planning and environmental services, preliminary and final design services, and construction management. TranSystems also has experience in projects involving concept reports, feasibility studies, corridor studies, project study reports, technical studies, project approval/environmental document services, public outreach, bridge and wall structures services, traffic services, utilities and electrical services, and geotechnical services. Examples include: the I-710 Soundwall Early Action Project (PS&E), I-5 North Corridor PA/ED, I-5 Widening PS&E Segment 2, I-15 Corridor PA/ED, SR-91 PA/ED (SR-57 TO SR-55), and I-10 Tippecanoe Interchange Improvements.

The proposal and oral presentation provided a detailed management plan that included 30-Day Kick Start for an expedited schedule, project organization chart, quality management system, and project controls plan. The oral presentation also elaborated upon TranSystems' stakeholder coordination strategy, which was developed to ensure productive coordination with all stakeholders (Metro, Caltrans, GCCOG, and City of Cerritos) in order to proactively resolve challenges in meeting project delivery schedule. More significantly, TranSystems oral presentation identified a root cause problem to I-605/SR-91/South Street congestion, identifying multi-traffic patterns of congestion, safety issues and risks, demonstrating a comprehensive understanding of the project. Their insight into the source of problems and the creative solutions presented in addressing these concerns demonstrated TranSystems' expertise and capabilities to deliver the requirements to Metro's Statement of Work.

The proposal and oral presentation stressed the importance of project risks, while understanding stakeholder objectives, and utilizing TranSystems' relationships with agency contacts (particularly with Caltrans and district liaisons). In addition, the proposal demonstrated TranSystems' local stakeholder experience, which includes Metro, Caltrans District 7, regional transportation agencies (Orange County Transportation Authority and San Bernardino County Transportation Authority), Gateway Cities Council of Governments, and local community groups.

The proposal and oral presentation demonstrated that TranSystems' key personnel, averaging over 28 years of experience, have direct experience across a breadth of disciplines at all stages of design, and a range of project delivery methods. Significantly, the project manager, with 22 years of experience, possesses 80% availability.

The following is a summary of the PET evaluation scores:

1	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
2	TranSystems				
3	Project Manager, Key Staff and Sub-Consultants Qualifications	64.07	30.00%	19.22	
4	Firm/Team Qualifications	70.38	20.00%	14.08	
5	Work Plan	69.41	30.00%	20.82	
6	Project Understanding and Approach	71.50	20.00%	14.30	
7	Total		100.00%	68.42	1
8	Psomas				
9	Project Manager, Key Staff and Sub-Consultants Qualifications	66.89	30.00%	20.07	
10	Firm/Team Qualification	73.19	20.00%	14.64	
11	Work Plan	65.96	30.00%	19.79	
12	Project Understanding and Approach	49.93	20.00%	9.99	
13	Total		100.00%	64.49	2
14	HDR Engineering, Inc.				
15	Project Manager, Key Staff and Sub-Consultants Qualifications	60.03	30.00%	18.01	
16	Firm/Team Qualification	67.85	20.00%	13.57	
17	Work Plan	59.89	30.00%	17.97	
18	Project Understanding and Approach	63.00	20.00%	12.60	
19	Total		100.00%	62.15	3

C. Cost Analysis

The recommended price has been determined to be fair and reasonable based upon MAS audit findings, an independent cost estimate (ICE), cost analysis, technical analysis, fact finding, and final negotiations. Staff realized a cost savings of \$1,233,151 as a result of negotiating level of effort, labor hours, and other cost factors.

Proposer Name	Proposal Amount	Metro ICE	Negotiated amount
TranSystems	\$5,685,448.61	\$5,219,485.00	\$4,452,297.58

D. Background on Recommended Contractor

The recommended firm, TranSystems, located in Irvine, California, has been in business for 51 years and is a leader in the field of consulting, engineering and design. TranSystems is a mid-sized firm, with more than 34 offices throughout the U.S. and possesses experience in a diverse range of complex projects.

The proposed team is composed of ten subcontractors, including seven Metro-certified SBE firms and two DVBE firms. The proposed project manager has 22 years of experience in managing the planning, design and construction of highways, bridges and transportation related structures and has successfully managed and delivered PA/ED and PS&E projects for Caltrans, OCTA, SBCTA, and Metro. Some of those projects include, I-10 Tippecanoe Interchange Improvements and Laurel Street Grade Separation projects for SBCTA, while concurrently participating in the PS&E for OCTA's I-5 Segment 2 (Oso Parkway to Alicia Parkway) at 95% of budget.

Key personnel average over 28 years of diverse transportation project experience. Overall, personnel have well over 100 combined years of diverse transportation project experience. Project experience include the SB I-405 Auxiliary Lane, SR-133 to University Drive PA/ED, I-605/I-5 Interchange, Crenshaw/LAX Line LRT, I-605/SR-60 PSR & PA/ED, I-5 North Managed Lanes PS&E, and I-605/SR-60 Interchange.

TranSystems possesses a significant amount of local stakeholder experience and has worked closely with Metro, Caltrans, OCTA, Gateway Cities COG, and community groups. With their extensive experience and knowledge, TranSystems possesses the ability to complete and deliver the requirements of the Statement of Work on schedule.

DEOD SUMMARY

**I-605 FROM SR-91 SOUTH STREET IMPROVEMENTS
CONTRACT NO. AE38849000**

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established a 25% goal, inclusive of a 22% Small Business Enterprise (SBE) goal and a 3% Disabled Veteran Business Enterprise (DVBE) goal for this solicitation. TranSystems Corporation exceeded goal by making a 23.34% SBE commitment, and a 4.31% DVBE commitment.

Small Business Goal	SBE 22% DVBE 3%	Small Business Commitment	SBE 23.34% DVBE 4.31%
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	SBE Subcontractors	% Committed
1.	Advanced Civil Technologies	4.91%
2.	Arellano Associates	1.34%
3.	Property Specialists, Inc. (CPSI)	0.72%
4.	GeoAdvantec	5.66%
5.	Guida Surveying, Inc.	5.07%
6.	Intueor Consulting, Inc.	3.64%
7.	Tatsumi and Partners, Inc.	2.00%
	Total Commitment	23.34%

	DVBE Subcontractors	% Committed
1.	Global Environmental Network, Inc. (GENI)	1.92%
2.	MA Engineering	2.39%
	Total Commitment	4.31%

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 and 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.

LOCATION MAP





Board Report

File #: 2017-0336, File Type: Contract

Agenda Number: 7

AD HOC CONGESTION, HIGHWAY & ROADS COMMITTEE JULY 19, 2017

**SUBJECT: SOUTHBOUND INTERSTATE 605/BEVERLY BLVD.
INTERCHANGE IMPROVEMENTS ENGINEERING
SERVICES CONTRACT AWARD**

ACTION: AWARD RECOMMENDATION

RECOMMENDATION

AWARD AND EXECUTE a 24-month firm fixed price Contract No. AE39064000 with Civil Works Engineers in the amount of \$2,973,023.98 for Architectural and Engineering (A&E) services for the preparation of the Project Report (PR) and the Plans, Specifications and Estimates (PS&E) for Southbound (SB) Interstate 605/Beverly Blvd. Interchange Improvements, pending resolution of protest(s), if any.

ISSUE

Metro, in collaboration with Caltrans and the Gateway Cities Council of Governments (GCCOG), is leading the development of Measure R I-605 “Hot Spots” highway improvement projects. This contract award will enable Metro to complete the project report and the plans, specifications and estimates for the proposed improvements to Southbound (SB) Interstate 605 (I-605)/Beverly Blvd. Interchange Improvements in the cities of Pico Rivera and Whittier and the unincorporated Los Angeles County.

DISCUSSION

The Metro Board designated \$590 million in Measure R funds for the “Hot Spots” congestion relief improvements along the I-605, SR-91 and I-405 Corridors in the Gateway Cities sub-region. In March 2013, Metro completed a feasibility study of I-605 and crossing corridors (I-405, SR-91, I-105, I-5, and SR-60) to identify congestion “Hot Spots” and develop preliminary improvement concepts. One of the identified congestion Hot Spots was the I-605/I-5 Interchange, of which this project is part. Attachment C shows the location of the Project.

Metro completed a Project Study Report/Project Development Support (PSR/PDS) for the I-605/I-5 Interchange area in July 2014. The PSR/PDS is an initial scoping and resourcing document that identifies the transportation deficiencies, major elements that should be investigated, and the resources needed to complete the preliminary engineering and environmental process. While Metro/Caltrans are preparing a corridor-level environmental document for I-605 (between I-105 and I-10), smaller scale early action projects have been identified and are being advanced independently.

The SB I-605/Beverly Blvd. Interchange early action project includes reconfiguration of part of the interchange for improved operation. Caltrans is the lead agency for NEPA/CEQA compliance and will be responsible for preparation of the environmental document and the required clearances. Upon completion of these two project phases by mid-2019, this early action project will be ready for construction.

DETERMINATION OF SAFETY IMPACT

The proposed action has no known adverse impact on the safety of Metro's patrons, employees or users of the facility. Caltrans' highway safety standards will be adhered to in the design of the proposed improvements. Any exceptions to the standards will be incorporated in accordance with Caltrans and Federal Highway Administration (FHWA) procedures.

FINANCIAL IMPACT

In April 2017, Metro Board approved up to \$3,000,000 for the SB I-605/Beverly Blvd. Interchange Improvements within the Gateway Cities I-605 Hot Spots Program. Metro staff successfully negotiated a Contract amount of \$2,973,023.98. For FY 18, \$1,000,000 has been budgeted in Highway Program Cost Center 4720, in I-605 Corridor Hot Spots Project 460314, Task 02.03, Professional Services Account 50316. 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 costs of the Project in future fiscal years.

Impact to Budget

The source of funds will be Measure R Highway Capital (20%) Funds. These funds are not eligible for bus and rail operation and capital expenditures.

ALTERNATIVES CONSIDERED

The Board may elect not to award and execute the Contract. This alternative is not recommended because this Project is included in the 2009 Long Range Transportation Plan and reflects regional consensus on the importance of the Project in improving corridor mobility and safety. Approval to proceed with contract award to complete the pre-construction phases of the Project is consistent with the goals of Measure R.

NEXT STEPS

Upon Board approval, staff will execute Contract No. AE39064 with Civil Works Engineers.

ATTACHMENTS

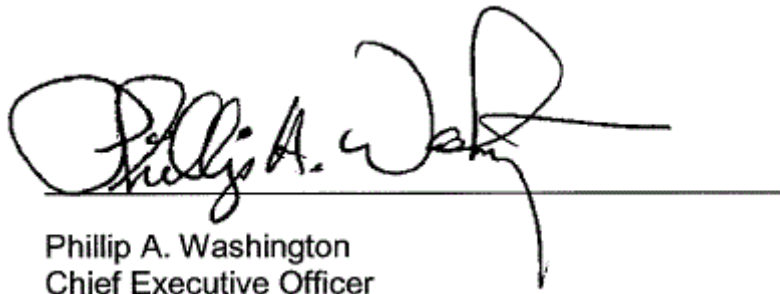
Attachment A - Procurement Summary

Attachment B - DEOD Summary

Attachment C - Location Map

Prepared by: Lucy Olmos, Project Manager (213) 922-7099
Ernesto Chaves, Senior Director (213) 418-3142
Abdollah Ansari, Senior Executive Officer (213) 922-4781
Bryan Pennington, Deputy Chief Program Management Officer (213) 922-7449

Reviewed by: Debra Avila, Chief Vendor/Contract Management Officer (213) 418-3051
Richard F. Clarke, Chief Program Management Officer (213) 922-7557



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

SOUTHBOUND I-605/BEVERLY BLVD. INTERCHANGE IMPROVEMENTS
ENGINEERING SERVICES/AE39064000

1.	Contract Number: AE39064000	
2.	Recommended Vendor: Civil Works Engineers, Inc.	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input type="checkbox"/> RFP <input checked="" type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: February 27, 2017	
	B. Advertised/Publicized: February 23, 2017	
	C. Pre-Proposal Conference: March 14, 2017	
	D. Proposals Due: April 6, 2017	
	E. Pre-Qualification Completed: June 12, 2017	
	F. Conflict of Interest Form Submitted to Ethics: May 23, 2017	
	G. Protest Period End Date: July 24, 2017	
5.	Solicitations Picked up/Downloaded: 106	Proposals Received: 9
6.	Contract Administrator: Adrian Ziemer	Telephone Number: (213) 922-1109
7.	Project Manager: Lucy Olmos	Telephone Number: (213) 922-7099

A. Procurement Background

This Board Action is to approve Contract No. AE39064000, issued to Civil Works Engineers, Inc. (CWE), in support of the project report (PR) and plans, specifications and estimates (PS&E) for the interchange at Beverly Blvd. on the Southbound I-605 freeway. The intent of this project is to reduce congestion and improve freeway operations (both mainline and ramps), improve safety, improve local and system interchange operations by eliminating the short weaving distance between the SB I-605 ramps, and reduce conflict points between vehicles, pedestrians and bicycles. Board approval of contract awards are subject to resolution of any properly submitted protest.

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 a firm fixed price. The RFP was issued as a Small Business Enterprise (SBE) set-aside and was open to Metro SBE certified small businesses only.

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

- Amendment No. 1, issued on March 7, 2017, provided the location of the Appendices located on <ftp://ftp.metro.net/procurement> and login information.
- Amendment No. 2, issued on March 8, 2017, changed the pre-proposal conference from March 10, 2017 to March 14, 2017.
- Amendment No. 3, issued on March 10, 2017, changed the proposal due date from March 31, 2017 to April 6, 2017.

- Amendment No. 4, issued on March 17, 2017, updated SP-17 Payment of Prevailing and Living wages/Reporting, SP-05 Standard Coverage, and section 1.1 General Format.
- Amendment No. 5, issued on March 22, 2017, updated Tasks 2.21, 2.24, and 2.25 under Section II in the Statement of Work.
- Amendment No. 6, issued March 24, 2017, updated Task 2.21, 2.24, and 2.25 under Section II and added Section V: Future Bid Support as an Optional Task to the Statement of Work. It also updated Article IV Compensation and Payment, to include Retention Policy.
- Amendment No. 7, issued March 31, 2017, updated tasks 1.1, 1.2, and 1.3 under Section V, in the Statement of Work.

A total of nine proposals were received on April 6, 2017. A total of 106 firms downloaded the RFP and were included in the planholders' list.

A pre-proposal conference was held on March 14, 2017, and was attended by 34 participants representing 22 companies. There were 21 questions asked and responses were released prior to the proposal due date.

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Metro Highway Program, Caltrans, and the City of Pico Rivera 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, Sub-Consultants Qualifications | 30 percent |
| • Firm/Team Qualifications | 20 percent |
| • Work Plan | 30 percent |
| • Project Understanding and Approach | 20 percent |

The evaluation criteria are appropriate and consistent with criteria developed for other similar, A&E procurements for the development of a Project Report and Plans, Specifications and Estimates. Several factors were considered when developing these weights, giving the greatest importance to the project manager, key staff, sub-consultants qualifications and work plan.

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

On April 27, 2017, the PET completed its independent evaluation of the proposals received. Of the nine proposals received, four were determined to be within the competitive range. The four firms within the competitive range are listed below in alphabetical order:

1. Advanced Civil Tech
2. Civil Works Engineers
3. NCM Engineering
4. PacRim Engineering

Five firms were determined to be outside the competitive range and were not included for further consideration.

On May 8, 2017, the PET interviewed the four firms within the competitive range. The project manager and key team members from each firm were invited to present their firm's respective qualifications and respond to the PET's questions. In general, all firms elaborated on their experience, addressed the requirements of the RFP, different project delivery solutions, and the ability to meet the 24-month schedule working with outside agencies.

In addition, the project manager and key personnel from each firm responded to the PET's inquiries regarding the firm's approach and ability to quality control, project challenges, and ability to coordinate between different public agencies and stakeholders.

Qualifications Summary of Recommended Firm:

Civil Works Engineering, Inc.

Civil Works Engineers, Inc. (CWE) is a Metro certified SBE that provides professional civil engineering consulting services that engages in a diverse array of planning, design, and project management services for public and private clients. CWE's areas of expertise and specialization in planning and design are in transportation engineering, drainage engineering, and civil site improvements.

CWE completed projects that involved planning and environmental services, preliminary and final design services, and construction management. CWE also has experience in projects involving concept reports, feasibility studies, corridor studies, and project study reports. Examples include: the SR-210 Pepper Avenue new Interchange PA/ED & PS&E, SR 60/I-605 PSR-PDS, I-710 Corridor Project PA/ED and I-710/Firestone Blvd Interchange Reconstruction PSR, PR and PS&E.

The proposal showed a strong and realistic completion schedule and demonstrated a thorough understanding of potential risks and solutions with this type of project. Additionally, the oral presentation elaborated upon CWE's stakeholder coordination strategy, which was developed to ensure productive coordination with all stakeholders (Metro, Caltrans, and City of Pico Rivera) in order to proactively resolve challenges in meeting project delivery schedule.

The oral presentation stressed the importance of identifying risks early on, meeting schedule deadlines, calling out challenges and solutions, and understanding stakeholder objectives. It was evident during the presentation they had a cohesive and synergetic team that had worked together in the past. In addition, the proposal

demonstrated CWE’s local stakeholder experience, which includes Metro, Caltrans District 7, and the regional transportation agency San Bernardino County Transportation Authority, and Los Angeles county cities.

The proposal and oral presentation demonstrated that CWE’s key personnel have direct experience across a breadth of disciplines, at all stages of design, and a range of project delivery methods. The project manager has 36 years of experience and the deputy PM has 38 years of experience. Other key personnel range from 20 to 45 years of experience.

Following is a summary of the PET evaluation scores:

1	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
2	Civil Works Engineers (CWE)				
3	Project Manager, Key Staff and Sub-Consultants Qualifications	81.88	30.00%	24.56	
4	Firm/Team Qualifications	82.85	20.00%	16.57	
5	Work Plan	84.07	30.00%	25.22	
6	Project Understanding and Approach	87.50	20.00%	17.50	
7	Total		100.00%	83.85	1
8	NCM				
9	Project Manager, Key Staff and Sub-Consultants Qualifications	78.44	30.00%	23.53	
10	Firm/Team Qualifications	78.21	20.00%	15.64	
11	Work Plan	80.31	30.00%	24.09	
12	Project Understanding and Approach	86.00	20.00%	17.20	
13	Total		100.00%	80.46	2
14	PacRim				
15	Project Manager, Key Staff and Sub-Consultants Qualifications	76.88	30.00%	23.06	
16	Firm/Team Qualifications	81.96	20.00%	16.39	
17	Work Plan	76.88	30.00%	23.06	
18	Project Understanding and Approach	81.50	20.00%	16.30	
19	Total		100.00%	78.81	3
20	Advanced Civil Tech				
21	Project Manager, Key Staff and Sub-Consultants Qualifications	77.19	30.00%	23.16	
22	Firm/Team Qualifications	76.79	20.00%	15.36	

23	Work Plan	77.50	30.00%	23.25	
24	Project Understanding and Approach	70.00	20.00%	14.00	
25	Total		100.00%	75.77	4

C. Cost Analysis

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

Proposer Name	Proposal Amount	Metro ICE	Negotiated amount
Civil Works Engineers	\$3,411,664.00	\$2,980,150.00	\$2,973,023.98

D. Background on Recommended Contractor

The recommended firm, Civil Works Engineers, Inc. (CWE), located in Costa Mesa, California has been in business over 40 years and has extensive experience in design, planning, and construction of simple to unique and challenging projects. CWE has provided impressive services to a variety of clients maintaining long-term and repeat working relationships. CWE is a certified Small, Disadvantaged and Woman owned Business Enterprise (SBE/DBE/WBE) firm.

The proposed team is composed of six sub-contractors. These include HNTB, Cambridge Systematics, Leighton Consulting, Guida Surveying, Tatsumi & Partners, and The Robert Group. The PM's expertise includes PA/ED, PS&E, construction phase administration and engineering support for lane additions, reconfiguration of freeway interchanges and intersection improvements at ramps and highway, and has successfully managed and delivered several interchange improvements. Some of those projects include, I-605 Valley Blvd Interchange, I-710 Firestone Interchange and I-710 /I-5 Northeast Quadrant Two connectors.

Key personnel average over 30 years of diverse highway and transportation project experience. Project experience includes: I-405 Sepulveda Pass Widening design-Build, I-605/I-5/SR-60 Interchange Improvement Project PA/ED, I-605 Westbound SR-91 Interchange Project PA/ED, and SR-118/First and Erringer Streets.

CWE possesses a significant amount of local stakeholder experience, demonstrating working closely with Metro, Caltrans, and local cities. With their extensive experience and knowledge, CWE possesses the ability to complete and deliver on schedule the requirements of the Statement of Work.

DEOD SUMMARY

**SOUTHBOUND INTERSTATE 605/BEVERLY BLVD. INTERCHANGE
IMPROVEMENT ENGINEERING SERVICES/AE39064000**

A. Small Business Participation

Effective June 2, 2014, per Metro's Board-approved policy, competitive acquisitions with three or more Small Business Enterprise (SBE) certified firms within the specified North American Industry Classification System (NAICS) as identified for the project scope shall constitute a Small Business Set-Aside procurement. Accordingly, the Contract Administrator advanced the solicitation, including posting the solicitation on Metro's website, advertising, and notifying certified small businesses as identified by NAICS code(s) that this solicitation was open to **SBE Certified Small Businesses Only**.

Civil Works Engineers (CWE), an SBE Prime, is performing 50.92% of the work with its own workforce, and made a total SBE commitment of 57.77%. CWE listed four SBE subcontractors, and two major firms that are non-SBE contractors, on this project.

SMALL BUSINESS PRIME (SET-ASIDE)

	SBE Contractor	% Committed
	Civil Works Engineers (Prime)	50.92%
	The Robert Group	1.05%
	Guida Surveying	2.59%
	Tatsumi and Partners	2.96%
	2R Drilling	0.25%
	Total Commitment	57.77%

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.

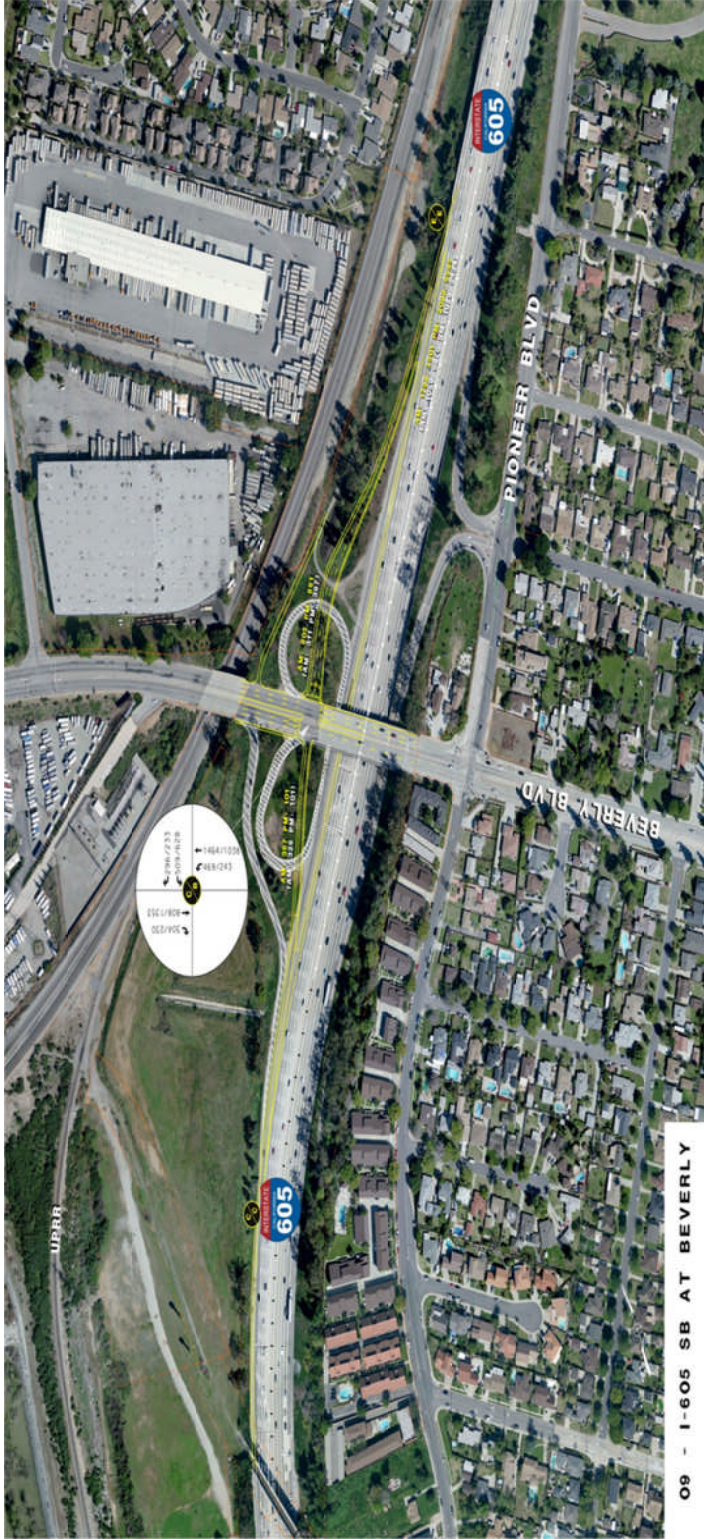
C. Living Wage Service Contract Worker Retention Policy Applicability

The Living Wage and 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.

ATTACHMENT C - LOCATION MAP



09 - I-605 SB AT BEVERLY



Board Report

File #: 2017-0416, File Type: Resolution

Agenda Number: 11

**FINANCE, BUDGET AND AUDIT COMMITTEE
JULY 19, 2017**

SUBJECT: PROPOSITION A COMMERCIAL PAPER PROGRAM

ACTION: AWARD CONTRACT FOR LETTER OF CREDIT

RECOMMENDATION

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer to award the direct-pay letter of credit ("LOC") to be provided by Citibank, N.A. ("Citi") for a commitment amount of \$150 million for a three-year term for the Proposition A Commercial Paper program at an estimated cost of \$4.313 million and enter into a reimbursement agreement and related documents associated with such LOC.
- B. If unable to reach agreement with the recommended bank described above, authorize the Chief Executive Officer to finalize negotiations with each successively ranked bank for an LOC having a three-year term and the estimated costs shown in Attachment A.
- C. ADOPTING a resolution with respect to the Proposition A Commercial Paper program that approves the selection of Citi or such other banks selected by the Chief Executive Officer for the Proposition A commercial paper program, and the form of the reimbursement agreement, fee agreement and reimbursement note in substantially similar form with those on file with the Board Secretary and that makes certain benefits findings in compliance with the Government Code, Attachment B.

(REQUIRES SEPARATE, SIMPLE MAJORITY VOTE OF THE BOARD)

ISSUE

The Proposition A Commercial Paper program ("Prop A CP") has been proven to be a flexible, cost effective method of short-term financing for our capital program. A letter of credit or similar facility is required for this program in order to guarantee repayment of notes at maturity. Currently the \$200 million of Prop A CP LOCs with Sumitomo and Union Bank are at capacity and we are seeking to increase liquidity by \$150 million to bring us up to the authorized Prop A CP program amount of \$350 million. The additional capacity is necessary because of the cash flow requirements of the Prop A capital projects.

DISCUSSION

The purpose of the Commercial Paper (“CP”) programs generally is to provide interim taxable or tax-exempt financing until grant reimbursement or other funding sources are received, or until permanent financing is arranged. The Prop A CP program authorizes us to issue and have outstanding at any one time up to \$350 million in commercial paper notes. A letter of credit is required for the Prop A CP program in order to guarantee repayment of the maturing notes.

Commercial paper is a short-term debt instrument that can be issued with maturities from 1 to 270 days. As CP notes mature, new notes are simultaneously issued, i.e., rolled over. The LOCs provide guaranteed liquidity to investors when their notes mature and are a required component of the program. Additionally, the LOCs provide a safety net to us in the form of a term loan in the unlikely event the notes cannot be remarketed, precluding any requirement that we immediately repay the entire outstanding amount from cash. The securities are backed by a subordinate pledge of 75% of Proposition A sales tax revenues, and we can issue either tax exempt or taxable CP under the Prop A CP program. The all-in borrowing cost under the Prop A CP program has been just over 1.15% over the past year. Currently, the LOC Agreements with Sumitomo and Union Bank-MUFG are scheduled to expire on March 7, 2019. Entering into this additional LOC Agreement will not only increase capacity, but allow for flexibility in not having to renew all of the Prop A CP facilities at a single point in time.

Requests for proposal were sent to 29 banks by our financial advisor, Montague DeRose and Associates, LLC (“Montague”). Under our Debt Policy, the financial advisor conducts competitive processes to select financial product providers including letters of credit. The request for proposal required banks to have short-term ratings of at least P-1, A-1 or F-1 from at least two of the three following rating agencies: Moody’s Investor Services, S&P Global Ratings and Fitch Ratings, respectively, in order to respond. Evaluation criteria included pricing, any rate penalties investors may impose on a particular bank, the status of a bank’s credit approval and willingness to execute our form of agreement. We also wanted to maintain diversity in the number of banks providing us with credit. Ten proposals were received for commitment amounts ranging from \$75 million to \$150 million for the Prop A CP program. The source selection group was composed of Treasury staff and Montague. Proposals were received from certain banks that included alternative products or terms that were considered to be less desirable, such as standby bond purchase agreements and extendable commercial paper. The selection group ranked each proposer and we are recommending Citi for the Prop A CP program for a three-year term.

Based on the lower pricing received under the RFP, assuming full utilization of the LOC facility over a three-year contract period, the estimated cost value is lower than the cost under the current letters of credit by more than \$800,000, based on \$150 million of CP. Costs will also depend on the amount of tax-exempt and taxable debt we issue under the Prop A CP program. Additional fees and interest could be incurred under certain extreme circumstances. To date, none of our CP notes have ever failed to be remarketed.

DETERMINATION OF SAFETY IMPACT

Approval of this report will not impact the safety of Metro's patrons or employees.

FINANCIAL IMPACT

Funding of \$7,443,000 for the Prop A CP program is included in the FY18 budget in Cost Center #0521, Treasury Non-Departmental, under project #610306, task 03.01, and project #611309, task 01. The cost center manager and the Chief Financial Officer will be accountable for budgeting the cost in future years.

ALTERNATIVES CONSIDERED

The Board could choose to not increase the capacity of the Prop A CP program to \$350 million. Not increasing the capacity of the Prop A CP program would reduce our ability to quickly provide low cost, interim financing when needed. This alternative is not recommended.

NEXT STEPS

- Negotiate final terms and conditions with the recommended bank.
- If satisfactory terms cannot be agreed upon with the recommended bank, negotiate with each of the next highest ranked proposers in order to obtain the best combination of terms and pricing.
- Prepare agreements and documentation to implement the LOC including, among others, notices, reimbursement agreement, fee agreement, reimbursement notes, supplemental trust agreement and the offering memorandum.
- Obtain credit ratings for the Prop A CP notes based on the credit ratings of the bank.
- Execute documents in the first quarter of FY2018.

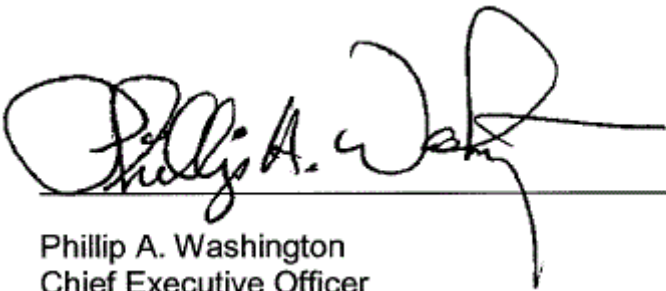
ATTACHMENTS

Attachment A - Recommendation Summary

Attachment B - Authorizing Resolution

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Reviewed by: Nalini Ahuja, Chief Financial Officer, (213) 922-3088



Phillip A. Washington
Chief Executive Officer

Recommendation Summary for Prop A Commercial Paper Program

Category/Rank	Proposer	Maximum Commitment	Estimated First Year Cost	Total Estimated Costs
Letter of Credit				
	Citi	\$150,000,000	\$1,474,252	\$4,312,757
	ICBC	\$150,000,000	\$1,510,753	\$4,432,258
	Toronto Dominion	\$150,000,000	\$1,649,753	\$4,846,258
	Barclays	\$150,000,000	\$1,673,253	\$4,929,758
	Sumitomo	\$150,000,000	\$1,723,253	\$5,129,758
	Bank of America	\$150,000,000	\$1,778,703	\$5,246,108
CP Alternatives				
	US Bank (Line of Credit)	\$150,000,000	\$1,725,525	\$5,076,575
	JP Morgan (Direct Loan)	\$150,000,000	\$2,053,025	\$6,059,075
	JP Morgan (Line of Credit)	\$150,000,000	\$2,198,025	\$6,504,075

Targeted firms are shown in bold.

Wells Fargo did not provide a \$150 million facility and therefore is not included in the above summary.

Morgan Stanley's proposal was deemed nonresponsive and is not included in the above summary.

All costs are based on \$150,000,000 facilities/CP programs for a 3 year term.

Authorizing Resolution

RESOLUTION OF THE LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY APPROVING AND AUTHORIZING THE EXECUTION OF ONE OR MORE REIMBURSEMENT AGREEMENTS AND CERTAIN OTHER DOCUMENTS RELATED TO THE PROPOSITION A COMMERCIAL PAPER PROGRAM AND AUTHORIZING OTHER RELATED MATTERS

WHEREAS, the Los Angeles County Metropolitan Transportation Authority (the "LACMTA"), as successor to the Los Angeles County Transportation Commission (the "Commission"), is authorized, under Chapter 5 of Division 12 of the California Public Utilities Code (the "Act"), to issue bonds, including but not limited to notes, to finance and refinance the acquisition, construction or rehabilitation of facilities to be used as part of a countywide transportation system; and

WHEREAS, pursuant to the provisions of Section 130350 of the California Public Utilities Code, the Commission was authorized to adopt a retail transactions and use tax ordinance applicable in the incorporated and unincorporated territory of the County of Los Angeles (the "County") subject to the approval of the voters of the County; and

WHEREAS, the Commission, by Ordinance No. 16 adopted August 20, 1980 ("Ordinance No. 16"), imposed a 1/2 of 1% retail transactions and use tax upon retail sales of tangible personal property and upon the storage, use or other consumption of tangible personal property in the County, the proceeds of the tax to be used for public transit purposes (the "Proposition A Tax"), and such tax was approved by the electors of the County on November 4, 1980; and

WHEREAS, the revenues received by the LACMTA from the imposition of the Proposition A Tax are, by statute, directed to be used for public transit purposes, which purposes include a pledge of such tax to secure any bonds issued pursuant to the Act and include the payment or provision for the payment of the principal of such bonds and any premium, interest on such bonds and the costs of issuance of such bonds; and

WHEREAS, the LACMTA, on an on-going basis, is planning and engineering a County-wide public transportation system (the "Public Transportation System") to serve the County and on an on-going basis is constructing portions of the Public Transportation System; and

WHEREAS, to facilitate the development and construction of the Public Transportation System, as authorized by the Act, the LACMTA, by resolution adopted January 23, 1991 (the "1991 Authorizing Resolution"), authorized and implemented a program of commercial paper (the "Program") involving the issuance from time to time of the Second Subordinate Sales Tax Revenue Commercial Paper Notes, Series A (the "Notes") for the purpose of providing for the financing of the acquisition of real and personal property and the construction of the Public Transportation System, provided that the aggregate principal amount of Notes and Reimbursement Obligations (as defined in such 1991 Authorizing Resolution) outstanding at any time shall not exceed \$350,000,000; and

WHEREAS, the Notes and other obligations incurred in connection with the Program are issued under and secured by the Subordinate Trust Agreement, dated as of January 1, 1991 (the “Subordinate Agreement”), by and between the LACMTA (as successor to the Commission) and U.S. Bank Trust National Association, as successor to BancAmerica Trust Company, as successor to Security Pacific National Trust Company (New York), as trustee (the “Trustee”); the First Supplemental Subordinate Trust Agreement, dated as of January 1, 1991, as amended (the “First Supplemental Trust Agreement”), by and between the LACMTA and the Trustee; the Second Supplemental Subordinate Trust Agreement, dated as of January 1, 1994 (the “Second Supplemental Trust Agreement”), by and between the LACMTA and the Trustee; the Third Supplemental Subordinate Trust Agreement, dated as of December 1, 1996 (the “Third Supplemental Trust Agreement”), by and between the LACMTA and the Trustee; the Fourth Supplemental Subordinate Trust Agreement, dated as of December 1, 1996 (the “Fourth Supplemental Trust Agreement”), by and between the LACMTA and the Trustee; the Fifth Supplemental Subordinate Trust Agreement, dated as of May 1, 2004 (the “Fifth Supplemental Trust Agreement”), by and between the LACMTA and the Trustee; the Sixth Supplemental Subordinate Trust Agreement, dated as of September 24, 2009 (the “Sixth Supplemental Trust Agreement”), by and between the LACMTA and the Trustee, and the Seventh Supplemental Subordinate Trust Agreement, dated as of September 1, 2010 (the “Seventh Supplemental Trust Agreement,” and, collectively with the Subordinate Agreement, the First Supplemental Trust Agreement, the Second Supplemental Trust Agreement, the Third Supplemental Trust Agreement, the Fourth Supplemental Trust Agreement, the Fifth Supplemental Trust Agreement and the Sixth Supplemental Trust Agreement, the “Trust Agreement”), by and between the LACMTA and the Trustee; and

WHEREAS, the LACMTA has determined that it is necessary and desirable to have the Notes secured by one or more letters of credit (the “Letter of Credit,” or the “Letters of Credit”) that are delivered pursuant to the terms of one or more reimbursement agreements (a “Reimbursement Agreement,” or the “Reimbursement Agreements”) each between the LACMTA and one or more providers of a Letter of Credit (a “Letter of Credit Provider,” or the “Letter of Credit Providers”) that sets forth the terms and conditions for the repayment by the LACMTA of Reimbursement Obligations; and

WHEREAS, a portion of the Notes are currently secured by an Amended and Restated Letter of Credit (the “Sumitomo Mitsui Letter of Credit”) provided by Sumitomo Mitsui Banking Corporation, acting through its New York Branch (“Sumitomo Mitsui”) in the stated amount of \$124,999,176 which expires on March 7, 2019; and

WHEREAS, Sumitomo Mitsui issued the Sumitomo Mitsui Letter of Credit pursuant to the Amended and Restated Letter of Credit Reimbursement Agreement, dated as of March 1, 2016, between the LACMTA and Sumitomo Mitsui; and

WHEREAS, an additional portion of the Notes are currently secured by an Amended and Restated Letter of Credit (the “Union Bank Letter of Credit”) provided by MUFG Union Bank, N.A. (formerly known as Union Bank, N.A.) (“Union Bank”) in the stated amount of \$74,999,724 which expires on March 7, 2019; and

WHEREAS, Union Bank issued the Union Bank Letter of Credit pursuant to the Amended and Restated Letter of Credit Reimbursement Agreement, dated as of March 1, 2016, between the LACMTA and Union Bank; and

WHEREAS, the LACMTA now desires to (a) secure an additional amount of Notes with one or more new Letters of Credit or other security arrangements in order that, in addition to the Notes secured by the Sumitomo Mitsui Letter of Credit and the Notes secured by the Union Bank Letter of Credit, the LACMTA may issue additional Notes, up to the amount of such Letter(s) of Credit or other facility(ies) (inclusive of accrued interest), to further facilitate the development and construction of the Public Transportation System, and (b) enter into one or more new Reimbursement Agreements with one or more new Letter of Credit Providers, pursuant to which new Reimbursement Agreement or Reimbursement Agreements one or more new Letters of Credit are to be issued by such new Letter of Credit Provider or Letter of Credit Providers, which Letter of Credit Provider(s) may be selected by the LACMTA from the pool of respondents to the LACMTA's "Request for Proposal for Letters of Credit or Alternate Credit Facilities" (the "Bank RFP") distributed to potential respondents on May 8, 2017 (each a "New Letter of Credit Provider");

WHEREAS, so long as the Program is active, the LACMTA deems it necessary and desirable to have one or more Letters of Credit securing the payment of principal of and interest on the Notes as they mature from time to time; and

WHEREAS, the Program Termination Date, as defined in the Trust Agreement, has not occurred nor has a Program Termination Notice, as defined in the Trust Agreement, been issued by the LACMTA to each of the Trustee, Issuing and Paying Agent and the Dealers (each as defined in the Trust Agreement); and

WHEREAS, Section 5922 of the Government Code of the State of California provides that in connection with, or incidental to, the issuance or carrying of bonds (which is defined to include notes) any public entity may enter into any contracts which the public entity determines to be appropriate to place the obligations represented by the bonds, in whole or in part, on the interest rate, cash flow or other basis desired by the public entity, including without limitation contracts providing for payments based on levels of, or changes in, interest rates or stock or other indices, or contracts to exchange cash flows or a series of payments, in each case to hedge payment, rate, spread or similar exposure; and

WHEREAS, pursuant to Section 5922 of the Government Code of the State of California, the LACMTA hereby finds and determines that the Reimbursement Agreements to be entered into in connection with, or incidental to, the Program, will reduce the amount and duration of interest rate risk with respect to the Notes and are designed to reduce the amount or duration of payment, rate, spread or similar risk or result in a lower cost of borrowing when used in combination with the Notes or enhance the relationship between risk and return with respect to investments; and

WHEREAS, in order to minimize debt service and maximize benefits to the LACMTA, the LACMTA will enter into one or more Reimbursement Agreements with one or more New Letter of Credit Providers which will provide one or more Letters of Credit that will separately

secure the payment of principal of and interest on certain designated Notes as issued and maturing from time to time; and

WHEREAS, pursuant to the Bank RFP and the proposal provided in response thereto by Citibank, N.A. (“Citi”), the LACMTA has selected Citi as a New Letter of Credit Provider to issue a Letter of Credit in the amount of \$149,999,448 (the “Citi Letter of Credit”) to secure the payment when due of the principal of and interest on a portion of the Notes and has negotiated the terms and conditions of a Reimbursement Agreement and a Fee Agreement with Citi relating to such Citi Letter of Credit, subject to Citi’s ultimate delivery of the Citi Letter of Credit on such terms and conditions as are acceptable to the LACMTA as determined by a Designated Officer (as defined below); and

WHEREAS, Sumitomo Mitsui, Union Bank and Citi and/or such one or more other New Letter of Credit Providers will together provide credit support for \$321,463,001 in aggregate principal amount of the Notes and \$28,535,347 in interest to accrue thereon (for a combined stated amount of \$349,998,348); and

WHEREAS, forms of the following documents are on file with the Secretary of the Board of Directors of the LACMTA and have been made available to the members of the Board of Directors of the LACMTA (the “Board”):

(a) a Letter of Credit Reimbursement Agreement (the “Citi Reimbursement Agreement”), that is substantially similar to the forms of the Sumitomo Mitsui Amended and Restated Reimbursement Agreement and the Union Bank Amended and Restated Reimbursement Agreement now on file with the Secretary of the Board and will be entered into by the LACMTA and Citi in connection with the issuance by Citi of the Citi Letter of Credit;

(b) a Fee Agreement (the “Citi Fee Agreement”), that is substantially similar to the forms of the Sumitomo Mitsui Amended and Restated Fee Agreement and the Union Bank Amended and Restated Fee Agreement now on file with the Secretary of the Board and will be entered into by the LACMTA and Citi;

(c) a Reimbursement Note (the “Citi Reimbursement Note” and collectively, with the Citi Reimbursement Agreement and the Citi Fee Agreement, the “Documents”), that is substantially similar to the forms of the Sumitomo Mitsui Amended and Restated Reimbursement Note and the Union Bank Amended and Restated Reimbursement Note now on file with the Secretary of the Board and will be executed and delivered by the LACMTA to evidence its reimbursement obligations under the Citi Reimbursement Agreement and the Citi Fee Agreement; and

WHEREAS, the LACMTA has been advised by its Bond Counsel that such Documents are in appropriate form, and the LACMTA hereby acknowledges that said Documents will be modified and amended to reflect the various details applicable to the Program and the Notes; and

WHEREAS, in the event the LACMTA decides that it is in its best interests to obtain one or more Letters of Credit to be issued by one or more New Letter of Credit Providers who are not Citi, instead of obtaining the Citi Letter of Credit, or to reduce the amount of the Citi Letter of

Credit and so obtain one or more other Letters of Credit, the LACMTA will (a) enter into one or more Reimbursement Agreements with such Other Letter of Credit Provider(s) that will be substantially similar to the forms of the Citi Reimbursement Agreement, the Sumitomo Mitsui Amended and Restated Reimbursement Agreement and the Union Bank Amended and Restated Reimbursement Agreement now on file with the Secretary of the Board, (b) will enter into one or more fee agreements with such Other Letter of Credit Provider(s) that will be substantially similar to the forms of the Citi Fee Agreement, the Sumitomo Mitsui Amended and Restated Fee Agreement and the Union Bank Amended and Restated Fee Agreement now on file with the Secretary of the Board, and (c) execute and deliver one or more reimbursement notes that will be substantially similar to the forms of the Citi Reimbursement Note, the Sumitomo Mitsui Amended and Restated Reimbursement Note and the Union Bank Amended and Restated Reimbursement Note now on file with the Secretary of the Board; and

WHEREAS, terms used in this Resolution and not otherwise defined herein shall have the meanings assigned to them in the Trust Agreement

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY, AS FOLLOWS:

Section 1. Findings. The foregoing recitals are true and correct and the LACMTA so finds and determines.

Section 2. Approval of Documents; Authorization for Execution. The LACMTA hereby approves the appointment of Citi and/or one or more such other New Letter of Credit Providers selected and appointed by a Designated Officer (as defined below), as the provider or providers of the Letters of Credit (including the Citi Letter of Credit, in a combined stated amount of \$349,998,348) with respect to the Program and the Notes. The form, terms and provisions of the Documents are in all respects approved and the Chief Executive Officer of the LACMTA, the Chief Financial Officer of the LACMTA, any Treasurer of the LACMTA, any Assistant Treasurer of the LACMTA, or any such officer serving in an acting or interim capacity, and any written designee of any of them (each a “Designated Officer”), any one or more thereof, are hereby authorized, empowered and directed to execute, acknowledge and deliver each of the Documents including counterparts thereof, in the name and on behalf of the LACMTA. The Documents, as executed and delivered, shall be in substantially the forms now on file with the Secretary of the Board and made available to the Board and hereby approved, or with such changes therein as shall be approved by the Designated Officer executing the same; the execution thereof shall constitute conclusive evidence of the Board’s approval of any and all changes or revisions therein from the forms of the Documents now on file with the Secretary of the Board and made available to the Board; and from and after the execution and delivery of the Documents, the officers, agents and employees of the LACMTA are hereby authorized, empowered and directed to do all such acts and things and to execute all such documents as may be necessary to carry out and comply with the provisions of the Documents.

If a Designated Officer determines that it is in the LACMTA’s best interests to obtain one or more Letters of Credit to be issued by one or more New Letter of Credit Provider(s) who are not Citi, instead of obtaining the Citi Letter of Credit, or to reduce the amount of the Citi Letter

of Credit and so obtain one or more other Letters of Credit, the Designated Officers are hereby authorized to (a) enter into one or more Reimbursement Agreements with one or more other New Letter of Credit Provider(s) that is substantially similar to the form of the Citi Reimbursement Agreement approved above and the forms of the Sumitomo Mitsui Amended and Restated Reimbursement Agreement and the Union Bank Amended and Restated Reimbursement Agreement (each an “Alternate Reimbursement Agreement”), all of which are now on file with the Secretary of the Board and made available to the Board, (b) enter into one or more fee agreements with one or more other New Letter of Credit Provider(s) that is substantially similar to the form of the Citi Fee Agreement approved above and the forms of the Sumitomo Mitsui Amended and Restated Fee Agreement and the Union Bank Amended and Restated Fee Agreement (each an “Alternate Fee Agreement”), all of which are now on file with the Secretary of the Board and made available to the Board, and (c) execute and deliver one or more reimbursement notes that is substantially similar to the form of the Citi Reimbursement Note approved above and the forms of the Sumitomo Mitsui Amended and Restated Reimbursement Note and the Union Bank Amended and Restated Reimbursement Note (each an “Alternate Reimbursement Note,” and collectively with the Alternate Reimbursement Agreement and the Alternate Fee Agreement, the “Alternate Documents”) now on file with the Secretary of the Board and made available to the Board. The Alternate Documents, as executed and delivered, shall be substantially similar to the forms of the Documents now on file with the Secretary of the Board and made available to the Board and hereby approved, or with such changes therein as shall be approved by the Designated Officer executing the same; the execution thereof shall constitute conclusive evidence of the Board’s approval of any and all changes or revisions therein from the forms of the Documents now on file with the Secretary of the Board and made available to the Board; and from and after the execution and delivery of the Alternate Documents, the officers, agents and employees of the LACMTA are hereby authorized, empowered and directed to do all such acts and things and to execute all such documents as may be necessary to carry out and comply with the provisions of the Alternate Documents.

The LACMTA hereby determines that entering into the Citi Reimbursement Agreement with Citi and/or one or more Reimbursement Agreements with one or more such other New Letter of Credit Providers pursuant to Section 5922 of the Government Code of the State of California would be designed to reduce the LACMTA’s cost of borrowing for the Notes. In addition to the provisions set forth in the previous paragraph, no Designated Officer shall enter into the Citi Reimbursement Agreement with Citi and/or one or more Reimbursement Agreements with one or more such other New Letter of Credit Providers unless (a) each such Reimbursement Agreement is designed (i) to reduce or hedge the amount or duration of any payment, interest rate, spread or similar risk, or (ii) to result in a lower cost of borrowing when used in combination with the issuance of the Notes, (b) the term of each such Reimbursement Agreement does not exceed the Program Termination Date; (c) the amount of the Letters of Credit issued pursuant to the terms of the Citi Reimbursement Agreement and/or such other new Reimbursement Agreements, if any, does not, when combined with the amounts of the Sumitomo Mitsui Amended and Restated Letter of Credit and the Union Bank Amended and Restated Letter of Credit, exceed the principal amount of the Notes issuable under the Program; and (d) the amounts payable by the LACMTA with respect to such Reimbursement Agreements shall be payable solely and exclusively from Net Pledged Revenues. In accordance with Section 5922 of the Government Code of the State of California, the LACMTA hereby finds and determines that the Reimbursement Agreements entered into in accordance with this Resolution

and consistent with the requirements set forth herein are designed to reduce the amount or duration of payment, interest rate, spread or similar risk or result in a lower cost of borrowing when used in combination with the Notes.

Section 3. Additional Authorization. The Designated Officers and all officers, agents and employees of the LACMTA, for and on behalf of the LACMTA, be and they hereby are authorized and directed to do any and all things necessary to effect the execution and delivery of the Documents and/or the Alternate Documents and to carry out the terms thereof. The Designated Officers and all other officers, agents and employees of the LACMTA are further authorized and directed, for and on behalf of the LACMTA, to execute all papers, documents, certificates and other instruments and take all other actions that may be required in order to carry out the authority conferred by this Resolution or the provisions of the Documents and/or the Alternate Documents or to evidence said authority and its exercise. In connection with the execution and delivery of the Documents and the issuance of the Citi Letter of Credit and/or the execution and delivery of the Alternate Documents and the issuance of one or more new Letters of Credit by one or more other New Letter of Credit Providers, the LACMTA is hereby authorized and directed to prepare and cause to be distributed, from time to time, one or more commercial paper offering memoranda with respect to the Notes. All actions heretofore taken by the officers, agents and employees of the LACMTA in furtherance of this Resolution are hereby confirmed, ratified and approved.

Section 4. Severability. The provisions of this Resolution are hereby declared to be severable, and, if any section, phrase or provision shall for any reason be declared to be invalid, such declaration shall not affect the validity of the remainder of the sections, phrases and provisions hereof.

Section 5. Effective Date. This Resolution shall be effective upon adoption by the Board.

CERTIFICATION

The undersigned, duly qualified and acting as Board Secretary of the Los Angeles County Metropolitan Transportation Authority, certifies that the foregoing is a true and correct copy of the Resolution adopted at a legally convened meeting of the Board of Directors of the Los Angeles County Metropolitan Transportation Authority held on _____, 2017.

[SEAL]

By _____
Board Secretary, Los Angeles County
Metropolitan Transportation Authority

Dated: _____, 2017

FEE AGREEMENT
DATED AS OF [_____, 2017]

Reference is hereby made to (i) the Letter of Credit Reimbursement Agreement dated as of [_____] , 2017 (as amended, supplemented, restated or otherwise modified from time to time the “*Agreement*”), between the Los Angeles County Metropolitan Transportation Authority (the “*Authority*”) and Citibank, N.A. (the “*Bank*”), relating to the Los Angeles County Metropolitan Transportation Authority Second Subordinate Sales Tax Revenue Commercial Paper Notes, Series A-T-Citi and the Los Angeles County Metropolitan Transportation Authority Second Subordinate Sales Tax Revenue Commercial Paper Notes, Series A-TE-Citi (collectively, the “*Notes*”) and (ii) the Irrevocable Letter of Credit No. [_____] dated [_____] , 2017, issued by the Bank pursuant to the Agreement and supporting the Notes. Capitalized terms not otherwise defined herein shall have the meanings set forth in the Agreement.

The purpose of this Fee Agreement is to confirm the agreement between the Bank and the Authority with respect to certain fees payable by the Authority to the Bank pursuant to the Agreement. This Fee Agreement is the Fee Agreement referenced in the Agreement, and the terms hereof are incorporated by reference into the Agreement. This Fee Agreement and the Agreement are to be construed as one agreement between the Authority and the Bank, and all obligations hereunder are to be construed as obligations thereunder. All references to amounts due and payable under the Agreement will be deemed to include all amounts, fees and expenses payable under this Fee Agreement.

ARTICLE I. FEES.

Section 1.1. Letter of Credit Fee. The Authority hereby agrees to pay or cause to be paid to the Bank in arrears on October 2, 2017 (for the period from and including the Closing Date to and including September 30, 2017) and on the first Business Day of each January, April, July and October thereafter (each such date referred to herein as a “*Quarterly Payment Date*”) occurring prior to the Termination Date and on the Termination Date, a non-refundable fee (the “*Letter of Credit Fee*”) in an amount, for each day during the related fee period, equal to the product of the Gross Available Amount for each such day in the related fee period and the applicable rate per annum (the “*Letter of Credit Fee Rate*”) specified below for each day during each related fee period. The Letter of Credit Fee shall be payable in immediately available funds and computed on the basis of a year of 360 days and the actual number of days elapsed.

LEVEL	FITCH RATING*	S&P RATING	MOODY’S RATING	LETTER OF CREDIT FEE RATE
Level 1	AA+ or above	AA+ or above	Aa1 or above	0.18%
Level 2	AA	AA	Aa2	0.30%
Level 3	AA-	AA-	Aa3	0.40%

* To the extent Fitch provides a Rating at the request of the Authority

LEVEL	FITCH RATING*	S&P RATING	MOODY'S RATING	LETTER OF CREDIT FEE RATE
Level 4	A+	A+	A1	0.55%
Level 5	A	A	A2	0.70%
Level 6	A- or lower	A- or lower	A3 or lower	0.85%

The term “*Rating*” as used above shall mean the long-term unenhanced debt ratings assigned by each of Fitch (to the extent Fitch provides a Rating at the request of the Authority), S&P and Moody’s to any Senior Lien Bonds (without giving effect to any bond insurance policy or other credit enhancement securing such Senior Lien Bonds). In the event of a split Rating (*i.e.*, one of the foregoing Rating Agency’s Rating is at a different level than the Rating of either of the other Rating Agencies), the Letter of Credit Fees shall be based upon the level in which the lowest rating appears. Any change in the Letter of Credit Fee Rate resulting from a change in a Rating shall be and become effective as of and on the date of the announcement of the change in such Rating. References to ratings above are references to rating categories as presently determined by the Rating Agencies and, in the event of adoption of any new or changed rating system by any such Rating Agency, including, without limitation, any recalibration or realignment of the long-term unenhanced debt rating of any unenhanced Senior Lien Bonds in connection with the adoption of a “global” rating scale, each of the Ratings from the Rating Agency in question referred to above shall be deemed to refer to the rating category under the new rating system which most closely approximates the applicable rating category as currently in effect. The Authority acknowledges, and the Bank agrees, that as of the Effective Date, the Letter of Credit Fee Rate is that specified above for Level 1. Upon the occurrence and during the continuance of an Event of Default or in the event that any Rating is suspended, withdrawn, is otherwise unavailable (but excluding any suspension of any such Ratings if the Rating Agency in question stipulates in writing to the Authority and the Bank that the rating action is being taken by such Rating Agency for non-credit related reasons) or is reduced below “A3” (or its equivalent) by Moody’s, “A-” (or its equivalent) by Fitch or “A-” (or its equivalent) by S&P, the Letter of Credit Fee Rate shall automatically increase by 3.00% per annum above the Letter of Credit Fee Rate otherwise in effect. The Letter of Credit Fees shall be payable quarterly in arrears, together with interest on the Letter of Credit Fees from the date payment is due until payment in full at the Default Rate. The Letter of Credit Fee shall be payable in immediately available funds and computed on the basis of a year of 360 days and the actual number of days elapsed.

Section 1.2. Drawing Fee. The Authority agrees to pay to the Bank, quarterly in arrears on each Quarterly Payment Date occurring prior to the Termination Date and on the Termination Date, a drawing fee of \$350 for each Drawing under the Letter of Credit during the quarter ending on each Quarterly Payment Date; *provided, however*, that no such drawing fee shall be due and payable by the Authority to the Bank until the Bank has invoiced the Authority for such drawing fee; *provided, further, however*, that the failure by the Bank to invoice the Authority for such drawing fee shall not relieve the Authority of its obligation to make payment of such

drawing fee and such drawing fee shall be due and payable on the next Quarterly Payment Date after the Bank invoices the Authority for any such drawing fee.

Section 1.3. Transfer Fee. Upon each transfer of the Letter of Credit in accordance with its terms, the Authority agrees to pay to the Bank a transfer fee in an amount equal to \$3,500, plus, in each case, the reasonable fees and expenses of counsel to the Bank, payable on the date of such transfer.

Section 1.4. Amendment Fee. The Authority shall pay to the Bank an amendment fee in a minimum amount equal to \$3,500 or such other amount reasonably determined by the Bank and agreed to by the Authority for any amendment, supplement or modification to the Letter of Credit, the Agreement or any Related Document not requested by the Bank and with respect to any waiver or consent to be provided by the Bank in connection with amendment, supplement or modification to the Letter of Credit, the Agreement or the Related Document, plus the Bank's reasonable costs and expenses (including, without limitation, reasonable attorneys' fees and expenses) which the Bank may incur by reason of or in connection with such amendment, supplement, modification, waiver or consent, payable not later than the effective date of each such amendment.

Section 1.5. Termination Fee. Notwithstanding anything set forth herein or in the Agreement to the contrary, the Authority agrees not to terminate or replace the Letter of Credit prior to the first (1st) anniversary of the Effective Date (the "*Initial Period*"), without the payment by the Authority to the Bank of a termination fee in an amount equal to (i) the product of (A) the Letter of Credit Fee Rate in effect on the date of termination or replacement, (B) the Gross Available Amount as of the date of termination, and (C) a fraction, the numerator of which is equal to the number of days from and including the date of such termination to and including the first (1st) anniversary of the Closing Date, and the denominator of which is 360; *provided further, however*, that no termination fee shall become payable under this Section 1.5 if the Authority terminates or replaces the Letter of Credit pursuant to the terms hereof and the terms of the Agreement as the result of (i) the Bank's senior unsecured short-term ratings having been reduced by any two Rating Agencies below "*A-1*" (or its equivalent) by S&P, "*F1*" (or its equivalent) by Fitch or "*VMIG-1*" (or its equivalent) by Moody's or (ii) the Notes being refinanced with a long-term financing of the Authority.

Section 1.6. Reduction Fees. Notwithstanding the foregoing and anything set forth herein or in the Agreement to the contrary, the Authority agrees not to permanently reduce the Stated Amount of the Letter of Credit during the Initial Period, without the payment by the Authority to the Bank of a reduction fee in connection with each and every permanent reduction of the Stated Amount in an amount equal to the product of (A) the Letter of Credit Fee Rate in effect on the date of such permanent reduction, (B) the difference between the Stated Amount prior to such permanent reduction and the Stated Amount after such permanent reduction, and (C) a fraction, the numerator of which is equal to the number of days from and including the date of such permanent reduction to and including the first (1st) anniversary of the Effective Date, and the denominator of which is 360; *provided, however*, that no reduction fee shall become payable under this Section 1.6 if the Authority permanently reduces the Stated Amount of the Letter of Credit pursuant to the terms hereof and of the Agreement as the result of (i) the Bank's senior

unsecured short-term ratings having been reduced by any two Rating Agencies below “A-1” (or its equivalent) by S&P, “F1” (or its equivalent) by Fitch or “VMIG-1” (or its equivalent) by Moody’s or (ii) a portion of the Notes being refinanced with the proceeds of a long-term financing of the Authority.

ARTICLE II. MISCELLANEOUS.

Section 2.1. Out-of-Pocket Expenses; Administration. (a) The Authority shall pay to the Bank promptly upon receipt of a properly detailed invoice any and all reasonable fees and expenses of the Bank (including the out-of-pocket expenses of the Bank, and the reasonable fees of counsel to the Bank, plus disbursements of counsel to the Bank), all payable in accordance with this Fee Agreement. The reasonable fees of counsel to the Bank shall be paid directly to Chapman and Cutler LLP in accordance with the instructions provided by Chapman and Cutler LLP.

(b) The Authority further agrees to pay promptly upon receipt of a properly detailed invoice all of the Bank’s out-of-pocket expenses (including, without limitation, reasonable fees and disbursements of counsel for the Bank) arising in connection with the administration and enforcement of, preservation of rights in connection with a workout, restructuring or default under, or amendment or waiver with respect to the Agreement, the Letter of Credit and the other Related Documents.

Section 2.2. Amendments. No amendment to this Fee Agreement shall become effective without the prior written consent of the Authority and the Bank.

Section 2.3. Governing Law. THIS FEE AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF CALIFORNIA.

Section 2.4. Counterparts. This Fee Agreement may be executed in two or more counterparts, each of which shall constitute an original but both or all of which, when taken together, shall constitute but one instrument. This Fee Agreement may be delivered by the exchange of signed signature pages by facsimile transmission or by attaching a pdf copy to an email, and any printed or copied version of any signature page so delivered shall have the same force and effect as an originally signed version of such signature page.

Section 2.5. Severability. Any provision of this Fee Agreement which is prohibited, unenforceable or not authorized in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition, unenforceability or non-authorization without invalidating the remaining provisions hereof or affecting the validity, enforceability or legality of such provision in any other jurisdiction.

IN WITNESS WHEREOF, the parties hereto have caused this Fee Agreement to be duly executed and delivered by their respective officers as of date first set forth above.

LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY

By: _____
Name: _____
Title: _____

CITIBANK, N.A.

By: _____
Name: _____
Title: _____

LETTER OF CREDIT REIMBURSEMENT AGREEMENT

BETWEEN

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

AND

CITIBANK, N.A.

Relating to up to

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-TE-Citi
(Proposition A)

and

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-T-Citi
(Proposition A)

DATE AS OF [_____, 2017]

NEITHER THE FAITH AND THE CREDIT NOR THE TAXING POWER OF THE COUNTY OF LOS ANGELES, THE STATE OF CALIFORNIA OR ANY PUBLIC AGENCY, OTHER THAN THE LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY TO THE EXTENT OF THE NET PLEDGED REVENUES AS DEFINED HEREIN, IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF AND INTEREST ON THIS OBLIGATION.

THE PRINCIPAL OF AND INTEREST ON THIS OBLIGATION ARE JUNIOR AND SUBORDINATE IN ALL RESPECTS TO THE SENIOR LIEN BONDS AS TO LIEN ON AND SOURCE AND SECURITY FOR PAYMENT FROM THE NET PLEDGED REVENUES.

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LETTER OF CREDIT REIMBURSEMENT AGREEMENT

THIS LETTER OF CREDIT REIMBURSEMENT AGREEMENT (as amended, supplemented or otherwise modified from time to time, this “*Reimbursement Agreement*” or this “*Agreement*”) is executed and entered into as [_____], 2017, by and between LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (the “*Authority*”) and CITIBANK, N.A. (the “*Bank*”). All capitalized terms used herein and not otherwise defined in connection with such use shall have the meanings set forth in Article I.

WHEREAS, the Authority has authorized and issued, and intends to issue from time to time, Notes (as hereinafter defined) in an aggregate principal amount which, together with accrued interest thereon to the stated maturity dates thereof, does not exceed \$150,000,000 at any one time outstanding;

WHEREAS, the Notes are issued pursuant to the Subordinate Trust Agreement, dated as of January 1, 1991 (the “*Subordinate Trust Agreement*”), a First Supplemental Subordinate Trust Agreement, dated as of January 1, 1991 (the “*First Supplemental Subordinate Trust Agreement*”), a Second Supplemental Subordinate Trust Agreement, dated as of January 1, 1994 (the “*Second Supplemental Subordinate Trust Agreement*”), a Third Supplemental Subordinate Trust Agreement, dated as of December 1, 1996 (the “*Third Supplemental Subordinate Trust Agreement*”), a Fourth Supplemental Subordinate Trust Agreement, dated as of December 1, 1996 (the “*Fourth Supplemental Subordinate Trust Agreement*”), a Fifth Supplemental Subordinate Trust Agreement, dated as of May 1, 2004 (the “*Fifth Supplemental Subordinate Trust Agreement*”), a Sixth Supplemental Subordinate Trust Agreement, dated as of September 24, 2009 (the “*Sixth Supplemental Subordinate Trust Agreement*”), and a Seventh Supplemental Subordinate Trust Agreement, dated as of September 30, 2010 (the “*Seventh Supplemental Subordinate Trust Agreement*” and collectively with the Subordinate Trust Agreement, the First Supplemental Subordinate Trust Agreement, the Second Supplemental Subordinate Trust Agreement, the Third Supplemental Subordinate Trust Agreement, the Fourth Supplemental Subordinate Trust Agreement, the Fifth Supplement Trust Agreement, and Sixth Supplemental Subordinate Trust Agreement, collectively referred to herein as the “*Trust Agreement*”), each by and between the Authority and the Trustee, and pursuant to which, the Authority is required to furnish a letter of credit in connection with the Notes to be issued from time to time by the Authority under the Program;

WHEREAS, the Authority has requested that the Bank issue the Letter of Credit to the Paying Agent, as beneficiary, in order to assure the payment at maturity of the principal of and interest on Notes issued in accordance with their terms;

WHEREAS, the Authority has requested the Bank provide the Letter of Credit in an original stated amount of \$[149,999,999] for the payment by the Paying Agent at maturity of the principal of and interest on the Notes;

WHEREAS, the Bank is prepared to issue the Letter of Credit upon the terms and conditions set forth in this Reimbursement Agreement; and

WHEREAS, the Reimbursement Obligations, including the Reimbursement Note, of the Authority hereunder and the other obligations of the Authority hereunder and under the Fee Agreement are secured by a pledge of and lien on the Pledged Revenues which pledge and lien is junior and subordinate in all respects to, but only to, the pledge of and lien thereon securing the Senior Lien Bonds.

NOW, THEREFORE, in consideration of the agreements set forth herein and in order to induce the Bank to issue the Letter of Credit, the Bank and the Authority agree as follows:

ARTICLE I

DEFINITIONS

Section 1.01. Definitions. In addition to terms defined at other places in this Reimbursement Agreement, the following defined terms are used throughout this Reimbursement Agreement with the following meanings:

“*Act*” shall mean the Los Angeles County Transportation Authority Commission Revenue Bond Act, Section 130500 et seq. of the California Public Utilities Code, as amended from time to time.

“*Affiliate*” means any other Person controlling or controlled by or under common control with the Authority. For purposes of this definition, “control,” when used with respect to any specified Person, means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise.

“*Agreement*” has the meaning set forth in the introductory paragraph hereof.

“*Amortization Commencement Date*” means the date that is two hundred seventy (270) days immediately succeeding the date the related Drawing was made.

“*Amortization End Date*” means the earliest to occur of (A) the date on which the Letter of Credit is replaced by an alternate Letter of Credit pursuant to the terms of the Trust Agreement, (B) the date on which the Bank accelerates all obligations due and owing hereunder pursuant to the terms of Section 7.02 hereof, (C) the date on which the Letter of Credit terminates in accordance with its terms (except as a result of the occurrence of the date set forth in paragraph (a) of the definition of “*Stated Expiration Date*” set forth in the Letter of Credit), (D) the three-year anniversary of the date of the related Drawing and (E) the Program Termination Date.

“*Annual Historical Proposition A Debt Service Payments*” has the meaning set forth in Section 5.01(b)(iii) hereof.

“*Annual Historical Proposition A Sales Tax Receipts*” has the meaning set forth in Section 5.01(b)(iii) hereof.

“*Anti-Terrorism Laws*” has the meaning set forth in Section 4.24 hereof.

“*Authority*” has the meaning set forth in the introductory paragraph hereof.

“*Authority Financial Statements*” means the financial statements of the Authority as described in 4.06 and 5.01(b) hereof.

“*Authorized Representative*” means any of the Chief Executive Officer of the Authority, the Deputy Chief Executive Officer of the Authority, the Executive Director of the Authority, Chief Financial Officer of the Authority, the Treasurer of the Authority, the General Counsel of the Authority, the Board Secretary of the Authority, the Board of Directors of the Authority, as a whole, or any other authorized representative or authorized spokesperson conveying an official position of the Board or the Authority.

“*Bank*” has the meaning set forth in the introductory paragraph hereof.

“*Bank Agreement*” means any credit agreement, bond purchase agreement, liquidity agreement, direct purchase agreement, standby bond purchase agreement, reimbursement agreement or other agreement or instrument (or any amendment, supplement or modification thereto) entered into by the Authority with any Person, directly or indirectly, or otherwise consented to by the Authority, under which any Person or Persons undertakes to make loans, extend credit or liquidity to the Authority in connection with, or to directly purchase, any Senior Lien Bonds, Parity and Senior Debt or any Subordinate Obligations.

“*Bank Rate*” means the Base Rate; provided, however, that immediately and automatically upon the occurrence of an Event of Default (and without any notice given with respect thereto) and during the continuance of such Event of Default, “*Bank Rate*” shall mean the Default Rate.

“*Bankruptcy Code*” means the federal Bankruptcy Code of 1978, as it may be amended from time to time (Title 11 of the United States Code), and any successor statute thereto.

“*Base Rate*” means, for any day, a variable rate of interest per annum equal to the Fed Funds Rate as in effect on such day plus four and one-half percent (4.50%).

“*Board of Equalization*” means the California State Board of Equalization that collects the Proposition A Sales Tax.

“*Business Day*” means any day other than (a) a Saturday or Sunday or other day on which commercial banks in Los Angeles, California or New York, New York are authorized or required by law or executive order to close or (b) a day on which the New York Stock Exchange is authorized or obligated by law or executive order to be closed, or (c) a day on which commercial banks are authorized or required by law or executive order to be closed in the city in which demands for payment are to be presented under the Letter of Credit.

“*Calculation Ratio*” has the meaning set forth in Section 5.01(b)(iii) hereof.

“*Change in Law*” means the occurrence, after the Closing Date, of any of the following: (a) the adoption or taking effect of any Law, including, without limitation, any Risk-Based Capital Guidelines, (b) any change in any Law or in the administration, interpretation,

implementation or application thereof by any Governmental Authority or (c) the making or issuance of any request, rule, ruling, guideline, regulation or directive (whether or not having the force of law) by any Governmental Authority; *provided* that notwithstanding anything herein to the contrary, (i) the Dodd Frank Wall Street Reform and Consumer Protection Act and all requests, rules, ruling, guidelines, regulations or directives thereunder or issued in connection therewith and (ii) all requests, rules, rulings, guidelines, regulations or directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, shall in each case be deemed to be a “Change in Law,” regardless of the date enacted, adopted or issued.

“*Closing Date*” means [_____], 2017, subject to the satisfaction or waiver by the Bank of all of the conditions precedent to the issuance of the Letter of Credit set forth in Article III hereof.

“*Counsel*” means an attorney duly admitted to practice law before the highest court of any state.

“*Currency Hedge Agreement*” has the meaning set forth in the definition of “Projected Maximum Total Annual Debt Service” set forth in this Section 1.01.

“*Dealer*” means the institution appointed from time to time by the Authority to act as a Dealer for the Notes pursuant to the Dealer Agreement and the terms hereof and, as of the Closing Date, means each of Goldman, Sachs & Co., Barclays Capital Inc. and RBC Capital Markets, LLC.

“*Dealer Agreement*” means each Dealer Agreement between the Authority and a Dealer relating to the Notes, as amended and supplemented from time to time in accordance with the terms hereof and thereof.

“*Debt*” means, with respect to any Person, all items that would be classified as a liability of such person in accordance with generally accepted accounting principles including, without limitation, (a) indebtedness or liability for borrowed money, or for the deferred purchase price of property or services (including trade obligations); (b) obligations as lessee under leases which should have been, or should be, recorded as capital leases in accordance with generally accepted accounting principles; (c) current liabilities in respect of unfunded vested benefits under employee benefit plans; (d) obligations issued for the account of any other Person; (e) all obligations arising under acceptance facilities; (f) all guarantees, endorsements (other than for collection or deposit in the ordinary course of business) and other contingent obligations to purchase, to provide funds for payment, to supply funds to invest in any other Person or otherwise to assure a creditor against loss; (g) obligations secured by any mortgage, lien, pledge, security interest or other charge or encumbrance on property, whether or not the obligations have been assumed; and (h) obligations of such Person under Interest Rate Protection Agreements.

“*Default*” means the occurrence of any Event of Default or any event, which with the giving of notice or the passage of time or both would constitute an Event of Default.

“*Default Rate*” means the interest rate per annum equal to the sum of the Base Rate from time to time in effect plus three percent (3.00%).

“*Dollars*” and “\$” means the lawful currency of the United States of America.

“*Drawing*” means a drawing under the Letter of Credit to pay the principal of and interest on Notes on their respective maturity dates.

“*Drawing Date*” means the date the Bank honors a Drawing under the Letter of Credit.

“*DTC*” means The Depository Trust Company, New York, New York.

“*EMMA*” means Electronic Municipal Market Access as provided by the Municipal Securities Rulemaking Board.

“*Environmental Laws*” means any and all federal, state, local, and foreign statutes, laws, regulations, ordinances, or rules, and all judgments, orders, decrees, permits, concessions, grants, franchises, licenses, permits, agreements or governmental restrictions relating to air, water or land pollution, wetlands, or the protection of the environment or the release of any materials into the environment, including air, water or land and those related to Hazardous Materials, air emissions and discharges to waste or public systems.

“*Environmental Liability*” means any liability, contingent or otherwise (including any liability for damages, costs of environmental remediation, fines, penalties or indemnities), of the Authority directly or indirectly resulting from or based upon (a) violation of any Environmental Law, (b) the generation, use, handling, transportation, storage, treatment or disposal of any Hazardous Materials, (c) exposure to any Hazardous Materials, (d) the release or threatened release of any Hazardous Materials into the environment or (e) any contract, agreement or other consensual arrangement pursuant to which liability is assumed or imposed with respect to any of the foregoing.

“*ERISA*” means the Employee Retirement Income Security Act of 1974, as amended, or any successor statute thereto.

“*Event of Default*” means the occurrence of any of the events defined as such in Section 7.01 hereof.

“*Excess Interest*” has the meaning set forth in Section 2.03(g) hereof.

“*Excess Interest Fee Amount*” has the meaning set forth in Section 2.03(g) hereof.

“*Executive Order*” has the meaning set forth in Section 4.24 hereof.

“*Fed Funds Rate*” means for any day, a fluctuating interest rate per annum equal to the weighted average of the rates on overnight Federal funds transactions with members of the Federal Reserve System arranged by Federal funds brokers, as published for such day (or, if such day is not a Business Day, for the next preceding Business Day) by the Federal Reserve Bank of New York, or, if such rate is not published for any day which is a Business Day, the average of the quotations for such day on such transactions received by the Bank from three Federal funds brokers of recognized standing selected by it, provided that if the Fed Funds Rate shall be less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

“*Fee Agreement*” means the Fee Agreement dated the Closing Date by and between the Bank and the Authority, as amended, supplemented, modified or restated from time to time in accordance with the terms hereof and thereof.

“*Fifth Supplemental Subordinate Trust Agreement*” has the meaning set forth in the second recital hereof.

“*Final Drawing Notice*” means a Final Drawing Notice in the form of Schedule III to the Letter of Credit.

“*First Supplemental Subordinate Trust Agreement*” has the meaning set forth in the second recital hereof.

“*Fiscal Year*” means the fiscal year of the Authority ending on June 30 of each calendar year.

“*Fitch*” means Fitch Inc., or if such corporation is dissolved or liquidated or otherwise ceases to perform securities rating services, such other nationally recognized securities rating agency as may be designated in writing by the Authority and reasonably acceptable to the Bank.

“*Fourth Supplemental Subordinate Trust Agreement*” has the meaning set forth in the second recital hereof.

“*GAAP*” means generally accepted accounting principles in the United States set forth in the opinions and pronouncements of the Accounting Principles Board and the American Institute of Certified Public Accountants and the statements and pronouncements of the Government Accounting Standards Board or such other principles as may be approved by a significant segment of the accounting profession in the United States, that are applicable to the circumstances as of the date of determination, consistently applied.

“*Governmental Authority*” means any national, state or local government (whether domestic or foreign), any political subdivision thereof or any other governmental, quasi-governmental, judicial, public or statutory instrumentality, authority, body, agency, bureau, central bank or comparable authority and shall include the Authority.

“*Gross Available Amount*” means, as of any date, the Stated Amount of the Letter of Credit without regard to reductions subject to reinstatement in effect on such date.

“*Guarantee*” by any Person means any obligation, contingent or otherwise, of such Person directly or indirectly guaranteeing any Debt of any other Person and, without limiting the generality of the foregoing, any obligation, direct or indirect, contingent or otherwise, of such Person (a) to purchase or pay (or advance or supply funds for the purchase or payment of) such Debt (whether arising by virtue of partnership arrangements, by agreement to keep well, to purchase assets, goods, securities or services, to take or pay, or to maintain financial statement conditions or otherwise), (b) entered into for the purpose of assuring in any other manner the obligee of such Debt of the payment thereof or to protect such obligee against loss in respect thereof (in whole or in part) or (c) with respect to any letter of credit issued for the account of such Person or as to which such Person is otherwise liable for reimbursement of drawings,

provided that the term Guarantee shall not include (i) endorsements for collection or deposit in the ordinary course of business, or (ii) performance or completion guarantees. The term “Guarantee” used as a verb has a corresponding meaning.

“*Hazardous Materials*” means (a) any petroleum or petroleum products, flammable substance, explosives, radioactive materials, hazardous waste or contaminants, toxic wastes, substances or contaminants, or any other wastes, contaminants, or pollutants; (b) asbestos in any form that is or could become friable, urea formaldehyde foam insulation, transformers, or other equipment that contains dielectric fluid containing levels of polychlorinated biphenyls or radon gas; (c) any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous materials,” “extremely hazardous wastes,” “restricted hazardous wastes,” “toxic substances,” “toxic pollutants,” “contaminants” or “pollutants,” or words of similar import, under any applicable Environmental Law; (d) any other chemical, material or substance, exposure to which is prohibited, limited, or regulated by any governmental authority; and (e) any other chemical, material or substance which may or could pose a hazard to the environment.

“*Historical Ratio*” has the meaning set forth in Section 5.01(b)(iii) hereof.

“*Incipient Invalidity Event*” means (i) the validity or enforceability of any provision of the Act or Ordinance No. 16 that impacts (A) the Authority’s ability or obligation to levy the Proposition A Sales Tax in the incorporated and unincorporated territory of the County of Los Angeles in accordance with the provisions of the Act and Ordinance No. 16 which affects the Authority’s ability or obligation to make payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawings, any Liquidity Advances, the other Reimbursement Obligations and all other payment obligations due and owing the Bank under this Reimbursement Agreement or the pledge of and lien on Net Pledged Revenues securing the payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawings, any Liquidity Advances, the other Reimbursement Obligations and all other payment obligations due and owing the Bank under this Reimbursement Agreement, or (B) the Board of Equalization’s ability or obligation to collect the Proposition A Sales Tax or to pay the Pledged Tax to the Trustee, in each case, which affects the Authority’s ability or obligation to make payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawing, any Liquidity Advances, the other Reimbursement Obligations or any other payment obligation due and owing the Bank under this Reimbursement Agreement or the pledge of and lien on Net Pledged Revenues securing the payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawing, any Liquidity Advances, the other Reimbursement Obligations and all other payment obligations due and owing the Bank under this Reimbursement Agreement is publicly contested or publicly repudiated by an Authorized Representative of the Authority, or (ii) the validity or enforceability of any such provision described in clause (i)(A) or (i)(B) above is deemed to be invalid or unenforceable as a result of an Authorized Representative of the Authority or the State or any instrumentality of the State or any other Governmental Authority with appropriate jurisdiction taking or being permitted to take any official action, or introducing or duly enacting any statute or legislation or issuing an executive order, or (iii) any such provision described in clause (i)(A) or (i)(B) is determined by a court of competent jurisdiction or any instrumentality of the State or any other Governmental Authority with appropriate jurisdiction in a proceeding subject to further appeals to be invalid or

unenforceable, or (iv) the validity or enforceability of any Payment and Collateral Obligation is publicly contested or publicly repudiated by an Authorized Representative of the Authority, or (v) the validity or enforceability of any Payment and Collateral Obligation is deemed to be invalid or unenforceable as a result of an Authorized Representative of the Authority or the State or any instrumentality of the State or any Governmental Authority with appropriate jurisdiction taking or being permitted to take any official action or introducing or duly enacting any statute or legislation or issuing an executive order, or (vi) any Payment and Collateral Obligation is declared invalid or unenforceable in a proceeding subject to further appeals by the State or any instrumentality of the State or any other Governmental Authority with appropriate jurisdiction, or (vii) any provision of the Act or Ordinance No. 16 is supplemented, modified or amended in a manner that makes invalid or unenforceable (A) the Authority's ability or obligation to levy the Proposition A Sales Tax in the incorporated and unincorporated territory of the County of Los Angeles in accordance with the provisions of the Act and Ordinance No. 16 which affects the Authority's ability or obligation to make payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawings, any Liquidity Advances, the other Reimbursement Obligations and all other payment obligations due and owing the Bank under this Reimbursement Agreement or the pledge of and lien on Net Pledged Revenues securing the payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawings, any Liquidity Advances, the other Reimbursement Obligations and all other payment obligations due and owing the Bank under this Reimbursement Agreement, or (B) the Board of Equalization's ability or obligation to collect the Proposition A Sales Tax or the Board of Equalization's ability or obligation to make payment of the Pledged Tax to the Trustee, in each case, which affects the Authority's ability or obligation to make payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawings, any Liquidity Advances, the other Reimbursement Obligations and all other payment obligations due and owing the Bank under this Reimbursement Agreement or the pledge of and lien on Net Pledged Revenues securing the payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawings, any Liquidity Advances, the other Reimbursement Obligations and all other payment obligations due and owing the Bank under this Reimbursement Agreement, or (viii) any provision of this Reimbursement Agreement, the Notes, the Reimbursement Note or the Trust Agreement relating to the Authority's ability or obligation to make payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawings, any Liquidity Advances, the other Reimbursement Obligations and all other payment obligations due and owing the Bank under this Reimbursement Agreement or the pledge of and lien on the Net Pledged Revenues to secure the payment of principal of and interest on the Notes, the Reimbursement Note, any Unreimbursed Drawings, any Liquidity Advances, the other Reimbursement Obligations and all other payment obligations due and owing the Bank under this Reimbursement Agreement is publicly contested or publicly repudiated by an Authorized Representative of the Authority, or (ix) the State or any instrumentality of the State or any other Governmental Authority with appropriate jurisdiction shall, by official action, makes a finding or ruling or through the enactment of any statute or legislation or the issuance of an executive order determines that any provision of this Reimbursement Agreement, the Notes, the Reimbursement Note or the Trust Agreement relating to the Authority's ability or obligation to make payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawings, any Liquidity Advances, the other Reimbursement Obligations and all other payment obligations due and owing the Bank under

this Reimbursement Agreement or the pledge of and the lien on Net Pledged Revenues to secure the payment of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawings, any Liquidity Advances, the other Reimbursement Obligations and all other payment obligations due and owing the Bank under this Reimbursement Agreement is not valid and binding on the Authority.

“*Interest Payment Date*” means, with respect to each Unreimbursed Drawing or Liquidity Advance, each of the following: (i) the first Business Day of each calendar month and (ii)(A) at maturity or upon the earlier acceleration thereof or (B) after maturity or acceleration, upon demand.

“*Interest Portion*” means that portion of each Drawing used to pay interest accrued on Notes on their respective maturity dates.

“*Interest Rate Protection Agreement*” means (a) any and all rate swap transactions, basis swaps, credit derivative transactions, forward rate transactions, commodity swaps, commodity options, forward commodity contracts, equity or equity index swaps or options, bond or bond price or bond index swaps or options or forward bond or forward bond price or forward bond index transactions, interest rate options, forward foreign exchange transactions, cap transactions, floor transactions, collar transactions, currency swap transactions, cross-currency rate swap transactions, currency options, spot contracts, or any other similar transactions or any combination of any of the foregoing (including any options to enter into any of the foregoing), whether or not any such transaction is governed by or subject to any master agreement, and (b) any and all transactions of any kind, and the related confirmations, which are subject to the terms and conditions of, or governed by, any form of master agreement published by the International Swaps and Derivatives Association, Inc. or any International Foreign Exchange Master Agreement, including any such obligations or liabilities thereunder.

“*Invalidity Event*” means (i) the Act or Ordinance No. 16 is repealed, (ii) a Federal court or any other court with appropriate jurisdiction or the State or any instrumentality of the State or any other Governmental Authority with appropriate jurisdiction determines in a final nonappealable order or judgment, as the case may be, that a provision or provisions of the Act or Ordinance No. 16 have been supplemented, modified and/or amended in a manner that makes invalid or unenforceable (A) the Authority’s obligation to levy the Proposition A Sales Tax in the incorporated and unincorporated territory of the County of Los Angeles in accordance with the provisions of the Act and Ordinance No. 16 which affects the Authority’s ability or obligation to make payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawings, any Liquidity Advances, all other Reimbursement Obligations and any other payment obligations due and owing the Bank hereunder or the pledge of and lien on Net Pledged Revenues securing the payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawing, any Liquidity Advances, the other Reimbursement Obligations or any other payment obligation due and owing the Bank hereunder or (B) the Board of Equalization’s obligation to collect the Proposition A Sales Tax or the Board of Equalization’s ability or obligation to make payment of the Pledged Tax directly to the Trustee, in each case, which affects the Authority’s ability or obligation to make payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawing, any Liquidity Advances, the other Reimbursement Obligations or any other payment obligation due

and owing the Bank hereunder or the pledge of and lien on Net Pledged Revenues securing the payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawing, any Liquidity Advances, the other Reimbursement Obligations or any other payment obligation due and owing the Bank hereunder, (iii) the Act or Ordinance No. 16 is ruled to be null and void by a Federal court or any court with appropriate jurisdiction or the State or any instrumentality of the State or any other Governmental Authority with appropriate jurisdiction, (iv) any provision of this Reimbursement Agreement, any Note, the Reimbursement Note or the Trust Agreement relating to the Authority's ability or obligation to make payments of the principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawing, any Liquidity Advances, the other Reimbursement Obligations or any other payment obligation due and owing the Bank hereunder or the pledge of and lien on the Net Pledged Revenues to secure the payment of principal of and interest on the Notes, the Reimbursement Note, any Unreimbursed Drawing, any Liquidity Advances, the other Reimbursement Obligations or any other payment obligation due and owing the Bank hereunder (each such provision, a "Payment and Collateral Obligation") is ruled to be null and void by a Federal court or any other court with appropriate jurisdiction or the State or any instrumentality of the State or any other Governmental Authority with appropriate jurisdiction in a final nonappealable order or judgment by such court or the State or any instrumentality of the State, as applicable, or (v) an Authorized Representative of the Authority publicly denies, contests or repudiates that the Authority has any or further liability or obligation with respect to payments of principal of or interest on the Notes, the Reimbursement Note, any Unreimbursed Drawing, any Liquidity Advances, the other Reimbursement Obligations or any other payment obligation due and owing the Bank hereunder under the Act or Ordinance No. 16 or any Payment and Collateral Obligation.

"Issuing and Paying Agency Agreement" means the Issuing and Paying Agent Agreement dated January 1, 1991, between the Authority and the Paying Agent and any other similar agreement between the Authority and any successor Paying Agent under the Trust Agreement, as amended, supplemented, modified or restated from time to time in accordance with the terms hereof and thereof.

"Law" means any treaty or any federal, regional, state and local law, statute, rule, ordinance, regulation, code, license, authorization, decision, injunction, interpretation, order or decree of any court or other Governmental Authority.

"Letter of Credit" means Irrevocable Letter of Credit No. [_____] issued by the Bank pursuant to this Reimbursement Agreement and dated the Closing Date, as amended, supplemented, modified or restated from time to time pursuant to its terms.

"Lien" means, with respect to any asset, (a) any lien, charge, claim, mortgage, security interest, pledge, security deed, deed of trust, assignment or other encumbrance of any kind in respect of such asset or (b) the interest of a vendor or lessor under any conditional sale agreement, capital lease or other title retention agreement relating to such asset.

"Liquidity Advance" has the meaning set forth in Section 2.03(b)(i) hereof.

"Local Allocation" means 25% of the Proposition A Sales Tax, calculated on an annual basis, which 25% is, under Ordinance No. 16, allocated to local jurisdictions.

“*Material Adverse Effect*” means any event that causes a material adverse change in or a material adverse effect on (A) the validity or enforceability of this Reimbursement Agreement, the Notes or any of the other Related Documents, (B) the validity, enforceability or perfection of the pledge of and lien on the Net Pledged Revenues under the Trust Agreement and hereunder, (C) the status of the Authority as a public entity created and validly existing under the laws of the State of California, (D) the exemption of interest on the Tax-Exempt Notes from federal income tax or (E) the collection of the Pledged Tax that could reasonably be expected to have a material adverse effect on the ability of the Authority to pay debt service on the Senior Lien Bonds, the Subordinate Obligations, the other Reimbursement Obligations and all other Obligations due and owing to the Bank hereunder.

“*Maximum Rate*” means the maximum non-usurious interest rate payable by the Authority under applicable law.

“*Moody’s*” means Moody’s Investors Service, Inc. and its successors and assigns.

“*Net Pledged Revenues*” has the meaning set forth in Article I of the Subordinate Trust Agreement.

“*No Issuance Notice*” means a No Issuance Notice in the form of Schedule I to the Letter of Credit.

“*Notes*” means the Los Angeles County Metropolitan Transportation Authority Second Subordinate Sales Tax Revenue Commercial Paper Notes, Series A-TE-Citi and the Los Angeles County Metropolitan Transportation Authority Second Subordinate Sales Tax Revenue Commercial Paper Notes, Series A-T-Citi.

“*Obligations*” means all Reimbursement Obligations, all fees payable or reimbursable hereunder and under the Fee Agreement to the Bank (including, without limitation, any obligation to reimburse the Bank pursuant to this Reimbursement Agreement) and all other obligations of the Authority to the Bank arising under or in relation to this Reimbursement Agreement or the other Related Documents.

“*OFAC*” has the meaning set forth in Section 4.24 hereof.

“*Offering Memorandum*” means any Commercial Paper Offering Memorandum of the Authority relating to the Notes that will be distributed on or prior to the date of the issuance of any Notes.

“*Ordinance No. 16*” means “An Ordinance Establishing a Retail Transactions and Use Tax in the County of Los Angeles for Public Transit Purposes” adopted by the Authority on August 20, 1980.

“*Original Stated Amount*” has the meaning set forth in Section 2.01 hereof.

“*Other Taxes*” has the meaning set forth in Section 2.07(b)(i) hereof.

“*Parity and Senior Debt*” means (i) any bonds, notes, certificates, debentures or other evidence of similar indebtedness issued by or on behalf of the Authority pursuant to the Trust Agreement or the Senior Trust Agreement and secured by a lien on Pledged Revenues or Net Pledged Revenues ranking senior to or on a parity with the Notes, the Reimbursement Note and the other Obligations, as applicable, (ii) the obligations which are scheduled payments of the Authority under any Interest Rate Protection Agreement (which are secured pursuant to the Trust Agreement or the Senior Trust Agreement and secured by a lien on Pledged Revenues or Net Pledged Revenues ranking senior to or on a parity with the Notes, the Reimbursement Note and the other Obligations, as applicable), which such Interest Rate Protection Agreement provides interest rate support with respect to any indebtedness issued by or on behalf of the Authority pursuant to the Trust Agreement or the Senior Trust Agreement and secured by a lien on Pledged Revenues or Net Pledged Revenues ranking senior to or on a parity with the Notes, the Reimbursement Note and the other Obligations, as applicable, (iii) any obligation of the Authority as lessee under a capital lease secured by a lien on Pledged Revenues or Net Pledged Revenues ranking senior to or on a parity with the Notes, the Reimbursement Note and the other Obligations, as applicable (x) which is not subject to appropriation or abatement or (y) which is rated by each Rating Agency then rating the Notes at a level equal to or higher than the long-term unenhanced debt rating assigned by each such Rating Agency to the Senior Lien Bonds and (iv) any Guarantee by the Authority secured by a lien on Pledged Revenues or Net Pledged Revenues ranking senior to or on a parity with the Notes, the Reimbursement Note and the other Obligations, as applicable (provided, however, that the failure to pay any such Guarantee as a result of any set-off, recoupment or counterclaim or any other defense to payment under such Guarantee by the Authority shall not constitute a failure to pay Parity and Senior Debt for purposes of this Reimbursement Agreement).

“*Participant(s)*” has the meaning set forth in Section 10.07 hereof.

“*Patriot Act*” means the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, Title III of Pub. L. 107 56 (signed into law October 26, 2001), as amended.

“*Payment and Collateral Obligation*” has the meaning set forth in the definition of the term “Invalidity Event” herein.

“*Paying Agent*” means the institution appointed from time to time by the Authority and, satisfactory to the Bank, to act as Issuing and Paying Agent under the Issuing and Paying Agency Agreement and the Trust Agreement, which on the Closing Date is U.S. Bank National Association.

“*Person*” means any natural person, corporation, partnership, association, trust, joint venture, public body or other legal entity.

“*Plan*” means an employee benefit plan maintained for employees of the Authority that is covered by ERISA.

“*Pledged Revenues*” has the meaning set forth in Article I of the Subordinate Trust Agreement.

“*Pledged Tax*” has the meaning set forth in Article I of the Subordinate Trust Agreement.

“*Principal Portion*” means that portion of each Drawing used to pay the principal of Notes at maturity.

“*Program*” means the “*Commercial Paper Program*” as defined in the Subordinate Trust Agreement.

“*Program Termination Date*” has the meaning set forth in the First Supplemental Subordinate Trust Agreement (as amended by the Seventh Supplemental Subordinate Trust Agreement).

“*Projected Maximum Total Annual Debt Service*” means, at any point in time, maximum Total Annual Debt Service for the then current or any future fiscal year (subject to clause (i) below in this definition), calculated by the Authority as provided in this definition. For purposes of calculating Projected Maximum Total Annual Debt Service the following assumptions shall be used to calculate the principal and interest becoming due in any fiscal year (subject to clause (i) below in this definition):

(a) in determining the principal amount due in each year, payment shall (unless a different subsection of this definition applies for purposes of determining principal maturities or amortization) be assumed to be made in accordance with any amortization schedule established for such Proposition A Indebtedness, including any scheduled redemption or prepayment of Proposition A Indebtedness on the basis of accreted value, and for such purpose, the redemption payment shall be deemed a principal payment;

(b) if any of the Proposition A Indebtedness issued or proposed to be issued constitutes Balloon Indebtedness (as hereinafter defined in this definition), then, for purposes of determining Projected Maximum Total Annual Debt Service, such amounts that constitute Balloon Indebtedness shall be treated as if the principal amount of such Proposition A Indebtedness were to be amortized in substantially equal annual installments of principal and interest over a term of 25 years and the interest rate used for such computation shall be the Bond Buyer Revenue Bond Index, for the last week of the month preceding the date of calculation, as published in *The Bond Buyer*, or if such index is no longer published, in a similar index selected by the Bank with notice to the Authority;

(c) if any Proposition A Indebtedness issued or proposed to be issued constitutes Tender Indebtedness (as hereinafter defined in this definition), then for purposes of determining the amounts of principal and interest due in any fiscal year on such Proposition A Indebtedness, the options or obligations of the owners of such Proposition A Indebtedness to tender the same for purchase or payment prior to their stated maturity or maturities shall be treated as a principal maturity (but any such amount treated as a maturity shall not be eligible for treatment as Balloon Indebtedness) occurring on the first date on which owners of such Proposition A Indebtedness may or are required to tender such Proposition A Indebtedness, except that any such option or

obligation of Tender Indebtedness shall be ignored and not treated as a principal maturity if such Proposition A Indebtedness is rated in one of the two highest long term rating categories (without reference to gradations such as “plus” or “minus”) by Moody’s or by Standard & Poor’s or such Proposition A Indebtedness is rated in the highest short term note or commercial paper rating categories by Moody’s or by Standard & Poor’s, in which case such Proposition A Indebtedness will be treated as Variable Rate Indebtedness;

(d) if any Proposition A Indebtedness issued or proposed to be issued constitutes tax-exempt Variable Rate Indebtedness, the interest rate on such Proposition A Indebtedness shall be assumed to be 150% of the greater of (i) the daily average rate of interest during the 36 month period ending with the month preceding the date of calculation quoted for 30 day interest periods for tax-exempt debt in the *Short-Term Tax-Exempt Yields* index for Prime Commercial Paper A-1/P-1 (30 days) as published in *The Bond Buyer*, or if such rate has been published for a shorter period only, such shorter period, or if such index is no longer published, a similar index selected by the Bank, with notice to the Authority, or (ii) the rate of interest on such Proposition A Indebtedness on the date of calculation; provided, that in the event that such Variable Rate Indebtedness is issued in connection with an interest rate swap agreement in which the Authority has agreed to pay a fixed interest rate and such interest rate swap agreement has been reviewed and approved by any two of the three entities identified in the definition of Rating Agency herein and the Bank, for purposes of this definition, the interest rate for purposes of computing Projected Maximum Total Annual Debt Service shall be such fixed rate for the period that such interest rate swap agreement is contracted to remain in full force and effect and thereafter shall be assumed to be such maximum interest rate described above;

(e) if any Proposition A Indebtedness issued or proposed to be issued constitutes taxable Variable Rate Indebtedness, the interest rate on such Proposition A Indebtedness shall be assumed to be 150% of the greater of (i) the daily average rate of interest during the 36 month period ending with the month preceding the date of calculation quoted for 30 day interest periods for taxable Proposition A Indebtedness with the type of interest rate setting mechanism used for such Proposition A Indebtedness or (ii) the rate of interest on such Proposition A Indebtedness on the date of calculation; and, provided further, that in the event that such Variable Rate Indebtedness is issued in connection with an interest rate swap agreement in which the Authority has agreed to pay a fixed interest rate and such interest rate swap agreement has been reviewed and approved by any two of the three entities identified in the definition of Rating Agency herein and the Bank, for purposes of this definition, the interest rate for purposes of computing Projected Maximum Total Annual Debt Service shall be such fixed rate for the period that such interest rate swap agreement is contracted to remain in full force and effect and thereafter shall be assumed to be such maximum interest rate described above;

(f) if moneys or Government Obligations (as hereinafter defined in this definition) have been irrevocably deposited with and are held by the Trustee or another fiduciary to be used to pay principal of and/or interest on specified Proposition A Indebtedness as it comes due, and the sufficiency of such deposits has been verified to the

Bank by the Trustee or other fiduciary, such principal or interest, as the case may be, shall not be included in calculating Projected Maximum Total Annual Debt Service;

(g) if any Proposition A Indebtedness issued or proposed to be issued is to be payable in a currency other than lawful currency of the United States, the amount of principal of and interest on such Proposition A Indebtedness shall be assumed to be (i) the amount of Dollars payable under a foreign exchange contract, currency swap agreement, foreign exchange futures contract, foreign exchange option contract, synthetic cap or other similar agreement (a “*Currency Hedge Agreement*”) to receive payments in that currency in amounts sufficient to pay the Proposition A Indebtedness and (ii) for any payments of principal of and interest on such Proposition A Indebtedness with respect to which the Authority has not entered into a Currency Hedge Agreement, 125% of the amount of Dollars required to purchase the amount of currency required to make such payments at the average exchange rate as quoted in *The Wall Street Journal* for a six month period ending not more than one month prior to the date of calculation;

(h) for purposes of this definition:

“*Balloon Indebtedness*” means Proposition A Indebtedness 25% or more of the principal of which matures on the same date and such amount is not required by the documents governing such Proposition A Indebtedness to be amortized by payment or redemption prior to such date. Commercial paper shall be treated as Balloon Indebtedness for the purposes of this definition. If any Indebtedness consists partially of Proposition A Indebtedness bearing interest at a fixed rate and partially of Variable Rate Indebtedness, the portion constituting Variable Rate Indebtedness and the portion bearing interest at a fixed rate shall be treated as separate issues for purposes of determining whether any such Proposition A Indebtedness constitutes Balloon Indebtedness.

“*Government Obligations*” means (i) direct obligations of, or obligations the full and timely payment of the principal of and interest on which are unconditionally guaranteed by, the United States of America, (ii) U.S. Treasury STRIPS, and (iii) the interest component of Resolution Funding Corporation STRIPS for which separation of principal and interest is made by request to the Federal Reserve Bank of New York in book entry form; it is specifically hereby provided that the obligations described in this definition and which constitute Government Obligations shall not include shares in mutual funds or in unit investment trusts which invest in obligations described in clause (i), (ii), or (iii) of this definition.

“*Tender Indebtedness*” means any Proposition A Indebtedness or portions of Proposition A Indebtedness a feature of which is an option which is exercisable but for the passage of time or the giving of notice or both, on the part of the owners thereof, or an obligation, under the terms of such Proposition A Indebtedness, to tender all or a portion of such Proposition A Indebtedness prior to the stated maturity date of such Proposition A Indebtedness to the Authority or a fiduciary or agent for payment or purchase and requiring that such Proposition

A Indebtedness or portions of Proposition A Indebtedness be purchased if properly presented; and

(i) in determining Total Annual Debt Service and Projected Maximum Total Debt Service, the debt service payment owed by the Authority with respect to Proposition A Indebtedness on July 1 of each year shall be included in the fiscal year of the Authority ending on the June 30 next preceding such July 1.

“*Property*” means any interest in any kind of property or asset, whether real, personal or mixed, tangible or intangible, and whether now owned or hereafter acquired.

“*Proposition A Indebtedness*” means any Debt or Guarantee which is secured by a Lien on Proposition A Sales Tax revenues, whether senior to or on parity with any Subordinate Obligations, including, without limitation and without duplication, all commissions, discounts and other fees and charges owed with respect to letters of credit or other similar obligations secured by a Lien on Proposition A Sales Tax revenues that is senior to or on a parity with any Subordinate Obligations.

“*Proposition A Sales Tax*” means the retail transactions and use tax imposed by Ordinance No. 16 and approved by the electors of the County at an election held November 4, 1980.

“*Quarterly Principal Payment*” has the meaning set forth in Section 2.03(b)(ii) hereof.

“*Rating Agency*” means Standard & Poor’s, Moody’s or Fitch or any successor or additional rating agency that rates the Notes at the written request of the Authority with the written consent of the Bank.

“*Reduction Fee*” has the meaning set forth in the Fee Agreement.

“*Reimbursement Agreement*” has the meaning set forth in the introductory paragraph hereof.

“*Reimbursement Agreements*” means, collectively, any reimbursement agreement pursuant to which a letter of credit has been issued to support commercial paper notes issued by or on behalf of the Authority and secured by Net Pledged Revenues.

“*Reimbursement Note*” means the Reimbursement Note made by the Authority in favor of the Bank that shall be in the maximum principal amount equal to the Original Stated Amount of the Letter of Credit and shall be in the form attached hereto as Exhibit A.

“*Reimbursement Obligations*” means the obligations of the Authority under this Reimbursement Agreement to reimburse the Bank for Drawings pursuant to and in accordance with this Reimbursement Agreement and to pay the Reimbursement Note and repay Unreimbursed Drawings and outstanding Liquidity Advances, together with interest thereon, pursuant to and in accordance with this Reimbursement Agreement.

“*Related Documents*” means, collectively, this Reimbursement Agreement, the Fee Agreement, the Dealer Agreement, the Letter of Credit, the Reimbursement Note, the Notes, the Senior Trust Agreement, the Trust Agreement, the Issuing and Paying Agency Agreement and any exhibits, instruments or agreements relating thereto.

“*Revenue Fund*” has the meaning set forth in the Senior Lien Trust Agreement.

“*Risk-Based Capital Guidelines*” means (i) the risk-based capital guidelines in effect in the United States, including transition rules, and (ii) the corresponding capital regulations promulgated by regulatory authorities outside the United States including transition rules, and any amendments to such regulations.

“*Second Supplemental Subordinate Trust Agreement*” has the meaning set forth in the second recital hereof.

“*Second Tier Obligations*” has the same meaning as the term “*Second Tier Subordinate Lien Obligations*” set forth in that certain Twelfth Supplemental Trust Agreement.

“*Senior Lien Bonds*” shall have the meaning given to such term in Article I of the Subordinate Trust Agreement.

“*Senior Trust Agreement*” means the Trust Agreement dated as of July 1, 1986 by and between the Authority and the Senior Trustee as supplemented, amended or otherwise modified from time to time in accordance with the terms hereof and thereof.

“*Senior Trustee*” means The Bank of New York Mellon Trust Company, N.A., formerly known as The Bank of New York Trust Company, N.A., as successor to BNY Western Trust Company, as successor in interest to Wells Fargo Bank, N.A., as successor by merger to First Interstate Bank of California, or its permitted successor trustee under the Senior Trust Agreement.

“*Seventh Supplemental Subordinate Trust Agreement*” has the meaning set forth in the second recital hereof.

“*SIFMA Rate*” means, on any date, a rate determined on the basis of the seven day high grade market index of tax-exempt variable rate demand obligations, as produced by Municipal Market Data and published or made available by SIFMA or any Person acting in cooperation with or under the sponsorship of SIFMA and acceptable to the Bank and effective from such date. In the event Municipal Market Data no longer produces an index satisfying the requirements of the preceding sentence, the SIFMA Rate (a/k/a, the “*SIFMA Municipal Swap Index*”) shall be deemed to be the S&P Weekly High Grade Index, or if either such index is not available, such other similar national index as reasonably designated by the Bank.

“*Sixth Supplemental Subordinate Trust Agreement*” has the meaning set forth in the second recital hereof.

“*Standard & Poor’s*” means S&P Global Ratings, a Standard & Poor’s Financial Services LLC business, and its successors and assigns.

“*State*” means the State of California.

“*Stated Amount*” shall have the meaning given to such term in paragraph 2 of the Letter of Credit. Stated Amount is defined as the “*Aggregate Letter of Credit Commitment*” in the First Supplemental Subordinate Trust Agreement.

“*Stated Expiration Date*” means the date specified in paragraph 1(a) of the Letter of Credit on which the Letter of Credit is scheduled to expire, as such date may be extended from time to time as provided in Section 9.02 hereof and in paragraph 1(a) of the Letter of Credit.

“*Subordinate Obligations*” means the obligations of the Authority issued or secured pursuant to the Trust Agreement and which are referred to in the Trust Agreement as “*Subordinate Obligations*.”

“*Subordinate Trust Agreement*” has the meaning set forth in the second recital hereof.

“*Tax-Exempt Notes*” means the Los Angeles County Metropolitan Transportation Authority Second Subordinate Sales Tax Revenue Commercial Paper Notes, Series A-TE-Citi.

“*Termination Fee*” has the meaning set forth in the Fee Agreement.

“*Term Out Period*” has the meaning set forth in Section 2.03(b)(ii) hereof.

“*Third Supplemental Subordinate Trust Agreement*” has the meaning set forth in the second recital hereof.

“*Total Annual Debt Service*” means, for any fiscal year (subject to clause (i) in the definition of Projected Maximum Total Annual Debt Service), total principal becoming due in such period and total interest expenses (including that portion attributable to capital leases) of the Authority in respect of all outstanding Proposition A Indebtedness.

“*Trust Agreement*” has the meaning set forth in the second recital to this Reimbursement Agreement.

“*Trustee*” means U.S. Bank National Association or its permitted successor as successor trustee under the Trust Agreement.

“*Twelfth Supplemental Trust Agreement*” means that certain Twelfth Supplemental Trust Agreement dated as of September 1, 1993, by and between the Authority and the Senior Trustee, which supplements the Senior Trust Agreement.

“*Unreimbursed Drawing*” has the meaning set forth in Section 2.03(a)(i) hereof.

“*Variable Rate Indebtedness*” means any portion of indebtedness the interest rate on which is not established at the time of incurrence of such indebtedness and has not at some subsequent date been established at a single numerical rate for the entire term of the indebtedness.

Section 1.02. Accounting Matters. All accounting terms used herein without definition shall be interpreted in accordance with GAAP and, except as otherwise expressly provided herein all accounting determinations required to be made pursuant to this Reimbursement Agreement shall be made in accordance with GAAP.

Section 1.03. Interpretation. All words used herein shall be construed to be of such gender or number as the circumstances require. Any reference herein to an Article or Section shall constitute a reference to the corresponding Article or Section of this Reimbursement Agreement unless otherwise specified. Reference to any document means such document as amended or supplemented from time to time as permitted under Section 6.01(b) hereof. All references to time herein shall, unless otherwise specified constitute a reference to the prevailing time in New York, New York.

Section 1.04. Relation to Other Documents. Nothing in this Reimbursement Agreement shall be deemed to amend, or relieve the Authority of any of its obligations under, any Related Document. To the extent any provision of this Reimbursement Agreement conflicts with any provision of any other Related Document to which the Authority or the Bank is a party, the provisions of this Reimbursement Agreement shall control.

Section 1.05. Computation of Time Periods. In this Reimbursement Agreement, in the computation of a period of time from a specified date to a later specified date, unless otherwise specified herein, the word “from” means “from and including” and the words “to” and “until” each mean “to and including.”

ARTICLE II

REIMBURSEMENT, REIMBURSEMENT NOTE, FEES AND PAYMENT PROVISIONS

Section 2.01. Extension of Expiration Date of Original Letter of Credit; Execution and Delivery of Letter of Credit; Letter of Credit Drawings.

(a) Upon the terms, subject to the conditions and relying upon the representations and warranties set forth in this Reimbursement Agreement or incorporated herein by reference, the Bank agrees to issue the Letter of Credit substantially in the form of Appendix I hereto on the Closing Date. The Letter of Credit shall be in the original stated amount of \$[149,999,999] (the “*Original Stated Amount*”), which is the sum of (i) the total aggregated principal amount of the Notes secured by the Letter of Credit (\$[137,770,507]) plus (ii) interest accrued thereon at an assumed rate of twelve percent (12%) per annum for a period of 270 days on the basis of a 365 day year (\$[12,229,492]). In addition to the conditions set forth in Article III hereof, on the Closing Date, the following conditions shall be satisfied as determined by the Bank and its counsel:

(A) All representations and warranties of the Authority contained in Article IV hereof shall be true and correct.

(B) No Default or Event of Default shall have occurred and be continuing and no Default or Event of Default shall occur as a result of the issuance of the Letter of Credit.

(b) The Paying Agent is authorized to make drawings under the Letter of Credit in accordance with its terms. The Authority hereby directs the Bank to make payments under the Letter of Credit in the manner therein provided. The Authority hereby irrevocably approves reductions and reinstatements of the Stated Amount as provided therein.

Section 2.02. Reduction and Termination of the Letter of Credit. Notwithstanding any provisions of this Agreement or the Letter of Credit to the contrary, the Authority agrees not to terminate or replace the Letter of Credit or permanently reduce the Stated Amount of the Letter of Credit (provided that any such permanent reduction shall be in an amount equal to \$5,000,000 or any integral multiple of \$1,000,000 in excess thereof; provided further, however, that with respect to a reduction of the Stated Amount solely for purposes of defeasance of a portion of the Notes in connection with federal tax law post-issuance compliance procedures as directed or approved by counsel to the Authority, such reduction may be in an amount less than \$1,000,000), except upon (i) the payment by the Authority to the Bank of a Termination Fee or Reduction Fee, if and as applicable under the terms of the Fee Agreement, (ii) in the event the Letter of Credit is terminated or replaced, the payment to the Bank of all Obligations payable hereunder and under the Fee Agreement and (iii) the Authority providing the Bank with thirty (30) days prior written notice of its intent to terminate or replace the Letter of Credit or permanently reduce the Stated Amount of the Letter of Credit; provided that all payments to the Bank referred to in clause (i) and (ii) above shall be made in immediately available funds; provided, further, that any such termination or reduction of the Letter of Credit shall be in compliance with the terms and conditions of the Trust Agreement. The Authority agrees that any termination of the Letter of Credit as a result of the provision of any substitute letter of credit will require, as a condition thereto, that the Authority or the provider of such substitute letter of credit will provide funds on the date of such termination, which funds will be sufficient to pay in full at the time of termination of the Letter of Credit all Obligations due and owing to the Bank hereunder and under the Fee Agreement.

Section 2.03. Reimbursement of Drawings and Interest Rates.

(a) (i) On the date on which the Bank honors a Drawing under the Letter of Credit, such Drawing under the Letter of Credit shall constitute an unreimbursed drawing (an “*Unreimbursed Drawing*”). The Paying Agent shall use the proceeds of any such Unreimbursed Drawing for the purpose of paying the principal of and/or interest on maturing Notes on behalf and for the account of the Authority.

(ii) The Authority agrees to reimburse the Bank for (x) the Principal Portion of each Unreimbursed Drawing under the Letter of Credit on the earliest to occur of (A) delivery to the Paying Agent or the Trustee of any letter of credit (as provided in Section 6.01 of the First Supplemental Subordinate Trust Agreement) in substitution for and upon cancellation of the Letter of Credit, (B) the date on which the Letter of Credit terminates in accordance with its terms (other than as the result of the occurrence of the date set

forth in paragraph (a) of the definition of “*Stated Expiration Date*” set forth in the Letter of Credit), (C) the date on which the Bank accelerates all obligations due and owing hereunder pursuant to the terms of Section 7.02 hereof, (D) the Amortization Commencement Date, if the conditions precedent set forth in Section 3.02 hereof are not satisfied on the applicable Amortization Commencement Date, (E) the Program Termination Date and (F) the Amortization End Date, if the conditions precedent set forth in Section 3.02 hereof were satisfied on the applicable Amortization Commencement Date and (y) the Interest Portion of each Unreimbursed Drawing under the Letter of Credit on the date such Unreimbursed Drawing is made.

(b) (i)(A) If the conditions precedent contained in Section 3.02 hereof are satisfied on the related Amortization Commencement Date, the Principal Portion of the related Unreimbursed Drawing under the Agreement shall convert to a liquidity advance (each, a “*Liquidity Advance*”) to the Authority, and (B) if the conditions precedent contained in Section 3.02 hereof are not satisfied on the related Amortization Commencement Date, the Principal Portion of the related Unreimbursed Drawing shall be due and payable on such Amortization Commencement Date.

(ii) The Authority agrees to reimburse the Bank for each Liquidity Advance under this Reimbursement Agreement on the earliest to occur of (A) delivery to the Paying Agent or the Trustee of any letter of credit (as provided in Section 6.01 of the First Supplemental Subordinate Trust Agreement) in substitution for and upon cancellation of the Letter of Credit, (B) the date on which the Bank accelerates all obligations due and owing hereunder pursuant to the terms of Section 7.02 hereof, (C) the date on which the Letter of Credit terminates in accordance with its terms (other than as a result of the occurrence of the date set forth in paragraph (a) of the definition of “*Stated Expiration Date*” set forth in the Letter of Credit), and (D) the applicable Amortization End Date, subject to the conditions set forth below. The Bank shall provide term out funding for all Liquidity Advances in accordance with the terms of this Section 2.03(b)(ii) if the conditions precedent set forth in Section 3.02 hereof are satisfied on the related Amortization Commencement Date. In the event that the conditions precedent set forth in Section 3.02 hereof are satisfied on any Amortization Commencement Date, the related Liquidity Advance shall amortize and be payable over a two year and three month period from the related Amortization Commencement Date (the “*Term Out Period*”) with principal payable in approximately equal quarterly installments (each, a “*Quarterly Principal Payment*”) commencing on the related Amortization Commencement Date (the “*Initial Payment Date*”) and succeeding dates every three months after the Initial Payment Date (provided, however, if any such date is not a Business Day, the related principal payment date shall be the next succeeding day which is a Business Day) occurring after the Initial Payment Date and prior to the two year and three month anniversary of the related Amortization Commencement Date. Notwithstanding anything to the contrary contained herein, all Liquidity Advances shall be due and payable on the related Amortization End Date. In the event that the conditions precedent set forth in Section 3.02 hereof are not satisfied on an Amortization Commencement Date, the Principal Portion of the related Unreimbursed Drawing shall not convert to a Liquidity Advance and shall be due and payable on such date.

(c) *Mandatory Prepayment.* Notwithstanding the provisions of Section 2.03(a) and (b) hereof: (i) upon the issuance of Notes on any date when Unreimbursed Drawings or Liquidity Advances are outstanding under any of the Reimbursement Agreements, the proceeds of the issuance of such Notes shall be used to repay Unreimbursed Drawings and outstanding Liquidity Advances on a pro rata basis under each of the Reimbursement Agreements to the extent that the proceeds of the issuance of such Notes are not used to repay Notes maturing on such date; and (ii) all Unreimbursed Drawings and Liquidity Advances and all other amounts owed to the Bank hereunder shall be due and payable in full on the date of (A) delivery to the Paying Agent or the Trustee of any letter of credit (as provided in Section 6.01 of the First Supplemental Subordinate Trust Agreement) in substitution for and upon cancellation of the Letter of Credit, (B) any other voluntary termination by the Authority of the Letter of Credit, (C) acceleration thereof as permitted under Section 7.02 hereof (D) with respect to Unreimbursed Drawings, the Amortization Commencement Date, if the conditions precedent set forth in Section 3.02 hereof are not satisfied on the applicable Amortization Commencement Date, and (E) with respect to outstanding Liquidity Advances, the Amortization End Date, if the conditions precedent set forth in Section 3.02 hereof were satisfied on the applicable Amortization Commencement Date.

(d) *Optional Prepayment.* The Authority may from time to time prepay all or any part of the outstanding principal amount of Unreimbursed Drawings and Liquidity Advances, without premium or penalty, but with payment of all accrued but unpaid interest to the date of prepayment on the principal amount prepaid; provided that, the principal amount of any such prepayment shall be in an amount not less than \$5,000,000, and in integral multiples of \$1,000,000 in excess thereof, unless a lesser amount will suffice to repay the outstanding principal balance of any Unreimbursed Drawings and outstanding Liquidity Advances in full.

(e) *Allocation of Unreimbursed Drawing and Liquidity Advance Payments and Prepayments.* Unless and insofar as expressly provided otherwise herein, the amount of each payment and prepayment of the outstanding principal amount of Unreimbursed Drawings and Liquidity Advances shall be allocated after payment of all accrued interest on the Unreimbursed Drawings and Liquidity Advances to the payment of the principal of all outstanding Unreimbursed Drawings and Liquidity Advances in their inverse order of maturity.

(f) *Interest on the Unreimbursed Drawings and Liquidity Advances.*

(i) Interest on Unreimbursed Drawings and Liquidity Advances shall accrue from and including the applicable Drawing Date to, but excluding, the date on which such Unreimbursed Drawings and Liquidity Advances are repaid in full. Interest on Unreimbursed Drawings and Liquidity Advances shall accrue at a per annum rate equal to the Bank Rate or the Default Rate, as applicable.

(ii) Interest accruing on Unreimbursed Drawings and Liquidity Advances shall be due and payable in arrears on each Interest Payment Date

commencing on the first Interest Payment Date to occur following the date any Unreimbursed Drawings or Liquidity Advances are outstanding.

(g) *Interest Recapture.* If the rate of interest payable hereunder shall exceed the Maximum Rate for any period for which interest is payable, then (a) interest at the Maximum Rate shall be due and payable with respect to such interest period and (b) interest at the rate equal to the difference between (i) the rate of interest calculated in accordance with the terms hereof without regard to the Maximum Rate and (ii) the Maximum Rate (the “*Excess Interest*”), shall be deferred until such date as the rate of interest calculated in accordance with the terms hereof ceases to exceed the Maximum Rate, at which time the Authority shall pay to the Bank, with respect to amounts then payable to the Bank that are required to accrue interest hereunder, such portion of the deferred Excess Interest as will cause the rate of interest then paid to the Bank to equal the Maximum Rate, which payments of deferred Excess Interest shall continue to apply to such unpaid amounts hereunder until all deferred Excess Interest is fully paid to the Bank. Upon the date all Obligations are payable hereunder and in the Fee Agreement following the termination of the Letter of Credit, in consideration for the limitation of the rate of interest otherwise payable hereunder and in the Fee Agreement, the Authority shall pay to the Bank a fee equal to the amount of all unpaid deferred Excess Interest (the “*Excess Interest Fee Amount*”).

Section 2.04. Default Rate. The Authority agrees to pay to the Bank interest on any and all amounts owed by the Authority under this Reimbursement Agreement from and after the earlier of (a) the occurrence of an Event of Default and until such Event of Default is cured and (b) the date such amounts are due and payable but not paid until payment thereof in full, at a fluctuating interest rate per annum equal to the Default Rate.

Section 2.05. Fees. The Authority hereby agrees to pay, or cause to be paid, to the Bank all fees and amounts due pursuant to the terms of the Fee Agreement at the times and in the amounts set forth in the Fee Agreement. The terms of the Fee Agreement are hereby incorporated herein by reference as of fully set forth herein. All references to amounts or obligations due hereunder or under this Agreement shall be deemed to include all amounts and obligations (including, without limitation, fees and expenses) under the Fee Agreement.

Section 2.06. Taxes and Expenses. The Authority will promptly pay (i) the reasonable fees and expenses of the Bank incurred in connection with the preparation, negotiation, execution and delivery of this Reimbursement Agreement, the Letter of Credit and the other Related Documents, (ii) the fees and disbursements of Chapman and Cutler LLP, special counsel to the Bank, incurred in connection with the preparation, negotiation, execution and delivery of this Reimbursement Agreement and the other Related Documents, (iii) the fees and disbursements of counsel to the Bank with respect to advising the Bank as to the rights and responsibilities under this Reimbursement Agreement after the occurrence of an Event of Default, and (iv) all costs and expenses, if any, in connection with any amendment to or the enforcement of this Reimbursement Agreement and any other documents which may be delivered in connection herewith or therewith, including in each case the reasonable fees and disbursements of counsel to the Bank. In addition, the Authority shall pay any and all stamp and other taxes and fees payable or determined to be payable in connection with the execution,

delivery, filing, and recording of this Reimbursement Agreement and the security contemplated by the Related Documents (other than taxes based on the net income of the Bank) and agrees to hold the Bank harmless from and against any and all liabilities with respect to or resulting from any delay in paying or omission to pay such taxes and fees; provided, however, that the Authority may reasonably contest any such taxes or fees with the prior written consent of the Bank, which consent, if an Event of Default does not then exist, shall not be unreasonably withheld. In addition, the Authority agrees to pay, after the occurrence of an Event of Default, all costs and expenses (including attorneys' fees and costs of settlement) incurred by the Bank in enforcing any obligations or in collecting any payments due from the Authority hereunder by reason of such Event of Default or in connection with any refinancing or restructuring of the credit arrangements provided under this Reimbursement Agreement in the nature of a "workout" or of any insolvency or bankruptcy proceedings. The obligations of the Authority under this Section 2.06 shall survive the termination of this Reimbursement Agreement.

Section 2.07. Increased Costs; Net of Taxes.

(a) *Increased Costs.* (i) If the Bank or any Participant shall have determined that a Change in Law shall have occurred that shall (A) change the basis of taxation of payments to the Bank or such Participant of any amounts payable hereunder (except for taxes on the overall net income of the Bank or such Participant), (B) impose, modify or deem applicable any reserve, capital or liquidity ratio, special deposit, compulsory loan, insurance charge or similar requirement against issuing and maintaining its obligations under the Letter of Credit, issuing or honoring Drawings under the Letter of Credit or making Liquidity Advances hereunder or assets held by, or deposits with or for the account of, the Bank or such Participant or (C) impose on the Bank or such Participant any other such condition, cost or expense regarding this Reimbursement Agreement or the Letter of Credit and the result of any event referred to in clause (A), (B) or (C) above shall be to increase the cost to the Bank or such Participant of entering into and performing this Reimbursement Agreement or the Letter of Credit or to reduce the amount of any sum received or receivable by the Bank or such Participant hereunder, then, upon demand by the Bank or such Participant, the Authority shall pay to the Bank or such Participant such additional amount or amounts as will compensate the Bank or such Participant for such increased costs or reductions in amount.

(ii) If the Bank or any Participant shall have determined that a Change in Law shall have occurred that shall impose, modify or deem applicable any capital or liquidity adequacy or similar requirement (including, without limitation, a request or requirement that affects the manner in which the Bank or such Participant or any corporation controlling the Bank or such Participant allocates capital or liquidity resources to its commitments, including its obligations under agreements similar to this Reimbursement Agreement and the Letter of Credit, that either (A) affects or would affect the amount of capital or liquidity to be maintained by the Bank or such Participant or any corporation controlling the Bank or such Participant or (B) reduces or would reduce the rate of return on the Bank's or such Participant's or the Bank's or such Participant's controlling

corporation's capital or liquidity to a level below that which the Bank or such Participant or the Bank's or such Participant's controlling corporation could have achieved but for Change in Law (taking into consideration the Bank's or such Participant's or the Bank's or such Participant's controlling corporation's policies with respect to capital or liquidity adequacy would yield prior to the imposition or modification of such requirement) hereunder, then upon demand by the Bank or such Participant, the Authority shall pay to the Bank or such Participant such additional amounts as will compensate the Bank or such Participant or any corporation controlling the Bank or such Participant, as the case may be, for such costs of maintaining such increased capital or liquidity or such reduction in the rate of return on the Bank's or the Bank's controlling corporation's capital or liquidity or the Participant's or the Participant's controlling corporation's capital or liquidity related to the maintenance of this Reimbursement Agreement and the Letter of Credit.

(iii) All payments of amounts referred to in clauses (i) and (ii) of this Section 2.07(a) shall be paid by the Authority to the Bank or Participant and shall bear interest thereon if not paid to the Bank or such Participant within 30 days of the Authority's receipt of such notice until payment in full thereof at an interest rate per annum equal to the Default Rate in effect, from time to time, payable on demand. A certificate as to such increased cost, increased capital or liquidity, or reduction in return incurred by the Bank or any Participant as a result of any event mentioned in clause (i) or (ii) of this Section 2.07(a) setting forth, in reasonable detail, the basis for calculation and the amount of such calculation shall be submitted by the Bank or such Participant to the Authority and shall be conclusive as to the amount thereof, unless either party hereto determines with a reasonable time that there has been a manifest error in such calculation. In making the determinations contemplated by the above referenced certificate, the Bank or any Participant may make such reasonable estimates, assumptions, allocations and the like that the Bank or such Participant in good faith determines to be appropriate. Notwithstanding any provision in this Section 2.07(a) to the contrary, (i) amounts payable to such Participant pursuant to this Section 2.07(a) shall not exceed the amount the Bank would have been paid under this Section 2.07(a) with respect to the interest granted to the Participant had such interest not been granted and (ii) the Authority shall not be required to compensate the Bank or any Participant pursuant to this Section 2.07(a) for any increased costs incurred or reductions suffered more than six (6) months prior to the date that the Bank or any Participant, as the case may be, notifies the Authority of the Change in Law giving rise to such increased costs or reductions and the Bank's or any Participant's intention to claim compensation therefor (except that if the Change in Law giving rise to such increased costs or reductions is retroactively applicable, then the six (6) month period referred to above shall be extended to include the period of retroactive effect thereof). The provisions of this Section 2.07(a) shall survive the termination of this Reimbursement Agreement.

(b) *Net of Taxes, Etc.* (i) Any and all payments to the Bank by the Authority hereunder shall be made free and clear of and without deduction for any and all

present or future taxes, levies, imposts, duties, deductions, assessments, fees, charges, withholdings (including backup withholding), liabilities or other charges imposed thereon, including any interest, fines, additions to tax or penalties applicable thereto, but excluding taxes imposed on or measured by the net income or capital of the Bank by any jurisdiction or any political subdivision or taxing authority thereof or therein solely as a result of a connection between the Bank and such jurisdiction or political subdivision (all such non excluded taxes, levies, imposts, duties, deductions, assessments, fees, charges, withholdings (including backup withholding), liabilities and other charges, including any interest, fines or additions to tax or penalties applicable thereto, being hereinafter referred to as “*Taxes*”). If the Authority shall be required by law to withhold or deduct any Taxes imposed by the United States or any political subdivision thereof from or in respect of any sum payable hereunder to the Bank, (i) the sum payable shall be increased as may be necessary so that after making all required deductions (including deductions applicable to additional sums payable under this Section 2.07(b)), the Bank receives an amount equal to the sum it would have received had no such deductions been made, (ii) the Authority shall make such deductions and (iii) the Authority shall pay the full amount deducted to the relevant taxation authority or other authority in accordance with applicable law. If the Authority shall make any payment under this Section 2.07(b) to or for the benefit of the Bank with respect to Taxes and if the Bank shall claim a refund of such taxes or any credit or deduction for such Taxes against any other taxes payable by the Bank to any taxing jurisdiction in the United States, then the Bank shall pay to the Authority an amount equal to the amount of any refund actually received by the Bank or the amount by which such other taxes are actually reduced; provided, that the aggregate amount payable by the Bank pursuant to this sentence shall not exceed the aggregate amount previously paid by the Authority with respect to such Taxes. In addition, the Authority agrees to pay any present or future stamp, recording or documentary taxes and any other excise or property taxes, charges or similar levies that arise under the laws of the United States of America, the State of California, the State of New York or any other taxing jurisdiction from any payment made hereunder or from the execution or delivery or otherwise with respect to this Reimbursement Agreement (hereinafter referred to as “*Other Taxes*”). The Bank shall provide to the Authority within a reasonable time a copy of any written notification it receives with respect to Taxes or Other Taxes owing by the Authority to the Bank hereunder; provided that the Bank’s failure to send such notice shall not relieve the Authority of its obligation to pay such amounts hereunder.

(ii) The Authority shall, to the fullest extent permitted by law and subject to the provisions hereof, indemnify and reimburse the Bank for the full amount of Taxes and Other Taxes including any Taxes or Other Taxes imposed by any jurisdiction on amounts payable under this Section 2.07(b) paid by the Bank or any liability (including penalties, interest and expenses) arising therefrom or with respect thereto, whether or not such Taxes or Other Taxes were correctly or legally asserted; provided that the Authority shall not be obligated to indemnify the Bank for any penalties, interest or expenses relating to Taxes or Other Taxes

arising from the Bank's gross negligence or willful misconduct. The Bank agrees to give notice to the Authority of the assertion of any claim against the Bank relating to such Taxes or Other Taxes as promptly as is practicable after being notified of such assertion; provided that the Bank's failure to notify the Authority promptly of such assertion shall not relieve the Authority of its obligation under this Section 2.07(b). Payments by the Authority pursuant to this indemnification shall be made within thirty (30) days from the date the Bank makes written demand therefor, which demand shall be accompanied by a certificate describing in reasonable detail the basis thereof. The Bank agrees to repay to the Authority any refund (including that portion of any interest that was included as part of such refund) with respect to Taxes or Other Taxes paid by the Authority pursuant to this Section 2.07(b) received by the Bank for Taxes or Other Taxes that were paid by the Authority pursuant to this Section 2.07(b) and to contest, with the cooperation and at the expense of the Authority, any such Taxes or Other Taxes which the Bank or the Authority reasonably believes not to have been properly assessed.

(iii) Within thirty (30) days after the date of any payment of Taxes by the Authority, the Authority shall furnish to the Bank the original or a certified copy of a receipt evidencing payment thereof.

(iv) The obligations of the Authority under this Section 2.07(b) shall survive the termination of this Reimbursement Agreement.

Section 2.08. Method of Payment. Except as may be otherwise provided for herein or in the Fee Agreement, all fees under this Agreement and the Fee Agreement shall be computed on the basis of a year of 360 days and the actual number of days elapsed and interest on amounts owed hereunder or under the Fee Agreement shall be computed on the basis of a year of 365 days and the actual number of days elapsed. Interest shall accrue during each period during which interest is computed from and including the first day thereof to but excluding the last day thereof. All payments by the Authority to the Bank hereunder and under the Fee Agreement shall be nonrefundable and made in lawful currency of the United States and in immediately available funds. Amounts payable to the Bank hereunder shall be transferred to Citbank, N.A. ABA 021000089 for credit to A/C# 4058-0089, Ref: LACMTA, Attn: Valerie Burrows (or to such other account of the Bank as the Bank may specify by written notice to the Authority) not later than 2:00 p.m. New York, New York time, on the date payment is due. Any payment received by the Bank after 2:00 p.m., New York, New York time, shall be deemed to have been received by the Bank on the next Business Day. If any payment hereunder is due on a day that is not a Business Day, then such payment shall be due on the immediately succeeding Business Day and such additional time shall be taken into account in calculating the fees or interest paid hereunder on such date.

Section 2.09. Maintenance of Accounts. The Bank shall maintain in accordance with its usual practice an account or accounts evidencing the indebtedness of the Authority and the amounts payable and paid from time to time hereunder. In any legal action or proceeding in respect of this Reimbursement Agreement, the entries made in such account or accounts shall be presumptive evidence, in the absence of manifest error, of the existence and amounts of the

obligations of the Authority therein recorded. The failure to record any such amount shall not, however, limit or otherwise affect the obligations of the Authority hereunder to repay all amounts owed hereunder, together with all interest accrued thereon as provided in this Article II.

Section 2.10. Reimbursement Note.

(a) The Unreimbursed Drawings and outstanding Liquidity Advances and all other amounts due and owing to the Bank hereunder and under the Fee Agreement shall be evidenced by a single Reimbursement Note payable to the order of the Bank in a maximum amount equal to the greater of (i) Original Stated Amount and (ii) all Obligations due and owing hereunder and under the Fee Agreement.

(b) The Bank shall record the date, amount and maturity of each Unreimbursed Drawing or outstanding Liquidity Advance made by it and the date and amount of each payment of principal made by or on behalf of the Authority with respect thereto, and prior to any transfer of its Reimbursement Note shall endorse on the schedule forming a part thereof appropriate notations to evidence the foregoing information with respect to each such Unreimbursed Drawing or outstanding Liquidity Advance then outstanding; provided that the failure of the Bank to make any such recordation or endorsement shall not affect the obligations of the Authority hereunder or under such Reimbursement Note. The Bank is hereby irrevocably authorized by the Authority to endorse its Reimbursement Note and to attach to and make a part of the Reimbursement Note a continuation of any such schedule as and when required.

Section 2.11. Source of Funds. All payments made by the Bank pursuant to the Letter of Credit shall be made from funds of the Bank and not from the funds of any other Person.

Section 2.12. Security.

(a) The Authority hereby grants to the Bank a Lien on and pledge of Net Pledged Revenues to secure the Reimbursement Obligations. The pledge of the Net Pledged Revenues pursuant to this Section 2.12(a) is a valid and binding obligation of the Authority, on a pari passu basis with the holders of all Notes and all other Subordinate Obligations. No filing, registration, recording or publication of this Reimbursement Agreement or the Trust Agreement or any other instrument nor any prior separation or physical delivery of the Net Pledged Revenues is required to establish the pledge provided for hereunder or under the Trust Agreement or to perfect, protect or maintain the Lien created thereby on the Net Pledged Revenues to secure the Reimbursement Obligations.

(b) The Authority hereby grants to the Bank a Lien on and pledge of the Net Pledged Revenues to secure all Obligations of the Authority under this Reimbursement Agreement and the Fee Agreement (other than Reimbursement Obligations) which such Lien on and pledge of the Net Pledged Revenues shall be junior and subordinate in all respects to the Liens on, security interests in and the pledges of the Net Pledged Revenues set forth in the Trust Agreement and this Reimbursement Agreement, as applicable, for the equal and proportionate benefit of and security of the Notes, all

Subordinate Obligations and all Reimbursement Obligations. No filing, registration, recording or publication of this Reimbursement Agreement or the Trust Agreement or any other instrument nor any prior separation or physical delivery of the Net Pledged Revenues is required to establish the pledge provided for under this Reimbursement Agreement or the Trust Agreement or to perfect, protect or maintain the Lien created thereby on the Net Pledged Revenues to secure the obligations hereunder.

ARTICLE III

CONDITIONS PRECEDENT

Section 3.01. Conditions Precedent to Issuance of Letter of Credit. As conditions precedent to the obligation of the Bank to issue the Letter of Credit, each of the following conditions enumerated in this Section 3.01 shall have been fulfilled to the reasonable satisfaction of the Bank and its counsel, Chapman and Cutler LLP. The Bank's issuance of the Letter of Credit shall evidence its agreement that such conditions have been met to the reasonable satisfaction of the Bank and its counsel, or waived.

(a) *Representations.* (i) There shall exist no Default or Event of Default nor shall a Default or Event of Default result from the issuance of the Letter of Credit or the execution, delivery or performance of this Reimbursement Agreement or any other Related Document to which the Authority is a party and (ii) all representations and warranties made by the Authority herein or in any of the other Related Documents to which it is a party shall be true and correct with the same effect as though such representations and warranties had been made at and as of such time.

(b) *Other Documents.* On the Closing Date, the Bank shall have received certified or executed copies, as applicable, of each of the following documents, together with a certificate of the Authority that all such documents are in full force and effect on the Closing Date:

(i) The Related Documents;

(ii) Resolutions of the Authority authorizing the Authority to enter into this Reimbursement Agreement;

(iii) An incumbency certificate with respect to the officers of the Authority who are authorized to execute this Reimbursement Agreement and the other Related Documents to which the Authority is a party;

(iv) A certificate from the Authority to the following effect:

(A) The audited Authority Financial Statements as of June 30, 2016, including the balance sheet as of such date of said period, all examined and reported on by Crowe Horwath LLP, as heretofore delivered to the Bank correctly and fairly present the financial condition of the Authority as of said dates and the results of the operations of the Authority for such period, have been prepared in accordance with GAAP

consistently applied except as stated in the notes thereto; and there has been no material adverse change in the condition, financial or otherwise, of the Authority since June 30, 2016, from that set forth in the Authority Financial Statements as of, and for the period ended on, that date except as otherwise disclosed to the Bank in writing.

(B) The Authority hereby makes to the Bank the same representations and warranties as are set forth by the Authority in each Related Document, which representations and warranties are true and correct with the same effect as though such representations and warranties had been made at and as of the date hereof.

(C) All representations and warranties made by the Authority in this Reimbursement Agreement are true and correct with the same effect as though such representations and warranties had been made at and as of the date hereof.

(D) No Default or Event of Default has occurred and is continuing or would result from the issuance of the Letter of Credit or the execution, delivery or performance of this Reimbursement Agreement or the other Related Documents to which the Authority is a party.

(c) *Legal Opinions.* The Bank shall have received (i) an opinion of bond counsel to the Authority to the effect that this Reimbursement Agreement and the Fee Agreement are the duly authorized, legal, valid and binding obligations of the Authority, all in form and substance satisfactory to the Bank, addressed to the Bank and dated the Closing Date and (ii) an opinion of counsel to the Authority in form and substance satisfactory to the Bank, addressed to the Bank and dated the Closing Date.

(d) *Certain Payments.* The Authority shall have paid or cause to be paid all fees due and payable on the Closing Date pursuant to the terms of the Fee Agreement and this Reimbursement Agreement.

(e) *Rating.* (i) The Bank shall have received satisfactory evidence that the Notes shall have been assigned short term ratings of “P-1” by Moody’s and “A-1” by S&P, in each case, after taking into consideration the Letter of Credit, and (ii) the Authority’s Senior Lien Bonds shall have been assigned long-term unenhanced ratings of “Aa1” by Moody’s and “AAA” by S&P.

(f) *CUSIP and Reimbursement Note Rating.* The Bank shall have received satisfactory evidence that (i) a CUSIP number has been obtained and reserved from S&P CUSIP Services for the Reimbursement Note, and (ii) a long-term rating of at least “Baa3” has been assigned to the Reimbursement Note by Moody’s.

(g) *No Contravention.* No law, regulation, ruling or other action of the United States, the State of California or the State of New York or any political subdivision or authority therein or thereof shall be in effect or shall have occurred, the effect of which would be to prevent the Authority or the Bank from fulfilling its respective obligations

under this Reimbursement Agreement, the Letter of Credit and the other Related Documents; and

(h) *Legal Requirements.* All legal requirements provided herein incident to the execution, delivery and performance of the Related Documents and the transactions contemplated thereby, shall be reasonably satisfactory to the Bank and its counsel.

Section 3.02. Conditions Precedent to Liquidity Advances. Following any payment by the Bank under the Letter of Credit pursuant to a Drawing, a Liquidity Advance shall be made available to the Authority only if on the applicable Amortization Commencement Date the following statements shall be true:

(a) the representations and warranties of the Authority contained in Article IV of this Reimbursement Agreement and in the other Related Documents are correct in all material respects on and as of the applicable Amortization Commencement Date as though made on and as of such date;

(b) no Default or Event of Default shall have occurred and be continuing;

(c) the interest rate applicable to Unreimbursed Drawings, Liquidity Advances and other obligations owed to the Bank hereunder shall not be subject to any limitation under the laws or Constitution of the State of California which would result in the Maximum Rate being less than 25% per annum (as demonstrated by delivery to the Bank of either (i) a written certificate of the Authority representing that the foregoing is true on the related Amortization Commencement Date or (ii) an opinion of counsel to the Authority opining that the foregoing is true on the related Amortization Commencement Date); and

(d) the Program Termination Date shall not have occurred on or prior to such date.

Unless the Authority shall have previously advised the Bank in writing that one or more of the above statements is no longer true, the Authority shall be deemed to have represented and warranted on each Amortization Commencement Date that both of the above statements are true and correct.

ARTICLE IV

REPRESENTATIONS AND WARRANTIES

In order to induce the Bank to enter into this Reimbursement Agreement and to issue the Letter of Credit, the Authority represents and warrants to the Bank as follows:

Section 4.01. Organization, Powers, Etc. The Authority (i) is a public entity established pursuant to the laws of the State of California validly organized and existing under and by virtue of the laws of the State of California, (ii) has full power and authority to own its properties and carry on its business as now conducted, (iii) has full power and authority to execute (or adopt, if applicable), deliver and perform its obligations under this Reimbursement Agreement and the

other Related Documents, to borrow hereunder and to execute, deliver and perform its obligations under the Notes and (iv) may only contest the validity or enforceability of any provision of, or deny that the Authority has any liability or obligation under, the Act, Ordinance No. 16, this Reimbursement Agreement, any Note or any other Related Document by an act of its governing body.

Section 4.02. Authorization, Absence of Conflicts, Etc. The execution (or adoption, if applicable), delivery and performance of this Reimbursement Agreement, the Notes and the other Related Documents (i) have been duly authorized by the Authority, (ii) do not and will not, to any material extent, conflict with, or result in violation of any applicable provision of law, including the Act and Ordinance No. 16, or any order, rule or regulation of any court or other agency of government and (iii) do not and will not, to any material extent, conflict with, result in a violation of or constitute a default under, the Senior Trust Agreement or the Trust Agreement or any other resolution, agreement or instrument to which the Authority is a party or by which the Authority or any of its property is bound.

Section 4.03. Governmental Consent or Approval. The execution (or adoption, if applicable), delivery and performance of this Reimbursement Agreement, the Notes and the other Related Documents do not and will not require registration with, or the consent or approval of, or any other action by, any federal, state or other Governmental Authority or regulatory body other than those which have been made or given and are in full force and effect; provided that no representation is made as to any blue sky or securities law of any jurisdiction.

Section 4.04. Binding Obligations. This Reimbursement Agreement, the Notes and the other Related Documents are legal, valid and binding obligations of the Authority, enforceable against the Authority in accordance with their terms, subject to any applicable bankruptcy, insolvency, debt adjustment, moratorium, reorganization or other similar laws, judicial discretion and principles of equity relating to or affecting creditors' rights or contractual obligations generally or limitations on remedies against public entities in the State of California.

Section 4.05. Litigation. There is no action or investigation pending or, to the knowledge of the Authority, threatened, against the Authority before any court or administrative agency which questions the validity of any act or the validity of any proceeding taken by the Authority in connection with the execution and delivery of this Reimbursement Agreement, the Notes or the other Related Documents, or wherein an unfavorable decision, ruling or finding would in any way adversely affect (A) the validity or enforceability of this Reimbursement Agreement, the Notes or the other Related Documents, (B) the validity, enforceability or perfection of the pledge of and lien on the Net Pledged Revenues and on the amounts held in Funds, Accounts and Subaccounts under the Trust Agreement, (C) the status of the Authority as a public entity created and validly existing under the laws of the State of California or (D) the exemption of interest on the Tax-Exempt Notes from the gross income of the recipients thereof for federal income tax purposes. To the knowledge of the Authority, there is no action, pending or threatened, which questions the validity of the Act, Ordinance No. 16 or the Proposition A Sales Tax nor is there any pending initiative or referendum qualified for the ballot which would seek to amend, annul, modify or replace the Act or Ordinance No. 16 or to diminish or reallocate the Proposition A Sales Tax.

Section 4.06. Financial Condition. All of the Authority's financial statements that have been furnished to the Bank have been prepared in conformity with GAAP (except as noted therein) and are comprised of a balance sheet and a statement of revenues and expenditures and changes in fund balances. All of such financial statements accurately present, in all material respects, the financial condition of the Authority, including the Pledged Revenues as of the dates thereof, and other than as has been disclosed to the Bank, there has been no material adverse changes in the business or affairs of the Authority or with respect to the Pledged Revenues since the date the last such report was so furnished to the Bank.

Section 4.07. Offering Memorandum. Upon the preparation of the Offering Memorandum, which will be prepared and distributed prior to the issuance of any Notes, the Authority will represent and warrant to the Bank on the date of distribution of the Offering Memorandum as follows:

The information contained in the Offering Memorandum was as of the date thereof, and is as of the date hereof, true and correct in all material respects. The Authority makes no representation or warranty as to information in the Offering Memorandum under Appendix A and Appendix C to the Offering Memorandum.

Section 4.08. Related Documents. Each of the Related Documents is in full force and effect. Except as previously disclosed in writing to the Bank, no event of default and no event which, with the giving of notice, the passage of time or both, would constitute an event of default, presently exists under any of the Related Documents. Except as previously disclosed in writing to the Bank, neither the Authority nor any other party thereto has waived or deferred performance of any material obligation under any Related Document.

Section 4.09. Incorporation of Representations and Warranties. The Authority hereby makes to the Bank the same representations and warranties as are set forth by the Authority in each Related Document, which representations and warranties, as well as the related defined terms contained therein, are hereby incorporated by reference for the benefit of the Bank with the same effect as if each and every such representation and warranty and defined term were set forth herein in its entirety. No amendment to such representations and warranties or defined terms made pursuant to any Related Document shall be effective to amend such representations and warranties and defined terms as incorporated by reference herein without the prior written consent of the Bank.

Section 4.10. Margin Regulations. The Authority is not engaged in the business of extending credit for the purpose of purchasing or carrying margin stock (within the meaning of Regulation U or X of the Board of Governors of the Federal Reserve System), and no part of the proceeds furnished by the Bank pursuant to a Drawing under the Letter of Credit will be used to purchase or carry any margin stock or to extend credit to others for the purpose of purchasing or carrying any margin stock.

Section 4.11. No Event of Default. No Event of Default or Default has occurred and is continuing.

Section 4.12. The Notes. Each Note will be duly issued under the Trust Agreement and will be entitled to the benefits thereof.

Section 4.13. Security; Pledge of Net Pledged Revenues Securing Reimbursement Obligations. The Notes and all Reimbursement Obligations are secured by a first lien on and pledge of Net Pledged Revenues pursuant to Section 4.01 of the Subordinate Trust Agreement. The pledge of the Net Pledged Revenues under the Trust Agreement is a valid and binding obligation of the Authority, on a pari passu basis with the holders of all Subordinate Obligations, subject to any applicable bankruptcy, insolvency, debt adjustment, moratorium, reorganization or other similar laws, judicial decisions and principles of equity relating to or affecting creditors' rights or contractual obligations generally or limitations of remedies against public entities in California. All other Obligations (other than Reimbursement Obligations) of the Authority under this Reimbursement Agreement and the Fee Agreement are secured by a Lien on the Net Pledged Revenues subordinate in all respects to the Notes and the Reimbursement Obligations. No filing, registration, recording or publication of the Trust Agreement or any other instrument nor any prior separation or physical delivery of the Net Pledged Revenues is required to establish the pledge provided for under the Trust Agreement or to perfect, protect or maintain the Lien created thereby on the Net Pledged Revenues and amounts held under the Trust Agreement in Funds, Accounts or Subaccounts to secure the Notes and the Reimbursement Obligations.

Section 4.14. Sovereign Immunity. The Authority is subject to claims and to suit for damages in connection with its obligations under this Reimbursement Agreement pursuant to and in accordance with the laws of the State of California applicable to public entities such as the Authority; provided, however, that a claimant shall be required to comply with the provisions of the Tort Claims Act set forth in California Government Code Section 810 et seq. in tort or contract suits, actions or proceedings brought against the Authority.

Section 4.15. Accurate Information. All information, reports and other papers and data with respect to the Authority furnished to the Bank, at the time the same were so furnished, were accurate in all material respects. Any financial, budget and other projections furnished to the Bank were prepared in good faith on the basis of the assumptions stated therein, which assumptions were fair and reasonable in light of conditions existing at the time of delivery of such financial, budget or other projections.

Section 4.16. Pari Passu. Under the laws of the State of California, the obligation of the Authority under this Reimbursement Agreement to pay interest at the Bank Rate on all Reimbursement Obligations due and owing the Bank hereunder constitutes a charge and lien on the Net Pledged Revenues equal to and on a parity with the charge and lien upon the Net Pledged Revenues for the payment of the Notes (as defined in the First Supplemental Subordinate Trust Agreement).

Section 4.17. Maximum Rate. The terms of this Agreement and the other Related Documents regarding the calculation of interest and fees do not violate any applicable usury laws.

Section 4.18. No Proposed Legal Changes.

(a) To the best knowledge of the Authority, there is no proposed amendment to the Constitution of the State of California or any published administrative interpretation of the Constitution of the State of California or any State of California law, or any proposition or referendum (or proposed proposition or referendum) or other ballot initiative or any legislation that has passed either house of the State legislature, or any published judicial decision interpreting any of the foregoing, the effect of which could reasonably be expected to have a Material Adverse Effect.

(b) There is no amendment to the Constitution of the State of California or any published administrative interpretation of the Constitution of the State of California or any State of California law, or any proposition or referendum (or proposed proposition or referendum) or other ballot initiative or any legislation that has passed either house of the State legislature, or any published judicial decision interpreting any of the foregoing, the effect of which could reasonably be expected to have a Material Adverse Effect.

Section 4.19. Valid Lien. The Authority's irrevocable pledge of the Net Pledged Revenues and amounts hereunder and under the Trust Agreement and in the Funds, Accounts and Subaccounts under the Trust Agreement to and for the payment of the obligations of the Authority under this Reimbursement Agreement and for the payment of the Notes, the Reimbursement Obligations and the other Obligations is valid and binding and no further acts, instruments, approvals or consents are necessary for the creation, validity or perfection thereof. The provisions of the Trust Agreement constitute a contract between the Authority and the Note owners and the Bank, and any such Note owner, subject to the provisions of the Trust Agreement, and the Bank, may at law or in equity, by suit, action, mandamus or other proceedings, enforce and compel the performance of all duties required to be performed by the Authority as a result of issuing the Notes.

Section 4.20. ERISA; Plans; Employee Benefit Plans. The Authority is not subject to ERISA and maintains no Plans.

Section 4.21. Solvency. After giving effect to the issuance of the Notes and the other obligations contemplated by this Reimbursement Agreement and the Fee Agreement, the Authority is solvent, having assets of a fair value which exceeds the amount required to pay its debts (including contingent, subordinated, unmatured and unliquidated liabilities) as they become absolute and matured, and the Authority is able to and anticipates that it will be able to meet its debts as they mature and has adequate capital to conduct its business in which it is engaged.

Section 4.22. Environmental Laws. (i) The Authority and its Property have not become subject to any Environmental Liability nor does the Authority know of any basis for any Environmental Liability, (ii) the Authority has not received notice to the effect that any of the Authority's Property or its operations are not in compliance with any of the requirements of any Environmental Laws or any applicable federal, state or local health and safety statutes and regulations or are the subject of any governmental investigation evaluating whether any remedial action is needed to respond to a release of any toxic or hazardous waste or substance into the environment, and (iii) to the best of the knowledge of the Authority, the Authority and its Property are in compliance with all Environmental Laws and the Authority has obtained and

maintains or complies with any permit, license or other approval required under any Environmental Law, in each of (i), (ii) and (iii) above, except with respect to any matters that, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect.

Section 4.23. No Existing Right to Accelerate. As of the Closing Date, other than in accordance with the terms of the Trust Agreement or as a result of an “*event of default*” thereunder, no Person, including, without limitation, a credit facility provider or a liquidity provider, either of which provides credit enhancement or liquidity support to any Senior Lien Bonds or Subordinate Obligations, has a right under any indenture or any supplemental indenture relating to any Senior Lien Bonds or Subordinate Obligations or any other document or agreement relating to any Senior Lien Bonds or Subordinate Obligations, to direct the Trustee or any other Person to declare the principal of and interest on any Senior Lien Bonds or Subordinate Obligations to be immediately due and payable.

Section 4.24. Anti-Terrorism Laws. Neither the Authority nor any Affiliates thereof is in violation of any Laws relating to terrorism or money laundering (“*Anti-Terrorism Laws*”), including Executive Order No. 13224 on Terrorist Financing, effective September 24, 2001 (the “*Executive Order*”), and the Patriot Act;

- (a) neither the Authority nor any Affiliate thereof is any of the following:
 - (i) a Person that is listed in the annex to, or is otherwise subject to the provisions of, the Executive Order;
 - (ii) a Person owned or controlled by, or acting for or on behalf of, any Person that is listed in the annex to, or is otherwise subject to the provisions of, the Executive Order;
 - (iii) a Person with which the Bank is prohibited from dealing or otherwise engaging in any transaction by any Anti-Terrorism Law;
 - (iv) a Person that commits, threatens or conspires to commit or supports “terrorism” as defined in the Executive Order; or
 - (v) a Person that is named as a “*pecially designated national and blocked person*” on the most current list published by the Office of Foreign Asset Control (“*OFAC*”) or any list of Persons issued by OFAC pursuant to the Executive Order at its official website or any replacement website or other replacement official publication of such list; and

(b) to the best knowledge of the Authority, neither the Authority nor any Affiliate thereof (A) conducts any business or engages in making or receiving any contribution of funds, goods or services to or for the benefit of any Person described in subsection (i) above, (B) deals in, or otherwise engages in any transaction relating to, any property or interests in property blocked pursuant to the Executive Order or (C) engages in or conspires to engage in any transaction that evades or avoids, or has the purpose of

evading or avoiding, or attempts to violate, any of the prohibitions set forth in any Anti-Terrorism Law.

ARTICLE V

AFFIRMATIVE COVENANTS

Section 5.01. Covenants of the Authority. Until the termination of the Letter of Credit and the payment in full to the Bank of all amounts payable to the Bank hereunder and under the Fee Agreement, the Authority hereby covenants and agrees that it will:

(a) *Notice of Default.* As promptly as practical after the date the Authority shall have obtained knowledge of the occurrence of either an Event of Default or a Default or breach of this Reimbursement Agreement or the Trust Agreement, provide notice of the same to the Bank and, in each case, provide to the Bank the written statement of the Authority setting forth the details of each such event and the action which the Authority proposes to take with respect thereto;

(b) *Annual Reports; Semi Annual Reports; Quarterly Statements, Budgets.*

(i) *Annual Reports.* Within one hundred and ninety five (195) days after the end of each Fiscal Year of the Authority, provide to the Bank audited financial statements consisting of a balance sheet and a statement of revenues, expenditures and changes in fund balances of the Authority, including the Net Pledged Revenues for such Fiscal Year, setting forth in comparative form the corresponding figures (if any) for the preceding Fiscal Year, all in reasonable detail, and accompanied by an unqualified opinion of a nationally recognized independent certified public accounting firm stating that they have been prepared in accordance with GAAP and accompanied by a certification from the Chief Executive Officer of the Authority, the Deputy Chief Executive Officer of the Authority of the Authority, the Chief Financial Officer of the Authority or the Treasurer of the Authority addressed to the Bank stating that neither an Event of Default nor a Default has occurred which was continuing at the end of such Fiscal Year or on the date of his or her certification, or, if such an event has occurred and was continuing at the end of such Fiscal Year or on the date of his or her certification, indicating the nature of such event and the action which the Authority proposes to take with respect thereto.

(ii) *Semi-annual Financial Statements.* As soon as available, and in any event within one hundred (100) days after each June 30 and December 31, provide to the Bank the unaudited financial statements of the Authority including the balance sheet as of each June 30 and December 31 and a statement of income and expenses, all in reasonable detail and accompanied by a certification from the Chief Executive Officer of the Authority, the Deputy Chief Executive Officer of the Authority of the Authority, the Chief Financial Officer of the Authority or the Treasurer of the Authority addressed to the Bank stating that neither an Event of Default, nor a Default has occurred which was continuing at the end of such six

month period or on the date of his or her certification, or, if such an event has occurred and was continuing at the end of such six month period or on the date of his or her certification, indicating the nature of such event and the action which the Authority proposes to take with respect thereto.

(iii) *Quarterly Statements.* As soon as available, and in any event within fifteen (15) days after the end of each March 31 (such quarterly period to include each day from and including January 1st of each year to and including March 31st of each year), July 1 (such quarterly period to include each day from and including April 1st of each year to and including July 1st of each year), September 30 (such quarterly period to include each day from and including July 1st of each year to and including September 30th of each year) and January 1 (such quarterly period to include each day from and including October 1st of each year to and including January 1st of each year), provide to the Bank a statement of (a) the amount of all Proposition A Sales Tax received by the Authority or the Senior Trustee, on behalf of the Authority, during such fiscal quarter and all such amounts that are available to make debt service payments on the Senior Lien Bonds, Second Tier Obligations and Subordinate Obligations, (b) the amount of all Proposition A Sales Tax received by the Authority or the Senior Trustee, on behalf of the Authority, during the twelve (12) months ended as of the end of such fiscal quarter and all such amounts that are available to make debt service payments on the Senior Lien Bonds, Second Tier Obligations and Subordinate Obligations (such amounts available to make debt service payments, the “*Annual Historical Proposition A Sales Tax Receipts*”), (c) the amount of all payments of principal of and interest on the Senior Lien Bonds, Second Tier Obligations and Subordinate Obligations (the “*Annual Historical Proposition A Debt Service Payments*”) during the twelve (12) months ended as of the end of each January 1, March 31, July 1 and September 30, (d) a projection by the Authority of the amount of principal and interest coming due on the Senior Lien Bonds, Second Tier Obligations and the Subordinate Obligations for the five (5) years after the end of each January 1, March 31, July 1 and September 30 (with respect to any Senior Lien Bonds, Second Tier Obligations or Subordinate Obligations bearing interest at variable rates of interest or with respect to which other payments may be made subject to the occurrence of contingencies, the Authority may provide for such assumptions as the Authority determines are reasonable under the circumstances), and (e) a calculation (the “*Calculation Ratio*”) showing the ratio (the “*Historical Ratio*”) that the Annual Historical Proposition A Sales Tax Receipts bear to the Annual Historical Proposition A Debt Service Payments after the end of each January 1, March 31, July 1 and September 30;

(c) *Offering Circulars and Material Event Notices.* Within ten (10) days after the issuance of any securities payable from Pledged Revenues senior to or on a parity with the Notes or Net Pledged Revenues by the Authority with respect to which a final official statement or other offering circular has been prepared by the Authority, provide the Bank with a copy of such official statement or offering circular;

(d) *Notice of Adverse Change.* Notify the Bank as soon as possible after the Treasurer of the Authority acquires knowledge of the occurrence of (i) the filing of a complaint against the Authority in any court or administrative agency, where the amount claimed is in excess of Fifteen Million Dollars (\$15,000,000) and which is payable from Pledged Revenues, (ii) the filing of any action which could lead to an initiative or referendum which could annul, amend, modify or replace the Act or Ordinance No. 16 or which could lead to the diminution or reallocation of the Proposition A Sales Tax, (iii) any action, suit, proceeding, inquiry or investigation before or by any court, public board or body pending or threatened wherein an unfavorable decision, ruling or finding could have a Material Adverse Effect or (iv) any other event which, in the reasonable judgment of the Authority, is likely to have a Material Adverse Effect;

(e) *Other Information.* Provide to the Bank such other information respecting the business affairs, financial condition and/or operations of the Authority, as the Bank may from time to time reasonably request;

(f) *Inspections; Discussion.* Permit the Bank or its representatives, at any reasonable time during normal business hours and from time to time at the request of the Bank to the extent that the Authority is not legally precluded from permitting access thereto: to visit and inspect the properties of the Authority; to examine and make copies of and take abstracts from the records and books of account of the Authority; and to discuss the affairs, finances and accounts of the Authority with the appropriate officers of the Authority; provided that, if required by the Authority, as a condition to the Bank being permitted by the Authority to make or conduct any such visit, inspection, examination or discussion, the Bank shall certify to the Authority that the same is being made or conducted solely in order to assist the Bank in evaluating its position under this Reimbursement Agreement;

(g) *Further Assurances.* Take any and all actions necessary or reasonably requested by the Bank to (i) perfect and protect, any lien, pledge or security interest or other right or interest given, or purported to be given to the Bank or any other Person under or in connection with this Reimbursement Agreement or the other Related Documents, (ii) enable the Bank to exercise or enforce its rights under or in connection with this Reimbursement Agreement or (iii) allow the Bank to pledge the Reimbursement Note to any Federal Reserve Bank;

(h) *Taxes and Liabilities.* Pay all its indebtedness and obligations promptly and in accordance with their terms and pay and discharge or cause to be paid and discharged promptly all taxes, assessments and governmental charges or levies imposed upon it or upon its income and profits, or upon any of its property, real, personal or mixed, or upon any part thereof, before the same shall become in default, which default could have a Material Adverse Effect; provided that the Authority shall have the right to defer payment or performance of obligations to Persons other than the Bank so long as it is contesting in good faith the validity of such obligations by appropriate legal action and no final order or judgment has been entered with respect to such obligations;

(i) *Dealer.*

(i) Not, without the prior written consent of the Bank, appoint or permit the appointment of a successor Dealer. The Authority shall at all times maintain a Dealer under the First Supplemental Subordinate Trust Agreement. If the Dealer fails to sell Notes (the proceeds of which will be used to pay a Liquidity Advance or an Unreimbursed Drawing) after any Unreimbursed Drawing for thirty (30) consecutive days, then the Authority agrees, at the written request of the Bank, to cause the Dealer to be replaced with a Dealer reasonably satisfactory to the Bank. Any dealer agreement with a successor Dealer shall provide that (a) such dealer may resign upon at least sixty (60) days prior written notice to the Authority, the Trustee, the Paying Agent and the Bank, and (b) such dealer shall use its best efforts to remarket the Notes without regard to the Bank Rate (i.e., whether or not the rate to be borne by the Notes is less than the Bank Rate) up to the maximum rate as required under the Related Documents.

(ii) The Authority covenants that it will not agree to permit any Dealer to resign with fewer days notice than is specified in the Dealer Agreement and not prior to providing such prior written notice to the Authority, the Bank, the Paying Agent and the Trustee; provided, however, that the Dealer may resign by giving only thirty (30) days prior written notice to the Bank, the Paying Agent and the Trustee in the event the Authority has provided a substitute dealer reasonably satisfactory to the Bank prior to such thirtieth (30th) day.

(iii) Any Dealer shall have capital of not less than \$500,000,000, and such Dealer or its parent organization shall have an underlying rating from Moody's and S&P of at least "A3" (or its equivalent) and "A-" (or its equivalent), respectively;

(j) *Alternate Letter of Credit.* Use its best efforts to obtain an Alternate Letter of Credit to replace the Letter of Credit in the event the Bank shall determine not to extend the Stated Expiration Date. The Authority agrees to obtain an Alternate Letter of Credit to replace the Letter of Credit in the event the Authority terminates this Reimbursement Agreement pursuant to the terms hereof. The Authority agrees that, as a condition to the effectiveness of the Alternate Letter of Credit, the issuer of the Alternate Letter of Credit will provide funds, to the extent necessary, in addition to other funds available, on the date the Alternate Letter of Credit becomes effective for the satisfaction of all outstanding Reimbursement Obligations through the date the Alternative Letter of Credit becomes effective. On such date, the Authority shall pay in full all other amounts due under this Reimbursement Agreement (including the Excess Interest Fee Amount to the extent permitted by law and unpaid interest thereon); or

(k) *Paying Agent and Trustee.* Without the prior written consent of the Bank, which consent shall not be unreasonably withheld, conditioned or delayed, not take any action or refrain from taking any action that results in a change of the Paying Agent or the Trustee. Any Paying Agent and Trustee shall have capital of not less than \$500,000,000, and any such Paying Agent or Trustee or its respective parent organization

shall have an underlying rating from Moody's and S&P of at least "A2" (or its equivalent) and "A" (or its equivalent), respectively.

(l) *Incorporation of Covenants.* The covenants of the Authority set forth in each of the Related Documents to which the Authority is a party are hereby incorporated by reference in this Reimbursement Agreement for the benefit of the Bank. To the extent that any such incorporated provision permits any Person to waive compliance with or consent to such provision or requires that a document, opinion, report or other instrument or any event or condition be acceptable or satisfactory to any Person, for purposes of this Reimbursement Agreement, such compliance shall be waived, or such provision shall be consented to, only if it is waived or consented to, as the case may be, by the Bank and such document, opinion, report or other instrument shall be acceptable or satisfactory to the Bank. No amendment to such covenants (or the defined terms relating thereto) made pursuant to the Related Documents, which could reasonably be expected to have a Material Adverse Effect, shall be effective to amend such incorporated covenants without the prior written consent of the Bank.

(m) *Book-Entry Eligibility.* The Authority covenants that at all times from and including the Closing Date until and including the date of maturity of the Notes, the Authority shall use commercially reasonable efforts to cause the Notes to be eligible for, and to be registered with, DTC's book-entry delivery services and that such registration with DTC shall not be discontinued without the Bank's prior written consent.

(n) *Waiver of Sovereign Immunity.* The Authority hereby agrees not to assert the defense of any future right of sovereign or governmental immunity in any legal proceeding to enforce or collect upon the obligations of the Authority under this Reimbursement Agreement or the transactions contemplated hereby.

(o) *Credit Facilities.*

(i) In the event that the Authority shall, directly or indirectly, enter into or otherwise consent to any Bank Agreement, which such Bank Agreement provides such Person with additional or more restrictive covenants (except any covenants with respect to any fees payable by the Authority hereunder or under the Fee Agreement) and/or additional or more restrictive events of default (collectively, the "Additional Rights") than are provided to the Bank in this Reimbursement Agreement, then, upon the occurrence of an event of default (without regard to a waiver of such event of default) under such agreement (or amendment thereto) caused by such Additional Rights, such Additional Rights shall automatically be deemed to be incorporated into this Reimbursement Agreement and the Bank shall have the benefits of such Additional Rights; provided, however, that such Additional Rights shall automatically be deemed to be incorporated into this Reimbursement Agreement and the Bank shall have the benefits of such Additional Rights only from and after the occurrence of an event of default under the related Bank Agreement caused by the Additional Rights or a failure by the Authority to comply with such Additional Rights. The Authority shall promptly, upon the occurrence of an event of default (without regard to a

waiver of such event of default) under the related Bank Agreement caused by such Additional Rights or a failure by the Authority to comply with such Additional Rights, enter into an amendment to this Reimbursement Agreement to include such Additional Rights, provided that the Bank shall maintain the benefit of such Additional Rights even if the Authority fails to provide such amendment. If the Authority shall amend the Bank Agreement such that it no longer provides for such Additional Rights, then, without the consent of the Bank, this Reimbursement Agreement shall automatically no longer contain the related Additional Rights and the Bank shall no longer have the benefits of any of the related Additional Rights.

(ii) In the event that (A) the Authority shall enter into or otherwise consent to any Bank Agreement, which such Bank Agreement provides for any term or provision which permits any outstanding advance, loan or drawing to be amortized over a period shorter than the Amortization Period set forth in Section 2.03(b) hereof (such shorter amortization period, the “*Shorter Amortization Period*”) and (B) the Calculation Ratio delivered with respect to the end of the immediately preceding fiscal quarter pursuant to Section 5.01(b)(iii) shows an Historical Ratio of 130% or less, then, until the Authority delivers a Calculation Ratio showing the Historical Ratio to be greater than 130%, this Reimbursement Agreement shall automatically be deemed to be amended such that the Amortization Period set forth in Section 2.03(b) hereof shall be such Shorter Amortization Period. Upon the occurrence of the conditions set forth in the immediately preceding sentence, the Authority shall promptly enter into an amendment to this Reimbursement Agreement such that the Amortization Period equals such Shorter Amortization Period, provided that the Amortization Period shall equal the Shorter Amortization Period regardless of whether this Reimbursement Agreement is amended. If the Authority shall amend the Bank Agreement such that it no longer provides for an amortization of the related advance, loan or Drawing for a period less than the Amortization Period, then, without the consent of the Bank, the Amortization Period shall once again equal the period provided in Section 2.03(b) hereof.

(p) *Right to Accelerate.* In the event that the Authority shall, directly or indirectly, enter into or otherwise consent to any Bank Agreement, which such Bank Agreement includes the right to accelerate the payment of the principal of or interest on any series of Senior Lien Bonds or Subordinate Obligations, the Bank shall be deemed to have the right to accelerate the payment of principal of and interest on any outstanding Reimbursement Obligations (and all other obligations due and owing hereunder and under the Reimbursement Note and under the Fee Agreement) upon the occurrence and during the continuance of an event of termination or an event of default under such Bank Agreement permitting an acceleration of such bonds or debt. The Authority shall promptly, upon the occurrence of the Authority entering into an agreement (or amendment thereto) which provides for the right to accelerate any Senior Lien Bonds or Subordinate Obligations, enter into an amendment to this Reimbursement Agreement to include a provision which permits the Bank to accelerate outstanding Reimbursement Obligations (and all other obligations due and owing hereunder, under the

Reimbursement Note and under the Fee Agreement), provided that the Bank shall maintain the benefit of such provision even if the Authority fails to provide such amendment. The release, termination or other discharge of such other documentation that provides for acceleration of any Senior Lien Bonds or Subordinate Obligations, shall be effective to amend, release, terminate or discharge (as applicable) such provision as incorporated by reference herein without the consent of the Bank.

(q) *Historical Debt Service Coverage Ratio.* As of each of January 1, March 31, July 1 and September 30, the Authority shall maintain a ratio of (i) Annual Historical Proposition A Sales Tax Receipts to (ii) Annual Historical Proposition A Debt Service Payments (excluding any termination payment under any Interest Rate Protection Agreement paid by the Authority during such Fiscal Year and any principal maturities of commercial paper notes issued under the Trust Agreement and maturing during such Fiscal Year if such principal maturities are paid with the proceeds of (x) “rollover” commercial paper notes issued pursuant to the Trust Agreement during such Fiscal Year or (y) a draw under a credit or liquidity facility) (such ratio and any ratio of similar effect are referred to herein as a “*Historical Debt Service Coverage Ratio*”) of not less than 1.80 to 1.00; provided, however, that in the event the Authority shall, directly or indirectly, enter into or otherwise consent to any Bank Agreement, which such Bank Agreement provides such Person with a covenant that requires the Authority to maintain a Historical Debt Service Coverage Ratio greater than 1.80 to 1.00, then this Section 5.01(q) shall be deemed to be amended to include such more restrictive Historical Debt Service Coverage Ratio for so long as such Bank Agreement remains in effect.

(r) *Receipt and Deposit of Pledged Revenues.* The Authority shall use its best efforts to assure that the Board of Equalization pays the Pledged Tax directly to the Senior Trustee on a monthly basis; and if at any time any Pledged Tax is paid to the Authority by the Board of Equalization instead of being paid directly to the Senior Trustee, immediately upon receipt, the Authority shall transfer such Pledged Tax to the Senior Trustee for credit to the Revenue Fund held under the Senior Trust Agreement; and during such time as such Pledged Tax is held by the Authority (prior to transfer to the Senior Trustee), such Pledged Tax will be impressed with a trust and held for the bondholders under the Senior Trust Agreement and, to the extent such amounts exceed amounts required to be deposited in the funds held under the Senior Trust Agreement, in trust for the holders of the Subordinate Obligations including, without limitation, the holders of the Reimbursement Notes.

ARTICLE VI

NEGATIVE COVENANTS

Section 6.01. Negative Covenants of the Authority. Until the termination of the Letter of Credit and this Reimbursement Agreement and the payment in full to the Bank of all amounts payable to the Bank hereunder, the Authority hereby covenants and agrees that it will not:

(a) *Compliance With Laws, Etc.* Violate any laws, rules, regulations, or governmental orders to which it is subject and of which it is aware after diligent inquiry,

which violation involves a reasonable likelihood of materially and adversely affecting its financial condition;

(b) *Amendments.* Modify, amend or supplement, or give any consent to any modification, amendment or supplement or make any waiver with respect to, any provision of any Related Document without the prior written consent of the Bank; provided, however, that nothing contained in this Section 6.01(b) shall require the consent of the Bank to the execution and delivery of supplements to the Senior Trust Agreement or the Trust Agreement that are made solely for the purpose of specifying the terms of additional Debt issued in accordance with the terms thereof and of Section 6.01(f) of this Reimbursement Agreement;

(c) *Affiliates.* Unless expressly permitted by law, permit the Dealer to sell Notes to the Authority or an Affiliate of the Authority;

(d) *Liens, Etc.* Create or suffer to exist any Lien upon or with respect to any of the funds or accounts created under the Trust Agreement except those Liens specifically permitted under the Trust Agreement; provided, however, that in no event will the Authority permit any Lien upon the Pledged Revenues or Net Pledged Revenues securing any termination payment pursuant to any Interest Rate Protection Agreement to be senior to the Lien on Net Pledged Revenues securing the Notes, the Reimbursement Note and the other Reimbursement Obligations other than Interest Rate Agreements that are outstanding as of the Closing Date and as otherwise consented to in writing by the Bank;

(e) *Certain Information.* Include in an offering document for the Notes (or any other offering document) any information concerning the Bank (other than identifying the Bank as a party to this Reimbursement Agreement and the issuer of the Letter of Credit) that is not supplied in writing, or otherwise consented in writing, by the Bank expressly for inclusion therein. Except as may be required by law (including, but limited to, federal and state securities laws), the Authority shall not use the Bank's name in any published materials (other than the Authority's staff reports, annual statements, audited financial statements, rating agency presentations) without the prior written consent of the Bank (which consent shall not be unreasonably withheld); provided that, without the prior written consent of the Bank, the Authority may identify the Bank as a party to this Reimbursement Agreement and as the issuer of the Letter of Credit, the stated amount of the Letter of Credit, the expiration date of the Letter of Credit and that the Authority's obligations under this Agreement are secured by Net Pledged Revenues in offering documents with respect to the Senior Lien Bonds and the Subordinate Obligations, so long as no other information relating to this Reimbursement Agreement, the Fee Agreement or the Bank is disclosed in such offering documents without the prior written consent of the Bank.

From time to time, the Authority expects to publish offering documents with respect to the Notes that will require the Authority to include therein certain information about the Bank. At the reasonable request of the Authority, the Bank will provide the Authority with updated information about the Bank of the type included in Appendix A

to the Offering Memorandum under the caption [“**Certain Information Regarding the Banks — Citibank, N.A.**”] in the Offering Memorandum for inclusion in such offering documents; or

(f) *Additional Debt.*

(i) (A) In addition to the requirements set forth in Section 2.11 of the Senior Trust Agreement and Section 2.09 of the Subordinate Trust Agreement, issue any additional Senior Lien Bonds, Second Tier Obligations or Subordinate Obligations until there shall first be delivered to the Senior Trustee or the Trustee, as applicable, a certificate prepared by a Consultant showing that the Pledged Tax collected for any 12 consecutive months out of the 18 consecutive months immediately preceding the issuance of the proposed Senior Lien Bonds, Second Tier Obligations or Subordinate Obligations was at least equal to 180% of Projected Maximum Total Annual Debt Service for all Senior Lien Bonds, Second Tier Obligations, and Subordinate Obligations which will be Outstanding immediately after the issuance of the proposed Senior Lien Bonds, Second Tier Obligations or Subordinate Obligations.

(B) Notwithstanding the foregoing, in the event that the Authority shall, directly or indirectly, enter into or otherwise consent to any Bank Agreement, which such Bank Agreement provides such Person with a covenant that restricts the issuance of additional Senior Lien Bonds, Second Tier Obligations or Subordinate Obligations based upon satisfaction of a condition precedent that the Pledged Tax collected for any 12 consecutive months out of the 18 consecutive months immediately preceding the issuance of the proposed Senior Lien Bonds, Second Tier Obligations or Subordinate Obligations be a greater percentage than 180% (any such greater percentage referred to herein as a “*More Stringent Additional Debt Percentage*”) of the Projected Maximum Total Annual Debt Service for all Senior Lien Bonds, Second Tier Obligations, and Subordinate Obligations which will be Outstanding immediately after the issuance of the proposed Senior Lien Bonds, Second Tier Obligations or Subordinate Obligations, then the percentage set forth in Section 6.01(f)(i)(A) shall be deemed to be amended or replaced with the More Stringent Additional Debt Percentage on the issuance of any additional Senior Lien Bonds, Second Tier Obligations or Subordinate Obligations for so long as such Bank Agreement remains in effect.

(ii) The Authority shall deliver to the Bank the certificate set forth in Section 6.01(f)(i) hereof concurrently when the same is delivered to the Senior Trustee or the Trustee, as applicable.

ARTICLE VII

EVENTS OF DEFAULT

Section 7.01. Events of Default. If any of the following events shall occur, each such event shall be an “*Event of Default*”:

(a) Failure to pay, or cause to be paid, when due (i) any Reimbursement Obligations or any interest thereon, (ii) any principal of or interest on any commercial paper notes issued pursuant to the Trust Agreement as and when due under the Trust Agreement; or (iii) any principal of, premium or interest on any Parity and Senior Debt;

(b) The Authority shall (i) commence a voluntary case or other proceeding seeking liquidation, reorganization, arrangement, adjustment, winding up, dissolution, composition or other similar relief with respect to itself or its indebtedness under any bankruptcy, insolvency, reorganization or other similar law for the relief of debtors now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official for it or a substantial part of its property, (ii) consent to any such relief or to the appointment of or taking possession by any such official in an involuntary case or other proceeding commenced against it, (iii) make a general assignment for the benefit of creditors, or (iv) admit, in writing, its inability to pay its indebtedness as it becomes due, (v) become insolvent within the meaning of Section 101(32) of the Bankruptcy Code, or (vi) take any official action to authorize any of the foregoing;

(c) Any of the following shall occur with respect to the Authority (i) an involuntary case or other proceeding shall be commenced against the Authority seeking liquidation, reorganization or other relief with respect to it or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of it or any substantial part of its property, and such involuntary case or other proceeding shall not be dismissed within ninety (90) days; or (ii) an order for relief shall be entered against the Authority under the federal bankruptcy laws as now or hereafter in effect or pursuant to any other state or federal laws concerning insolvency or of similar purpose; or (iii) there shall be commenced against the Authority any case, proceeding or other action seeking the issuance of a warrant of attachment, execution, restraint or similar process against all or any substantial part of its assets, which results in the entry of an order for any such relief which shall not have been vacated, discharged, or stayed or bonded pending appeal within ninety (90) days from the entry thereof; or (iv) the Authority shall take any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any of the acts set forth in clause (i), (ii) or (iii) above; or (v) the Authority shall generally not, or shall be unable to, or shall admit in writing its inability to, pay its debts as the same becomes due or (vi) a debt moratorium, debt adjustment, debt restructuring or comparable extraordinary restriction with respect to the payment of principal of or interest on the indebtedness of the Authority shall be declared or imposed pursuant to a finding or ruling by the Authority, the United States of America, the State

of California, any instrumentality thereof or any other Governmental Authority of competent jurisdiction over the Authority;

(d) The occurrence of (i) an Incipient Invalidity Event or (ii) an Invalidity Event;

(e) Any of Moody's or S&P either (i) withdraws or suspends the underlying long-term rating of any Subordinate Obligations, Senior Lien Bonds or Parity and Senior Debt for credit related reasons or (ii) reduce the long-term underlying rating of any Subordinate Obligations, Senior Lien Bonds or Parity and Senior Debt, in the case of S&P, below "A-" (or its equivalent) or in the case of Moody's, below "A3" (or its equivalent);

(f) The existence of one or more final, non-appealable judgments against the Authority for the payment of money payable out of Pledged Revenues ranking senior to or on a parity with the Subordinate Obligations, the operation or result of which, individually or in the aggregate, equals or exceed \$15,000,000, and such judgment, attachment or levy shall remain unpaid or the lien created thereby shall remain undischarged or unbonded (by property other than any of the Pledged Revenues) for a period of thirty (30) days;

(g) Any Subordinate Obligations, Senior Lien Bonds, Parity and Senior Debt or any termination payment under any Interest Rate Protection Agreement that is secured by a lien on Pledged Revenues ranking senior to or on a parity with the Notes shall not be paid when and as the same shall become due and payable (whether by scheduled maturity, required redemption, or acceleration), or any default shall occur under any Subordinate Obligations, Senior Lien Bonds, any Parity and Senior Debt or any termination payment under any Interest Rate Protection Agreement that is secured by a lien on Pledged Revenues ranking senior to or on a parity with the Notes or under any indenture, agreement or other instrument pursuant to which any such Subordinate Obligations, Senior Lien Bonds, any Parity and Senior Debt or any termination payment under any Interest Rate Protection Agreement that is secured by a lien on Pledged Revenues ranking senior to or on a parity with the Notes was issued and such payment default shall continue for a period of time sufficient to permit the acceleration of the maturity of any such Subordinate Obligations, Senior Lien Bonds, any Parity and Senior Debt or any termination payment under any Interest Rate Protection Agreement that is secured by a lien on Pledged Revenues ranking senior to or on a parity with the Notes (whether or not any such Subordinate Obligations, Senior Lien Bonds, any Parity and Senior Debt or any termination payment under any Interest Rate Protection Agreement that is secured by a lien on Pledged Revenues ranking senior to or on a parity with the Notes is in fact accelerated);

(h) Any material representation or warranty made by the Authority under or in connection with this Reimbursement Agreement (including, without limitation, representations and warranties incorporated herein by reference) shall prove to be untrue in any material respect on the date as of which it was made or deemed made;

(i) Failure to pay or cause to be paid, when due any other obligation owed to the Bank hereunder and under the Fee Agreement (other than those referenced in Section 7.01(a) hereof) (together with interest thereon at the Default Rate) and such failure shall continue for five (5) days after the Trustee and the Authority have received written notice from the Bank that any such amount was not paid when due;

(j) The breach by the Authority of any of the terms or provisions of Section 5.01(i), (j), (k), (m), (n) or (q) hereof or Section 6.01(b), (c), (d), (f)(i) or (f)(ii) hereof;

(k) The breach by the Authority of any material terms or provisions of this Reimbursement Agreement (other than breaches specifically addressed in this Section 7.01) and the continuance of such default for thirty (30) days after written notice thereof shall have been received by the Authority from the Bank;

(l) (i) The occurrence of any event of default under the Senior Trust Agreement or the Trust Agreement (which is not waived pursuant to the terms thereof); or (ii) the occurrence of any event of default or termination under any of the Related Documents (which is not waived pursuant to the terms thereof) which is not otherwise described in this Section 7.01, other than the failure of the Bank to honor a properly presented and conforming draw;

(m) Any Lien created by this Reimbursement Agreement, the Trust Agreement or the Senior Trust Agreement in favor of, or for the benefit of, the Bank shall at any time or for any reason (except as expressly permitted to be released by the terms of such governing document) not constitute a valid Lien;

(n) At any time, (i) the Senior Lien Bonds shall not have been assigned a long term rating from at least one of Moody's, S&P or Fitch for credit related reasons or (ii) the Reimbursement Note shall not have been assigned at least one long-term rating of at least investment grade from at least one of Moody's, S&P or Fitch;

(o) The Authority shall default in the payment of the principal of or interest on any Debt owed to the Bank secured by or payable from the Proposition A Sales Tax;

(p) There shall be a change in any applicable law that shall limit the per annum maximum rate of interest applicable to any Note to a rate of interest per annum less than 12% and the SIFMA Rate shall be greater than 6% per annum;

(q) Any Governmental Authority of competent jurisdiction shall declare a financial emergency or similar declaration with respect to the Authority and shall appoint or designate, with respect to the Authority, an entity such as an organization, a board, a commission, an authority, an agency or any other similar body to manage the affairs and operations of the Authority and such appointed entity has the authority to intercept or direct all or substantially all of the Proposition A Sales Tax; or

(r) The Authority shall issue any Senior Lien Bonds, Second Tier Obligations or Subordinate Obligations and the Pledged Tax collected for any 12 consecutive months out of the 18 consecutive months immediately preceding such issuance was less than

130% of Projected Maximum Total Annual Debt Service for all Senior Lien Bonds, Second Tier Obligations, and Subordinate Obligations which are outstanding after such issuance.

Section 7.02. Remedies.

(i) Upon the occurrence and during the continuation of an Event of Default, the Bank, in its sole discretion, may take any one or more of the following actions, and the taking of any one of such actions shall not preclude the taking of any other of such actions: (a) deliver to the Paying Agent a Final Drawing Notice to the effect that an Event of Default has been declared under this Reimbursement Agreement and that the Letter of Credit will terminate 10 days after receipt of such Notice and requesting that the Paying Agent make a Final Drawing (as defined in the Letter of Credit) under the Letter of Credit in an amount equal to the principal of the outstanding Notes plus interest to their maturity, (b) deliver to the Paying Agent a notice in the form of Schedule I to the Letter of Credit (a “*No Issuance Notice*”) and on the maturity date for the last Note to mature which was issued prior to the delivery of such No Issuance Notice and upon the Bank honoring the Drawing under the Letter of Credit with respect to such Note, the Letter of Credit shall be terminated and returned to the Bank, (c) deliver to the Paying Agent a notice in the form of Schedule II to the Letter of Credit (a “*Reduction Notice*”) and on the maturity date for the last Note to mature which was issued and outstanding prior to the delivery of such Reduction Notice, the Stated Amount of the Letter of Credit shall be reduced to the principal amount of Notes outstanding on the date of the issuance of the Reduction Notice, (d) cure any default, event of default or event of nonperformance under this Reimbursement Agreement or under any of the other Related Documents or (e) exercise any other rights or remedies available under any Related Document or any other agreement or at law or in equity.

(ii) Upon the occurrence of an Event of Default under Section 7.01(b), (c), (l)(i) or (r) hereof, the Bank may, by notice to the Authority and the Trustee, declare all outstanding Obligations of the Authority (including, without limitation, outstanding Reimbursement Obligations) to be immediately due and payable (provided that the obligations of the Authority hereunder shall become automatically and immediately due and payable without such notice upon the occurrence of an event of default under 7.01(b) or (c) hereof or under Section 8.01(e) under the Senior Trust Agreement, such acceleration shall automatically occur (unless such automatic acceleration is expressly waived by the Bank in writing)), and such amounts shall thereupon become immediately due and payable without presentment, demand, protest or other notice of any kind, all of which are hereby waived by the Authority.

(iii) The rights and remedies of the Bank specified herein are for the sole and exclusive benefit, use and protection of the Bank, and the Bank is entitled, but shall have no duty or obligation to the Authority, the Trustee, the Paying Agent, the holders of any Senior Lien Bonds or Subordinate Lien Obligations or any other Person, (i) to exercise or to refrain from exercising any right or remedy reserved to the Bank hereunder, or (ii) to cause the Trustee, the Paying Agent or any other Person to exercise or to refrain from exercising any right or remedy available to it under any of the Related Documents.

ARTICLE VIII

NATURE OF OBLIGATIONS; INDEMNIFICATION

Section 8.01. Obligations Absolute. The payment obligations of the Authority arising under this Reimbursement Agreement are secured as provided in Section 2.12 hereof and the Trust Agreement in accordance with its terms and shall be paid and performed strictly in accordance with the terms of this Reimbursement Agreement, under all circumstances whatsoever, including, without limitation, the following circumstances:

- (a) any lack of validity or enforceability of all or any of the Related Documents;
- (b) any amendment or waiver of or any consent to or departure from all or any of the Related Documents;
- (c) any exchange, release or non-perfection of any collateral;
- (d) the existence of any claim, set off, defense, or other right which the Authority may have at any time against the Paying Agent, the Trustee, any Dealer, the Bank (other than the defense of the payment to the Bank in accordance with the terms of this Reimbursement Agreement) or any other person or entity, whether in connection with this Reimbursement Agreement, the other Related Documents or any unrelated transactions;
- (e) any certificate, notice or any other document presented under this Reimbursement Agreement proving to be forged, fraudulent, invalid or insufficient in any respect or any statement therein being untrue or inaccurate in any material respect whatsoever; or
- (f) any other circumstances or happening whatsoever, whether or not similar to any of the foregoing.

Section 8.02. Continuing Obligation. This Reimbursement Agreement is a continuing obligation, shall survive the expiration of the Letter of Credit and shall (a) be binding upon the Authority, its successors and assigns, and (b) inure to the benefit of and be enforceable by the Bank and its successors, transferees and assigns; provided that the Authority may not, except as otherwise expressly provided herein, assign all or any part of this Reimbursement Agreement without the prior written consent of the Bank.

Section 8.03. Liability of the Bank. The Authority agrees that the Bank shall have no responsibility for the acts or omissions of any Dealer, the Trustee, the Paying Agent, or any agent thereof, and any transferee beneficiary of the Letter of Credit with respect to its use of the Letter of Credit. Neither the Bank nor any of its officers or directors shall be liable or responsible for: (a) the use which may be made of the Letter of Credit or for any acts or omissions of the Paying Agent, the Trustee or any agent of the Paying Agent or the Trustee and any transferee beneficiary in connection therewith; (b) the validity or genuineness of documents, or of any endorsement(s) thereon, even if such documents should in fact prove to be in any or all

respects invalid, fraudulent or forged; (c) payment by the Bank against presentation of documents which do not comply with the terms of the Letter of Credit, including failure of any documents to bear any reference or adequate reference to the Letter of Credit; or (d) any other circumstances whatsoever in making or failing to make payment under the Letter of Credit; provided, however, that the Authority shall have a claim against the Bank, and the Bank shall be liable to the Authority, to the extent of any direct compensatory, as opposed to consequential, damages suffered by the Authority which the Authority proves in a final, non-appealable judgment that such direct damages were caused by the Bank's gross negligence or willful misconduct in connection with the Letter of Credit (it being understood that the Bank assumes no liability or responsibility for the genuineness, falsification or effect of any document which appears to be regular on its face). The Bank is hereby expressly authorized and directed to honor any demand for payment which is made under the Letter of Credit without regard to, and without any duty on its part to inquire into the existence of, any disputes or controversies between or among the Authority, the Trustee, the Paying Agent, any transferee beneficiary of the Letter of Credit or any other Person or the respective rights, duties or liabilities of any of them, or whether any facts or occurrences represented in any of the documents presented under the Letter of Credit are true and correct.

Section 8.04. Indemnification.

(a) *General.* To the extent permitted by applicable law, the Authority agrees to indemnify and hold harmless the Bank from and against any and all claims, damages, losses, liabilities and reasonable costs or expenses (including, without limitation, reasonable attorneys' fees and expenses) whatsoever which the Bank may incur (or which may be claimed against the Bank by any person or entity whatsoever) by reason of or in connection with (i) the offering, sale, remarketing or resale of the Notes (including, without limitation, by reason of any untrue statement or alleged untrue statement of any material fact contained in the Offering Memorandum (other than in connection with the description of the Bank, the Letter of Credit or this Reimbursement Agreement therein) or in any supplement or amendment thereof or remarketing circular relating thereto, or the omission or alleged omission to state therein a material fact necessary to make such statements, in the light of the circumstances in which they are or were made, not misleading); (ii) the validity, sufficiency or genuineness of the Related Documents, the Offering Memorandum (other than in connection with the description of the Bank under Appendix A – [**Certain Information Regarding the Banks – Citbank, N.A.**]) or any supplement or amendment thereof or remarketing circular relating thereto; or (iii) the execution and delivery of this Reimbursement Agreement or the issuance of the Letter of Credit, or the honoring of Drawings under the Letter of Credit; provided that the Authority shall not be required to indemnify the Bank for any losses, claims, damages, liabilities, costs and expenses to the extent that such losses, claims, damages, liabilities, costs and expenses were caused by the willful misconduct or gross negligence of the Bank as determined by a court of competent jurisdiction in a final nonappealable judgment.

(b) *Waiver of Consequential Damages, Etc.* To the fullest extent permitted by applicable law, the Authority shall not assert, and hereby waives, and acknowledges that no other Person shall have, any claim against any Indemnatee, on any theory of liability,

for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, this Agreement, any other Related Document or any agreement or instrument contemplated hereby, the transactions contemplated hereby or thereby, the Letter of Credit or the use of the proceeds of Drawings thereunder. No Indemnitee referred to in subsection (b) above shall be liable for any damages arising from the use by unintended recipients of any information or other materials distributed to such unintended recipients by such Indemnitee through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Program Documents or the transactions contemplated hereby or thereby.

(c) *Taxes, Etc.* To the extent permitted by law, the Authority agrees to indemnify and hold the Bank harmless (on a net after tax basis) from any present or future claim or liability for stamp, transfer, documentary, excise or other similar tax and any penalties or interest with respect thereto, which may be assessed, levied or collected by any Government Authority in connection with the execution, delivery and performance of, or any payment made under, this Reimbursement Agreement, the Notes and the other Related Documents, or any amendment thereto.

Section 8.05. Facsimile Documents. At the request of the Authority, the Letter of Credit provides that demands for payment thereunder may be presented to the Bank by, among other methods, facsimile. The Authority acknowledges and assumes all risks relating to the use of such facsimile demands for payment and agrees that its obligations under this Reimbursement Agreement and the other Related Documents shall remain absolute, unconditional and irrevocable as provided in Section 8.01 above if the Bank honors such facsimile demands for payment.

ARTICLE IX

TRANSFER, REDUCTION OR EXTENSION OF LETTER OF CREDIT

Section 9.01. Transfer, Reduction and Reinstatement. The Letter of Credit may be transferred, reduced and reinstated in accordance with the provisions set forth therein.

Section 9.02. Extension. The Stated Expiration Date of the Letter of Credit may be extended by the Bank upon the written request of the Authority in the form of Exhibit B hereto appropriately completed and given to the Bank no sooner than 120 days, and no later than 60 days, prior to the Stated Expiration Date. Within 30 days of receipt of a request for extension, the Bank shall either notify the Authority and the Paying Agent in accordance with the terms of the Letter of Credit that the Letter of Credit will be extended to the new Stated Expiration Date set forth in a notice in the form of Exhibit G to the Letter of Credit executed by the Bank or notify the Authority and the Paying Agent that the Letter of Credit will not be so extended. The Bank may, in its sole and absolute discretion, decide to accept or reject any such proposed extension, and no extension shall become effective unless the Bank shall have consented thereto in writing. The consent of the Bank, if granted, shall be conditioned upon the preparation, execution and delivery of documentation in form and substance reasonably satisfactory to the Bank. If such an extension request is accepted by the Bank in its absolute discretion, the then

current Stated Expiration Date for the Letter of Credit shall be extended for a period to be agreed to by the parties hereto. Failure of the Bank to so respond to any such request for extension shall constitute the Bank's denial of such request.

ARTICLE X

MISCELLANEOUS

Section 10.01. Amendments and Waivers. No amendment or waiver of any provision or term of this Reimbursement Agreement, the Fee Agreement or the Letter of Credit, and no consent to any departure by the Authority or any other party therefrom, shall be effective unless in writing signed by the Bank and the Authority and each such waiver or consent shall be effective only in the specific instance and for the specific purpose for which given.

Section 10.02. No Waiver; Remedies. No failure on the part of the Bank to exercise, and no delay in exercising, any right under this Reimbursement Agreement shall operate as a waiver of such right; nor shall any single or partial exercise of any right under this Reimbursement Agreement preclude any other further exercise of such right or the exercise of any other right. The remedies herein provided are cumulative and not exclusive of any remedies provided by law.

Section 10.03. Notices. Any notice, demand, direction, request or other instrument authorized or required by this Reimbursement Agreement to be given to or filed with the Authority, the Trustee, the Paying Agent or the Bank shall be deemed to have been sufficiently given or filed, for all purposes, when delivered by hand or when sent by registered mail, return receipt requested, postage prepaid; or, if given by facsimile transmission, when receipt is acknowledged by the individual or an authorized representative of the entity specified below; provided that any such notice, demand, direction, request or other instrument to the Bank shall be effective only when actually received by the Bank; provided further, that any notice by the Authority required to be given hereunder or on which is conditioned any right or remedy shall be valid only if executed by a duly authorized representative of the Authority:

If to the Authority:

Los Angeles County Metropolitan
Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012 2932
Tax ID Number: 95-4401975
Attention: Treasurer
Telephone: (213) 922-4047
Facsimile: (213) 922-4027

If to the Paying Agent:

U.S. Bank National Association
100 Wall Street, Suite 1600
New York, New York 10005

Attention: Corporate Trust Department
Telephone: (212) 361-2892
Facsimile: (212) 514-6841

If to the Dealers:

Goldman, Sachs & Co.
200 West Street, 6th Floor
New York, NY 10282
Attention: Municipal Money Market Sales
and Trading - CP and Notes Trading
Telephone: (212) 902-6633
E-mail: ficc-municp-traders@ny.email.gs.com

Barclays Capital Inc.
745 Seventh Avenue
2nd Floor
New York, NY 10019
Attn.: Short-Term Municipal Desk
(212) 528-1011

RBC Capital Markets, LLC
3 World Financial Center
200 Vesey Street, 8th Floor
New York, NY 10281
Attn.: Short Term Municipal Trading Manager
(212) 618-2019

If to the Bank for Credit Matters:

Citibank, N.A.
388 Greenwich Street, 6th Floor
New York, NY 10013
Attention: Municipal Credit Surveillance
Facsimile:
Telephone:
E-mail: munisurv2@citi.com

With a copy to:

Citibank, N.A.
388 Greenwich Street, 8th Floor
New York, NY 10013
Attention: Rebekah McGuire
Facsimile: (866) 914-8193
Telephone: (212) 723-5577
E-mail: rebekah.mcguire@citi.com

If to the Bank for Drawings under the Letter of Credit:

Citibank, N.A.
3800 Citibank Center Building
Tampa, FL 33610
Attention: Sonja Hudson GTS Letter of Credit Operations
Facsimile: (813) 604-7187
Telephone: (813) 604-7203
E-mail: sonja.hudson@citi.com

Section 10.04. Severability. In case any one or more of the provisions contained in this Reimbursement Agreement should be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby. The parties shall endeavor in good faith negotiations to replace the invalid, illegal or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the invalid, illegal or unenforceable provisions.

Section 10.05. Governing Law.

(a) THIS REIMBURSEMENT AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF CALIFORNIA.

(b) TO THE EXTENT PERMITTED BY APPLICABLE LAWS, EACH OF THE PARTIES HERETO HEREBY WAIVES ITS RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE OTHER RELATED DOCUMENTS OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY, INCLUDING CONTRACT CLAIMS, TORT CLAIMS, BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW OR STATUTORY CLAIMS. IF AND TO THE EXTENT THAT THE FOREGOING WAIVER OF THE RIGHT TO A JURY TRIAL IS UNENFORCEABLE FOR ANY REASON IN SUCH FORUM, EACH OF THE PARTIES HERETO HEREBY CONSENTS TO THE ADJUDICATION OF ALL CLAIMS PURSUANT TO JUDICIAL REFERENCE AS PROVIDED IN CALIFORNIA CODE OF CIVIL PROCEDURE SECTION 638, AND THE JUDICIAL REFEREE SHALL BE EMPOWERED TO HEAR AND DETERMINE ALL ISSUES IN SUCH REFERENCE, WHETHER FACT OR LAW. EACH OF THE PARTIES HERETO REPRESENTS THAT IT HAS REVIEWED THIS WAIVER AND CONSENT AND THAT IT KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS AND CONSENTS TO JUDICIAL REFERENCE FOLLOWING CONSULTATION WITH LEGAL COUNSEL ON SUCH MATTERS. IN THE EVENT OF LITIGATION, A COPY OF THIS AGREEMENT MAY BE FILED AS A WRITTEN CONSENT TO A TRIAL BY THE COURT OR TO JUDICIAL REFERENCE UNDER CALIFORNIA CODE OF CIVIL PROCEDURE SECTION 638 AS PROVIDED HEREIN.

(c) THE PARTIES HERETO IRREVOCABLY SUBMIT TO THE NON-EXCLUSIVE JURISDICTION OF THE UNITED STATES DISTRICT COURT FOR THE CENTRAL DISTRICT OF CALIFORNIA AND ANY COURT IN THE STATE OF CALIFORNIA, AND ANY APPELLATE COURT FROM ANY THEREOF, IN ANY ACTION, SUIT OR PROCEEDING BROUGHT AGAINST OR BY IT IN CONNECTION WITH THIS AGREEMENT OR FOR RECOGNITION OR ENFORCEMENT OF ANY JUDGMENT RELATED THERETO, AND THE PARTIES HERETO HEREBY IRREVOCABLY AND UNCONDITIONALLY AGREE THAT ALL CLAIMS IN RESPECT OF ANY SUCH ACTION OR PROCEEDING MAY BE HEARD OR DETERMINED IN SUCH CALIFORNIA STATE COURT OR, TO THE EXTENT PERMITTED BY LAW, IN SUCH FEDERAL COURT. THE PARTIES AGREE THAT A FINAL NONAPPEALABLE JUDGMENT IN ANY SUCH ACTION, SUIT OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW. TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE PARTIES HEREBY WAIVE AND AGREE NOT TO ASSERT BY WAY OF MOTION, AS A DEFENSE OR OTHERWISE IN ANY SUCH SUIT, ACTION OR PROCEEDING, ANY CLAIM THAT IT IS NOT PERSONALLY SUBJECT TO THE JURISDICTION OF SUCH COURTS, THAT THE SUIT, ACTION OR PROCEEDING IS BROUGHT IN ANY INCONVENIENT FORUM, THAT THE VENUE OF THE SUIT, ACTION OR PROCEEDING IS IMPROPER OR THAT THE RELATED DOCUMENTS OR THE SUBJECT MATTER THEREOF MAY NOT BE LITIGATED IN OR BY SUCH COURTS.

Section 10.06. Headings. Section headings in this Reimbursement Agreement are included herein for convenience of reference only and shall not have any effect for purposes of interpretation or construction of the terms of this Reimbursement Agreement.

Section 10.07. Participations. The Bank may at any time, without the consent of, or notice to, the Authority, sell participations to any Person (other than a natural person or the Authority) (each, a “Participant”) in all or a portion of the Bank’s rights and obligations under this Reimbursement Agreement and obligations under the Letter of Credit and such Participants shall be entitled to the rights and benefits of this Reimbursement Agreement and the other Related Documents, including, without limitation, Sections 2.07 and Article VIII hereof, to the same extent as if they were a direct party hereto; provided that (i) the Bank’s obligations under the Letter of Credit shall remain unchanged, (ii) the Bank shall remain solely responsible to the other parties hereto for the performance of such obligations and (iii) the Authority shall continue to deal solely and directly with the Bank in connection with the Bank’s rights under this Reimbursement Agreement and its obligations under the Letter of Credit.

Section 10.08. Counterparts. This Reimbursement Agreement may be signed in any number of counterpart copies, but all such copies shall constitute one and the same instrument. This Agreement, the other Program Documents, and any separate letter agreements with respect to fees payable to the Bank constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. Except as provided in Section 3.01, this Reimbursement Agreement shall become effective when it shall have been executed by the Bank and when the

Bank shall have received counterparts hereof that, when taken together, bear the signatures of each of the other parties hereto. Delivery of an executed counterpart of a signature page of this Reimbursement Agreement or any other Related Document, or any certificate delivered thereunder, by fax transmission or e-mail transmission (e.g., “pdf” or “tif”) shall be effective as delivery of a manually executed counterpart of this Agreement or such other Related Document or certificate. Such paper copies or “printouts,” if introduced as evidence in any judicial, arbitral, mediation or administrative proceeding, will be admissible as between the parties to the same extent and under the same conditions as other original business records created and maintained in documentary form. Neither party shall contest the admissibility of true and accurate copies of electronically signed documents on the basis of the best evidence rule or as not satisfying the business records exception to the hearsay rule. Without limiting the foregoing, to the extent a manually executed counterpart is not specifically required to be delivered under the terms of any Related Document, upon the request of any party, such fax transmission or e-mail transmission shall be promptly followed by such manually executed counterpart.

Section 10.09. Complete and Controlling Agreement. This Reimbursement Agreement and the other Related Documents completely set forth the agreements between the Bank and the Authority and fully supersede all prior agreements, both written and oral, between the Bank and the Authority relating to the issuance of the Letter of Credit and all matters set forth herein and in the other Related Documents.

Section 10.10. USA Patriot Act. The Bank hereby notifies the Authority that, pursuant to the requirements of the USA Patriot Act (Title III of Pub. L. 107 56 (signed into law October 26, 2001)) (the “*Patriot Act*”), it is required to obtain, verify and record information that identifies the Authority, which information includes the name and address of the Authority and other information that will allow the Bank to identify the Authority in accordance with the Patriot Act, and the Authority hereby agrees to take any action necessary to enable the Bank to comply with the requirements of the Patriot Act.

The Authority hereby represents and warrants and covenants and agrees (a) that it is not and shall not be listed on the Specially Designated Nationals and Blocked Person List or other similar lists maintained by OFAC, the Department of the Treasury or included in any Executive Orders, that prohibits or limits the Bank from making any advance or extension of credit to the Authority or from otherwise conducting business with the Authority and (b) to ensure that the proceeds of the Drawings and Liquidity Advances shall not be used to violate any of the foreign asset control regulations of OFAC or any enabling statute or Executive Order relating thereto.

Section 10.11. Survival of this Reimbursement Agreement. All covenants, agreements, representations and warranties made in this Reimbursement Agreement shall survive the issuance of the Letter of Credit and shall continue in full force and effect so long as the Letter of Credit shall be unexpired or any Obligations shall be outstanding and unpaid. The obligation of the Authority to reimburse the Bank pursuant to Section 2.07 and Article VIII hereof shall survive the payment of the Notes and termination of this Reimbursement Agreement.

Section 10.12. Successors and Assigns. The provisions of this Reimbursement Agreement shall be binding upon and inure to the benefit of the parties hereto and their

respective successors and assigns permitted hereby. The rights and duties of the Authority hereunder, however, may not be assigned or transferred, except as specifically provided in this Reimbursement Agreement or with the prior written consent of the Bank, and all obligations of the Authority hereunder shall continue in full force and effect notwithstanding any assignment by the Authority of any of its rights or obligations under any of the Related Documents or any entering into, or consent by the Authority to, any supplement or amendment to any of the Related Documents.

Section 10.13. Assignment to the Federal Reserve Bank. The Bank may assign and pledge all or any portion of the obligations owing to it hereunder to any Federal Reserve Bank or the United States Treasury as collateral security pursuant to Regulation A of the Board of Governors of the Federal Reserve System and any Operating Circular issued by such Federal Reserve Bank, provided that any payment in respect of such assigned obligations made by the Authority to the Bank in accordance with the terms of this Reimbursement Agreement shall satisfy the Authority's obligations hereunder in respect of such assigned obligation to the extent of such payment. No such assignment shall release the Bank from its obligations hereunder.

Section 10.14. Contractual Interpretation. The parties acknowledge that they have read and fully understand the terms of this Reimbursement Agreement, have consulted with such attorneys, accountants, advisors, or other professionals as they have deemed appropriate prior to executing this Reimbursement Agreement with adequate opportunity and time for review thereof, and are fully aware of its contents and of its legal effect. Accordingly, this Reimbursement Agreement shall not be construed against any party on the grounds that such party drafted this Reimbursement Agreement, rather, this Reimbursement Agreement shall be interpreted as though drafted equally by all parties.

Section 10.15. Arm's Length Transaction. The transaction described in this Agreement is an arm's length, commercial transaction between the Authority and the Bank in which: (a) the Bank is acting solely as a principal (i.e., as a credit provider) and for its own interest; (b) the Bank is not acting as a municipal advisor or financial advisor to the Authority; (c) the Bank has no fiduciary duty pursuant to Section 15B of the Securities Exchange Act of 1934 to the Authority with respect to this transaction and the discussions, undertakings and procedures leading thereto (irrespective of whether the Bank or any of its affiliates has provided other services or is currently providing other services to the Authority on other matters); (d) the only obligations the Bank has to the Authority with respect to this transaction are set forth in this Agreement; and (e) the Bank is not recommending that the Authority take an action with respect to the transaction described in this Agreement and the other Related Documents, and before taking any action with respect to the this transaction, the Authority should discuss the information contained herein with the Authority's own legal, accounting, tax, financial and other advisors, as the Authority deems appropriate.

Section 10.16. No Advisory or Fiduciary Responsibility. In connection with all aspects of each transaction contemplated hereby (including in connection with any amendment, waiver or other modification hereof or of any other Related Document), the Authority acknowledges and agrees, that: (a) the Authority has consulted its own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate, and (b) the Authority is capable of evaluating,

and understands and accepts, the terms, risks and conditions of the transactions contemplated hereby and by the other Related Documents.

Section 10.17. EMMA. The Authority shall post this Agreement and the Letter of Credit on EMMA within thirty (30) days of the Closing Date and shall provide copies thereof to the Rating Agencies, provided that the Authority agrees that it shall not post this Agreement or the Letter of Credit or any amendment hereto or thereto on EMMA or any other website until the Bank or its counsel has provided redacted versions of this Agreement and the Letter of Credit or such amendment, as applicable.

[Remainder of page intentionally left blank; signature page follows]

IN WITNESS WHEREOF, the parties hereto have caused this Letter of Credit Reimbursement Agreement to be duly executed and delivered by their respective officers thereunto duly authorized as of the date first above written.

LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY

By _____
[_____, _____]

*[Signature page to Letter of Credit
Reimbursement Agreement (Citibank)]*

CERTIFICATE OF AUTHENTICATION

The Notes and all Reimbursement Obligations are Subordinate Obligations, as defined in the Subordinate Trust Agreement, and constitute a “*Reimbursement Agreement*” as defined in the First Supplemental Subordinate Trust Agreement.

Date of Authentication: [_____, 2017]

U.S. BANK NATIONAL ASSOCIATION, as Trustee and
Issuing and Paying Agent

By _____
Authorized Signatory

*[Signature page to Letter of Credit
Reimbursement Agreement (Citibank)]*

CITIBANK, N.A.

By _____
Name _____
Title _____

*[Signature page to Letter of Credit
Reimbursement Agreement (Citibank)]*

EXHIBIT A

FORM OF REIMBURSEMENT NOTE

[\$149,999,999]

[_____, 2017]

NEITHER THE FAITH AND THE CREDIT NOR THE TAXING POWER OF THE COUNTY OF LOS ANGELES, THE STATE OF CALIFORNIA OR ANY PUBLIC AGENCY, OTHER THAN THE LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY TO THE EXTENT OF THE NET PLEDGED REVENUES AS DEFINED IN THE AGREEMENT, IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF AND INTEREST ON THIS OBLIGATION.

The principal of and interest on this obligation are junior and subordinate in all respects to the Senior Lien Bonds as to lien on and source and security for payment from the Pledged Revenues.

FOR VALUE RECEIVED, LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (the "*Authority*"), hereby unconditionally promises to pay to the order of CITIBANK, N.A. (the "*Bank*"), the principal amount of U.S. Dollars advanced by the Bank to or for the benefit of the Authority pursuant to the terms of the Letter of Credit issued pursuant to the Letter of Credit Reimbursement Agreement, dated as of [_____, 2017], between the Authority and the Bank, as the same may be amended or supplemented from time to time (the "*Agreement*"), together with interest as provided in the Agreement. The aggregate amount advanced by the Bank as part of a Drawing or Drawings or Liquidity Advance or Liquidity Advances is not to exceed an amount equal to \$[149,999,999]. All capitalized terms used herein and not otherwise defined shall have the meaning assigned in the Agreement. All amounts due hereunder shall be computed and payable at such times and in such amounts as provided in the Agreement.

The Authority agrees to pay the Bank's reasonable costs and expenses, incurred in connection with the enforcement of this Note, including the Bank's counsel's fees and expenses, but only to the extent as provided in the Agreement.

All Drawings and Liquidity Advances under the Letter of Credit and the Agreement shall be evidenced by this Reimbursement Note, and all payments, repayments and prepayments hereon shall be endorsed by the Bank on Schedule I attached hereto; provided, however, that any failure by the Bank to endorse such information on Schedule I shall not in any manner affect the obligation of the Authority to make payments of principal and interest in accordance with the terms of the Agreement and this Reimbursement Note. The Authority hereby irrevocably authorizes the holder of this Reimbursement Note to enter on Schedule I hereto the date and amount of each Drawing or Liquidity Advance under this Reimbursement Note and in accordance with the Agreement.

The Authority waives diligence, demand, presentment, protest, and notice of every kind whatsoever. The failure of the holder hereof to exercise any of its rights hereunder in any particular instance shall not constitute a waiver of the same or any other right in that or any subsequent instance. Time is of the essence for this Reimbursement Note. THIS NOTE SHALL

BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH LAWS OF THE STATE OF CALIFORNIA.

This Reimbursement Note is the “*Reimbursement Note*” referred to in, and is entitled to the benefits of and is subject to the terms and conditions of, the Agreement, including those regarding acceleration of the maturity thereof upon the occurrence of certain stated events and prepayment prior to and payment at maturity.

[Remainder of page intentionally left blank; signature page follows]

IN WITNESS WHEREOF, the Authority has caused its duly authorized officer to execute and delivery this Reimbursement Note, under seal, as of the date and year first set forth above.

LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY

By _____
Name _____
Title _____

CERTIFICATE OF AUTHENTICATION

This Note is a Subordinate Obligation, issued pursuant to the Trust Agreement, as defined in the Reimbursement Agreement.

Date of Authentication: [_____, 2017]

U.S. BANK NATIONAL ASSOCIATION, as Trustee and
Issuing and Paying Agent

By _____
Authorized Signatory

SCHEDULE I

<u>Date</u>	<u>Amount of Bank Loan</u>	<u>Amount of Principal Paid or Prepaid</u>	<u>Interest Period (if applicable)</u>	<u>Principal Balance Unpaid</u>	<u>Name of Person Making Notation</u>
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EXHIBIT B
FORM REQUEST FOR EXTENSION

[DATE]

Citibank, N.A.

Attention:
Facsimile:
Telephone:

With a copy to:

Citibank, N.A.

Attention:
Telephone:
Facsimile:

Re: Request for Extension

Ladies and Gentlemen:

Reference is hereby made to that certain Letter of Credit Reimbursement Agreement, dated as of [_____, 2017] (the “*Agreement*”), between the Los Angeles County Metropolitan Transportation Authority (the “*Authority*”) and Citibank, N.A. All capitalized terms contained herein which are not specifically defined shall be deemed to have the definition set forth in the Agreement. The Authority hereby requests that the Stated Expiration Date of the Letter of Credit be extended to [DATE]. Pursuant to the Agreement, we have enclosed along with this request the following information, all as of the date hereof:

1. A reasonably detailed description of any and all Events of Default and all conditions, events and acts which with notice or lapse of time or both would become an Event of Default;
2. Any other pertinent information previously requested by the Bank; and
3. Confirmation that the representations and warranties set forth in Article IV of the Agreement are true and correct as though made on the date hereof and that no Event of Default has occurred and is continuing except for the defaults (if any) described under paragraph 2 above.

The Bank is requested to notify the Authority of their decision with respect to this request for extension within 30 days of the date of receipt hereof. If the Bank fails to notify the Authority of their decision, the Bank shall be deemed to have denied such request.

Very truly yours,

LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY

By _____
Name _____
Title _____

[_____] , 2017
**U.S. \$[149,999,999]

CITIBANK, N.A.
IRREVOCABLE LETTER OF CREDIT NO. [_____]

[_____] , 2017]

U.S. Bank National Association, as Beneficiary
Suite 1600
100 Wall Street
New York, New York 10005
Attention: Corporate Trust Department

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-TE-Citi

and

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-T-Citi

Ladies and Gentlemen:

At the request and for the account of Los Angeles County Metropolitan Transportation Authority (the "*Authority*"), pursuant to the Letter of Credit Reimbursement Agreement dated as of [_____] , 2017, between us (the "*Bank*") and the Authority (as amended, supplemented, modified or restated from time to time pursuant to its terms, the "*Reimbursement Agreement*"), we hereby establish this Irrevocable Letter of Credit (this "*Letter of Credit*") in your favor, as Beneficiary (the "*Beneficiary*"), and as issuing and paying agent and trustee (in such capacity, the "*Issuing and Paying Agent*") under the Subordinate Trust Agreement dated as of January 1, 1991 (as amended and supplemented to date, the "*Trust Agreement*"), between the Authority and U.S. Bank National Association, as trustee (in such capacity, the "*Trustee*"), for the benefit of the holders of the Authority's above-referenced series of Notes issued under the Trust Agreement (the "*Notes*") in accordance with the following terms and conditions.

Page 1 of 29 Letter of Credit No. [_____]

1. **Expiration.** This Letter of Credit automatically shall expire on the Termination Date. As used herein, “*Termination Date*” shall mean 5:00 p.m., New York City time (except as otherwise specified in the following subparagraphs) on the earliest of:

(a) [_____, 2020], as such date may be extended, subject to our consent, pursuant to delivery by the Bank of a properly completed Notice of Extension to you in the form attached hereto as Exhibit G (the “*Stated Expiration Date*”);

(b) the date on which we receive an appropriately completed certificate from you in the form of Exhibit D hereto that the principal amount of and interest with respect to all of the Notes has been paid in full or deemed paid in full in accordance with the provisions of the Trust Agreement;

(c) the date on which a substitute Letter of Credit has become effective under the Trust Agreement, in substitution for this Letter of Credit, and we have received an appropriately completed certificate from you in the form of Exhibit E hereto;

(d) the date of payment of a Drawing (as defined in paragraph 5), not subject to reinstatement, which when added to all other Drawings honored hereunder which were not subject to reinstatement as provided herein, in the aggregate equals the principal component of the Stated Amount on the date of issuance hereof as adjusted pursuant to the terms and conditions of this Letter of Credit; or

(e) the first to occur of (i) the date which is ten (10) days after you have received written notice from us (a “*Final Drawing Notice*”) in the form of Schedule III stating that an Event of Default has occurred under the Reimbursement Agreement and directing that you make a Final Drawing (as defined in paragraph 5) hereunder, pursuant to a draft and certificate for Final Drawing in the form of Exhibit B, whereby you shall draw an amount hereunder equal to the principal of and accrued interest to maturity on all outstanding Notes in the manner provided herein and in the notice in the form of Schedule III or (ii) the date, following receipt of such notice in the form of Schedule III, upon which you have made such Final Drawing under this Letter of Credit and the proceeds of the Drawing have been distributed to you.

In the event the Termination Date shall not be a Business Day, then this Letter of Credit shall expire on the next succeeding Business Day.

2. **Stated Amount.** The maximum aggregate amount available under this Letter of Credit shall be [\$149,999,999], which amount as from time to time reduced and reinstated as provided in Paragraphs 3 and 4 is hereinafter referred to as the “*Stated Amount*.” Of the Stated Amount, up to [\$137,770,507] is available for the payment of the unpaid principal of the Notes (the “*Principal Portion*”) and up to [\$12,229,492] is available for the payment of the unpaid interest accrued with respect to the Notes (the “*Interest Portion*”) for the immediately preceding two hundred seventy (270) days, calculated at a rate of 12% per annum based on a year of 365 days. On each date on which payment is to be made on the Notes secured by this Letter of Credit you may submit a Drawing (as defined in paragraph 5 hereof) to us as provided in paragraph 6 hereof in an amount equal to the lesser of (1) the Stated Amount or (2) the amount

of principal and interest due on the Notes maturing (whether due to acceleration or otherwise) on the date for which the Drawing is requested.

3. **Reductions in the Stated Amount.** The Stated Amount shall be reduced automatically from time to time as follows:

(a) Upon our honoring of a Drawing hereunder, the Stated Amount shall be reduced by an amount equal to the amount of such Drawing.

(b) Upon our receipt of your certificate in the form of Exhibit C hereto appropriately completed, the Stated Amount shall be reduced by an amount equal to the amount specified in such certificate.

Upon such a reduction, we may require you to return the original of this Letter of Credit and to accept in substitution hereof a substitute Letter of Credit for a Stated Amount reflecting such reduction, but otherwise identical in form and substance to this Letter of Credit.

4. **Reinstatement.**

(a) Reductions under Paragraph 3(a) with respect to any Maturity Drawing (as defined in paragraph 5) in accordance with a draft and certificate in the form of Exhibit A hereto properly completed and presented prior to the delivery to you of a Notice of No Issuance in the form of Schedule I hereto shall be reinstated automatically to the extent we receive reimbursement for the amounts so drawn. Any such automatic reinstatement shall be in an amount equal to the amount of such reimbursement. We will advise the Issuing and Paying Agent of such reinstatement and the amount thereof upon request.

(b) Reductions under Paragraph 3(a) with respect to any Final Drawing (as defined in paragraph 5) in accordance with a draft and certificate in the form of Exhibit B hereto or a Drawing in the form of Exhibit A hereto following the delivery to you of a Notice of No Issuance in the form of Schedule I hereto shall not be subject to reinstatement.

(c) Reductions under Paragraph 3(b) shall not be subject to reinstatement.

5. **Documents to Be Presented.** Funds under this Letter of Credit are available to you, against a draft and certificate purported to be signed by you in the form of Exhibit A hereto (each, a "*Maturity Drawing*") or Exhibit B hereto (the "*Final Drawing*") appropriately completed (Maturity or Redemption Drawings and the Final Drawing are herein individually referred to as a "*Drawing*" and collectively referred to as "*Drawings*").

6. **Method and Notice of Presentment.** Each Drawing and any other certificate or notice required or permitted to be provided to us hereunder, shall be in writing and dated the date of presentation and, in the case of each Drawing and the certificate in the form of Exhibit E, shall be delivered to us by facsimile; and, in all other cases, shall be delivered to us at the address stated in this paragraph, in person, by first class registered or certified mail or by an express delivery service. A Drawing (and any certificate in the form of Exhibit E) shall be presented on or after the date of this Letter of Credit during our business hours on a Business Day on or prior

to the Termination Date at our office at Citibank, N.A., c/o Citicorp North America, Inc., and addressed to 3800 Citibank Center, Building B, First Floor, Tampa, FL 33610, Attention: Standby Letter of Credit Department, Facsimile No.: (813) 604-7187, or at such other address or facsimile number as we may notify you in writing from time to time. As used herein, Business Day” shall mean any day other than (a) a Saturday or Sunday or other day on which commercial banks in Los Angeles, California or New York, New York are authorized or required by law or executive order to close or (b) a day on which the New York Stock Exchange is authorized or obligated by law or executive order to be closed, or (c) a day on which commercial banks are authorized or required by law or executive order to be closed in the city in which demands for payment are to be presented under this Letter of Credit.

7. Time and Method for Payment.

(a) If a Drawing is made by you in strict conformity with the terms and conditions of this Letter of Credit, we will honor the Drawing if such Drawing is received by us prior to 11:30 a.m. on a Business Day, not later than 2:30 p.m. on such Business Day or such later date as you may specify in such Drawing. If a Drawing is received by us on a day which is not a Business Day or is received after 11:30 a.m., but prior to 4:00 p.m. on a Business Day, such Drawing shall be deemed to have been received by us on the next Business Day, and we will honor such Drawing by 2:30 p.m. on the Business Day on which the Drawing is deemed to have been received by us; provided in any case that the Business Day on which a Drawing is requested to be honored by us in accordance with the terms of this Paragraph 7 is on or prior to the Termination Date. All times referenced herein are as of New York City time.

(b) Unless otherwise agreed, payment under this Letter of Credit shall be made by Fedwire in immediately available funds to [**U.S. Bank National Association, ABA No. 091-000-022, Account No. [_____], Attn: Roselyn Callendar, Ref: Los Angeles County Metropolitan Transportation Authority Second Subordinate Sales Tax Revenue Commercial Paper Notes, Series A-TE-Citi and A-T-Citi**]. For the purposes of determining compliance with the times for payment specified in (a) above, payment shall be deemed to have been made by us when we have delivered appropriate wire transfer instructions to an appropriate Federal Reserve Bank.

(c) All payments made by the Bank under this Letter of Credit shall be made with the Bank’s own funds.

8. Other Documents in the case of a Substitution. You agree to provide to us a duly completed certificate in the form of Exhibit F hereto upon the substitution of a substitute Letter of Credit for this Letter of Credit as set forth in Paragraph 1(c) hereof; and you agree that each such certificate shall be provided (x) on the same day as any Drawing is made upon this Letter of Credit in connection with the substitution or (y) if no Drawing is made, on the effective date of such substitution.

9. Transferability. This Letter of Credit is transferable in its entirety, but not in part, to any transferee who has succeeded you as Issuing and Paying Agent under the Issuing and Paying Agency Agreement and the Trust Agreement and may be successively transferred.

Transfer of the drawing rights under this Letter of Credit to such transferee shall be effected by (a) your presentation to us of the original of this Letter of Credit, including all amendments, if any, accompanied by a certificate in the form of Exhibit F hereto and (b) our transfer of this Letter of Credit (i) by endorsement on the original Letter of Credit or (ii) by issuance of a substitute Letter of Credit made out in favor of such transferee but otherwise identical in form and substance to this Letter of Credit.

10. **Governing Law and Practices.** This Letter of Credit is issued subject to the International Standby Practices (1998), International Chamber of Commerce, Publication No. 590 (the "ISP 98"). This Letter of Credit shall be deemed made under the laws of the State of New York, including Article 5 of the Uniform Commercial Code, and as to matters not addressed by the ISP 98 shall be governed by and construed in accordance with the laws of the State of New York and applicable U.S. Federal law.

11. **Irrevocability.** This Letter of Credit shall be irrevocable.

12. **No Negotiation.** A Drawing under this Letter of Credit shall be presented directly to us by you or by any transferee who has succeeded you as Issuing and Paying Agent under the Issuing and Paying Agency Agreement and the Trust Agreement and shall not be negotiated to or by any third party.

13. **Excluded Notes.** Notwithstanding any other provision of this Letter of Credit, no Drawing under this Letter of Credit may be made with respect to any (a) Notes issued after the Termination Date or maturing or selected for redemption after the Termination Date, (b) Notes issued after your receipt of any Notice of No Issuance in the form of Schedule I hereto or a Final Drawing Notice in the form of Schedule III hereto, in either case, from us and prior to your receipt of written notice from us in the form of Schedule IV hereto that such Notice of No Issuance or Final Drawing Notice, as applicable, is rescinded and (c) Notes issued in a principal amount in excess of the principal amount of Notes maturing on or selected for redemption on the date such Notes are issued after your receipt of any Restricted Issuance Notice, in the form of Schedule II hereto from us and prior to your receipt of written notice from us that such Restricted Issuance Notice is rescinded, (d) any Note registered in the name of, or to the best of your knowledge held for the account or benefit of, the Authority, or any Affiliate of the Authority, or a Person who is a guarantor of any of the obligations of the Authority in connection with the Notes, and (e) any Notes from and after the date we receive notice from the Issuing and Paying Agent in the form of Exhibit D hereto that payment or provision for payment of all the Notes has been made (Notes described in any of clauses (a), (b), (c), (d) and (e) of this Paragraph 13 being referred to as "*Excluded Notes*").

14. **Address for Communications.** Communications with respect to this Letter of Credit shall be in writing and shall be addressed to us at the address referenced in Paragraph 6, specifically referring thereon to our Irrevocable Letter of Credit No. [_____]. At the time any such communications or Drawings are sent, copies of such communications or Drawings shall also be sent by facsimile to us at Citibank, N.A., 388 Greenwich Street, 8th Floor, New York, New York 10013, Attention: Rebekah McGuire; *provided, however*, that the failure to send such copies shall not affect our obligations hereunder. Communications with respect to the Issuing and Paying Agent shall either be sent by first class registered or certified mail or

express courier service, properly addressed and prepaid, or physically delivered to the address set forth on the first page of this Letter of Credit.

15. **Definitions.** All capitalized terms herein which are not defined have the same meaning given to them in the Trust Agreement and the Reimbursement Agreement.

16. **Complete Agreement.** This Letter of Credit, including Exhibits A through G hereto and Schedules I, II, III and IV hereto, sets forth in full the terms of our obligation. Reference in this Letter of Credit to other documents or instruments is for identification purposes only and any such reference (including, without limitation, reference to the definitions in the Reimbursement Agreement of terms used and not defined herein) shall not modify, amend, amplify, limit or otherwise affect our obligation hereunder or cause such documents or instruments to be deemed incorporated herein.

[Remainder of page intentionally left blank]

We hereby agree with you to honor your Drawings presented in strict compliance with the terms and conditions of this Letter of Credit.

All parties to this Letter of Credit are advised that the U.S. Government has in place certain sanctions against certain countries, individuals, entities, and vessels. Citigroup entities, including branches and, in certain circumstances, subsidiaries, are/will be prohibited from engaging in transactions or other activities within the scope of applicable sanctions.

Very truly yours,

CITIBANK, N.A.

By _____

Name _____

Title _____

EXHIBIT A

DRAFT AND CERTIFICATE FOR MATURITY DRAWING

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-TE-Citi

and

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-T-Citi

Irrevocable Letter of Credit No. [_____]

The undersigned, a duly authorized officer of U.S. Bank National Association (the “Issuing and Paying Agent”), hereby certifies to Citibank, N.A. (the “Bank”), with reference to Irrevocable Letter of Credit No. [_____] (the “Letter of Credit”; any capitalized term used herein and not defined shall have its respective meaning as set forth in the Letter of Credit) issued by the Bank in favor of the Issuing and Paying Agent, that:

1. The Issuing and Paying Agent is the Issuing and Paying Agent under the Issuing and Paying Agency Agreement and is making this demand for payment of the principal of and interest on the above-referenced Notes in accordance with their terms, which amount is payable on [_____] (the “Payment Date”).

2. The following amounts are owed on Notes maturing (whether due to acceleration or otherwise) on the Payment Date:

(a) \$[_____] constitutes the principal of Notes; and

(b) \$[_____] constitutes interest with respect to Notes.

3. Demand is hereby made under the Letter of Credit for \$[_____], which amount does not exceed the lesser of (i) the sum of the amounts specified in (2)(a) and (b) above and (ii) the Stated Amount.

4. The amount demanded hereunder does not include any amount payable with respect to an Excluded Note as described in Paragraph 13 of the Letter of Credit.

5. The proceeds hereof shall be deposited in the Note Payment Fund (as defined in the Trust Agreement) and shall be applied solely to the payment of Notes in accordance with the Trust Agreement.

6. (a) Payment of this demand for payment is requested on or before 2:30 p.m., New York, New York time, on the later of (i) the Payment Date (or if the Payment Date is not a Business Day, the next succeeding Business Day) and (ii) the Business Day on which this Drawing is received or deemed to have been received by the Bank in accordance with paragraph 7(a) of the Letter of Credit.

(b) Payment of this demand for payment shall be made in accordance with the payment instructions provided in paragraph 7(b) of the Letter of Credit.

7. Drawn under Citibank, N.A. Irrevocable Letter of Credit No. [_____]: Pay the amount of [\$_____] in interest with respect to the Notes as certified above.

IN WITNESS WHEREOF, the Issuing and Paying Agent has executed and delivered this Certificate as of the ___ day of _____, 20__.

U.S. BANK NATIONAL ASSOCIATION, as Issuing
and Paying Agent

By _____
Name _____
Title _____

EXHIBIT B

DRAFT AND CERTIFICATE FOR FINAL DRAWING

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-TE-Citi

and

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-T-Citi

Irrevocable Letter of Credit No. [_____]

The undersigned, a duly authorized officer of U.S. Bank National Association (the “Issuing and Paying Agent”), hereby certifies to Citibank, N.A. (the “Bank”), with reference to Irrevocable Letter of Credit No. [_____] (the “Letter of Credit”; any capitalized term used herein and not defined shall have its respective meaning as set forth in the Letter of Credit) issued by the Bank in favor of the Issuing and Paying Agent, that:

The Issuing and Paying Agent is the Issuing and Paying Agent under the Issuing and Paying Agency Agreement and is making this Drawing for amounts sufficient to pay the principal of and interest on the Notes outstanding at their respective maturity dates in accordance with the Trust Agreement. Payment for this demand for payment shall be made on _____ (the “Payment Date”).

1. We are in receipt of the written notice from you described in paragraph 1(e) of the Letter of Credit.

2. The following amounts will be due and owing on the Notes currently outstanding at the respective maturity dates thereof occurring on or after the date of a Final Drawing Notice:

(a) \$[_____] constitutes the principal of Notes; and

(b) \$[_____] constitutes interest with respect to Notes.

3. Demand is hereby made under the Letter of Credit for \$[_____], which amount does not exceed the lesser of the sum of the amounts specified in 2(a) and (b) above and the Stated Amount.

4. The amount demanded hereunder does not include any amount payable with respect to an Excluded Note as described in Paragraph 13 of the Letter of Credit.

5. The proceeds hereof shall be deposited in the Note Payment Fund (as defined in Trust Agreement) and shall be applied solely to the payment of Notes in accordance with the Trust Agreement.

6. (a) Payment of this demand for payment is requested on or before 2:30 p.m., New York, New York time, on the later of (i) the Payment Date (or if the Payment Date is not a Business Day, the next succeeding Business Day) and (ii) the Business Day on which this Drawing is received or deemed to have been received by the Bank in accordance with paragraph 7(a) of the Letter of Credit.

(b) Payment of this demand for payment shall be made in accordance with the payment instructions provided in paragraph 7(b) of the Letter of Credit.

7. The Letter of Credit shall be returned to the Bank upon our receipt of payment of this demand for payment and no additional amounts shall be drawn under the Letter of Credit.

Drawn under Citibank, N.A. Irrevocable Letter of Credit No. [_____]: Pay the amount of [\$_____] in principal of the Notes as certified above.

IN WITNESS WHEREOF, the Issuing and Paying Agent has executed and delivered this Certificate as of the ___ day of _____, 20__.

U.S. BANK NATIONAL ASSOCIATION, as Issuing
and Paying Agent

By _____
Name _____
Title _____

EXHIBIT C

CERTIFICATE REGARDING REDUCTION OF STATED AMOUNT

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-TE-Citi

and

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-T-Citi

The undersigned, a duly authorized officer of U.S. Bank National Association (the “Issuing and Paying Agent”), hereby certifies to Citibank, N.A. (the “Bank”), with reference to Irrevocable Letter of Credit No. [_____] (the “Letter of Credit”; any capitalized term used herein and not defined shall have its respective meaning as set forth in the Letter of Credit) issued by the Bank in favor of the Issuing and Paying Agent, that:

1. The Authority has instructed the Issuing and Paying Agent to reduce the Stated Amount of the Letter of Credit.

2. The Principal Portion shall be reduced by \$[_____] and the Interest Portion shall be reduced by \$[_____] which is 270 days’ interest at 12% per annum (based on a year of 365 days) on the amount of the reduction in the Principal Portion.

3. Pursuant to paragraph 3 of the Letter of Credit, the Stated Amount shall be reduced automatically by \$[_____] , such reduction to be allocated so that the Principal Portion and the Interest Portion of the Stated Amount are reduced by the amounts stated in paragraph 2, upon receipt by the Bank of this Certificate.

4. The Stated Amount, as so reduced, is at least equal to the outstanding principal amount of the Notes plus 270 days’ interest thereon at 12% per annum (based on a year of 365 days).

IN WITNESS WHEREOF, the Issuing and Paying Agent has executed and delivered this Certificate as of the ___ day of _____, 20 __.

U.S. BANK NATIONAL ASSOCIATION, as Issuing
and Paying Agent

By _____
Name _____
Title _____

EXHIBIT D

TERMINATION CERTIFICATE—DEFEASANCE/PAYMENT

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-TE-Citi

and

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-T-Citi

Irrevocable Letter of Credit No. [_____]

The undersigned, a duly authorized officer of U.S. Bank National Association (the “Issuing and Paying Agent”), hereby certifies to Citibank, N.A. (the “Bank”), with reference to Irrevocable Letter of Credit No. [_____] (the “Letter of Credit”; any capitalized term used herein and not defined shall have its respective meaning as set forth in the Letter of Credit) issued by the Bank in favor of the Issuing and Paying Agent, as follows:

We hereby instruct you [to terminate the Letter of Credit as the principal amount of and interest on all outstanding Notes, other than Excluded Notes, has been paid or provision for such payment in full is deemed to have been made by the deposit of cash or eligible securities and all of the outstanding Notes, other than Excluded Notes, have been defeased in accordance with Section 6.06 of the First Supplemental Subordinate Trust Agreement.] [to terminate the Letter of Credit as the principal amount of and interest on all outstanding Notes, other than Excluded Notes, has been paid in full in accordance with the Trust Agreement.] [that the Letter of Credit shall terminate on [_____, _____] and that cash or eligible securities sufficient to pay the principal amount of and interest on all outstanding Notes, other than Excluded Notes, has been deposited under the Trust Agreement in accordance with Section 6.06 of the First Supplemental Subordinate Trust Agreement.]

[The original Letter of Credit, including all amendments, if any, is attached hereto and being surrendered to you herewith.]

IN WITNESS WHEREOF, the Issuing and Paying Agent has executed and delivered this Certificate as of the ___ day of _____, 20__.

U.S. BANK NATIONAL ASSOCIATION, as Issuing
and Paying Agent

By _____
Name _____
Title _____

EXHIBIT E

TERMINATION CERTIFICATE—SUBSTITUTE LETTER OF CREDIT

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-TE-Citi

and

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-T-Citi

Irrevocable Letter of Credit No. [_____]

The undersigned, a duly authorized officer of U.S. Bank National Association (the “Issuing and Paying Agent”), hereby certifies to Citibank, N.A. (the “Bank”), with reference to Irrevocable Letter of Credit No. [_____] (the “Letter of Credit”; any capitalized term used herein and not defined shall have its respective meaning as set forth in the Letter of Credit) issued by the Bank in favor of the Issuing and Paying Agent, as follows:

In accordance with the terms of the Trust Agreement, we hereby confirm the termination of the Letter of Credit for the reason that the conditions precedent to the acceptance of a substitute Letter of Credit under the Trust Agreement have been satisfied, all demands for payment under the Letter of Credit for Notes (other than Excluded Notes) have been paid in accordance with the provisions of the Letter of Credit and the substitute Letter of Credit has become effective under the Trust Agreement in substitution for the Letter of Credit.

[The original Letter of Credit, including all amendments, if any, is attached hereto and being surrendered to you herewith.]

IN WITNESS WHEREOF, the Issuing and Paying Agent has executed and delivered this Certificate as of the ___ day of _____, 20__.

U.S. BANK NATIONAL ASSOCIATION, as Issuing
and Paying Agent

By _____
Name _____
Title _____

EXHIBIT F

NOTICE OF TRANSFER

[DATE]

**[Citibank, N.A.
c/o Citicorp North America, Inc.
3800 Citibank Center
Building B, Third Floor
Tampa, FL 33610]**

Attention: Standby Letter of Credit Department

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-TE-Citi

and

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-T-Citi

Irrevocable Letter of Credit No. [_____]

Ladies and Gentlemen:

For value received, the undersigned beneficiary hereby irrevocably transfers to:

(Name of Transferee)

(Address)

all rights of the undersigned beneficiary to draw under the above Letter of Credit in its entirety. Any capitalized term used herein and not defined shall have its respective meaning as set forth in Letter of Credit No. [_____] issued by you in connection with the above-referenced Notes.

By this transfer, all rights of the undersigned beneficiary in such Letter of Credit are transferred to the transferee and the transferee shall have the sole rights as beneficiary thereof, including sole rights relating to any amendments, whether increases or extensions or other amendments and whether now existing or hereafter made. All amendments are to be advised directly to the transferee without necessity of any consent of or notice to the undersigned beneficiary.

By its signature below the undersigned transferee acknowledges that it has duly succeeded as Issuing and Paying Agent under the Trust Agreement.

The original Letter of Credit, including all amendments, if any, is returned herewith and we ask you to notify the transferee in such form as you deem advisable of this transfer and of the terms and conditions of the Letter of Credit.

Yours very truly,

SIGNATURE AUTHENTICATED:

U.S. BANK NATIONAL ASSOCIATION

(Authorized Signature)

By _____
Name _____
Title _____

ACKNOWLEDGED:

[TRANSFEREE]

By _____
Name _____
Title _____

EXHIBIT G

NOTICE OF EXTENSION

[DATE]

U.S. Bank National Association,
as Issuing and Paying Agent and Trustee
Suite 1600
100 Wall Street
New York, New York 10005

Attention: Corporate Trust Department

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-TE-Citi

and

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-T-Citi

Irrevocable Letter of Credit No. [_____]

Ladies and Gentlemen:

The undersigned, a duly authorized officer of Citibank, N.A. (the “Bank”), hereby advises you, with respect to the above-referenced Irrevocable Letter of Credit (the “Letter of Credit”; any capitalized term used herein and not defined shall have its respective meaning as set forth in the Letter of Credit) issued by the Bank in your favor, that:

1. At the request and for the account of the Los Angeles County Metropolitan Transportation Authority, we hereby extend the date referenced in paragraph 1(a) of the Letter of Credit (as such date may have been extended previously from time to time) to _____.
2. Except as specifically provided in paragraph (1) above, all of the terms and conditions of the Letter of Credit remain unchanged and in full force and effect.
3. This Notice of Extension is an integral part of the Letter of Credit.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the undersigned has executed and delivered this Notice of Extension as of the ___ day of _____, ____.

CITIBANK, N.A.

By _____

Name _____

Title _____

SCHEDULE I

FORM OF NOTICE OF NO ISSUANCE

[DATE]

U.S. Bank National Association,
as Issuing and Paying Agent and Trustee
Suite 1600
100 Wall Street
New York, New York 10005

Attention: Corporate Trust Department

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-TE-Citi

and

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-T-Citi

Irrevocable Letter of Credit No. [_____]

Ladies and Gentlemen:

The undersigned, pursuant to the Reimbursement Agreement between Citibank, N.A. (the “Bank”) and the Los Angeles County Metropolitan Transportation Authority dated as of [_____, 2017] (as amended, supplemented, modified or restated from time to time pursuant to its terms, the “Reimbursement Agreement”), hereby notifies you as Issuing and Paying Agent for the above-referenced Notes (the “Notes”) that an Event of Default, as defined in the Reimbursement Agreement, has occurred. Unless this notice is subsequently rescinded by the undersigned in writing, all Notes issued on or after the date you receive this notice shall be “Excluded Notes” as defined in the above-referenced Letter of Credit (the “Letter of Credit”) issued for your benefit as Issuing and Paying Agent for the Notes. On the maturity date of the last maturing Note issued prior to your receipt of this notice and upon payment of all amounts drawn under the Letter of Credit with respect to such Notes, the Letter of Credit shall be returned to the undersigned for cancellation.

IN WITNESS WHEREOF, the undersigned has executed this Notice of No Issuance as of the
____ day of _____, 20__.

CITIBANK, N.A.

By _____
Name _____
Title _____

SCHEDULE II
FORM OF RESTRICTED ISSUANCE NOTICE

[DATE]

U.S. Bank National Association,
as Issuing and Paying Agent and Trustee
Suite 1600
100 Wall Street
New York, New York 10005

Attention: Corporate Trust Department

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-TE-Citi

and

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-T-Citi

Irrevocable Letter of Credit No. [_____]

Ladies and Gentlemen:

The undersigned, pursuant to the Letter of Credit Reimbursement Agreement between Citibank, N.A. (the “Bank”), and the Los Angeles County Metropolitan Transportation Authority dated as of [_____, 2017] (as amended, supplemented, modified or restated from time to time pursuant to its terms, the “Reimbursement Agreement”), hereby notifies you as Issuing and Paying Agent for the above-referenced Notes (the “Notes”) that an Event of Default, as defined in the Reimbursement Agreement, has occurred. Unless this notice is subsequently rescinded by the undersigned in writing, all Notes issued on or after the date you receive this notice in a principal amount in excess of the principal amount of Notes maturing on such date of issuance or selected for redemption on such date of issuance shall be “Excluded Notes” as defined in the above-referenced Letter of Credit issued for your benefit as Issuing and Paying Agent for the Notes.

IN WITNESS WHEREOF, the undersigned has executed this Restricted Issuance Notice as of the ____ day of _____, 20__.

CITIBANK, N.A.

By _____
Name _____
Title _____

SCHEDULE III

FORM OF FINAL DRAWING NOTICE

[DATE]

U.S. Bank National Association,
as Issuing and Paying Agent and Trustee
Suite 1600
100 Wall Street
New York, New York 10005

Attention: Corporate Trust Department

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-TE-Citi

and

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-T-Citi

Irrevocable Letter of Credit No. [_____]

Ladies and Gentlemen:

The undersigned, pursuant to the Letter of Credit Reimbursement Agreement between Citibank, N.A. (the "Bank"), and the Los Angeles County Metropolitan Transportation Authority dated as of [_____, 2017] (as amended, supplemented, modified or restated from time to time pursuant to its terms, the "Reimbursement Agreement"), hereby notifies you as Issuing and Paying Agent for the above-referenced Notes (the "Notes") that an Event of Default, as defined in the Reimbursement Agreement, has occurred. Unless this notice is subsequently rescinded by the undersigned in writing, you are directed to make a Final Drawing under the above-referenced Letter of Credit (the "Letter of Credit") issued for your benefit as Issuing and Paying Agent for the Notes within fifteen calendar days of your receipt of this notice and all Notes issued on or after the date you receive this notice shall be "Excluded Notes" as defined in the Letter of Credit. You are further notified that the Letter of Credit shall terminate on the earlier of (a) date which is the 10th calendar day after the date of receipt by the Issuing and Paying Agent of this notice, and (b) the date on which the Drawing resulting from the delivery of this notice is honored by us.

IN WITNESS WHEREOF, the undersigned has executed this Final Drawing Notice as of the
____ day of _____, 20__.

CITIBANK, N.A.

By _____
Name _____
Title _____

SCHEDULE IV

**FORM OF RESCISSION OF FINAL DRAWING NOTICE AND/OR NO ISSUANCE
NOTICE**

[DATE]

U.S. Bank National Association,
as Issuing and Paying Agent and Trustee
Suite 1600
100 Wall Street
New York, New York 10005

Attention: Corporate Trust Department

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-TE-Citi

and

Los Angeles County Metropolitan Transportation Authority
Second Subordinate Sales Tax Revenue
Commercial Paper Notes,
Series A-T-Citi

Irrevocable Letter of Credit No. [_____]

Ladies and Gentlemen:

The undersigned, pursuant to the Letter of Credit Reimbursement Agreement between Citibank, N.A. (the "Bank"), and the Los Angeles County Metropolitan Transportation Authority dated as of [_____, 2017] (as amended, supplemented, modified or restated from time to time pursuant to its terms, the "Reimbursement Agreement"), hereby notifies you as Issuing and Paying Agent for the above-referenced Notes (the "Notes") that further Notes may be issued pursuant to the terms of the Trust Agreement which may be supported by the Letter of Credit. The Stated Amount of the Letter of Credit is reinstated to an amount equal to \$_____. The Letter of Credit will continue to be reinstated in accordance with its terms.

IN WITNESS WHEREOF, the undersigned has executed this Final Drawing Notice as of the
____ day of _____, 20__.

CITIBANK, N.A.

By _____
Name _____
Title _____



Board Report

File #: 2017-0407, File Type: Informational Report

Agenda Number: 32

SYSTEM SAFETY, SECURITY & OPERATIONS COMMITTEE JULY 20, 2017

**SUBJECT: METRO BLUE LINE SHORT AND LONG
TERM IMPROVEMENTS**

ACTION: RECEIVE AND FILE MOTION RESPONSE

RECOMMENDATION

RECEIVE AND FILE response to Motion 37 (February 2017) on Blue Line Improvements.

ISSUE

At the February 2017 Planning and Programming and Construction Committee Meetings, Metro's CEO was asked to provide an update in July 2017 in response to Motion 37 regarding the evaluation of short-term and long-term Metro Blue Line (MBL) improvements, graffiti deterrence program, last MBL stop re-imagination efforts, and the MBL Express concept.

DISCUSSION

Improving the speed and reliability of the Blue Line requires a multi-pronged approach. Currently, travel time through the Flower Street and Washington Boulevard corridors are governed by traffic signals at intersections that are synchronized to allow trains to operate non-stop between stations. However, this is only achievable if the trains can maintain the design speeds along each corridor and an even spacing based on the scheduled headway (6 minute on both the Blue and Expo Lines). At the Washington/Flower junction (Wye), the Blue Line speed is also restricted by the tight curvature of the track which limits operating to no more than 10 miles/hour southbound and 5 miles/hour northbound. In addition, with a combined headway of 3 minutes between the Blue and Expo Lines, the terminal operations at 7th/Metro Center requires that arriving trains alight customers, reposition to the departing track, load passengers, and depart within three minutes of the preceding train.

In an ideal operating environment, trains would consistently run at the maximum designed speed, evenly spaced, without delay. However, operating issues (e.g. operational delays and vehicle reliability), and at-grade street issues (e.g. illegal left turns by motorists in front of trains and pedestrians violating traffic signals across tracks in downtown Los Angeles and Long Beach), all contribute to a real life scenario where any one of these issues can cause a delay. One delayed train causes a domino effect on all subsequent trains, resulting in inconsistent service along the entire line.

A. Evaluate and Implement Short-term Blue Line and Expo Line Improvements

To address the operating issues impacting speed and reliability on the Blue and Expo Lines, staff has implemented a series of short range operational improvements, including:

- Ensure On-Time Train Arrivals/Departures at Terminals - Rail Operations and Security staff have been assigned to the Blue and Expo Line platforms at 7th/Metro Center to ensure that trains arrive and depart within the 3 minute combined headways. Task Force responsibilities include monitoring train movements, managing personnel, expediting passenger boarding and alighting, providing customer announcements, and restoring service when a delay occurs.
- Install Safety Gate at 18th St On-Ramp to I-10 - Vehicles accessing eastbound I-10 freeway at 18th St from southbound Flower St. must make a left turn across the Metro rail tracks. Although this movement is protected by a dedicated left turn lane with signals and active 'train approaching' warning signs, there have been several incidences where vehicles cross the tracks illegally in front of oncoming trains. To avoid collisions, Operators are required to make a safety stop prior to the on-ramp before proceeding. This delay results in trains missing the green signal to proceed through the Washington/Flower junction. To address this safety concern, a gate arm is currently being installed, as part of a pilot project, at the vehicular left turn pocket lane to prevent illegal left turns. Should this improvement prove successful in reducing accidents, the positive (safety) stop order will be lifted allowing trains to operate through the junction without delay.
- Qualify All Blue and Expo Line Operators to Work Both Lines - Previously, Blue and Expo Line operators were only trained to work the line they were assigned to. This practice does not allow the flexibility to re-route a train to either line to restore service when trains arrived at 7th /Metro Center out of sequence. As of June 2017, all Blue and Expo Line operators have been qualified to work both lines providing the opportunity to dynamically re-route trains to either destination when needed.
- Deploy Blue Line Security Surge - Starting March 20, 2017, additional Security staff was assigned to patrol Blue Line trains and Blue Line stations. This "security surge" is focused on monitoring and reducing several common customer conduct issues, including harassment, loud music, and vendors. The added security presence has been well received, and is currently being deployed throughout the rest of the rail network.
- New Cars on Blue Line - As of June 1, 2017, 9 Kinkisharyo P3010 rail cars have been assigned to the Blue Line. As more of these new cars are in service along the line, fleet reliability, one of the major causes of delay, is expected to improve Blue Line service as well as the customer experience. Vehicle maintenance issues currently account for about 35% of lost revenue service hours on the Blue Line.

After implementing these operational improvements, Blue Line train speeds and travel time have improved between Washington Station and 7th/Metro Center. From January to April 2017, average peak hour speeds increased as much as 11%, depending on the time of day and direction of travel, which results in an actual travel time savings of up to 1.7 min along the segment.

In order to achieve greater improvements in speed and reliability along the entire Blue Line, staff has engaged with the cities of Los Angeles and Long Beach to evaluate and implement short term signal, street, and intersection improvements along at-grade street running segments. Metro and Los Angeles Department of Transportation (LADOT) staff met in early May 2017 to discuss opportunities to increase speeds and reduce delays along Washington Bl., Flower St., and through the Washington/Flower junction by considering various short, mid and long term signal and street improvements. For the short term, both agencies agreed to develop and evaluate scenarios for signal timing, priority and pre-emption, select street closures, restrict left turns at selected intersections that improve rail operations and minimize impacts to vehicular and pedestrian circulation and delays. These scenarios will also consider access to and from new developments along Flower St. and future rail operating scenarios post-Regional Connector implementation.

Metro is also coordinating with the City of Long Beach on its Traffic Signal Synchronization Project (TSSP) which is scheduled to begin construction in fall 2017 and will be completed by the end of the calendar year. When completed, the TSSP is anticipated to reduce travel time and delay along Long Beach Bl. through downtown Long Beach.

B. Study Long-Term Blue Line Improvements, including but not limited to:

1. Creating Blue Line Express Service during peak hours
 - a. Current Freight Usage along the ROW
 - b. Preliminary Estimate on Upgrading the ROW to Light Rail Transit Standards
 - c. Operations Plan to Accommodate Express Service
 - d. Quantify Travel Time Savings for Peak Hour Trains

In May 2017, Metro staff met with Union Pacific (UP) to assess the feasibility of running express service between DTLA and Long Beach. It was determined that running light rail express service along the UP tracks would require access to the Right of Way (ROW) when UP trains are not running, substantial upgrades and costs to the ROW as well as light rail vehicles to adhere to Federal Railroad Administration (FRA) safety regulations and Metro design standards. The following are the requirements needed to establish safe and efficient Blue Line Express service:

- A formal agreement between Metro and UP would be required for Metro to utilize UP tracks
- A waiver from the FRA would be required to share the corridor between light rail trains and freight trains, as the location of this service is under the FRA's jurisdiction
- Significant and costly redesign and/or upgrades of the existing infrastructure for track work, train control, TPSS, and OCS would be required to ensure the reliability of the Metro Blue Line Express service including, but not limited to:
 - Trackwork - Trackwork will need to be upgraded to Metro safety standards and to serve intermittent stations such as Willowbrook/Rosa Parks
 - Train Control - Metro LRT vehicles and UP signals will require modifications to ensure LRVs can operate safely under both UP Positive Train Control (PTC) and Metro's Automatic Train Protection (ATP) systems.
 - Traction Power - Power systems along the Blue Line will require upgrades to ensure sufficient power is available to operate both local and express trains through

- the corridor.
- Overhead catenary System (OCS) - UP standards require structures and facilities to be located at least 23 feet above the rail, which is at the maximum height of the LRV pantograph (23 feet 6 inches), resulting in reliability issues. Bridges and structures will also need to be rebuilt to accommodate the OCS.

Further evaluation of the cost/benefit of the rail improvements including those identified above, along with improvements to at grade street crossings and intermittent station platforms will be required before express operating scenarios and travel time benefits can be developed.

2. Optimize the Washington Blvd. Wye by grade separating the Blue Line on Washington Blvd. and the Expo Line on Flower Street, including a full grade separation of Pico Station.

Metro Engineering developed conceptual grade separation layouts for the Washington/Flower junction and Pico Station. Staff considered seven alternatives for the Wye and identified three for further evaluation:

- W1 - Aerial separate northbound Expo track
- W4 - Underground both northbound and southbound Expo tracks
- W7 - Fully grade separate both Blue and Expo Lines by undergrounding both southbound tracks and aerial separating both northbound tracks

Two of three alternatives for grade separating Pico Station were identified for further consideration, including:

- P1 - Aerial separate both northbound and southbound platforms
- P3 - Underground southbound platform

The Wye and Pico Station alternatives were combined into three concepts described below and summarized in Attachment B. Consultant support will be used for preliminary engineering (PE) and cost estimates for these alternatives; however no funding has been identified for construction.

Alternative WP1: Aerial Northbound Expo Track and Pico Station

This alternative combines W1 and P1 which elevates the Expo northbound track and both platforms at Pico Station. By widening the platforms and constructing two sidings around the platforms it also increases station capacity and eliminates at-grade tracks and street crossing for access to the station platforms. Should the impacts of these aerial structures not be acceptable to the businesses and communities, the same concept can be designed by undergrounding instead of elevating the Expo northbound track and Pico Station.

Alternative WP2: Underground Expo and Stacked Platform at Pico Station

This alternative combines W4 and P3 with both northbound and southbound Expo trains running underground along Flower St. between 7th/Metro Center and 23rd St. Expo trains would serve an underground Pico Station while Blue Line trains would continue to operate on

existing at-grade tracks and serve an expanded at-grade Pico Station. This alternative eliminates the conflict between Blue and Expo trains, and expands the Pico Station platforms to accommodate larger crowds during special events.

Alternative WP3: Double Level Fully Grade Separated Junction and Stacked Platform at Pico Station

This alternative combines WP7 and P3 which fully grade separates the Blue and Expo Lines, eliminating all conflicts at the Wye. Northbound service would be elevated through the Wye and touch down south of I-10 to serve the existing at-grade Pico Station. Southbound trains would run underground between 7th/Metro Center and 23rd St. and serve an underground station at Pico. Northbound and southbound Pico Station platforms would be widened to accommodate larger crowds during special events.

3. Explore the feasibility for a full grade separation and/or station relocation including additional parking at Wardlow Station

In May 2017, Metro issued a Task Order to AECOM through an RFP that was issued to all members of an existing Countywide Planning Bench Contract, to conduct a safety and traffic analysis for the Wardlow intersection and to recommend any needed improvements. AECOM's task also includes using Metro's adopted grade crossing policy to prioritize each of the 27 gated crossings for grade separation including providing a detailed report identifying the methodology, assumptions, and data that supports the prioritization. These three tasks responded to a May 2016 Board motion, and are scheduled to be completed by the end of August 2017. It should be noted, however, that AECOM's current scope does not include any studies for additional parking at Wardlow station.

Parking at Wardlow Station Update

Between August 2016 and May 2017, Metro staff held on site meetings and communicated with both the City of Long Beach and Long Beach Transit, to discuss a comprehensive approach to managing parking at the Wardlow Station. In addition, through the development of the Supportive Transit Parking Plan (STPP) and a more robust parking demand model, the Parking Management Unit is able to determine and manage parking demand at high-demand stations. The Wardlow station currently offers 119 parking spaces and experiences excess parking demand that results in spillover parking into the adjacent neighborhoods. With the implementation of the Parking Guidance System this past year, Metro is working to redirect some of this parking demand to the neighboring Willow station, which has at least 100 parking spaces available daily. Over the next 6 months, with the completion of the STPP, staff will recommend to the Board implementing the Parking Management Pilot Program at the Wardlow Station. Assuming a daily parking rate of \$3.00, the demand for parking is estimated at 209 spaces. As a result, there will be a 90 space shortage, which can be addressed in two ways: (1) using the Parking Guidance System (signage and app) to direct parking traffic to Willow Station, which has at least 100 available spaces daily and (2) through ongoing work with the City of Long Beach in their efforts to pursue an upgrade to the transit plaza that would include a re-striping plan that will install on-street metered parking that will both mitigate traffic speeds and increase the on-street parking inventory. The additional on-

street meters will allow for both transit commuter parking as well as time limits to allow for more local/transient use.

4. Study of additional grade separations along the entire Blue Line alignment that would improve service reliability and schedule adherence

In February 2017, a second Board motion was approved that directed the CEO, among other issues, to study grade separations on the entire MBL, including all the non-gated rail intersections and the junction of the MBL and Expo lines (Wye) as a long term enhancement. This latest motion also directed evaluations be undertaken of short-term improvements described above that both Metro and LADOT staff agreed to pursue. In order to provide a level-playing field and from a cost advantage perspective, staff decided to initiate an expedited procurement for a new contract for the additional tasks & discipline through the same planning bench to encourage competition. Staff anticipates issuing a Task Order for the additional work by October 2017.

C. Motion Amendments

1. MBL Graffiti Deterrence Program

The February 2017 graffiti deterrence pilot program included the installation of artificial ivy at the Metro Gold Line Lincoln Cypress Station. In April 2017, the pilot program was expanded to Slauson Station along the Blue Line where artificial ivy was installed, partially wrapping a column that supports the platform. Product effectiveness and cost benefit analysis are being evaluated for the Gold Line and Blue Line stations that are a part of the pilot program.

2. Reimagine the last stop on the MBL and consider adding a second stop closer to the water

Downtown Long Beach is currently served by three Blue Line stations. The southernmost station ("Downtown Long Beach Station") is located on West 1st Street between Pine Ave and Pacific Ave, two blocks north of the Long Beach Convention Center and approximately 1/3 mile north of Shoreline Dr, which is the primary roadway servicing waterfront uses including the Aquarium of the Pacific and Shoreline Village. Because the distance from the Downtown Long Beach Station to the uses along Shoreline is less than one mile, Metro staff will meet with City of Long Beach staff to better understand the connectivity issues related to providing better transit connections to these uses. Part of this work will involve First/Last Mile Connectivity options, in conjunction with First/Last Mile Planning activities described below:

Blue Line First/Last Mile Planning

Through an effort funded by a Cycle I ATP Grant, Metro is currently preparing plans for all 22 Blue Line Stations. These plans will consist of recommendations for access, safety and other improvements for each station, with an emphasis on creating better linkages to key destinations within the stations areas. The project also includes innovative community engagement, testing a variety of techniques to gather input from community residents and stakeholders outside of the context of standard public meetings.

3. Ensure that the Eco-Rapid Transit Line project studies incorporates the MBL Express concept;

so the MBL could ultimately run directly to Union Station

Environmental studies for the West Santa Ana Branch Rail Transit Project are being initiated with Scoping Meetings scheduled in June 2017. These studies will include travel demand modeling for that project in the context of the Measure M transit network. Because two options for the West Santa Ana Branch Northern Alignment would run adjacent to the Metro Blue Line between Slauson and Washington Stations, interlining Blue Line trains onto West Santa Ana Branch tracks might be possible. As a part of the West Santa Ana Branch Travel Demand Forecasting, such an operating plan will be modeled and evaluated.

DETERMINATION OF SAFETY IMPACT

Approval of this receive and file item on Metro Blue Line improvements will have a positive impact on the safety of our customers and employees.

FINANCIAL IMPACT

There is no financial impact imparted by approving the recommended action.

NEXT STEPS

With regards to the short-term Blue and Expo Line improvements, Metro staff will continue to engage the Cities of Los Angeles and Long Beach to identify and evaluate signal and intersection modifications to improve travel times and reduce delays. Operational improvements will continue to be monitored and adjusted to improve the reliability of train service along the line. With regard to the Washington/Flower junction (Wye) and Pico Station grade separation alternatives, Metro's Program Management department will continue to advance engineering and develop cost estimates for preferred alternatives, considering Right of Way (ROW) issues, street traffic impacts including street closures, and permanent acquisition of traffic lanes. As mentioned previously, a study of grade separations on the entire MBL, will be completed via an expedited procurement of a task order through the Countywide Planning bench. While at this point, there is no impact to the budget, depending on the final negotiated amount for the additional tasks that will be included in the RFP through the Countywide Planning Bench, staff may have to return to the Board for authorization. In terms of parking at Wardlow station, Metro's Parking Management Unit will coordinate with other Metro departments and consultants regarding potential reconfiguration or relocation of stations to ensure that parking needs are met and managed appropriately. Also, Blue Line First/Last Mile Planning is scheduled to be completed by the end of 2017, and staff will provide a full briefing to the Board on results at that time.

Staff will return to the Board upon conclusion of the many ongoing assessments of MBL short, medium and long term capital and operational betterments. Staff will prioritize these betterments based on the safety, reliability, traffic impacts and end-to-end speed improvements along the MBL per dollar of ROM cost for each.


ATTACHMENTS

Attachment A - Board Motion February 2017

Attachment B - MBL Long Term Alternatives Summary Matrix

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Phillip A. Washington
Chief Executive Officer



Board Report

File #:2017-0091, File Type:Motion / Motion
Response

Agenda Number:37.

REVISED
PLANNING AND PROGRAMMING COMMITTEE
FEBRUARY 15, 2017
CONSTRUCTION COMMITTEE
FEBRUARY 16, 2017

Motion by:

**MAYOR ERIC GARCETTI, SUPERVISOR JANICE HAHN, MAYOR ROBERT
GARCIA, AND DIRECTOR JACQUELYN DUPONT-WALKER**

Item 37: Blue Line Improvements

With 80,000 average weekday boardings, the Blue Line is MTA's highest ridership light rail line and is the highest ridership modern light rail line in the United States. During 2016, the Blue Line saw nearly 25 million total boardings and over 186 million total passenger miles.

Currently, the Blue Line is undergoing a \$1.2 billion state-of-good repair overhaul, including over \$860 million in new and refurbished light rail vehicles. This project seeks to restore the Blue Line to a like-new state of operation.

However, a more comprehensive evaluation of improving service and reliability on the Blue Line is required. Customer satisfaction on the Blue Line has fallen nearly ten percent since 2013, while the Blue Line complaint rate has nearly doubled over the same time period.

There are many opportunities for improvement throughout the length of the Blue Line.

In Downtown Los Angeles, for example, a bottleneck exists at Washington Boulevard, where the Blue Line and Expo Line join in a wye. Recently, MTA increased the frequency of Expo Line trains to every six minutes during peak hours, matching the frequency of Blue Line trains. As a result, a total of 40 trains per hour are passing through the wye, approaching the limits of the wye's capacity.

Both Blue Line and Expo Line depend on this single track segment, any collision or mechanical failure within the segment could significantly delay both rail lines. Grade separating this portion of the Blue and Expo Lines could dramatically improve service

reliability, increase capacity, provide better schedule adherence, and facilitate other opportunities, such as undergrounding Pico Station.

Additionally, an opportunity exists to create Blue Line Express service between Long Beach and Downtown Los Angeles. Roughly between the I-710 freeway and Washington Boulevard, extra right-of-way exists which could be used to construct a third track required for express operation.

APPROVE Motion by Garcetti, Hahn, Garcia and Dupont-Walker that the MTA Board direct the CEO to:

- A. evaluate and implement short-term Blue Line and Expo Line improvements, especially service reliability and schedule adherence improvements on at-grade sections of Washington Boulevard, Flower Street, and the downtown wye, including but not limited to signal optimization, signal priority, signal preemption, and consideration of street closures;
- B. study long-term Blue Line improvements, including but not limited to:
 - 1. creating Blue Line Express service between Long Beach and Downtown Los Angeles during peak hours, including:
 - a. provide information on current freight usage along the right-of-way,
 - b. provide a preliminary estimate on upgrading the right-of-way to light rail transit standards,
 - c. provide an operations plan to accommodate express service,
 - d. quantify travel time savings for peak hour trains;
 - 2. optimizing the Washington Boulevard wye by grade separating the Blue Line on Washington Boulevard and the Expo Line on Flower Street, including a full grade separation of Pico Station;
 - 3. explore the feasibility for a full grade separation and/or station relocation including additional parking at Wardlow Station;
 - 4. study of additional grade separations along the entire Blue Line alignment that would improve service reliability and schedule adherence; and
- C. report back on all the above to the Construction Committee during the July 2017 Board

cycle.

DUPONT-WALKER AMENDMENT: to extend to the Blue Line the graffiti deterrence program currently in effect on the Gold Line.

GARCIA AMENDMENT: to work with the City of Long Beach to reimagine the last stop on the Blue Line.

GARCETTI AMENDMENT: that the Eco-Rapid Transit Line Project studies incorporate the Blue Line Express concept, so the Blue Line could ultimately run directly to Union Station.

Metro Blue Line Long Term Improvements Summary Matrix

Washington Wye Grade Separation Alternatives

Layout Alternative			Key Features				Construction Cost 2017 (\$M)
Name	Description	Schematics	Eliminates conflict point	Eliminates impact from street traffic	Increases station capacity	Improves patrons safety	
W1	NB Expo aerial	<p>ALT W1: NB EXPO AERIAL</p>	Yes	No	n/a	n/a	90
W2	NB Expo underground	<p>ALT W2: NB EXPO UNDERGROUND</p>	Yes	No	n/a	n/a	Not done
W3	Washington Blvd aerial	<p>ALT W3: WASHINGTON BLVD AERIAL</p>	No	Yes	n/a	n/a	Not done

ATTACHMENT B

Layout Alternative			Key Features				
Name	Description	Schematics	Eliminates conflict point	Eliminates impact from street traffic	Increases station capacity	Improves patrons safety	Construction Cost 2017 (\$M)
W4	Expo underground		No	Yes (for Expo only)	n/a	n/a	680
W5	Flat aerial junction		No	Yes	n/a	n/a	Not done
W6	Flat underground junction		No	Yes	n/a	n/a	Not done
W7	Full grade separation - aerial and underground		Yes	Yes	n/a	n/a	460

Pico Station Alternatives

Layout Alternative			Key Features				Cost
Name	Description	Schematics	Eliminates conflict point	Eliminates impact from street traffic	Increases station capacity	Improves patrons safety	
P1	Aerial with two platforms and four tracks	<p>ALT P1: STATION WIDENED AND AERIAL</p>	n/a	n/a	Yes	Yes	240
P2	Underground with two platforms and four tracks	<p>ALT P2: STATION WIDENED AND UNDERGROUND</p>	n/a	n/a	Yes	Yes	360
P3	Stacked platforms – at-grade for SB and underground for NB	<p>ALT P3: STACKED PLATFORMS SB UNDERGROUND, NB AT GRADE</p>	n/a	n/a	Yes	Yes	290

Combined Washington Wye and Pico Station Alternatives

Layout Alternative			Key Features				Cost
Name	Description	Schematics	Eliminates conflict point	Eliminates impact from street traffic	Increases station capacity	Improves patrons safety	
WP1 (W1+P1)	Aerial NB Expo and Pico Station	<p>ALT WP1: COMBINED P1 AND W1 PICO STATION AND NB EXPO AERIAL</p>	Yes	No	Yes	Yes	330
WP2 (WP4+P3)	Underground Expo and stacked platform Pico Station	<p>ALT WP2: COMBINED P3 AND W4 EXPO TRACKS UNDERGROUND PICO STATION WITH STACKED PLATFORMS BLUE LINE AT-GRADE, EXPO UNDERGROUND</p>	No	Yes (for Expo only)	Yes	Yes	680
WP3 (WP7+P3)	Double level fully grade separated junction and stacked platform Pico Station	<p>ALT WP3: COMBINED P3 AND W7 SB UNDERGROUND NB AT GRADE NORTH OF FREEWAY NB AERIAL SOUTH OF FREEWAY</p>	Yes	Yes	Yes	Yes	840



Board Report

File #: 2017-0479, **File Type:** Policy

Agenda Number: 49

**REGULAR BOARD MEETING
JULY 27, 2017**

SUBJECT: CRENSHAW/LAX TRANSIT CORRIDOR PROJECT

ACTION: ADOPT RESOLUTION OF NECESSITY TO ACQUIRE PROPERTY INTEREST IN PORTIONS OF PROPERTY LOCATED AT 6700 CRENSHAW BLVD, LOS ANGELES.

RECOMMENDATION

CONSIDER:

- A. HOLDING a public hearing on the proposed Resolution of Necessity; and
- B. ADOPTING a Resolution of Necessity authorizing the commencement of an eminent domain action to acquire various interests in the property located at 6700 Crenshaw Blvd., Los Angeles. Metro must proceed with a condemnation action to clear various title issues and acquire the necessary property interests required for the Crenshaw/LAX Transit Corridor Project. The properties sought to be condemned are a 162 square foot permanent roadway easement (Metro Parcel CR-2901) and a 50 square foot temporary construction easement (Metro Parcel CR-2901-1) in a portion of 6700 Crenshaw Blvd., Los Angeles, California (APN 4006-025-032) (hereinafter "Property"). The Property is owned by Noel Dias and Mike Davidyan.

(REQUIRES TWO-THIRDS VOTE OF THE FULL BOARD)

BACKGROUND

Los Angeles County Metropolitan Transportation Authority ("Metro") seeks to acquire the Property (Attachment "A") for the construction and operation of the Crenshaw/LAX Transit Corridor Project ("Project") and in particular to make necessary street modifications to Crenshaw Blvd. and 67th Street. Metro's review of title records has revealed that title to the property is held by Mike H. Davidyan and Noel Dias. An initial offer was presented to Mr. Dias on July 1, 2016 and, as a result of some unresolved title issues, a subsequent written offer was presented to Mr. Davidyan and Mr. Dias ("Owner") on June 29, 2017, as required by California Government Code Section 7267.2. However, there are multiple other parties claiming an interest in the Property and/or have a lien encumbering said Property; accordingly, Metro has not been able to reach a negotiated agreement. The Property is necessary for construction of the Project and for street modification purposes; therefore, staff recommends the acquisition of the Property through eminent domain in order to maintain the Project schedule and to obtain clear title.

In accordance with the provisions of the California Eminent Domain law and Sections 30503, 30600, 130051.13, 130220.5 and 132610 of the California Public Utilities Code (which authorize the public acquisition of private property by eminent domain), Metro has prepared and mailed notice of this hearing to each Owner informing the Owner of its right to appear at this hearing and be heard on the following issues: (1) whether the public interest and necessity require the Project; (2) whether the Project is planned or located in the manner that will be most compatible with the greatest public good and the least private injury; (3) whether the Property is necessary for the Project; and (4) whether either the offer required by Section 7267.2 of the Government Code has been made to the Owner or Owners of Record, or the offer has not been made because the Owner cannot be located with reasonable diligence.

Attached is evidence from staff and legal counsel setting forth the required findings for acquiring the Property through the use of eminent domain (Attachment "B"). After Metro receives all of the testimony and other evidence from all interested parties, the Metro Board must make a determination as to whether to adopt the proposed Resolution of Necessity (Attachment "C") to acquire the Property by eminent domain. In order to adopt the resolution, the Metro Board must find and determine, based upon all the evidence before it and by a two-thirds vote of all the members of its governing body, that the conditions stated above exist.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an impact on Metro's safety standards.

FINANCIAL IMPACT

The funding for the acquisition of the Property is included in the approved Life of Project Budget (LOP) under Measure R, Project 865512 (Crenshaw/LAX Transit Corridor Project), in Cost Center Number 8510, and Account Number 53013 (Acquisition of Land). Since this is a multi-year project, the cost center manager, project manager and Executive Director, Program Management would be responsible for budgeting costs in future fiscal years.

Impact to Budget

This project is funded with a combination of Local Agency funds, Proposition C 25%, Proposition A 35%, Measure R 35%, Measure R TIFIA Loan, CMAQ and other federal funding sources. No other funds have been considered and there is no additional impact to operations.

NEXT STEPS

If this action is approved by the Board, Metro's condemnation counsel will be instructed to take all steps necessary to commence legal proceedings in a court of competent jurisdiction to acquire the Property interest by eminent domain. Counsel will also be directed to seek and obtain an Order of Prejudgment Possession in accordance with the provisions of the eminent domain law as necessary.

ATTACHMENTS

Attachment A - Property Information

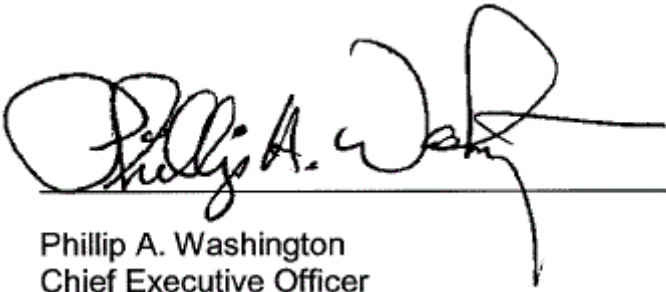
Attachment B - Staff Report

Attachment C - Resolution of Necessity

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



Phillip A. Washington
Chief Executive Officer

ATTACHMENT A

Assessor's Parcel Number	Parcel Address	Property Owner	Purpose of Acquisition	Property Interest(s) Sought	METRO Parcel Number
4006-025-032	6700 Crenshaw Blvd., Los Angeles, CA	Noel Dias, Michael Davidyan	Street realignment/modifications.	Permanent Easement and Temporary Construction Easement	CR-2901 & CR-2901-1



ATTACHMENT B

STAFF REPORT REGARDING THE NECESSITY FOR THE ACQUISITION OF A PERMANENT EASEMENT AND A TEMPORARY CONSTRUCTION EASEMENT IN A PORTION OF 6700 CRENSHAW BLVD., LOS ANGELES (THE "PROPERTY") FOR THE CRENSHAW/LAX TRANSIT CORRIDOR PROJECT

BACKGROUND

A 162 square foot permanent easement and a 50 square foot temporary construction easement in the Property are required for the construction and operation of the Crenshaw/LAX Transit Corridor Project ("Project"). The Property sought is a portion of 6700 Crenshaw Blvd., Los Angeles, CA (APN 4006-025-032). No complete parcels are sought to be acquired and no residences or businesses will be displaced by acquisition of the Property. The address, record owner, physical description, and nature of the property interests sought to be acquired for the Project are summarized as follows:

Assessor's Parcel Number	Parcel Address	Property Owner	Purpose of Acquisition	Property Interest(s) Sought	METRO Parcel Number
4006-025-032	6700 Crenshaw Blvd., Los Angeles, CA	Noel Dias, Michael Davidyan	Street realignment/modifications	Permanent Easement and Temporary Construction Easement	CR-2901 & CR-2901-1

A written offer for the Property was presented to the Owner; however, there are multiple other parties claiming an interest in the Property and/or have a lien encumbering said Property and as such, the Los Angeles County Metropolitan Transportation Authority ("METRO") has not been able to reach a negotiated agreement.

A. The public interest and necessity require the Project.

The public interest and necessity require the Project for the following specific reasons:

1. The population and employment densities in the Crenshaw/LAX Transit Corridor are extremely high and very transit-dependent. The population and employment densities are four times higher than Los Angeles County as a whole. The Corridor has a high concentration of low-income, minority, transit-dependent residents. More than 49 percent of all Corridor households are designated as low income. In addition, 16 percent of all Corridor households do not have access to an automobile, compared to 8 percent in the County's urbanized area. Forecasts show a growing transit-dependent population, with a projected 55 percent increase in Corridor residents that rely on, or will rely on the area's transit system. The Project will provide significant improvements for low-income, elderly and transit-dependent persons living in the Corridor area.

2. Implementation of the Project will result in a reduction of vehicle miles per day and reduction of auto air pollutants.
3. The Project will relieve congestion on the already over capacity I-405 San Diego and the I-10 Santa Monica Freeways and surrounding major thoroughfares. In addition, it will reduce the parking demands in the Westside area by providing an alternative means of transportation, competitive in rush-hour travel times with the automobile.
4. The Project will be a major link in the existing county-wide rail transit system, and will thereby provide alternative means of transportation during fuel crises and increased future traffic congestion.
5. The Project will meet the need for improved transit service of the significant transit-dependent population within the Project area.

It is recommended that based on the above evidence, the Board find and determine that the public interest and necessity require the Project.

B The Project is planned or located in the manner that will be most compatible with the greatest public good and least private injury.

On September 11, 2009, a Draft Environmental Impact Statement / Draft Environmental Impact Report (DEIS/DEIR) was circulated and reviewed by interested and concerned parties, including private citizens, community groups, the business community, elected officials and public agencies. Public hearings were held to solicit citizen and agency comments. A total of four alternatives, including two build alternatives, were presented in the September 2009 DEIS/DEIR. On December 20, 2009, the Board adopted the Light Rail Transit (LRT) Alternative as the Locally Preferred Alternative (LPA), after review and consideration of the comments received from circulation of the 2009 DEIS/DEIR. The Board certified the FEIR on September 22, 2011. A Record of Decision was received from the Federal Transit Administration on December 30, 2011.

The Corridor has some of the highest population and employment density in the Southern California region, as well as the highest proportion of transit ridership. No significant expansion of existing freeway and street networks is planned to accommodate this growth. During various community meetings, the residents of the Corridor area expressed their need for improved transit service because many are transit-dependent and need better access to the region's educational, employment, and cultural opportunities. The LPA addresses those needs and moves more people in a way that is energy efficient and with the least environmental impact.

The Project is a LRT dual-track alignment, which will extend from the existing Metro Exposition Line at Crenshaw and Exposition Boulevards. The LRT line will travel 8.5 miles to the Metro Green Line Aviation/LAX Station and will serve the cities of Los Angeles, Inglewood, Hawthorne and El Segundo and portions of unincorporated Los Angeles County. The project includes six stations and two optional stations:

- Crenshaw / Exposition
- Crenshaw / Martin Luther King Jr.
- Leimert Park (optional)
- Crenshaw / Slauson
- Florence / West
- Hindry (optional)
- Aviation / Century

The overall Project will cause private injury, including the displacement or relocation of certain owners and users of private property. The Property under consideration as part of this Resolution of Necessity will not cause such displacement. Moreover, no other alternative locations for the Project provide greater public good with less private injury. Therefore, the Project is planned or located in the manner that will be most compatible with the greatest public good and the least private injury.

Due to its bulk, the FEIS/FEIR is not physically included in the Board's agenda packet for this public hearing. However, the FEIS/FEIR documents should be considered in connection with this matter. It is recommended that, based upon the foregoing, the Board find and determine that the Project is planned or located in the manner that will be most compatible with the greatest public good and the least private injury.

C. The Property is necessary for the Project.

The Property consists of a 162 square foot permanent easement and a 50 square foot temporary construction easement in a portion of property commonly known as 6700 Crenshaw Blvd., in the city of Los Angeles. The Property is necessary to make street modifications to the intersection of Crenshaw Blvd. and 67th Street. Because there are multiple other parties claiming an interest in the Property and/or have a lien encumbering said Property, METRO has not been able to reach a negotiated agreement. Therefore, acquisition of the Property through eminent domain is necessary in order to maintain the Project schedule and to obtain clear title. The property interest is depicted in the legal description and plat map attached as exhibits to the Proposed Resolution of Necessity.

Staff recommends that the Board find that the acquisition of the Property is necessary for the Project.

D. Offers were made in compliance with Government Code Section 7267.2.

California Code of Civil Procedure Section 1245.230 requires that a Resolution of Necessity contain a declaration that the governing body has found and determined that either the offer required by Section 7267.2 of the California Government Code has been made to the owner(s) of record, or the offer has not been made because the owner(s) cannot be located with reasonable diligence.

California Government Code Section 7267.2 requires that an offer be made to the owner or to the owner(s) of record and in an amount which the agency believes to be just compensation. The amount must not be less than the agency's approved appraisal of the fair market value of the property. In addition, the agency is required to provide the owner(s) with a written statement of, and summary of the basis for, the amount it established as just compensation.

Staff has taken the following actions as required by California law for the acquisition of the Property:

1. Obtained an appraisal to determine the fair market value of the Property, which included consideration of any immovable fixtures and equipment as appropriate;
2. Reviewed and approved the appraisal, and established the amount it believes to be just compensation;
3. Determined the owner(s) of the Property by examining the county assessor's record and the title report;
4. Made a written offer to the owner(s) for the full amount of just compensation - which was not less than the approved appraised value; and
5. Provided the Owner with a written statement of, and summary of the basis for, the amount established as just compensation with respect to the foregoing offer.

It is recommended that the based on the above evidence, the Board find and determine that the offer required by Section 7267.2 of the California Government Code has been made to the owner(s) of record.

E. The environmental review is consistent with the California Environmental Quality Act.

The required environmental review of the Project was completed and certified by the Board. On September 22, 2011, the Board certified the FEIS/FEIR. A Record of Decision was received from the Federal Transit Administration in December of 2011. The FEIS/FEIR documents were consistent with the California Environmental Quality Act Guidelines.

CONCLUSION

Staff recommends that the Board approve the Resolution of Necessity.

**RESOLUTION OF THE
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
DECLARING CERTAIN REAL PROPERTY NECESSARY FOR PUBLIC PURPOSES
AND AUTHORIZING THE ACQUISITION THEREOF
(CRENSHAW / LAX TRANSIT CORRIDOR PROJECT
PARCEL CR-2901 & CR-2901-1)**

THE LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION
AUTHORITY HEREBY FINDS, DETERMINES, AND RESOLVES AS FOLLOWS:

Section 1.

THE LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION
AUTHORITY ("METRO") is a public entity organized and existing pursuant to Chapter 2 of
Division 12 of the California Public Utilities Code (commencing with Section 130050).

Section 2.

The property interest described hereinafter is to be taken for public use, namely, for
public transportation purposes and all uses necessary, incidental or convenient thereto,
and for all public purposes pursuant to the authority conferred upon the Board to acquire
property by eminent domain by California Public Utilities Code Sections 30000-33027,
inclusive, and particularly Section 30503 and 30600, Sections 130000-132650, inclusive,
and particularly Sections 130051.13, 130220.5, and 132610, Code of Civil Procedure
Sections 1230.010-1273.050, inclusive, and particularly Sections 1240.510 and 1240.610,
and Article I, Section 19 of the California Constitution.

Section 3.

The property interest to be acquired consists of a permanent easement and a
temporary construction easement as designated below, and as described more specifically
in the exhibits attached hereto (hereinafter, the "Property"), all of which are incorporated
herein by this reference:

METRO Parcel Number	Assessor's Parcel Number	Parcel Address	Property Owner	Purpose of Acquisition	Property Interest(s) Sought - See Exhibit:
CR-2901 & CR-2901-1	4006-025-032	6700 Crenshaw Blvd., Los Angeles, CA	Noel Dias, Michael Davidyan	Street realignment/modifications	Permanent Easement and Temporary Construction Easement – See Exhibit 1

METRO's acquisition of the above property interests is subject to the following limitation:

Construction of temporary or permanent improvements will not adversely impact the normal operations of surface traffic, or performance of utilities in the Project area. During construction, reasonable access to businesses and residences will be maintained at all times.

Section 4.

(a) The acquisition of the above-described Property is necessary for the development, construction, operation, and maintenance of the Crenshaw / LAX Transit Corridor Project ("Project");

(b) The environmental impacts of the Project were evaluated in the Final Environmental Impact Statement/Final Environmental Impact Report (FEIS/FEIR), which was certified by the Board on September 22, 2011. The Board found that in accordance with the California Environmental Quality Act (CEQA) Guidelines, Section 15162, no subsequent or supplemental Environmental Impact Report is required for the Project, and the FEIS/FEIR documents are consistent with CEQA; and

(c) The Board has reviewed and considered the FEIS/FEIR, before and as part of the process of determining whether to acquire the above-referenced Property.

Section 5.

The Board hereby declares that it has found and determined each of the following:

(a) The public interest and necessity require the proposed Project;

(b) The proposed Project is planned or located in the manner that will be most compatible with the greatest public good and the least private injury;

(c) The Property sought to be acquired, which has been described herein, is necessary for the proposed Project; and

(d) The offer required by Section 7267.2 of the Government Code has been made to the owner(s) of record.

Section 6.

Pursuant to Sections 1240.510 and 1240.610 of the Code of Civil Procedure, to the extent that the Property is already devoted to a public use, the use to which the Property is to be put is a more necessary public use than the use to which the Property is already devoted, or, in the alternative, is a compatible public use which will not unreasonably interfere with or impair the continuance of the public use to which the Property is already devoted.

Section 7.

That notice of intention to adopt this resolution was given by first class mail to each person whose Property is to be acquired by eminent domain in accordance with Section 1245.235 of the Code of Civil Procedure and a hearing was conducted by the Board on the matters contained herein.

Section 8.

Legal Counsel is hereby authorized and directed to take all steps necessary to commence legal proceedings, in a court of competent jurisdiction, to acquire the Property described above by eminent domain. Counsel is also authorized and directed to seek and obtain an Order for Prejudgment Possession of said Property in accordance with the provisions of the eminent domain law and is directed that the total sum of probable just compensation be deposited with the State Treasurer or the Clerk of the Superior Court. Counsel may enter into stipulated Orders for Prejudgment Possession and/or Possession and Use Agreements, where such agreements constitute the functional equivalent of an Order for Prejudgment Possession. Counsel is further authorized to correct any errors or to make or agree to any non-material changes to the legal description of the real property that are deemed necessary for the conduct of the condemnation action or other proceedings or transactions required to acquire the Property.

Counsel is also authorized to reduce or modify the extent of the interests or property to be acquired so as to reduce the compensation payable in the action where such change would not substantially impair the construction and operation for the project for which the real property is being acquired.

Counsel is further authorized to compromise and settle such eminent domain proceedings, if such settlement can be reached, and in that event, to take all necessary action to complete the acquisition, including stipulations as to judgment and other matters, and causing all payments to be made. Counsel is further authorized to associate with, at its election, a private law firm for the preparation and prosecution of said proceedings.

I, MICHELLE JACKSON, Secretary of the Los Angeles County Metropolitan Transportation Authority, do hereby certify that the foregoing Resolution was duly and regularly adopted by a vote of two-thirds of all the members of the Board of the Metropolitan Transportation Authority at a meeting held on the 27th day of July 2017.

MICHELLE JACKSON
METRO Secretary

Date: _____

ATTACHMENTS

1 - Exhibit "1" – Parcel Legal & Plat

EXHIBIT 1

EXHIBIT "A"

**LEGAL DESCRIPTION FOR PARTIAL ACQUISITION PURPOSES
PARCEL NUMBER CR-2901**

THAT PORTION OF LOTS 577 AND 580 OF HYDE PARK TRACT, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 14 PAGE 21 OF MISCELLANEOUS RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWESTERLY CORNER OF LOT 577, SAID POINT ALSO BEING THE INTERSECTION OF THE SOUTHERLY RIGHT-OF-WAY LINE OF 67TH STREET (FORMERLY KNOWN AS FLOWER STREET), 60 FEET WIDE, WITH THE EASTERLY RIGHT-OF-WAY LINE OF CRENSHAW BOULEVARD (FORMERLY KNOWN AS GRAND AVENUE), 80 FEET WIDE, AS SHOWN ON AFOREMENTIONED TRACT MAP; THENCE ALONG SAID SOUTHERLY LINE N89°40'46"E 18.00 FEET; THENCE DEPARTING SAID SOUTHERLY LINE S45°02'42"W 25.62 FEET TO SAID EASTERLY LINE; THENCE ALONG SAID EASTERLY LINE N00°24'39"E 18.00 FEET TO THE **POINT OF BEGINNING**.

CONTAINS: 162 SQUARE FEET.

NOTE:

THIS LEGAL DESCRIPTION WAS NOT PREPARED FOR ANY PURPOSE THAT WOULD BE IN VIOLATION OF THE STATE OF CALIFORNIA SUBDIVISION MAP ACT OR LOCAL ORDINANCES OF THE GOVERNING BODY HAVING JURISDICTION.

PREPARED BY:

Stephanie A. Wagner
STEPHANIE A. WAGNER, P.L.S. 5752

June 20, 2012
DATE:



EXHIBIT "A"

LEGAL DESCRIPTION FOR TEMPORARY CONSTRUCTION EASEMENT
PARCEL NUMBER CR-2901-1

THAT PORTION OF LOT 577 OF HYDE PARK TRACT, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 14 PAGE 21 OF MISCELLANEOUS RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWESTERLY CORNER OF LOT 577, SAID POINT BEING ALSO THE INTERSECTION OF THE SOUTHERLY LINE OF 67TH STREET (FORMERLY KNOWN AS FLOWER STREET), 60 FEET WIDE, WITH THE EASTERLY RIGHT-OF-WAY LINE OF CRENSHAW BOULEVARD (FORMERLY KNOWN AS GRAND AVENUE), 80.00 FEET WIDE, AS SHOWN ON AFOREMENTIONED TRACT MAP; THENCE ALONG SAID SOUTHERLY LINE, N89°40'46"E 16.78 FEET **TO THE TRUE POINT OF BEGINNING**; THENCE LEAVING SAID SOUTHERLY LINE, S45°03'12"W 21.03 FEET; THENCE N89°35'21"W 2.00 FEET TO SAID EASTERLY LINE OF CRENSHAW BOULEVARD; THENCE ALONG SAID EASTERLY LINE, S00°24'39"W 2.00 FEET; THENCE LEAVING SAID EASTERLY LINE S89°35'21"E 2.84 FEET; THENCE N45°03'12"E 23.89 FEET TO SAID SOUTHERLY LINE OF 67TH STREET ; THENCE ALONG SAID SOUTHERLY LINE S89°40'46"W 2.85 FEET **TO THE TRUE POINT OF BEGINNING.**

CONTAINS: 50 SQUARE FEET, MORE OR LESS.

NOTE:

THIS LEGAL DESCRIPTION WAS NOT PREPARED FOR ANY PURPOSE THAT WOULD BE IN VIOLATION OF THE STATE OF CALIFORNIA SUBDIVISION MAP ACT OR LOCAL ORDINANCES OF THE GOVERNING BODY HAVING JURISDICTION.

PREPARED BY:

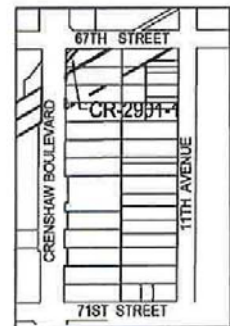
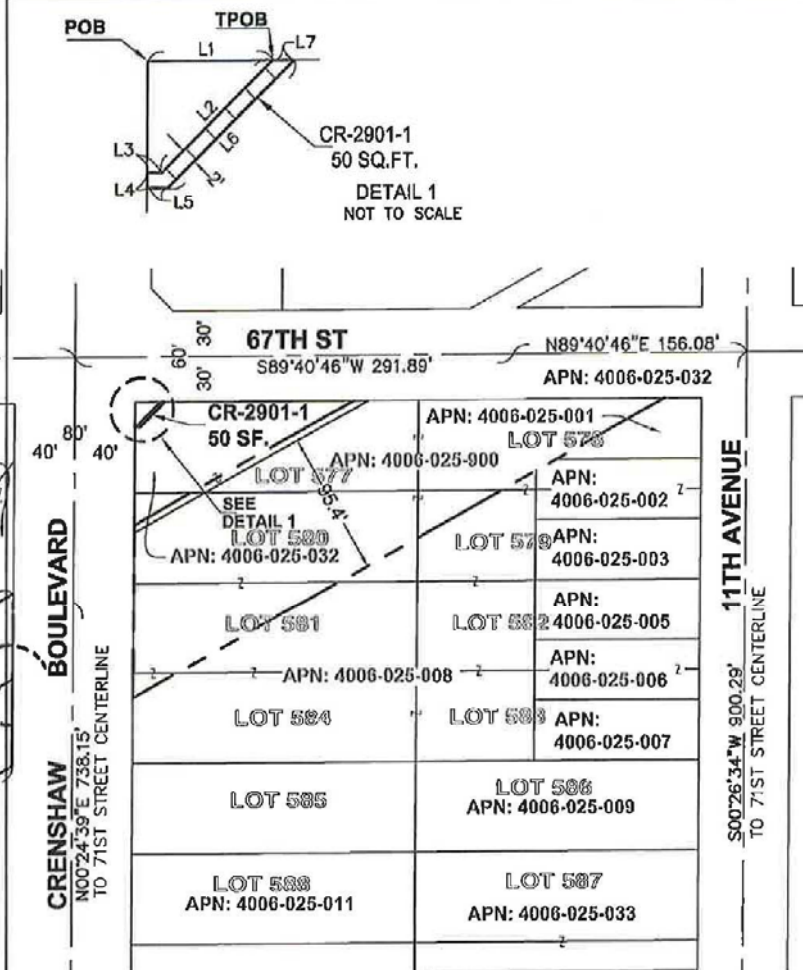
Stephanie A. Wagner
STEPHANIE A. WAGNER, P.L.S. 5752

Sep. 28, 2015
DATE:



EXHIBIT "B"

Grantor: NOEL DIAS		THE DATA SHOWN ON PLAT ARE BASED ON FIELD SURVEY PREPARED BY WAGNER ENGINEERING & SURVEY, INC. DATED JUNE 2011 - JUNE 2012. BEARING AND DISTANCES ARE BASED ON CALIFORNIA COORDINATE SYSTEM NAD 83 ZONE 8 COORDINATES OBTAINED FROM CALIFORNIA H.P.G.N.		
Description: PORTION OF LOTS 577 AND 580 OF HYDE PARK TRACT, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 14 PAGE 21 OF MISCELLANEOUS RECORDS				
Title Report: ORANGE COAST TITLE COMPANY ORDER NO. 140-1545149-32				
Assessor's Ref: 4006-025-032	ROW Ref: R-12B & R-129	No.	Date	Revision Description



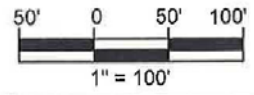
VICINITY MAP
NOT TO SCALE

LINE TABLE		
LINE	BEARING	LENGTH
L1	N89°40'46"E	16.78'
L2	S45°03'12"W	21.03'
L3	N89°35'21"W	2.00'
L4	S00°24'39"W	2.00'
L5	S89°35'21"E	2.84'
L6	N45°03'12"E	23.89'
L7	S89°40'46"W	2.85'



LEGEND:
 APN = ASSESSOR'S PARCEL NUMBER
 POC = POINT OF COMMENCEMENT
 TPOB = TRUE POINT OF BEGINNING
 TCE = TEMPORARY CONSTRUCTION EASEMENT

NOTE:
 THIS EXHIBIT IS MADE PART OF THE LEGAL DESCRIPTION



TOTAL AREA OR PROPERTY	CR-2901-1	REMAINDER PARCEL AREA	ESTATE	
6,723 SQ. FT.	50 SQ. FT.	6,673 SQ. FT.	TCE	
Metro APPROVED BY: <i>[Signature]</i> 10/19/15 PROJECT MANAGER DATE PREPARED BY: WAGNER ENGINEERING & SURVEY 10335 Parklands St, Suite 100 Northridge, CA 91343 CHECKED BY: <i>[Signature]</i> LS: 5752	CRENSHAW/LAX TRANSIT CORRIDOR PROJECT		DATE: 09/28/15 SCALE: 1"=100' REV. No. DATE: REV. No. DATE: PARCEL No. CR-2901-1	
	Hatch Mott MacDonald 201 N. Century Blvd Suite 800 Los Angeles, CA 90045 Phone: 310-387-0500 Fax: 310-387-0048			



Board Report

File #: 2017-0289, **File Type:** Program

Agenda Number: 51

**REVISED
REGULAR BOARD MEETING
JULY 27, 2017**

**SUBJECT: COUNTYWIDE CALL FOR PROJECTS
RECERTIFICATION AND DEOBLIGATION**

ACTION: APPROVE 2017 RECERTIFICATION AND DEOBLIGATION RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

- A. RECERTIFYING \$133.2 million in existing Fiscal Year (FY) 2017-18 commitments from previously-approved Countywide Calls for Projects (Call) and AUTHORIZING the expenditure of funds to meet these commitments as shown in Attachment A;
- B. DEOBLIGATING \$18.8 million of previously approved Call funding, as shown in Attachment B, and REPROGRAMMING these dollars to the same modal category from which they came in the 2015 Call;
- C. PROGRAMMING:
 - 1. funds made available from the 2013, 2014 and 2015 Deobligation to the three previously-approved County of Los Angeles Signal Call projects; and
 - 2. funds released from City of Los Angeles per the November 2007 Board direction on the Proposition 1B funding to the three previously-approved Signal Call projects;
- D. AUTHORIZING the CEO to:
 - 1. negotiate and execute all necessary agreements for approved projects; and
 - 2. amend the FY 2017-18 budget, as necessary, to include the 2017 Countywide Call Recertification and Extension funding in the Regional Programs' budget;
- E. APPROVING changes to the scope of work for:
 - 1. City of Los Angeles - Boyle Heights Chavez Avenue Streetscape/Pedestrian Improvement (#F3643);
 - 2. City of Long Beach - Daisy Corridor and 6th Street Bike Boulevard (#F3518)
 - 3. City of South Gate - Firestone Boulevard Capacity Improvements (#F3124);
 - 4. City of West Hollywood - Melrose Avenue Complete Street Project (#F9601);

F. REALLOCATING funds originally programmed to the City of Glendale Train Station 1st/Last Mile Regional Improvements Project (#F9624) to the Glendale CNG Fueling and Maintenance Facility Project (#F3432); and

G. RECEIVING AND FILING:

1. time extensions for the 55 56 projects shown in Attachment D; and
2. reprogram for the 24 projects shown in Attachment E.

ISSUE

Each year the Board must recertify funding for projects that were approved through prior Calls in order to release the funds to the project sponsors. The Board must also approve the deobligation of lapsing project funds after providing project sponsors with the opportunity to appeal staff's preliminary deobligation recommendations to Metro's Technical Advisory Committee (TAC). The Board must also receive and file the extensions and reprograms being granted through previously-delegated Board administrative authority.

DISCUSSION

The Call process implements Metro's multi-modal programming responsibilities and implements the adopted Long Range Transportation Plan (LRTP). Metro is required by federal (Title 23 U.S.C. 134 (g) & (h)) and state (P.U.C. 130303) statutes to prepare a Transportation Improvement Program (TIP) for Los Angeles County. The TIP allocates revenues across all transportation modes based on the planning requirements of the federal Moving Ahead for Progress in the 21st Century Act (MAP-21). Metro accomplishes these mandates, in part, by programming revenues through the Call.

The 2017 Call Recertification and Deobligation process reinforces the annual authorization and timely use of funds policies. Specifically, Board policy calls for consideration of deobligation of funding from project sponsors who have not met lapsing deadlines, have not used the entire grant amount to complete the project (project savings) or have formally notified Metro that they no longer wish to proceed with the project (cancellation).

Technical Advisory Committee (TAC) Appeals

On May 3, 2017, TAC heard sponsor appeals on the deobligation of funding from nine projects (Attachment F). TAC recommended either one-year or 20-month extensions with certain reporting conditions on all appeals. Staff concurs with these recommendations. Therefore, no projects would involuntarily lose funding due to lapsing schedule and would have the timeline to completion lengthened under this proposed Board action. Additionally, all proposed deobligated funds are due primarily to project savings or cancellation requested by the project sponsors and would not be involuntarily deobligated by this proposed Board action, as further described in the attachments.

DETERMINATION OF SAFETY IMPACT

The 2017 Call Recertification and Deobligation will not have any adverse safety impacts on Metro's employees or patrons.

FINANCIAL IMPACT

\$75.2M is included in the FY18 Proposed Budget in Cost Centers 0441 (Subsidies to Others) and 0442 (Highway Subsidies) for the Countywide Call. Since these are multi-year projects, the cost center managers, Chief Planning Officer and Chief Program Management Officer will be responsible for budgeting in future years.

Impact to Budget

The sources of funds for these activities are Proposition C 10% and 25%, State Repayment of Capital Project Loan Funds, Congestion Mitigation and Air Quality (CMAQ), and Regional Surface Transportation Program (RSTP). Any deobligated funds freed as a result of this action would be programmed in coordination with Office of Management and Budget in order to identify funding priority projects. The Proposition C 10% funds were previously programmed in Calls prior to the 2015 Call. The Proposition C 10% and 25% funds are not eligible for Metro bus and rail operating and capital expenditures.

CMAQ funds can be used for both transit operating and capital. However, there are no additional operating expenses that are eligible for CMAQ funding. Los Angeles County must strive to fully obligate its share of CMAQ funding by May 1st of each year, otherwise it risks its redirection to other California Regional Transportation Planning Agencies by Caltrans. Staff recommends the use of long-lead-time CMAQ funds as planned to insure utilizing Metro's federal funds.

RSTP funds in this action could be used for Metro's transit capital needs. Also, while these funds cannot be used directly for Metro's bus or rail operating needs, these funds could free up other such eligible funds by exchanging the funds used for Metro's paratransit provider, Access Services Incorporated. Since these RSTP funds originate in the Highway portion (Title 23) of MAP-21, they are among the most flexible funds available to Metro and are very useful in meeting Call projects' requirements.

ALTERNATIVES CONSIDERED

The Board could cancel all or some of the FY 2017-18 funding commitments rather than authorize their continued expenditures. This would be a change to the previous Board approved Countywide Calls programming commitments and would disrupt ongoing projects that received multi-year funding.

With respect to deobligations, the Board could choose to deobligate funds from one or more project sponsors whose projects are beyond the lapse dates and are not moving forward consistent with the adopted Revised Lapsing Policy rather than extending the deadlines. A much stricter interpretation of the Revised Lapsing Policy might encourage project sponsors in general to deliver them in a more timely fashion. However, this would be disruptive to the process of delivering the specific projects currently underway, many of which are now very close to being delivered. On balance, the appeals

process between the project sponsors and the Metro TAC is a significant reminder to project sponsors that these funded projects should not be further delayed to ensure policy objectives are achieved in expending the funds as intended by the Call program.

NEXT STEPS

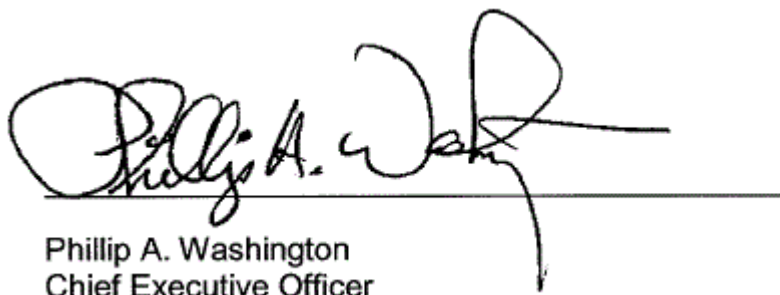
With Board approval of the 2017 Countywide Call Recertification, Deobligation and Extension process, project sponsors will be notified and Funding Agreements (FAs) and Letters of Agreement (LOAs) will be executed with those who have received their first year of funding through the Recertification process. Amendments to existing FAs and LOAs will be completed for those sponsors receiving time extensions. Project sponsors whose funds are being deobligated will be formally notified of the Board action as well as those receiving date certain time extension deadlines for executing their agreements.

ATTACHMENTS

- Attachment A - FY 2017-18 Countywide Call Recertification
- Attachment B - FY 2016-17 Countywide Call Deobligation
- Attachment C - Background/Discussion of Each Recommendation
- Attachment D - FY 2016-17 Countywide Call Extensions
- Attachment E - FY 2017-18 Countywide Call Re-programming
- Attachment F - Result of TAC Appeals Process

Prepared by: Brian Lam, Senior Transportation Planner, (213) 922-3077
Fanny Pan, Senior Director, (213) 922-3070
Wil Ridder, Executive Officer, (213) 922-2887
Manjeet Ranu, Senior Executive Officer, (213) 928-3157

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



Phillip A. Washington
Chief Executive Officer



**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
2017-18 CALL FOR PROJECTS RECERTIFICATION LIST
(\$000)**

PROJ	AGENCY	PROJECT TITLE	TOTAL
F7600	ALHAMBRA	ALHAMBRA PED IMPROVEMENT/WALKING VIABILITY PROJECT ON VALLEY	\$ 605
F9600	AVALON	CITY OF AVALON FIVE-CORNER COMPREHENSIVE PEDESTRIAN PROJECT	171
F9620	BALDWIN PARK	FIRST/LAST MILE CONNECTIONS FOR THE BALDWIN PARK TRANSIT CENTER	16
F7634	BELL	FLORENCE AVE PED IMPROVEMENTS	2,159
F7120	BELL GARDENS	EASTERN AVENUE AND FLORENCE AVENUE RSTI PROJECT	1,043
F9804	BELLFLOWER	DOWNTOWN SMART PARK SYSTEM AND PROGRAM IMPLEMENTATION	87
F7506	BURBANK	CHANDLER BIKEWAY EXTENSION	1,896
F9315	BURBANK	MIDTOWN COMMERCIAL CORRIDORS IMPROVEMENT PROJECT	122
F9626	BURBANK	MIDTOWN COMMERCIAL CORRIDORS IMPROVEMENT PROJECT	50
F7516	CALABASAS	MULHOLLAND HIGHWAY GAP CLOSURE	372
F9301	CALTRANS	I-210 CONNECTED CORRIDORS ARTERIAL SYSTEMS IMPROVEMENTS	3,943
F9530	COMPTON	CENTRAL AVENUE REGIONAL COMMUTER BIKEWAY PROJECT	11
F3317	CULVER CITY	CULVER CITY BUS SIGNAL PRIORITY	2,001
F7507	CULVER CITY	BALLONA CREEK BIKE PATH CONNECTIVITY PROJECT AT HIGUERA BRIDGE	385
F7300	DIAMOND BAR	DIAMOND BAR ADAPTIVE TRAFFIC CONTROL SYSTEM PROJECT	734
F7311	DOWNEY	DOWNEY CITYWIDE TRANSIT PRIORITY SYSTEM PROGRAM	495
F7520	EL MONTE	EL MONTE REGIONAL BICYCLE COMMUTER ACCESS IMPROVEMENTS	15
F3306	GARDENA	GARDENA MUNICIPAL BUS	650
F3432	GLENDALE	GLENDALE CNG FUELING AND MAINTENANCE FACILITY PROJECT	1,556
F7321	GLENDALE	REGIONAL ARTERIAL TRAFFIC PERFORMANCE MEASUREMENT SYSTEM (MATCH MR310.32)	410
MR310.32	GLENDALE	REGIONAL ARTERIAL TRAFFIC PERFORMANCE MEASUREMENT SYSTEM (MATCH FOR F7321)	100
F7709	GLENDALE	REGIONAL BIKE STATIONS (MATCH MR310.34)	747
MR310.34	GLENDALE	REGIONAL BIKE STATIONS (MATCH FOR F7709)	332
F7101	HAWTHORNE	SIGNAL IMPROVEMENTS ON PRAIRIE AVE FROM 118TH ST. TO MARINE AVE.(MATCH MR312.47)	814
MR312.47	HAWTHORNE	SIGNAL IMPROVEMENTS ON PRAIRIE AVE FROM 118TH ST. TO MARINE AVE.(MATCH FOR F7101)	418
F7312	HUNTINGTON PARK	HUNTINGTON PARK SIGNAL SYNCHRONIZATION AND BUS SPEED IMPROVEME	368
F3137	INDUSTRY	SR-57/SR-60 CONFLUENCE PROJECT: WESTBOUND SLIP ON-RAMP	2,800
F7200	INDUSTRY	SR57/60 CONFLUENCE:WB SR60/NB SR57 GRAND OFF-RAMP INTERCHG	6,036
F3128	INGLEWOOD	CENTURY BOULEVARD MOBILITY IMPROVEMENT PROJECT	1,803
F7319	INGLEWOOD	ITS: PHASE V OF INGLEWOOD'S ITS UPGRADES (MATCH MR312.50)	603
MR312.50	INGLEWOOD	ITS: PHASE V OF INGLEWOOD'S ITS UPGRADES (MATCH FOR F7319)	192
F9202	INGLEWOOD	MANCHESTER AND LA CIENEGA GEOMETRIC IMPROVEMENTS	125
F9307	INGLEWOOD	INGLEWOOD ITS PHASE VI	419
F1305	LA CITY	ATCS CENTRAL CITY EAST	2,500
F1307	LA CITY	ATCS CENTRAL BUSINESS DISTRICT	6,000
F1345	LA CITY	ATCS LOS ANGELES	2,200
F3630	LA CITY	MAIN STREET PEDESTRIAN ENHANCEMENTS	165
F3643	LA CITY	BOYLE HEIGHTS CHAVEZ AVE STREETScape/PEDESTRIAN IMPROV.	140
F3650	LA CITY	WESTERN AVE EXPO LINE STATION LINKAGE PROJECT (SOUTH)	616
F5624	LA CITY	WASHINGTON BLVD PEDESTRIAN TRANSIT ACCESS(HOOPER/ALAMEDA) II	1,314
F5821	LA CITY	VALENCIA TRIANGLE LANDSCAPE BEAUTIFICATION PLAZA	110
F7123	LA CITY	MAGNOLIA BL WIDENING (NORTH SIDE) -CAHUENGA BL TO VINELAND	2,104
F7125	LA CITY	SHERMAN WAY WIDENING BETWEEN WHITSETT AVE TO HOLLYWOOD FWY	142
F7205	LA CITY	ALAMEDA ST. WIDENING FROM ANAHEIM ST. TO 300 FT SOUTH OF PCH	3,513
F7207	LA CITY	IMPROVE ANAHEIM ST. FROM FARRAGUT AVE. TO DOMINGUEZ CHANNEL (MATCH MR312.51)	2,511
MR312.51	LA CITY	IMPROVE ANAHEIM ST. FROM FARRAGUT AVE. TO DOMINGUEZ CHANNEL (MATCH FOR F7207)	1,050
F7424	LA CITY	PURCHASE DASH REPLACEMENT CLEAN FUEL VEHICLES	1,807
F7628	LA CITY	WATTS STREETScape IMPROVEMENTS PHASE 2	571
F7707	LA CITY	LAST MILE FOLDING BIKE INCENTIVE PROGRAM	180
F7708	LA CITY	INTERACTIVE BICYCLE BOARD DEMO PROJECT	257
F9119	LA CITY	HARBOR BOULEVARD/SAMPSON WAY/7TH STREET RECONFIGURATION	2,399
F9201	LA CITY	YTI TERMINAL TRIP REDUCTION PROGRAM	1,383
F9204	LA CITY	SLAUSON AVENUE - VERMONT AVENUE TO CRENSHAW BLVD	501
F9206	LA CITY	INTERSECTION IMPROVEMENTS ON HYPERION AVENUE AND GLENDALE BOULEVARD	834
F9309	LA CITY	TRAFFIC SIGNAL RAIL CROSSING IMPROVEMENT PROJECT	417
F9311	LA CITY	ATSAC TRAFFIC SURVEILLANCE VIDEO TRANSPORT SYSTEM ENHAN.	261
F9430	LA CITY	PURCHASE OF THREE ELECTRIC ZERO EMISSION DASH BUSES	845
F9520	LA CITY	MID-CITY LOW STRESS BICYCLE ENHANCEMENT CORRIDORS	312
F9803	LA CITY	BUILDING CONNECTIVITY WITH BICYCLE FRIENDLY BUSINESS DISTRICTS	296
6281	LA COUNTY	NORTH COUNTY/ANTELOPE VALLEY TRAFFIC IMPROVEMENT	278
F1310	LA COUNTY	INFORMATION EXCHANGE NETWORK PHASE II	479
F1311	LA COUNTY	SOUTH BAY FORUM TRAFFIC SIGNAL CORRIDORS PROJECT	400
F1312	LA COUNTY	GATEWAY CITIES FORUM TRAFFIC SIGNAL CORRIDORS PROJECT, PHASE V	100
F1321	LA COUNTY	SAN GABRIEL VALLEY FORUM TRAFFIC SIGNAL CORRIDORS	96



**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
2017-18 CALL FOR PROJECTS RECERTIFICATION LIST
(\$000)**

PROJ	AGENCY	PROJECT TITLE	TOTAL
F1344	LA COUNTY	SLAUSON AVENUE CORRIDOR IMPROVEMENTS	1,388
F3308	LA COUNTY	SAN GABRIEL VALLEY FORUM TRAFFIC SIGNAL CORRIDORS PROJECT	100
F3309	LA COUNTY	GATEWAY CITIES FORUM TRAFFIC SIGNAL CORRIDORS PROJECT, PHASEVI	543
F3310	LA COUNTY	SOUTH BAY FORUM TRAFFIC SIGNAL CORRIDORS PROJECT	62
F5310	LA COUNTY	RAMONA BOULEVARD/BADILLO STREET/COVINA BOULEVARD TSSP/BSP	863
F5315	LA COUNTY	SAN GABRIEL VALLEY FORUM TRAFFIC SIGNAL CORRIDORS PROJECT	200
F5316	LA COUNTY	SOUTH BAY FORUM TRAFFIC SIGNAL CORRIDORS PROJECT	200
F7115	LA COUNTY	THE OLD ROAD-LAKE HUGHES RD TO HILLCREST PKWY PHASE I	1,261
F7306	LA COUNTY	FOOTHILL BOULEVARD TRAFFIC SIGNAL CORRIDOR PROJECT	130
F7308	LA COUNTY	EAST LOS ANGELES TRAFFIC SIGNAL CORRIDOR PROJECT.	80
F7700	LA COUNTY	WILLOWBROOK INTERACTIVE INFORMATION KIOSKS	55
F7701	LA COUNTY	EAST LOS ANGELES DEMONSTRATION BICYCLE SHARING PROGRAM	91
F7806	LA COUNTY	VERMONT AVENUE STREETScape IMPROVEMENT PROJECT	662
F9114	LA COUNTY	FULLERTON ROAD CORRIDOR IMPROVEMENTS - LA COUNTY	1,233
F9116	LA COUNTY	MICHILLINDA AVENUE INTERSECTION IMPROVEMENT PROJECT	192
F9511	LA COUNTY	SOUTH WHITTIER COMMUNITY BIKEWAY ACCESS IMPROVEMENTS	617
F5509	LANCASTER	10TH STREET WEST ROAD DIET AND BIKEWAY IMPROVEMENTS	263
F7500	LAWNDALE	HAWTHORNE BOULEVARD CLASS II BICYCLE LANES	171
F9101	LAWNDALE	REDONDO BEACH BOULEVARD IMPROVEMENTS	883
F3518	LONG BEACH	DAISY CORRIDOR AND 6TH STREET BIKE BLVD	1,115
F7314	LONG BEACH	SANTA FE AVENUE SYNCHRONIZATION ENHANCEMENT PROJECT	1,517
F7316	LONG BEACH	ARTESIA CORRIDOR ATCS ENHANCEMENT PROJECT	1,454
F7615	LONG BEACH	MARKET STREET PED ENHANCEMENTS	834
F9130	LONG BEACH	ARTESIA - GREAT BOULEVARD	3,421
F9314	LONG BEACH	MID-CITY SIGNAL COORDINATION IN LONG BEACH	4
F9808	LONG BEACH	PARK OR RIDE	135
F7402	LONG BEACH TRANSIT	LBT CLEAN FUEL BUS REPLACEMENT PROJECT	901
F9502	MONTEREY PARK	MONTEREY PASS ROAD COMPLETE STREETS BIKE PROJECT	39
F1300	PALMDALE	NORTH COUNTY TRAFFIC FORUM ITS EXPANSION, PHASE V	220
F7121	PALMDALE	RANCHO VISTA BLVD WIDENING	3,529
F7304	PALMDALE	NORTH COUNTY ITS - PALMDALE EXTENSION	160
F7317	PASADENA	PASADENA AREA RAPID TRANSIT SYSTEM - TRANSIT SIGNAL PRIORITY	455
F7318	PASADENA	ADAPTIVE TRAFFIC CONTROL NETWORK - PHASE II	652
F9802	PASADENA	SHARED EV EMPLOYER DEMONSTRATION (SEED) PROGRAM	234
F9122	PICO RIVERA	TELEGRAPH ROAD BRIDGE REPLACEMENT	323
F7204	PORT OF LONG BEACH	PIER B STREET FREIGHT CORRIDOR RECONSTRUCTION	3,491
F9518	PORT OF LONG BEACH	COASTAL BIKE TRAIL CONNECTOR - OCEAN BOULEVARD, LONG BEACH	2,401
F7521	REDONDO BEACH	BICYCLE TRANSPORTATION PLAN IMPLEMENTATION PHASE II	1,329
F7523	ROSEMEAD	ROSEMEAD/SOUTH EL MONTE REGIONAL BICYCLE CONNECTOR PROJECT	73
F3307	SAN DIMAS	INTERSECTION IMPROVEMENTS ON BONITA AVE. AT CATARACT AVE.	1,339
F9313	SAN FERNANDO	SAN FERNANDO CITYWIDE SIGNAL SYNCH AND BUS SPEED IMPRV.	77
F7105	SANTA CLARITA	LYONS AVENUE/DOCKWEILER DRIVE EXTENSION	104
F7301	SANTA CLARITA	INTELLIGENT TRANSPORTATION SYSTEMS (ITS) PHASE VI	682
F9306	SANTA CLARITA	ITS PHASE VII	1,612
F9414	SANTA CLARITA	VISTA CANYON METROLINK STATION	1,648
F9513	SANTA CLARITA	RAILROAD AVENUE CLASS I BIKE PATH	139
F7320	SANTA MONICA	SANTA MONICA SIGNAL SYNC IMPROVEMENTS	541
F7704	SANTA MONICA	MULTI-MODAL WAYFINDING: CONGESTION REDUCTION/STATION ACCESS	355
F9625	SANTA MONICA	17TH STREET/SMC EXPO PEDESTRIAN CONNECTIVITY IMPROVEMENTS	1,332
F9807	SANTA MONICA	SANTA MONICA EXPO AND LOCALIZED TRAVEL PLANNING ASSISTANCE	123
8002R	SGV COG	ALAMEDA CORRIDOR EAST - MEASURE R	25,900
6347	SOUTH GATE	I-710/FIRESTONE BLVD. INTERCHANGE RECONSTRUCTION	954
F7309	SOUTH GATE	TWEEDY BOULEVARD AND SIGNAL SYNCHRONIZATION PROJECT	518
F9601	WEST HOLLYWOOD	WEST HOLLYWOOD - MELROSE AVENUE COMPLETE STREET PROJECT	1,222
F5314	WHITTIER	GATEWAY CITIES FORUM TRAFFIC SIGNAL CORRIDORS PROJECT	120
TOTAL			\$ 133,206



**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
FY 2016-17 CALL FOR PROJECTS DEOBLIGATION RECOMMENDATIONS
(\$000)**

PROJ. ID #	AGENCY	PROJECT TITLE	FUNDING SOURCE	MODE	DOLLARS PROGRAMMED AND FISCAL YEAR						\$ EXPD/OBLG	TOTAL DEOB	REASON	
					Prior	FY 17	FY 18	FY 19	FY 20	FY 21				
1	F9537	BEVERLY HILLS	BEVERLY HILLS BIKESHARE PROGRAM	LTF	BIKE		\$ 10	\$ 10			\$ 262	\$ -	\$ 282	CANCELLED
2	F1328	DOWNEY	FLORENCE AVENUE TRAFFIC SIGNAL COMMUNICATION SYSTEM	PC25	SS	1,438						1,254	184	AUDIT SAVINGS
3	F1136	GLENDALE	GRANDVIEW AVE MODIFICATION WITHIN THE CITY OF GLENDALE	PC25	RSTI	2,107						2,066	41	AUDIT SAVINGS
4	8102	LANCASTER	SR-14 FREEWAY/AVENUE I INTERCHANGE IMPROVEMENTS	PC25	RSTI	5,351						3,457	1,894	AUDIT SAVINGS
5	8047	LA CITY	BALBOA BLVD AND VICTORY BLVD INTERSECTION IMPROVEMENTS	PC25	RSTI	2,420						1,989	431	AUDIT SAVINGS
6	F3142	LA CITY	EXPOSITION PARK TRAFFIC CIRCULATION IMPROVEMENTS	CMAQ	RSTI	2,910						400	2,510	CANCELLED - PENDING CITY COUNCIL ACTION
7	F9532	LONG BEACH	ATHERTON BRIDGE AND CAMPUS CONNECTION	TBD	PED						1,877	-	1,877	ATP AWARD SAVINGS
8	6324	PASADENA	ITS IMPROVEMENTS: LAKE AVENUE AND DEL MAR BLVD	PC25	SS	770						566	204	AUDIT SAVINGS
9	F9516	PASADENA	PASADENA BICYCLE PROGRAM-UNION STREET 2-WAY CYCLE TRACK	CMAQ	BIKE		745		1,969			-	656	ATP AWARD SAVINGS
10	6364	SANTA CLARITA	SIERRA HIGHWAY OVER THE RAILROAD	PC25	RSTI	1,999						1,078	921	AUDIT SAVINGS
11	F3124	SOUTH GATE	FIRESTONE BLVD CAPACITY IMPROVEMENTS	PC25	RSTI	9,424						458	2,352	SCOPE CHANGE
12	F7526	TEMPLE CITY	LAS TUNAS DRIVE BICYCLE IMPROVEMENTS	CMAQ	BIKE		2,722					-	2,722	CANCELLED
13	F7618	TEMPLE CITY	LAS TUNAS DRIVE IMPROVEMENTS AND SAFETY ENHANCEMENT PROJECT	CMAQ	PED		2,910					-	2,910	CANCELLED
14	F7812	TEMPLE CITY	LAS TUNAS DRIVE COMPLETE STREETS IMPROVEMENT PROJECT	CMAQ	TDM		1,277					-	1,277	CANCELLED
15	F9517	WEST HOLLYWOOD	WEHO BIKESHARE IMPLEMENTATION AND INTEROPERABILITY PROJECT	LTF	BIKE		510					-	510	CANCELLED
TOTAL						\$ 26,419	\$ 8,174	\$ 10	\$ 1,969	\$ -	\$ 2,139	\$ 11,268	\$ 18,771	

TOTAL DEOBLIGATION RECOMMENDATION BY MODE	
REGIONAL SURFACE TRANSPORTATION IMPROVEMENTS (RSTI)	\$ 8,149
SIGNAL SYNCHRONIZATION & BUS SPEED IMPROVEMENTS (SS)	388
BICYCLE IMPROVEMENTS (BIKE)	4,170
PEDESTRIAN IMPROVEMENTS (PED)	4,787
TRANSPORTATION DEMAND MANGEMENT	1,277
TOTAL	\$ 18,771

Background/Discussion of Each Recommendation

A. Recertify

The \$133.2 million in existing FY 2017-18 Board approved commitments and programmed through previous Countywide Call processes are shown in Attachment A. The action is required to insure that funding continues in FY 2017-18 for those on-going projects for which Metro previously committed funding.

B. Deobligate

Attachment B shows the \$18.8 million of previously approved Countywide Calls funding that is being recommended for deobligation. This includes approximately \$2.4 million in project downscopes, \$10.2 million in cancelled projects, and \$6.2 million in project savings. In light of the State's negative fund estimates for the 2016 State Transportation Improvement Program (STIP), staff is recommending folding these deobligated funds back into the same modal category from which they came from in the 2015 Call.

C. Program

Program funds made available from the 2013, 2014, and 2015 Deobligation to the three previously approved County of Los Angeles Signal Call projects. Through the 2013 Deobligation process, the Board approved prioritizing the 2013 and future deobligations to restore the full grant dollars previously awarded to these projects before reprogramming the deobligated dollars to future Call projects to fund new projects. The three County of Los Angeles Signal Call projects are:

- 1) San Gabriel Valley Traffic Signal Corridors Projects (#F3308) for FY 2017-18, \$100,000; FY 2018-19, \$472,000; FY 2019-20, \$3,430,000; FY 2020-21, \$11,647,296;
- 2) Gateway Cities Traffic Signal Corridors Phase VI Project (#F3309) for FY 2017-18, \$543,000; FY 2018-19, \$2,740,000; FY 2019-20, \$1,250,000; FY 2020-21, \$5,986,372;
- 3) South Bay Traffic Signal Corridors Project (#F3310) for FY 2017-18, \$62,000; FY 2018-19, \$1,414,000; FY 2019-20, \$4,931,000; FY 2020-21, \$1,876,458.

Program funds released from the City of Los Angeles per the November 2007 Board direction on the Proposition 1B funding to the three previously approved Signal Call projects. The three projects are as follow:

- 1) City of Palmdale - North County Traffic Forum ITS Expansion (#F1300) for FY 2017-18, \$220,000; FY2018-19, \$1,500,000 and FY 2019-20, \$1,669,000;
- 2) County of Los Angeles - Gateway Cities Forum Traffic Signal (#F1312) for FY 2017-18, \$100,000; FY 2018-19, \$1,110,000; FY 2019-20, \$1,702,000 and FY 2020-21, \$2,182,000;
- 3) County of Los Angeles - San Gabriel Valley Forum Traffic Signal (#F1321) for FY 2017-18, \$96,000; FY 2018-19, \$736,000; FY 2019-20, \$1,065,000 and FY 2020-21, \$2,232,000.

This will make the funding whole for these projects and we will continue to manage them on a cash flow basis.

D. Authorize

Projects receiving their first year of funding are required to execute FAs or LOAs with Metro. This recommendation will authorize the CEO or his designee to negotiate and execute any agreements with the project sponsors, based on the project sponsors showing that the projects have met the Project Readiness Criteria.

E. Project Scope Change

1. The City of Los Angeles Boyle Heights Chavez Ave Streetscape Pedestrian Improvements (#F3643) was programed through the 2009 Call. As approved, the project is located in the community of Boyle Heights on East Cesar Chavez Av, between Warren St and Evergreen Av. The project will conduct 1.3 miles of pedestrian enhancements by installing sidewalk replacements, 26 curb extensions, enhanced pedestrian crossings, coordinated site furniture, landscaping, 135 street trees and tree wells with gates, 43 benches, eight news rack corrals, 101 trash receptacles, and 312 pedestrian lights. Funds are requested for construction costs. Project management/administration costs for this project must not exceed 10% of the total project cost. Curb ramps, pedestrian crossings, bike corrals, trash receptacles and benches proposed in the original scope have now been fully or partially implemented through other City efforts. The City is requesting to change the project scope to eliminate duplicate efforts. The City is now proposing to conduct 0.8 miles of pedestrian enhancements on East Cesar Chavez Av, between Britannia Street St and Evergreen Av by installing sidewalk replacements, 6 curb extensions, 108 street trees and tree wells, and 12 pedestrian lights and 12 pedestrian lights upgrade. Funds are requested for both design and construction costs. Design and project management/administration costs for this project must not exceed 10% of the total project cost. Staff has evaluated the proposed change in scope and found that they are consistent with the intent of the original scope of work. Metro will maintain its funding commitment of \$2,787,500 and the City will maintain its local match commitment of \$2,439,389 (46.67%) and be responsible for any project cost increase.

2. The City of Long Beach Daisy Corridor and 6th Street Bike Boulevard (#F3518) was programed through the 2009 Call. As approved, the project is located along two corridors in the City of Long Beach: along 11 street segments called the "Daisy Corridor" from 70th Street to the north and Broadway to the south, and one street segment called the "6th Street Corridor" from Junipero Ave to the west and Bellflower Boulevard to the east. The project will include 12 miles of enhancements including 24 traffic circles, 350 signs and markings, 2 traffic signals, 3 signal modifications, 2 curb extensions, 1 short bike lane segment, and 1 short bike path segment. The City is requesting to revise the project scope reflecting reduced project limits to the Daisy Corridor only as the City has identified alternative funding sources to fully fund the 6th Street Corridor portion of the project. The City is now proposing to implement 9 miles of enhancements including 18 traffic circles, 300

signs and markings, 2 traffic signals, 3 signal modifications, 1 curb extension, and 1 short bike lane segment. Funds are requested for construction costs only. Staff has evaluated the proposed change in scope and found that they are consistent with the intent of the original scope of work as the complete originally approved project is being delivered. Metro will maintain its funding commitment of \$1,115,243 and the City will increase its local match commitment from \$1,540,097 to \$3,738,608 to cover all project cost increases.

3. The City of South Gate Firestone Boulevard Capacity Improvements (F3124) was programmed through the 2009 Call. As approved, the project would increase the number of lanes from four to six on Firestone Blvd. from Alameda St. to Annetta Ave. The project would also provide raised/landscaped medians, sidewalks, bike shelters and bus pullouts without any right-of-way acquisitions. With the City securing additional funding from other sources to construct the entire limits of this project, the City is requesting to change the scope of work for the construction phase of this project by reducing the project limits on Firestone Blvd. from Alameda St. to California. Staff has evaluated the proposed changes in the scope of work and found that they are consistent with the intent of the original scope of work and will result in the same or enhanced project benefits. The revised project scope of work will reduce Metro Call funds from \$9,423,792 to \$7,081,263 and the City corresponding local match commitment (35.98%) from \$5,296,283 to \$3,964,226. The revised total project cost of \$11,045,489 will result in a cost saving of \$2,342,529 which is recommended for deobligation. In addition, the City is committed to cover any future project cost overruns, if occurs.

4. The City of West Hollywood Melrose Avenue Complete Street Project (#F9601) was programmed through the 2015 Call. As approved, the project is located along Melrose Avenue from La Cienega Boulevard to San Vicente Boulevard. It was downscoped by \$3,836,591 and will fund pedestrian enhancements by widening sidewalks, removing obstructions from the walkways, adding ADA compliant curb ramps, pedestrian lighting, benches, trash receptacles, wayfinding signage, bus shelters, bicycle racks, public art and shade trees. The City has identified other funding sources to fund wayfinding signage, public art and street furniture including benches, trash receptacles, bus shelters and bicycle racks, and is requesting to apply the cost savings to fund pedestrian enhancements that were eliminated in the original downscoping at the award of the 2015 Call cycle. The City is now proposing to fund pedestrian enhancements along Melrose Avenue from East City Limit at Croft Avenue to San Vicente Boulevard by widening sidewalks, adding curb extensions and ADA curb ramps, pedestrian lighting, Class III Bike routes, landscaping, shade trees and reconfiguration of the intersection of Melrose Ave/La Cienega to shorten crossing distances and improve traffic signal operations. Staff has evaluated the proposed change in scope and found that they are consistent with the intent of the original scope of work. Metro will maintain its funding commitment of \$3,141,480 and the City will maintain its local match commitment of \$785,371 (20%) and be responsible for any project cost increase.

F. Reallocate

The City of Glendale requested to cancel the Call grant originally programmed to #F9624 – Glendale Train Station 1st/Last Mile Regional Improvements Project, and to reallocate the funds to the Glendale CNG Fueling and Maintenance Facility Project (#F3432) for FY 2017-18. Therefore, \$1,556,438 will be cancelled and reallocated. The Call grant along with the full amount of the City’s local match of \$711,100 will be used to award the construction contract for the Glendale CNG Fueling and Maintenance Facility Project. The City of Glendale concurs with the recommendations.

G. Receive and File

1. During the 2001 Countywide Call Recertification, Deobligation and Extension, the Board authorized the administrative extension of projects based on the following reasons:
 - 1) Project delay due to an unforeseen and extraordinary circumstance beyond the control of project sponsor (federal or state delay, legal challenge, Act of God);
 - 2) Project delay due to Metro action that results in a change in project scope, schedule or sponsorship that is mutually agreed; and
 - 3) Project is contractually obligated, however, a time extension is needed to complete construction that is already underway (capital projects only).
2. Based on the above criteria, extensions for the ~~55~~ 56 projects shown in Attachment D are being granted.

Since the March 2016 Metro TAC approval of the Proposed Revised Call Lapsing Policy, several project sponsors have informed staff that their projects will not be able to be completed within the one-time, 20-month extension. Through the 2016 Call Recertification and Deobligation process, Board delegated authority to reprogram currently programmed Call funds to a later year (latest to FY 2020-21), at project sponsor(s)’ own risk. For City of LA – Alameda Street Downtown LA: Goods Movement, Phase I Project (#F5207) and City of LA – Alameda Street Widening – North Olympic Boulevard to I-10 Freeway (#F9207), project funds are reprogrammed to FY 2018-19 and beyond pending Metro West Santa Ana Branch Transit Corridor’s Locally Preferred Alternative. Due to the nature of this reprogramming, Metro will not be assigning any risk to the project sponsor for the availability of the Call funding in the later years of the 2015 Call cycle.

Reprograms for the 24 projects shown in Attachment E are being granted.

Reason for Extensions:

1. Project delay due to an unforeseen and extraordinary circumstance beyond the control of the project sponsor (federal or statedelay, legal challenge, Act of God, etc.);
2. Project delay due to Metro action that results in a change in project scope, schedule, or sponsorship that is mutually agreed and
3. Project is contractually obligated, however, a time extension is needed to complete construction that is already underway (capital projects only).



LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
FY 2016-17 CALL FOR PROJECTS EXTENSION LIST
AS OF JUNE 30, 2017
(\$000)

PROJ ID#	AGENCY	PROJECT TITLE	FUNDING SOURCE	LAPSING PROG YR(S)	TOTAL PROG \$	TOTAL EXP/OBLIG/A LLOC \$	AMOUNT SUBJECT TO LAPSE	REC'D EXT MONTHS	REASON FOR EXT #1, 2 OR 3	NEW REVISED LAPSE DATE
F3507	BALDWIN PARK	SOUTH BALDWIN PARK COMMUTER BIKEWAY PROJECT	LTF	2014 2015	\$ 484	\$ -	\$ 484	20	3	2/28/2019
F7414	BALDWIN PARK	CLEAN FUEL BUSES FOR THE BALDWIN PARK TRANSIT SERVICE	CMAQ	2015	1,150	-	330	12	1	6/30/2018
F3313	BURBANK	BURBANK-GLENDALE TRAFFIC SYSTEM COORDINATION	PC25	2015	1,019	366	653	20	3	2/28/2019
F3509	BURBANK	BURBAK CHANNEL BIKEWAY REGIONAL GAP CLOSURE	CMAQ	2015	2,721	254	2,467	12	1	6/30/2018
F1204	CALTRANS	118 FREEWAY WESTBOUND OFF-RAMP AT TAMPA AVE	PC25	2010 2011 2012 2013	683	-	683	20	3	2/28/2019
F3175	CULVER CITY	CULVER BOULEVARD REALIGNMENT PROJECT	PC25	2014 2015	2,856	-	2,856	20	1	2/28/2019
F3318	CULVER CITY	TRAFFIC MONITORING AND SURVEILLANCE SYSTEM GAP CLOSURE	PC25	2015	2,438	648	1,790	20	3	2/28/2019
F5114	DOWNEY	TELEGRAPH ROAD TRAFFIC THROUGHPUT AND SAFETY ENHANCEMENT	RSTP	2015	2,787	-	419	12	1	6/30/2018
F3125	EL MONTE	RAMONA CORRIDOR TRANSIT CENTER ACCESS PROJECT	CMAQ	2014 2015	7,651	1,121	6,530	12	1	6/30/2018
F5125	EL MONTE	RAMONA BOULEVARD & VALLEY BOULEVARD INTERSECTION IMPROVEMENT	PC25	2015 2016	1,568	-	96	24	1	6/30/2019
F7405	GARDENA	PURCHASE OF ALTERNATIVE FUEL REPLACEMENT BUSES	CMAQ	2015	2,145	-	2,145	12	1	6/30/2018
F5101	HAWTHORNE	EL SEGUNDO BOULEVARD IMPROVEMENT PROJECT	PC25	2015 2016	3,849	233	262	24	1	6/30/2019
MR314.01	I-5 CONSORTIUM CITIES JPA	I-5 PRE CONSTRUCTION MITIGATION FINAL PHASE	MR	2014	14,168	13,846	322	20	3	2/28/2019
F5100	INDUSTRY	SR 57/60 CONFLUENCE, GRAND AVENUE AT GOLDEN SPRINGS DRIVE	PC25	2015 2016	6,728	-	838	24	1	6/30/2019
F1106	INGLEWOOD	LA BREA AVE. INTERSECTION IMPROVEMENTS	PC25	2009	1,082	962	105	20	3	2/28/2019
F5803	LANCASTER	AVENUE I CORRIDOR IMPROVEMENTS, 20TH ST W TO 10TH ST W	LTF	2015	372	8	364	12	1	6/30/2018
F3112	LAWNDALE	INGLEWOOD AVE CORRIDOR WIDENING PROJECT	PC25	2014 2015	1,314	76	1,238	20	1	2/28/2019
F1528	LONG BEACH	SAN GABRIEL RIVER BIKE PATH GAP CLOSURE AT WILLOW STREET	CMAQ	2012	783	92	691	12	1	6/30/2018
F1649	LONG BEACH	WILLOW STREET PEDESTRIAN IMPROVEMENT PROJECT	CMAQ	2012	2,180	374	1,806	12	1	6/30/2018
F7117	LONG BEACH	REDONDO AND ANAHEIM INTERSECTION IMPROVEMENTS	PC25	2015	742	17	725	20	1	2/28/2019

Reason for Extensions:

1. Project delay due to an unforeseen and extraordinary circumstance beyond the control of the project sponsor (federal or statedelay, legal challenge, Act of God, etc.);
2. Project delay due to Metro action that results in a change in project scope, schedule, or sponsorship that is mutually agreed and
3. Project is contractually obligated, however, a time extension is needed to complete construction that is already underway (capital projects only).



LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
FY 2016-17 CALL FOR PROJECTS EXTENSION LIST
AS OF JUNE 30, 2017
(\$000)

PROJ ID#	AGENCY	PROJECT TITLE	FUNDING SOURCE	LAPSING PROG YR(S)	TOTAL PROG \$	TOTAL EXP/OBLIG/A LLOC \$	AMOUNT SUBJECT TO LAPSE	REC'D EXT MONTHS	REASON FOR EXT #1, 2 OR 3	NEW REVISED LAPSE DATE
F7313	LONG BEACH	LONG BEACH'S METRO BLUE LINE SIGNAL PRIORITIZATION	PC25	2015	993	169	824	12	1	6/30/2018
8086	LA CITY	NORTH SPRING STREET BRIDGE WIDENING AND REHABILITATION	RSTP	2008	9,098	3,245	5,853	12	3	6/30/2018
F1609	LA CITY	MAIN STREET BUS STOP AND PEDESTRIAN IMPROVEMENTS	CMAQ	2013	658	130	528	12	1	6/30/2018
F1612	LA CITY	CENTURY CITY URBAN DESIGN AND PEDESTRIAN CONNECTION PLAN	CMAQ	2009 2011	1,605	-	1,605	12	1	6/30/2018
F1615	LA CITY	EASTSIDE LIGHT RAIL PEDESTRIAN LINKAGE	CMAQ	2009 2010	2,392	320	2,072	12	1	6/30/2018
F1630	LA CITY	WASHINGTON BLVD TRANSIT ENHANCEMENTS	RSTP	2011	1,671	286	1,385	12	1	6/30/2018
F1708	LA CITY	HOLLYWOOD INTEGRATED MODAL INFORMATION SYSTEM	CMAQ	2009 2010 2011	1,682	274	1,408	12	1	6/30/2018
F3146	LA CITY	HIGHLAND AVENUE WIDENING- ODIN STREET TO FRANKLIN AVENUE	CMAQ	2014 2015	3,773	-	3,773	12	1	6/30/2018
F3314	LA CITY	INTELLIGENT TRANSPORTATION SYSTEM (ITS) COMMUNICATION SYSTEM	CMAQ	2013 2014 2015	4,394	-	4,394	12	1	6/30/2018
F3514	LA CITY	EXPOSITION-WEST BIKEWAY-NORTHVALE PROJECT (LRTP PROGRAM)	CMAQ	2014 2015	4,416	1,732	2,684	12	1	6/30/2018
F3631	LA CITY	WESTLAKE MACARTHUR PARK PEDESTRIAN IMPROVEMENT PROJECT	CMAQ	2014 2015	1,339	268	1,071	12	1	6/30/2018
F3632	LA CITY	WESTERN AVE BUS STOP & PEDESTRIAN IMPROVEMENT PROJECT	CMAQ	2013 2014	1,178	236	942	12	1	6/30/2018
F3640	LA CITY	LANI - EVERGREEN PARK STREET ENHANCEMENT PROJECT	CMAQ	2013 2014 2015	844	-	844	12	1	6/30/2018
F3653	LA CITY	PASADENA AVE PED CONNECTION TO GOLD LINE HERITAGE SQ STATION	CMAQ	2014 2015	2,053	200	1,853	12	1	6/30/2018
F3726	LA CITY	FIRST AND LAST MILE TRANSIT CONNECTIVITY OPTIONS	CMAQ	2012 2013 2014	580	88	492	12	1	6/30/2018
F5121	LA CITY	BALBOA BOULEVARD WIDENING AT DEVONSHIRE STREET	RSTP	2015	1,208	-	109	12	1	6/30/2018
F5519	LA CITY	BICYCLE FRIENDLY STREETS (BFS)	CMAQ	2015	586	-	387	12	1	6/30/2018
F1617	LA CITY	HOLLYWOOD PEDESTRIAN/TRANSIT CROSSROADS PHASE II	RSTP	2010 2012	619	-	619	12	1	6/30/2018
F3311	LA COUNTY	INFORMATION EXCHANGE NETWORK PHASE III	CMAQ	2013 2014 2015	2,391	1,411	980	12	1	6/30/2018
F5111	LA COUNTY	COLIMA ROAD - CITY OF WHITTIER LIMITS TO FULLERTON ROAD	CMAQ	2015	4,423	-	4,423	12	1	6/30/2018

Reason for Extensions:

1. Project delay due to an unforeseen and extraordinary circumstance beyond the control of the project sponsor (federal or statedelay, legal challenge, Act of God, etc.);
2. Project delay due to Metro action that results in a change in project scope, schedule, or sponsorship that is mutually agreed and
3. Project is contractually obligated, however, a time extension is needed to complete construction that is already underway (capital projects only).



LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
FY 2016-17 CALL FOR PROJECTS EXTENSION LIST
AS OF JUNE 30, 2017
(\$000)

PROJ ID#	AGENCY	PROJECT TITLE	FUNDING SOURCE	LAPSING PROG YR(S)	TOTAL PROG \$	TOTAL EXP/OBLIG/A LLOC \$	AMOUNT SUBJECT TO LAPSE	REC'D EXT MONTHS	REASON FOR EXT #1, 2 OR 3	NEW REVISED LAPSE DATE
F5115	LA COUNTY	AVENUE L ROADWAY WIDENING PROJECT	RSTP	2015	4,797	-	4,797	12	1	6/30/2018
F3139	MANHATTAN BEACH	SEPULVEDA BOULEVARD BRIDGE WIDENING PROJECT	RSTP	2012 2013 2014	6,813	1,440	5,373	12	1	6/30/2018
F7400	MONTEREY PARK	CLEAN FUEL BUS REPLACEMENTS	LTF	2015 2016	1,230	274	956	24	1	6/30/2019
F3107	PALMDALE	AVENUE S WIDENING PHASE II	PC25	2015	6,614	3,570	3,044	20	3	2/28/2019
F3301	PASADENA	METRO GOLD LINE AT-GRADE CROSSING MOBILITY ENHANCEMENTS	CMAQ	2015	1,356	-	1,356	12	1	6/30/2018
F3302	PASADENA	INTELLIGENT TRANSPORTATION SYSTEM (ITS) PHASE III	PC25	2014 2015	4,325	281	4,044	20	3	2/28/2019
F7422	PASADENA	PASADENA REPLACEMENT AND ADDED CAPACITY OF CLEAN FUEL BUSES	CMAQ	2015	1,056	-	742	12	1	6/30/2018
F1165	PORT OF LONG BEACH	I-710/GERALD DESMOND BRIDGE GATEWAY (DESMOND REPLACEMENT)	PC25	2013	17,306	13,921	3,385	20	3	2/28/2019
F3503	PORT OF LONG BEACH	LONG BEACH SOUTH WATERFRONT BIKE PATH GAP CLOSURE	CMAQ	2013 2014 2015	708	-	708	12	1	6/30/2018
F3428	REDONDO BEACH	REDONDO BEACH INTERMODAL TRANSIT CENTER	CMAQ	2013 2014	1,200	-	1,200	12	1	6/30/2018
F1168	SANTA CLARITA	VIA PRINCESSA EXTENSION-GOLDEN VALLEY ROAD TO RAINBOW GLEN	PC25	2015	11,577	-	11,577	20	1	2/28/2019
F3300	SANTA CLARITA	ITS PHASE IV INTERCONNECT GAP CLOSURE AND SIGNAL SYNCH	PC25	2015	3,032	445	2,587	20	3	2/28/2019
F7404	SANTA CLARITA	VISTA CANYON REGIONAL TRANSIT CENTER	PC10	2015	2,809	90	2,719	12	1	6/30/2018
F3505	SANTA MONICA	BIKE NETWORK LINKAGES TO EXPOSITION LIGHT RAIL	CMAQ	2013 2014 2015	2,057	-	2,057	12	1	6/30/2018
F3312	TORRANCE	CITY OF TORRANCE ITS & TRAFFIC IMPROVEMENTS	PC25	2015	967	529	438	20	3	2/28/2019
F3807	WHITTIER	GREENWAY TRAIL DIRECTIONAL SIGNAGE & SCENIC BEAUTIFICATION	LTF	2015	555	470	85	20	3	2/28/2019
TOTAL					\$ 168,445	\$ 47,288	\$ 105,626			
					\$ 169,025	\$ 47,376	\$ 106,118			



LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
 2017-18 CALL FOR PROJECTS REPROGRAMMING RECOMMENDATION
 (\$000)

Reprogrammed Years are listed in Bold and Italic

PROJ	AGENCY	PROJECT TITLE	DOLLARS PROGRAMMED AND FISCAL YEAR									TOTAL	FUND SOURCE
			2013 & Prior	2014	2015	2016	2017	2018	2019	2020	2021		
F3317	CULVER CITY	CULVER CITY BUS SIGNAL PRIORITY	\$ 774	\$ 1,227								\$ 2,001	PC 25
									<i>\$ 2,001</i>			<i>\$ 2,001</i>	
F3306	GARDENA	GARDENA MUNICIPAL BUS		\$ 650								\$ 650	PC 25
									<i>\$ 650</i>			<i>\$ 650</i>	
F3137	INDUSTRY	SR-57/SR-60 CONFLUENCE PROJECT: WESTBOUND SLIP ON-RAMP		\$ 2,800								\$ 2,800	PC 25
									<i>\$ 2,800</i>			<i>\$ 2,800</i>	
F3128	INGLEWOOD	CENTURY BOULEVARD MOBILITY IMPROVEMENT PROJECT	\$ 264	\$ 1,539								\$ 1,803	PC 25
									<i>\$ 1,803</i>			<i>\$ 1,803</i>	
F1305	LA CITY	ATCS CENTRAL CITY EAST	\$ 2,500									\$ 2,500	PC 25
									<i>\$ 2,500</i>			<i>\$ 2,500</i>	
F1307	LA CITY	ATCS CENTRAL BUSINESS DISTRICT	\$ 6,000									\$ 6,000	PC 25
									<i>\$ 6,000</i>			<i>\$ 6,000</i>	
F1345	LA CITY	ATCS LOS ANGELES	\$ 2,200									\$ 2,200	PC 25
									<i>\$ 2,200</i>			<i>\$ 2,200</i>	
F3144	LA CITY	FOOTHILL BOULEVARD AND SIERRA HIGHWAY INTERSECTION IMPROVEMENT			\$ 801							\$ 801	PC 25
								<i>\$ 801</i>				<i>\$ 801</i>	
F3630	LA CITY	MAIN STREET PEDESTRIAN ENHANCEMENTS					\$ 827					\$ 827	CMAQ
								<i>\$ 165</i>		<i>\$ 662</i>		<i>\$ 827</i>	
F3643	LA CITY	BOYLE HEIGHTS CHAVEZ AVE STREETSCAPE/PEDESTRIAN IMPROV.					\$ 2,788					\$ 2,788	CMAQ
								<i>\$ 140</i>		<i>\$ 2,648</i>		<i>\$ 2,788</i>	



LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
 2017-18 CALL FOR PROJECTS REPROGRAMMING RECOMMENDATION
 (\$000)

Reprogrammed Years are listed in Bold and Italic

PROJ	AGENCY	PROJECT TITLE	DOLLARS PROGRAMMED AND FISCAL YEAR										FUND SOURCE	
			2013 & Prior	2014	2015	2016	2017	2018	2019	2020	2021	TOTAL		
F3647	LA CITY	MENLO AVE/MLK VERMONT EXPO STATION PEDESTRIAN IMPROVEMENT					\$ 1,687						\$ 1,687	CMAQ
							<i>\$ 337</i>		<i>\$ 1,350</i>				<i>\$ 1,687</i>	
F5207	LA CITY	ALAMEDA STREET DOWNTOWN LA: GOODS MOVEMENT, PHASE I					\$ 3,767						\$ 3,767	RSTP
									<i>\$ 3,767</i>				<i>\$ 3,767</i>	
F5624	LA CITY	WASHINGTON BL PEDESTRIAN TRANSIT ACCESS - PHASE II				\$ 178		\$ 1,314					\$ 1,492	CMAQ
							<i>\$ 178</i>		<i>\$ 1,314</i>				<i>\$ 1,492</i>	
F5821	LA CITY	VALENCIA TRIANGLE LANDSCAPE BEAUTIFICATION PLAZA					\$ 553						\$ 553	CMAQ
								<i>\$ 110</i>		<i>\$ 443</i>			<i>\$ 553</i>	
F7125	LA CITY	SHERMAN WAY WIDENING BETWEEN WHITSETT AVE TO HOLLYWOOD FWY					\$ 142	\$ 62	\$ 770				\$ 974	RSTP
								<i>\$ 142</i>	<i>\$ 62</i>	<i>\$ 770</i>			<i>\$ 974</i>	
F9123	LA CITY	COMPLETE STREETS PROJECT FOR COLORADO BLVD IN EAGLE ROCK								\$ 347		\$ 1,407	\$ 1,754	CMAQ
							<i>\$ 347</i>		<i>\$ 1,407</i>				<i>\$ 1,754</i>	
F9207	LA CITY	ALAMEDA ST WIDENING - NORTH OLYMPIC BLVD TO I-10 FREEWAY					\$ 988	\$ 171	\$ 8,466				\$ 9,625	CMAQ
									<i>\$ 988</i>	<i>\$ 171</i>	<i>\$ 8,466</i>		<i>\$ 9,625</i>	
6281	LA COUNTY	NORTH COUNTY/ANTELOPE VALLEY TRAFFIC IMPROVEMENT	\$ 278										\$ 278	PC 25
								<i>\$ 278</i>					<i>\$ 278</i>	
F1344	LA COUNTY	SLAUSON AVENUE CORRIDOR IMPROVEMENTS	\$ 1,388										\$ 1,388	PC 25
								<i>\$ 1,388</i>					<i>\$ 1,388</i>	
F3136	LA COUNTY	THE OLD ROAD FROM MAGIC MOUNTAIN PARKWAY TO TURNBERRY LANE		\$ 6,735	\$ 8,266								\$ 15,001	RSTP
												<i>\$ 15,001</i>	<i>\$ 15,001</i>	



LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
 2017-18 CALL FOR PROJECTS REPROGRAMMING RECOMMENDATION
 (\$000)

Reprogrammed Years are listed in Bold and Italic

PROJ	AGENCY	PROJECT TITLE	DOLLARS PROGRAMMED AND FISCAL YEAR									FUND SOURCE	
			2013 & Prior	2014	2015	2016	2017	2018	2019	2020	2021		TOTAL
F7115	LA COUNTY	THE OLD ROAD-LAKE HUGHES RD TO HILLCREST PKWY PHASE I					\$ 2,746	\$ 1,261	\$ 1,592			\$ 5,599	PC 25
									<i>\$ 2,746</i>	<i>\$ 1,261</i>	<i>\$ 1,592</i>	<i>\$ 5,599</i>	
F3518	LONG BEACH	DAISY CORRIDOR AND 6TH STREET BIKE BLVD	\$ 108		\$ 1,007							\$ 1,115	LTF
								<i>\$ 1,115</i>				<i>\$ 1,115</i>	
F9130	LONG BEACH	ARTESIA - GREAT BOULEVARD								\$ 3,421	\$ 1,279	\$ 4,700	PC 25
								<i>\$ 3,421</i>	<i>\$ 1,279</i>			<i>\$ 4,700</i>	
6347	SOUTH GATE	I-710/FIRESTONE BLVD. INTERCHANGE RECONSTRUCTION	\$ 1,677									\$ 1,677	PC 25
								<i>\$ 954</i>	<i>\$ 80</i>	<i>\$ 560</i>	<i>\$ 83</i>	<i>\$ 1,677</i>	
ORIGINAL PROGRAMMED AMOUNT			\$ 15,189	\$ 12,951	\$ 10,074	\$ 178	\$ 8,743	\$ 2,637	\$ 2,709	\$ 3,421	\$ 2,686	\$ 71,980	
REPROGRAMMED AMOUNT			<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ -</i>	<i>\$ 1,663</i>	<i>\$ 25,667</i>	<i>\$ 8,238</i>	<i>\$ 6,344</i>	<i>\$ 16,676</i>	<i>\$ 71,980</i>	
DELTA			15,189	12,951	10,074	178	7,080	(23,030)	(5,529)	(2,923)	(13,990)	-	



RESULTS OF MAY 2017 TECHNICAL ADVISORY COMMITTEE (TAC) APPEALS PROCESS
Sorted by Agency and Number of Years Extended

	PROJ ID#	AGENCY	PROJECT TITLE	PROG YR(S)	TOTAL METRO PROG \$ (000')	METRO AMOUNT SUBJECT TO LAPSE (000')	EXT YRS	EXT#	REASON FOR APPEAL	TAC Recommendation	Metro Response
1	F3157	BALDWIN PARK	SOUTH BALDWIN PARK COMMUTER BIKEWAY PROJECT	2014 2015	\$ 484	\$ 484	1	2	Did not meet Lapsing Policy	20-month extension to February 28, 2019 to complete the project.	Concur with TAC recommendation.
2	F3175	CULVER CITY	CULVER BOULEVARD REALIGNMENT PROJECT	2014 2015	\$ 2,856	\$ 2,856	1	2	Did not meet Lapsing Policy	20-month extension to February 28, 2019. Project Sponsor must provide an update at the May 2018 TAC meeting providing a schedule to complete design and award construction contract no later than February 2019.	Concur with TAC recommendation.
3	F3112	LAWNDALE	INGLEWOOD AVE CORRIDOR WIDENING PROJECT	2014 2015	\$ 2,172	\$ 1,239	1	2	Did not meet Lapsing Policy	20-month extension to February 28, 2019. Project Sponsor must provide an update at the May 2018 TAC meeting providing a schedule to complete design and award construction contract no later than February 2019.	Concur with TAC recommendation.
4	F1708	LA CITY	HOLLYWOOD INTEGRATED MODAL INFORMATION SYSTEM	2009 2010 2011	\$ 1,682	\$ 1,408	6	6	Did not meet Lapsing Policy	One-year extension to June 30, 2018 to obligate funds.	Concur with TAC recommendation.
5	F3514	LA CITY	EXPOSITION-WEST BIKEWAY-NORTHVALE PROJECT (LRTP PROGRAM)	2013 2014 2015	\$ 4,416	\$ 2,684	2	2	Did not meet Lapsing Policy	One-year extension to June 30, 2018. Project Sponsor must provide an update at the May 2018 TAC meeting and demonstrate that the project is fully funded through construction, either with an Active Transportation Program (ATP) Cycle 4 application, or other funding plan. If the Project Sponsor is unable to do so, the project may be recommended for deobligation.	Concur with TAC recommendation.
6	F3632	LA CITY	WESTERN AVE BUS STOP & PEDESTRIAN IMPROVEMENT PROJECT	2012 2013 2014	\$ 1,178	\$ 942	2	3	Did not meet Lapsing Policy	One-year extension to June 30, 2018.	Concur with TAC recommendation.
7	F3146	LA CITY	HIGHLAND AVENUE WIDENING-ODIN STREET TO FRANKLIN AVENUE	2014 2015	\$ 3,773	\$ 3,773	1	2	Did not meet Lapsing Policy	One-year extension to June 30, 2018.	Concur with TAC recommendation.
8	F3139	MANHATTAN BEACH	SEPULVEDA BOULEVARD BRIDGE WIDENING PROJECT	2012 2013 2014	\$ 6,813	\$ 5,373	2	3	Did not meet Lapsing Policy	One-year extension to June 30, 2018.	Concur with TAC recommendation.
9	F1168	SANTA CLARITA	VIA PRINCESSA EXTENSION-GOLDEN VALLEY ROAD TO RAINBOW GLEN	2015	\$ 11,577	\$ 11,577	0	1	Did not meet Lapsing Policy	20-month extension to February 28, 2019. Project Sponsor must provide an update at the May 2018 TAC meeting providing a schedule to complete design and award construction contract no later than February 2019.	Concur with TAC recommendation.