

Metro

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



Agenda - Final

Wednesday, April 19, 2017

1:00 PM

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

Finance, Budget and Audit Committee

Jacquelyn Dupont-Walker, Chair

Janice Hahn, Vice Chair

Robert Garcia

Ara Najarian

Hilda Solis

Carrie Bowen, non-voting member

Phillip A. Washington, Chief Executive Officer

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.

INFORMATION RELATING TO AGENDAS AND ACTIONS OF THE BOARD

Agendas for the Regular MTA Board meetings are prepared by the Board Secretary and are available prior to the meeting in the MTA Records Management Department and on the Internet. Every meeting of the MTA Board of Directors is recorded on CD's and as MP3's and can be made available for a nominal charge.

DISCLOSURE OF CONTRIBUTIONS

The State Political Reform Act (Government Code Section 84308) requires that a party to a proceeding before an agency involving a license, permit, or other entitlement for use, including all contracts (other than competitively bid, labor, or personal employment contracts), shall disclose on the record of the proceeding any contributions in an amount of more than \$250 made within the preceding 12 months by the party, or his or her agent, to any officer of the agency, additionally PUC Code Sec. 130051.20 requires that no member accept a contribution of over ten dollars (\$10) in value or amount from a construction company, engineering firm, consultant, legal firm, or any company, vendor, or business entity that has contracted with the authority in the preceding four years. Persons required to make this disclosure shall do so by filling out a "Disclosure of Contribution" form which is available at the LACMTA Board and Committee Meetings. Failure to comply with this requirement may result in the assessment of civil or criminal penalties.

ADA REQUIREMENTS

Upon request, sign language interpretation, materials in alternative formats and other accommodations are available to the public for MTA-sponsored meetings and events. All requests for reasonable accommodations must be made at least three working days (72 hours) in advance of the scheduled meeting date. Please telephone (213) 922-4600 between 8 a.m. and 5 p.m., Monday through Friday. Our TDD line is (800) 252-9040.

LIMITED ENGLISH PROFICIENCY

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Copies of Agendas/Record of Board Action/Recordings of Meetings - (213) 922-4880 (Records Management Department)

General Information/Rules of the Board - (213) 922-4600

Internet Access to Agendas - www.metro.net

TDD line (800) 252-9040

NOTE: ACTION MAY BE TAKEN ON ANY ITEM IDENTIFIED ON THE AGENDA

CALL TO ORDER

ROLL CALL

APPROVE Consent Calendar Item: 11.

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

CONSENT CALENDAR

11. RECEIVE AND FILE the **Los Angeles County Metropolitan Transportation Authority's (LACMTA) basic financial statements and component financial statement audits** completed by Crowe Horwath LLP (Crowe) for the fiscal year ended June 30, 2016.

[2017-0220](#)

Attachments: [Attachment A - SAS 114](#)
 [Attachment B - Single Audit Report](#)
 [Attachment C - FY16 90154 NTD](#)
 [Attachment D - FY16 TDA OPS](#)
 [Attachment E - FY16 TDA Prop1B](#)
 [Attachment F - STA FY16](#)
 [Attachment G - FY16 FR CPC](#)
 [Attachment H - SAFE FY16](#)
 [Attachment I - LCTOP](#)

NON-CONSENT

42. RECEIVE AND FILE report on **FY 2018 Budget Development Status.**

[2017-0194](#)

12. CONSIDER:

[2016-0499](#)

- A. ADOPTING a Life of Project (LOP) Budget for \$1,407,900 for the Rail Vehicle Mist System Demonstration Project; and
- B. APPROVING the award and authorize the Chief Executive Officer to execute Contract No. OP3614100 to Knorr Brake Company, LLC for **one (1) prototype Red Line Heavy Rail Vehicle on-board mist fire suppression system** for a two-year period of performance for design, installation and evaluation of the systems for a fixed price amount of \$908,481 subject to resolution of protest, if any.

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

(ALSO ON SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE)

13. AUTHORIZE the Chief Executive Officer to **negotiate and award All Risk Property and Boiler and Machinery insurance policies** for all property at the current policy limits at a not to exceed price of \$2.4 million for the 12-month period May 10, 2017 through May 10, 2018. [2017-0062](#)

Attachments: [Attachment A.pdf](#)
 [Attachment B.pdf](#)
 [Attachment C.pdf](#)

14. AUTHORIZE the Chief Executive Officer to award indefinite delivery/indefinite quantity (IDIQ), firm fixed unit price contracts for a three-year initial term, with two, one-year options for the following contracts: 1) PS29117000 and PS29117001 to ASK-intTag, LLC. for Card Manufacturing & Adhesive Stickers; 2) PS29117002, PS29117003, and PS29117004 to Oberthur Technologies of America Corp. for Adhesive Stickers and Card Manufacturing and Fulfillment Services, and 3) PS29117005 to Giesecke & Devrient Mobile Security America, Inc. for Fulfillment Services effective July 1, 2017, for Metro and Municipal Operators. The total combined not-to-exceed amount for 3 base years and two one year options is \$26,915,910 (average cost per year \$5.4M) inclusive of sales tax for **TAP Card Manufacturing and Fulfillment Services**, as identified below: [2017-0117](#)

- Card Manufacturing - Base: \$9,272,563, Option 1: \$3,090,854, Option 2: \$3,090,854 in the total NTE amount of \$15,454,271
- Fulfillment & Distribution- Base: \$6,858,983, Option 1: \$2,286,328, Option 2: \$2,286,328 in the total NTE amount of \$11,431,639
- Adhesive Stickers - Base: \$18,000, Option 1: \$6,000, Option 2: \$6,000 in the total NTE amount of \$30,000

Attachments: [Attachment A Procurement Summary TAP.pdf](#)
 [Attachment B DEOD Summary TAP.pdf](#)

15. CONSIDER: [2017-0086](#)

- A. ADOPTING the **Phase II Metro Bike Share Expansion** (Phase II Expansion) Environmental Analysis findings that the expansion qualifies for a Categorical Exemption under Section 15303 (Class 3) New Construction or Conversion of Small Structures (Attachment A);
- B. AUTHORIZING staff to file the Notice of Exemption for the Phase II Expansion;
- C. ADOPTING the Phase II Expansion Title VI and Environmental Justice Analysis findings that there is no Disparate Impact and no Disproportionate Burden associated with the expansion (Attachment B); and
- D. AUGMENTING the Life of Project budget for Phase II Expansion by \$1,713,000 to \$4,499,000 to include previously Board approved pre-launch related costs.

Attachments: [Attachment A - Categorical Exemption Analysis](#)
[Attachment B - Equity Analysis Methodology & Results](#)
[Attachment C - October 19, 2016 Board Report](#)

(ALSO ON PLANNING AND PROGRAMMING COMMITTEE)

16. CONSIDER: [2017-0180](#)

- A. APPROVING the SCRRA's request for additional funding for urgent structure and rail tie rehabilitation work up to \$18,381,025.
- B. PROGRAMMING up to \$18,381,025 in **Measure R 3% funds**.
- C. AUTHORIZING the Chief Executive Officer, or his designee, to negotiate and execute all necessary agreements between LACMTA and the SCRRA for the approved funding.

Attachments: [Attachment A - Preliminary FY2016-17 Budget Metrolink](#)
[Attachment B - Metrolink Request for Additional Funds](#)
[Attachment C - Metrolink Asset Inspection Summary](#)
[Attachment D - Funding for Metrolink Slow order.pdf](#)
[Attachment E - Slow Order Program Schedule \(High Level\) 03-17-17.pdf](#)
[Attachment F-2016 12 14_MTA Hy Rail final w MTA edits.pdf](#)

Adjournment

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.



Board Report

File #: 2017-0220, File Type: Informational Report

Agenda Number: 11.

FINANCE, BUDGET AND AUDIT COMMITTEE APRIL 19, 2017

SUBJECT: BASIC FINANCIAL STATEMENTS AND COMPONENT AUDITS

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE the **Los Angeles County Metropolitan Transportation Authority's (LACMTA) basic financial statements and component financial statement audits** completed by Crowe Horwath LLP (Crowe) for the fiscal year ended June 30, 2016.

ISSUE

LACMTA is required to be audited annually by independent certified public accountants. The resulting reports include Metro's basic financial statements and component audits for the year ended June 30, 2016:

- Independent Auditors' Report on the LACMTA's basic financial statements which include the financial statements of the governmental activities, business-type activities, each major fund and the aggregate remaining fund information of LACMTA for the year ended June 30, 2016;
- Independent auditors' SAS 114 letter covering required audit communications;
- LACMTA Single Audit Report Fiscal year ended June 30, 2016 which include:
 - Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*; and
 - Independent Auditors' Report on Compliance for Each Major Federal Program; Report on Internal Control over Compliance; and Report on the Schedule of Expenditures of Federal Awards as Required by the Uniform Guidance;
- Independent Accountants' Report on Applying Agreed-Upon Procedures on the LACMTA's Federal Funding Allocation Data for the Transportation Operating Agency (ID# 90154) for the fiscal year ended June 30, 2016;
- Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance with the California Code of Regulations (Section 6667) and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards* and Report on 50% Expenditure Limitation Schedule for the LACMTA Transportation Development Act Operations Agency for the year ended June 30, 2016;

- Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance with the California Code of Regulations (Section 6640-6662) and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards* and Report on Schedule of Revenues, Expenditures, and Changes in Fund Balances for the LACMTA Transportation Development Act & Prop 1B PTMISEA Planning Agency for the year ended June 30, 2016;
- Independent Auditors' Report on the LACMTA State Transit Assistance Special Revenue Fund's basic financial statements as of and for the years ending June 30, 2016 and 2015;
- Independent Auditors' Report on the Crenshaw Project Corporation (A Component Unit of LACMTA) basic financial statements as of June 30, 2016;
- Independent Auditors' Report on the Service Authority for Freeway Emergencies' (A Component Unit of LACMTA) financial statements for the years ending June 30, 2016 and 2015; and
- Independent Auditor's Report on Compliance with Rules and Regulations of the Low Carbon Transit Operations Program (LCTOP) and Report on Internal Control over Compliance for LACMTA's compliance with the LCTOP Guidelines for the year ended June 30, 2016.

DISCUSSION

The basic financial statements include our audited financial statements, supplemental information and an unmodified opinion from Crowe, the independent auditor. Crowe issued an unmodified opinion on all audit reports. There were no findings identified on any of the audit reports.

Due to the considerable size of the document, we have not attached the basic financial statements. Instead, as a savings measure a hard copy of the Basic Financial Statements is on file with the Board Secretary and is also available on the Metro website.

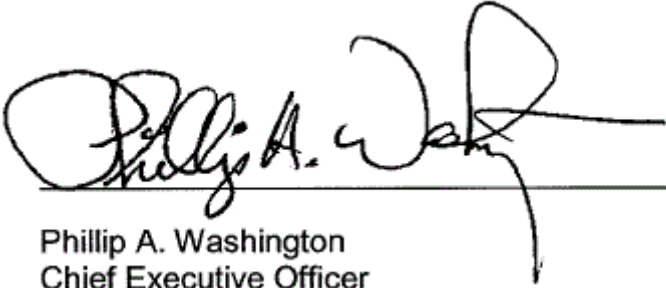
https://media.metro.net/about_us/finance/images/fy16_cafr.PDF

ATTACHMENT(S)

- A. Independent auditors' SAS 114 letter;
- B. Single Audit Reports for the fiscal year ended June 30, 2016;
- C. Federal Funding Allocation Data Transportation Operating Agency for the fiscal year ended June 30, 2016;
- D. Transportation Development Act Operations Agency Year ended June 30, 2016;
- E. Transportation Development Act & Prop 1B PTMISEA Planning Agency for the year ended June 30, 2016;
- F. State Transit Assistance Special Revenue Fund Basic Financial Statements June 30, 2016 and 2015;
- G. Crenshaw Project Corporation Financial Statements for the year ended June 30, 2016;
- H. Service Authority for Freeway Emergencies Financial Statements and Other Supplementary Information June 30, 2016 and 2015;
- I. Independent Auditor's Report on compliance with the Low Carbon Transit Operations Program (LCTOP) for the year ended June 30, 2016

Prepared by: Lauren Choi, Sr. Audit Manager
(213) 922-3926;
Monica Del Toro, Audit Support Manager
(213) 922-7494

Reviewed by: Diana Estrada, Chief Auditor
(213) 922-2161



Phillip A. Washington
Chief Executive Officer

The Board of Directors
Los Angeles County Metropolitan Transportation Authority
Los Angeles, California

Professional standards require that we communicate certain matters to keep you adequately informed about matters related to the financial statement audit that are, in our professional judgment, significant and relevant to your responsibilities in overseeing the financial reporting process. We communicate such matters in this report.

AUDITOR'S RESPONSIBILITY UNDER AUDITING STANDARDS GENERALLY ACCEPTED IN THE UNITED STATES OF AMERICA

Our responsibility is to form and express an opinion about whether the financial statements that have been prepared by management with your oversight are presented fairly, in all material respects, in conformity with accounting principles generally accepted in the United States of America. The audit of the financial statements does not relieve you of your responsibilities and does not relieve management of their responsibilities. Refer to our engagement letter with Los Angeles County Metropolitan Transportation Authority (LACMTA) for further information on the responsibilities of management and of Crowe Horwath LLP.

AUDITOR'S RESPONSIBILITY UNDER GOVERNMENT AUDITING STANDARDS

As part of obtaining reasonable assurance about whether LACMTA's financial statements are free of material misstatement, we performed tests of LACMTA's compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts or disclosures. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion.

The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under Government Auditing Standards.

PLANNED SCOPE AND TIMING OF THE AUDIT

We are to communicate an overview of the planned scope and timing of the audit. Accordingly, the following matters regarding the planned scope and timing of the audit were discussed with you.

- How we proposed to address the significant risks of material misstatement, whether due to fraud or error.
- Our approach to internal control relevant to the audit.
- The concept of materiality in planning and executing the audit, focusing on the factors considered rather than on specific thresholds or amounts.
- Where the agency has an internal audit function, the extent to which the auditor will use the work of internal audit, and how the external and internal auditors can best work together.

- Your views and knowledge of matters you consider warrant our attention during the audit, as well as your views on:
 - The allocation of responsibilities between you and management.
 - The agency's objectives and strategies, and the related business risks that may result in material misstatements.
 - Significant communications with regulators.
 - Other matters you believe are relevant to the audit of the financial statements.
- Matters relative to the use of other auditors/other accountants during the audit:
 - An overview of the type of work to be performed by other auditors/other accountants.
 - The basis for the decision to make reference to the audit of the other auditor in our report on the agency's financial statements.
 - An overview of the nature of our planned involvement in the work to be performed by the other auditor/other accountant.

SIGNIFICANT ACCOUNTING POLICIES AND MANAGEMENT JUDGMENTS AND ACCOUNTING ESTIMATES

Significant Accounting Policies: The Board of Directors should be informed of the initial selection of and changes in significant accounting policies or their application. Also, the Board of Directors should be aware of methods used to account for significant unusual transactions and the effect of significant accounting policies in controversial or emerging areas where there is a lack of authoritative consensus. We believe management has the primary responsibility to inform the Board of Directors about such matters. To assist the Board of Directors in its oversight role, we also provide the following.

Accounting Standard	Impact of Adoption
GASB Statement No. 79, Certain External Investment Pools and Pool Participants. This Statement will enhance comparability of financial statements among governments by establishing specific criteria used to determine whether a qualifying external investment pool may elect to use an amortized cost exception to fair value measurement.	Adoption of this Statement did not have a material impact on LACMTA's financial position or results of operations.
GASB Statement No. 72, Fair Value Measurement and Application. This Statement defines fair value, provides guidance on different valuation approaches, establishes a hierarchy of inputs used to measure fair value, and requires additional disclosures to be made about fair value measurements.	Adoption of this Statement did not have a material impact on LACMTA's financial position or results of operations.

Management Judgments and Accounting Estimates: Further, accounting estimates are an integral part of the financial statements prepared by management and are based upon management's current judgments. These judgments are based upon knowledge and experience about past and current events and assumptions about future events. Certain estimates are particularly sensitive because of their significance and because of the possibility that future events affecting them may differ markedly from management's current judgments and may be subject to significant change in the near term.

The following describes the significant accounting estimates reflected in LACMTA's year end financial statements, the process used by management in formulating these particularly sensitive accounting estimates and the primary basis for our conclusions regarding the reasonableness of those estimates.

Significant Accounting Estimate	Process Used by Management	Basis for Our Conclusions
Fair Values of Investment Securities and Other Financial Instruments	The disclosure of fair values of securities and other financial instruments requires management to use certain assumptions and estimates pertaining to the fair values of its financial assets and financial liabilities.	We tested the propriety of information underlying management's estimates.
Useful Lives of Capital Assets	Management has determined the economic useful lives of capital assets based on past history of similar types of assets, future plans as to their use, and other factors that impact their economic value to LACMTA.	We tested the propriety of information underlying management's estimates.
Loss Contingencies	LACMTA consults with legal counsel to evaluate outstanding litigation, claims and assessments. Factors that affect management's evaluation of litigation contingencies requiring disclosure include the nature of the contingencies and whether the outcome could have an effect on the consolidated financial statements.	Based on information obtained from LACMTA's legal counsel regarding this matter and discussions with management, we concur with management's determination that the loss contingency associated with the Kiewit case met conditions for accrual of being both probable and estimable, and, thus, the accrual was recorded and specific disclosures included.
Pension and Postretirement Obligations	Amounts reported for pension and postretirement obligations require management to use estimates that may be subject to significant change in the near term. These estimates are based on projection of the weighted average discount rate, rate of increase in future compensation levels, and weighted average expected long-term rate of return on pension assets.	We reviewed the reasonableness of these estimates and assumptions.
Accrued Compensated Absences	Accrued compensated absences are estimated based on vacation and sick hours accumulated by each employee and the respective pay rate of each employee.	We tested the propriety of information underlying management's estimates.
Self-Insurance Liability	Management has determined this liability based on the estimated loss of known claims as well as an estimate of incurred but not reported claims based on historical claims data.	We tested the propriety of information underlying management's estimates.

AUDITOR'S JUDGMENTS ABOUT QUALITATIVE ASPECTS OF SIGNIFICANT ACCOUNTING PRACTICES

We are to discuss with you our comments about the following matters related to LACMTA's accounting policies and financial statement disclosures. Accordingly, these matters will be discussed during our meeting with you.

- The appropriateness of the accounting policies to the particular circumstances of the agency, considering the need to balance the cost of providing information with the likely benefit to users of the agency's financial statements.
- The overall neutrality, consistency, and clarity of the disclosures in the financial statements.
- The effect of the timing of transactions in relation to the period in which they are recorded.
- The potential effect on the financial statements of significant risks and exposures, and uncertainties that are disclosed in the financial statements.
- The extent to which the financial statements are affected by unusual transactions including nonrecurring amounts recognized during the period, and the extent to which such transactions are separately disclosed in the financial statements.
- The issues involved, and related judgments made, in formulating particularly sensitive financial statement disclosures.
- The factors affecting asset and liability carrying values, including the agency's basis for determining useful lives assigned to tangible and intangible assets.
- The selective correction of misstatements, for example, correcting misstatements with the effect of increasing reported earnings, but not those that have the effect of decreasing reported earnings.

CORRECTED AND UNCORRECTED MISSTATEMENTS

Corrected Misstatements: We are to inform you of material corrected misstatements that were brought to the attention of management as a result of our audit procedures.

- There were no such misstatements

Uncorrected Misstatements: We are to inform you of uncorrected misstatements that were aggregated by us during the current engagement and pertaining to the latest and prior period(s) presented that were determined by management to be immaterial, both individually and in the aggregate, to the financial statements taken as a whole. For your consideration, we have distinguished misstatements between known misstatements and likely misstatements.

Refer to the discussion of uncorrected misstatements below as well as the attached summary of waived adjustments.

- A likely misstatement was waived by management to accrue for a legal settlement to Tutor-Saliba-Perini on the Enterprise Fund. Based on the information from LACTMA's legal counsel, the circumstances surrounding the case met the conditions for accrual of being both probable and estimable. As a result of waiving the entry, legal expense and accrued expenses are understated by \$21.5 million.
- LACMTA has two long term notes receivables attributable to governmental funds (A \$44.9 million note on the Proposition A Fund and a \$4.0 million note on the General Fund). The proper treatment of these notes receivables is to exclude the balances from the governmental fund balance sheet, as they do not represent assets available in the current period. They should, however, be recorded on the government-wide statement of net position and included as a reconciling item between the balance sheet and statement of net position.

We noted that the Proposition A notes receivable balance is properly excluded from the governmental fund balance sheet but improperly excluded from the government-wide statement of net position. The General Fund notes receivable balances have been improperly included in the governmental fund balance sheet but properly included in the government-wide statement of net position.

Management chose to waive these known misstatements, and as a result, the notes receivable and unrestricted net position on the government-wide statement of net position is understated by \$44.9 million. On the governmental fund balance sheet, the General Fund notes receivable and unrestricted net position is overstated by \$4.0 million.

- Two known misstatements and one likely misstatement were waived by management relating to the generation and sale of low carbon fuel standards (LCFS) credits, a program administered by the California Air Resources Board. LACMTA generates these credits through the usage of low carbon fuel options, such as CNG and propulsion power, activities that are recorded on the Enterprise Fund. Thus, the revenue from the sales of these credits should be recorded on the Enterprise Fund. However, management has recorded the revenue on the General Fund to provide greater visibility to the revenue being generated.

The first known waived adjustment is to reverse the revenue recorded from the sale of credits in FY 2016 in the General Fund and present it as an operating transfer from the Enterprise Fund in the amount of \$19.6 million. The second waived adjustment records the \$19.6 million of revenue on the Enterprise Fund and the transfer of the funds to the General Fund in operating transfers out.

In addition to reclassifying the revenue between LACMTA's funds, we also noted that the number of credits held as of the reporting date, multiplied by their estimated fair value, should be recorded as an asset based on the GASB's definition of an asset. This resulted in a likely misstatement that understated Enterprise Fund assets by approximately \$32.7 million, understated revenue by approximately \$18.7 million, and understated net position by approximately \$14.0 million. The misstatement of net position represents the estimated value of LCFS credits that were held as of June 30, 2015, which was immaterial to the FY 2015 financial statements.

- A known misstatement to properly defer revenue relating to receivables not collected within 90 days was waived by management. As a result, Proposition C deferred revenues are understated and revenues are overstated by \$2.9 million.
- A known misstatement was waived by management to reverse fiscal year 2015 revenue on the LCTOP fund recorded in fiscal year 2016. The revenue was recorded as advances payable on the Enterprise Fund in FY 2015 and moved to revenue on the LCTOP fund (presented in the Aggregate Remaining fund) in FY 2016. Revenue was overstated and fund balance was understated by \$5.9 million as a result of waived the adjustment.

OTHER COMMUNICATIONS

Communication Item	Results
<p>Other Information In Documents Containing Audited Financial Statements Information may be prepared by management that accompanies the financial statements. To assist your consideration of this information, you should know that we are required by audit standards to read such information and consider whether such information, or the manner of its presentation, is materially inconsistent with information in the financial statements. If we consider the information materially inconsistent based on this reading, we are to seek a resolution of the matter.</p>	<p>We read the following items and noted no material inconsistencies or misstatement of facts in such information based on our reading thereof.</p> <ul style="list-style-type: none"> • Comprehensive Annual Financial Report
<p>Significant Difficulties Encountered During the Audit We are to inform you of any significant difficulties encountered in dealing with management related to the performance of the audit.</p>	<p>There were no significant difficulties encountered in dealing with management related to the performance of the audit.</p>

Communication Item	Results
<p>Disagreements With Management We are to discuss with you any disagreements with management, whether or not satisfactorily resolved, about matters that individually or in the aggregate could be significant to LACMTA's financial statements or the auditor's report.</p>	<p>During our audit, there were no such disagreements with management.</p>
<p>Consultations With Other Accountants If management consulted with other accountants about auditing and accounting matters, we are to inform you of such consultation, if we are aware of it, and provide our views on the significant matters that were the subject of such consultation.</p>	<p>We are not aware of any instances where management consulted with other accountants about auditing or accounting matters since no other accountants contacted us, which they are required to do by Statement on Auditing Standards No. 50, before they provide written or oral advice.</p>
<p>Representations the Auditor is Requesting From Management We are to provide you with a copy of management's requested written representations to us.</p>	<p>We direct your attention to a copy of the letter of management's representation to us provided separately.</p>
<p>Significant Issues Discussed, or Subject to Correspondence, With Management We are to communicate to you any significant issues that were discussed or were the subject of correspondence with management.</p>	<p>We have previously communicated to management the internal control deficiencies that we have identified during our audit. We have communicated to you that no material weaknesses were identified in a separate letter.</p>
<p>Significant Related Party Findings and Issues We are to communicate to you significant findings and issues arising during the audit in connection with LACMTA's related parties.</p>	<p>There were no such findings or issues that are, in our judgment, significant and relevant to you regarding your oversight of the financial reporting process.</p>
<p>Other Findings or Issues We Find Relevant or Significant We are to communicate to you other findings or issues, if any, arising from the audit that are, in our professional judgment, significant and relevant to you regarding your oversight of the financial reporting process.</p>	<p>There were no such other findings or issues that are, in our judgment, significant and relevant to you regarding your oversight of the financial reporting process.</p>

We are pleased to serve LACMTA as its independent auditors and look forward to our continued relationship. We provide the above information to assist you in performing your oversight responsibilities, and would be pleased to discuss this letter or any matters further, should you desire. This letter is intended solely for the information and use of the Board of Directors and, if appropriate, management, and is not intended to be and should not be used by anyone other than these specified parties.

Crowe Horwath LLP

Crowe Horwath LLP

Sherman Oaks, California
December 16, 2016

WAIVED ENTRY SCHEDULE
June 30, 2016

Fund Name	Account Name	Debit	Credit	Increase (Decrease)				
				Assets	Liabilities	Net Position / Fund Balance	Revenue	Expense
1 Enterprise Fund	Legal expense	21,517,220						
	Accrued expenses		21,517,220		21,517,220			21,517,220
2 Proposition A	Notes receivable	44,895,984		44,895,984				
	Reconciling item between government-wide and fund FS		44,895,984					
General Fund	Reconciling item between government-wide and fund FS	4,000,000						
	Notes receivable		4,000,000	(4,000,000)				
3 General Fund	Other revenue	19,575,000					(19,575,000)	
	Operating transfers in		19,575,000				19,575,000	
Enterprise Fund	Operating transfers out	19,575,000					(19,575,000)	
	Other revenue		19,575,000				19,575,000	
Enterprise Fund	LCFS asset	32,706,000		32,706,000				
	Other revenue		18,692,000				18,692,000	
	Net position		14,014,000			14,014,000		
4 Proposition C	Revenue	2,922,517					(2,922,517)	
	Deferred revenue		2,922,517		2,922,517			
5 LCTOP (Aggregate Remaining)	Other revenue	5,897,391					(5,897,391)	
	Operating transfers in		5,897,391			5,897,391		



**LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY**

SINGLE AUDIT REPORT

Year ended June 30, 2016

LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY
Los Angeles, California

SINGLE AUDIT REPORT
Year ended June 30, 2016

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**INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING
AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL
STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS**

Board of Directors
Los Angeles County Metropolitan Transportation Authority
Los Angeles, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of Los Angeles County Metropolitan Transportation Authority (LACMTA) as of and for the year ended June 30, 2016, and the related notes to the basic financial statements, which collectively comprise LACMTA's basic financial statements, and have issued our report thereon dated December 16, 2016. Our report includes a reference to other auditors who audited the financial statements of the defined benefit pension plan financial statements of the Los Angeles County Metropolitan Transportation Authority Retirement Income Plans, as described in our report on LACMTA's financial statements. The financial statements of the defined benefit pension plan of the Los Angeles County Metropolitan Transportation Authority Retirement Income Plans were not audited in accordance with *Government Auditing Standards*.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered LACMTA's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of LACMTA's internal control. Accordingly, we do not express an opinion on the effectiveness of LACMTA's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether LACMTA's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Crowe Horwath LLP

Crowe Horwath LLP

Sherman Oaks, California
December 16, 2016

**INDEPENDENT AUDITOR'S REPORT ON COMPLIANCE FOR EACH MAJOR FEDERAL PROGRAM;
REPORT ON INTERNAL CONTROL OVER COMPLIANCE; AND REPORT ON THE SCHEDULE OF
EXPENDITURES OF FEDERAL AND STATE AWARDS REQUIRED BY THE UNIFORM GUIDANCE**

Board of Directors
Los Angeles County Metropolitan Transportation Authority
Los Angeles, California

Report on Compliance for Each Major Federal Program

We have audited Los Angeles County Metropolitan Transportation Authority's (LACMTA) compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of LACMTA's major federal programs for the year ended June 30, 2016. LACMTA's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with federal statutes, regulations, and the terms and conditions of its federal awards applicable to its federal programs.

Auditor's Responsibility

Our responsibility is to express an opinion on compliance for each of LACMTA's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about LACMTA's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of LACMTA's compliance.

Opinion on Each Major Federal Program

In our opinion, LACMTA complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2016.

Report on Internal Control over Compliance

Management of LACMTA is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered LACMTA's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of LACMTA's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. *A material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Report on Schedule of Expenditures of Federal and State Awards Required by Uniform Guidance

We have audited the financial statements of the governmental activities, business-type activities, each major fund, and the aggregate remaining fund information of LACMTA as of and for the year ended June 30, 2016, and the related notes to the financial statements, which collectively comprise LACMTA's basic financial statements. We issued our report thereon dated December 16, 2016, which contained unmodified opinions on those financial statements. Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the basic financial statements. The accompanying schedule of expenditures of federal and state awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal and state awards is fairly stated in all material respects in relation to the basic financial statements as a whole.

Crowe Horwath LLP

Crowe Horwath LLP

Sherman Oaks, California
December 16, 2016

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
SCHEDULE OF EXPENDITURES OF FEDERAL AND STATE AWARDS
Year ended June 30, 2016**

Total expended under federal/state/local for the fiscal year ended June 30, 2016

Federal Grants	Federal grantor/cluster title/program title/pass-through grantor/project title	CFDA Number	Grant Number	Total Award	Total	Federal Share	Federal Share passed through to subrecipients	State Share	Local Share
U.S. Department of Transportation	Passed through the State of California Department of Transportation:								
	Highway Planning and Construction Cluster								
	Highway Planning and Construction								
	1405 CAR Pool Lane	20.205	07-4826	\$1,143,347,625	\$ 137,196,291	\$ 30,274,096	\$ -	\$ -	\$ 106,922,195
	Pedestrian and Pedestrian Mobility	20.205	CA-15-X005	800,000	285,760	285,760	285,760	-	-
	Burbank Airport	20.205	07-4U6524	4,387,000	2,606,007	82,327	82,327	-	2,523,680
	Extension of Transit way on 1-110 to Downtown LA	20.205	EA 07-278008	6,272,631	1,367,554	607,802	-	-	759,752
	Active Transportation Education Program	20.205	CMLN 6065 (190)	4,000,000	1,343,285	-	-	-	1,600,531
	Safe Routes to School	20.205	SRTSNL-6065(178)	500,000	659,819	274,711	-	-	385,108
	Orange line High Speed Magnetic Levitation trains	20.205	HFLUL-6065(156)	251,972	41,934	37,026	37,026	-	4,908
	Highway Planning and Construction Cluster Total			1,159,559,228	145,101,181	32,905,007	405,113	-	112,195,174
Direct Programs:									
Federal Transit Cluster									
Federal Transit Capital Improvement Grants									
	Metro Rapid System Gap Closure	20.500	CA-03-0796	16,700,000	3,693,807	2,400,974	-	-	1,292,832
	Red/pass enhan & 22' alt. Fuelbus	20.500	CA-03-0783	1,214,721	16,986	13,565	13,565	-	3,391
	Westside Purple Line Ext. Sec. 1 - FFCA	20.500	CA-2016-017	100,000,000	294,827,535	100,000,000	-	-	194,827,535
	Wilshire Blvd. Bus Only Lane	20.500	CA-03-0815	23,317,000	4,390,490	2,757,919	2,757,919	-	1,632,571
	Regional Connection Transit Corridor Construction	20.500	CA-03-0825	165,000,000	149,407,797	80,971,963	-	26,478,941	41,956,893
	Regional Connection Transit Corridor Construction	20.500	CA-2016-046	100,000,000	4,018,715	2,936,848	-	996,166	85,701
	Westside Purple Line Ext - Section 1	20.500	CA-03-0824	100,000,000	-	100,000,000	-	-	(100,000,000)
	Crenshaw - Prairie Transit Corridor	20.500	CA-04-0034	8,563,010	445,218	445,218	-	-	(1,168,667)
	Passenger and Pedestrian Enhancements	20.500	CA-04-0067	2,502,232	616,290	493,032	493,032	-	123,258
	Png Engineering of Transit Centers	20.500	CA-04-0094	7,131,578	3,387,746	2,710,197	2,710,197	-	677,549
	Southern California 511V/TCLJ	20.500	CA-04-0230	2,000,000	672,528	538,022	-	-	134,506
	Pasadena Plaza Bus way Station	20.500	CA-04-0233	9,679,000	4,233,051	3,386,441	-	-	846,610
	Metro Orange Line Bus Enhancement	20.500	CA-04-0261	10,000,000	4,525,521	3,628,471	-	-	897,050
	Federal Transit Capital Improvement Grants Total			546,107,541	469,066,957	300,282,651	5,974,713	27,475,106	141,309,229
Federal Transit Formula Grants									
	Subgrantee Vehicles/Transit facilities	20.507	CA-90-Y114	5,985,469	29,208	23,366	23,366	-	5,842
	Preventive Maintenance - FY15	20.507	CA-90-Z054	312,668,288	189,587,378	151,669,902	-	-	37,917,476
	Metro Rapid Bus Stations/Signal Priority	20.507	CA-90-Y261	28,919,529	1,758,022	1,758,022	-	-	-
	FY05 Transit Enhancements	20.507	CA-90-Y454	516,210	15,000	11,012	-	-	3,989
	Metro Rapid Bus Program	20.507	CA-90-Y457	11,081,700	285,290	285,290	-	-	-
	Transit Enhancement FY2005 funds	20.507	CA-90-Y685	854,520	160,350	128,280	-	-	32,070
	Preventive Maintenance - Operation & Capital - FY 14 PM	20.507	CA-90-Y717	480,395,145	(417)	(334)	-	-	(83)
	45-Ft Composite Buses and Transit Enhancements - Capital	20.507	CA-95-X099	400,000	347,877	278,302	-	-	69,575
	LA CRD Operating Assistance - Vanpool	20.507	CA-95-X127	41,786,160	19,689	19,689	-	-	-
	Light Rail Vehicle Acquisition	20.507	CA-95-X227	2,996,000	17,076,894	11,634,380	-	91,437	5,351,077
	Pass / Ped. Enhancements and Improvements	20.507	CA-95-X246	120,872,000	596,281	477,025	477,025	-	119,256
	Light Rail Vehicle Acquisition	20.507	CA-95-X246	120,872,000	(2,456,544)	8,992,447	-	-	(11,428,991)
	Exposition Blvd. Right-of-Way Bike Path	20.507	CA-95-X214	11,528,000	2,254,957	1,045,409	-	-	1,209,548
	Replacement Buses	20.507	CA-95-X245	1,839,600	3,900	2,847	2,847	-	1,053
	Acquisition of Buses	20.507	CA-2016-011-01	46,113,344	55,473,053	46,113,344	-	-	9,359,709
	Metro Orange Line Bus Enhancement	20.507	CA-2016-011-02	3,299,729	4,259,099	3,299,729	-	-	959,370
	Preventive Maintenance - FY16	20.507	CA-2016-011-03	109,975,245	137,469,057	109,975,245	-	-	27,493,812
	Westside Purple Line Extension - Section 1	20.507	CA-95-X264	12,171,000	21,109,533	12,171,000	-	-	8,938,533
	Regional Connection Transit Corridor Construction	20.507	CA-95-X251	64,000,000	20,087,042	17,783,059	-	2,285,632	18,352
	Crenshaw/Lax Transit Corridor	20.507	CA-95-X286	82,213,840	27,109,454	24,000,000	-	-	3,109,454
	Airport Metro Connector and Crenshaw / LAX A accommodation	20.507	CA-2016-062-00	33,200,000	744,764	744,764	-	-	-
	LA Metro FY 16 Rail Preventive Maintenance - Growing State Funds	20.507	CA-2016-024-01	8,012,101	10,015,126	8,012,101	-	-	2,003,025
	Metro Gold Line Foothill Extension Operating Assistance	20.507	CA-2016-029-01	20,000,000	1,949,498	1,559,598	-	-	389,900
	Metro EXPO Line Phase I Operating Assistance	20.507	CA-2016-029-03	20,000,000	544,429	435,543	-	-	108,886

See accompanying notes to the schedule of expenditures of federal and state awards.

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
SCHEDULE OF EXPENDITURES OF FEDERAL AND STATE AWARDS
Year ended June 30, 2016**

Bus replacement(141), Overhaul(290), Meiro Blue Line Transit Provider - ARRA Federal Transit Formula Grants Total	20.507	CA-96-X012	224,263,474 1,651,104,794	33,820 488,492,759	33,820 400,453,838	- 2,377,069	- 503,238	- 2,377,069	- 85,661,851
State of Good Repair Grants Program	20.525	CA-54-0032	48,868,211	61,085,264	48,868,211	-	-	-	12,217,053
Preventive Maintenance - FY 15 PM Rail	20.525	CA-54-0037	26,414,989	33,018,736	26,414,989	-	-	-	6,603,747
LA Metro FY 16 Rail Preventive Maintenance - SGR High Intensity Motorbus Funds	20.525	CA-2016-024-02	10,240,619	12,800,774	10,240,619	-	-	-	2,560,155
LA Metro FY 16 Rail Preventive Maintenance - SGR Fixed Guideway Funds	20.525	CA-2016-024-03	66,073,366 151,597,185	82,591,708 189,496,482	66,073,366 151,597,185	-	-	-	16,518,342 37,899,297
State of Good Repair Grants Program Total									
Bus and Bus Facilities Formula Program Acquisition of Buses	20.526	CA-2016-011-01	68,881,180	100,716,203	68,881,180	-	-	-	31,835,023
Federal Transit Cluster Total			2,417,690,700	1,247,772,431	921,214,854	6,477,951	29,852,175	296,705,401	
Transit Service Cluster									
Enhance Mobility of Seniors and Disabilities	20.513	CA-16-0063	693,120	241,780	241,780	-	-	-	-
Job Access and Reverse Commute Program L A County Job Access and Reverse Commute Program. Administration, FY 06-12	20.516	CA-37-X071	5,032,849	208,293	208,293	-	-	-	-
Job Access and Reverse Commute Program, Project - LA County Job Access and Program Project	20.516	CA-37-X100	10,343,881	1,830,211	1,152,439	1,152,439	-	-	677,772
Job Access and Reverse Commute - Capital/Operating Assis. LA County Job Access and Program Project - Capital/Operating Assis. Job Access and Reverse Commute Program Total	20.516	CA-37-X123 CA-37-X171	13,878,024 7,711,637	146,298 338,800	116,378 338,800	116,378 338,800	-	-	29,920
New Freedom Program			36,966,391	2,523,603	1,815,909	1,607,617	-	-	707,692
New Freedom - Program Adm, FY 06-12	20.521	CA-57-X003	2,152,346	236,496	236,496	-	-	-	-
New Freedom - Capital & Operating, Assistance	20.521	CA-57-X048	1,755,553	308,910	154,455	154,455	-	-	154,455
New Freedom - Capital & Operating, Assistance	20.521	CA-57-X084	8,702,026	1,155,623	1,155,623	-	-	-	-
New Freedom - Capital & Operating, Assistance New Freedom Program Total	20.521	CA-57-X100	7,354,678 19,964,603	533,155 2,234,183	279,085 1,825,659	279,085 1,589,163	-	-	254,070 408,525
Transit Services Cluster Total			57,624,114	4,999,564	3,883,348	3,196,779	-	-	1,116,216
Clean Fuels - ONG Fueling Facility at Division 13	20.519	CA-58-0006	5,500,000	375,985	153,516	114,112	-	-	108,357
State and Community Highway Safety Countywide Bicycle Education Safety The Office of Traffic Safety State and Community Highway Program Total	20.600 20.600	PS1512 PS1624	223,950 550,000	157,575 299,408	88,984 299,408	-	-	-	68,591
Eastside Access Improvements	20.933	CA-79-0005	11,800,000	456,983	388,392	-	-	-	68,591
U.S. Department of Homeland Security Total			3,652,947,992	1,398,895,494	958,678,115	10,079,843	29,966,287	410,251,092	
Direct Programs:									
Rail and Transit Security Program									
Transit Security Grant Program	97.075	EMW-2011-RA-00011-S01	5,744,329	1,449,781	1,449,781	-	-	-	-
Transit Security Grant Program	97.075	EMW-2014-RA-00003	6,285,096	693,617	693,617	-	-	-	-
Transit Security Grant Program	97.075	EMW-2015-RA-00001	6,521,328	1,102,814	1,102,814	-	-	-	-
Transit Security Grant Program	97.075	EMW-2013-RA-00043-S01	7,050,010	2,810,569	2,810,569	-	-	-	-
U.S. Department of Homeland Security Total			25,600,763	6,056,781	6,056,781	-	-	-	-
Total Federal Grants			\$3,678,548,755	\$1,404,952,275	\$ 964,734,896	\$ 10,079,843	\$ 29,966,287	\$ 410,251,092	

See accompanying notes to the schedule of expenditures of federal and state awards.

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
SCHEDULE OF EXPENDITURES OF FEDERAL AND STATE AWARDS
 Year ended June 30, 2016

State Grants	\$	\$	\$	\$	\$	\$	\$	\$
Prop 1B Security - FY 08-09	16,103,000	6,214,663	-	-	-	6,214,663	-	-
Prop 1B Security - FY 09-10	16,103,043	1,041,032	-	-	-	1,041,032	-	-
Prop 1B Security - FY 10-11	16,103,043	1,550,513	-	-	-	1,550,513	-	-
Metro Greening Plan (U59207-0)	530,000	241,844	-	-	-	179,252	62,593	-
Strategic Growth Council/Department of Conservation-Sustainable Communities Planning Grant	3,098,000	890,652	-	-	-	207,010	683,642	-
STIP PFM (State Transportation Improvement Program - Planning, Programming & Monitoring Program)	3,098,000	4,367,925	-	-	-	1,846,610	2,521,315	-
Alternative & Renewable Fuel & Vehicle Technology Program	492,000	110,949	-	-	-	55,475	55,475	-
Sustainable South Bay Transportation and Land Use Implementation Framework	885,048	113,202	-	-	-	101,712	11,490	-
LACMTA Division 4 Maintenance Facility (14-440-550)	752,000	206,445	-	-	-	13,851	192,594	-
Proposition 1B Intercity Rail (ICR) Raymer to Bernson Double Track Project	6,500,000	1,306,327	-	-	-	1,206,554	99,773	-
Proposition 1B Intercity Rail (ICR) Van Nuys North Platform Project	4,000,000	1,185,873	-	-	-	1,021,365	164,508	-
Metro Greening Plan (U59207-0)	135,983,130	91,934,526	-	-	-	67,999,068	23,935,458	-
Construction of Division 13 - Bus Operations and Maintenance Facility	47,772,000	6,962,140	-	-	-	2,771,643	4,190,497	-
Total State Grants	<u>\$ 251,419,264</u>	<u>\$ 116,126,093</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 84,208,748</u>	<u>\$ 31,917,345</u>	<u>\$ -</u>

See accompanying notes to the schedule of expenditures of federal and state awards.

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
NOTES TO THE SCHEDULE OF EXPENDITURES OF FEDERAL AND STATE AWARDS
Year ended June 30, 2016

NOTE 1 – GENERAL

The accompanying schedule of expenditures of federal and state awards (the Schedule) presents the grant activity of all expenditures of federal and state award programs of the Los Angeles County Metropolitan Transportation Authority (LACMTA) in accordance with the requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance)*. All federal awards received directly from federal agencies, as well as federal awards passed through other government agencies, are included in the Schedule. The Schedule also includes state grants that do not participate in the federal awards. LACMTA is the reporting entity as defined in note 1 to the financial statements of LACMTA's basic financial statements.

NOTE 2 - BASIS OF PRESENTATION

Expenditures reported on the Schedule are reported on the accrual basis of accounting. Expenditures are recognized following, as applicable, either the cost principles in OMB Circular A-87, *Cost Principles for State, Local, and Indian Tribal Governments* or the cost principles contained in Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement. Negative amounts shown on the Schedule represent adjustments or credits made in the normal course of business to amounts reported as expenditures in prior years. LACMTA has elected not to use the 10-percent de minimis indirect cost rate as allowed under the Uniform Guidance.

NOTE 3 – STATE AND LOCAL FUNDS REIMBURSEMENT

LACMTA utilizes state and local funds when federal funds are not received in a timely manner. Upon receipt of federal funds, LACMTA reimburses state and local funds that were utilized for expenditures for federal programs. Reimbursements are shown as credit balances in the Schedule. Expenditures incurred during the current fiscal year, but before a federal grant is executed are included as state or local on the Schedule in the year the expenditures are incurred and are reported as federal on the Schedule in the year the grant was executed.

NOTE 4 – FEDERAL FINANCIAL ASSISTANCE

Pursuant to the Single Audit Act and Uniform Guidance Compliance Supplement, the federal financial assistance is defined as assistance provided by a federal agency, either directly or indirectly, in the form of grants, contracts, cooperative agreements, loans, loan guarantees, property, interest subsidies, insurance, or direct appropriations. Accordingly, nonmonetary federal assistance is included in federal financial assistance and, therefore, is reported on the Schedule, if applicable. Federal financial assistance does not include direct federal cash assistance to individuals. Solicited contracts between the state and federal government for which the federal government procures tangible goods or services are not considered to be federal financial assistance.

NOTE 5 – MAJOR PROGRAMS

The Single Audit Act and Uniform Guidance establish criteria to be used in defining major federal financial assistance programs. Major programs for LACMTA are those programs selected for testing by the auditor using a risk assessment model, as well as certain minimum expenditure requirements, as outlined in Uniform Guidance. Programs with similar requirements may be grouped into a cluster for testing purposes.

NOTE 6 – COMMINGLED ASSISTANCE

The LACMTA receives federal and state funding as a subrecipient through the State of California's Department of Transportation (Caltrans). The expenditures reported in the accompanying Schedule for CFDA 20.205, U.S. Department of Transportation – Highway Planning and Construction (grant #07-4826), represent commingled federal and state funding received from Caltrans. The sources of funding passed through Caltrans include state funding from the Traffic Congestion Relief Program (TCRP) and the State Transportation Program - Local (STPL) and Federal funding from the Federal Regional Surface Transportation Program (RSTP) and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users (SAFETEA - LU). The program also includes Local Proposition C-25% funding provided by LACMTA. When the sources of funding from Caltrans are not separately identifiable, LACMTA's policy is to report amounts expended under the program first as federal expenditures up to the approved budgeted amount and then the remaining expenditures will be reported as state expenditures.

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
SCHEDULE OF FINDINGS AND QUESTIONED COSTS
Year ended June 30, 2016

SECTION 1 - SUMMARY OF AUDITORS' RESULTS

Financial Statements:

Type of report the auditor issued on whether the financial statements audited were prepared in accordance with GAAP:

Unmodified

Internal control over financial reporting:

Material weakness(es) identified?

_____ Yes X No

Significant deficiency(ies) identified?

_____ Yes X None reported

Noncompliance material to financial statements noted?

_____ Yes X No

Federal Awards:

Internal control over major federal programs:

Material weakness(es) identified?

_____ Yes X No

Significant deficiency(ies) identified?

_____ Yes X None reported

Type of auditor's report issued on compliance for major federal programs:

Unmodified

Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)?

_____ Yes X No

Identification of major federal programs:

CFDA 20.500 / 20.507 / 20.525 / 20.526 – Federal Transit Cluster

Dollar threshold used to distinguish type A and B programs:

 \$ 3,000,000

Auditee qualified as low-risk auditee?

 X Yes _____ No

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
SCHEDULE OF FINDINGS AND QUESTIONED COSTS
Year ended June 30, 2016

SECTION 2 – FINANCIAL STATEMENT FINDINGS

None reported.

SECTION 3 – FEDERAL AWARD FINDINGS AND QUESTIONED COSTS

None reported.

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
SCHEDULE OF PRIOR YEAR FINDINGS AND QUESTIONED COSTS
Year ended June 30, 2016

Finding 2015-001 – OPEB Benefits and Plan Provisions (Significant Deficiency)

Condition: Management determined that certain benefit provisions were not included in the actuarial calculation used to measure the Net OPEB Obligation liability on LACMTA's statement of net position. Management discovered that lifetime benefits for ATU employees were not reflected in the previous valuations of the net OPEB obligation. With the addition of the OPEB lifetime benefit provision, the calculation of the prior Annual Required Contributions were understated and resulted in the Net OPEB Obligation liability being understated. This benefit plan provision did not affect any of the other LACMTA OPEB plans.

Status: Resolved



**LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY**

FEDERAL FUNDING ALLOCATION DATA

Transportation Operating Agency (ID# 90154)

**Independent Accountant's Report
On Applying Agreed-Upon Procedures**

Fiscal year ended June 30, 2016

Independent Accountant's Report
on Applying Agreed Upon Procedures

Board of Directors
Los Angeles County Metropolitan Transportation Authority
Los Angeles, California

The Federal Transit Administration (FTA) has established the following standards with regard to the data reported to it in the Federal Funding Allocation Statistics form (FFA-10) of the Los Angeles County Metropolitan Transportation Authority's (the Authority) annual National Transit Database (NTD) report:

- A system is in place and maintained for recording data in accordance with NTD definitions. The correct data are being measured and no systematic errors exist.
- A system is in place to record data on a continuing basis, and the data gathering is an ongoing effort.
- Source documents are available to support the reported data and are maintained for FTA review and audit for a minimum of three years following FTA's receipt of the NTD report. The data are fully documented and securely stored.
- A system of internal controls is in place to ensure the data collection process is accurate and that the recording system and reported comments are not altered. Documents are reviewed and signed by a supervisor, as required.
- The data collection methods are those suggested by FTA or otherwise meet FTA requirements.
- The deadhead miles, computed as the difference between the reported total actual vehicle miles data and the reported total actual vehicle revenue miles (VRM) data, appear to be accurate.
- Data is consistent with prior reporting periods and other facts known about the Authority's operations.

We have applied the procedures, as described in Attachment A, to the data contained in the accompanying FFA-10 for the fiscal year ending June 30, 2016. Such procedures, which were agreed to and specified by FTA in the Declarations section of the *2016 Policy Manual* and were agreed to by the Authority, were applied to assist the Authority in evaluating whether the Authority complied with the standards described in the first paragraph of this part and that the information included in the NTD report FFA-10 for the fiscal year ending June 30, 2016 is presented in conformity with the requirements of the *Uniform System of Accounts (USOA) and Records and Reporting System; Final Rule*, as specified in 49 CFR Part 630, Federal Register, January 15, 1993 and as presented in the *2016 Policy Manual*. The Authority's management is responsible for the FFA-10 and compliance with NTD requirements.

This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of those parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures described in Attachment A either for the purpose for which this report has been requested or for any other purpose. This report is intended solely for your information and for FTA and should not be used by those who did not participate in determining the procedures.

The procedures in Attachment A were applied separately to each of the information systems used to develop the reported actual vehicle revenue miles (VRM), fixed guideway (FG), directional route miles (DRM), passenger miles traveled (PMT), and operating expenses (OE) of the Authority for the fiscal year ending June 30, 2016 for each of the following modes:

- Motor Bus – directly operated
- Motor Bus – purchased transportation
- Rapid Bus – directly operated
- Heavy Rail – directly operated
- Light Rail – directly operated
- Vanpool – purchased transportation

The agreed upon procedures are substantially less in scope than an examination, the objective of which is an expression of an opinion on the FFA-10 form. Accordingly, we do not express such an opinion. Also, we do not express an opinion on the Authority's system of internal control taken as a whole.

In performing the procedures, except for the information and findings identified in Attachment A to this report, no matters came to our attention that would be required to be reported to you regarding the information included in the NTD report on the FFA-10 Form for the fiscal year ending June 30, 2016. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you. This report relates only to the information described above, and does not extend to the Authority's financial statements taken as a whole, or the forms in the Authority's NTD report other than the FFA-10 form, for any date or period.

This report is intended solely for the information and use of the Board of Directors, the management of the Authority, and the FTA and is not intended to be and should not be used by anyone other than these specified parties.

Crowe Horwath LLP

Crowe Horwath LLP

Sherman Oaks, California
October 31, 2016

LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY
ATTACHMENT A – AGREED UPON PROCEDURES
June 30, 2016

FTA Suggested Procedures:

- a. Obtain and read a copy of written procedures related to the system for reporting and maintaining data in accordance with the NTD requirements and definitions set forth in 49 CFR Part 630, Federal Register, dated January 15, 1993 and as presented in the 2016 Policy Manual. If procedures are not written, discuss the procedures with the personnel assigned responsibility of supervising the NTD data preparation and maintenance.

Step performed without exception.

- b. Discuss the procedures (written or informal) with the personnel assigned responsibility of supervising the preparation and maintenance of NTD data to determine:
- The extent to which the transit agency followed the procedures on a continuous basis, and
 - Whether they believe such procedures result in accumulation and reporting of data consistent with the NTD definitions and requirements set forth in 49 CFR Part 630, Federal Register, dated January 15, 1993 and as presented in the 2016 Policy Manual.

Step performed without exception.

- c. Ask these same personnel about the retention policy that the transit agency follows as to source documents supporting NTD data reported on the Federal Funding Allocation Statistics form (FFA-10).

Step performed without exception.

- d. Based on a description of the transit agency's procedures obtained in items a and b above, identify all the source documents that the transit agency must retain for a minimum of three years. For each type of source document, select three months out of the year and determine whether the document exists for each of these periods.

Selected source documents from three different months in fiscal years 2015, 2014, and 2013 (9/12/2012, 3/18/2013, 5/25/2013, 8/21/2013, 2/13/2014, 4/8/2014, 10/13/2014, 1/8/2015, 6/7/2015) to ensure they were retained for a minimum of three years. We observed that the source documents were maintained for each fiscal year as required.

- e. Discuss the system of internal controls. Inquire whether separate individuals (independent of the individuals preparing source documents and posting data summaries) review the source documents and data summaries for completeness, accuracy, and reasonableness and how often these individuals perform such reviews.

Per inquiry with the management, the individuals reviewing source documents are independent of individuals preparing the information and the review is done on a periodic basis depending on the data being reviewed.

- f. Select a random sample of source documents and determine whether supervisors' signatures are present as required by the system of internal controls. If supervisors' signatures are not required, inquire how personnel document supervisors' review.

Selected a random sample of 110 source documents, noting the required approval on all source documents. Step performed without exception.

LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY
ATTACHMENT A – AGREED UPON PROCEDURES
June 30, 2016

- g. Obtain the worksheets used to prepare the final data that the transit agency transcribes onto the Federal Funding Allocation Statistics form. Compare the periodic data included on the worksheets to the periodic summaries prepared by the transit agency. Test the arithmetical accuracy of the summaries.

We obtained the worksheets and agreed the data on the worksheets to the summaries provided and verified the arithmetical accuracy of the summaries without exception.

- h. Discuss the procedure for accumulating and recording passenger miles traveled (PMT) data in accordance with NTD requirements with transit agency staff. Inquire whether the procedure is one of the methods specifically approved in the 2016 Policy Manual.

For the rail modes, the Authority utilized a statistical sampling method as described in FTA Circulars 2710.1A. For the motor bus and van pool modes, the Authority utilized a 100% count verification for passenger trips and an estimate of passenger miles based on a statistical sampling method as described in FTA Circulars 2710.2A.

- i. Discuss with transit agency staff, the transit agency's eligibility to conduct statistical sampling for PMT data every third year. Determine whether the transit agency meets NTD criteria that allow transit agencies to conduct statistical samples for accumulating PMT data every third year rather than annually. Specifically:
- a. According to the 2010 Census, the public transit agency serves an urbanized area (UZA) of less than 500,000 population.
 - b. The public transit agency directly operates fewer than 100 revenue vehicles in all modes in annual maximum revenue service (VOMS) (in any size UZA).
 - c. Service purchased from a seller is included in the transit agency's NTD report.
 - d. For transit agencies that meet one of the above criteria, review the NTD documentation for the most recent mandatory sampling year (2016) and determine that statistical sampling was conducted and meets the 95% confidence and +10% precision requirements.
 - e. Determine how the transit agency estimated annual PMT for the current report year.

Per inquiry with the Authority management, the Authority does not meet any of the three criteria that allows transit agencies to conduct statistical samples for accumulating passenger mile data every third year. Therefore, the Authority conducts statistical sampling annually as described in procedure h.

- j. Obtain a description of the sampling procedure for estimation of PMT data used by the transit agency. Obtain a copy of the transit agency's working papers or methodology used to select the actual sample of runs for recording PMT data. If the transit agency used average trip length, determine that the universe of runs was the sampling frame. Determine that the methodology used to select specific runs from the universe resulted in a random selection of runs. If the transit agency missed a selected sample run, determine that a replacement sample run was random. Determine that the transit agency followed the stated sampling procedure.

Step performed without exception.

LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY
ATTACHMENT A – AGREED UPON PROCEDURES
June 30, 2016

- k. Select a random sample of the source documents for accumulating PMT data and determine that the data are complete (all required data are recorded) and that the computations are accurate. Select a random sample of the accumulation periods and re-compute the accumulations for each of the selected periods. List the accumulation periods that were tested. Test the arithmetical accuracy of the summarization.

Selected a random sample of 114 source documents from all twelve months in fiscal year 2016, used for accumulating passenger miles traveled (PMT) data and determined they were complete and mathematically accurate. We tested the average trip length and the total trips for each of the samples and recomputed the accumulations for each period. Step performed without exception.

- l. Discuss the procedures for systematic exclusion of charter, school bus, and other ineligible vehicle miles from the calculation of actual vehicle revenue miles with transit agency staff and identify that stated procedures are followed. Select a random sample of source documents used to record charter bus service and test the arithmetical accuracy of the computations.

Step performed without exception.

- m. For actual vehicle revenue miles (VRM) data, document the collection and recording methodology and identify that deadhead miles are systematically excluded from the computation. This is accomplished as follows:

- If actual VRMs are calculated from schedules, document the procedures used to subtract missed trips. Select a random sample of the days that service is operated, and re-compute the daily total of missed trips and missed VRMs. Test the arithmetical accuracy of the summary.
- If actual VRMs are calculated from hubodometers, document the procedures used to calculate and subtract deadhead mileage. Select a random sample of the hubodometer readings and determine that the stated procedures for hubodometer deadhead mileage adjustments are applied as prescribed. Test the arithmetical accuracy of the summary of intermediate accumulations.
- If actual VRMs are calculated from vehicle logs, select random samples of the vehicle logs and determine that the deadhead mileage has been correctly computed in accordance with FTA definitions.

Vehicle logs are used to compute the VRM data for non-fixed routes. For fixed routes, the Authority uses monthly services reports and daily loss service records to record any missed trips. Selected a haphazard sample of 24 source documents and recalculated the VRMs for the sample of trips, excluding deadhead miles. Step performed without exception.

- n. For rail modes, obtain and read the recording and accumulation sheets for actual VRM's and identify that locomotive miles are not included in the computation.

Step performed without exception.

LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY
ATTACHMENT A – AGREED UPON PROCEDURES
June 30, 2016

- o. If fixed guideway or High Intensity Bus directional route miles (FG or HIB DRM) are reported, interview the person responsible for maintaining and reporting the NTD data whether the operations meet the FTA definition of fixed guideway (FG) or High Intensity Bus (HIB) in that the service is:
- Rail, trolleybus (TB), ferryboat (FB), or aerial tramway (TR) or
 - Bus (MB) service operating over exclusive or controlled access rights-of-way (ROW), and
 - Access is restricted
 - Legitimate need for restricted access is demonstrated by peak period level of service D or worse on parallel adjacent highway, and
 - Restricted access is enforced for freeways; priority lanes used by other high occupancy vehicles (HOV) (i.e., vanpools (VP), carpools) must demonstrate safe operation (see Fixed Guideway Segments form (P-40))
 - High Occupancy / Toll (HO/T) lanes meet FHWA requirements for traffic flow and use of toll revenues, and that the transit agency has provided to NTD a copy of the State's certification to the US Secretary of Transportation that it has established a program for monitoring, assessing and reporting on the operation of the HOV facility with HO/T lanes.

Step performed without exception.

- p. Discuss the measurement of FG and HIB DRM with the person reporting NTD data and determine that the he or she computed mileage in accordance with the FTA definitions of FG/HIB and DRM. Inquire of any service changes during the year that resulted in an increase or decrease in DRMs. If a service change resulted in a change in overall DRMs, re-compute the average monthly DRMs, and reconcile the total to the FG/HIB DRM reported on the Federal Funding Allocation Statistics form.

Per inquiry of management, new FG segments were added in fiscal year 2016 for the Expo Line Santa Monica extension and Gold Line Foothill extension. Re-computed the average monthly DRM's without exception.

- q. Inquire if any temporary interruptions in transit service occurred during the report year. If these interruptions were due to maintenance or rehabilitation improvements to a FG segment(s), the following apply:
- Report DRMs for the segment(s) for the entire report year if the interruption is less than 12 months in duration. Report the months of operation on the FG/HIB segments form as 12. The transit agency should document the interruption.
 - If the improvements cause a service interruption on the FG-DRMs lasting more than 12 months, the transit agency should contact their validation analyst to discuss. FTA will make a determination on how the DRMs should be reported.

Per inquiry of management there were no interruptions in service during fiscal year 2016 that would require a change in reporting.

- r. Measure FG/HIB DRM from maps or by retracing route.

We measured all of the FG/HIB maps. Step performed without exception.

LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY
ATTACHMENT A – AGREED UPON PROCEDURES
June 30, 2016

- s. Discuss whether other public transit agencies operate service over the same FG/HIB as the transit agency. If yes, determine that the transit agency coordinated with the other transit agency (or agencies) such that the DRMs for the segment of FG/HIB are reported only once to the NTD on the Federal Funding Allocation form. Each transit agency should report the actual VRM, PMT, and OE for the service operated over the same FG/HIB.

Per inquiry of management, the Authority is the approved operator for all of their FG and the Authority is reporting their actual VRM, PMT, and OE for their services. Step performed without exception.

- t. Review the FG/HIB segments form. Discuss the Agency Revenue Service Start Date for any segments added in the 2016 report year with the persons reporting NTD data. This is the commencement date of revenue service for each FG/HIB segment. Determine that the date reported is the date that the agency began revenue service. This may be later than the Original Date of Revenue Service if the transit agency is not the original operator. If a segment was added for the 2016 report year, the Agency Revenue Service Date must occur within the transit agency's 2016 fiscal year. Segments are grouped by like characteristics. Note that for apportionment purposes, under the State of Good Repair (§5337) and Bus and Bus Facilities (§5339) programs, the 7-year age requirement for fixed guideway/High Intensity Bus segments is based on the report year when the segment is first reported by any NTD transit agency. This pertains to segments reported for the first time in the current report year. Even if a transit agency can document an Agency Revenue Service Start Date prior to the current NTD report year, the FTA will only consider segments continuously reported to the NTD.

Per inquiry of management, new FG segments were added in fiscal year 2016 for the Expo Line Santa Monica extension and Gold Line Foothill extension.

- u. Compare operating expenses with audited financial data after reconciling items are removed.

Step performed without exception.

- v. If the transit agency purchases transportation (PT) services, interview the personnel reporting the NTD data on the amount of PT-generated fare revenues. The PT fare revenues should equal the amount reported on the Contractual Relationship form (B-30).

We agreed the fare revenue for the vanpool and motor bus PT without exception.

- w. If the transit agency's report contains data for PT services and assurances of the data for those services is not included, obtain a copy of the Independent Auditor Statement for Federal Funding Allocation (IAS-FFA) data of the PT service. Attach a copy of the statement to the report. Note as an exception if the transit agency does not have an Independent Auditor Statement for the PT data.

We inquired to management and noted that the report does include PT from private operators, but that an Independent Auditor Statement is not required since the Authority is a public transportation provider and the PT expenditures are included on the B-30 form of the NTD.

LOS ANGELES COUNTY METROPOLITAN
TRANSPORTATION AUTHORITY
ATTACHMENT A – AGREED UPON PROCEDURES
June 30, 2016

- x. If the transit agency purchases transportation services, obtain a copy of the PT contract and determine that the contract specifies the public transportation services to be provided; the monetary consideration obligated by the transit agency or governmental unit contracting for the service; the period covered by the contract (and that this period overlaps the entire, or a portion of, the period covered by the transit agency's NTD report); and is signed by representatives of both parties to the contract. Interview the person responsible for retention of the executed contract, and determine that copies of the contracts are retained for three years.

We obtained a copy of the PT contract for each provider and noted that the contract included a description of the services to be provided, the monetary consideration obligated by the Authority for the service and the period covered by the contract and that this period is the same as, or a portion of, the period covered by the Authority's NTD report; and is signed by representatives of both parties to the contract. Management stated that copies of the executed contracts are retained for the last three years, as applicable.

- y. If the transit agency provides service in more than one UZA, or between an UZA and a non-UZA, inquire of the procedures for allocation of statistics between UZAs and non-UZAs. Obtain and review the FG segment worksheets, route maps, and urbanized area boundaries used for allocating the statistics, and determine that the stated procedure is followed and that the computations are correct.

Per management, the Authority provides most of their services in one UZA and therefore it is all allocated to that one UZA. Additionally, all of the services provided are in urbanized areas and allocations to non-urbanized areas are not required, therefore the procedure is not applicable.

- z. Compare the data reported on the Federal Funding Allocation Statistics Form to data from the prior report year and calculate the percentage change from the prior year to the current year. For actual VRM, PMT or OE data that have increased or decreased by more than 10%, or FG DRM data that have increased or decreased. Interview transit agency management regarding the specifics of operations that led to the increases or decreases in the data relative to the prior reporting period.

We compared and agreed the data reported on the Federal Funding Allocation Statistics form (Form FFA-10) to comparable data for the prior report year and calculated the percentage change from the prior year to the current year. For any current year data that increased or decreased by more than 10%, we inquired to the Authority and documented the explanations for the variances.

- aa. The auditor should document the specific procedures followed, documents reviewed, and tests performed in the work papers. The work papers should be available for FTA review for a minimum of three years following the NTD report year. The auditor may perform additional procedures, which are agreed to by the auditor and the transit agency, if desired. The auditor should clearly identify the additional procedures performed in a separate attachment to the statement as procedures that were agreed to by the transit agency and the auditor but not by the FTA.

Step performed without exception.



**LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
TRANSPORTATION DEVELOPMENT ACT
OPERATIONS AGENCY**

**50% EXPENDITURE LIMITATION SCHEDULE
FOR THE FISCAL YEAR ENDED JUNE 30, 2016**

**LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
TRANSPORTATION DEVELOPMENT ACT
OPERATIONS AGENCY**

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**INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING
AND ON COMPLIANCE WITH THE CALIFORNIA CODE OF REGULATIONS (SECTION 6667)
AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED
IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS* AND REPORT ON 50%
EXPENDITURE LIMITATION SCHEDULE**

The Board of Directors
Los Angeles County Metropolitan Transportation Authority
Los Angeles, California

Report on Internal Control over Financial Reporting and on Compliance and Other Matters

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the Los Angeles County Metropolitan Transportation Authority (LACMTA) as of and for the year ended June 30, 2016, and the related notes to the financial statements, which collectively comprise LACMTA's basic financial statements and have issued our report thereon dated December 16, 2016.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered LACMTA's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of LACMTA's internal control. Accordingly, we do not express an opinion on the effectiveness of LACMTA's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether LACMTA's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, including applicable provisions of the Transportation Development Act, including Public Utility Code Section 99245 as enacted and amended by statute through June 30, 2016, and the allocation instructions and resolutions of the Los Angeles County Metropolitan Transportation Authority (as Planning Agency) as required by Section 6667 of the California Code of Regulations, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the LACMTA's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the LACMTA's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Report on 50% Expenditure Limitation Schedule

We have audited the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of LACMTA as of and for the year ended June 30, 2016, and the related notes to the financial statements, which collectively comprise LACMTA's basic financial statements. We issued our report thereon dated December 16, 2016, which contained unmodified opinions on those financial statements. Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the basic financial statements. The accompanying 50% expenditure limitation schedule is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the 50% expenditure limitation schedule is fairly stated in all material respects in relation to the basic financial statements as a whole.

Crowe Horwath LLP

Crowe Horwath LLP

Sherman Oaks, California
December 16, 2016

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
TRANSPORTATION DEVELOPMENT ACT
50% LIMITATION SCHEDULE
FOR THE FISCAL YEAR ENDED JUNE 30, 2016
(Amounts expressed in thousands)

1	Total operating cost	\$	1,562,985
2	Total capital requirements		1,577,250
3	Total debt service		323,906
4	Total of lines 1, 2, and 3		<u>3,464,141</u>
5	Less federal grant received		621,966
6	Less State Transit Assistance (STA) funds received		92,509
7	Total of lines 5 and 6		<u>714,475</u>
8	Total of line 4 less line 7		2,749,666
	50% of line 8		1,374,833
	Total permissible Local Transportation Fund expenditures	\$	<u><u>1,374,833</u></u>

See accompanying independent auditor's report on internal control over financial reporting and on compliance with the California Code of Regulations (Section 6667) and other matters based on an audit of financial statements performed in accordance with Government Auditing Standards.



**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
TRANSPORTATION DEVELOPMENT ACT
AND
PROP 1B PTMISEA PLANNING AGENCY**

Schedule of Revenues, Expenditures, and Changes in Fund Balances

For the Fiscal Year Ended June 30, 2016

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
TRANSPORTATION DEVELOPMENT ACT
AND
PROP 1B PTMISEA PLANNING AGENCY**

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REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES**

The Board of Directors
Los Angeles County Metropolitan Transportation Authority
Los Angeles, California

Report on Internal Control over Financial Reporting and on Compliance and Other Matters

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the Los Angeles County Metropolitan Transportation Authority (LACMTA) as of and for the year ended June 30, 2016, and the related notes to the financial statements, which collectively comprise LACMTA's basic financial statements, and have issued our report thereon dated December 16, 2016. These financial statements include LACMTA's Transportation Development Act Special Revenue Fund (TDA Fund) and the Public Transportation Modernization Improvement and Service Enhancement Account (PTMISEA Fund), which were audited as major governmental funds.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered LACMTA's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of LACMTA's internal control. Accordingly, we do not express an opinion on the effectiveness of LACMTA's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether LACMTA's TDA Fund and PTMISEA Fund financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, including applicable provisions of the California Code of Regulations (Sections 6640-6662), noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the LACMTA's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the LACMTA's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Report on Schedule of Revenues, Expenditures, and Changes in Fund Balances

We have audited the financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the LACMTA as of and for the year ended June 30, 2016, and the related notes to the financial statements, which collectively comprise LACMTA's basic financial statements. We issued our report thereon dated December 16, 2016, which contained unmodified opinions on those financial statements. Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the basic financial statements. The accompanying schedule of revenues, expenditures, and changes in fund balances is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of revenues, expenditures, and changes in fund balances is fairly stated in all material respects in relation to the basic financial statements as a whole.

Crowe Horwath LLP

Crowe Horwath LLP

Sherman Oaks, California
December 16, 2016

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
TRANSPORTATION DEVELOPMENT ACT
AND
PROP 1B PTMISEA PLANNING AGENCY
SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES
FOR THE FISCAL YEAR ENDED JUNE 30, 2016
(Amounts expressed in thousands)**

	Transportation Development Act			
	<u>Planning</u>	<u>Administration</u>	<u>Total</u>	<u>PTMISEA</u>
Revenues:				
Local grants and contracts	\$ 4,896	\$ 3,604	\$ 8,500	\$ —
Investment income	—	—	—	147
Net decline in fair value of investments	—	—	—	(13)
Total revenues	4,896	3,604	8,500	134
Expenditures:				
Excess of revenues over expenditures	4,896	3,604	8,500	—
	—	—	—	134
Other financing uses:				
Transfers out	—	—	—	(68,612)
Total other financing uses	—	—	—	(68,612)
Net change in fund balances	—	—	—	(68,478)
Fund balances – beginning of year	—	—	—	82,385
Fund balances – end of year	\$ —	\$ —	\$ —	\$ 13,907

See notes to schedule of revenues, expenditures, and changes in fund balances and independent auditor's report on internal control over financial reporting and on compliance with the California Code of Regulations (Sections 6640 - 6662) and other matters based on an audit of financial statements performed in accordance with Government Auditing Standards.

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
TRANSPORTATION DEVELOPMENT ACT
AND
PROP 1B PTMISEA PLANNING AGENCY
NOTES TO SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES
FOR THE FISCAL YEAR ENDED JUNE 30, 2016**

(1) **Transportation Planning Agency**

The Los Angeles County Metropolitan Transportation Authority (LACMTA) is the regional transportation planning agency responsible for long-range transportation planning and is designated under the provisions of Section 65080 of the California Government Code (the Code) to prepare and adopt the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP). Both RTP and RTIP are directed to achieve a coordinated and balanced regional transportation system for the counties in its jurisdiction. LACMTA is also the administrator of the Local Transportation Fund (LTF) under provisions of Section 9532 of the Code.

The LTF was created by the Transportation Development Act (TDA) to fund transit projects in each county with California revenues since the LTF is derived from retail sales taxes collected statewide by the State Board of Equalization and returned to individual counties according to the amount collected within that county. Los Angeles County sales tax receipts are deposited with the Los Angeles County Treasurer's Office. LACMTA, as administrator of the LTF, is authorized to distribute funds from the Treasurer's Office to claimants for transit projects that are in accordance with the Code.

Basis of Accounting

The TDA Fund uses the modified accrual basis of accounting as required by generally accepted accounting principles. Under this basis of accounting, revenues are recognized when they become measurable and available, and expenditures are recognized when the related fund liability is incurred.

(2) **Prop 1B PTMISEA**

The Public Transportation Modernization, Improvement and Service Enhancement Account (PTMISEA) was created by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006. Of the \$19.9 billion available to transportation, \$3.6 billion was allocated to PTMISEA to be available to transit operators over a ten-year period. PTMISEA funds may be used for transit rehabilitation, safety or modernization improvements, capital service enhancements or expansions, new capital projects, bus rapid transit improvements, and rolling stock (buses and rail cars) procurement and rehabilitation or replacement. Funds in this account are appropriated annually by the Legislature to the State Controller's Office (SCO) for allocation in accordance with Public Utilities Code formula distributions: 50% allocated to Local Operators based on fare box revenue and 50% to Regional Entities based on population.

Basis of Accounting

The PTMISEA Fund uses the modified accrual basis of accounting as required by generally accepted accounting principles. Under this basis of accounting, revenues are recognized when they become measurable and available, and expenditures are recognized when the related fund liability is incurred.

Crenshaw Project Corporation

**(A Component Unit of the Los Angeles County
Metropolitan Transportation Authority)**

Financial Statements

For the Fiscal Year Ended June 30, 2016

Crenshaw Project Corporation
(A Component Unit of the Los Angeles County Metropolitan Transportation Authority)
Financial Statements
For the Fiscal Year Ended June 30, 2016

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INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
Crenshaw Project Corporation
Los Angeles, California

Report on the Financial Statements

We have audited the accompanying financial statements of the Crenshaw Project Corporation (CPC), a component unit of the Los Angeles County Metropolitan Transportation Authority, as of and for the year ended June 30, 2016 and the related notes to the financial statements, which collectively comprise the CPC's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

(Continued)

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the CPC, as of June 30, 2016, and the changes in its financial position and its cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matter

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3 and 4 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 10, 2016 on our consideration of the CPC's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the CPC's internal control over financial reporting and compliance.

Crowe Horwath LLP

Crowe Horwath LLP

Sherman Oaks, California
October 10, 2016

**INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING
AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL
STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS**

To the Board of Directors
Crenshaw Project Corporation
Los Angeles, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities of the Crenshaw Project Corporation (CPC) as of and for the year ended June 30, 2016, and the related notes to the financial statements, which collectively comprise the CPC's basic financial statements, and have issued our report thereon dated October 10, 2016.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the CPC's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the CPC's internal control. Accordingly, we do not express an opinion on the effectiveness of the CPC's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

(Continued)

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the CPC's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Sherman Oaks, California
October 10, 2016

Crowe Horwath LLP

Crenshaw Project Corporation
(A Component Unit of the Los Angeles County Metropolitan Transportation Authority)
Management's Discussion and Analysis (Unaudited)
For the Fiscal Year Ended June 30, 2016

As management of the Crenshaw Project Corporation (CPC), we offer readers of our financial statements this narrative overview and analysis of the financial activities of the CPC for the fiscal year ended June 30, 2016. . This discussion and analysis is designed to assist the readers in focusing on the significant financial issues and activities of the CPC.

We encourage the readers to consider the information presented herein in conjunction with the financial statements beginning on page 7. The financial statements, the notes to the financial statements, and this discussion and analysis were prepared by management and are the responsibility of management.

All amounts are expressed in thousands of dollars unless otherwise indicated.

Background

The Crenshaw Project Corporation (CPC) was formed on March 23, 2012 for the sole purpose of participating in financing public transportation projects of the Los Angeles County Metropolitan Transportation Authority (LACMTA).

The CPC currently serves as the conduit borrower as part of a financing agreement with the United States Department of Transportation (USDOT) under its Transportation Infrastructure Finance and Innovation Act (TIFIA) program to partially finance the construction of LACMTA's Crenshaw/LAX Transit Project (Project).

Financial Highlights

- In September, 2012, the CPC secured a \$545,900 TIFIA loan from the USDOT to partially finance the Project. The loan under the TIFIA program is secured by Measure R sales tax revenues allocated to the Project. The CPC has drawn down \$480,064 of the TIFIA loan as of June 30, 2016.
- Total assets of \$487,700 represent advances to LACMTA and total liabilities of \$487,700 represent the loans payable to TIFIA. Therefore, there is no net position as of June 30, 2016.
- Total expenses of \$49 consisted mostly of loan fees and other charges, which were reimbursed by LACMTA.
- In fiscal year 2016, total drawdown from TIFIA loan amounted to \$442,587. As of June 30, 2016, \$998.8 million has been expended on the Project and it is recorded in LACMTA's Comprehensive Annual Financial Report (CAFR) under the capital assets section of the statement of net position of the Enterprise fund.

Crenshaw Project Corporation
(A Component Unit of the Los Angeles County Metropolitan Transportation Authority)
Management's Discussion and Analysis (Unaudited)
For the Fiscal Year Ended June 30, 2016

Overview of the Basic Financial Statements

This management's discussion and analysis serves as an introduction to the CPC's basic financial statements. The CPC's basic financial statements are: 1) the statement of net position, 2) the statement of revenues, expenses, and changes in fund net position, 3) the statement of cash flows, and 4) the notes to the financial statements.

The CPC's basic financial statements are prepared on the accrual basis of accounting in accordance with U.S. generally accepted accounting principles as promulgated by the Government Accounting Standards Board (GASB). The CPC is structured as an Enterprise Fund. Revenues are recognized when they are earned and expenses are recognized when they are incurred. See notes to the financial statements for the summary of the CPC's significant accounting policies.

The statement of net position presents information on all of the CPC's assets and liabilities, with the difference between the two is reported as net position. The statement of revenues, expenses, and changes in fund net position presents the results of the CPC's operations. The statement of cash flows presents the cash flows generated by the CPC to meet its obligations. The notes to the financial statements provide additional information that is essential to a full understanding of the data provided in the basic financial statements.

Presented below are the condensed statement of net position and condensed statement of revenues, expenses, and changes in fund net position as of and for the year ended June 30, 2016.

Condensed Statement of Net Position	
Non-current assets	\$ 487,700
Total assets	487,700
Non-current liabilities	487,700
Total liabilities	487,700
Net position	\$ -
Condensed Statement of Revenues, Expenses, and Changes in Fund Net Position	
Revenues	\$ 49
Expenses	49
Change in net position	-
Net position – beginning of year	-
Net position – end of year	\$ -

Crenshaw Project Corporation
(A Component Unit of the Los Angeles County Metropolitan Transportation Authority)
Statement of Net Position
June 30, 2016
(Amounts expressed in thousands)

Assets	
Non-current assets	
Due from LACMTA	\$ 487,700
Total assets	<u>\$ 487,700</u>
Liabilities	
Non-current liabilities	
Loans payable	\$ 487,700
Total liabilities	<u>487,700</u>
Net position	<u>\$ -</u>

The notes to the financial statements are an integral part of this statement.

Crenshaw Project Corporation
(A Component Unit of the Los Angeles County Metropolitan Transportation Authority)
Statement of Revenues, Expenses, and Changes in Fund Net Position
For the Fiscal Year Ended June 30, 2016
(Amounts expressed in thousands)

Operating revenues		
Charges for services	\$	49
Operating expenses		
Professional and technical services		<u>49</u>
Change in net position		-
Net position – beginning of year		<u>-</u>
Net position – end of year	\$	<u>-</u>

The notes to the financial statements are an integral part of this statement.

Crenshaw Project Corporation
(A Component Unit of the Los Angeles County Metropolitan Transportation Authority)
Statement of Cash Flows
For Fiscal Year Ended June 30, 2016
(Amounts expressed in thousands)

Cash flows from operating activities	
Receipts from LACMTA	\$ 49
Payments to vendors	(49)
Net cash flows from operating activities	<u>-</u>
Cash flows from non-capital financing activities	
Proceeds from TIFIA loan	442,587
Advances to LACMTA for the construction of Crenshaw/LAX Transit project	<u>(442,587)</u>
Net cash flows from non-capital financing activities	<u>-</u>
Net increase (decrease) in cash and cash equivalents	-
Cash and cash equivalents - beginning of year	<u>-</u>
Cash and cash equivalents - end of year	<u><u>\$ -</u></u>
Non-cash financing activity:	
Interest accretion on loans payable	\$ 7,635

The notes to the financial statements are an integral part of this statement.

Crenshaw Project Corporation
(A Component Unit of the Los Angeles County Metropolitan Transportation Authority)
Notes to the Financial Statements
June 30, 2016

The notes to the financial statements are a summary of significant accounting policies and other disclosures considered necessary for a clear understanding of the accompanying basic financial statements.

Unless otherwise stated, all dollar amounts are expressed in thousands.

Note 1 - Summary of Significant Accounting Policies

Reporting Entity

The Crenshaw Project Corporation (CPC) was formed for the specific purpose of securing a loan from United States Department of Transportation (USDOT) under the Transportation Infrastructure Finance and Innovation Act (TIFIA) program for the construction of LACMTA's Crenshaw/LAX Transit Project (Project). The Project has an approved life-of-project (LOP) budget of \$2.05 billion that covers the design and construction of a new 8.5-mile double-track LRT line, including eight transit stations, procurement of a minimum of 20 light rail vehicles, and the construction of a full service maintenance facility known as the "Southwestern Yard". The Project will extend from the EXPO Line (at the intersection of Exposition and Crenshaw Boulevards) and the Metro Green Line near the existing Aviation/LAX Station.

The CPC is governed by a Board consisting of the same members of the Board of Directors of LACMTA (the "Metro Board"). The Chair, First-Chair and Second-Chair of the Metro Board shall have the corresponding positions on the CPC Board. The Board members may serve only as long as they are members of the Metro Board. Each Director shall serve a term commensurate with his or her term on the Metro Board. The CPC is a component unit of LACMTA because it is financially dependent upon LACMTA, and LACMTA's approval is needed for the CPC to expend their budgets or charges and issue long-term debt. Although the CPC is a legally separate entity, and in-substance part of LACMTA's operations, the data from the CPC is included in LACMTA's financial data. These financial statements present only the CPC and do not purport to, and do not, present fairly the financial position of LACMTA, as of June 30, 2016, or the changes in the financial position for the year then ended.

Fund Accounting

The proprietary fund type is used to account for ongoing operations and activities similar to those found in the private sector, where the determination of net income is necessary or useful for sound financial administration. The CPC uses the proprietary fund type to account for the goods and services provided to LACMTA on a cost reimbursement basis. Proprietary funds distinguish operating revenue and expense from non-operating items. Operating revenues generally result from providing services in connection with the CPC's ongoing operations. Operating expenses included professional services and administrative expenses. The CPC applied all applicable Government Accounting Standard Board pronouncements in

Crenshaw Project Corporation
(A Component Unit of the Los Angeles County Metropolitan Transportation Authority)
Notes to the Financial Statements
June 30, 2016

accounting and reporting for its proprietary operations. Revenues are recorded when earned and expenses are recorded when incurred, regardless of the timing of related cash flows.

Cash and Cash Equivalents

For purposes of the statement of cash flows, all highly liquid investments, including restricted assets with a maturity date of 90 days or less, are considered to be cash and cash equivalents. Otherwise, they are considered to be investments.

Receivables and Payables

Interagencies' receivables/payables are amounts owed to/due from other LACMTA funds for services performed. Payables are amounts due to vendors for goods or services received.

Note 2 – Due from LACMTA

Due from LACMTA consists of cash advances to partially finance the construction of the Project. As of June 30, 2016, the outstanding balance of due from LACMTA totaled \$487,700.

Note 3 – Loans Payable

In September, 2012, the CPC secured a loan not to exceed \$545,900 from USDOT under the TIFIA program to partially finance the construction of the Project. The loan, secured by a portion of LACMTA's Measure R sales tax revenues allocated to the Project, bears interest at 2.43% per annum on the outstanding balance with maturity date of June 1, 2034. As of June 30, 2016, the outstanding balance of the TIFIA loan was \$487,700.

The CPC's annual debt service requirements (including accretion) are as follows:

Year Ending June 30	Principal	Interest	Total
2017	\$ (10,911)	\$ 10,911	\$ -
2018	(12,190)	12,190	-
2019	(12,488)	12,488	-
2020	(12,811)	12,811	-
2021	(82)	13,009	12,927
2022-2026	63,874	63,111	126,985
2027-2031	245,134	45,947	291,081
2032-2034	227,174	11,280	238,454
	<u>\$ 487,700</u>	<u>\$ 181,747</u>	<u>\$ 669,447</u>

The annual debt service requirements were calculated based on allocation of loan payments from the principal amount of \$545,900.

Crenshaw Project Corporation
(A Component Unit of the Los Angeles County Metropolitan Transportation Authority)
Notes to the Financial Statements
June 30, 2016

Note 4 – Subsequent Events

The remaining and final drawdown from the TIFIA loan of \$65,836 was received in August 2016 to reimburse LACMTA for expenditures incurred on the Project.



Board Report

File #: 2017-0220, File Type: Informational Report

Agenda Number: 11.

FINANCE, BUDGET AND AUDIT COMMITTEE APRIL 19, 2017

SUBJECT: BASIC FINANCIAL STATEMENTS AND COMPONENT AUDITS

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE the **Los Angeles County Metropolitan Transportation Authority's (LACMTA) basic financial statements and component financial statement audits** completed by Crowe Horwath LLP (Crowe) for the fiscal year ended June 30, 2016.

ISSUE

LACMTA is required to be audited annually by independent certified public accountants. The resulting reports include Metro's basic financial statements and component audits for the year ended June 30, 2016:

- Independent Auditors' Report on the LACMTA's basic financial statements which include the financial statements of the governmental activities, business-type activities, each major fund and the aggregate remaining fund information of LACMTA for the year ended June 30, 2016;
- Independent auditors' SAS 114 letter covering required audit communications;
- LACMTA Single Audit Report Fiscal year ended June 30, 2016 which include:
 - Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*; and
 - Independent Auditors' Report on Compliance for Each Major Federal Program; Report on Internal Control over Compliance; and Report on the Schedule of Expenditures of Federal Awards as Required by the Uniform Guidance;
- Independent Accountants' Report on Applying Agreed-Upon Procedures on the LACMTA's Federal Funding Allocation Data for the Transportation Operating Agency (ID# 90154) for the fiscal year ended June 30, 2016;
- Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance with the California Code of Regulations (Section 6667) and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards* and Report on 50% Expenditure Limitation Schedule for the LACMTA Transportation Development Act Operations Agency for the year ended June 30, 2016;

- Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance with the California Code of Regulations (Section 6640-6662) and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards* and Report on Schedule of Revenues, Expenditures, and Changes in Fund Balances for the LACMTA Transportation Development Act & Prop 1B PTMISEA Planning Agency for the year ended June 30, 2016;
- Independent Auditors' Report on the LACMTA State Transit Assistance Special Revenue Fund's basic financial statements as of and for the years ending June 30, 2016 and 2015;
- Independent Auditors' Report on the Crenshaw Project Corporation (A Component Unit of LACMTA) basic financial statements as of June 30, 2016;
- Independent Auditors' Report on the Service Authority for Freeway Emergencies' (A Component Unit of LACMTA) financial statements for the years ending June 30, 2016 and 2015; and
- Independent Auditor's Report on Compliance with Rules and Regulations of the Low Carbon Transit Operations Program (LCTOP) and Report on Internal Control over Compliance for LACMTA's compliance with the LCTOP Guidelines for the year ended June 30, 2016.

DISCUSSION

The basic financial statements include our audited financial statements, supplemental information and an unmodified opinion from Crowe, the independent auditor. Crowe issued an unmodified opinion on all audit reports. There were no findings identified on any of the audit reports.

Due to the considerable size of the document, we have not attached the basic financial statements. Instead, as a savings measure a hard copy of the Basic Financial Statements is on file with the Board Secretary and is also available on the Metro website.

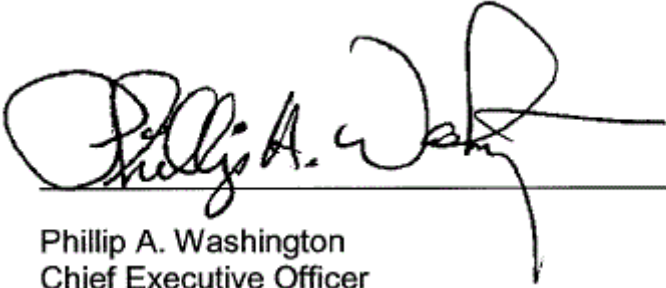
https://media.metro.net/about_us/finance/images/fy16_cafr.PDF

ATTACHMENT(S)

- A. Independent auditors' SAS 114 letter;
- B. Single Audit Reports for the fiscal year ended June 30, 2016;
- C. Federal Funding Allocation Data Transportation Operating Agency for the fiscal year ended June 30, 2016;
- D. Transportation Development Act Operations Agency Year ended June 30, 2016;
- E. Transportation Development Act & Prop 1B PTMISEA Planning Agency for the year ended June 30, 2016;
- F. State Transit Assistance Special Revenue Fund Basic Financial Statements June 30, 2016 and 2015;
- G. Crenshaw Project Corporation Financial Statements for the year ended June 30, 2016;
- H. Service Authority for Freeway Emergencies Financial Statements and Other Supplementary Information June 30, 2016 and 2015;
- I. Independent Auditor's Report on compliance with the Low Carbon Transit Operations Program (LCTOP) for the year ended June 30, 2016

Prepared by: Lauren Choi, Sr. Audit Manager
(213) 922-3926;
Monica Del Toro, Audit Support Manager
(213) 922-7494

Reviewed by: Diana Estrada, Chief Auditor
(213) 922-2161



Phillip A. Washington
Chief Executive Officer

**Board Report**

File #: 2016-0499, **File Type:** Contract**Agenda Number:** 12.

**FINANCE, BUDGET AND AUDIT COMMITTEE
APRIL 19, 2017
SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
APRIL 20, 2017****SUBJECT: RED LINE VEHICLE EVALUATION OF ON-BOARD MIST FIRE SUPPRESSION
SYSTEM PROTOTYPE****ACTION: APPROVE CONTRACT AWARD****RECOMMENDATION**

CONSIDER:

- A. ADOPTING a Life of Project (LOP) Budget for \$1,407,900 for the Rail Vehicle Mist System Demonstration Project; and
- B. APPROVING the award and authorize the Chief Executive Officer to execute Contract No. OP3614100 to Knorr Brake Company, LLC for **one (1) prototype Red Line Heavy Rail Vehicle on-board mist fire suppression system** for a two-year period of performance for design, installation and evaluation of the systems for a fixed price amount of \$908,481 subject to resolution of protest, if any.

ISSUE

Metro places a high priority on the safety of our customers, the public and our employees. To that extent, there has been a constant focus on taking proactive measures to maintain our infrastructure and seek out innovative approaches to prevent casualties on our rail system. Underground tunnel fires are extremely dangerous to human health and safety because smoke accumulates very quickly in such a confined space. The severity of an underground fire is demonstrated by the Daegu subway fire in which an arsonist set fire to a train stopped at a station of the Daegu Metropolitan Subway in Daegu, South Korea. The fire occurred on February 18, 2003, and killed 192 people, while injuring another 151 people. Hence, there is a need to improve fire suppression technology industry-wide to mitigate against such consequences.

DISCUSSION

Metro is currently fully compliant with all fire safety design standards for subways. Although the interiors of modern rail vehicles utilize fire-retardant materials required by the National Fire Protection

Association Standard for Fixed Guideway Transit and Passenger Rail Systems 130 (NFPA), it is still possible for a life threatening fire to occur on board a rail vehicle. Items such as passenger clothing, luggage, computer bags, shopping bags, back-packs, etc. are routinely carried on board by passengers. These items add to the existing fuel source and raise combustion temperatures in a localized area to potentially overcome the fire-retardant properties of the vehicle's interior components, resulting in flash-overs. The open, non-compartmentalized nature of the passenger area means that a serious fire could potentially spread through an entire two car unit.

Such fuel sources are of variable flammability, unpredictable in quantity, and may be ignited by a variety of means, ranging from accidental to deliberate arson attacks using a flammable liquid as an accelerant. An arson attack is, of course, one of the worst case fire scenarios. The ease that an individual may obtain an accelerant and carry it onto a train underscores the threat. An arson fire has the potential to grow into a large fire that continues after the accelerant has been consumed, due to igniting other materials on-board the train.

The results of computational fluid dynamic modeling of smoke accumulation performed during the design of emergency ventilations systems for the three major capital projects (Crenshaw LRT, Regional Connector and Purple Line) demonstrated that even robust, intensive, active ventilation systems were insufficient to avoid significant casualties with a fast growing (i.e., arson type) rail car fire. The fans and airflow simply could not keep up with the expected smoke accumulation in the context of an accelerated fire and additional fans increase turbulence of the airflow and did not improve smoke removal by much.

Therefore, during the design stages of the Purple Line Extension (PLE), Metro's Capital Construction Projects Team requested a feasibility study to determine the practicality, safety, and economic return on investment of a fully integrated fire detection system coupled with a high pressure water mist fire suppression system to protect passenger areas within the permanently coupled, married-pair subway vehicles.

The consultants for the major capital projects analyzed the use of sprinklers within the tunnels, but determined that the initiation of the Emergency Ventilation System Fans, which have a very high air flow rate, could interfere with the ability of the sprinkled water to sufficiently douse the fire. The needed resources to maintain and test the tunnel sprinkler systems to meet Los Angeles Fire Department (LAFD) Regulation 4 standards, which require yearly testing of all systems, could present a severe operational impact and higher maintenance costs.

The search for another fire suppression option led to the evaluation of a rail-car based water-mist fire suppression system. The findings of this evaluation and basis for the staff recommendation are below.

Findings

A high pressure water mist system activated by smoke detectors provides the simplest, most cost-effective method for fire suppression and is an improvement over existing NFPA 130 compliant vehicle interior designs. The proposed system provides the following cost savings and fire, life, and safety benefits:

- Quick, automatic active response to any interior fire at the source (less than 60 seconds);
- Reduces fire spread and duration (safer for passengers);
- Reduces smoke levels (less smoke inhalation, reduced level of passenger panic);
- Reduces heat of combustion (suppresses fire, more comfortable for passengers);
- Water mist discharge does not harm passengers or require their evacuation;
- Safe and effective, even for electrical fires;
- More effective than on-board portable fire extinguishers (requires passenger application, may be vandalized or discharged);
- Effective even with passenger doors open;
- Reduces damage to the train;
- Reduces damage within the tunnel and the station which it has entered; and
- Augments facility-installed fire sprinklers for greater protection.

In consideration of this recommendation, the NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems for the USA was reviewed by the consultants and Metro Staff. NFPA 130 (2014 edition) states that on-board mist fire suppression systems have been successfully used on a number of passenger rail systems outside of the United States for the interior of passenger rail vehicles. The use of a fire suppression system may save lives during a fire, as well as provide the following benefits over station based systems:

- It offers the advantage of immediate intervention in the very incipient stages of a fire (as opposed to attacking the fire after the train reaches a station) and thus minimize casualties and property damage;
- It will provide protection for an on-board fire along the entire guide way, including a scenario in which a train on fire is stranded between stations;
- It is more economical than a station-based approach; and
- It will allow quicker restoration of service in the event of an on-board fire.

Prior to implementing the installation of a water-mist fire suppression system on Metro's heavy rail fleet, staff recommends a detailed operational assessment, demonstration, and cost evaluation. This assessment will include a pilot installation, system testing and regulatory requirements, capital costs to retrofit our fleet, vandalism and/or false activation risks, estimated lifecycle and lifecycle costs, system integration/software requirement among others. This pilot system will place Metro in an industry leadership position regarding subway fire safety innovation in the United States and reinforce Metro's safety first message. LAFD liaisons to Metro have been fully supportive of this concept from the beginning. If this demonstration is deemed successful, staff will return to the Board for a full implementation plan of the program on Metro's rail fleet.

DETERMINATION OF SAFETY IMPACT

Awarding this Contract for prototyping the on-board fire mist suppression system will significantly enhance our fire protection capabilities, increasing safety to Metro patrons, staff, and infrastructure.

FINANCIAL IMPACT

If Recommendation A is approved, an LOP budget will be established for \$1,407,900 under Project 498001. At this time, this project is funded in FY17 for \$70,000 in various cost centers, under Project number 498001 - Mist Fire Suppression System. It is anticipated that the demonstration will be completed in FY18. Future Costs to complete the demonstration and execute the remaining contract will be budgeted in future years. Since this is a multi-year project, the cost center manager and Corporate Safety DEO will be responsible for budgeting costs in future fiscal years.

Impact to Budget

The source of funds for the contract is Prop A 35%, which is eligible for rail capital projects and will maximize fund use based on funding allocation provisions.

ALTERNATIVES CONSIDERED

The Board may choose not to award this Contract for an on-board Mist Fire Suppression System. This choice is not recommended as the potential for significantly improving system safety and reducing future infrastructure cost would be ignored.

NEXT STEPS

Upon Board approval staff will execute the contract and issue a Notice to Proceed (NTP) to Knorr-Brake Company, LLC. At the conclusion of the evaluation period, but no earlier than 2019, staff will report to the Board with the results of the pilot program.

ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - DEOD Summary

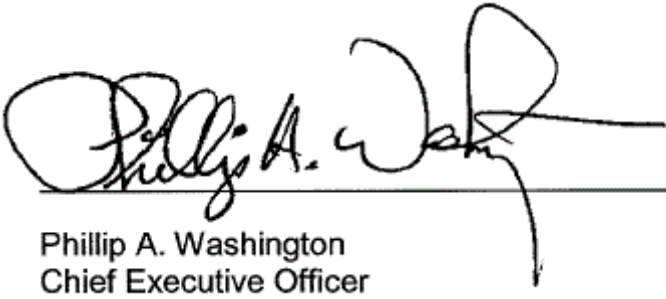
Prepared by: Leonid Bukhin, Deputy Executive Officer, Corporate Safety, (213) 922-7218

Nick Madanat, Senior Director, Rail Vehicle Engineering (213) 617-6281

Reviewed by: James T. Gallagher, Chief Operations Officer, (213) 418-3108

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

Greg Kildare, Chief Risk, Safety & Asset Management Officer (213) 922-4971



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

RED LINE VEHICLE EVALUATION OF ON-BOARD MIST FIRE SUPPRESSION SYSTEM PROTOTYPE / OP3614100

1.	Contract Number: OP3614100	
2.	Recommended Vendor: Knorr Brake, 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: December 8, 2016	
	B. Advertised/Publicized: December 2, 2016	
	C. Pre-proposal/Pre-Bid Conference: December 19, 2016	
	D. Proposals/Bids Due: January 30, 2017	
	E. Pre-Qualification Completed: February 23, 2017	
	F. Conflict of Interest Form Submitted to Ethics: March 7, 2017	
	G. Protest Period End Date: April 21, 2017	
5.	Solicitations Picked up/Downloaded: 10	Bids/Proposals Received: 1
6.	Contract Administrator: Susan Dove	Telephone Number: (213) 922-7451
7.	Project Manager: Leonid Bukhin	Telephone Number: (213) 922-7218

A. Procurement Background

This Board action is to approve Contract No. OP3614100 for the installation and design of a prototype on-board mist fire suppression system to be designed and installed on an A650 heavy rail vehicle. The purpose of this project and subsequent testing is to evaluate the reliability of such a system under revenue service conditions. 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. This was a best value procurement, and the contract type is Firm Fixed Price.

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

- Amendment No. 1, issued on December 19, 2016 for clarification of technical specifications and Non-Disclosure Agreement.
- Amendment No. 2, issued on January 11, 2017, to include a list of project drawings.
- Amendment No. 3, issued on January 13, 2017, to extend the proposal due date to January 30, 2017.

One proposal was received from Knorr Brakes Company, LLC. There were 10 plan holders and four firms that attended the Pre-Proposal Conference. Based on a market survey of the plan holders, including the firms that attended the Pre-Proposal Conference, it was clear that the highly specialized nature of this prototype equipment caused interested firms to decide not to submit proposals. The mist fire suppression system is a new rail car safety system that has not been proven in service in the United States. All known operational systems are located on rail cars in Europe and Asia.

B. Evaluation of Proposals

The Proposal Evaluation Team (PET) consisted staff from Metro's Corporate Safety Department, Rail Vehicle Engineering, and Rail Fleet Services. The PET convened and conducted a comprehensive technical evaluation of the proposal received. The proposal was evaluated based on the following evaluation criteria and weights:

Technical Strength and Approach	25 percent
Delivery Schedule	25 percent
Project management	10 Percent
Experience of the firm	10 Percent
Price	30 percent

The evaluation criteria are appropriate and consistent with evaluation criteria developed for similar best value procurements. Several factors were considered when developing these weights, giving the greatest importance to the firm's skills, staff experience, and price.

The RFP stated that contract award will be made to the proposer whose proposal meets the requirements of the RFP and is most advantageous to Metro based upon the proposal evaluation criteria. The initial proposal evaluation resulted in a series of clarifications to obtain further details.

Discussions and negotiations were conducted. The firm's project managers and key team members had an opportunity to present the team's qualifications and respond to the PET's questions. The discussions 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. The team was asked questions relative to its proposed alternatives and previous experience. On February 20, 2017, a Best and Final Offer (BAFO) was requested.

The PET evaluated the initial proposal and the BAFO and determined that Knorr's proposal was advantageous to the LACMTA based upon the proposal evaluation criteria. Knorr's proposal met the RFP's requirements and demonstrated its expertise in Fire Mist Suppression Systems.

Qualifications Summary of Firm:

Knorr Brakes Company's German subsidiary, Knorr-Bremse AG, is the only known source that has a functional mist fire suppression system that is operational on a current operational rail car. The Knorr Brake Company's proposal includes direct support from its German subsidiary including the engineering, integration, testing and project management staff. This experience is critical because the scope of work requires the Contractor to retrofit a Metro Red Line vehicle that must remain in operation during the functional test period.

1	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
2	Knorr Brake				
3	Technical Strength and Approach	73.33	25.00%	18.33	
4	Delivery Schedule	83.33	25.00%	20.83	
5	Project Management	86.67	10.00%	8.67	
6.	Experience/Past Performance	93.33	10.00%	9.33	
7	Price		30.00%	30.00	
8	Total		100.00%	87.16	

C. Cost/Price Analysis

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

	Proposer Name	Proposal Amount	Metro ICE	Negotiated or NTE amount
	Knorr Brake	\$908,481	\$572,700	\$908,481

A technical evaluation was performed by the Project Manager to explain the difference between the proposed price and the ICE. The variance in the ICE is a result of increased proposed labor hours for activities that were not accounted for in the original estimate.

The initial ICE did not include labor and materials for the mock-up fire testing. This effort includes building the mock-up, installing the fire suppression equipment, pre-testing the system (4 days), and conducting four evaluation tests. Additionally, the mock-up testing will be performed in Germany.

The initial ICE did not contemplate the costs and logistics associated with designing

and engineering the system overseas, coupled with the additional costs needed to configure and implement the system for the US market.

Although, only one proposal was received, there was a reasonable expectation that two or more responsible offerors, competing independently, would submit technical and cost proposals in response to the publically advertised solicitation. The offer from Knorr was developed and submitted in a competitive environment with the expectation of competition.

D. Background on Recommended Contractor

Knorr-Bremse GmbH, the parent company of Knorr Brake Company, was founded in 1905. Knorr-Bremse GmbH developed air brakes for freight trains and became the largest brake manufacturer for rail vehicles in Europe.

The recommended firm, Knorr Brake Company, Inc. (KBC), has been in business for over 70 years. The firm is located in Westminster, Maryland. Knorr Brake Company is a manufacturer of Braking, Door, and HVAC systems for the Mass Transit Rail Industry. KBC is division of Knorr-Bremse, AG which is located in Munich Germany. Knorr-Bremse, AG is a leader in the design and manufacture of Brakes, Doors, HVAC, and on-Board OEM systems, aftermarket spare parts, overhaul and maintenance services for rail transit.

DEOD SUMMARY

**RED LINE VEHICLE EVALUATION OF ON-BOARD MIST FIRE SUPPRESSION
SYSTEM PROTOTYPE / CONTRACT NO. OP3614100**

A. Small Business Participation

The Diversity & Economic Opportunity Department (DEOD) did not recommend a Small Business Enterprise (SBE) participation goal for this procurement based on the lack subcontracting opportunities. According to the Project Manager, this is a pilot test system for an On Board Mist Fire Suppression System for Heavy Rail Vehicles (OBVMFSS). To date, no transit agency has installed this type of fire suppression in North America.

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.

**Board Report**

File #: 2017-0062, **File Type:** Program

Agenda Number: 13.

**FINANCE, BUDGET AND AUDIT COMMITTEE
APRIL 19, 2017**

SUBJECT: PROPERTY INSURANCE PROGRAM

ACTION: PURCHASE ALL RISK PROPERTY AND BOILER AND MACHINERY INSURANCE

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to **negotiate and award All Risk Property and Boiler and Machinery insurance policies** for all property at the current policy limits at a not to exceed price of \$2.4 million for the 12-month period May 10, 2017 through May 10, 2018.

ISSUE

The All Risk Property and Boiler and Machinery insurance policies expire on May 10, 2017.

DISCUSSION

Property insurance protects against losses to our structures and improvements, which are valued at approximately \$11.9 billion up from last year's \$11.2 billion. The increase in total insured value is primarily due to general replacement cost growth, acquisition of new light rail vehicles, revaluation of existing rail vehicles and revaluation of some light rail station properties. Property insurance is required by many contracts and agreements, such as our lease/leaseback deals involving a number of our operating assets.

Our insurance broker, Wells Fargo Insurance Services ("Wells Fargo"), marketed the property program to qualified insurance carriers to obtain final property insurance pricing with coverage limits of \$400 million. Quotations for our property insurance program were received from carriers with A.M. Best ratings indicative of acceptable financial soundness and ability to pay claims.

The Recommended Program secures the All Risk deductible at \$250,000 with no earthquake coverage and a flood deductible at 5% per location subject to a \$250,000 minimum. If a loss exceeds the deductible, All Risk coverage is provided up to \$400 million per occurrence for losses except for flood related damages that are covered up to \$150 million. The recommended program is the same as the prior year program. Attachment A is a premium history. Attachment B shows the outline of the recommended program structure.

The recommended program does not include earthquake coverage. We received quotes at \$4.5

million for \$50 million in limits. LACMTA has not purchased earthquake coverage in previous years. In the event of a major disaster, we believe funding would be available through Federal and State sources to restore public transportation in Southern California. The lack of earthquake coverage is consistent with decisions made by other large government agencies including most Los Angeles County and City locations, Department of Water and Power and Metropolitan Water District.

We evaluated terrorism coverage options this renewal cycle and have not opted to purchase the coverage. Terrorism coverage is available but does not appear to be cost effective at a quoted cost of around \$754,000. The Terrorism Risk Insurance Act (TRIA) which provides government support by providing mechanisms for spreading losses across policyholders was reauthorized by Congress in January 2015 after the program expired. In the past, we rejected this coverage because of the high likelihood of federal and state funding to restore transportation services as a result of a serious terrorism incident.

The current and recommended program of insurance are layered structures. Several insurance carriers participate in the program with each contributing a portion of coverage which maintains a diversified portfolio of insurance carriers. Continual monitoring through internal methods, as well as updates provided by Wells Fargo, ensure that all carriers maintain the required financial ratings indicated by financial reporting agencies and as determined by A.M. Best.

In February and March, Wells Fargo contacted multiple domestic and foreign insurance providers to present our property risks and supplemental data. Wells Fargo provided an overview of the Metro transit system during discussions with the underwriters, including our extensive security infrastructure, fire protection, loss control and minimal risk of flood exposures. Wells Fargo provided information and statistics on system operations, assets and our excellent loss history over the past fifteen years with no fixed property insurable events (only two losses of rolling stock at \$1.5 million and two losses of non-revenue vehicles at \$144,000).

The LACMTA property program continues to be well received by insurers due to our favorable loss history, the growth of the account from \$6.7 billion in values in 2007 to \$11.9 billion for this renewal and no earthquake insurance is purchased. As such, Wells Fargo presented the submission to incumbent and competing insurers in order to create competition in the insurance program. The marketing effort resulted in maintaining our incumbent carriers for the recommended program. Our collaborative marketing effort through Wells Fargo in addition to our notable evidence of exceptional loss experience resulted in less than one percent premium increase for the recommended program even though Metro's overall insurable value increased. Our rate per million dollars of insurable value continues to reflect historic lows (\$202 for the recommended program versus \$214 for last year's program or a rate reduction of 5.9% per million dollars of insured value).

"Insurance buyers will continue to see favorable pricing in 2017 as rates for property/casualty and other lines of insurance decline or flatten", according to the Willis Towers Watson 2017 Marketplace Realities report. "Capacity appears to be a strong driver of market conditions. Buyers with comprehensive strategic risk management and risk transfer strategies will be in an especially good position".

This year's renewal reflects our continuing favorable insurability and ability to take full advantage of

market trends irrespective of our increase in total insured value.

DETERMINATION OF SAFETY IMPACT

Approval of this procurement will not impact the safety of Metro's patrons or employees.

FINANCIAL IMPACT

The funding for two months of \$400,000 for this action is included in the FY17 budget in cost center 0531, Risk Management - Non Departmental Costs, under projects 100001 - General Overhead, 300022 - Rail Operations - Blue Line, 300033 - Rail Operations - Green Line, 300044 - Rail Operations - Red Line, 300055 - Gold Line, 300066 - Expo Line, 301012 - Metro Orange Line, 306001 - Operations Transportation, 306002 - Operations Maintenance, 320011 - Union Station, and 610061 - Owned Property in account 50601 (Ins Prem For Phys Damage). The remaining ten months of premiums will be included in the FY18 budget, cost center 0531, Risk Management - Non Departmental Costs, under projects 100001 - General Overhead, 300022 - Rail Operations - Blue Line, 300033 - Rail Operations - Green Line, 300044 - Rail Operations - Red Line, 300055 - Gold Line, 300066 - Expo Line, 301012 - Metro Orange Line, 306001 - Operations Transportation, 306002 - Operations Maintenance, 320011 - Union Station, and 610061 - Owned Property in account 50601 (Ins Prem For Phys Damage). In FY17, an estimated \$2.3 million will be expensed for property insurance.

Impact to Budget

There is no impact on the FY17 budget. The current fiscal year funding for this action will come from the Enterprise, General and Internal Service funds. No other sources of funds were considered for this activity because these are the funds that benefit from the insurance. This activity will result in a negligible change to operating costs from the prior fiscal year.

ALTERNATIVES CONSIDERED

The current program, the recommended program and an option with earthquake coverage are summarized in Attachment C. Based upon our favorable renewal and loss histories, we recommend continuing the current program of insurance as the most cost effective and prudent program. The option adding earthquake coverage is not recommended because the high cost of the earthquake premium does not justify the benefit of the coverage.

NEXT STEPS

Upon Board approval of this action, we will advise Wells Fargo to proceed with placement of the property insurance program outlined herein effective May 10, 2017.

ATTACHMENTS


Attachment A - Premium History

Attachment B - Recommended Pricing and Carriers

Attachment C - Alternatives Considered

Prepared by: Tim Rosevear, Manager, Risk Financing, (213) 922-6354

Reviewed by: Greg Kildare, Chief, Risk, Safety and Asset Management Officer, (213) 922-4971



Phillip A. Washington
Chief Executive Officer

PREMIUM HISTORY

Premium History for Property and Boiler and Machinery Policies For Property Insurance Policies in the Following Years

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
All Risk	\$2.0 Mil	\$2.0 Mil	\$2.2 Mil	\$2.2 Mil	\$2.2 Mil	\$2.3 Mil	\$2.3 Mil	\$2.3 Mil
Boiler & Machinery	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Total Premium	\$2.1 Mil*	\$2.1 Mil*	\$2.3 Mil*	\$2.3 Mil*	\$2.3 Mil*	\$2.4 Mil*	\$2.4 Mil*	\$2.4 Mil*
TIV = Total Ins. Val.	\$7.8 Bil	\$8.6 Bil	\$9.3 Bil	\$9.4 Bil	\$9.6 Bil	\$10.0 Bil	\$11.2 Bil	\$11.9 Bil
Rate per Mil Ins. Val.	\$271	\$245	\$246	\$245	\$240	\$239	\$214	\$202

* Excludes Earthquake and Terrorism Insurance

ATTACHMENT B

RECOMMENDED PROGRAM PRICING AND CARRIERS



**Wells Fargo Insurance Services USA, Inc.
Proposed Property Insurance Summary 2017-2018
Los Angeles County Metropolitan Transportation Authority**

Limit	Coverage	Carrier	Participation	Total
\$50MM	All Risk Excluding Flood & Earthquake	Scottsdale Indemnity Company - A+ XV	\$25,000,000	\$25,800
		International Ins. Co. of Hannover - A+ XV	\$25,000,000	\$25,103
			\$50,000,000	\$50,903
\$200MM	All Risk Excluding Flood & Earthquake	Hudson Specialty Ins. Co. A XV	\$50,000,000	\$100,620
		Lloyd's of London - A XV	\$100,000,000	\$154,800
		Starr Specialty Insurance Agency**	\$50,000,000	\$99,549
			\$200,000,000	\$354,969
\$150MM	All Risk Excluding Earthquake	Lexington Insurance Co - A XV	\$100,000,000	\$1,279,680
		Liberty Mutual Fire Insurance Co- A XV	\$15,000,000	\$200,000
		Starr Specialty Insurance Agency**	\$25,000,000	\$322,498
		Ironshore Specialty Ins Co - A XIV	\$10,000,000	\$135,605
			\$150,000,000	\$1,937,783

Estimated Program Total \$2,343,655

**Starr Specialty Insurance Agency Consists of:
33.34% Starr Suplus Lines Insurance Company - A XV
33.33% Chubb Custom Insurance Company - A++ XV
33.33% General Security Indemnity Company of Arizona - A XV

**Terrorism pricing is not included above
Earthquake pricing is not included above**

ATTACHMENT C

ALTERNATIVES CONSIDERED

	Current Program	Recommended Program (Quota Share Primary)	Recommended Program With Earthquake
Deductibles	\$250,00 All Risk / 5% of location value for Flood	\$250,00 All Risk / 5% of location value for Flood	\$250,000 All Risk/5% of structure value for Earthquake and Flood
All Risk Limits	\$400 Million	\$400 Million	\$400 Million
Flood Limits	\$150 Million	\$150 Million	\$150 Million
Earthquake Limits	None	None	\$50 Million after first 5% per location deductible
Terrorism	None	None	None
Total not to Exceed or Actual Premium	\$2,324,627	\$2,343,655	\$6,843,655

**Board Report**

File #: 2017-0117, **File Type:** Contract**Agenda Number:** 14.

**FINANCE, BUDGET AND AUDIT COMMITTEE
APRIL 19, 2017****SUBJECT: TAP CARD MANUFACTURING AND FULFILLMENT SERVICES****ACTION: AWARD CONTRACTS****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to award indefinite delivery/indefinite quantity (IDIQ), firm fixed unit price contracts for a three-year initial term, with two, one-year options for the following contracts: 1) PS29117000 and PS29117001 to ASK-intTag, LLC. for Card Manufacturing & Adhesive Stickers; 2) PS29117002, PS29117003, and PS29117004 to Oberthur Technologies of America Corp. for Adhesive Stickers and Card Manufacturing and Fulfillment Services, and 3) PS29117005 to Giesecke & Devrient Mobile Security America, Inc. for Fulfillment Services effective July 1, 2017, for Metro and Municipal Operators. The total combined not-to-exceed amount for 3 base years and two one year options is \$26,915,910 (average cost per year \$5.4M) inclusive of sales tax for **TAP Card Manufacturing and Fulfillment Services**, as identified below:

- Card Manufacturing - Base: \$9,272,563, Option 1: \$3,090,854, Option 2: \$3,090,854 in the total NTE amount of \$15,454,271
- Fulfillment & Distribution- Base: \$6,858,983, Option 1: \$2,286,328, Option 2: \$2,286,328 in the total NTE amount of \$11,431,639
- Adhesive Stickers - Base: \$18,000, Option 1: \$6,000, Option 2: \$6,000 in the total NTE amount of \$30,000

ISSUE

The TAP program now supports twenty-four agencies and award of these contracts is necessary for the continuation of the program over the next five years. The current smart card contracts are set to expire on June 30, 2017. Over 19 million TAP cards have been issued since the beginning of the program in 2006. Due to the continued growth of this robust system, the region needs to procure additional stock to continue the expansion of the TAP program and to replace expired, lost or stolen TAP cards.

DISCUSSION

TAP cards are the key component to the TAP regional system. TAP accounts for approximately 75% of fares collected across the region. The last contract award for \$16.2M for three years (average cost per year \$5.4M) was issued in November 2013 and ends June 30, 2017.

The cost for procuring TAP cards, providing personalization and warehousing is about \$2 per card. The purchase price of a TAP card from Metro TAP Vending Machines, Third-Party Vendors and on-line sales will continue to offset the cost of the TAP card procurement and personalization costs.

With 24 transit agencies currently participating in the TAP regional program, card replenishment and personalization will ensure seamless travel for customers. These Contracts will ensure that the TAP system remains flexible in accommodating different fare policies, fare structures and tariff regulations. Cards procured and fulfilled under these Contracts will help reduce the usage of cash fares. The Contract also includes procurement of smart decals for the U-Pass program which currently serves 10 campuses.

TAP anticipates that card manufacturing orders will be divided between Oberthur Technologies of America Corp. and ASK-intTag, LLC as the costs for manufacturing are very comparable. Card fulfillment prices for the different types of personalization vary significantly between Giesecke & Devrient Mobile Security America, Inc and Oberthur Technologies of America Corp. The majority of card fulfillment requests will be ordered from the lower priced Proposer. Based upon the current contract performance, it is prudent that TAP maintains two card fulfillment contracts due to supply chain and production issues.

The Request for Proposal was issued with the purpose of maximizing open competition within a large field of smart card suppliers and card personalization services in order to get the best pricing over the next five years. These indefinite delivery/indefinite quantity Contracts are prepared to be utilized on an “as needed” basis in which Metro has no obligation or commitment to order a defined quantity of TAP cards or personalization services. The projected quantities are estimates only, with deliveries to be ordered and released as required.

DETERMINATION OF SAFETY IMPACT

Latched stations require patrons to use a TAP card to gain entrance to gated stations by electronically releasing the turnstile or opening the leaf-barriers on Americans with Disability Act (ADA) gates. Providing TAP cards for latched gated stations has a positive impact on the safety of Metro rail riders by limiting access to paying customers, thus improving transit station security.

FINANCIAL IMPACT

The funding for smart cards is included in the proposed FY2018 budget in Regional TAP operating budget project 300016 under Line Item 50320: Contract Services account. Since this is a multi-year contract, the cost center manager and the Executive Officer, TAP Operations are responsible for budgeting future costs.

The cost of procured smart cards will be partially offset by card fees charged to customers for each new or replacement TAP card.

IMPACT TO BUDGET

The funding sources for project 300016 in FY18 will continue to be a mix of Prop C 40%, TDA Article 4 and fare revenues. These sources are eligible for operating and capital improvements for both bus and rail.

ALTERNATIVES CONSIDERED

The current procurement allows Metro to purchase the TAP cards and order personalization/fulfillment services necessary to continue the expansion of the TAP program and to replace expired, lost or stolen TAP cards. The alternatives considered are as follows:

- 1) Discontinue the purchase and use of TAP smart cards and revert back to the use of paper fare media. This action is not recommended because:
 - a. TAP provides customers with the ability to travel seamlessly across LA County.
 - b. TAP allows Metro and our Regional Partners the ability to implement smart fare collection practices such as 2 hour transfers, peak and off-peak pricing and rolling passes.
 - c. TAP data provides accurate and meaningful information for in-depth ridership analysis and service planning.

NEXT STEPS

Upon approval by the Board, staff will execute Contracts PS29117000 and PS 29117001 to ASK-

intTag, LLC. for card manufacturing and adhesive stickers; PS29117002, PS29117003, and PS29117004 to Oberthur Technologies of America Corp. for adhesive stickers and card manufacturing and fulfillment services, and Contract No. PS29117005 to Giesecke & Devrient Mobile Security America, Inc. for fulfillment services effective July 1, 2017.

ATTACHMENTS

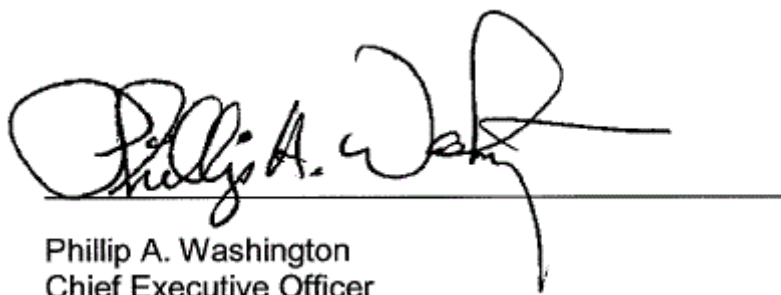
Attachment A - Procurement Summary

Attachment B - DEOD Summary

Prepared by: Cary Stevens, Deputy Executive Officer, TAP (213) 922-2401

Reviewed by: David Sutton, Executive Officer, TAP (213) 922-5633

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



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

TAP CARD MANUFACTURING AND FULFILLMENT SERVICES

1.	Contract Number: ASK-intTag, LLC - PS29117000, PS29117001 Oberthur Technologies of America Corp. - PS29117002, PS29117003, PS29117004 Giesecke & Devrient Mobile Security America, Inc. - PS29117005	
2.	Recommended Vendor: ASK-intTag, LLC - Card Manufacturing and Adhesive Stickers; Oberthur Technologies of America Corp – Adhesive Stickers, Card Manufacturing and Fulfillment Services; Giesecke & Devrient Mobile Security America, Inc. - Fulfillment Services	
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: September 6, 2016	
	B. Advertised/Publicized: September 7, 2016	
	C. Pre-Proposal Conference: September 14, 2016	
	D. Proposals Due: November 30, 2016	
	E. Pre-Qualification Completed: March 22, 2017	
	F. Conflict of Interest Form Submitted to Ethics: December 9, 2016	
	G. Protest Period End Date: April 22, 2017	
5.	Solicitations Picked up/Downloaded: 18	Bids/Proposals Received: 5
6.	Contract Administrator: Anush Beglaryan	Telephone Number: (213) 418-3047
7.	Project Manager: Cary Stevens	Telephone Number: (213) 922-2401

A. Procurement Background

This Board Action is to approve contract awards in support of regional TAP cards manufacturing and personalization/fulfillment services for Metro and municipal operators. The Universal Fare System designed by Metro created the concept and specifications for a region-wide smart card system using a single TAP smart card that could be used for multimodal transportation, product purchases, and other future uses. TAP cards are required to support the expansion of the TAP program and for the replacements for expiring cards. Metro is responsible for ensuring that all TAP enabled municipal operators in the region have an adequate supply of cards. Board approval of contract awards are subject to resolution of any properly submitted protest.

Request for Proposal (RFP) PS29117 was issued in accordance with Metro's Acquisition Policy and the contract type is an indefinite delivery/indefinite quantity (IDIQ), firm fixed unit price.

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

- Amendment No. 1, issued on September 30, 2016, updated the link provided for the list of Current Projects;
- Amendment No. 2, issued on November 2, 2016, extended samples and proposal due date from November 21, 2016 to November 28, 2016;
- Amendment No. 3, issued on November 14, 2016, extended samples and proposal due date from November 28, 2016 to November 30, 2016;

A total of 5 proposals were received on November 30, 2016.

The Scope of Work for the RFP was divided into the three following functions. As stated in the Statement of Work Consideration Form of the RFP, proposers were requested to submit separate proposals for each function they would like to be considered for award.

1. Smart Card Manufacturing
2. Card Fulfillment and Distribution
3. Adhesive Stickers

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from the TAP technical team was convened and conducted a comprehensive technical evaluation of the proposals received and testing of samples which were requested as part of the RFP.

As stated in the RFP, proposals were initially evaluated by using the minimum qualifications requirements on a pass/fail basis. Proposers who met the minimum qualification requirements were then evaluated further on the weighted criteria described herein. All five proposing firms passed the minimum qualifications requirements.

The proposals for Smart Card Manufacturing were evaluated based on the following evaluation criteria and weights:

- | | |
|--|------------|
| • Experience & Skills | 10% |
| • Program Management Team Experience | 10% |
| • Supply Chain Management | 10% |
| • Physical & Electrical Smart card
Characteristic | 35% |
| • Printing (Graphics)/Packaging | 10% |
| • Cost Proposal | <u>25%</u> |
| Total: | 100% |

The proposals for Card Fulfillment & Distribution were evaluated based on the following evaluation criteria and weights:

- | | |
|--------------------------------------|------------|
| • Experience & Skills | 15% |
| • Program Management Team Experience | 15% |
| • Card Fulfillment/Personalization | 20% |
| • Card Order Reporting & Processing | 25% |
| • Cost Proposal | <u>25%</u> |
| Total: | 100% |

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

- | | |
|---|------------|
| • Experience & Skills | 10% |
| • Physical & Electrical Characteristics | 35% |
| • Printing (Graphics)/Packaging | 15% |
| • Durability | 15% |
| • Cost Proposal | <u>25%</u> |
| Total: | 100% |

The five proposals that were received met all of the Minimum Qualifications Requirements and were evaluated based on the evaluation criteria set forth in the RFP. The firms are listed below in alphabetical order and the functions they proposed:

1. Ask-intTag, LLC (Smart Card Manufacturing and Adhesive Stickers)
2. Gemalto, Inc. (Smart Card Manufacturing)
3. Giesecke & Devrient Mobile Security America, Inc. (Smart Card Manufacturing and Card Fulfillment and Distribution)
4. Oberthur Technologies of America Corp. (Smart Card Manufacturing, Card Fulfillment and Distribution, and Adhesive Stickers)
5. Valid USA, Inc. (Smart Card Manufacturing)

During the months of December, January, and February, the PET reviewed and scored each of the proposals and tested sample cards. Proposers provided various sample cards and adhesive stickers that were tested to ensure they met the required specifications. All five proposers passed the physical and electrical smart card characteristics testing.

Qualifications Summary of Firms

ASK-intTag, LLC.

ASK-intTag, LLC (ASK) designs and manufactures contactless smart cards, contactless tickets, labels, stickers, and related products. ASK is an international

company, headquartered in Mougins, France. The company was founded in 1997 by 4 senior managers, all from the smart card industry. ASK currently employs over 250 people with 3 manufacturing locations in: Mougins, France, Beijing, China, and Essex Junction, VT. ASK provides contactless cards for mass transit applications, and has the unique ability to adapt its contactless technology expertise to both paper and plastic. ASK can support transit agencies' requirements for both extended use and limited use of fare collection media.

ASK is a fully integrated contactless card and ticket manufacturer. All manufacturing steps and sub-components are produced by ASK, thus providing optimized turnaround time as well as a quality control that measures and analyzes all components. Moreover, ASK offers a unique sticker encoding site located at their highly secured site in Vermont.

ASK's project management team has over 50 years of experience in the industry. ASK has also proposed to put together an entire team dedicated to Metro to assist in all aspects of the project. ASK has also worked with Metro to provide adhesives stickers for the Metro U-Pass program.

Gemalto, Inc.

Gemalto, Inc. (Gemalto) has more than 15 years of experience in providing transport solutions and is a leader in digital security. Gemalto to date has had over 140 million transit cards delivered and has been serving transit authorities for over 2 decades. Its leadership has facilitated ambitious transit programs around the world in such places as Paris, London, Netherlands, Santiago de Chile, Portugal, Malaysia, Italy, Sao Paulo, and China.

Gemalto's qualified staff has a combined experience over ninety years in the payment card industry. Their experience encompasses program and product development, industrialization of innovative card bodies, manufacturing techniques, sales management, and operations.

Giesecke & Devrient Mobile Security America, Inc.

Giesecke & Devrient Mobile Security America, Inc. (G&D) is a globally operating technology company that specializes in security and advanced card solutions. G&D facilities with contactless smart card production and personalization capability include Ohio, Canada, Mexico City, Brazil, Spain, China, and Slovakia. To date, G&D has supplied over 300 million contactless cards for transit customers across the globe. G&D also holds the earliest patents for smart card technology and has developed the Eurocheque system together with the Deutsche Bundesbank in 1968 which fathered the credit and debit card systems we have today. In addition, G&D also holds certification for manufacturing and personalization services for Visa, Mastercard, Discover and American Express.

G&D has been working with Metro since 2005 when they began delivering cards and providing services such as card stock and inventory management, card initialization and personalization, card testing, card fulfillment, and card issuance. G&D's qualified staff combined has over 96 years of experience in the smart card and services industry.

Oberthur Technologies of America Corp.

Oberthur Technologies of America Corp. (OT), the M Company, is a leader in digital security solutions for the mobility space. OT has been at the heart of mobility, from the first smart cards to the latest contactless payment technologies which equip millions of smartphones. Present in the payment, telecommunications and identity markets, OT offers end-to-end solutions in the smart transactions, mobile financial services, machine-to-machine, digital identity and transport and access control fields.

OT has been in the smart card industry for more than 20 years. The company employs 6,500 people worldwide and has a presence with facilities including seven manufacturing plants in the US, Latin America, Europe, Middle-East and Asia, 39 personalization and fulfillment centers, 12 research and development centers and 50 sales offices.

OT developed a market leading setup to support customers with one manufacturing hub in Exton, PA, two service centers in Los Angeles, CA and Chantilly, VA and two R&D centers in Los Angeles and Boston. The project management team at OT has a cumulative experience of 262 years in the smart card industry. OT has set up a dedicated project team which will oversee all aspects of the project.

Valid USA, Inc.

Valid USA, Inc. (Valid) is a publicly traded Brazilian company with over 5,000 employees worldwide. Valid has been providing security printing and card solutions for over 59 years and is expanding operations around the world. Valid has developed strong smart card manufacturing capacities in North America, Brazil, Latin America, and Europe. Over the last three years, Valid has shipped more than 16.9 million contactless smart cards. Valid's qualified staff has a combined experience of over 90 years in the smart card industry.

Contract award is recommended to the two highest scoring firms for the various functions. The following is the summary of scores for each function and firm:

Smart Card Manufacturing

Firm	Average Score	Factor Weight	Weighted Average Score	Rank
Oberthur Technologies				

Experience & Skills	100.00	10%	10.00	
Program Management Team Experience	100.00	10%	10.00	
Supply Chain Management	100.00	10%	10.00	
Physical & Electrical Smart card Characteristic	100.00	35%	35.00	
Printing (Graphics)/Packaging	100.00	10%	10.00	
Cost Proposal	89.60	25%	22.40	
Total		100%	97.40	1
ASK-intTag, LLC				
Experience & Skills	100.00	10%	10.00	
Program Management Team Experience	93.30	10%	9.33	
Supply Chain Management	73.33	10%	7.33	
Physical & Electrical Smart card Characteristic	100.00	35%	35.00	
Printing (Graphics)/Packaging	66.60	10%	6.66	
Cost Proposal	100.00	25%	25.00	
Total		100%	93.32	2
Valid USA, Inc.				
Experience & Skills	93.33	10%	9.33	
Program Management Team Experience	100.00	10%	10.00	
Supply Chain Management	80.00	10%	8.00	
Physical & Electrical Smart card Characteristic	100.00	35%	35.00	
Printing (Graphics)/Packaging	93.33	10%	9.33	
Cost Proposal	81.52	25%	20.38	
Total		100%	92.04	3
Giesecke & Devrient Mobile Security America, Inc.				
Experience & Skills	96.66	10%	9.66	
Program Management Team Experience	96.66	10%	9.66	
Supply Chain Management	83.33	10%	8.33	
Physical & Electrical Smart card Characteristic	100.00	35%	35.00	
Printing (Graphics)/Packaging	100.00	10%	10.00	
Cost Proposal	67.96	25%	16.99	
Total		100%	89.64	4
Gemalto, Inc.				

Experience & Skills	90.00	10%	9.00	
Program Management Team Experience	80.00	10%	8.00	
Supply Chain Management	40.00	10%	4.00	
Physical & Electrical Smart card Characteristic	100.00	35%	35.00	
Printing (Graphics)/Packaging	93.33	10%	9.33	
Cost Proposal	85.08	25%	21.27	
Total		100%	86.60	5

The two firms recommended for Smart Card Manufacturing proposed the lowest prices for the various TAP cards included in the Statement of Work.

Card Fulfillment and Distribution

Firm	Average Score	Factor Weight	Weighted Average Score	Rank
Oberthur Technologies				
Experience & Skills	96.67	15%	14.50	
Program Management Team Experience	100.00	15%	15.00	
Card Fulfillment/Personalization	80.00	20%	16.00	
Card Order Reporting & Processing	93.32	25%	23.33	
Cost Proposal	100.00	25%	25.00	
Total		100%	93.83	1
Giesecke & Devrient Mobile Security America, Inc.				
Experience & Skills	100.00	15%	15.00	
Program Management Team Experience	100.00	15%	15.00	
Card Fulfillment/Personalization	80.00	20%	16.00	
Card Order Reporting & Processing	93.32	25%	23.33	
Cost Proposal	35.44	25%	8.86	
Total		100%	78.19	2

Adhesive Stickers

Firm	Average Score	Factor Weight	Weighted Average Score	Rank
Oberthur Technologies				
Experience & Skills	100.00	10%	10.00	
Physical & Electrical Characteristics	93.34	35%	32.67	
Printing (Graphics)/Packaging	86.67	15%	13.00	
Durability	93.33	15%	14.00	
Cost Proposal	100.00	25%	25.00	
Total		100%	94.67	1
ASK-intTag, LLC				
Experience & Skills	100.00	10%	10.00	
Physical & Electrical Characteristics	86.66	35%	30.33	

Printing (Graphics)/Packaging	86.67	15%	13.00	
Durability	76.67	15%	11.50	
Cost Proposal	69.44	25%	17.36	
Total		100%	82.19	2

C. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon price analysis, technical evaluation, and adequate price competition. The recommended not-to-exceed amount of \$26,915,910 for 5 years is based on the highest NTE amount for each of the services below. The NTE amount for 3 base years with two one-year options as identified below:

- Card Manufacturing – Base: \$9,272,563, Option 1: \$3,090,854, Option 2: \$3,090,854 in the total NTE amount of \$15,454,271
- Fulfillment & Distribution- Base: \$6,858,983, Option 1: \$2,286,328, Option 2: \$2,286,328 in the total NTE amount of \$11,431,639
- Adhesive Stickers – Base: \$18,000, Option 1: \$6,000, Option 2: \$6,000 in the total NTE amount of \$30,000

As these are indefinite delivery/indefinite quantity contracts, Metro will place orders based on need for the various services.

Card Manufacturing

	Proposer Name	Proposal Amount	Metro ICE	NTE Amount*
1.	Oberthur Technologies	\$15,454,271.00	\$22,120,500.00	\$15,454,271.00
2.	ASK-intTag, LLC	\$13,846,050.00	\$22,120,500.00	\$13,846,050.00

*Prices received are for evaluation purposes and are based on estimated quantities provided by Metro

Fulfillment & Distribution

	Proposer Name	Proposal Amount	Metro ICE	NTE Amount*
1.	Oberthur Technologies	\$10,569,300.00	\$9,619,513.00	\$4,437,300.00
2.	Giesecke & Devrient Mobile Security America, Inc.	\$12,516,324.00	\$9,619,513.00	\$11,431,639.00

*Prices received are for evaluation purposes and are based on estimated quantities provided by Metro

Adhesive Stickers

	Proposer Name	Proposal Amount	Metro ICE	NTE Amount*
1.	Oberthur Technologies	\$20,835.00	\$42,400.00	\$20,835.00

2.	ASK-intTag, LLC	\$30,000.00	\$42,400.00	\$30,000.00
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*Prices received are for evaluation purposes and are based on estimated quantities provided by Metro

D. Background on Recommended Contractors

ASK-intTag, LLC. (ASK)

ASK was founded in 1997 by 4 senior managers, all from the smart card industry. ASK currently employs over 250 people with 3 manufacturing locations in: Mougins, France, Beijing, China, and Essex Junction, VT. ASK has acquired a worldwide leadership position in contactless cards for mass transit applications. ASK has the unique ability to adapt its contactless technology expertise to both paper and plastic.

Oberthur Technologies

Oberthur Technologies is a leader in the smart card industry for more than 20 years. The company employs 6,500 people worldwide and has a presence with facilities including 7 manufacturing plants (in the US, Latin America, Europe, Middle-East and Asia), 39 personalization and fulfillment centers, 12 Research & Development centers and 50 sales offices. The project management team at OT is highly qualified with a cumulative experience of 262 years in the smart card industry.

Giesecke & Devrient Mobile Security America, Inc.

Giesecke & Devrient Mobile Security America, Inc. (G&D) is a globally operating technology company that specializes in security and advanced card solutions. G&D has been the leader in contactless technology for over 20 years. G&D has been working with Metro since 2005 when they began delivering cards and providing services such as card stock and inventory management, card initialization and personalization, card testing, card fulfillment, and card issuance. G&D's qualified staff combined has over 96 years of experience in the smart card and services industry.

DEOD SUMMARY

TAP CARD MANUFACTURING AND FULFILLMENT / CONTRACT NO. PS29117

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not recommend a Small Business Enterprise/Disabled Veteran Business Enterprise goal for this solicitation due to lack of subcontracting opportunities. This procurement involves the manufacture and delivery of TAP cards which are proprietary in nature.

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 Contract.

D. Project Labor Agreement/Construction Careers Policy

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



Board Report

File #: 2017-0086, **File Type:** Program

Agenda Number: 15.

**FINANCE, BUDGET AND AUDIT COMMITTEE
APRIL 19, 2017
PLANNING AND PROGRAMMING COMMITTEE
APRIL 19, 2017**

SUBJECT: METRO BIKE SHARE PROGRAM

**ACTION: APPROVE RECOMMENDATIONS FOR METRO BIKE SHARE PHASE II
EXPANSION**

RECOMMENDATION

CONSIDER:

- A. ADOPTING the **Phase II Metro Bike Share Expansion** (Phase II Expansion) Environmental Analysis findings that the expansion qualifies for a Categorical Exemption under Section 15303 (Class 3) New Construction or Conversion of Small Structures (Attachment A);
- B. AUTHORIZING staff to file the Notice of Exemption for the Phase II Expansion;
- C. ADOPTING the Phase II Expansion Title VI and Environmental Justice Analysis findings that there is no Disparate Impact and no Disproportionate Burden associated with the expansion (Attachment B); and
- D. AUGMENTING the Life of Project budget for Phase II Expansion by \$1,713,000 to \$4,499,000 to include previously Board approved pre-launch related costs.

ISSUE

At the October 2016 meeting, the Board authorized the CEO to exercise options within the Bicycle Transit Systems (BTS) contract for provision of the equipment, installation, and operations and maintenance (O&M) of the Phase II Expansion to Venice, Pasadena, and the Port of Los Angeles (Attachment C).

Environmental Analysis

An Environmental Analysis has been completed in compliance with the California Environmental Quality Act (CEQA). Metro serves as the CEQA Lead Agency and has final approval of all plans and environmental documents. Board adoption of the findings of the Environmental Analysis and Board

authorization to file the Notice of Exemption for the Phase II Expansion to Venice, Pasadena, and the Port of Los Angeles is being requested.

Title VI and Environmental Justice Analysis

A Title VI and Environmental Justice equity evaluation has been completed consistent with the requirements set forth in Executive Order 12890 and 49CFR Section 21.5. While thresholds have not been established for non-transit programs, such as bike share, this equity evaluation seeks to determine whether or not there is reason to believe that the siting of bike share facilities might cause a Disparate Impact or Disproportionate Burden. Board adoption of the Title VI Analysis for the Phase II Expansion to Venice, Pasadena, and the Port of Los Angeles is being requested. The analyses found that there is no Disparate Impact and no Disproportionate Burden associated with the expansion

Bike Share Phase II Life of Project (LOP)

At the October 2016 Board Meeting, the Board approved the expansion of the Bike Share program including \$4.499 million project cost in FY2017. It includes \$2.751 million one-time capital cost, \$1.713 million for pre-launch O&M cost and \$35K for bicycle GPS regional modeling. Life of Project (LOP) budget for Phase II Expansion was then established for \$2.786 million, excluding pre-launch O&M cost of \$1.713 million. Pre-launch costs were envisioned as an operations expense. Subsequently, the project team met with Accounting Department and OMB to discuss pre-launch O&M expenses, and both departments requested to include the pre-launch cost as part of the LOP in order to comply with the Metro capital project policy. This is a reallocation of costs from operating to capital and does not represent an increase to the total Phase II Expansion project cost.

DISCUSSION

Metro launched the Countywide Bike Share Program in July 2016, serving the Downtown Los Angeles area and currently operating 61 stations. The Phase II Expansion will add up to 15 stations in Venice, 34 stations in Pasadena, and 11 stations in the Port of Los Angeles by summer 2017. Stations will be installed in accordance with local regulations and considerations regarding locations of fire hydrants, crosswalks, driveways, standpipes, street furniture, bus stops/shelters and impact on sight lines.

While a preliminary list of bike share station locations was used to perform the Environmental Analysis and the Title VI and Environmental Justice Analysis, final locations will be determined based on several factors including space availability, accessibility, and safety.

Environmental Analysis Findings

The expansion qualifies for a CEQA Categorical Exemption under the *Section 15303 (Class 3) New Construction or Conversion of Small Structures* exemption because it involves a limited number of new, small structures. The Phase II Expansion in Venice, Pasadena, and the Port of Los Angeles will add up to 60 stations with limited disturbance since the station has a weighted base and most

stations will be placed on existing paved rights-of-way such as sidewalks and streets. Small concrete pads and electrical connection work may be installed/performed on up to 5 stations.

None of the exceptions to Categorical Exemptions apply to this project. The project area does not contain important farmland, wetlands, wild and scenic rivers, floodplains or critical habitats. Stations will be located near historic structures but they are congruent with the existing urban fabric and as such would not impact any archeological or paleontological sites. The project sites will not be located on sites identified as containing hazardous materials.

Title VI and Environmental Justice Analysis Findings

A Title VI and Environmental Justice equity evaluation has been completed consistent with the requirements set forth in Executive Order 12890 and 49CFR Section 21.5. While thresholds have not been established for non-transit programs such as bike share, this equity evaluation seeks to determine whether or not there is reason to believe that the siting of bike share facilities might cause a Disparate Impact or Disproportional Burden. Two separate analyses were performed: one taking into consideration the minority population share, the other taking into consideration the poverty population share within one-half mile area around the existing and proposed stations and comparing both demographic characteristics with that of the Los Angeles County population.

The analyses found that there is no Disparate Impact and no Disproportionate Burden associated with the expansion. Although the minority share of the population benefitting from the proposed program is less than for the County as a whole, the difference is less than 5% and presumed to be no Disparate Impact. The poverty share of the proposed program is greater than for the County as a whole and therefore has no Disproportionate Burden.

DETERMINATION OF SAFETY IMPACT

Adoption of the findings of the Environmental Analysis for the Phase II Expansion, authorization for staff to file the Notice of Exemption for the Phase II Expansion, adoption of the findings of the Title VI and Environmental Justice Analysis, and the increase of Life of Project will not have any adverse safety impacts on Metro employees and patrons.

FINANCIAL IMPACT

Upon approval of recommendation 4, the life of project budget will be augmented to \$4,499,000 for project number 210118 - Metro Bike Share Project Phase II Expansion. The FY17 budget will also include \$2,964,000 for expansion efforts in Cost Center 4320. Since this is a multi-year project, the cost center manager and the Chief Planning Officer will be responsible for budgeting the cost in future years, including any phase(s) the Board authorized to be exercised.

There is no financial impact for the LOP increase as it is a reallocation of pre-launch cost from operating to capital funds. There is no change in the total project cost for Phase II Expansion approved by the Board in October 2016.

Impact to Budget

The sources of funds are a Call for Projects grant, cities' reimbursements, and other eligible and available local funds or general funds. No other fund impacts will occur with the LOP adjustment to this project.

ALTERNATIVES CONSIDERED

The Board may choose not to adopt the findings of the Environmental Analysis for the Phase II Expansion, not to authorize staff to file the Notice of Exemption for the Phase II Expansion, not to adopt the findings of the Title VI and Environmental Justice Analysis for the Phase II Expansion, and not augment the LOP for Phase II Expansion by \$1.713 million which was the Board-approved pre-launch cost. This alternative is not recommended as it is not in line with previous Board direction.

NEXT STEPS

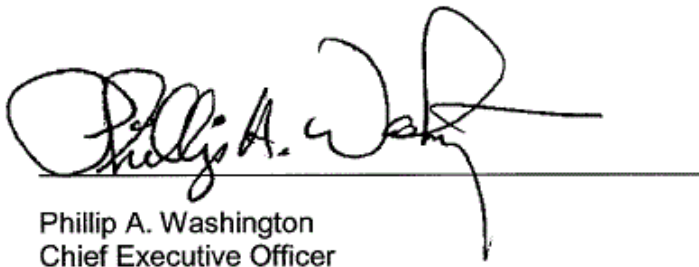
Upon Board adoption and authorization, the Notice of Exemption for the Phase II Expansion will be filed.

ATTACHMENTS

Attachment A - Categorical Exemption Analysis
Attachment B - Equity Analysis Methodology & Results
Attachment C - October 2016 Board Report

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Phillip A. Washington
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CATEGORICAL EXEMPTION ANALYSIS

PROJECT DESCRIPTION

The Los Angeles County Metropolitan Transportation Authority (Metro) is proposing to implement a Countywide Bike Share system. Phase II of the proposed system would expand the bike share network outside of downtown Los Angeles and add approximately 60 new stations in Los Angeles (Port of Los Angeles and Venice) and Pasadena. Metro would own and manage the system's equipment and would contribute up to 50 percent of the system's capital costs.

The project includes the following actions: site plan approval by the City of Los Angeles Department of Transportation; site plan approval by the City of Pasadena Department of Transportation; approval by the Port of Los Angeles Engineering Division, approval of a Coastal Development Permit for the Port of Los Angeles and Venice locations; environmental compliance under the California Environmental Quality Act (CEQA); and placement of bike sharing stations.

Metro serves as the CEQA lead agency and would have final approval of all plans and environmental documents. The project includes up to 60 locations in the Port of Los Angeles, the community of Venice, and the City of Pasadena. While the locations listed below in Tables 1, 2, and 3 represent the general locations of each bike share station, in each city, final locations would be determined during the construction phase. Specific kiosk locations, such as intersection corners, nearby intersections, or midblock locations, would be determined based on factors like visibility and safety.

Although different bike share equipment and technologies are available, the project would include Third Generation-type equipment, with the option to upgrade equipment and technology as needed. For a Third Generation configuration, docks are wired together via plates or a top bar, and a cell/satellite connection is placed at each station kiosk. The bikes would be locked at each dock and solar power would be located at the kiosk to enable bike share operations. There are different types of configurations, and the exact configuration of each docking station would be selected during construction to best accommodate space and accessibility needs. Considerations, as outlined in the Regional Bike Share Implementation Plan, include space, safety, access, visibility, property ownership, solar access, route planning, bike share network, and street design and guidelines. Docking stations would be installed in accordance with local regulations regarding fire hydrants, crosswalks, driveways, standpipes, doorways, sidewalk widths, and effective widths.

Table 1
Potential Phase II Project Station Locations in Port of Los Angeles

Station Intersection/Point of Interest	Station Intersection/Point of Interest
Fanfare Fountain Cruise Terminal: Swinford & N. Front Street	Catalina Express site
USS Iowa	Downtown Harbor: 6th Street & Sampson
Crafted & E. 22nd Street	Ports O'Call & Nagoya Way
Doubletree Hotel: Via Cabrillo-Marina & Doubletree driveway	Cabrillo Beach
Wilmington Waterfront Park (West): Harry Bridges Blvd./John S. Gibson Blvd.	Wilmington Waterfront Park (East)
Banning Landing: S Avalon Blvd. & Water Street	

Source: Metro 2017

Table 2
Potential Phase II Project Station Locations in Venice

Station Intersection	Station Intersection
N. Venice Blvd. & Abbot Kinney Blvd.	Abbot Kinney Blvd. & Cadiz Street
N. Venice Blvd. & Pisani Place	Washington Blvd. & Pacific Avenue
Abbot Kinney Blvd. & California Avenue	Washington Blvd. & Dell Avenue
Abbot Kinney Blvd. & Westminster Avenue	S. Venice Blvd. & Walgrove Avenue
Washington Blvd. & Strongs Avenue	California Avenue & Lincoln Blvd.
Washington Blvd. & Abbot Kinney Blvd.	Rose Avenue & Rennie Avenue
N. Venice Blvd. & Lincoln Blvd.	Ocean Front Walk & N. Venice Blvd.
Rose Avenue & 7th Avenue	Windward Avenue & Windward Circle
Rose Avenue & Main Street	7th Avenue & San Juan Avenue
17th Street/SMC Expo Station	Downtown/4th Street Expo Station
N. Venice Avenue & Pacific Avenue	Ocean Front Walk & N. Venice Blvd.
Main Street & Windward Circle	Windward Avenue & Windward Circle
Ocean Front Walk & Navy Street	

Source: Metro 2017

Table 3
Potential Phase II Project Station Locations in Pasadena

Station Intersection	Station Intersection
Huntington Hospital	Marengo Avenue & Green Street (southeast side along Marengo Avenue)
Colorado Blvd. & Garfield Avenue (Paseo Colorado) (south side of E. Colorado Blvd, opposite Garfield Avenue)	Garfield Avenue & Holly Street (northwest corner along Holly Street)
Pasadena Library & E. Walnut (Walnut north side)	Euclid Avenue & Villa Street (north side along Villa Street)
Orange Grove Blvd. & Walnut Street (south side along Walnut Street)	Fair Oaks Avenue & Peoria Street (northeast corner along Peoria Street)
E. Union Street & N. Lake Avenue (north side of E. Union Avenue, just east of Lake Avenue)	S. Lake Avenue & E. Del Mar Blvd. (southwest corner along Del Mar Blvd.)

Station Intersection	Station Intersection
S. Lake Avenue & E California Blvd. (west side of S. Lake Avenue, south of E California Blvd.)	S. Chester Avenue & Cordova Avenue (south side along Cordova Avenue)
E. Colorado Avenue & Bonnie Avenue (south side of E. Colorado Blvd., west of Bonnie Avenue)	S. Raymond Avenue & Fillmore Street (northeast side)
MTA Right-of-Way – City Maintenance (Holly Street)	N. Lake Avenue & E. Maple Avenue (southbound Foothill Transit 690 stop – west side of N. Lake Avenue, south of E. Maple Street)
Allen Avenue & Corson Street (west side of Allen Avenue, north of Corson Street)	S. Raymond Avenue & E. Del Mar Blvd. (west side of S. Raymond Avenue, opposite Del Mar Metro Station)
E. Green Street & S. Hill Avenue (north side of E. Green, west of S. Hill Avenue)	S. Pasadena Avenue & W. Dayton Street (east side of S Pasadena Avenue, north of W. Dayton Street)
S. Oakland Avenue & E. Union Street (southwest corner)	N. Lake Avenue & Merrett Drive (east side of N. Lake Avenue, opposite Merrett Drive)
N. Madison Avenue & E. Green Street (Playhouse lot)	S. Wilson Avenue & San Pasqual Street (northeast corner along Wilson Avenue)
S. Oak Knoll Avenue & E. Colorado Blvd. (northeast corner on Oak Knoll Avenue)	Wilson Avenue & Colorado Blvd. (north side)
MTA Right-of-Way – City Maintenance (Colorado Blvd.)	Fair Oaks Avenue & Mountain Street (Jackie Robinson Community Center)
S. Lake Avenue & Cordova Street (south side on Cordova Street)	Mercantile Alley (south side next to the parking structure)
E. Bellevue Drive at S. Arroyo Pkwy. (northeast corner)	Cordova & S. Los Robles (northwest corner)
Rose Bowl (near bus stop)	Caltech East (north side of street)

Source: Metro 2017

CITY OF LOS ANGELES (VENICE AND PORT OF LOS ANGELES)

ENVIRONMENTAL SETTING

The City of Los Angeles General Plan land use designation where the docking stations would be located is Open Space/Commercial/Industrial/Multifamily Residential in both the Port of Los Angeles and the community of Venice. Project sites are located in urban areas adjacent to surface parking lots and paved rights-of-way. The project sites are typically surrounded by commercial sites, with high foot traffic and served by public transit. The majority of docking sites would be located on paved rights-of-way such as sidewalks and parking lots, in areas that do not contain native vegetation and are characterized by an urban type visual character. One docking site in the Port of Los Angeles is located on what is currently turf, and would require a concrete pad to be poured. The project sites both in the Port of Los Angeles and the community of Venice are located within the Coastal Zones, which is subject to the provisions of the Coastal Act of 1976.

Per Figure CR 4 in the City of Los Angeles General Plan Draft Environmental Impact Report (EIR), the project area in the Port of Los Angeles contains historic cultural monuments, while the project area in Venice does not contain historic cultural monuments (Los Angeles 1995). Docking stations would be located near historic cultural monuments, but the stations would be on sidewalks and be congruent with the existing urban fabric. The City of Los Angeles General Plan identifies the project area as largely devoid of any natural habitat that could contain any protected or endangered species (Los Angeles 1995).

Project components are described in Table 4.

Table 4
LA Metro Bike Share Project Components

Component	Description
Construction of Docking Station	Docking stations would be dropped into place. Docking stations would be held down with a weighted base, avoiding the need for bolting. One station would require the pouring of a concrete base.
Construction Equipment	Lift gate, pallet jack, trucks.
Construction Duration	Installation of docking station would take approximately four hours.
Project Operation	Docking stations would be operated by users with a pass card or a single-use permit. Bikes would be used and exchanged between stations. Solar stations would power all docking and payment stations in Venice and Port of Los Angeles.

Source: Metro 2015

A. EXEMPT STATUS

The LA Metro Countywide Bike Share system project qualifies for a CEQA Categorical Exemption under CEQA Guidelines Section 15303, New Construction or Conversion of Small Structures (Class 3).

B. REASON WHY THE PROJECT IS EXEMPT

Article 19 (Categorical Exemptions) of the CEQA Guidelines lists classes of projects that are exempt from the requirements of CEQA. This section analyzes why this project meets the conditions for a Class 3 – New Construction or Conversion of Small Structures exemption and includes the reasons why none of the possible exceptions to Categorical Exemptions, found in Section 15300.2, Exceptions, apply to this project. The statutory language of each condition and possible exception is printed in bold italics below, followed by the project-related analysis for each condition and exception.

Categorical Exemption Analysis

15303 New Construction or Conversion of Small Structures

Class 3 consists of construction and location or limited numbers of new, small facilities or structures, installation of small new equipment and facilities in small structures...

The proposed project meets this condition. The proposed project is categorically exempt from environmental review under CEQA because the project involves the installation of a limited number of new small structures. The project would install up to 26 bike share stations in the city of Los Angeles (up to 15 in Venice and up to 11 in or near the Port of Los Angeles), as shown in Tables 1 and 2. The new structures would contain Third Generation bike docking stations, as stated above in the project description, and each docking station would be sized based on ridership expectations as outlined in the Regional Bike Share Implementation Plan. Most docking station installation would not require digging or pavement disturbance, as the stations would have a weighted base. They would be placed on existing paved surfaces, such as parking lots, or in existing rights-of-way, such as sidewalks. One docking station in Port of Los Angeles

would require that a concrete pad be poured over existing turf. Nonetheless, this disturbance would be minimal and as analyzed below would not impact environmental resources.

Conclusion

As outlined above, the proposed project qualifies for the Section 15303, New Construction or Conversion of Small Structures (Class 3), exemption category under CEQA.

C. EXCEPTIONS TO CATEGORICAL EXEMPTION ANALYSIS

The analysis is based on the City of Los Angeles General Plan Draft EIR, published on January 19, 1995.

15300.2 Exceptions

(a) Location. Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located—a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply all instances, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.

This exception does not apply to the proposed project. The project area contains no important farmland, wetlands, wild and scenic rivers, floodplains, or critical habitat (Los Angeles 1995). The project would require a small patch of turf removal to install one docking station on the Port of Los Angeles, but no important farmland, wetlands, wild and scenic rivers, floodplains, or critical habitat would be impacted. Ground disturbance would be minimal and would not impact sensitive resources. The project sites are located in the Coastal Zones for both the Port of Los Angeles and the community of Venice. Nonetheless, the project would comply with policies included in the Venice Local Coastal Program (2001) and the Port of Los Angeles Master Plan (2014). For example, the project would comply with policies aimed at protecting scenic qualities (Section 30251) and enhancing public access to the coast (Section 30252) in the City of Venice Local Coastal Program. As such, the project would not impact resources in the Coastal Zones and exception (a) would not apply to the proposed project.

Docking stations would be located near historic structures, but the stations would be congruent with the existing urban fabric and as such would not impact historic resources.

The project would involve only minimal ground disturbance, in areas previously disturbed for turf installation and maintenance. As such, the project would not impact any archaeological or paleontological sites.

The project would not be located on sites identified as containing hazardous materials (DTSC 2017a, 2017b).

Natural Habitat and Endangered Species

The proposed project area is located in a developed urban area that does not contain substantial areas of natural habitat for plants and animals (Los Angeles 1995). Project installation would require a small amount of ground disturbance for the installation of one concrete pad for one docking station. No natural habitat or

endangered species would be impacted. No other docking stations would require any ground disturbance. The project area has no native wild vegetation, and existing vegetation is ornamental. As such, the project would not impact sensitive environments and this exception would not apply to the proposed project.

Historic Resources

Los Angeles contains numerous historic buildings and historic districts as shown in Figure CR 4 in the City of Los Angeles General Plan Draft EIR (Los Angeles 1995). Docking stations would be located in the vicinity of historic places and structures such as the Los Angeles Maritime Museum. Nonetheless, the stations would be visually congruent with the historic structures' existing urban setting and would not damage the quality of historic structures. The docking stations would not create new visual barriers that would change the historic character of an area or break up the continuity of a historic district. They would be placed on existing sidewalks, in existing parking spaces, or in parking lots and would not constitute a substantial visual change in the character of an area or contribute to a decline in a resource's importance. Further, due to their location in pre-established urban areas and their size, the docking stations would not impact the historic resources' integrity. As such, the project would not impact historic resources.

Hazardous Site

See item (e) below.

Conclusion

The project site is not located on a hazardous site that is included on any list compiled pursuant to Section 65962.5 of the Government Code. There are no wetlands, endangered species, wildlife habitats, and cultural, historical, and archaeological resources on the site; therefore, this exception is not applicable.

(b) Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.

This exception does not apply to the proposed project. The project would construct new small structures. The project would require a small amount of ground disturbance to remove a small patch of turf to pour in a pad of concrete for the installation of one docking station in the Port of Los Angeles. No other docking station would require any ground disturbance activities or vegetation removal. Because ground disturbance would be minimal, the project would not result in any significant impacts and therefore would not contribute to any cumulative biological or cultural resources impacts. Therefore, this exception would not apply to the proposed project.

(c) Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

This exception does not apply to the proposed project. There are no unusual circumstances at the project sites or planned project operations that would create a reasonable possibility of significant effects to the environment. The project would not have a significant effect on any biological or cultural resources. In addition, project implementation would follow all City of Los Angeles regulations as they relate to the installation of new small structures. The project would be compatible with the areas' land use and would

not change their functions. Therefore, there would be no potential for significant effects and this exception does not apply to the proposed project.

(d) Scenic Highways. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.

This exception does not apply to the proposed project. There are no designated scenic highways in the project area. As such, the project would not impact any scenic resources within an officially designated state scenic highway.

(e) Hazardous Waste Sites. A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.

This exception does not apply to the proposed project. A search of the GeoTracker and EnviroStor environmental databases was conducted. The records review showed that the project would not be located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code in Los Angeles (DTSC 2017a, 2017b; SWRCB 2017).

(f) Historical Resources. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

This exception does not apply to the proposed project. The project would involve a small amount of ground-disturbing activities to remove a patch of turf and pour in a concrete pad for one docking station. All other docking stations would be placed on previously disturbed paved areas via lift gate or pallet jack, and they would be held down by a weighted base. Because ground disturbance would be minimal the project would not impact any archaeological or paleontological resources. As discussed above, historical buildings are located throughout the project area and some docking stations would be located on adjacent corner streets. Nonetheless, the docking stations would not modify the historical resources, nor would they modify the structures' integrity or eligibility. Therefore, there would be no impact on cultural resources and this exception would not apply.

CITY OF PASADENA**ENVIRONMENTAL SETTING**

The City of Pasadena General Plan land use plan designations where the docking stations would be located is Open Space/Commercial/Industrial/Multifamily Residential. All project sites are located in urban areas adjacent to surface parking lots and paved rights-of-way. The project sites are typically surrounded by commercial sites, with high foot traffic and served by public transit. The docking sites would be located on paved rights-of-way such as sidewalks and parking lots, areas that do not contain native vegetation and with a low degree of visual character. Per Figure 5.4-1 of the Pasadena General Plan Draft EIR, the project area contains several historic resources. Docking stations would be located near historic cultural monuments, but they would be on sidewalks and would be congruent with the existing urban fabric. Cultural and historic resources sites are protected under federal, state, and local regulations, depending on their listing status.

The City of Pasadena Draft EIR identifies the project area as largely devoid of any natural habitat that could contain any protected or endangered species (Pasadena 2015).

Project components are described in Table 5.

Table 5
LA Metro Bike Share Project Components

Component	Description
Construction of Docking Station	Docking stations would be dropped into place. Docking stations would be held down with a weighted base, avoiding the need for bolting. Minimal ground disturbance would take place at two stations.
Construction Equipment	Lift gate, pallet jack, trucks.
Construction Duration	Installation of docking station would take approximately four hours.
Project Operation	Docking stations would be operated by users with a pass card or a single-use permit. Bikes would be used and exchanged between stations. Solar stations would power most docking and payment stations. Up to 2 docking stations will be hardwired with electricity that is not solar in origin in Pasadena.
<i>Source: Metro 2015</i>	

A. EXEMPT STATUS

The LA Metro Countywide Bike Share system project qualifies for a CEQA Categorical Exemption under CEQA Guidelines Section 15303, New Construction or Conversion of Small Structures (Class 3).

B. REASON WHY THE PROJECT IS EXEMPT

Article 19 (Categorical Exemptions) of the CEQA Guidelines lists classes of projects that are exempt from the requirements of CEQA. This section analyzes why this project meets the conditions for a Class 3 – New Construction or Conversion of Small Structures exemption and includes the reasons why none of the possible exceptions to Categorical Exemptions, found in Section 15300.2, Exceptions, apply to this project. The statutory language of each condition and possible exception is printed in bold italics below, followed by the project-related analysis for each condition and exception.

Categorical Exemption Analysis

15303 New Construction or Conversion of Small Structures

Class 3 consists of construction and location or limited numbers of new, small facilities or structures, installation of small new equipment and facilities in small structures...

The proposed project meets this condition. The proposed project is categorically exempt from environmental review under CEQA because the project involves the installation of a limited number of new small structures. The project would install 34 bike share stations in Pasadena, as shown in Table 3 above. The new structures would contain Third Generation bike docking stations, as stated above in the project description, and each docking station would be sized based on ridership expectations as outlined in the Regional Bike Share Implementation Plan. Docking station installation would require a small amount of digging and pouring of concrete for up to two docking stations that will be located on what is existing turf. Other docking stations will not require digging or pavement disturbance, as the stations would have a weighted base. They would be placed on existing paved surfaces, such as parking lots, or in existing rights-of-way, such as sidewalks.

Conclusion

As outlined above, the proposed project qualifies for the Section 15303, New Construction or Conversion of Small Structures (Class 3), exemption category under CEQA.

C. EXCEPTIONS TO CATEGORICAL EXEMPTION ANALYSIS

The analysis is based on the City of Pasadena's General Plan EIR, published on January 14, 2015.

15300.2 Exceptions

(a) Location. Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located—a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply all instances, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.

This exception does not apply to the proposed project. The project area contains no important farmland, wetlands, wild and scenic rivers, floodplains, or critical habitat (Pasadena 2015). The project would involve minor ground disturbance for a small amount of turf removal at up to two docking stations. As such, vegetation removal and ground disturbance would be minimal.

Docking stations would be located near historic structures, but the stations would be congruent with the existing urban fabric and as such would not impact historic resources. Because ground disturbance would be minimal and the station would be congruent with surrounding areas, the project would not impact any archaeological or paleontological sites. The project sites are not identified as containing hazardous materials (DTSC 2017a, 2017b).

Natural Habitat and Endangered Species

The proposed project area is located in a developed urban area that does not contain substantial areas of natural habitat for plants and animals (Pasadena 2015). Project installation would require a small amount of ground disturbance for the installation of concrete pads for up to two docking station. Because the two stations are located on existing turf in previously disturbed areas natural habitat or endangered species would not be impacted. No other docking stations will require any ground disturbance. The project area has no native wild vegetation, and existing vegetation is ornamental. As such, the project would not impact sensitive environments and this exception would not apply to the proposed project.

Historic Resources

Pasadena contains numerous historic buildings and historic districts as shown in Figure 5.4-1 of the Pasadena General Plan Draft EIR (Pasadena 2015). Docking stations would be located in the vicinity of historic places and structures like the Rose Bowl. Nonetheless, the stations would be visually congruent with the historic structures' existing urban setting and would not damage the quality of historic structures. The docking stations would not create new visual barriers that would change the historic character of an area or break up the continuity of a historic district. They would be placed on existing sidewalks, in existing parking spaces, or in parking lots and would not constitute a substantial visual change in the character of an area or contribute to a decline in a resource's importance. Further, due to their location in pre-established urban areas and their size, the docking stations would not impact the historic resources' integrity. As such, the project would not impact historic resources.

Hazardous Site

See item (e) below.

Conclusion

The project site is not located on a hazardous site that is included on any list compiled pursuant to Section 65962.5 of the Government Code. There are no wetlands, endangered species, wildlife habitats, and cultural, historical, and archaeological resources on the site; therefore, this exception is not applicable.

(b) Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.

This exception does not apply to the proposed project. The project would construct new small structures. The project would require a small amount of ground disturbance and turf removal for up to 2 docking stations. The project would not result in any significant impacts and therefore would not contribute to any cumulative biological or cultural resources impacts. Therefore, this exception would not apply to the proposed project.

(c) Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

This exception does not apply to the proposed project. There are no unusual circumstances at the project sites or planned project operations that would create a reasonable possibility of significant effects to the

environment. The project would not have a significant effect on any biological or cultural resources. In addition, project implementation would follow all City of Pasadena regulations as they relate to the installation of new small structures. The project would be compatible with the current usage of the project areas and would not change current project site functions. Therefore, there would be no potential for significant effects and this exception does not apply to the proposed project.

(d) Scenic Highways. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.

This exception does not apply to the proposed project. Although Highway 110 has a small segment in Pasadena that is an eligible state scenic highway, no bike stations are proposed on this stretch of highway. As such, the project would not impact scenic resources within an officially designated state scenic highway.

(e) Hazardous Waste Sites. A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.

This exception does not apply to the proposed project. A search of the GeoTracker and EnviroStor environmental databases was conducted. The records review showed that the project would not be located on a site that is included on any list compiled pursuant to Section 65962.5 of the Government Code in (DTSC 2017a, 2017b; SWRCB 2017).

(f) Historical Resources. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

This exception does not apply to the proposed project. The project would involve a small amount of ground-disturbing activities to remove turf and pour in a concrete pad for up to two docking stations. All other docking stations would be placed on previously disturbed paved areas via lift gate or pallet jack, and they would be held down by a weighted base. Because ground disturbance would be minimal, the project would not impact any archaeological or paleontological resources. As discussed above, historical buildings are located throughout the project area and some docking stations would be located on adjacent corner streets. Nonetheless, the docking stations would not modify the historical resources, nor would they modify the structures' integrity or eligibility. Therefore, there would be no impact on cultural resources and this exception would not apply.

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**Equity Analysis
Methodology & Results**

**Proposed Bike Share Expansion Program
Siting of Program Locations
February 2017**

Service Planning and Scheduling
Office of Civil Rights

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1. PROPOSAL OVERVIEW

Metro's countywide bike share program is being expanded into Pasadena, Port of Los Angeles and Venice. Participants would be able to rent and return a bicycle from any of the program's self service locations. This equity evaluation considers the expansion program that would establish rental locations in and around these expansion areas. Only the siting of these locations is being evaluated.

2. METHODOLOGICAL APPROACH

Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.) prohibits discrimination on the basis of race, color, or national origin in any program or activity that receives Federal funds or other Federal financial assistance. Programs that receive Federal funds cannot distinguish among individuals on the basis of race, color or national origin, either directly or indirectly, in the types, quantity, quality or timeliness of program services, aids or benefits that they provide or the manner in which they provide them. This prohibition applies to intentional discrimination as well as to procedures, criteria or methods of administration that appear neutral but have a discriminatory effect on individuals because of their race, color, or national origin.

If policies and practices have a potential discriminatory effect a recipient must modify the proposed changes in order to avoid, minimize, or mitigate potential disparate impacts, and then reanalyze the proposed changes in order to determine whether the modifications actually removed the potential disparate impacts. If the recipient chooses not to alter the proposed policy or practice despite the potential disparate impact, they may implement the policy or practice if they can show that it was necessary to achieve a substantial legitimate objective and that there were no alternatives that would have a less disparate impact on minority populations.

Additionally, Persons with limited English proficiency must be afforded a meaningful opportunity to participate in programs that receive Federal funds. Policies and practices may not deny or have the effect of denying persons with limited English proficiency equal access to Federally-funded programs for which such persons qualify. This aspect of Title VI is not evaluated with regard to the placement of program facilities.

Environmental justice was first identified as a national policy in 1994 when President Clinton signed Executive Order 12898 (E.O. 12898), *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. This order requires that each federal agency shall, to the greatest extent allowed by law, administer and implement its programs, policies, and activities that affect human health or the environment so as to identify and avoid "disproportionately high and adverse" effects on minority and low-income populations. E.O. 12898 thus applies to a wider population than Title VI, which does not cover low-income populations.

A Title VI and Environmental Justice equity evaluation has been completed consistent with the requirements set forth in Executive Order 12890 and 49CFR Section 21.5. One

of the primary purposes of a bike share network is to provide first and last mile connectivity for the transit system. As such a bike share system can be considered as a transit amenity and a similar methodology can be used to determine the Title VI and Environmental Justice Impacts. This equity evaluation is based on the analysis of this amenity in the context of the entire system and uses the same thresholds that are applied to other transit amenities. *-

The basic approach to this analysis is to compare the demographics of the population within one-half mile of the proposed bicycle share facilities to the demographics of Los Angeles County. This distance was chosen on the presumption that the vast majority of bike share users would walk to/from the facilities. Since the availability of a bike share facility is considered a benefit, then the benefiting population should not be significantly less minority or significantly less poor than the county population. If this is so, then there is a presumption of no Disparate Impact on minorities and no Disproportionate Burden on poverty level persons.

Data Sources

Data on the ethnicity and household income levels of the population of Los Angeles County was obtained from the 2010 US Census. Population ethnicity is available at the block group level. The poverty classification of households, and therefore members of those households, was obtained from the 2006-2010 American Community Survey (another US Census data product) and is available at the census tract level.

Step By Step Methodology

A list of the existing and proposed demonstration bicycle share facility locations was obtained and linked to a geographic database containing census data (Tables 1 and 2). Two separate analyses were performed: (1) the minority and total populations of all block groups within one-half mile of the combined bicycle share facilities were aggregated with the resulting minority population shares being compared to the minority share of the Los Angeles county population, and (2) the poverty and total populations of all census tracts within one-half mile of the combined bicycle share facilities were aggregated with the resulting poverty population shares being compared to the poverty share of the Los Angeles county population.

Table 1
Existing Bicycle Shared Facility Locations

11th St. at Maple Ave.	Industrial St at Mateo St.
11th St. at Santee St.	Los Angeles at Temple St.
12th St. at Hill St.	Main St. at 1 st
18th St. at Figueroa St.	Main St. at 4th St.
18th St. at San Pedro St.	Main St. at 5 th St.
1st St. at Judge John Aiso	Main St. at 6 th St.
2nd St. at Figueroa St.	Main St. at 9 th St.
2nd St. at Hill St.	New High St. at Ord St.
3rd St. at San Pedro St.	Olive St. at 5 th
3rd St. at Santa Fe Ave.	Olive St. at 8 th
5 th St. at Grand Ave.	Pico Bl. at Flower St.
5th St. at Hewitt St.	Pico Bl. at Maple St.
7th St. at Bixel St.	San Julian St. at 12 th St.
7 th St. at Broadway	Spring St. at 3 rd St.
7 th St. at Main St.	Spring St. at College St.
7 th St. at Spring St.	Stanford St.at 12 th St.
8th St. at Wall St.	Temple St. at Vignes St.
9th St. at Los Angeles St.	Traction Ave. at Rose St.
Broadway at 3 rd St.	Union Station West Portal
Broadway at 9 th St.	Willow St. at Mateo St.
Factory Place at Alameda	Wilshire Bl. at Witmer St.
Figueroa St. at 8 th St.	
Figueroa St. at 9 th St.	
Figueroa St. at Chavez Ave.	
Figueroa St. at Pico Bl.	
Flower St. at 7 th St.	
Grand Ave at 14 th St.	
Grand Ave at 3 rd St.	
Grand Ave at 7 th St.	
Grand Ave at Olympic Bl.	
Grand Ave at Temple St.	
Grand Ave at Washington Bl.	
Hill St. at College St.	
Hill St. at Washington Bl.	
Hope St. at 11 th St.	
Hope St. at 1 st St.	
Hope St. at 6 th St.	
Hope St. at Olympic Bl.	
Imperial at 7 th St.	

Table 2
Proposed Bicycle Shared Facility Locations

Pasadena (Proposed)

Huntington Hospital
 Marengo Ave at Green St
 Colorado Bl. at Garfield Ave (Paseo Colorado)
 Garfield Ave at Holly St
 Pasadena Library at Walnut
 Orange Grove Blvd at Walnut St

 Fair Oaks Ave at Peoria St
 E Union St at Lake Ave

 Lake Ave at Del Mar Bl.

 Lake Ave at California Bl.
 Chester Ave at Cordova Ave
 Colorado Bl. at Bonnie Ave
 Raymond Ave at Fillmore St
 MTA ROW at Holly St.
 Lake Ave at Maple Ave
 Allen Ave at Corson St

 Raymond Ave at Del Mar Bl.
 Green St at Hill Ave
 Pasadena Ave at Dayton St
 Oakland Ave at Union St

 Lake Ave at Merrett Dr
 Madison Ave at Green St
 Wilson Ave at San Pasqual St
 Oak Knoll Ave at Colorado Bl.
 Wilson Ave at Colorado Bl.
 MTA ROW at Colorado Bl.
 Fair Oaks Ave at Mountain St
 Lake Ave at Cordova St
 Mercantile Alley
 Bellevue at Arroyo Parkway

 Cordova at Los Robles
 Rose Bowl
 Caltech East

Port of Los Angeles (Proposed)

Swinford and N Front Street
 Catalina Express site
 USS Iowa
 6th street and Sampson
 Crafted at 22nd St.
 Ports O'Call at Nagoya Way
 Cabrillo-Marina/ Doubletree
 driveway
 Cabrillo Beach
 Wilmington Waterfront Park
 (West)
 Wilmington Waterfront Park
 (East)
 S Avalon Blvd and Water Street

Venice (Proposed)
 Venice Blvd at Abbott Kinney Bl.
 Venice Blvd at Pisani Pl.
 Abott Kinney Bl. at California Ave.
 Abott Kinney Bl. at Cadiz Ct.
 Abott Kinney Bl. at Westminster
 Ave.
 Washington Bl. at Pacific Ave.
 Washington Bl. at Strongs Ave.
 Washington Bl. at Dell Ave.
 Washington Bl. at Abbot Kinney
 Bl.
 Venice Bl. At Walgrove Ave.
 Venice Bl. At Lincoln Bl.
 California Ave at Lincoln Bl.
 Rose Ave at 7th Ave.
 Rose Ave at Rennie Ave.
 Rose Ave at Main St.
 Main St at Rose Ave.
 Ocean Front Walk at N Venice Bl.
 N Venice Bl. at Pacific Ave.
 Windward Ave at Windward
 Circle
 Main St at Winward Circle
 7th Ave at San Juan Ave.
 Ocean Front Walk at Navy St.

3. RESULTS

The comparison of minority shares of the Los Angeles county population and those within block groups within one-half mile of proposed bike share facilities is depicted in Table 3.

	Total Population	Minority Population	Minority Share
LA County Population	9,181,605	6,869,996	70.0%
Within 1/2 mile of combined Bicycle Share Facilities	387,303	255,199	65.9%

Similarly, the comparison of poverty shares of the Los Angeles county population and those within census tracts within one-half mile of proposed bike share facilities is depicted in Table 4.

	Total Population	Minority Population	Minority Share
LA County Population	9,604,871	1,508,618	15.7%
Within 1/2 mile of combined Bicycle Share Facilities	404,310	98,452	24.4%

The minority share of the population benefitting from the proposed wexpanded program is greater than that of the County, so there is no Disparate Impact from the expanded program.

The proposed expanded bike share program will not cause a Disproportionate Burden on poverty populations as the poverty share of impacted persons is greater than the County's poverty share.



Board Report

File #:2016-0614, File Type:Contract

Agenda Number:10.

**PLANNING AND PROGRAMMING COMMITTEE
OCTOBER 19, 2016**

SUBJECT: METRO COUNTYWIDE BIKE SHARE

ACTION: AUTHORIZE CONTRACT OPTIONS TO EXPAND BIKE SHARE

RECOMMENDATIONS

APPROVE:

- A. EXTENDING the Downtown Los Angeles Pilot for a period of 5 years.
- B. AUTHORIZING the Chief Executive Officer (CEO) to exercise options and execute Modification No. 4 to Contract No. PS272680011357 with Bicycle Transit Systems, Inc. to account for an accelerated schedule for the implementation and operation of the **Metro Countywide Bike Share expansion in Downtown Los Angeles** for an additional 5 years and in Venice, Pasadena, and the Port of Los Angeles for 6 years in the firm fixed amount of \$42,618,583, increasing the total contract value from \$11,174,329 to \$53,792,912 as follows:
 - 1. Extending Downtown Los Angeles Pilot in the amount of \$19,658,911
 - 2. Expansion to Venice in the amount of \$5,069,606
 - 3. Expansion to Pasadena in the amount of \$12,908,510 (inclusive of an initial two-year pilot for \$4,731,689 plus options for four additional years)
 - 4. Expansion to the Port of Los Angeles in the amount of \$4,907,529
 - 5. Implementing GPS equipment in bicycles to support Countywide modeling efforts in the amount of \$74,027
- C. AUTHORIZING the Life of Project budget (LOP) including the following capital costs:
 - 1. \$2.072M for Pasadena
 - 2. \$670K for Port of LA
 - 3. \$10K for Venice
- D. CHANGING the project sponsor for Call for Project Grant Number F9515 (Pasadena Bike Share Start Up Capital Costs) from Pasadena to Metro in order to utilize funding toward Metro Bike Share implementation in Pasadena.
- E. AUTHORIZING the CEO to take the following actions to expand the Metro Countywide Bike

Share program:

1. Negotiating and executing an amendment to the MOU between City of Los Angeles and Metro to expand bike share to Venice and extend DTLA MOU timeframe;
2. Negotiating and executing a Memorandum of Understanding (MOU) between Pasadena and Metro to set the terms of fiscal and administrative responsibility as described in the January 2015 Receive and File (Attachment C); and
3. Negotiating and executing a Memorandum of Understanding (MOU) between the Port of Los Angeles and Metro to set the terms of fiscal and administrative responsibility as described in the January 2015 Receive and File (Attachment C).

ISSUE

At the June 2015 meeting, the Board awarded a two-year contract to Bicycle Transit Systems (BTS) for the provision of the equipment, installation, maintenance and operation of the Metro Countywide Bike Share Phase 1 Pilot in downtown Los Angeles (DTLA Pilot). The contract includes phases for expanding bike share to other cities throughout the county, to be exercised upon Board authorization. Board authorization is needed to exercise phases within the contract to expand bike share to the communities of Pasadena, the Port of Los Angeles (POLA) and Venice, to modify the contract in order to allow for an accelerated expansion of the system, and to extend the operation period of DTLA.

DISCUSSION

DTLA Pilot

Metro, in partnership with the City of Los Angeles, launched the Countywide Bike Share program in DTLA on July 7, 2016. On August 1, 2016, the system opened to walk up users. The first months of the Metro Bike Share program have shown steady growth and success. September 30, 2016 will mark the end of the first quarter of Metro Bike Share operations. In the first quarter, the program surpassed 50,000 total rides and 2,000 annual flex or monthly pass-holders. As another measure of performance, we also track number of rides per bike per day. The system goal is to reach two rides per bike per day by the 12 month mark of operations. We are at one ride per bike per day and showing steady growth in this metric. The Metro Bike Share program continues to work towards increasing program awareness, growing ridership and increasing pass sales.

In tandem with our outreach efforts and per the Board's direction, we are also working with the City of Los Angeles and community partners Los Angeles Bicycle Coalition (LACBC) and Multicultural Communities for Mobility (MCM) to make the bike share program equitable and accessible to all. This work is being funded through a grant provided by the Better Bike Share Partnership. We will continue to report on this work and the outcomes of the grant funded outreach.

Extending the DTLA period of performance will allow us to continue to grow and strengthen bike share as a first and last mile solution to access Metro rail and bus stops and encourage bicycling as a mode of transportation for short trips.

Bike Share Expansion

The current contract with BTS allows for a regional bike share system with up to five phases including approximately nine different bike share ready communities in Los Angeles County, as identified in the Implementation Plan. The scope was tailored to be inclusive of all the regional needs for bike share since the best way to ensure regional interoperability is to use one vendor for all of Los Angeles County.

Since the award of contract, staff has continued to meet with the Bike Share Working Group and provided presentations at each of the Council of Governments, sharing updates on the DTLA Pilot, and providing information that would better inform potential participation in Metro's Bike Share program. Through this effort, three communities have confirmed that they are ready to have bike share launched within their jurisdiction: Pasadena, POLA and Venice within the City of Los Angeles.

City of Los Angeles Expansion to Venice

Expansion to the community of Venice was identified through the 2015 Board adopted Implementation Plan as phase five of the Metro Countywide Bike Share program. Indicators for success such as density, existing bikeway network, and support have contributed to moving up the Venice expansion. In line with Board direction and in an effort to address system interoperability, the Venice expansion will also explore siting station within the City of Santa Monica.

The City of Los Angeles and City of Santa Monica have an established MOU allowing for up to five bike share station locations to be located in the other's right-of-way in order to facilitate inter-jurisdictional trips. Five Hulu stations are already located in the City of Los Angeles' Venice neighborhood. The two cities and Metro will collaborate in efforts to work toward interoperability and user-friendliness. Per Metro's MOU with the City of Los Angeles, locations within the City of Santa Monica be delivered by the City of Los Angeles ready for station installation.

An accelerated launch to Venice is being accomplished by exercising a portion of Phase III in BTS' contract. Expansion to Venice and the Santa Monica area would include up to 15 stations with a summer 2017 launch date. Due to economies of scale, 82 stations were purchased as part of the DTLA Pilot, with 65 implemented and 17 stations available for expansion in other areas of the City of Los Angeles. The City of Los Angeles has indicated they would like to allocate 15 of these stations to Venice and Santa Monica. The summer 2017 launch date reflects a two-year acceleration of a portion of Phase III in BTS's contract. The costs of the Venice expansion will be shared between Metro and the City of Los Angeles as directed by the Board in the January 2014 Motion 58 (Attachment E) and Received and Filed by the Board in January 2015 (Attachment C). Attachment D reflects each agency's financial responsibility.

Pasadena Expansion

The City of Pasadena was identified through the 2015 Board adopted Implementation Plan as Phase II of the Metro Countywide Bike Share program. Expansion to Pasadena would include approximately 34 stations with a scheduled launch for summer 2017. This launch date reflects a one-year acceleration over what was included in BTS's contract. The cost of the Pasadena expansion will be shared between Metro and the City of Pasadena as directed by the Board in the January 2014 Motion 58 (Attachment E) and Received and Filed by the Board in January 2015 (Attachment C).

Attachment D reflects each agency's financial responsibility.

In anticipation of launching bike share, the City of Pasadena applied for and was awarded Call for Project funding in 2015 for the Pasadena Bike Share Capital Cost. As Metro is the lead agency in implementing the Countywide Bike Share program, the City of Pasadena has requested that sponsorship of the Call for Project (F9515) be transferred to Metro. The grant award amount shall be applied towards the City's 50% contribution of capital cost. The City of Pasadena shall fulfill its financial commitment of the 50% local match, with a minimum 20% hard match and minimum 30% in-kind match towards the grant amount.

Port of Los Angeles Expansion

POLA has expressed interest in joining Metro's Countywide Bike Share program to provide visitors and residents with improved connectivity between key waterfront attractions. Expansion to POLA would include approximately 11 stations with a scheduled launch for summer 2017. The cost of POLA expansion will be shared between Metro and POLA as directed by the Board in the January 2014 Motion 58 (Attachment E) and Received and Filed by the Board in January 2015 (Attachment C). Attachment D reflects each agency's financial responsibility.

Memorandum of Understanding

The execution of an MOU between Metro and each expansion jurisdiction is necessary to implement a bike share system where Metro is acting as the lead agency administering the contract to install bike share stations on each jurisdiction's right-of-way. The MOUs set terms of fiscal and administrative responsibility for the expansions. The financial participation is set at 50/50 split for capital and 35/65 split for operating and maintenance (O&M) per the direction of Metro Board Motion 58 (Attachment E) and the Receive and File report in January 2015 (Attachment C). The agreement outlines the roles and responsibilities of Metro and each jurisdiction by setting the procedures for reimbursement of the capital and O&M costs, the rights of advertisement/sponsorship, and the delivery of bike share station locations.

Based on lessons learned from the DTLA Pilot and input from the expansion cities, the MOU will also address early termination provisions, cost overruns and revenue reconciliation splits between cities. Included is a provision to offer the participating city first right of refusal to take ownership of the equipment should the program be terminated. The MOUs also clarify that any cost overruns incurred due to the participating city's inability to deliver station locations on a timely manner, will be borne by the city.

DETERMINATION OF SAFETY IMPACT

The Metro Countywide Bike Share expansion will not have any adverse safety impacts on Metro employees and patrons.

FINANCIAL IMPACT

The proposed FY17 project cost is \$4.499M. Of this, \$2.751M is a one-time capital cost, \$1.713M for pre-launch O&M costs and \$35K for bicycle GPS for regional modelling. Since the expansions will be

launched at the end of FY17, the majority of the costs for the fiscal year will be capital. Attachment D reflects the funding plan for the continuation of the DTLA pilot and the proposed expansion phases.

The FY17 budget only includes \$2.7M for expansion phases' capital costs in Cost Center 4320 (Bike Programs), under Project 200015 (Metro Bike Share Phase II Implementation in Pasadena) and no pre-launch O&M costs have been included. The proposed action will require an additional \$51K for capital and \$1.713M for pre-launch O&M for a total of \$1.764M to Cost Center 4320 under Project 405305 (Bikeshare Prelaunch and Plan), for expansion phases to be redistributed to the appropriate newly developed project numbers upon the Board approval. The \$35K needed for bicycle GPS for all cities are included in the FY17 budget under Cost Center 4320, Project 405302 (Complete Streets).

Since this is a multi-year contract, the cost center manager and Chief Planning Officer will be responsible for budgeting the cost in future years, including any phase(s) the Board authorized to be exercised.

Impact to Budget

For contracting purposes, \$2.735M is already included in the FY17 budget. Countywide Planning and OMB staff will identify available and eligible funding in the mid-year budget process to cover the additional \$1.764M capital and pre-launch costs. This funding will be partially or wholly restored (depending on revenues) to the general funds with cities' reimbursements and 2015 Call for Projects fund assignment to ensure revenue neutrality and no impact to other programs supported through the general fund. Anticipated cities' reimbursements and Metro contributions are outlined in Attachment D.

ALTERNATIVES CONSIDERED

The Board may choose not to exercise the contract options or modify the contract to allow for an accelerated expansion. This alternative is not recommended, as it is not in line with previous Board direction.

NEXT STEPS

Bike Share Marketing and Outreach

Since the DTLA Pilot launch, Metro has continued to conduct outreach and marketing activities with an emphasis on educating the public about bike share, increasing bike share sales passes, and encouraging ridership. The Bike Metro program has participated in over a dozen community events, hosted bike share pass sales, and provided briefings to community-based organizations and elected officials.

In coordination with Metro, the City of Los Angeles has hosted and organized over a dozen bike share rides. They have also continued to keep the Business Improvement Districts informed of bike share activities.

As a new mode of transportation for the DTLA area, employers and hotels have inquired about how bike share can be offered as a benefit to their employees and guests. In response to this interest

and as part of our ongoing outreach, marketing and bike share education efforts, we will be launching a pilot Bulk Pass and Single Ride program. Outreach for the program will be a coordinated effort led by the Active Transportation group and will include Metro's Communications Department and the Shared Use Mobility and Implementation group, the City of Los Angeles, and Bicycle Transit Systems.

Bike Share Title Sponsor

We continue to work with BTS and Comcast Spectator in securing a title sponsor. We have had several meetings with prospective sponsors and continue to reach out to others. We will continue to keep the Board apprised of progress.

Feasibility Study and Preliminary Station Siting

In response to the July 2015 Board Motion 22.1 (Attachment F) directing staff to conduct additional feasibility studies and preliminary station siting for potential expansion communities, staff issued a request for proposals (RFP) on June 13, 2016. Proposals are currently under review.

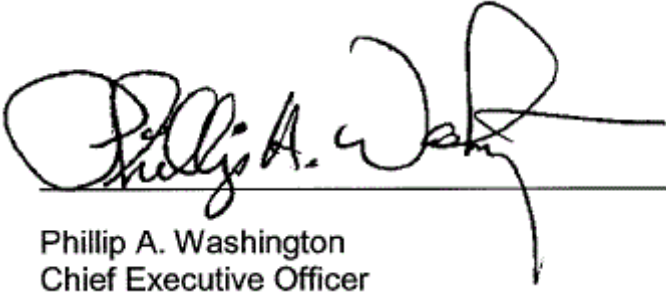
Upon approval by the Board, staff will execute Modification No. 4 to Contract No. PS272680011357 with Bicycle Transit Systems, Inc.

ATTACHMENTS

- Attachment A - Procurement Summary
- Attachment B - Contract Modification/Change Order Log
- Attachment C - January 2015 Bike Share Program Receive and File
- Attachment D - Bike Share Funding/Expenditure Plan
- Attachment E - January 2014 Metro Board Motion 58
- Attachment F - July 2015 Metro Board Motion 22.1
- Attachment G - DEOD Summary

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Phillip A. Washington
Chief Executive Officer



Board Report

File #: 2017-0180, File Type: Program

Agenda Number: 16.

FINANCE BUDGET & AUDIT COMMITTEE APRIL 19, 2017

SUBJECT: FUNDING RECOMMENDATION FOR METROLINK TRACK AND STRUCTURE REHABILITATION WORK

ACTION: APPROVE PROGRAMMING OF MEASURE R FUNDS

RECOMMENDATION

CONSIDER:

- A. APPROVING the SCRRA's request for additional funding for urgent structure and rail tie rehabilitation work up to \$18,381,025.
- B. PROGRAMMING up to \$18,381,025 in **Measure R 3% funds**.
- C. AUTHORIZING the Chief Executive Officer, or his designee, to negotiate and execute all necessary agreements between LACMTA and the SCRRA for the approved funding.

ISSUE

On December 1, 2016 Board of Director's meeting, the Board authorized the CEO to provide Metrolink with "pre-contract award authority" action plan that authorizes Metrolink to proceed with the development of the necessary scope(s) of work, advertise the contract opportunities, and structure the procurements with a series of options to provide flexibility with respect to the amount of funding available. Metrolink's actual award of contracts would not be authorized until such time as Metro's Board approves an appropriation by April 30, 2017 (refer to Attachment A).

Since then, staff in collaboration with SCRRA has performed several due diligence reviews between November 23, 2016 and February 28, 2017 inspecting 29 "Priority A" bridges, culverts and rail ties. Staff has completed the first round of due diligence review of Metrolink's "Priority A" urgent structure and rail tie rehabilitation work. Staff intends to work with SCRRA on a multi-phase approach and recommending an approval of up to \$18,381,025 of additional funding for Metrolink's urgent structure and rail tie rehabilitation work for the first phase. Metro along with the other SCRRA Joint Power Authority members have committed to working with SCRRA to fund the urgent structure and rail tie rehabilitation work to prevent slow orders.

DISCUSSION

Background

On November 18, 2016, Metrolink staff provided its Board of Directors with a report for track and structure rehabilitation funding that will be required in the next 18 months for track and within 36 months for bridges and culverts totaling approximately \$45,357,800 that were divided into two sets of priority groupings, A and B. Priority A is comprised of a total of \$29,417,000 and is regarded as a higher priority than Priority B projects totaling \$15,940,300. However, Metrolink indicated that both A & B projects are necessary to prevent the imposition of slow orders and service disruptions on the impacted segments beginning as early as June 2017. Metrolink staff has indicated that if funding is not made available by the Member Agencies, Metrolink will need to develop a plan for operations with deferred rehabilitation that will likely result in “slow orders” and service disruptions on the impacted segments beginning June 2017 (refer to Attachment B). A slow order is generally initiated when the railroad agency believes that conditions on or about the Rights of Way (ROW) prevent trains from operating at normally designated speeds which could result in substantial delays to riders or a reduction in service. Metrolink has estimated that Metro’s share of this appropriation is up to \$26,855,000 for Priority A and up to \$5,009,316 for Priority B for a total of \$31,864,316 million.

Due Diligence Review

In order to provide assurance to the Metro Board, prior to any multi-million dollar commitment of funding, that the highest priority rehabilitation projects are addressed in the most expeditious manner, particularly in the event of a risk to the operational safety of our passengers, staff performed due diligence review of Metrolink’s “Priority A” urgent structure and rail tie rehabilitation work from November 23, 2016 through March 27, 2017. Staff inspected as many ties, bridges, turnouts and culverts within the aforementioned time period to corroborate and validate Metrolink’s priority list so that it can be used to provide guidance for programming of funds for urgent structure and rail tie rehabilitation work (refer to Attachment C). Staff has also hired a consultant, WSP, to review and validate SCRRA’s state of good repair projects including performing a condition risk assessment to be used as a diagnostic tool for budget allocation.

Staff is working with SCRRA on a multi-phasing approach to Metrolink’s urgent structure and rail tie rehabilitation work totaling up to \$31,864,316, beginning with “Priority A” projects and followed by “Priority B” projects. Staff has inspected 29 bridges and culverts and over 10 miles of rail ties in the Valley, Ventura, San Gabriel and River Subdivisions under the “Priority A” projects. For the 29 bridges and culverts under “Phase A” projects inspected as part of phase 1, staff concurs with SCRRA that at least 10 bridges and culverts including ties and turnouts need to be replaced immediately within the next three years. The remaining 19 bridges and culverts under “Phase A” projects inspected as part of phase 1 appear to be in “fair to satisfactory” conditions and do not require immediate replacement within the next 3 years even though these structures are at least over 29 years old and older. However, since these structures are old and approaching their service life, staff is recommending that it be programmed for replacement within the next ten (10) years with continuous annual inspections. SCRRA staff concurs with Metro’s inspection report and has agreed to work with Metro to reprioritize their urgent structure rehabilitation work based on Metro’s due diligence review (refer to Attachment

F). Staff is recommending approval of up to \$18,381,025 of additional funding for Metrolink's urgent structure and rail tie rehabilitation work (refer to Attachment D). The list in Attachment D is meant to be used as a diagnostic tool for allocation of funds only. It is SCRRA's responsibility to provide an independent condition risk assessment to determine which structures should be replaced and in which order. In addition, staff included rehabilitation work on Los Angeles Union Station canopies, Sierra and Juniper crossing improvements on the San Gabriel Subdivision and East Bank improvements under "Priority B" on the River Subdivision as part of the \$18,381,025 since Union Pacific Railroad and other Joint Powers Authority (JPA) members have all committed to their share of the costs for the work.

SCRRA indicated that if the funding has been secured by all the JPA members by April 2017, they will award the contract in May 2017 and complete construction by May 2019 (refer to Attachment E). Staff has asked SCRRA for a more detailed project delivery and schedule including cash flow forecast on the urgent structure and rail tie rehabilitation work for the four Metrolink subdivisions on the Valley, Ventura, River and San Gabriel. Metro along with the other SCRRA Joint Power Authority members have committed to working with SCRRA to fund the urgent structure and rail tie rehabilitation work to prevent slow orders.

DETERMINATION OF SAFETY IMPACT

Maintaining Metro owned assets and infrastructure in a state of good repair will eliminate system failures which could result in additional cost to LACMTA or exposure to liability.

FINANCIAL IMPACT

Metro staff is requesting the programming of up to \$18,381,025 of Measure R 3%. Metro staff will appropriate additional funding on an annual basis in correlation to Metrolink's work plan and cash flow to complete the slow order projects.

ALTERNATIVES CONSIDERED

The Board could chose not to approve funding the Metrolink rehabilitation work of Metro owned ROW. This is not recommended since passenger safety and operational efficiency are among our agency's highest priorities. Further, if this rehabilitation work is not funded slow orders could be imposed.

NEXT STEPS

1. Continue to perform the due diligence review on the remaining balance of Metrolink's urgent structure and rail tie rehabilitation work totaling up to \$31,864,316.
2. Report back to the board with staff's assessment and a funding plan of the remaining urgent track and structure rehabilitation work as part of phase 2 by December 2017.

ATTACHMENTS

Attachment A - Metro Board Report, November 16, 2016

Attachment B - SCRRRA Board Report, November 18, 2016

Attachment C- Metrolink Asset Inspection Summary, March 23, 2017

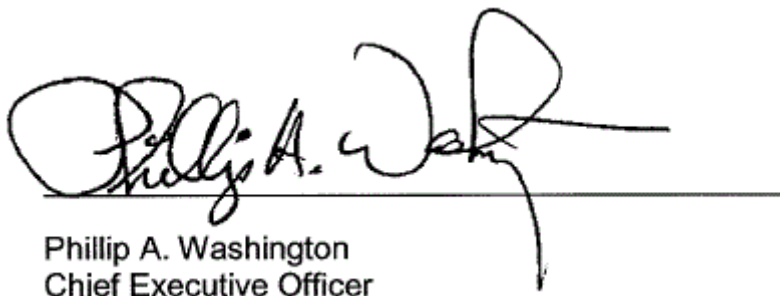
Attachment D- Funding Request for Metrolink's Urgent Structure and Rail Tie Rehabilitation (Slow Order) Work

Attachment E- SCRRRA Proposed Project Delivery Schedule for Urgent Structure and Rail Tie Rehabilitation (Slow Order) Work

Attachment F- MTA/SCRRRA Joint Review on Valley Subdivision

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Phillip A. Washington
Chief Executive Officer



SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY

TRANSMITTAL DATE: November 11, 2016
MEETING DATE: November 18, 2016 **ITEM 11**
TO: Board of Directors
FROM: Arthur T. Leahy *ATL*
SUBJECT: Preliminary FY2016-17 Budget Amendment for Additional Rehabilitation Funding

Issue

At the September 23, 2016 and October 28, 2016 Board Meetings, staff provided reports on the need for additional rehabilitation funding and the strategy for completing the track and structures projects throughout the system. In those reports, the Board was advised that certain track segments would require rehabilitation to be completed within the next eighteen months, and that certain bridges and culverts would require rehabilitation to be completed within the next thirty-six months. Funding commitments for these track and structures rehabilitation projects are required to allow work to be completed within those time frames. If additional funding is not approved, safety considerations would recommend slow orders and weight restrictions to be applied to the affected areas, principally along line segments operating on the Valley, Ventura, River and San Gabriel Subdivisions.

Recommendations

It is recommended that the Board approve a preliminary FY2016-17 budget amendment totaling \$49,202,650, including:

- 1) An amount of \$45,357,800 to allow the initiation of projects required to bring the track, bridges, and culverts to a sufficient condition to preclude the necessity for slow orders or weight restrictions;
- 2) An amount of \$3,351,500 to provide additional required funding for the Los Angeles Union Station Canopy Rehabilitation Project, a portion of which was approved in the FY2016-17 (FY17) capital budget; and
- 3) An amount of \$493,350 to provide funds covering the rehabilitation portion of crossing improvements at Sierra and Juniper on the San Bernardino Line.

Alternatives

The Board could:

- 1) Choose to reduce the amounts of any or all of the proposed spending authority, which may necessitate slow orders and/or weight restrictions in those areas for which projects are unfunded; or
- 2) Not approve any or all of the proposed spending authority, which would result in slow orders and/or weight restrictions within the next six to eighteen months.

Strategic Goal Alignment

This report aligns with the strategic goal to *ensure a safe operating environment*.

Background

Rehabilitation to Avoid Slow Orders

The Authority is responsible for maintaining rail network assets including nearly 400 miles of track in a state of good repair. The breakdown of key track and structure assets includes 3.8 million feet of rail, 1.1 million concrete or wood ties with fasteners, 285 crossing surfaces, 442 turnouts, 261 bridges, 580 culverts and 6 tunnels. In addition to track and structure assets, various system assets including signals, communications, train control centers, Positive Train Control (PTC) and specialized Maintenance-of-Way (MOW) equipment must be maintained to a State of Good Repair.

As shown on Attachment A, funding for overall rehabilitation and replacement has fluctuated between \$18 million (M) and \$47M per year during the past 10 years, and has increasingly become inadequate to sustain necessary rehabilitation of track, bridges and culverts, specifically for the Valley, Ventura, San Gabriel and River line segments.

For FY2015-16 (FY16), there was no funding for rehabilitation of track assets on the Ventura (Los Angeles), Valley, River, or Pasadena subdivisions. As a consequence of the lack of funding, the condition of the track, bridge, tunnel and culvert assets continues to steadily degrade, and in some cases will reach an unsafe condition for normal operation within the next eighteen to thirty-six months. With the recent levels of funding obtained, the Authority is only able to address projects on a "worst-first" basis, and therefore assets that require rehabilitation but are not in the very worst condition, have been deferred. Attachment B provides the historic funding for track and structures over the past five years.

The FY 2016-17 Preliminary Budget included approximately \$103 million for rehabilitation projects, but this amount was reduced to \$30 million in the FY 2016-17 Adopted Budget. Staff has continued to monitor and assess the condition of track and structures, and additional funding is required to address immediate needs for rehabilitation or replacement. Attachments C and D provide a table and corresponding maps listing the locations and work that is recommended.

A prioritized list of the individual projects by subdivision is provided in Attachment E. The amounts requested are in addition to any previously programmed amounts, but were requested in the Preliminary FY 2016-17 budget. The table and maps are also divided into an "A" and "B" list. The "A" list is for the highest priority and the "B" list is for the next-highest priority work necessary. The lists do not include separately programmed or yet-to-be programmed rehabilitation work such as signal, communication, train control system work and work on other line segments.

If funding is not made available, staff would need to develop a plan for operations on the track segments with deferred rehabilitation. This would result in slow orders on the impacted segments and cause significant service impacts. Slow orders would be imposed beginning in June 2017. The corresponding typical increase in run-times for a Valley, Ventura or San Bernardino Line train trip could be 10 to 15 minutes. Weight limits on bridges may also need to be imposed,

restricting the gross weight for freight cars from 315,000 down to 286,000 pounds. The freight railroads would be very concerned about this course of action and likely reduce their freight revenue contributions to the Authority or take other action.

Los Angeles Union Station Canopies

During the FY17 Budget Process, a letter from the Los Angeles County Metropolitan Transportation Authority (Metro) was provided to the Authority describing an urgent need for the Rehabilitation of the Los Angeles Union Station (LAUS) Canopies as shown on Attachment F. As a result of reduced funding for rehabilitation in the FY17 adopted budget, this project was cut from the original five platforms to only two. In the course of bid solicitation, it has been found that original estimates did not take into account railroad specific requirements, and that performing rehabilitation work on only two platforms, instead of all five at the same time, will be far more expensive per platform. Therefore, staff is requesting the funding to rehabilitate all platform canopies at the same time. Member shares for additional platform canopy funding are as shown on Attachment G.

Grade Crossings at Sierra and Juniper Avenues

The City of Fontana and San Bernardino Line Bernardino Associated Governments (SANBAG) are undertaking a project to improve the Sierra Avenue and Juniper Avenue highway-rail crossings on the San Bernardino Line. Funding is requested in order to complete the Authority's rehabilitation portion of the project concurrently with the crossing improvement work being undertaken by SANBAG. This rehabilitation project requires an amount of \$493,350, which would be shared by SANBAG and Metro.

Total Member Agency Shares

Total Member Agency shares associated with this preliminary budget amendment are as shown on Attachment H. This request has been discussed multiple times with the Technical Advisory Committee (TAC) and the Member Agencies. Staff will continue to work with the TAC with Member Agencies regarding rehabilitation project delivery timelines and cash flow requirements. Budget amendments would be brought before the Member Agencies' Boards to request amounts for specific projects as those projects are agreed to by Member Agencies, with the timing based on budget authorization necessary to make contract awards. For the all-share projects for LAUS and the East Bank on the River Subdivision, all Member Agencies' contributions are required, otherwise the projects cannot proceed.

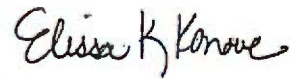
Budget Impact

Board approval of these recommended actions would not increase the amount of the FY 2016-17 Budget – Capital Rehabilitation until such time as amendments to the FY 2016-17 Budget covering specific projects are presented to and approved by the Board, which may total up to \$49,202,650. Staff will return to the Board with requested amendments to the FY 2016-17 Adopted Budget as funding amounts and timing of Member Agency approvals are finalized.

Prepared by: Christine Wilson, Manager, Budgets and Financial Analysis



Ronnie Campbell
Chief Financial Officer



Elissa K. Konove
Deputy Chief Executive Officer

ATTACHMENT A

HISTORICAL REHABILITATION PROGRAM BUDGET (Excluding Rotem Settlement):
(000's)

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
\$ 32,441	\$ 28,542	\$ 45,165	\$ 46,728	\$ 25,086	\$ 17,954	\$ 27,836	\$ 33,837	\$ 25,796	\$ 21,054	\$ 29,779

ATTACHMENT B

Historic Metrolink Rehabilitation Funding for Track and Structures

Row Labels	2012-13	2013-14	2014-15	2015-16	2016-17	Grand Total	Average	# of Bridges	# of Culverts	# of Tunnels	Track Miles
Structures	\$1,986,786	\$545,000	\$11,563,594	\$3,466,107	\$4,060,460	\$21,621,947	\$4,324,389	261	580	6	
Olive			\$693,362			\$693,362	\$138,672	6	13		
Orange	\$1,242,000	\$75,000	\$7,074,482	\$2,725,000	\$485,000	\$11,601,482	\$2,320,296	54	108		
River	\$155,250		\$76,976			\$232,226	\$46,445	14	5		
San Gabriel			\$80,000	\$112,000	\$168,000	\$360,000	\$72,000	33(LA)/ 26(SB)	66(LA)/ 36(SB)		
Valley	\$372,600	\$350,000	\$2,086,056		\$867,860	\$3,676,516	\$735,303	57	207	3	
Ventura (LA)	\$197,032		\$497,941			\$694,973	\$138,995	25	19	3	
Ventura (VC)	\$19,904	\$120,000	\$1,054,777	\$629,107	\$2,539,600	\$4,363,388	\$872,678	18	35		
Track	\$5,449,694	\$10,310,233	\$7,132,621	\$4,910,650	\$14,849,853	\$42,653,050	\$8,530,610				400
Olive		\$397,936	\$6,638	\$318,000		\$722,574	\$144,515				5.98
Orange	\$3,245,916	\$3,643,416	\$462,300	\$2,137,750	\$6,912,120	\$16,401,502	\$3,280,300				78.93
Pasadena		\$745,531	\$375,000			\$1,120,531	\$224,106				16.52
Redlands				\$300,000		\$300,000	\$60,000				
River	\$310,501	\$200,000	\$3,623,024		\$4,899,216	\$9,032,741	\$1,806,548				32.53
San Gabriel	\$496,800	\$1,340,000	\$1,438,000	\$1,640,200	\$1,305,300	\$6,220,300	\$1,244,060				45.60(LA)/ 33.43(SB)
System	\$310,500	\$1,677,000	\$800,000			\$2,787,500	\$557,500				
Valley	\$335,603	\$1,375,000	\$82,228		\$1,400,000	\$3,192,831	\$638,566				98.73
Ventura (LA)	\$543,375	\$178,350	\$25,896			\$747,621	\$149,524				32.85
Ventura (VC)	\$207,000	\$753,000	\$319,535	\$514,700	\$333,217	\$2,127,452	\$425,490				20.06

Rehabilitation Projects to Avoid Slow Orders

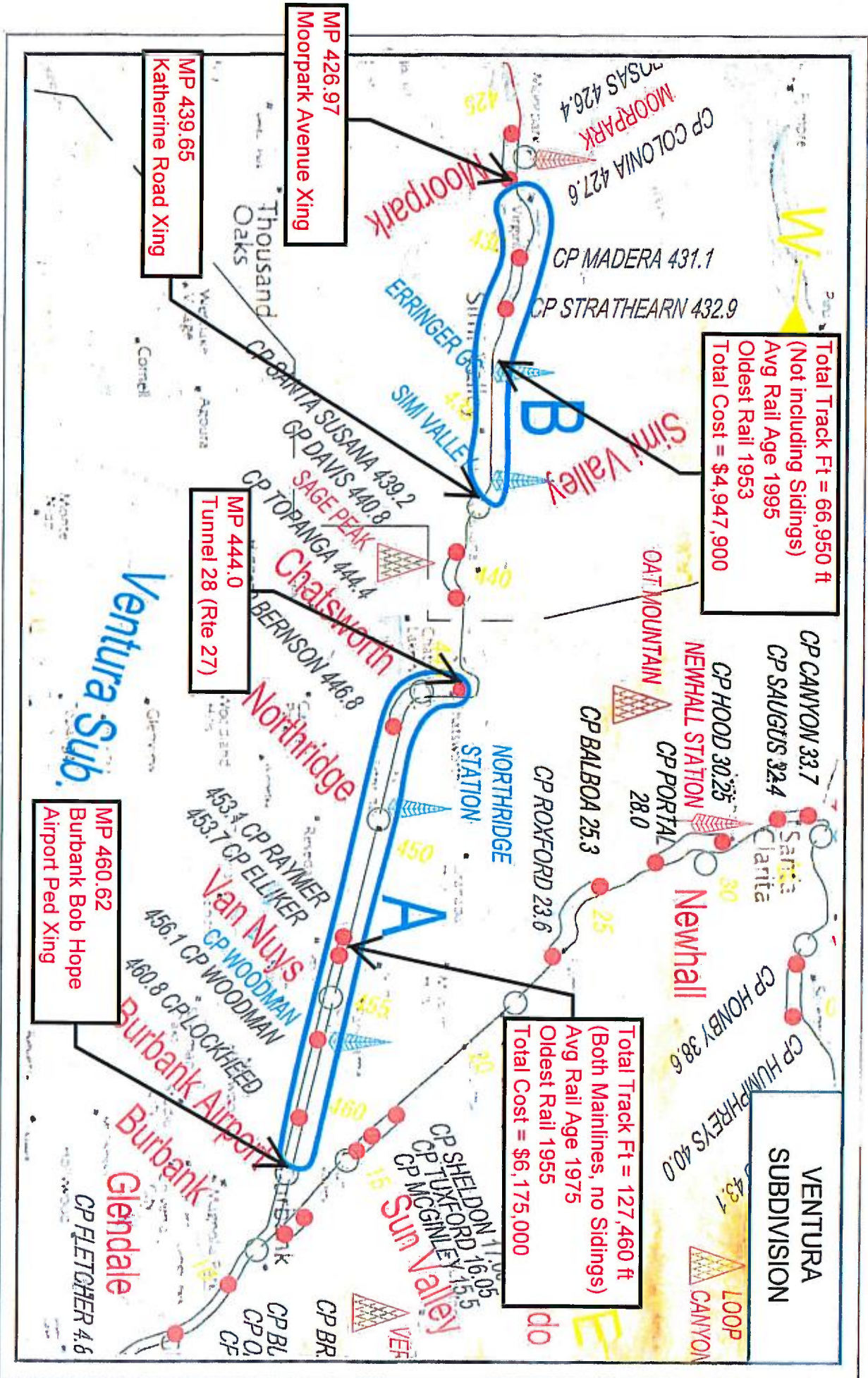
Subdivision	Location	Quantity/Cost										Speed	Project Type	Advertise Contract	Award Contract	Begin Construction	End Construction									
		Rail	Ties	Crossing	Turnouts	Subtotal ¹ Track	Bridge	Culvert	Subtotal ² Bridges/Culverts	Total Track and Structures																
Valley	A: Santa Clara to Palmdale		8450	\$2,112,500	1	\$400,000	1	\$500,000	\$3,012,500	13	\$9,160,000	15	\$5,320,000	\$14,480,000	\$17,492,500	10 MPH Speed Reduction Reduce Gross Weight from 315,000 to 285,000 lbs.	Track Projects Bridge Projects Culvert Projects	2/28/2017	4/30/2017	6/1/2017	12/31/2017					
	B: Glendale to Burbank		8000	\$2,000,000					\$2,000,000	2	\$1,760,000	0	\$0	\$1,760,000	\$3,760,000	10 MPH Speed Reduction ** (See above)	Track Projects Bridge Projects Culvert Projects	2/28/2017	4/30/2017	6/1/2017	12/31/2017					
Ventura	A: Chatsworth to Burbank Airport		12000	\$3,000,000					\$3,375,000	2	\$2,800,000	0	\$0	\$2,800,000	\$6,175,000	10 MPH Speed Reduction ** (See above)	Track Projects Bridge Projects Culvert Projects	2/28/2017	4/30/2017	6/1/2017	12/31/2017					
	B: Moorpark to Santa Valley	3150*	\$412,500	7600	\$1,900,000	2	\$800,000	1	\$375,000	2	\$1,310,400	1	\$150,000	\$1,460,400	\$4,947,900	10 MPH Speed Reduction ** (See above)	Track Projects Bridge Projects Culvert Projects	2/28/2017	4/30/2017	6/1/2017	12/31/2017					
San Gabriel	A: Mendocino to Rialto								\$2,250,000	1	\$1,400,000	0	\$0	\$1,400,000	\$3,650,000	10 MPH Speed Reduction ** (See above)	Track Projects Bridge Projects Culvert Projects	2/28/2017	4/30/2017	6/1/2017	12/31/2017					
	B: Baldwin Park to Covina								\$400,000	0	\$0	0	\$0	\$0	\$400,000	5 MPH Speed Reduction	Track Projects Bridge Projects Culvert Projects	2/28/2017	4/30/2017	6/1/2017	12/31/2017					
River	A: LAUS	1800	\$225,000	5300	\$1,325,000				\$550,000	0	\$0	0	\$0	\$2,100,000	\$2,100,000	10 MPH Speed Reduction	Track Projects Bridge Projects Culvert Projects	2/28/2017	4/30/2017	6/1/2017	12/31/2017					
	B: East Bank	31680	\$3,960,000	5000	\$1,350,000				\$3*	\$1,622,400	0	\$0	\$0	\$0	\$5,832,400	10 MPH Speed Reduction	Track Projects Bridge Projects Culvert Projects	2/28/2017	4/30/2017	6/1/2017	12/31/2017					
TOTAL FUNDING NEED TO AVOID SLOW ORDERS															\$45,357,800											

* Reduced from Previous Totals

Summary Table by Member Agency

Subdivision	Location	TOTAL	METRO	OCTA	RCCTC	SANBAG	VCTC	UPRR
Valley	A SCR to PMD	\$17,492,500	\$17,492,500					
	B GDL to BUR	\$3,760,000	\$3,760,000					
Ventura	A GWT to BBA	\$6,175,000	\$6,175,000					
	B MKK-SM	\$4,947,900				\$4,947,900		
San Gabriel	A MCL-HIA	\$3,650,000	\$2,190,000			\$1,460,000		
	B BWP-COV	\$400,000	\$240,000			\$160,000		
River	A LAUS	\$2,100,000	\$997,500	\$415,800	\$233,100	\$302,400	\$151,200	
	B East Bank	\$6,832,400	\$1,099,316	\$420,726	\$235,861	\$305,982	\$152,991	\$4,707,524
Sub-Total (A)	A	\$29,417,500	\$26,655,000	\$415,800	\$233,100	\$1,762,400	\$151,200	\$0
	B	\$15,940,300	\$5,099,316	\$420,726	\$235,861	\$465,982	\$5,100,891	\$4,707,524
Grand Total		\$45,357,800	\$31,864,316	\$836,526	\$468,961	\$2,228,382	\$5,252,091	\$4,707,524

* For Costing Purposes, East Bank assumes Zone 2 location and UPRR Share of 68.9%



ATTACHMENT E

Track and Structures Rehab Projects Priority List

Sub Category	Priority	Cost	Scope	Year Built	Condition of Asset		Inspection Date	Track Speed (Pass/Frt)	Advertis Contract	Award Contract	Begin Construction	End Construction	
					Engineer's Assessment Rating	Inspector's Condition Rating							
Priority A Bridges	1	\$840,000	50.64: Replace rail top	1909	3.2	5	7/14/16	35/30	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
	2	\$840,000	50.51: Replace rail top	1909	3.3	5	7/14/16	35/30	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
	3	\$840,000	46.91: Replace rail top	1938	3.3	5	7/22/16	44/30	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
	4	\$840,000	50.77: Replace rail top	1909	3.4	5	7/13/16	35/30	8/1/2017	10/1/2017	2/1/2018	5/1/2018	
	5	\$500,000	47.45: Replace rail top	1938	3.4	5	7/20/16	35/30	8/1/2017	10/1/2017	2/1/2018	5/1/2018	
	6	\$840,000	50.46: Replace rail top	1909	3.5	5	7/15/16	35/30	8/1/2017	10/1/2017	2/1/2018	5/1/2018	
	7	\$500,000	52.66: Replace rail top	1930	3.5	5	7/12/16	28/25	8/1/2017	10/1/2017	2/1/2018	5/1/2018	
	8	\$500,000	44.38: Replace rail top	1944	3.5	5	8/4/16	34/30	8/1/2017	10/1/2017	5/1/2018	8/1/2018	
	9	\$500,000	55.19: Replace rail top	1944	3.5	5	7/11/16	50/35	8/1/2017	10/1/2017	5/1/2018	8/1/2018	
	10	\$840,000	47.03: Replace rail top	1938	3.6	5	7/21/16	44/30	8/1/2017	10/1/2017	5/1/2018	8/1/2018	
	11	\$1,120,000	47.33: Replace rail top	1938	3.6	5	7/21/16	35/30	8/1/2017	10/1/2017	5/1/2018	8/1/2018	
	12	\$500,000	48.08: Replace rail top	1938	3.6	4	7/19/16	35/30	8/1/2017	10/1/2017	5/1/2018	8/1/2018	
	13	\$500,000	54.05: Replace rail top	1946	3.6	5	7/12/16	50/35	8/1/2017	10/1/2017	5/1/2018	8/1/2018	
	Subtotal		\$9,160,000										
	Priority B Bridges	1	\$500,000	8.41: Replace rail top	1906	3.9	5	9/20/16	79/55	8/1/2017	10/1/2017	8/1/2018	11/1/2018
2		\$1,260,000	10.63: Replace rail top	1906	3.9	5	9/19/16	79/55	8/1/2017	10/1/2017	8/1/2018	11/1/2018	
Subtotal		\$1,760,000											
Priority A Culverts Valley	1	\$350,000	55.91: Replace clay pipe - collapsed	1922	3.2	4	8/13/15	59/45	2/28/2017	4/30/2017	6/1/2017	8/1/2017	
	2	\$350,000	53.84: Replace timber box	1904	3.3	4	8/17/15	59/25	2/28/2017	4/30/2017	6/1/2017	8/1/2017	
	3	\$280,000	49.99: Replace timber box	1922	3.4	4	1/19/15	29/25	2/28/2017	4/30/2017	6/1/2017	8/1/2017	
	4	\$280,000	44.16: Replace timber box	1939	3.4	4	1/5/16	39/30	2/28/2017	4/30/2017	7/1/2017	9/1/2017	
	5	\$280,000	50.57: Replace timber box	1950	3.4	4	10/30/15	35/30	2/28/2017	4/30/2017	7/1/2017	9/1/2017	
	6	\$280,000	55.75: Replace timber box	1927	3.5	5	8/13/15	47/35	2/28/2017	4/30/2017	7/1/2017	9/1/2017	
	7	\$280,000	48.74: Replace clay pipe - joint displacement	1900	3.5	4	11/11/15	29/25	2/28/2017	4/30/2017	8/1/2017	10/1/2017	
	8	\$280,000	displacement	1922	3.6	5	8/17/15	50/35	2/28/2017	4/30/2017	8/1/2017	10/1/2017	
	9	\$350,000	displacement	1922	3.6	4	8/13/15	50/35	2/28/2017	4/30/2017	8/1/2017	10/1/2017	
	10	\$420,000	66.78: Replace RCP - separated joints	1921	3.7	4	8/4/15	79/60	2/28/2017	4/30/2017	9/1/2017	11/1/2017	
	11	\$700,000	52.99: Replace aged cast iron pipe added	1900	3.7	3	10/26/15	39/25	2/28/2017	4/30/2017	9/1/2017	11/1/2017	
	12	\$280,000		1988	3.8	4	11/9/15	29/25	2/28/2017	4/30/2017	9/1/2017	11/1/2017	
	13	\$420,000	49.53: Replace aged cast iron pipe	1900	3.8	5	11/10/15	29/25	2/28/2017	4/30/2017	10/1/2017	12/31/2017	
	14	\$350,000	52.32: Replace aged cast iron pipe	1900	3.9	5	10/27/15	35/30	2/28/2017	4/30/2017	10/1/2017	12/31/2017	
	15	\$420,000	52.38: Replace aged cast iron pipe	1900	3.9	5	10/27/15	35/30	2/28/2017	4/30/2017	10/1/2017	12/31/2017	
Subtotal		\$5,320,000											

Track and Structures Rehab Projects Priority List

Sub Category	Priority	Cost	Scope	Condition of Asset				Track Speed (Pass/Fri)	Advertise Contract	Award Contract	Timeline	
				Year Built	Engineer's Assessment Rating	Inspector's Condition Rating	Inspection Date				Begin Construction	End Construction
Priority A Track	1	\$500,000	2500 Ties between MP 46 - MP 48, MP 63 - MP 64					49/35	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	2	\$825,000	3000 Ties between MP 52 - MP 54					40/30	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	3	\$400,000	Lang Station Rd Crossing					39/30	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	4	\$787,500	2950 Ties between MP 54 - MP 59					59/45	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	5	\$500,000	Action Spur Turnout					49/35	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	Subtotal	\$3,012,500										
Priority B Track	1	\$1,000,000	4000 Ties Between MP 9 - MP 11					79/55	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	2	\$1,000,000	4000 Ties Between MP 6 - MP 8					79/55	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	Subtotal	\$2,000,000										
Priority A Bridges	1	\$1,960,000	458.71: Replace Timber Trestle - major cracking	1925	3.0	4	3/8/16	79/40	8/1/2017	10/1/2017	11/1/2017	2/1/2018
	2	\$840,000	452.1: Replace rail top	1916	3.3	5	3/14/16	70/40	8/1/2017	10/1/2017	11/1/2017	2/1/2018
	Subtotal	\$2,800,000										
Priority B Bridges	1	\$655,200	436.96: Replace rail top	1939	3.9	5	4/1/16	79/60	8/1/2017	10/1/2017	8/1/2018	11/1/2018
	2	\$655,200	434.12: Replace rail top	1901	3.9	5	4/4/16	73/60	8/1/2017	10/1/2017	8/1/2018	11/1/2018
	Subtotal	\$1,310,400										
Priority B Culverts	1	\$150,000	436.46: Replace culvert - part rail top	1925	3.9	4	10/16/14	79/60	2/28/2017	4/30/2017	10/1/2017	12/31/2017
	Subtotal	\$150,000										
	Priority	Cost	Scope	Condition Notes				Speed	Timeline			
	1	\$675,000	2700 Ties between MP 447 - MP 450	Over 30% of the wood ties in this segment need to be replaced.				70/40	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	2	\$325,000	1300 Ties between MP 444 - MP 446	Approximately 25% of the wood ties in this segment need to be replaced.				70/40	2/28/2017	4/30/2017	6/1/2017	12/31/2017

Track and Structures Rehab Projects Priority List

Sub Category	Priority	Cost	Scope	Condition of Asset			Track Speed (Pass/Frt)	Advertise Contract	Award Contract	Begin Construction	End Construction
				Year Built	Engineer's Assessment Rating	Inspector's Condition Rating					
Priority A Track	3	\$375,000	Turnout at MP 460				79/40	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	4	\$200,000	800 Ties Between MP 451 - MP 452				70/40	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	5	\$900,000	3600 Ties Between MP 458 - MP 462				79/40	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	6	\$900,000	3600 Ties Between MP 454 - MP 458				79/40	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	Subtotal	\$3,375,000									
	1	\$850,000	3400 Ties between MP 434 - MP 439				79/60	2/28/2017	4/30/2017	6/1/2017	12/31/2017
Priority B Track	2	\$600,000	2400 Ties Between MP 430 - MP 433				73/60	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	3	\$247,500	Rail Replacement - Curve 439.24 (1650')				70/40	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	4	\$300,000	1200 Ties Between MP 427 - MP 429				70/40	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	5	\$375,000	Turnout at CP Santa Susana				70/40	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	6	\$400,000	Katherine Rd Crossing				70/40	2/28/2017	4/30/2017	6/1/2017	12/31/2017
	7	\$165,000	Rail Replacement - Curve 433.1 (1100')				73/60	2/28/2017	4/30/2017	6/1/2017	12/31/2017
8	\$400,000	Hidden Ranch Drive Crossing				70/40	2/28/2017	4/30/2017	6/1/2017	12/31/2017	
9	\$150,000	600 Ties Between MP 433 - MP 434				73/60	2/28/2017	4/30/2017	6/1/2017	12/31/2017	
Subtotal	\$3,487,500										
Priority A Bridges	1	\$1,400,000	40.12: Replace rail top - Under xing				79/55	8/1/2017	10/1/2017	2/1/2018	5/1/2018
	Subtotal	\$1,400,000									
	1	\$875,000	3500 Ties between MP 34 - MP 38				79/55	2/28/2017	4/30/2017	6/1/2017	12/31/2017
				Condition Notes							
				Over 30% of the wood ties in this segment need to be replaced.							
				Speed							
				Timeline							
				Note: 1350' of rail on another project was removed from the list resulting in a reduction for the Subdivision of \$150,000.							

Track and Structures Rehab Projects Priority List

Sub	Category	Priority	Cost	Scope	Condition of Asset			Track Speed (Pass/Fri)	Advertise Contract	Award Contract	Begin Construction	End Construction	
					Engineer's Year Built	Assessment Rating	Inspector's Condition Rating						Inspection Date
San Gabrie	Priority A Track	2	\$700,000	2800 Ties Between MP 47 - MP 51	Approximately 25% of the wood ties in this segment need to be replaced.			79/55	2/28/2017	4/30/2017	6/1/2017	12/31/2017	
		3	\$300,000	1200 Ties Between MP 52 - MP 54	Approximately 20% of the wood ties in this segment need to be replaced.			79/55	2/28/2017	4/30/2017	6/1/2017	12/31/2017	
		4	\$375,000	1500 Ties Between MP 42 - MP 45	Approximately 15% of the Wood Ties in this segment need to be replaced.			79/55	2/28/2017	4/30/2017	6/1/2017	12/31/2017	
		Subtotal	\$2,250,000										
		1	\$400,000	Lark Ellen Crossing	Crossing needs rehabilitation.			60/30	2/28/2017	4/30/2017	6/1/2017	12/31/2017	
River Sub	Priority B Track	Subtotal	\$400,000										
		Priority	Cost	Scope	Condition Notes	Speed	Timeline						
		1	\$225,000	Replace Leads into Union Station	Leads into union station have curve wear and need new rail.	25/5	2/28/2017	4/30/2017	6/1/2017	12/31/2017			
		2	\$1,325,000	Replace 5300 Ties on West Bank	Approximately 21% of the wood ties on the West Bank need to be replaced.	79/40	2/28/2017	4/30/2017	6/1/2017	12/31/2017			
River Sub	Priority A Track	3	\$550,000	Replace Turnouts at CP Taylor	2 Turnouts at CP Taylor already replaced, 2 more need to be replaced.	50/40	2/28/2017	4/30/2017	6/1/2017	12/31/2017			
		Subtotal	\$2,100,000										
River Sub	Priority B Track	1	\$5,210,000	Replace 3 miles of Rail and 25% Ties	MT2 several areas that are susceptible for rail defects due to the high density of train traffic, the amount of plugged rail through the years, and the age of the existing 133 lb rail which does not meet SCRRA standards. This project was initially proposed as rail and ties separately, and the agency only received funding for 2/3's of the ties needed and none of the rail. Ideally we would complete these projects together, along with the funding for FY15, where we are doing the same scope of work for MT1. Funding for this project is efficient use of member agency funds due to high UPRR contribution percentages. However, it does take longer to obtain funds from UPRR and plan the work due to their contributions and funding agreements.	70/30	2/28/2017	4/30/2017	6/1/2017	12/31/2017			
		Subtotal	\$5,210,000										

Track and Structures Rehab Projects Priority List

Sub Category	Priority	Cost	Scope	Condition of Asset					Track Speed (Pass/Frt)	Advertise Contract	Award Contract	Begin Construction	End Construction
				Year Built	Engineer's Assessment Rating	Inspector's Condition Rating	Inspection Date						
	2	\$1,622,400	Replace 3 turn outs on East Bank	Turnouts on the East Bank are heavily used, and some are over 50 years, while others haven't been replaced since Metrolink began service. Ideally, funding for these would be lined up with the rail and ties, so projects can be completed concurrently.									
	Subtotal	\$5,832,400	<i>Note: 2 turnouts were removed from the list resulting in a reduction for the subdivision of \$1,000,000.</i>										
Bridge Condition Code													
Condition 1: Failed, immediately stop trains, detailed inspection may be necessary.													
Condition 2: Imminent failure, failure could occur at any time, take appropriate action to protect trains, detailed inspection is necessary.													
Condition 3: Poor, condition is sound but with serious or advancing problems, take appropriate action to protect trains, detailed inspection may be necessary or note requirement for Interim Inspections.													
Condition 4: Fair, defect is sound with minor problems, Interim inspections may be necessary.													
Condition 5: Satisfactory, minor exceptions or developing problem noted, monitor for next Periodic Maintenance (General) inspection.													
Condition 6: Good, no problems are detected.													



Metro

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza,
Los Angeles, CA 90012-2952

Phillip A. Washington
Chief Executive Officer
213.922.7555 Tel
213.922.7447 Fax
washingtonp@metro.net

January 15, 2016

Mr. Arthur Leahy
Chief Executive Officer
Metrolink
One Gateway Plaza, 12th Floor
Los Angeles, CA 90012

RECEIVED
JAN 19 2016
OFFICE OF THE CEO

Dear Mr. Leahy:

I am writing as a follow-up to our meeting to recap the serious state of good repair issue at Union Station ("LAUS") that requires your attention. Under the terms of the easement agreement under which Metrolink operates the rail yard at Union Station, Metrolink is required to maintain improvements in the yard, including the platforms (attached). Over the last three years, Metro staff has brought to the attention of Metrolink staff the continuing deterioration of the canopies and surface area of the platforms. Metrolink staff, while not disputing Metrolink's obligation with respect to maintenance, has failed to budget for or make the needed improvements.

The canopies that shade the platforms are seriously deteriorated. In addition to the canopies being part of the historic designation of LAUS on the National Registry of Historic Places and thus require protection, the failure to maintain has created a potentially serious safety condition. The lead based paint has not been appropriately cared for and now is flaking and peeling. Rust of the canopies is in some areas so serious that sections of steel are in danger of failing and falling. One in particular is being held up by a "C" clamp. The canopies are designed with a drain system that runs through the center of the structures. The steel has rusted through and rain water is now entering the electrical light system. Water is draining out of energized light fixtures onto the center of the ramps raising concern of potential electrocution. This draining water has caused slip and fall incidents. Some of the eroded drains now deposit water on the platforms causing slick conditions. Concrete spalling on the platforms have created uneven surfaces and trip hazards.

With the looming prospect of El Niño, we agreed it is time for Metrolink to meet their obligations and correct these conditions. I respectfully request that you include in Metrolink's 2017 budget for consideration by the member agencies, sufficient capital funding for these needed improvements, including repairs to the canopies in accordance with Secretary of the Interior's Guidelines for listed properties. My staff is prepared to work with you to develop a work plan and scope such that the improvements can be implemented early in the coming fiscal year.

I appreciate your attention to these issues.

Sincerely,

Phillip A. Washington
Chief Executive Officer

Attachment: Easement

ATTACHMENT G

SCOPE OF WORK - LAUS Platforms 2 thru 6

- (1) Remove loose paint from underside of canopies
- (2) Repair damaged sheet metal and gutter, seal gutter
- (3) Encapsulate lead paint on underside of canopies

	Quantity	Unit	Est Unit Cost	Total Est Cost
Protective enclosure (rented for one year)	1	ea	\$ 200,000	\$ 200,000
Enclosure installation/dismantle/relocation	50	ea	\$ 15,000	\$ 750,000
Lift rental (3 total)	6000	hr	\$ 50	\$ 300,000
Light plant	2	ea	\$ 10,000	\$ 20,000
Environmental equipment (decontamination trailer & supplies)	12	mo	\$ 20,000	\$ 240,000
Remove loose paint (assumed 33% of total sq ft)	50000	sf	\$ 15	\$ 750,000
Encapsulation	152000	sf	\$ 5	\$ 760,000
Sheet metal/gutter repair (assumed 20% of total sq ft)	30000	sf	\$ 15	\$ 450,000
Subtotal				\$ 3,470,000
Contingency (15%)				\$ 520,500
Permits and insurance	1	ls	\$ 75,000	\$ 75,000
Flagging	240	day	\$ 1,500	\$ 360,000
Safety & project management	240	day	\$ 800	\$ 192,000
Total				\$ 4,617,500
			Approved in FY17 Capital Budget	\$ 1,266,000
			Additional funding required	\$ 3,351,500

Member Shares:

	TOTAL	LACMTA	OCTA	RCTC	SANBAG	VCTC	OTHER
\$	3,351,500	\$ 1,225,811	\$ 510,970	\$ 286,453	\$ 371,614	\$ 185,807	\$ 770,845

ATTACHMENT H

TOTAL MEMBER AGENCY SHARES

REHABILITATION TO AVOID SLOW ORDERS

Subdivision	Location	TOTAL	METRO	OCTA	RCTC	SANBAG	VCTC	UPRR	AMTRAK
Valley	SCR to PMD	\$17,492,500	\$17,492,500						
Valley	GDL to BUR	\$3,760,000	\$3,760,000						
Ventura	CWT-BBA	\$6,175,000	\$6,175,000						
Ventura	MPK-SIM	\$4,947,900					\$4,947,900		
San Gabriel	MCL-RIA	\$3,650,000	\$2,190,000			\$1,460,000			
San Gabriel	BWP-COV	\$400,000	\$240,000			\$160,000			
River	LAUS	\$2,100,000	\$997,500	\$415,800	\$233,100	\$302,400	\$151,200		
River EB*	East Bank	\$6,832,400	\$1,009,316	\$420,726	\$235,861	\$305,982	\$152,991	\$4,707,524	
Sub-Total (A)		\$29,417,500	\$26,855,000	\$415,800	\$233,100	\$1,762,400	\$151,200	\$0	
Sub-Total (B)		\$15,940,300	\$5,009,316	\$420,726	\$235,861	\$465,982	\$5,100,891	\$4,707,524	
REHABILITATION TO AVOID SLOW ORDERS TOTAL		\$45,357,800	\$31,864,316	\$836,526	\$468,961	\$2,228,382	\$5,252,091	\$4,707,524	

Union Station Platform Rehabilitation

Juniper- Sierra Crossing Rehabilitation

		\$3,351,500	\$1,225,811	\$510,970	\$286,453	\$371,614	\$185,807		\$770,845
		\$493,350	\$296,010			\$197,340			
TOTAL		\$49,202,650	\$33,386,137	\$1,347,496	\$755,414	\$2,797,336	\$5,437,898	\$4,707,524	\$770,845



Board Report

File #:2016-0891, File Type:Policy

Agenda Number:39.

**FINANCE, BUDGET & AUDIT COMMITTEE
NOVEMBER 16, 2016**

SUBJECT: METROLINK REQUEST FOR ADDITIONAL FUNDING FOR TRACK AND STRUCTURE REHABILITATION WORK

ACTION: APPROVE LIMITED PRE-CONTRACT AWARD AUTHORITY TO METROLINK TO INITIATE PROCUREMENT ACTIVITIES

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to provide Metrolink with “**pre-contract award authority**” to procure the contracts required for the urgent track and structure rehabilitation work reported by Metrolink at its Board Meeting on September 23, 2016.

ISSUE

On September 23, 2016, Metrolink staff provided its Board of Directors with a report for track and structure rehabilitation funding that will be required in the next 18 months for track and within 36 months for bridges and culverts totaling approximately \$46.5 million. Metrolink staff has indicated that if funding is not made available by the Member Agencies, Metrolink will need to develop a plan for operations with deferred rehabilitation that will likely result in “slow orders” and service disruptions on the impacted segments beginning June 2017 (Please See Attachment A). A slow order is generally initiated when the railroad agency believes that conditions on or about the Rights of Way (ROW) prevent trains from operating at normally designated speeds which could result in substantial delays to riders or a reduction in service. Metrolink has estimated that Metro’s share of this appropriation is \$32.0 million.

DISCUSSION

In October, Metrolink staff provided the Member Agencies with a report for track and structure rehabilitation funding that will be required in the next 18 months for track and within 36 months for bridges and culverts totaling approximately \$46.5 million that were divided into two sets of priority groupings, A and B. Priority A is comprised of a total of \$29.4 million and is regarded as a higher priority than Priority B projects totaling \$17.1 million. However, Metrolink indicated that both A & B projects are necessary to prevent the imposition of slow orders and service disruptions on the impacted segments beginning as early as June 2017.

While staff agrees that some level of state of good repair is required on the ROW, the prudent

approach is to provide assurance to the Metro Board, prior to any multi-million dollar commitment of funding, that the highest priority rehabilitation projects are addressed in the most expeditious manner, particularly in the event of a risk to the operational safety of our passengers. Therefore, staff has requested Metrolink to provide a prioritized list that identifies the most critical track and structure rehabilitation projects along with a condition assessment rating and provide a detailed project delivery work plan and corresponding cash flow expenditure plan.

Simultaneously, in cooperation with Metrolink, Metro staff is also performing a due diligence review and intends to secure the services of a qualified professional railroad engineering firm from the Regional Rail engineering bench by December 2016 with specialized staffing in railroad track & structures engineering to assist in the verification of project requirements, priorities, current ROW conditions, and validate the estimated costs. However, in the meantime to ensure there is no delay in addressing these potential operational efficiencies or passenger safety issues, staff is proposing a “pre-contract award authority” action plan that authorizes Metrolink to proceed with the development of the necessary scope(s) of work, advertise the contract opportunities, and structure the procurements with a series of options to provide flexibility with respect to the amount of funding available. Metrolink’s actual award of contracts would not be authorized until such time as Metro’s Board approves an appropriation, which is anticipated to occur prior to April 30, 2017.

As reported to the Board previously, Metro continues to work with Metrolink staff to provide an accounting and reconciliation of previously appropriated funding of approximately \$40 million for state of good repair projects dating back to FY11. Finally, in an effort to improve the communication and collaboration between the agencies, a Metrolink/Metro collaborative working group began in May 2016 meeting on a bi-weekly basis to discuss capital project status, agency agreements, risk management, community outreach, funding, operations, planning and performance.

DETERMINATION OF SAFETY IMPACT

The adoption of this recommendation has no safety impact.

FINANCIAL IMPACT

Staff anticipates that an appropriation request with a corresponding work plan could be brought to the Board by April 2017. Funding for the bench consultant is Measure R 3%. These funds are restricted for commuter rail related capital/rehabilitation projects.

ALTERNATIVES CONSIDERED

The Board could chose to not grant “pre-contract award authority” to Metrolink or not engage a consultant to analyze Metrolink’s rehabilitation needs of Metro owned ROW. This is not recommended especially since passenger safety and operational efficiency are among the agency’s highest priorities. The Board could also instruct staff to defer this request until the consideration of the FY18 Budget. This is not recommended as the process outlined above allows Metrolink to proceed with the procurement of the necessary scope(s) of work, advertise the contract opportunities, and

structure the procurements to lead a more efficient and informed FY18 budget development process.

NEXT STEPS

Upon approval of the Board, staff will:

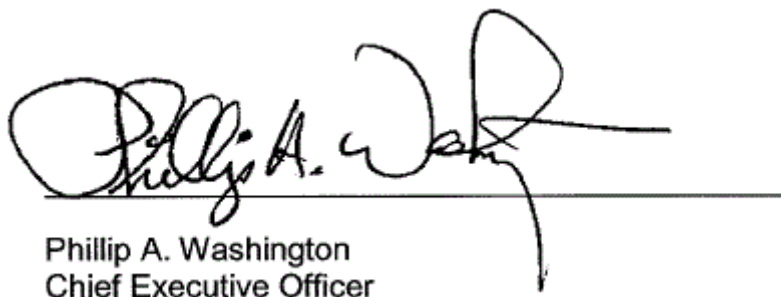
1. Notify Metrolink of the Board's actions.
2. Continue to perform the due diligence review and secure specialized railroad engineering consultant services from the established Regional Rail bench by December 2016 to evaluate Metrolink's track and structure rehabilitation and SOGR projects.
3. Report back to the Board with an appropriate funding recommendation for track and structures rehabilitation work by April 2017 or sooner.

ATTACHMENTS

Attachment A- Metrolink Board Item #22 dated September 23, 2016

Prepared by: Yvette Reeves, Principal Transportation Planner (213) 922-4612
Drew Phillips, Director of Budget (213) 922-2109
Jeanet Owens, Sr. Executive Officer, Program Management
(213) 922-6877

Reviewed by: Nalini Ahuja, Chief Financial Officer (213) 922-3088
Rick Clark, Chief Program Management Officer (213) 922-7557



Phillip A. Washington
Chief Executive Officer



Metro

Los Angeles County
Metropolitan Transportation Authority

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March 24, 2017

ATTACHMENT C

**SUBJECT: METROLINK ASSET INSPECTION SUMMARY:
VALLEY, VENTURA & SAN GABRIEL LINES - SUMMARY FINDINGS**

MetroLink is responsible for maintaining approximately 400 miles of track in a State of Good Repair. This includes among other assets, the maintenance of 1.1 million rail ties and fasteners, 261 bridges and 580 culverts. In September 2016, MetroLink informed the Board of their intent to implement slow orders predicated on a request for track and structure rehabilitation funding. At that time, MetroLink produced a list of the structures which they had evaluated were in need of immediate repair (Refer to Attachment A: “Priority List”).

In response, Metro Engineering staff was directed to inspect as many ties, bridges and culverts to as possible to corroborate and validate the MetroLink Priority List. It was not possible for Metro staff to visit and inspect each asset listed on the Priority List produced by MetroLink due to the urgent nature of the request. Instead, between November 23, 2016 and February 28, 2017 Metro staff inspected twenty nine (29) “Priority A” bridges or culverts from the MetroLink provided Valley, Ventura and San Gabriel Subdivision Line Lists as well as rail ties within the locations visited. In addition to this summary, staff produced individual inspection & observation reports for each of these twenty nine assets inspected.

The following two tables present Metro’s independently derived Condition Ratings and Recommendations for each of the inspected assets. Table 1 below, presents the list of inspected structures which Metro Engineering staff have rated as being in ‘Poor’ structural condition. These ten (10) structures have been identified by Metro staff as requiring replacement within the next 3 years and should be programmed for replacement in the next fiscal cycle. Table 2 below, provides the assessed structural conditions of the remaining 19 structures which were inspected. The structures listed in Table 2 were determined, at the time of inspection, to be in fair to satisfactory condition. (*Individual inspection reports for these 29 structures are available separately upon request*):

Table 1: Subdivision Structures – Identified for Replacement within 3 years:

Line:	Mile Point:	Name:	Age:	Metro Condition Rating:	Metro Recommendation:
Valley	47.45	Bridge 5	79 yrs.	3 (POOR)	Replace.
Valley	50.46	Bridge 6	108 yrs.	3 (POOR)	Replace.
Valley	50.51	Bridge 2	107 yrs.	3 (POOR)	Replace.
Valley	50.64	Bridge 1	107 yrs.	3 (POOR)	Replace.
Valley	50.77	Bridge 4	107 yrs.	3 (POOR)	Replace.

Valley	53.84	Culvert 2	113 yrs.	3 (POOR)	Replace.
Valley	54.13	Culvert 8	95 yrs.	3 (POOR)	Replace.
Valley	55.91	Culvert 1	94 yrs.	3 (POOR)	Replace.
Valley	66.78	Culvert 10	96 yrs.	3 (POOR)	Replace.
Ventura	458.71	Bridge 1	91 yrs.	3 (POOR)	Replace.

Table 2: Subdivision Structures – Which do not Require Immediate Replacement:

Line:	Mile Point:	Name:	Age:	Metro Condition Rating:	Metro Recommendation:
Valley	44.16	Culvert 4	78 yrs.	4 (FAIR)	Replace or reinforce timber ballast & headwalls. Recondition downstream channel.
Valley	44.38	Bridge 8	73 yrs.	5 (SATISFACTORY)	Recondition ballast over bridge due to excessive fine soils deposited.
Valley	46.91	Bridge 3	79 yrs.	4 (FAIR)	Continue monitoring. Consider replacement within ten years.
Valley	47.03	Bridge 10	79 yrs.	4 (FAIR)	Continue monitoring. Consider replacement within ten years.
Valley	47.33	Bridge 11	79 yrs.	4 (FAIR)	Continue monitoring. Consider replacement within ten years.
Valley	48.08	Bridge 12	79 yrs.	5 (SATISFACTORY)	Maintain bridge approach and channel.
Valley	49.53	Culvert 13	117 yrs.	4 (FAIR)	Maintain north bridge approach.
Valley	49.69	Culvert 12	29 yrs.	4 (FAIR)	Maintain bridge approach and channel.
Valley	49.99	<i>Culvert 3</i>	95 yrs.	<i>N/A</i>	<i>Could not inspect – culvert buried.</i>
Valley	50.57	Culvert 5	66 yrs.	4 (FAIR)	No specific recommendation.
Valley	52.32	Culvert 14	117 yrs.	5 (SATISFACTORY)	No specific recommendation.
Valley	52.38	Culvert 15	117 yrs.	4 (FAIR)	Remove downstream excessive vegetation.
Valley	52.66	Bridge 7	86 yrs.	4 (FAIR)	Maintain approach channel.
Valley	52.99	Culvert 11	117 yrs.	5 (SATISFACTORY)	No specific recommendation.
Valley	54.05	Bridge 13	71 yrs.	4 (FAIR)	Maintain bridge approach and channel.
Valley	55.19	Bridge 9	72 yrs.	5 (SATISFACTORY)	No specific recommendation.
Valley	55.42	Culvert 9	95 yrs.	4 (FAIR)	Clear culvert debris within 1 year.
Valley	55.75	Culvert 6	90 yrs.	4 (FAIR)	No specific recommendation.
Ventura	452.1	Bridge 2	100 yrs.	4 (FAIR)	Clear debris within channel and approach.

ANALYSIS: BRIDGES & CULVERTS

For the twenty-nine (29) ‘Priority A’ assets inspected, Metro believes that ten (10) of these structures (Table 1) are candidates for near term replacement (within 3 years). The remaining 19 structures (Table 2) were, in Metro’s opinion of “fair to satisfactory” condition and do not require immediate replacement within the next three years. Appropriate recommendations for the structures in Table 2 are presented in the right hand column.

Of the ten (10) structures identified for replacement in Table 1, six (6) of these structures are bridges and four (4) are culverts. Metro Cost Estimating Staff has contributed their experience in developing a Rough Order of Magnitude (ROM) cost estimate required to replace these ten assets. Once Design,

Construction and Administrative (Soft) Costs are factored in, Metro’s cost estimate did not significantly differ from the amounts requested by Metrolink on a per asset basis. Therefore, Metro agrees with the estimated Life of Project costs for replacement of these 10 structures which are presented in Table 3 below.

Table 3: Estimated Replacement Cost for Structures Identified for Near Term Replacement:

Line:	Mile Point:	Name:	Metrolink’s Total: (Dollars)
Valley	47.45	Bridge 5	\$ 500,000
Valley	50.46	Bridge 6	\$ 840,000
Valley	50.51	Bridge 2	\$ 840,000
Valley	50.64	Bridge 1	\$ 840,000
Valley	50.77	Bridge 4	\$ 840,000
Valley	53.84	Culvert 2	\$ 350,000
Valley	54.13	Culvert 8	\$ 280,000
Valley	55.91	Culvert 1	\$ 350,000
Valley	66.78	Culvert 10	\$ 420,000
Ventura	458.71	Bridge 1	\$ 1,960,000
Total:			\$ 7,220,000

ANALYSIS: RAIL TIES, RAIL, RAIL TURNOUTS, CROSSINGS & COMPONENTS

Metro’s Director of Track Work Engineering, Zoric Sheynman, observed the condition of the ties along the Valley Subdivision and agrees that the ties within the zones indicated by Metrolink in *Attachment A*, do require replacement. This would include the 8,450 ‘Group A’ ties and 8,000 Group B Ties identified. The ties are spaced at approximately 20 inches on center; therefore this would result in a total of 5 miles of replacement on the Valley Subdivision. Replacement of these ties would be in compliance with FRA Track Safety Standards Compliance Manual. Therefore, Metro agrees with the estimated costs for replacement of the rail ties for Priority A projects as shown in Attachment A. Staff will work with Metrolink as part of the second phase due diligence review for rail ties on Priority B projects. Elements not inspected by Metro staff during the site visits include track turnouts, crossings, rail tie replacement. Metro staff did not generate independent cost estimates for these components or for the requested new rail spikes, tie plugs, anchors, surfacing and stabilizing procedures required during installation of the ties. These amounts are listed in the Metrolink report.

CONCLUSION:

In conclusion, Metro Engineering’s Assessment of Metrolink’s provided “Rehabilitation Project Priority List” of ‘Priority A’ structures (bridges and culverts) is in Metro’s opinion, that approximately one-third (33%) of the structures inspected are in “poor” structural condition and should be programmed for replacement (*within 3 years*). However, it should be noted that despite the observed condition ratings, the majority of the inspected structures presented in both Tables 1 and 2 are approaching or exceeding a service life of 100 years and should be programmed for replacement within the next ten years (10).

Metro does not intend the list of 10 structures (Table 1) recommended for replacement to be a binding requirement for Metrolink. Instead, this list is meant to provide guidance for programming of funds for the replacement of these assets. Metrolink shall provide an independent assessment to determine which structures should be replaced and in which order. Metro's Independent Cost Estimates (ICE) for these elements did not significantly vary with the estimates provided by Metrolink and Metro agrees with the amounts requested by Metrolink on an asset by asset basis.

Metro agrees that an investment is required to achieve a state of good repair for the areas inspected. As a first investment in a multiyear state of good repair program, Metro recommends the initial allocation of funds to replace the highest priority structures and rail ties requiring remediation. Additional funding can be allocated in future fiscal cycles as needed. The specific assets requiring replacement shall be determined and managed by Metrolink.

Metro has recently contacted (as of early March 2017) a Consultant (WSP/Parsons Brinkerhoff) who will provide a separate independent assessment to further validate the amount of requested structure rehabilitation funding. In the coming months, their effort will further refine the scope required for this SOGR issue.

Regards,

Craig Remley P.E.
Metro Senior Structural Engineer
(213) 922-3981
remleyc@metro.net

Attachments:

Attachment A:

Bridge & Rail Tie Rehabilitation Project Priority List (As Provided by Metrolink, November 2016).

Attachment B:

SCRRA: Bridge and Safety Management Condition and Priority Defect Rating System.

ATTACHMENT A:

Bridge & Culvert - Rehabilitation Project Priority List (As Provided by Metrolink, November 2016):

Bridge Rehab Projects Priority List																	
Subdivision	Category	Priority	M/P	Cost	Scope	Year Built	Engineer's Assessment Rating	Inspector's Condition Rating	Inspection Date	Begin Contract	Finalize Contract Pkg	Advertise Contract	Award Contract	Begin Construction	End Construction		
Valley	Priority A Bridges	1		50.64	\$840,000	Replace rail top	1909	3.2	5	7/14/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
		2		50.51	\$840,000	Replace rail top	1909	3.3	5	7/14/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
		3		46.91	\$840,000	Replace rail top	1938	3.3	5	7/22/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
		4		30.77	\$840,000	Replace rail top	1909	3.4	5	7/13/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
		5		47.45	\$500,000	Replace rail top	1909	3.5	5	7/15/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
		6		30.46	\$840,000	Replace rail top	1909	3.5	5	7/15/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
		7		52.66	\$500,000	Replace rail top	1930	3.5	5	7/12/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
		8		44.38	\$500,000	Replace rail top	1944	3.5	5	8/4/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
		9		55.19	\$500,000	Replace rail top	1944	3.5	5	7/11/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
		10		47.03	\$840,000	Replace rail top	1938	3.6	5	7/21/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
		11		47.33	\$1,120,000	Replace rail top	1938	3.6	5	7/21/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
		12		48.08	\$500,000	Replace rail top	1938	3.6	4	7/19/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
		13		54.05	\$500,000	Replace rail top	1946	3.6	5	7/12/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
					Subtotal	\$9,160,000											
		Priority B Bridges	1		8.41	\$500,000	Replace rail top	1906	3.9	5	9/20/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018
			2		10.69	\$1,260,000	Replace rail top	1906	3.9	5	9/19/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018
					Subtotal	\$1,760,000											
		Priority A Culverts	1		55.91	\$350,000	Replace clay pipe - collapsed	1922	3.2	4	8/13/15	11/1/2016	1/31/2017	2/28/2017	4/30/2017	6/3/2017	8/1/2017
			2		53.84	\$350,000	Replace timber box	1904	3.3	4	8/17/15	11/1/2016	1/31/2017	2/28/2017	4/30/2017	6/3/2017	8/1/2017
			3		49.99	\$280,000	Replace timber box	1922	3.4	4	11/9/15	11/1/2016	1/31/2017	2/28/2017	4/30/2017	6/3/2017	8/1/2017
			4		44.16	\$280,000	Replace timber box	1939	3.4	4	1/5/16	11/1/2016	1/31/2017	2/28/2017	4/30/2017	7/1/2017	9/1/2017
			5		50.57	\$280,000	Replace timber box	1950	3.4	4	10/30/15	11/1/2016	1/31/2017	2/28/2017	4/30/2017	7/1/2017	9/1/2017
			6		55.75	\$280,000	Replace timber box	1927	3.5	5	8/13/15	11/1/2016	1/31/2017	2/28/2017	4/30/2017	7/1/2017	9/1/2017
			7		48.74	\$280,000	Replace clay pipe - joint displacement	1900	3.5	4	11/11/15	11/1/2016	1/31/2017	2/28/2017	4/30/2017	8/1/2017	10/1/2017
			8		54.13	\$280,000	Replace clay pipe - crushing, displacement	1922	3.6	5	8/17/15	11/1/2016	1/31/2017	2/28/2017	4/30/2017	8/1/2017	10/1/2017
			9		55.42	\$350,000	Replace cast iron pipe - cracking, displacement	1922	3.6	5	8/13/15	11/1/2016	1/31/2017	2/28/2017	4/30/2017	8/1/2017	10/1/2017
			10		66.78	\$420,000	Replace RCP - separated joints	1921	3.7	4	8/4/15	11/1/2016	1/31/2017	2/28/2017	4/30/2017	9/1/2017	11/1/2017
	11			52.99	\$700,000	Replace aged cast iron pipe	1900	3.7	3	10/26/15	11/1/2016	1/31/2017	2/28/2017	4/30/2017	9/1/2017	11/1/2017	
	12			49.69	\$280,000	Replace CMP - deflected; strut added	1988	3.8	4	11/9/15	11/1/2016	1/31/2017	2/28/2017	4/30/2017	9/1/2017	11/1/2017	
	13			49.53	\$420,000	Replace aged cast iron pipe	1900	3.8	5	11/10/15	11/1/2016	1/31/2017	2/28/2017	4/30/2017	10/1/2017	12/31/2017	
	14			52.32	\$350,000	Replace aged cast iron pipe	1900	3.9	5	10/27/15	11/1/2016	1/31/2017	2/28/2017	4/30/2017	10/1/2017	12/31/2017	
	15			52.38	\$420,000	Replace aged cast iron pipe	1900	3.9	5	10/27/15	11/1/2016	1/31/2017	2/28/2017	4/30/2017	10/1/2017	12/31/2017	
				Subtotal	\$5,320,000												
Ventura	Priority A Bridges	1		458.71	\$1,950,000	Replace Timber Trestle - major cracking	1925	3.0	4	3/8/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
		2		452.1	\$840,000	Replace rail top	1916	3.5	5	3/16/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
				Subtotal	\$2,800,000												
	Priority B Bridges	1		436.96	\$655,200	Replace rail top	1939	3.9	5	4/1/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
		2		434.32	\$655,200	Replace rail top	1901	3.9	5	4/4/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	11/1/2017	2/1/2018	
				Subtotal	\$1,310,400												
	Priority B Culverts	1		436.46	\$150,000	Replace culvert - part rail top	1925	3.9	4	10/16/14	11/1/2016	1/31/2017	2/28/2017	4/30/2017	10/1/2017	12/31/2017	
				Subtotal	\$150,000												
San Gabriel	Priority A Bridges	1		40.12	\$1,400,000	Replace rail top - Under xing	1930	3.4	5	6/29/16	11/1/2016	7/1/2017	8/1/2017	10/1/2017	2/1/2018	5/1/2018	
				Subtotal	\$1,400,000												

Rail Tie - Rehabilitation Project Priority List (As Provided by Metrolink, November 2016):

Track Projects Priority List					
Priority Designation	Priority A Projects	Value	Condition Notes	Timeline	
1	2500 Ties between MP 46 - MP 48, MP 63 - MP 64	\$500,000	Over 30% of the wood ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017	
2	3000 Ties between MP 52 - MP 54	\$825,000	Approximately 25% of the Wood Ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017	
3	Lang Station Rd Crossing	\$400,000	Crossing and track structure need to be replaced (Main Track and Siding)	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017	
4	2950 Ties between MP 54 - MP 59	\$787,500	Up to 20% of the wood ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017	
5	Acton Spur Turnout	\$500,000	Spur was constructed in 1966. Speed in siding was just raised due to Acton Project. Turnout needs to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017	
	Total Priority A Track Projects:	\$3,012,500			
	Priority B Projects				
1	4000 Ties Between MP 9 - MP 11	\$1,000,000	Over 30% of the wood ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017	
2	4000 Ties Between MP 6 - MP 8	\$1,000,000	Approximately 25% of the Wood Ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017	
	Total Priority B Track Projects:	\$2,000,000			

Ventura Subdivision	Priority Designation	Priority A Projects	Value	Condition Notes	Timeline
	1	2700 Ties between MP 447 - MP 450	\$675,000	Over 30% of the wood ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	2	1300 Ties between MP 444 - MP 446	\$325,000	Approximately 25% of the Wood Ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	3	Turnout at MP 460	\$375,000	Turnout needs to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	4	800 Ties Between MP 451 - MP 452	\$200,000	Up to 20% of the wood ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	5	3600 Ties Between MP 458 - MP 462	\$900,000	Approximately 15% of the Wood Ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	6	3600 Ties Between MP 454 - MP 458	\$900,000	Approximately 10%-15% of the Wood Ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	Total Priority A Track Projects:		\$3,375,000		
Ventura Subdivision	Priority Designation	Priority B Projects	Value	Condition Notes	Timeline
	1	3400 Ties between MP 434 - MP 439	\$850,000	Over 30% of the wood ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	2	2400 Ties Between MP 430 - MP433	\$600,000	Approximately 25% of the Wood Ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	3	Rail Replacement - Curve 439.24 (1650')	\$247,500	Curve needs to be transposed from high side to low side, with new rail on the high side. Low Rail has already been transposed and was originally placed in 1966. High Rail is experiencing some gauge and head wear and still has some life in it. Head-Free rail to be replaced as well.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	4	1200 Ties Between MP 427 - MP 429	\$300,000	Approximately 20% of the Wood Ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	5	Turnout at CP Santa Susana	\$375,000	Turnout needs to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	6	Katherine Rd Crossing	\$400,000	Crossing and track structure need to be replaced (Main Track and Siding)	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	7	Rail Replacement - Curve 433.1 (1100')	\$165,000	Curve needs to be transposed.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	8	Hidden Ranch Drive Crossing	\$400,000	Crossing is 33 years old and needs to be rehabilitated.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	9	600 Ties Between MP 433 - MP 434	\$150,000	Approximately 15% of the Wood Ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
Total Priority B Track Projects:		\$3,487,500			
				Note: 2350' of rail on another project was removed from the list resulting in a reduction for the Subdivision of \$150,000.	

San Gabriel Subdivision	Priority Designation	Priority A Projects	Value	Condition Notes	Timeline
	1	3500 Ties between MP 34 - MP 38	\$875,000	Over 30% of the wood ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	2	2800 Ties Between MP 47 - MP 51	\$700,000	Approximately 25% of the Wood Ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	3	1200 Ties Between MP 52 - MP 54	\$300,000	Approximately 20% of the Wood Ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	4	1500 Ties Between MP 42 - MP 45	\$375,000	Approximately 15% of the Wood Ties in this segment need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
Total Priority A Track Projects:		\$2,250,000			
San Gabriel Subd.	Priority Designation	Priority B Projects	Value	Condition Notes	Timeline
	1	Lark Ellen Crossing	\$400,000	Crossing needs rehabilitation.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
	Total Priority B Track Projects:		\$400,000		

River Sub	Priority Designation	Priority A Projects	Value	Condition Notes	Timeline
	1	Replace Leads into Union Station	\$225,000	Leads into union station have curve wear and need new rail.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017
2	Replace 5300 Ties on West Bank	\$1,325,000	Approximately 21% of the wood ties on the West Bank need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017	
3	Replace Turnouts at CP Taylor	\$550,000	2 Turnouts at CP Taylor already replaced, 2 more need to be replaced.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017	
		Total Priority A Track Projects:	\$2,100,000		
River Subdivision	Priority Designation	Priority B Projects	Value	Condition Notes	Timeline
	1	Replace 3 miles of Rail and 25% Ties	\$5,210,000	MT2 several areas that are susceptible for rail defects due to the high density of train traffic, the amount of plugged rail through the years, and the age of the existing 133 lb rail which does not meet SCRRA standards. This project was initially proposed as rail and ties separately, and the agency only received funding for 2/3's of the ties needed and none of the rail. Ideally we would complete these projects together, along with the funding for FY15, where we are doing the same scope of work for MT1. Funding for this project is efficient use of member agency funds due to high UPRR contribution percentages. However, it does take	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017 If funding is not approved on this project it delays progress with UPRR for obtaining funds. It takes 1-2 years to get an agreement from UP for this rehabilitation work. Slow orders or weight restrictions will be implemented on MT2 by June 30, 2019 if project remains unfunded.
2	Replace 5 turn outs on East Bank *	\$1,622,400 \$2,622,400 *	Turnouts on the East Bank are heavily used, and some are over 50 years, while others haven't been replaced since Metrolink began service. Ideally, funding for these would be lined up with the rail and ties, so projects can be completed concurrently.	Advertise Contract - 2/2017; Award Contract/NTP - 4/2017; Begin Construction - 6/2017; End Construction - 12/2017 If funding is not approved on this project it delays progress with UPRR for obtaining funds. It takes 1-2 years to get an agreement from UP for this rehabilitation work. Slow orders or weight restrictions will be implemented on MT2 by June 30, 2019 if project remains unfunded.	
		Total Priority B Track Projects:	\$7,832,400		

ATTACHMENT B:

SCRRRA: Bridge and Safety Management Policy 7.4.1 Condition and Priority Defect Rating System:

Condition Codes:

1	Failed, Stop Trains.
2	Imminent Failure, Take appropriate action. Provide detailed inspection.
3	Poor, Defects are sound with serious or advancing defects. Interim inspections warranted.
4	Fair, Defects are sound with minor problems. Interim inspections warranted.
5	Satisfactory, Minor defects or exceptions.
6	Good, No defects or exceptions noted.

Priority Codes:

Code:	Correction Period:	Description:
A	15 days	Imminent safety issue (non-redundant failure or failure of direct load path)
B	1 year	Early or Pre-failure (redundant systems or indirect load path)
C	3 years	Non-critical defects (not immediate safety concern).
D	5 years	Monitor Defects.

ATTACHMENT D

FUNDING REQUEST FOR METROLINK'S URGENT STRUCTURE & RAIL TIE REHAB (SLOW ORDER) WORK

VALLEY SUBDIVISION	Priority Designation	Track Priority A Projects	Value	Condition Notes
	1	2500 Ties between M 46-MP48, MP63-MP64	\$ 500,000	Replace
	2	3000 Ties between MP52-MP54	\$ 825,000	Replace
	4	2950 Ties between MP54-MP59	\$ 787,500	Replace
	1	Bridge MP50.64	\$ 840,000	Replace
	2	Bridge MP50.51	\$ 840,000	Replace
	4	Bridge MP50.77	\$ 840,000	Replace
	5	Bridge MP47.45	\$ 500,000	Replace
	6	Bridge MP50.46	\$ 840,000	Replace
	1	Culvert MP55.91	\$ 350,000	Replace
2	Culvert MP53.84	\$ 350,000	Replace	
8	Culvert MP54.13	\$ 280,000	Replace	
10	Culvert MP66.78	\$ 420,000	Replace	
METRO SHARE SUBTOTAL			\$ 7,372,500	

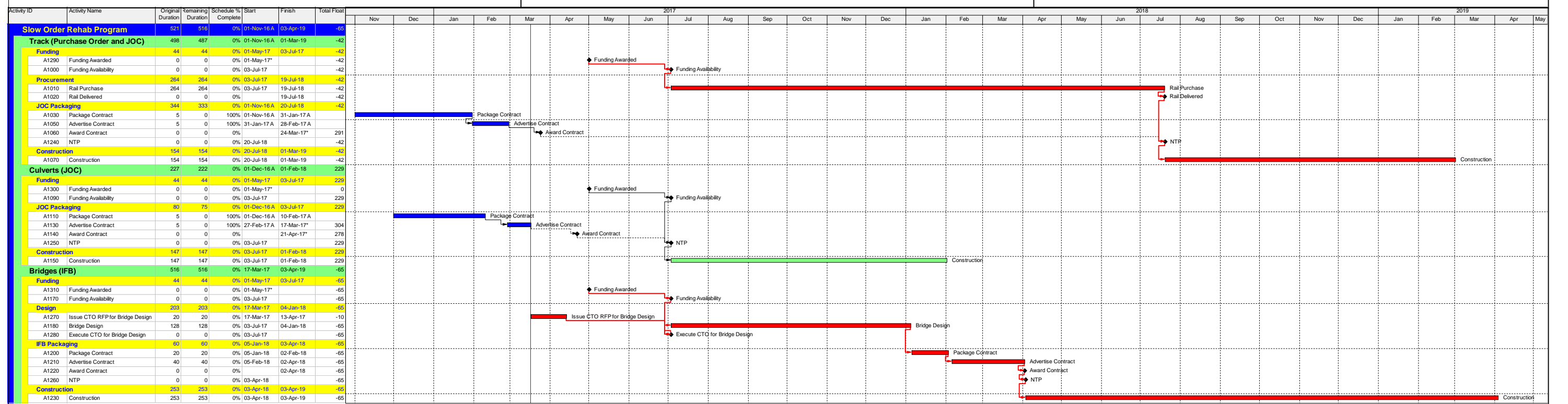
VENTURA SUBDIVISION	Priority Designation	Track Priority A Projects	Value	Condition Notes
	1	2700 Ties between M 447-MP450	\$ 675,000	Replace
	2	1300 Ties between MP444-MP446	\$ 325,000	Replace
	3	Turnout at MP460	\$ 375,000	Replace
	4	800 Ties between MP451-MP452	\$ 200,000	Replace
	5	3600 Ties between MP458-MP462	\$ 900,000	Replace
	6	3600 Ties between MP454-MP458	\$ 900,000	Replace
	1	Bridge MP458.71	\$ 1,960,000	Replace
METRO SHARE SUBTOTAL			\$ 5,335,000	

SAN GABRIEL SUBDIVISION	Priority Designation	Track Priority A Projects	Value	Condition Notes
	1	3500 Ties between M 34-MP38	\$ 875,000	Replace
	2	2800 Ties between MP47-MP51	\$ 700,000	Replace
	3	1200 Ties between MP52-MP54	\$ 300,000	Replace
	4	1500 Ties between MP42-MP45	\$ 375,000	Replace
	1	Bridge MP40.12 Rail top underxing	\$ 1,400,000	Replace
		Juniper-Sierra Crossing Rehab	\$ 493,350	
SUBTOTAL			\$ 4,143,350	
METRO SHARE SUBTOTAL			\$ 2,486,010	

RIVER SUBDIVISION	Priority Designation	Track Priority A & B Projects	Value	Condition Notes
	1	Replace leads into Union Station	\$ 225,000	Replace
	2	5300 Ties on West Bank	\$ 1,325,000	Replace
	3	Replace turnouts at CP Taylor	\$ 550,000	Replace
	1	LAUS Canopy	\$ 3,351,500	Replace
	1	East Bank-Priority B	\$ 6,526,600	Replace
SUBTOTAL			\$ 11,978,100	
METRO SHARE SUBTOTAL			\$ 3,187,515	

GRAND TOTAL \$ 18,381,025

Note: This list is meant to be used as a diagnostic tool for allocation of funds only. It is SCRRA's responsibility to provide an independent condition risk assessment to determine which structures should be replaced and in which order.



█ Remaining Level of Effort
 █ Remaining Work
 ◆ Milestone
█ Actual Work
 █ Critical Remaining Work

MTA / SCRRA JOINT REVIEW – VALLEY SUBDIVISION



Picture 1: One of two SCRRA Hy-Rail Vehicles used to complete the field visit with MTA.

As part of SCRRA's on-going efforts to secure Track and Structures rehabilitation funding SCRRA and MTA staff took part in a joint review of portions of the Valley Subdivision deemed to be at risk for potential speed reductions if rehabilitation work is delayed.

On November 23, 2016 6 staff from MTA and 5 from SCRRA conducted a Hy-Rail trip from approximately Milepost 58 (Aliso

Canyon Road) to Milepost 48 (Burke Road Private Crossing). The purpose of the trip was for MTA staff to review proposed rehabilitation work locations, priorities, and provide context as to what projects MTA provided funding would address.

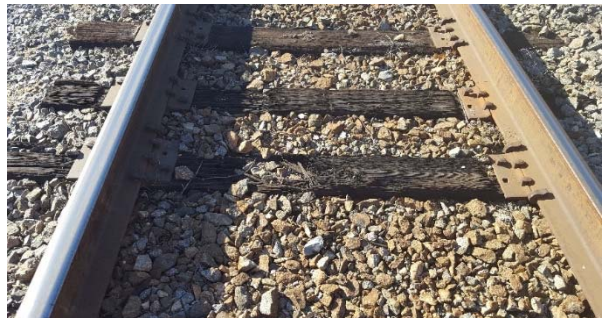
The primary focus of the review was wood crosstie and structure condition but other aspects of railroad rehabilitation work such as rail, crossings, and embankments were reviewed, including potential mud slide conditions caused by the Sand brush fire in July.



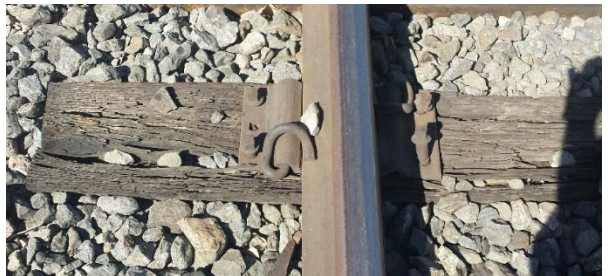
Picture 2: SCRRA Staff and MTA Staff Inspecting a Wood Box Culvert on the Valley Subdivision

In addition to reviewing general conditions from the Hy-Rail vehicles the group stopped several times to more carefully examine crosstie and structure conditions, particularly of the older bridges of the "Rail Top" design type.

Overall, it was the consensus of the MTA team that certain segments of the crosstie conditions visited, as reported by SCRRA, were approaching serious levels of deterioration, and while still meeting FRA Track Safety Standards it is reasonable that substantial crosstie replacement projects should begin as soon as possible.



Picture 3: Failed Tie Condition on the Valley Subdivision



Picture 4: Failed Tie with Raised Lags



Picture 5: The inside of one of the top 3 Priority "Rail-Top" Bridges on the Valley Subdivision

Similarly, it was agreed that 2 of the 5 of SCRRRA's highest priority bridges visited for replacement were sufficiently justified for replacement as soon as possible. It was also determined that three of the lower priority bridges visited, likely could be further assessed and possibly deferred a number of years in order to concentrate available funding on the most urgent candidates.

The MTA and SCRRRA representatives intend to conduct similar reviews of the

Ventura, San Gabriel and River Subdivisions in order to more effectively prioritize and allocate rehabilitation funding.

Participants in this Hy-Rail Review were:

MTA:

Sam Mayman, Jeanet Owens, Androush Danielians, Zoric Sheynman, Craig Remley, Dan Mahgerefteh

SCRRRA:

Darrell Maxey, Wayne Mauthe, Aaron Azevedo, Daniel Villagomez, Ivan Robles



Picture 6: SCRRRA and MTA Staff inspecting a "Rail-Top" Bridge on the Valley Subdivision