

# **Metro**

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



## **Agenda - Final**

**Wednesday, February 15, 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.

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## LIMITED ENGLISH PROFICIENCY

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

Internet Access to Agendas - [www.metro.net](http://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: 9.

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

### CONSENT CALENDAR

9. RECEIVE AND FILE the **second quarter report of Management Audit Services (Management Audit) for the period ending December 31, 2016.** [2017-0042](#)

**Attachments:** [Attachment A - FY17 Q2](#)

### NON-CONSENT

10. CONSIDER: [2016-0767](#)
- A. RECEIVING AND FILING an evaluation report on **All Door Boarding (ADB) on the Silver Line**; and
- B. APPROVING continuing All Door Boarding indefinitely on the Silver Line beyond the 6 month pilot period.

**Attachments:** [Attachment A - Silver Line All Door Boarding Pilot Project Evaluation](#)

11. AUTHORIZE augmenting the life of project budget for **Union Station Metro Bike Hub** from \$1.32 million to \$2.47 million, to accommodate a more accessible and higher visibility bike hub facility for users and the community. [2016-0995](#)

**Attachments:** [Attachment A - July 2014 Metro Board Action 36 ExpressLanes Grant Awards](#)  
[Attachment B - September 2010 Metro EMAC Motion 10](#)  
[Attachment C - Union Station Metro Bike Hub Rendering](#)  
[Attachment D - Union Station Metro Bike Hub Cash Flow Table](#)  
[Attachment E - Union Station Metro Bike Hub Presentation](#)

**(ALSO ON PLANNING AND PROGRAMMING COMMITTEE)**



32. RECEIVE AND FILE the **FY18 Budget Development Process and Schedule, CEO Budget Goals, Outreach, and Sales Tax Revenue and CPI Assumptions** [2017-0015](#)

35. CONSIDER: [2016-0958](#)

- A. APPROVING the recommended Alternative 1 with six Regional Rail run-through tracks and four High Speed Rail run-through tracks (also referred to as “6+4 Run Through Tracks” Alternative) to be carried forward in the **California Environmental Quality Act (CEQA) Draft Environmental Impact Report (EIR) and National Environmental Policy Act (NEPA) Draft Environment Impact Statement (EIS)** and continue to evaluate Alternatives 2, 3 and 4 as reasonable alternatives in the Draft EIR/EIS;
- B. AUTHORIZING the Chief Executive Officer (CEO) to execute Modification No. 4 to Contract No. PS2415-3172, with HDR Engineering, Inc., for Link Union Station (Link US) to provide environmental and preliminary engineering services for the expansion of Link US to connect the Link US project with Patsaouras Transit Plaza to the east and the historic Union Station to the west, increasing the total contract value by \$13,761,273, from \$48,279,357 to a not to exceed amount of \$62,040,630;
- C. AUTHORIZING the CEO to increase Contract Modification Authority (CMA) in the amount of \$1,376,127, increasing the total CMA amount from \$2,980,588 to \$4,356,715;
- D. AUTHORIZING the Chief Executive Officer to execute a funding agreement with California High-Speed Rail Authority (CHSRA) in the amount of \$3,726,102 for project development work related to Contract Modification No. 4; and
- E. APPROVING an amendment to increase the FY17 fiscal year budget in the amount of \$9,200,000 for the LINK US Project in Cost Center 2145.

**Attachments:** [Attachment A - Procurement Summary \(LINK US\).pdf](#)  
[Attachment B - Modification Change Order Log \(LINK US\).pdf](#)  
[Attachment C - DEOD Summary.pdf](#)  
[Attachment D - Comp Mod 3 and 4 Study Areas](#)  
[Attachment E - Alternative Overviews](#)  
[Attachment F - Sources and Use of Funds](#)

**(ALSO ON PLANNING AND PROGRAMMING COMMITTEE)**

**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

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**File #:** 2017-0042, **File Type:** Informational Report

**Agenda Number:** 9.

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### FINANCE, BUDGET AND AUDIT COMMITTEE FEBRUARY 15, 2017

**SUBJECT: MANAGEMENT AUDIT SERVICES FY 2017 SECOND QUARTER REPORT**

**ACTION: RECEIVE AND FILE**

#### RECOMMENDATION

RECEIVE AND FILE the **second quarter report of Management Audit Services (Management Audit) for the period ending December 31, 2016.**

#### ISSUE

At its January 2005 meeting, the Board designated the Executive Management and Audit Committee (EMAC) as their audit committee. The EMAC requested a quarterly report from Management Audit on its audit activities. In July 2011, the audit responsibilities were transferred to the Finance, Budget and Audit Committee. This report fulfills the requirement for the second quarter of FY 2017.

#### DISCUSSION

Management Audit provides audit support to the Chief Executive Officer (CEO) and his executive management team. The audits we perform are categorized as either internal or external. Internal audits evaluate the processes and controls within the agency. External audits analyze contractors, cities or non-profit organizations that we conduct business with or receive Metro funds.

There are four groups in Management Audit: Performance Audit, Contract Pre-Award Audit, Incurred Cost Audit and Audit Support and Research Services. Performance Audit is primarily responsible for all audits for Operations, Finance and Administration, Planning and Development, Program Management, Information Technology, Communications, Risk, Safety and Asset Management and Executive Office. Contract Pre-Award and Incurred Cost Audit are responsible for external audits in Planning and Development, Program Management and Vendor/Contract Management. All of these units provide assurance to the public that internal processes are efficiently, economically, effectively, ethically, and equitably performed by conducting audits of program effectiveness and results, economy and efficiency, internal controls, and compliance. Audit Support and Research Services is responsible for administration, financial management, budget coordination, and audit follow-up and resolution tracking.

The summary of Management Audit activity for the quarter ending December 31, 2016 is as follows:

Internal Audits: 2 internal audits were completed; 11 internal audits were in process.

External Audits: 2 contract pre-award audits and 14 incurred cost audits with a total value of \$123 million were completed; 6 contract audits and 64 incurred cost audits were in process.

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Audit Follow-up and Resolution: 18 recommendations were closed and 24 recommendations were added during the second quarter. At the end of the quarter, there were 98 open audit recommendations. Details of all open, extended, and closed recommendations can be found in the Second Quarter Board Box titled "Status of Audit Recommendations".

Management Audit's FY 2017 second quarter report is included as Attachment A.

**NEXT STEPS**

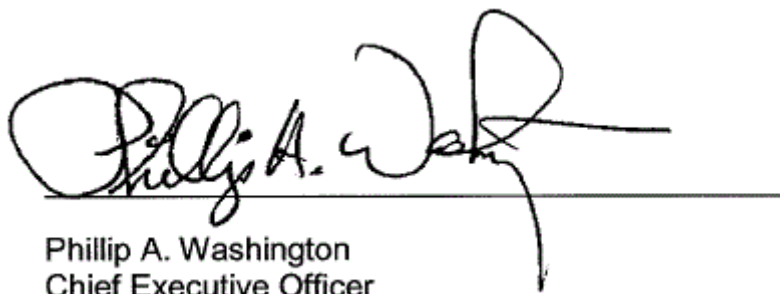
Management Audit will provide the third quarter FY 2017 summary of audit activity to the Board at the May 2017 Finance, Budget and Audit Committee meeting.

**ATTACHMENT**

A. Management Audit Services Quarterly Report to the Board for the period ending December 31, 2016

Prepared by: Monica Del Toro, Audit Support  
(213) 922-7494

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



Phillip A. Washington  
Chief Executive Officer

**MANAGEMENT AUDIT SERVICES  
QUARTERLY REPORT TO THE BOARD**

**Los Angeles County Metropolitan  
Transportation Authority**

***Second Quarter  
FY 2017***



**Metro™**

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# *EXECUTIVE SUMMARY*

## Summary of Audit Activity

During the second quarter of FY 2017, 18 projects were completed. These include:

### Internal Audits

- Performance Audit of Post Implementation Automated Storage and Retrieval System (ASRS) Manager Computer System Upgrade
- Performance Audit of Wayside Systems - Track Maintenance

### Pre-Award Audits

- Two Independent Auditor's Reports on Agreed-Upon Procedures for the Indirect Cost Rates Proposal for Purple Line Extension Section 2 Project.

### Incurred Cost Audits

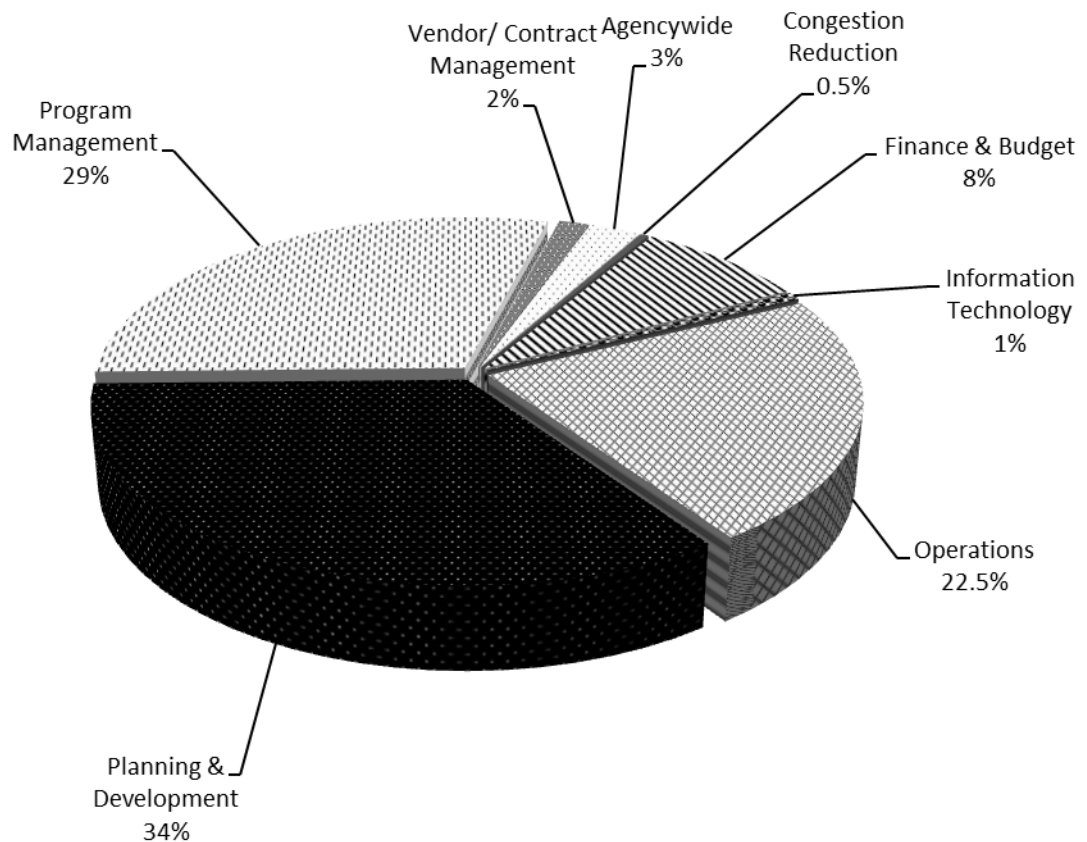
- Two Independent Auditor's Reports on the Statement of Direct Labor and Indirect Cost for Fiscal Year Ended May 31, 2014 and 2015 for Barrio Planners Incorporated;
- Four Independent Auditor's Reports on Agreed-Upon Procedures for the FY13-FY15 Indirect Rates for Westside Subway Extension Project;
- Independent Auditor's Report on Agreed-Upon Procedures of the Close-out Review of City of Malibu's PCH/Kanan Dume Road Intersection and Arrester Bed Project;
- Independent Auditor's Report on Agreed-Upon Procedures of the Close-out Review of City of Gardena's Vermont Avenue Arterial Improvements from Rosecrans Avenue to 182<sup>nd</sup> Street Project;
- Independent Auditor's Report on Agreed-Upon Procedures of the Close-out Review of City of Los Angeles' San Fernando Valley/North-South Bus Speed Improvements Project;
- Independent Auditor's Report on Agreed-Upon Procedures of the Interim Review of Caltrans' I-5 South HOV Segment 2 – Valley View Interchange Project;
- Independent Auditor's Report on Agreed-Upon Procedures of the Close-out Review of City of Los Angeles' Skirball Center Drive Widening- I-405 Freeway to Mullholland Drive Project;
- Independent Auditor's Report on Agreed-Upon Procedures of the Close-out Review of City of Glendale's Arden Ave. from Highland Ave. to Kenilworth St. Project;
- Independent Auditor's Report on Agreed-Upon Procedures of the Close-out Review of City of Gardena's Rosecrans Ave. Arterial Improvements from Vermont Ave. to Crenshaw Blvd. Project; and
- Independent Auditor's Report on Agreed-Upon Procedures of the Close-out Review of City of Los Angeles' Vermont Avenue Bridge Widening N/B Access Freeway Project.

The completed external audits are discussed on page 4. Discussions of the internal audits begin on page 5.

# EXECUTIVE SUMMARY

Eighty-one projects were in process as of December 31, 2016; these include 11 internal audits, 6 contract pre-award audits, and 64 incurred cost audits.

The following chart identifies the functional areas where Management Audit focused audit staff time and efforts during second quarter FY 2017:



## Audit follow-up:

- 18 recommendations were closed during the second quarter. At the end of the quarter there were 98 open audit recommendations.
- In addition, we closed 6 OIG recommendations. At the end of the quarter there were 16\* open audit recommendations.

\*This total does not include recommendations included in the Capital Project Construction Management Best Practices Study and Audit of Westside Purple Line Extension Section 2- Modification No. 52, as the management response and/or estimated completion dates are still pending. However, Program Management has hired a consultant to assist in addressing the most critical elements of the Best Practices Study.



# *EXECUTIVE SUMMARY*

## Audit Standard Reporting Requirements

### Independence

The International Standards for the Professional Practice of Internal Auditing requires that we report annually on our organizational independence. Organizational independence is achieved if the chief auditor reports to a level within the organization that allows the internal audit activity to fulfill its responsibilities in an unbiased manner.

Management Audit reports to the CEO and the Audit Charter requires that the Board of Directors' review and concur in the appointment, replacement or dismissal of the Chief Auditor. Therefore, we are organizationally independent and in compliance with this standard.

### Audit Charter

The International Standards for the Professional Practice of Internal Auditing requires that we review our internal audit charter periodically, present it to executive management and obtain board approval. The internal audit charter is a formal document that defines management audit activity's purpose, authority, and responsibility.

The Audit Charter was approved by the Board in July 2009. In 2011, the International Standards for the Professional Practice of Internal Auditing were revised. The Board approved Charter was compared to the updated standards and is in compliance with the new requirements. The Audit Charter is included in Appendix F for your reference.

### Internal Quality Self-Assessment

The International Standards for the Professional Practice of Internal Auditing and the Government Auditing Standards require that we report annually to executive management and the board on the quality assurance and improvement program.

An independent quality self-assessment was completed for FY16 and we are in compliance with the audit standards. We identified two areas of improvement relating to internal processes over engagement management. As a result of the quality assessment, we enhanced our engagement procedures and conducted departmental refresher trainings.

# *EXTERNAL AUDITS*

## Contract Pre-Award Audit

Contract Pre-Award Audit provides support to the Vendor/Contract Management Department for a wide range of large-dollar procurements and projects. This support is provided throughout the procurement cycle in the form of pre-award, interim, change order, and closeout audits, as well as assistance with contract negotiations.

During second quarter FY 2017, two audits were completed. The two audits supported procurements in the following areas:

- 2 Purple Line Extension, Section 2 Project procurements.

Six contract pre-award audits were in process as of December 31, 2016.

Details on Contract Pre-Award Audits completed during second quarter FY 2017 are in Appendix A.

## Incurred Cost Audit

Incurred Cost Audit conducts audits for Planning and Development's Call-for-Projects program, Program Management's highway projects, federally funded transportation programs, and various other transportation related projects, including CalTrans projects. The purpose of the audits is to ensure that funds are spent in accordance with the terms of the grants/contracts and federal cost principles.

Incurred Cost Audit completed 14 audits during second quarter FY 2017. We reviewed \$123.5 million of funds and identified \$6.7 million or 5% of unused funds that may be reprogrammed. Sixty-four incurred cost audits were in process as of December 31, 2016.

Details on Incurred Cost Audits completed during second quarter FY 2017 are in Appendix B.

# *INTERNAL AUDITS*

For the second quarter of FY 2017, 2 internal audits were completed. Eleven internal audits were in process as of December 31, 2016. The internal audits in process are listed in Appendix C.

The following internal audits were issued in the second quarter FY 2017. The completed reports are listed in order of the magnitude of risks that their findings represent to the agency.

## *Performance Audit of Wayside Systems – Track Maintenance*

The audit objective was to evaluate the efficiency and effectiveness of the rail track maintenance process.

The Wayside Track Maintenance process is effective in that it complies with track safety standards established by the California Public Utilities Commission. However, we found that the Preventative Maintenance Plan (PMP) is not comprehensive and does not provide a basis for proactively sustaining the track structure because maintenance activities are mostly reactive to conditions identified during inspections. We found opportunities to improve the process by developing a more comprehensive PMP through regularly planned maintenance, scheduled repair and scheduled replacement of track assets and components; fully automating the inspection and work order processes, establishing formal standards and guidelines for maintaining track assets, and improving the training program for maintenance staff.

Management concurred with all of our recommendations and is implementing corrective actions to resolve the issues.

## *Performance Audit of Post Implementation Automated Storage and Retrieval System (ASRS) System Upgrade*

The audit objective was to evaluate the effectiveness of the implementation process for the ASRS upgrade.

We found that the implementation process for the ASRS system upgrade was effective. User satisfaction was met and there was a process in place to respond to issues identified and that they were resolved in a timely manner. In addition, we found that the procurement process was followed to ensure that the agency received the ASRS system upgrade that it procured and paid for.

# OTHER AUDITS

## Other Audits

Other audits completed during Second Quarter FY17 by external CPA firms include:

### Proposition A and C Special Revenue Funds Audit – Issued November 2016

The MTA Reform and Accountability Act of 1998 requires the completion of an independent audit to determine compliance by the Los Angeles County Metropolitan Transportation Authority with the provisions of Propositions A and C. BCA Watson Rice LLP (BCA) completed the Independent Auditor's Report on Schedule of Revenues and Expenditures for Proposition A and Proposition C Special Revenue Funds, which fulfills the requirement for the year ended June 30, 2016. As required by law, BCA will present their audit report to the Independent Citizen's Advisory Oversight Committee.

### Gateway Center & Union Station Properties Financial Statements and Independent Auditor's Reports – Issued November 2016

Metro acquired the Union Station and Gateway Center properties in April 2011 and entered into a Leasing and Operations Management Agreement with Morlin Asset Management for the management and operations of the Gateway Center and Union Station.

We contracted BCA Watson Rice LLP (BCA) to conduct an audit of the financial statements for these two entities for the year ended June 30, 2016. The auditor found that the financial statements present fairly, in all material respects, the financial position of each entity.

### Measure R Special Revenue Fund Audit – Issued November 2016

The voter approved Measure R Ordinance mandates that an annual audit be conducted after the end of the fiscal year to ensure that the MTA complies with the terms of the Ordinance related to the receipt and expenditure of sales tax revenues during the fiscal year. BCA completed the Independent Auditor's Report on Schedule of Revenues and Expenditures for Measure R Special Revenue Fund, which fulfills the requirement for the year ended June 30, 2016. As required by law, BCA will present their audit report to the Measure R Oversight Committee.

### Measure R Compliance Audit of the Cities and County – Issued December 2016

The voter approved Measure R Ordinance mandates that an annual audit be conducted after the end of the fiscal year to determine compliance with the provisions of the Ordinance related to the net revenues allocated to the Local Return Subfund during the fiscal year. For efficiency and effectiveness, we contracted with two firms (Simpson & Simpson and Vasquez & Company, LLP) to conduct the audits of Measure R sales tax revenues used by the 87 cities as well as the County of Los Angeles. As required by law, Simpson & Simpson and Vasquez will present their audit report to the Measure R Oversight Committee.

## *OTHER AUDITS*

### Audited Financial Statements of Regional Transit Access Pass (TAP) Settlement and Clearing Accounts – Issued December 2016

Los Angeles TAP was created by the LACMTA through Board action to implement a region-wide universal fare system which provides a fully integrated, electronic fare collection system that allows seamless multi-modal travel throughout the region using smart card technology. This universal fare system is known today as the Regional TAP Program. The Regional TAP Program is managed by the Regional TAP Service Center utilizing LACMTA's staff resources.

We contracted BCA to conduct an audit of the financial statements for the year ended June 30, 2016. The auditor found that the statement of net position present fairly, in all material respects, the financial position of the Regional TAP Service Center TAP Settlement and Clearing Accounts as of June 30, 2016.

### PTSC-MTA Risk Management Authority Basic Financial Statements – Issued December 2016

In October 1998, the Public Transportation Services Corporation (PTSC) and the Los Angeles County Metropolitan Transportation Authority (LACMTA) entered into a joint powers agreement to create the PTSC-MTA Risk Management Authority (PRMA) for the purpose of establishing and operating a program of cooperative self-insurance and risk management. PRMA receives all of its funding from LACMTA and PTSC. As PTSC also receives its funding from LACMTA, PRMA is a component unit of the LACMTA and is included in LACMTA's financial statements as a blended component unit.

An audit of PRMA's financial statements by an independent CPA firm is required annually. We retained BCA to conduct the audit for the fiscal year ended June 30, 2016. BCA found that the financial statements present fairly, in all material respects, the position of PRMA as of June 30, 2016.

## OTHER AUDITS

### Basic Financial Statements – All parts Issued by December 2016

An audit of our financial statements by an independent CPA firm is required annually. We retained Crowe Horwath LLP to conduct the audit for the fiscal year FY16. The following reports include MTA's basic financial statements and following component audits for the year ended June 30, 2016:

- Basic Financial Statement Report;
- Los Angeles County Metropolitan Transportation Authority Single Audit Report Fiscal year ended June 30, 2016 which include:
  - 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
  - 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 as Required by OMB Circular A-133;
- Federal Funding Allocation Data for the Transportation Operating Agency (ID# 90154) for the fiscal year ended June 30, 2016;
- Transportation Development Act Operations Agency for the year ended June 30, 2016;
- Transportation Development Act & Prop 1B PTMISEA Planning Agency for the year ended June 30, 2016;
- State Transit Assistance Special Revenue Fund's basic financial statements as of and for the years ending June 30, 2016 and 2015;
- Crenshaw Project Corporation basic financial statements and other supplementary information as of June 30, 2016; and
- Service Authority for Freeway Emergencies' financial statements and other supplementary information as of and for the years ending June 30, 2016 and 2015.

Crowe issued unmodified opinions on all audit reports. There were no findings identified in the audit reports.

# AUDIT SUPPORT SERVICES

## Audit Follow-Up and Resolution

During the second quarter, 18 recommendations were completed and closed. At the end of this quarter there were 98 outstanding audit recommendations. The table below summarizes the second quarter activity.

### Summary of MAS and External Audit Recommendations As of December 31, 2016

Executive Area	Closed	Late <sup>1</sup>	Extended	Not Yet Due/Under Review	Total Open
Program Management				8	8
Labor/Employee Relations	2		1		1
Finance and Budget	1				
Information Technology			3		3
Metro Operations	4		14	29	43
Planning and Development	2		15	9	24
Communications	9			12	12
Systems Security & Law Enforcement				6	6
Congestion Reduction			1		1
<b>Totals</b>	<b>18</b>	<b>0</b>	<b>34</b>	<b>64</b>	<b>98</b>

1. Any findings that have not been corrected 90 days after the due date are reported as late.

In addition to the above MAS and external audit recommendations, we closed 6 recommendations for the Office of the Inspector General (OIG). At the end of the quarter there were 16\* outstanding OIG audit recommendations.

\*This total does not include recommendations included in the Capital Project Construction Management Best Practices Study and Audit of Westside Purple Line Extension Section 2- Modification No. 52, as the management response and/or estimated completion dates are still pending. However, Program Management has hired a consultant to assist in addressing the most critical elements of the Best Practices Study.

## Appendix A

<b>Contract Pre-Award Audit FY 2017 - Audits Completed During Second Quarter</b>				
<b>Area</b>	<b>Audit Number &amp; Type</b>	<b>Contractor</b>	<b>Requirement</b>	<b>Date Completed</b>
Program Management	17-CON-A04 - Attestation Agreed-upon Procedures	BA Inc.	Contractual	10/2016
Program Management	17-CON-A05 - Attestation Agreed-upon Procedures	Dakota Communications	Contractual	10/2016



## Appendix B

<b>Incurred Cost Audit FY 2017 - Audits Completed During Second Quarter</b>				
<b>Area</b>	<b>Audit Number &amp; Type</b>	<b>Grantee</b>	<b>Requirement</b>	<b>Date Completed</b>
Planning & Development	16-PLN-A34 - Closeout	City of Malibu	Contractual	10/2016
Planning & Development	16-PLN-A37 - Closeout	City of Gardena	Contractual	10/2016
Planning & Development	16-PLN-A22 - Closeout	City of Los Angeles	Contractual	10/2016
Planning & Development	14-PLN-A18 - Interim	County of Los Angeles	Contractual	10/2016
Planning & Development	15-PLN-A11 - Closeout	City of Los Angeles	Contractual	11/2016
Program Management	17-HWY-A01 - Closeout	City of Glendale	Contractual	11/2016
Program Management	17-HWY-A06 - Closeout	City of Gardena	Contractual	12/2016
Planning & Development	16-PLN-A09 - Closeout	City of Los Angeles	Contractual	12/2016
Program Management	17-CON-A17 - Attestation Agreed-upon Procedures	AECOM Technical Services, Inc.	Contractual	12/2016
Planning & Development	17-SPE-R03A - Attestation Agreed-upon Procedures	Barrio Planners Incorporated	Contractual	11/2016
Planning & Development	17-SPE-R03B - Attestation Agreed-upon Procedures	Barrio Planners Incorporated	Contractual	11/2016

<b>Incurred Cost Audit FY 2017 - Audits Completed During Second Quarter</b>				
<b>Area</b>	<b>Audit Number &amp; Type</b>	<b>Grantee</b>	<b>Requirement</b>	<b>Date Completed</b>
Program Management	17-CON-A16 - Attestation Agreed-upon Procedures	Stantec Consulting Services, Inc.	Contractual	12/2016
Program Management	17-CON-A24 - Attestation Agreed-upon Procedures	North American Infrastructure	Contractual	12/2016
Program Management	17-CON-A23 - Attestation Agreed-upon Procedures	MARRS Services Inc.	Contractual	12/2016

## Appendix C

<b>Internal Audit FY 2017 - In Process as of December 31, 2016</b>			
<b>Area</b>	<b>Audit Number &amp; Title</b>	<b>Description</b>	<b>Estimated Date of Completion</b>
Finance & Budget	10-ACC-F01 - Accounts Receivable	Validate Accounts Receivable is in compliance with departmental policies and procedures.	2/2017
Program Management	16-CON-P01 - Indefinite Delivery / Indefinite Quantity (IDIQ) Type Contracts	Determine the efficiency and effectiveness of the administration of IDIQ Contracts.	2/2017
Program Management	12-CON-P03 - I-405 Follow-up	Verify if management's corrective actions from the prior audit were implemented and resulting in improvements.	2/2017
Information Technology	16-ITS-P02 - Audit of IT Asset Management	Evaluate the effectiveness of management over technology assets.	2/2017
Program Management	16-CON-P04 - Quality Assurance	Effectiveness and efficiency of quality assurance processes.	2/2017
Program Management	10-CPC-K02 - Third Party Utility Relocation Agreement Efficiency	Assess the adequacy and effectiveness of the Third Party Utility Relocation.	2/2017
Metro Operations	16-OPS-P03 - Accident Prevention Program	Evaluate effectiveness of accident prevention practices	2/2017
Congestion Reduction	16-CEO-P02 - 511 follow-up audit	Follow Up on 511 audit.	3/2017
Vendor / Contract Management	16-VCM- P01 - Audit of P-Card	Evaluate compliance to P-card purchase requirements.	3/2017

<b>Internal Audit FY 2017 - In Process as of December 31, 2016</b>			
<b>Area</b>	<b>Audit Number &amp; Title</b>	<b>Description</b>	<b>Estimated Date of Completion</b>
Metro Operations	16-OPS-P02 - Rail Overhaul and Maintenance	Evaluate the efficiency and effectiveness of the Rail Overhaul and Refurbishment Program.	4/2017
Metro Operations	16-OPS-P05 - Division Practices	Evaluate effectiveness of Division management practices	4/2017

## Appendix D

Open Audit Recommendations						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
1	Operations	11-OPS-006 - HASTUS	2	We recommend the Chief Operations Officer require the Scheduling department to: Provide training on all ATP features. <b>Update: Implementation of this recommendation dependent on upgrade of the HASTUS system. Operations working with vendor, however additional time is needed to complete conversion of the scripts to upgrade the system.</b>	6/30/2016	6/30/2017
2	Operations	11-OPS-006 - HASTUS	3	We recommend the Chief Operations Officer require the Scheduling department to: Provide training on all AP features. a. Develop the requirements to utilize AVL data to supplement missing data from the APC. b. Customize the current ATP module to improve its functionality until the proposed 2013 upgrade can be accomplished. <b>Update: Implementation of this recommendation dependent on upgrade of the HASTUS system. Operations working with vendor, however additional time is needed to complete conversion of the scripts to upgrade the system.</b>	6/30/2016	6/30/2017
3	Operations	11-OPS-006 - HASTUS	4	We recommend the Chief Operations Officer consider utilizing more of HASTUS' Minbus module features by: Defining the higher minimum of either 1) the United Transportation Union Labor Agreement, or 2) an operational minimum layover time. <b>Update: Implementation of this recommendation dependent on upgrade of the HASTUS system. Operations working with vendor, however additional time is needed to complete conversion of the scripts to upgrade the system.</b>	6/30/2016	6/30/2017
4	Operations	11-OPS-006 - HASTUS	5	We recommend the Chief Operations Officer consider utilizing more of HASTUS' Minbus module features by: Looking for opportunities to interline routes as a strategy for achieving a more cost effective solution. <b>Update: Implementation of this recommendation dependent on upgrade of the HASTUS system. Operations working with vendor, however additional time is needed to complete conversion of the scripts to upgrade the system.</b>	6/30/2016	6/30/2017
5	Operations	11-OPS-006 - HASTUS	6	We recommend the Chief Operations Officer consider utilizing more of HASTUS' Minbus module features by: Developing a more robust, realistic deadhead matrix and use the matrix during the vehicle blocking process to globally optimize its bus system schedules. <b>Update: Implementation of this recommendation dependent on upgrade of the HASTUS system. Operations working with vendor, however additional time is needed to complete conversion of the scripts to upgrade the system.</b>	6/30/2016	6/30/2017
6	Operations	11-OPS-006 - HASTUS	7	We recommend the Chief Operations Officer consider utilizing more of HASTUS' Minbus module features by: Defining the maximum number of vehicle groups possible for any given trip. <b>Update: Implementation of this recommendation dependent on upgrade of the HASTUS system. Operations working with vendor, however additional time is needed to complete conversion of the scripts to upgrade the system.</b>	6/30/2016	6/30/2017
7	Operations	11-OPS-006 - HASTUS	8	We recommend the Chief Operations Officer consider utilizing more of HASTUS' Minbus module features by: Training Schedulers to use Minbus advanced features. <b>Update: Implementation of this recommendation dependent on upgrade of the HASTUS system. Operations working with vendor, however additional time is needed to complete conversion of the scripts to upgrade the system.</b>	6/30/2016	6/30/2017

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Open Audit Recommendations						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
8	Operations	11-OPS-006 - HASTUS	11	We recommend the Chief Operations Officer: Consider multi-division operator run cutting to optimize workforce distribution amongst divisions. <b>Update: Implementation of this recommendation dependent on upgrade of the HASTUS system. Operations working with vendor, however additional time is needed to complete conversion of the scripts to upgrade the system.</b>	6/30/2014	6/30/2017
9	Operations	11-OPS-006 - HASTUS	12	We recommend the Chief Operations Officer: Adopt integrated scheduling to improve the efficiency of run cuts. <b>Update: Implementation of this recommendation dependent on upgrade of the HASTUS system. Operations working with vendor, however additional time is needed to complete conversion of the scripts to upgrade the system.</b>	6/30/2014	6/30/2017
10	Operations	11-OPS-006 - HASTUS	13	We recommend the Chief Operations Officer transition to HASTUS for scheduling rail service. The plan should include transition milestones and estimated completion dates. <b>Update: Implementation of this recommendation dependent on upgrade of the HASTUS system. Operations working with vendor, however additional time is needed to complete conversion of the scripts to upgrade the system.</b>	6/30/2016	6/30/2017
11	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	4	Document existing procedures to improve internal control and oversight of grantees/sub-recipients	6/30/2015	2/28/2017
12	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	5	Activities at high risk for error and non-compliance should be identified and procedures documented for consistent implementation across all modes and project managers.	6/30/2015	2/28/2017
13	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	7	Proceed with development of grants management module in the FIS system.	12/31/2015	2/28/2017
14	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	8	Coordinate FIS module development with a more comprehensive grants management database system for tracking grants within the RGM Unit. Consider using a user-friendlier "Windows-based" environment for the grants management database.	12/31/2015	2/28/2017
15	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	9	Inventory and evaluate current "shadow systems" to help determine project manager requirements. This may provide useful information for the creation of a centralized database.	12/31/2015	2/28/2017
16	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	10	Develop protocols on who can update the data and how often.	12/31/2015	2/28/2017
17	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	11	Develop a high-level summary of grants for Metro executive staff and Board members based on their need for that information.	12/31/2015	2/28/2017

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Open Audit Recommendations						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
18	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	12	Consider revising its organizational structure to provide clearer definition of responsibilities, improved levels of supervision and review, and improved management control and oversight. One possible structure would be around the key functions or elements of grants management.	6/30/2015	2/28/2017
19	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	13	Develop teams around each of these key elements, with a supervisor responsible for managing and directing each team's activities.	6/30/2015	2/28/2017
20	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	19	Develop a process to ensure implementation of timely and appropriate corrective actions to address closeout activities such as final reporting, project closeouts and other events that affect the closeout process.	6/30/2015	2/28/2017
21	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	20	Designate an individual to serve as the grant closeout liaison.	6/30/2015	2/28/2017
22	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	21	Create a tool, such as an "Aging Report" to enable the liaison to quickly identify a critical event and to perform necessary updates to close the grant.	6/30/2015	2/28/2017
23	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	26	Inventory individual roles and responsibilities and develop procedures for transfer of knowledge and cross training of other team members.	6/30/2015	2/28/2017
24	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	27	Develop a process focused less on modal specialization and adopt a model whereby a greater number of team members are trained across a wider spectrum of activities and modes.	6/30/2015	2/28/2017
25	Planning & Development	13-PLN-P01 - Grants Management and Call for Projects	28	Establish formal training; verify that processes are consistent but sufficiently flexible to accommodate variations in managing grants and projects.	6/30/2015	2/28/2017
26	Congestion Reduction	12-HCP-P01 - Metro Freeway Service Patrol	3	Develop goals and objectives, and reinstitute performance measurements, for the oversight of the Metro Freeway Service Patrol Program. <b>Update: Delay in execution of FSP Communication / Data Collection system contract.</b>	5/30/2016	3/31/2017
27	Information Technology	14-ADM-P01 - Mobile Devices	2	We recommend that the Chief Information Officer implement appropriate Mobile Device Management software to manage all mobile devices and enforce security.	9/30/2015	10/31/2016

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Open Audit Recommendations						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
28	Information Technology	14-ADM-P01 - Mobile Devices	3	We recommend that the Chief Information Officer expand ITS wireless Device and Service policies and procedures to include written security requirements for mobile devices.	9/30/2015	10/31/2016
29	Information Technology	14-ADM-P01 - Mobile Devices	4	We recommend that the Chief Information Officer implement a device management platform that will provide adequate device level security controls.	9/30/2015	10/31/2016
30	Operations	13-OPS-P06 - Contracted Bus Service	1	We recommend the Executive Director, Transportation, to require Contracted Services to: develop a Contract Monitoring System that includes but is not limited to: a. A Contract Administration Plan that specifies the performance outputs of the statement of work and describes the methodology to conduct monitoring or surveillance. The extent and frequency of monitoring activities should be based on an assessment of risk related to each contractor and the impact if the work is not performed adequately. b. Written policies and procedures that serve as a guide to ensuring consistent, high quality contract monitoring process. c. A centralized location for receiving and maintaining contractors' submittals and reports by utilizing Metro's existing web based SharePoint system.	10/31/2016	
31	Operations	13-OPS-P06 - Contracted Bus Service	6	We recommend the Executive Director, Transportation, to require Contracted Services to develop procedures for monitoring contractors performance, including, but not limited to, spot checks, periodic inspections, random sampling of routine functions, based on the risk identified in the Contract Administration Plan and the analyses of contractors monthly submittals. <b>Update: Documented procedures for monitoring contract performance will be addressed as part of development of policies and procedures for Contracted Services Department however, Operations has implemented an internal practice for field reps. to use a checklist to guide them in monitoring contractor performance.</b>	6/30/2016	2/28/2017
32	Operations	13-OPS-P06 - Contracted Bus Service	12	We recommend the Executive Director of Transportation, require that Contracted Services follow-up variances and anomalies in KPI data and results with contractor to determine their cause and ensure that any necessary corrective actions have been implemented. <b>Update: Documented procedures will be addressed as part of development of policies and procedures for Contracted Services Department however, Operations has implemented an internal invoice checklist as a reminder to ensure that variances and anomalies are escalated to the Contract Services Manager for further review and assessment.</b>	3/31/2016	2/28/2017
33	Operations	13-OPS-P06 - Contracted Bus Service	13	We recommend the Executive Director of Transportation, require that Contracted Services identify KPIs as measurements for contractors' performance within future contracts. <b>Update: KPI measurements will be addressed in future contracts to be executed in late FY17.</b>	6/30/2016	2/28/2017

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Open Audit Recommendations						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
34	Operations	13-OPS-P06 - Contracted Bus Service	14	We recommend the Executive Director of Transportation, require that Contracted Services document follow-up of exceptions, cited in both CHP and QA inspection reports, and corrective actions taken. <b>Update: Documented procedures for monitoring contract performance will be addressed as part of development of policies and procedures for Contracted Services Department however, Operations has implemented an internal practice for field reps. to use a checklist to document any exceptions and subsequent corrective actions.</b>	5/31/2016	2/28/2017
35	Operations	13-OPS-P04 - Operations Key Performance Indicators	6	We recommend that the Chief Operations Officer requires SPA to continue to work with ITS to develop a Business Intelligence software application that includes a customizable interface with the ability to pull data from multiple sources.	6/30/2017	
36	Program Management	13-CEO-P01 - Cost Estimating Process	1	We recommend that Estimating Management develop comprehensive policies and procedures that at a minimum should include: a) Clear definition of the role of the Cost Estimating department in the following areas: preparation of independent cost estimates including thresholds when the estimating department is responsible in preparing the cost estimates, review, validation and approval of cost estimates, involvement in budget planning phase b) Standard process and format including the requirement to use Work Breakdown Structure (WBS) to be used by consultants, contractors and internal staff.	3/31/2017	
37	Program Management	13-CEO-P01 - Cost Estimating Process	2	Communicate the policies and procedures to staff, consultants and users.	3/31/2017	
38	Program Management	13-CEO-P01 - Cost Estimating Process	3	Evaluate resources to meet the role and responsibilities of cost estimating department.	3/31/2017	
39	Program Management	13-CEO-P01 - Cost Estimating Process	4	Collaborate with procurement and program management in revising the naming convention on policies and procedures.	3/31/2017	
40	Program Management	13-CEO-P01 - Cost Estimating Process	5	We recommend that Estimating Management evaluate the training needs for estimating staff based on the changes of agency's risk, and ensure knowledge is transferred as staff retired.	3/31/2017	
41	Program Management	13-CEO-P01 - Cost Estimating Process	6	Based on the training need assessment, evaluate the required resources for training and develop a training program.	3/31/2017	
42	Program Management	13-CEO-P01 - Cost Estimating Process	7	Consider adding the training requirements in the policy and procedures.	3/31/2017	
43	Program Management	13-CEO-P01 - Cost Estimating Process	8	We recommend that Estimating Management provide estimating guidelines and formats when utilizing two independent estimates, so that they may be compared productively. Guidelines should be developed that cover estimating approach, methodology, Work Breakdown Structures (WBS) and cost account structure.	3/31/2017	

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Open Audit Recommendations						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
44	Communications	16-COM-P01 - Special Fares Programs	6	We recommend that the Customer Programs and Services Department rotate the independent reviewer(s) periodically.	9/30/2016	
45	Communications	16-COM-P01 - Special Fares Programs	8	We recommend that the Customer Programs and Services Department collaborate with TAP operation to explore feasibility of system enhancement to allow the eligibility supporting documentation along with the application form to be stored electronically.	9/30/2016	
46	Labor / Employee Relations	16-COM-P01 - Special Fares Programs	11	We recommend that the HR Department maintain an inventory log to record the receipts and distribution of the Metro employee cards, and perform physical count periodically to ensure the log reconciles with the inventories on hand.	7/31/2016	3/31/2017
47	Communications	16-COM-P01 - Special Fares Programs	14	We recommend the Communications Department update the B-TAP Program Policy and/or Agreement terms so that the language on these two documents are consistent with the intended pricing level for B-TAP customers.	3/31/2017	
48	Communications	16-COM-P01 - Special Fares Programs	16	We recommend the Communications Department to implement a formal detailed review where the price is recalculated and employment status is verified for accuracy on a sample basis. This review should be performed periodically by individual(s) independent of the sales team to assess the reasonableness, eligibility and accuracy of the customer data and program pricing.	3/31/2017	
49	Communications	16-COM-P01 - Special Fares Programs	19	We recommend the Communications Department to define the program ownership, and clarify the roles and responsibilities to ensure the program performance is monitored and evaluated.	3/31/2017	
50	Communications	16-COM-P01 - Special Fares Programs	20	We recommend the Communications Department to report the program performance periodically to the appropriate level of management to support decision making.	3/31/2017	
51	Communications	16-COM-P01 - Special Fares Programs	21	We recommend the Communications Department to renew the agreement with the Court to confirm mutual agreement.	3/31/2017	
52	Communications	16-COM-P01 - Special Fares Programs	22	We recommend the Communications Department to revisit the program purpose and guidelines/requirements to assess the current J-TAP Program performance.	3/31/2017	
53	Communications	16-COM-P01 - Special Fares Programs	23	We recommend the Communications Department obtain a written agreement with DCFS to confirm the mutual agreement and to retain the legal rights to enforce DCFS to meet the Program guidelines and requirements.	3/31/2017	
54	Communications	16-COM-P01 - Special Fares Programs	24	We recommend the Communications Department to implement periodic review (at least annually) of YOTM cardholders to ensure their eligibility.	3/31/2017	
55	Communications	16-COM-P01 - Special Fares Programs	25	We recommend the Communications Department to assess the program performance periodically, and report to the appropriate level of management.	3/31/2017	

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Open Audit Recommendations						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
56	Communications	16-COM-P01 - Special Fares Programs	26	We recommend the Communications Department to revisit the program purpose and assess the pricing model to generate the optimal program revenue.	3/31/2017	
57	Planning & Development	14-EDD-P01 - Real Estate Property	6	We recommend that Real Estate Management review lease agreements and make appropriate CPI and/or FMV adjustments. Document the decisions made on file when FMV and/or CPI adjustments are deemed unnecessary.	6/30/2017	
58	Planning & Development	14-EDD-P01 - Real Estate Property	7	We recommend that Real Estate Management ensure property management system is updated to reflect the appropriate lease amount.	6/30/2017	
59	Planning & Development	14-EDD-P01 - Real Estate Property	8	We recommend that Real Estate Management improve the invoice review process when manual invoices are generated outside the system for accuracy and completeness.	6/30/2017	
60	Planning & Development	14-EDD-P01 - Real Estate Property	9	We recommend that Real Estate Management set dollar threshold levels of approval for credit memos.	6/30/2017	
61	Planning & Development	14-EDD-P01 - Real Estate Property	10	We recommend that Real Estate Management require that all credit memos include a justification and proper documentation.	6/30/2017	
62	Planning & Development	14-EDD-P01 - Real Estate Property	11	We recommend that Real Estate Management complete the required inspections and document inspection records on file.	6/30/2017	
63	Planning & Development	14-EDD-P01 - Real Estate Property	12	We recommend that Real Estate complete the write off process for delinquent accounts that are deemed uncollectable in accordance with the policy established for writing off uncollectable amounts.	6/30/2017	
64	Planning & Development	14-EDD-P01 - Real Estate Property	13	We recommend that Real Estate Management develops policies and procedures for collecting and writing off past due accounts including when consultation with County Counsel is required. Policy should include timeframes to ensure timely actions are taken.	6/30/2017	
65	Planning & Development	14-EDD-P01 - Real Estate Property	14	We recommend that Real Estate Management will establish a process for investigating customer's payment that has no invoice reference so proper application of payments received can be made or invoice can be prepared.	6/30/2017	
66	Operations	16-AGW-P03 - Overtime Usage	3	We recommend that Bus and Rail Operation Management resolve the issues found in the overtime exception reports prior to finalizing the payroll code data entry and approval process for employee time.	10/31/2016	

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## Open Audit Recommendations

No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
67	Operations	16-AGW-P03 - Overtime Usage	4	We recommend that Bus and Rail Operation Management collaborate with ITS and Payroll departments on either developing additional preventive/detective system controls or improving the current system controls in M3 and Payroll to assist timekeepers and approvers to prevent incorrect/invalid overtime payments to employees.	10/31/2016	
68	Operations	16-AGW-P03 - Overtime Usage	5	We recommend that Bus and Rail Operation Management perform periodic review by independent third person who is not involved in routine timesheet data entry and approval process to assess the effectiveness of improvement in the process/ controls in preventing the re-occurrence of invalid overtime payments.	12/31/2016	
69	Safety Security and Law Enforcement	16-AGW-P03 - Overtime Usage	6	We recommend that Transit Security Management collaborate with ITS and Payroll departments on establishing the preventive/detective controls to assist timekeepers and approvers to prevent invalid overtime payments to employees.	10/31/2016	
70	Safety Security and Law Enforcement	16-AGW-P03 - Overtime Usage	7	We recommend that Transit Security Management perform periodic review by independent third person who is not involved in routine timesheet data entry and approval process to assess the effectiveness of improvements made in the process/system controls in preventing the re-occurrence of invalid overtime payments.	10/31/2016	
71	Safety Security and Law Enforcement	16-AGW-P03 - Overtime Usage	9	We recommend that Transit Security Management collaborate with ITS Department to explore the options whether the approval and document retention for justifications in exceeding the 32 hours overtime limitation can be automated.	2/28/2017	
72	Safety Security and Law Enforcement	16-AGW-P03 - Overtime Usage	14	We recommend that Transit Security Department complete resource plan to determine the optimal number of regular employees to perform work requirements.	7/30/2017	
73	Safety Security and Law Enforcement	16-AGW-P03 - Overtime Usage	15	We recommend that Transit Security Department conduct a cost benefit analysis to compare the cost of hiring additional staff versus paying overtime to existing staff or a combination of both to determine the most cost efficient option to meet the work requirements.	7/30/2017	
74	Safety Security and Law Enforcement	16-AGW-P03 - Overtime Usage	16	We recommend that Transit Security Department periodically adjust the plan to reflect changes in work requirements.	7/30/2017	
75	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	1	We recommend the Chief Operations Officer require Track management to develop an inventory of linear assets and their components that can be the basis of a PMP to accurately forecast maintenance requirements and component replacements.	6/30/2017	
76	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	2	We recommend the Chief Operations Officer require Track management to develop a formal risk assessment of potential failures for track components or assets aimed at supplementing the current inspection program with a scheduled maintenance plan for selected components or maintenance practices.	6/30/2017	
77	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	3	We recommend the Chief Operations Officer require Track management to revise the current PMP to include assets or maintenance activities that can be performed on a cyclical basis.	3/31/2017	

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Open Audit Recommendations						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
78	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	4	We recommend the Chief Operations Officer require Track management to develop quality standards for track maintenance to proactively maintain Metro's unique track infrastructure.	6/30/2017	
79	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	5	We recommend the Chief Operations Officer require Track management to consider the use of GPS-enabled handheld PDAs or other electronic device to record inspection results and improve track inspection information collection.	11/30/2016	
80	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	6	We recommend that while the long-term recommendation is being evaluated, that the Chief Operations Officer require Track management to revise inspection forms/reports to include: applicable checklists with inspection criteria for the different types of inspections; condition description, and ranking description of conditions with estimated completion for corrective actions.	6/30/2017	
81	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	7	We recommend that while the long-term recommendation is being evaluated, that the Chief Operations Officer require Track management to train inspectors to properly complete both inspection and maintenance forms.	6/30/2017	
82	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	8	We recommend that while the long-term recommendation is being evaluated, that the Chief Operations Officer require Track management to log all conditions that impact the track structure in the inspection reports, including water damage in the tunnels.	06/30/2017	
83	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	9	We recommend that while the long-term recommendation is being evaluated, that the Chief Operations Officer require Track management to collaborate with ITS to explore best options to enter inspection results in electronic format in a centralized location to allow future trends and analyses of data.	6/30/2017	
84	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	10	We recommend that while the long-term recommendation is being evaluated, that the Chief Operations Officer require Track management to work with other business units who are responsible to implement any corrective actions that may impact track maintenance and/or track condition.	6/30/2017	
85	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	11	We recommend that the Chief Operations Officer, require Track management to collaborate with ITS to maximize the use of the M3 system (Inspection and/or Work Management modules) or identify a new system that is more suited for their process and make this a budgetary priority.	6/30/2017	
86	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	12	We recommend that the Chief Operations Officer, require Track management to provide training for track management, supervisors and/or leads that create work orders in the M3 system.	6/30/2017	
87	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	13	We recommend that the Chief Operations Officer, require Track management to log all open maintenance conditions in M3, as they are identified, to produce meaningful reports.	6/30/2017	
88	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	14	We recommend that the Chief Operations Officer, require Track management develop performance metrics for reporting to Executive Management on track condition and maintenance efforts.	3/31/2017	
89	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	15	We recommend the Chief Operations Officer require Tracks Management to develop departmental policies and procedures specific to Track Maintenance activities and specify the track maintenance standards and/or guidelines that should be followed.	6/30/2017	

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No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
90	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	16	We recommend the Chief Operations Officer require Tracks Management to develop an illustrative field manual based on Metro's own criteria for track maintenance and allocate the necessary budget to do this.	6/30/2017	
91	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	17	We recommend the Chief Operations Officer require Tracks Maintenance to update SOPs to align with the track inspection criteria.	6/30/2017	
92	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	18	We recommend that the Chief Operations Officer require Track Management to engage engineering talent to provide design specifications for these complex and specialized equipment.	3/31/2017	
93	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	19	We recommend that the Chief Operations Officer require Track Management to create a long term maintenance equipment acquisition and replacement plan, recognizing the need for reliable and uninterrupted equipment utilization for our expanding rail operations and obtain the budget and resources necessary for the plan.	6/30/2017	
94	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	20	We recommend that the Chief Operations Officer require Track Management to define training and certification program requirements for each task performed by the unit, including the frequency for each course.	6/30/2017	
95	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	21	We recommend that the Chief Operations Officer require Track Management to bring inspectors current on all their training and re-certification requirements including refresher and welding courses.	3/31/2017	
96	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	22	We recommend that the Chief Operations Officer require Track Management to consider collaborating with ITS to determine whether Operations' existing OTTS system can be modified and used by Rail Instruction or implement and automated Track Training Management system to gain greater visibility of employee training records and data.	12/31/2017	
97	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	23	We recommend that the Chief Operations Officer require Track Management to consider making specialized areas such as welding a part of the Inspector's Job specification.	6/30/2017	
98	Operations	16-OPS-P01 - Wayside Systems - Track Maintenance	24	We recommend that the Chief Operations Officer require Track Management to consider acquiring a dedicated instructor for Track Maintenance to ensure all employees receive appropriate training.	7/31/2017	

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## Appendix E

OIG Open Audit Recommendations						
No.	Area	Audit Number & Title	Rec. No.	Recommendation	Original Completion Date	Extended Completion Date
1	Employee & Labor Relations	15-AUD-02 - Review of Metro Mandatory Training	1	Consider ways to proactively set up a system to identify all employees who require mandatory training, and notify the employees to sign up for the required classes.	3/31/2017	
2	Employee & Labor Relations	15-AUD-02 - Review of Metro Mandatory Training	2	Update the SharePoint database by: a. Reviewing the mandatory training classes listed in the SharePoint database to ensure that all mandatory training classes are annotated as "mandatory" in the database, and b. Periodic reviewing the database to ensure that the information listed is current and all mandatory training classes are annotated.	3/31/2017	
3	Employee & Labor Relations	15-AUD-02 - Review of Metro Mandatory Training	3	Update the Metro Policy on Training, HR 8-2, in accordance with General Management Policy GEN 5. <b>Update: Revised Policy is complete and awaiting comments and approval from other Strategic Business Units.</b>	8/31/2016	3/31/2017
4	Employee & Labor Relations	15-AUD-02 - Review of Metro Mandatory Training	4	Encourage managers and supervisors to review required training with their employees when reviewing the employee's performance and when preparing employee objective for the coming year. <b>Update: Plan to establish a training tracking system has been developed and is awaiting comments and approval from other Strategic Business Units.</b>	1/31/2016	3/31/2017
5	ITS	15-AUD-01 - Audit of Telephone Usage and Billings	10	Conduct a complete physical inventory of all data and voice circuits to verify the information in VeraSmart is correct.	11/30/2015	11/30/2016
6	Systems, Security & Law Enforcement	16-AUD-03 - Metro Policing and Security Workload and Staffing Analysis	2	The Metro System Safety and Law Enforcement Division should continue to monitor and track the various safety and security risks facing the Metro System, deploy personnel consistent with the information provided in this report, and make revisions in plans and operations as needed including deployment of personnel to mitigate these risks on an ongoing basis.	10/31/2016	
7	Systems, Security & Law Enforcement	16-AUD-03 - Metro Policing and Security Workload and Staffing Analysis	5	The Metro System Safety and Law Enforcement Division should consider the types of duties described in this report that might be performed by the Metro Security personnel to better define their roles, and work to resolve ongoing questions regarding the authority of Metro Security personnel within their confines, and the entity or agency responsible for granting and overseeing that authority.	12/31/2016	
8	Systems, Security & Law Enforcement	16-AUD-03 - Metro Policing and Security Workload and Staffing Analysis	6	The Metro System Safety and Law Enforcement Division should continue to work with local law enforcement agencies to identify the potential for no cost basic services. Also consider if paid dedicated service from these agencies is beneficial and manageable, and leverage these services as appropriate. Efforts should also be made to increase regular communication and education to promote collaboration and coordination.	12/31/2016	
9	Systems, Security & Law Enforcement	16-AUD-03 - Metro Policing and Security Workload and Staffing Analysis	8	The Metro System Safety and Law Enforcement Division should consider developing or acquiring and implementing a resource oversight and monitoring application for use on the smartphones currently used by Metro safety and security personnel. Metro should also consider identifying specific reporting requirements as input into the development of the new Computer Aided Dispatch (CAD) system by the LASD.	1/31/2017	
10	Systems, Security & Law Enforcement	16-AUD-03 - Metro Policing and Security Workload and Staffing Analysis	11	The Metro System Safety and Law Enforcement Division should use the information obtained through the Request for Proposal for law enforcement and security services, and identify the level of and approach to investigative and special operations services as part of the Rail and Bus Safety and Security Plans.	9/30/2016	
11	Systems, Security & Law Enforcement	16-AUD-03 - Metro Policing and Security Workload and Staffing Analysis	12	The Metro System Safety and Law Enforcement Division should use the information and options outlined in this report to develop a Request for Proposal for law enforcement and security services, and to develop a Critical Infrastructure Protection Plan.	10/31/2016	

Any findings that have not been corrected 90 days after the due date are reported as late.

<b>OIG Open Audit Recommendations</b>						
<b>No.</b>	<b>Area</b>	<b>Audit Number &amp; Title</b>	<b>Rec. No.</b>	<b>Recommendation</b>	<b>Original Completion Date</b>	<b>Extended Completion Date</b>
12	Systems, Security & Law Enforcement	16-AUD-03 - Metro Policing and Security Workload and Staffing Analysis	13	The Metro System Safety and Law Enforcement Division should use the information and options outlined in this report to develop a Metro and Operations Security Plan.	10/31/2016	
13	Systems, Security & Law Enforcement	16-AUD-03 - Metro Policing and Security Workload and Staffing Analysis	14	The Metro System Safety and Law Enforcement Division should use the information obtained through the Transit Policing Division and Metro Security employee surveys to identify and address key issues.	9/30/2016	
14	Vendor / Contract Management	16-AUD-02 - Audit of Procurement Process for the Crenshaw/LAX Transit Corridor Contract	1	The Procurement Department should develop written procedures and process to validate (a) required professional licenses and certifications for "Key Personnel" specified in RFQ and RFP, and (b) document this validation in the contract files. This process should also include periodic validations whenever "Key Personnel" are replaced during the life of the project.	1/31/2017	
15	Finance & Budget	16-AUD-04 - Audit of Statutorily Mandated Audit of Miscellaneous Expenses Training and Seminars Accounts	2	The Office of Management and Budget will implement any appropriate revisions to Account 50213 in the Fiscal Year 2017 budget process.	4/31/2017	
16	Labor / Employee Relations	16-AUD-07 - Audit of Metro Business Travel Expenses	1	We recommend that Metro Travel Coordinator Advise Board deputies who travel for Metro business to obtain authorization from the Board Director to whom the deputy reports in accordance with Board of Directors Rules and Procedures. An email attached to the TA would be sufficient if it identifies acknowledgement of the full amount of the estimated travel expenses.	10/31/2016	

Any findings that have not been corrected 90 days after the due date are reported as late.





**Metro**

# Management Audit Services Audit Charter

## I. INTRODUCTION

Los Angeles County Metropolitan Transportation Authority (MTA) maintains an active audit function under the direction of Deputy Chief Executive Officer (DCEO); with responsibility to report its activities to the Chief Executive Officer (CEO) and the Board. This charter defines the mission, scope, commitment to quality, authority and accountability, independence, and responsibility of MTA's audit department, Management Audit Services

## II. MISSION

Management Audit Services provides highly reliable, independent, objective assurance and consulting services designed to add value and improve MTA's operations. Management Audit Services accomplishes this by bringing a systematic, disciplined approach to evaluating and recommending improvements to the effectiveness of risk management, controls and governance processes.

## III. SCOPE

The scope of work performed by Management Audit Services is to determine whether MTA's network of risk management, control, and governance processes, as designed and represented by management, is adequate and functioning to ensure:

- Risks are appropriately identified and managed;
- Significant financial, managerial, and operating information is accurate, reliable and timely;
- Resources are acquired economically, used efficiently, and adequately protected;
- Programs, plans, projects and objectives are achieved;
- Quality and continuous improvement are fostered;
- Significant legislative or regulatory issues impacting MTA are recognized, addressed appropriately and interaction with governance groups occurs;
- Employees' actions are in compliance with policies, standards, procedures and applicable laws and regulations; and
- Opportunities for improving management control, streamlining processes, and improving public perception may be identified during audits. These will be communicated to the appropriate level of management.

## IV. COMMITMENT TO QUALITY

Management Audit Services commits to providing world-class service through timely, unbiased, value-added assurance and consulting services. We will work as



**Metro**

## **Management Audit Services Audit Charter**

a team with our clients to improve processes and meet strategic goals and objectives. We will enhance the services we provide by continuously improving our audit activities. Management Audit Services adheres to the following professional standards and codes:

- Government Auditing Standards promulgated by the Comptroller General of the United States;
- Institute of Internal Auditors International Professional Practices Framework;
- Information Systems Auditing Standards promulgated by the Information Systems Audit and Control Association;
- MTA's Employee Code of Conduct and Administrative Code;
- Institute of Internal Auditor's Code of Ethics, and
- Management Audit Services' Audit Policy Manual and applicable procedures.

### **V. AUTHORITY AND ACCOUNTABILITY**

Management Audit Services audits all departments, programs, functions, systems, contracts and activities based on the approved audit plan or specific requests that have been approved by the CEO.

Management Audit Services is authorized to:

- Have full, free and unrestricted access to all information, functions, operations, systems, property, personnel and other relevant materials necessary to accomplish its work. All employees will cooperate fully in making available material or information requested by Management Audit Services or any external auditors managed by Management Audit Services. Access to contracted third parties will be handled in accordance with contractual terms. Management Audit Services staff signs Confidentiality Statements annually. Documents provided to Management Audit Services will be handled in the same prudent manner as by those employees normally accountable for them;
- Allocate resources, set frequencies, select subjects, determine scopes of work, and apply the techniques required to accomplish audit objectives; and
- Obtain the necessary assistance of personnel in functions where audits are being performed, as well as other specialized services from external consultants.

Management Audit Services is not authorized to:

- Initiate or approve accounting transactions external to Management Audit Services and
- Direct the activities of any employee not part of Management Audit Services, except to the extent such employees have been appropriately assigned to auditing teams.



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# Management Audit Services Audit Charter

Management Audit Services, in the discharge of duties, is accountable to the DCEO, CEO and the Board of Directors to:

- Report significant issues related to the processes for controlling the activities, including potential improvements to those processes, and provide information concerning such issues through resolution; and
- Provide periodic information on the status and results of the annual audit plan and the adequacy of progress as it relates to management action plans.

## VI. INDEPENDENCE

Management Audit Services is independent of the activities it reviews. Specifically, Management Audit Services staff may not review areas where they were responsible for the design or operation of the area. Auditors are responsible for maintaining their independence and integrity in all services they provide.

All Management Audit Services activities shall remain free from interference relative to matters of audit selection, scope, procedures, frequency, timing, or report content to maintain independence and objectivity. The Chief Auditor shall report any impairment to independence, or unjustified restriction or limitation to audit selection, scope, procedures, frequency, timing or report content promptly to the DCEO, CEO and the Board.

As a means of ensuring independence, Management Audit Services will report to the DCEO, CEO and the Board of Directors. This structure permits the rendering of impartial and unbiased judgment essential to the proper conduct of audits. The Board of Directors' will review and concur in the appointment, replacement or dismissal of the Chief Auditor of Management Audit Services.

## VII. RESPONSIBILITIES

### A. Management Audit Services is responsible for:

- Developing and executing a flexible risk based audit plan including any risks or control concerns identified by management; and submitting that plan to the CEO and Board of Directors for review and approval;
- Preparing or updating the agency-wide risk assessment annually and incorporating the results into the annual audit plan;
- Implementing the annual audit plan, as approved, including as appropriate, any special tasks or projects requested by management ;
- Reporting significant audit findings to management and the Board of Directors;



**Metro**

## **Management Audit Services Audit Charter**

- Providing management with adequate time to respond to audit findings and including management's response in the final report;
- Following up on audits to ensure agreed-upon corrective actions have been taken and provide periodic follow up reports;
- Presenting quarterly reports to the Board highlighting progress on the Audit Plan;
- Maintaining a professional audit staff with sufficient knowledge, skills, experience, and professional certifications to meet the requirements of this Charter;
- Conducting objective and constructive assurance services, which include performance and attestation audits;
- Consulting services, which are advisory in nature, can be provided as long as the services do not impair Management Audit Services' independence and fall within the scope outlined in the Charter;
- Exercising due professional care in all of our work products;
- Conducting ourselves at all times in a professional manner;
- Coordinating external audits of MTA;
- Considering external auditors and regulators' scopes of work, as appropriate, for the purpose of providing optimal audit coverage at a reasonable overall cost; and
- Referring suspected fraud, waste, or abuse promptly to the Inspector General.

### **B. Management is responsible for:**

- Maintaining an effective system of internal controls, documenting policy and procedures, and ensuring information is accurate and reliable;
- Complying with policies and procedures;
- Cooperating fully with auditors during discharge of their duties including prompt reply to Management Audit Services requests and recommendations; and
- Providing a response to audit findings and recommendations. Assuring timely implementation of agreed upon corrective action(s) to audit recommendations.

The Audit Charter may be modified by a written document executed by all of the participating parties. This Audit Charter will be effective upon execution and will continue indefinitely until it is modified.



**Metro**

# Management Audit Services Audit Charter

IN WITNESS WHEREOF, the parties hereto have caused this Audit Charter to be executed by their proper officers thereunto duly authorized, and their official seals to be affixed as of February 12, 2016.

Los Angeles County Metropolitan Transportation Authority

Board of Directors



Phillip A. Washington

By   
Board Secretary

**Board Report**

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**File #:** 2016-0767, **File Type:** Informational Report

**Agenda Number:** 10.

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**FINANCE, BUDGET & AUDIT COMMITTEE  
FEBRUARY 15, 2017**

**SUBJECT: IMPLEMENTATION OF ALL DOOR BOARDING ON THE SILVER LINE**

**ACTION: APPROVE CONTINUATION OF ALL DOOR BOARDING ON THE SILVER LINE**

**RECOMMENDATION**

CONSIDER:

- A. RECEIVING AND FILING an evaluation report on **All Door Boarding (ADB) on the Silver Line**; and
- B. APPROVING continuing All Door Boarding indefinitely on the Silver Line beyond the 6 month pilot period.

**ISSUE**

In March 2016, Metro's Board of Directors (Board) approved the implementation of All Door Boarding (ADB) as a 6 month pilot project on the Silver Line (Line 910/950). The purpose of the pilot, which began in June 2016, is to test a methodology for implementing ADB that increases speed and reliability of bus service, while controlling fare evasion. The pilot was implemented as directed, and pre/post implementation data was collected and analyzed. This report provides an evaluation of the benefits and constraints of ADB, and recommends a path forward for the Silver Line as well as criteria to consider for future ADB implementation.

**DISCUSSION**

**Background**

In keeping with elements critical to the success of BRT, reducing customers' transit travel time requires improvements to three parts of their trip: wait time, in service running time and stop dwell time. The Silver Line address wait times through high frequencies, and in service running time through signal priorities and partially dedicated right of way, but has not employed elements to address stop dwell times. ADB is a strategy for improving speed and reliability of transit service through faster boarding and more efficient fare collection. The objective of this pilot is to reduce bus stop dwell times and variability, by allowing customers with valid TAP cards to board at any door.

One drawback to this boarding approach is the potential for increased fare evasion. To minimize this concern, the ADB pilot was implemented with the requirement that passengers need to have a validated TAP card when riding the Silver Line. This allows for more thorough fare checks by enforcement officers, similar to the Metro rail system and the Orange Line.

Limiting fare payment to TAP only constitutes a fare change pursuant to Metro Administrative Code (Section 2-50-015). A Title VI analysis and a public hearing are required for any fare change that extends beyond the six month pilot period. A Title VI analysis was thus conducted to assess the impact of this fare change on minority and low-income populations within Metro's ridership, and a public hearing was conducted on October 19, 2016 to consider TAP only boardings as a condition of the Silver Line ADB project. Around 20 comments were received with the majority favoring the ADB pilot with TAP only boarding. As a result, the Board approved this fare change as a component of ADB on the Silver Line.

#### Pilot Logistics

The Silver Line ADB pilot commenced on June 26, 2016. To expedite fare payment and allow for boarding at any door, Bus Mobile TAP Validators (BMV) were installed inside the rear door of all Silver Line buses. In addition, BMVs were installed on the left stanchion immediately inside the front door to allow customers with valid TAP cards to bypass any ongoing activity at the farebox. Customers without valid TAP fare payment or needing assistance continue to enter through the front door to interact with the operator.

To mitigate fare evasion, two dedicated teams of LASD fare enforcement officers were assigned to address fare enforcement and quality of life issues on the Silver Line through the pilot period. Their mission is to provide safety and security under a high visibility deployment plan in which they enforce Metro's Customer Code of Conduct at stations and on board buses.

Prior to commencing the pilot, an extensive public outreach campaign was conducted to educate passengers on the ADB pilot and the TAP only requirement. Staff also visited Operating Divisions that manage the Silver Line to solicit input from the Bus Operators.

#### Findings

Attachment A provides a detailed evaluation report. In general, based on data collect before and after implementation, the Silver Line ADB pilot demonstrated that there can be resource savings from a reduction in dwell time. In addition, reducing the range (or fluctuation) in dwell time from trip to trip helps to improve the line's overall reliability and headway regularity. However, not all bus stops benefit significantly from ADB. As shown in Table 1, bus stops with heavier customer activities (boardings/alightings) experienced greater dwell time reductions compared to stops with fewer activities.

Table 1  
Average Change in Dwell per Customer Boarding/Alighting

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Avg. Boardings/Alighting per Customer	Seconds			
	Feb-16	Oct-16	Change (#)	Change (%)
Stops with 10 or less	12.0	11.0	(0.98)	-8%
Stops with 11-15	4.6	4.2	(0.44)	-9%
Stops with 16-20	6.6	3.6	(3.07)	-46%
Stops with greater than 20	5.1	2.8	(2.28)	-45%

Based on the average customer activity at each stop throughout the day, and the dwell time reductions from Table 1, Table 2 shows the average minutes of dwell time reduction per trip on the Silver Line for different time periods. Prior to ADB, each Silver Line trip incurred about 14 min of dwell time on average. Overall, ADB reduced dwell times by 2.1 minutes per trip, or about 15%. The greatest benefits were achieved during the PM Peak in the southbound direction, with a savings of 3.4 min, while the least amount of savings was during the Early AM in the southbound direction. Since resource (bus) savings can only be achieved if the dwell time savings is equal to greater than the headway (4.5 min in the AM Peak and 5.0 min in the PM Peak), ADB alone does not reduce the number of peak buses required to operate the Silver Line. However, due to increased travel time along the corridor, ADB can be attributed to eliminating the need to add an additional bus during the peak periods, which would cost \$150,000 annually.

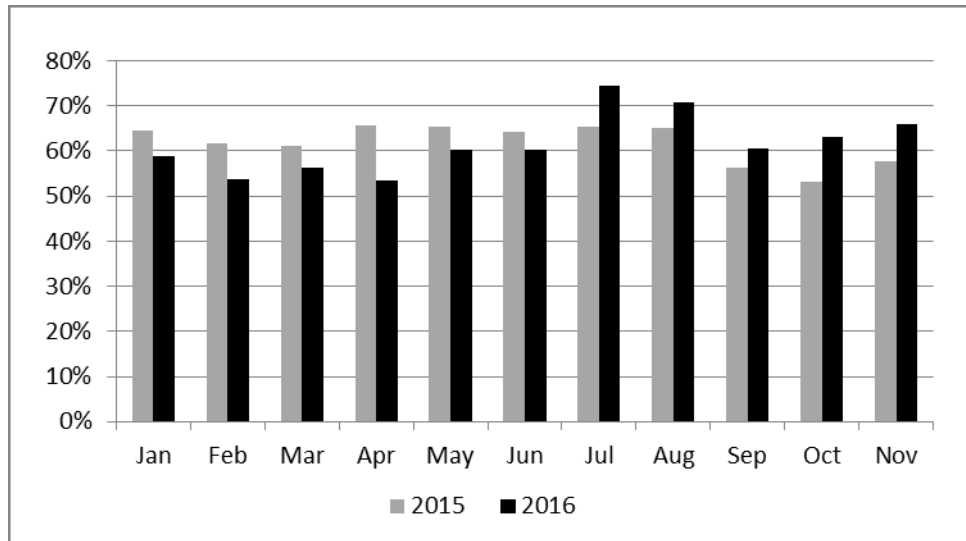
Table 2  
Average Change in Dwell Time Per Trip

	Dwell Time Change (min)		
	Northbound	Southbound	Average
Early AM	(2.2)	(0.7)	<b>(1.5)</b>
AM Peak	(2.2)	(2.8)	<b>(2.5)</b>
Base	(2.1)	(2.3)	<b>(2.2)</b>
PM Peak	(2.0)	(3.4)	<b>(2.7)</b>
Evening	(1.1)	(2.2)	<b>(1.7)</b>
Average	(1.9)	(2.3)	<b>(2.1)</b>

Although ADB did not save enough dwell time to achieve operational efficiencies, it did result in less fluctuation in dwell times at stops with heavy customer activity. Since bus schedules are set once for every six month period, reducing fluctuations in both running time and dwell time should result in an improvement in On Time Performance (OTP). Figure 1 shows that OTP improved since the implementation of ADB as a result of 1) dwell time savings being reinvested into running time where needed, and 2) reduction in the fluctuation in dwell times, increasing the probability that schedules will be met. To achieve this improvement without ADB would require additional scheduled time to be added, likely resulting in increased resource requirement (and operating cost), as well as an overall increase in trip travel time. ADB combined with planned ExpressLanes enforcement technology improvements should yield further travel time savings in the future. Additionally, current installation of TVM's at all in-line stations between El Monte Station and the Harbor Gateway Transit Center will reduce the amount of cash paying customer interactions at the farebox, thereby resulting in further ADB savings.



Figure 1  
Silver Line In Service On Time Performance



In addition to the dwell time reductions and improvements to on time performance overall customer response was positive. Eighty six percent of customers surveyed indicated that the ADB project is a good idea and should be continued. Eighty one percent of customers surveyed responded that they have boarded through the back door, and of those, approximately 86% of them prefer to do so.

### Fare Enforcement Efforts

The perception of fare evasion is a concern for passengers who ride the Silver Line. Many passengers surveyed responded that they have seen fare evasion on numerous occasions. Fare evasion, whether real or perceived, continues to be the primary concern for agencies that have implemented ADB, and must be continuously checked and enforced to ensure that it does not escalate.

The Silver Line ADB pilot project was supported by one dedicated team of fare enforcement officers per AM and PM shift. Reports from the fare enforcement officers indicate that fare evasion has decreased from 8% in August to 5% in December 2016 as a result of the dedicated fare enforcement team.

Transitioning more customers from cash to TAP boardings was an objective of the pilot as it reduces dwell times and improves fare enforcement. Overall, there was a decline in the number of customers paying cash, from 46,620 to 30,385, confirming that there has been a significant conversion from cash to TAP. However, there was a slight increase in the difference between actual and expected cash fare revenue. As a result, the average fare revenue per cash customer decreased from \$2.22 to \$2.19.

The Silver Line charges a premium fare of \$2.50 to ride, compared to the base adult cash fare of

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\$1.75. Therefore, customers are required to pay a \$0.75 upcharge if boarding using a free two hour transfer after paying \$1.75 in TAP stored value on a previous line, or with a regular 7-Day, 30-Day, or EZ TAP pass without zone upcharges. Given the uniqueness of the Silver Line fare structure, some customers were either not aware of the upcharge or unsure of when/how to pay it at the farebox. However, through extensive operator and customer outreach and education, increased compliance has become another benefit of the pilot. Within a fifteen-week period, the upcharge compliance showed a steady increase, almost doubling. This improvement increased the average upcharge from \$0.21 to \$0.34.

### Recommendations

Based on the evaluation results, along with upcoming improvements to be implemented along the line, it is recommended that ADB continue on the Silver Line. While resource savings were not achieved during the six month pilot period, it is evident that the program has helped to improve on time performance by reducing fluctuations in dwell time and saving revenue hours to reinvest in running time. In addition, the TAP only boarding improved fare enforcement, upcharge compliance, and reduced dwell time.

Public and employee reaction to ADB has been favorable aside from the concerns about induced fare evasion. Therefore, the dedicated teams on fare enforcement officers must continue to support the Silver Line in order to ensure that fare evasion is monitored and punished, and public perception is addressed.

Future consideration to implement ADB on any other line should adhere to the following minimum requirements:

- High Frequency - In order to maximize resource savings the amount of dwell time saved must equal or exceed the scheduled headway. Therefore, any future candidate for ADB should maintain a peak hour average headway of less than 10 minutes.
- Stop Activity - The Silver Line pilot has shown that the maximum benefits of ADB are derived at stops with heavy customer activity. Therefore, new ADB lines should have more than 10 boardings and alightings per trip at stops that account for at least 50% of the trip's total boardings and alightings.
- Transit Priorities - To minimize the external factors influencing dwell time, any near side stop at a signalized intersection on a candidate line should have transit priorities. In addition, exclusive or partially exclusive Right of Way for the majority of the line is preferable.
- Other Considerations - Other factors that would improve the candidacy of a line for ADB include high wheelchair boardings, articulated buses, and a high percentage of cash paying customers.

### **DETERMINATION OF SAFETY IMPACT**

Approval to continue ADB on the Silver Line will not have a safety impact to customers or employees. Indirectly, based on Operator feedback, ADB may reduce assaults on operators as fare enforcement, one of the major causes of conflict between passengers and Operators, would be largely transferred to law enforcement.

### **FINANCIAL IMPACT**

ADB on the Silver Line will utilize TAP equipment currently installed for the Silver Line. Therefore, no additional funding in the FY17 budget will be required to procure equipment for this program.

The result in dwell time improvements allowed for a reallocation of resources, providing the additional running time needed to improve on time performance, which may have required up to 1,500 annual revenue service hours (RSH). Based on a marginal operating rate of \$100 per RSH, these RSH would have increased the FY17 operating cost by \$150,000.

In addition, the dedicated fare enforcement resulted in a 3% decrease in fare evasion, from 8% to 5%. This improvement represents an annual increase of about \$125,000 in fare revenue.

### **ALTERNATIVES CONSIDERED**

The alternative to staff recommendation is to not continue ADB on the Silver Line. However, this is not recommended as customers will not benefit from shorter dwell times, and Metro will not be able to sustain the improved on time performance without additional resources.

### **NEXT STEPS**

Should the Board approve continuation of ADB on the Silver Line, TAP will continue to support the effort to maintain equipment for the Silver Line, System Safety and Law Enforcement will continue fare checks with the existing deployment plan, and Operations will continue to refine schedules as the ADB program stabilizes.

### **ATTACHMENTS**

Attachment A - Silver Line All Door Boarding Pilot Project Evaluation

Prepared by: Anika-Aduesa Smart, Manager - Budget, Finance, 213-922-6964  
Conan Cheung, Executive Officer, Finance, 213-922-6949

Reviewed by: Nalini Ahuja, Chief Financial Officer, 213-922-3088



Phillip A. Washington  
Chief Executive Officer

# Silver Line (Line 910) All Door Boarding Pilot Project Evaluation

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## *Objective*

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In March 2016, Metro's Board of Directors (Board) approved the implementation of All Door Boarding (ADB) as a 6 month pilot project on the Silver Line. The purpose of the pilot, which began in June 2016, is to test a methodology for implementing ADB that increases speed and reliability of bus service, while controlling fare evasion. This service enhancement is part of Metro's continuing efforts to improve and enhance the transit experience and support Metro's Countywide Bus Rapid Transit (BRT) expansion.

### **Optimization of the Customer Transit Experience**

The Federal Transit Administration (FTA) identifies a number of major elements critical to the success of BRT, such as type of running way, branding, stations, and Intelligent Transportation Systems (ITS). The incorporation of these elements achieves several key BRT objectives, including travel time savings, improved reliability, branding to attract new markets, enhanced safety and security, enhanced capacity, and accessibility.

The Silver Line (Line 910) is one of Metro's busiest bus lines, with an average of over 16,000 boardings per weekday, and growing. The line is challenged by poor on time performance as a result of heavy traffic along the I-10/I-110 ExpressLanes, which negatively impacts bus running times. High passenger boarding activity also results in lengthy dwell times at key stations, further impacting travel time and reliability.

The Silver Line has been a BRT "work in progress" over the past seven years. The line was first implemented in December 2009 by consolidating five distinct existing express lines into one consolidated line operating between Harbor/Gateway Transit Center and El Monte Station via the I-10 and I-110 freeways. Initially, the service was implemented with few BRT elements other than High Occupant Vehicle lanes and in-line freeway stations. However, with the implementation of Metro's ExpressLanes along the I-10/I-110 beginning in 2010, several infrastructure improvements were made, including:

- Redesigned and expanded El Monte Station;
- Sheriff substation at Harbor/Gateway Transit Center;
- Lighting and sound enclosure improvements;
- Improved local bus connections at Manchester and Slauson Stations;
- Improved signage and wayfinding;
- New branded buses;
- Signal priority and extended bus only lanes in downtown Los Angeles;
- Additional service frequency.

Today, the Silver Line incorporates six (6) key BRT attributes, which have contributed to the line's success (Table 1).

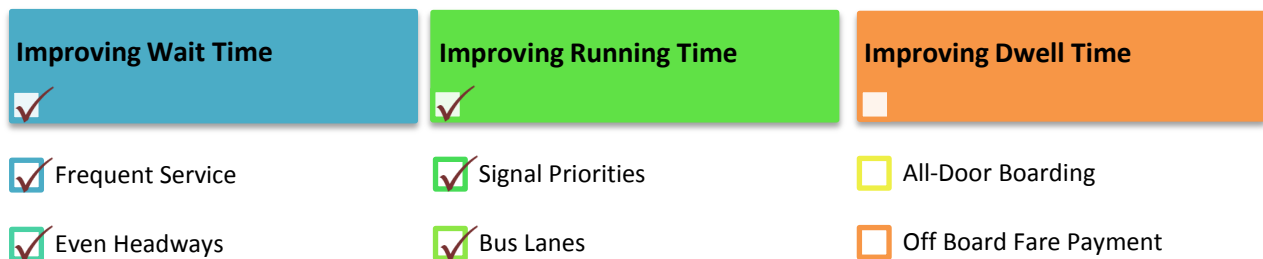
**Table 1  
Attributes of BRT**

Element	Silver Line (Line 910)
Running Ways	<ul style="list-style-type: none"> <li>• High Occupancy Toll lanes along I-10 and I-110</li> </ul>
Stations	<ul style="list-style-type: none"> <li>• In Line freeway stations with passenger amenities</li> </ul>
Vehicles	<ul style="list-style-type: none"> <li>• Low floor buses</li> </ul>
ITS	<ul style="list-style-type: none"> <li>• Arterial bus signal priority and NextBus technology</li> </ul>
Service and Operations Plan	<ul style="list-style-type: none"> <li>• Frequent service with longer stop spacing</li> </ul>
Branding Elements	<ul style="list-style-type: none"> <li>• Branded bus color and stop designation</li> </ul>
Fare Collection	N/A

While the infrastructure improvements allow buses to operate at higher speeds through the congested corridors, excessive dwell times continue to impact the line’s performance due to high levels of boarding activity at key stops. As such, additional measures need to be taken to reduce travel time and improve reliability on this line.

Reducing customers’ transit travel time requires improvements to three parts of their trip: wait time, in service running time and stop dwell time. Figure 1 below summarizes the aspects of travel time and the optimizing strategies used to address them.

**Figure 1  
Travel Time Strategies**



As other efforts are underway to reduce wait time and increase operating speeds, as indicated above, the ADB pilot program tests the effectiveness of the remaining element of BRT, faster boarding through more efficient fare collection. It is aimed at reducing bus stop dwell times and variability, by allowing customers with valid TAP cards to enter from the rear door. Cash and transfer customers are still required to enter through the front door.

## *Pilot Logistics*

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The Silver Line ADB pilot commenced on June 26, 2016. To expedite fare payment and allow for boarding at any door, Bus Mobile TAP Validators (BMV) were installed inside the rear door of all Silver Line buses. In addition, BMVs were installed on the left stanchion immediately inside the front door to allow customers with valid TAP cards to bypass any ongoing activity at the farebox. Customers without valid TAP fare payment or needing assistance continue to enter through the front door to interact with the operator.

One drawback to allowing customers to board through the rear door is the potential for inducing fare evasion. To minimize this issue, the ADB pilot was implemented with the requirement that customers need to have a validated TAP card when riding the Silver Line. This allows for more thorough fare checks by enforcement officers, similar to the Metro rail system and the Orange Line.

Limiting fare payment to TAP only constitutes a fare change pursuant to Metro Administrative Code (Section 2-50-015). A Title VI analysis and a public hearing are required for any fare change that extends beyond the six month pilot period. A Title VI analysis was thus conducted to assess the impact of this fare change on minority and low-income/impoverished populations within Metro's ridership. The findings of the analysis were as follows:

- There would be no Disparate Impact to Minorities by limiting fare payment to TAP only;
- There would be a Disproportionate Burden on low income riders who currently use tokens to pay their fare.

To mitigate the issue of token as well as cash customers not being able to board without a TAP card, Metro staff took several significant measures to address this concern by implementing the following:

- Approximately 50,000 free TAP cards were assigned and distributed to passengers paying with cash and tokens on the Silver Line;
- Fareboxes were programmed with "reload" capabilities, allowing passengers to load stored value of up to \$20 onto TAP cards on board the bus;
- Ticket Vending Machines (TVM) are being installed at key stations, such as Harbor/Gateway and Cal State LA stops, with plans to install TVMs all in-line stations by Spring 2017;

A public hearing was conducted on October 19, 2016 to consider TAP only boardings as a condition of the Silver Line ADB project. Around 20 comments were received with the majority favoring the ADB pilot with TAP only boarding. As a result, the Board approved this fare change as a component of ADB on the Silver Line.

To mitigate fare evasion, two dedicated teams of LASD fare enforcement officers were assigned to address fare enforcement and quality of life issues on the Silver Line through the pilot period. Their mission is to provide safety and security under a high visibility deployment plan in which they enforce Metro's Customer Code of Conduct at stations and on board buses.

## *Communications and Customer Engagement*

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An important part of the process was engaging customers, to share project objectives and solicit their opinions on the value and viability of the project. Prior to commencing the pilot, an extensive public outreach campaign was conducted to educate passengers on the ADB pilot and the TAP only requirement, including the following:

- Teams of “Blue Shirt” ambassadors were stationed at major Silver Line stops for two weeks prior and one week after implementation to educate the public and assist in the transition to TAP only;
- 75,000 Take Ones were distributed in English, Spanish and Chinese on buses and at stations (Attachment B);
- New “Know Your Fare!” pamphlets were developed and 5,000 of them distributed on buses and at stops (Attachment B);
- 50,000 wallet-sized TAP hand-outs were developed to distribute with the free TAP cards to cash riders;
- Car cards were posted in all Silver Line buses;
- Pull up banners were deployed at major stops to help alert customers to the coming project;
- Customer refund cards were created and distributed to Operators to help resolve issues of lost payment at the farebox;
- Special map case advertisements were posted at the major stations; and
- Announcements of ADB and TAP only were posted on the Silver Line’s website and the Source/El Pasajero.

Staff also visited Operating Divisions that manage the Silver Line to solicit input from the Bus Operators. In addition, a comprehensive training program was developed to educate Silver Line operators on the TAP card “reload” process and ADB, including the following:

- Tariff Notices and Operator cheat sheet on ADB and TAP only fare payment;
- PowerPoint based training tool at the divisions;
- Mobile training farebox with “reload” capabilities at the divisions;
- RAP sessions with operators to exchange information and feedback;
- Division management briefings;
- Supervisor trainings (“Train the Trainer” sessions); and
- On street monitoring and operator assistance/support.

These outreach efforts had proven in the past a more effective way to ensure proper implementation of the project, and minimizes confusion on both the part of the Operator and the customer.



### ***Scope of Evaluation/Evaluation Program/Evaluation Plan***

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While ADB can result in true dollar cost savings and revenue impacts, the perceived benefits and drawbacks of the program should be considered equally important in the evaluation, given its influence on service quality and ridership. Therefore, the scope of evaluation of the ADB pilot consists of:

- Calculated dwell time savings and its impact on resource requirement and service reliability;
- Estimated impact to fare evasion;
- Customer perceptions of the benefits and drawbacks of implementing ADB;
- Other lessons learned and field observations from the ADB pilot program.

To support the evaluation plan, quantitative data was collected during the test period, as well as qualitative assessments through surveys, focus groups and peer agency reviews, as follows:

- Automatic Passenger Counter (APC) boarding data;
- Farebox and Bus Mobile Validator (BMV) fare unit counts;
- On Time Performance data and field observations;
- Data from the Transit Court department regarding fare evasion;
- Customer surveys conducted by OMB and TAP staff; and
- Vehicle Operations Supervisors (VOS), TAP “Blue Shirt” ambassadors and Operator debriefs.

### ***Findings***

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Dwell time data was collected from Automatic Passenger Counter information which includes time and location stamps for “door open” and “door close” activities. Data was analyzed for a baseline period (February 2016) prior to the ADB pilot, as well as during the ADB pilot (October 2016). The information was segmented by time of day and by Silver Line stops. Based on this information, the Silver Line ADB pilot demonstrated that there can be resource savings from a reduction in dwell time. In addition, reducing the range (or fluctuation) in dwell time from trip to trip helps to improve the line’s overall reliability and headway regularity.

Bus stop dwell time consists of a “fixed” and a “variable” component. All stops incur a minimum “fixed” amount of dwell time that represents the time between door open and the first customer activity, and the time between the last customer activity and door close. This amount of time generally appears to be around 10 seconds, but can vary depending on operator response time opening and closing the doors, and the speed of the first customer boarding or alighting the bus. Stops also incur a “variable” amount of dwell time depending on the amount of customer activity (number of boardings/alightings). ADB addresses the variable component of dwell time and not the fixed component. Therefore, ADB provides the greatest benefits at stops with high customer activities vs. low activity stops since the variable component is a greater percentage of overall dwell time at stops with high activity compared to stops with low activity (Figure 2). Table 2 shows a comparison of average station dwell times per boarding and alighting activities based on the amount of activity per trip.

Figure 2  
Relationship of Customer Activity (Avg. Daily Boardings and Alightings) to Dwell Time Reduction

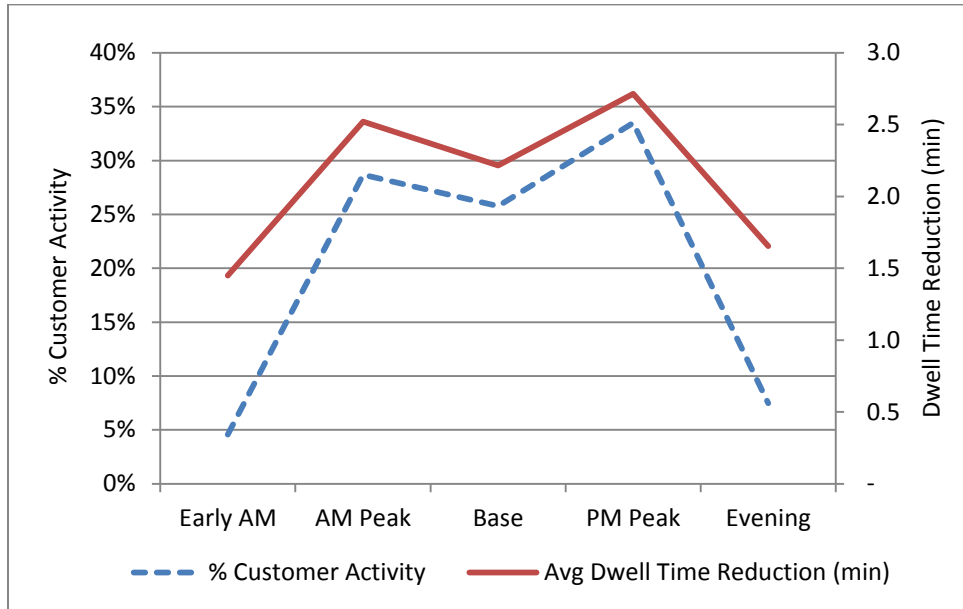


Table 2  
Average Change in Dwell per Customer Boarding/Alighting

Avg. Boardings/Alightings per Customer	Seconds			
	Feb-16	Oct-16	Change (#)	Change (%)
Stops with 10 or less	12.0	11.0	(0.98)	-8%
Stops with 11-15	4.6	4.2	(0.44)	-9%
Stops with 16-20	6.6	3.6	(3.07)	-46%
Stops with greater than 20	5.1	2.8	(2.28)	-45%

In addition, dwell times are impacted by a number of internal and external factors. Internal factors include the ability for customers to efficiently board and alight, pay their fares, load and unload bicycles and wheelchairs, and operator behavior. External factors include signalized intersection at a nearside bus stop, traffic congestion, and other conflicting movements (e.g. right turn traffic or bikes) that prevent a bus from pulling away from the bus stop. The ADB pilot addresses several of the internal factors, but cannot mitigate the impacts of external factors. Therefore, some stops with more significant external factors, such as 7<sup>th</sup>/Flower and 7<sup>th</sup>/Figueroa showed less benefit from ADB despite heavy customer activity. As shown in Table 3, the 7<sup>th</sup> Street stops experienced much less of an ADB benefit compared to other stops with similar levels of customer activities.

Table 3  
Impact of External Factors on Dwell Time Reduction

	Avg. Ons/ Offs per Trip	Dwell Time Reduction
7th/Figueroa, 7th/Flower	12	-3%
All other stops with similar activity	9	-11%

Based on the average customer activity at each stop throughout the day, and the dwell time reductions from Table 2, Table 4 shows the average minutes of dwell time reduction per trip on the Silver Line for different time periods. Prior to ADB, each Silver Line trip incurred about 14 min of dwell time on average. Overall, ADB reduced dwell times by 2.1 minutes per trip, or about 15%. The greatest benefits were achieved during the PM Peak in the southbound direction, with a savings of 3.4 min, while the least amount of savings was during the Early AM in the southbound direction. However, since resource (bus) savings can only be achieved if the dwell time savings is equal to greater than the headway (4.5 min in the AM Peak and 5.0 min in the PM Peak), ADB alone does not reduce the number of peak buses required to operate the Silver Line. However, due to increased travel time along the corridor, ADB can be attributed to eliminating the need to add an additional bus during the peak periods, which would cost \$150,000 annually.

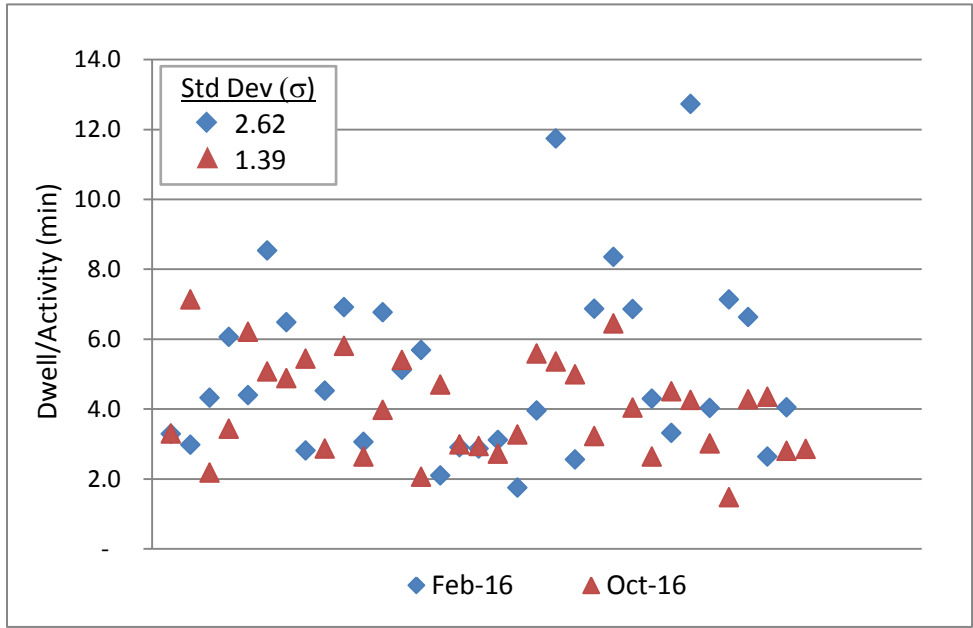
Table 4  
Average Change in Dwell Time Per Trip

	Dwell Time Change (min)		
	Northbound	Southbound	<b>Average</b>
Early AM	(2.2)	(0.7)	<b>(1.5)</b>
AM Peak	(2.2)	(2.8)	<b>(2.5)</b>
Base	(2.1)	(2.3)	<b>(2.2)</b>
PM Peak	(2.0)	(3.4)	<b>(2.7)</b>
Evening	(1.1)	(2.2)	<b>(1.7)</b>
Average	(1.9)	(2.3)	<b>(2.1)</b>

ADB combined with planned ExpressLanes enforcement technology improvements should yield further travel time savings in the future. Additionally, current installation of TVM's at all in-line stations between El Monte Station and the Harbor Gateway Transit Center will reduce the amount of cash paying customer interactions at the farebox, thereby resulting in further ADB savings.

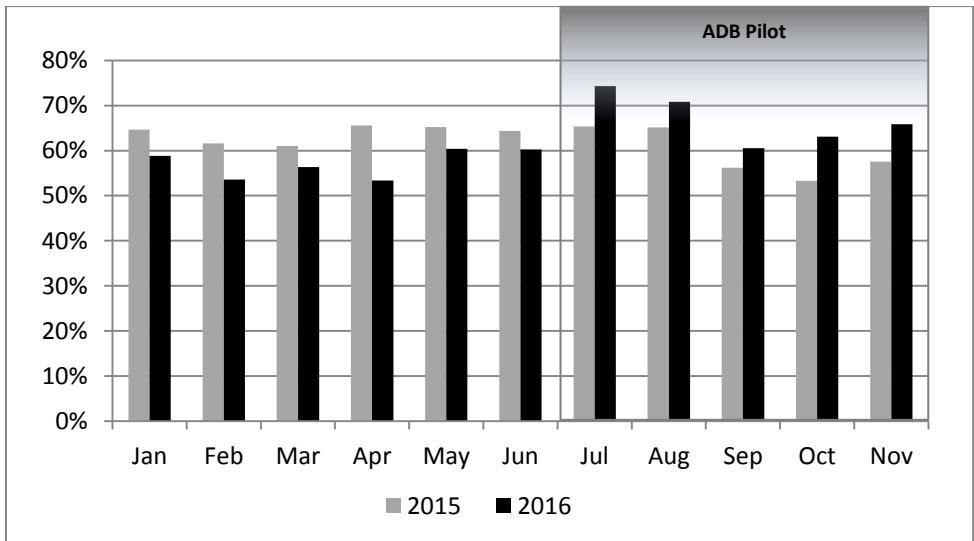
Although ADB did not save enough dwell time to achieve operational efficiencies, it did result in less fluctuation in dwell times at stops with heavy customer activity. Figure 3 shows the fluctuation in dwell times at stops with greater than 10 boardings/alightings. The standard deviation improved significantly from 2.62 to 1.39, meaning that dwell times were more closely aligned to the average after ADB compared to before.

Figure 3  
 Fluctuation in Dwell Time for High Activity Stops (Greater than 10 Ons/Offs)



Since bus schedules are set once for every six month period, reducing fluctuations in both running time and dwell time should result in an improvement in On Time Performance (OTP). Figure 4 shows that OTP improved since the implementation of ADB as a result of 1) dwell time savings being reinvested into running time where needed, and 2) reduction in the fluctuation in dwell times, increasing the probability that schedules will be met. To achieve this improvement without ADB would require additional scheduled time to be added, likely resulting in increased resource requirement (and operating cost), as well as an overall increase in trip travel time.

Figure 4  
 Silver Line In Service On Time Performance



Access to all doors also means there may be a more even distribution of the passenger load, and less time would be spent boarding and sitting down on buses. As such, there can be less boarding-related safety hazards, fewer opportunities for customer injuries, and less delay before the operator departs from the stop.

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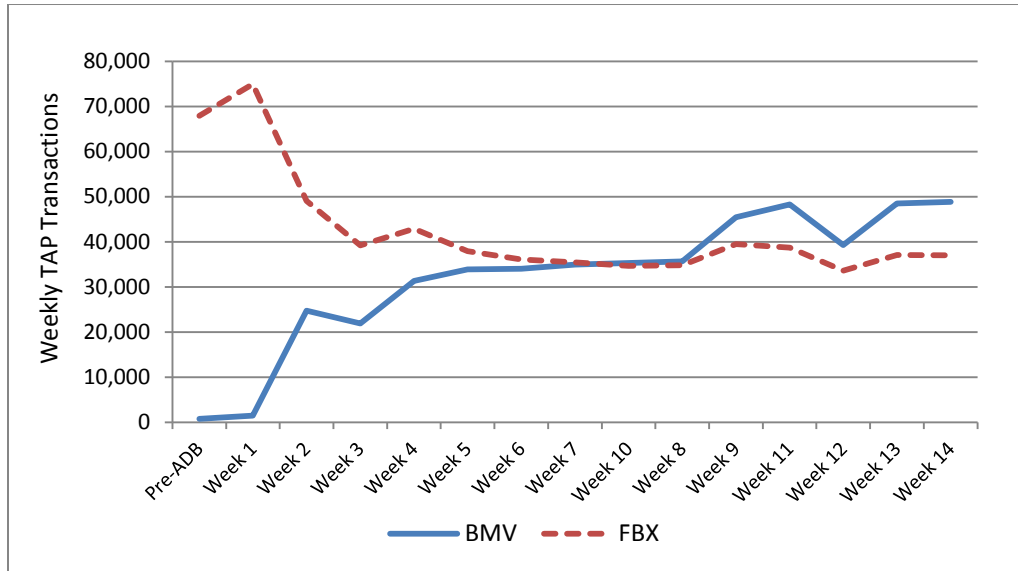
### *Public and Employee Feedback*

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Feedback from the public, the operators and other involved staff was an important element of the project development and evaluation. Staff from the Office of Management and Budget (OMB), TAP and Operations Central Instruction (OCI) visited Divisions 9 and 18, which operate the Silver Line, and interacted with operators, training staff and law enforcement staff at information “RAP” sessions both before and after implementation. Divisional staff as well as the operators were interested and vested in the ADB project, and provided meaningful scenarios and suggestions for the project team to incorporate into the project planning. While there were some initial concerns about the way the project would work, collaboration through several meetings allowed the implementation team to adjust and mitigate possible challenges with the project. It also assisted the team with identifying the best way to share information between the operators and project team. There was also insightful feedback in meeting with the Los Angeles Sheriff Department (LASD) management staff, whose input helped to address issues with the process of fare enforcement.

The public provided feedback through customer service, the public hearing on TAP only fare payment, interaction with the Special Event Assistant (SEA) staff and members of the implementation team, as well as a customer survey. Customers quickly adjusted to the process of boarding through the back door, and only interacting with the operator when needed. Figure 5 provides a glimpse into the acceptance and use of the BMVs. Out of approximately 80,000 TAP transactions during a typical week, over 60% are now completed at the BMVs, compared to the first six weeks of implementation when the majority of TAPs were completed at the farebox. This confirms that passengers have become comfortable using the BMVs, with 81% of customers surveyed indicating that they have boarded through the back door, and of those, approximately 86% of them prefer to do so. Overall the customer feedback is positive, with 85.9% of customers surveyed indicating that the ADB project is a good idea and they are interested in seeing it continue.

Figure 5  
 BMV vs. Farebox (FBX) Use



***Fare Collection Management***

One of the additional benefits of the ADB pilot is the requirement of a validated TAP card to board, which simplifies and automates fare collection. Additionally, it improves fare checking, which remains a challenge for most agencies implementing ADB.

**Fare Enforcement Efforts**

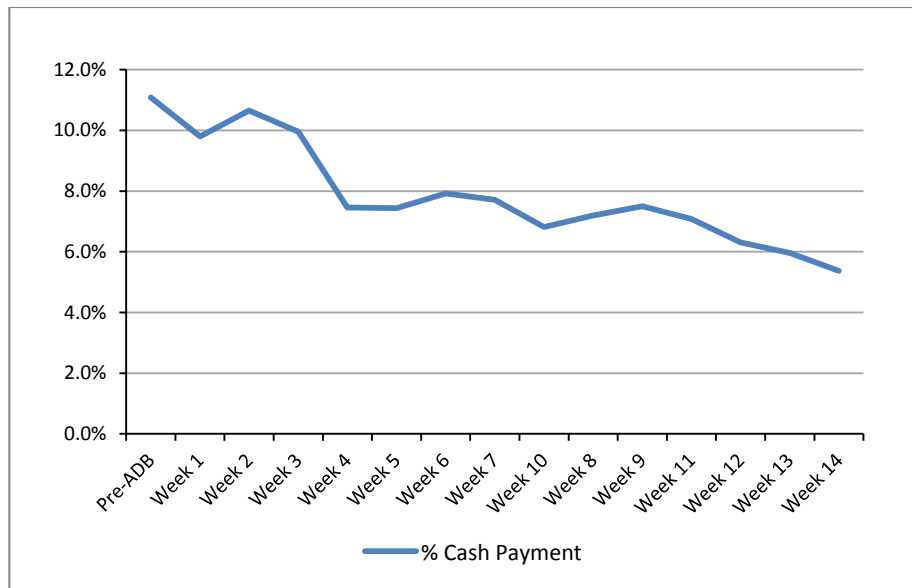
The perception of fare evasion is a concern for passengers who ride the Silver Line. Many passengers surveyed responded that they have seen fare evasion on numerous occasions. Fare evasion, whether real or perceived, continues to be the primary concern for agencies that have implemented ADB, and must be continuously checked and enforced to ensure that it does not escalate. The TAP only boardings policy has assisted in the reduction of fare evasion, and improves the ability to enforce fares, as there is no proof of payment issued for cash customers.

The Silver Line ADB pilot project was supported by one dedicated team of fare enforcement officers per AM and PM shift. Each team consisted of one Deputy and two Security Assistants. There were two teams scheduled per day, covering the AM and PM periods, Monday through Friday. Reports from the fare enforcement officers indicate that fare evasion has decreased from 8% in August to 5% in December 2016 as a result of the dedicated fare enforcement team, representing roughly \$125,000 in additional fare revenue per year. On average, citations were issued to 3-4% of customers found without proper fare payment.

Cash vs. TAP Usage

Transitioning more customers from cash to TAP boardings was an objective of the pilot as it reduces dwell times and improves fare enforcement. Figure 6 shows a steady decline in the number of fare payments using cash from June through early October 2016. As anticipated, there was a period of transition for passengers to change from using cash to using TAP cards. At present, the number of customers using cash is at a minimum, as there are still instances of customers who are either first time riders of the Silver Line, or are not interested in using TAP cards.

Figure 6  
Percent of Payments Made on Silver Line Using Cash



In addition to TAP and cash, other fare media are still being used, including passengers who use tokens to pay for their trip, and paper transfers. However, efforts are underway to transition both of these fare products to TAP, which will improve the ability to enforce these fares.

Tables 5 and 6 compare the expected vs. actual cash fares collected on the Silver Line before and after ADB, February 2016 and October 2016, respectively.

Table 5  
Silver Line Farebox Cash Fares (February 2016)

Cash Category	Boardings	Cash Fare	Total Cash		Difference in Total Cash	
			Expected	Actual	\$	%
Adult	35,550	\$2.50	\$88,875	\$79,772	-\$9,103	-10%
S/D	10,790	\$1.35	\$14,567	\$10,415	-\$4,151	-28%
Student	280	\$1.00	\$280	\$337	\$57	20%
Total	46,620	\$2.22	\$103,722	\$90,525	-\$13,197	-13%

Table 6  
Silver Line Farebox Cash Fares (October 2016)

Cash Category	Boardings	Cash Fare	Total Cash		Difference in Total Cash	
			Expected	Actual	\$	%
Adult	22,241	\$2.50	\$55,603	\$47,914	-\$7,688	-14%
S/D	7,912	\$1.35	\$10,681	\$7,508	-\$3,173	-30%
Student	232	\$1.00	\$232	\$402	\$170	73%
Total	30,385	\$2.19	\$66,516	\$55,825	-\$10,691	-16%

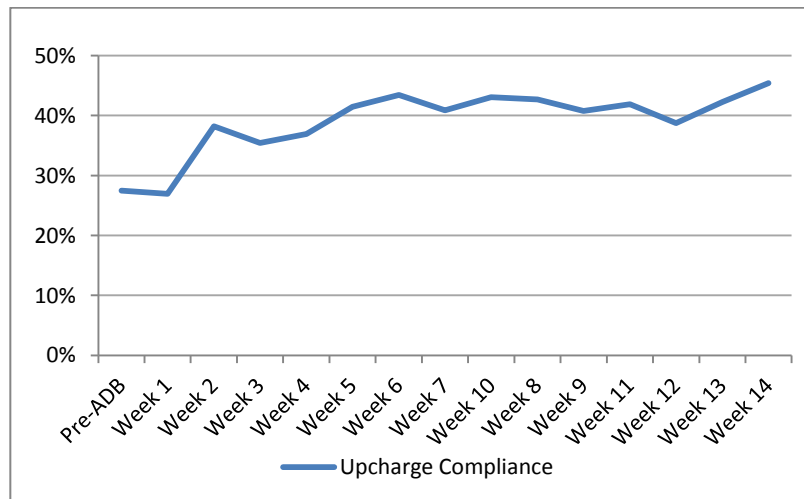
Overall, there was a decline in the number of customers paying cash, from 46,620 to 30,385, confirming that there has been a significant conversion from cash to TAP. However, there was a slight increase in the difference between actual and expected cash fare revenue. As a result, the average fare revenue per cash customer decreased from \$2.22 to \$2.19.

Upcharge Compliance

The Silver Line charges a premium fare of \$2.50 to ride, compared to the base adult cash fare of \$1.75. Therefore, customers are required to pay a \$0.75 upcharge if boarding using a free two hour transfer after paying \$1.75 in TAP stored value on a previous line, or with a regular 7-Day, 30-Day, or EZ TAP pass without zone upcharges. Given the uniqueness of the Silver Line fare structure, some customers were either not aware of the upcharge or unsure of when/how to pay it at the farebox.

Figure 7 shows the \$0.75 upcharge compliance by TAP passengers as a result of ADB. Through extensive operator and customer outreach and education, increased compliance has become another benefit of the pilot. Within a fifteen-week period, the upcharge compliance showed a steady increase, almost doubling. This improvement is expected to continue as the growing popularity of the BMVs will help ensure that the correct fare is automatically deducted from the TAP cards, unlike the farebox which requires manual interaction by the operator.

Figure 7  
Percent Upcharge Compliance on the Silver Line





## ***Recommendations***

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Based on the evaluation results, along with upcoming improvements to be implemented along the line, it is recommended that ADB continue on the Silver Line. While resource savings were not achieved during the six month pilot period, it is evident that the program has helped to improve on time performance by reducing fluctuations in dwell time and saving revenue hours to reinvest in running time. In addition, the TAP only boarding improved fare enforcement, upcharge compliance, and reduced dwell time.

Public and employee reaction to ADB has been favorable aside from the concerns about induced fare evasion. Therefore, the dedicated teams on fare enforcement officers must continue to support the Silver Line in order to ensure that fare evasion is monitored and punished, and public perception is addressed.

Future consideration to implement ADB on any other line should adhere to the following minimum requirements:

- **High Frequency** – In order to maximize resource savings the amount of dwell time saved must equal or exceed the scheduled headway. Therefore, any future candidate for ADB should maintain a peak hour average headway of less than 10 minutes.
- **Stop Activity** – The Silver Line pilot has shown that the maximum benefits of ADB are derived at stops with heavy customer activity. Therefore, new ADB lines should have more than 10 boardings and alightings per trip at stops that account for at least 50% of the trip's total boardings and alightings.
- **Transit Priorities** – To minimize the external factors influencing dwell time, any near side stop at a signalized intersection on a candidate line should have transit priorities. In addition, exclusive or partially exclusive Right of Way for the majority of the line is preferable.
- **Other Considerations** – Other factors that would improve the candidacy of a line for ADB include high wheelchair boardings, articulated buses, and a high percentage of cash paying customers.

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**Board Report**

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**File #:** 2016-0995, **File Type:** Budget**Agenda Number:** 16.

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**FINANCE, BUDGET AND AUDIT COMMITTEE  
PLANNING & PROGRAMMING COMMITTEE  
FEBRUARY 15, 2017****SUBJECT: UNION STATION METRO BIKE HUB****ACTION: AUTHORIZE LIFE OF PROJECT BUDGET INCREASE****RECOMMENDATION**

AUTHORIZE augmenting the life of project budget for **Union Station Metro Bike Hub** from \$1.32 million to \$2.47 million, to accommodate a more accessible and higher visibility bike hub facility for users and the community.

**ISSUE**

At the July 2014 meeting, the Board approved an ExpressLanes grant award to the Union Station Metro Bike Hub in the amount of \$700,000 (Attachment A). At the May 2015 meeting, the Board approved the FY 2016 budget including a Life of Project (LOP) for the Union Station Metro Bike Hub of \$1.32 million. This LOP assumed the project would be built within the Gateway parking garage. Subsequently the redesign of the P1 level to accommodate patron drop-off eliminated that location. A free standing facility was then designed.

A Request for Proposals (RFP) was released for the construction of the Union Station Metro Bike Hub to Small Business Enterprises (SBEs) in October 2016. Upon review and contractor selection, an amendment of \$1.15 million is being requested for a total LOP of \$2.47 million.

**DISCUSSION**

At the September 2010 meeting, the Board approved 10 directives to improve bicycle connections and use with Metro services (Attachment B). One of these directives is to incorporate robust bicycle facilities, such as bicycle parking, at high demand stations to facilitate first/last mile transit access by bike. To meet the bicycle parking needs at high demand stations, bike lockers are impractical given the amount of space that would be required. Metro Bike Hubs have been introduced as a preferred option to meet the growing demand for secure bike parking. The Union Station Metro Bike Hub is designed to accommodate up to 200 bicycles. Metro Bike Hubs are designed to provide additional services to patrons including (in high demand locations) part-time attended staff, repair and tune-up services, check-in bike parking, and retail items. Metro Bike Hubs also provide informational resources to support bike education, safety, transit, and car-free transportation options.

Initial discussions on the Union Station Metro Bike Hub located the facility in the East Portal on parking level P1 adjacent to the childcare drop-off area when the original LOP was established. This space has since been converted to ADA parking for Union Station. Consequently, an alternative location on the West Portal near the north breezeway was selected for higher visibility and accessibility by users. This new location is limited in space and is only able to accommodate up to 200 bicycles rather than the initially proposed 300 bicycles; the ExpressLanes grant has been reduced by \$61,214 as a result.

Built in 1939, Union Station is on the National Register of Historic Places. Metro is charged with maintaining its historical integrity. As such, Metro Union Station management and its contractor, Morlin Asset Management (Morlin), was actively involved in the design of the Metro Bike Hub, ensuring that the facility is visually compatible, yet distinct, and that it does not disrupt views of the historic Union Station from the front of the building. Additionally, care was taken to design a facility that may be relocated to accommodate elements of the Union Station Master Plan as they come to fruition. A rendering of the Metro Bike Hub is provided in Attachment C.

In October 2016, an RFP was released by Morlin to SBEs for the construction of the Metro Bike Hub at Union Station. Proposals were due in November followed by interviews of the contractors. An evaluation of the proposing teams was completed to identify the most qualified candidate. Total construction costs are \$2.24 million; this amount is exclusive of Metro labor match required by the ExpressLanes grant and the cost of environmentally clearing the project. The need to design a freestanding facility that is compatible with the historic station and a number of on-site conditions including utilities has resulted in the increased cost. To help offset the increased costs, Union Station has allocated \$660,000 in tenant improvement (TI) funds to contribute toward the Metro Bike Hub facility. This capital project will be procured and managed in accordance with the Morlin contract consistent with Metro policies.

The Union Station Bike Hub will add to a network of other Metro Bike Hubs including El Monte, Hollywood/Vine, Culver City, and North Hollywood Metro Station hubs. Metro Bike Hub users have access to all locations to increase bike and transit trips and achieve first/last mile strategies. Key objectives of the program are to improve access to transit, encourage bicycle trips to Metro services, and maintain on-board transit vehicle capacity by providing secure bicycle parking at Metro stations. The facility will include secured-access and 24/7 bike parking built inside a structure with space-efficient, tiered bike racks, CCTV cameras, monitors with transit information and announcements, a bicycle repair stand and tools, air pump, and a retail/service area.

### **DETERMINATION OF SAFETY IMPACT**

Authorization to amend the LOP of the Union Station Metro Bike Hub will not have any adverse safety impacts on Metro employees and patrons.

### **FINANCIAL IMPACT**

The FY17 budget includes \$1.19 million including \$162K from the FY17 midyear budget adjustment for this project in Cost Center 4320, Project 210142 (Union Station Metro Bike Hub). Since this is a

multi-year project, the cost center manager and Chief Planning Officer will be responsible for budgeting the cost in future years, including budget for Project 204090 (Bicycle Access Improvements).

#### Impact to Budget

The sources of funds are toll revenue grant and Transportation Development Act (TDA) Article 4. Union Station has also allocated Tenant Improvement funds toward the overall project cost. Other eligible and available local funds or general funds may be used in FY18. A cash flow table is provided in Attachment D.

#### **ALTERNATIVES CONSIDERED**

The Board may choose not to amend the LOP for the Union Station Metro Bike Hub. This alternative is not recommended, as it is not in line with previous Board direction.

#### **NEXT STEPS**

Upon Board authorization, a Notice to Proceed will be issued to the selected SBE contractor to commence construction activities for the Union Station Metro Bike Hub. The facility is expected to open in fall 2017.

#### **ATTACHMENTS**

Attachment A - July 2014 Metro Board Action 36 ExpressLanes Grant Awards

Attachment B - September 2010 Metro EMAC Motion 10

Attachment C - Union Station Metro Bike Hub Rendering

Attachment D - Union Station Metro Bike Hub Cash Flow Table

Attachment E - Union Station Metro Bike Hub Presentation

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**REVISED**

**ADHOC CONGESTION REDUCTION COMMITTEE**

**JULY 16, 2014**

**SUBJECT: 2014 METRO EXPRESSLANES NET TOLL REVENUE REINVESTMENT EXPENDITURE PLAN**

**ACTION: APPROVE RECOMMENDATIONS**

**RECOMMENDATION**

Approve the following actions for the 2014 Metro ExpressLanes Net Toll Revenue Reinvestment Grant Program, in the amount of \$26,723,152:

- A. Approve a total of \$801,695 to be deposited into Reserve Accounts – \$598,367 for the I-110 and \$203,328 for the I-10;
- B. Approve a total of \$5,192,000 for continued Congestion Reduction Demonstration (CRD) Transit Service - \$3,402,000 for the I-110 and \$1,790,000 for the I-10;
- C. Approve the I-110 Expenditure Plan including recommended projects and funding awards totaling \$15,945,193 in Attachment A and amend the recommended projects into the Fiscal Year (FY) 2015-16 Los Angeles County Regional Transportation Improvement Program (Regional TIP);
- D. Approve the I-10 Expenditure Plan including recommended projects and funding awards totaling \$4,784,265 in Attachment B and amend the recommended projects into the Fiscal Year (FY) 2015-16 Regional TIP;
- E. Amend the FY 15 budget to add the necessary revenues and expenses for the projects recommended for funding as well as the reserve funds and funding for the continuing CRD Transit Service;
- F. Administer the grant awards and CRD Transit funding with the requirement that all funding recipients bear all responsibility for funding cost increases; and,
- G. Authorize the Chief Executive Officer (CEO) or his designee to enter into funding agreement with grantees and CRD Transit service providers.

**ISSUE**

In October 2013 the Board approved the Guidelines for Net Toll Revenue Allocation (Attachment C) and in February 2014 the Board approved the application package, including the evaluation criteria, for the grant program (Attachment D). Grant applications were received on May 30, 2014. Staff received 35 applications totaling \$123,405,007 in funding requests. Based on the technical evaluations, and in

consultation with the Corridor Advisory Committee (CAG) member Subcommittee, staff recommends funding for 22 projects totaling \$20,729,458. Staff also recommends the formal allocation of the “off the top” priorities of the Reserve Fund and Set-Aside for Equity Considerations of the CRD Transit Service in the amount of \$5,993,695.

**DISCUSSION**

State law requires the net toll revenues generated from the Metro ExpressLanes be re-invested in the corridor from which they were derived, pursuant to an approved expenditure plan. In October 2013 the Board approved the re-investment framework for the expenditure plan that includes the following:

- 1) Reinvestments in the transportation corridor provide a direct benefit to reducing congestion on the Metro ExpressLanes (I-10 and I-110);
- 2) 3-5% of the funds set aside and placed into a reserve account;
- 3) Set aside funds for the continuation of the CRD Transit Service to address social equity considerations; and,
- 4) Any remaining funds are allocated to the Grant Program comprised of three categories: Transit Improvements (TI), Active Transportation/System Connectivity (AT/SC), and Highway Improvements (HI).
- 5) Grant funds must be reinvested in projects/programs that provide direct mobility benefit to the 110 and 10 Express Lanes.

Per the approved guidelines, the baseline targets of 40% for Transit Improvements, 40% for Active Transportation/System Connectivity, and 20% for Highway Improvements are identified as goals, however the actual allocation of the funding will be based on the merits of the proposed projects and programs.

**Funding Availability**

The net funding available from toll revenues generated during the CRD federal demonstration period, which spans from November 2012 to February 2014, is as follows:

	CORRIDOR		
	I-110	I-10	TOTAL
<b>Net Funds Available</b>	<b>\$19,945,561</b>	<b>\$6,777,592</b>	<b>\$26,723,152</b>
<b>Reserve Funds (3%)</b>	<b>\$598,367</b>	<b>\$203,328</b>	<b>\$801,695</b>
<b>CRD Transit Service</b>	<b>\$3,402,000</b>	<b>\$1,790,000</b>	<b>\$5,192,000</b>
<b>Subtotal</b>	<b>\$15,945,194</b>	<b>\$4,784,264</b>	<b>\$20,729,458</b>
<b>Transit System Improvements</b>	<b>\$6,378,077</b>	<b>\$1,913,706</b>	<b>\$8,291,783</b>
<b>Active Transportation/ System Connectivity</b>	<b>\$6,378,077</b>	<b>\$1,913,706</b>	<b>\$8,291,783</b>
<b>Highway System Improvements</b>	<b>\$3,189,039</b>	<b>\$956,853</b>	<b>\$4,145,892</b>

### *Reserve Funds*

Per the adopted Guidelines, reserve funds are set aside to ensure monies are available to cover unexpected costs required for the operation of the ExpressLanes so that these expenses do not require the use of general funds. Staff is recommending a 3% set aside which is \$598,367 for the I-110 and \$203,328 for the I-10.

### *CRD Transit Service*

The adopted Guidelines also approved the continuation of funding for the incremental CRD Transit Service provided during the demonstration period. This funding is provided through a direct allocation to the transit providers to subsidize the incremental operating costs of the CRD service. These transit enhancements are a benefit for low income commuters along the ExpressLane corridors and have proven to be one of the major success stories for the project. Transit Agencies that receive this direct allocation include: Foothill Transit, Torrance Transit, Gardena Municipal Bus Lines, and Metro's Silver Line service.

For FY15 Torrance Transit will not require an allocation of toll revenues as they still have remaining CRD grant funds to expend. Foothill Transit also has remaining CRD funds so they will only require a partial allocation of toll revenues. Therefore, the net allocation to subsidize CRD Transit operations is \$5,192,000 in FY15 but will be greater in future years once all CRD funds have been expended.

### Evaluation and Ranking of Net Toll Revenue Applications

In March 2014, staff distributed the application package to 152 eligible applicants including 88 cities, 61 transit agencies, the County of Los Angeles, Caltrans District 7 and Metro. Potential applicants were then invited to a workshop to review the application and evaluation process. The I-110 Workshop was held on March 25<sup>th</sup> at the Council District 8 Customer Service Center in South Los Angeles. The I-10 Workshop was held on March 27<sup>th</sup> at the Metro Service Council office in El Monte. At the request of the South Bay Cities Council of Governments (SBCCOG) another Workshop was held at the SBCCOG office in Torrance on April 3<sup>rd</sup>. Presentations on the Grant application package and process were provided in February 2014 to the Bus Operators Subcommittee (BOS) and in March 2014 to the Technical Advisory Committee (TAC), Streets and Freeways Subcommittee, General Managers and Local Transit Systems Subcommittee (LTSS).

Applications were received on May 30, 2014 and were reviewed for eligibility. All projects were deemed eligible based on the eligibility criteria approved by the Board in February 2014. Once it was determined that all projects submitted met the minimum requirements, they were then sorted by corridor and reviewed and scored by a technical team comprised of staff from Metro and Caltrans District 7. Projects were then ranked based on scores without consideration for location along the corridor or modal category.

Upon completion of the technical review, project applicants were invited to a meeting of the respective I-110 and I-10 Corridor Advisory Groups (CAG) Reinvestment



Subcommittees. The Subcommittees were formed from members of each CAG who volunteered to be on the review panel and represent the following agencies: Los Angeles World Airports (LAWA), SBCCOG, Safe Routes to School National Partnership, City of Carson, Community Health Councils, Los Angeles County Bicycle Coalition (LACBC), City of Los Angeles Housing Department, Los Angeles Neighborhood Initiative (LANI), San Gabriel Valley Economic Partnership, Fixing Angelenos Stuck in Traffic (FAST), Bike San Gabriel Valley, Cal State Los Angeles, Foothill Transit. The Subcommittee members were provided access to all project applications and staff provided them with the project rankings after the technical review. After hearing all of the presentations from the applicants, CAG members then indicated their own project rankings based on the following: Priority = Project is a priority for funding; Potential = Project has potential and could be funded, if funds are available; and, Not Recommended = Project is not recommended for funding. These rankings were then translated into scores: Priority = 85 points; Potential = 70 points; and, Not Recommended = 55 points.

Final overall scores were then averaged based on the technical review and CAG feedback and projects were then sorted into modal categories. An overall score of a 70 was considered the cutoff line for funding consideration. Any projects receiving an overall score of less than 70 were not recommended for funding. Funding recommendations were based on the score within the modal category and the amount of available funding with a consideration for geographic equity.

Staff received 35 applications totaling \$123,405,007 in funding requests. Based on the technical evaluations, and in consultation with the Corridor Advisory Committee (CAG) Subcommittee members, staff recommends funding for 22 projects totaling \$20,729,458. Project funding recommendations are reflected in Attachments A for the I-110 and B for the I-10.

### **DETERMINATION OF SAFETY IMPACT**

The Board action will not have an impact on established safety standards and in many cases will improve safety in those locations where projects will be implemented.

### **FINANCIAL IMPACT**

All recommended actions will be funded with toll revenues generated from the I-10 and I-110 ExpressLanes. No other funds will be required from LACMTA Congestion Reduction Department to manage and administer the grant program. No expenses for any of the projects recommended for funding, the CRD Transit Service or the Reserve Funds are included in the FY 15 budget. Funding for the grant awards, CRD Transit Service and Reserve Funds will need to be amended into the FY15 budget into cost center 2220 with \$ 19,945,561 to project 307001 and \$6,777,592 to project 307002. Since many of these projects are multi-year projects, the cost center manager will be responsible for budgeting project expenditures in future years.

## **IMPACT TO BUS AND RAIL OPERATING AND CAPITAL BUDGET**

The funding of this action come from Toll Revenues generated from the Metro ExpressLanes operation. No other funds were considered for this activity because these funds are specifically required to be reinvested per State Law. This activity will not impact ongoing bus and rail operating costs.

## **ALTERNATIVES CONSIDERED**

The Board may suggest alternative projects for funding through the 2014 Net Toll Revenue Reinvestment Grant Program. Projects added to the recommended list will result in other projects either moving off the funded list or projects receiving reduced levels of funding.

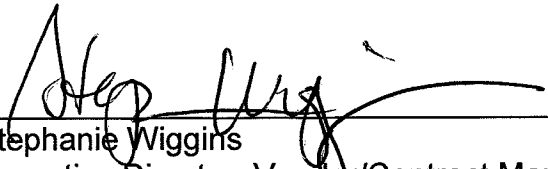
## **NEXT STEPS**

With Board approval of the recommendations, we will develop and execute funding agreements with the applicants of the projects approved for funding through the grant as well as the transit agencies that will continue to provide the CRD incremental service. We will also amend the FY15 budget and program the funds into the Regional TIP.

## **ATTACHMENTS**

- A. I-110 Expenditure Plan
- B. I-10 Expenditure Plan
- C. Guidelines for Net Toll Revenue Allocation
- D. Net Toll Revenues Grant Application & Eligibility Guidelines

Prepared by: Kathleen McCune, Director, 213-922-7241  
Steven Mateer, Transportation Planner, 213-922-2504



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Stephanie Wiggins  
Executive Director, Vendor/Contract Management



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Arthur V. Leahy  
Chief Executive Officer

Expresslanes Net Toll Revenue Reinvestment Grant Expenditure Plan (I-110)

ATTACHMENT A REVISED

Project Information			Scoring Information				Funding		Project Type
Rank	Project Name	Lead Agency	Category	Technical Score	CAG Score	Overall Score	Requested Amount	Recommendation **	
1	AT/SAC Infrastructure Communication Systems Enhancement along I-110 Freeway	City of Los Angeles	HI	72	68	70	\$1,425,000	\$1,425,000	Capital
2	South Bay Arterial Performance Measurement Project	County of Los Angeles	HI	66	74	70	\$504,000	\$504,000	Capital
3	Expresslanes Corridors Incident Management Improvements Project	Caltrans	HI	75	64	70	\$240,000	\$240,000	Operating
4	I-110 HOT/Express Lanes Improvements *	Caltrans	HI	73	66	70	\$4,495,000	\$1,020,039	Capital
5	Expresslanes Corridors Communication Systems Improvement Project	Caltrans	HI	65	64	65	\$1,250,000	Not recommended	Operating
6	New Traffic Signals and Left-Turn Phasing in South Los Angeles	City of Los Angeles	HI	67	63	65	\$1,500,000	Not recommended	Capital
7	Deploying a CCTV Video Processing System (VPS) to Convert Video Streams into Vehicle Counts and Vehicle Classification Counts	Caltrans	HI	67	61	64	\$75,000	Not recommended	Capital/Operating
8	I-110 HOT/Express Lanes Directional Hy-Over Connector Off-Ramp	Caltrans	HI	55	63	59	\$68,000,000	Not recommended	Capital
<b>Subtotal</b>							<b>\$77,489,000</b>	<b>\$3,189,039</b>	
1	MW Figueroa Project (Marketing and Safety)	City of Los Angeles	AT/SC	95	74	84	\$150,000	\$150,000	Operating
2	Bikeshare-Downtown Los Angeles Project	LACMTA	AT/SC	78	76	77	\$3,792,892	\$3,792,892	Capital
3	Dominguez Channel Bike & Pedestrian Path	City of Carson	AT/SC	75	74	75	\$1,259,000	\$1,259,000	Capital
4	Active Streets LA Buidlong Avenue *	City of Los Angeles	AT/SC	77	70	74	\$1,988,054	\$1,176,185	Capital/Operating
5	West Carson Silver Line Station Access Improvements	County of Los Angeles	AT/SC	73	63	68	\$762,000	Not recommended	Capital
6	Torrance Regional Park and Ride Transit Center Phase 2 (Multi-Level Parking Structure)	Torrance Transit	AT/SC	73	63	68	\$10,000,000	Not recommended	Capital
7	New Class II Bicycle Lanes on 135th Street and Vermont Avenue	City of Gardena	AT/SC	64	64	64	\$569,422	Not recommended	Capital
<b>Subtotal</b>							<b>\$18,491,368</b>	<b>\$6,378,077</b>	
1	Line 1X-Expand Transit Bus Service on I-110 Freeway	City of Gardena	TI	87	79	83	\$842,482	\$842,482	Operating
2	Commuter Express Service Expansion to Alleviate Congestion on Harbor Freeway	City of Los Angeles	TI	80	79	80	\$724,000	\$724,000	Capital/Operating
3	Dodger Stadium Express-Harbor Gateway (DSE-HG)	LACMTA	TI	79	76	77	\$1,292,604	\$1,292,604	Operating
4	Torrance Transit Expansion of Line #1 and Line #4 HOT Lane Service *	Torrance Transit	TI	78	74	76	\$7,750,656	\$2,235,991	Capital/Operating
5	Metrolink Enhanced Ticket Distribution Project (I-110 Only)	SCRRA	TI	85	64	75	\$875,000	\$875,000	Operating
6	Express-Lane CNG-Fielded MV-1 Program	Access Services	TI	76	64	70	\$408,000	\$408,000	Capital
7	Line 5-Increase Bus Service Frequency from 30 Minutes to 20 Minutes on Weekdays	City of Gardena	TI	72	64	68	\$1,053,102	Not recommended	Operating
<b>Subtotal</b>							<b>\$12,945,844</b>	<b>\$6,378,077</b>	
<b>TOTAL FUNDING</b>							<b>\$108,926,212</b>	<b>\$15,945,193</b>	

LEGEND: HI = Highway Improvements; AT/SC = Active Transportation/System Connectivity; TI = Transit Improvements

\* Contingent upon applicant confirming that project is still viable with partial funding

\*\* Projects recommended for funding will be required to execute a Funding Agreement within sixty (60) days of receiving formal transmittal of the Funding Agreement boilerplate.

Expresslanes Net Toll Revenue Reinvestment Grant Expenditure Plan (I-10)

ATTACHMENT B REVISED

Rank	Project Name	Lead Agency	Category	Scoring Information			Funding		Project Type	
				Technical Score	CAG Score	Overall Score	Requested Amount	Recommendation **		
1	Expresslanes Corridors Incident Management Improvements Project	Caltrans	HI	70	70	70	\$240,000	\$240,000	Operating	
2	ATSAC Infrastructure Communication Systems Enhancement along I-10 Freeway	City of Los Angeles	HI	68	67	68	\$950,000	Not recommended	Capital	
3	Expresslanes Corridors Communication Systems Improvement Project	Caltrans	HI	67	64	66	\$1,250,000	Not recommended	Operating	
4	Deploying a CCTV Video Processing System (VPS) to Convert Video Streams into Vehicle Counts and Vehicle Classification Counts	Caltrans	HI	67	64	65	\$75,000	Not recommended	Capital/Operating	
5	San Gabriel Valley Arterial Performance Measurement Project	County of Los Angeles	HI	61	64	63	\$690,000	Not recommended	Capital	
6	I-10 HOT/Express Lanes Improvements	Caltrans	HI	63	61	62	\$2,650,000	Not recommended	Capital	
							<b>Subtotal</b>	<b>\$5,855,000</b>	<b>\$240,000</b>	
1	Union Station Metro Bike Hub	LACMTA	AT/SC	89	79	84	\$700,000	\$700,000	Capital/Operating	
2	Monterey Park Bike Corridor Project	City of Monterey Park	AT/SC	79	85	82	\$331,800	\$331,800	Capital	
3	Frazier Street Pedestrian and Bicycle Safety Improvements	City of Baldwin Park	AT/SC	82	79	81	\$895,288	\$895,288	Capital	
4	Santa Anita Avenue Active Transportation for El Monte Station and Downtown El Monte *	City of El Monte	AT/SC	81	76	79	\$1,028,572	\$633,782	Capital	
5	I-10 Active Commute, Healthy Communities Project	City of El Monte	AT/SC	76	79	78	\$440,000	Pending available funding***	Operating	
6	Cesar Chavez Great Street	City of Los Angeles	AT/SC	73	82	77	\$1,000,000	Pending available funding***	Capital	
7	Roanwood Park and Ride Lot Enhancements	City of Rosemead	AT/SC	76	76	76	\$531,789	Pending available funding***	Capital/Operating	
8	Harmona Boulevard Pedestrian Connection	City of Irwindale	AT/SC	59	58	59	\$200,000	Not recommended	Capital	
							<b>Subtotal</b>	<b>\$5,127,399</b>	<b>\$2,560,870.00</b>	
1	<b>Metrolink Enhanced Ticket Distribution Project (I-10 ONLY)</b>	SCRRA	TI	85	79	82	\$875,000	\$875,000	Operating	
2	Baldwin Park Commuter Connector Express Line	City of Baldwin Park	TI	83	79	81	\$700,395	\$700,395	Capital/Operating	
3	Express-Lane CNG-Fueled MV-1 Program	Access Services	TI	80	82	81	\$408,000	\$408,000	Capital	
4	Fair Park Direct Express Bus Lane	City of El Monte	TI	64	73	69	\$1,513,000	Not recommended	Capital/Operating	
							<b>Subtotal</b>	<b>\$3,496,395</b>	<b>\$1,983,395</b>	
<b>TOTAL</b>							<b>\$14,478,794</b>	<b>\$4,784,265</b>		

LEGEND: HI = Highway Improvements; AT/SC = Active Transportation/System Connectivity; TI = Transit Improvements  
 \* Contingent upon applicant confirming that project is still viable with partial funding  
 \*\* Projects recommended for funding will be required to execute a Funding Agreement within sixty (60) days of receiving formal transmittal of the Funding Agreement boilerplate.  
 \*\*\* Funding could be made available for these projects if other projects receiving partial funding are not able to be delivered, there are cost savings from other projects or funding denials.

## ATTACHMENT C

### **Congestion Reduction Demonstration Program Adopted Net Toll Revenue Reinvestment Guidelines for the Pilot Period**

The generation of net toll revenues from the Congestion Reduction Demonstration project offers a unique opportunity to advance the Long Range Transit Plan (LRTP) and Los Angeles County Metropolitan Transportation Authority's (LACMTA) goals for a more sustainable countywide transportation system.

The objective of the Program is to increase mobility and person throughput through a series of integrated strategies (transit operations, transportation demand management, transportation systems management, active transportation, and capital investments) in the I-10 and I-110 corridors. These combined strategies have been consistently shown to result in more reliable and stable outcomes and greater magnitude of positive change than a single strategy scenario. An expenditure plan that retains this focus on integrated strategies and multi-modalism would advance Metro's LRTP and sustainability goals as outlined in Metro's Countywide Sustainability Planning and Implementation Policy (CSPIP).

The guideline principles are summarized as follows:

1. Reinvestments in the transportation corridor provide a direct benefit to reducing congestion on the Metro ExpressLanes (I-10 and I-110);
2. Establish a reserve fund of 3-5%, consistent with the Board Approved Toll Policy to ensure financial sustainability of the Metro ExpressLanes;
3. Direct allocation of revenue to support the incremental transit service implemented to support the deployment of the Metro ExpressLanes. The incremental services include Metro Silver Line, Foothill Silver Streak, Foothill Route 699, Gardena Line 1, and Torrance Transit Line 4;
4. Net of set-asides identified in #2 & #3 above, establish allocation targets of 40% for Transit Uses, 40% for Active Transportation, and 20% for Highway Improvements to support sustainable transportation strategies; and
5. Leverage net toll revenues with other funding sources. Locally sponsored capital projects and operating programs are encouraged. The funding will be mutually determined by Metro and the lead agency, proportionate to the local and regional benefits of the project or program.

Note: Guidelines would be amended by the Board to address changed circumstances such as the ability to bond against the toll revenues or any subsequent policy changes adopted by the Board.

## **Sustainability**

The LRTP and the CSPIP identify principles and priorities to be advanced through a broad range of activities across all modes. The principles/priorities include:

- **Connect People and Places**
  - Access – Better integrating land-use and transportation planning to reduce trip lengths and increase travel choices
  - Prosperity – Reduce transportation costs for residents and provide the mobility necessary to increase economic competitiveness
  - Green Modes – Promote clean mobility options to reduce criteria pollutants, greenhouse gas emissions, and dependence on foreign oil
- **Create Community Value**
  - Community Development – Design and build transportation facilities that promote infill development, build community identity, and support social and economic activity
  - Urban Greening – Enhance and restore natural systems to mitigate the impacts of transportation projects on communities and wildlife, and ecosystems
- **Conserve Resources**
  - Context Sensitivity – Build upon the unique strengths of Los Angeles County's communities through strategies that match local and regional context and support investment in existing communities
  - System Productivity – Increase the efficiency and ensure the long-term viability of the multimodal transportation system
  - Environmental Stewardship – Plan and support transportation improvements that minimize material and resource use through conservation, re-use, re-cycling, and re-purposing

## **Eligible Uses**

The LRTP and CSPIP identify a number of key concepts which will help outline eligible uses to reduce congestion on the I-10 and I-110 corridors:

- **Green Modes**

Green modes include active transportation, rideshare, and transit. Given that all three of these modes operate along the I-10 and I-110 corridors, this key concept would make expanded use of the above modes consistent with the Plan. Such projects include the addition of bicycle and pedestrian facilities, expanded park-n-ride facilities, expanded service span and/or increased levels of service.
- **Bundling Strategies for Greatest Impact**

The Metro ExpressLanes, as designed, seeks to increase mobility and person throughput through a series of integrated strategies (transportation demand management, transportation systems management, and multimodal capital

investments) in specific corridors. This “bundling of strategies” as referred to in the CSPIP has been consistently shown to result in more reliable outcomes and greater magnitude of positive change than a single strategy scenario. An expenditure plan that retains this focus on integrated strategies and multi-modalism would exemplify guidance from the CSPIP. Projects that demonstrate the ability to further link or expand the use of existing facilities such as complete streets improvements and first mile/last mile improvements are recommended.

- Network Optimization

One of the primary objectives of the ExpressLanes project is to better utilize existing capacity within a corridor by using dynamic pricing. This approach of network optimization through the use of data represents the future of transportation policy and planning. To that end, the Policy also identified the concept of network optimization as a key component of sustainability. Projects falling under this concept include complete streets, signal prioritization, real-time ride share matching, and other smart technology improvements.

- Act Regionally and Locally

The I-10 and I-110 are two of the busiest corridors in Los Angeles County. Given the regional significance of these corridors, improvements to these facilities as well as additional services utilizing these corridors should emphasize the varying needs of the corridors as well as needs of adjacent communities. Projects which can improve the connection of the local communities to the regional network will be essential to improving the quality of life in those neighborhoods as well as maximizing the potential of the corridors. Projects falling under this concept include first mile/last mile improvements, expanded park-n-ride facilities, expanded service span and/or increased levels of service, and urban greening initiatives which reduce pollution and improve the quality of life for residents.

Based on the key concepts, three project categories are recommended for the allocation of net toll revenues (excluding set-asides):

1. Transit Uses (40% of funds)

- Increased levels of service and/or increased service span
- Fare subsidy programs
- Purchase of new bus and commuter rail vehicles
- Station enhancements and capacity improvements, including intelligent transportation system improvements
- Metro transit corridor projects serving ExpressLane corridors

2. System Connectivity/Active Transportation (40% of Funds)

- First mile/last mile connections to transit facilities, focusing on multimodal elements recommended as part of the First/Last Mile Strategic Plan



including investments that might support 3<sup>rd</sup> party mobility solutions (car-share, bike-share)

- Complete streets projects which emphasize multi-modalism
- Bicycle infrastructure including bicycle lanes and secured bicycle parking facilities
- Pedestrian enhancements including on/off-ramp safety improvements, street crossings, and ADA-compliance improvements
- Infrastructure and programs to support the use of electric vehicles.
- Bus station improvements including enhanced bus shelters, real-time arrival information, and other related improvements
- El Monte Bus Maintenance facility
- Rideshare/Vanpool programs
- Park-n-Ride facility improvements including restrooms, lighting, and security.
- Landscaping suited to the Southern California ecology. For example, vegetation that does not contribute to smog and requires little or no irrigation. Additionally, landscaping with a high carbon sequestration factor and/ or provides habitat to environmentally sensitive species is favorable.

### 3. Highway Improvements (20% of funds)

- Intelligent transportation system improvements to manage demand
- Deck rehabilitation and maintenance above the required Caltrans maintenance for the facility
- On/off ramp improvements which reduce the incidents of bicycle and pedestrian collisions with vehicles
- Expanded freeway service patrol
- Graffiti removal and landscaping suited to the Southern California ecology. For example, vegetation that does not contribute to smog and requires little or no irrigation. Additionally, landscaping with a high carbon sequestration factor and/ or provides habitat to environmentally sensitive species is favorable
- Subject to Metro Board approval, extension of the ExpressLane corridors

NOTE: Baseline targets of 40% for Transit Uses, 40% for System Connectivity/Active Transportation, and 20% for Highway Improvements are identified as goals, however the actual allocation of the funding will be based on the merits of the proposed projects and programs.

## **Project Evaluation Criteria**

### Implementation of Regional and Local Sustainability Plans and Policies

- The extent to which the project, program, or enhanced transit service supports the recommendations and goals for each transportation mode as stated in the LACMTA's adopted Long Range Transportation Plan and SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

- Extent to which the project, program, or enhanced transit service conforms to local plans to support the implementation of sustainable projects, including transit-oriented development and bicycle and pedestrian master plans

#### Matching Funds/Leveraging Funds

- Extent to which project, program, or enhanced transit service uses ExpressLanes funds to leverage additional local, state, and/or federal funds

#### Innovative Transportation Technology

- Extent to which the project, program, or enhanced transit service facilitates the adoption of zero and near-zero emission vehicles
- The degree to which the project, program, or enhanced transit service supports improved transportation systems management strategies

#### Sustainable Transportation

- Extent to which the project, program, or enhanced transit service increases mobility options to support car-free and/or one-car living
- Extent to which project, program, or enhanced transit service enhances transit coverage, frequency, and reliability within the corridor
- The project, program, or enhanced transit service's connectivity with and ability to complement nearby transit projects
- The degree to which the project, program, or enhanced transit service provides access to regional trip generators, regional activity centers, fixed guideway, and Metrolink, and improves access between jurisdictional or community plan area boundaries
- Extent to which project, program, or enhanced transit service gives priority to transit and active transportation modes
- Extent to which the project, program, or enhanced transit service increases the mode share of transit services operating within the corridor
- The degree to which the project, program, or enhanced transit service provides additional resources for transportation demand management strategies to reduce solo driving
- The degree to which the project, program, or enhanced transit service promote the Metro ExpressLanes.

#### Cost Effectiveness

- The project, program, or enhanced transit service's cost effectiveness in relationship to the total project cost
- The applicant's demonstrated commitment to covering life-cycle operational and maintenance expenses

#### **Recommended Standard Project Requirements**

- Project, program, or enhanced transit service must operate along or within three miles of either the I-110 Corridor (defined as Adams Boulevard to the north and the Harbor Gateway Transit Center to the south) or the I-10 Corridor (between

the Alameda Street on the West and the El Monte Transit Center to the east) or provide regionally significant improvements for the 110 or 10 Corridor.

- Project, program, or enhanced transit service must provide direct operational benefits to the operation of the ExpressLanes and/or transit service within the corridors.
- Project, program, or enhanced transit must incorporate, to the extent possible, utilize green design techniques that minimize the environmental impact of transportation projects and/or support local urban greening initiatives.
- Eligible applicants include public agencies that provide transportation facilities or services within Los Angeles County. These include cities, transit operators, the County of Los Angeles, Caltrans, and Metro. Transportation-related public joint powers authorities must be sponsored by one of the above public agencies. All applicants must be in compliance with Maintenance of Effort requirements.
- If applicant is seeking funding for transit operations or highway maintenance, the service/maintenance must either be new service/maintenance meeting a previously unmet need in the corridor or must increase service for existing lines in the corridor.
- Applicants must maintain their existing commitment of local, discretionary funds for street and highway maintenance, rehabilitation, reconstruction, and storm damage repair in order to remain eligible for Net Toll Revenue funds to be expended for streets and roads.
- Monies cannot be used to supplant, replace, or reduce the project sponsor's previously required match in Metro's Call for Projects.
- Applicants shall ensure that all Communication Materials contain the recognition of Metro's contribution to the project, program, or service. Sponsor shall ensure that at a minimum, all Communication Materials include the phrase "This project/program/service was partially funded by Metro ExpressLanes."

**FISCAL YEAR 2014-15  
 CONGESTION REDUCTION  
 EXPRESSLANES NET TOLL RE-INVESTMENT GRANT  
 PROJECT APPLICATION**

**PART 1  
 Project Information**

<b>SECTION A: Lead Agency</b>			
<b>Lead Agency</b>		<b>Date</b>	
<b>Address</b>			
<b>Contact Person</b>		<b>Phone</b>	
<b>Title</b>			
<b>Email Address</b>			
<b>If joint project, include partner agency information below</b>			
<b>Agency</b>			
<b>Contact Person</b>			
<b>Title</b>			
<b>Email Address</b>			
<b>Phone</b>			

<b>SECTION B: Project Category – check one (for more information see Project Eligibility Guidelines)</b>	
	<b>Transit Improvements</b>
	<b>System Connectivity/Active Transportation</b>
	<b>Highway Improvements</b>

**SECTION C: Proposed Project, Program or Enhanced Transit Service**

<b>Project Name</b>	
<b>Project Location/Project Limits</b>	
<b>Agency Priority Ranking (if submitting more than 1 project)</b>	
<b>Project Description:</b>	

**SECTION D: Project Eligibility**

<b>Project/Program operates along or within the 3 mile boundary of the corridor?</b>	<b>YES</b>	<b>NO</b>
<b>If NO, Project/Program is regionally significant and benefits the ExpressLanes corridors? (Regional Significance is defined as those projects that are multi-jurisdictional, and/or are included in, or consistent with, the Metro LRTP, Metro Countywide Sustainability Policy and Implementation Plan, or other relevant sub-regional plan)</b>	<b>YES</b>	<b>NO</b>
<b>Explain how your project is regionally significant:</b>		

**SECTION E: Project Milestone Schedule (For capital projects use CAPITAL PROJECTS schedule; for non-capital projects use NON-CAPITAL PROJECTS schedule)**

<b>CAPITAL PROJECTS</b>			
<b>Phase</b>	<b>Start (Month/Year)</b>	<b>End (Month/Year)</b>	<b>Comments</b>
Feasibility Study			
Environmental Doc			
Design Plans, Specifications and Estimates (PS&E)			
Right of Way (ROW)			
Construction			

<b>NON-CAPITAL PROJECTS</b>			
<b>Deliverables</b>	<b>Start (Month/Year)</b>	<b>End (Month/Year)</b>	<b>Comments</b>

Please note that if this project is funded, this schedule will be added to the grant agreement and the grantee will be held to this schedule for the purposes of project oversight by Metro.

<b>SECTION F: Project Funding</b>				
<b>Deliverable/Phase</b>	<b>Requested Funds (\$000's)</b>	<b>Local Agency Funds (Match) (\$000's)</b>	<b>Local Agency In- Kind Funds (Match) (\$000's)</b>	<b>Total (\$000's)</b>

## **SECTION G: Community Support**

The council or governing board of the applicant must authorize this grant application. Please attach a copy of the resolution or meeting minutes documenting that action. Or, if the project is part of an approved Plan, please list all local, system, regional and state plans in which this project is included and attach a copy of the section in each plan that includes the project.

**PART 2**  
**Project Evaluation Criteria**

**SECTION 1: Sustainable Transportation (up to 20 points)**

All projects will be scored based upon the extent the project, program or enhanced transit service supports the following goals within the I-10 or I-110 ExpressLanes corridors: Increases mobility options to support car-free and/or one-car living; enhances transit coverage, frequency, and reliability within the corridor; connects with and complements nearby transit projects; provides access to regional trip generators, regional activity centers, fixed guideway, and Metrolink services; improves access between jurisdictional or community plan area boundaries; gives priority to transit and active transportation modes; increases the mode share of transit services operating within the corridor; provides additional resources for transportation demand management strategies to reduce solo driving; and, promotes the Metro ExpressLanes.

Describe how your project, program or enhanced transit service meets one or more of the above goals. In your description please include one or more of the performance metrics included in Appendix A of this document. (attach additional pages if needed)



**SECTION 2: Innovative Transportation Technology and System Management (up to 10 points)**

One of the primary objectives of the ExpressLanes project is to better utilize existing capacity within the I-10 and I-110 corridors by employing an innovative operational approach called “dynamic pricing”. This approach of transportation network optimization through the use of technology and operational efficiency strategies represents the future of transportation policy and planning.

To that end, the concept of network optimization is identified as a key component of sustainability. Projects will be scored based upon their ability to employ innovative technologies or system management tools to reduce emissions and/or optimize the capacity of the existing transportation system.

Describe the extent to which the project, program or enhanced transit service facilitates the adoption of innovative technology such as zero and near-zero emission vehicles, and/or utilizes innovative transportation system management or operational strategies. In your description please include one or more of the performance metrics included in Appendix A of this document. (attach additional pages if needed)

**SECTION 3: Implementation of Regional and Local Sustainability Plans and Policies (up to 20 points)**

Metro’s Countywide Sustainability Policy and Implementation Plan (CSPIP) along with SCAG’s Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS) identify principles and priorities to be advanced through a broad range of activities across all modes. Applicants will be scored based upon the extent the project, program, or enhanced transit service supports the sustainability policies and programs identified in the CSPIP, RTP or SCS. Examples include: promoting the use of green modes; better management of travel demand such as carpooling, vanpooling or telecommuting; transit oriented development; and, programmatic initiatives such as education and outreach to encourage alternatives to driving alone; bike/pedestrian safety programs.

a) Describe how the project/program is consistent with Metro’s CSPIP (up to 10 points). Reference the page number(s) of the Plan. (attach additional pages if needed)

b) Describe how the project/program is consistent with the goals and policies included in 2012 RTP/SCS (up to 10 points). Reference the page number(s) of the Plan. (attach additional pages if needed)

**SECTION 4: Local Match (up to 10 points)**

**Total Estimated Project Cost**

\$ \_\_\_\_\_

**Project Cost Estimates – (Please attach an itemized cost estimate for all expenses based on an engineer’s estimate or best information available if not a capital project. Be as accurate as possible to avoid future cost overruns.)**

Projects will be scored as follows:

- 10 points = 46% or more
- 9 points = 41 – 45%
- 8 points = 36 - 40%
- 7 points = 31 - 35%
- 6 Points = 26 - 30%
- 5 points = 21 - 25%
- 4 points = 16 – 20%
- 3 points = 11-15%
- 2 points = 6-10%
- 1 point = 1-5%

Total Project Cost	\$ _____
Funding Request	\$ _____
Local Match Amount - Cash	\$ _____
Local Match Amount – In-Kind	\$ _____
Local Match Percentage	_____ %

## SECTION 5: Cost Effectiveness (up to 10 points)

Cost effectiveness will be based on the grant amount requested, the total project cost and the estimated useful life of the project (calculated in years). Estimated Useful Life of the Project is defined in the eligibility requirements.

The cost effectiveness total will be calculated as follows:

Total Cost of Project		Estimated Useful Life of the Project (number of years the improvements are expected to last before they have to be replaced)
_____	X	
Grant Amount Requested		

Example:

Total Cost of Project - \$1,000,000  
Grant Amount Requested - \$800,000 = 1.25

1.25 x 10 (est. useful life of project in years) = 12.5 (cost effectiveness score)

Points will be awarded based on the following cost effectiveness scores:

17 + = 10 points  
13 – 16 = 8 points  
9 – 12 = 6 points  
5 – 8 = 4 points  
1 – 4 = 2 points

## SECTION 6: Safety (up to 15 points)

Scoring will be based on the applicant's ability to both quantitatively and qualitatively describe the safety benefits of the project/program.

- a) Provide documented accident information or other data pertaining to your project/program that quantifies the safety benefits. Collision rate calculations from the Federal Highway Administration (FHWA) website <http://safety.fhwa.dot.gov/hsip/resources/fhwasa09029/sec6.cfm> can be used for projects/programs that can apply this data.

- b) Also provide a written description or explanation of the safety benefits of the proposed project/program.

## SECTION 7: Project/Program Readiness (up to 15 points)

Based on the Project Milestone Schedule submitted in PART 1, Section E. For Capital Projects, points will be provided based on how much work has been done. Below is a general guide on how points may be applied:

15 points = Ready for construction (PA&ED, PS&E, R/W Certified)

12 points = PA&ED complete, project within 6 months of construction (e.g. 95% PS&E, R/W Cert within 6 months of construction)

9 points = PA&ED Complete, project within 12 months of construction (e.g. 50% PS&E, R/W Cert within 12 months)

6 points = PA&ED Complete, at 35% PS&E, and R/W initiated

3 points = PA&ED Complete

In a similar fashion, for Non-Capital projects, points will be applied based on how much work has been done and how quickly the project can be implemented.

## Application Signature Page

If this application is selected for funding, the information contained in this application will become the foundation for the funding agreement with Metro.

I certify that I have reviewed the Eligibility Guidelines and that the information submitted in this application is true and correct and in accordance with the guidelines. If awarded a grant from Metro, I agree that I will adhere to the requirements and guidelines specified in this grant application.

Name: <i>(print name)</i>	Title:
Signature: _____ <i>(signature of authorized signatory for applicant)</i>	Date:

### Required Documentation:

- Application Parts 1 & 2
- Application Signature Page
- Project Location and Map - project location and project limits, preferably 8.5" x 11"
- Statement of Work – provide a detailed Statement of Work (in MS Word format)
- Detailed Cost Estimate (in MS Excel format)
- Documentation of Community Support

Submit two (2) copies of each application (Parts 1&2) along with the required documentation and one (1) CD-R or DVD to MTA by mail to the following address:

**LACMTA**

**One Gateway Plaza MS 99-25-1**

**Los Angeles, CA 90012**

**ATTN: KATHY MCCUNE**

Or

Submit two (2) copies of each application (Parts 1 & 2) along with the required documentation and one (1) CD-R or DVD to MTA in person at the following address:

**LACMTA**

**One Gateway Plaza, 25<sup>th</sup> Floor**

**Los Angeles, CA 90012**

**ATTN: KATHY MCCUNE**

**Failure to include any of the required documents will result in a reduced score and potential ineligibility**

## **APPENDIX A**

### **Performance Metrics**

#### **Transit Improvements**

- Increase in headways and/or service span
- Increase in number of trips
- Increase in farebox recovery ratio
- Increase in projected ridership
- Estimated improvement in on-time performance
- Vehicle speed improvement
- Boarding/Alighting time savings from station improvements
- Emission improvements or other efficiencies from new vehicles
- Increase in number of disadvantaged populations served based on Metro's Title VI and Environmental Justice Policy
- Percent of daily/peak period trips starting or ending within ½ mile radius of a transit station/stop
- Percent of population and employment within ½ mile radius of a transit station/stop
- Households within five miles of park-and-ride lots or major transit centers

#### **Active Transportation/System Connectivity**

- Increase in walk/bike trips to corridor stations
- Increase in corridor transit ridership
- Estimated reduction in collisions from improvements
- Percent of daily/peak period trips starting or ending within ½ mile radius of a transit station/stop
- Percent of population and employment within ½ mile of a transit station/stop
- Households within five miles of park-and-ride lots or major transit centers
- Bicycle mode share (bicycle trips divided by total trips)
- Pedestrian mode share (pedestrian trips divided by total trips)
- Increase in rideshare/vanpool participation within corridor

#### **Highway Improvements**

- Estimated LOS improvements
- Corridor speed improvement
- Volume-to-capacity
- Reduction in collisions
- Travel time savings
- Travel time reliability improvements
- Reduction in Vehicle Miles Traveled (VMT)





**Fiscal Year 2014-15  
Congestion Reduction  
ExpressLanes Net Toll Revenue Re-Investment Grant  
Project Eligibility Guidelines**

**I. Overview**

The generation of net toll revenues from the Congestion Reduction Demonstration project offers a unique opportunity to advance the Long Range Transit Plan (LRTP) and Los Angeles County Metropolitan Transportation Authority's (LACMTA) goals for a more sustainable countywide transportation system.

The objective of the Program is to increase mobility and person throughput through a series of integrated strategies (transit operations, transportation demand management, transportation systems management, active transportation, and capital investments) in the I-10 and I-110 corridors. These combined strategies have been consistently shown to result in more reliable and stable outcomes and greater magnitude of positive change than a single strategy scenario. An expenditure plan that retains this focus on integrated strategies and multi-modalism would advance Metro's LRTP and sustainability goals as outlined in Metro's Countywide Sustainability Planning Policy (CSPP).

Projects and programs are recommended for three categories to promote the LRTP and sustainable transportation strategies as an integral enhancement to the Metro ExpressLanes. A category for Transit Use is recommended because operation of high frequency transit and feeder service as well as transit capital improvements have proven to be effective in creating mode shift and reducing congestion on the Metro ExpressLanes. A category for System Connectivity/Active Transportation is recommended to build upon the \$1 million pedestrian and bicycle investments funded by the CRD grant and to improve system connectivity between transit and the state highway. The category also demonstrates Metro's commitment to advance sustainable community strategies since Metro currently does not have a discretionary fund source eligible to fund operations activity for Active Transportation. A category for highway improvements is recommended to build upon the \$10 million highway improvements funded by the CRD grant.

**II. Eligible Applicants**

Eligible applicants include public agencies that provide transportation facilities or services within Los Angeles County. These include cities, transit operators, the County of Los Angeles, the State of California Department of Transportation, and the Los Angeles County Metropolitan Transportation Authority. Transportation-related public joint powers authorities must be sponsored by one of the above public agencies.

### III. Eligible Projects

To be eligible for funds, the project, program, or enhanced transit service must operate along or within three miles of either the I-110 Corridor (defined as Adams Boulevard to the north and the Harbor Gateway Transit Center to the south) or the I-10 Corridor (between Alameda Street to the west and the El Monte Transit Center to the east) or provide regionally significant improvements for the 110 or 10 Corridor. It must also provide direct operational benefits to the operation of the ExpressLanes and/or transit service within the corridors. A project will also be eligible if it can be determined that is regionally significant. Regional significance is defined as those projects that are multi-jurisdictional, and/or are included in, or consistent with, the Metro LRTP, the Metro Countywide Sustainability Policy and Implementation Plan, or other relevant sub-regional plan.

### IV. Project Selection Process

Locally sponsored capital projects and operating programs are encouraged. The funding will be mutually determined by Metro and the lead agency, proportionate to the local and regional benefits of the project or program.

Projects will be evaluated based on the following criteria:

**a) Sustainable Transportation (maximum 20 points)**

All projects will be scored based upon the extent the project, program or enhanced transit service supports the following goals within the I-10 or I-110 ExpressLanes corridors: Increases mobility options to support car-free and/or one-car living; enhances transit coverage, frequency, and reliability within the corridor; connects with and complements nearby transit projects; provides access to regional trip generators, regional activity centers, fixed-guideway, and Metrolink services; improves access between jurisdictional or community plan area boundaries; gives priority to transit and active transportation modes; increases the mode share of transit services operating within the corridor; provides additional resources for transportation demand management strategies to reduce solo driving; and, promotes the Metro ExpressLanes. One or more of the Performance Metrics from Appendix A will also need to be included in your discussion about the benefits of the project/program.

**b) Innovative Transportation Technology and System Management (maximum 10 points)**

One of the primary objectives of the ExpressLanes project is to better utilize existing capacity within the I-10 and I-110 corridors by employing an innovative operational approach called “dynamic pricing”. This approach of transportation network optimization through the use of technology and operational efficiency strategies represents the future of transportation policy and planning.

To that end, the concept of network optimization is identified as a key component of sustainability. Projects will be scored based upon their ability to employ innovative technologies or system management tools to reduce emissions and/or optimize the capacity of the existing transportation system. One or more of the Performance Metrics from Appendix A will also need to be included in your discussion about the benefits of the project/program.

**c) Implementation of Regional and Local Sustainability Plans and Policies (maximum 20 points)**

Metro's Countywide Sustainability Policy and Implementation Plan (CSPIP) along with SCAG's Sustainable Communities Strategy (SCS) identify principles and priorities to be advanced through a broad range of activities across all modes. Applicants will be scored based upon the extent the project, program, or enhanced transit service supports the sustainability policies and programs identified in the CSPIP or SCS. Examples of strategies include: promoting the use of green modes; better management of travel demand such as carpooling, vanpooling or telecommuting; transit oriented development; and, programmatic initiatives such as education and outreach to encourage alternatives to driving alone; bike/pedestrian safety programs.

**d) Local Match (maximum 10 points)**

Projects will be scored based on the amount of Local Match provided. The Local Match can be cash or in-kind staff time or services. **Cash is defined as those funds under the control of the project applicant (e.g. Prop A and/or C and Measure R Local Return funds, Measure R Subregional Highway Operational Improvement funds, Gas Tax funds, local general funds, TDA funds, State Funds, etc.) Funds awarded through Metro's Call for Projects and the corresponding Local Match provided for a project in the Call for Projects do not qualify as Local Match.**

**There is no requirement to provide a local match but projects will score higher in this category if a match is provided.**

Projects will be scored as follows:

10 points = 46% or more

9 points = 41 – 45%

8 points = 36 - 40%

7 points = 31 - 35%

6 Points = 26 - 30%

5 points = 21 - 25%

4 points = 16 – 20%

3 points = 11-15%

2 points = 6-10%

1 point = 1-5%

**e) Cost Effectiveness (maximum 10 points)**

Cost effectiveness will be scored by using the total cost of the project, the funding amount requested and the Estimated Useful Life of the Project.

The Estimated Useful Life of the Project is defined as the number of years the capital improvement, bus purchase, transit service, program or study will last before it has to be replaced or changed.

The applicant will calculate the cost effectiveness score as follows:

$$\begin{array}{r} \text{Total Cost of Project} \quad - \quad \underline{\$1,000,000} \\ \text{Funding Amount Requested} \quad - \quad \$800,000 \quad = \quad 1.25 \end{array}$$

$$1.25 \times 10 \text{ (est. useful life of project in years)} = 12.5 \text{ (cost effectiveness score)}$$

Points will be awarded based on the following cost effectiveness scores:

- 17 + = 10 points
- 13 – 16 = 8 points
- 9 – 12 = 6 points
- 5 – 8 = 4 points
- 1 – 4 = 2 points

**f) Safety (maximum 15 points)**

Scoring will be based on the applicant’s ability to both quantitatively and qualitatively describe the safety benefits of the project/program. Applicants will need to include documented accident information or other data that quantifies the safety benefits along with a written description of the safety benefits of the proposed project/program.

**g) Project/Program Readiness (maximum 15 points)**

Projects will be scored based on how much prior work has been done on the project or program and how quickly the project/program will be implemented once it is approved. For Capital projects, scoring is as follows:

- 15 points = Ready for construction (PA&ED, PS&E, R/W Certified)
- 12 points = PA&ED complete, project within 6 months of construction (e.g. 95% PS&E, R/W Cert within 6 months of construction)
- 9 points = PA&ED Complete, project within 12 months of construction (e.g. 50% PS&E, R/W Cert within 12 months)
- 6 points = PA&ED Complete, at 35% PS&E, and R/W initiated
- 3 points = PA&ED Complete

For Non-Capital projects, since deliverables are not as readily defined, points will be applied based on how much work has been done and how quickly the project can be implemented.

**V. Funding Categories:**

a) Transit Uses - eligible projects include:

- Increased levels of service or increased service span
- Fare subsidy programs
- Purchase of new bus or commuter rail vehicles
- Station enhancements and capacity improvements, including enhanced bus shelters, real-time arrival information, ticket vending machines (TVM)
- El Monte Bus Maintenance facility improvements
- Transit corridor projects serving ExpressLanes corridors

b) System Connectivity/Active Transportation – eligible projects include:

- First mile/last mile connections to transit facilities, focusing on multimodal elements recommended as part of the First/Last Mile Strategic Plan including investments that might support 3<sup>rd</sup> party mobility solutions (car-share, bike-share)
- Complete streets projects which emphasize multi-modalism
- Bicycle infrastructure including bicycle lanes and secured bicycle parking facilities
- Pedestrian enhancements including on/off-ramp safety improvements, street crossings, and ADA-compliance improvements
- Infrastructure and programs to support the use of electric vehicles.
- Bus station improvements including enhanced bus shelters, real-time arrival information, and other related improvements
- El Monte Bus Maintenance facility
- Rideshare/Vanpool programs
- Park-n-Ride facility improvements including restrooms, lighting, and security.
- Landscaping suited to the Southern California ecology. For example, vegetation that does not contribute to smog and requires little or no irrigation. Additionally, landscaping with a high carbon sequestration factor and/ or provides habitat to environmentally sensitive species is favorable.

c) Highway Improvements

- Intelligent transportation system improvements to manage demand
- Deck rehabilitation and maintenance above the required Caltrans maintenance for the facility
- On/off ramp improvements which reduce the incidents of bicycle and pedestrian collisions with vehicles
- Expanded freeway service patrol
- Graffiti removal and landscaping suited to the Southern California ecology. For example, vegetation that does not contribute to smog and requires little or no irrigation. Additionally, landscaping with a high carbon sequestration factor and/ or provides habitat to environmentally sensitive species is favorable
- Subject to Metro Board approval, extension of the ExpressLane corridors

To the extent possible, applicants must utilize green design techniques that minimize the environmental impact of transportation projects and/or support local urban greening initiatives.

If applicant is seeking funding for transit operations or highway maintenance, the service/maintenance must either be new service/maintenance meeting a previously unmet need in the corridor or must increase service for existing lines in the corridor.

**VI. Funding Priorities**

Baseline targets of 40% for Transit Uses, 40% for System Connectivity/Active Transportation, and 20% for Highway Improvements are identified as goals, however the actual allocation of the funding will be based on the merits of the proposed projects and programs.

**VII. Eligible Costs**

Eligible costs are development phase activities (including planning, feasibility analysis, revenue forecasting, environmental review, preliminary engineering and design work, and other preconstruction activities) and the costs of construction, reconstruction, rehabilitation, and acquisition of right-of-way, environmental mitigation, construction contingencies, acquisition of equipment, and operational improvements.

**VIII. Non-Eligible Costs**

Costs such as equipment, furniture, office leases or space cost allocations or similar costs, applicant staff overtime costs, mileage reimbursements, and use of pool cars.

**IX. Other Conditions**

- Applicants must maintain their existing commitment of local, discretionary funds for street and highway maintenance, rehabilitation, reconstruction, and storm damage repair in order to remain eligible for Net Toll Revenue funds to be expended for streets and roads.
- Grant funds received cannot be used to supplant, replace, or reduce the project sponsor's previously required match in Metro's Call for Projects.
- Applicants shall ensure that all Communication Materials contain the recognition of Metro's contribution to the project, program, or service. Sponsor shall ensure that at a minimum, all Communication Materials include the phrase "This project/program/service was partially funded by Metro ExpressLanes."
- PSR/PDS and PSRE – For projects that include a construction element, an approved Project Study Report/Project development Support (PSR/PDS) or Project Study Report Equivalent (PSRE) **is not required**.

- Project Funding Request Caps – there are no project funding request caps for any of the 3 categories.
- All project funding provided will be local funds. There are no federal or state dollars available through this program.
- Quarterly Progress /Expenditure Reports – All applicants that receive funding will be required to submit to Metro a Quarterly Progress/Expenditure Report based on this schedule:

Quarter Ending	Quarterly progress/Expenditure Report Due to Metro
March 31 <sup>st</sup>	May 31 <sup>st</sup>
June 30 <sup>th</sup>	August 31 <sup>st</sup>
September 30 <sup>th</sup>	November 30 <sup>th</sup>
December 31 <sup>st</sup>	February 28 <sup>th</sup>

- Audits – All grant program funding is subject to Metro audit. The findings of the audit are final.

**X. Schedule**

Board Approval of Application Package	February 27, 2014
Distribution of Application Package	March 12, 2014
Applicant Workshop	March 25, 27, 2014
Deadline for Grant Submissions	May 30, 2014
Presentation of Projects to CAGs	June 27, 30, 2014
Recommendation of Projects to Metro Board for Approval	July 24, 2014
Allocation of Funds to Grantees	September 30, 2014
Commence Monitoring/Evaluation of Grantee Project/Program	October 1, 2014

**XI. General Administrative Conditions**

**a) Duration of Project**

Project schedules must demonstrate that the project can be completed within 36 months of award.

Memorandum of Understanding (MOU) – Each awarded applicant must execute a memorandum of Understanding (MOU) with LACMTA which includes the statement of work, financial plan reflecting any local match provided (if applicable), schedule of



milestones and deliverables. The schedule and milestones must reflect the project will be completed within 36 months from the date of award.

**b) Grant Agreement Lapsing Policy**

Grantee must demonstrate timely use of the Funds by:

- (i) Executing a Grant Agreement within sixty (60) days of receiving formal transmittal of the Grant Agreement boilerplate;
- (ii) Meeting the Project milestones due dates as stated in the Statement of Work;
- (iii) Timely submittal of the Quarterly Progress/Expenditure Reports; and
- (iv) Expending the Funds granted within forty two (42) months from the date funds are available.

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

In the event that the timely use of the Funds is not demonstrated, the Project will be reevaluated as part of the annual Net Toll Re-investment Grant Deobligation process and the Funds may be deobligated and reprogrammed to another project by the Board.

Administrative extensions may be granted under the following conditions:

- (i) Project delay due to an unforeseen and extraordinary circumstance beyond the control of the project sponsor (legal challenge, act of God, etc.). Inadequate staffing shall not be considered a basis for administrative extensions.
- (ii) Project delay due to an action that results in a change in scope or schedule that is mutually agreed upon by Metro and the project sponsor prior to the extension request.
- (iii) Project fails to meet completion milestone; however, public action on the proposed regulatory change(s) has been scheduled and noticed to occur within 60 days of the scheduled completion milestone.

Appeals to any recommended deobligation will be heard by a Metro appeals panel. If Grantee does not complete an element of the Project, as described in the Statement of Work, due to all or a portion of the Funds lapsing, the entire Project may be subject to deobligation at Metro's sole discretion.

In the event that all the Funds are reprogrammed, the Project shall automatically terminate.

**EMAC10**

**Motion by Mayor Antonio R. Villaraigosa**

**Enhanced MTA Bicycle Policies & Programs**

Executive Management and Audit Committee

September 16, 2010

MTA customers have a right to enjoy bicycling as a viable mode of transportation.

According to MTA's Bike to Work Week Pledge, 4,500 people or less than one percent bicycled to work in Los Angeles County in 2010.

MTA continues to encourage bicycling to work and other destinations by expanding bicycle access on MTA's transit system.

MTA is also in the process of finalizing new bicycle facility standards for all new Transit Oriented Development projects.

As MTA's transit system continues to grow, the facilities that link cyclists and pedestrians to transit must also continue to expand to improve regional connectivity.

CONTINUED

I THEREFORE MOVE that the MTA Board direct the CEO to do the following and report back no later than the December 2010 Board cycle:

### Funding

1. Recommend increased bicycle funding in the 2011 Call for Projects (tentative goal increasing modal category from 7% to 15%, subject to future MTA Board approval)

### Current Transit System

2. Develop a phased plan for the installation of triple bicycle racks on all MTA buses (estimated cost \$1.6 million)
3. Develop a cost estimate, implementation schedule, and possible funding sources for retrofitting MTA trains for bikes
4. Propose a Revised Customer Code of Conduct and develop a "How to Ride Metro" document that helps customers with bicycles and other large belongings, including luggage, strollers and rolling briefcases, safely board and ride MTA's system during peak hours
5. Identify the feasibility and cost of adding bicycle racks to the back or top of MTA vanpool vehicles
6. Provide an estimated cost and potential funding source to install improved bicycle/stroller/luggage wayfinding signage at all rail and bus stations

CONTINUED

## Current Transit System (continued)

7. Incorporate bicycle mode messages in all marketing materials and campaigns and provide an update on the status of MTA's Bicycle Safety Advertising Campaign on buses
8. Work with the Los Angeles Sheriff's Department Transit Security Bureau to summarize crimes on MTA property affecting bicycles and bike facilities and recommend appropriate measures to improve bicycle security

## Future Transit Projects

9. Include in all future transit station designs stair channels or ramps so that bicyclists can wheel their bikes safely up and down staircases
10. Incorporate robust bicycle facilities in all transit project designs (e.g. increase bicycle parking at high demand stations, adjacent bike lanes or bike paths, i.e. Expo and Orange Line) to facilitate first mile/last mile transit access by bike

###

## Union Station Metro Bike Hub Rendering



**Union Station Metro Bike Hub Cash Flow**

Funds	FY17	FY18	Total
Net Toll Revenue Reinvestment Funds	\$ 632,405.87	\$ 6,379.73	\$ 638,785.60
TDA Article 4 / Local Return / Measure M (Match)	\$ 456,608.13	\$ 4,606.27	\$ 461,214.40
Labor	\$ 100,000.00	\$ 120,000.00	\$ 220,000.00
Amended LOP		\$ 1,150,000.00	\$ 1,150,000.00
	<b>\$ 1,189,014.00</b>	<b>\$ 1,280,986.00</b>	<b>\$ 2,470,000.00</b>

# Union Station Metro Bike Hub

# Recommendation

- **Authorize increase in life of project budget for Union Station Metro Bike Hub from \$1.32 million to \$2.47 million, an increase of \$1.15 million**

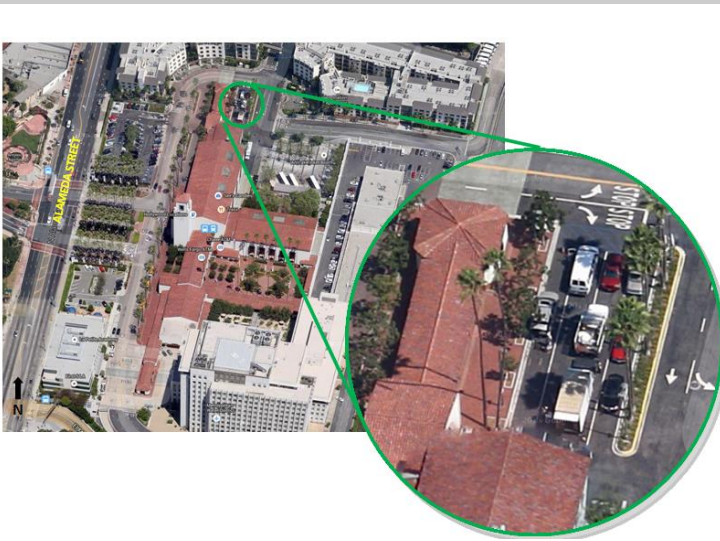


# Metro Bike Hub Program

- Provides secure bike parking at key Metro stations
- Reduces the need for patrons to bring bikes onto buses & trains
- Open to members 24/7
- Staffed part time
- Services include tune ups, flat fixes, repairs & retail items
- Provide resources to support bike education, safety, and transit
- Current location at El Monte Station
- Future Locations at Hollywood/Vine, Culver City and Union Station



# Union Station Metro Bike Hub



- **Original LOP established locating the Metro Bike Hub in the East Portal on parking level P1; this area has since been converted to ADA parking**
- **Newly identified location is outside the historic station near the north breezeway**
- **Design must preserve integrity of historic Union Station**
- **Estimated costs exceed the current LOP due to the project being freestanding and due to the need for site costs**

# Next Steps

- Notice to Proceed issued to selected SBE contractor
- Construction commences March 2017
- Anticipated opening Fall 2017





**Board Report**

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**File #:** 2017-0015, **File Type:** Informational Report

**Agenda Number:** 32.

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**FINANCE, BUDGET, AND AUDIT COMMITTEE  
FEBRUARY 15, 2017**

**SUBJECT: INITIATING FY18 BUDGET DEVELOPMENT**

**ACTION: RECEIVE AND FILE**

**RECOMMENDATION**

RECEIVE AND FILE the **FY18 Budget Development Process and Schedule, CEO Budget Goals, Outreach, and Sales Tax Revenue and CPI Assumptions**

**ISSUE**

Metro is developing its FY18 Budget, a process that began in the past two months with the FY17 Midyear review, as directed by the CEO. The FY17 Midyear review establishes the FY18 Budget development baseline both for positions (FTEs) and for non-labor expenses.

This is the first of a series of monthly updates to the Board on the FY18 Budget process. This report will describe the opportunities, constraints, and mechanisms that will guide the development of the FY18 Budget. As with prior years, the primary objective is to achieve the CEO's goals in a manner that is fiscally sound both in the budget year as well as in future years. New for FY18 will be the incorporation of Measure M, which adds new resources and new challenges to address an expanding portfolio of projects while continuing to maintain fiscal responsibility.

This report begins with an outline of our budget process and schedule. Next we provide the CEO's goals for FY18, followed by a description of our comprehensive public outreach program, which seeks to maximize public input and ensure that Metro's stakeholders have an active role in the process. Then we will provide the sales tax revenue and Consumer Price Index (CPI) assumptions that will lay the framework for the development of the upcoming annual budget.

**DISCUSSION**

**Budget Process and Schedule**

This report is the first in a series of reports to the Board, culminating in final Board Adoption, as follows:

- February 2016:

- Budget Development Process and Schedule
- Outreach
- Sales Tax Revenue and CPI Assumptions
- March 2017:
  - FY18 Capital Program (Transit and Highway Construction, and State of Good Repair)
  - Bus and Rail Service Levels
  - Transit Boardings and Fare Revenue Projections
  - Expenses (not including FTEs)
    - By Program, including Capital, Transit Operations, Other Agencywide Programs, and Subsidies
    - By Department, including Operations, Security, Planning, Information Technology, and others
- April 2017:
  - Preliminary FY18 Budget proposal, including Federal, State, and Local Revenues, and non-labor expenses
  - Agencywide labor expenses, including contract and non-contract positions
  - Outreach status update
- May 2017:
  - Public Hearing - May 17, 2017
  - Final Board Adoption - May 25, 2017

(In accordance with State Public Utilities Code Section 130051.12)

## CEO Budget Goals

Metro projects a balanced budget for FY18. The annual budget will align resources in a fiscally responsible manner to achieve the following CEO goals:

- Advance safety and security for our customers, the public, and Metro employees;
- Exercise fiscal discipline to ensure financial stability;
- Plan and deliver capital projects on time and on budget while increasing opportunities for small business development;
- Improve the customer experience and expand access to transportation options;
- Increase transit use and ridership;
- Implement an industry-leading state of good repair program;
- Invest in workforce development;
- Promote extraordinary innovation; and
- Contribute to the implementation of agencywide and departmental Affirmative Action and Equal Employment Opportunity (EEO) goals.

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Additionally, as described by the CEO in his State of the Agency report to the Metro Board of Directors in January of 2017, the FY18 Budget will further ensure that resources are invested with respect to developing a safety culture, supporting innovation, investing in people, providing a culture of learning and accountability, and taking the first steps to begin implementing Measure M projects as prescribed by the ordinance approved by Los Angeles County voters in November of 2016.

### **Board of Directors, Public, and Stakeholder Outreach**

A comprehensive outreach program for the FY18 Budget is in place to ensure that Metro provides complete information and the best possible level of engagement on budget development to the Board of Directors, to the public, and to key stakeholders. Soliciting meaningful input from the public and stakeholders is important. To ensure greater participation, the times and locations of public forums are being advertised through multiple channels, including the Metro website, "Take Ones" on board vehicles, newspaper advertising, message on hold, and Metro Briefs. The outreach plan will include over 50 briefings with our Board, key stakeholders and the public.

#### Board of Director Briefings

Beginning in February, detailed budget briefings will be presented to Board staff on a weekly basis. The purpose of these briefings is to provide policy makers with an in-depth explanation of the budget development for each and every Metro department, as well as a comprehensive look at all revenues, expenses, and project deliverables planned for FY18. In addition to these ongoing regular briefings, OMB staff will also conduct individual Board member briefings by request on an as-needed basis

#### Public Outreach

We have planned numerous options and opportunities for informing and engaging the public in the FY18 budget process. While more traditional public workshops and forums are ideal for people who can afford the time to participate, other media channels, communication tools, and technology advances are also being used to provide multiple opportunities for the public to learn about the FY18 budget and process.

The following list describes the public forums and media channels that will be utilized to maximize participation in the development of the FY18 budget.

- Public Hearing - A public hearing on the FY18 Budget will be held on May 17, 2017 for the Board to receive public comments. The general public is encouraged to attend and provide their comments. Notice of public hearing will follow policies and procedures required (multiple languages, published in multiple newspapers, etc.)
- Metro Service Councils - Five Service Councils are located throughout the County to give residents more opportunities for input on service issues in their community. This is an ideal forum for obtaining direct and immediate feedback from our transit riders.

- The Source/El Pasajero/Facebook/Twitter - Staff will be using Metro's social media outlets to inform the public throughout the FY18 Budget development process, including through Facebook ads and Twitter. Three stories have already been posted to the social media accounts (stories on budget basics, the capital program, and the operating budget), and additional stories will follow with each budget update to the Board.
- Podcast - Staff will be recording and posting a podcast in late-March/early-April 2017 on various budget themes and issues.
- Interactive Budget Tool - This tool will be an interactive application to engage the public on the budgeting process and to create financial transparency. It is not only a survey but also a way to allow the public to provide feedback on their individual transit priorities. It will be available as a link from the Metro.net page.
- Budget Website - An FY18 Budget website that can be accessed through Metro.net will provide regular updates on the budget process, budget details as they become available each month, and an opportunity for the public to offer their comments.
- E-mail - [budgetcomments@metro.net](mailto:budgetcomments@metro.net) <mailto:budgetcomments@metro.net> has been established to allow the public an opportunity to comment outside of a public setting.

### Stakeholder Briefings

Budget workshops are scheduled in March and May with various stakeholder groups to engage and solicit input, as follows:

- Citizens Advisory Council (CAC) - The CAC represents a broad spectrum of interests and all geographic areas of the County. This group consults, obtains and collects public input on matters and concerns of many communities. This is an ideal forum to solicit community feedback on various transit issues.
- Technical Advisory Committee (TAC) - The TAC represents key stakeholders that provide technical assistance in reviewing and evaluating various transportation proposals and alternatives within Los Angeles County. This group provides feedback from the communities they represent and offer insight to transit issues throughout the county, including funding, streets, freeways, and transit air quality improvements.
- Bus Operations Subcommittee (BOS) - The BOS represents transit operators in LA County and offers input on all bus operations, capital and legislative issues. This forum allows for the input of transit riders throughout the county.
- Local Transit Systems Subcommittee (LTSS) - The LTSS provides technical input on issues affecting local transportation systems. This forum allows for the input of local transit system

operators throughout the county.

- Streets & Freeways Subcommittee - The Streets & Freeways Subcommittee is a technical subcommittee of the TAC. This forum facilitates budget development input from the subcommittee members, who are charged with reviewing and evaluating various transportation policies, issues, and transportation funding programs.

### **Sales Tax Revenue and Consumer Price Index (CPI) Assumptions**

As the budget development process continues and additional information becomes available, these parameters may be modified accordingly. Changes and updates will be incorporated and reported back to the Board in the upcoming budget process.

Following is a series of charts and descriptions that provide the parameters for projected sales tax revenues and agency expenditures. Metro's reliance on sales taxes for more than half of total revenues necessitates as accurate a forecast as possible to determine funding constraints in the budget year. Many of our future expenses are dependent on changes in the Consumer Price Index (CPI), so we therefore scrutinize current spending levels combined with forecast service levels and changes in the CPI to develop the most accurate possible reflection of future spending.

#### Sales Tax & TDA Revenue Forecast

Sales tax annual growth is continuing in a positive direction, but at a slower pace than the post-recession recovery peak period, as indicated in Figures 1 and 2. Specifically, annual growth has slowed down from +4.0% in FY15 to +2.4% in FY16 and +2.1% in FY17 (estimated). As shown in both Figures 1 and 2, we currently assume that the FY18 sales tax annual growth rate will increase slightly from the expected +2.1% in FY17 to +2.6% in FY18. Finally, Figure 3 shows how Metro's estimates have historically compared to the actuals and projections from leading forecasts.

Figure 1:



### Sales Tax Annual Growth Rate

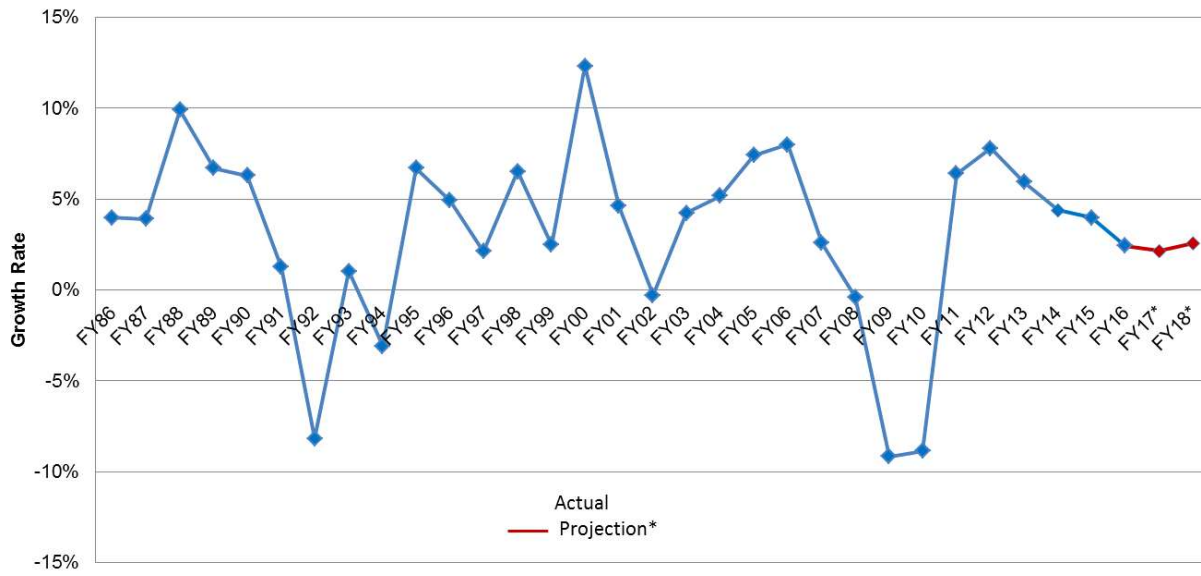


Figure 2:

**Annual Change in Sales Taxes**

*(\$ in millions)*

<b>Revenues for each Sales Tax Ordinance - Propositions A, C, Measure R, and Measure M</b>				
	<b>FY15 Actual</b>	<b>FY16 Actual</b>	<b>FY17 Estimated Actual</b>	<b>FY18 Assumption</b>
	\$ 745.7	\$ 763.7	\$ 780.0	\$ 800.0
% Change	4.0%	2.4%	2.1%	2.6%

Figure 3:

**Sales Tax Forecast Source Comparison**

<b>Forecast Source</b>	<b>FY15</b>	<b>FY16</b>	<b>FY17</b>	<b>FY18</b>
<b>Actual *</b>	\$ 745.7	\$ 763.7	\$ 780.0	---
<b>Metro **</b>	\$ 734.2	\$ 763.5	\$ 795.7	\$ 800.0
<b>UCLA</b>	\$ 733.2	\$ 772.1	\$ 807.4	\$ 810.0
<b>Beacon Economics</b>	\$ 751.7	\$ 766.2	\$ 806.2	\$ 816.9

\* FY17 Actual is projection based on FY17 Q1 receipt from State Board of Equalization

\*\* FY15 and FY16 are Adopted Budget

As noted in Figure 3 above, the FY17 sales tax revenue forecast for FY17 of \$780.0 million is based on actual sales tax receipts from the State Board of Equalization (SBE) through FY17 Q1. While this amount is lower than the adopted budget amount of \$795.7, Metro staff will continue to monitor additional sales tax receipts as provided by SBE in the coming months to update both the FY17 and FY18 amounts. Additionally, we will continue to monitor updates from economic forecasting authorities including UCLA, Beacon Economics, Muni Services and the LA Economic Development Corporation.

State Transit Assistance (STA) Revenue

State Transit Assistance sales tax revenue depends upon actual consumption and price of diesel fuel. For FY18 \$60.0 million in STA revenue is anticipated, which is higher than the FY17 projection level of \$52.9 million. A slightly higher consumption and price are anticipated due to increasing oil and natural gas drilling activity (which uses diesel fuel in its operations), and an assumption of normal temperatures contributes to a forecast of fuel consumption growth, according to the U.S. Energy

Information Administration. This assumption will be reassessed during the budget process to reflect the State Controller’s Office estimate, which is due for release in the coming weeks.

Consumer Price Index (CPI)

It is anticipated that the CPI will range between 1.25% to 2.00%, based on historical pattern and actual experience. The FY18 assumption will be re-evaluated as updates from leading forecasting authorities are released in March 2017. Figure 4 shows how Metro’s estimates have historically compared to the actuals and projections from leading forecasts.

Figure 4:

**Annual Change in Consumer Price Index (CPI)**

Forecast Source	FY15	FY16	FY17	FY18
<b>Actual</b>	0.94%	1.73%	1.24% *	
<b>Metro</b>	2.30%	1.97%	1.85%	1.25 - 2.00%
<b>UCLA</b>	2.81%	2.25%	2.70%	2.78%
<b>Beacon Economics</b>	1.97%	1.57%	1.98%	2.00%

\* YTD actual based on data from U.S. Bureau of Labor Statistics.

Wages and Benefits

For SMART, ATU, TCU, and AFSCME members, and for Non-Contract staff, the FY18 Proposed budget will assume no wage, salary, or fringe benefit increases, exclusive of required minimal fringe benefit increases for Non-Contract staff and pending the completion of ongoing union contract negotiations. Any budgeted wage, salary, or fringe benefit increases will be determined by the amounts included in the final contracts, as approved by the Board.

**DETERMINATION OF SAFETY IMPACT**

This recommendation will not have an impact on safety standards at Metro

**FINANCIAL IMPACT**

The budget planning parameters will guide the development of the FY18 budget and 10-Year Budget Plan, and they may be adjusted as more specific information becomes available.

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**ALTERNATIVES CONSIDERED**

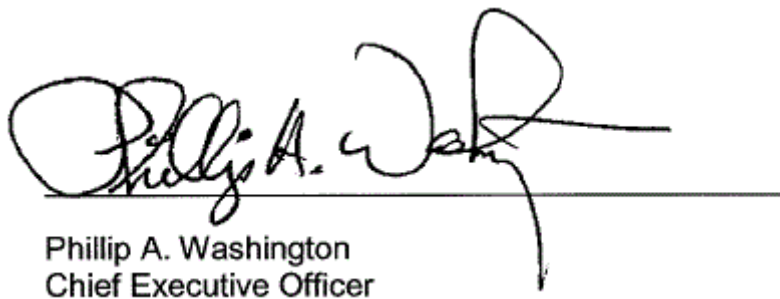
The annual budget serves as the legal authority to obligate and spend funds. Failure to adopt the budget would severely impact Metro's stated goal of improving transportation in Los Angeles County.

**NEXT STEPS**

As described earlier in this report, Metro staff will provide regular FY18 Budget briefings to Board members and their staff starting this month. Further, we will provide receive-and-file reports on a monthly basis, as previously detailed.

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Phillip A. Washington  
Chief Executive Officer

# Initiating FY18 Budget Development

**February 15, 2017**

**Finance, Budget & Audit Committee**

# Finance, Budget & Audit Committee

- CEO Budget Goals for FY18
- Outreach
- FY18 Budget Assumptions
  - Sales Tax Revenues
  - Consumer Price Index
- FY18 Budget Process and Schedule

# CEO Budget Goals for FY18

1. Advance safety and security for our customers, the public, and Metro employees
2. Exercise fiscal discipline to ensure financial stability
3. Plan and deliver capital projects on time and on budget while increasing opportunities for small business development and innovation
4. Improve the customer experience and expand access to transportation options
5. Increase transit use and ridership
6. Implement an industry-leading state of good repair program
7. Invest in workforce development
8. Promote extraordinary innovation
9. Contribute to the implementation of agencywide and departmental Affirmative Action and Equal Employment Opportunity (EEO) goals

# Outreach

- Outreach will be conducted throughout the budget process until board adoption
- Soliciting input with “bottoms-up” approach through key groups (transit riders, communities, key stakeholders, transit operators, and general public)
- Social media campaign to provide more information on the budget
- Online Budget Tool

Type	Description	Dates
<b>Board Updates</b>	Monthly Board Reports will provide status of budget process	Finance & Budget Committees (Feb/Mar/Apr/May)
<b>Board Staff Briefings</b>	Weekly meetings will be held on specific budget topics	Focused briefings (Feb/Mar/Apr/May)
<b>Stakeholder meetings</b>	Bus Operations Subcommittee Technical Advisory Subcommittee Local Transit Systems Subcommittee Streets & Freeways Citizens Advisory Council	Mar 21, May 16 Mar 1, May 3 Mar 30, Apr 27 TBD Mar 3, May 5
<b>Public</b>	Service Council meetings On-Line Budgeting tool Monthly Podcasts on budget topics as provided to the Board Blog posts on theSource Website to provide latest budget information Metro Briefs Email for public to provide comments Public Hearing	Mar 2-11, May 4-13 Feb-May Feb/Mar/Apr/May Feb/Mar/Apr/May On-going On-going On-going May 17
<b>Board and Deputy briefings</b>	Will be scheduled as requested with each of the Board offices	May 1 – May 24 (as requested)



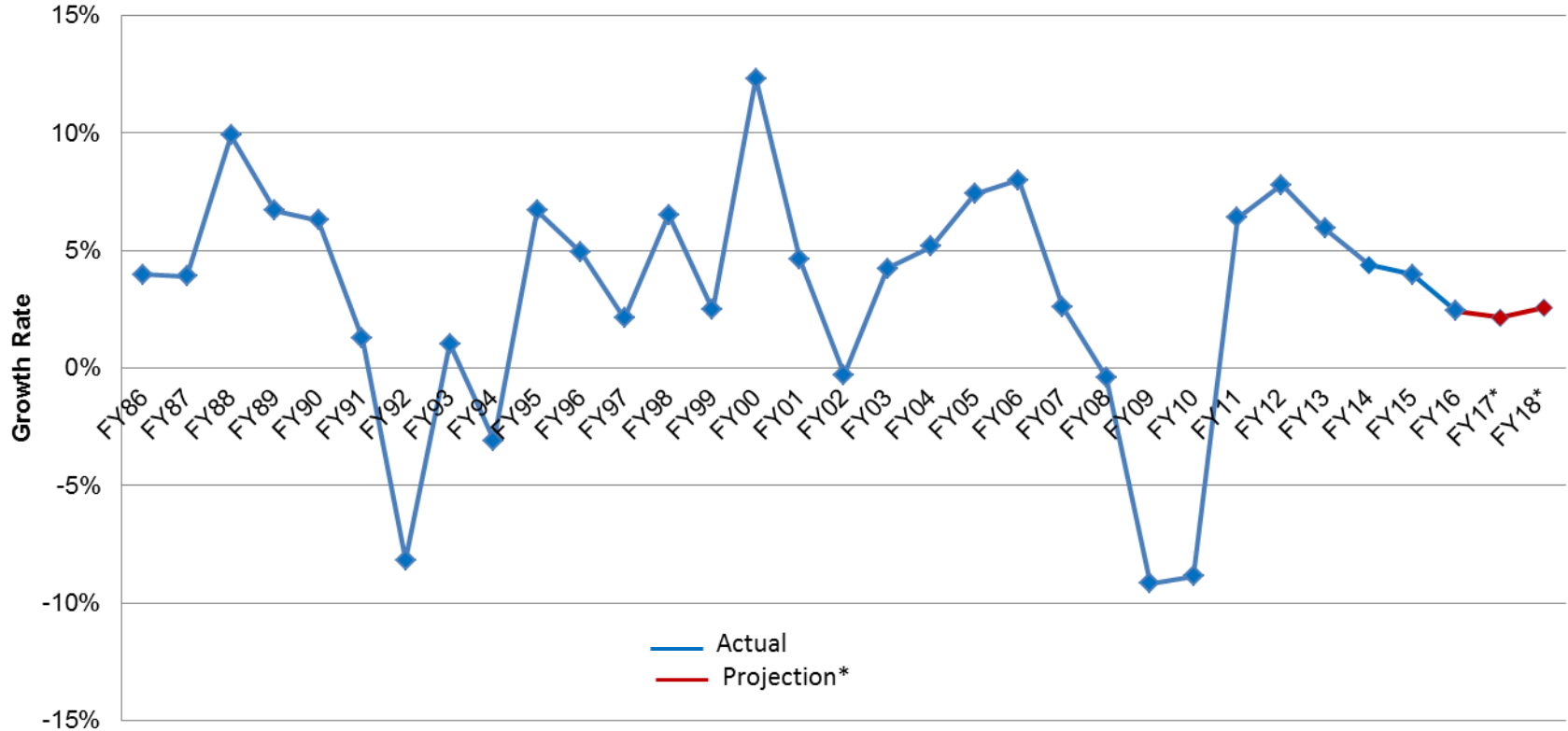
Anticipate over 50 briefings and workshops



# FY18 Budget Assumptions

## Sales Tax Revenues

### Sales Tax Annual Growth Rate



Average Annual 30-Year Growth Rate: 3.2%

# FY18 Budget Assumptions

## Sales Tax Revenues

### Annual Change in Sales Taxes

(\$ in millions)

Revenues for each Sales Tax Ordinance - Propositions A, C, Measure R, and Measure M				
	FY15 Actual	FY16 Actual	FY17 Estimated Actual	FY18 Assumption
	\$ 745.7	\$ 763.7	\$ 780.0	\$ 800.0
% Change	4.0%	2.4%	2.1%	2.6%

### Sales Tax Forecast Source Comparison

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Actual *	\$ 745.7	\$ 763.7	\$ 780.0	---
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\* FY17 Actual is projection based on FY17 Q1 receipt from State Board of Equalization

\*\* FY15 and FY16 are Adopted Budget



**Metro**

# FY18 Budget Assumptions

## Consumer Price Index

### Annual Change in Consumer Price Index (CPI)

Forecast Source	FY15	FY16	FY17	FY18
Actual	0.94%	1.73%	1.24% *	
Metro	2.30%	1.97%	1.85%	1.25 - 2.00%
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Beacon Economics	1.97%	1.57%	1.98%	2.00%

\* YTD actual based on data from U.S. Bureau of Labor Statistics.

# FY18 Budget Process and Schedule

- February 2017:
  - Budget Development Process and Schedule
  - Outreach
  - Sales Tax Revenue and CPI Assumptions
- March 2017:
  - FY18 Capital Program
  - Bus and Rail Service Levels
  - Transit Boardings and Fare Revenue Projections
  - Expenses (not including FTEs)
- April 2017:
  - Preliminary FY18 Budget proposal
  - Agencywide labor expenses
  - Outreach status update
- May 2017:
  - Public Hearing: May 17
  - Final Board Adoption: May 25

**Board Report**

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**File #:** 2016-0958, **File Type:** Contract

**Agenda Number:** 35.

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**REVISED**  
**FINANCE, BUDGET AND AUDIT COMMITTEE**  
**PLANNING AND PROGRAMMING COMMITTEE**  
**FEBRUARY 15, 2017**

**SUBJECT: LINK UNION STATION (LINK US) PROJECT**

**ACTION: APPROVE RECOMMENDATIONS**

**RECOMMENDATION**

CONSIDER:

- A. APPROVING the recommended Alternative 1 with six Regional Rail run-through tracks and four High Speed Rail run-through tracks (also referred to as “6+4 Run Through Tracks” Alternative) to be carried forward in the **California Environmental Quality Act (CEQA) Draft Environmental Impact Report (EIR) and National Environmental Policy Act (NEPA) Draft Environment Impact Statement (EIS)** and continue to evaluate Alternatives 2, 3 and 4 as reasonable alternatives in the Draft EIR/EIS;
- B. AUTHORIZING the Chief Executive Officer (CEO) to execute Modification No. 4 to Contract No. PS2415-3172, with HDR Engineering, Inc., for Link Union Station (Link US) to provide environmental and preliminary engineering services for the expansion of Link US to connect the Link US project with Patsaouras Transit Plaza to the east and the historic Union Station to the west, increasing the total contract value by \$13,761,273, from \$48,279,357 to a not to exceed amount of \$62,040,630;
- C. AUTHORIZING the CEO to increase Contract Modification Authority (CMA) in the amount of \$1,376,127, increasing the total CMA amount from \$2,980,588 to \$4,356,715;
- D. AUTHORIZING the Chief Executive Officer to execute a funding agreement with California High-Speed Rail Authority (CHSRA) in the amount of \$3,726,102 for project development work related to Contract Modification No. 4; and
- E. APPROVING an amendment to increase the FY17 fiscal year budget in the amount of \$9,200,000 for the LINK US Project in Cost Center 2145.

**ISSUE**

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Staff is seeking approval from the Board on the recommended “6+4 Run Through Tracks” Alternative to be carried forward in the Draft EIR/EIS, while continuing to evaluate three other reasonable alternatives in the document.

Contract Modification No. 3, approved by the Board in March 2016, included the LA Union Station Master Plan (USMP) passenger concourse and assumed that the Program-level EIR of the USMP would be prepared concurrently with the Project-level Link US EIR/EIS, and the connections to the Patsaouras Transit Plaza and the historic Union Station would be evaluated by the USMP team.

Early November 2016, Metro Planning staff provided an update to the Board on the LA USMP and a summary of implementation efforts to date. Staff also recommended changes to the approach to redevelopment of LAUS based on new information and direction. In particular, Metro Planning staff recommended not continuing with a Program-level clearance for the USMP, but instead to pursue a Project-level clearance for only the LAUS forecourt improvements identified by the USMP.

As a result, the Link US project-level EIR/EIS will need to be expanded to include additional improvements and study areas for connections from the new expanded passenger concourse to Patsaouras Transit Plaza and the historic Union Station, previously included in the LA USMP Program-level EIR/EIS. In addition, Metro Regional Rail staff recommends advancing the design of the proposed rail structure over US 101 to 100% level to reduce the risk of cost overruns in later phases of the project. Attachment D compares the study areas included in Contract Modification No. 3 and additional study areas proposed in Contract Modification No. 4.

## **DISCUSSION**

### **Background**

In April 2014, the Board authorized staff to execute Contract No. PS2415-3172 to HDR Engineering, Inc. for the Link Union Station Project, formerly known as Southern California Regional Interconnector Project (SCRIP). In October 2015, the Board approved the expansion of SCRIP to include the Los Angeles Union Station (LAUS) Master Plan passenger concourse and accommodate a HSR system in LAUS. In March 2016, the Board approved Contract Modification No. 3 to Contract No. PS2415-3172 for SCRIP with HDR Engineering, Inc. to provide environmental and preliminary engineering services for the expansion of SCRIP to include the LAUS Master Plan passenger concourse and accommodate high-speed rail (HSR).

### **Project Description**

LAUS is one of the largest transportation hubs in Southern California with Metro Rail (Red Line, Purple Line and Gold Line), Metro Bus (Rapid, Local and Limited, Express and Silver) including other municipal bus providers (Flyaway, Foothill Transit, Santa Clarita, etc.) and the largest railroad passenger terminal in Western United States with Amtrak and Metrolink. Currently, there are approximately 110,000 passengers traveling through LAUS each weekday. Metro anticipates continued increases in population will nearly double the demand on existing and planned modes of transportation utilizing LAUS, including the completion of the Metro Crenshaw/LAX, Regional Connector, Gold Line Phase 2B, West Santa Ana Branch, and Purple Line Extensions Sections 1, 2

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and 3 by 2040 will result in over 220,000 passenger traveling through LAUS each weekday. Significant upgrades in passenger circulation and capacity at LAUS would be required to accommodate the anticipated growth in transit ridership. In addition, the existing throat, rail yard and passenger concourse (a 28-foot-wide passageway) also significantly constrain Metro's ability to accommodate future increase in commuter rail service (including Metrolink, Amtrak Pacific Surfliner and long distance trains) and future HSR service.

Link Union Station (Link US) project would transform Los Angeles Union Station (LAUS) into a world-class transit station and change LAUS from a "stub-end tracks station" to a "run-through tracks station." Link US would result in increased operational capacity for Metrolink and Amtrak rail service from Control Point (CP) Chavez to the north (near North Main Street) to CP Olympic to the south (near the Interstate 10/State Route 60/US-101 interchange), and increased capacity for passengers within the new expanded multi-modal passenger concourse. Link US would enhance local and regional connectivity by optimizing the connections among all modes of transportation at LAUS including bus, light rail, subway, commuter rail and active transportation. These benefits will be grouped by modes throughout the design document to maximize eligible fund sources contributing to the design and to capture related data for the improvements.

As the focal point of commuter rail travel in Southern California, LAUS serves an average 170 passenger trains each weekday, consisting of 142 Metrolink commuter trains and 28 Amtrak Pacific Surfliner and long distance trains. LAUS is the main stop on the Amtrak Pacific Surfliner, which is the second busiest Amtrak intercity service nationwide.

**Major rail and passenger improvements include:**

- Throat and Elevated Rail Yard - New track and subgrade improvements would increase the elevation of the tracks leading to LAUS known as the "throat" and an elevated rail yard including seven new passenger platforms and canopies, accommodating Metro Gold Line, Metrolink, Amtrak Pacific Surfliner and long-distance service, and potentially California High-Speed Rail (HSR) service and West Santa Ana Transit Corridor.
- Run-Through Tracks - Up to ten run-through tracks would be constructed with a new viaduct structure over US-101 that extends run-through tracks for Metrolink and Amtrak (referred to thereafter as Regional Rail) and potentially HSR services south along the west bank of the Los Angeles River, and a separate viaduct structure for a loop track turning north to Keller Yard for Regional Rail trains.
- New Multi-Modal Passenger Concourse - The new passenger concourse would enhance Americans with Disabilities Act (ADA) accessibility at LAUS and include new vertical circulation elements (stairs, escalators, and elevators) for passengers between the elevated platforms (including the Gold Line, Regional Rail and HSR platforms) and the new passenger concourse under the rail yard. The passenger concourse would contain up to 600,000 square feet (passenger circulation and waiting areas, passenger support functions and retail amenities, and building functional support areas), including up to 100,000 square feet of transit-serving retail amenities, to meet the demands of a multi-modal world class transit station.

**Other transit improvements include:**

- U.S. 101 Freeway Improvements - Several existing non-standard design features (including

curve radius, sight distance, lane and shoulder widths, and deceleration distance) on northbound U.S. 101, northbound off-ramp to Alameda Street, and southbound on and off-ramps to and from Commercial Street would be eliminated or improved. The modifications to U.S. 101 would be needed to accommodate the proposed run-through track viaduct and the associated bridge columns.

- Local/Arterial Roadway Improvements - Center Street would be widened and upgraded to include bike lanes between U.S. 101 and Ducommun Street in accordance with the Connect US Action Plan. Commercial Street would be widened and upgraded between Garey Street and Center Street to meet City of Los Angeles street classification standards.
- Active Transportation Improvements - Active transportation connections from LAUS to the Los Angeles River and the surrounding neighborhoods via the proposed run-through tracks viaduct structure are being evaluated and could be potentially accommodated.

### Community Outreach

In June 2016, the environmental process for the Link US Project began with a public scoping meeting during the Notice of Intent (NOI) and Notice of Preparation (NOP) comment periods. Metro staff and project team conducted outreach to key community groups, agencies, elected officials and stakeholders. A comprehensive public outreach plan was developed and implemented, resulting in over 40 project briefings to stakeholders to date. A Community Update Meeting was held on November 15, 2016 to provide an update on the project, present the four build alternatives carried forward in the Draft EIR/EIS, and obtain feedback from members of the public. The most common feedback received is summarized below:

- Minimize traffic impacts during construction;
- Lack of funding for construction may result in delay of project completion;
- Make job opportunities available to local communities;
- Minimize noise impacts during construction (temporary) and after project completion (permanent);
- Avoid disproportionate impacts to disadvantaged communities;
- Incorporate art and aesthetics early in the design of the project;
- Historic and cultural characteristics of the study area should be preserved.

Staff has taken all public feedback into consideration in the recommendation on the proposed alternative to be carried forward in the Draft EIR/EIS.

### Alternatives Analysis

A total of 74 alternatives were developed to meet the project goals and objectives. A two-step alternative screening process, course-level and fine-level screening, was implemented to advance four alternatives of the total 74 into the EIR/EIS analysis. All four alternatives included the following elements:

- A new expanded passenger concourse that will include new vertical circulation elements (stairs, escalators, and elevators) and up to 600,000 square feet (passenger circulation and waiting areas, passenger support functions and retail amenities, and building functional support areas) including up to 100,000 square feet of transit serving retail amenities to meet



- the demands of a multi-modal transit station;
- Run-through tracks extending from an elevated rail yard with a new viaduct or viaducts over US 101 to accommodate the new expanded passenger concourse and vertical clearance requirements over the El Monte Busway and US 101;
- Incorporation of a loop track;

Three of the four alternatives include potential accommodation for the planned HSR system within the limits of the Project. Below is a more detailed description of the four build alternatives to be carried forward in the Draft EIR/EIS:

***Alternative 1: Six Regional Rail run-through tracks and four HSR run-through tracks (Combined)***

Alternative 1 includes six Regional Rail run-through tracks and four HSR run-through tracks extending south of LAUS over US-101. The new expanded passenger concourse will include HSR-related elements and the throat will be reconstructed. Other improvements include the permanent realignment of the Gold Line north of LAUS. In addition, portions of Commercial Street and Center Street, and the intersection of Center Street at Commercial Street, will be lowered to accommodate the proposed viaduct, an elevated rail bridge, that supports the run-through tracks over Commercial Street. Alternative 1 has the largest environmental study limits compared to the other three alternatives.

***Alternative 2: Six Regional Rail run-through tracks and two HSR run-through tracks (Combined)***

Alternative 2 includes six Regional Rail run-through tracks and two HSR run-through tracks extending south of LAUS. Alternative 2 includes similar improvements as Alternative 1 at the throat and rail yard, new passenger concourse, and Commercial Street and Center Street. The key differences between Alternatives 1 and 2 are related to the distribution of platforms at the rail yard (Regional Rail and HSR) and the number of run-through tracks proposed to extend south of LAUS.

***Alternative 3: Six Regional Rail run-through tracks and four HSR run-through tracks (Phased)***

Alternative 3 also includes six Regional Rail run-through tracks and four HSR run-through tracks extending south of LAUS, but Alternative 3 would involve the implementation of a phased construction approach to accommodate HSR-related infrastructure. As part of Alternative 3, the physical area for the planned HSR system and related infrastructure is accommodated within the maximum limits of construction; however, HSR-related infrastructure would not be constructed by Metro concurrent with Link US Regional Rail infrastructure. The tracks and platforms constructed would be limited to the Regional Rail infrastructure, but the maximum limits of construction would include the subsequent modification and extension of the two dedicated HSR platforms and four tracks as required for the planned HSR system.

***Alternative 4: Six Regional Rail run-through tracks and no HSR run-through tracks***

Alternative 4 assumes HSR's Burbank to Los Angeles and Los Angeles to Anaheim project sections

do not utilize LAUS. Alternative 4 includes six Regional Rail run-through tracks extending south of LAUS over US-101. The new expanded passenger concourse would not include HSR related elements and the throat would not be realigned and reconstructed. Similar improvements at Commercial Street and Center Street would also be included to accommodate the proposed viaduct.

A numeric evaluation score was assigned to each alternative to compare the performance of each. Alternative 1 received the highest score and therefore was considered the highest performing alternative. Alternatives 2 and 3 were also amongst the highest ranked alternatives with at least six regional rail run-through tracks. Alternative 4 is being recommended for further evaluation as part of the EIS/EIR process in the event that HSR does not elect to utilize LAUS as a station location. This potential circumstance is possible and therefore this alternative is considered to be reasonable.

All stakeholder agencies (e.g., Metrolink, California High Speed Rail Authority (CHSRA), Caltrans, Amtrak, City of Los Angeles), interested agencies, and members of the public (including the Chinatown, Boyle Heights, Lincoln Heights, Arts District, Little Tokyo neighborhoods) were invited to provide feedback on the four EIR/EIS Build Alternatives. A community meeting was also held on November 15, 2016 to present the four EIR/EIS Build Alternatives to obtain feedback.

Attachment E provides a graphical representation of each of the four build alternatives.

### Third Party and Other Anticipated Costs

Third party costs for Link US were not included in previous Board actions. As the preliminary engineering and environmental work is underway, third party costs have been identified and determined to be necessary.

Southern California Regional Rail Authority (SCRRA) requested funding to cover efforts in attendance at meetings, reviewing and commenting on technical reports, environmental studies, conceptual and preliminary design drawings to ensure compliance with SCRRA standards and specification, providing data and inputs for rail modeling including SCRRA's operational and maintenance requirements, providing flagging services for access to the right-of-way, and providing support for community outreach activities, etc. Additional third party costs have been identified from Caltrans, the City of Los Angeles Bureau of Engineering (BOE), Department of Transportation (DOT), Department of Water and Power (DWP), and other agencies and utility companies. This additional third party cost is in amount of \$3 million and will cover the entire preliminary engineering and environmental certification phase of the Link US Project.

Other anticipated costs of up to \$1 million include additional real estate and legal support, sampling, testing and disposal of soils from subsurface geotechnical, utility and environmental investigations to support the preliminary engineering and environmental studies.

### Funding

Staff is currently negotiating with CHSRA for their share of the design and construction costs for the Link US project. Staff anticipates returning to the Board with a full funding agreement by June 2017. With the Board's approval of the recommended actions, it will enable staff to complete the environmental clearance and preliminary engineering studies enabling the project to be "shovel

ready” for federal and state grants. Staff is also seeking public private partnership opportunities.

**DETERMINATION OF SAFETY IMPACT**

The project is being designed in accordance with Metrolink and Metro standards, federal requirements, and state requirements and will be compliant with the Americans with Disabilities Act. There are no pedestrian crossings of the proposed tracks so no safety impacts are expected.

**FINANCIAL IMPACT**

The total project cost to complete the Preliminary Engineering and Environmental Certification phase of the Link US project is \$70,398,000, as follows (refer to Attachment F- Sources and Uses):

Preliminary Engineering and Environmental Certification	\$ 66,397,347 66,397,345 (including Contract Modification Authority amount of \$4,356,715)
Third Party Costs	\$ 3,000,000
Other Anticipated Costs	\$ 1,000,000
<b>TOTAL PROJECT COST:</b>	<b>\$ 70,397,347 70,397,345 (round to \$70,398,000)</b>

A total of \$37.7 million has been programmed and approved to-date, consisting of \$19 million of Measure R 3% funds programmed in prior board actions, and \$18.7 million committed by the CHSRA, up to \$15 million for project development work related to the previously approved Contract Modification No. 3 and up to \$3.7 million for project development work related to Contract Modification No. 4.

Staff is utilizing the work of the consultant to identify each mode of transit affected by the expansion and capacity improvements of an improved Los Angeles Union Station in order to identify additional or alternative funding sources including all eligible Federal, State or other Local funding. An additional \$32.7 million in funding will be required in order to complete the environmental and design phase of this project.

The cash flow for the Link US Project is anticipated to be as follows:

Project	Expenditure from prior years	FY 17	FY 18	FY 19	TOTAL
Link Union Station	\$14,793,000	\$18,500,000	\$27,500,000	\$9,605,000	\$70,398,000

The amount of \$9.3 million for these services is included in the FY17 budget for cost center 2415 Regional Rail under SCRIP 460089. For the fiscal year to-date, the project has incurred \$6.4 million in expenditures and pending invoices are in an amount of \$2.8 million. Staff is requesting to amend the FY 17 budget an additional \$9.2 million to cover pending invoices and other anticipated costs through the end of the FY 17. Since this is a multi-year project, the Chief Program Management Officer, Program Management and Senior Executive Officer, Program Management/Regional Rail will

be accountable for budgeting the costs in future years.

### Impact to Budget

The source of funds for the requested amendment consist of previously approved and programmed Measure R3% funds and CHSRA funds discussed above. Measure R 3% Metrolink Commuter Rail Capital Improvements and CHSRA funds are not eligible for Metro bus/rail operating or capital budget expenses.

### **ALTERNATIVES CONSIDERED**

An alternative could be not to execute Contract Modification No. 4 and third party agreements and not advance the Link US Project. However, this will not increase the commuter and intercity rail capacity at LAUS causing significant delays and operational challenges.

The Board could elect to proceed with the Link US Project without expanding the project limits to connect the proposed passenger concourse with the Patsoauras Transit Plaza and the historic Union Station. The expansion of the passenger concourse and rail yard will likely create bottlenecks in pedestrian circulation at the existing passageway to the historic station and the east portal, which could also lead to potential safety concerns during peak periods and emergency situations. In addition, this would not provide for opportunities for transit optimization and future commercial developments at LAUS.

### **NEXT STEPS**

With this Board approval, staff will begin preliminary engineering of the recommended alternative and continue to develop the draft EIR/S. Staff anticipates returning to the Board for a full funding agreement with CHSRA by June 2017. Staff anticipates public circulation of the draft EIR/S document in Summer 2017. In addition, staff will execute Modification No. 4 with HDR Engineering, Inc.

### **ATTACHMENTS**

- Attachment A - Procurement Summary
- Attachment B - Contract Modification/Change Order Log
- Attachment C - DEOD Summary
- Attachment D - Comparison between Contract Modifications #3 and #4 Study Areas
- Attachment E - EIR/EIS Build Alternatives
- Attachment F - Sources and Uses

Prepared by:

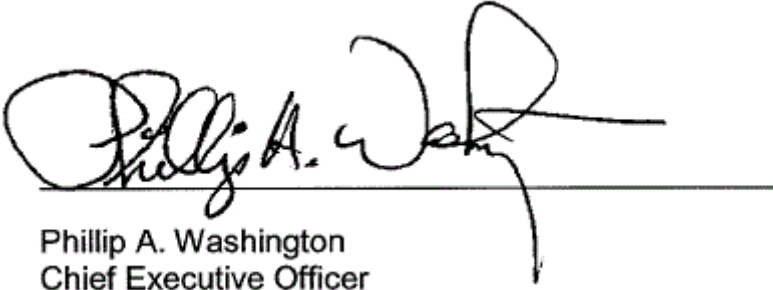
Vincent Chio, P.E., Senior Engineer, Program Management, (213) 922-7597  
Jeanet Owens, P.E., Senior Executive Officer, Program Management, (213) 922-6877

Reviewed by:

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

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

Nalini Ahuja, Chief Financial Officer, (213)922-3088



Phillip A. Washington  
Chief Executive Officer

## PROCUREMENT SUMMARY

LINK UNION STATION (LINK US) PROJECT  
PS2415-3172

1.	<b>Contract Number:</b> PS2415-3172		
2.	<b>Contractor:</b> HDR Engineering, Inc.		
3.	<b>Mod. Work Description:</b> Environmental and preliminary engineering services for the expansion of Link US to connect the Link US project with Patsaouras Transit Plaza to the east and the historic Union Station to the west.		
4.	<b>Contract Work Description:</b> Professional environmental and engineering services for Link US		
5.	<b>The following data is current as of:</b> 02/07/17		
6.	<b>Contract Completion Status</b>		<b>Financial Status</b>
	<b>Contract Awarded:</b>	08/21/14	<b>Contract Award Amount:</b> \$29,805,884
	<b>Notice to Proceed (NTP):</b>	04/25/14 (Limited NTP) 08/21/14 (Full NTP)	<b>Total of Modifications Approved:</b> \$18,473,473
	<b>Original Complete Date:</b>	08/21/20	<b>Pending Modifications (including this action):</b> Not-To-Exceed \$13,761,273
	<b>Current Est. Complete Date:</b>	02/28/19	<b>Current Contract Value (with this action):</b> \$62,040,630
7.	<b>Contract Administrator:</b> Lily Lopez		<b>Telephone Number:</b> (213) 922-4639
8.	<b>Project Manager:</b> Jeanet Owens		<b>Telephone Number:</b> (213) 922-6877

**A. Procurement Background**

This Board Action is to approve Contract Modification No. 4 issued in support of Link US for environmental and preliminary engineering services for the expansion of Link US to connect the Link US project with Patsaouras Transit Plaza to the east and the historic Union Station to the west. Contract Modification No. 3 deleted Phase 2, Plans, Specifications and Estimates, and Phase 3, Bid and Construction Support, and changed the completion date from August 21, 2020 to August 21, 2018. This Contract Modification extends the period of performance from August 21, 2018 through February 28, 2019.

This Contract Modification was processed in accordance with Metro's Acquisition Policy and maintains a cost plus fixed fee contract structure. All other terms and conditions remain unchanged.

On April 24, 2014, the Board authorized staff to negotiate and execute a four-year, with two, one-year options, Contract No. PS2415-3172 with HDR Engineering, Inc. for the Link Union Station Project, formerly known as Southern California Regional Interconnector Project (SCRIP).

A total of three modifications have been issued to date. Refer to Attachment B – Contract Modification/Change Order Log.

**B. Cost Analysis**

The recommended not-to-exceed amount has been determined to be fair and reasonable based upon an independent cost estimate, cost analysis, technical evaluation, and fact finding. All direct labor rates and fee remain unchanged from the original contract.

The reduction in efforts associated with coordination with the LA Union Station Master Plan Program Environmental Impact Report and the efficiency in the Contractor’s team approach with the design of the US 101 viaduct structure are the primary factors for the difference between the ICE and the not-to-exceed amount.

<b>Proposal Amount</b>	<b>Metro ICE</b>	<b>Not-To-Exceed Amount</b>
\$13,761,273	\$13,799,625	\$13,761,273

## CONTRACT MODIFICATION/CHANGE ORDER LOG

## LINK UNION STATION (LINK US) PROJECT/PS2415-3172

<b>Mod. No.</b>	<b>Description</b>	<b>Status (approved or pending)</b>	<b>Date</b>	<b>\$ Amount</b>
1	No cost administrative changes.	Approved	09/04/14	\$0
2	Additional requirement to include the Los Angeles Union Station (LAUS) Master Plan concourse engineering study.	Approved	09/18/14	\$831,520
3	Authorize the revised Scope of Work to include LAUS Master Plan passenger concourse and accommodate HSR. Adjustments to Phase 1; and deletion of Phases 2 and 3	Approved	04/12/16	\$17,641,953
4	Environmental and preliminary engineering services for the expansion of Link US to connect the Link US project with Patsaouras Transit Plaza to the east and the historic Union Station to the west.	<b>Pending</b>	<b>Pending</b>	\$13,761,273
	<b>Modification Total:</b>			<b>\$32,234,746</b>
	<b>Original Contract:</b>	<b>08/21/14</b>		<b>\$29,805,884</b>
	<b>Total:</b>			<b>\$62,040,630</b>



## DEOD SUMMARY

## Link Union Station (LINK US) Project / PS-2415-3172

**A. Small Business Participation**

In accordance with Federal Railroad Administration (FRA) and American Recovery and Reinvestment Act (ARRA) funds through the California High Speed Rail Authority (CHSRA), Metro incorporated CHSRA's Small Business (SB) Program.

HDR, Inc. made an overall SB goal commitment of 28.61%, which is inclusive of a 14.92% DBE, 3.04% DVBE, 9.45% SBE, and a 1.20% SB Microbusiness. HDR confirmed that the project is 53% complete. Current overall SB participation is 23.54%, which is inclusive of an 11.10% DBE, 1.83% DVBE, 9.84% SBE, and 0.77% SB Microbusiness, representing a shortfall of 5.07% in the DBE, DVBE, and SB Microbusiness commitments.

For this pending contract modification, HDR listed five additional firms, inclusive of a 10.11% DBE, 1.17% DVBE, 13.89% SBE, and 0.95% SB Microbusiness, which will bring DBE participation to 26.11%. To date, HDR's team is made up of 40 subconsultants, including 11 DBEs, 17 SBEs, 8 DVBEs and 4 SB Microbusinesses. HDR confirmed that they will meet their overall SB commitment throughout the life of the contract.

<b>SMALL BUSINESS COMMITMENT</b>	<b>28.61%</b>	<b>SMALL BUSINESS PARTICIPATION</b>	<b>23.54%</b>
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	<b>DBE/DVBE/SBE/SB (Micro) Subcontractors</b>	<b>% Commitment</b>	<b>% Participation</b>
1.	Atwell Consulting Group (DBE)	0.33%	0.19%
2.	BA Inc. (DBE)	0.79%	1.81%
3.	Earth Mechanics (DBE)	1.74%	0.53%
4.	MBI Media (DBE)	1.14%	2.58%
5.	Pacific Railway Enterprises (DBE)	4.91%	0.37%
6.	PacRim Engineering (DBE)	0.48%	0.63%
7.	Rail Surveyors & Engineers (DBE)	4.88%	3.68%
8.	V & A Inc. (DBE)	0.65%	0.94%
9.	Resource Sciences/Planning (DBE)	added	0.23%
10.	The Alliance Group (DBE)	added	0.01%
11.	T.A. Group (DBE)	added	0.13%
	<b>Sub Total DBE*</b>	<b>14.92%</b>	<b>11.10%</b>

12.	Abacus/Rubicon Engineering (DVBE)	0.33%	0.00%
13.	Cal Vada Surveying (DVBE)	0.34%	0.20%
14.	The REM Engineering (DVBE)	1.76%	0.04%
15.	Schwab Engineering (DVBE)	0.24%	0.63%
16.	Value Management Institute (DVBE)	0.25%	0.00%
17.	Aurora Industrial Hygiene (DVBE)	0.12%	0.00%
18.	ZMAssociates Environmental (DVBE)	added	0.47%
19.	OhanaVets, Inc. (DVBE)	added	0.49%
	<b>Sub Total DVBE*</b>	<b>3.04%</b>	<b>1.83%</b>
20.	WKE, Inc. (SBE)	8.01%	2.00%
21.	FPL & Associates (SBE)	1.13%	0.50%
22.	Blair, Church & Flynn (SBE)	0.31%	0.14%
23.	GPA Consulting (SBE)	added	0.81%
24.	Paleo Solutions (SBE)	added	0.09%
25.	Thomas Frawley Consulting (SBE)	added	0.00%
26.	S&K Engineers (SBE)	added	0.28%
27.	W2 Designs, Inc. (SBE)	added	0.50%
28.	IDC Consulting Engineers (SBE)	added	0.22%
29.	D'Leon Consulting (SBE)	added	0.45%
30.	Aguilar Associates (SBE)	added	0.83%
31.	Guida Surveying (SBE)	added	1.20%
32.	Penco Engineering (SBE)	added	1.36%
33.	C2PM (SBE)	added	1.10%
34.	VCA Engineers (SBE)	added	0.36%
35.	Fariba Nation Consulting (SBE)	added	0.00%
36.	Lentini Design & Marketing (SBE)	added	0.00%
	<b>Sub Total SBE*</b>	<b>9.45%</b>	<b>9.84%</b>
37.	AirX Utility Surveyors (SB Micro)	0.13%	0.23%
38.	Jacobus & Yuang, Inc. (SB Micro)	0.30%	0.35%
39.	Morcos Group (SB Micro)	0.48%	0.02%
40.	Acoustic Strategies Inc.	0.29%	0.17%
	<b>Sub Total SB Micro*</b>	<b>1.20%</b>	<b>0.77%</b>
	<b>TOTAL</b>	<b>28.61%</b>	<b>23.54%</b>

\* Defined as Small Business under the CHSRA SB Program

## **B. Living Wage and Service Contract Worker Retention Policy Applicability**

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

## **C. Prevailing Wage Applicability**

Prevailing Wage requirements are applicable to this project. DEOD will continue to monitor contractors' compliance with the State of California Department of Industrial

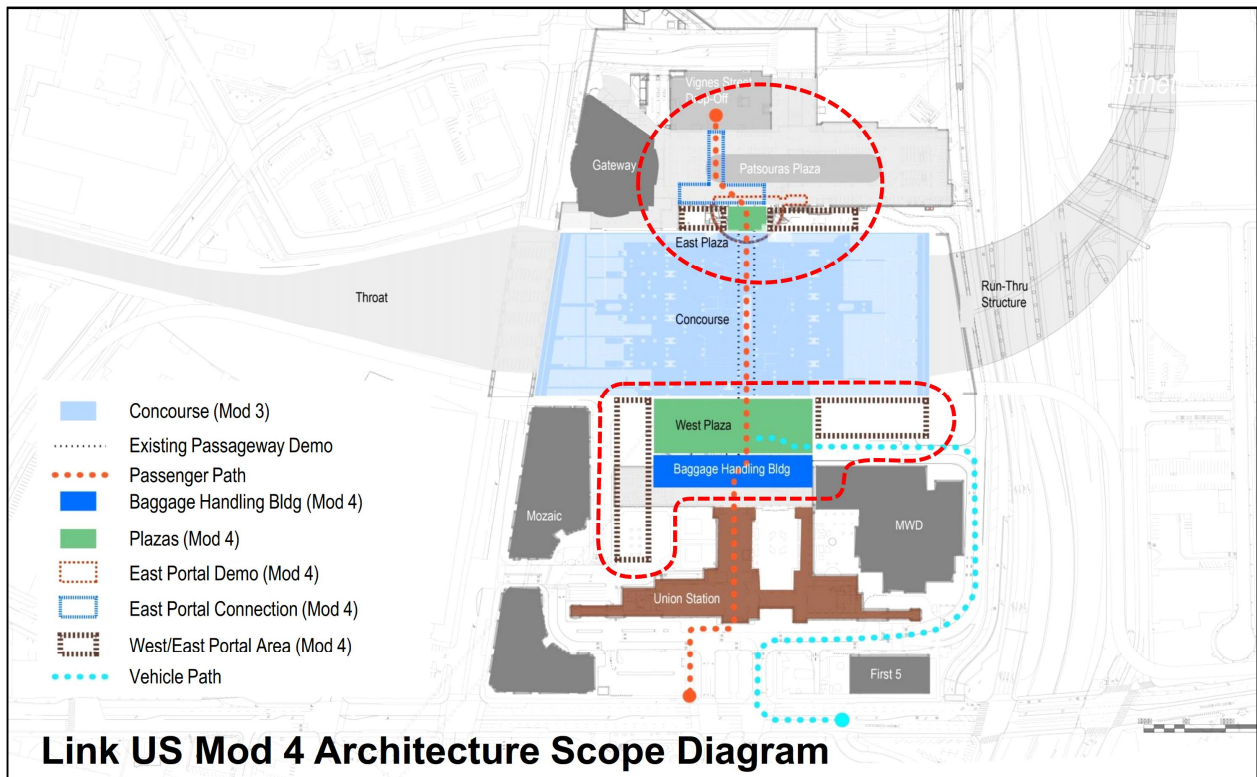
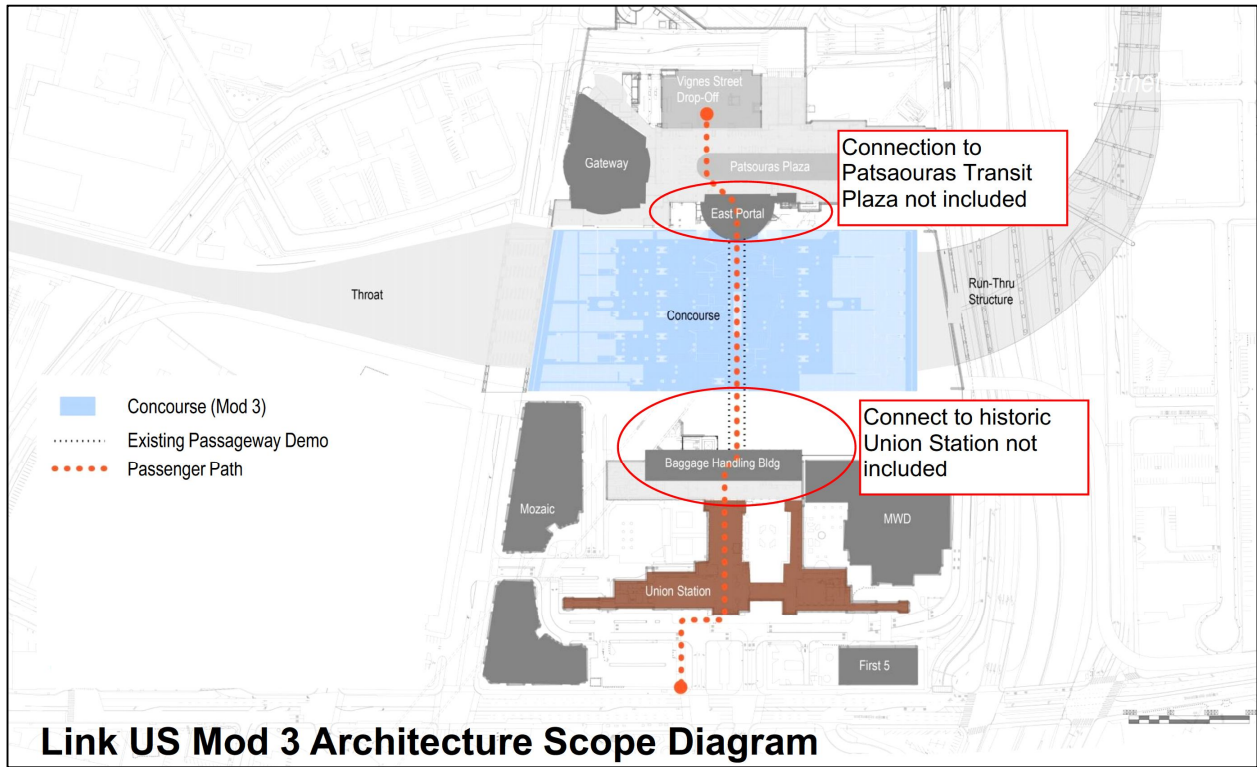
Relations (DIR), California Labor Code, and, if federally funded, the U S Department of Labor (DOL) Davis Bacon and Related Acts (DBRA). Trades that may be covered include: surveying, potholing, field, soils and materials testing, building construction inspection, construction management and other support trades.

**D. Project Labor Agreement/Construction Careers Policy**

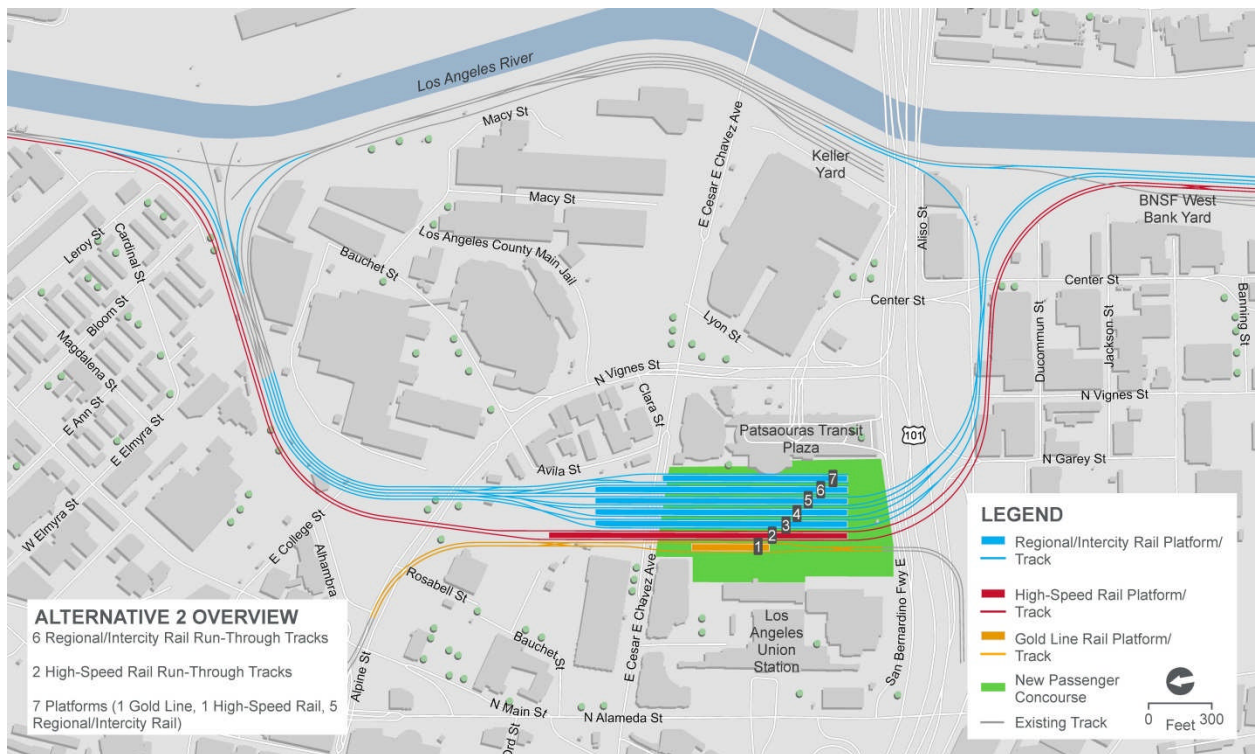
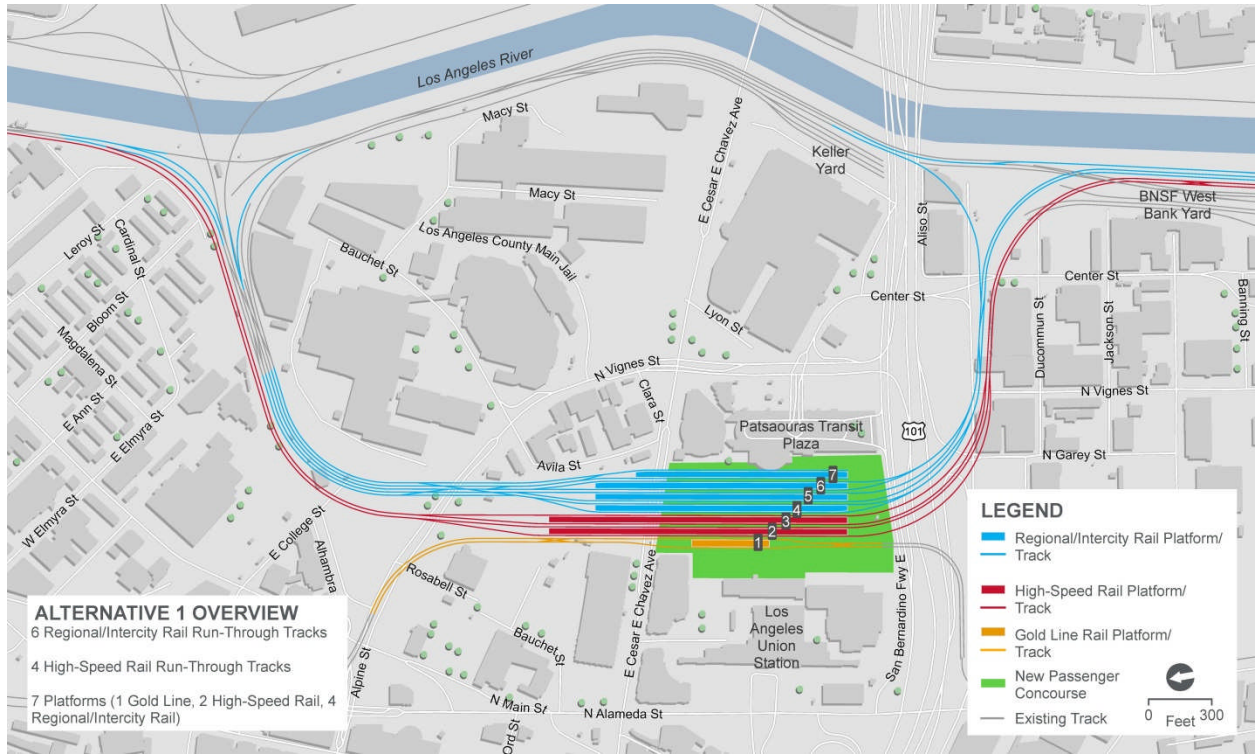
Project Labor Agreement/Construction Careers Policy is not applicable to this contract.

# ATTACHMENT D

## Comparison between Contract Modifications No. 3 and No. 4 Study Areas

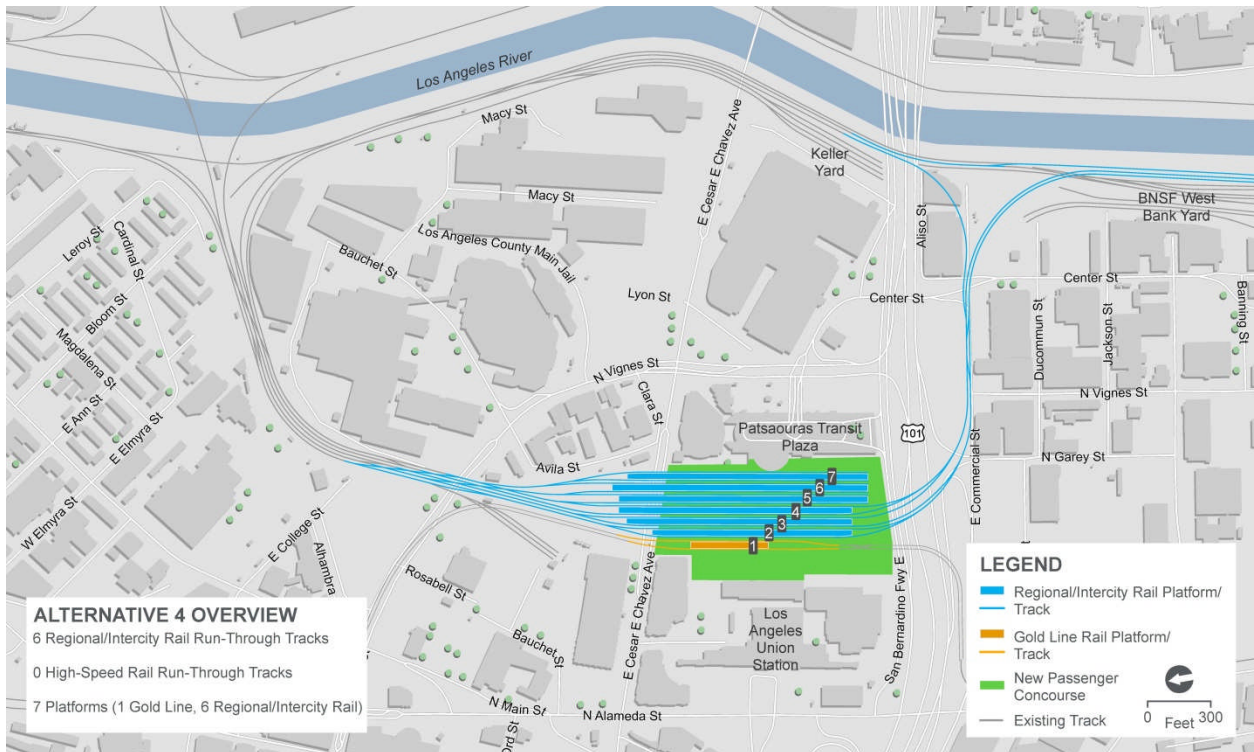
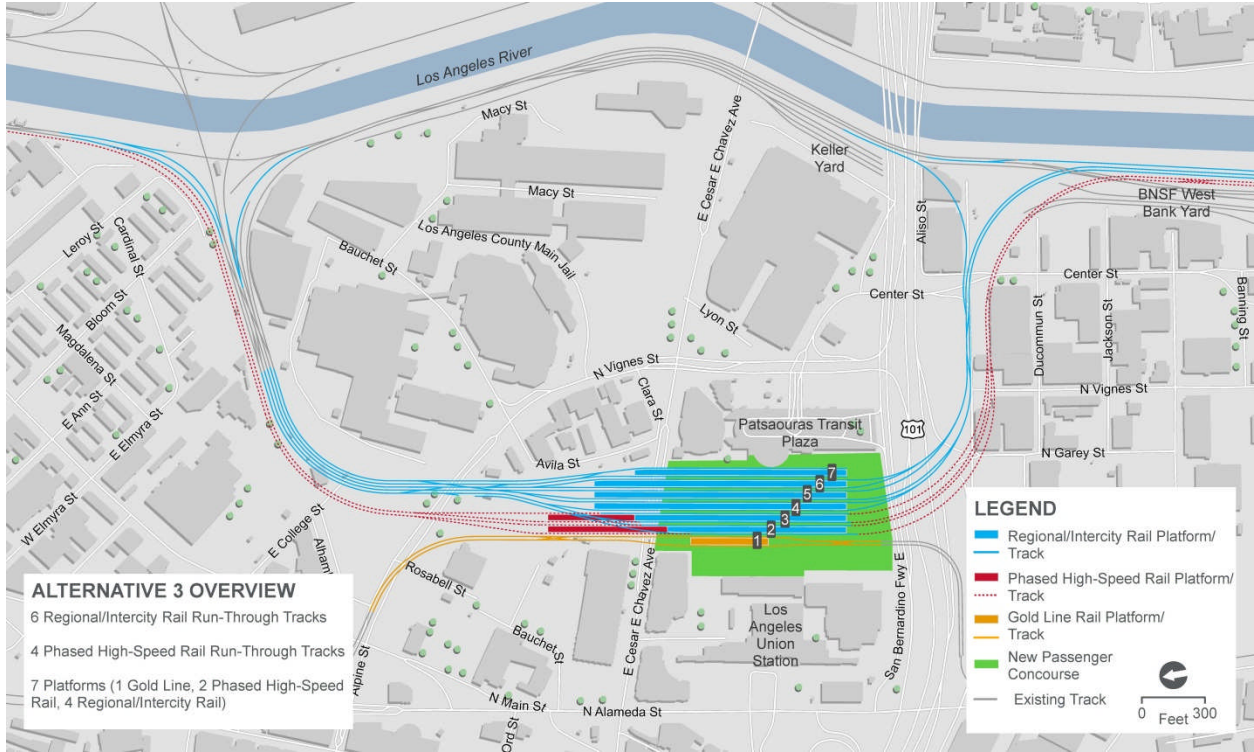


# ATTACHMENT E





# ATTACHMENT E



**LINK US SOURCES AND USE OF FUNDS FOR ENVIRONMENTAL AND PRELIMINARY ENGINEERING**

SOURCE OF FUNDS	PRIOR				
	YEARS	FY17	FY18	FY19	
MEASURE R 3%	\$ 43,698	\$ 14,793	\$ 9,300	\$ 10,000	\$ 9,605
METRO OTHER FUNDING	\$ 8,000			\$ 8,000	
CHSRA (\$15M + \$3.7M)	\$ 18,700		\$ 9,200	\$ 9,500	
	<u>\$ 70,398</u>	\$ 14,793	\$ 18,500	\$ 27,500	\$ 9,605

USE OF FUNDS	PRIOR				
	YEARS	FY17	FY18	FY19	
HDR CONTRACT - Preliminary Enigeering and Environmental	\$ 66,398	\$ 14,643	\$ 17,450	\$ 26,000	\$ 8,305
THIRD PARTY COSTS	\$ 3,000	\$ 100	\$ 900	\$ 1,000	\$ 1,000
OTHER COSTS	\$ 1,000	\$ 50	\$ 150	\$ 500	\$ 300
	<u>\$ 70,398</u>	\$ 14,793	\$ 18,500	\$ 27,500	\$ 9,605