Metro

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



Agenda - Final

Thursday, October 17, 2019

10:15 AM

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

Construction Committee

Janice Hahn, Chair
Robert Garcia, Vice Chair
Kathryn Barger
Jacquelyn Dupont-Walker
Sheila Kuehl
John Bulinski, 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 must be submitted electronically using the tablets available in the Board Room lobby. Individuals requesting to speak will be allowed to speak for a total of three (3) minutes per meeting on agenda items in one minute increments per item. For individuals requiring translation service, time allowed will be doubled. The Board shall reserve the right to limit redundant or repetitive comment.

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

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

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

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 and is available at www.metro.net or on CD's and as MP3's for a nominal charge.

DISCLOSURE OF CONTRIBUTIONS

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

ADA REQUIREMENTS

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

LIMITED ENGLISH PROFICIENCY

A Spanish language interpreter is available at all Committee and Board Meetings. All other languages must be requested 72 hours in advance of the meeting by calling (213) 922-4600 or (323) 466-3876.



323.466.3876 x2
Español
323.466.3876 x3

한국어	日本語
中文	русский
Հայերէն	ภาษาไทย
Tiếng Việt	ហាមមើម

HELPFUL PHONE NUMBERS

Copies of Agendas/Record of Board Action/Recordings of Meetings - (213) 922-4880 (Records Management Department)
General Information/Rules of the Board - (213) 922-4600
Internet Access to Agendas - www.metro.net
TDD line (800) 252-9040

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

CALL TO ORDER

ROLL CALL

37. SUBJECT: PROGRAM MANAGEMENT MAJOR PROJECT STATUS REPORT 2019-0706

RECOMMENDATION

RECEIVE oral report on the Major Project Status by the Chief Program Management Officer.

Attachments: Presentation

38. SUBJECT: PROGRAM MANAGEMENT QUARTERLY CHANGE REPORT 2019-0692

RECOMMENDATION

RECEIVE AND FILE status report on Program Management Quarterly Change Report.

Attachments: Attachment A to October 2019 Construction Committee.pdf

39. SUBJECT: METRO BUSINESS SOLUTION CENTER (BSC) 2019-0712

RECOMMENDATION

CONSIDER:

A. RECEIVING AND FILING the status update and assessment of the Pilot Crenshaw/LAX Business Solution Center (BSC) and an analysis for the expansion of the BSC from a pilot to permanent program for all upcoming light rail projects in the Measure M pipeline; and

B. AUTHORIZING the Chief Executive Officer to transition the Metro Business Solution Center from a pilot to a permanent program and expand the program to all upcoming light rail projects in the Measure M pipeline.

Attachments: Attachment A - Motion 38.1

Attachment B - Motion 79

Attachment C - BSC Fact Sheet CY2019 Q2

Attachment D - Metro Pilot Business Solutions Center Analysis Report (Septeml

Presentation

40. SUBJECT: CITY OF LOS ANGELES FY20 ANNUAL WORK PLAN 2019-0708

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to execute annual expenditure budget plan for the FY20 Annual Work Plan for the City of Los Angeles.

Attachments: Attachment A - FY20 Annual Work Plan Anticipated Budget for the City of Los A

41. SUBJECT: OFFICE OF THE INSPECTOR GENERAL CHANGE ORDER/MODIFICATION CONSTRUCTION SPOT CHECKS 2019-0689

RECOMMENDATION

RECEIVE AND FILE Office of the Inspector General Change Order/Modification Construction Spot Check Report.

Attachments: Attachment A - OCT Spot Check

Attachment B - Recommendations-Response Jan April July Oct 2019-update 9.

Attachment C - Power Point for OIG Construction Spot Check October-FINAL-9

49. SUBJECT: PROJECT LABOR AGREEMENT/CONSTRUCTION CAREERS POLICY (PLA/CCP) 2019-0773

RECOMMENDATION

RECEIVE AND FILE the:

A. Status update on the Project Labor Agreement and Construction Careers Policy through the quarter ending June 2019; and

B. Metro Workforce Disparity Study on Women in the Trades.

Attachments: Attachment A - PLA/CCP Completed Contracts

Attachment B - PLA CCP Update Report Data

Attachment C - Metro Workforce Disparity Study (Executive Summary)

Presentation

SUBJECT: GENERAL PUBLIC COMMENT 2019-0764

RECEIVE General Public Comment

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

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

Adjournment

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

Metro

Board Report

File #: 2019-0706, **File Type:** Oral Report / Presentation **Agenda Number:** 37.

CONSTRUCTION COMMITTEE
OCTOBER 17, 2019

SUBJECT: PROGRAM MANAGEMENT MAJOR PROJECT STATUS REPORT

ACTION: ORAL REPORT

RECOMMENDATION

RECEIVE oral report on the Major Project Status by the Chief Program Management Officer.

DISCUSSION

Update report covering the month of October 2019 by the Chief Program Management Officer.

ATTACHMENTS

Attachment A - Program Management Major Project Status Report

Prepared by:

- **Crenshaw/LAX -** Sameh Ghaly, Sr EO Project Mgmt., (213) 418-3369
- **Regional Connector -** Gary Baker, EO Project Mgmt., (213) 893-7191
- **Westside Purple Line Ext 1 -** James Cohen, EO Project Mgmt., (213) 922-7911
- **Westside Purple Line Ext 2 -** Michael McKenna, EO Project Mgmt., (213) 312-3132
- **Westside Purple Line Ext 3 -** Kimberly Ong, EO Project Mgmt., (323) 903-4112
- **Patsaouras Plaza Busway Station -**Timothy Lindholm, Sr. EO Project Mgmt., (213) 922-7297
- **Willowbrook/Rosa Park Station -**Timothy Lindholm, Sr. EO Project Mgmt., (213) 922-7297
- **The New Blue -** Timothy Lindholm, Sr. EO Project Mgmt., (213) 922-7297
- **I-210 Barrier Replacement -** Androush Danielians, EO Project Engr., (213) 922-7598
- **I-5 North -** Abdollah Ansari, Sr EO Construction & Engr., (213) 922-4781
- **I-5 South -** Abdollah Ansari, Sr EO Construction & Engr., (213) 922-4781
- **Presentation -** Shannon Hanley, Chief Administrative Analyst, (213) 922-1350

powered by Legistar™



Phillip A. Washington
Chief Executive Officer

Program Management
Major Project Status Report

Presented By

Richard Clarke

Chief Program Management Officer

October 2019

Construction Committee

Los Angeles County Metropolitan Transportation Authority

Metro

PROJECT BUDGET & SCHEDULE STATUS SUMMARY CHART

Project	Cost Performance	Schedule Performance	Comments
Crenshaw/LAX	!	!	Project is 93% complete. The forecast revenue service date is Summer/Fall 2020.
Regional Connector	OK	OK	Project is 58% complete and proceeding on schedule and within budget.
Westside Purple Line Extension-Section 1	OK	OK	Project is 52% complete and proceeding on schedule and within budget.
Westside Purple Line Extension-Section 2	OK	OK	Project is 23% complete and proceeding on schedule and within budget.
Westside Purple Line Extension-Section 3	OK	OK	Project is 4% complete and proceeding on schedule and within budget.
Patsaouras Plaza	OK	OK	Project is 75% complete. Archaeological and Native American monitoring continues. False work for the pedestrian overcrossing, elevator platform and walkway are complete.
Willowbrook/Rosa Parks Station	OK	OK	Customer Service Building and mobility hub ongoing at 70% completion. Blue Line Station and mezzanine work progressing with topping slab and final utility/elevator/VMS/Fare gate Systems infrastructure. In full coordination with New Blue. Package B 100% bid package has been delivered and is under review by Metro
Metro Blue Line Projects	◆	◆	MBL North Segment work under System Integration Testing.
I-210 Barrier Replacement	OK	OK	Metro Systems has performed simulations and determined less than 10 minute headways during construction of Project 1. Design team looking at how to obtain 8 minute headways. Obtained Caltrans approval of proposed stage construction & reduced lane widths for Project 1.
I-5 North: SR 118 to SR 134	!	!	Segment 3 (Empire) is 75% complete. Segment 4 (Magnolia to SR-134) is 92% complete.
I-5 South: Orange County Line to I-605	OK	◆	Segment 2 (Valley View) is 46% complete. Segment 3 (Rosecrans) is open to traffic. Segment 4 (Imperial) is 96% complete. Segment 5 (Florence) is 82% complete.

CRENSHAW/LAX TRANSIT PROJECT

BUDGET

	Current	Forecast
TOTAL COST	$2,058M	$2,058M

SCHEDULE

	Current	Forecast
REVENUE	Summer/Fall	Summer/Fall
OPERATION	2020	2020

- Overall Project Progress is 93% complete; addressing contractor construction schedule.
- Critical path is completion of the conduit work, system equipment installation and testing, and integrated testing, especially at the three underground stations.
- Contractor continues Crenshaw Blvd road restoration in the Hyde Park neighborhood.
- Commenced System integrated testing (SIT 1) on south end, including running first train.



Test Train at Segment A



Continued restoration 60th to 63rd Streets at UG#3

REGIONAL CONNECTOR TRANSIT PROJECT

BUDGET

	Current	Forecast
TOTAL COST	$1,810M	$1,810M

SCHEDULE

	Current	Forecast
REVENUE OPERATION	Summer/Fall 2022	Summer/Fall 2022

- Overall Project Progress is 58% complete.
- **Tunnels:** Continued concrete placement in the Sequential Excavation Method (SEM) Cavern.
- **Little Tokyo/Arts District Station, WYE and 1st Street**: Structural concrete placement for station walls continues. Pre-Bus Bridge piling activities are ongoing.
- **Historic Broadway Station:** Structural concrete continues in station entrance and throughout the concourse level.
- **Grand Av Arts/Bunker Hill Station**: Structural concrete walls continue to be erected at multiple levels throughout the station.
- **Flower Street**: Continue installation of exterior and interior walls; completed the removal of the knock-out panel at 7th/Metro Station interface.



1st Street Cut/Cover Walls pour preparation



Concrete placement of headwall in SEM Cavern

PATSAOURAS BUS PLAZA STATION

OK BUDGET	Current	Forecast
TOTAL COST	$50.9M	$50.9M

OK SCHEDULE	Current	Forecast
SUBSTANTIAL COMPLETION	Spring 2020	Spring 2020

- Overall project progress at approximately 75% complete
- Archaeological and Native American monitoring continues, causing occasional construction delays
- Pedestrian overcrossing connected and false work completed
- Elevator platform and walkway false work completed
- Walkway and Platform Falsework completed
- Retaining wall graded



Pedestrian Walkway False work



Pedestrian Overcrossing False Work



Elevator Platform

WESTSIDE PURPLE LINE EXTENSION – SECTION 1

BUDGET (OK)

	Current	Forecast
TOTAL COST*	$3,154M	$3,154M

* Includes Board approved LOP budget plus finance costs.

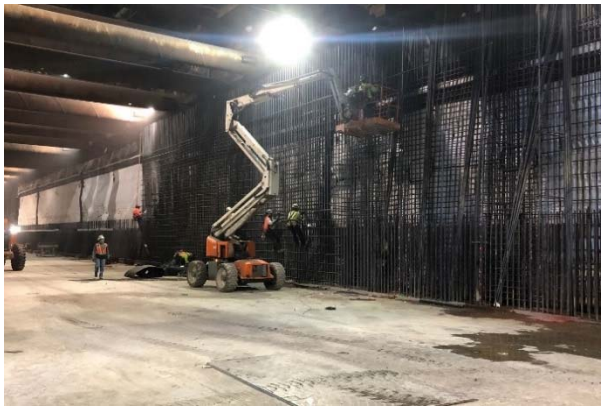
SCHEDULE (OK)

	Current	Forecast
REVENUE OPERATIONS	Fall 2024 (FFGA)	Fall 2023

- Overall Project Progress is 52% complete.
- **Wilshire/Western Retrieval Shaft:** Reconfigure yard and shaft to accommodate mining Reach 1 cross passage construction.
- **Wilshire/La Brea Station:** Placement of second lift exterior wall concrete commenced on August 27, 2019. Roof construction is scheduled to start in September 2019 and work on the concourse level high bay area is scheduled to begin in December 2019.
- **Wilshire/Fairfax Station:** Invert concrete placement was completed on August 30, 2019, and HDPE installation for first lift walls has commenced. First lift wall placement is scheduled to begin in October 2019.
- **Wilshire/La Cienega Station:** Excavation to invert elevation is scheduled to complete in September 2019 and daily maintenance of dewatering wells continues.
- **Tunneling**: Re-assembly of the TBMs is on-going. Reach 2 TBM launch and Reach 1 cross passage work are both scheduled to start in October 2019.



TBM Assembly at Wilshire/La Brea Station



Wall Rebar Placement at Wilshire/Fairfax

WESTSIDE PURPLE LINE EXTENSION – SECTION 2

BUDGET (OK)

	Current	Forecast
TOTAL COST*	$2,530M	$2,530M

* Includes Board approved LOP budget plus finance costs.

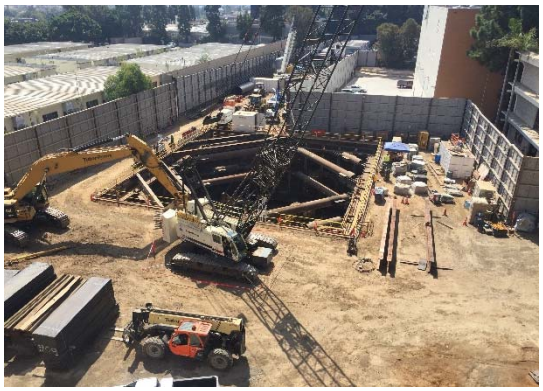
SCHEDULE (OK)

	Current	Forecast
REVENUE OPERATION	Winter 2026 (FFGA)	Summer 2025

- Overall Project progress is 23% complete.
- Final design progress is 95% complete.
- **Century City Constellation**
  - Tunnel Boring Machine (TBM) launch box excavation is on going. The installation of the third level bracing has been completed and the fourth level bracing has commenced.
  - Tunnel shaft excavation and installation of walers/struts is ongoing.
  - LA Bureau Of Engineering granted an extension for the full street closure of Constellation Blvd until December 2019.
  - Cable pulling and splicing for AT&T and LADWP is anticipated to be complete prior to the start is of piling activities west of the TBM Launch Box.
  - Santa Monica bus layover construction is complete and operational.
- **Wilshire/Rodeo**
  - Sound wall pile installation at Canon Yard is complete.
  - Potholing for underground utilities and utility relocations are ongoing.
  - Piling for station excavation is scheduled to begin in October 2019.



TBM Launch Box Excavation in Century City



Tunnel Shaft Overview in Century City

WESTSIDE PURPLE LINE EXTENSION – SECTION 3

BUDGET (OK)

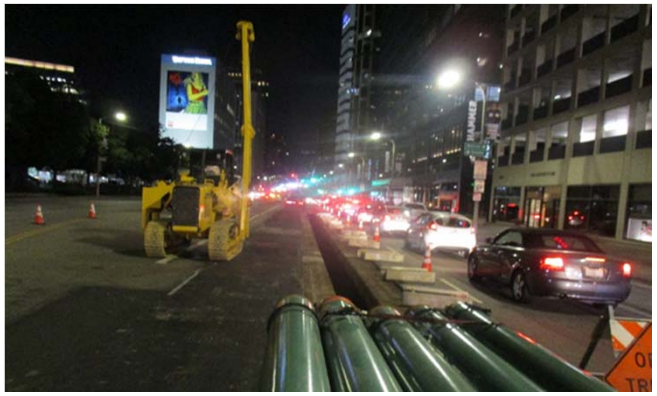
	Current	Forecast
TOTAL COST*	$3,611M	$3,611M

* Includes Board approved LOP budget plus finance costs.

SCHEDULE (OK)

	Current	Forecast
REVENUE OPERATION	TBD	2027

- Overall Project progress is 4% complete
- Final design progress is 14% complete
- **C1151 Tunnel Contract**
  - Received SCE design approval to proceed with conduit/vault installation in County of Los Angeles locations.
  - Continue real estate negotiations for access to Veterans Administration property. Draft Access Easement Agreement (AEA) and draft Right-of-Entry (ROE) are under review.
- **C1152 Stations, Trackwork and Systems Contract**
  - Design-Build Contractor has mobilized the design team.
  - Work plan preparation for geotechnical and potholing operations is ongoing.
- **Other Third Party Utility Relocation Work**
  - Joint trench for Verizon and Frontier telecom is ongoing.
  - Southern California Gas relocation at Westwood/UCLA station is ongoing.



Southern California Gas Steel Pipe Installation



Telecom Main Line A Installation

WILLOWBROOK/ROSA PARKS STATION

OK BUDGET	Current	Forecast
TOTAL COST	$109.3M	$109.3M

OK SCHEDULE	Current	Forecast
SUBSTANTIAL COMPLETION	Summer 2020	Summer 2020

- Package A: Customer Service and Mobility Hub building finish work ongoing with metal panel and curtain wall installations. Interior partitions have been finished with ceiling systems being installed. Plaza formwork nearly complete to begin concrete work.
- Package C: Blue Line platform canopy 95% complete with platform topping slab installed. Rail and Variable Message systems work ongoing. Mezzanine structure completely in place and prepping for topping slab. Fare gate and elevator/escalator components and infrastructure currently being installed.
- Package B: Final coordination of 100% documents submitted for Metro review.



Blue Line Platform Work



Mezzanine Extension and Platform Work ongoing



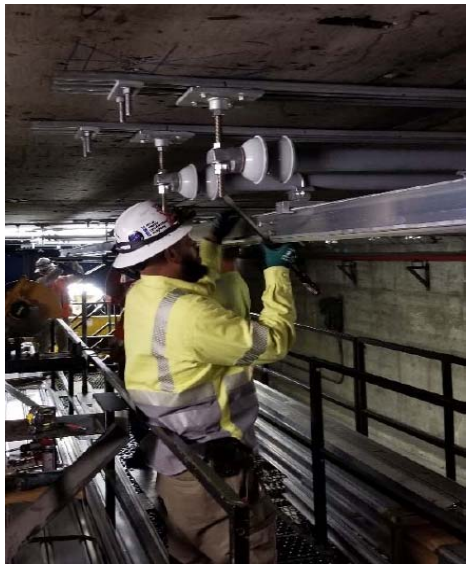
Mobility Hub and Plaza Work

THE NEW BLUE CLOSURE

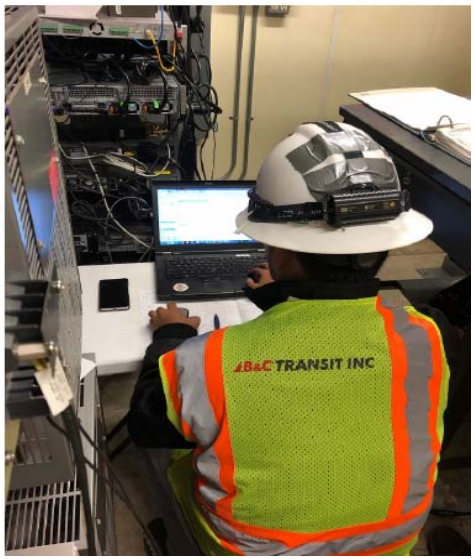
BUDGET	Current	Forecast
TOTAL COST	$221.3M	$221.3M

SCHEDULE	Current	Forecast
SUBSTANTIAL COMPLETION	Fall 2019	Fall 2019

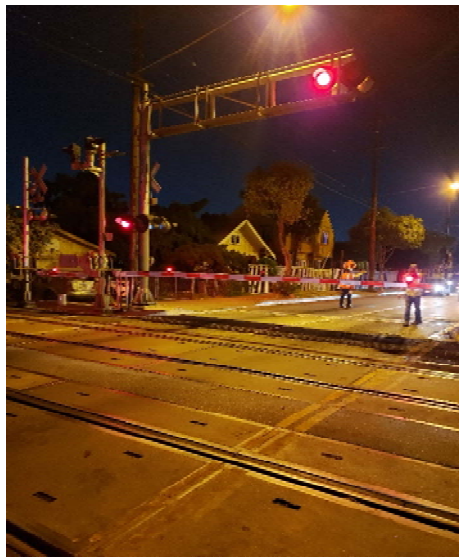
- Metro Blue Line North Segment is now under integration testing.
- 7th Metro tunnel tail track section Overhead Conductor Rail (OCR) and North Crossover also under construction
- Late October 2019 opening contingent on successful completion of Systems Integration Testing



7th Metro tail track new Overhead Conductor Rail (OCR)



Train control system testing



Testing the crossing gates at night

I-210 BARRIER REPLACEMENT PROJECT

OK BUDGET

	Current	Forecast
TOTAL COST	$22.54M	$22.54M
	Design	Design

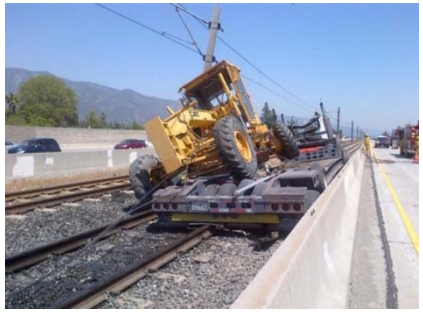
OK SCHEDULE

	Current	Forecast
Complete Design (Proj 1)	Jan 2020	Winter 2020
Complete Design (Proj 2)	Feb 2021	Winter 2021

- Obtained Caltrans approval of the Stage Construction Plans including the proposed reduced lane widths for Project 1 to avoid lane closures. 95% Design Plans to be submitted in mid-September.
- Draft Communications Plan to be presented to Pasadena and Arcadia for review in next meeting.
- Project 1: Segment from Michillinda to Iconic Bridge – Train Simulations have been performed and results show less than 10 minute headways with single tracking during construction of Project 1 is achievable. Design Team looking at ways to get to under 8 minute headways.
- Project 2: Segment from west end of the project to Michillinda – Development of alternative barrier system to avoid freeway lane closure for Project 2 is underway.



Newly Installed Caltrans Freeway Sign


Incident in 2014



Newly Installed Speed Limit Sign

I-5 Construction Projects (By Caltrans)



I-5 NORTH: SR 118 TO SR 134

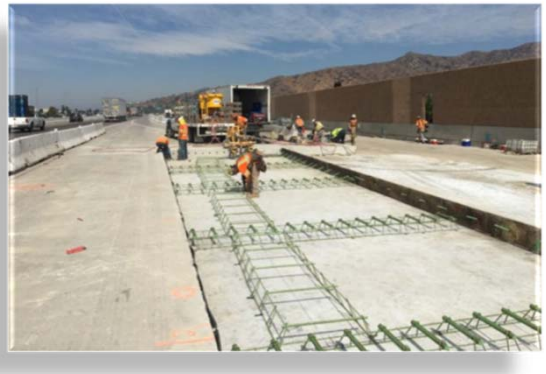
BUDGET	Current	Forecast
TOTAL COST	$880.9M	TBD

SCHEDULE	Current	Forecast
ANTICIPATED PROJECT COMPLETION	Spring 2022	Summer 2022

NORTH



SR-170 to SR-118
COMPLETED



Buena Vista Street to
SR-170
COMPLETED



Empire Avenue Interchange
75% Complete





SR-134 to Magnolia Boulevard
92% Complete

I-5 SOUTH: ORANGE COUNTY LINE TO I-605

BUDGET (OK)

	Current	Forecast
TOTAL COST	$1.888B	TBD

SCHEDULE (◆)

ANTICIPATED PROJECT COMPLETION	Current	Forecast
	Fall 2022	Winter 2022



NORTH

Florence Avenue IC
82% Complete

Downey

Imperial Highway IC
96% Complete

Norwalk



Rosecrans Avenue IC
COMPLETED

Carmenita IC
COMPLETED

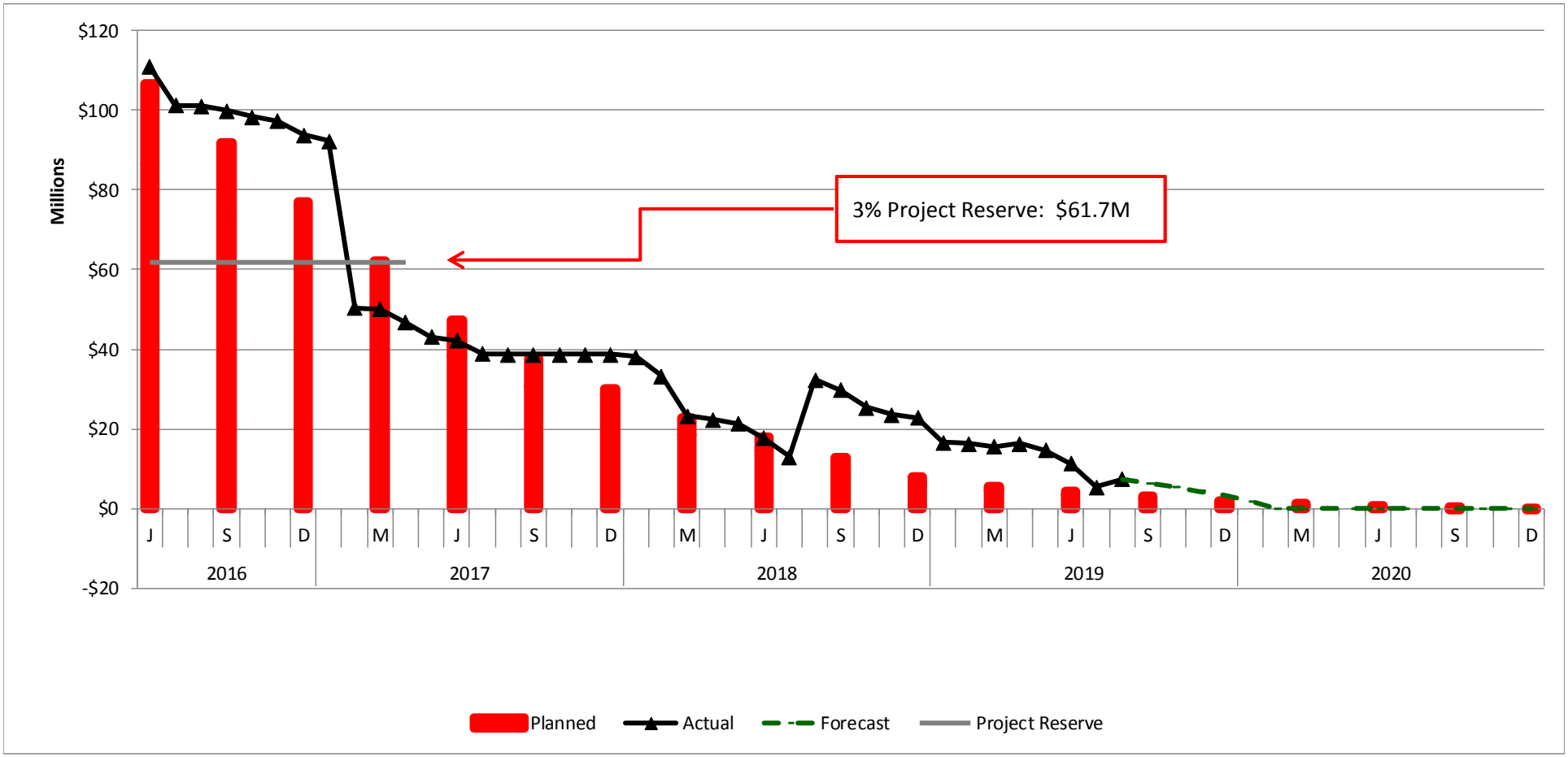
Alondra Boulevard IC
COMPLETED

Valley View Avenue IC
46% Complete

Crenshaw/LAX Transit Project

Project Cost Contingency Drawdown

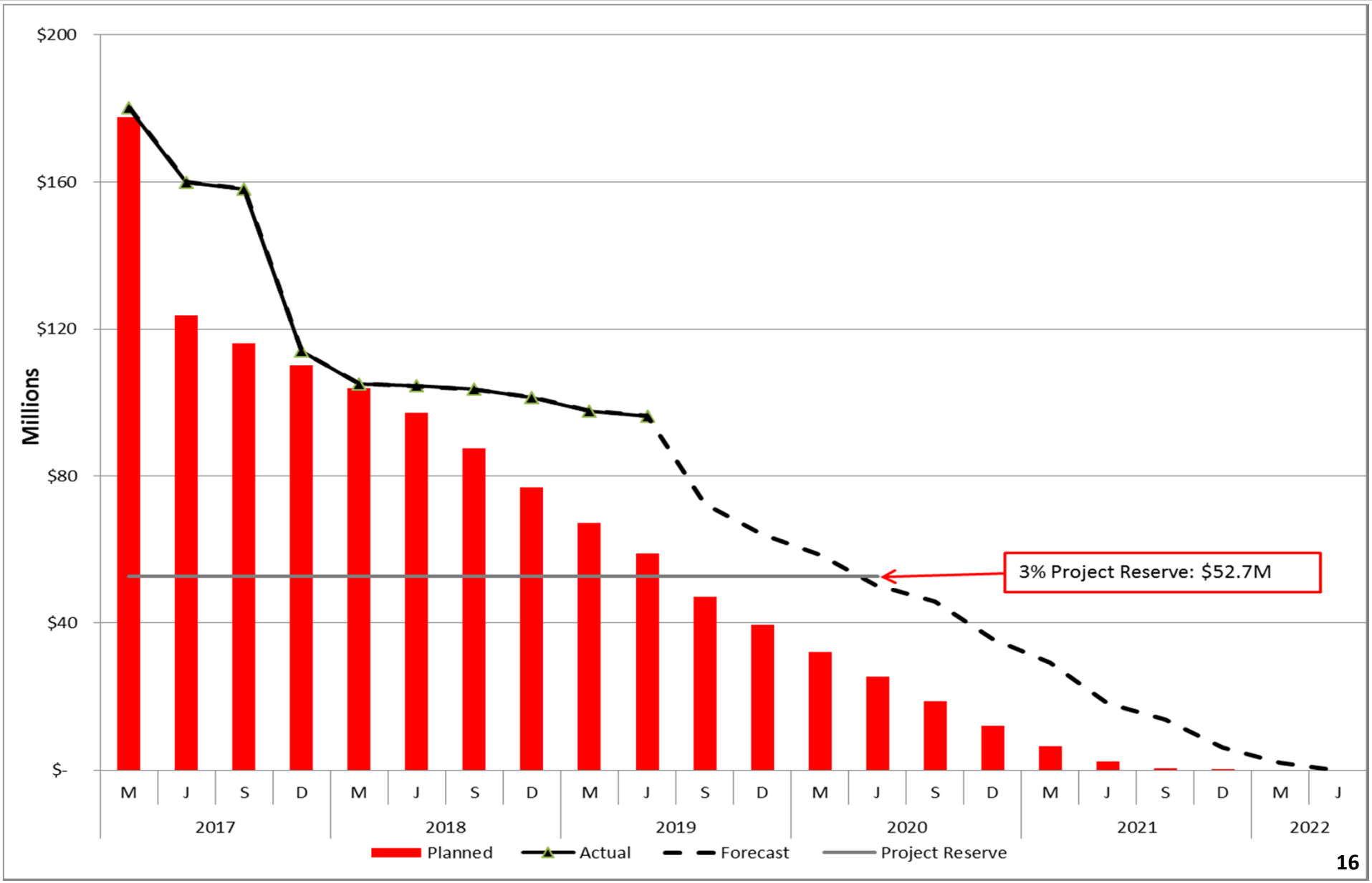
August 2019



Regional Connector

Project Cost Contingency Drawdown

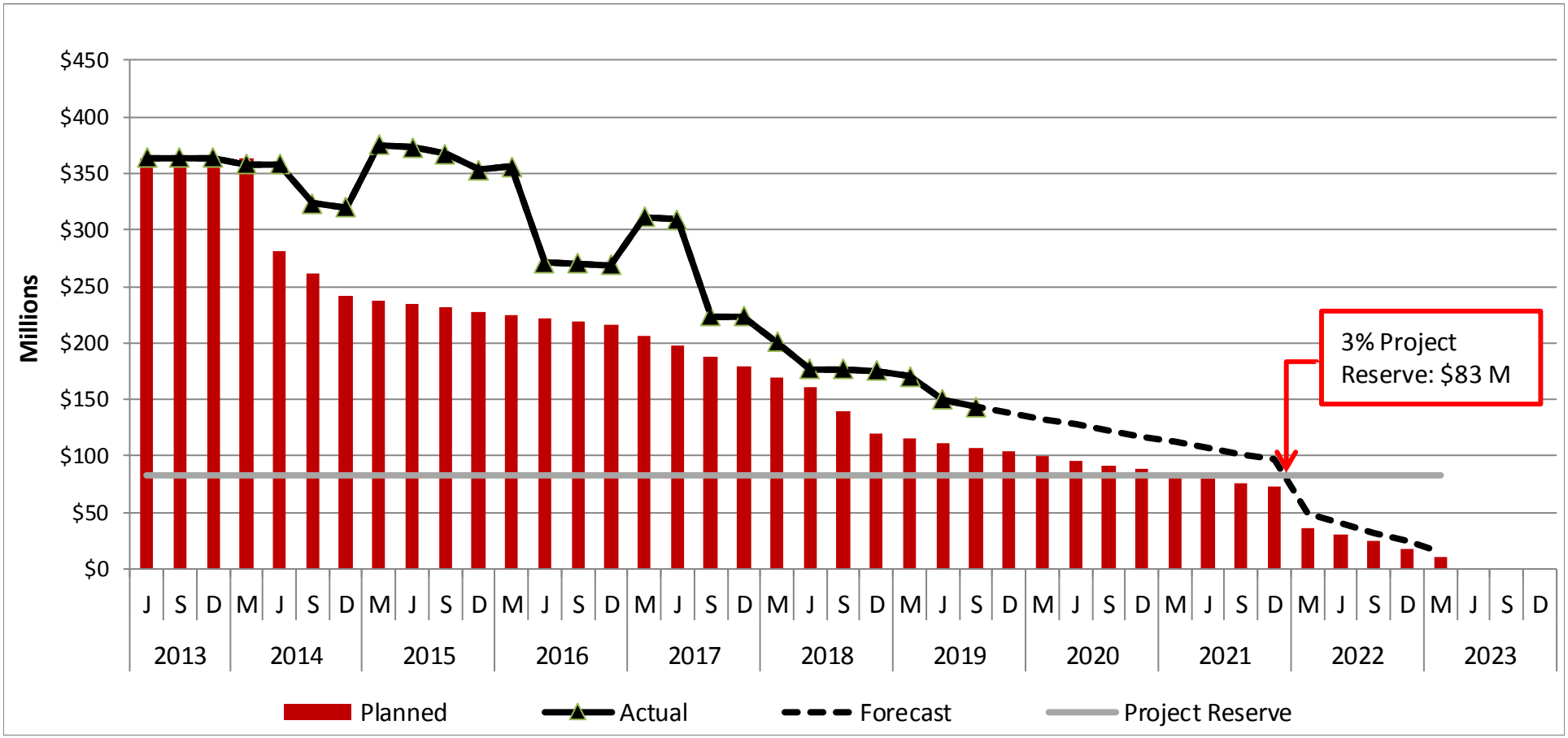
August 2019



Westside Purple Line Extension – Section 1

August 2019

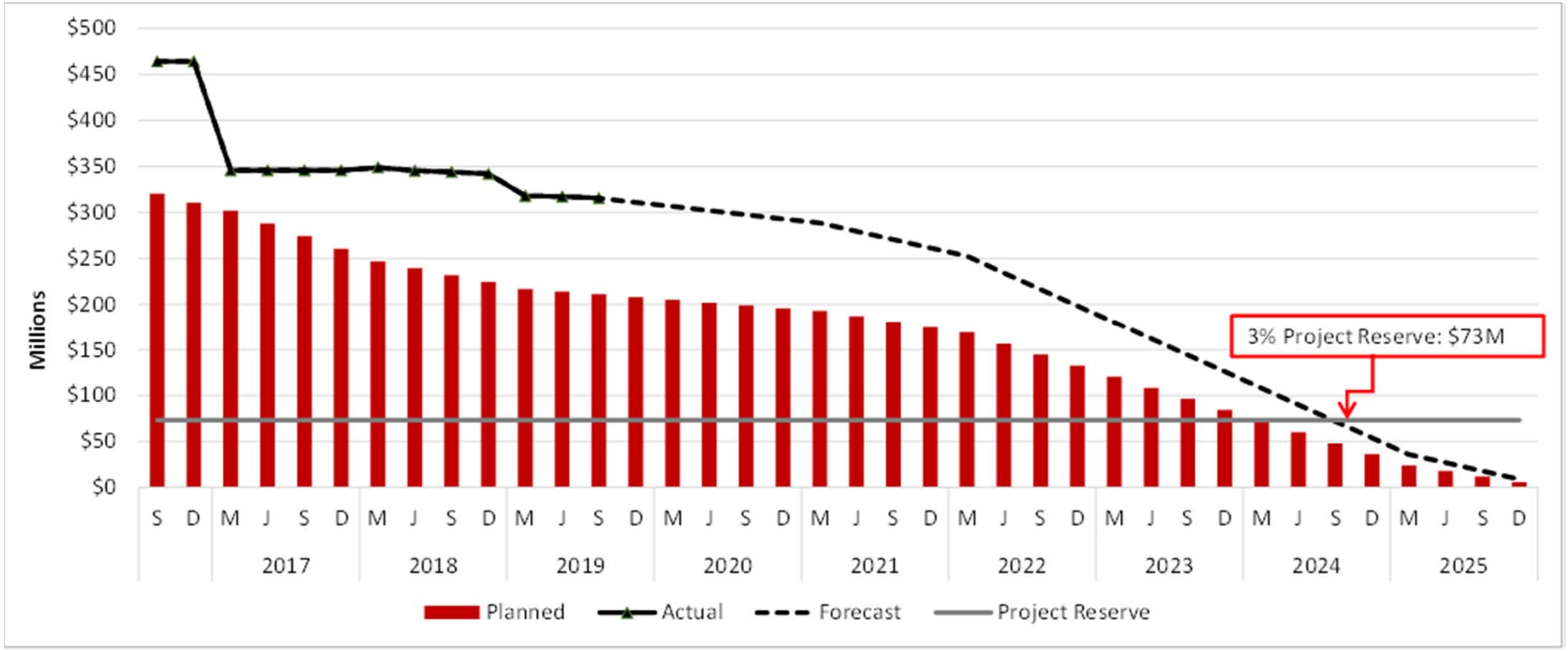
Project Cost Contingency Drawdown



Westside Purple Line Extension – Section 2

Project Cost Contingency Drawdown

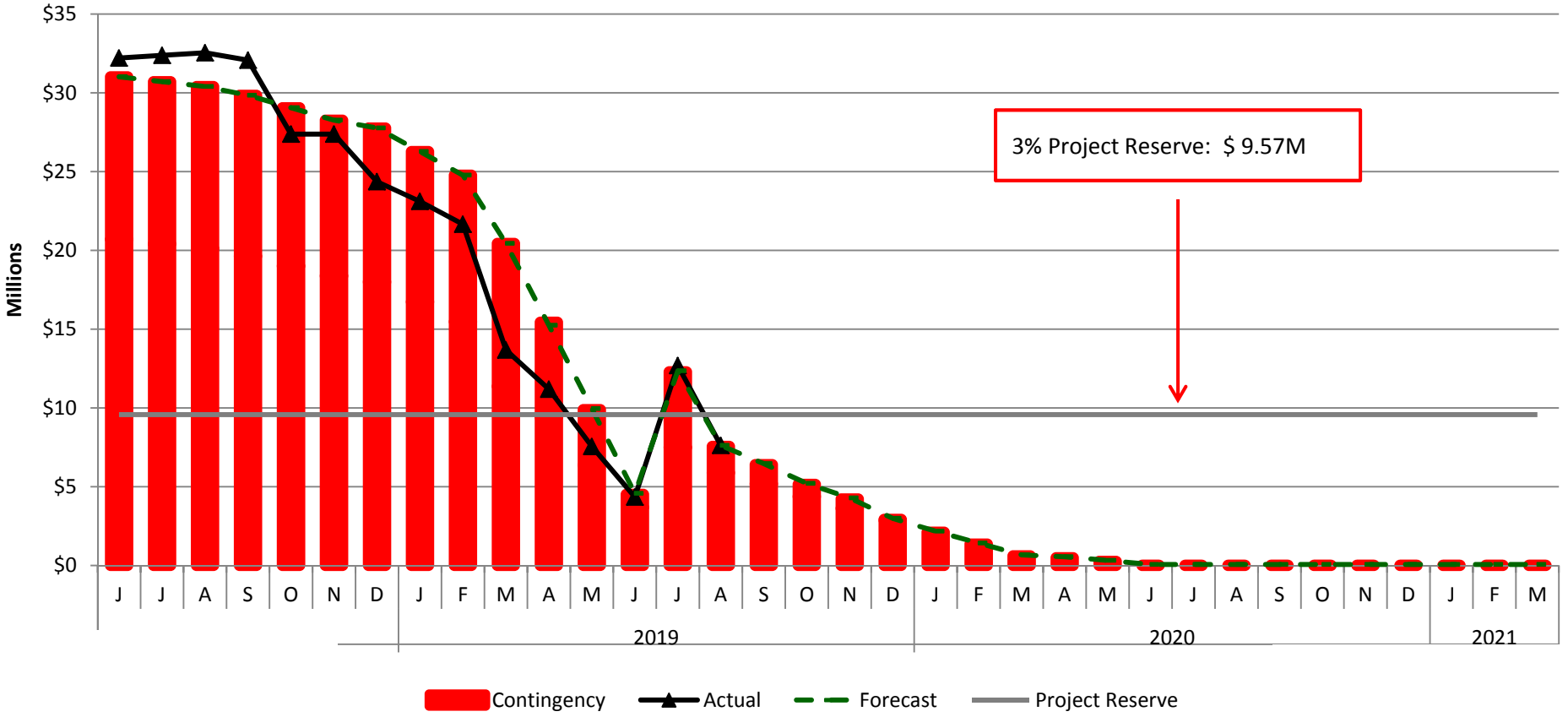
August 2019



New Blue Projects

Project Cost Contingency Drawdown

August 2019



- **Blue Line Signal Rehabilitation**
- **Blue Line Track and System Refurbishment**
- **Willowbrook/Rosa Parks Station**

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

Metro

Board Report

File #: 2019-0692, **File Type:** Informational Report **Agenda Number:** 38.

CONSTRUCTION COMMITTEE
OCTOBER 17, 2019

SUBJECT: PROGRAM MANAGEMENT QUARTERLY CHANGE REPORT

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on Program Management Quarterly Change Report.

BACKGROUND

At the January 26, 2018 Board meeting, the Board approved the continuation and expansion of the delegation of authority within Life of Project (LOP) budget management on all Transit and Regional Rail Capital Projects. Staff was directed to provide quarterly reports to the Board on change orders and modifications that are above $500,000.

DISCUSSION

The change activities for the reporting period between June 1, 2019 and August 31, 2019 are included in Attachment A.

FINANCIAL IMPACT

The changes included in this report are included in the approved life-of-project budget for each project.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendation supports strategic plan goal # 5 to provide responsive, accountable, and trustworthy governance within the Metro organization by keeping the Board informed of the Projects' change orders and modifications via submitting the Change Order log on a quarterly basis.

NEXT STEPS

The next Change Order Log will cover the period of September 1, 2019 to November 30, 2019 and will be presented to the January 2020 Construction Committee.

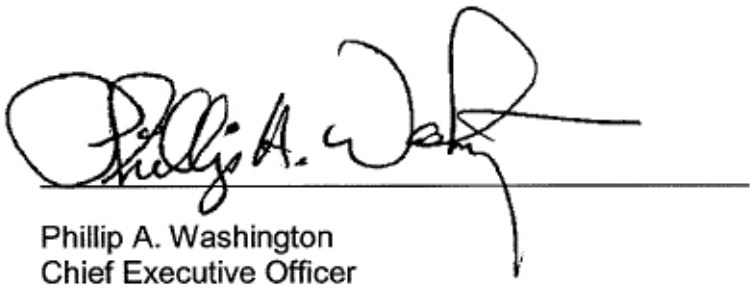
ATTACHMENTS

Attachment A - Quarterly Change Report for Reporting Period of June 1, 2019 - August 31, 2019.

Prepared by:

- **Crenshaw/LAX -** Sameh Ghaly, Sr. EO Project Mgmt., (213) 418-3369
- **Regional Connector -** Gary Baker, EO Project Mgmt., (213) 893-7191
- **Westside Purple Line Ext 1 -** James Cohen, EO Project Mgmt., (213) 922-7911
- **Westside Purple Line Ext 2 -** Michael McKenna, EO Project Mgmt., (213) 312-3132
- **The New Blue -** Timothy Lindholm, EO Project Engr., (213) 922-7297
- **Report -** Brian Boudreau, Sr. EO Program Control, (213) 922-2474

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



Phillip A. Washington
Chief Executive Officer

powered by Legistar™

CRENSHAW/LAX TRANSIT PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN $500K IN THIS REPORTING PERIOD (June 1, 2019 - August 31, 2019)

Change Types:
1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety

A. DESIGN BUILD CONTRACT - Contract No. C0988 - WALSH SHEA CORRIDOR CONSTRUCTORS

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in **BOLD** fonts that is why this is unilateral and a modification will follow upon negotiation is finalized between Contractor and Metro).	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
MOD-00426 CN-00556	Irrigation Water Meters, Park Mesa Median: Contractor shall construct 15 water service lines from main water to new irrigation meters for the landscape medians, including the procurement and installation of 15 meters within the Park Mesa Heights landscape medians.	1	5/9/2019	6/3/2019	$ 899,819	$ 776,000
MOD-00427 CN-00557	SCE/DWP Power Feeds at Street Lights and Traffic Signals (RFC 517): Contractor shall provide all labor, equipment and material needed to install power feed conduits between the utility main and meter/point of connection for new power services to traffic signals and street lights in the City of Los Angeles and City of Inglewood.	1	5/30/2019	6/27/2019	$ 655,995	$ 627,774
MOD-00432 CN-00241.1	Update Station Customer Signage, Construction: Signage requirements for the project were modified due to updates to ADA requirements, and updates to Metro Rail Customer Signage Directive Drawings. These revisions are necessary so that station signage is ADA compliant, and consistent across the various transit lines. This change covers construction costs at the 8 stations related to updates to the above station signage requirements.to perform.	4	6/8/2017	7/15/2019	$ 1,813,971	$ 1,813,971
MOD-00434 CN-00570	LADWP and COI New Water Service Connection - Main to Meter: Los Angeles Department of Water and Power (LADWP) and City of Inglewood (COI) are responsible for all piping and maintenance of water service from the main to the meter. Due to lack of resources, LADWP and COI could not perform the work related to the new water service connections, and requested the contractor to perform on their behalf various new water service connections from the main to the meters. Per General Requirement Section 01 71 45 Part 1.10 WSCC is only responsible for service connection fees and construction of Metro facilities after the meter; the utility company is responsible for providing new service to the meter.	1	7/12/2019	7/19/2019	$ 2,230,705	$ 1,978,937

B) PROFESSIONAL SERVICES CONTRACTS

MOD/CHANGE #	PROGRAM MANAGMEENT SUPPORT SERVICES - Contract No. AE35279 - KKCS/TRIUNITY JV				Contractor's Proposed Amount	Approved Amount
MOD-00004	Crenshaw/LAX & Southwestern Yard - Addition of Cost Estimator and Continuation of Program Control Support Services through FY20: This CWO is in support of the Board approved contract for Program Management Support Services (PMSS). The services are required to supplement the existing Program Management department and to provide technical expertise in resolving complex issues. Specific to this CWO, consultant estimating staff, cost/schedule analysis, and configuration management support services are required to augment the needs of the project through June 30, 2020.	5	N/A	6/18/2019	$ 1,717,184	$ 1,682,499
MOD/CHANGE #	**DESIGN SERVICES DURING CONSTRUCTION - Contract No. AE47810E0128 - SECOTRANS, JOINT VENTURE**				**Contractor's Proposed Amount**	**Approved Amount**
MOD-00005	Rail System Engineer Support: Additional full time Systems professional staff for estimated not-to-exceed 2,613 man-hours from fiscal year 2019 through fiscal year 2020, to manage the systems integration activities in support of the Crenshaw/LAX Transit project (Crenshaw project) until its completion , currently projected for 2020.	5	N/A	6/28/2019	$ 608,130	$ 608,130

II. PENDING MODIFICATIONS/CHANGES GREATER THAN $500K (June 1, 2019 - August 31, 2019)

A) DESIGN BUILD CONTRACT - Contract No. C0988 - WALSH SHEA CORRIDOR CONSTRUCTORS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
MOD-00437.1 CN-00410.1	UG1 H2S Ventilation Fans-Construction: Metro FLS requested to incorporate mechanical ventilation for the immediate disbursement of H2S in the event of a failure of the impermeable gas membrane barrier and simultaneous release of H2S gas from the ground. Procure two (2) tunnel booster fans equal to those being used in UG3 and UG4 to disperse potential H2S gas build up in the UG1 guideway.	7	Between $1M and $5M
MOD-00408.1 CN-00524.1	Porcelain Enamel Artwork: Metro shall reimburse the Contractor cost of materials related to the production and furnishing of station porcelain enamel artwork above and beyond the cost of based construction material as stated below. All work shall be performed in accordance with the requirements of C0988 AFC Specification Section 07 44 16	5	Between $500K - $1M

B) PROFESSIONAL SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESIGN SERVICES DURING CONSTRUCTION - Contract No. AE47810E0128 - SECOTRANS, JOINT VENTURE	Change Type	Rough Order of Magnitude Cost
	None		

REGIONAL CONNECTOR TRANSIT PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN $500K IN THIS REPORTING PERIOD (June 1, 2019 - August 31, 2019)

Change Types:
1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety

A. DESIGN BUILD CONTRACT - CONTRACT NO. C0980 - REGIONAL CONNECTOR CONSTRUCTORS

MOD/CHANGE #	DESCRIPTION	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

B. PROFESSIONAL SERVICES CONTRACT

MOD/CHANGE #	DESCRIPTION	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
MC070-MOD18	FUNDING FOR CONSTRUCTION MANAGEMENT SUPPORT SERVICES THROUGH FY20	5	4/11/2019	7/2/2019	$ 9,934,830	$ 8,918,454
E0119-MOD27	DESIGN SERVICES DURING CONSTRUCTION FOR FY20	5	4/26/2019	6/19/2019	$ 2,925,485	$ 1,543,742
AE3527-009-MOD5	PROGRAM CONTROL SUPPORT SERVICES THROUGH FY20	5	5/28/2019	6/26/2019	$ 917,271	$ 917,271

C. OTHER AGREEMENTS

MOD/CHANGE #	DESCRIPTION	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN $500K

A. DESIGN BUILD CONTRACT - CONTRACT NO. C0980 - REGIONAL CONNECTOR CONSTRUCTORS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
C0980-CN-00192	Revise Communication Radio System (Construction)	5	Between $1M to $5M
C0980-CN-00211	Temple Street Sanitary Sewer Work (Construction)	5	Between $1M to $5M
C0980-RFC-00155	Revised DWP-PS Work at Temple Alameda	5	Between $1M to $5M

B) PROFESSIONAL SERVICES CONTRACTS

Design Support Services During Construction

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

D. OTHER AGREEMENTS

MOD/CHANGE #	DESCRIPTION	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

WESTSIDE PURPLE LINE EXTENSION - SECTION 1 PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN $500K IN THIS REPORTING PERIOD (June 1, 2019 – August 30, 2019)

Change Types:
1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety

A. DESIGN BUILD CONTRACT - CONTRACT NO. C1045 - SKANSKA-TRAYLOR-SHEA, A JOINT VENTURE

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in **BOLD** fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
MOD-81	Fully Guarded Double Crossover - Shop Drawings and Associated Track Components (Design - Delta): This change allows the contractor to design and develop the necessary shop drawings required for the revised fully guarded double crossover.	5	05/09/19	6/7/2019	$ 639,638	$ 639,638
MOD-83	La Cienega - Dewatering DSC: This change covers Differing Site Conditions (DSC) related to groundwater dewatering at the La Cienega Station site. It includes new engineering design and analysis, installation of additional dewatering wells, crane mats, well-points and French drains, as well as additional labor resources needed to reduce schedule impacts.	3	06/07/19	7/3/2019	$ 22,059,501	$ 16,841,067
MOD-84	Wilshire/Fairfax - DWP Ductbank Conflicts with Deck Beams: The location of LADWP ductbanks at Wilshire/Fairfax Station were higher than indicated on the as-built drawings. This change accommodates the mitigation efforts needed to remediate the higher ductbank.	5	06/21/19	7/3/2019	$ 989,778	$ 600,023
MOD-85	Geotechnical Instrumentation - Revise Geotechnical Contingency Plan and Reporting: The additional instrumentation required by Metro and LABOE, as well as the changes in standards, will require additional reporting and analysis by the contractor. This change will accommodate the additional analysis and reporting.	5	06/27/19	7/19/2019	$ 8,345,399	$ 4,158,687

A. DESIGN BUILD CONTRACT - CONTRACT NO. C1078 - CLARK CONSTRUCTION GROUP

	None					

C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

MOD-06	Continue Construction Management Support Services (CMSS) to June 30, 2021: This change allows WEST, JV (WEST) to continue to provide construction management support services for an additional 24 months to June 30, 2021.	5	06/25/19	7/19/2019	$ 45,522,929	$ 35,495,453

II. PENDING MODIFICATIONS/CHANGES GREATER THAN $500K (June 1, 2019 – August 30, 2019)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C1045 - SKANSKA-TRAYLOR-SHEA, A JOINT VENTURE

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
CN-131	Phase 4.3 - Development and In Situ Validation of the selected Gas Mitigation option for M13: This CN is part of the program to mitigate potential gas migration during Reach 3 tunneling. Contract modification 0072 (CN-119), Reach 3 Additional Gas Testing and Assessment, was executed on 1/30/19 and covered the cost to conduct additional gas testing to evaluate the contractors proposed methods of extraction. This CN covers the scope of work for the vapor extraction **DESIGN** effort prior to the launch of the first TBM at Fairfax station.	7	Between $1M - $5M
TBD	Station Signage Change - Design and Construction: This change allows the contractor to comply with the new Metro Rail Underground Platform Design Directive Drawings for Customer Station Signage.	5	Between $1M - $5M
TBD	TBM Reach 3 - Gas Migration 5.0 Construction: This CN is part of the program to mitigate potential gas migration during Reach 3 tunneling. Contract modification 0072 (CN-119), Reach 3 Additional Gas Testing and Assessment, was executed on 1/30/19 and covered the cost to conduct additional gas testing to evaluate the contractors proposed methods of extraction. This CN covers the scope of work for the vapor extraction **CONSTRUCTION** effort prior to the launch of the first TBM at Fairfax station.	7	Between $1M - $5M
TBD	Wilshire/Western (Systems) New Train Control Equipment during Phase 1 Cutover: To avoid disruption of revenue service during Wilshire/Western Phase 1 cutover testing, this change allows the existing power supply to existing train control equipment to be maintained while the new equipment is installed and tested.	5	Between $1M - $5M
TBD	Wilshire/La Cienega - Invert & Wall Advancement: This change includes the cost of advancing the work associated with invert and (1st lift) wall concrete placement to accommodate the TBM arrival at La Cienega station, which is on the project critical path.	5	Between $5M - $10M

A) CONTRACT NO. C1078 - CLARK CONSTRUCTION GROUP

	None		

B) PROFESSIONAL SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

WESTSIDE PURPLE LINE EXTENSION - SECTION 2 PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN $500K IN THIS REPORTING PERIOD (June 1 - August 30, 2019)

Change Types:
1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety

A. DESIGN BUILD CONTRACT - C1120

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in **BOLD** fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
MOD-0048	Additional Mitigation Monitoring and Reporting per Nov 2017 Final SEIS: This change is necessary in order to comply with and perform the updated mitigation measures and meet the monitoring and reporting requirements of the approved Final SEIS.	5	07/18/19	8/16/2019	$2,831,586	$815,501

B. PROFESSIONAL SERVICES CONTRACT

MOD/CHANGE #	DESCRIPTION	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN $500K (June 1 - August 30, 2019)

A) DESIGN BUILD CONTRACT - C1120

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
CN-00061.1	Geotechnical Instrumentation Installation and Monitoring for AT&T Building and Beverly Hills High School: Installation of liquid levels instrumentation to monitor the AT&T building located at 2010 Century Park East and installation of horizontal inclinometers above the centerlines of the two tunnels in horizontal drilled (HDD) casings.	5	Between $1M and $5M
CN-00062.1	Construction of Temporary Shoring System and Lagging - 2010 CPE: Design Builder will construct a support wall along the east and west sides of the site 3604/3604-1 including lagging and concrete demolition, removal and excavation.	5	Between $1M and $5M
CN-00067	N. Canon Street Closure SW Street Improvement: This change is needed for the Contractor to install a sound wall across North Canon Street in order to shield the stakeholders from construction traffic and noise impacts prior to performing piling work and provide the contractor additional work area and operational flexibility.	5	Between $1M and $5M
CN-00073	Reconciliation costs for MOD-10: Worksite Traffic Control for SCG & AT&T Advanced Utility Relocation: Instead of each utility (SCG and AT&T) developing and performing their own traffic control plans, TPOG provided the overall traffic control supporting both utilities, avoiding conflicts and expediting utility relocation completion. This change reconciles the costs associated with the difference in days negotiated in MOD 10 for days worked in each Traffic Control Stage with the actual days worked in each Stage. This change also captures the costs of flaggers utilized during the AUR work, which was not included in MOD 10.	5	Between $500K and $1M

B) PROFESSIONAL SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

D) OTHER AGREEMENTS

MOD/CHANGE #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

METRO BLUE LINE - SIGNAL SYSTEM REHABILITATION PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN $500K IN THIS REPORTING PERIOD (June 1, 2019 - August 31, 2019)

Change Types:
1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety

A. DESIGN BUILD CONTRACT - Contract C1081 Metro Blue Line Resignaling - Mass Electric

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in **BOLD** fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
CO 5 (Supersedes Mod 2.1) (CO 5/CN 5.1 is for C1081 Mass Electric not Icon West but paid using Project 210151 not 205108)	Supersedes Item previously reported as C1161 Mod 2.1. Willowbrook/Rosa Parks Train Control (TC) Modifications - Extension of the Blue Line Platform is forcing the systems components to be moved. Staff issued a Contract Modification to the existing Resignalling Contract C1081 to perform system-related work after the Blue Line Platform is extended by Contract C1161. Work is being done under Contract C1081 (Mass Electric) because Contract C1161 (Icon West) does not have the expertise to perform the necessary systems-related work. Work will be paid using Project 210151 not 205108.	5	N/A	6/27/2019	$ 636,305	$ 636,305

B) PROFESSIONAL SERVICES CONTRACTS

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in **BOLD** fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN $500K (June 1, 2019 - August 31, 2019)

A) DESIGN BUILD CONTRACT - Contract C1081 Metro Blue Line Resignalling - Mass Electric

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

B) PROFESSIONAL SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
SECOTRANS - Task Order 6 (Mod 3)	Design Support During Construction - number increased since June from 800,000 to 1,811,000	5	$ 1,811,000
	None		

C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

METRO BLUE LINE - TRACK AND SYSTEM REFURBISHMENT PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN $500K IN THIS REPORTING PERIOD (June 1, 2019 - August 31, 2019)

Change Types:
1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety

A. DESIGN BUILD CONTRACT - Contract C1168 Metro Blue Line Track Reburbishment

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in **BOLD** fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

B) PROFESSIONAL SERVICES CONTRACTS

	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN $500K (June 1, 2019 - August 31, 2019)

A) DESIGN BUILD CONTRACT - Contract C1168 Metro Blue Line Track Reburbishment

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
CN 19 (Contract C1161) (Project 205115 will still pay for this work)	**This work has been transfered from RailWorks Contract C1168 to Icon West Contract C1161**: Pole Painting – City of Long Beach The contractor shall paint the street light and traffic signal poles south of East Willow Street along the Blue Line alignment as detailed in the below "City of Long Beach Pole Count" table (count to be field verified by contractor) and in accordance with Technical Requirements Section 09 91 00 "Painting." Contractor shall use approved primer, Vista Prime Zall, and paint (two (2) coats), Vista Protec Alkyd Emulsion 99 Gloss Finish in color RAL 7037.	5	$ 655,000

B) PROFESSIONAL SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

WILLOWBROOK/ ROSA PARKS STATION IMPROVEMENT PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN $500K IN THIS REPORTING PERIOD (June 1, 2019 - August 31, 2019)

Change Types:
1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety

A. DESIGN BUILD CONTRACT - C1161 Willowbrook/Rosa Parks Station Improvements - Icon West

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in **BOLD** fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

B) PROFESSIONAL SERVICES CONTRACTS

	None					

B) THIRD PARTY AGREEMENTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Rough Order of Magnitude Cost
N/A	Real Estate Settlement - Vendor: Community Development Settlement for Goodwill with Planned Parenthood	2	7/26/2019	7/26/2019	N/A	$ 1,680,000
N/A	Real Estate Settlement - Vendor: Willowbrook Center	2	7/26/2019	7/26/2019	N/A	$ 7,570,000

II. PENDING MODIFICATIONS/CHANGES GREATER THAN $500K (June 1, 2019 - August 31, 2019)

A) DESIGN BUILD CONTRACT - Contract C1161 Willowbrook/Rosa Parks Station Improvements - Icon West

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
CN 21	Update Specifications RFC1 / RFC 3 / Bulletin 3 In conformance with the documents in the architect's Bulletin 3 dated June 6, 2019, the Contractor shall proceed with the changes in the construction of a new Customer Service and Security Building, Mobility Hub, pedestrian promenade, outdoor plaza, Blue Line platform and mezzanine extension, and renovation of two existing Green Line elevators. The revised package includes revisions to various sections in the Drawing package and Technical Specifications, including structural, civil-site, architectural, signage, electrical, and plumbing.	5	$ 1,850,000

B) PROFESSIONAL SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
N/A	Real Estate Settlement - Vendor: Planned Parenthood Settlement for Planned Parenthood Reconciled Relocation	5	$ 691,000

File #: 2019-0712, **File Type:** Motion / Motion Response **Agenda Number:** 39.

CONSTRUCTION COMMITTEE
OCTOBER 17, 2019

SUBJECT: METRO BUSINESS SOLUTION CENTER (BSC)

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

CONSIDER:

A. RECEIVING AND FILING the status update and assessment of the Pilot Crenshaw/LAX Business Solution Center (BSC) and an analysis for the expansion of the BSC from a pilot to permanent program for all upcoming light rail projects in the Measure M pipeline; and

B. AUTHORIZING the Chief Executive Officer to transition the Metro Business Solution Center from a pilot to a permanent program and expand the program to all upcoming light rail projects in the Measure M pipeline.

ISSUE

Metro's Board of Directors (Board) issued Motion 38.1 on June 27, 2019 (Attachment A) that authorized the Chief Executive Officer (CEO) to transition the pilot Metro Business Solution Center to a permanent program and expand the program to all upcoming light rail transit projects in the Measure M pipeline inclusive of the "Four Pillar Projects" identified as part of the "Twenty-eight by '28" Initiative. As highlighted by the Board, the light rail transit projects will bring high-quality transportation options to communities throughout Los Angeles County. However, during construction, the local small business communities will likely experience construction impacts that may hinder their daily operations.

In accordance to the Board's Motion, the Receive and File Report provides a status update and assessment of the Pilot Crenshaw/LAX Business Solution Center and an analysis for the expansion of the Business Solution Center (BSC) from a pilot to permanent program for all upcoming light rail projects in the Measure M pipeline.

BACKGROUND

Recognizing the importance of supporting small businesses during construction as vital to ensure economic sustainability of communities, Metro's Board of Directors issued Motion 79 (Attachment B)

on July 24, 2014 that authorized the CEO to establish the Pilot Crenshaw/LAX Transit Project BSC to provide hands-on case management services and business assistance to small businesses along the Crenshaw Corridor between 48th and 60th Streets during the term of the Crenshaw/LAX Transit Line Project. Furthermore, in recognition of construction impacts to small businesses outside of the original boundary of 48th and 60th Street, Metro expanded the BSC to provide an increased level of support services to all businesses along the Crenshaw/ LAX Corridor. The BSC, which has been operational for nearly five years, continues to provide direct hands-on technical assistance to small and micro businesses within the Crenshaw and Inglewood communities impacted by the transit rail construction. As of September 2019, more than 300 small businesses have been supported by Metro's BSC.

DISCUSSION

The program model for Metro's Pilot BSC was developed through the framework outlined in a July 2014 analysis, "Recommendations for a Pilot Metro Business Solutions Center," developed by Estalano LeSar Perez Advisors, LLP, and through the recommendations as outlined in Board Motion 79. The early implementation of the BSC focused on providing business assistance including expert business advice, technical assistance and other resources for businesses in the target area of Crenshaw Boulevard from 48th - 60th Street based on construction activity of the at-grade portion of the transit rail project. The BSC program model and the scope of services has evolved throughout the operations of the center; and Metro staff has gained many lessons learned, insights into the effects of construction impacts on small businesses, and the type of technical and support services that help businesses sustain during the period of impact.

This report provides a status update on the BSC, including a high-level assessment based on the current program model, and an analysis for the expansion of the BSC for Measure M light rail projects with focus on the "Four Pillar Projects." Additionally, the report provides an overview of the "Metro Pilot Business Solutions Center Expansion Analysis (Report)" developed by Chen Ryan Associates.

I. Crenshaw/LAX Business Solution Center Assessment

In response to the construction impacts that businesses within the Crenshaw and Inglewood communities were experiencing during the early stages of Crenshaw/LAX Transit Project, Metro contracted the professional services of Del Richardson and Associates, Inc (DRA) to serve as the program administrator to operationalize the BSC along the Crenshaw Corridor. Metro implemented the BSC through the soft-launch in December 2014 followed by the formal launch in February 2015. The mission of the BSC is to enhance the capacity of impacted small businesses to sustain through disruptions caused by construction and ultimately to take advantage of opportunities arising from the completion of the Crenshaw/LAX Transit Project. The active construction along the Crenshaw/LAX alignment not only resulted in the need to provide services immediately upon program soft-launch, but it also created a demand for services to be provided to businesses outside of the identified target area effected by the ongoing and phased construction activities that heavily centered around construction of the underground stations which began first. Thus, a comprehensive program assessment was conducted in 2016 and through the information, observations and lessons learned, as well as the realization that more than 60% of small businesses seeking support services were

outside of the predefined BSC target area, Metro staff made enhancements to the program model for the expansion of services. The expanded program model afforded Metro and the program administrator the opportunity to provide one-on-one client services and targeted outreach for small businesses along the Crenshaw/LAX Transit corridor regardless of location.

A. Performance Outcomes

Metro staff, in close coordination with the BSC program administrator, continue to monitor the effectiveness of the program through analysis of business intakes and assessments, business referrals and other activities such as the type of business support services requested by business owners, as well as the overall sustainability of businesses demonstrated by continued operations. A comprehensive summary of the BSC activity is outlined within the BSC Fact Sheet (Attachment C).

B. Lessons Learned

The implementation of the Pilot Crenshaw/LAX BSC has afforded Metro an opportunity to gather best practices and lessons learned that will lend to the potential expansion of the BSC program model along the forecasted Measure M light rail projects. Highlighted are various best practices and lessons learned throughout the operations of the BSC.

- **Community Trust** - Metro has achieved a level of success in delivering the BSC through a team of diverse small business professionals complemented by staff within Metro's Diversity and Economic Opportunity (DEOD) unit. Partnering with organizations anchored within the Crenshaw and Inglewood communities, the team has fostered an understanding of the community and business demographics, the social and cultural relevance and history of the community, the small business landscape, and it has facilitated trust building within the impacted communities through direct in-person contact and relationship building.

- **Co-Located Center** - A similarly important feature of the BSC is the co-location of the center along the alignment and within the impacted community. Having the center located along the alignment has been ideal in facilitating small business owners' access to the BSC program staff and the available resources. The co-location not only allows for workshops and one-on-one appointments to occur at the center and within the community, but also supports the ease and convenience of hosting one-on-one client sessions at the small business location recognizing that many "mom and pop" businesses are directly operated by the owner. The co-location also affords BSC program staff the opportunity to experience the construction activities and impacts and maintain close coordination with Metro's program staff including the Construction and Community Relations teams.

- **Phased Program Implementation** - Phased program implementation afforded Metro and the BSC program staff the opportunity to outreach and engage business owners early into the construction and impact. Recognizing the need to build trust is a significant consideration, the phased implementation supported that effort. Ideally through phased implementation, the community outreach, engagement and trust building began with pre-construction activation.

- **Program Model & Partners** - A component of the original program model focused on leveraging free business support services provided by local organizations and community partners. Early on, program staff observed that small businesses needed both immediate and

tangible resources, as well as technical assistance. Businesses required focused one-on-one services including accounting management, tax preparation, marketing, etc. from technical professionals that did not offer services free of charge. Technical professionals have been able to provide one-on-one services as well as special group trainings and workshops. The professionals are often apart of the Crenshaw and Inglewood communities allowing for community re-investment.

- **Staffing Level(s)** - The Crenshaw/LAX BSC is comprised of a small dedicated contract team that is responsible for all center activities including day-to-day operations, direct business assistance, client case management including outreach and administrative tasks as well as data collection. The demand for support was initially underestimated, yet through Metro's effort to rescope the program model including the services, additional adjustments to staffing were made; however, the demand for support is elevated as construction activities progress and impacts are experienced. Increased and adequate staffing levels would allow for more businesses to receive focused support directly from BSC program staff.

- **Services** - With the changing landscape of the corridor comes a need for business services related to real estate, commercial leasing, IT infrastructure and façade improvements. As the mission of Metro's BSC is to help small business sustain during the challenges of construction and reap the economic benefits that transit rail has demonstrated to bring to communities, focusing on long term business planning and sustainment is vital. There has been an ongoing need to assist businesses with real estate and commercial leasing as well as storefront improvements to better match the new transportation infrastructure, landscaping, station art, and overall corridor improvements such as new curbs, gutters, sidewalks and roadway restoration that enhance the business corridor.

- **Program Data** - With nearly five years of program implementation, a key lesson learned has included formalizing the data collection methods and determining the methodology by which the data is analyzed and reported. Formalizing these processes ensures data collection responsibilities can be transitioned between Metro staff and the contracted program administrator.

- **Capital to complete Assessment Recommendations** - A valuable lesson learned has been the need to have access to capital for implementation of assessment recommendations. In the current program model, BSC clients have received free assessments related to branding, IT, security systems and others. While the assessments covered by the BSC are free of charge to the business owners, the "mom and pop" owners often need access to capital to implement assessment recommendations. The completion of recommendations has led to more comprehensive brand development, upgrade of IT infrastructure and installment of new security infrastructure, business planning and other areas that support business retention and long-term growth.

II. Business Solution Center Expansion Analysis

As of July 2019, staff has advanced efforts to evaluate and measure the impact of Metro's existing Pilot BSC and perform an analysis for the transition of the pilot program to permanent with focus on

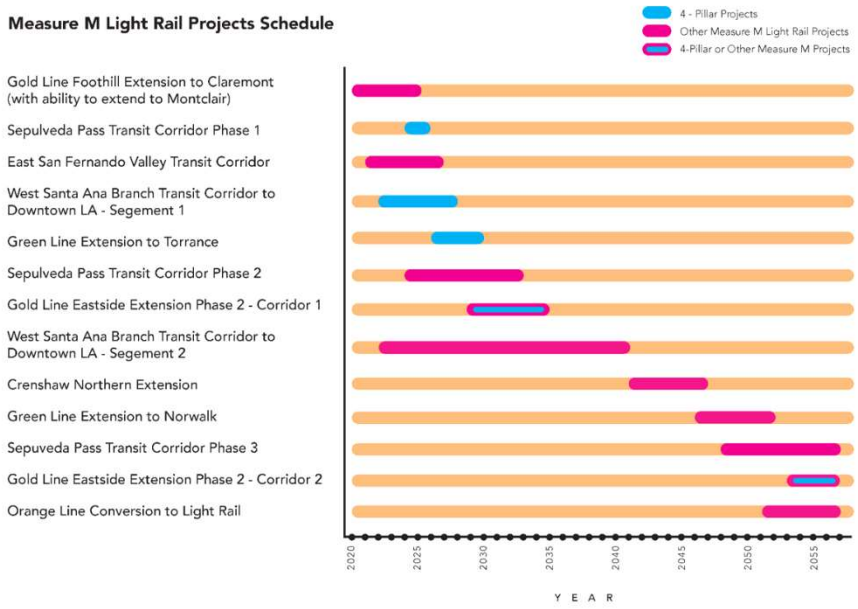
the expansion of the program along the upcoming light rail projects in the Measure M pipeline, particularly the “Four Pillar Projects,” within “Twenty-eight by ’28” Project List. Furthermore, recognizing the urgency of the request and commitment to report back to the Board by October 2019, Metro contracted the professional services of Chen Ryan Associates to perform an expansion analysis which resulted in the comprehensive Report (Attachment D).The analysis included an examination of the business composition along Measure M light rail corridors comprised of: an assessment of the potentially impacted small businesses along each corridor; estimates of business revenues within the project corridors; the number of those businesses in disadvantaged communities (based on Priority Populations as defined by California Environmental Protection Agency) and Equity Focus Areas as defined by Metro’s Equity Platform Framework; projected cost estimate for the expansion of the BSC; and recommendations for the additional services based on the expanded program.

As outlined in the Report, the projected number of small business identified within the potential impact buffer along all Measure M light rail projects is between 4,015 and 6,025. Through assessment of the current Pilot BSC program model and the contracted professional services including other considerations, an analysis was derived for the projected cumulative range of costs for implementing the expanded BSC. The forecast cost for the expansion of the BSC along all the Measure M light rail projects between 2020 and 2058 is between $28,500,978 and $39,632,138 (stated in 2019 dollars). The Report provides a comprehensive outline of the methodology for the cost forecast including the business impact levels which include but not limit to: assumptions made based on the current cost for operations of the Pilot Crenshaw/LAX BSC including existing service levels; inclusion of multiple alignment alternatives that currently exist for many of the Measure M projects; and the project construction schedule for each project and various alternatives including others. Costs projections are stated in 2019 dollars.

A. Construction Analysis

The construction schedule for the “Four Pillar Projects” and other Measure M Projects will span from the year 2020 to 2057. The construction timeline of the Four Pillar Projects is projected to expand the years of 2022 and 2035 while other Measure M projects are anticipated to be constructed between the years of 2020 and 2057. The analysis focused on the construction corridors located across Los Angeles County for the following Measure M funded light rail projects:

Figure 1. Measure M Light Rail Project Schedule



B. Potentially Impacted Small Businesses

To identify the extent of impacts that the transit rail construction would have on small businesses located along the business corridors of each transit rail project, an assessment of the alternative alignments was performed, and an impact buffer was applied based on the assumed alignment configuration and construction method. For the light rail projects that had alignments that were determined to be at-grade and within public right-of-way the impact buffer was identified as 200 feet, i.e. the impact distance for surrounding properties. The same methodology was applied to derive an impact buffer for the alternative alignments with construction contained within the existing right-of-way. In consideration of various assumptions, the impact buffer was identified at 400 feet. In keeping with Metro's definition for small "mom and pop" businesses, the analysis was of businesses having 25 or fewer employees.

C. Business Corridor Composition

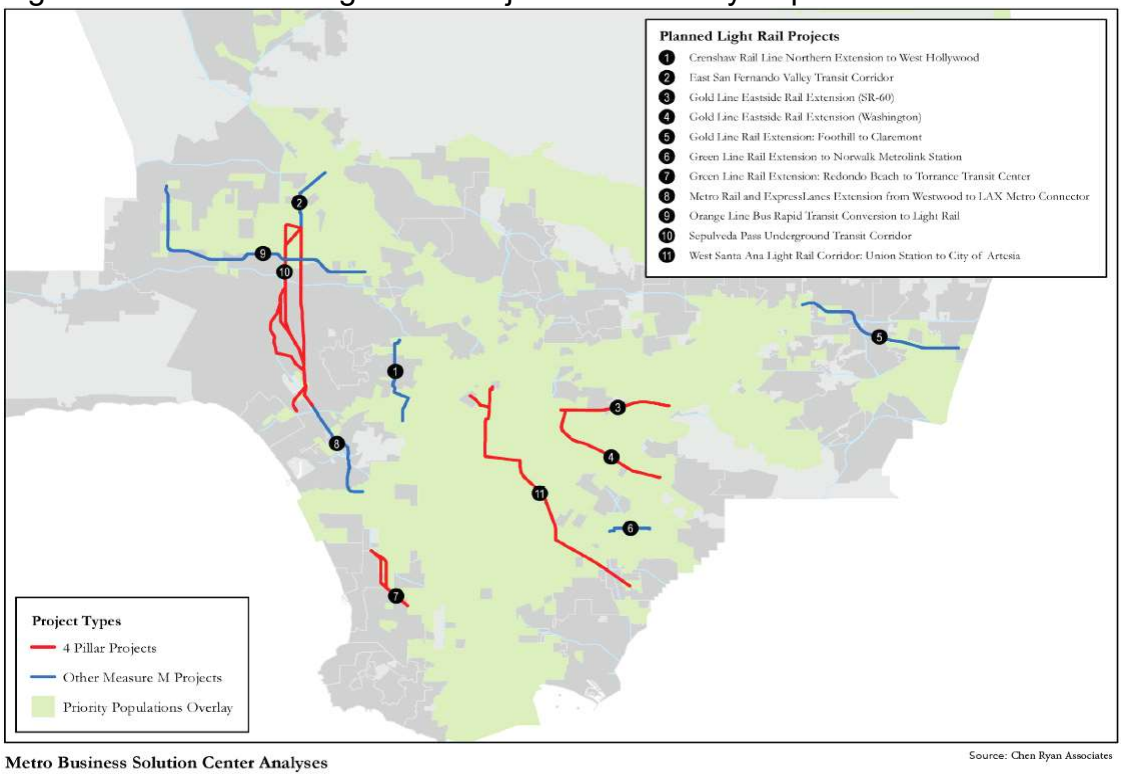
To gain an in-depth understanding of the composition of the business corridors including community characteristics and demographics with consideration to equity focus areas, the analysis examined the number of small businesses residing in Disadvantaged Communities (Priority Population Areas) and Equity Focus Areas. The analysis focused on two demographic factors that have been historical determinants of disinvestment and disenfranchisement and as result equity impact measure. These are household income and race/ethnicity. Also, keeping in alignment with Metro's Equity Platform, households with low vehicle ownership was included as a third measure for examination. As outlined in the Report, the Equity Focus Areas measures were developed using the US Census American Community Survey (ACS) income and demographic indicators for Los Angeles County.

- **Disadvantaged Communities (Priority Population Areas) Indicators**
  - Top 25% most impacted census tracts in CalEnviroScreen 3.0
  - Low-income communities and households that are at or below 80% of the statewide median income, or at or below the threshold designated as low-income by California Department of Housing and Community Development 2016 State Income Limits

- **Equity Focus Areas Indicators**
  - Household income
  - Race/ethnicity
  - Households with low vehicle ownership.

As result of the detailed analysis, between 2,758 and 4,359 potentially impacted small businesses were found to be within disadvantaged community Priority Population Areas, with a subset of between 1,294 and 1,718 of these businesses being within Equity Focus Areas.

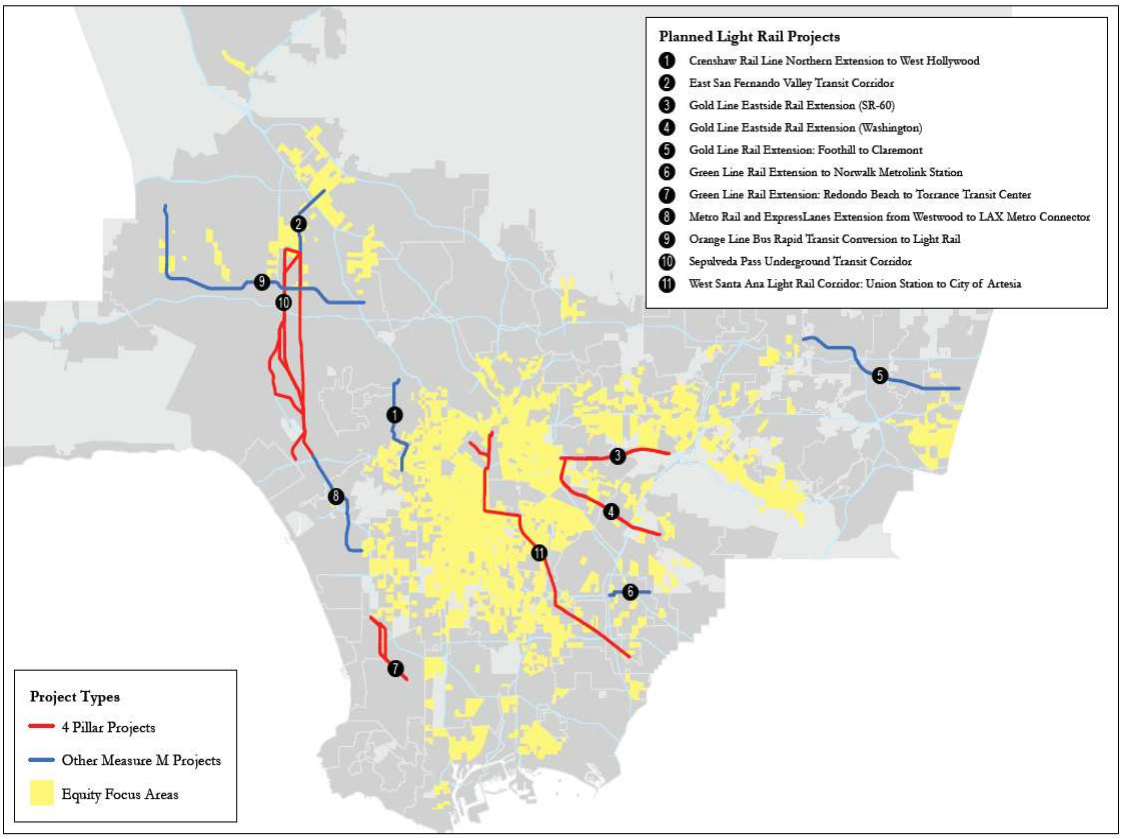
Figure 2. Measure M Light Rail Projects and Priority Population Areas



Metro Business Solution Center Analyses

Source: Chen Ryan Associates

Figure 3. Measure M Light Rail Projects and Equity Focus Areas



Metro Business Solution Center Analysis

Source: Chen Ryan Associates

D. Small Business Revenues

Annual revenues of small businesses were assessed to better understand the business characteristics of the potentially impacted small businesses along each light rail project. The information served to provide insights related to the probable economic impact to the business community and in-turn community at-large. As outlined in the Report, the annual revenue of potentially impacted small business is estimated to range between approximately $5.3B and $8.0B. Annual revenues of impacted small businesses in Priority Population Areas is estimated to range between approximately $4.0B and $6.1B while annual revenue of impacted small businesses in Equity Focus Areas is estimated to range between approximately $2.0B and $2.6B.

E. Projected Operating Costs

To achieve a rough order of magnitude (ROM) for the cumulative cost for the expansion of the BSC along the identified light rail projects, the consultant team performed a thorough examination of the historical costs structure for the Crenshaw/LAX BSC. The current average cost of the BSC is approximately $310,000 per year which has outreached to approximately 450 small businesses. Of the 450 businesses, approximately 18% use the BSC on an annual basis.

i. Estimated Cumulative Operating Costs

The examination included an assessment of the current service levels, business impacts and insights obtained from the BSC program administrator. Based upon the various analyzed elements along with stated assumptions, the cumulative of costs for implementing and expanding the BSC for all Measure M light rail projects is estimated to range between $28,500,978 and $39,632,138 between 2020 and 2058. The analysis netted a projected annual cost between $5,286,530 and $13,871,481 to operate the program across all years of construction for the "Four Pillar Projects."

ii. Estimated 5-Year Operating Costs

To further disaggregate the cumulative cost, the anticipated yearly costs for operating the BSC was examined for the first five-year period between 2020 and 2024 for all applicable Measure M light rail projects based on the construction schedule; hence, the anticipated operating cost for the first year (2020) is $1,185,087. The five-year operating costs are estimated to range between $8,309,821 and $10,303,031. The estimated five-year cost basis for the operations of the BSC for the Four Pillar Projects ranges between $2,041,891 and $4,035,101 between 2020 and 2024.

The following chart summarizes estimated five-year BSC operating costs for the Four Pillar Projects and all other Measure M light rail projects reviewed for the analysis.

Figure 4. Estimated Five-Year BSC Operating Costs (2020-2024) (2019 Dollars)

Cost for All Lines by Year (2020-2024)[1]	2020	2021	2022	2023	2024	Summary (2020-2024)
4 Pillar Projects						
Low	-	$417,567	$408,332	$610,097	$605,594	$2,041,891
High	-	$620,365	$606,210	$1,413,269	$1,395,257	$4,035,101
Other Measure M LRT Projects[2]						
Low	$1,185,087	$1,157,462	$1,157,462	$1,157,462	$1,610,457	$6,267,930
High	$1,185,087	$1,157,462	$1,157,462	$1,157,462	$1,610,457	$6,267,930
Total Measure M LRT Projects						
Low	$1,185,087	$1,575,329	$1,565,795	$1,767,559	$2,216,051	$8,309,821
High	$1,185,087	$1,777,827	$1,763,672	$2,570,731	$3,005,714	$10,303,031

Source: Chen Ryan Associates

Note:

1. Low or high figures based on combination of lowest or highest Alternatives within each corridor (based on number of small businesses).
2. 2. During the 5-year period of 2020-2024, only one alternative exists.

iii. Considerations for Expansion

The projected costs for the expansion of the program take into consideration various best practices and lessons learned from the Pilot Crenshaw/LAX BSC such as the co-location of the center within the corridor and the operationalization of the BSC prior to the activation of construction as well as

one-year post construction. In addition, the projected costs for the expansion and operations of the BSC include the analysis of various light rail alternatives which lend to elevated costs projections yet provide a ROM baseline for funding consideration. In consideration of the foreseeable impacts to potentially more than 4,000 small “mom and pop” businesses located within Priority Population Areas and Equity Focus Areas and in consideration of the success of the Crenshaw/LAX BSC’s ongoing support to help businesses sustain during the challenges of transit rail construction, Metro staff recommends to transition the BSC from a pilot to a permanent program through a phased implementation commencing with the “Four Pillar Projects.” The phased implementation approach will support the future ability for refined cost feasibility and incremental funding.

Furthermore, the phased implementation will lend to the opportunity for the internal department to make staffing adjustments in support of the expanded program. The Pilot BSC along with other small business programs is spearheaded by staff within Metro’s DEOD unit with the administration and oversight shared among staff. In effort to support the program expansion inclusive of the implementation, administration and monitoring including management of the contracted program administrator, the authorization for dedicated staffing is recommended for consideration. In keeping to industry best practices for the effective oversight of such small business and economic development programs the formation of a dedicated staff through full-time equivalent (FTE) positions will require consideration and financial authorization.

FINANCIAL IMPACT

This has no financial impact to FY20. The project manager will be responsible for budgeting costs through the annual budget process for the Business Solutions Center.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The implementation of the transition of the pilot Metro Business Solution Center to a permanent program and expand the program to all upcoming light rail transit projects in the Measure M pipeline inclusive of the “Four Pillar Projects” identified as part of the “Twenty-eight by ’28” Initiative aligns to strategic goal 3 - enhance communities and lives through mobility and access to opportunity.

ALTERNATIVES CONSIDERED

The alternative considered is not implementing the expansion of the pilot program through conversion to a permanent program. This alternative would lead to potentially impacted small businesses not receiving technical and business support services during transit light rail construction.

NEXT STEPS

Based upon Board action, staff will advance a formal solicitation in accordance with the final program model, construction schedule and other factors, and develop a staffing plan to support the regional expansion of the program.

ATTACHMENTS

Attachment A - Motion 38.1
Attachment B - Motion 79
Attachment C - BSC Fact Sheet CY2019 Q2
Attachment D - Metro Pilot Business Solutions Center Expansion Analysis

Prepared by: Jessica Spearman, Principal Transportation Planner, Diversity and Economic Opportunity, Vendor/Contract Management, (213) 418-3266
Shalonda Baldwin, Deputy Executive Officer, Diversity and Economic Opportunity, Vendor/Contract Management, (213) 418-3265

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



Phillip A. Washington
Chief Executive Officer

Metro

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

Board Report

File #: 2019-0521, **File Type:** Motion / Motion Response **Agenda Number:** 38.1

REGULAR BOARD MEETING
JUNE 27, 2019

Motion by:

Hahn, Solis, Butts, Garcia and Najarian

Related to Item 38: Metro Pilot Crenshaw/LAX Transit Project
Business Solutions Center

As Metro continues to accelerate the Twenty-eight by ’28 Project List, particularly the “4 Pillar Projects,” there will soon be an extensive amount of construction activity across Los Angeles County.

These rail projects will bring high-quality transit to the neighborhoods with the fewest transportation alternatives. However, during construction, nearby businesses are likely to experience a significant interruption in their everyday operations. Many of those businesses exist in an area with existing barriers to economic development.

Over the last several years, Metro embarked on an unprecedented effort to mitigate the negative impacts of construction on small businesses. The implementation of the Metro Business Interruption Fund provides financial support to impacted businesses from the Regional Connector Project, Purple Line Extension Sections 1 and 2, and the Crenshaw/LAX Project. This program has made great strides in forming robust partnerships between Metro and the local business communities.

In addition, Metro deployed the pilot Metro Business Solutions Center (BSC), which went even further to provide technical, marketing, and financial assistance for the small and micro businesses along the Crenshaw/LAX Project corridor.

Since 2015, these complementary programs have created a template that other transit agencies have worked to replicate. The amount of investment, financial or otherwise, has minimized local small business losses and strengthened the relationships between Metro and the communities it serves. The success of these programs has created goodwill and will directly contribute to the long-term success of the projects themselves.

As Metro moves forward with its ambitious capital project timeline, the agency must take every reasonable step to ensure there is sustainable and equitable assistance for small “mom and pop” businesses affected by all future major capital projects.

SUBJECT: METRO PILOT CRENSHAW/LAX TRANSIT PROJECT BUSINESS SOLUTIONS CENTER

APPROVE Motion by Hahn, Solis, Butts, Garcia and Najarian to direct the CEO to:

1. Transition the Metro Business Solutions Center from a pilot to a permanent program, and expand the program to all upcoming light rail projects in the Measure M pipeline.

2. Evaluate and measure the impact of the current Metro Business Solutions Center and identify areas of improvement.

3. Propose a funding formula for the expanded Business Solutions Center, including the following equity criteria:
    a. The estimated number of small and micro businesses impacted for each respective light rail project.
    b. Percentage of businesses impacted that serve primarily low-income populations.
    c. Number of businesses that operate in Disadvantaged Communities.

4. Coordinate with the Vendor/Contract Management to ensure that the expanded Metro Business Solutions Center complimenting Business Interruption Fund Program is properly timed according to each project's construction schedule working with the community based organization which will tailor the needs of the communities on the project corridors.

powered by Legistar™

Attachment B

Motion by Supervisor Mark Ridley-Thomas, Mayor Eric Garcetti and Director Jacquelyn Dupont-Walker

Implementation of a Pilot Business Solution Center for the Crenshaw/LAX Line Relates to Item 79

July 24, 2014

Since construction began on the Crenshaw/LAX Line Project (the Project) earlier this year, doing business on the Crenshaw Corridor (the Corridor) has become more challenging for businesses and patrons. Many businesses are already experiencing significant impacts created by construction activities, specifically at the intersections of Crenshaw Boulevard and Martin Luther King Jr. Boulevard and Exposition Boulevard where work is underway to lay the groundwork for future underground stations. Businesses between 48th Street and 60th Street, where the line will run at-grade, are also anticipated to face significant challenges when construction begins on that segment.

Under both Federal and State law, Metro is prevented from providing direct cash subsidies to businesses unless access to the business is denied due to construction impacts. While this has not technically been the case on the Corridor, there is a clear nexus between construction activities and reduced business activity, especially the walk-in traffic that many of the retail businesses rely on.

In April 2014, Metro retained a consultant to assess and provide recommendations on how to address the economic impacts of construction activities on small businesses on the Corridor. The consultant's report encourages the development of a pilot Business Solution Center that would provide direct sector-specific technical assistance to businesses along the Corridor to help them through construction activities. Services that could be provided to businesses include financial planning and advice on small business operations as well as dealing with municipal permits and regulations, legal assistance, marketing and grant/loan application management. The consultant specifically suggests that a pilot effort be established to provide proactive and hands-on business assistance to support the over 100 businesses at the at-grade portion of the

Project between 48th and 60th Streets, as well as a walk-in location along the Corridor for which businesses along the entire rail alignment can receive information, resources and referrals.

The establishment of a Business Solution Center would meaningfully enhance Metro's construction and external relations protocol. While serving as a relatively nominal financial investment for Metro, it would go a long way in helping to build the capacity of small businesses to survive the construction period and ultimately contribute to a vibrant transit corridor upon completion of the Line. If the Metro Board wants to pursue future funding measures to fully build out the system, it will be fundamental that we demonstrate to local small businesses that we are a committed partner during construction periods. This pilot Business Solution Center can serve as a model for such an effort, and to do so, it is essential that Metro partner with a capable and well established service provider to roll-out these services as quickly as possible. Furthermore, it is consistent with Metro's Construction Impact Response Program (CIRP) which was developed in response to construction on the Gold and Red Lines in the 1990s. The CIRP program provided various forms of relief for businesses including economic support and rapid response teams. These resources should also be made available for the Crenshaw Corridor.

The pilot Business Solution Center would also complement Metro's other ongoing efforts to address business' needs during construction. For example, Metro continues to modify construction signage based on the feedback of surrounding business' to highlight the names of businesses, parking locations and to clarify that businesses are open during construction. In addition, Metro is finalizing a communications strategy to promote an "Eat, Shop and Play Local" campaign during construction.

WE THEREFORE MOVE THAT THE BOARD OF DIRECTORS:

1. Receive and file the "Recommendations for a Pilot Metro Business Solution Center";

2. Authorize the CEO to immediately solicit proposals to establish a Pilot Metro Business Services Center along the Crenshaw Corridor that includes a physical presence with consistent staffing hours for the duration of the construction of the Crenshaw/LAX Line, as well as a Business Solutions Outreach Strategy for the at-grade portion of the alignment on Crenshaw between 48th and 60th Streets and other locations that are determined to be significantly impacted by construction activities, and authorize the CEO to execute a contract with the most responsive and qualified bidder, with the objective of beginning operations by October 2014;
3. Direct the CEO to identify up to $250,000 and amend the current budget to fund the initial year activities, with an overall project budget expected to be approximately $1,000,000, to be included in future budgets for fiscal year 2016, 2017 and 2018 at $250,000 per year;
4. Direct the CEO to report back in September on a plan to utilize existing Full-Time Equivalent position(s) to staff the Business Solutions Center.
5. Direct the CEO to incorporate the following elements into the Pilot Business Solution Center Program:
    a. A single point-of-contact or case management approach for each business; and
    b. A 72 hour quick response plan.
6. Direct the CEO to establish an additional mitigation menu and criteria based on MTA's previous Construction Impact Response Program that includes:
    a. Marketing campaigns for impacted businesses;
    b. Rent and mortgage subsidies to businesses;
    c. A low-interest loan fund that is accessible to small and micro-businesses;
    d. Report back to the Board in September with funding recommendations;
7. Direct the CEO to report back on a Post-Construction Façade Improvement Program in conjunction with the approved Design-Build Contract for the Crenshaw/LAX Transit Line;
8. Direct the CEO to report back on the feasibility of establishing Memorandums of Understanding with local business and community stakeholder groups, as has been

done in Denver, Colorado, to ensure that we are maximizing community involvement and engagement as it relates to construction activities;

9. Direct the Diversity and Economic Opportunity Department to manage and oversee the Business Solution Center Project; and
10. Provide quarterly updates to the Executive Management and Construction Committees on the Pilot Business Solution Center and the "Eat, Shop and Play Local" campaign beginning in September 2014.







CRENSHAW/LAX TRANSIT PROJECT

BUSINESS SOLUTION CENTER

Fact Sheet







Metro's Pilot Business Solution Center (BSC) provides hands-on business assistance and support services to small businesses along the Crenshaw/LAX corridor during the four-year term of the Crenshaw/LAX Transit Project.

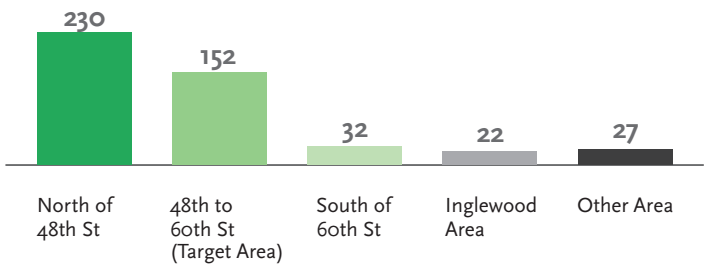
Small businesses along the corridor have access to the BSC for business and technical assistance, including business development services and referrals to partnering business resource providers.

Metro's goal is to help small businesses continue to thrive throughout construction and post construction. The BSC is a demonstration of Metro's commitment to being a trusted community builder, partner and stakeholder.

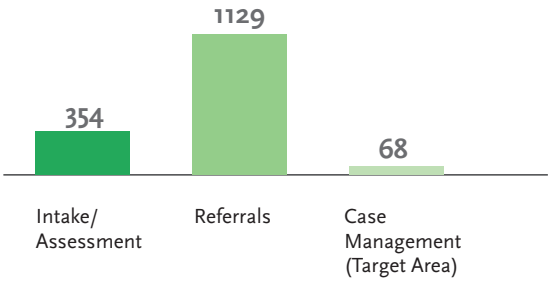


BSC Facts at a Glance (as of CY19 Q2)

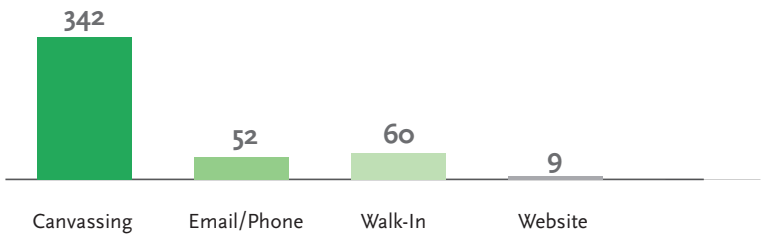
Businesses Contacted by Location – 463



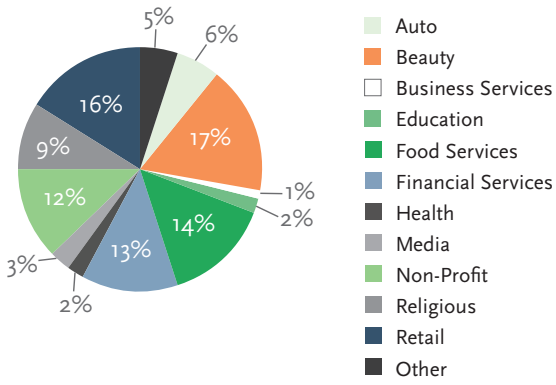
Business Support Status



Method of Contact



Client by Industry Type



BSC Services

The BSC provides an array of support services to small businesses, such as, but not limited to:

> Hands-on business development

> Expert business advice, coaching and technical assistance

> Referrals to expert professionals in the areas of:

- Accounting management (i.e. record keeping and tax preparation)
- Capital access
- Branding and marketing
- Web design and social media
- Commercial real estate counseling
- Industry-specific assistance (i.e. cosmetology and restaurateurs)
- Computer repair and IT assessments

Getting Started with the BSC

Getting support and assistance through the BSC is a simple process:



STEP 1 Identify your business need(s)



STEP 2 Contact the BSC

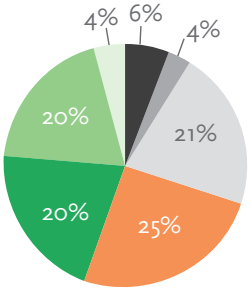


STEP 3 Meet with BSC staff



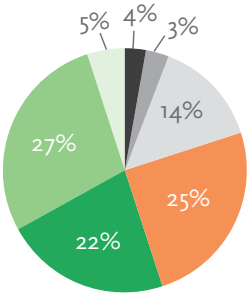
STEP 4 Begin receiving support services

Areas of Service – Alignment



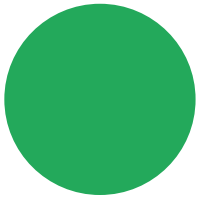
- Accounting Management
- Access to Capital
- Business Development
- Business Interruption Fund
- Marketing
- Social Media & Website
- Zoning & Land Use

Areas of Service – 48th to 60th – At Grade



- Accounting Management
- Access to Capital
- Business Development
- Business Interruption Fund
- Marketing
- Social Media & Website
- Zoning & Land Use

Measures of Effectiveness



100%
Service request responded to within 48 business hours
GOAL: 100%

51%
Businesses that complete service recommendations
GOAL: 100%





88%
BSC clients that engaged in services post intake/ assessment
GOAL: 80%

78%
Businesses sustained in operations six months post BSC intake
GOAL: 100%



75%
Businesses sustained in operations 12 months post BSC intake
GOAL: 100%



94%
Client satisfaction rating (based on 18 businesses)
GOAL: 90%



BSC Location

The BSC can be accessed directly by visiting the main office located inside the Los Angeles Urban League at 4401 Crenshaw Bl, Suite 201, Los Angeles. The BSC main office is accessible Monday through Friday during standard business hours of operation from 9am – 5pm.

Small businesses located further south along the Crenshaw/LAX corridor, such as businesses located in the Inglewood area, may access the BSC by visiting the main office located inside the Los Angeles Urban League and/or by scheduling an appointment at the BSC satellite office located in Inglewood at 510 S La Brea Av, Inglewood, CA.

The BSC team also provides on-site assessments and business site meetings.

BSC Team

Metro's BSC is provided in partnership with Del Richardson & Associates, Inc. (DRA) through an established collaborative with Vermont Slauson Economic Development Corporation (VSEDC) and the Los Angeles Urban League.

Business Solution Center

323.299.9660, x2289

metrobsc@gmail.com

metrobsc.net/crenshaw

Crenshaw/LAX Transit Project

crenshawcorridor@metro.net

metro.net/crenshaw

@crenshawrail

crenshawrail

Metro

DEL RICHARDSON & ASSOCIATES, INC
LIVING SOLUTIONS

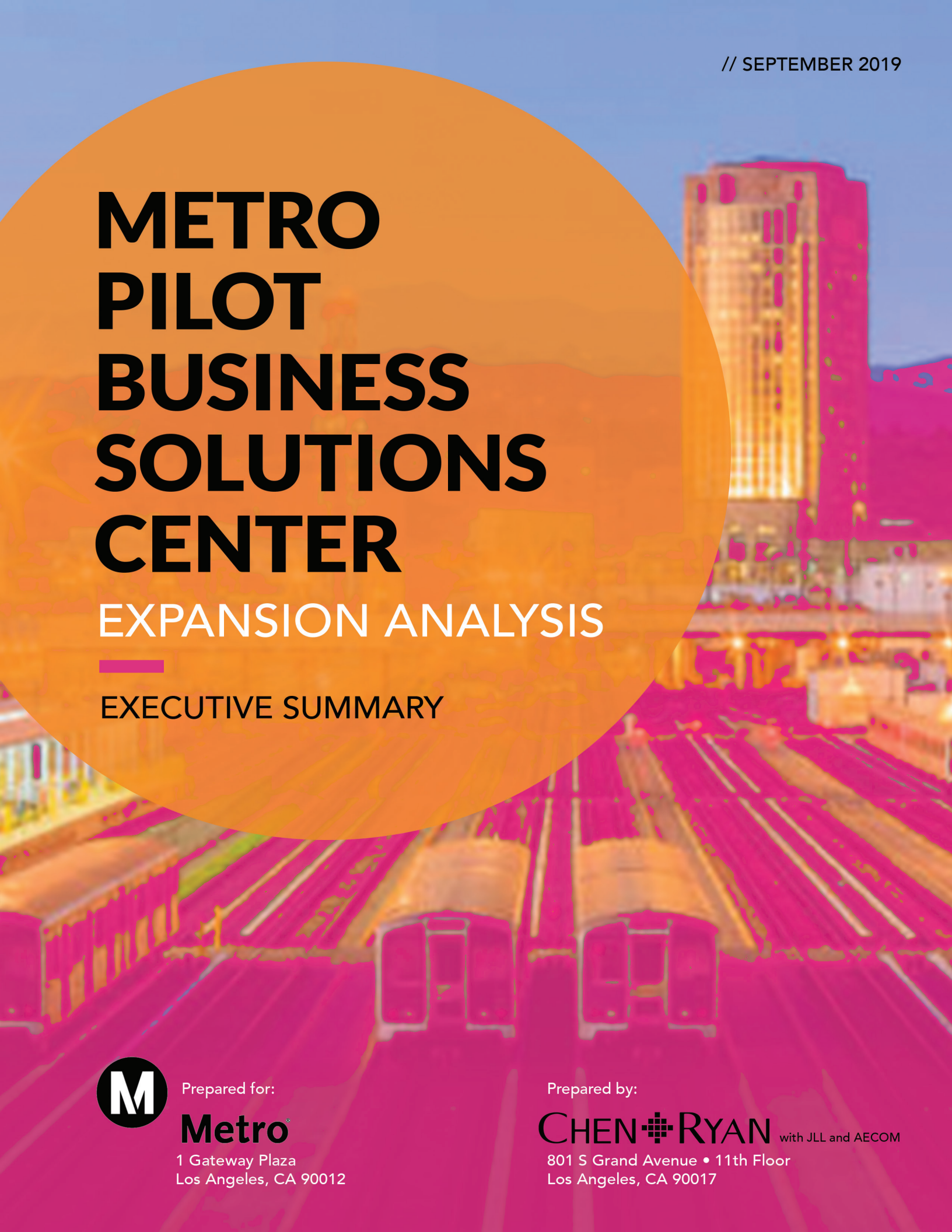
20-0574PS ©2019 LACMTA

// SEPTEMBER 2019

METRO PILOT BUSINESS SOLUTIONS CENTER

EXPANSION ANALYSIS

EXECUTIVE SUMMARY



Prepared for:

Metro

1 Gateway Plaza
Los Angeles, CA 90012

Prepared by:

CHEN RYAN with JLL and AECOM

801 S Grand Avenue • 11th Floor
Los Angeles, CA 90017

Executive Summary

This report establishes a quantification of the cost to expand Metro's Pilot Business Solution Center Program (BSC) based on the number of small businesses in each corridor. As such, this analysis provides an examination of the business mix along Measure M light rail corridors to identify potentially impacted small business (defined as having 25 or fewer employees), estimates the revenue of those businesses, and the number of those businesses in disadvantaged communities (based on Priority Populations as defined by California Environmental Protection Agency) and Equity Focus Areas, as defined by Metro's Equity Platform Framework.

In summary, between 4,015 and 6,025 small businesses were found to exist within a potential impact buffer of all Measure M light rail projects. A range is provided to account for variable alignments that currently exist for Measure M projects. Between 2,758 and 4,359 small businesses were found to be within disadvantaged community Priority Population areas, with a subset of between 1,294 and 1,718 of these businesses being within Equity Focus Areas.

A summary cumulative range of costs for implementing an expanded BSC is estimated to fall between $28,500,978 and $39,632,138 (2019 dollars) between 2020 and 2058. While this high-level estimate provides an order-of-magnitude for expanding the program to all Measure M corridors, a more detailed cost estimate of each corridor could include expanding and or targeting programs and services, and adjusting costs specific to the market conditions of each corridor.

BACKGROUND

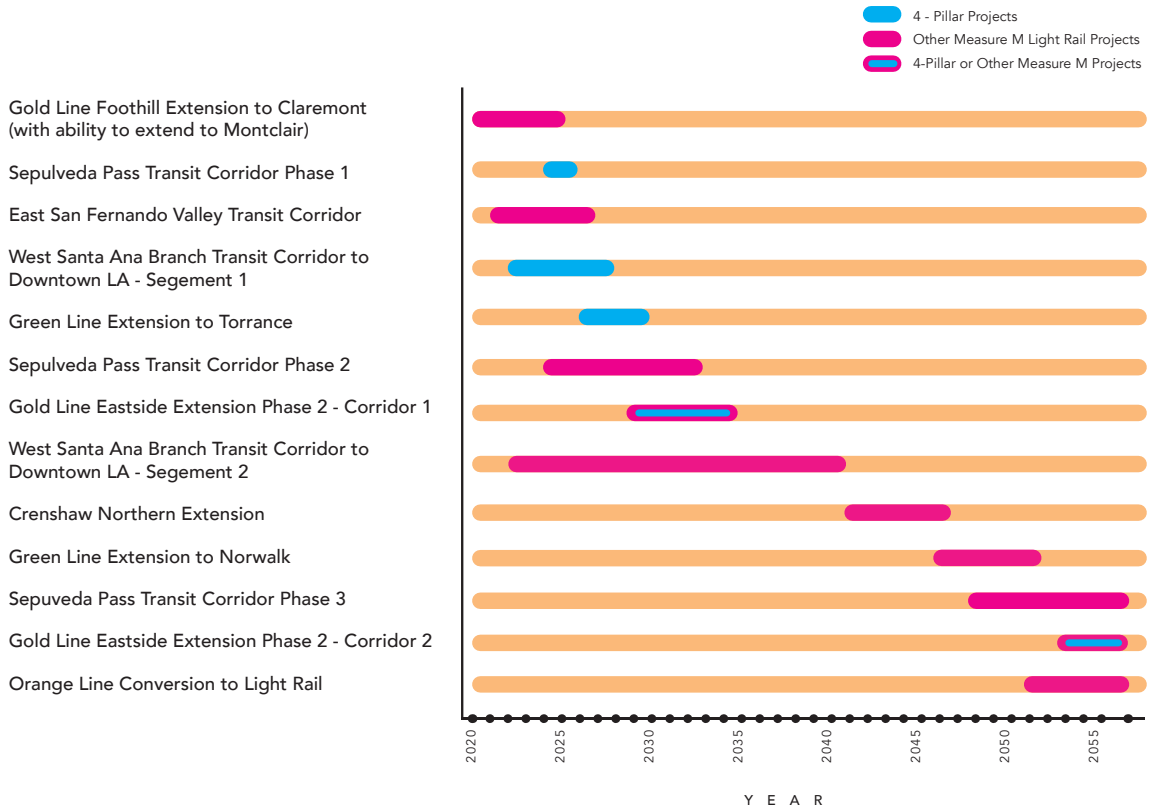
Metro's Pilot Business Solution Center (BSC) was established in 2014 following a motion from Metro's Board of Directors (Motion 79) to provide business assistance and support services to small businesses (defined as having 25 or fewer employees) along the Crenshaw/LAX corridor during the construction of the Crenshaw/LAX Transit Project. Metro's BSC provides an array of support services to businesses, which include, but are not limited to: hands-on business development, expert business advice, coaching and technical assistance including referrals to expert professionals in the areas of accounting management and access to financial capital; branding, marketing, and social media. The current average annual operating cost of the BSC is approximately $310,000 per year, servicing approximately 450 small businesses. Of the 450 businesses, approximately 18% of the small businesses utilize the BSC on an annual basis.

Based upon the success of the current BSC, in June 2019, Metro's Board of Directors issued Motion 38.1, that authorized the CEO to transition the pilot BSC to permanent status, and expand the program along all upcoming Measure M light rail projects. As in the pilot program, the expanded program would assist and support small "mom and pop" businesses during light rail construction.

The analysis documented in this report was conducted to establish an up-front disclosure of the number of businesses that would potentially be included in an expanded BSC Program, as well as the projected costs of the expanded Program.

MEASURE M PROJECT SCHEDULE

Figure ES-1 **Measure M Light Rail Projects Schedule**



Source: LA Metro, Chen Ryan Associates

The construction schedule for the 4-Pillar and other Measure M Projects will span from the year 2020 to 2057, as demonstrated per **Figure ES-1**. The construction timeline of 4-Pillar Projects is expected, based upon Metro projections, to span the years of 2022 and 2035, while other Measure M projects are anticipated to be constructed between the years of 2020 and 2057. For analyses described in later sections, one year of pre-construction and one year of post-construction activities are included for cost estimation.

Note that multiple alignment alternatives currently exist for many Measure M Projects. This analysis considered each alignment alternative where this was the case. Therefore, estimated impacted businesses, projected BSC operating costs, and estimated business revenue profiles are reported as a range of costs (low to high) when it is necessary to encompass a combination of the highest and lowest alternatives along each corridor.

Detailed information pertaining to the alignment alternatives being considered at the time of this analysis is provided in Section 2.0.

POTENTIALLY IMPACTED SMALL BUSINESSES

The number of potentially impacted small businesses along all Measure M project corridors is estimated to range between 4,015 and 6,025 based upon the chosen combination of alignment alternatives, as presented in **Table ES-1**.

PRIORITY POPULATION AND EQUITY FOCUS AREAS

Between 2,758 and 4,359 impacted small businesses were found to exist in disadvantaged community areas (defined as Priority Population areas), and between 1,294 and 1,718 impacted small businesses were found to exist in areas defined as Equity Focus Areas. Detailed methodology pertaining to the identification of businesses in Priority Population and Equity Focus Areas are presented in Section 4.0.

Table ES-1 Impacted Small Businesses along Measure M LRT Corridors

Measure M Projects	Potentially Impacted Small Businesses[2]
4-Pillar Projects	
Low	844
High	2,414
Other Measure M LRT Projects	
Low	3,171
High	3,611
Total Measure M LRT Projects	
Low	4,015
High	6,025

Source: JLL

Note:

1. Low or high figures based on combination of lowest or highest Alternatives within each corridor (based on number of small businesses).

PROJECTED BSC OPERATING COSTS

Table ES-2 summarizes anticipated yearly costs for operating the BSC for the first five-year period of 2020-2024. As shown, annual operating costs are estimated to be $1,185,087 for the year 2020. Five-year operating costs are estimated to range between $8,309,821 and $10,303,031.

Table ES-2 Estimated 5-Year BSC Operating Costs (2019 Dollars)

Cost for All Lines by Year (2020-2024)[1]	2020	2021	2022	2023	2024	Summary (2020-2024)
4 Pillar Projects						
Low	-	$417,867	$408,332	$610,097	$605,594	$2,041,891
High	-	$620,365	$606,210	$1,413,269	$1,395,257	$4,035,101
Other Measure M LRT Projects[2]						
Low	$1,185,087	$1,157,462	$1,157,462	$1,157,462	$1,610,457	$6,267,930
High	$1,185,087	$1,157,462	$1,157,462	$1,157,462	$1,610,457	$6,267,930
Total Measure M LRT Projects						
Low	$1,185,087	$1,575,329	$1,565,795	$1,767,559	$2,216,051	$8,309,821
High	$1,185,087	$1,777,827	$1,763,672	$2,570,731	$3,005,714	$10,303,031

Source: Chen Ryan Associates

Note:

1. Low or high figures based on combination of lowest or highest Alternatives within each corridor (based on number of small businesses).
2. During the 5-year period of 2020-2024, only one alternative exists.

Table ES-3 presents a summary of projected total costs of an expanded BSC along all Measure M light rail corridors between 2020-2058. Note that an additional year, representing pre-construction, was added to the construction schedule presented in Figure ES-1 for the purposes of projecting BSC operating costs. Likewise, one-year of post-construction was appended to each project. One notable exception lies with the Metro Gold Line Foothill Extension, which is scheduled to begin construction in 2020 and has already experienced pre-construction activities without a BSC program in place. This results in a timeline of 2020-2058 for BSC operation, composed of 4-Pillar Projects ranging spanning the years of 2021-2036, and other Measure M projects spanning the time period of 2020-2058.

A range of costs is also provided due to the presence of multiple alignment alternatives for many projects. As shown, costs are anticipated to range between $28,500,978 as a low

estimate, to $39,632,138 as a high estimate along all Measure M light rail corridors. These estimates are comprised of an estimated range of between $5,286,530 and $13,871,481 to operate the BSC for 4-Pillar Projects, in addition to an estimated range of between $23,214,448 and $25,760,657 to operate the BSC for other Measure M light rail Projects. Detailed BSC Operating Cost information is presented in Section 6.0.

Table ES-3 Yearly Summary BSC Operating Costs for All Mesure M Light Rail Corridors (2019 Dollars)

Project[1]	Small Businesses	Total Cost[1]
4-Pillar Projects (2021-2036)		
Low	844	$5,286,530
High	2,414	$13,871,481
Other Measure M LRT Projects (2020-2058)		
Low	3,171	$23,214,448
High	3,611	$25,760,657
Summary of Costs (Low)	**4,015**	**$28,500,978**
Summary of Costs (High)	**6,025**	**$39,632,138**

Source: Chen Ryan Associates

Note:

1. Low or high figures based on combination of lowest or highest Alternatives within each corridor (based on number of small businesses).

REVENUE PROFILES

Annual revenue of impacted small businesses is estimated to range between approximately $5.3B and $8.0B. Annual revenue of impacted small businesses in Priority Population Areas is estimated to range between approximately $4.0B and $6.1B, while annual revenue of impacted small businesses in Equity Focus Areas is estimated to range between approximately $2.0B and $2.6B.

Table ES-4 presents a summary of business along Measure M light rail corridors by their position within a Priority Population and/or Equity focus area, as well as their anticipated revenue profiles. Small business revenue profiles are presented in greater detail in Section 5.0.

Table ES-4 Revenue Profile of all Small Businesses along Measure M LRT Corridors (2019 Dollars in Thousands)

Revenue Summary[1]	Small Businesses[2]	Annual Revenue of Small Businesses[2,]	Small Businesses in Priority Population Areas[3]	Annual Revenue of Small Businesses in Priority Population Areas[3]	Small Businesses in Equity Focus Areas[4]	Annual Revenue of Small Businesses in Equity Focus Areas[4]
4-Pillar Projects						
Low	844	$1,505,809	635	$1,286,622	321	$757,043
High	2,414	$3,580,181	1,791	$2,810,368	556	$1,133,134
Other Measure M LRT Projects						
Low	3,171	$3,814,009	2,123	$2,682,404	973	$1,214,560
High	3,611	$4,435,142	2,568	$3,309,965	1,162	$1,463,507
Total Measure M LRT Projects						
Low	4,015	$5,319,818	2,758	$3,969,026	1,294	$1,971,603
High	6,025	$8,010,045	4,359	$6,120,333	1,718	$2,596,641

Source: JLL

Note:

1. Low or high figures based on combination of lowest or highest Alternatives within each corridor (based on number of small businesses).
2. Small businesses are defined as 25 or fewer employees.
3. Priority Populations include CalEPA defined disadvantaged communities, low-income communities, and low-income households.
4. Equity Focus areas are based on Metro defined race/ethnicity, low-income and low vehicle ownership area. All small businesses in Equity Focus Areas also exist within Priority Populations.

ADDITIONAL BSC SERVICES

Metro's BSC provides an array of support services to small businesses, which often include, but are not limited to: hands-on business development, expert business advice, coaching and technical assistance including referrals to expert professionals in the areas of accounting management and access to financial capital; branding, marketing, and social media. The current annual operating cost of the BSC is approximately $310,000 serving approximately 18% of the 450 small businesses in the corridor. Several additional opportunities for services are discussed below, based upon best-practices research of other construction mitigation or business improvement programs from sister agencies, including:

- Business Shuttles
- Business Operations Support
- Dissemination of Public Information
- Customer Incentives
- Parking Lot Alterations or Sharing
- Forgivable Loans
- Workshops and Social Media

Based upon an interview held with Metro's Business Solution Center staff on August 27, 2019, the following were also identified as considerations held by the BSC as potential future services, based upon observations of business need while executing the Pilot BSC:

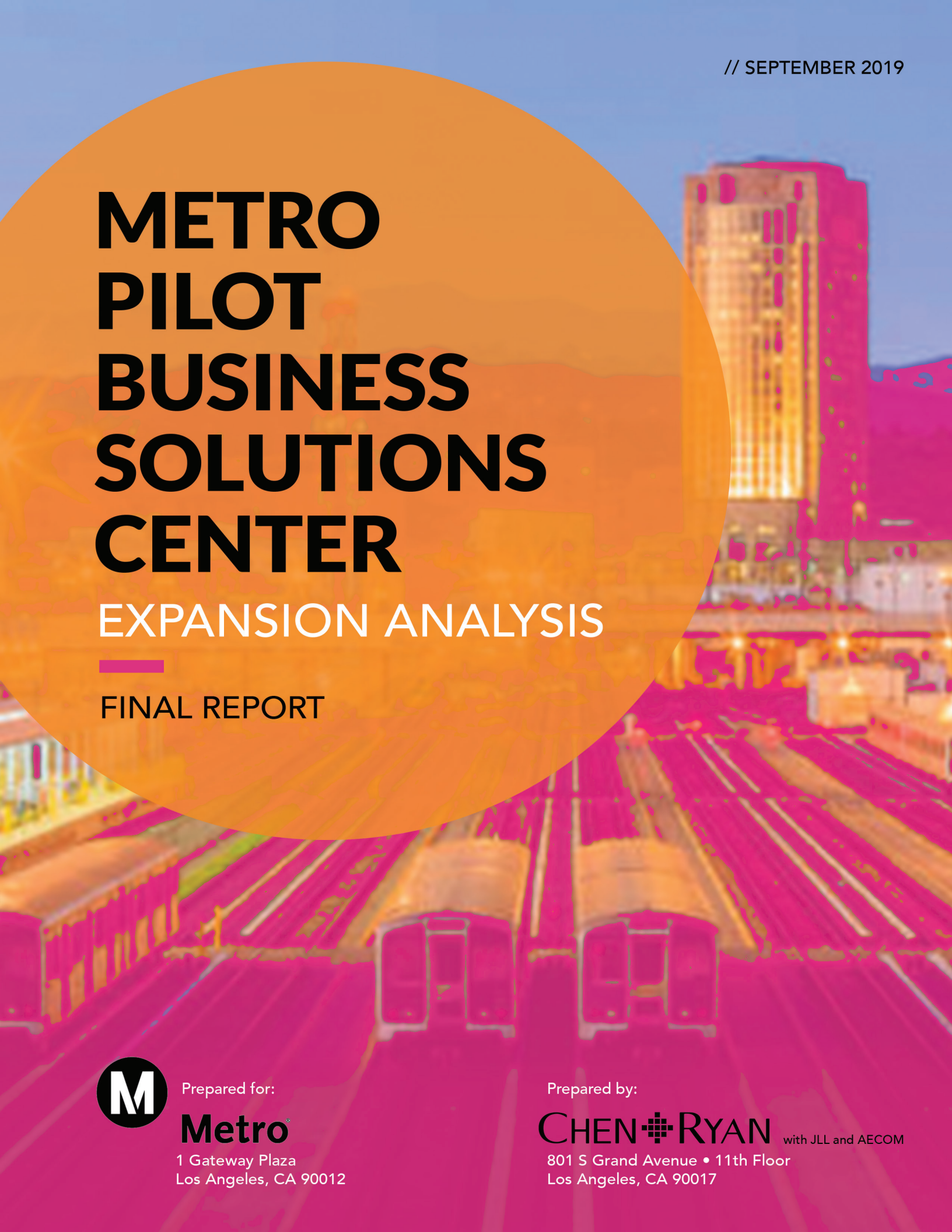
- Providing services, including those services that are currently provided, for a longer timeframe following the end of construction,
- Façade and/or signage improvements, and
- Access to capital

// SEPTEMBER 2019

METRO PILOT BUSINESS SOLUTIONS CENTER

EXPANSION ANALYSIS

FINAL REPORT



Prepared for:

Metro

1 Gateway Plaza
Los Angeles, CA 90012

Prepared by:

CHEN RYAN with JLL and AECOM

801 S Grand Avenue • 11th Floor
Los Angeles, CA 90017

Table of Contents

1.0 Introduction **1**
1.1 Current Business Solution Center Program 1
1.2 Business Solution Center Expansion 1
1.3 Report Organization 2
2.0 Study Area 2
3.0 Schedule of 4-Pillar and Measure M Projects 5
4.0 Methodology 6
4.1 Team and Expertiset 6
4.2 Data Sources 6
4.3 Identifying Extent of Impacts 7
4.4 Identifying Revenue of Impacted Small Businesses 10
4.5 Determining Costs of Current Program 10
4.6 Identifying Disadvantaged Communities (Priority Populations) 14
4.7 Identifying Equity Focus Areas 17
5.0 Small Business Revenue Profiles 20
5.1 All Small Businesses 20
5.2 4-Pillar Projects 21
5.3 Other Measure M Light Rail Projects 22
6.0 Projected Costs of Business Solution Center Program 23
6.1 Estimated Five-Year Operating Costs 23
6.2 BSC Operating Costs for All Measure M Light Rail Corridors 23
6.3 BSC Operating Costs for 4-Pillar Projects 26
6.4 BSC Operating Costs for Other Measure M Light Rail Projects 28
7.0 Potential Business Solution Center Services 31
7.1 Business Shuttles 31
7.2 Business Operations Support 31
7.3 Dissemination of Public Information 31
7.4 Customer Incentives 32
7.5 Parking Lot Alterations or Sharing 32
7.6 Forgivable Loans 33
7.7 Workshops and Social Media 33
7.8 Façade or Signage Improvements 33
7.9 Additional Services 34
8.0 Conclusions & Next Steps 34
Appendix A - Metro Project Websites
Appendix B - Measure M Projects Buffer Criteria
Appendix C - Additional Services Research

List of Figures & Tables

Figure 1 4
Figure 2 5
Figure 3 8
Figure 4 16
Figure 5 19

Table 4 - 1 6
Table 4 - 2 9
Table 4 - 3 12
Table 4 - 4 13
Table 4 - 5 13
Table 5 - 1 20
Table 5 - 2 21
Table 5 - 3 22
Table 6 - 1 23
Table 6 - 2 25
Table 6 - 3 26
Table 6 - 4 27
Table 6 - 5 29
Table 6 - 6 30

1.0 Introduction

This report establishes a quantification of the cost to expand Metro's Pilot Business Solution Center Program (BSC) based on the number of small businesses in each corridor. As such, this analysis provides an examination of the business mix along Measure M light rail corridors to identify potentially impacted small business (defined as having 25 or fewer employees), estimates the revenue of those businesses, and the number of those businesses in disadvantaged communities (based on Priority Populations as defined by California Environmental Protection Agency) and Equity Focus Areas, as defined by Metro's Equity Platform Framework.

In summary, between 4,015 and 6,025 small businesses were found to exist within a potential impact buffer of all Measure M light rail projects. A range is provided to account for variable alignments that currently exist for Measure M projects. Between 2,758 and 4,359 small businesses were found to be within disadvantaged community Priority Population areas, with a subset of between 1,294 and 1,718 of these businesses being within Equity Focus Areas.

A summary cumulative range of costs for implementing an expanded BSC is estimated to fall between $28,500,978 and $39,632,138 (2019 dollars) between 2020 and 2058. While this high-level estimate provides an order-of-magnitude for expanding the program to all Measure M corridors, a more detailed cost estimate of each corridor could include expanding and or targeting programs and services, and adjusting costs specific to the market conditions of each corridor.

1.1 CURRENT BUSINESS SOLUTION CENTER PROGRAM

Metro's Pilot Business Solution Center (BSC) was established in 2014 following a motion from Metro's Board of Directors (Motion 79) to provide business assistance and support services to small businesses along the Crenshaw/LAX corridor during the four-year construction of the Crenshaw/LAX Transit Project. Small businesses along the corridor have access to the BSC for business and technical assistance, including business development services and referrals to partnering business resource providers. The BSC operates to deliver Metro's goal to help small businesses continue to thrive throughout construction and post construction.

Metro's BSC provides an array of support services to small businesses, which often include, but are not limited to: hands-on business development, expert business advice, coaching and technical assistance including referrals to expert professionals in the areas of accounting management and access to financial capital; branding, marketing, and social media. The current annual operating cost of the BSC is approximately $310,000 serving approximately 18% of the 450 small businesses annually in the corridor.

1.2 BUSINESS SOLUTION CENTER EXPANSION

Based upon the success of the current BSC, in June 2019, Metro's Board of Directors issued Motion 38.1, that authorized the CEO to transition the pilot BSC to permanent status, and expand the program along all upcoming Measure M light rail Projects. As in the pilot program, the expanded program would assist and support small businesses during light rail construction.

The analysis documented in this report was conducted to establish an up-front disclosure of the number and annual revenue of small "mom and pop" businesses that would potentially be included in an expanded BSC Program.as well as the projected costs of the expanded Program. This analysis also includes an assessment of the number of affected small businesses in disadvantaged (Priority Population) areas and also Equity Focus Areas.

1.3 REPORT ORGANIZATION

Following this introduction, the report is organized as follows:

Chapter 2 presents an overview of the study area that is to be analyzed for this analysis.
Chapter 3 details the schedule of Measure M Projects, differentiating between accelerated "4-Pillar" Projects and other Measure M light rail Projects.
Chapter 4 documents the methodology utilized for this analysis.
Chapter 5 presents corridor revenue profiles for all small businesses impacted by Measure M light rail construction, also organized by "4-Pillar" and other Measure M Projects.
Chapter 6 documents the projected costs for operating the expanded BSC.
Chapter 7 discusses potential future services that an expanded BSC could provide to impacted businesses.

2.0 Study Area

The study area is comprised of construction corridors located across Los Angeles County where construction of Measure M-funded light rail Projects is anticipated. These corridors are illustrated in **Figure 1**. As shown, corridors include:

1. Crenshaw Line Northern Extension to West Hollywood
2. East San Fernando Valley Transit Corridor
3. Gold Line Eastside Rail Extension (SR-60 alignment)
4. Gold Line Eastside Rail Extension (Washington Boulevard Alignment)
5. Gold Line Foothill Rail Extension to Claremont
6. Green Line Rail Extension to Norwalk Metrolink Station
7. Green Line Rail Extension from Redondo Beach to Torrance Transit Center
8. Sepulveda Pass Transit Corridor – San Fernando Valley to Westside
9. Sepulveda Pass Transit Corridor – Westside to LAX
10. Orange Line Bus Rapid Transit Conversion to Light Rail
11. West Santa Ana Branch Light Rail Corridor: Union Station to City of Artesia

The eleven total corridors are subdivided into two priority-based classifications: 4-Pillar Projects, which carry the highest priority of implementation due to offering key gap closure at the regional level, and all other Measure M-funded Projects.

Further, certain corridors currently carry multiple potential alignments. For the purposes of this

analysis, 4-Pillar Projects with several alignment alternatives were analyzed for each potential alignment. This includes the following corridors:

- Sepulveda Pass Transit Corridor – San Fernando Valley to Westside (4 potential alignments)
- Green Line Rail Extension from Redondo Beach to Torrance Transit Center (3 potential alignments)
- West Santa Ana Branch Light Rail Corridor: Union Station to City of Artesia (two potential alignments within Downtown Los Angeles)

As previously mentioned, the Gold Line Eastside Rail Extension carries two potential alignments, along SR-60 and Washington Boulevard. It is anticipated that one of these two alignments will be forwarded as a 4-Pillar Project, at which time the second alignment will join the remaining list of Measure M Projects.

Other Measure M Projects were analyzed with a single alignment.

Metro's website carries detailed overviews of each of these Projects, served by the links below. The contents of these links are included as Appendix A to this report.

PROJECT WEBSITES

Crenshaw Line Northern Extension to West Hollywood:
- https://www.metro.net/projects/crenshaw-northern-extension/

East San Fernando Valley Transit Corridor:
- https://www.metro.net/projects/east-sfv/

Gold Line Eastside Rail Extension (both alignments):
- https://www.metro.net/projects/eastside_phase2/

Gold Line Foothill Extension to Claremont:
- https://www.metro.net/projects/foothill-extension/

Green Line Rail Extension to Norwalk Metrolink Station:
- http://www.scag.ca.gov/programs/Pages/NorwalkGreenlineStudy.aspx

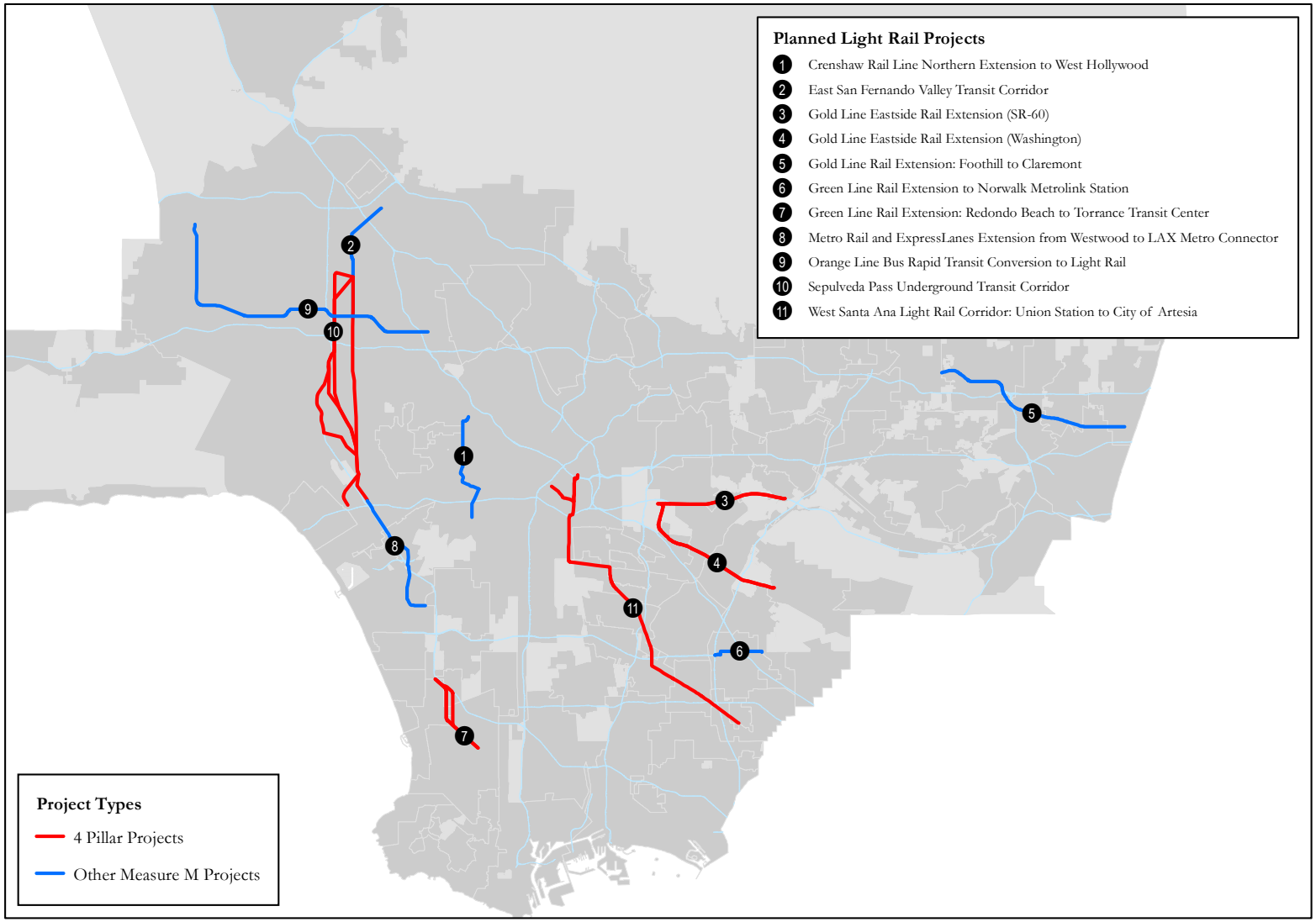
Green Line Rail Extension from Redondo Beach to Torrance Transit Center:
- https://www.metro.net/projects/green-line-extension/

Sepulveda Pass Transit Corridor (San Fernando Valley to Westside, and Westside to LAX):
- https://www.metro.net/projects/sepulvedacorridor/

Orange Line Bus Rapid Transit Conversion to Light Rail:
- (no project webpage)

West Santa Ana Branch Light Rail Corridor: Union Station to City of Artesia:
- https://www.metro.net/projects/west-santa-ana/

Figure 1 Study Area



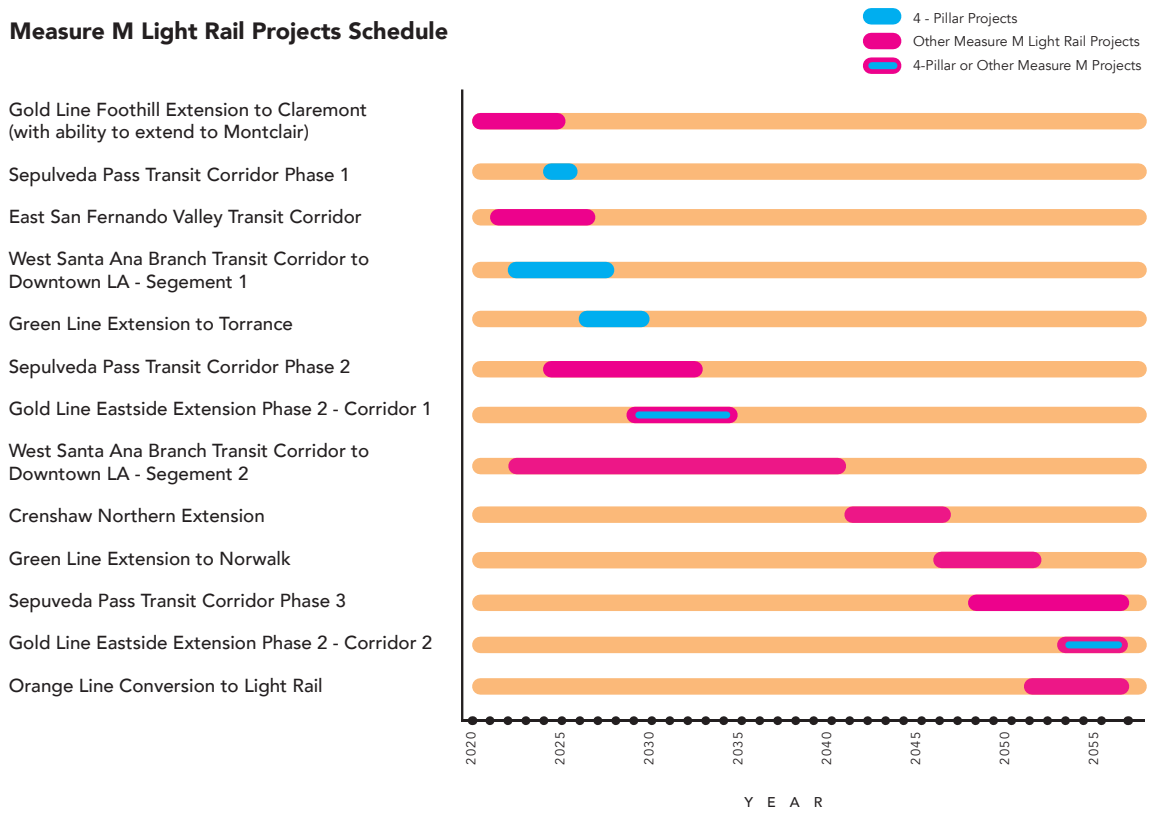
Metro Business Solution Center Analyses

Source: Chen Ryan Associates

3.0 Schedule of 4-Pillar and Measure M Projects

The construction schedule for the 4-Pillar and Measure M Projects presented in Chapter 2 will span from the year 2020 to 2057, as demonstrated on a per-Project timeline in **Figure 2**. This timeline is based upon current (2019) Metro estimates of construction timelines. As shown, 4-Pillar Projects in particular are scheduled to span a timeline from 2022-2035.

Figure 2 **Measure M Light Rail Projects Construction Schedule**



Source: Chen Ryan Associates

4.0 Methodology

4.1 TEAM AND EXPERTISE

The analysis was prepared by a team composed of Chen Ryan Associates, Inc., and their subconsultants Jones Lang LaSalle, and AECOM, providing Metro with a set of planning, demography, impact assessment, economic, and real estate experience.

Chen Ryan Associates provided the project management and backbone analyses for this project combining transit, demographic, and spatial analysis in a GIS-based environment.

Jones Lang LaSalle (JLL) JLL provided the real estate data and economic analysis that underlies this report.

AECOM provided an in-depth parcel analysis along each study corridor to determine an optimal buffer for identifying impacted businesses.

4.2 DATA SOURCES

The data utilized in the development of Metro's Business Solution Center prioritization criteria and their sources are described in **Table 4-1**.

Table 4-1 Metro Business Solution Center Datasets

Datasets	Source
Various Metro Rail Alignments (proposed)	Digitized by interpreting information materials from Metro's rail project websites
Various Metro Rail Stations (proposed)	Digitized by interpreting information materials from Metro's rail project websites
Disadvantaged Communities coverage area	Retrieved from California Air Resources Board Priority Population Investments criteria webpage https://ww3.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm
Various American Community Survey 2016 and 2017 datasets at Census Block Group geography, including: • Population • Vehicles Available • Age • Poverty Status • Hispanic or Latino Origin by Race	Retrieved from American Fact Finder Download Center https://factfinder.census.gov/faces/nav/jsf/pages/download_center.xhtml
Business locations and revenue	Provided by JLL research of ESRI's 2018 US Business Locations and Business Summary Database for locations within 200' of Metro Rail Alignments (proposed) at-grade or elevated segments and within 400' of Metro Rail Stations (proposed)

Source: LA Metro, US Census Bureau, JLL, Chen Ryan Associates

4.3 IDENTIFYING EXTENT OF IMPACTS

In order to identify the extent of impacts that a transit Project would have on commercial sites along a corridor, the alternative alignments and their profiles need to be known and reviewed. GIS shapefiles that were provided by Metro for all Measure M Projects that are part of this study were converted to a KMZ format. Using Google Earth, as well as understanding of the Projects as described in the Metro.net website, each alignment for each Project was reviewed, making the following assumptions:

- Where the alignment appeared to be in the center of the street or on the side of it, it was assumed that the alignment was at-grade (worst-case scenario).
- Where the alignment appeared to be within an existing railroad right-of-way, it was assumed that the proposed alignment would fit within the existing railroad right-of-way.
- Where the alignment appeared to go across neighborhoods and large developments outside the public right-of-way, it was assumed that the alignment was underground.

A graphical example of these generated buffer areas is presented on the following page in **Figure 3**.

Figure 3 Example Buffers



Metro Business Solution Center Analysis

Source: Chen Ryan Associates

4.3.1 ASSUMPTIONS FOR AT-GRADE ALIGNMENTS (PUBLIC RIGHT-OF-WAY)

For those Projects that had alignments that were determined to be at-grade and within the public right-of-way, the distance that was determined as the impacted distance for surrounding properties was approximately 200 feet from the centerline. This is the equivalent to approximately one parcel from the centerline. Exceptions were made where the alignment went through primarily residential neighborhoods. For the stations along these alignments, the impacted distance for surrounding properties extended to 400 feet, which is approximately the distance of one block from the intersection.

4.3.2 ASSUMPTIONS FOR AT-GRADE ALIGNMENTS (RAILROAD RIGHT-OF-WAY)

For those Projects that had alignments that were determined to be at-grade and within existing railroad rights-of-way no impacted distance was determined except at stations. This is because it was assumed that the construction of the alignment and its components would fit within the existing right-of-way and not intrude into the adjacent properties. In addition, the entrances or store fronts of commercial properties next to railroad rights-of-way do not typically face the railroad rights-of-way. For the stations along these alignments, the impacted distance for surrounding properties extended to 400 feet, which is approximately the distance of one block from the intersection.

4.3.3 ASSUMPTIONS FOR UNDERGROUND ALIGNMENTS

For those Projects that had alignments that were determined to be underground, no impacted distance was determined except at stations. For the stations along these alignments, the impacted distance for surrounding properties extended to 400 feet, which is approximately the distance of one block from the intersection. These assumptions are detailed in **Table 4-2**.

Table 4-2 Impacted Distance by Alignment Type

Alignment Assumption	Impacted Distance	
	From Alignment	From Intersection (Station)
At-grade, Public ROW	200 feet from centerline	400 feet from intersection
At-grade, Railroad ROW	None	
Underground	None	

Source: AECOM

For information showing how alignments were described and the impacted distances used, refer to the table in **Appendix B**.

4.3.4 ORANGE LINE

The existing Orange Line Busway has been identified through Measure M for upgrade to light rail. It was not anticipated that significant construction-related burdens would be felt by small businesses along the existing, relatively wide right-of-way except at stations. For the stations along the alignment, the impacted distance for surrounding properties extended from 400 feet, which is approximately the distance of one block from the intersection.

4.3.5 4-PILLAR PROJECTS COMPARED TO OTHER MEASURE M PROJECTS

For the 4-Pillar Projects, additional alignments were evaluated using the methodology described above. For the Sepulveda Pass Project, four alignment alternatives were evaluated. For the Eastside Extension Phase 2 Project, two alignment alternatives were evaluated. For the Green Line Extension to Torrance Project, two alignment alternatives were evaluated. Finally, for the West Santa Ana Branch Project, two alignment alternatives were evaluated. For all other Measure M Projects, one alignment alternative, as provided by Metro, was evaluated using the methodology above.

4.4 IDENTIFYING REVENUE OF IMPACTED SMALL BUSINESSES

For the business locations, revenues and employment, JLL relied on ESRI's 2018 US Business Locations and Business Summary Data base. ESRI extracts its business data from a comprehensive list of businesses licensed from Infogroup. This business list contains data on more than 12.5 million US businesses including the business name, location, franchise code, industry classification code, number of employees, and sales volume that is current as of January 2018. Infogroup methodology includes web search, phone surveys, and crowdsourcing. For small businesses, the information is typically much harder to retrieve and verify so the data for revenues may be crowdsourced and estimated.

The range of potential number of small businesses per ESRI range from a low of 844 to a high of 2,414 with a range of potential revenues from $1.5B to $3.6B for the Four Pillar Alternatives. For the other Measure M Projects, the estimated number of small businesses is 3,171 to 3,611 with potential revenue of $3.8B to $4.4B. Detailed small business revenue profiles are presented in Section 5.0.

4.5 DETERMINING COSTS OF CURRENT PROGRAM

A review of the existing operational costs of the BSC for the Crenshaw/LAX Transit project was conducted in order to provide an Order-of-Magnitude estimate for the potential costs of additional BSC's for the 4-Pillars Project line alternatives and the other Measure M project lines. JLL reviewed the operational costs of, and the following data was projected:

- Average operating cost of a BSC per small business served during the initial pre-construction year;
- Average annual operating cost of a BSC per small business served per year during the actual construction period; and
- Average operating cost of a BSC per small business served during the post-construction period (one year following construction).

Currently, the BSC operations are outsourced to the consulting firm Del Richardson & Associates, Inc. (DRA) to provide professional services to support the initialization and ongoing implementation of the Metro Pilot Crenshaw/LAX Transit Project Business Solution Center. The original contract period and extension is from November 2014 to July 2021 with a total budget of $2,177,587. This budget includes the following:

- Direct Labor and Overhead
- Equipment and Materials
- Subcontractors
- General Administrative Costs
- Fees

This total operations budget is estimated to cover all costs through the completion of all construction and one year of post construction services. It was reported that there were an estimated 650 total businesses along the Crenshaw/Lax Transit project area and approximately 450 were small businesses with 25 or fewer employees.

JLL reviewed the BSC's Quarterly Status Report for the period from December 1, 2014 through the latest reported quarter ending on March 31, 2019. Over this 52-month time period, 351 small businesses have completed an intake form for assistance. This equates to approximately 81 small businesses assisted per year or 18% of the total number of small businesses.

Current BSC Program, December 1, 2014 – March 31, 2019 Time Period:

- 52 Months
- 650 Total Businesses
- 450 Small Businesses
- 351 Small Businesses assisted
- 81 of 450 (18%) Estimated Average Number of Small Businesses assisted annually

The following methodology was prepared to estimate average operating costs for each of the 4-Pillar Alternatives and other Measure M Projects. This methodology and process is a high-level, regional analysis. An actual cost estimate and study for each line should be conducted to estimate costs for each corridor to provide a refined estimate of targeted program and adjust for different markets and demographics.

Step 1 – Project potential operating costs per year from the existing BSC budget from November 2014 through end of contract estimated for July 2021. To estimate the operating costs, JLL made the following adjustments to the actual annual operating costs:

- Adjusted the prior year's operating costs for inflation to 2019 costs
- Prorated costs per month to adjust for different reporting years
  Removed actual rent costs of approximately $12,000 per year due to the working relationship with a local non-profit that provided DRA with office space. This business arrangement is not assumed for future BSC costs.

- Estimated potential new office lease costs based on market rents for Class B office space in the market area for the proposed 4-Pillars and other Measure M lines, as shown in Tables 4-3, 4-4 and 4-5. JLL projected FTE's for the 4-Pillars and other Measure M Projects utilizing the current ratio of small businesses per 1 FTE for every 173 small businesses. For office space requirements, JLL assumed 300 square feet of office space per FTE.

Table 4-3 Class B Office Lease Costs by Submarket (2019 Dollars)

Submarket	Corresponding Measure M Line	Class B Rent ($/SF)
Mid-Wilshire	Crenshaw Northern Extension	$3.32
LA North	East San Fernando Valley	$2.41
Western San Gabriel Valley	Gold Line East Side Corridor 1 – SR-60	$2.39
Western San Gabriel Valley	Gold Line East Side Corridor 1 – Washington Blvd	$2.39
Eastern San Gabriel Valley	Gold Line Foothill Extension	$2.33
LA Metro[1]	Green Line Extension to Norwalk	$3.08[2]
South Bay	Green Line Extension to Torrance	$2.57
Westside	Sepulveda Pass Phase 2/3	$4.26
LA North	Orange Line LRT Conversion	$2.41
Westside	Sepulveda Pass Phase 1	$4.26
Central Business District[3]	West Santa Ana Branch Segment 1	$3.23

Source: JLL

Note:

1. Line 6 is not in a known office market, thus the LA Metro average was applied.
2. Average Class B for Los Angeles Metro is $3.08.
3. The area south of the Downtown LA CBD (south of the 10 freeway) is not in a known office market, therefore the Central Business District average was applied.

Table 4-4 Projected Rental Costs – 4-Pillar Projects (2019 Dollars)

4-Pillar Projects	Alternative	FTE's[1]	Lease SF Required[2]	$/SF Rent	Estimated Rent Cost	# of Small Businesses	Avg Annual # of Small Businesses	Cost/Small Business
Sepulveda Pass Phase 1 Alternatives	HRT 1	1.33	399	$51	$20,000	230	41	$483
	HRT 2	2.31	692	$51	$35,000	399	72	$487
	HRT 3	5.32	1.595	$51	$82,000	919	166	$496
	MRT 1	5.32	1,595	$51	$82,000	919	166	$496
West Santa Ana Branch Segment 1 Alternatives	Alt E	2.81	844	$39	$33,000	487	88	$376
	Alt G	4.18	1.253	$39	$49,000	723	130	$377
Gold Line East Side Corridor 1 Alternatives	SR-60	0.54	163	$29	$5,000	94	17	$296
	Washington	3.09	926	$29	$27,000	534	96	$281
Green Line Extension to Torrance Alternatives	ROW Overcrossing	.019	57	$31	$2,000	33	6	$337
	Hawthorne to 190th Street	1.38	413	$31	$13,000	238	43	$303

Source: JLL

Note:
1. Full Time Equivalents
2. Assumes 300 square feet per 1 FTE

Table 4-5 Projected Rental Costs – Other Measure M Projects (2019 Dollars)

Measure M Project	FTE's[1]	Lease SF Required[2]	$/SF Rent	Estimated Rent Cost	# of Small Businesses	Avg Annual # of Small Businesses	Cost/Small Business
Gold Line Foothill Extension	1.34	402	$27.96	$11,000	232	42	$263
East San Fernando Valley	6.81	2,044	$28.92	$59,000	1,179	212	$278
Sepulveda Pass Phase 2/3	2.98	893	$51.12	$46,000	515	93	$496
Crenshaw Northern Extension	3.43	1,028	$39.84	$41,000	593	107	$384
Green Line Extension to Norwalk	1.12	336	$36.96	$12,000	194	35	$344
Gold Line East Side Corridor 2							
SR-60	0.54	163	$28.68	$5,000	94	17	$296
Washington Blvd	3.09	926	$28.68	$27,000	534	96	$281
Orange Line LRT Conversion	2.10	631	$28.92	$18,000	364	66	$275

Source: JLL

Note:
1. Full Time Equivalents
2. Assumes 300 square feet per 1 FTE

Step 2 – Estimate average cost per small business assisted for Pre-Construction year. JLL used the adjusted operations costs from November 2014 to November 2015 as the estimate for pre-construction. Although, construction for the Crenshaw/LAX had already started before the BSC opening, it is reasonable to assume that costs would be similar. This resulted in an average cost of $4,390 per small business assisted for pre-construction. In addition, JLL estimated potential rental costs of new office space based on the location of the future lines. The additional rental costs ranged from $263 to $496 per small business depending on the line's office market area.

Step 3 – Estimate average cost per small business assisted during construction period. JLL reviewed the adjusted budget for years 2015 through 2020 as the construction period. Total adjusted costs during operations totaled $1,734,000 or $346,000 per year. Per small business, this resulted in an average annual cost of $347,000 before additional rent costs. JLL estimated an average annual cost of $4,281 per small business assisted annually during the construction period. The additional office rental costs resulted in additional costs ranging from $263 to $496 annually per small business depending on the line market area.

Step 4 – Estimate average cost per business for a post-construction year. JLL used the adjusted budgeted operations costs of $212,000 for the period July 2020 through July 2021 as the estimate for an annual post-construction budget. This resulted in an annual cost of $2,616 per small business assisted for post-construction. The additional rental costs ranged from $263 to $496 per small business depending on the line's office market area.

These annual costs per small business were applied to our estimated percentage of annual small business clients served at the BSC at 18%. The costs per year was based upon the implementation schedule for the 4-Pillar and Measure M projects. The construction schedule is estimated to span from the year 2020 to 2057. One year of pre-construction costs and one year of post-construction costs was estimated for each line before and after the construction period, respectively. Note that the Gold Line Foothill Extension is one exception, since pre-construction activities have occurred by the time of this analysis. Therefore, the first year of costs modeled for this analysis begin in the year 2020, in order to capture a whole-year period.

Detailed BSC Operating Cost information is presented in Section 6.0.

4.6 IDENTIFYING DISADVANTAGED COMMUNITIES (PRIORITY POPULATIONS)

To identify Disadvantaged Communities, this analysis applied the California Environmental Protection Agency's (CalEPA) criteria for identifying Priority Population investment areas, due to the inclusion of disadvantaged and low-income considerations in its criteria. The Priority Population areas provide a method to identify the region's most vulnerable communities as described below.

The criteria of Priority Populations:

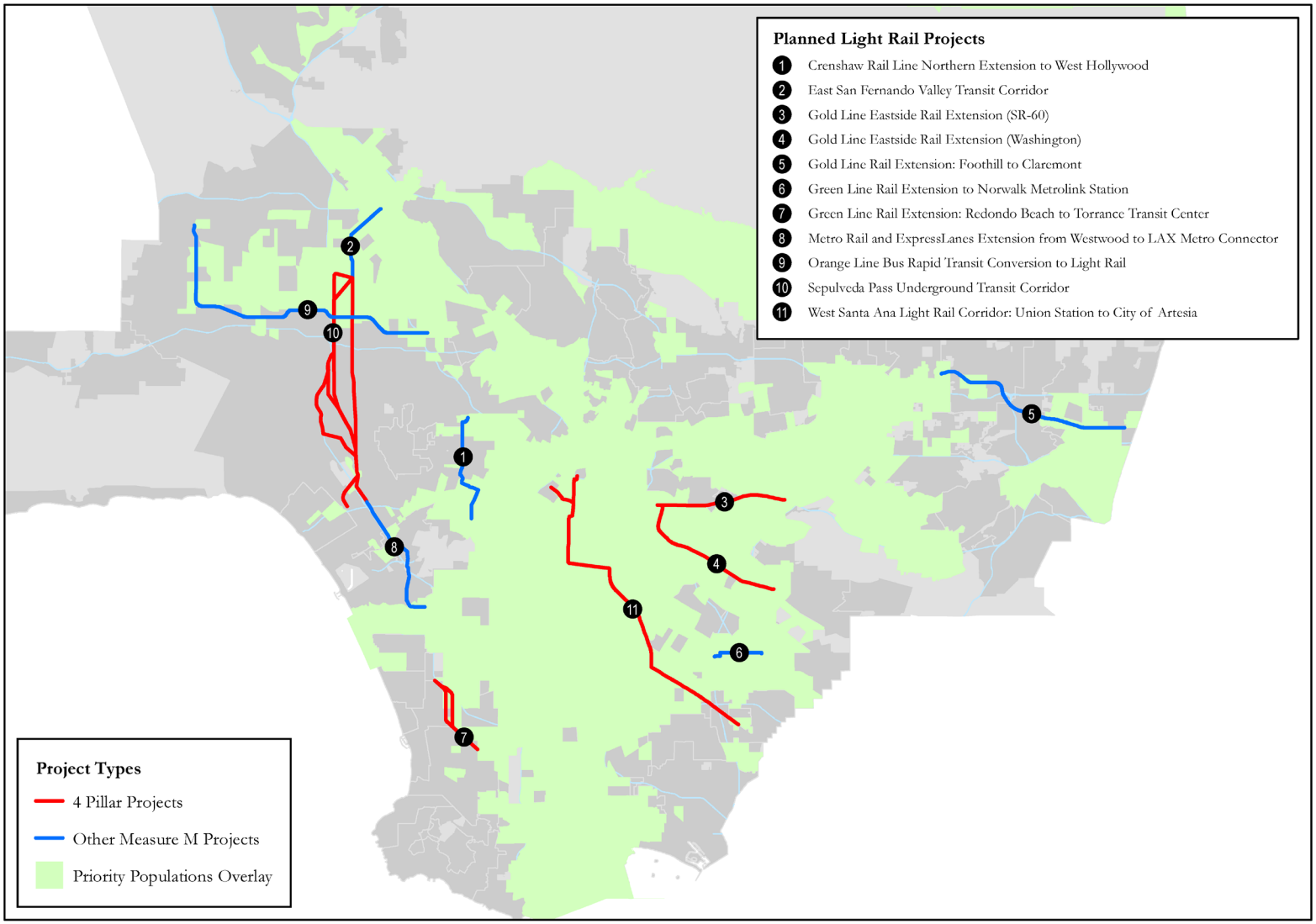
- Disadvantaged communities are identified by the California Environmental Protection Agency (CalEPA) as the top 25% most impacted census tracts in CalEnviroScreen 3.0 - a screening tool used to help identify communities disproportionally burdened by multiple sources of pollution and with population characteristics that make them more sensitive to pollution.

- Low-income communities and households are defined as the census tracts and households, respectively, that are either at or below 80 percent of the statewide median income, or at or below the threshold designated as low-income by the California Department of Housing and Community Development's (HCD) 2016 State Income Limits.

The defined criteria and census tracts are provided on the California Air Resources Board web page https://ww3.arb.ca.gov/cc/capandtrade/auctionproceeds/communityinvestments.htm.

Figure 4 presents a map of the Metro rail projects within the Los Angeles region with the CalEPA-defined Priority Populations. As shown, much of the Los Angeles region, including the central basin, San Fernando Valley and San Gabriel Valley meets the CalEPA definition of Disadvantaged Community.

Figure 4 Metro Measure M Light Rail Projects and Priority Populations



Metro Business Solution Center Analyses

Source: Chen Ryan Associates

4.7 IDENTIFYING EQUITY FOCUS AREAS

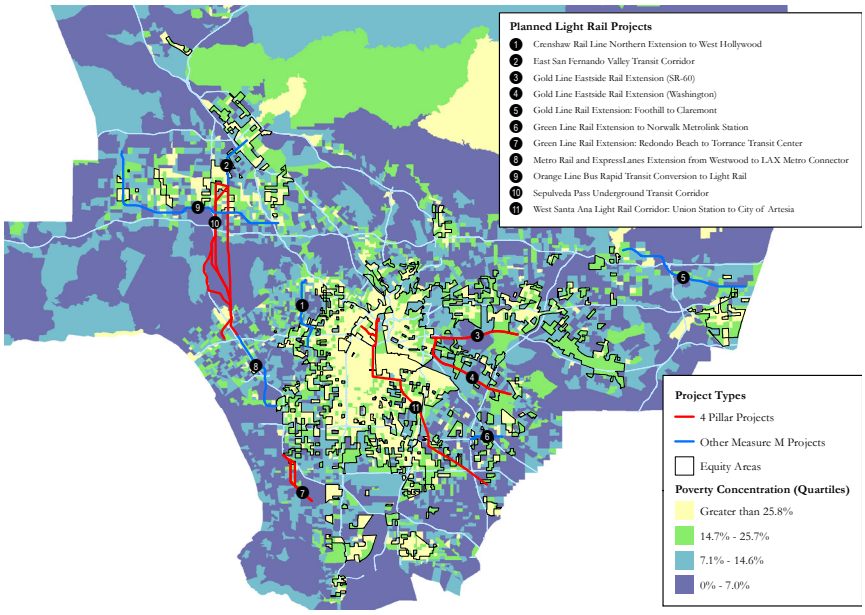
To determine Equity Focus areas, the factors set forth in Metro board Motion 18.1 at the June 27, 2019 meeting were applied. These factors include two demographic factors that have historically been determinants of disinvestment and disenfranchisement: household income and race/ethnicity. A third factor, households with low vehicle ownership was included in the measure.

The Equity Focus Areas measure was developed using US Census American Community Survey (ACS) income and demographic indicators. This measure uses criteria based on ranking indicators within Los Angeles County.

Figure 5 presents a map of the Metro rail projects within the Los Angeles region with the Equity Focus Areas. As shown, the Equity Focus Areas exist within many of the same county sub-regions as the Priority Populations. It was found that all small businesses located in Equity Focus Areas are also located in the Priority Populations coverage area.

The Equity Focus Areas are comprised of three components, all of which utilize recent American Community Survey data at the Census Block Group (CBG) level of geography. They include: Vehicles per Driving-Age (16 years or older) Population, Concentration of Non-White/ Hispanic Population, and Concentration of Poverty. Each of the indicators were divided into quartiles (four categories of equal population) based on their ranking of the indicator. All CBGs which ranked for all three indicators (weighting by population). CBGs in the highest two quartiles (above the median) for all three indicators were assigned to the Equity Focus Area. Criteria Include:

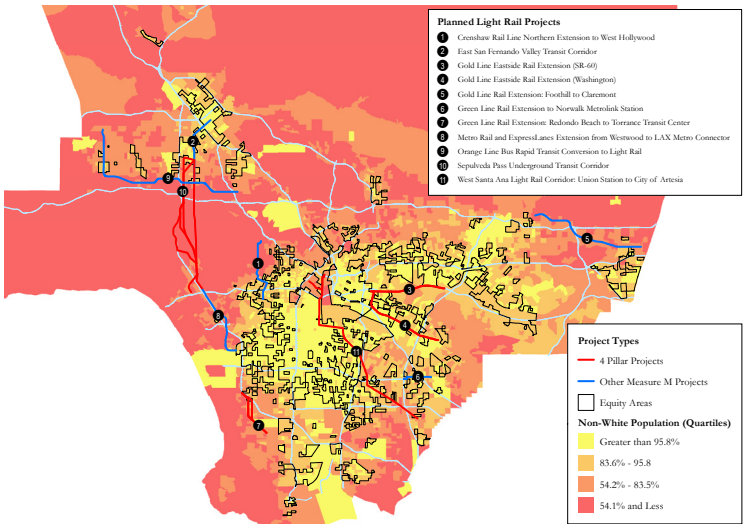
- **HOUSEHOLD INCOME CRITERIA**
  To determine this criterion, a Concentration of Poverty metric was developed by using the ACS's Poverty Status in the Past 12 months data (numerous disseminations of this data type are available) in order to estimate percentage of population in poverty within each CBG. Unlike other indicators of low-income populations such as annual median household income, poverty status controls for size of household. The above median capture for this indicator occurred within CBGs with 14.7% of the population in poverty or greater.



Household Income Criteria

- **RACE/ETHNICITY CRITERIA**

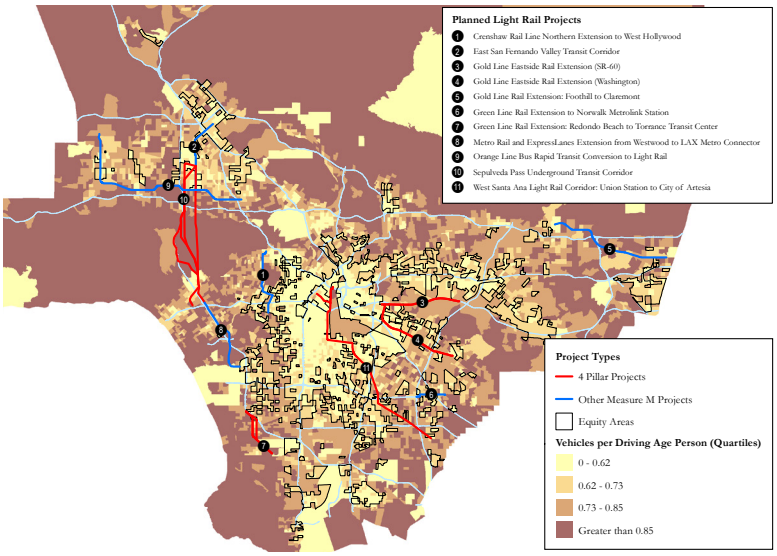
To determine this criterion, a concentration of Non-White/Non-Hispanic Population metric was developed by using the ACS's Hispanic or Latino Origin by Race dataset. White alone/not Hispanic was subtracted from the total population and the remainder was divided into the total population to determine the concentration percentage. The above median capture at the CBG level for this indicator was found to be 83.6% or greater Non-White/Hispanic.



Race/Ethnicity Criteria

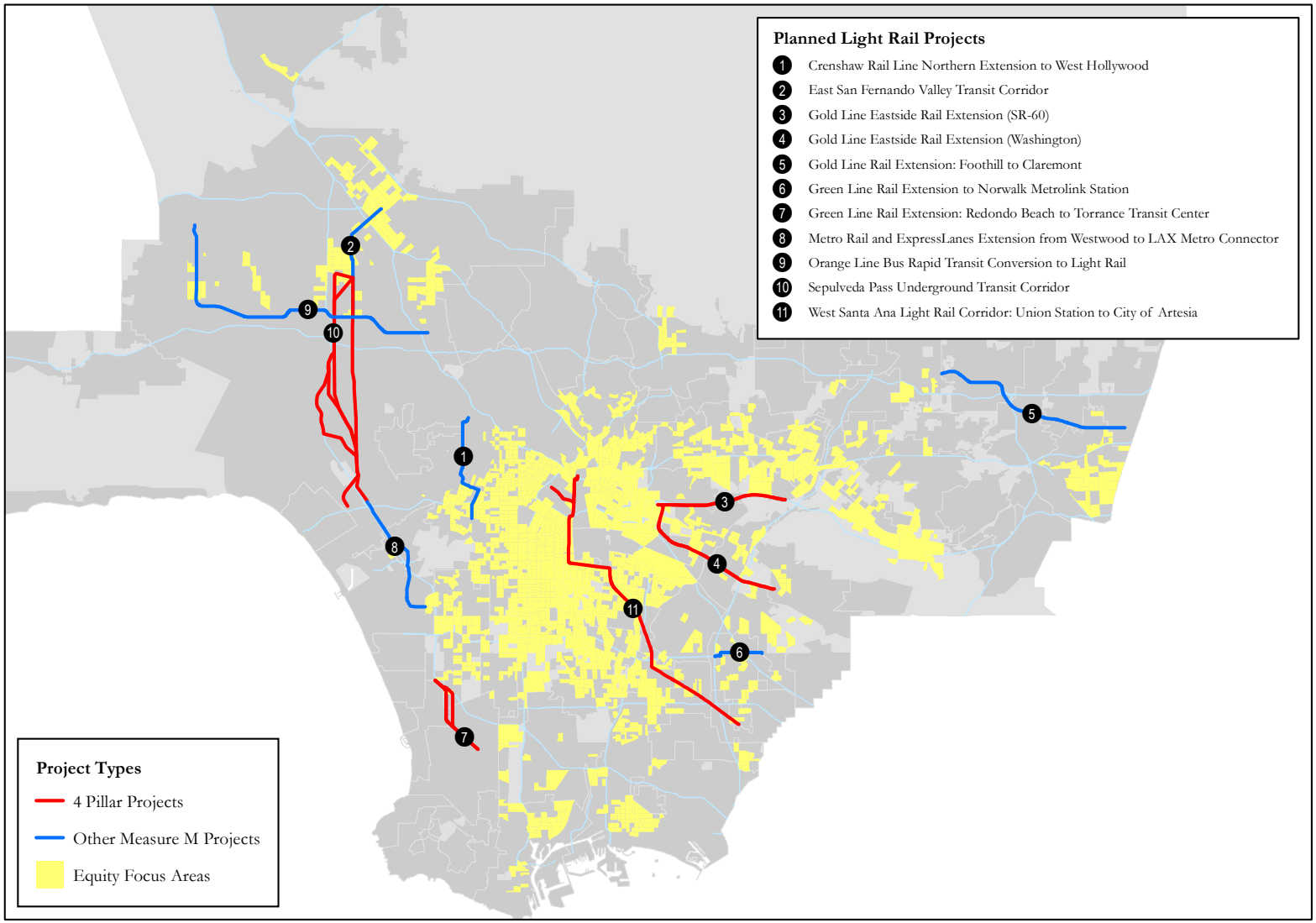
- **LOW-VEHICLE CRITERIA**

To determine this criterion, a Vehicles per Driving-Age (16 years or older) Population metric was developed by using the ACS's Vehicles Available data (multiple disseminations of this data type are available) to estimate total vehicles within each CBG. Age data from the ACS was used to estimate the driving age population of each CBG. The total vehicles were divided into driving age population to come up with the indicator. The above median capture by CBG for this indicator was found to be 0.62 or fewer vehicles per adult population.



Low-Vehicle Criteria

Figure 5 Metro Measure M Light Rail Projects and Equity Focus Areas



Metro Business Solution Center Analysis

Source: Chen Ryan Associates

5.0 Small Business Revenue Profiles

This section presents revenue profiles of small businesses that are expected to be impacted by Measure M light rail construction, which include small businesses along Measure M light rail construction corridors, those located along 4-Pillar Project corridors, and those along other Measure M Project corridors.

5.1 ALL SMALL BUSINESSES

Table 5-1 presents revenue profiles of all small business located along Measure M light rail construction corridors. Note that since several alignment alternatives exist for some Projects, a range of costs is provided. As shown, across all corridors, total annual revenue of small businesses ranges between approximately $5.3B and $8.0B. Revenue of businesses in Priority Populations ranged between approximately $3.9B and $6.1B. Revenue of businesses in Equity Focus Areas ranged between approximately $2B and $2.6B.

Note: This analysis found all affected small businesses in Equity Focus Areas exist within defined Priority Population areas.

Table 5-1 Revenue Profile of all Small Businesses along Measure M LRT Corridors (2019 Dollars in Thousands)

Revenue Summary[1]	Total Impacted Small Businesses[2]	Annual Revenue of Small Businesses	Small Businesses in Priority Populations[3]	Annual Revenue of Small Businesses Priority Populations[3]	Small Businesses in Equity Focus Areas[4]	Annual Revenue of Small Businesses in Equity Focus Areas[4]
4-Pillar Projects						
Low	844	$1,505,809	635	$1,286,622	321	$757,043
High	2,415	$3,580,181	1,791	$2,810,368	556	$1,113,134
Other Measure M LRT Projects						
Low	3,171	$3,814,009	2,123	$2,682,404	973	$1,214,560
High	3,611	$4,435,142	2,568	$3,309,965	1,162	$1,463,507
Total Measure M LRT Projects						
Low	**4,015**	**$5,319,818**	**2,758**	**$3,969,026**	**1,294**	**$1,971,603**
High	**6,025**	**$8,010,045**	**4,359**	**$6,120,333**	**1,718**	**$2,596,641**

Source: Chen Ryan Associates

Note:

1. Low or high figures based on combination of lowest or highest Alternatives within each corridor (based on number of small businesses).
2. Small businesses are defined as 25 or fewer employees.
3. Priority Populations include CalEPA defined disadvantaged communities, low-income communities, and low-income households.
4. 4. Equity Focus areas are based on Metro defined race/ethnicity, low-income and low vehicle ownership. All small businesses in Equity Focus Areas also exist within Priority Populations.

5.2 4-PILLAR PROJECTS

Table 5-2 presents revenue profiles of all small business located along 4-Pillar Measure M light rail construction corridors. A more detailed presentation of the number of impacted small businesses, annual revenue, and number and revenue of small businesses in Priority Population and Equity Focus Areas, is provided for each alignment alternative of each 4-Pillar Project.

Table 5-2 Revenue Profile of 4-Pillar Projects (2019 Dollars in Thousands)

4-Pillar Projects	Total Impacted Small Businesses[1]	Annual Revenue of Small Businesses[1]	Small Businesses in Priority Populations[2]	Annual Revenue of Small Businesses in Priority Populations[2]	Small Businesses in Equity Focus Areas[3]	Annual Revenue of Small Businesses in Equity Focus Areas[3]
Sepulveda Pass Phase 1 Alternatives						
HRT 1	230	$219,942	73	$58,269	12	$21,326
HRT 2	399	$427,658	78	$61,346	6	$11,861
HRT 3	919	$1,147,963	494	$634,611	48	$120,811
MRT 1	919	$1,147,963	494	$634,611	48	$120,811
West Santa Ana Branch Segment 1 Alternatives						
Alternative E – Union Station Underground	487	$1,118,845	459	$1,094,084	280	$720,368
Alternative G – Down-town Core Underground	723	$1,366,304	547	$1,158,951	278	$718,997
Gold Line East Side Corridor 1 Alternatives						
SR-60	94	$106,870	88	$99,314	28	$14,630
Washington Blvd	534	$728,003	533	$726,875	217	$263,577
Green Line Extension to Torrance Alternatives						
ROW Overcrossing	33	$60,152	15	$34,955	11	$28,378
Hawthorne to 190th Street	238	$332,633	217	$289,931	9	$11,555

Source: Chen Ryan Associates

Note:

1. Small businesses are defined as 25 or fewer employees.
2. Priority Populations include CalEPA defined disadvantaged communities, low-income communities, and low-income households.
3. Equity Focus areas are based on Metro defined race/ethnicity, low-income and low vehicle ownership. All small businesses in Equity Focus Areas also exist within Priority Populations.

5.3 OTHER MEASURE M LIGHT RAIL PROJECTS

Table 5-3 presents revenue profiles of all small business located along other Measure M light rail construction corridors. A more detailed presentation of the number of impacted small businesses, annual revenue, and number and revenue of small businesses in Priority Population and Equity Focus Areas, is provided for each other Measure M Project.

As in previous sections of this report, note that since it is unknown at this time which Gold Line East Side Extension Phase 2 alignment will represent a 4-Pillar Project, both alignments have been presented in this table, in addition to **Table 5-2**.

Table 5-3 Revenue Profile of Other Measure M LRT Projects (2019 Dollars in Thousands)

Other Measure M LRT Projects	Total Impacted Small Businesses[1]	Annual Revenue of Small Businesses[1]	Small Businesses in Priority Populations[2]	Annual Revenue of Small Businesses in Priority Populations[2]	Small Businesses in Equity Focus Areas[3]	Annual Revenue of Small Businesses in Equity Focus Areas[3]
Gold Line Foothill Extension	232	$221,263	111	$124,910	17	$18,775
East San Fernando Valley	1,179	$1,439,975	1,179	$1,439,975	728	$953,261
Sepulveda Pass Phase 2/3	515	$611,731	39	$47,956	1	$237
Crenshaw Northern Extension	593	$728,084	236	$347,745	78	$98,779
Green Line Extension to Norwalk	194	$230,365	194	$230,365	47	$35,622
Gold Line East Side Corridor 2						
SR-60	94	$106,870	88	$99,314	28	$14,630
Washington Blvd	534	$728,003	533	$726,875	217	$263,577
Orange Line LRT Conversion	364	$475,721	276	$392,139	74	$93,256

Source: Chen Ryan Associates

Note:

1. Small businesses are defined as 25 or fewer employees.
2. Priority Populations include CalEPA defined disadvantaged communities, low-income communities, and low-income households.
3. Equity Focus areas are based on Metro defined race/ethnicity, low-income and low vehicle ownership. All small businesses in Equity Focus Areas also exist within Priority Populations.

6.0 Projected Costs of Business Solution Center Program

This chapter presents a summary of the projected annual costs to expand Metro's BSC program. Costs are provided for all corridors in Chapter 6.1, followed by a more detailed breakdown of BSC operating costs pertaining to 4-Pillar Projects in Chapter 6.2, and BSC operating costs pertaining to other Measure M light rail Projects in Chapter 6.3.

6.1 ESTIMATED FIVE-YEAR OPERATING COSTS

Table 6-1 summarizes anticipated yearly costs for operating the BSC for the first five-year period of 2020-2024. As shown, annual operating costs are estimated to be $1,185,087 for the year 2020. Five-year operating costs are estimated to range between $8,309,821 and $10,303,031.

Table 6-1 Estimated 5-Year BSC Operating Costs (2020-2024) (2019 Dollars)

Cost for All Lines by Year (2020-2024)[1]	2020	2021	2022	2023	2024	Summary (2020-2024)
4 Pillar Projects						
Low	-	$417,567	$408,332	$610,097	$605,594	$2,041,891
High	-	$620,365	$606,210	$1,413,269	$1,395,257	$4,035,101
Other Measure M LRT Projects[2]						
Low	$1,185,087	$1,157,462	$1,157,462	$1,157,462	$1,610,457	$6,267,930
High	$1,185,087	$1,157,462	$1,157,462	$1,157,462	$1,610,457	$6,267,930
Total Measure M LRT Projects						
Low	$1,185,087	$1,575,329	$1,565,795	$1,767,559	$2,216,051	$8,309,821
High	$1,185,087	$1,777,827	$1,763,672	$2,570,731	$3,005,714	$10,303,031

Source: Chen Ryan Associates

Note:

1. Low or high figures based on combination of lowest or highest Alternatives within each corridor (based on number of small businesses).
2. 2. During the 5-year period of 2020-2024, only one alternative exists.

6.2 BSC OPERATING COSTS FOR ALL MEASURE M LIGHT RAIL CORRIDORS

Table 6-2 presents an overview of the projected costs for operating the BSC for all Measure M light rail Projects, grouped by 5-year construction periods. These periods begin in in 2020, when the earliest Measure M light rail Project is anticipated to begin construction, and ends in 2059, one year after the final Measure M light rail Project is anticipated to be built. The additional year was given to capture post-construction costs for Projects that extend through 2058, while residual pre-construction costs for Projects beginning construction in the year 2020 are included in the 2020-2024 cost summary due to the timing of this analysis.

Note that many projects currently carry multiple alternative alignments, as presented in greater detail in in Chapter 2.0. This yields a high and low range in terms of BSC operating costs due to differences in small businesses potentially impacted. As shown, projected BSC cumulative operating costs range between $28,500,978 and $39,621,138 (in 2019 dollars) for all Measure M Projects between 2020 and 2058.

Table 6-2 Summary BSC Operating Costs for All Measure M Projects (2019 Dollars)

Cost for All Lines by Year[1]	2020-2024	2025-2029	2030-2034	2035-2039	2040-2044	2045-2049	2050-2054	2055-2058	Summary Costs – All Years
4-Pillar Projects (2021-2036)									
Low	$2,041,891	$2,685,707	$421,208	$126,724	-	-	-	-	$5,286,530
High	$4,035,101	$6,592,297	$2,524,182	$719,901	-	-	-	-	$13,871,481
Other Measure M LRT Projects (2020-2058)									
Low	$6,267,930	$6,041,981	$2,060,235	-	$2,501,745	$2,625,789	$2,321,916	$1,394,852	$23,214,448
High	$6,267,930	$6,041,981	$2,060,235	-	$2,501,745	$2,625,789	$3,418,071	$2,844,906	$25,760,657
Total Measure M LRT Projects (2020-2058)									
Low	**$8,309,821**	**$8,727,688**	**$2,492,443**	**$126,724**	**$2,501,745**	**$2,625,789**	**$2,321,916**	**$1,394,852**	**$28,500,978**
High	**$10,303,031**	**$12,634,278**	**$4,584,418**	**$719,901**	**$2,501,745**	**$2,625,789**	**$3,418,071**	**$2,844,906**	**$39,621,138**
Average Cost Per Year									
Low	**$1,661,964**	**$1,745,537**	**$498,488**	**$25,344**	**$500,349**	**$525,157**	**$464,383**	**$278,970**	
High	**$2,060,606**	**$2,526,855**	**$916,883**	**$143,980**	**$500,349**	**$525,157**	**$683,614**	**$568,981**	

Source: Chen Ryan Associates

Note:

1. Low or high figures based on combination of lowest or highest Alternatives within each corridor (based on number of small businesses).

6.3 BSC OPERATING COSTS FOR 4-PILLAR PROJECTS

Projected annual costs for running the BSC for 4-Pillar Measure M Projects are presented in **Table 6-3**, grouped by 5-year construction periods from 2021 and 2036, at which time each Project is scheduled to have completed its post-construction phase. Note that each of the 4-Pillar Projects carry multiple alignment alternatives at this time. Therefore, each was analyzed providing a high and low estimate for operating the BSC among 4-Pillar Projects.

As shown, projected BSC operating costs are between $5,286,530 and $13,871,481 to operate across all years of construction for 4-Pillar Projects.

Table 6-4 presents the per-line costs of operating the BSC among 4-Pillar projects for the years spanning 2020-2024.

Table 6-3 Summary of BSC Operating Costs for 4-Pillar Projects (2019 Dollars)

Cost for Each Line[1]	2020-2024	2025-2029	2030-2034	2035-2039	Summary Costs – All Years
Sepulveda Pass Phase 1					
HRT 1	$399,026	$522,863	-	-	$921,890
HRT 2	$692,224	$907,054	-	-	$1,599,278
HRT 3	$1,596,106	$2,091,453	-	-	$3,687,558
MRT 1	$1,596,106	$2,091,453	-	-	$3,687,558
West Santa Ana Branch Segment 1 Alternatives					
Alternative E – Union Station Underground	$1,642,864	$1,895,733	-	-	$3,538,597
Alternative G – Downtown Core Underground	$2,438,996	$2,814,404	-	-	$5,253,400
Gold Line East Side Corridor 1 Alternatives					
SR-60	-	$156,733	$387,230	$126,724	$678,687
Washington Blvd	-	$890,374	$2,199,799	$719,901	$3,810,073
Green Line Extension to Torrance Alternatives					
ROW Overcrossing	-	$110,379	$44,978	-	$155,356
Hawthorne to 190th Street	-	$796,066	$324,384	-	$1,120,450
Summary of Costs					
Low	**$2,041,891**	**$2,685,707**	**$432,208**	**$126,724**	**$5,286,530**
High	**$4,035,101**	**$6,592,297**	**$2,524,182**	**$719,901**	**$13,871,481**
Average Cost Per Year					
Low	**$408,378**	**$537,141**	**$86,441**	**$25,344**	
High	**$807,020**	**$1,318,459**	**$504,836**	**$143,980**	

Source: Chen Ryan Associates

Note:

1. Low or high figures based on combination of lowest or highest Alternatives within each corridor (based on number of small businesses).

Table 6-4 Estimated 5- Year BSC Operating Costs for 4-Pillar Projects (2020-2024) (2019 Dollars)

Cost for Each Line[1]	Construction Start (FY)	Completion/ Opening (FY)	2020	2021	2022	2023	2024	Summary Costs
Sepulveda Pass Phase 1								
HRT 1	2024	2026	-	-	-	$201,765	$197,262	$399,026
HRT 2	2024	2026	-	-	-	$350,018	$342,206	$692,224
HRT 3	2024	2026	-	-	-	$807,059	$789,047	$1,596,106
MRT 1	2024	2026	-	-	-	$807,059	$789,047	$1,596,106
West Santa Ana Branch Segment 1 Alternatives								
Alternative E – Union Station Underground	2022	2028	-	$417,867	$408,332	$408,332	$408,332	$1,642,864
Alternative G – Downtown Core Underground	2022	2028	-	$620,365	$606,210	$606,210	$606,210	$2,438,996
Gold Line East Side Corridor 1 Alternatives								
SR-60	2029	2035	-	-	-	-	-	-
Washington Blvd	2029	2035	-	-	-	-	-	-
Green Line Extension to Torrance Alternatives								
ROW Overcrossing	2026	2030	-	-	-	-	-	-
Hawthorne to 190th Street	2026	2030	-	-	-	-	-	-
Summary of Costs								
Low			**-**	**$417,867**	**$408,332**	**$610,097**	**$605,549**	**$2,041,891**
High			**-**	**$620,365**	**$606,210**	**$1,413,269**	**$1,395,269**	**$4,035,101**

Source: Chen Ryan Associates

Note:

1. Low or high figures based on combination of lowest or highest Alternatives within each corridor (based on number of small businesses).

6.4 BSC OPERATING COSTS FOR OTHER MEASURE M LIGHT RAIL PROJECTS

Projected annual costs for running the BSC in other Measure M Projects are presented in Table 6-5, grouped by 5-year construction periods from 2020-2059, at which point all other Measure M light rail Projects are scheduled to have cleared their post-construction phase. Note that the Gold Line East Side Corridor may include either the SR-60 or Washington Boulevard alignment as a 4-Pillar Project. Thus, the unchosen corridor, when the selection occurs, will be counted among other Measure M light rail Projects. In anticipation of this, both alignments were included, resulting in a high and low estimate for other Measure M Project BSC operating costs.

As shown, projected BSC operating costs are between $23,214,448 and $25,760,657 to operate across all years of construction for other Measure M Projects.

Table 6-6 presents the per-line costs of operating the BSC among other Measure M projects for the years spanning 2020-2024.

Table 6-5 Summary BSC Operating Costs for Other Measure M Projects (2019 Dollars)

Cost for Each Line[1]	2020-2024	2025-2029	2030-2034	2035-2039	2040-2044	2045-2049	2050-2054	2055-2058	Summary Costs – All Years
Gold Line Foothill Extension	$953,558	$310,085	-	-	-	-	-	-	$1,263,643
East San Fernando Valley	$4,861,377	$3,517,336	-	-	-	-	-	-	$8,378,713
Sepulveda Pass Phase 2/3	$452,995	$2,214,561	$2,060,235	-	-	-	-	-	$4,727,791
Crenshaw Northern Extension	-	-	-	-	$2,501,745	$1,814,409	-	-	$4,316,153
Green Line Extension to Norwalk	-	-	-	-	-	$811,380	$587,931	-	$1,399,312
Gold Line East Side Corridor 2									
SR-60	-	-	-	-	-	-	$234,179	$309,784	$543,963
Washington Blvd	-	-	-	-	-	-	$1,330,334	$1,759,838	$3,090,173
Orange Line LRT Conversion	-	-	-	-	-	-	$1,499,806	$1,085,067	$2,584,873
Summary of Costs									
Low	**$6,267,930**	**$6,041,981**	**$2,060,235**	**-**	**$2,501,745**	**$2,625,789**	**$2,321,916**	**$1,394,852**	**$23,214,448**
High	**$6,267,930**	**$6,041,981**	**$2,060,235**	**-**	**$2,501,745**	**$2,625,789**	**$3,418,071**	**$2,844,906**	**$25,760,657**
Average Cost Per Year									
Low	**$1,253,586.00**	**$1,208,396.20**	**$412,047.00**	**-**	**$500,349.00**	**$525,157.80**	**$464,383.20**	**$278,970.40**	
High	**$1,253,586.00**	**$1,208,396.20**	**$412,047.00**	**-**	**$500,349.00**	**$525,157.80**	**$683,614.20**	**$568,981.20**	

Source: Chen Ryan Associates

Note:

1. Low or high figures based on combination of lowest or highest Alternatives within each corridor (based on number of small businesses).

Table 6-6 Estimated 5- Year BSC Operating Costs for Other Measure M Projects (2020-2024) (2019 Dollars)

Cost for Each Line[1]	Construction Start (FY)	Completion/ Opening (FY)	2020	2021	2022	2023	2024	Summary Costs
Gold Line Foothill Extension	2020	2025	$194,345	$189,803	$189,803	$189,803	$189,803	$953,558
East San Fernando Valley	2021	2027	$990,742	$967,659	$967,659	$967,659	$967,659	$4,861,377
Sepulveda Pass Phase 2/3	2024	2057	-	-	-	-	$452,995	$452,995
Crenshaw Northern Extension	2041	2047	-	-	-	-	-	-
Green Line Extension to Norwalk	2046	2052	-	-	-	-	-	-
Gold Line East Side Corridor 2								
SR-60	2053	2057	-	-	-	-	-	-
Washington Blvd	2053	2057	-	-	-	-	-	-
Orange Line LRT Conversion	2051	2057	-	-	-	-	-	-
Summary of Costs								
Low			**$1,185,087**	**$1,157,462**	**$1,157,462**	**$1,157,462**	**$1,610,457**	**$6,267,930**
High			**$1,185,087**	**$1,157,462**	**$1,157,462**	**$1,157,462**	**$1,610,457**	**$6,267,930**

Source: Chen Ryan Associates

Note:

1. Low or high figures based on combination of lowest or highest Alternatives within each corridor (based on number of small businesses).

7.0 Potential Business Solution Center Services

The BSC was established in accordance with a thorough review of the potential services that would be best utilized for addressing potential impacts of construction of the Crenshaw/LAX light rail Project, with a particular focus paid to small businesses located between 48th and 60th Streets along Crenshaw Boulevard. While the chosen services reflect a well-researched implementation based upon the best ability to benefit along the corridor, an expansion of the BSC to all Measure M light rail corridors may also carry an expansion of services in which it may offer impacted businesses.

A particular consideration for transit builders is a project's tendency to displace local businesses. A 2017 study published in the Journal of Transportation and Land Use (Open for Business? Effects of Los Angeles Metro Rail Construction on Adjacent Businesses), "…station construction appears to increase the risk of business failure by 46% for businesses within 400 meters of a station, though station location always appears to be somewhat riskier than loca¬tion away from a station."

Several additional opportunities for services are discussed below, based upon best-practices research of other construction mitigation or business improvement programs from sister agencies.

7.1 BUSINESS SHUTTLES

The Hillcrest Lunch Loop in San Diego, CA is operated as a free community service, fully financed by the Uptown Community Parking District, in order to encourage patronization of local businesses that some may find otherwise difficult to access due to limited parking opportunities. In Portland, Oregon, TriMet sponsored special media and social events along light rail construction corridors to encourage people to visit the local businesses. TriMet also sponsored a "lunch bus" program to ferry city officials and transportation workers to Interstate Avenue restaurants that were affected by the construction.

7.2 BUSINESS OPERATIONS SUPPORT

Particularly within the pre-construction phase of a light rail line, helping businesses improve their day-to-day efficiency better positions them to weather an anticipated slowdown in customer traffic. Helping businesses identify ways to strengthen their operations by cutting unnecessary inventory, expanding sales channels, developing customer-oriented communications strategies, sharing costs, or maintaining more accurate books, proved to be a key success during construction of the Minneapolis Green Line.

7.3 DISSEMINATION OF PUBLIC INFORMATION

A future BSC may be able to extend the communications services of such as through the regular dissemination of information regarding the status of construction and access along affected areas. Such considerations may include notification of the local community through media and signage as to which sidewalks may be closed, which driveways may be obstructed, parking impacts, or temporary transit stop relocations.

7.4 CUSTOMER INCENTIVES

During construction of Minneapolis' Green Line, the Midway Area Chamber of Commerce, an organization representing commercial districts, issued a coupon booklet that offered discounts to many of its member businesses. It also organized a monthly Lunch on the Avenue event held at restaurants that had active construction in front of them. These events brought dozens of new customers to businesses that were susceptible to revenue loss.

In Salt Lake City, Utah, Trax light rail construction coincided with the allocation of $300,000 to implement business impact mitigation programs, using the funds in four ways:

1. 4th South Bucks. The 4th South Bucks Program, named after the alignment along 400 South, distributed over $75,000 in coupons (each worth $1) that could be redeemed at businesses along 400 South. The program was believed to be an acceptable way to randomly disseminate the coupons through a radio station campaign. It was anticipated that business patrons would spend additional money beyond the 4th South Bucks.

2. "Go Fourth" Radio Advertisement Campaign. The "Go Fourth" radio advertising campaign was chosen because it was determined to be an effective means of reaching the intended customer demographics of the businesses along the project alignment. The contractor's public information specialist assisted a subcommittee in developing a radio campaign. A set of criteria was used to evaluate all of the businesses along the corridor (preference was given to independent businesses) to create a priority list for radio spots. Each month, six businesses were featured on the radio. In addition, a remote broadcast featured the six chosen businesses on the 4th of each month. The radio remote broadcasts would feature prizes including 4th South Bucks.

3. Catalyst Advertisements. Sixteen businesses were given advertisement space on the back cover of Catalyst Magazine each month. Catalyst Magazine, a local publication, was chosen because its reader demographic closely matched the radio station's demographics.

4. It was recognized that media coverage is often perceived as more credible than advertisements. In coordination with the contractor's public information staff, media events distributed the message that businesses were accessible during construction. Accessibility was emphasized in several media campaigns, including the "First Rail Weld" and the "Half-time Celebration."

7.5 PARKING LOT ALTERATIONS OR SHARING

While encouraging mode shift to transit remains Metro's goal, vehicular access impacts business patronage, particularly during construction when transit may be unavailable or temporarily relocated. It may be desirable to explore working with businesses with large private parking lots to temporarily allow shared use for patrons of neighboring businesses, or allow, where able, accommodation of parking on unused or vacant parcels, to partially mitigate

for parking loss during construction, or in the immediate aftermath as new travel patterns are solidified.

7.6 FORGIVABLE LOANS

In the twin cities of Minneapolis and St. Paul, Minnesota, the central corridor is home to a diverse number of businesses and local residents. The Green Line, also called the Central Corridor, is 11 miles long and opened in 2014. One of the largest programs created to support businesses was the $4 million Ready for Rail Business Support Fund. It was established in January 2011 through a Joint Powers Agreement between the Met Council and the Housing and Redevelopment Authority of the City of St. Paul (HRA).

The $4 million fund was originally envisioned as a low-interest loan program, but quickly became a forgivable loan once it became clear that a repayable loan would not meet the needs of businesses that were facing significant revenue losses. Up to $20,000 was available for businesses along the corridor that had gross sales of no more than $2 million and could show a loss in sales due to the light rail construction. The loan was forgiven at a rate of 20 percent each year over a five-year period.

7.7 WORKSHOPS AND SOCIAL MEDIA

In Portland, Oregon, TriMet staff used a wide range of strategies to distribute construction information to stakeholders along light rail construction corridors. Business owners were invited to attend workshops teaching business management skills and were paired with personal mentors who were skilled in giving business strategy advice to help businesses throughout the construction process. Staff attended meetings and gave presentations at a wide range of meetings including the Interstate MAX Advisory Committee, Interstate Corridor Urban Renewal Area Committee, various business associations, N/NE Portland Coalition meetings, and local neighborhood association meetings. TriMet's Community Affairs department also distributed 12 seasonal newsletters to a mailing list of 7,500 residents throughout North Portland. TriMet's web site included an extensive section pertaining to Interstate MAX construction and community outreach, including an information section in Spanish.

TriMet sponsored special media and social events along the corridor to encourage people to visit the local businesses. Additionally, there was a 24-hour construction hotline with a live operator at all times. The operator had the ability to page community relations staff for after-hours issues, and over two dozen construction staff were available on a 24-hour basis.

7.8 FAÇADE OR SIGNAGE IMPROVEMENTS

Based upon an interview held with Metro's Business Solution Center staff on August 27, 2019, the BSC stated a desire to offer potential façade or business signage-related improvements. Prior precedent was found to exist during construction of the Central Corridor in the Minneapolis area, whereby $150,000 was spent contributing to façade upgrades of local businesses along the right-of-way. Funding was contributed to the program through the University Avenue Business Preparation Collaborative (U7).

7.9 ADDITIONAL SERVICES

Based upon an interview held with Metro's Business Solution Center staff on August 27, 2019, the following were also identified as considerations held by the BSC as potential future services, based upon observations of business need while executing the Pilot BSC:

- Providing services, including those services that are currently provided, for a longer timeframe following the end of construction and introduction of revenue service to ensure lingering impacts to businesses are also addressed,
- Grant funding allowing businesses to acquire software and/or hardware that complements existing training services provided by the BSC, such as business management, bookkeeping, or budgeting software.

Access to capital, which would provide businesses assistance to purchase their property in advance of the opening of the transit in order to prevent being priced out with an increase in rent. The BSC currently helps with grant applications, but it was expressed that access to capital could provide greater help. Metro's own research into impacts along the Metro Red Line identified a desire to track rent vs. own ratios, indicating "…the first step for community advocates and transit agencies concerned with business displacement would be to begin tracking not only revenue loss, as the Metropolitan Council did in Minneapolis-St. Paul, but also whether the businesses rent and own. Much like with residential gentrification, benefits may accrue to those who own, while those who rent are displaced."

The full documents referenced in this chapter are provided as **Appendix C**.

8.0 Conclusions & Next Steps

This high-level analysis provides an overall cost to expand the Pilot BSC program to Measure M light rail corridors. Cost estimates, and thus service assumptions were based upon the current program. Thus, a more detailed cost estimate for each corridor, that includes potentially expanded services targeted to each corridor, would be a worthwhile analysis to undertake prior to project procurement and implementation.

CRENSHAW/LAX
TRANSIT PROJECT
BUSINESS SOLUTION CENTER

Metro







Supporting local business as we build.

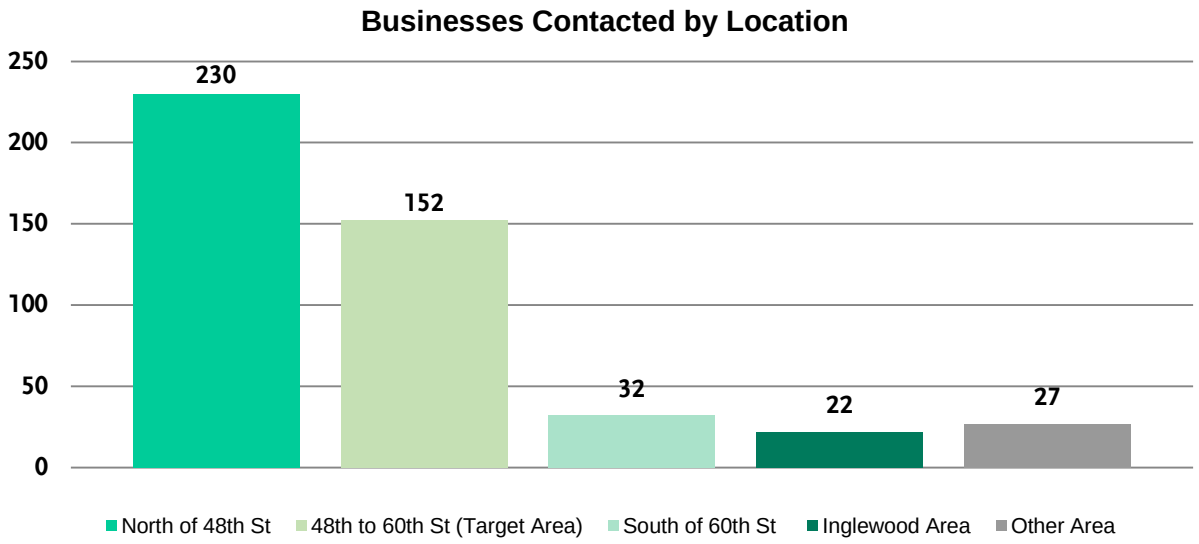
Metro Pilot Business Solution Center Expansion Analysis

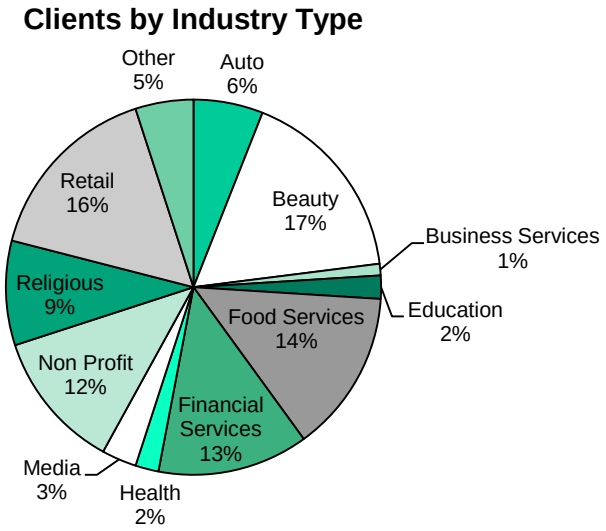
Metro

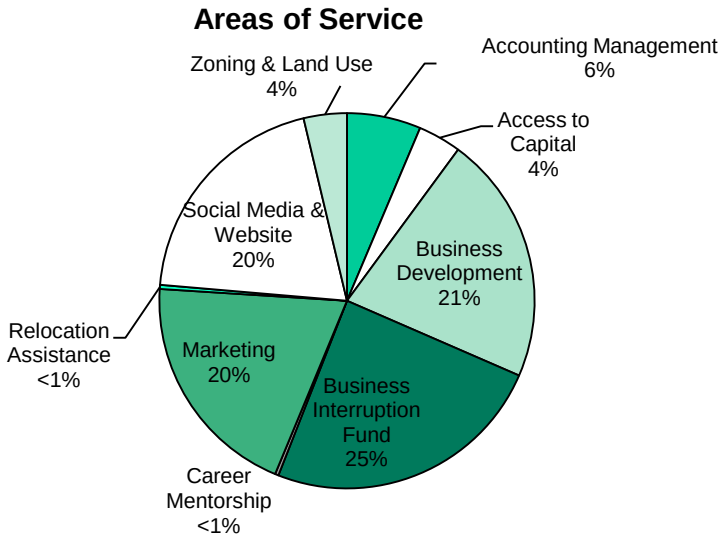
Item #39
Construction Committee
October 17, 2019

Measurable Outcomes

Since the launch of the Pilot Crenshaw/LAX BSC in late 2014, small business clients have represented a diverse group of small “mom and pop” businesses.







Metro

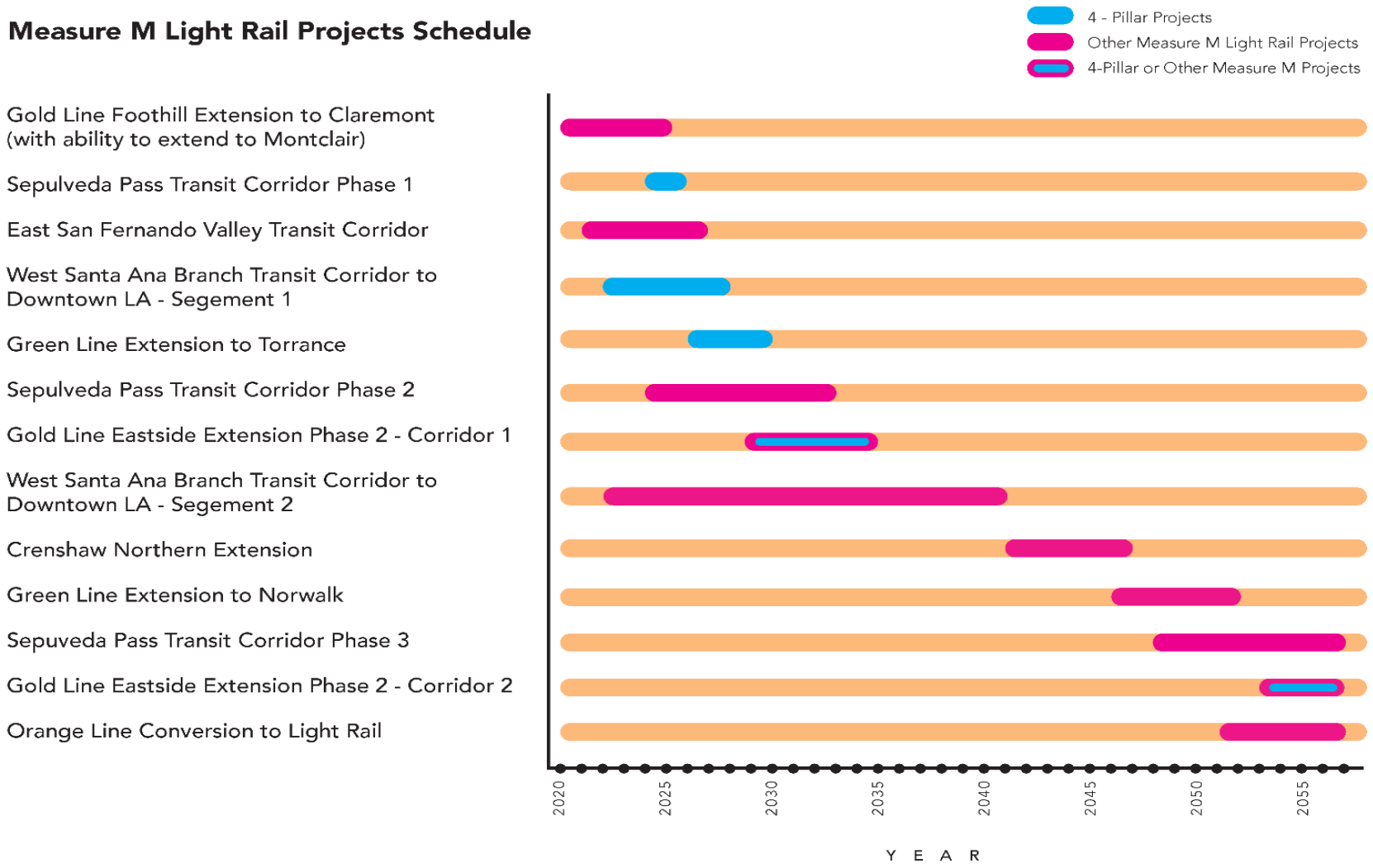


"Through the Metro BSC, I was able to attend informative workshops and received direct assistance in website development, mobile and search engine optimization, accounting and QuickBooks. The BSC staff has made a great difference toward helping me sustain and grow Ride On! Bike Shop/Co-op."

Ade E. Neff, Owner
Ride On! Bike Shop/Co-op

Metro

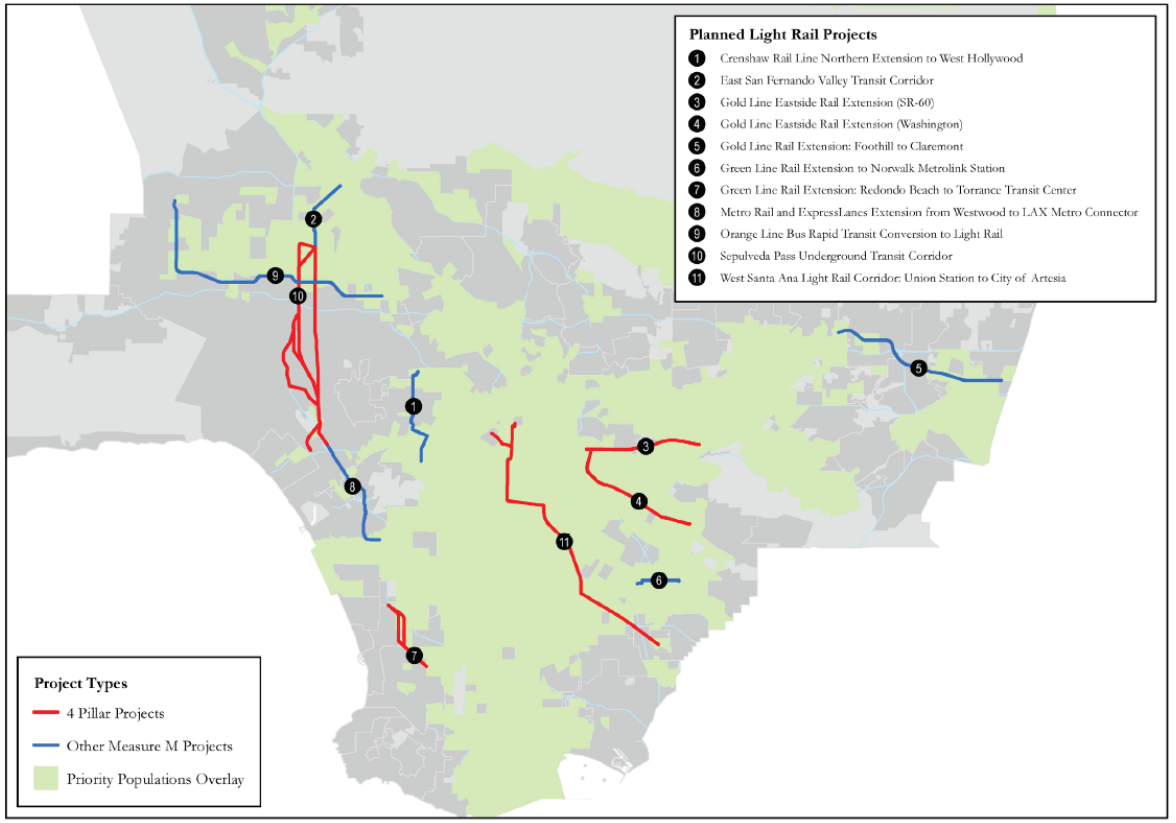
Schedule of Measure M Construction



Metro

Analysis Method – Disadvantaged Communities (Priority Population Areas)

- Use of the California Environmental Protection Agency's (CalEPA) criteria for identifying Priority Population investment areas.
- Criteria includes disadvantaged and low-income considerations in its criteria.
- Population areas provide a method to identify the region's most vulnerable communities.



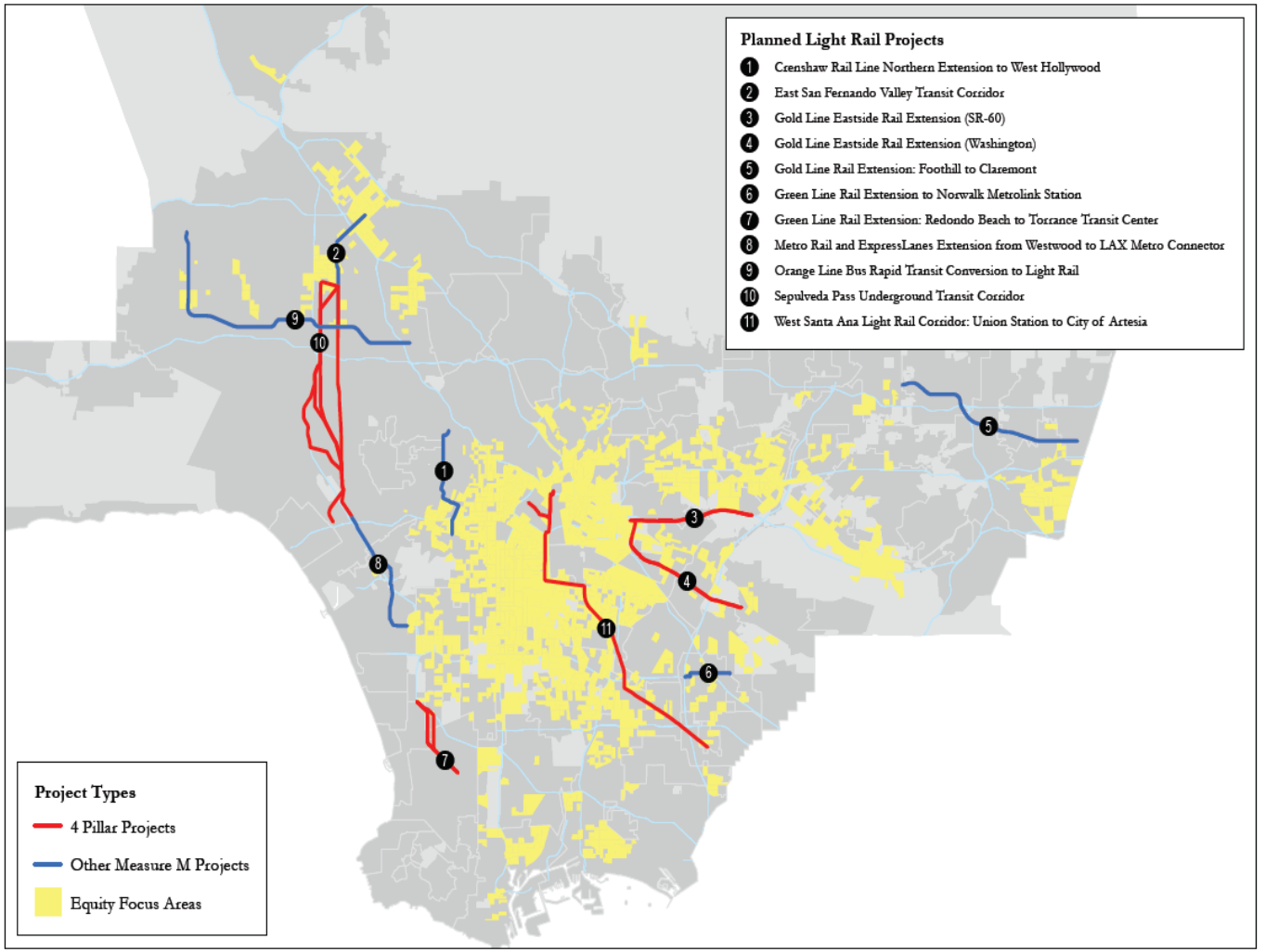
Metro Business Solution Center Analyses

Source: Chen Ryan Associates

Metro

Analysis Method – Equity Focus Areas

- Household income
- Race/ethnicity
- Household with low vehicle ownership



Metro Business Solution Center Analysis

Source: Chen Ryan Associates

Metro

Expansion Approach

- Phased implementation
- "Four Pillar Projects”
- Incremental funding
- Resource scaling
- Focus on pre and post construction operations

Metro

Thank You

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

Metro

Board Report

File #: 2019-0708, **File Type:** Plan **Agenda Number:** 40.

CONSTRUCTION COMMITTEE
OCTOBER 17, 2019

SUBJECT: CITY OF LOS ANGELES FY20 ANNUAL WORK PLAN

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to execute annual expenditure budget plan for the FY20 Annual Work Plan for the City of Los Angeles.

ISSUE

During the design, construction and maintenance phases of Metro projects, a significant amount of support is required from local jurisdictions via an annual work plan. A significant amount of Metro's capital projects are being done within the City of Los Angeles. The annual work plan shall serve as a commitment from the agency for the reimbursement of services by City of Los Angeles reviewing jurisdictions for an estimated amount of services. Without an annual work plan, the City of Los Angeles would have no funding sources to support the projects.

BACKGROUND

In December of 2002, A Master Cooperative Agreement (MCA) was executed between Metro and the City of Los Angeles. The intent of the agreement was to establish a streamlined process among both entities to successfully construct Metro's ongoing projects. A function of MCA was to clearly identify a yearly budget for each City department to provide those city services. This function was labeled as the Annual Work Plan.

DISCUSSION

The action contained herein provides funding for the City of Los Angeles participation in the project within the limit of the current approved FY20 budget for Third Party Review and maintenance. (See Attachment A). The City reviews plans and inspects work on City right of way to assure compliance with City standards. Examples of these reviews include support of excavation (SOE) to assure that underground work does not impact buildings or utilities, traffic detours, relocations of city utilities, changes to intersection lighting, landscaping and hardscaping designs, traffic signal impacts, drainage and inspections of constructed work.

Metro staff efforts to proactively manage these costs will include the following:

A. Controlling the design review process through the early coordination of design efforts to define scope and establish/clarify standards and requirements.
B. Reviewing submittals for completeness.
C. Ensuring that third party requirements are identified and addressed prior to sending to the third party.
D. Reviewing timesheets with each third party organization on a monthly basis to ensure that hours charged are appropriate.
E. Conducting executive and staff level partnering with third parties.

DETERMINATION OF SAFETY IMPACT

The recommended action has no impact on safety.

FINANCIAL IMPACT

The funding, which may be obligated and spent under this one-year work plan of $33,593,232 is included in the FY20 budget in respective project budgets that will require services to be performed by the City of Los Angeles. See attachment “A”. Since these are multi-year projects, the Project Managers and Chief Program Manager will be responsible for budgeting future year costs.

IMPACT ON BUS AND RAIL OPERATING AND CAPITAL BUDGET

The funding for this Annual Work Plan will come from various sources of funds. See attachment “A”. With the exception of major construction projects funded with specific grant funds, these funds are eligible for bus and rail operating and capital expenditures. No other sources of funds were considered for this activity because the primary beneficiary of the service is bus, rail and capital projects.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

By executing the Annual Work Plan for FY20 and allowing the City departments to successfully review plans and provide a streamlined approval processes to successfully construct Metro’s ongoing projects, it would positively support Metro’s overall plan and goal of expanding the transportation network, increase mobility for all users and improve LA County’s overall transit networks and assets.

ALTERNATIVES CONSIDERED

The Board may reject the Recommendation and direct us to include this work under Construction Contracts. Unfortunately, this is not recommended because it will delay each of the projects.

NEXT STEPS

Upon Metro board approval of the annual work plan, the City of Los Angeles shall submit the

annual work plan to the Los Angeles City Council and Mayor's Office for adoption.

ATTACHMENTS

Attachment A - FY20 Annual Work Plan Anticipated Budget for the City of Los Angeles

Prepared by: Bryan Pennington, Senior Executive Officer; 213-922-7449
Androush Danielians, Executive Officer; 213-922-7598
Eduardo Cervantes, Deputy Executive Officer; 213-922-7255.

Approved by: Richard Clarke, Chief Program Management Officer; 213-922-7557



Phillip A. Washington
Chief Executive Officer

ATTACHMENT A

FY20 ANNUAL WORK PLAN ANTICIPATED BUDGET FOR CITY OF LOS ANGELES

CRENSHAW/LAX TRANSIT	
Dept. of Transportation	$1,880,174
Bureau of Engineering	$1,100,000
Bureau of Street Lighting	$324,166
Bureau of Street Services	$366,120
Contract Administration	$1,200,000
Cross Coordination Support	$188,684
Police Department/Safety	$10,000
Subtotal:	$ 5,069,144

REGIONAL CONNECTOR	
Dept. of Transportation	$1,010,598
Bureau of Engineering	$950,000
Bureau of Street Lighting	$134,327
Bureau of Street Services	$140,671
Contract Administration	$407,295
Cross Coordination Support	$188,771
Police Department/Safety	$106,803
Bureau of Sanitation	$37,719
General services	$5,326
Subtotal:	$ 2,981,510

WESTSIDE EXTENSION SECTION 1	
Dept. of Transportation	$1,152,031
Bureau of Engineering	$1,100,000
Bureau of Street Lighting	$302,343
Bureau of Street Services	$100,420
Contract Administration	$582,495
Cross Coordination Support	$94,306
Police Department/Safety	$48,547
Subtotal:	$ 3,380,142

ATTACHMENT A (continued)

WESTSIDE EXTENSION SECTION 2	
Dept. of Transportation	$1,619,969
Bureau of Engineering	$1,100,000
Bureau of Street Lighting	$427,180
Bureau of Street Services	$213,826
Contract Administration	$582,494
Cross Coordination Support	$141,571
Subtotal:	$4,085,040

WESTSIDE EXTENSION SECTION 3	
Dept. of Transportation	$1,519,090
Bureau of Engineering	$1,100,000
Bureau of Street Lighting	$529,893
Bureau of Street Services	$253,544
Contract Administration	$582,494
Cross Coordination Support	$94,308
Subtotal:	$ 4,079,329

PATSAOURAS TRANSIT PLAZA	
Dept. of Transportation	$47,246
Bureau of Engineering	$150,000
Bureau of Street Services	$5,545
Bureau of Street Lighting	$178,152
Contract Administration	$12,670
Subtotal:	$ 393,613

LINK US	
Dept. of Transportation	$116,455
Bureau of Engineering	$300,000
Bureau of Street Services	$122,689
Bureau of Street Lighting	$288,081
Contract Administration	$25,000
Subtotal:	$ 852,225

ATTACHMENT A (continued)

ESOC	
Dept. of Transportation	$75,000
Bureau of Engineering	$150,000
Bureau of Street Services	$40,000
Bureau of Street Lighting	$150,000
Contract Administration	$50,000
LAPD	$10,000
Subtotal:	$ 475,000

RAILTO RIVER	
Bureau of Engineering	$300,000
Dept. of Transportation	$529,327
Bureau of Street Services	$130,172
Bureau of Street Lighting	$299,168
Contract Administration	$576,802
Subtotal:	$1,835,469

1ST AND CENTRAL	
Bureau of Engineering	$300,000
Dept. of Transportation	$166,996
Bureau of Street Services	$201,089
Bureau of Street Lighting	$91,295
Contract Administration	$250,000
Subtotal:	$1,009,380

DORAN STREET SEPERATION	
Dept. Of Transportation	$111,000
Bureau of Street Services	$25,000
Bureau of Street Lighting	$150,000
Bureau of Engineering	$150,000
Subtotal:	$ 436,000

METRO SUNDWALLS #11	
Bureau of Engineering	$90,000
Dept. of Transportation	$113,943
Bureau of Street Lighting	$221,143
Contract Administration	$133,210
Subtotal:	$ 558,296

ATTACHMENT A (continued)

METRO ORANGE LINE TRANSIT PRIORITY MAINTENANCE	
Dept. of Transportation	$408,000
Subtotal:	$408,000
UNION STATION FORECOURT AND ESPLANADE PROJECT	
Bureau of Engineering	$150,000
Dept. of Transportation	$124,088
Bureau of Street Lighting	$180,402
Bureau of Street Services	$125,000
Subtotal:	$ 579,490
96th STREET STATION/AMC	
Bureau of Engineering	$15,000
Dept. of Transportation	$15,000
Bureau of Street Services	$15,000
Bureau of Street Lighting	$15,000
Contract Administration	$15,000
LAPD	$10,000
Subtotal:	$ 85,000
DIVISION 20 PORTAL WIDENING	
Bureau of Engineering	$150,000
Dept. of Transportation	$65,000
Bureau of Street Services	$75,000
Bureau of Street Lighting	$179,111
Contract Administration	$60,000
Bureau of sanitation	$25,000
LAPD	$10,000
Subtotal:	$ 564,111
MOLE GRADE SEPERATION	
Bureau of Engineering	$900,000
Dept. of Transportation	$936,077
Bureau of Street Services	$170,113
Bureau of Street Lighting	$435,228
Contract Administration	$50,681
Cross Coordination Support	$94,308
Subtotal:	$ 2,586,407

ATTACHMENT A (continued)

ESVTC	
Bureau of Engineering	$1,400,000
Dept. of Transportation	$590,763
Bureau of Street Services	$181,314
Bureau of Street Lighting	$742,765
Cross Coordination Support	$141,574
City Planning	$500,000
Subtotal:	$ 3,556,416
WEST SANTA ANA	
Bureau of Engineering	$50,000
Dept. of Transportation	$50,000
Bureau of Street Services	$25,000
Bureau of Street Lighting	$25,000
Subtotal:	$150,000
CESAR CHAVEZ BUS IMPROVEMENT	
Bureau of Street Services	$8,660
Subtotal:	$8,660
TRAFFIC ENGINEERING WORK GROUP	
Dept. of Transportation	$500,000
Subtotal:	$500,000

GRAND TOTAL: $ 33,593,232

TOTAL FY20 BUDGET: $ 33,593,232

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

Metro

Board Report

File #: 2019-0689, **File Type:** Informational Report **Agenda Number:** 41.

CONSTRUCTION COMMITTEE
OCTOBER 17, 2019

SUBJECT: OFFICE OF THE INSPECTOR GENERAL CHANGE ORDER/MODIFICATION CONSTRUCTION SPOT CHECKS

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE Office of the Inspector General Change Order/Modification Construction Spot Check Report.

ISSUE

On January 25, 2018, the Metro Board directed the Office of the Inspector General ("OIG") to conduct random spot checks on the projects listed in the quarterly program management report to ensure that the delegation of authority to approve construction Change Orders policy is performing in the manner desired by the Board of Directors.

BACKGROUND

The OIG's Spot Check Program ("Spot Checks") focuses on approved Change Orders and Modifications that exceed $1,000,000 dollars. The four Change Orders in this report were selected from the October 2019 Program Management Major Project Status Report (File # 2019-0692), covering June 1 to August 30, 2019. The information for the Spot Checks was collected from the Program Management Information System (PMIS) which is the department's database system. Also, in-person and telephonic interviews were conducted with Metro Program Management, Project Control, and Procurement staff from each individual project office.

We found that all four of the Change Orders in this report were negotiated and executed more expeditiously than would have occurred pursuant to the former Board approval process, and all four were approved faster with the new delegation of authority. In addition three Change Orders were negotiated at lower cost and one was equal to the contractors' proposed price. This quarter's Spot Checks of Change Orders/Modifications found the delegation of authority has resulted in:

- A negotiated amount that was reasonable for the work to be done,
- Enabled the contractor to immediately order parts and materials, reducing delay.
- Contractor and was able to continue working without stoppages, and
- Zero construction delay costs were incurred.

powered by Legistar™

Each Spot Check summarizes the following areas:

- Introduction of Change Order/Modification
- Facts of Change Order (charts and pictures shown on Attachment A)
- Scope of Work
- Budget
- Schedule: Time to Execute Change Order
- Recommendations

Metro's Program Control department will provide responses to the recommendations in this report to the OIG Spot Checks within 30 days after this Board report. Attachment B, included with this October report, is a separate spreadsheet of recommendations and the status of responses concerning former Spot Check recommendations.

DISCUSSION

I. Spot Checks Performed in this Quarter

A. Spot Check #1 - Crenshaw/LAX Transit Project

This OIG Spot Check report concerns the Crenshaw/LAX Transit Corridor Project (Contract C0988 MOD-00432), Update Station Customer Signage, Construction

Facts of Change Order

See Attachment A Spot Check #1 chart.

Summary #1

Scope of Work -The Americans with Disabilities Act (ADA) regulates accessibility and includes requirements for signage. The guidelines were approved by the Department of Justice for publication on September 15, 2010, and made legally enforceable on March 15, 2012. These are known today as "2010 ADA Standards for Accessible Design."

The standard Metro Rail Design Criteria (Metro RDC) and the Technical Specifications were updated with 2010 ADA Standards for Accessible Design after the release and execution of the Crenshaw contract (August 2013). The Customer Signage Directive Drawings were updated by the Crenshaw consultant under a previous modification (MOD-00198.1 and MOD-00075) and completed design changes to platform signage in 2014 and underground stations in 2015.

This modification is to change the signage to conformance to the updated designs under the 2010 ADA Standards for Accessible Design. Under this modification, the contractor will be paid for labor, equipment, material to fabricate and install signage in eight stations at multiple locations.

Budget -This Modification was negotiated and the award amount is $1,813,970. The contractor's proposal was $1,813,970. The award amount was equal to the contractor's proposal. This is due to the fact that the contractor took the quote from the lowest vendor, and credited back the amount from the original contract ($720,039) for this line item. The independent cost estimate (ICE) was $884,370. The negotiated gross amount was $929,600, or 5.1% over the ICE. Staff has stated that funds for this change are within the approved the Life-of-Project budget, and unallocated contingency funds.

Schedule - The new delegation process was utilized for this Modification. The agreed upon scope of work occurred on June 8, 2019. The Modification was executed on July 15, 2019, and was completed in 25 work-days. Since there was no Board meeting in August the team would have used the September Vendor Contract Management (V/CM) submission date on July 29, 2019, this Change Order would have gone to the September 26, 2019 Board agenda. The scenario of utilizing the Board for approvals on change orders would be 77 work-days later verses the 25 work-days utilizing the delegated authority.

Recommendation - The Metro RDC was updated with 2010 ADA Standards for Accessible Design later, and after the release and execution of the Crenshaw contract.
When new standards are issued all request for proposal specifications pending after that date should be reviewed for correction before release when possible.

For request for proposals released between 2010 and 2014,(when we changed the specification and Metro RDC) the OIG recommends immediate evaluation to determine if they were also awarded based on the old pre 2010 standards to determine whether their projects might be similarly impacted.

B. Spot Check #2 - Crenshaw/LAX Transit Project

This OIG Spot Check report concerns the Crenshaw/LAX Transit Corridor Project (Contract C0988 MOD-00434), LADWP and COI New Water Service Connection - Main to Meter.

Facts of Change Order

See Attachment A Spot Check #2 chart.

Summary #2

Scope of Work - This Modification is to have the contractor perform work related to the water service connections from the water main to the water meter. This work is out of the scope of the contract because originally the Los Angeles Department of Water and Power (DWP) and the City of Inglewood were going to perform the work related to the new water service connections, so was not made part of the contract requirement for the contractor. Due to their lack of available personnel, both the City of Inglewood and DWP have requested that the Metro contractor perform the water service connections work. The contractor shall provide all labor, material and equipment necessary to install new water service connections, from the water main to meter, at various locations along the Crenshaw alignment.

Budget - This Modification was negotiated and the award amount is $1,978,937. The contractor's proposal was $2,230,705 and the ICE was $1,427,593. The award amount was $251,768, or 11.3%, under the contractor's proposal. The negotiated amount was $551,344 more or 38.6% over the ICE.

Schedule - The new delegation process was utilized for this Modification. The agreed upon scope of work occurred on July 9, 2019. The Modification was executed on July 18, 2019, and was completed in 8 work-days. Since there was no Board meeting in August the team would have used the September V/CM submission date on July 29, 2019, this Change Order would have gone to the September 26, 2019 Board agenda. The scenario of utilizing the Board for approvals on change orders would be 57 work-days later verses the 8 work-days utilizing the delegated authority.

Recommendation
None.

C. Spot Check #3 - Purple Line Extension Section 1 Transit Project
This OIG Spot Check report concerns the Purple Line Extension Section 1 Transit Project (Contract C1078 MOD-00083), La Cienega Dewatering DSC

Facts of Change Order
See Attachment A Spot Check #3 chart.

Summary #3
Scope of Work - During excavation, it was found that the groundwater table was not draining as expected. The contractor could not lower the groundwater sufficiently using the methods attempted. This constitutes a "differing site condition" requiring excavation work out of the scope of the contract to stop water seeping into the excavation cavern and making it impossible for productive work.

New engineering design and analysis, installation of additional dewatering wells, drains, and other methods have to be utilized to correct the condition. Additional labor resources are required to avoid schedule impacts.

Budget -This Modification was negotiated and the award amount is $16,841,067. The contractor's proposal was $22,059,501 and the ICE was $14,555,428. The award amount was $5,218,434, or 23.6%, under the contractor's proposal. The negotiated amount was $2,286,639, or 15.7%, over the ICE.

Schedule - The new delegation process was utilized for this Modification. The agreed upon scope of work occurred on May 22, 2019. The Modification was executed on July 3, 2019, and was completed in 26 work-days. Using the June 3, 2019 V/CM submission date, this Change Order would have gone to the July Board agenda. The scenario of utilizing the Board for approvals on change orders would be 45 work-days later verses the 26 work-days utilizing the delegated authority.

Recommendation
The Geotechnical Baseline Report stated that the ground conditions would permit drainage of water. The OIG questions if the consultant who developed the Geotechnical Baseline Report properly interpreted the boring data. Investigation is warranted to determine if the report accurately reflects the data.

The OIG recommends recovering part of the cost, if the investigation demonstrates that the report was erroneous. The OIG further recommends future Geotechnical Baseline Reports should include interpretation of the borings to determine within a 95% confidence level the nature of the underlying soil and the location of the water table.

D. Spot Check #4 - Purple Line Extension Section 1 Transit Project

This OIG Spot Check report concerns the Purple Line Extension Section 1 Transit Project (Contract C1078 MOD-00085), Geotechnical Instrumentation: Revise Geotechnical Contingency Plan and Reporting.

Facts of Change Order

See Attachment A Spot Check #4 chart.

Summary #4

Scope of Work - Additional geotechnical instrumentation has been required by Los Angeles Bureau of Engineering (LABOE) because of concern over dewatering settlement and to monitor and report any change in ground conditions. Over the past year monitoring equipment has been added to the street, buildings and the construction site. A total of 1,137 instruments have been added to monitor movement. Those instruments have a total of 2,345 monitoring points which has yielded over 40,000 threshold alarms. This led to 1,600 false alarms and 13 work stoppages. Weekly reporting will now take place to replace monthly reporting. Closed-circuit television will now be utilized; a full time field Instrumentation Engineer on site will be added to provide real time analysis; and additional support to the contractor will be provided to avoid work stoppage.

Metro believes the additional instrumentation is a betterment because LABOE does not have criteria for shoring of underground stations and instead of performing periodic checks, the LABOE is requiring additional documentation above and beyond what was required by the original contingency plan and at a level that is not required by any standard.

Budget -This Modification was negotiated and the award amount is $4,158,687. The contractor's proposal was $8,345,399 and the ICE was $2,799,376. The award amount was $4,186,712, or 50.2%, under the contractor's proposal. The negotiated amount was $1,359,311, or 48.5%, over the ICE. Funds for this modification are within the approved Budget in Project and Task No. 3.3.02.03.

Schedule - The new delegation process was utilized for this Modification. The agreed upon scope of work occurred on June 27, 2019. The Modification was executed on July 19, 2019, and was completed in 16 work-days. Since there was no Board meeting in August the team would have used the September V/CM submission date on July 29, 2019, this Change Order would have gone to the September 26, 2019 Board agenda. The scenario of utilizing the Board for approvals on change orders would be 65 work-days later verses the 16 work-days utilizing the delegated authority.

Recommendation

The OIG recommends if Metro believes this change order is a betterment, then Metro should complete the new "Potential Notice of Betterment" form, submit a copy to LABOE and retain a copy for negotiations at the end of the contract if not sooner. This means Metro would move forward at LABOE expense. Going forward, this "Potential Notice of Betterment" form should be completed when applicable and submitted to the LABOE prior to agreeing to move forward, thus allowing the LABOE to make the decision if the betterment is truly necessary.

FINANCIAL IMPACT

Report will have no Financial Impact to the agency.

Impact to Budget

For all of the Construction Change Orders, Metro states the funds are within the approved budget, and will utilize the contingency funds to cover the costs.

- Spot Check #1) $1,813,971 Crenshaw
- Spot Check #2) $1,978,937 Crenshaw
- Spot Check #3) $16,841,067 Purple Line Ext. 1
- Spot Check #4) $4,158,687 Purple Line Ext. 1

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendations that the Office of Inspector General has put forward support Metro's Strategic Plan Goal #5: Provide responsive, accountable, and trustworthy governance within the Metro organization. The OIG mission includes reviewing expenditures for fraud, waste, and abuse. For each selected Change Order/Modification reviewed, the OIG evaluates if fraud, waste, or abuse is taking place. We report the background details of the Change Order, and make recommendations consistent with the OIG's Construction Best Practices report February 29, 2016, more particularly focusing on lessons learned, improving efficiencies, and prudent spending. Our goal is to provide rational, trustworthy information to the Board and support the efforts of Metro management to constantly improve and refine its efforts for the benefit of the public. The Office of the Inspector General will continue reporting to the Board the results of Construction Change Order Spot Checks selected from the Program Management Major Project Status Quarterly Report. The next OIG Construction Spot Check report will be in January 2020.

NEXT STEPS

The OIG shall provide every quarter, an on-going spread sheet of recommendations to Program Control. Program Control and Program Management agrees to respond to the recommendations of the OIG within 30 days. The OIG continues to meet periodically to discuss reports, recommendations, and the status of implementation of recommendations, with Project Management and receive updates. The list of OIG recommendations and Metro management responses, including those for July 2019, is an attachment to this OIG October 2019 report.

ATTACHMENTS

Attachment A - Charts for Spot Checks
Attachment B - Tracking sheet of Recommendations and Responses
Attachment C - Power Point for October 2019 Construction Spot Checks

Prepared by: Prepared by: Suzanna Sterling, Construction Specialist Investigator, (213) 244-7368
Reviewed by: Karen Gorman, Inspector General, (213) 244-7337



Spot Check #1 - Crenshaw/LAX Transit Project - Contract C0988

Facts of Change Order

Description of Modification MOD-00432 Update Station Customer Signage, Construction	
Change Order Dates:	
Scope of Work approved	June 08, 2019
Modification Executed	July 15, 2019
Elapsed Time for Executing Change Order:	
Using new delegated process	25 work days
Estimate using former Board approval process Agenda for the September Board	77 work days
Cost of Change Order:	
Metro independent cost estimate (ICE)	$884,370
Contractor's proposed cost	$1,813,970
Negotiated amount	$1,813,970
Negotiated amount over ICE	$929,600
Percentage of negotiated amount over ICE	105%
Amount negotiated under Contractors proposal	$0

Spot Check #2 – Crenshaw/LAX Transit Project - Contract C0988

Facts of Change Order

Description of Modification MOD-000434 LADWP and COI New Water Service Connection – Main to Meter	
Change Order Dates:	
Scope of Work approved	July 9, 2019
Modification Executed	July 18, 2019
Elapsed Time for Executing Change Order:	
Using new delegated process	8 work days
Estimate using former Board approval process Agenda for the May Board	57 work days
Cost of Change Order:	
Metro independent cost estimate (ICE)	$1,427,593
Contractor's proposed cost	$2,230,705
Negotiated amount	$1,978,937
Negotiated amount over ICE	38.6%
Amount negotiated under Contractors proposal	$251,768

Spot Check #3 - Purple Line Extension Section 1 Transit Project - Contract C1078

Facts of Change Order

Description of Modification MOD-00083 La Cienega Dewatering DSC	
Change Order Dates:	
Scope of Work approved	May 22, 2019
Modification Executed	July 3, 2019
Elapsed Time for Executing Change Order:	
Using new delegated process	26 work days
Estimate using former Board approval process Agenda for the June Board	45 work days
Cost of Change Order:	
Metro independent cost estimate (ICE)	$14,555,428
Contractor's proposed cost	$22,059,501
Negotiated amount	$16,841,067
Negotiated amount above ICE	15.7%
Amount negotiated under Contractors proposal	$5,218,434

Spot Check#_4_ - Purple Line Section 1 Transit Project - Contract C1078

Facts of Change Order

Description of Modification - MOD-00085 Geotechnical Instrumentation: Revise Geotechnical Contingency Plan and Reporting	
Change Order Dates:	
Scope of Work approved	June 27, 2019
Modification Executed	July 19, 2019
Elapsed Time for Executing Change Order:	
Using new delegated process	16 work days
Estimate using former Board approval process	65 work days
Cost of Modification:	
Metro independent cost estimate (ICE)	$2,799,376
Contractor's proposed cost	$8,345,399
Negotiated amount	$4,158,687
Negotiated amount over ICE	48.5%
Amount negotiated under Contractors proposal	$4,186,712

ATTACHMENT B (Jan. 2019)			
OIG REPORT/ SPOT CHECK # MOD #	**RECOMMENDATIONS**	**MANAGEMENT'S RESPONSES**	**COMPLETION DATE**
Jan 2019 / #1 C0988 MOD 00335.1 Crenshaw - Cable Transmission System Update - Construction	"The OIG recommends: The schedule negotiations with the contractor be expeditiously concluded so the schedule impacts are minimized."	Not sure what this means. CO's were issued prior to MOD that obligated the contract to commence work - this mitigated schedule impacts. Response could stay as-is I suppose (with edits) as it is relatively benign in nature	Closed
Jan 2019 / #3 C1120 MOD-00026 Purple Line Sect. 2 - Santa Monica Blvd. Bus Layover Design and Construction Changes	The OIG recommends: That Operations and LADOT be provided the scope of work after requests are submitted or "no comments" are received to confirm their requests have been added into the scope prior to the release of the RFP.	Because the OIG's recommendation is for actions to be taken prior to the release of RFPs, it has been passed on to Metro Engineering for consideration in revising Policy DSGN01 DB for future projects.	Metro Engineering (Androush Danielians/ Edwardo Cervantes) have been notified. They provided the below comment: A process will be set in place that will be included in future Specs and contract language for the PE Consultant. The process will require the consultant to submit plans to all applicable agencies (including Metro). Upon receiving comments, the Consultant shall address each comment as to the disposition in a matrix/spreadsheet. The spreadsheet / matrix will then be submitted to each of the commenting agencies. That agency will then be requested to accept the project disposition (via an initial). If the agency is not in acceptance of the disposition, the Consultant via the Project shall work with each agency until that comment disposition is accepted. The final signed off matrix shall then be included in the RFP for the DB (contractor) to complete the path forward based on the agreed upon disposition.

ATTACHMENT B (April 2019)			
OIG REPORT/ SPOT CHECK # MOD #	**RECOMMENDATIONS**	**MANAGEMENT'S RESPONSES**	**COMPLETION DATE**
April 2019 / #1 C0988 MOD-00402 Crenshaw/LAX - Provisional Payments - Pending Dispute Resolution Fire Rated Cable (multiple) Change Orders	1. The OIG recommends that Metro expeditiously and fairly resolve the litigation with the Contractor. 2. The OIG further recommends that a review team monitor the billings of the Contractor to validate the efficacy of the incentive program as this may become a tool for improving future performance on other projects.	1. Agree, different mechnaisms to achieve this being considered. 2. Agree, already being implemented.	1. December 2019 2. Closed
April 2019 / #3 C1045 MOD-00071 Purple Line Sect. 1 - Golder Gas Investigation and Report	The Independent Cost Estimate was not an accurate representation of work stated in the agreed upon scope of work. The OIG recommends that Metro continue to follow through on the plan for mitigation of gas migration utilizing the Contractor's new report of procedures where known high concentrations of hydrogen sulfide and methane gases exist.	Metro is following thru on the plan. Installation of wells for field testing began in 3/19. The mitigation options draft memo, based on the field testing observations, was received 6/25. Design of a selected gas migration mitigation option, i.e. increasing the number of soil vapor extraction wells, is ongoing.	Completion of mitigation recommendation and implementation, is tentatively scheduled for December 31, 2019.
April 2019 / #4 C1045 MOD-00072 Purple Line Sect. 1 - Reach 3 Additional Gas Testing and Assessment	The OIG recommends: 1. In following the new Contractor's report, Work Plan for Exploratory Program to Assess Mitigations for Potential Gas Migration, a. Record all steps that were successful and those that need modification. b. Have information formatted and add to Technical Specifications. c. Have steps and procedures added into Lessons Learned d. Incorporate these finding and procedures into any future bid process where potential gas migration and tunnel boring may occur. 2. Note under Lessons Learned where known high concentrations of hydrogen sulfide and methane gases exist, prior study and geotechnical investigation be completed and included in the bid documents.	1. Metro has the following comments: a. Plan to record this. Modifications to the testing program in field to be made as appropriate b. This is likely a unique area. A Full report on the program and recommendations is included in the work. Pending the outcome, Technical Specifications would be developed for the Project c. Agree, also see b above d. We note that investigation is in progress now to study gas migrations. Pending outcome, future bid process would include results, including incorporation in Geotechnical Investigation and Technical Requirements 2. Agree. In this instance the area was studied and fully identified/described in the bid documents. Also see 'b' above.	12/31/2019

ATTACHMENT B (April 2019)			
OIG REPORT/ SPOT CHECK # MOD #	**RECOMMENDATIONS**	**MANAGEMENT'S RESPONSES**	**COMPLETION DATE**
April 2019 / #5 C1045 MOD-00074 Purple Line Sect. 1 - Additional Instrumentation (Project Wide) as requested by LABOE and STS EOR	The OIG recommends that instrumentation bought for this project become property of LA Metro, so that future projects (remainder of the Purple Line Extension 2 and 3) will have instrumentation on hand to immediately install when Support of Excavation for those projects begin.	Metro has made several attempts in the past for Purple Line and Regional to salvage and reuse geotechnical instrumentation. However, passing the instruments between projects offer a number of challenges. These include the following: • The Design life of instrumentation equipment is limited given the temporary nature of the work. • Given the diminished value of the used instrumentation equipment it is often abandoned in place. An effort to salvage the equipment may result in increased costs. • The means, methods and performance of shoring, instrumentation and monitoring are left with the Design-builder. Dictating the used instruments would interfere with the selection of means and methods and make Metro responsible for warranting the equipment for the life of the project. • The technology associated with the equipment continues to evolve. Metro may then be obligating the contractor to use obsolete equipment. • Timing and turnover of instrumentation. The contract schedules for Regional, Crenshaw and Purple Line Sections 1, 2 and 3 all overlap. As such, the instrumentation for each project is needed at the same time. • Metro would need to inventory and temporary store the instrumentation equipment. There is a risk that Metro may be storing the equipment permanently or Metro may need to make efforts for their disposal.	Closed

ATTACHMENT B (July 2019)			
OIG REPORT/ SPOT CHECK # MOD #	**RECOMMENDATIONS**	**MANAGEMENT'S RESPONSES**	**COMPLETION DATE**
July 2019 / #1 C0988-MOD-00426 Crenshaw/LAX - Irriggation Water Meters, Park Mesa Medians	The OIG recommends this disagreement between the City of Los Angeles Public Works and LA Metro about the responsibility for the changes should be discussed and resolved.	This item is tied to the tree permit that included adding pavement in areas beyond the project limits, increasing the number of replacement of trees for those cut down, adding landscaped medians (which require the subject irrigation). All of the items above were discussed with City and the two parties agreed to an MOU for which the City would be paid 3.5 million to pave the street (work valued at 7.0 million plus) and that this agreement resolved the other issues mentioned above with Metro installing at its cost (medians, trees...etc)	
July 2019 / #2 C0980 MOD-00141.2 Regional Connector - Impacts to Support of Excavation: Decking, Utilities and Temporary Drainage	The OIG recognizes the age of the buildings at the site and errors of definitive drawings. The OIG recommends to research on the front end, even drawings to confirm accuracy, to preclude issuing an expensive change order after construction has commenced.	There are definitely some lesssons to be applied to future projects based on Regional Connector's experience with utilities. The most signicant finding is the need to conduct utility condition assessments in areas where cut-and -cover construction is planned. This could be accomplished by a combination of potholing, inspection of maintenance holes/vaults and research with the utility owner. The documented age of the utility and the presence of large masonry vaults/maintenance holes, should serve as guides in the determination of whether facilities should be replaced.	No further action by Regional Connector
July 2019 / #3 C1078 MOD-00025 Purple Line Sect. 1 - Revised Low Impact Development (LID)	The OIG recommends that all upcoming sites where known industrial and railway activity occurred, that a full investigation of soils occurs and is stated in the Environmental Impact Statement. Performing such investigation early may result in additional early costs, but these circumstances will then become known costs of the project and may be prepared with less delay and less costs than waiting.	Site investigation and soil remediation was completed prior to the construction of the site. However, the original plan for the DTSC directed site cleanup was the previous owners responsibilty. Due to the nature in how this property was eventually aqcuired in order to meet the construction schedule (imminent domain) there was no time to cleanup the groundwater issues prior to LID designs. and assess any data gaps that may have existed. Orders from the DTSC to continue remediation efforts of the groundwater, beyond Metro's planned clean up phase, pushed the environmental effort beyond a clear end date which in effect conflicted with the LID design since it would be predicted to pushing an identified contaminated groundwater plume during rain events once completed. In the future, if Metro can anticipate action to be required from outside entities (that can take significant time to develop and exectute) beyond the initial environmental phase, it will request contractor to change the design prior to 60% completion to avoid major changes	
July 2019 / #4 MC1120 MOD-00037 Purple Line Sect. 2 - Revision to Avg Depth of Seismic Borings along Wilshire Blvd. on Tunnel Reach 5	The OIG commends the Engineering department for taking supplementary steps to determine additional the location of seismic fault line in relation to the track alignment for improved safety and long term structural integrity.	Noted	N/A

ATTACHMENT B (Oct 2019)			
OIG REPORT/ SPOT CHECK # MOD #	**RECOMMENDATIONS**	**MANAGEMENT'S RESPONSES**	**COMPLETION DATE**
Oct. 2019 / #1 C0988-MOD-00432 Crenshaw/LAX - Update Station Customer Signage, Construction	The Metro RDC was updated with 2010 ADA Standards for Accessible Design later, and after the release and execution of the Crenshaw contract. When new standards are issued all request for proposal specifications pending after that date should be reviewed for correction before release when possible. For request for proposals released between 2010 and 2014,(when we changed the specification and Metro RDC) the OIG recommends immediate evaluation to determine if they were also awarded based on the old pre 2010 standards to determine whether their projects might be similarly impacted.		
Oct. 2019 / #2 C0988 MOD-00434 Crenshaw/LAX - LADWP and COI New Water Service Connection	none		
Oct. 2019 / #3 C1078 MOD-00083 Purple Line Sect. 1 - La Cienega Dewatering DSC	The Geotechnical Baseline Report stated that the ground conditions would permit drainage of water. The OIG questions if the consultant who developed the Geotechnical Baseline Report properly interpreted the boring data. Investigation is warranted to determine if the report accurately reflects the data. The OIG recommends recovering part of the cost, if the investigation demonstrates that the report was erroneous. The OIG further recommends future Geotechnical Baseline Reports should include interpretation of the borings to determine within a 95% confidence level the nature of the underlying soil and the location of the water table.		
Oct. 2019 / #4 C1078 MOD-00085 Purple Line Sect. 1 - Geotechnical Instrumentation: Revise Geotechnical Contingency Plan and Reporting	The OIG recommends if Metro believes this change order is a betterment, then Metro should complete the new “Potential Notice of Betterment” form, submit a copy to LABOE and retain a copy for negotiations at the end of the contract if not sooner. This means Metro would move forward at LABOE expense. Going forward, this “Potential Notice of Betterment” form should be completed when applicable and submitted to the LABOE prior to agreeing to move forward, thus allowing the LABOE to make the decision if the betterment is truly necessary.		

File #
2019-0689

Office Of Inspector General Construction Change Order Spot Check Report

Presented By

Karen Gorman

Inspector General

October 2019

Construction Committee

Los Angeles County Metropolitan Transportation Authority

Metro

Spot Check Costs

File # 2019-0689

Summary of Selected Change Order Costs

Four OIG spot checks of Change Orders / Modifications reported

1 Change Order for Crenshaw/LAX
- ❖ Update Station Customer Signage, Construction = $1,813,970

2 Change Order for Crenshaw/LAX
- ❖ LADWP and COI New Water Service Connections = $1,978,937

3 Change Order for Purple Line Section 1
- ❖ La Cienega Dewatering = $16,841,067

4 Change Order for Purple Line Section 1
- ❖ Geotechnical Instrumentation – Revise Geotechnical Contingency Plan and Reporting = $4,158,687

Spot Check Schedule Comparison

File # 2019-0689

Schedule Comparison: new delegated process vs. former Board approval process

PROJECT	Title of Change Order	Time Saved Executed date to Board Mtg.	NEW Delegated Process final SOW to Executed date	Former Board Approval Process
CRENSHAW	Update Station Customer Signage, Construction	52	25	77
CRENSHAW	LADWP and COI New Water Service Connections	49	8	57
WESTISIDE PURPLE LINE SECT 1	La Cienega Dewatering	19	26	45
WESTISIDE PURPLE LINE SECT 1	Geotechnical Instrumentation – Revise Geotechnical Contingency Plan and Reporting	49	16	65

Spot Check Recommendations

File # 2019-0689

#1 Crenshaw Update Station Signage, ADA	The Metro RDC was updated with 2010 ADA Standards for Accessible Design later, and after the release and execution of the Crenshaw contract. When new standards are issued all request for proposal specifications pending after that date should be reviewed for correction before release when possible. For request for proposals released between 2010 and 2014,(when we changed the specification and Metro RDC) the OIG recommends immediate evaluation to determine if they were also awarded based on the old pre 2010 standards to determine whether their projects might be similarly impacted.
#3 Purple Line Sect. 1 La Cienega Dewatering	The Geotechnical Baseline Report stated that the ground conditions would permit drainage of water. The OIG questions if the consultant who developed the Geotechnical Baseline Report properly interpreted the boring data. Investigation is warranted to determine if the report accurately reflects the data. The OIG recommends recovering part of the cost, if the investigation demonstrates that the report was erroneous. The OIG further recommends future Geotechnical Baseline Reports should include interpretation of the borings to determine within a 95% confidence level the nature of the underlying soil and the location of the water table.
#4 Purple Line Sect. 1 Revise Geotechnical Contingency Plan & Reporting	The OIG recommends if Metro believes this change order is a betterment, then Metro should complete the new "Potential Notice of Betterment" form, submit a copy to LABOE and retain a copy for negotiations at the end of the contract if not sooner. This means Metro would move forward at LABOE expense. Going forward, this "Potential Notice of Betterment" form should be completed when applicable and submitted to the LABOE prior to agreeing to move forward, thus allowing the LABOE to make the decision if the betterment is truly necessary.

File #: 2019-0773, **File Type:** Informational Report **Agenda Number:** 49.

CONSTRUCTION COMMITTEE
OCTOBER 17, 2019

SUBJECT: PROJECT LABOR AGREEMENT/CONSTRUCTION CAREERS POLICY (PLA/CCP)

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE the:

A. Status update on the Project Labor Agreement and Construction Careers Policy through the quarter ending June 2019; and

B. Metro Workforce Disparity Study on Women in the Trades.

ISSUE

In January 2012, the Board approved the Project Labor Agreement (PLA) with the Los Angeles/Orange Counties Building and Construction Trades Council and the Construction Careers Policy (CCP), with a subsequent renewal in January 2017. The PLA/CCP encourages construction employment and training opportunities for members of economically disadvantaged areas throughout the United States on Metro's construction projects. An added value of the PLA is that work stoppages are prohibited.
This report provides an update on the PLA/CCP through the quarter ending June 2019.

BACKGROUND

In accordance to the Board approved PLA and CCP (PLA/CCP), prime contractors are required to provide Metro with monthly reports detailing progress towards meeting the targeted worker hiring goals. Additionally, consistent with Metro's Labor Compliance policy and federal Executive Order 11246 (EO 11246), the prime contractors provide Metro with worker utilization data by ethnicity and gender. In accordance with EO 11246, Metro's program-wide goal for female participation on PLA/CCP construction projects is 6.90%.

Metro continues to advance several initiatives with focus on increasing the overall female participation attainment such as: development of an action plan as presented in November 2017; deployment of a performance score card including the development and distribution of Women in the Trades Resource Guide; and continued engagement with Metro's prime contractors and job

coordinators with a focus on female worker outreach, recruitment and retention. As a result, Metro's female participation attainment on active construction projects covered by the PLA/CCP has steadily increased from 3.34% in October 2017 to 3.70% as of June 2019. The overall increase is attributed to 172 female workers gaining employment on Metro's construction projects between November 2017 and June 2019.

Moreover, Metro will continue to advance efforts to deliver upon Measure M and Metro's 28 by 2028 Initiative, the ongoing demand for skilled workforce will continue to create career opportunities for women and men within the construction industry and most specifically on Metro's infrastructure projects covered by the PLA/CCP. In recognition of the workforce demands and agency's goal to increase the participation and inclusion of women within the agency's construction projects, Metro's Diversity and Economic Opportunity (DEOD) staff commissioned a comprehensive Workforce Disparity Study to assess the availability and participation of female workers to contribute to the demand for future infrastructure projects within LA County (the Region).

DISCUSSION

This report provides a status update on the construction contracts covered by the PLA/CCP as of FYQ4 2019 and an overview of the Metro Workforce Disparity Study. The report also provides an update on DEOD outreach activities in support of the targeted workforce.

A. PLA/CCP Status Update

As of June 2019, there are twelve active construction contracts with PLA/CCP program requirements including three contracts subject to the Pilot Local Hire Initiative. Nine of the twelve contractors exceed the 40% Targeted Worker Goal, six contractors exceed the 20% Apprentice Worker Goal and five contractors exceed the 10% Disadvantaged Worker Goal. There are twenty completed construction contracts. The information on the completed construction contracts is provided as Attachment A.

The following table represents the active construction projects as of the June 2019 quarterly reporting period.

Active Construction Projects

Project Name:	Prime Contractor:	Targeted Worker Goal (40%)	Apprentice Worker Goal (20%)	Disadvantaged Worker Goal (10%)	Female Utilization Goal (6.90%)	Percentage of Disadvantaged Worker Participation that are in the Criminal Justice System Category *
Crenshaw/LAX Transit Corridor	Walsh/Shea Corridor Constructors	60.00%	23.51%	11.86%	3.73%	33.57%
Regional Connector Transit Corridor	Regional Connector Constructors, JV	58.83%	17.00%	9.76%	3.80%	73.86%
Westside Subway Extension Project, Section 1 – D/B	Skanska-Traylor-Shea, JV	63.32%	17.97%	12.01%	3.82%	76.48%
Westside PLE Project, Section 2 – D/B	Tutor Perini/O&G, JV	49.96%	13.36%	3.87%	4.62%	56.13%
Division 16 Southwestern Yard	Hensel Phelps/Herzog, JV	49.23%	29.89%	10.21%	4.19%	78.22%
Patsaouras Plaza Busway Station	OHL-USA, Inc.	56.75%	12.46%	4.03%	1.30%	59.92%
Westside Purple Line Extension Project, Section 3 Advanced Utility Relocations	Bubalo Construction Co.	47.56%	21.08%	12.08%	5.10%	0.00%
Metro Blue Line Signal System Rehabiliation	Mass Electric Construction	26.89%	17.06%	9.45%	0.90%	67.56%
Soundwall #11 Construction	Powell Constructors, Inc.	38.90%	12.07%	0.11%	0.01%	100%
Willowbrooks/Rosa Parks Station Improvements	Icon-West	65.03%	20.87%	5.41%	1.43%	69.85%
Metro Blue Line Track & Systems Refurbishments	RailWorks	28.20%	22.85%	4.79%	0.56%	62.29%
Metro HQ Chillers & Emergency System Replacements	EMCOR/Mesa Energy	46.01%	32.16%	20.56%	5.54%	0.00%

Please refer to the attached PLA/CCP Data Report for additional information on each project.

*Part of Metro's PLA/CCP workforce requirement is the utilization of Disadvantaged Workers on projects. One of the nine criteria for a Disadvantaged Worker is having a criminal record or other involvement with the criminal justice system. The data shown in the table above outlines the percentage of Disadvantaged Workers (based on hours worked) that have criminal records or involvement with the criminal justice system that have worked or are actively working on Metro's PLA/CCP covered projects.

Crenshaw/LAX Transit Corridor
Prime: Walsh/Shea Corridor Constructors

The Crenshaw/LAX Transit Corridor project contractor has completed 93.70% of the estimated construction work hours for this project. The contractor currently exceeds the Targeted Worker Goal at 60.00%, Apprentice Worker Goal at 23.51%, Disadvantaged Worker Goal at 11.86% and the minority participation percentage goals. The attainment for the 20% Apprentice Worker Goal is based on total apprentice hours.

The contractor's overall attainment for the Female Participation Goal has increased in direct relation to the efforts that have been initiated by the contractor and Metro staff. The contractor has increased the female participation from 3.27% in September 2017 to 3.73% as of this reporting cycle which reflects a total of 186 female workers hired on the project.

Regional Connector Transit Corridor
Prime: Regional Connector Constructors, Joint Venture

The Regional Connector Transit Corridor project contractor has completed 62.04% of the estimated construction work hours for this project. The contractor currently exceeds the Targeted Worker Goal at 58.83% and the minority participation percentage goals; however, the contractor is not meeting the 20% Apprentice Worker Goal at 17.00% or the 10% Disadvantaged Worker Goal at 9.76%. The attainment for the 20% Apprentice Worker Goal is based on total apprentice hours.

The contractor has provided an updated Employment Hiring Plan (EHP) which outlines compliance with meeting the PLA/CCP workforce goals in the latter part of 2019. Staff will continue to monitor the contractor's EHP and work closely with the contractor towards meeting all worker goals for this project.

The contractor is not meeting the 6.90% Female Participation Goal at 3.80%. Staff continues to monitor the contractor's performance based on the plan to perform more focused outreach. A total of 83 female workers were hired on the project as of this reporting period.

Westside Subway Extension Project, Section 1 Design-Build
Prime: Skanska-Traylor-Shea, a Joint Venture (STS)

The Westside Subway Extension Project, Section 1 project contractor has completed 59.65% of the estimated construction work hours for this project. The contractor currently exceeds the Targeted Worker Goal at 63.32%, Disadvantaged Worker Goal at 12.01%, and the minority participation percentage goals; however, the contractor is not meeting the 20% Apprentice Worker Goal at 17.97%. The attainment for the 20% Apprentice Worker Goal is based on total apprentice hours.

The contractor has provided an updated EHP which outlines compliance with meeting the PLA/CCP workforce goals in the latter part of 2022. Staff will continue to monitor the contractor's EHP and work closely with the contractor towards meeting all worker goals for this project.

The contractor is not meeting the 6.90% Female Participation Goal at 3.82%. The contractor has committed to perform more outreach activities focusing on female recruitment as part of their effort to increase female participation. A total of 86 female workers were hired on the project as of this reporting period.

Westside Purple Line Extension Project, Section 2 Design-Build
Prime: Tutor Perini/O&G, JV

The Westside Purple Line Extension Project Section 2 is underway and only 3.87% of the estimated construction work hours for this project have been performed. The contractor is currently exceeding the Local Targeted Worker Goal at 49.96%, and the minority participation percentage goals; however, the contractor is not meeting the 20% Apprentice Worker Goal at 13.36% or the 10% Disadvantaged Worker Goal at 3.87%. The attainment for the 20% Apprentice Worker Goal is based on total apprentice hours.

This project falls under the United States Department of Transportation's (U.S. DOT) Pilot Local Hire Program. On October 6, 2017, the Federal Register published a notice from the USDOT announcing the withdrawal of the Pilot Local Hire program. This is one of the three construction projects awarded subject to the Pilot Local Hire Initiative.

Staff will continue to monitor the contractor's EHP and work closely with the contractor towards meeting all worker goals for this project.

The contractor has achieved 4.62% Female Participation attainment within the early phases of construction. A total of 9 female workers have been hired on the project as of this reporting period.

Division 16 - Southwestern Yard
Prime: Hensel Phelps/Herzog, J.V.

The Division 16 Southwestern Yard project contractor has completed 99.24% of the estimated construction work hours on this project. The contractor currently exceeds the Local Targeted Worker Goal at 49.23%, Apprentice Worker Goal at 29.89%, Disadvantaged Worker Goal at 10.21%, and the minority participation percentage goals. The attainment for the 20% Apprentice Worker Goal is based on total apprentice hours.

This project falls under the United States Department of Transportation's (U.S. DOT) Pilot Local Hire Program. On October 6, 2017, the Federal Register published a notice from the USDOT announcing the withdrawal of the Pilot Local Hire program. This is one of the three construction projects awarded subject to the Pilot Local Hire Initiative.

The contractor has attained 4.19% Female Participation goal. A total of 53 female workers have been hired on the project as of this reporting period. Recognizing this project is nearing completion, Metro staff in coordination with the job coordinator is working with female workers on this project that are interested in obtaining a referral to work on other Metro projects. This collaborative effort is to support retention.

Patsaouras Plaza Busway Station
Prime: OHL-USA, Inc.

The Patsaouras Plaza Busway Station project contractor has completed 88.06% of the estimated construction work hours on this project. The contractor currently exceeds the Targeted Worker Goal at 56.75% and the minority participation percentage goals; however, the contractor is not meeting the 20% Apprentice Worker Goal at 12.46% or the 10% Disadvantaged Worker Goal at 4.03%. The attainment for the 20% Apprentice Worker Goal is based on total apprentice hours.

Metro staff issued a Notice of Non-Compliance in November 2017 for the low attainment of the Apprentice and Disadvantaged Worker Goals. The contractor submitted a revised EHP with an action plan for meeting all PLA/CCP workforce provisions by the end of the project. As of this reporting period, the contractor continues to make progress in the Apprentice Worker attainment and has committed to hiring more disadvantaged workers. Staff will continue to monitor the contractor's EHP and will work closely with the contractor towards meeting all worker goals for this project.

The contractor has one of the lowest Female Participation attainment at 1.30%. Staff issued an Executive Order 11246 Notice in early 2018 requesting the contractor to document efforts related to the recruitment of female workers as part of their effort to increase female participation. The contractor and their job coordinator committed to increase female participation by performing targeted outreach and collaborating with community-based organizations in recruiting female workers.

Westside Purple Line Ext. Section 3 - Advanced Utility Relocations

Prime: Bubalo Construction Co.

The Westside Purple Line Ext. Section 3 - Advanced Utility Relocations project contractor has completed 99.77% of the estimated construction work hours on this project. The contractor currently exceeds the Local Targeted Worker Goal at 47.56%, Apprentice Worker Goal at 21.08%, Disadvantaged Worker Goal at 12.08% and the minority participation percentage goals. The attainment for the 20% Apprentice Worker Goal is based on total apprentice hours.

This project falls under the United States Department of Transportation's (U.S. DOT) Pilot Local Hire Program. On October 6, 2017, the Federal Register published a notice from the USDOT announcing the withdrawal of the Pilot Local Hire program. This is one of the three construction projects awarded subject to the Pilot Local Hire Initiative.

The contractor has achieved 5.10% Female Participation attainment. This project is one of the highest as of this reporting period.

Metro Blue Line Signal System (Rehabilitation)
Prime: Mass Electric Construction Co.

The Metro Blue Line Signal System (Rehabilitation) project contractor has completed 74.97% of the estimated construction work hours on this project. The contractor is meeting the minority participation goals; however, the contractor is not meeting the 40% Targeted Worker Goal at 26.89%, the 20% Apprentice Worker Goal at 17.06% or the 10% Disadvantaged Worker Goal at 9.45%. The attainment for the 20% Apprentice Worker Goal is based on total apprentice hours.

Metro staff issued a Notice of Non-Compliance in May 2019 for the low attainment of the Targeted, Apprentice and Disadvantaged Worker goals. The contractor submitted a revised EHP with an action plan for meeting all PLA/CCP workforce provisions by the end of the project. Staff will continue to monitor the contractor's EHP and will work closely with the contractor towards meeting all worker goals for this project.

The contract is not meeting the 6.90% Female Participation Goal at 0.90%. Staff issued a Notice of Low Female Participation in March 2019 requesting the contractor to document efforts related to the recruitment of female workers as part of their effort to increase female participation. The contractor and the job coordinator committed to increase female participation by performing targeted outreach and collaborating with community-based organizations in recruiting female workers. As of this reporting period, the contractor has hired 4 female workers on the project.

Soundwall #11 Construction
Prime: Powell Constructors, Inc.

The Soundwall #11 Construction project contractor has completed 26.10% of the estimated

construction work hours on this project. The contractor is meeting the minority participation goals; however, the contractor is not meeting the 40% Targeted Worker Goal at 38.90%, the 20% Apprentice Worker Goal at 12.07% or the 10% Disadvantaged Worker Goal at 0.11%. The attainment for the 20% Apprentice Worker Goal is based on total apprentice hours.

The contractor has submitted an EHP which outlines compliance with meeting the PLA/CCP workforce goals at 65% project completion. Staff will continue monitoring the contractor's EHP and work closely with the contractor in meeting all worker goals for this project.

The contractor is not meeting the 6.90% Female Participation Goal at 0.01%. Staff issued a Notice of Low Female Participation in July 2019 requesting the contractor to document efforts related to the recruitment of female workers as part of their effort to increase female participation. In addition, staff will meet with the contractor to discuss the female participation goal and strategies to increase female participation.

Willowbrook/Rosa Parks Station Improvements
Prime: Icon-West Inc.

The Willowbrook/Rosa Parks Station Improvements project contractor has completed 82.65% of the estimated construction work hours on this project. The contractor currently exceeds the Targeted Worker Goal at 65.03%, Apprentice Worker Goal at 20.87% and the minority participation goals; however, the contractor is not meeting the 10% Disadvantaged Worker Goal at 5.41%. The attainment for the 20% Apprentice Worker Goal is based on total apprentice hours.

The contractor has hired several Disadvantaged Workers on the project which should help achieve the Disadvantaged Worker Goal by the next reporting period. Staff will continue to monitor the contractor's EHP and work closely with the contractor in meeting all worker goals for this project.

The contractor has one of the lowest Female Participation attainment at 1.43%. Staff issued an Executive Order 11246 Notice on April 11, 2019 requesting the contractor to document efforts related to the recruitment of female workers as part of their effort to increase female participation. As of this reporting period, the contractor has hired 5 female workers on the project.

Metro Blue Line Track & System Refurbishments
Prime: RailWorks

The Metro Blue Line Track & System Refurbishments project contractor has completed 90.11% of the estimated construction work hours on this project. The contractor currently exceeds the Apprentice Worker Goal at 22.85% and the minority participation goals; however, the contractor is not meeting the 40% Targeted Worker Goal at 28.20%, and the 10% Disadvantaged Worker Goal at 4.79%. The attainment for the 20% Apprentice Worker Goal is based on total apprentice hours.

Metro staff issued a Notice of Non-Compliance in May 2019 for the low attainment of the Targeted, and Disadvantaged Worker goals. The contractor submitted a revised EHP with an action plan for meeting all PLA/CCP workforce provisions by the end of the project. Staff will continue to monitor the contractor's EHP and will work closely with the contractor towards meeting all worker goals for this project.

The contractor has the lowest Female Participation attainment at 0.56%. Staff has address the Low Female Participation as part of the Notice of Non-Compliance letter issued in May 2019 requesting for an action plan to increase female participation on the project. As of this reporting period, the contractor has hired 5 female workers on the project.

Metro HQ Chillers Plan & Emergency System Replacement
Prime: EMCOR/Mesa Energy

The Metro HQ Chillers Plan & Emergency System Replacement project contractor has completed 54.81% of the estimated construction work hours on this project. The contractor currently exceeds the Targeted Worker Goal at 46.01%, Apprentice Worker Goal at 32.16%, Disadvantaged Worker Goal at 20.56% and the minority participation percentage goals. The attainment for the 20% Apprentice Worker Goal is based on total apprentice hours.

The contractor has achieved 5.54% Female Participation attainment which is the highest as of this reporting period.

B. Metro Workforce Disparity Study

As part of the ongoing effort to not only increase female participation on Metro construction projects but also to gain a greater understanding of the existing and projected availability of women in the construction workforce, DEOD staff initiated a workforce disparity study to determine the availability and participation of female workers to meet the demand for future infrastructure projects in support of Metro's projects including others throughout the Los Angeles Region. The professional services of Estolano LeSar Advisors (ELA) were retained to perform a comprehensive assessment and develop the construction workforce disparity study with focus on Metro infrastructure projects. The comprehensive report "Metro Workforce Disparity Study (Study)," which includes an overview of the current state of the construction workforce including a forecast of workforce supply and demand within the region focusing on the availability of women in the skilled trades can be viewed at metro.net/pla.

An executive summary of the Study which includes recommendations are summarized within Attachment C.

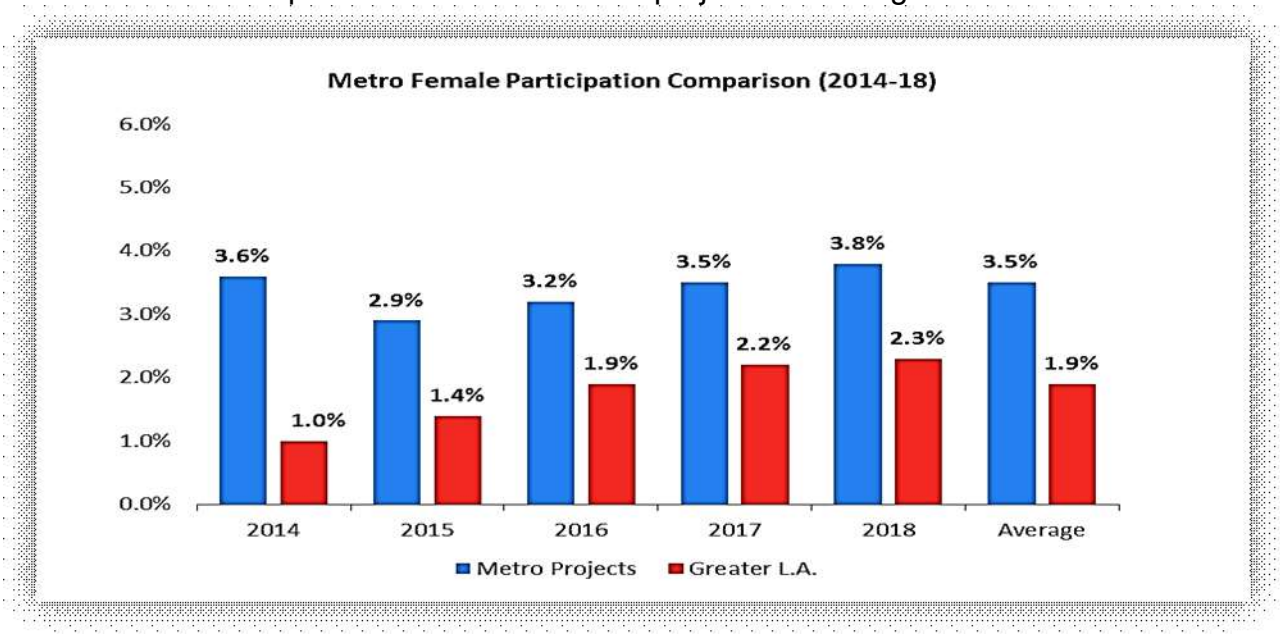
As outlined in the Study female workers continue to remain underrepresented on public works projects throughout the region; however, between 2014 and 2018 the average female participation on Metro construction projects was 3.5% compared to 1.9% of other non-Metro public works projects in the region. Furthermore, Metro's projects represented a total of 34% of the total hours performed on public works construction projects in the region over the past 5 years and, as a direct correlation,

approximately 64% of the total hours performed by female constructions workers in the region over the past 5 years were on Metro construction projects. The measurable outcomes demonstrate the effects of intentional outreach and inclusion of women within the workforce of Metro's construction projects.

Moreover, the agency's pipeline of infrastructure projects such as those within Measure M and the 28 by '28 Initiative will continue to influence the demand for the construction workforce and skilled labor and lend to opportunities within the construction career pathway. Following is summary of the key findings within the report:

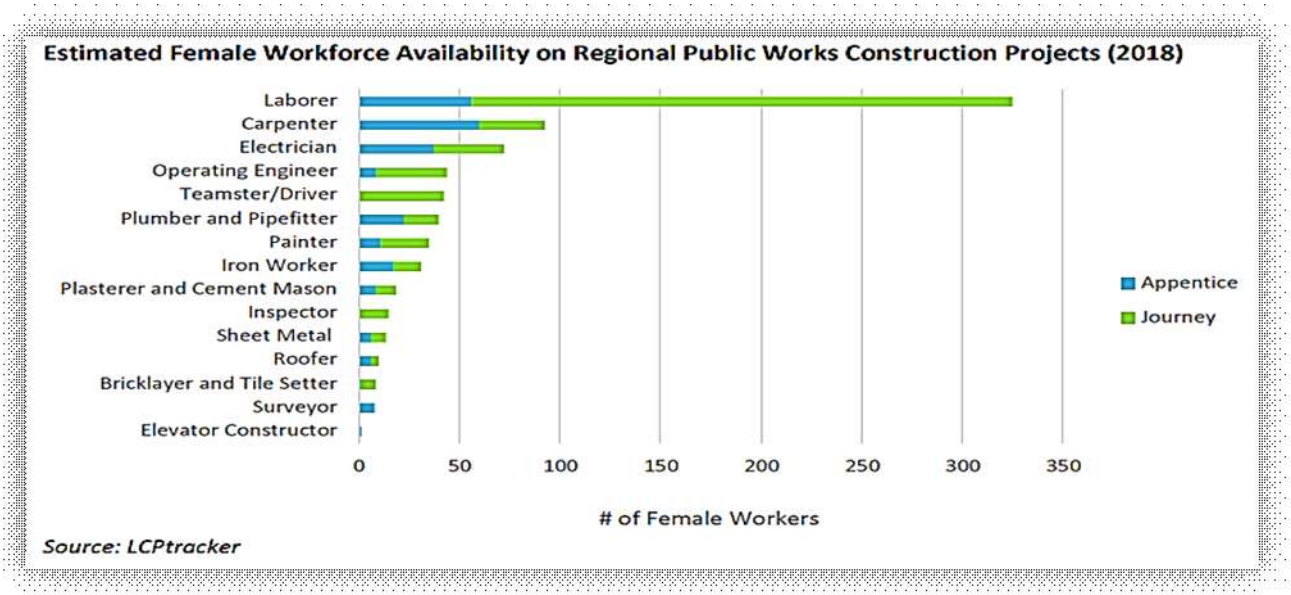
Key Findings:

- Between 2014 and 2018 Metro's average female participation was 3.5% compared to 1.9% of other non-Metro public works construction projects in the region.

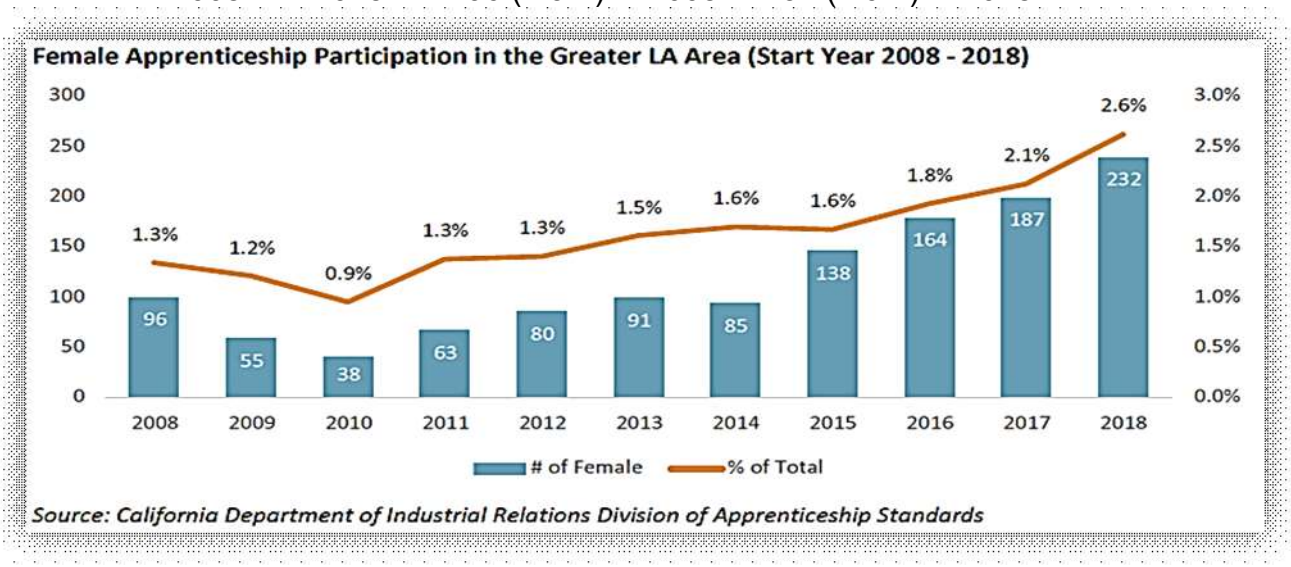


- As of 2018 the estimated total number of female workers available to work on public works construction projects in Greater LA Area is 775 (or 1% of total available workers). Of the total number of estimated female workers approximately 250 were apprentices and 525 were journey workers. These female workers are from multiple crafts.

- The trades with highest number of female workers (including both journey workers and apprentices) were: Laborers, Carpenter, Electricians, Operating Engineer and Teamster/Driver.



- Female participation in apprenticeship programs is increasing as the number of recruits more than doubled since 2008. Based on the cohort of apprentices that started apprenticeship programs since 2008, female apprentices as a percent of total apprentices has doubled between 2008 and 2018 from 96 (1.3%) in 2008 to 232 (2.6%) in 2018.



Recognizing the workforce changes occurring within the transportation industry including the construction industry such as: an aging labor force, generational shifts and decrease in the younger population entering the construction trades at the rates of the retiring workforce, the recruitment of workers will continue to be a priority for Metro and others throughout the region in order to meet the labor demands. As women continue to enter the construction industry at higher rates than previous years, Metro staff will continue to focus efforts on the outreach, recruitment and retention of women on the agency's projects with the intent of achieving the Executive Order 11246 female participation

goal of 6.9%. Therefore, in an effort to establish a forecast of the regional availability of female construction workers over the next ten years, ELA performed a workforce gap analysis by evaluating three growth scenarios, “No Growth,” “Moderate Growth,” and “Sustained Growth.” The growth scenarios demonstrate the ongoing workforce gap as there is not any point of time in which Metro attains 6.9% female participation within all the trades. However, the 6.9% female participation attainment is probable within the following trades: Painter, Plumbers and Pipefitters, Sheet Metal, Carpenters and Roofers. Although recruitment and retention efforts will continue to be focused on all the major trades associated with Metro ‘s projects, it is recommended that Metro significantly increases efforts on the trades that are anticipated to experience the largest female workforce gap such as: Operating Engineer, Iron Worker, Teamsters/Driver, Plasterer and Cement Mason, Surveyor and Elevator Constructor.

Moreover, the Study outlines additional recommendations for consideration based on the findings outlined in the report and a review of best practices in the construction industry. Following is a summary of recommendations that staff will continue to assess in developing a strategic action plan focused on short-term (less than 1 year), mid-term (1 - 5 years) and long-term (5-10 years) implementation:

- Expand and diversify the construction workforce to meet growing demand and skills-gap;
- Create a gender-balanced workforce by targeting the recruitment of females to enroll in apprenticeship readiness programs and registered apprenticeship programs;
- Continue Metro’s internal efforts through policies and programs related to supporting female participation in construction;
- Coordinate with the National Center for Women’s Equity in Apprenticeship and Employment and the Chicago Women in Trades to establish a Tradeswoman organization;
- Encourage building trades to track workforce participation;
- Encourage unconscious bias training among all contractors;
- Create a dedicated funding source to support the retention of female construction workers; and
- Others.

Staff will advance efforts for the implementation of the various adopted recommendations as outlined in the Study through a regional collaborative approach in partnership with the LA/OC Building Trades, Metro prime contractors including the job coordinators; and community-based partners.

C. Outreach

DEOD's Outreach team continuously seeks opportunities to keep the community informed and engaged of construction career opportunities available through Metro's PLA/CCP. Staff collaborates with community-based organizations and other partners including the contractors on outreach events, initiatives and activities. Staff hosted the following outreach events as of this reporting period:

- Metro "Women Build METRO LA" hosted a quarterly Apprenticeship Readiness Fair on May 17, 2019 at Metro Headquarters.
- Metro "Women Build METRO LA" hosted an Apprenticeship Readiness Fair on September 27, 2019 at the Banning's Landing Community Center located at 100 E. Water St. Wilmington, CA 90744.

NEXT STEPS

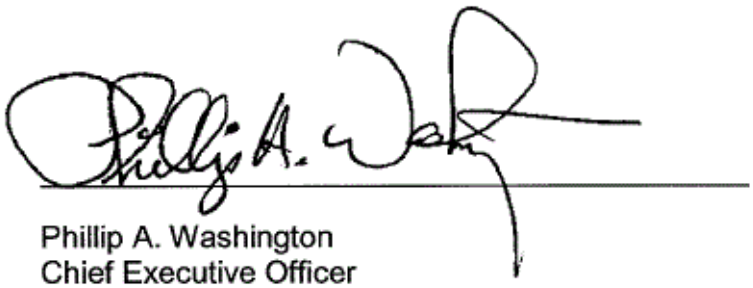
DEOD staff will continue to monitor contractor's efforts and initiate the various strategies and activities as outlined and will continue to use best practices, initiatives and outreach efforts to promote awareness, engagement and participation in construction career opportunities.

ATTACHMENTS

Attachment A - PLA/CCP Completed Contracts
Attachment B - PLA/CCP Update Report Data
Attachment C - Metro Workforce Disparity Study (Executive Summary)

Prepared by: Michael Flores, Manager, Diversity and Economic Opportunity, PLA/CCP and WIN-LA (213) 922-6387
Shalonda Baldwin, Interim Executive Officer, Diversity and Economic Opportunity (213) 418-3265

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



Phillip A. Washington
Chief Executive Officer

ATTACHMENT A

Completed Contracts:

Completed Projects:	Prime Contractor:	Targeted Worker Goal (40%)	Apprentice Worker Goal (20%)	Disadvantaged Worker Goal (10%)	Female Utilization Goal (6.90%)	*Percentage of Disadvantaged Workers that are in the Criminal Justice System Category
Crenshaw Advanced Utility Relocation Project	Metro Builders	61.41%	13.84%	21.08%	0.52%	2.90%
Westside Subway Extension Advanced Utility Relocation	Metro Builders	67.47%	11.12%	11.08%	7.48%	0.00%
Westside Subway Exploratory Shaft	Innovative Construction Solutions	50.88%	75.05%	11.23%	0.42%	96.23%
Regional Connector Transit Corridor Adv. Utility Relocation	Pulice Construction	51.61%	21.37%	22.83%	2.57%	28.39%
CNG Emergency Generator Division 7 & 8	Taft Electric	46.42%	25.51%	39.08%	4.68%	39.48%
Division 13 CNG Fueling Facility, Design/Build/Operate	Clean Energy	67.54%	20.17%	60.72%	1.69%	49.48%
Metro Blue Line Stations Refurbishments	S.J. Amoroso	56.01%	26.10%	13.62%	0.48%	28.03%
Westside Extension Project Advanced Utility Relocation (Fairfax Station)	WA Rasic	63.27%	20.61%	19.90%	2.78%	9.24%
Metro Rail Security Kiosks	Icon-West	45.90%	27.06%	20.17%	0.00%	100.00%
Westside Extension Project Advanced Utility Relocation (La Cienega Station)	Bubalo Construction	65.15%	21.76%	20.96%	0.57%	28.10%
MRL/MOL North Hollywood Station West Entrance	Skanska, USA	57.79%	24.28%	15.78%	7.44%	84.26%

Completed Projects:	Prime Contractor:	Targeted Worker Goal (40%)	Apprentice Worker Goal (20%)	Disadvantaged Worker Goal (10%)	Female Utilization Goal (6.90%)	*Percentage of Disadvantaged Workers that are in the Criminal Justice System Category
Patsaouras Plaza POV Relocation, Pavers and Storm Drain Repair	AP Construction	76.46%	21.26%	42.56%	3.91%	6.48%
Universal City Pedestrian Bridge	Griffith Company	38.33%	27.49%	12.55%	1.57%	48.51%
MRL Pershing Square Canopy Addition and Escalator Replacements	Clark Construction, LLC	50.62%	33.68%	14.12%	1.46%	86.41%
Bob Hope Airport/ Hollywood Way Station	CA Rasmussen, Inc.	42.77%	22.62%	12.71%	0.80%	69.38%
Non-Revenue Maintenance Bldg. at Vernon Yard	Access Pacific, Inc.	54.16%	20.90%	12.93%	7.64%	5.35%
Metro Blue Line Pedestrian and Swing Gates Installation	Icon-West	65.33%	25.61%	11.56%	1.02%	98.57%
Division 9 Maintenance Annex Bldg.	Metro Builders	44.96%	27.03%	12.37%	1.67%	68.35%
New Maintenance of Way/NRV Bldg 61S	Clark Construction	63.67%	25.84%	10.40%	0.73%	65.15%
Division 1 Maintenance Annex Bldg.	Metro Builders	43.26%	25.04%	12.95%	7.12%	58.97%

Please refer to the attached PLA/CCP Data Report for additional information on each project.

Crenshaw Advanced Utility Relocation Project
Prime: Metro Builders

The Crenshaw Advanced Utility Relocation project is 100% complete as of September 2014. Final reporting shows the Targeted Worker attainment at 61.41%, Disadvantaged Worker attainment at 21.08% and the minority participation percentage goals were attained; however, the Contractor did not meet the 20% Apprentice Worker goal at

13.84% and the 6.90% Female Participation goal at 0.52%. The attainment for the 20% Apprentice worker goal is based on total apprenticeable hours. Metro staff met with the Contractor in January 2015 and executed liquidated damages for not meeting the apprentice goal for this project. The Contractor complied with Metro's liquidated damages and this issue is closed.

Westside Subway Extension Advanced Utility Relocation
Prime: Metro Builders

The Westside Subway Extension Advanced Utility Relocation project is 100% complete as of October 2014. Final reporting shows the Targeted Worker attainment at 67.47%, Disadvantaged Worker attainment at 11.08%, Female Participation attainment at 7.48% and the minority participation percentage goals were attained; however, the Contractor did not meet the 20% Apprentice Worker goal at 11.12%. The attainment for the 20% Apprentice worker goal is based on total apprenticeable hours. Metro staff met with the Contractor in January 2015 and executed liquidated damages for not meeting the apprentice goal for this project. The Contractor complied with Metro's liquidated damages and this issue is closed.

Westside Subway Exploratory Shaft
Prime: Innovative Construction Solutions (ICS)

The Westside Subway Extension Exploratory Shaft project is 100% complete as of October 2014. Final reporting shows the Targeted Worker attainment at 50.88%, Apprentice Worker attainment at 75.05%, Disadvantaged Worker attainment at 11.23% and the minority participation percentage goals were attained; however, the Contractor did not meet the 6.90% Female Participation goal at 0.42%. The attainment for the 20% Apprentice worker goal is based on total apprenticeable hours. No labor grievances occurred on this project.

Regional Connector Transit Corridor Advanced Utilities Relocation
Prime: Pulice Construction

The Regional Connector Transit Corridor Advanced Utilities Relocation project was terminated for convenience in April 2015 and is now closed. Final reporting shows the Targeted Worker attainment at 51.61%, Apprentice Worker attainment at 21.37%, Disadvantaged Worker attainment at 22.83% and the minority participation percentage goals were attained; however, the Contractor did not meet the 6.90% Female Participation goal at 2.57%.

CNG Emergency Generator Division 7 and 8
Prime: Taft Electric

The CNG Emergency Generator Division 7 and 8 project is 100% complete as of May 2015. Final reporting shows the Targeted Worker attainment at 46.42%, Apprentice Worker attainment at 25.51%, Disadvantaged Worker attainment at 39.08% and the

minority percentage goals were attained; however, the Contractor did not meet the 6.90% Female Participation goal at 4.68%. The attainment for the 20% Apprentice worker goal is based on total apprenticeable hours. No labor grievances occurred on this project.

Division 13 CNG Fueling Facility, Design/Build/Operate
Prime: Clean Energy

The Division 13 CNG Fueling Facility, Design/Build/Operate project Contractor is 100% complete as of June 2015. Final reporting shows the Targeted Worker attainment at 67.54%, Apprentice Worker attainment at 20.17%, Disadvantaged Worker attainment at 60.72% and the minority percentage goals were attained; however, the Contractor did not meet the 6.90% Female Participation goal at 1.69%. The attainment for the 20% Apprentice worker goal is based on total apprenticeable hours. No labor grievances occurred on this project.

Metro Blue Line Station Refurbishments
Prime: S.J. Amoroso

The Metro Blue Line Station Refurbishments project Contractor is 100% complete as of August 2015. Final reporting shows the Targeted Worker attainment at 56.01%, Apprentice Worker attainment at 26.10%, Disadvantaged Worker attainment at 13.62% and the minority percentage goals were attained; however, the Contractor did not meet the 6.90% Female Participation goal at 0.48%. The attainment for the 20% Apprentice Worker goal is based on total apprenticeable hours.

Westside Subway Extension Advanced Utility Relocation (Fairfax Station)
Prime: W.A. Rasic

The Westside Subway Extension Advanced Utility Relocation – Fairfax Station project is 100% complete as of December 2015. Final reporting shows the Targeted Worker attainment at 63.27%, Apprentice Worker attainment at 20.61%, Disadvantaged Worker attainment at 19.90% and the minority percentage goals were attained; however, the Contractor did not meet the 6.90% Female Participation goal at 2.78%. The attainment for the 20% Apprentice Worker goal is based on total apprenticeable hours.

Metro Rail Security Kiosks
Prime: Icon-West

The Metro Rail Security Kiosks project is 100% complete as of March 2016. Final reporting shows the Targeted Worker attainment at 45.90%, Apprentice Worker attainment at 27.06%, Disadvantaged Worker attainment at 20.17% and the minority percentage goals were attained; however, the Contractor did not meet the 6.90% Female Participation goal at 0.00%. The attainment for the 20% Apprentice Worker goal is based on total apprenticeable hours. No labor grievances occurred on this project.

Westside Extension Project Advanced Utility Relocation (La Cienega)
Prime: Bubalo Construction

The Westside Extension Project Advanced Utility Relocation project is 100% completed as of October 2016. Final reporting shows the Targeted Worker attainment at 65.15%, Apprentice Worker attainment at 21.76%, Disadvantaged Worker attainment at 20.96% and the minority percentage goals were attained; however, the Contractor did not meet the 6.90% Female Participation goal at 0.57%. The attainment for the 20% Apprentice Worker goal is based on total apprenticeable hours. No labor grievances occurred on this project.

Metro Red Line/Metro Orange Line (MRL/MOL) North Hollywood Station West Entrance
Prime: Skanska

The Metro Red Line/Metro Orange Line (MRL/MOL) North Hollywood Station West Entrance project is 100% completed as of November 2016. Final reporting shows the Targeted Worker attainment at 57.79%, Apprentice Worker attainment at 24.28%, Disadvantaged Worker attainment at 15.78%, Female Participation goal at 7.44% and the minority percentage goals were attained. The attainment for the 20% Apprentice Worker goal is based on total apprenticeable hours.

Patsaouras Plaza POV Relocation, Pavers and Storm Drain Repairs
Prime: AP Construction

The Patsaouras Plaza Privately-Owned-Vehicle Relocation, Pavers and Storm Drain Repairs project is 100% completed as of April 2017. Final reporting shows the Targeted Worker attainment at 76.46%, Apprentice Worker attainment at 21.26%, Disadvantaged Worker attainment at 42.56% and the minority percentage goals were attained; however, the Contractor did not meet the 6.90% Female Participation goal at 3.91%. The attainment for the 20% Apprentice Worker goal is based on total apprenticeable hours. No labor grievances occurred on this project.

Universal City Pedestrian Bridge
Prime: Griffith Company

The Universal City Pedestrian Bridge project is 100% completed as of June 2017. Final reporting shows the Apprentice Worker attainment at 27.49%, Disadvantaged Worker goal at 12.55% and the minority participation percentage goals were attained; however, the Contractor did not meet the 40% Targeted Worker goal at 38.33% and the 6.90% Female Participation goal at 1.57%. The attainment for the 20% Apprentice Worker goal is based on total apprenticeable hours. Staff executed liquidated damages for not meeting the Targeted Worker goal for this project. The assessed liquidated damages were utilized during negotiations to offset the contractor's claimed additional costs and this issue is closed.

MRL Pershing Square Canopy Addition and Escalator Replacement
Prime: Clark Construction, LLP

The MRL Pershing Square Canopy Addition and Escalator Replacement project Contractor is 100% completed as of August 2017. Final reporting shows the Targeted Worker attainment at 50.62%, Apprentice Worker attainment at 33.68%, Disadvantaged Worker attainment at 14.12% and the minority percentage goals were attained; however, the Contractor did not meet the 6.90% Female Participation goal at 1.46%. The attainment for the 20% Apprentice Worker goal is based on total apprenticeable hours. No labor grievances occurred on this project.

Bob Hope Airport/Hollywood Way Station
Prime: CA Rasmussen

The Bob Hope Airport/Hollywood Way Station project is 100% completed as of April 2018. Final reporting shows the Targeted Worker attainment at 42.77%, the Apprentice Worker attainment at 22.62%, Disadvantaged Worker attainment at 12.71% and the minority percentage goals were attained; however, the Contractor did not meet the 6.90% Female Participation goal at 0.80%. The attainment for the 20% Apprentice Worker goal is based on total apprenticeable hours. No labor grievances occurred on this project.

Non-Revenue Maintenance Building at Vernon Yard
Prime: Access Pacific Inc.

The Non-Revenue Maintenance Building at Vernon Yard project is 100% completed as of May 2018. Final reporting shows the Targeted Worker attainment at 54.16%, the Apprentice Worker attainment at 20.90%, Disadvantaged Worker attainment at 12.93%, Female Participation goal at 7.64% and the minority percentage goals were attained. The attainment for the 20% Apprentice Worker goal is based on total apprenticeable hours.

Metro Blue Line Pedestrian & Swing Gates Installation
Prime: Icon West

The Metro Blue Line Pedestrian & Swing Gates Installation project is 100% completed as of July 2018. Final reporting shows the Targeted Worker attainment at 65.33%, the Apprentice Worker attainment at 25.61%, Disadvantaged Worker attainment at 11.56%, Female Participation goal at 1.02% and the minority percentage goals were attained. The attainment for the 20% Apprentice Worker goal is based on total apprenticeable hours.

Division 9 Maintenance Annex Building
Prime: Metro Builders

The Division 9 Maintenance Annex Building project is 100% completed as of January 2019. Final reporting shows the Targeted Worker attainment at 44.96%, the Apprentice Worker attainment at 27.03%, Disadvantaged Worker attainment at 12.37%, Female Participation goal at 1.67% and the minority percentage goals were attained. The attainment for the 20% Apprentice Worker goal is based on total apprenticeable hours.

New Maintenance of Way/NRV Bldg. 61S
Prime: Clark Construction

The New Maintenance of Way/NRV Bldg. 61S project is 100% completed as of April 2019. Final reporting shows the Targeted Worker attainment at 63.67%, the Apprentice Worker attainment at 25.84%, Disadvantaged Worker attainment at 10.40%, Female Participation goal at 0.73% and the minority percentage goals were attained. The attainment for the 20% Apprentice Worker goal is based on total apprenticeable hours.

Division1 Maintenance Annex Building
Prime: Metro Builders

The Division 1 Maintenance Annex Building project is 100% completed as of May 2019. Final reporting shows the Targeted Worker attainment at 43.26%, the Apprentice Worker attainment at 25.04%, Disadvantaged Worker attainment at 12.95%, Female Participation goal at 7.12% and the minority percentage goals were attained. The attainment for the 20% Apprentice Worker goal is based on total apprenticeable hours.

ATTACHMENT B

Project Labor Agreement (PLA) / Construction Careers Policy (CCP) Update

Report Data Through
June 2019 Reporting Period

Metro

Crenshaw/LAX Transit Corridor Project

PLA Targeted Worker Attainment: Prime: Walsh/Shea

Report Data Through June 2019

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
6,768,599.06	60.00%	23.51% Based on Total Apprenticeable Work Hours	11.86%

Percentage Project Complete Based on Worker Hours: 93.70% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
6,768,599.06	11.71%	1.35%	21.55%	62.63%	0.97%	1.79%	76.66%	3.73%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Regional Connector Transit Corridor Project
PLA Targeted Worker Attainment: Prime: R.C.C., Joint Venture

Report Data Through June 2019

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
2,037,881.36	58.83%	17.00% Based on Total Apprenticeable Work Hours	9.76%

Percentage Project Complete Based on Worker Hours: 62.04% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
2,037,881.36	7.07%	0.76%	24.82%	60.53%	0.87%	5.96%	69.23%	3.80%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Westside Subway Extension Project, Section 1 – D/B

PLA Targeted Worker Attainment: Prime: S.T.S., Joint Venture

Report Data Through June 2019

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
1,942,748.73	63.32%	17.97% Based on Total Apprenticeable Work Hours	12.01%

Percentage Project Complete Based on Worker Hours: 59.65%(rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/ Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
1,942,748.73	10.12%	1.83%	21.83%	61.75%	0.36%	4.11%	74.06%	3.82%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Westside Purple Line Extension Project, Section 2 – D/B

PLA Targeted Worker Attainment: Prime: Tutor Perini/O&G, JV

Report Data Through June 2019

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
140,228.23	49.96%	13.36% Based on Total Apprenticeable Work Hours	3.87%

Percentage Project Complete Based on Worker Hours: 3.70%(rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/ Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
140,228.23	3.45%	1.03%	21.52%	67.39%	0.47%	6.15%	72.34%	4.62%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Division 16: Southwestern Yard
PLA Targeted Worker Attainment: Prime: Hensel Phelps/Herzog, JV

Report Data Through June 2019

No. of Work Hours*	Local Targeted Economically Disadvantaged Worker Utilization(%) **Goal: 40%**	Apprentice Utilization (%) **Goal: 20%**	Disadvantaged Worker Utilization (%) **Goal: 10%**
639,876.32	49.23%	29.89% Based on Total Apprenticeable Work Hours	10.21%

Percentage Project Complete Based on Worker Hours: 99.24% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
639,876.32	7.72%	1.54%	21.31%	60.49%	0.24%	8.70%	69.99%	4.19%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Patsaouras Plaza Busway Station
PLA Targeted Worker Attainment: Prime: OHL-USA, Inc.

Report Data Through June 2019

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
74,853.75	56.75%	12.46% Based on Total Apprenticeable Work Hours	4.03%

Percentage Project Complete Based on Worker Hours: 88.06% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
74,853.75	1.32%	2.90%	17.17%	73.56%	0.21%	4.85%	77.99%	1.30%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Westside Purple Line Ext. Sec 3 – Advanced Utility Rel

PLA Targeted Worker Attainment: Prime: Bubalo Construction Co.

Report Data Through June 2019

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
37,912.05	47.56%	21.08% Based on Total Apprenticeable Work Hours	12.08%

Percentage Project Complete Based on Worker Hours: 99.77% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
37,912.05	0.17%	1.02%	1.19%	89.41%	0.00%	8.21%	90.60%	5.10%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Metro Blue Line Signal System (Rehabilitation)
PLA Targeted Worker Attainment: Prime: Mass Electric Construction

Report Data Through June 2019

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
33,362.40	26.89%	17.06% Based on Total Apprenticeable Work Hours	9.45%

Percentage Project Complete Based on Worker Hours: 74.97% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
33,362.40	5.61%	1.47%	26.08%	59.86%	1.81%	5.17%	68.75%	0.90%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Soundwall # 11 Construction
PLA Targeted Worker Attainment: Prime: Powell Constructors, Inc.

Report Data Through June 2019

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
80,270.47	38.90%	12.07% Based on Total Apprenticeable Work Hours	0.11%

Percentage Project Complete Based on Worker Hours: 26.10% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
80,270.47	3.70%	0.00%	10.07%	81.93%	0.01%	4.29%	85.64%	0.01%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Willowbrooks/Rosa Parks Station Improvements
PLA Targeted Worker Attainment: Prime: Icon-West, Inc.

Report Data Through June 2019

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
46,390.44	65.03%	20.87% Based on Total Apprenticeable Work Hours	5.41%

Percentage Project Complete Based on Worker Hours: 82.65% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
46,390.44	4.23%	1.51%	17.82%	73.60%	0.00%	2.83%	79.34%	1.43%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Metro Blue Line Track & System Refurbishments
PLA Targeted Worker Attainment: Prime: RailWorks

Report Data Through June 2019

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
127,416.15	28.20%	22.85% Based on Total Apprenticeable Work Hours	4.79%

Percentage Project Complete Based on Worker Hours: 90.11% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
127,416.15	8.15%	2.73%	20.26%	51.55%	1.43%	15.87%	63.86%	0.56%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Metro HQ Chillers Plan & Emergency System Replacement

PLA Targeted Worker Attainment: Prime: EMCOR/Mesa Energy

Report Data Through June 2019

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
9,204.00	46.01%	32.16% Based on Total Apprenticeable Work Hours	20.56%

Percentage Project Complete Based on Worker Hours: 54.81% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
9,204.00	18.72%	0.00%	30.85%	40.35%	9.47%	0.61%	68.54%	5.54%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Crenshaw/LAX Advanced Utilities Relocations

PLA Targeted Worker Attainment: Prime: Metrobuilders

Report Data Through Oct 31, 2014 (FINAL)

No. of Work Hours	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
61,708.26*	61.41%		21.08%
43,277.52**		13.84%	

Percentage Project Complete Based on Worker Hours: 100%

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
61,708.26	11.66%	0.01%	22.02%	66.29%	0.01%	0.00%	77.97%	0.52%

Metro

* Total Cumulative Project Hours as Reported by Prime Contractor.

** Total Apprenticeable Cumulative Hours as Reported by Prime Contractor.

Westside Subway Extension Advanced Utilities

PLA Targeted Worker Attainment: Prime: Metrobuilders

Report Data Through November 2014 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
37,731.76	67.47%	11.12%	11.08%

Percentage Project Complete Based on Worker Hours: 100%

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
37,731.76	3.92%	0.00%	12.76%	76.87%	0.00%	6.45%	80.79%	7.48%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Westside Subway Extension Exploratory Shaft

PLA Targeted Worker Attainment: Prime: Innovative Constructive Solutions

Report Data Through October 2014 (FINAL)

No. of Work Hours	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
*18,049.25	50.88%		11.23%
**238.50		75.05%	

Percentage Project Complete Based on Worker Hours: 100%

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
18,049.25	11.40%	0.00%	22.71%	33.18%	1.19%	31.52%	45.77%	0.42%

Metro

* Total Cumulative Project Hours as Reported by Prime Contractor.

** Total Apprenticeable Cumulative Hours as Reported by Prime Contractor.

Regional Connector Advanced Utility Relocations
PLA Targeted Worker Attainment: Prime: Pulice

Report Data Through May 2015 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
58,903.00	51.61%	21.37% Contractor Reported Based on Total Work Hours	22.83%

Percentage Project Complete Based on Worker Hours: 100.00% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
58,903.00	1.36%	0.41%	17.43%	80.30%	0.00%	0.50%	82.07%	2.57%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

CNG Emergency Generator Division 7 and 8

PLA Targeted Worker Attainment: Prime: Taft Electric Company

Report Data Through May 2015 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
3,289.50	46.42%	25.51% Based on Total Apprenticeable Work Hours	39.08%

Percentage Project Complete Based on Worker Hours: 100.00% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
3,289.50	14.47%	1.92%	38.21%	45.40%	0.00%	0.00%	61.79%	4.68%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Division 13 CNG Fueling Facility, Design/Build/Operate

PLA Targeted Worker Attainment: Prime: Clean Energy

Report Data Through June 2015 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
11,496.00	67.54%	20.17% Based on Total Apprenticeable Work Hours	60.72%

Percentage Project Complete Based on Worker Hours: 100.00% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
11,496.00	31.21%	3.03%	26.54%	39.23%	0.00%	0.00%	73.47%	1.69%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Metro Blue Line Station Refurbishments
PLA Targeted Worker Attainment: Prime: S.J. Amoroso

Report Data Through June 2015 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
41,274.75	56.01%	26.10% Based on Total Apprenticeable Work Hours	13.62%

Percentage Project Complete Based on Worker Hours: 100.00% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
41,274.75	16.59%	1.55%	20.72%	61.14%	0.00%	0.00%	79.28%	0.48%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Westside Subway Extension Project AUR (Fairfax Station)
PLA Targeted Worker Attainment: Prime: W.A. Rasic

Report Data Through December 2015 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
37,510.00	63.27%	20.61% Based on Total Apprenticeable Work Hours	19.90%

Percentage Project Complete Based on Worker Hours: 100.00% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
37,510.00	9.44%	0.01%	13.39%	77.08%	0.00%	0.09%	86.53%	2.78%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Metro Rail Security Kiosks
PLA Targeted Worker Attainment: Prime: Icon-West

Report Data Through March 2016 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
7,281.75	45.90%	27.06% Based on Total Apprenticeable Work Hours	20.17%

Percentage Project Complete Based on Worker Hours: 100.00% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
7,281.75	48.19%	0.27%	15.16%	34.78%	0.87%	0.72%	84.11%	0.00%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Westside Extension Project AUR (La Cienega Station)
PLA Targeted Worker Attainment: Prime: Bubalo Construction

Report Data Through October 2016 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
52,043.60	65.15%	21.76% Based on Total Apprenticeable Work Hours	20.96%

Percentage Project Complete Based on Worker Hours: 100% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
52,043.60	4.84%	0.00%	7.52%	87.64%	0.00%	0.00%	92.48%	0.57%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

MRL/MOL North Hollywood Station West Entrance

PLA Targeted Worker Attainment: Prime: Skanska

Report Data Through November 2016 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
85,105.00	57.79%	24.28% Based on Total Apprenticeable Work Hours	15.78%

Percentage Project Complete Based on Worker Hours: 100% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
85,105.00	11.06%	0.40%	27.47%	56.58%	1.04%	3.45%	69.08%	7.44%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Patsaouras Plaza POV Relocation, Pavers & Storm Drain
PLA Targeted Worker Attainment: Prime: AP Construction

Report Data Through April 2017 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
18,173.00	76.46%	21.26% Based on Total Apprenticeable Work Hours	42.56%

Percentage Project Complete Based on Worker Hours: 100% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
18,173.00	6.96%	0.35%	3.31%	89.06%	0.00%	0.33%	96.37%	3.91%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Universal City Pedestrian Bridge
PLA Targeted Worker Attainment: Prime: Griffith Company

Report Data Through June 2017 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
109,020.00	38.33%	27.49% Based on total Apprenticeable Work hours	12.55%

Percentage Project Complete Based on Worker Hours: 100% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/ Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
109,020.00	8.50%	4.11%	22.25%	61.79%	0.62%	2.83%	75.02%	1.57%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

MRL Pershing Square Canopy & Escalator Replacement

PLA Targeted Worker Attainment: Prime: Clark Construction, LLP

Report Data Through June 2017 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
22,562.00	50.62%	33.68% Based on Total Apprenticeable Work Hours	14.12%

Percentage Project Complete Based on Worker Hours: 100% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
22,562.00	6.13%	1.91%	41.21%	46.93%	1.15%	2.67%	56.12%	1.46%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Bob Hope Airport/Hollywood Way Station
PLA Targeted Worker Attainment: Prime: C.A. Rasmussen, Inc.

Report Data Through April 2018 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
21,378.00	42.77%	22.62% Based on Total Apprenticeable Work Hours	12.71%

Percentage Project Complete Based on Worker Hours: 100% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
21,378.00	2.78%	0.13%	10.20%	73.09%	0.04%	13.75%	76.04%	0.80%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Non-Revenue Maintenance Bldg. at Vernon Yard
PLA Targeted Worker Attainment: Prime: Access Pacific, Inc.

Report Data Through May 2018 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
12,350.00	54.16%	20.90% Based on Total Apprenticeable Work Hours	12.93%

Percentage Project Complete Based on Worker Hours: 100% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
12,350.00	0.39%	0.22%	11.91%	82.01%	0.52%	4.96%	83.14%	7.64%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Metro Blue Line Pedestrian & Swing Gates
PLA Targeted Worker Attainment: Prime: Icon-West

Report Data Through July 2018 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
62,860.00	65.33%	25.61% Based on Total Apprenticeable Work Hours	11.56%

Percentage Project Complete Based on Worker Hours: 100% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
62,860.00	5.09%	0.02%	12.09%	76.59%	0.00%	5.07%	81.70%	1.02%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Division 9 Maintenance Annex Bldg.
PLA Targeted Worker Attainment: Prime: Metro Builders, Inc.

Report Data Through January 2019 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
19,006.00	44.96%	27.03% Based on Total Apprenticeable Work Hours	12.37%

Percentage Project Complete Based on Worker Hours: 100% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
19,006.00	3.59%	0.40%	9.74%	71.36%	0.00%	14.91%	75.35%	1.67%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Design Build – Maintenance of Way Bldg. 61S

PLA Targeted Worker Attainment: Prime: Clark Construction, Inc.

Report Data Through April 2019 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
231,555.84	63.67%	25.84% Based on Total Apprenticeable Work Hours	10.40%

Percentage Project Complete Based on Worker Hours: 100% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
231,555.84	1.20%	2.83%	18.74%	62.22%	0.14%	14.86%	66.39%	0.73%

Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

Division 1 Maintenance Annex Bldg.
PLA Targeted Worker Attainment: Prime: Metro Builders, Inc.

Report Data Through May 2019 (FINAL)

No. of Work Hours*	Targeted Economically Disadvantaged Worker Utilization (%) Goal: 40%	Apprentice Utilization (%) Goal: 20%	Disadvantaged Worker Utilization (%) Goal: 10%
27,168.74	43.26%	25.03% Based on Total Apprenticeable Work Hours	12.95%

Percentage Project Complete Based on Worker Hours: 100% (rounded)

Executive Order 11246 Demographic Summary

No. of Work Hours*	African American Utilization	Asian/Pacific Islander Utilization	Caucasian Utilization	Hispanic Utilization	Native American Utilization	Other/Declined to state	Minority Utilization Goal: 28.3% (rounded)	Female Utilization Goal: 6.9%
27,168.74	3.69%	0.90%	2.53%	80.57%	0.00%	12.31%	85.16%	7.12%

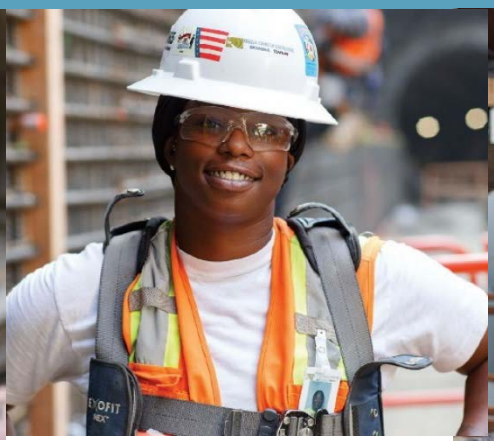
Metro

*Cumulative Hours Through End of Noted Reporting Period – as Reported by Prime Contractor. Data subject to change to reflect updates or audits.

METRO WORKFORCE DISPARITY STUDY

EXECUTIVE SUMMARY







Prepared for:

Prepared by:

Metro

Estolano LeSar ADVISORS

With ICF and Inclusive Economics

EXECUTIVE SUMMARY

Background

In November 2017, the Los Angeles County Metropolitan Transportation Authority (Metro) Board of Directors (Board) approved a motion to encourage contractors on Metro construction projects to increase women's workforce participation to meet or exceed the nationwide female participation goal of 6.9% as set forth by Executive Order 11246. The female participation goal is expressed in terms of hours of training and employment as a proportion of the total number of hours to be worked by the contractor's aggregate workforce. The purpose of the workforce disparity study is to determine the availability and utilization of female workers to meet the demand for the future infrastructure projects in the region. The study includes an overview of the current state of the construction workforce, including a forecast of workforce supply and demand within the Greater Los Angeles Area focusing on the availability of women.

Diversifying Metro's Construction Workforce

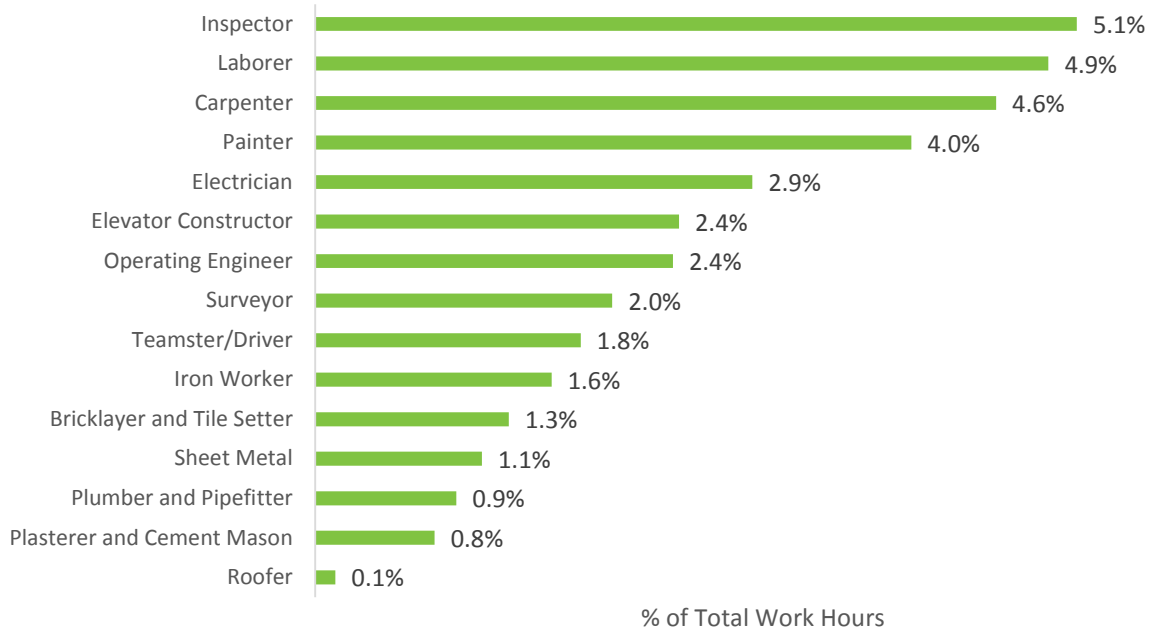
As of December 2018, all contractors on projects subject to Metro's Project Labor Agreement (PLA) have exceeded their attainment in Metro's minority participation goal of 23.8%. However, female workers remain significantly underrepresented on Metro's construction projects. None of the current Metro PLA/CCP projects have met the 6.9% female participation goal. The average female participation on Metro construction projects between 2014 and 2018 is 3.5% compared to 1.9% on other Non-Metro public works construction projects in the region.



Overview of Metro Construction Projects

Metro's projects represented a total of 34% of the total hours performed on public works construction projects in the region over the past 5 years. The data also shows that women are working more hours on Metro projects. Approximately 64% of the total hours performed by female construction workers in the region over the past 5 years were on Metro projects. This is a significant achievement and demonstrates Metro's role as a leader and its capacity to impact the construction workforce. According to LCPtracker, the top construction trades based on the *percentage of total work hours* performed by female construction workers on Metro projects from 2014 and 2018 were: ***Inspector, Laborer, Carpenter, Painter, and Electrician.***

Female Participation on Metro Construction Projects by Trade (2014 – 2018)

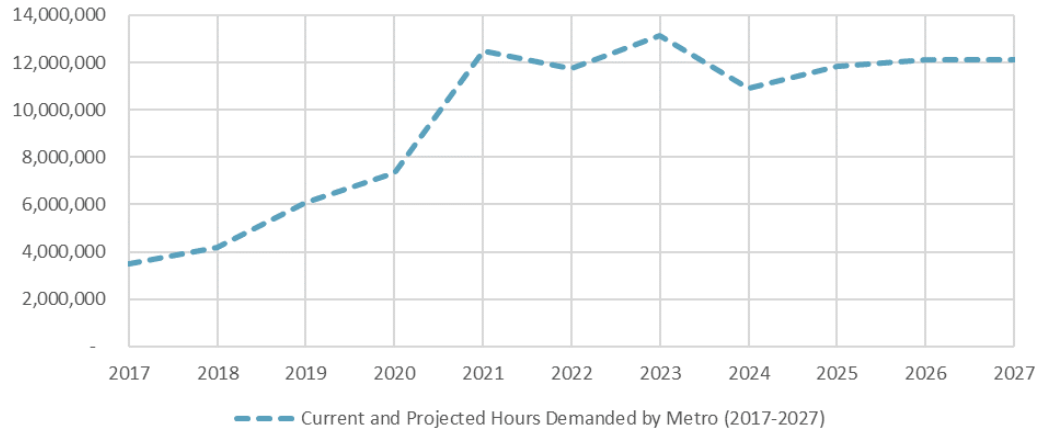


Source: LCPtracker

Metro Construction Workforce Demand

The Greater LA Area is in a period of high construction activity with dozens of transportation infrastructure projects already underway. With new long-term funding sources, Metro will likely shape and be affected by the demand for construction workers for years to come. Based on Metro's pipeline of projects through Measure M and the acceleration of 28 by '28 Initiative, Metro is anticipated to see projected construction demand peak at approximately 13 million construction work hours in 2023.

Current and Projected Workforce Demand for Metro Projects (Total Work Hours)



Source: Metro, LCPtracker, ELA, and ICF

Here are key findings from the Metro Construction Demand Analysis:

- Analysis shows that the estimated total workforce demand on Metro projects in terms of total work hours by trade indicates a high demand for ***Laborers, Operating Engineers, Carpenters, Electricians, and Iron Workers***.
- in order for Metro to meet its female participation goal in 2017, the female workforce would have needed to perform at least 239,922 of the total work hours. Instead, a total of 185 women performed 120,376 (or 3.5%) work hours in 2017.
- An estimated ***1,770 women will be needed in 2027*** to perform over 836,000 of the total work hours on Metro projects in order to meet Metro's female participation goal of 6.9%.

Female Construction Workforce Availability

The U.S. Census Bureau data indicates that both the male and female construction workforce share the same characteristics in terms of the workforce growth rate and the age distribution of the workforce. Below are key findings based on the workforce data on private construction projects:

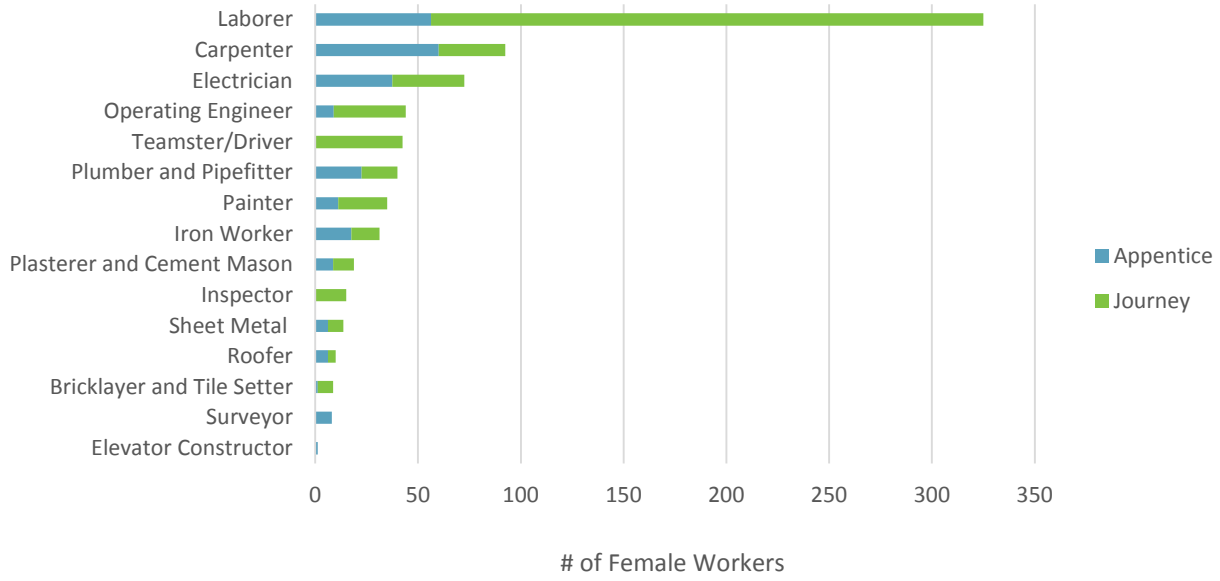
- A majority of the construction workforce for both male and females is between the ages of 25 and 54. The female construction workforce in the older age range of 55 years and over is higher compared to the male construction workforce. the construction workforce is also experiencing an aging labor force.
- Young people are not entering the construction trades at the rates they used to while older workers are not leaving the workforce at the rates they used to. As the older construction workforce continues to grow faster than the young workers entering the trade, the region will need to recruit more workers to replace those who will retire from the construction industry soon.

Current and Projected Regional Female Construction Workforce Availability (Apprentices and Journey Workers)

According to data from LCPTracker, the estimated total number of female workers available to work on public works construction projects in Greater LA Area in 2018 was 775 (or 1% of the total workers available).

- Of the total number of estimated female workers, approximately 250 were apprentices (or 32% of total female workers) and 525 were journey workers (or 68% of total female workers).
- The trades with the highest number of female workers (including both journey workers and apprentices) were: ***Laborer, Carpenter, Electrician, Operating Engineer, and Teamster/Driver.***
- The trades with the highest number of female journey workers were Laborer (51% of total female journey workers) followed by Operating Engineer (8% of total female journey-workers).
- The trades with the highest number of female apprentices were Carpenter (24% of total female apprentices) followed by Laborer (23% of total female apprentices).

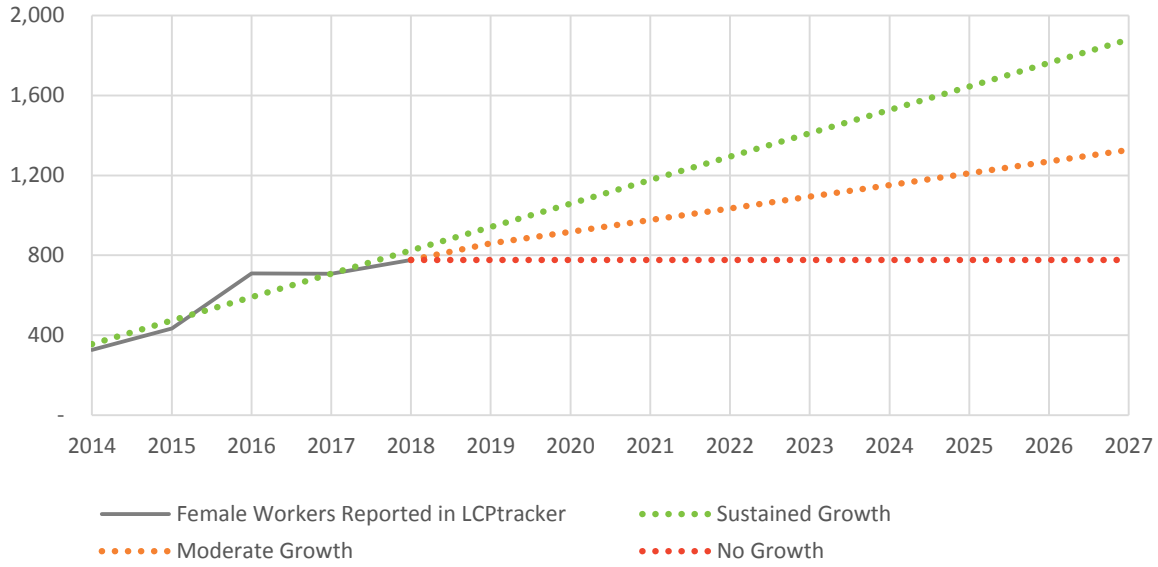
Estimated Female Workforce Availability on Regional Public Works Construction Projects (2018)



Source: LCPtracker

Based on two growth scenarios "Moderate Growth" and "Sustained Growth" evaluated in this study, the projected female construction workforce is estimated to increase between 981 to 1,178 in 2021. The female construction workforce could reach up to a range of 1,332 to 1,879 workers in 2027. These projections assume that significant female recruitment and retention efforts are made in the region.

Regional Availability of Female Construction Workers (2014 – 2027)



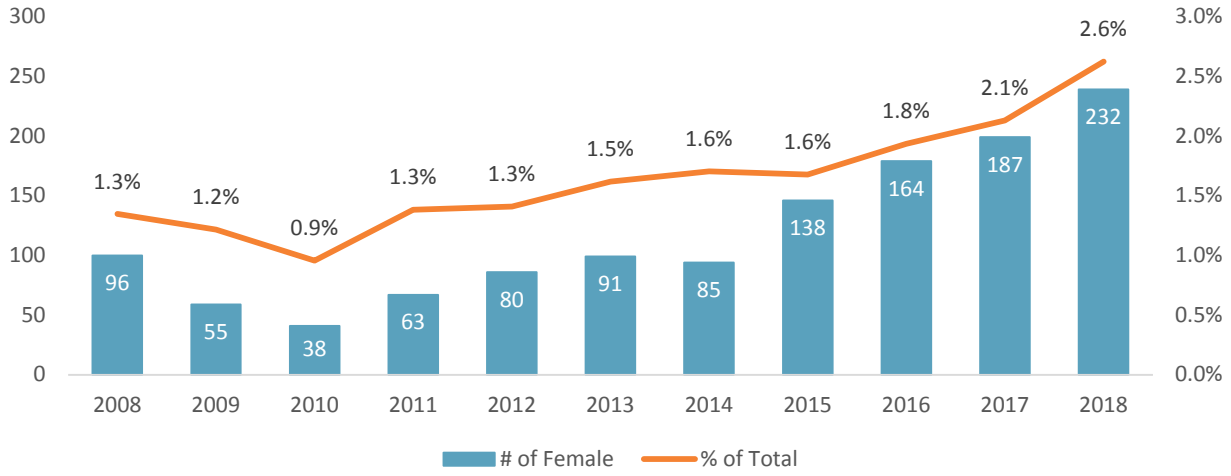
Source: LCPtracker, ELA, and Inclusive Economics

Female Apprentice Recruitment Trends

Female participation in apprenticeship programs is increasing with the number of recruits more than doubled since 2008. Based on the cohort of apprentices that started apprenticeship programs since

2008, female apprentices as a percent of total apprentices has doubled between 2008 and 2018 from 96 (1.3%) in 2008 to 232 (2.6%) in 2018.

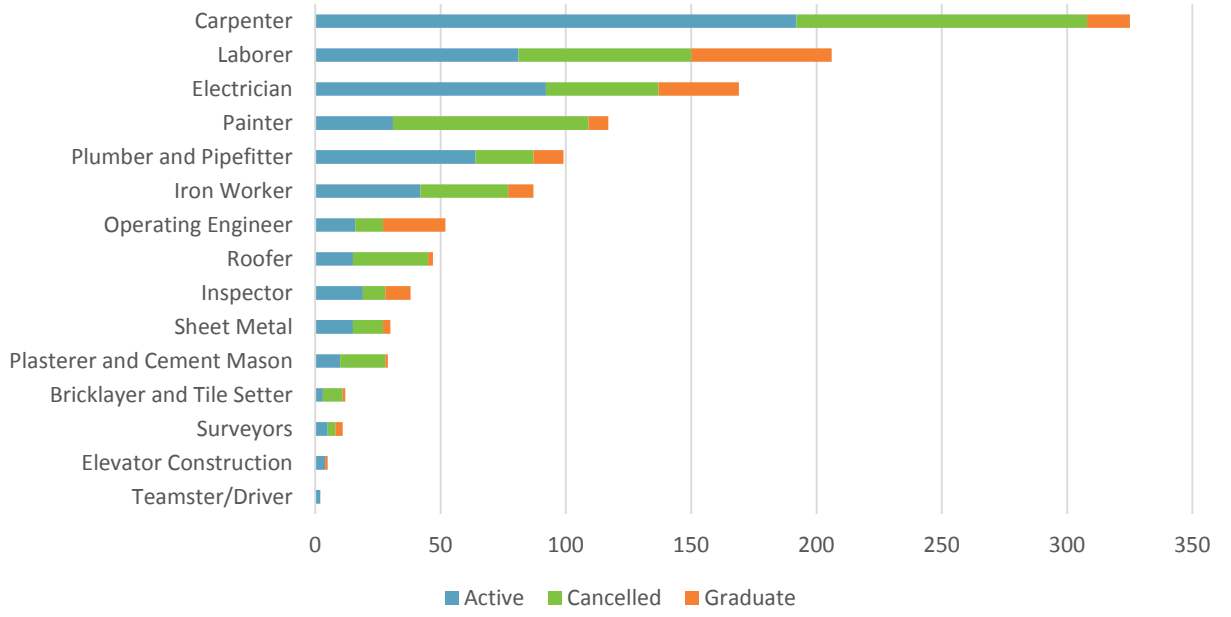
Female Apprenticeship Participation in the Greater LA Area (Start Year 2008 - 2018)



Source: California Department of Industrial Relations Division of Apprenticeship Standards

The trades with the highest number of overall female recruitments were (1) Carpenter; (2) Laborer; (3) Electrician; (4) Painter; and (5) Plumber and Pipefitter. This is consistent with the trades with the highest number of available female construction workers in the overall region, which were Laborer, Carpenter, Operating Engineer, Electrician, and Teamster/Drivers.

Female Apprentices in the Greater LA Area by Trade and Status (Start Year 2008 – 2018)



Source: California Department of Industrial Relations Division of Apprenticeship Standards

Apprenticeship Readiness Programs

Pre-Apprenticeship Programs, also called Apprenticeship Readiness Programs, are a critical component of the training pipeline. These programs are often run by community-based organizations or situated within high schools or community colleges. These programs offer exposure to a range of construction trades through work experiences and visits from people working in that trade. This exposure is valuable for participants and provides hands-on experience for what it is like to work in a particular trade that would provide better prepare individuals in registered apprenticeship programs and help improve retention and graduation rates. The Women in Non-Traditional Employment Roles (WINTER) organization runs a robust program that focuses on female recruitment. Significant efforts, particularly in this program, is needed to boost recruitment of female construction workers in order to meet Metro's female participation goal of 6.9%. Here are a few key statistics from WINTER's apprenticeship readiness program in FY 2017-18:

- Out of 130 women who attended WINTER's program orientation, 70 ended up enrolling in the program
- The program completion rate that year was 93%
- The age range of female participants were 18-44—the average age was 33
- 50 women were placed in apprenticeship programs upon graduation, while 10 were placed in employment within the construction industry

Construction Workforce Gap Analysis

In 2017, Metro did not meet its 6.9% female participation goal overall, or within any of the 15 key trades. Based on Metro's existing workforce gap, women would have needed to perform 119,545 more hours in 2017 in order to meet the 6.9% female participation goal. The projected gap based on three scenarios are as follow:

- Under a "No Growth" scenario, Metro is projected to meet and/or exceed the 6.9% female participation goal by 2021 in the following trades: ***Painter, Plumbers and Pipefitter, Sheet Metal Worker, and Roofers***. Metro would not reach the 6.9% goal for any other trade by 2027 under this scenario.
- Under a "Moderate Growth" scenario, Metro would achieve the 6.9% female participation goal in the following trades by 2021: ***Painter, Plumbers and Pipefitter, Sheet Metal Worker, and Roofers.*** However, Metro would not reach the 6.9% goal by 2027 for the overall workforce or in the following trades: Operating Engineer, Teamsters/Driver, Iron Worker, Plasterers and Cement Mason, Elevator Constructor, Surveyor, Bricklayers and Tile Setter, and Electrician.
- Under a "Sustained Growth" scenario, Metro would achieve the 6.9% female participation goal for ***Carpenters, Painters, Plumbers and Pipefitters, Sheet Metal Workers, and Roofers*** by 2021. By 2024, Metro's total workforce would reach the overall 6.9% goal. However, Metro would not reach the 6.9% goal by 2027 in the following trades Operating Engineer, Iron Worker, Teamsters/Driver, Plasterer and Cement Mason, Surveyor, and Elevator Constructor.

The region should focus recruitment and retention efforts for all 15 major trades associated with Metro's projects. However, a significant push should be placed on the trades that are anticipated to experience the largest female workforce gap on Metro Projects, such as the following trades: ***Operating Engineer, Iron Worker, Teamsters/Driver, Plasterer and Cement Mason, Surveyor, and Elevator Constructor.***

Barriers to Opportunity for Women in Construction

The lack of encouragement and support, coupled with the insular nature of the male-dominated trades, create a hostile and unwelcome environment for women. Together, these factors reinforce a perception that women do not belong in the trades. Drawing from interviews with stakeholders and a review of the literature, the following barriers were identified as most pertinent to preventing women from entering the industry:

1. Lack of Awareness and Exposure to Trades
2. Hiring Practices and Poor On-The-Job Training
3. Hostility and Sexual Harassment
4. Lack of Mentorship and Kinship Networks
5. Scheduling and Childcare

Recommendations

Based on the findings in this report and a review of best practices in the construction industry, the following recommendations aim to:

- Expand and diversify the construction workforce to meet growing demand and skills-gaps;
- Create a gender-balanced workforce by targeting the recruitment of females to enroll in apprenticeship readiness programs and registered apprenticeship programs;
- Promote and support the retention of female construction workers by addressing the barriers and challenges for women in construction;
- Develop the capacity and pathways for women in leadership and career growth on the job and/or within their union; and
- Fully utilize the current female construction workforce by providing women with opportunity to work more hours on a project.

Short-Term Recommendations (Less than 1 year)

1.) Continue Metro's internal efforts through policies and programs related to supporting female participation in construction
2.) Expand upon Metro's Expose, Educate, and Employ (E3) Initiative to include to exposure to and training in construction related fields.
3.) Engage Metro Board Members in advocating for the recruitment and retention of female workers regionally
4.) Participate and/or host more career fairs, workshops, and conferences in collaboration with public agencies, community partners and the building trades to recruit and retain female workers in construction
5.) Convene a meeting with the building trades and prime contractors

Mid-Term Recommendations (1-5 years)

1.) Coordinate with the National Center for Women's Equity in Apprenticeship and Employment and the Chicago Women in Trades to establish a local Tradeswoman organization
2.) Encourage the formation of a Regional "Creating Supply" Committee
3.) Encourage building trades to track workforce participation

4.) Encourage unconscious bias training among all contractors
5.) Revise current Request for Proposals requirements for Metro construction projects to encourage contractors to provide a workforce development strategy
6.) Create a dedicated funding source to support the retention of female construction workers

Long-Term Recommendations (5-10 years)

1.) Renegotiate the PLA with LA/OCBCTC to include incentives and/or mandates in supporting females in the construction trades
2.) Monitor the Governor's proposed budget and statewide initiatives for funding that supports Early Childhood Development

METRO WORKFORCE DISPARITY STUDY

CONSTRUCTION COMMITTEE
ITEM # ____
September 19, 2019







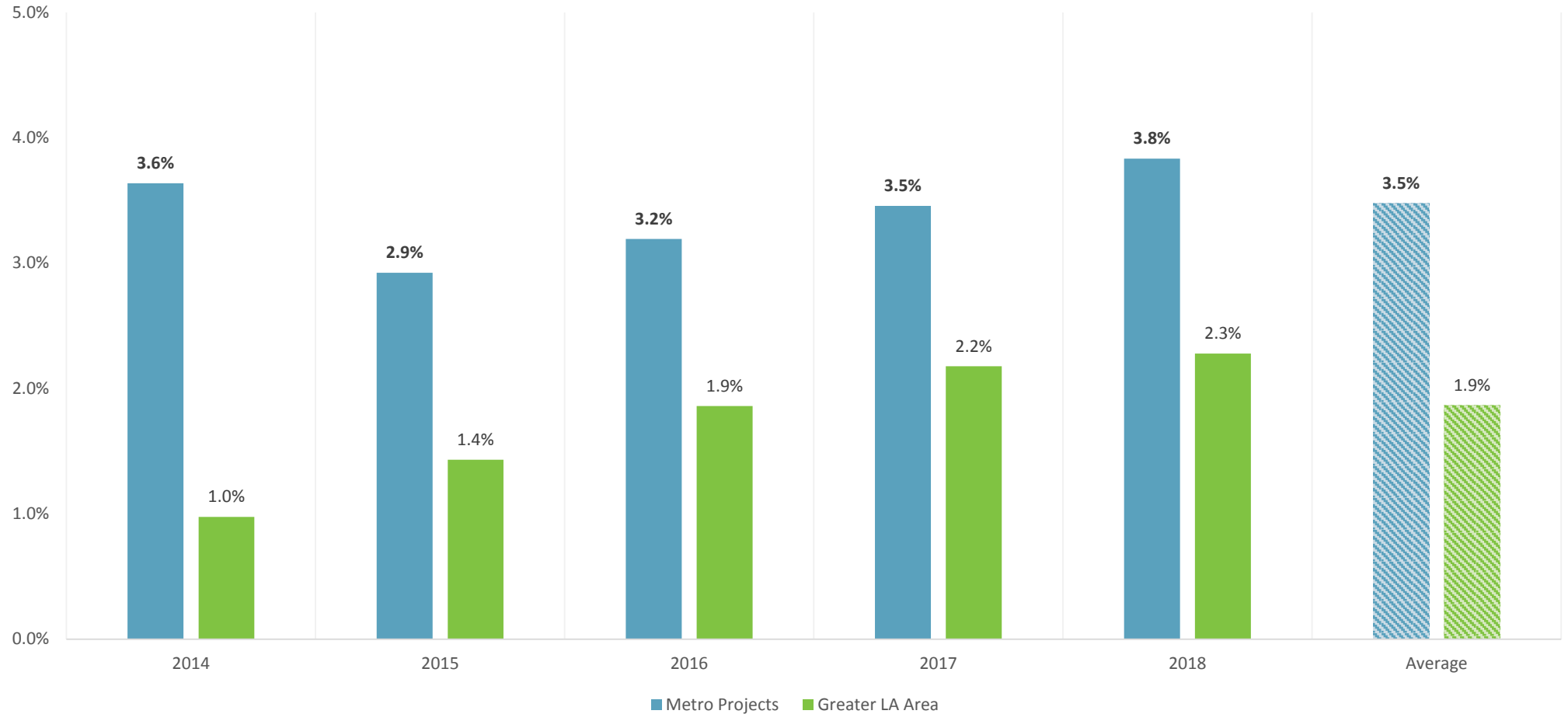
Metro Female Participation

Metro's projects represented a total of 34% of the total hours performed on public works construction projects in the region over the past 5 years. Approximately 64% of the total hours performed by female construction workers in the region over the past 5 years were on Metro projects.

-Estolano LeSar Advisors

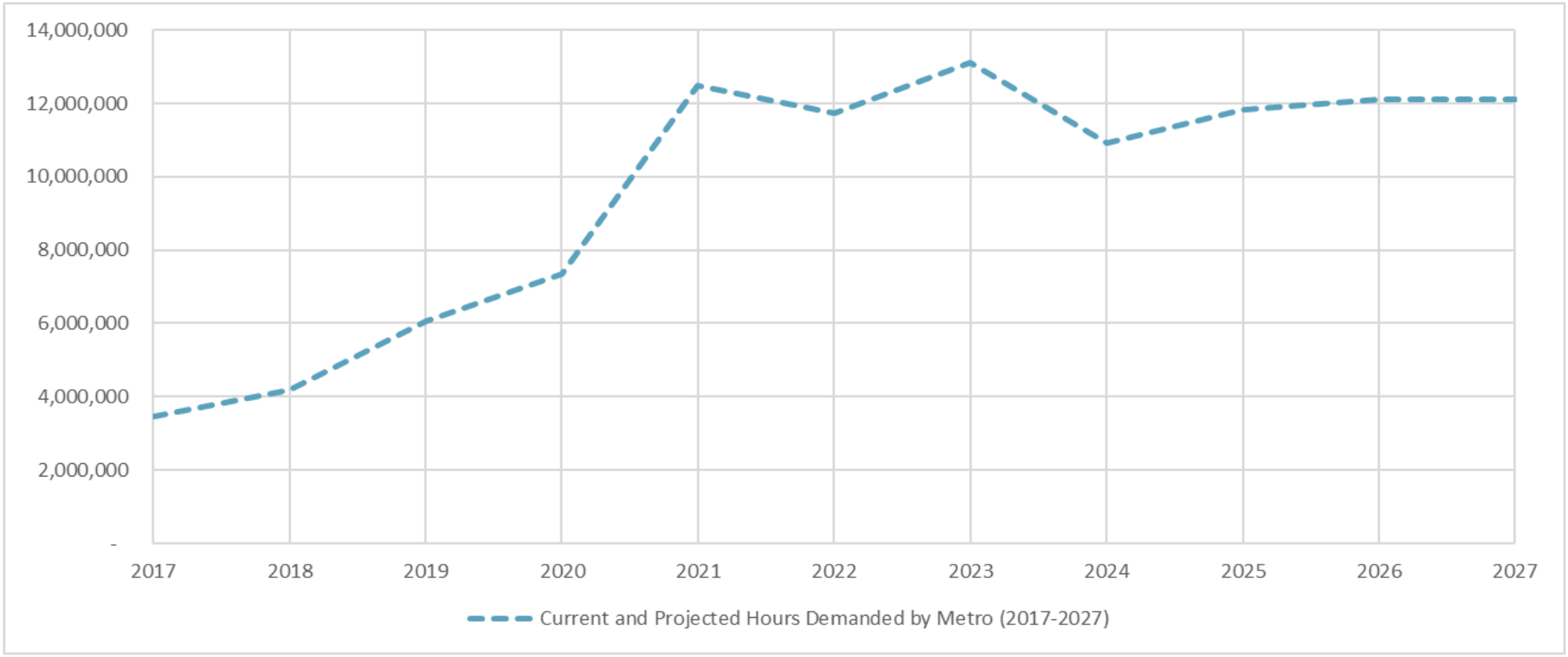
Metro

Metro Female Participation (2014-18)



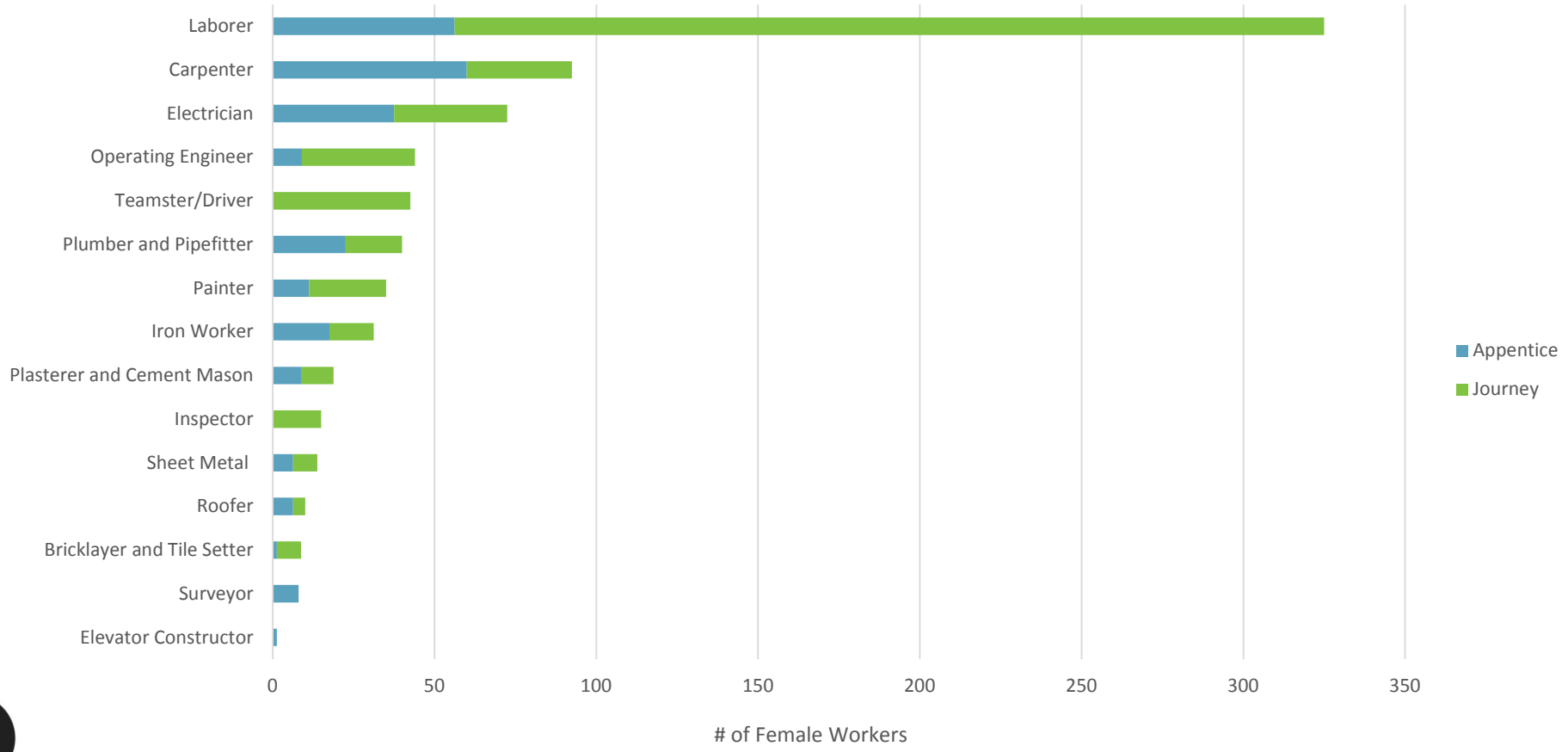
Metro

Metro Construction Workforce Demand



Metro

2018 Regional Female Workforce Availability (Public Works Construction Projects)



Metro

Barriers to Opportunity for Women in Construction

- Lack of Awareness and Exposure to Trades
- Hiring Practices and Poor On-The-Job Training
- Hostility and Sexual Harassment
- Lack of Mentorship and Kinship Networks
- Scheduling and Childcare

Metro

Summary of Recommendations

- Target recruitment of females for apprenticeship readiness programs
- Promote and support the retention of female construction workers by addressing the barriers and challenges for women in construction
- Coordinate with the National Center for Women's Equity in Apprenticeship and Employment and the Chicago Women in Trades to establish a local Tradeswoman organization
- Create a dedicated funding source to support the retention of female construction workers

Metro

$25.9 Million Contract to All-Female Owned Consultant Support Services Group



KDG Construction Consulting



Destination Enterprises



Rohadfox Construction Control Services Corporation



Fariba Nation Consulting

Metro