



Metro

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

Agenda - Final

Wednesday, July 17, 2024

1:00 PM

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Construction Committee

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Ara J. Najarian, Vice Chair

Paul Krekorian

Hilda Solis

Katy Yaroslavsky

Gloria Roberts, non-voting member

Stephanie Wiggins, Chief Executive Officer

METROPOLITAN TRANSPORTATION AUTHORITY BOARD AGENDA 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 general 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 General 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 Clerk 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 <https://www.metro.net> or on CD's and as MP3's for a nominal charge.

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

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Requests can also be sent to boardclerk@metro.net.



323.466.3876

x2 *Español (Spanish)*

x3 *中文 (Chinese)*

x4 *한국어 (Korean)*

x5 *Tiếng Việt (Vietnamese)*

x6 *日本語 (Japanese)*

x7 *русский (Russian)*

x8 *Հայերէն (Armenian)*

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Live Public Comment Instructions:

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The Committee Meeting begins at 1:00 PM Pacific Time on July 17, 2024; you may join the call 5 minutes prior to the start of the meeting.

Dial-in: 202-735-3323 and enter
English Access Code: 5647249#
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Public comment will be taken as the Board takes up each item. To give public comment on an item, enter #2 (pound-two) when prompted. Please note that the live video feed lags about 30 seconds behind the actual meeting. There is no lag on the public comment dial-in line.

Instrucciones para comentarios publicos en vivo:

Los comentarios publicos en vivo se pueden dar por telefono o en persona.

La Reunion de la Junta comienza a las 1:00 PM, hora del Pacifico, el 17 de Julio de 2024. Puedes unirte a la llamada 5 minutos antes del comiense de la junta.

Marque: 202-735-3323 y ingrese el codigo
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Codigo de acceso en espanol: 7292892#

Los comentarios del público se tomara cuando se toma cada tema. Para dar un comentario público sobre una tema ingrese # 2 (Tecla de numero y dos) cuando se le solicite. Tenga en cuenta que la transmisión de video en vivo se retrasa unos 30 segundos con respecto a la reunión real. No hay retraso en la línea de acceso telefónico para comentarios públicos.

Written Public Comment Instruction:

Written public comments must be received by 5PM the day before the meeting. Please include the Item # in your comment and your position of "FOR," "AGAINST," "GENERAL COMMENT," or "ITEM NEEDS MORE CONSIDERATION."

Email: BoardClerk@metro.net

Post Office Mail:

Board Administration

One Gateway Plaza

MS: 99-3-1

Los Angeles, CA 90012

CALL TO ORDER**ROLL CALL**

10. **SUBJECT: THIRD PARTY ADMINISTRATION - CITY OF LOS ANGELES** [2024-0430](#)

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to execute the FY25 Annual Work Plan Budget for the City of Los Angeles (Attachment A).

Attachments: [Attachment A - FY25 Annual Work Plan Budget for the City of LA](#)

11. **SUBJECT: PROGRAM MANAGEMENT QUARTERLY CHANGE REPORT** [2024-0435](#)

RECOMMENDATION

RECEIVE AND FILE status report on Program Management quarterly changes.

Attachments: [Attachment A - Quarterly Change Orders Log for 030124 – 053124](#)
[Attachment B - OIG Con. Change Order Spot Checks \(Thru May '24\)](#)

12. **SUBJECT: SUPPLEMENTAL ENGINEERING SERVICES (SES) CONSULTANT SERVICE CONTRACT** [2024-0373](#)

RECOMMENDATION(S)

AUTHORIZE the Chief Executive Officer to:

- A. AWARD a cost plus fixed fee Contract No. AE120356 to HDR Engineering, Inc. for Supplemental Engineering Services for Engineering Design of Transit Rail Projects on a task order basis, in an amount not to exceed \$50,000,000 for the base three-year term, and \$10,000,000 for each of the two, one-year options, for a total contract value not to exceed \$70,000,000, subject to resolution of any protest(s), if any; and
- B. ISSUE individual Task Orders and modifications within the Board approved contract amount.

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

13. SUBJECT: EASTSIDE TRANSIT CORRIDOR PHASE 2 PROJECT[2024-0413](#)**RECOMMENDATION**

AUTHORIZE the Chief Executive Officer (CEO) to execute Modification No. 8 to Contract No. AE51242000 with Cordoba HNTB Design Partners, a Joint Venture, in the amount of \$74,869,029 to advance to 30% Preliminary Engineering (PE) for the Initial Operating Segment (IOS), increasing the contract value from \$35,514,357 to \$110,383,386 and extending the period of performance from December 31, 2024, to August 30, 2026.

Attachments: [Attachment A - Procurement Summary](#)
[Attachment B - Contract Modification Change Order Log](#)
[Attachment C - DEOD Summary](#)

**14. SUBJECT: EAST SAN FERNANDO VALLEY LIGHT RAIL TRANSIT
LINE PROJECT**[2024-0323](#)**RECOMMENDATION**

AUTHORIZE the Chief Executive Officer to:

- A. INCREASE the Board approved Preconstruction Budget for the East San Fernando Valley Light Rail Transit Project (Project) by \$382,875,000 from \$496,856,000 to \$879,731,000; and
- B. NEGOTIATE AND EXECUTE all project-related agreements and modifications to existing contracts within the authorized Preconstruction Budget.

Attachments: [Attachment A - ESFV LRT Project, Preconstruction Exp. Funding Plan](#)

**15. SUBJECT: OFFICE OF THE INSPECTOR GENERAL COMPARISON OF
METRO RAIL DESIGN CRITERIA TO 11 CITIES ALONG
THE SOUTHEAST GATEWAY LINE**[2024-0220](#)**RECOMMENDATION**

RECEIVE AND FILE Office of the Inspector General Comparison of Metro Rail Design Criteria to 11 Cities Along the Southeast Gateway Line.

Attachments: [Attachment A - Rpt on Comp of MTA Rail Design Criteria-11 SEGL Cities](#)
[Attachment B - Management's Response](#)
[Presentation](#)

16. **SUBJECT: METRO G LINE IMPROVEMENTS PROJECT STATUS REPORT** [2024-0404](#)

RECOMMENDATION

RECEIVE AND FILE status report on the Metro G Line Improvements Project.

17. **SUBJECT: CALTRANS QUARTERLY UPDATE** [2024-0398](#)

RECOMMENDATION

RECEIVE the quarterly oral report on the status of the Caltrans construction projects.

Attachments: [Presentation](#)

18. **SUBJECT: PROGRAM MANAGEMENT MAJOR PROJECT STATUS** [2024-0231](#)

RECOMMENDATION

RECEIVE AND FILE the Program Management Major Project Status Report.

Attachments: [Presentation](#)

- SUBJECT: GENERAL PUBLIC COMMENT** [2024-0460](#)

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



Board Report

File #: 2024-0430, File Type: Budget

Agenda Number: 10.

CONSTRUCTION COMMITTEE JULY 17, 2024

SUBJECT: THIRD PARTY ADMINISTRATION - CITY OF LOS ANGELES

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to execute the FY25 Annual Work Plan Budget for the City of Los Angeles (Attachment A).

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. The annual work plan serves as a commitment from the agency for the reimbursement of services by the City of Los Angeles reviewing departments for an estimated amount of services. Without an annual work plan, the City of Los Angeles departments have no funding sources to support the projects in a timely manner to meet Metro's schedules.

BACKGROUND

In December 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 the 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.

Recently, a new MCA was negotiated, adopted, and attested to on April 25, 2024, in an effort to support the Metro construction program by capturing lessons learned, updating and enhancing processes, and enhancing overall relationships between the two agencies. Although new language was negotiated and adopted, the Annual Work Plan function remains as a best practice to manage expectations and improve coordination of a large program of projects. This work plan is consistent with the principles of the new MCA, which contains a streamlined escalation ladder, improved processes for design reviews and acceptance, early involvement and improved collaboration processes, and the inclusion of a Project Liaison to coordinate across City departments for future mega projects. The Project Liaison will be piloted for the East San Fernando Valley Transit Corridor

Project, and funds for the pilot are included within this Annual Work Plan.

DISCUSSION

The Annual Work Plan funds Metro's project plan reviews from various City of Los Angeles departments to support reviews of design and construction project plans on an annual basis. These services are essential for streamlining project delivery, which includes expediting plan reviews and approvals, ensuring quality and effective construction measures, timely inspections, and other functional efforts as described above. All services are centered to avoid delays and promote cost saving measures to effectively deliver the projects with minimal impacts on the community and provide benefits of enhanced mobility and regional access to underserved populations within the respective project areas.

The action contained herein provides funding for the City of Los Angeles participation in projects within the limit of the current approved FY25 budget for Third Party review and maintenance. (See Attachment A).

Metro's 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 of \$33,236,102, which may be obligated and spent under this one-year work plan, is included in the FY25 adopted budget for the projects requiring the services to be performed by the City of Los Angeles as outlined in Attachment A. Since these are multi-year projects, the Project Managers and the Chief Program Management Officer will be responsible for budgeting for future year costs. These fund sources are not eligible for rail and bus operating expenses.

EQUITY PLATFORM

While considering the projects, Metro will provide an estimated 42 miles of new transportation projects (pedestrian, bicycle, rail and bus) and 11 potential passenger stations within the City of L.A limits and Equity Focus Communities (EFC). This Board item action will reduce the likelihood of transit and active transportation project delays, as well as provide other tangible benefits to the

EFCs. This includes expedited, streamlined projects that improve safety and access for multimodal users with minimal negative impacts to the communities, and establishing troubleshooting opportunities to support the EFCs. This will ultimately lead to our operating system providing a world class transit system with reduced air and noise pollution, more walkable neighborhoods, better transportation amenities for disabled individuals, less congestions and collisions, and connecting communities.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

By executing the Annual Work Plan for FY25 and allowing the City departments to continue reviewing plans, while also advancing a more streamlined approval process 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. This is not recommended because it will delay each of the projects.

NEXT STEPS

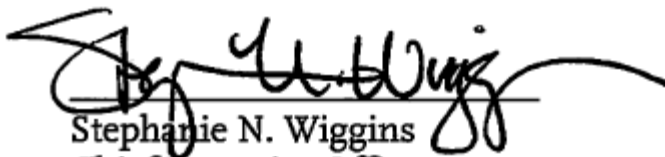
Upon Board approval of the annual work plan, the City of Los Angeles shall submit the annual work plan to the Los Angeles City Council and Mayor's Office for adoption.

ATTACHMENTS

Attachment A - FY25 Annual Work Plan Budget for the City of Los Angeles

Prepared by: Eduardo Cervantes, Executive Officer; 213-922-7255.

Reviewed by: Timothy Lindholm, Interim Chief Program Management Officer; 213-922-7297



Stephanie N. Wiggins
Chief Executive Officer

ATTACHMENT A

FY25 ANNUAL WORK PLAN BUDGET FOR CITY OF LOS ANGELES

CRENSHAW CATCH ALL

Bureau of Engineering	\$100,000
Dept. of Transportation	\$100,000
Con Ad	\$100,000
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Subtotal:	\$300,000

REGIONAL CONNECTOR

Bureau of Engineering	\$325,000
Dept. of Transportation	\$160,030
Bureau of Street Services	\$98,721
Bureau of Street Lighting	\$71,721
Con Ad	\$391,078
<hr/>	
Subtotal:	\$1,046,550

PURPLE LINE #1

Bureau of Engineering	\$925,000
Dept. of Transportation	\$916,271
Bureau of Street Services	\$158,078
Bureau of Street Lighting	\$188,242
Con Ad	\$506,023
Cross Coordination	\$226,367
LAPD	\$87,955
<hr/>	
Subtotal:	\$3,007,936

PURPLE LINE #2

Bureau of Engineering	\$925,000
Dept. of Transportation	\$651,772
Bureau of Street Services	\$172,007
Bureau of Street Lighting	\$119,936
Con Ad	\$504,873
LASAN (WPD)	\$119,082
LASAN (WESD)	\$118,123
Cross Coordination	\$226,397
LAPD	\$292,797
<hr/>	
Subtotal:	\$3,129,987

ATTACHMENT A (Continued)

PURPLE LINE #3

Bureau of Engineering	\$1,200,000
Dept. of Transportation	\$1,673,555
Bureau of Street Services	\$180,846
Bureau of Street Lighting	\$208,728
Con Ad	\$504,873
LASAN (WESD)	\$156,933
LASAN(WPD)	\$119,082
Cross Coordination	\$226,367
LAPD	\$87,955

Subtotal:	\$4,358,339
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RAILTO RAIL

Bureau of Engineering	\$600,000
Dept. of Transportation	\$275,000
Bureau of Street Services	\$22,442
Bureau of Street Lighting	\$166,787
Con Ad	\$404,400

Subtotal:	\$1,468,629
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ORANGE LINE (G Line Improvements)

Bureau of Engineering	\$1,175,000
Dept. of Transportation	\$900,000
Bureau of Street Services	\$98,045
Bureau of Street Lighting	\$300,000
Con Ad	\$391,078
LASAN	\$94,814
Cross Coordination	\$111,806

Subtotal:	\$3,070,743
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ESVTC

Bureau of Engineering	\$1,500,000
Dept. of Transportation	\$1,289,703
Bureau of Street Services	\$349,837
Bureau of Street Lighting	\$898,137
LASAN (WPD)	\$134,736
LASAN (WESD)	\$377,345
LASAN (SCWID)	\$350,358
Con Ad	\$873,847
Cross Coordination Support	\$726,631

Subtotal:	\$ 6,500,594
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ATTACHMENT A (Continued)

Link US

Bureau of Engineering	\$925,000
Dept. of Transportation	\$280,972
Bureau of Street Services	\$97,066
Bureau of Street Lighting	\$100,000
Con Ad	\$100,000
<hr/>	
Subtotal:	\$1,503,038

Brighton to Roxford

Bureau of Engineering	\$600,000
Dept. of Transportation	\$162,699
Bureau of Street Lighting	\$251,708
Con Ad	\$218,660
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Subtotal:	\$1,233,067

Doran Street Grade Separation

Bureau of Engineering	\$900,000
Dept. of Transportation	\$280,972
Bureau of Street Services	\$100,000
Bureau of Street Lighting	\$118,092
Con Ad	\$100,000
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Subtotal:	\$1,499,064

NOHO BRT

Bureau of Engineering	\$600,000
Dept. of Transportation	\$300,000
Bureau of Street Lighting	\$145,576
Con Ad	\$9,909
LA San	\$10,000
Bureau of Street Services	\$257,664
<hr/>	
Subtotal:	\$1,323,149

SOUTH EAST GATEWAY

Bureau of Engineering	\$20,000
Dept. of Transportation	\$20,000
Bureau of Street Services	\$20,000
Bureau of Street Lighting	\$20,000
Con Ad	\$20,000
<hr/>	
Subtotal:	\$100,000

ATTACHMENT A (Continued)

SEPULVEDA NORTH

Bureau of Engineering	\$20,000
Dept. of Transportation	\$20,000
Bureau of Street Lighting	\$20,000
Cross Coordination	\$111,806
<hr/>	
Subtotal:	\$171,806

NEXT GEN SPEED AND RELIABILITY

Bureau of Engineering	\$900,000
Bureau of Street Services	\$450,000
Con Ad	\$391,078
Bureau of Street Lighting	\$150,000
Dept. of Transportation	\$800,000
<hr/>	
Subtotal:	\$2,691,078

DIVISION 20

Bureau of Engineering	\$150,000
Dept. of Transportation	\$156,044
Bureau of Street Services	\$50,000
Bureau of Street Lighting	\$150,000
Con Ad	\$391,078
LASAN	\$50,000
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Subtotal:	\$947,122

I-105 EXPRESS LANES

Bureau of Engineering	\$30,000
Dept. of Transportation	\$30,000
Bureau of Street Lighting	\$30,000
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Subtotal:	\$90,000

PATSAOURAS

Bureau of Engineering	\$15,000
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Subtotal:	\$15,000

I-405 WIDENING

Bureau of Engineering	\$30,000
BSS	\$30,000
Con Ad	\$10,000
BSL	\$10,000
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Subtotal:	\$80,000

ATTACHMENT A (Continued)

VERMONT	
Bureau of Engineering	\$300,000
BSS	\$150,000
DOT	\$150,000
BSL	\$100,000
<hr/>	
Subtotal:	\$700,000
GRAND TOTAL:	\$33,236,102
<u>TOTAL FY25 BUDGET:</u>	<u>\$33,236,102</u>

A large, stylized letter 'M' is positioned at the top of the page. The 'M' is composed of several white, rectangular blocks with a grid-like pattern on their top surfaces, arranged to form the shape of the letter. The background behind the 'M' is a dark green circle, which is itself set against a larger orange circle. The bottom portion of the page is a solid black background.

City of Los Angeles FY25 Annual Work Plan



Metro

July 2024

Action and Background

Action:

- Authorize the Chief Executive Officer to execute annual expenditure budget plan for the FY25 Annual Work Plan for the City of Los Angeles.
- Estimated budget plan: \$33,236,102

Background:

- The Annual Work Plan, a function of the new MCA, is a mechanism to obtain City support to accommodate projects through design, construction and maintenance phases.
- The annual work plan shall serve as a commitment from Metro for the reimbursement of services by the City of Los Angeles reviewing jurisdictions for an estimated amount.
- Without an annual work plan, the City of Los Angeles jurisdictions have no funding sources to support the projects in a timely manner thereby delaying the projects.

Services Provided

During the design, construction and maintenance phases of Metro projects, a significant amount of support is required from local jurisdictions. The following represents some of the general services that are to be provided by the City departments:

- Meeting attendance
- Early planning
- Over the shoulder reviews
- Streamlined design plan reviews and approvals
- Value engineering efforts
- Interdepartmental coordination
- Liaison services
- Inspections
- Close out services

All services are centered to avoid delays and promote cost saving measures to effectively deliver the projects with minimal impacts.



Projects Covered

The following represents a list of the Projects that will benefit from the Annual Work Plan:

Crenshaw	Brighton to Roxford
Regional Connector	Doran Street Grade Separation
Purple Line 1	Metro Center Project
Purple Line 2	South East Gateway
Purple Line 3	Nex Gen Reliability
Rail to Rail	I405 Widening
G-Line Improvements	I105 Express Lanes
East San Fernando Valley LRT	Patsaouras Plaza Busway Station
North Hollywood to Pasadena BRT	
Division 20	
Link US	
Sepulveda	
Vermont BRT	



Board Report

File #: 2024-0435, **File Type:** Informational Report

Agenda Number: 11.

CONSTRUCTION COMMITTEE JULY 17, 2024

SUBJECT: PROGRAM MANAGEMENT QUARTERLY CHANGE REPORT

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on Program Management quarterly changes.

ISSUE

This board report provides a summary of quarterly contract changes for capital projects greater than \$500,000 that are managed by Program Management. This report covers change activities for the reporting period between March 1, 2024 - May 31, 2024.

BACKGROUND

In January 2017, the Board approved a one-year pilot program to delegate to the CEO the authority to execute project agreements up to the Life-of-Project (LOP) budget for the Crenshaw/LAX, Regional Connector, and Purple Line Extension Section 1 & 2 projects. The purpose of the pilot program was to save time and minimize disruption due to the typical contract change administration approval process.

The pilot program was effective, generated cost savings, and avoided costly construction delays. At the January 26, 2018 Board meeting, the Board approved the continuation and expansion of the delegation of authority within the LOP budget 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 (Attachment A). CEO Board delegated authority of changes is very beneficial to expedite contract changes and avoid costly construction delays. The Office of Inspector General (OIG) performs spot checks of change orders and modifications quarterly and quantifies time saving on each reviewed change based upon delegated authority. (Attachment B). Since inception of the program based on OIG spot checks up to 2,765 concurrent workdays or concurrent 10.7 years, aggregated across the program, have been saved.

DISCUSSION

The change activities for the reporting period between March 1, 2024 - May 31, 2024 are included in

Attachment A.

EQUITY PLATFORM

Westside Purple Line Ext 1	Equity - This project is not located within or adjacent to Equity Focus Communities
Westside Purple Line Ext 2	Equity - This project is not located within or adjacent to Equity Focus Communities
Westside Purple Line Ext 3	Equity - 1 of 2 stations (50%) are within or adjacent to Equity Focus Communities
Division 20	Equity - 100% of the project is within or adjacent to Equity Focus Communities
Airport Metro Connector	Equity - 100% of the project is within or adjacent to Equity Focus Communities
Rail to Rail	Equity - 90% of the project is within or adjacent to Equity Focus Communities
I-105 Express Lanes	Equity - 92% of the project is within or adjacent to Equity Focus Communities
I-605 South Street Interchange Improvements	Equity - This project is not located within or adjacent to Equity Focus Communities

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The report 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 Program Management Quarterly Change Report will cover the period of June 1, 2024 through August 31, 2024 and will be presented to the October 2024 Construction Committee.

ATTACHMENTS

Attachment A - Quarterly Change Orders Log for Reporting Period of March 1, 2024 - May 31, 2024

Attachment B - OIG Construction Change Order Spot Checks CEO Delegated Authority Delays Avoided (Through May 2024)

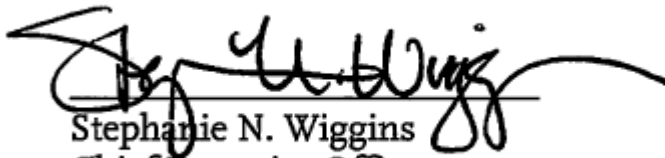
Prepared by:

- **Westside Purple Line Ext 1** - James Cohen, Senior Executive Officer, Projects Engineering, (323) 900-2114

- **Westside Purple Line Ext 2** - Michael McKenna, Senior Executive Officer, Projects Engineering, (424) 551-4447
- **Westside Purple Line Ext 3** - Kimberly Ong, Senior Executive Officer, Projects Engineering, (424) 551-4501
- **Division 20 Portal** - Albert Soliz, Deputy Executive Officer, Project Management, (213) 922-4002
- **Airport Metro Connector** - Rafie Zamani, Executive Officer, Projects Engineering, (213) 418-3140
- **Rail to Rail** - Rafie Zamani, Executive Officer, Projects Engineering,, (213) 418-3140
- **I-105 Express Lanes** - James Wei, Deputy Executive Officer, Program Management, (213) 922-7258
- **I-605 South Street Interchange Improvements** - Brad Owen, Senior Executive Officer, Program Management, (213) 418-3143
- **Report** - Julie Owen, Senior Executive Officer, Program Control, (213) 922-7313

Reviewed by:

Tim Lindholm, Chief Program Management Officer (Interim), (213) 922-7297



Stephanie N. Wiggins
Chief Executive Officer

WESTSIDE PURPLE LINE SECTION 1

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2024 - May 31, 2024)

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
CO-23.2	Isolate Track Circuits at Wilshire/Western Station (Construction): This change is to avoid potential safety issues related to failures of track circuits due to equipment between different manufactures when placed into service. This issue was the subject of letter from vendor Ansaldo STS dated 2/17/16 to contractor LK Comstock, subsequently forwarded to Metro C1045 contractor STS and on to Metro for consideration and action. Early completion of this work during Cutover Phase 1 will mitigate risks typically associated with the last moment detail interface works with the existing system while commissioning the newly installed systems.	7	5/31/2024	5/31/2024	\$4,378,260	\$3,334,960
CO-61	Station Signage Change - (Design & Construction): This change allows the contractor to comply with the new Metro Rail Underground Platform Design Directive Drawings for Customer Station Signage.	5	3/1/2024	2/29/2024	\$3,694,830	\$1,739,180
CO-66	COBH Street Restoration, Bus Pad Reconstruction and Curb/Gutter Replacement: As requested by the City of Beverly Hills (COBH) and agreed upon by Metro, Metro is to complete extensive street restoration in accordance with COBH standards as part of the Wilshire/ La Cienega Station construction.	2	3/19/2024	3/19/2024	\$1,144,567	\$757,767
CO-70.1	Wayside Signage Construction: This change was necessary to allow the Project to fabricate and install signage, which as per the base contract was to be completed by Metro Operations. Metro Operations is unable to take on this task. This is still being negotiated, and it is a not-to-exceed amount.	5	5/3/2024	5/3/2024	N/A	\$750,000
CO-71	Impacts from the Loss of Division #20 Yard: This change was necessary to compensate the Contractor for impacts resulting from the loss of the Division #20 yard and the relocation of equipment and material to other facilities.	3	4/25/2024	4/24/2024	\$2,204,393	\$1,788,634

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

None						
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B. PROFESSIONAL SERVICES CONTRACTS

2	EN66937000-TO-010 / WPLE 1 CONTINUATION OF ENVIRONMENTAL MONITORING AND CONSULTING SERVICES	5	05/06/24	5/16/2024	\$536,164	\$536,164
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C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

None						
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II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2024 - May 31, 2024)

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

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

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

None			
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B) PROFESSIONAL SERVICES CONTRACTS

None			
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C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

None			
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WESTSIDE PURPLE LINE SECTION 2

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2024 - May 31, 2024)

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. C1120 - Tutor Perini / O&G, 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-00204	<u>CCCS Crossover Sprinklers</u> ; This Change compensates the Contractor for extending the design and construction of the fire sprinkler system into the East ancillary module at the track level above the crossover tracks at Century City Constellation Station.	5	6/9/2023	3/18/2024	\$608,958	\$516,806
MOD-00205	<u>LADWP CCCS Access Hatch Street Lid</u> ; This Change directs the Contractor to add a removable hatch at street grade on Constellation Boulevard to enter the equipment access shaft dedicated for use by Los Angeles Department of Water and Power (LADWP) at Century City Constellation Station (CCCS) East Ancillary Module as updated in the revised Project Definition Documents.	2	2/16/2024	3/27/2024	\$1,131,035	\$904,036
MOD-00206	<u>MOA Impacts to Work Activities within the City of Beverly Hills during 2021 Holiday Moratorium</u> ; This Change compensates the C1120 contractor for impacts to the Wilshire/Rodeo station construction activities from work restrictions imposed by the City of Beverly Hills (COBH) Memorandum of Agreement (MOA) from November 25, 2021 to January 1, 2022. This Change Notice excludes individual COBH holidays defined in the MOA which were not already part of the C1120 Contract. Those individual additional COBH holidays will be captured separately in a subsequent Change Notice.	2	11/15/2023	3/8/2024	\$938,590	\$523,296
MOD-00207	<u>LADWP Customer Service Requirements/LADWP Fuse Disconnect</u> ; LADWP Power now requires Metro to install a fused disconnect on the Metro side of the power supply which is in addition to LADWP's fused disconnect installed on their side of the power supply.	2	2/29/2024	4/2/2024	\$1,115,089	\$826,774
MOD-00210	<u>MOA Impacts to Work Activities during 2023 Holiday Moratorium (CO-60.3)</u> ; This Change compensates the Contractor for impacts to the Wilshire/Rodeo station construction activities from work restrictions imposed by the City of Beverly Hills (COBH) Memorandum of Agreement (MOA) from November 23, 2023 to January 1, 2024.	2	4/11/2024	5/13/2024	\$1,222,488	\$1,222,488
CO-00062.1	<u>Additional Project Management, Administration and Contract Compliance for Extended Design Services (RFC-000110)</u> ; This Unilateral Change compensates the Contractor for additional Project Management, Administration and Contract Compliance for Extended Design Services per GC 32.6.2.E for Contract Modifications (MODs) actively progressing between October 1, 2021 and February 29, 2024 as merited in the response to RFC-00110.	5	N/A	5/13/2024	\$1,488,880	\$900,926
CO-00063.1	<u>Additional Project Management, Administration, and Compliance Activities for Changes Issued During Base Design Services (RFC-00104)</u> ; This Unilateral Change compensates the Contractor for 173 working days of extended Design Services comprising of Project Management, Administration, and Compliance Activities for Changes issued during Base Design Services up to October 1, 2021.	5	N/A	3/28/2024	\$11,600,778	\$2,157,921
CO-00070	<u>Design of Special Secondary Lining in Reach 5 BR Tunnel Stationing 664+19 to 669+62 & 682+09 to 687+33 and BL Tunnel Stationing 664+66 to 670+15 & 680+98 to 686+31</u> ; This Change directs the Contractor to design a special secondary liner within the Special Lining Section of Tunnel Reach 5 to meet additional Lining Performance Criteria. The Change Order was necessary to keep the Work moving while negotiations for a bilateral Modification continue.	5	N/A	3/13/2024	N/A	\$1,221,545
CO-00071	<u>Construction costs related additional CSE fans at Wilshire Rodeo Station and additional horizontal CSE dampers at Century City Constellation Station as partial resolution of Claim 47, RFC-118</u> ; This Change compensates the contractor for additional construction costs for additional fans at the Wilshire Rodeo Station (WRS) and additional dampers at Century City Constellation Station (CCCS). The Change Order was necessary to keep the Work moving while negotiations for a bilateral Modification continue.	5	N/A	5/6/2024	N/A	\$2,308,933

B. PROFESSIONAL SERVICES CONTRACTS

None						
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C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

None						
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II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2024 - May 31, 2024)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C1120 - Tutor Perini / O&G, A Joint Venture

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
CN-00246	MOA Impacts to Work Activities within COBH January 2, 2024, to November 27, 2024: This Change will compensate the C1120 contractor for impacts to construction activities from work restrictions imposed by the City of Beverly Hills (COBH) Memorandum of Agreement (MOA) for the Wilshire/Rodeo Station Box and Entrance construction and including work activities at Tunnel Reach 4 between the tunnel interface west of Wilshire/La Cienega Station and Crescent Drive and Tunnel Reach 5 between El Camino Drive and Beverly Hills High School. All work is to be performed during the time period from January 2, 2024, to November 27, 2024.	2	Between \$500K and less than \$1M
CN-00249	MOA Impacts to WRS Deck Removal and Restoration Work Activities: This Change will compensate the Contractor for the difference (and subsequent impacts to work activities) between allowable work hours and time periods for roadway deck removal and street restoration requirements in the C1120 Contract and the new allowable work hours and time periods described in the finally executed and signed City of Beverly Hills Memorandum of Agreement (MOA).	2	More than \$15M
CN-00250	Construction (& Impacts) of Special Secondary Lining in Reach 5 BR Tunnel Stationing 664+19 to 669+62 & 682+09 to 687+33 and BL Tunnel Stationing 664+66 to 670+15 & 680+98 to 686+31: This Change will direct the Contractor to construct the special secondary liner within the Special Lining Section of Tunnel Reach 5 to meet additional Lining Performance Criteria.	5	More than \$15M

B) PROFESSIONAL SERVICES CONTRACTS

None			
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C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

None			
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WESTSIDE PURPLE LINE SECTION 3

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2024 - May 31, 2024)

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. C1151 (FKTP)						
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
C1151-CO-00013	Design of Special Secondary Lining in Reach 6 BR Tunnel Stationing 738+70.17 to 731+62.01 and BL Tunnel Stationing 738+92.08 to 731+92.79 - This Change directs the Contractor to design a special secondary liner within the Special Lining Section of Tunnel Reach 6 to meet additional Lining Performance Criteria. The Change Order was necessary to keep the Work moving while negotiations for a bilateral Modification continue.	5	4/26/2024	5/1/2024	TBD	\$783,744

A. DESIGN BUILD CONTRACT - CONTRACT NO. C1152 (TPOG)						
C1152-MOD-00109	VA Sta- Water Supply Loop System at Wilshire/ Federal Intersection - Construction Only (Excluding Materials as per CO-91) - FLS MRDC Criteria 2.6.3.2 requires that domestic water supply to stations shall be from two public utility mains, this then allows if one of the water mains is out of service, the water from the second main will still provide water to Metro's station. The existing LADWP water supply at Federal Blvd and Wilshire Blvd currently consists of two single water lines that are not connected. The addition of a "loop" will connect the two water lines. In addition, the existing pressure in the LADWP system is inadequate to provide water to Metro's station; therefore, a portion of the water lines that the loop connects to needs to be upsized from 6" to 10" pipes.	5	02/13/24	3/22/2024	\$32,069,424	\$31,000,005

B. PROFESSIONAL SERVICES CONTRACTS						
	None					

C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS						
	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2024 - May 31, 2024)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C1151 (FKTP)

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

A. DESIGN BUILD CONTRACT - CONTRACT NO. C1152 (TPOG)

C1152-CO-00128	Design of Special Secondary Lining in Reach 6 BR Tunnel Stationing 738+70.17 to 731+62.01 and BL Tunnel Stationing 738+92.08 to 731+92.79 - This Change directs the Contractor to revise the design for the tunnel fit out to accommodate the C1151 design change for the special secondary liner within the Special Lining Section of Tunnel Reach 6 to meet additional Lining Performance Criteria. The Change Order was necessary to keep the Work moving while negotiations for a bilateral Modification continue.	5	Between \$500K and less than \$1M
C1152-CN-00164	VA Sta Bonsall Ave Right Turn Lane & Pavement Improvement - CONSTRUCTION ONLY - Construction of a right turn lane from the Metro Westwood/VA Hospital Station Passenger Drop-Off along Bonsall Avenue to the Wilshire Blvd frontage road, in accordance to the Memorandum of Understanding (MOU) between Metro and the VA Hospital, and paving at this location for the roadway restoration.	2	Between \$500K and less than \$1M
C1152-CN-00165	Wilshire Et Al Roadway Improvements – CONSTRUCTION ONLY - LA County Department of Public Works (LACDPW) requested Metro to construct County funded work since Metro will be constructing in the same general area. A Letter of Agreement (LOA), between Metro and LACDPW, was executed on January 27, 2020 to transfer scope from the LACDPW ongoing street maintenance program, along with cost reimbursement to Metro.	1	Between \$5M and \$10M
C1152-CN-00171	UCLA Sta – Additional LADWP Power Conduits (Permanent Power) - CONSTRUCTION ONLY - Standards for LADWP mainline duct bank extension were provided to Metro during Final Design and resulted in an increase of the number and sizes of conduits for power.	2	Between \$500K and less than \$1M
C1152-CN-00173	UCLA Station NW Entrance - Reduce footprint –CONSTRUCTION ONLY - Changes resulting from a Real Estate negotiations with UCLA that reduced the station footprint on UCLA property and resulted in a rearrangement of rooms.	2	Between \$1M and \$5M
C1152-CN-00181	UCLA Station NW Entrance Plaza - CONSTRUCTION ONLY - The Metro Board approved UCLA's request to deviate from the Systemwide Station Design Standards Policy at the December 5, 2019 board meeting, and this Change includes the associated enhancements to the Westwood/UCLA Northwest Entrance finishes at the portal and plaza. This Change also includes the coordinated plaza layout on UCLA property and enhanced safety for access at the station perimeter fence and at the enclosed bicycle parking and maintenance building.	2	Between \$500K and less than \$1M
C1152-CN-00190	UCLA Sta and VA Sta – Enclosed Bicycle Parking Conduits to Control Panel - CONSTRUCTION ONLY - Metro Bicycle Planning provided new additional requirements for conduits to support the future installation of access control equipment at the Enclosed Bicycle Parking at Westwood/UCLA and Westwood/VA Hospital Stations.	5	Between \$500K and less than \$1M
C1152-CN-00194	Westwood/ UCLA Southeast Entrance Changes Combined - CONSTRUCTION ONLY - Changes resulting from Real Estate negotiations with the property owner at 10900 Wilshire Blvd, for reconfiguration of surface features to improve the Westwood/UCLA Southeast Entrance station tie-in at the adjacent property.	2	Between \$500K and less than \$1M

B) PROFESSIONAL SERVICES CONTRACTS

None			
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C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

None			
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DIVISION 20 PORTAL WIDENING TURNBACK

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2024 - May 31, 2024)

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. 1136 (TUTOR PERINI CORP)

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-101.1	<u>Road A and Road G Light Poles</u> : Total cost of labor, material, and equipment to construct light poles along Roads A and G and Emergency Walkways in revised locations	5	3/1/2024	3/12/2024	\$807,875	\$646,000
MOD-153	<u>Alternate Train Car Delivery Pathway</u> : Revisions to the main shop parking lot civil work, train signals and track changes in order to accommodate the temporary train delivery route from Sante Fe Avenue	5	4/15/2024	5/22/2024	\$1,426,785	\$1,202,119

A. DESIGN BUILD CONTRACT - CONTRACT NO. 1184 (C3M POWER SYSTEMS, LLC)

None						
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B. PROFESSIONAL SERVICES CONTRACTS

None						
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C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

None						
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II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2024 - May 31, 2024)

A) DESIGN BUILD CONTRACT - CONTRACT NO. 1136 (TUTOR PERINI CORP)

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
MOD-151	Settlement the 1st Street Bridge/1st Street Viaduct - Time Impact Analysis 03 ("TIA 03"): This MOD extends the period of performance, work completion schedule due to impacts related to the 1st Street Bridge and Viaduct. This change specifies the settled excusable time extension of 247 calendar days and settles all issues of compensable time resulting in a fair and reasonable adjustment to the contract price pursuant to the terms of the contract.	5	Between \$10M and \$15M
CO-278	Replace Existing Bungalow A - Train Control & Communications (<u>Sponsored and funded by project 204807 DIV20 Bungalow A Replacement</u>): Contractor to provide the final design for the Train Control including implemetnation and integration activities with the existing system.	5	Between \$1M and \$5M

A. DESIGN BUILD CONTRACT - CONTRACT NO. 1184 (C3M POWER SYSTEMS, LLC)

None			
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B) PROFESSIONAL SERVICES CONTRACTS

None			
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C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

None			
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AIRPORT METRO CONNECTOR

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2024 - May 31, 2024)

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. C1194 - HPH

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					

A. DESIGN BUILD CONTRACT - CONTRACT NO. C1197 - Tutor

CO-13	Bulletin 29C - Arbor Vitae Fence Updates Authorizes Not to Exceed amount of \$1,000,000 to allow work described in base Change Notice (CN) 33 to proceed pending finalization of the Contract Modification. CO 13 does NOT supersede CN 33.			4/14/2024	n/a CO	\$1,000,000
Mod-30.1 CN-65	Train Control for Arbor Vitae - Direct Costs Only The Contractor shall provide all labor, material, and equipment to modify the current Train Control System to support Arbor Vitae Street Widening being performed by LAWA. Work includes, but is not limited to: -Procure, manufacture, and Install Train Control equipment -SCADA and SIT 2 design and testing support -Coordination, Design, and Installation support to LAWA -Support CPUC as necessary -Support all necessary Train Control Safety Certification -Provide final as-built documentation	5	02/16/24	3/14/2024	\$1,694,575	\$1,680,222
Mod-33.1 CN-66	Modified Completion Date and Settlement Agreement Contract Mod 33.1 cancels and supersedes Mod 33 in its entirety. Metro and Tutor Perin Corporation, collectively referred to as the "the Parties" hereby agree to settle the cost and time impacts from the various items. Milestone 2 becomes Milestone 3 and Substantial Completion date is revised. Liquidated damages have a 60 day grace period and after which Metro is entitled to Liquidated Damages of \$15,000 per Calendar Day until Tutor achieves Substantial Completion.	5	03/21/24	4/16/2024	\$15,100,000	\$15,100,000
Mod-35 CN-60	Bulletin 60 - Honeywell Monitoring Wells The Contractor shall provide all labor, material, and equipment in accordance with agreed upon Metro Civil Contractor Scope of Work as specified in the Honeywell design documents provided from PSA 236. Work includes, but is not limited to: Installing below-grade 8-inch PVC extraction pipe and connecting it to the Treatment Equipment Compound. Installing vaults, which comprise traffic-related and aesthetic cover vaults, each configured to properly align the previously installed SVE well by Honeywell. Installing well boxes associated with low-point drains, groundwater monitoring well (installed by Honeywell), and soil vapor probes.	5	04/12/24	4/29/2024	\$671,179	\$664,784
Mod-36 CN-61	Bulletin 67 - Retaining Rail The Contractor shall provide all labor, material, and equipment necessary to replace the proposed tail track, just north of the LRT platform, with restraining rail as detailed in Bulletin 67. Work includes, but is not limited to, removal of the existing condition including the wood ties, installation of new concrete cross ties, plates, guard rails and running rail, and all associated appurtenances. The contractor shall also initiate procurement of train control spare parts.	5	04/19/24	not yet executed	\$1,760,925	\$1,736,573
Mod-37 CN-68	Additional General Requirements and Supervision for Train Control for Arbor Vitae Crossing The Contractor shall continue to provide all necessary services to fulfill the work required for Milestone 2 outlined in the Contract Documents. Contractor shall resume and complete work related to milestone 2 as soon as LAWA installs all wayside grade crossings infrastructure at Arbor Vitae crossing. This Modification compensates Contractor for time related overhead cost, additional general requirements, and supervision beyond Milestone 2. Any direct cost as it relates to a changed condition as a result of LAWA's work is captured in a separate Modification. Compensation shall be made to subcontractors LKC and Hitachi for extension of work beyond Milestone 2.	5	04/29/24	5/23/2024	\$1,511,673	\$1,481,252

B. PROFESSIONAL SERVICES CONTRACTS

	None					
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C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

	None					
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II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2024 - May 31, 2024)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C1194 - HPH			
CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
None			
A. DESIGN BUILD CONTRACT - CONTRACT NO. C1197 - Tutor			
None			
B) PROFESSIONAL SERVICES CONTRACTS			
None			
C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS			
None			
D) THIRD PARTY AGREEMENTS			
WOA F854-860303- CN2024	This is for the relocation of two 30-inch SoCal Gas pipelines to accommodate the 96th Street Station. IT is for the closeout for FY2018 work pursuant to the Stipulation and Agreement Regarding Prejudgement Possession and Ralated Matters RE: SCG December 20, 2018 bewtween the LACMTA and Southern California Gas Company.	5	Between \$1M and \$5M

RAIL TO RAIL

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2024 - May 31, 2024)

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. C1166 Rail to Rail (Griffith)

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					
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C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

	None					
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II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2024 - May 31, 2024)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C1166 Rail to Rail (Griffith)

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

B) PROFESSIONAL SERVICES CONTRACTS

HDR AE71435 TO 2 Mod 2	<u>Construction Management Support Services (CMSS)</u> Ramos will should exhaust value of Task Order in FY24Q4 and a modification will need to be issued to keep them through the end of construction. Ramos is providing the Resident Engineer (RE) and other persons staffing the field office.	5	Between \$1M and \$5M
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C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

None			
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D) THIRD PARTY AGREEMENTS

LADOT - FY25 WOA	<u>FY25 Annual Work Plan with City of LA for LADOT</u> With City of LA transferring all work in public right-of-way to Metro in 2022, Metro has incurred significant costs because Metro now needs review and approvals from the various City of LA Departments. LADOT is forecasting a WOA of \$1.2 Million.	2	Between \$1M and \$5M
LABOE - FY25 WOA	<u>FY25 Annual Work Plan with City of LA for LABOE</u> With City of LA transferring all work in public right-of-way to Metro in 2022, Metro has incurred significant costs because Metro now needs review and approvals from the various City of LA Departments. LABOE is forecasting a WOA of \$600K.	2	Between \$500K and less than \$1M
LA CONAD - FY25 WOA	<u>FY25 Annual Work Plan with City of LA for CONAD</u> With City of LA transferring all work in public right-of-way to Metro in 2022, Metro has incurred significant costs because Metro now needs review and approvals from the various City of LA Departments. CONAD is forecasting a WOA of \$808K.	2	Between \$500K and less than \$1M

I-105 EXPRESS LANES

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2024 - May 31, 2024)

Change Types:

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

A. CMGC CONTRACT - CONTRACT NO. PS84667000

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 (WSP (design Contract), Segment 1, Contract # AE275020011497-T08)

Mod # 4	WSP Pre-Construction Segment 1 design revision - Utility Relocation design for Metro Rail Utilities impacted by Seg 1, developing local road plan sheets in City of Los Angeles Format for permanent and temporary work within this jurisdiction. Update design to delete 3 tolling pricing signs and update Seg 1 PS&E to 2023 Caltrans Standards.	5	04/04/24	5/21/2024	\$3,414,838	\$3,414,838
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C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

	None					
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II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2024 - May 31, 2024)**A) CMGC CONTRACT - CONTRACT NO. PS84667000**

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
TBD	Segment 1, Pre-Construction Survey - Geotechnical and environmental borings, potholing, site survey and some administrative submittals	5	Between \$5M and \$10M

B) PROFESSIONAL SERVICES CONTRACTS

None			
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C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

None			
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I-605 SOUTH STREET INTERCHANGE IMPROVEMENTS

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2024 - May 31, 2024)

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. C1226 I-605 South Street						
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					
C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS						
	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2024 - May 31, 2024)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C1226 I-605 South Street

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

B) PROFESSIONAL SERVICES CONTRACTS

None			
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C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

PS68033000 TO 1 Mod 3	<u>CMSS/CSSC - Ghirardelli</u> Added 485,253 for CSSC support of Constrction Contract C1226 - Executed October 2023. Mod 3 in OCT 2023 extended Period of Performance to June 30, 2024.	5	Between \$1M and \$5M
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Attachment B - OIG Spot Check CEO Delegated Authority Delays Avoided (through May 2024)

Project Name	Total Work Days Saved	Years Saved
Crenshaw/LAX	336	1.3
Regional Connector	463	1.8
Purple Line Section 1	801	3.1
Purple Line Section 2	479	1.9
Purple Line Section 3	486	1.9
Division 20	200	0.8
Airport Metro Connector	31	0.1
Total Savings	2765	10.7

Program Management Quarterly Change Report Summary

Tim Lindholm

Chief Program Management Officer - Interim

Program Management Quarterly Change Report

- This report summarizes quarterly changes valued at greater than \$500,000 for projects managed by Program Management.
- The current Quarterly Change Orders Log is reporting a period from March 1, 2024, through May 31, 2024.
- Changes included in this report are within the approved LOP budget for each project.
- The next Change Order Log will cover the period of June 1, 2024, through August 31, 2024, and will be presented to the October 2024 Construction Committee.

Quarterly Changes (Mar 1, 2024 – May 30, 2024)

Project	# of Approved Changes	Contractor Proposed Amount	Total Approved Amount	Within LOP	# of Pending Changes	Range	Within LOP
Westside Purple Line Extension Section 1	5	\$ 11,422,050	\$ 8,370,541	√	1	Between \$500K and \$1M	√
Westside Purple Line Extension Section 2	9	\$ 18,105,818	\$ 10,582,725	√	3	Between \$500K and \$1M, More than \$15M	√
Westside Purple Line Extension Section 3	2	\$ 32,069,424	\$ 31,783,749	√	8	Between \$500K and \$1M, \$1M and \$5M, \$5M and \$10M	√
Division 20 Portal Widening Turnback	2	\$ 2,234,660	\$ 1,848,119	√	2	Between \$1M and \$5M, \$10M and \$15M	√
Airport Metro Connector *	6	\$ 20,738,352	\$ 21,662,811	√	1	Between \$1M and \$5M	√
Rail to Rail	-	-	-	-	4	Between \$500K and \$1M, \$1M and \$5M	-
I-105 Express Lanes	1	\$ 3,414,838	\$ 3,414,838	√	1	Between \$5M and \$10M	√
I-605 South Street Interchange Improvements	-	-	-	-	1	Between \$1M and \$5M	√

* One \$1M directive to proceed change order issued. Contractor proposal not yet received.

OIG Spot Check
 CEO Delegated
 Authority Time
 Saved (Through
 May 2024

Project Name	Total Work Days Saved	Years Saved
Crenshaw/LAX	336	1.3
Regional Connector	463	1.8
Purple Line Section 1	801	3.1
Purple Line Section 2	479	1.9
Purple Line Section 3	486	1.9
Division 20	200	0.8
Airport Metro Connector	31	0.1
Total Savings	2765	10.7



Board Report

File #: 2024-0373, File Type: Contract

Agenda Number: 12.

CONSTRUCTION COMMITTEE
JULY 17, 2024

SUBJECT: SUPPLEMENTAL ENGINEERING SERVICES (SES) CONSULTANT SERVICE CONTRACT

ACTION: AWARD PROFESSIONAL SERVICES CONTRACT

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. AWARD a cost plus fixed fee Contract No. AE120356 to HDR Engineering, Inc. for Supplemental Engineering Services for Engineering Design of Transit Rail Projects on a task order basis, in an amount not to exceed \$50,000,000 for the base three-year term, and \$10,000,000 for each of the two, one-year options, for a total contract value not to exceed \$70,000,000, subject to resolution of any protest(s), if any; and
- B. ISSUE individual Task Orders and modifications within the Board approved contract amount.

ISSUE

Metro’s staff engineers, architects and CADD designers in the Engineering Group are fully engaged supporting our current Major Rail Transit Projects (Purple Line Sections 1, 2, and 3), East San Fernando Valley Light Rail Transit Project, Airport Metro Connector, Foothill Extension, Metro Center Project, Division 20 Portal Widening, Metro G Line Improvements Project, Link Union Station (Link US), North Hollywood to Pasadena BRT and numerous other capital improvement and state of good repair projects.

In addition, the major transit capital expansion programs within Measure M have added a considerable workload to the Metro Engineering group with many projects that will shortly be transitioning towards or moving into the Program Management phase such as the C-Line Extension, the Southeast Gateway Line, Sepulveda Transit Corridor, and the Eastside Phase II projects, as examples.

In order to move Metro’s ambitious transit expansion programs forward, supplemental engineering services are required.

BACKGROUND

The existing Supplemental Engineering Services (SES) contract (Contract No. AE59600) will expire on July 25, 2024. The authorized funding for this existing contract has almost reached its limit. This new SES contract will enable Metro the flexibility to supplement internal resources on an as-needed basis for the work detailed below, when the Engineering Group either does not have sufficient capacity or lacks the expertise necessary to perform a particular task in a timely manner. Metro Engineering staff does not possess the resources or, in some cases, technical expertise to carry out certain specialized tasks such as Traffic Control Plans, three-dimensional nonlinear soils-structure interaction analysis, Noise and Vibration Control, or Corrosion Control. There is not currently a need for full-time resources for those specific specialties since they are required intermittently. Therefore, it is more efficient to use consultants on an as-needed basis.

DISCUSSION

Metro Engineering has developed this SES Contract to supplement Metro's engineering efforts. The recommended SES consultant team is capable of supporting Metro's engineering group's technical disciplines. This Contract will be issued for a term of three years with two, one-year optional extensions, that may be exercised in the future, for a maximum total duration of five years. The Procurement Summary for this Contract is included as Attachment A.

The three year base contract amount of \$50,000,000 with two one-year \$10,000,000 options was determined based on staff analysis of historical spending rates for contracted supplemental engineering services, project specific analysis based on individual project needs, and historical spending for unanticipated or unplanned engineering needs. This SES contract will be used to perform tasks planned for all of our projects over the next five years, as well as unforeseen tasks that engineering cannot perform in-house either due to lack of sufficient staff or expertise. The expected tasks include providing engineering services for the C-Line Extension, Southeast Gateway Line (SGL), Sepulveda Transit Corridor, the Eastside Phase II project, and the Rail Operations Control/Bus Operations Control (ROC/BOC) project, as examples. Staff also have additional task orders and engineering needs that will carry over from our incumbent SES contract due to contract expiration and financial limitations on the contract. Examples of such task orders include the C-line Platform Extensions, SGL Advanced Engineering, and the development of a Building Information Modeling (BIM) policy for Metro projects. The SES contract will also be used to deliver unforeseen engineering design requests. With the 2028 Olympics on the horizon, staff expects to receive several of these types of requests from various departments and this contract will assist staff in providing these required engineering resources.

This Contract called for proposers to demonstrate their capabilities and technical expertise listed in the Scope of Services included in the RFP. The technical proficiencies required for this SES contract (AE120356) are very comprehensive and include all engineering and specialties disciplines that Metro may require in support of its projects. These include, but are not limited to, the following:

General Services

1. Preliminary and Final Design of Transit Rail Projects.
2. Design Review Support & Coordination for CIP projects & other special projects.
3. Production of Project Status, Technical and Engineering Reports.
4. Design of Structures, Stations and Guideways.
5. Facilities/Systems Interface Coordination.
6. Surveying Services.
7. Cost Estimating.
8. Intra/Inter Disciplinary Coordination.
9. Scheduling and Cost Management for Task Orders.
10. Post Design Services including Bid and Design Support during Construction.
11. Administrative Tasks associated with General Engineering Support Services.

Specific Rail Facilities and Third Party Utility Design Services:

12. Engineering Services for Review and Approval of Metro Projects.
13. Development of Technical Specifications, Drawings and Reference Documents.
14. Engineering Services for support of Metro Rail Operations and Maintenance.
15. Land Surveying and Legal Description.
16. Potholing.
17. Geotechnical Services, Borings and Reports.
18. Civil & Utility Engineering
19. Drainage Design and Hydraulic Calculations.
20. Structural Engineering.
21. Bridges and Aerial Structure Design.
22. Tunnels, Trenches and Underground Station Design.
23. Track Work Engineering, Plan and Profile.
24. CPUC Grade Crossing Application including attendance at field diagnostic meetings.
25. Yard and Shop Rail Maintenance Facility Design.
26. Architectural Design.
27. Station Site Development.
28. Urban Design Integration.
29. Landscape Architecture.
30. Traffic Control Plans including Striping Drawings and Signal Drawings.
31. CADD and MicroStation Drawings.
32. BIM Services and Training.
33. Project Presentation including Three-Dimensional Rendering.
34. Corrosion Control Measures and Cathodic Protection.
35. Value Engineering and Cost Reduction.
36. Noise and Vibration Analysis including Site Visits, Measurement and Mitigation.
37. Other engineering or technical discipline not listed above that is ancillary to the Statement of Work and consistent with the general requirements of an approved Task Order.
38. Mechanical design including HVAC and emergency ventilation.
39. Electrical Design.
40. Plumbing Design.
41. Fire Protection Design
42. Third party support services as it relates to relocation of utilities and general third party civil

related elements

DETERMINATION OF SAFETY IMPACT

This SES Contract is not directly related to a specified safety issue. However, the services provided via this SES Contract augment internal resources and, thus generally supports safety initiatives.

FINANCIAL IMPACT

As specific engineering design or support needs arise, task orders will be issued and funded from the associated project budget, upon approval by the responsible Project Manager.

Since this is a multi-year project, the Chief Program Management Officer, Project Managers and respective Cost Center Managers will be responsible for budgeting for costs of future task orders related to this contract.

Impact to Budget

The funding for the task orders is provided by the specific project requiring the services. The sources for these funds are in line with the respective projects' funding plans and fund sources may consist of federal and/or state grants as well as local funds. Many of the state of good repair projects are funded with local funding sources that are eligible for rail and bus operations.

EQUITY PLATFORM

The Supplemental Engineering Services Contract provides Engineering, Design and Specifications, including Final Design of Transit Rail and Tunnel Projects and associated facilities for various Metro projects throughout the County of Los Angeles, including in many Equity Focus Communities (EFC). These services are essential for the support and on-time delivery of Metro projects that serve Metro customers. All services supported by this contract help avoid project delays and promote cost saving measures to effectively deliver the projects and provide greater access and mobility.

The Diversity and Economic Opportunity Department (DEOD) established overall 33% Disadvantaged Business Enterprise (DBE), 30% Small Business Enterprise (SBE), and 3% Disabled Veteran Business Enterprise (DVBE) goals for this solicitation. HDR met the goals by making overall 33% DBE, 30% SBE, and 3% DVBE commitments. In Attachment B, the Diversity and Opportunity Department (DEOD) has listed a summary of the DBE, SBE and DVBE subconsultants. There are 21 DBE, 21 SBE, and 3 DVBE firms in the HDR team. Further, HDR is participating in Metro's Mentor-Protégé Program (MPP) as part of the Contracting Outreach and Mentoring Plan (COMP) and has committed to mentoring at least four firms (two DBE firms, one SBE firm, and one DVBE firm) on this contract.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This recommendation supports Metro's Strategic Plan Goal 1. By supporting the recommendation for HDR Engineering, Inc. to provide supplemental engineering services, the Board is supporting Strategic Plan Goal 1, which promotes trip reliability, reduces trip disruptions as well as deliver of

world-class transit service by ensuring our transit assets are in a state of good repair.

ALTERNATIVES CONSIDERED

1. Solicit qualifications proposals for each individual task when the requirement arises. This alternative is not recommended as it would require extensive additional staff time to process each individual task and would result in project delays due to the lead time required to complete each procurement cycle. Additionally, procuring services on a per-assignment basis would impose a significant additional burden on the Engineering and Vendor/Contract Management departments.
2. Utilize existing engineering staff to provide the required technical support. This alternative is also not feasible as Metro's current engineering capacity is fully utilized to support the existing major, CIP, and SOGR projects. Due to these commitments, it is anticipated that the current staff will be challenged to provide the necessary additional technical support required for the up-coming capital projects which is under concurrent development. If this alternative were exercised, Metro would need to hire additional staff with expertise in several currently underrepresented disciplines to perform this work. Such an action is not practical nor cost-effective.

NEXT STEPS

Upon Board approval, staff will execute Contract No. AE120356 with HDR Engineering, Inc. for Supplemental Engineering Services. Specific task orders will then be issued on an as needed basis.

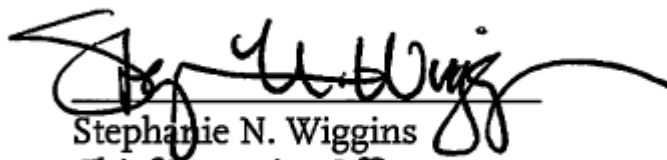
ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - DEOD Summary

Prepared by: Androush Danielians, Senior Executive Officer, (213) 922-7598
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 Carolina Coppolo, Deputy Chief Vendor/Contract Management Officer (Interim) (213) 922-4471

Reviewed by: Timothy Lindholm, Chief Program Management Officer (Interim),
(213) 922-7297


Stephanie N. Wiggins
Chief Executive Officer

PROCUREMENT SUMMARY

SUPPLEMENTAL ENGINEERING SERVICES (SES) / TRANSIT RAIL PROJECTS
CONTRACT NO. AE120356

1.	Contract Number: AE120356	
2.	Recommended Vendor: HDR Engineering, Inc.	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input type="checkbox"/> RFP <input checked="" type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates :	
	A. Issued : February 16, 2024	
	B. Advertised/Publicized: February 16, 2024	
	C. Pre-Proposal Conference: February 29, 2024	
	D. Proposals Due: April 16, 2024	
	E. Pre-Qualification Completed: June 3, 2024	
	F. Conflict of Interest Form Submitted to Ethics: April 23, 2024	
	G. Protest Period End Date: July 22, 2024	
5.	Solicitations Picked up/Downloaded: 63	Proposals Received: 1
6.	Senior Contract Administrator: Stephen Tsang	Telephone Number: 213-922-7125
7.	Project Manager: Moshik Mah	Telephone Number: 213-922-3074

A. Procurement Background

This Board Action is to approve the award of Contract No. AE120356, Supplemental Engineering Services/Transit Rail Projects, to provide supplemental engineering design, and other related support services, as well as supplementing the Metro Engineering Department's resources, in support of Capital projects, and State of Good Repair (SOGR) projects for Rail Transit. The resultant Contract, when awarded, will be Federal, state and locally funded and is subject to fiscal year funding.

Board approval of the contract award is subject to resolution of any properly submitted protest(s), if any.

The Scope of Services (SOS) is to supplement Metro Program Management - Engineering Department's resources in providing services in architectural and engineering design for the Metro Bus and Rail Facilities related capital improvement projects, engineering feasibility studies, code analysis and to develop basis for design, support design review, check calculations, review and respond to RFI's, conduct construction inspections, surveying services, geotechnical studies, and underground utility identification.

The Request for Proposals (RFP) was issued on February 16, 2024 as an Architectural and Engineering (A&E), qualifications-based procurement performed in accordance with Metro's Acquisition Policies and Procedures, and California Government Code §4525-4529.5 for Architectural and Engineering services. The

contract type is a Cost-Plus Fixed Fee (CPFF) for a base term of three years, plus two, one-year options.

A virtual pre-proposal conference was held on February 29, 2024. A total of 63 individuals from various firms downloaded the RFP and were included on the planholder's list. A total of four questions were submitted during the solicitation period and responses were released to all firms that obtained the RFP, prior to the proposal due date.

One amendment was issued during the solicitation phase of this RFP on March 1, 2024, to revise the Notice of Invitation, to add the DEOD COMP requirement and to replace Exhibit K – Contract Compliance Manual (Non-Fed) with 20-13 88 Contract Compliance Manual (Non-Fed).

Only one proposal was received on April 16, 2024, from HDR Engineering, Inc.

A market survey was conducted to ascertain the reasons why only one proposal was submitted. A total of 31 potential primes were contacted. The responses indicated that potential firms were either too busy with their other projects or not able to identify the right project manager and key personnel to execute the work to Metro standards and expectations. Some of the firms advised they did not have the appropriate resources at the time to submit a proposal as a prime.

The market survey revealed that the decisions not to propose were based on individual business considerations. Therefore, the solicitation can be awarded as a competitive award.

B. Evaluation of Proposal

A Proposal Evaluation Team (PET) consisting of staff from Major Capital Project Engineering, Art Asset Management & Cultural Programming, and Systems Engineering departments was convened and conducted a comprehensive evaluation of the proposal received.

The proposal was evaluated based on the following evaluation criteria and the associated weights:

- Experience and Capabilities of Firms on Consultant's Project Team 30%
- Personnel's Skill and Experience 25%
- Effectiveness of Management Plan 25%
- Understanding of Work and Appropriateness of Approach for Implementation 20%

The evaluation criteria are appropriate and consistent with criteria developed for other A&E procurements. Several factors were considered when developing the weights, giving the greatest importance to the Experience and Capabilities of Firms on Consultant's Project Team.

This is an A&E, qualifications-based procurement; therefore, price could not and was not used as an evaluation factor pursuant to federal law.

The PET independently evaluated and scored the technical proposal and determined that HDR met the requirements of the RFP and is technically qualified to perform the services as outlined in the Scope of Services.

The final scoring was based on evaluation of the written proposal and clarification received from the Proposer. The recommended firm is the incumbent consultant and the only proposer, so an oral presentation/interview was determined to be unnecessary.

The results of the final scoring are shown below:

Firm	Average Score	Factor Weight	Weighted Average Score	Rank
HDR Engineering, Inc.				
Experience and Capabilities of Firms on Consultant's Project Team	94.89	30.00%	28.47	
Personnel's Skill and Experience	95.87	25.00%	23.97	
Effectiveness of Management Plan	94.27	25.00%	23.57	
Understanding of Work and Appropriateness of Approach for Implementation	98.17	20.00%	19.63	
Total		100.00%	95.64	1

* Weighted scores are rounded to the nearest second decimal point.

Qualifications Summary of Firm:

The proposed team demonstrated a thorough and comprehensive understanding and experience in all areas of the Scope of Services (SOS), staff allocation and the ability to manage change. The Proposal demonstrated extensive experience with Design and Engineering Services and a solid understanding of the major challenges. The proposed team has a wide range of professional engineering experience on numerous Metro Rail, Bus and Highway projects as well as similar projects of the same size and complexity. HDR provided a detailed organization chart with all key and supporting personnel roles, as well as a detailed project management approach with demonstrated successful cost and schedule controls listed in their showcased projects. The Proposal demonstrated their past experience working with MRDC and Metro specifications, representing their ability in utilizing Metro's MRDC in their design work. The proposer clearly identified their major engineering disciplines where services of this contract will be required. The proposal demonstrated their management approach on how they address and plan for potential hazards and training requirements.

C. Cost Analysis

Only Direct Labor Hourly Rates, Indirect Cost Rates, Other Direct Costs and Subconsultant rates were requested in the RFP. A cost analysis of those elements of cost was performed in accordance with Metro's Acquisition Policies and Procedures. All the cost factors were determined to be fair and reasonable. Metro negotiated and established provisional indirect cost rates as appropriate, in order to prevent any unnecessary delay in contract award. Metro also negotiated a fixed fee factor to establish a fixed fee amount based on the total estimated cost of performance of the scope of services for each Task Order, during the contract term.

Audits will be completed, where required, for those firms without a current applicable audit of their indirect cost rates, in accordance with Federal Acquisition Regulation (FAR) Part 31. The provisional indirect cost rates will be audited annually for the term of the contract and are subject to retroactive adjustments upon completion of any audits. In accordance with FTA Circular 4220.1.f, if an audit has been performed by any other cognizant agency within the last twelve-month period, Metro will receive and accept that audit report for the above purposes rather than perform another audit.

D. Background on Recommended Contractor

HDR Engineering, Inc. is a full-service engineering, architecture, and planning firm since 1917, with expertise in Trackwork, Stations and Facilities, Civil and Traffic, Bridges and Structures, Underground structures, Geotechnical, HVAC, MEP, and Fire Protection, Third-Party/Utilities Design and Technical Support Services.

HDR is currently providing SES to Metro's Transit Program through a 5-year contract supporting major transit capital and maintenance projects. Major Task Orders issued include: 1. WSAB Transit Corridor; 2. C Line Platform Extension and Station Improvements; 3. Centinela/Florence Ave Grade Separation; 4. Patsaouras Plaza Pedestrian Bridge and Walkway; 5. VA Parking Structure; 6. I-210 Barrier Replacement Structural Analysis and Value Analysis Study Report; 7. MRDC Updates; 8. Station Public Art Integration and Trackwork; 9. A line Bridge Live Load Analysis; 10. Update to Metro Baseline Specifications; 11. Rosecrans/Marquardt Grade Separation Independent Design check.

HDR is headquartered in Omaha, Nebraska, and has a local office in downtown Los Angeles, CA.

DEOD SUMMARY

**SUPPLEMENTAL ENGINEERING SERVICES (SES) CONSULTANT SERVICE
CONTRACT / AE120356**

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established an overall thirty-three percent (33%) Disadvantaged Business Enterprise (DBE) goal for all task orders funded with federal dollars or an overall thirty percent (30%) Small Business Enterprise (SBE) goal and three percent (3%) Disabled Veteran Business Enterprise (DVBE) goal on all task orders funded with state, local, and or Measure M dollars. Proposers were encouraged to form teams that included DBE, SBE, and DVBE firms without schedules or specific dollar commitment to designated subcontractors.

HDR Engineering, Inc. met the goals by making an overall 33% DBE commitment, and an overall 30% SBE and 3% DVBE commitment. When a task order is issued, HDR will be required to identify the scope of work and dollar amount(s) committed to each subcontractor. Overall DBE, SBE and DVBE participation will be based on the aggregate value of all task orders awarded.

Small Business Goal	33% DBE 30% SBE 3% DVBE	Small Business Commitment	33% DBE 30% SBE 3% DVBE
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	DBE Subcontractor	Ethnicity	% Committed
1.	Amheart Solutions	Asian Pacific American	TBD
2.	Anil Verma Associates, Inc.	Subcontinent Asian American	TBD
3.	Arellano Associates, LLC	Hispanic American	TBD
4.	Auriga Corporation	Subcontinent Asian American	TBD
5.	Claris Strategy, Inc.	Asian Pacific American	TBD
6.	D'Leon Consulting Engineers	Hispanic American	TBD
7.	Earth Mechanics, Inc.	Subcontinent Asian American	TBD
8.	FMG + Company	Subcontinent Asian American	TBD
9.	FPL and Associates, Inc.	Asian Pacific American	TBD
10.	IDC Consulting Engineers, Inc.	Asian Pacific American	TBD
11.	Lenax Construction Services, Inc.	Caucasian Female	TBD
12.	MA Engineering	Hispanic American	TBD
13.	Martini Drilling Corporation	Hispanic American	TBD
14.	Ramos Consulting Services, Inc.	Hispanic American	TBD

15.	Saylor Consulting Group, Inc.	Caucasian Female	TBD
16.	Suenram & Associates, Inc.	Caucasian Female	TBD
17.	T&T Public Relations, Inc.	Black American/ Hispanic American	TBD
18.	V & A, Inc.	Hispanic American	TBD
19.	VN Tunnel and Underground, Inc.	Asian Pacific American	TBD
20.	Yunsoo Kim Design, Inc.	Asian Pacific American	TBD
Total DBE Commitment			33%

	SBE Subcontractor	Local (Los Angeles County)	Non-Local	% Committed
1.	Amheart Solutions		X	TBD
2.	Anil Verma Associates, Inc.	X		TBD
3.	Arellano Associates, LLC		X	TBD
4.	Claris Strategy, Inc.	X		TBD
5.	Conaway Geomatics		X	TBD
6.	D'Leon Consulting Engineers	X		TBD
7.	Earth Mechanics, Inc.		X	TBD
8.	FMG + Company		X	TBD
9.	FPL and Associates, Inc.		X	TBD
10.	Geo-Advantec, Inc.	X		TBD
11.	Guida Surveying, Inc		X	TBD
12.	IDC Consulting Engineers, Inc.		X	TBD
13.	Lenax Construction Services, Inc.	X		TBD
14.	MA Engineering	X		TBD
15.	Ramos Consulting Services, Inc.	X		TBD
16.	RSE Corporation	X		TBD
17.	Suenram & Associates, Inc.	X		TBD
18.	T&T Public Relations, Inc.	X		TBD
19.	V & A, Inc.	X		TBD
20.	VN Tunnel and Underground, Inc.	X		TBD
21.	Yunsoo Kim Design, Inc.		X	TBD
Total SBE Commitment				30%

	DVBE Subcontractor	Local (Los Angeles County)	Non-Local	% Committed
1.	Conaway Geomatics		X	3%
Total DVBE Commitment				3%

B. Local Small Business Preference Program (LSBE)

The LSBE preference was not applicable to this A&E procurement. Pursuant to state and federal law, price cannot be used as an evaluation factor.

C. Contractor Outreach and Mentoring Plan (COMP)

Forty-five (45) days after the contract award, HDR Engineering, Inc. must submit a detailed COMP evidencing how it will achieve its listed commitment through the utilization of DBE/SBE/DVBE firms for the project. The COMP will be reviewed and approved by Metro.

D. Living Wage and Service Contract Worker Retention Policy Applicability

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

E. Prevailing Wage Applicability

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

F. Project Labor Agreement/Construction Careers Policy

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



Supplemental Engineering Services (SES) Consultant Service Contract



Metro

July 2024

Issue/Background Information

- Metro's Staff engineers, architects and CADD designers are fully engaged supporting our current on-going Major Rail Transit projects
- Many projects will shortly be moving to Program Management phase that will require Engineering group's support
- This contract will be used to supplement internal resources on an as needed basis when:
 - Engineering group does not have sufficient capacity to respond to the project needs
 - Lack of in-house expertise
 - Respond to unexpected urgent project requests
- To meet this demand, supplemental engineering services are required.

Evaluation Criteria and Evaluation Score – Single Proposer

Single Proposer HDR Engineering	Evaluation Criteria Factor Weight	Weighted Average Score
Experience and Capabilities of Firms on Consultant's Project Team	30.00%	28.47%
Personnel's Skill and Experience	25.00%	23.97%
Effectiveness of Management Plan	25.00%	23.57%
Understanding of Work and Appropriateness of Approach for Implementation	20.00%	19.63%
Total	100%	95.64%



Metro

DEOD Goal: DBE 33%; SBE 30%; DVBE 3%

HDR Commitment: DBE 33%; SBE 30%; DVBE 3%

Award Professional Services Contract

- Authorize the CEO to award a cost plus fixed fee Contract to HDR Engineering, Inc. for Supplemental Engineering Services for Engineering Design of Transit Rail Projects on a task order basis, in an amount not to exceed \$50,000,000 for the base three-year term
- Two, one year extension options for \$10,000,000 each
- Maximum total duration: 5 years
- Total contract value not to exceed \$70,000,000



Board Report

File #: 2024-0413, File Type: Project

Agenda Number: 13.

CONSTRUCTION COMMITTEE JULY 17, 2024

SUBJECT: EASTSIDE TRANSIT CORRIDOR PHASE 2 PROJECT

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer (CEO) to execute Modification No. 8 to Contract No. AE51242000 with Cordoba HNTB Design Partners, a Joint Venture, in the amount of \$74,869,029 to advance to 30% Preliminary Engineering (PE) for the Initial Operating Segment (IOS), increasing the contract value from \$35,514,357 to \$110,383,386 and extending the period of performance from December 31, 2024, to August 30, 2026.

ISSUE

On May 23, 2024, the Metro Board approved the full 9-mile Eastside Transit Corridor Phase 2 Project, with a 4.6-mile Initial Operating Segment (IOS) to Greenwood Station and a Maintenance and Storage Facility in the City of Montebello, and certified the Final Environmental Impact Report (Final EIR) of this Project. Metro filed the Notice of Determination (NOD) under the California Environmental Quality Act (CEQA) with the Los Angeles County Clerk and CA State Clearinghouse on May 24, 2024. Metro anticipates reinitiating the National Environmental Policy Act (NEPA) clearance process and continuing project design development in Summer/Fall 2024.

Staff are seeking Board approval for a contract modification to continue project design from 15% advanced conceptual engineering to 30% PE design for the 4.6-mile IOS to the Greenwood Station for the Eastside Transit Corridor Phase 2 Project. The execution of Modification No. 8 is necessary for the advancement of the design through the Project Development phase. This phase will progress the design to include the continuation of designing complex elements (tunnel, cut and cover stations, cross passages, transitions structures, maintenance storage facility, etc.), geotechnical analysis of the underground alignment, and further design of conflicting utilities that will require relocation.

BACKGROUND

Eastside Transit Corridor Phase 2 Project is a nine-mile light rail transit (LRT) extension from the existing Metro E (formerly Gold) Line serving the cities and communities of Commerce, Montebello, Pico Rivera, Santa Fe Springs, Whittier, and unincorporated East Los Angeles and West Whittier-Los Nietos. At the December 2022 Board meeting, the Board approved the Locally Preferred Alternative

(LPA), a 4.6-mile extension of the E-Line to Greenwood Station via the IOS with design options for Atlantic/Pomona (open underground station) and Greenwood Station (at-grade) and a Maintenance and Storage Facility located in the City of Montebello.

On May 23, 2024, the Board certified the full nine-mile Project alignment to Whittier in the Final Environmental Impact Report (EIR) per the California Environmental Quality Act (CEQA). Certification of the Final EIR also includes approval of the Mitigation Monitoring and Reporting Plan and the Findings of Fact and Statement of Overriding Conditions.

The Project is a Measure R and Measure M project that is included in the 2020 Long Range Transportation Plan (LRTP) and the Southern California Association of Governments (SCAG) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

The Measure M Ordinance identifies \$3 billion (2015 \$) in Measure M and other local, state, and federal funding for the Project. The Board previously directed staff to reinstate the NEPA environmental clearance process for the IOS to pursue federal funding for this project segment.

On October 25, 2018, the Board awarded firm fixed price Contract No. AE51242000 to Cordoba HNTB Design Partners, a Joint Venture, to provide the advanced conceptual engineering (ACE) design and urban design services for the Eastside Transit Corridor Phase 2 Project for work in support of the reinstated environmental clearance study. Seven modifications have been issued to date to add scoping meetings, proceed with one build alternative including additional refinements, as well as extend the period of performance (reference Attachment B).

DISCUSSION

Since the Contract was approved in 2018, Metro has modified the Contract to focus on high-risk project elements benefiting early design and coordination, including coordination with program management and operations, at-grade geotechnical analysis, identification of utility conflicts along with potholing, hazardous material evaluation, and right-of-way updates. Modification No. 8 includes further technical analysis for the options identified in the EIR design work to align with updates to the Metro Rail Design Criteria (MRDC), sustainability measures, systems design, and development of early work packages. Based on lessons learned from other rail projects, and in an effort to identify high-risk cost items earlier in the planning process, the Contract Modification increases the level of geotechnical investigation at the underground structures, real estate rights, and utility relocation to identify and manage future cost/schedule impacts.

DETERMINATION OF SAFETY IMPACT

Approval of this contract modification will not impact the safety of Metro's customers or employees.

FINANCIAL IMPACT

The adopted Fiscal Year 2025 budget includes approximately \$32.4 million total between Project 860232 (Program Management) and Project 460232 (Countywide Planning Department) for professional services and support for the Eastside Transit Corridor Phase 2 Project. Since this is a multi-year contract, the Cost Center Manager, Project Manager, and Chief Program Management Officer will be responsible for budgeting in future years.

Impact to Budget

Funding for this action comes from Measure R 35% Transit Capital and TIRCP (Transit and Intercity Rail Capital Program: Cycle 6), which is not eligible for bus and rail operations.

EQUITY PLATFORM

The Board's approval of the contract modification for the Project will help advance equitable access to opportunity as the Project traverses through six Equity Focus Communities (EFCs) along the eastern portion of Los Angeles County. There are 2,281 transit-dependent households along the project alignment and 1,828 transit-dependent households along the LPA. This Project will benefit these EFCs and other communities along the eastern portion of Los Angeles County by providing access to a reliable light rail system and filling a gap in high-quality transit services that currently exist. When the eventual build-out of the project occurs, communities along the corridor will have access to the Metro regional network and to activity centers and job opportunities along the corridor that include but are not limited to, Whittier College, East Los Angeles College, Citadel Outlets, Historic Whittier Boulevard retail, and Presbyterian Intercommunity Hospital.

Cordoba HNTB Design Partners made a 54.91% Disadvantaged Business Enterprise (DBE) commitment on this contract and is exceeding with 59.12% DBE participation. See Attachment C.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Project supports the following strategic plan goals identified in Vision 2028:

- Goal 1: Provide high-quality mobility options that enable people to spend less time traveling,
- Goal 3: Enhance communities and lives through mobility and access to opportunity, and
- Goal 5: Provide responsive, accountable, and trustworthy governance within the Metro organization.

ALTERNATIVES CONSIDERED

The Board could choose not to approve the contract award. Delaying this contract modification to a future date would pose significant delays to the overall project schedule and the risk that the project would be unable to meet its Measure M schedule.

NEXT STEPS

Upon Board approval, staff will execute Modification No. 8 to the Eastside Transit Corridor Phase 2

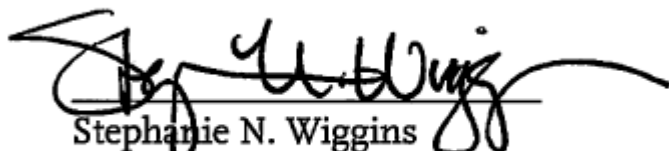
Project Contract No. AE51242000 with Cordoba HNTB Design Partners, a Joint Venture, to advance to 30% PE for the IOS and extend the period of performance from December 31, 2024, to August 30, 2026. This effort will include advancing design and technical analysis including value engineering and updating cost estimates to seek federal funding opportunities.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - Contract Modification/Change Order Log
Attachment C - DEOD Summary

Prepared by: Mat Antonelli, Deputy Chief Program Management Officer (213) 893-7114
Carolina Coppolo, Deputy Chief Vendor/Contract Management Officer (Interim), (213) 922-4471

Reviewed by: Tim Lindholm, Interim Chief Program Management Officer (213) 922-7297



Stephanie N. Wiggins
Chief Executive Officer

PROCUREMENT SUMMARY

EASTSIDE TRANSIT CORRIDOR PHASE 2 – A.C.E. DESIGN/URBAN
DESIGN SERVICES/AE51242000

1.	Contract Number: AE51242000		
2.	Contractor: Cordoba HNTB Design Partners, a Joint Venture		
3.	Mod. Work Description: Advance from 15% conceptual engineering to 30% preliminary engineering design for the 4.6 miles of the initial operating segment (IOS) to the Greenwood Station for the Eastside Transit Corridor Phase 2 Project.		
4.	Contract Work Description: Advanced conceptual engineering design/urban design services for the Eastside Transit Corridor Phase 2 Project.		
5.	The following data is current as of: 06/18/2024		
6.	Contract Completion Status		Financial Status
	Contract Awarded:	10/25/2018	Contract Award Amount: \$15,365,829
	Notice to Proceed (NTP):	11/07/2018	Total of Modifications Approved: \$20,148,528
	Original Complete Date:	11/06/2021	Pending Modifications (including this action): \$74,869,029
	Current Est. Complete Date:	08/30/2026	Current Contract Value (with this action): \$110,383,386
7.	Contract Administrator: Samira Baghdikian		Telephone Number: (213) 922-1033
8.	Project Manager: Alice Hsu		Telephone Number: (213) 418-3113

A. Procurement Background

This Board Action is to approve Contract Modification No. 8 issued to advance from 15% conceptual engineering to 30% preliminary engineering design for the 4.6 miles of the initial operating segment (IOS) to the Greenwood Station for the Eastside Transit Corridor Phase 2 Project. This Contract Modification also extends the period of performance from December 31, 2024 through August 30, 2026.

This Contract Modification will be processed in accordance with Metro's Acquisition Policy and the contract type is a firm fixed price.

On October 25, 2018, the Board awarded firm fixed price Contract No. AE51242000 to Cordoba HNTB Design Partners, a Joint Venture, to provide the advanced conceptual engineering (ACE) design and urban design services for the Eastside Transit Corridor Phase 2 Project for work in support of the reinstituted environmental clearance study.

A total of seven modifications have been executed to date.

Refer to Attachment B - Contract Modification/Change Order Log.

B. Cost Analysis

The recommended price has been determined to be fair and reasonable based on the Independent Cost Estimate (ICE), cost analysis, technical analysis, fact finding, and negotiations. Staff successfully negotiated a savings of \$23,688,535.

Proposal Amount	Metro ICE	Negotiated Amount
\$98,557,564	\$67,323,750	\$74,869,029

The variance between the ICE and negotiated amount is due to additional design needed based on the complexity of the underground structure (tunnels, cut-cover stations, cross passages, transition structures), additional options from the EIR (crossovers, aerial yard leads, center platform station), and advancement of the geotechnical design. The findings from these tasks will support the PE design and the NEPA process.

**CONTRACT MODIFICATION / CHANGE ORDER LOG
EASTSIDE TRANSIT CORRIDOR PHASE 2 – A.C.E. DESIGN/URBAN
DESIGN SERVICES / AE51242000**

Mod. No.	Description	Status (approved or pending)	Date	\$ Amount
1	Additional scoping meetings and associated work.	Approved	03/12/2020	\$24,909
2	Proceed with one build alternative including additional refinements, reallocation of tasks no longer required due to withdrawal of SR60 and combined alternative from further study and extend period of performance (POP) through 11/7/12.	Approved	02/11/2021	\$2,165,365
3	No cost POP extension through 12/30/22.	Approved	08/25/2022	\$0
4	No cost POP extension through 2/28/23.	Approved	11/28/2022	\$0
5	Continuation of advanced conceptual engineering for high-risk project elements and extend POP through 6/30/24.	Approved	01/26/2023	\$17,958,254
6	Reallocation of budget from Task 9 (System Design & Maintenance Facility) to: Task 4.8.2 (First/Last Mile Station Plans, Task 4.8.2.4 (Recommendations, Prioritization, Final Plan & Station Packages) and Task 4.8.2.5 (Community Engagement Events/Community Input).	Approved	04/11/2024	\$0
7	No cost POP extension through 12/31/24.	Approved	06/05/2024	\$0
8	Advance to 30% Preliminary Engineering for the Initial Operating Segment and POP extension through 8/30/26.	Pending	Pending	\$74,869,029
	Modification Total:			\$95,017,557
	Original Contract:		10/25/2018	\$15,365,829
	Total:			\$110,383,386

DEOD SUMMARY

EASTSIDE TRANSIT CORRIDOR PHASE 2 – A.C.E DESIGN/URBAN
DESIGN SERVICES/AE51242000**A. Small Business Participation**

Cordoba HNTB Design Partners, A Joint Venture (CHDP), made a 54.91% Disadvantaged Business Enterprise (DBE) commitment. Based on payments, the project is 60% complete and the current level of DBE participation is 59.12%, exceeding the commitment by 4.21%. CHDP explained that the under-utilization of J&H Drilling Co., Inc. and Synergy was due to the work being descoped from the project, as confirmed by Metro's Project Manager.

Small Business Commitment	54.91% DBE	Small Business Participation	59.12% DBE
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	DBE Subcontractors	Ethnicity	% Committed	Current Participation¹
1.	Cordoba Corporation	Hispanic American	35.78%	37.92%
2.	D'Leon Consulting Engineers Corporation	Hispanic American	4.02%	5.89%
3.	Diaz Consultants, Inc.	Hispanic American	4.29%	3.59%
4.	Environmental Treatment and Technology dba Advanced Technology Laboratories	Hispanic American	0.60%	0.04%
5.	J&H Drilling, Co., Inc.	Hispanic American	0.42%	0.00%
6.	Lenax Construction Services, Inc.	Caucasian Female	2.35%	1.73%
7.	MLA Green, Inc. dba Studio-MLA	Hispanic American	1.11%	0.43%
8.	V&A, Inc.	Hispanic American	4.19%	2.61%
9.	Wagner Engineering & Survey, Inc.	Caucasian Female	2.15%	2.99%
10.	Vicus LLC	Caucasian Female	Added	3.92%
11.	Synergy Traffic Control, Inc. (formerly E-NOR Traffic Control)	Black American	Added	0.00%

	Total		54.91%	59.12%
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¹Current Participation = Total Actual amount Paid-to-Date to DBE firms ÷ Total Actual Amount Paid-to-date to Prime.

B. Living Wage and Service Contract Worker Retention Policy Applicability

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

C. Prevailing Wage Applicability

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

D. Project Labor Agreement/Construction Careers Policy

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

Next stop: further east.

GOLD LINE EASTSIDE TRANSIT CORRIDOR PHASE 2
(E LINE)

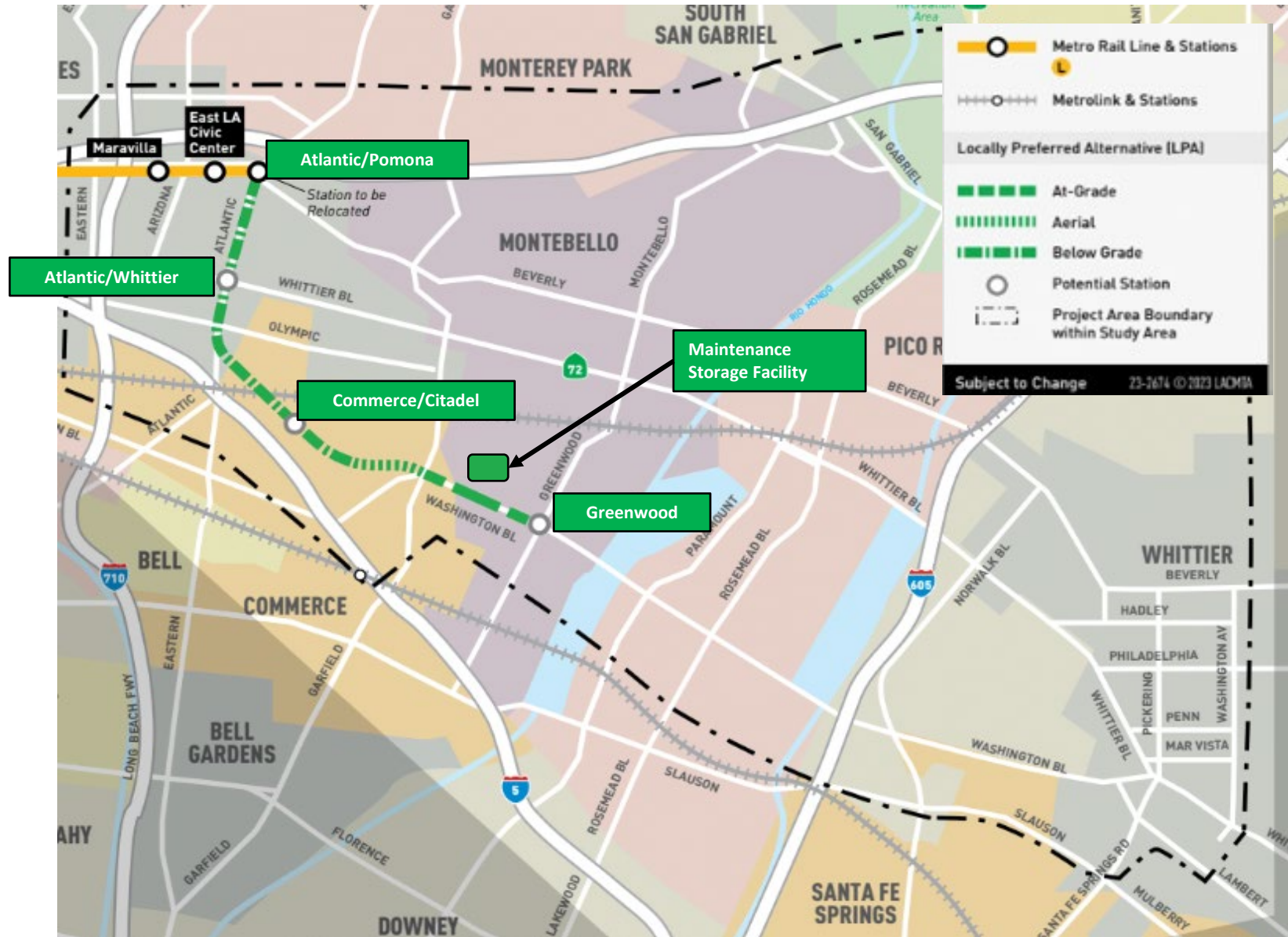


CONSTRUCTION COMMITTEE

JULY 17, 2024

PROJECT UPDATE

- Final EIR: Certification and Project Approval by Metro Board on May 23, 2024
- Continued FTA Coordination regarding the NEPA process
- Geotechnical and Utility Surveys on going



PRELIMINARY ENGINEERING

- Coordinate the start of a 2-year Project Development Phase (Preliminary Engineering)
- Utilizing existing design consultant team will expedite the process due to their experience on the project and with the corridor
- The existing design consultant Cordoba HNTB Design Partners, a Joint Venture, will add 11 new subconsultants (8 of which are DBE's) to team to accommodate the additional design scope within this contract modification.
- Cordoba HNTB Design Partners made a 54.91% Disadvantaged Business Enterprise (DBE) commitment on this contract and is exceeding with 59.12% DBE participation
- Scope includes additional upfront due diligence by increasing the geotechnical investigations within the tunnel segment as recommended by Metro Engineering and Tunnel Advisory Panel (TAP).

RECOMMENDATION

CONSIDER:

AUTHORIZE the Chief Executive Officer (CEO) to execute Modification No. 8 to Contract No. AE51242000 with Cordoba HNTB Design Partners, a Joint Venture, in the amount of \$74,869,029 to advance to 30% Preliminary Engineering (PE) for the Initial Operating Segment (IOS), increasing the contract value from \$35,514,357 to \$110,383,386 and extending the period of performance from December 31, 2024, to August 30, 2026.



Board Report

File #: 2024-0323, File Type: Project

Agenda Number: 14.

CONSTRUCTION COMMITTEE JULY 17, 2024

SUBJECT: EAST SAN FERNANDO VALLEY LIGHT RAIL TRANSIT LINE PROJECT

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. INCREASE the Board approved Preconstruction Budget for the East San Fernando Valley Light Rail Transit Project (Project) by \$382,875,000 from \$496,856,000 to \$879,731,000; and
- B. NEGOTIATE AND EXECUTE all project-related agreements and modifications to existing contracts within the authorized Preconstruction Budget.

ISSUE

Staff is seeking the Board's approval for two items: (1) increasing the Preconstruction Budget by \$382,875,000 for additional funding to support the development of design work and a negotiated final construction cost for the project, continuing with Real Estate acquisition and relocation activities, and continuing utility relocation work to mitigate project risks; and (2) authorizing the negotiation and execution of all project-related agreements and modifications to existing contracts within the authorized Preconstruction Budget.

BACKGROUND

The Project extends north from the Van Nuys Metro G-Line station to the Sylmar/San Fernando Metrolink Station, a total of 9.2 miles of a dual track light rail transit (LRT) system with 14 at-grade stations. The Metro Board certified the Final Environmental Impact Statement/ Environmental Impact Report (FEIS/EIR) on December 3, 2020, and the Federal Transit Administration signed a Record of Decision on January 29, 2021, for the project. Included in the FEIS/EIR was the Initial Operating Segment (IOS) defined as the southern 6.7 miles of the Project alignment. The IOS, identified as the southern segment, is street running in the middle of Van Nuys Boulevard and includes 11 at-grade center platform stations, 10 traction power substations, and a maintenance and storage facility (MSF) for LRT vehicles. This southern segment of the Project is the subject of this Board action. The remaining northern 2.5 mile environmentally cleared segment is going through additional analysis as

directed by the Board in December 2020 and is not included in this board action.

Through the Preliminary Engineering (PE) phase of the Project, design refinements to the southern segment resulted in updates to the project description. Environmental analysis of the design refinements was completed, and the findings were presented in an Addendum to the FEIR. On October 26, 2023, the Board approved the Addendum to the FEIR. Street improvements and guideway designs have advanced to 60 percent completion, and all other design elements (stations, MSF, landscaping, and systems) are at 30 percent. The design of utility composite plans has also advanced to 60 percent complete, and six design packages of Los Angeles Department of Water and Power (DWP) utility relocations are in final design.

The following list summarizes current commitments of the Preconstruction Budget to advance the delivery of the Project.

- Service Contracts - Previously awarded and existing service contracts for project and construction management and engineering services will continue to augment Metro labor through construction.
- Construction Contract - The first of seven DWP utility relocation contracts were awarded to W.A. Rasic Construction Company, Inc., with a Notice to Proceed (NTP) issued on December 1, 2022. Substantial completion of construction was achieved in March 2024.
- Public Private Partnership (P3) Contract - A P3 contract to provide Solar Panels and an Energy Storage System on select MSF buildings was awarded to PCS Energy with a NTP issued on December 7, 2022, for Phase 1 Preconstruction design services.
- Real Estate Acquisitions and Relocations - appraisal, acquisition, and relocation activities continue to advance with anticipation of securing possession in support of construction schedule activities.

On February 23, 2023, the Board approved the awarding of a Progressive Design-Build (PDB) contract to San Fernando Transit Constructors (SFTC), a joint venture of Skanska USA Civil West California District, Inc., and Stacy and Witbeck Inc., for Phase 1 Preconstruction Services in the amount of \$30,979,750. Phase 2 of the PDB contract includes Design, Construction, Testing and Commissioning of the Project.

A Preconstruction Phase-of-Project Budget (Preconstruction Budget) in the amount of \$496,856,000 was also established at the February 23, 2023 Board meeting.

On April 14, 2023, NTP was issued to SFTC for Phase 1 work which includes validation of base design, value engineering, and a framework for negotiating and reaching a Phase 2 Contract Price. The implementation of Early Works Packages concurrently with Phase 1 work will advance design efforts required to support Phase 2 contract price negotiations and support the project schedule. Metro continues to work with the Federal Transit Administration (FTA) and the Project Management Oversight Contractor (PMOC) in support of securing a Full Funding Grant Agreement (FFGA) for the project by September 2024.

DISCUSSION

The Preconstruction Budget approved by the Board in February 2023, will be fully committed by the Summer of 2024. Budget items with committed funding include awarded phases of construction contracts, advancing PDB Phase 2 work through the implementation of Early Work Packages (EWP), early priority Real Estate acquisition and relocation, third party agreements, Metro labor, and encumbered and forecasted costs for professional services.

The additional authority to fund the activities shown in the table below is necessary to meet the schedule in delivering the Project within budget. Upon approval of the FFGA, additional funds will be needed to continue to advance the Project schedule. A Life-of-Project budget and Phase 2 contract will be recommended to the Board once the Phase 2 negotiations for construction have been completed (anticipated in Fall of 2025).

The following table provides a breakdown summary of budget items included in the initial Preconstruction Budget adjustment, current budget commitments, and items to be supported by this additional funding request.

ESFV Preconstruction Budget			
Preconstruction Budget		Revised Preconstruction Budget (\$M)	Additional Requested Funds (\$M)
Budget Item	Initial Allocation (\$M)		
Phase 1 – PDB ¹	\$38.500	\$30.980	(\$7.520)
Early Works Packages	\$109.060	\$370.101	\$261.04
(EWP 1-6)			
P3 (Phase 1 Preconstruction)	\$0.500	\$1.063	\$0.563
Construction	\$0.000	\$9.888	\$9.888
(UA #1 Utility Adjustments)			
Professional Services	\$16.137	\$27.795	\$11.658
(Agency & CMSS)			
Right-of-Way ²	\$114.575	\$204.486	89.911
Third Party & COLA	\$29.796	\$37.080	\$7.284
Construction Management Support Services	\$22.456	\$33.810	\$11.354
Light Rail Vehicles	\$1.500	\$1.200	(\$0.300)
Professional Services - Other	\$2.496	\$10.504	\$8.008
Professional Services - Engineering	\$25.784	\$108.960	\$83.176
Contingency	\$52.695	\$20.815	(\$31.880)
Pre-Authority ³ Expenditures	\$61.493	\$0.000	\$0.000
Environmental Planning	\$21.864	\$23.049	\$1.185
Totals	\$496.856	\$879.731	\$ 382.875

NOTES:

- 1 Adjustment to reflect PDB Phase 1 contract value
- 2 Proposed Budget for Right-of-Way Acquisition only includes acquisition, relocation, & consultant costs.
- 3 Pre-Authority Expenditures are included in real estate acquisitions, engineering, project management and Third Party support budget line items.

Currently, Metro and SFTC have established technical working groups to facilitate the review of Phase 1 Preconstruction submittals required to advance to pricing and schedule negotiations for Phase 2 work. Initial efforts have focused on the Phase 1 tasks, which include the validation of the Base Design, development of an Opinion of Probable Cost (OPC), development of a Design Management Plan (DMP), performing value engineering and innovation solutions to reduce Project costs and shorten design and construction durations, participation in project risk assessment workshops, development of a preliminary project schedule, Cultural Competency Plan (CCP), and Community Outreach Plan.

Construction relations efforts by SFTC include participation in meetings with council district staff to share construction phasing concepts, providing updates on utility potholing activities, participation in quarterly community project update meetings, and presenting the CCP to the Community Leadership Council.

Early Work Packages (EWP): Currently, 16 EWPs have been initiated by the contractor for consideration to advance work from Phase 2. The majority of these EWPs support the Project schedule critical path. Each EWP will have a separate scoping, negotiation, and recommendation process. Funds have been committed to EWPs 1, 2, 3, and partially 4 under the current Preconstruction Budget authority.

- EWP 01 Technical Studies - initiates studies required to support future design.
- EWP 02 Initial Integrated Project Management Office (IPMO) - provides field office, warehouse storage to support initial utility adjustments and future construction.
- EWP 03 UA 4 & 6 - construction of DWP utility adjustments.
- EWP 04 Final Design - partial funding allocation

Additional funding to support the following EWPs are subject to this board action:

- EWP 04 Final Design - preparation of GMP plan set for negotiation of Phase 2 and Approved for Construction plans and specifications
- EWP 05 IPMO Hub Office - integrated project office to support design and construction.
- EWP 06 UA 2,3, & 7 - construction of DWP utility adjustments

Real Estate: The Project has prioritized acquisition and relocation efforts aligned with need-by dates established to support construction activities outlined in the proposed project schedule. The full acquisitions are the most critical and are required to construct the Maintenance and Storage Facility (MSF), Traction Control Bungalow (TCB) and the Traction Power Substations (TPSS). The additional funding in this request will enable the progression of real estate activities in support of the design and construction schedule.

Third Party Support: The nature of the at-grade light rail system requires extensive utility relocations along the entire 6.7 miles of the alignment. Many of the construction EWPs are focused on utility relocations, to remove conflicts with proposed infrastructure improvements of the LRT system. The Third Party support costs from LADWP, City of Los Angeles, Los Angeles County, SoCal Gas, Telecom Utilities, and other stakeholders necessary to successfully complete these EWPs are

included in this Board request.

DETERMINATION OF SAFETY IMPACT

This Board action will not have any negative impact on established safety standards.

FINANCIAL IMPACT

The Preconstruction Budget funding increase will be included in the existing Project 865521- East San Fernando Valley Light Rail Transit Corridor, in Cost Center 8510 - Construction Project Management.

As this is a multi-year capital project, the Chief Program Management Officer and the Project Manager will be responsible for budgeting costs for future years.

Impact to Budget

The sources for funding the additional \$382,875,000 for the Project are capital funds as shown in Attachment A, East San Fernando Valley Light Rail Project Preconstruction Expenditure/Funding Plan. The proposed funding for the Project does not negatively impact funding for operations or safety.

EQUITY PLATFORM

The additional funding will support continued community and small business engagement efforts led by Metro Community Relations (CR) staff in conjunction with the implementation of construction activities:

- **Elected Representatives and City Representatives:** To date, Metro CR staff have met with representatives from the City of Los Angeles Neighborhood Councils and Council District Offices, on upcoming construction, mitigation plans/efforts, and outreach efforts to the local community. Metro has held several quarterly community construction update meetings, presented at various community and school meetings, tabled at various special events, and presented at various business association meetings. The Construction Relations team is currently conducting bilingual door-to-door outreach of small businesses along the Project alignment.
- **Community Members:** The Project has established a Community Leadership Council (CLC) as an advisory body to the Project and is in the process of implementing Community Based Organization (CBO) Partnerships that align with Metro's CBO Partnering Strategy. CLC members have been instrumental in providing direct feedback at the two CLC meetings held on ways to improve current outreach efforts and message delivery on the project.
- **Small Businesses:** Metro CR staff have visited the small businesses along the alignment and provided bilingual project information along with small business mitigation programs available to businesses along the Project corridor: Eat Shop Play (ESP), Business Interruption Fund (BIF), and Business Solution Center (BSC). Metro Diversity & Economic Opportunity, in partnership with Metro CR has formally launched the BIF on this Project in May of 2024 and anticipates launching the BSC Program in Fall 2024. The ESP

program is also anticipated to launch in Fall 2024.

- **Cultural Competency Plan (CCP):** The CCP includes a comprehensive strategy for engagement with the local community utilizing a multi-layered approach focused on a career academy, small business opportunities, and project internal culture and training. Training will encompass the entire team including vendors and subcontractors. The CCP supports an accountability framework to track the progress of each task and goal through the utilization of technology in order to develop the highest standards of resources and programs for the community.

SFTC made a 19.33% DBE commitment for Phase 1 (Pre-Construction) of the contract. Based on payments, the contract is 80% complete and the current level of DBE participation is 15.25%, demonstrating a 4.08% shortfall in the commitment. SFTC reported that they continue to engage DBE firms during Phase 1 and that all DBE firms will be fully utilized. SFTC contends that it will meet its DBE commitment on this project with utilization forecasted through to December 2024.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Project supports the following strategic goals:

- Strategic Goal 1: Provide high-quality mobility options that enable people to spend less time traveling.
The purpose of the Project is to provide high-capacity transit service in the San Fernando Valley.
- Strategic Goal 2: Deliver outstanding trip experiences for all users of the transportation system.
The at-grade light rail system will attract bus ridership and improve the trip experience for users of the transportation system.
- Strategic Goal 3: Enhance communities and lives through mobility and access to opportunity.
With 11 stations, including connections to Metro G-Line and Metrolink, the ESFV enhances mobility to the community.
- Strategic Goal 4: Transform LA County through regional collaboration and national leadership.
Collaboration with the elected officials, citizens, and Metro patrons of San Fernando Valley continues to positively impact the Project.

ALTERNATIVES CONSIDERED

The Board may choose not to move forward with the requested increase to the Preconstruction Budget. This is not recommended as Metro will incur undesirable schedule delays and cost increases if this action does not move forward. Furthermore, delays to the Project will have detrimental effects on the available Federal and State Grant funding dollars.

NEXT STEPS

Upon Board approval of the augmentation of the ESFV Preconstruction Budget, the Project will continue with real estate activities to secure construction access, commence with utility relocation construction, advance design plans and specifications to support the negotiation of a Guaranteed Maximum Price and construction schedule for Phase 2 work, and continue to complete final design. Once the FFGA is secured, additional preconstruction funding will be requested so that staff can

continue to move the project forward. Once an agreement of Phase 2 price has been reached, staff will return to the Board for approval of an LOP budget and seek further authority for the Chief Executive Officer to execute project agreements and contract modifications within the LOP budget.

ATTACHMENTS

Attachment A - East San Fernando Valley Light Rail Transit Project, Preconstruction Expenditure/Funding Plan

Prepared by:

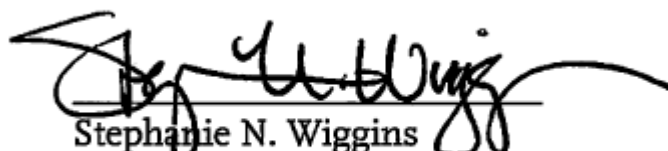
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Stephanie N. Wiggins
Chief Executive Officer

East San Fernando Valley Light Rail Transit Project
Preconstruction Expenditure/Funding Plan
Attachment A
Capital Project #865521

Use of Funds (\$ in Millions)				Actual Expenditures			Forecast Expenditures			
	Prior Pre-Construction Budget (Feb. 2023)	Revised Preconstruction Budget	Proposed Budget Revisions	Pre-Authority ³	Inception Thru FY23	FY24	FY25	FY26	FY27	FY28
Phase 1 - PDB¹	\$ 38.500	\$ 30.980	\$ (7.520)	\$ -	\$ -	\$ 26.300	\$ 4.680			
Additional Preconstruction Activities										
Anticipated Early Work Packages	\$ 109.060	\$ 370.101	\$ 261.041	\$ -	\$ -	\$ 1.762	\$ 135.000	\$ 165.000	\$ 68.339	
P3 Solar - PCS Energy	\$ 0.500	\$ 1.063	\$ 0.563	\$ -	\$ -	\$ 0.013	\$ 0.300	\$ 0.450	\$ 0.300	
AUA #1 - W.A. Rasic	\$ -	\$ 9.888	\$ 9.888	\$ -	\$ 2.090	\$ 7.798				
Professional Services (Agency & PCSS)	\$ 16.137	\$ 27.795	\$ 11.658	\$ 7.108	\$ 5.823	\$ 5.174	\$ 9.690			
Right-of-Way Acquisition ²	\$ 114.575	\$ 204.486	\$ 89.911	\$ 7.220	\$ 0.252	\$ 6.304	\$ 190.710			
Third Party & COLA	\$ 29.796	\$ 37.080	\$ 7.284	\$ 5.538	\$ 4.376	\$ 2.972	\$ 24.194			
Construction Management Support Services	\$ 22.456	\$ 33.810	\$ 11.354	\$ -	\$ 6.163	\$ 11.000	\$ 16.647			
Light Rail Vehicles	\$ 1.500	\$ 1.200	\$ (0.300)	\$ -	\$ -	\$ -	\$ 1.200			
Other Professional Services	\$ 2.496	\$ 10.504	\$ 8.008	\$ 1.018	\$ 0.856	\$ 2.361	\$ 6.269			
Engineering Services for the Project										
General Engineering	\$ 23.670	\$ 95.860	\$ 72.190	\$ 35.501	\$ 16.942	\$ 6.179	\$ 12.000	\$ 12.000	\$ 7.000	\$ 6.238
Systems Engineering	\$ 2.114	\$ 10.992	\$ 8.878	\$ 5.090	\$ 1.861	\$ 0.974	\$ 3.067			
Engineering Support	\$ -	\$ 2.108	\$ 2.108	\$ 0.019	\$ 0.468	\$ 0.496	\$ 1.125			
Contingency										
Contingency	\$ 52.695	\$ 20.815	\$ (31.880)	\$ -	\$ -	\$ -	\$ 10.815	\$ 10.000		
Environmental Planning & Pre-Authority Expenditures										
Pre-Authority Expenditures (865521) ³	\$ 61.493	**	**	**	\$ -					
Environmental Planning (405521 & 465521)	\$ 21.864	\$ 23.049	\$ 1.185	\$ -	\$ 22.344	\$ 0.705				
Totals	\$ 496.856	\$ 879.731	\$ 382.875	\$ 61.493	\$ 61.176	\$ 72.038	\$ 415.697	\$ 187.450	\$ 75.639	\$ 6.238

Sources of Funds (\$ in Millions)	Current Funding ⁴	Total Proposed Funding ⁵	Additional Funding	Pre-Authority Expenditures	Prior Expenditures	FY24	FY25	FY26	FY27	FY28
Federal Revenue										
Section 5339 Alternatives Analysis	\$ 0.968	\$ 0.968	\$ -	\$ 0.968	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
State Revenue										
Transit and Intercity Rail Capital Program (TIRCP)	\$ 81.330	\$ 81.330	\$ -			\$ -	\$ 8.242	\$ 73.088	\$ -	\$ -
Regional Improvement Program Funds (RIP)	\$ 17.315	\$ 34.630	\$ 17.315		\$ 3.651	\$ 6.304	\$ 24.675	\$ -	\$ -	\$ -
Traffic Congestion Relief Program Funds (TCRP)	\$ 27.000	\$ 27.000	\$ -	\$ 27.000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SB1 - Local Partnership Program	\$ -	\$ 74.944	\$ 74.944			\$ -	\$ 74.944	\$ -	\$ -	\$ -
Other State Revenue (State Highway Funds - Fuel Tax - CRRSAA Exchange)	\$ -	\$ 18.185	\$ 18.185			\$ -	\$ 18.185	\$ -	\$ -	\$ -
Local Revenue										
Prop A - Rail Development Account (35%)	\$ -	\$ -	\$ -			\$ -	\$ -	\$ -	\$ -	\$ -
Measure R - Transit Capital (35%)	\$ -	\$ -	\$ -			\$ -	\$ -	\$ -	\$ -	\$ -
Measure R - Transit Capital (35%) - from Canoga Savings	\$ 68.500	\$ 182.000	\$ 113.500	\$ 33.525	\$ 56.194	\$ -	\$ 92.280	\$ -	\$ -	\$ -
Measure R - Highway Projects (20%) - from I-5 N Capacity Enhancement	\$ -	\$ 49.417	\$ 49.417			\$ -	\$ 49.417	\$ -	\$ -	\$ -
Prop C - Discretionary (40%)	\$ -	\$ -	\$ -			\$ -	\$ -	\$ -	\$ -	\$ -
Prop C - Transit-Related Highway (25%) - from I-5 Replacement Credit	\$ 52.410	\$ 161.924	\$ 109.514		\$ 1.330	\$ -	\$ 88.259	\$ 47.341	\$ 24.993	
Local Agency Transit Project Contributions	\$ -	\$ -	\$ -			\$ -	\$ -	\$ -	\$ -	\$ -
Measure M - Transit Construction (35%)	\$ 249.333	\$ 249.333	\$ -			\$ 65.734	\$ 59.694	\$ 67.021	\$ 50.646	\$ 6.238
Total Preconstruction Funding	\$ 496.856	\$ 879.731	\$ 382.875	\$ 61.493	\$ 61.176	\$ 72.038	\$ 415.697	\$ 187.450	\$ 75.639	\$ 6.238

Notes:
1. Adjustment to reflect PDB Phase 1 contract value.
2. Proposed Budget for Right-of-Way Acquisition only includes acquisition, relocation, & consultant costs.
3. Pre-Authority Expenditures are included in real estate acquisitions, engineering, project management and Third Party support budget line items.
4. Current Funding reflects the Feb 2023 board-approved preconstruction budget.
5. Preliminary funding plan - fund assignments are subject to change upon confirmation of future grant awards.



We're building light rail for the Valley.

EAST SAN FERNANDO VALLEY LIGHT RAIL TRANSIT



July 17, 2024
Construction Committee

East San Fernando Valley Light Rail Transit Project

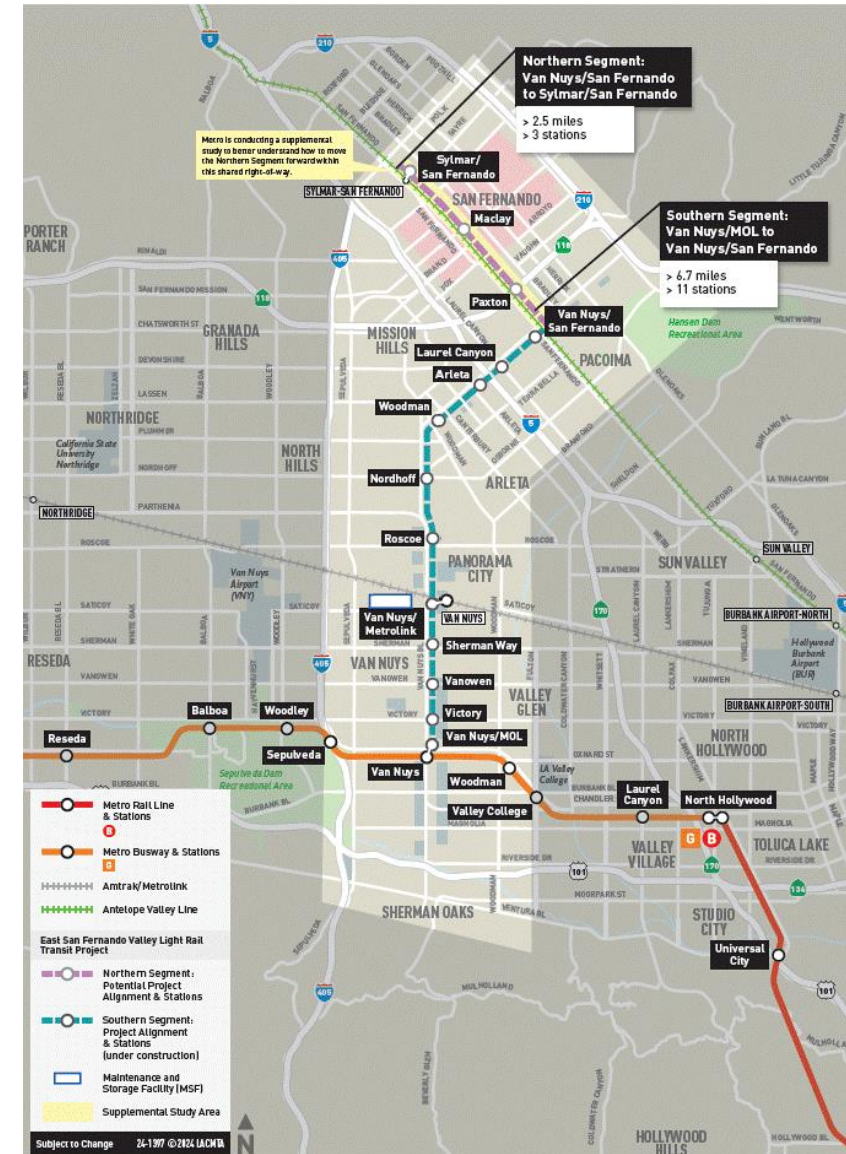


Initial Operating Segment

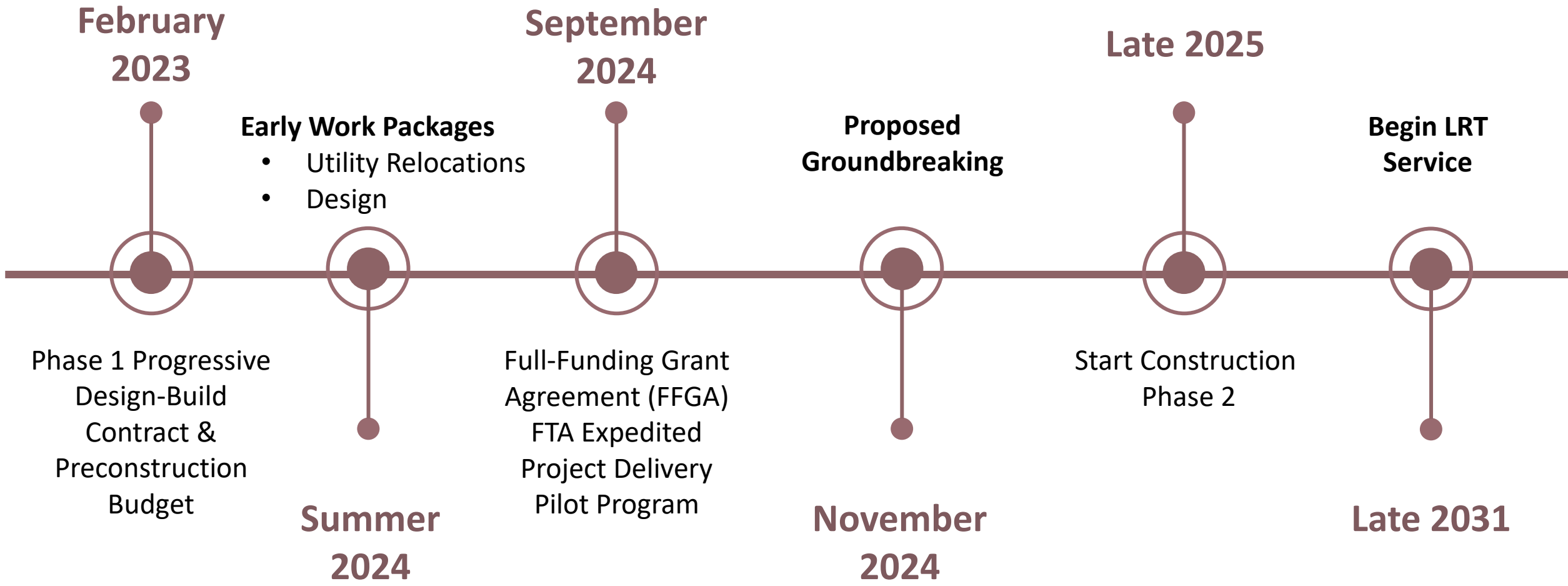
- 6.7 miles at-grade double-track light rail service along the center of Van Nuys Blvd.
- 11 center-platform stations
- 10 Traction Power Substations
- Maintenance and Storage Facility
- Procurement of 33 Light Rail Vehicles

Estimated Project Cost

- \$3.573 Billion



Project Schedule Milestones



East San Fernando Valley Light Rail Transit Project Funded Activities Underway

Federal Transit Administration

- FFGA Application

Construction Activities in 2024

- Utility Adjustment Construction
- Complete Design/Construction Plans
- Progressive Design-Build: Phase 1 Activities

Real Estate Acquisitions/Relocations

Community Outreach

- Construction Relations
- Construction Mitigation Programs
 - Business Interruption Fund
 - Business Solution Center
 - Eat Shop Play



East San Fernando Valley Light Rail Transit Project

Additional Funding Investment

- **Early Work Packages**
 - EWP 04 – Final Design
 - EWP 05 – Integrated Project Management Office
 - EWP 06 – Utility Adjustment Packages 2, 3, & 7
- **Progression of Real Estate Activities in support of design and construction**
- **Construction of Utility Adjustments**



Concept Image. ESFV LRT Maintenance and Storage Facility



Concept Image. ESFV LRT alignment along Van Nuys Boulevard

Request to Construction Committee

RECOMMENDATION TO BOARD

AUTHORIZE the Chief Executive Officer to:

- A. INCREASE the Board approved Preconstruction Budget for the East San Fernando Valley Light Rail Transit Project by \$382,875,000 from \$496,856,000 to \$879,731,000;
- B. NEGOTIATE and EXECUTE all project-related agreements and modifications to existing contracts within the authorized Preconstruction Budget





Board Report

File #: 2024-0220, File Type: Informational Report

Agenda Number:

**CONSTRUCTION COMMITTEE
JULY 17, 2024**

SUBJECT: OFFICE OF THE INSPECTOR GENERAL COMPARISON OF METRO RAIL DESIGN CRITERIA TO 11 CITIES ALONG THE SOUTHEAST GATEWAY LINE

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE Office of the Inspector General Comparison of Metro Rail Design Criteria to 11 Cities Along the Southeast Gateway Line.

ISSUE

The Metro Office of the Inspector General (OIG) initiated a study to determine what differences exist between the Metro Technical Specifications and Rail Design Criteria (MRDC) for the design of construction projects and the typical design specifications of cities in Los Angeles County to warrant the creation of costly permitting packages, lengthy permitting review processes, permitting fees, contractor frustrations, and schedule delays resulting therefrom, and if improvements can be made in consistency between the two specifications to reduce these impacts.

BACKGROUND

The OIG's Construction Change Order Spot Check Program focuses on approved change orders and modifications that exceed \$500,000. In the course of performing our review of change orders, it appears that the change orders are subjected to review by cities, permitting fees, and can result in schedule impacts. Change orders can result from several circumstances including differences in design specifications of Metro and the city where Metro construction is occurring. The Southeast Gateway (SEG) Line alignment will be going through Los Angeles, Huntington Park, Vernon, Bell, Cudahy, Downey, South Gate, Paramount, Bellflower, Cerritos, and Artesia (the "11 Cities"). Those cities' specifications were chosen as examples to study. The OIG, along with its consultant, Mott MacDonald, endeavored to compare the MRDC with the design specifications from those SEG Line 11 Cities.

DISCUSSION

Focus on Section 3 of the MRDC.

The MRDC consists of 12 sections. Each section covers the criteria for the disciplines involved in the planning, design, construction, and operation of Metro facilities. In comparing the 11 Cities design criteria with the MRDC, there are many sections that the MRDC covers in detail that are absent from the 11 Cities criteria. This is because the 11 Cities are not doing rail construction. In the absence of any relevant design criteria from the 11 Cities, the design of these Metro facilities is governed by the MRDC. These relevant rail-related MRDC sections include Environmental Considerations, Guideway and Trackwork, Architectural, Mechanical, Electrical, Systems, Operations, Yards and Shops, and Safety Security Systems Assurance. Section 3 of the MRDC provides criteria for the design of transit alignments, track subgrades, drainage systems, right-of-way clearances, access control, service roads, streets, parking facilities, site work, and utility relocations. Notable references that provide a basis for Section 3 criteria include the Manual of Uniform Traffic Control Devices (MUTCD), Caltrans Standard Plans & Specifications, Caltrans Highway Design Manual, and the AASHTO Policy on the Geometric Design of Highways and Streets. Section 3 of the MRDC provides the most detailed information for direct comparison to the 11 Cities' criteria. Therefore, the focus of the review was on Section 3 of the MRDC to the 11 Cities specifications.

Consultant findings on differences between the MRDC and the SEG Line cities.

Uniform design and construction standards, conformed from the MRDC and the criteria of the 11 Cities, would be valuable to guide the development of the SEG Line project and improve project delivery costs and schedule.

Based on a high-level review by the OIG expert consultant of the MRDC to the SEG Line 11 Cities' specifications inconsistencies are rare. Out of over 5,000 specifications compared, only 21 (about .5%) were found to be different.

The 21 specifications identified as different, which the consult refers to as "exceptions", are set forth in Attachment A to the attached report. Importantly, these inconsistencies account for an incredibly small percentage of the total design criteria. The MRDC and the 11 Cities specifications are essentially 99.5% the same.

Potential Cost and Schedule Savings

1. MRDC Updating. Material conflicts between Metro designs and a city's requirements can create change orders. Change orders are costly and cause delays. Because of this, Board Deputies have asked the Inspector General what the differences are between our design specifications and other cities. This report substantially answers that question. The study by this independent expert consultant in the construction industry confirms that there is less than a 1% difference between most cities and the Metro specifications. While change orders can occur due to several reasons, such as differing site conditions, utility relocations, and other reasons, change orders due to differing specifications should be very limited with respect to any inconsistent specifications, so long as Metro's MRDC remains current and consistent with new laws, regulations and best practices.

Recommendation 1: For this reason the OIG recommends that Metro continue to make a

strong effort to make all updates to its MRDC promptly as requirements change and include best practices to ensure cities can trust Metro's MRDC to reflect legally correct and good quality requirements.

2. Permitting Process. Much of a permitting process is to confirm that the Metro specifications are consistent with the reviewing city's specifications. The permitting process is costly. Metro pays a consultant to compile permitting packages comprised of specifications for a project, schematics, and other voluminous information. The city's personnel time is burdened; they charge Metro to review the packages, and those fees are charged against the budget of the project. Review of the thousands of specifications are performed by a city as time and availability allows, that is a potentially lengthy process. Contractors have expressed frustration with the process and used it as a basis to charge Metro. Since we have confirmed that the deviation of Metro's MRDC from most cities' specifications is less than a 1% deviation, it does not warrant a review and permitting process for the entire other ninety-nine percent (99%+) of the project specifications.

Recommendation 2: Metro should endeavor to be self-permitting for all aspects of a project that are substantially consistent or more stringent standards than a city where we are performing construction.

Recommendation 3: The permitting process, if used, should be limited to those nonconforming specifications that are a lower or materially different standard than what a city requires. Again, this is less than 1% of the specifications of a project. This would also result in less burden on the cities where we build. It might also result in more proposers for Metro projects at a lesser cost. It would save money and schedule time on a project. This would mean more funds would be available for safety-related construction, amenities, and higher-quality products for the construction.

This would not result in any less transparency on the projects to the public or the cities. The full set of specifications could still be made available to the cities to review as they wish. A city would have to have faith in Metro that when it brings to them the exceptions to permit, that is all the exceptions. Self-permitting for the conforming specifications involves of some trust by the cities' permitting authorities, and that trust must be earned by Metro by having an MRDC that is accurate, up to date, and addresses typical city concerns and certifying that the exceptions brought forward are verified as the only significant variances.

Recommendations Recap -

The OIG recommends a frequent and regular review and update of the MRDC to ensure consistency with local cities design criteria.

The OIG also recommends that excerpts from reference criteria in the MRDC be removed from the MRDC and replaced with citations referencing to the governing source criteria that form the basis of the MRDC. It should be clearly noted that newer versions of the source criteria, published prior to the start of a notice to proceed with project design, shall govern. Any updates to referenced source criteria after the notice to proceed should be discussed with the affected city.

Lastly, the OIG recommends that self-permitting occur for the specifications that conform to a city's specifications, and an accelerated, abbreviated permitting process be established for the SEG Line project and for other Metro projects in the future, for the non-conforming "exception" specifications related to the project.

This report does not have a financial impact on the Agency, but action taken on the recommendations has the potential to reduce costs related to construction planning, design, and permitting and improve Metro efficiency.

EQUITY PLATFORM

Of the 11 Cities, nine cities have areas Metro has identified as Equity-Focused Communities. Those are Bell, Bellflower, Cudahy, Downey, Huntington Park, Los Angeles, Paramount, and Southgate. In the opinion of the OIG, we considered whether these design criteria presented any equity-related issues on their face. The OIG did not receive any data concerning community impacts. These low-income equity-based communities along the Southeast Gateway Line will benefit from having increased access to Metro Light Rail. The OIG observed no obvious disparate impacts created by the design criteria on small businesses or low-income persons, or by the implementation of the design criteria in a manner that impacted a disadvantaged community beyond what is typical and usual when conducting any construction.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Office of the Inspector General review and comparison of MRDC to the 11 Cities design criteria is in support Metro's Strategic Plan Goal #5: Provide responsive, accountable, and trustworthy governance within the Metro organization and CEO goals to exercise fiscal discipline to ensure financial stability. The OIG mission includes reviewing expenditures for fraud, waste, and abuse in Metro programs, operations, and resources.

NEXT STEPS

Our preliminary review with management regarding the OIG's report and recommendations was generally positive. Management's response is attached. Management will continue to review the recommendations and implement as appropriate whether to utilize self-permitting or in another form that will increase the path forward on construction projects.

ATTACHMENTS

Attachment A - Report on Comparison of Metro Rail Design Criteria to 11 Cities along the Southeast Gateway Line

Attachment B - Management's Response

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Alan Bennett, Legal Research Specialist (213) 244-7313

Reviewed by: Karen Gorman, Inspector General (213) 922-2975



Karen Gorman
Inspector General

A large teal graphic element consisting of a large right-angled triangle on the left side and a smaller right-angled triangle on the top right side, meeting at a point. The text is positioned within the white space of the larger triangle.

Comparison of Metro Rail Design Criteria to Cities along Southeast Gateway Line

AE56750008 - Task Order #2

May 6, 2024

Document reference: 381630-MMD-XX-XX-RP-PM-000X

Information class: Standard

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ACRONYM	DEFINITION
AASHTO	American Association of State Highways and Transportation Officials
ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act Accessibility Guidelines
AHJ	Authorities Having Jurisdictions
ANSI	American National Standards Institute
APTA	American Public Transit Association
APWA	American Public Works Association
AREMA	American Railway Engineering and Maintenance Association
CBC	California Building Code
CEQA	California Environmental Quality Act
CLSM	Controlled Low Strength Material
CPUC	California Public Utilities Commission
DBE	Design Basis Earthquake
EX	Exception
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HVAC	Ventilating, and Air-Conditioning
IBC	International Building Code
LABOE	Los Angeles Bureau of Engineering
LACMTA	Los Angeles County Metropolitan Transportation Authority
LAMC	Los Angeles Municipal Code
LID	Low Impact Development
LOS	Level of Service
LRFD	Load and Resistance Factor Design
LRT	Light Rail Transit
MCA	Master Cooperative Agreement
MDE	Maximum Design Earthquake
MRDC	Metro Technical Specifications and Rail Design Criteria
MRT	Metro Rail Transit
MSF	Maintenance and Storage Facility
MUTCD	Manual of Uniform Traffic Control Devices
NE	No Exception
NTP	Notice to Proceed
OIG	Metro Office of the Inspector General
SB	Senate Bill
SEG Line	Southeast Gateway Line Transit Corridor Project
VMT	Vehicle Miles Traveled

Executive Summary

The Los Angeles County Metropolitan Transportation Authority (LACMTA or Metro) serves as the planner, coordinator, designer, builder, and operator of the public transportation system for Los Angeles County. The Metro Office of the Inspector General (OIG) in its periodic audit of construction change orders of rail projects has discovered some inconsistencies between the **Metro Rail Design Criteria (MRDC)** and the design criteria of local authorities having jurisdiction (AHJ) within Los Angeles County.

The Southeast Gateway (SEG) Line project is a planned light rail corridor that will traverse through 11 cities along its alignment. The cities of Los Angeles, Huntington Park, Bell, Cudahy, Downey, South Gate, Paramount, Bellflower, Cerritos, Vernon, and Artesia, plus the County of Los Angeles are collectively referred to in this report as the “SEG Line Cities”. The OIG determined that it is best practice and beneficial to determine commonality between the MRDC and the SEG Line Cities’ criteria prior to issuance of the construction contract.

A unified design and construction standard, conformed from the MRDC and the design criteria of the SEG Line Cities would be valuable for delivery of the construction contract. Mott MacDonald was retained by the Metro OIG to assist Metro in comparing the relevant sections of the MRDC to the SEG Line Cities design criteria and to produce a report and spreadsheet detailing any variances. From the high-level analysis, we addressed potential gaps and made recommendations for building an integrated set of documents and specifications for the upcoming SEG Line construction contract.

The request from the OIG to the Mott MacDonald team was to perform the task at a high-level within a limited scope, time, and budget; therefore, the evaluation and comparison performed on the two sets of documents under this task are at a high-level and should be as expected, an initial study report to guide towards future development of a unified design and construction standard. Metro OIG’s three main objectives for this task and our delivery approach are as follows:

Understand

- Gather the latest MRDC.
- Gather SEG Line Cities design criteria.
 - The OIG’s request for information from the SEG Line Cities and their responses are the basis of data used; however, the Mott MacDonald team initialed contact with cities when their responses needed additional clarity.
- Analyze and understand the MRDC and SEG Line Cities design criteria.

Identify

- Identify the relevant design and construction criteria from the MRDC.
- Identify the appropriate SEG Line Cities design criteria for comparison.
- Evaluate the documents for variances.

Report

- Develop and populate a spreadsheet comparing the SEG Line Cities design criteria and the MRDC.
- Generate methodology to evaluate and resolve the discrepancies.
- Write a report summarizing findings and recommendations.

The spreadsheet with over five thousand MRDC identified items for comparison is included in this report as Appendix A2, and a smaller list of specific exceptions where criteria differ between the MRDC and SEG Line Cities in Appendix A1. In general, we have categorized the items as performance or prescriptive based criteria. The performance-based items are “resolved” items, unless stated otherwise, because the typical language in the MRDC either defers to the AHJ criteria or more stringent governing codes and criteria. The prescriptive criteria are compared against the appropriate SEG Line Cities criteria when available. The Greenbook is relied on by many cities; therefore, the Greenbook was compared to the MRDC.

Construction and policy restrictions from the SEG Line Cities were generally not evaluated because we are not privy to the requirements, and they were not provided in discovery. The granular detailed information needed to perform this work cannot be achieved in this high-level review. To investigate construction and policy restrictions of the SEG Line Cities would require more extensive resources and time. We recommend further evaluation in detailed design or as a significant separate continuing effort.

The immensity of data needed to be compared and validated between the MRDC and the SEG Line Cities’ criteria, codes, regulations, and restrictions is a daunting endeavor; however, having the two sets of documents in conformance and any conflicts mitigated is vital for the successful implementation of the SGL construction contract. The framework and initial evaluation developed in this task should be used to guide the continuation of this effort to completion, but “best practice” would seek resolution prior to the start of final design and construction.

1 Introduction

1.1 Project Summary

The Southeast Gateway Line (SGL) is a new light rail transit (LRT) corridor connecting southeast LA County to downtown Los Angeles. The SGL corridor includes a 14.5-mile-long segment connecting Pioneer Station in the City of Artesia to Slauson Station along the A Line in unincorporated Florence-Firestone. It includes nine stations, five parking facilities, and a new 21-acre Maintenance and Storage Facility (MSF) within the City of Bellflower. A separate 4.5-mile segment is proposed from Slauson to Union Station, which will include 3 additional stations in the Art/Industrial District, Little Tokyo, and Union Station. Together, both segments make up the 19-mile Southeast Gateway Line providing a one-seat ride from Artesia to downtown Los Angeles.

1.1.1 Existing Railroad Right-of-Way

The SGL corridor is largely located within an existing Pacific Electric railroad right-of-way that is now owned by the Los Angeles County Metropolitan Transportation Authority (LACMTA). Most of the existing right-of-way was double track while in service, except for single-track bridges. The line was discontinued in 1958 and a Caltrans survey in 1981 reported that the SGL line had been reduced to a single track, with several at-grade crossings removed and in poor condition. Improvements along the existing railroad right-of-way, now owned by LACMTA, will be governed by Metro Rail Design Criteria (MRDC).

1.1.2 Existing City Right-of-Way

The SEG Line corridor traverses through Los Angeles, Huntington Park, Bell, Cudahy, Downey, South Gate, Paramount, Bellflower, Cerritos, Vernon, and Artesia. Those 11 cities plus the County of Los Angeles collectively are referred to in this report as the “SEG Line Cities.” The SEG Line Cities are served by seven major freeways and a grid of major arterial roads. Many of these roads include on-street parking, bus stops for local and regional transit operators, and an extensive network of bicycle and pedestrian facilities.

Most roadway intersections within the project area are controlled by traffic signals or stop signs. Many of the existing at-grade crossings that intersect the proposed LRT alignment are controlled by crossing gate arms or warning signs and this is where the project will interact most with the SEG Line Cities. Improvements within the existing SEG Line Cities right-of-way will be governed by a mix of design criteria from each city and the criteria within the MRDC.

1.2 Goal of Analysis

1.2.1 A Unified Design and Construction Standard

The Metro Office of the Inspector General (OIG) in its periodic audit of construction change orders of rail projects has discovered some inconsistencies between the MRDC and the design criteria of local agencies' having jurisdiction (AHJs) within Los Angeles County. A unified design and construction standard, conformed from the MRDC and the criteria of the SEG Line Cities would be valuable to guide the development of the SGL construction contract and improve project delivery.

1.2.2 Main Objectives

Metro's three main objectives for this task and our delivery approach are as follows:

Understand

- Gather the latest MRDC.
- Gather the SEG Line Cities design criteria.
- Analyze and understand the MRDC and SEG Line Cities design criteria.

Identify

- Identify the relevant design and construction criteria from the MRDC.
- Identify the appropriate SEG Line Cities design criteria for comparison.
- Evaluate the documents for variances.

Report

- Develop and populate a spreadsheet comparing the SEG Line Cities design criteria to the MRDC.
- Generate methodology to evaluate and resolve the discrepancies.
- Write a report summarizing findings and recommendations.

1.2.3 Delivery Approach

There is an immense amount of data in both the MRDC and the SEG Line Cities Criteria. Validating and comparing these data is a daunting task but having a unified design and construction standard is vital for the successful implementation of the SGL construction contract. The request from the OIG to the Mott MacDonald team was to perform the task at a high-level within a limited scope, schedule, and budget; therefore, our delivery approach matched this recommended level of effort accordingly and will serve as an initial study report to guide the future development of a unified design and construction standard.

Our team approach was to drill down into the most critical aspects of evaluating these various criteria. To analyze and **Understand** the MRDC, we started first by classifying the entirety of the MRDC into the following categories:

- Performance Criteria
- Prescriptive Criteria
- Standard Criteria

We then considered the most relevant scope of work to the SEG Line Cities; namely, that which occurs within each Cities right-of-way along the at-grade crossings of the LRT alignment. We then identified commonalities in the SEG Line Cities Criteria, which allowed our team to **Identify** the most relevant criteria to evaluate.

2 Outreach to SEG Line Cities

2.1 Metro OIG Outreach

Prior to starting analysis of the MRDC and SEG Line Cities criteria, Metro OIG reached out to each of the SEG Line Cities as well as Los Angeles County. The initial outreach between the SEG Line Cities and Los Angeles County gathered information through public record request. These requests generally inquired about city municipal standard criteria and requirements specifically related to rail design and construction, as well as other related design criteria necessary to obtain a permit for these public works. City responses were then collected and sent to Mott MacDonald along with a table summarizing all individual city responses to the initial information request.

After the initial outreach, responses were received from all cities except for Los Angeles and Paramount. For the city of Los Angeles, we were able to review criteria posted online. The cities that responded largely stated they did not have their own standards or criteria for most, if not all, items related to rail design and construction. Based on their responses, design and construction references were generally made to the *Standard Plans and Specifications for Public Works Construction* (the Greenbook), the *American Public Works Association (APWA)*, and Caltrans standards. The cities that responded with their own standards included Artesia, Downey, South Gate, and Vernon, as well as Los Angeles County. The standards provided from these cities, however, are not all encompassing and largely contain items that are either secondary or unrelated to rail design and construction.

2.1.1 Initial Approach

The initial approach of the Mott MacDonald team was to submit secondary information requests to the various cities without duplicating the initial effort from Metro OIG. Therefore, the team took note of the initial outreach efforts and submitted informal information requests to the Public Works and Engineering departments, instead of submitting formal public record requests through the City Clerk. This second round of requests ultimately resulted in similar responses to the efforts of Metro OIG or no response at all. For cities that did not respond, the team assumed the information initially provided to Metro OIG was all that was available.

2.1.2 Summary of Results

A summary of responses from the SEG Line Cities is provided below:

City of Artesia – The City of Artesia provided its Master Cooperative Agreement (MCA), which the City negotiated with Metro, the Artesia Active Transportation Plan, general plan bikeways and truck routes, and the following standard plans: Driveway, concrete sidewalk, backfill and asphalt pavement repair; and the following City municipal codes: lighting, fences walls and hedges, landscaping, open space and recreation (OS-R), and noise. Upon Mott MacDonald’s request for further information, Karen Lee (Special Projects Manager) stated the following: “The City negotiated with Metro in its Master Cooperative Agreement (MCA) that Metro would honor the specs resulting from the Artesia Downtown Specific Plan.”

City of Bell – The City of Bell stated that the City uses the Greenbook. Mott MacDonald attempted to contact the City through their online “Contact Us” form but received no response.

City of Bellflower – The City of Bellflower stated that the City has no records responsive to Metro OIG’s request. Mott MacDonald then reached out to the City of Bellflower’s Inspector,

Frank Preciado, who stated that the City has no standards aside from driveway aprons and that most things will fall under the Greenbook. He also mentioned that the City has a permit writer who has their own requirements.

City of Cerritos – The City of Cerritos stated that the City has no records in response to Metro OIG’s request and that they defer to the American Public Works Association (APWA) standard plan and specifications. Upon Mott MacDonald’s request for further information, the head of the City’s Engineering department stated that there were no standards for railroad crossings and would therefore require all rail projects to be reviewed and approved by the lead City engineer. However, as a general rule, rail works should meet Federal Highway Administration and Caltrans standards. All other standards and work should be referenced in the APWA Greenbook. One example was provided for a deviation to the above standards; standard water lid valves need to be made in Mexico or USA. Valves are not accepted if made in any other country. Additionally, the City has different preferred work hours depending on what part of the city construction will take place in. The following examples were provided: the City prefers work in industrial areas to be carried out in the day, work by the Cerritos Mall to be carried out at night except for Thanksgiving to mid-January where no construction is allowed near the mall.

City of Cudahy – The City of Cudahy stated that the City uses the Greenbook along with Caltrans standards and other construction codes as applicable (e.g., CAMUTCD). The City also stated that Public Works Permit Requirements include the following: completed Public Works Permit application (along with correspondent fees), project plan for proposed improvements, traffic control plan (stamped and signed by a registered Professional Civil Engineer in the State of California), contractor’s license, certificate of insurance, contractor’s worker comp, contractor’s business license, proof of coordination with utility companies and USA notification. Typical hours of operation for projects within the public right-of-way is 7am to 3pm. Aside from the listed items above, other requirements may also be required based on the proposed project and scope of work. Mott MacDonald attempted to contact the City of Cudahy through the Public Works Director, Aaron Hernandez, but received no response.

City of Downey – The City of Downey stated the following: “As a Public Works Department, we do not have standard criteria and requirements related to any rail design and construction, including those for tracks, stations, building access, grade crossings, fencing, duct banks, bridge supports, hauling, and earth monitoring.” The City did, however, provide standard plans for Sewer and Water as well as a standard drawings for residential driveways or parkways 10’ or more. Mott MacDonald was unable to contact the City of Downey through various email attempts as they were bounced back and labelled as spam by the City.

City of Huntington Park – The City of Huntington Park stated the City does not have its own City municipal standard criteria and requirements and therefore utilizes County standards. Mott MacDonald attempted to contact the City through their general contact email but received no response.

City of Los Angeles – The City of Los Angeles has a Master Cooperative Agreement (MCA) with Metro that outlines the roles and responsibilities for the design and delivery of transportation projects within the City limits. Relevant design criteria are also readily available online and has been summarized for each bureau within the Public Works department and the department of transportation below:

Bureau of Engineering

- Standard Plans
- Storm Drain Design Manual
- Architecture Manual
- Brown Book
- Street Design Manual
- Supplemental Street Design Guide
- Structural Design Manual
- Construction Manual
- Sewer Design Manual
- Survey Manual
- Special Orders
- Master Specifications Library

Bureau of Sanitation

- Low Impact Development (LID) Handbook

Bureau of Street Services

- Tree Spacing Guidelines
- Irrigation in the Public Right-of-Way
- Tree Planting Standard Plans

Bureau of Street Lighting

- Design Standards and Guidelines
- Blue Book

Los Angeles Department of Transportation

- Manual of Policies and Procedures
- Complete Streets Committee Policy and Design Guidance
- Supplemental Street Design Guidelines

City of Paramount – Metro OIG submitted an information request to the City of Paramount but had not received any information in return. Mott MacDonald sent a follow-up request for information to Adriana Figueroa with the City of Paramount who forwarded the request to Rafael Casillas from Willdan (the city’s contracted engineering firm). Willdan stated that anything that falls within the City right-of-way typically follows the Greenbook and that general work conditions, construction requirements, and similar can be found in the City municipal codes. However, there is no wide ruling for all areas throughout the City and standards and requirements will largely depend on the location within the City that the work is being performed in. Additionally, depending on the location of work, activities will be subjected to differing requirements based on whether they are distinguished as a betterment activity or a construction activity. The engineer made a final comment that Willdan is hesitant to provide wide-ranging requirements and standards because the City and Willdan assess every project and tailor it for the City.

City of South Gate – The City of South Gate stated that the City uses their own water and sewer standards, but follows Caltrans, Greenbook, and CAMUTCD standards for most other works. Mott MacDonald attempted to contact the Public Works department but received no response.

City of Vernon – The City of Vernon was not initially contacted by Metro OIG but MM submitted an information request through the City’s online portal, initially to the Director of Public Works and the Deputy Director. This request was forwarded to an engineering aide who directed MM to the Cities Standard Drawings online. Standard Drawings are available for the following items:

- Tree Planting Standard
- Standard Masonry Wall Barrier
- Standard Driveway
- Parkway Drains
- Curb Drains
- Manhole Drain and Cover
- Miscellaneous Curb
- Typical Trench Paving Section
- Standard Offset Requirements
- Standard Sidewalk Curb and Gutter
- Curb Ramps

Los Angeles County – Los Angeles County did not respond to Metro OIG’s information request. However, relevant design criteria and construction specifications available online were used by the Mott MacDonald team. These include:

- Los Angeles County Standard Plans
- Hydraulic Design Manual
- Structural Design Manual
- Low Impact Development Standards Manual

3 Identifying Variances

3.1 Classification of Criteria

To analyze and **Understand** the MRDC, the project team classified the MRDC into the following categories:

- Performance Criteria
- Prescriptive Criteria
- Standard Criteria

This allowed our team to **Identify** the most relevant criteria from the MRDC to evaluate against the SEG Line Cities criteria.

3.1.1 Performance Criteria

Performance criteria define functional characteristics of a final product based on the operational environment. It links these functional characteristics to construction, materials, and other items under contractor control. This definition from the Federal Highway Administration (FHWA) implies that without this link, performance criteria would not be under contractor control. As such, our project team used engineering judgement to assume most of the performance criteria within the MRDC that were not linked to prescriptive criteria would not conflict with criteria from the SEG Line Cities. An example of performance criteria from the MRDC without this link is as follows:

- *Existing building relationships, future joint developments, as well as neighborhood ethnic and cultural characteristics shall all be taken into consideration by the Designer when site planning.*

For existing building relationships, a link to more prescriptive criteria, like minimum setbacks, was not provided. Therefore, the judgement from the project team was there is no exception to the SEG Line Cities criteria. Put more broadly, the project team used this same judgement for all performance criteria that were not linked to numerical criteria or material specifications that are under contractor control.

3.1.2 Prescriptive Criteria

Prescriptive criteria give details about product materials and instructions to the contractor for their installation. An example of a prescriptive criteria is the second sentence in the criteria below:

- *Plaza area drainage shall be designed to minimize surface water level and velocity to maintain a safe walking surface. Minimum grade shall be 0.3 percent and maximum grade shall be 2.0 percent in open plaza areas.*

The first sentence provides expectations of the surface water level and the desired outcome of the walking surface, which is performance criteria. In contrast to the first example, this performance criteria is linked to numerical requirements that prescribe in detail how the walking surface in plaza areas should be designed, which is prescriptive criteria.

3.1.3 Standard Criteria

Standard criteria reference materials, products, or construction methods based on requirements from another reference standard. An example of standard criteria is provided below:

- *The design of curb cuts and ramps shall be in accordance with the applicable provisions of the Americans with Disabilities Act (ADA) and Title 24, California Code of Regulations Part 2, "Regulations for the Accommodation of the Disabled in Public Accommodations."*

The assumption from the Mott MacDonald team was the design and construction requirements from the SEG Line Cities would also adhere to these same reference standards. Evaluation of the numerous requirements that makeup the ADA and other standard criteria is also outside the scope of this high-level analysis.

3.2 Relevant Project Scope

Initial outreach by Metro OIG inquired about all city municipal standard criteria and requirements related to any rail design and construction; including tracks, stations, streets, landscape, utilities, sidewalks, grade crossings, right-of-way, fencing, asphalt, concrete, curbs, gutters, drainage, catch basins, duct banks, sewers, water, storm drain, bridge supports, work hours, working conditions, building access, hauling, earth monitoring, or other related specifications and requirements to obtain a permit.

3.2.1 Intersection Improvements

The Mott MacDonald team sought ways to narrow the scope of the analysis to focus on comparing the most relevant criteria; namely, the intersection improvements that occur within each Cities right-of-way along the at-grade crossings of the LRT alignment. Typical improvements for these intersections are summarized as follows:

- Access Control
 - Active Warning Equipment
 - Medians and Channelization
 - Guardrails and Fencing
 - Traffic Signals
 - Track Circuitry and Signal Interconnects
 - Driveway relocations
- Approach Improvements
 - Bicycle/Pedestrian Improvements
 - Signage and Striping
 - Landscaping
 - Street Lighting
 - Bus stop relocations
 - Utility relocations
- Roadway Geometry
 - Horizontal alignment
 - Vertical profile
 - Curb bulb-outs
 - Dual curb ramps

Requirements for most of the above Civil scope of work are more specifically described within Section 3 of the MRDC. For items not addressed within Section 3, there are also references provided to Caltrans Standard Plans and Specifications, the American Association of State Highways and Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets, the *Standard Plans and Specifications for Public Works Construction* (the Greenbook), amongst other relevant design requirements that form the basis of Section 3 of the MRDC. A thorough evaluation of the requirements within the MRDC against all the relevant design criteria for the intersection improvements is outside the scope of this analysis and additional means of narrowing the scope were pursued.

3.2.2 Greenbook

After gathering responses from the SEG Line Cities and collecting their design criteria, the Mott MacDonald team then identified commonalities amongst their responses. This provided an additional means of narrowing the focus of this analysis. The most common criteria referenced were the *Standard Specifications for Public Works Construction (the Greenbook)*, the *Standard Plans for Public Works Construction*, and the *LA County Standard Plans*. These collectively makeup the “SEG Line Cities Criteria” for the purposes of this high-level analysis.

The Greenbook specifications largely include requirements for construction materials and methods and is thus difficult to compare against Metro Rail **Design** Criteria.

On the other hand, the Standard Plans for Public Works Construction and the LA County Standard Plans provide more relevant design criteria for comparison. More specifically, Section 100 includes design requirements for Street Improvements. The LA County Standard Plans are based on the Standard Plans for Public Works Construction and should serve as supplemental criteria. They are both structured in a similar manner and relevant criteria include Sewers and Sanitation, Flood Control and Storm Drain Facilities, Landscaping and Irrigation Systems, Street Lighting and Traffic Signals, and other General Facilities.

3.3 Analysis by Discipline

The MRDC is broken up into 12 sections, each covering differing criteria for the disciplines involved in the planning, design, construction, and operation of Metro facilities. There are many sections notably absent from the SEG Line Cities Criteria when comparing to the MRDC. These include Environmental Considerations, Guideway and Trackwork, Architectural, Mechanical, Electrical, Systems, Operations, Yards and Shops, and Safety Security Systems Assurance.

A matrix has been provided in Appendix A summarizing the analysis by discipline. The two dispositions used when evaluating the SEG Line Cities Criteria were either Exception (EX) or No Exception (NE). The EX disposition indicates a conflict between the individual MRDC specification and the SEG Line Cities Criteria. This means there was criteria for comparison but there was a difference in methodology, material specification, or some other relevant prescriptive criteria. The NE disposition indicates no conflict between the individual MRDC specification and the SEG Line Cities Criteria. That could mean alignment between the two criteria or no criteria for comparison. In the absence of any relevant design criteria from the SEG Line Cities, the design of these Metro facilities should be governed by the MRDC.

3.3.1 Environmental Considerations

Section 2 of the MRDC provides environmental compliance requirements during construction and operation of Metro projects. These include requirements for Traffic and Transportation, Land Use and Development, Urban Design, Noise and Vibration, Air Quality, Energy, Hazardous Materials, Hydrology, Biology, Cultural Resources, and Climate Change. Reference codes and standards for these requirements include California Green Building Standards Code and Metro Environmental Policy. Other requirements from Federal codes, ordinances, regulations, and applicable guidelines from the Federal Transit Administration (FTA) and American Public Transit Association (APTA) also apply. There are few, if any, comparable requirements from the SEG Line Cities Criteria for this high-level analysis. In the absence of such criteria, the requirements for environmental compliance should be governed by the MRDC.

3.3.2 Civil

Section 3 of the MRDC provides criteria for the design of transit alignments, track subgrades, drainage systems, right-of-way clearances, access control, service roads, streets, parking facilities, site work, and utility relocations. Notable references that provide a basis for these criteria include the Manual of Uniform Traffic Control Devices (MUTCD), Caltrans Standard Plans & Specifications, Caltrans Highway Design Manual, and the AASHTO Policy on the Geometric Design of Highways and Streets. This section of the MRDC provides the most direct comparison of the SEG Line Cities Criteria.

3.3.2.1 Utilities

The utilities criteria provided in the MRDC pertain to the upkeep, rehabilitation, and establishment of utilities that may be impacted by the project's construction activities. In the performance of work, due consideration shall be given to the needs of the transit system, the requirements and obligations of the utility organizations, traffic requirements, and the cooperative agreements between the Agencies or Companies and Metro. This section of the MRDC is written as a supplement to the criteria and standards of local AHJs. This is evidenced by statements taking various forms in the following sections:

- General (3.3.1)
All designs involving maintenance, support, and relocation or other utility work shall conform

to the applicable specifications, criteria, and standard drawings of the concerned corporations or agencies.

- Sanitary Sewers and Storm Drains (3.3.2)

Design and construction of Sanitary Sewer laterals to abutting properties shall conform to City and County of Los Angeles requirements or other applicable local codes. All sanitary sewer and storm drain discharges for both operation and construction of the Metro Rail Transit (MRT) shall be properly permitted and compliant with appropriate jurisdictional authority.

Separation between sanitary sewers and water lines shall be per the applicable jurisdictional agency's design requirements. In general, maintain 10 feet minimum horizontal and 1-foot minimum vertical separation, or follow as required by the applicable jurisdictional agency's design requirements. The most stringent requirements shall apply.

- Water (3.3.3)

All maintenance, relocation, restoration, and construction of water mains and appurtenances shall conform to current design standards and criteria, specifications and practices of the agencies having jurisdiction

- Gas (3.3.4)

All work on, or adjacent to, gas lines shall conform to regulations and standards of The Gas Company.

- Electric Power (3.3.5)

All maintenance, relocation, and restoration of electric lines throughout the transit system shall conform to the current practices of the electric company involved, the requirements of the Electrical Code of the concerned jurisdictions and agencies, and the National Electrical Safety Code.

The preparation of designs shall be coordinated with and conform to design requirements of the electric utility company in whose jurisdiction the work occurs and coordinated with any other concerned governmental agencies.

- Telephone (3.3.6)

All maintenance, relocation, and restoration of telephone lines throughout the transit system shall conform to current practices of the appropriate telephone company.

- Telegraph Telecommunications (3.3.7)

All restoration of telegraph telecommunication lines shall conform to existing codes, plans, and standards of the local jurisdictional agency.

- Other Communication Cable Systems (3.3.8)

Designer shall verify ownership, and after consultation with the owners, shall perform the necessary design work in accordance with the approved codes and standards of the companies and agencies affected.

- Fire and Police Alarm Systems (3.3.9)

All work along the corridor will be performed by the respective owners of such systems or their designated representatives.

- Park Facilities (3.3.10)

All relocation and restoration of underground utility lines, water mains, sewers, drains, catch basins, sprinkler systems, lights, pavements, and other improvements within parks shall conform to requirements of the local authority's park and recreation departments involved.

- Street Lights (3.3.11)

All relocations, temporary or permanent, and restoration of existing street light facilities shall be in accordance with the practices and requirements of the local agency having jurisdiction, Local Electrical Codes, and the National Electrical Safety Codes.

- Traffic Signals (3.3.12)

All relocation, temporary or permanent, and restoration of these facilities shall be in accordance with the practices and requirements of the local jurisdiction. In addition, the Manual on Uniform Traffic Control devices shall be followed. Local ordinances include the municipal codes and standard plans of all jurisdictions, and the following reference: City of Los Angeles Special Provisions and Standard Drawings for Installation and Modification of Traffic Signals.

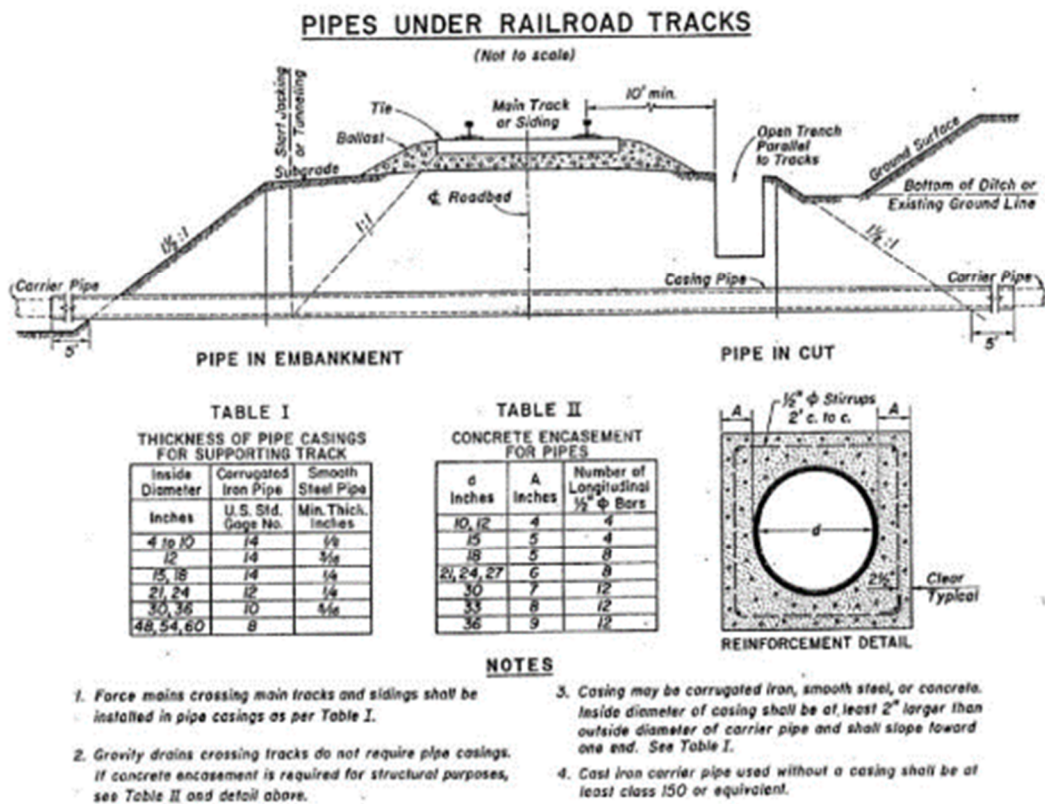
- Oil Pipe Lines, and Steam Lines (3.3.13)

All oil transmission lines and steam lines belonging to private companies shall be relocated clear of the project site. All work shall be performed by the owner of said installation.

- Abandoned Utilities (3.3.14)

Abandoned Utilities within the limits of excavation shall be cut and removed. Cut ends shall be plugged or capped. Abandoned lines larger than 15 inches in diameter remaining within the right-of-way shall be backfilled with sand, one sack cement slurry or controlled low strength material (CLSM).

Pipes under railroad tracks is a key design element which was not found in the design criteria of the SEG Line Cities. **Figure 3.22**, as shown below, of the MRDC specifically states the design criteria. For any pipes under railroad tracks, this design criteria shall govern.



3.3.2.2 Right-of-way and Control of Access

The criteria in Sections 3.4 of the MRDC pertain to the composite total requirement of all interests and uses of real property needed to construct, maintain, protect, and operate the LACMTA system. This criterion is specific to the preferences of LACMTA and there are few, if any, comparable requirements from the SEG Line Cities. In the absence of such criteria, the requirements for right-of-way and control of access should be governed by the MRDC.

3.3.2.3 Streets

The criteria in Section 3.7 of the MRDC includes requirements for the design of publicly maintained facilities, including streets, sidewalks, driveways, bus pads, traffic signs, parking meters, and landscaping. Excerpts of notable criteria requiring further discussion and analysis are included in the following sections:

- Roadway Geometrics (3.7.3)

B. Traffic Lane Widths

The following criteria indicate the optimum traffic lane widths.

CASE	DESIRABLE	MINIMUM
Left Edge Line	2' from C&G	1' from C&G
Right Edge Line	2' 8" from Pvmt. Edge	1' from Pvmt. Edge
Interior thru lane 35mph & below	11' (10')	10' (9')
Interior thru lane 40mph & above	12' (10-11')	11' (10')
Interior thru lane with high truck or bus volume	12' (11')	11' (10')
Interior thru lane adjacent to bike lane	12' (11')	11' (10.5')
Left turn lane	12'	10' (10')
2-way left turn lane	12' (10')	10' (9')
Curb lane-No Parking	13' (11-13')	10'
Curb lane with parking	19' – 26'	18'

The above table is an outdated reference of the City of Los Angeles, Department of Transportation, Manual of Policies and Procedures, Section 531: Application and Design for Striping, Channelization, and Special Signing. The updated values as of 06/23/22 are shown in red for comparison. The MRDC in this case is requiring more stringent design criteria than local agencies having jurisdiction.

C. Number of Traffic Lanes

The lane configuration and signal timings shall, whenever possible, be designed to provide no worse than level of service D at signalized intersections in the P.M. peak hour during at least the year following completion of this project.

In 2013, the State of California passed Senate Bill (SB) 743, which mandates that jurisdictions can no longer use automobile delay in transportation analysis, commonly measured by Level of Service (LOS), under the California Environmental Quality Act (CEQA). The State has issued guidelines calling for the use of a broader measure called Vehicle Miles Traveled (VMT).

E. Curb Return Radii

<i>City of Los Angeles</i>	<i>25'</i>
<i>Los Angeles Co. Master Plan Hwy.</i>	<i>35'</i>
<i>Other Los Angeles Co.</i>	<i>25'</i>

The City of Los Angeles Supplemental Street Design Guide includes additional guidelines for the determination of minimum curb return radii. These include consideration of the street classification, design vehicle, and design speed. There is also discussion on the difference between effective turning radius that allows for smaller curb return radii.

F. Cross Slopes

<i>Concrete and Asphalt Pavement</i>	<i>2%</i>
<i>Aggregate Surface Pavement</i>	<i>3%</i>
<i>Parking Areas</i>	<i>1% min.</i>
	<i>6% max.</i>

The above values for concrete, asphalt, and aggregate pavements, while typical, are not always the minimum. The Highway Design Manual specifies the following: For resurfacing or widening (only when necessary to match existing cross slope), the minimum shall be 1.5 percent and the maximum shall be 3 percent.

For parking areas, Los Angeles Municipal Code (LAMC) 12.21A5 specifies a maximum 6.67% slope in any one direction for parking stalls.

G. Sidewalks

Minimum slope shall be 0.5%

The Los Angeles Bureau of Engineering (LABOE) Street Design Manual, Part E, specifies the following: The transverse slope, which is normally set at 2.5% percent, should direct drainage from the property line toward the roadway. The maximum transverse sidewalk slope permitted is 6% and the minimum is 1%.

The LAOBE standard plans S-444-0 specifies the following: The maximum sidewalk grade including the ¼-inch construction tolerance, is 2%. The minimum sidewalk grade including the ¼-inch construction tolerance, is 0.5%.

- Traffic Control Devices (3.7.7)

D. Design Guidelines

Type 170 controllers shall be utilized throughout the system unless otherwise required by local jurisdiction.

The LADOT Special Provisions and Standard Drawings for the Installation and Modification of Traffic Signals (Redbook), specifies the following: The contractor-supplied controllers shall conform to the latest LADOT material specification and addendum for the Model 2070 controller assembly, with either Type 332 or 337 cabinet as shown on the traffic signal plan, and all auxiliary equipment required to provide a complete functioning controller per LADOT Specifications 054-053-07.

- Landscape Areas and Street Trees (3.7.15)

- A. General

- Subject to local jurisdiction approval, street trees may be replaced on and two-for-one basis with 36" box standard.*

On May 22, 2019, the City Council adopted as amended the Board of Public Works' (Board) proposed establishment of a Tree Replacement Guarantee (In-Lieu) Fee (Non- Refundable Deposit) to provide development and residential projects an additional permit option to satisfy the Department of Public Works' Tree Replacement Policy of "2 x 1" or "4X1" ratio (Tree Replacement: Tree Removal).

3.3.3 Guideway and Trackwork

Section 4 of the MRDC provides design criteria for clearance requirements, fencing, signage, horizontal and vertical track geometry, LRT grade crossings, and trackwork. The basis of this criteria are requirements from the California Public Utilities Commission (CPUC), recommendations from the American Railway Engineering and Maintenance Association (AREMA), and other requirements from Federal, State, and local jurisdictions. There are few, if any, comparable requirements from the SEG Line Cities Criteria for this high-level analysis. In the absence of such criteria, the guideway and trackwork design should be governed by the MRDC.

3.3.4 Structural and Geotechnical

The structural and geotechnical review undertaken focused on high-level review of Chapter 5 of the MRDC. Chapter 5 of the MRDC serves as a set of design criteria for structural and geotechnical components. Where appropriate, the MRDC refers to typical American Industry Standards such as AASTHO Load and Resistance Factor Design (LRFD), AASHTO Tunnel, International Building Code (IBC), ASCE 7 etc.

The Greenbook details structural and geotechnical construction specifications. This differs from the MRDC which is a design criteria manual. There are no expected variances with respect to geotechnical/structural design as the two documents have different purposes. Accordingly, the review undertaken focuses on any other variances between the MRDC and other typically used design criteria's (IBC/California Building Code (CBC), ASCE 7, AASHTO etc.) that any of the AHJs may incorporate.

Given the limited scope of this review, only a few variances were identified. These variances are based on a review of the MRDC and experience on other LACMTA projects:

- The structural load combinations specified in MRDC are based on AASHTO LRFD and Tunnel. These conflict with load combinations specified in the IBC/CBC with combinations on the MRDC generally being more stringent.
- For seismic design, the MRDC considers a 2-level approach; the Maximum Design Earthquake (MDE) and the Ordinary Design Earthquake (ODE) which correspond to event return periods of 2500 years and 150 years respectively. Each level has different performance requirements; life safety and collapse prevention for MDE and immediate return to service for ODE. The building code (IBC/CBC) considers a single event, the Design Basis Earthquake (DBE) which is equal to 2/3 the Maximum Credible Earthquake (return period of 2475 years).
- Each return period is associated with a different level of probabilistic ground motions. In general, the MRDC requires all surface structures (other than bridges) to be designed to IBC/CBC DBE level motions. In some instances, the MRDC (cl 5.5.3) requires these surface

structures to be designed considering ODE and MDE actions rather than DBE and may lead to overly onerous structural design.

3.3.5 Architectural

Section 6 of the MRDC provides architectural requirements and specifications for Metro rail stations and facilities. Requirements related to Metro's stations include area requirements, design of platforms, amenities, artwork, signage, advertising, landscaping, platform access, and guidelines for the selection of materials and finishes. Also included are the General guidelines for the design of Kiss and Ride/Park and Ride facilities, station, and ancillary facilities.

Building codes, regulations and criteria relevant to Metro Rail stations and facilities include FTA Access Board's Americans with Disabilities Act Accessibility Guidelines (ADAAG), California CCR Title 8, 19, 24, American National Standards Institute, Inc. (ANSI), California Building Code, LA City Building Code and Fire Code, LA County Building Code and Fire Code, and NFPA 101 and 130. Other guidelines included in the Architectural section pertain to station uniformity across all Metro Rail Stations related to station control, advertising, signage, and artwork. There are few, if any, comparable requirements from the SEG Line Cities Criteria for this high-level analysis. In the absence of such criteria, the architectural design should be governed by the MRDC.

3.3.6 Electrical

Section 7 of the MRDC provides requirements for the design of electrical systems in fixed facilities for Metro Heavy and Light Rail Transit systems, including, but not limited to, underground structures, tunnels, at-grade and elevated structures. Electrical system design also includes guideways, train control signal houses/bungalows, and enclosures, parking structures, and parking lots, but excludes electrical traction power for the operation of the train. The aim for the analysis was to identify key design variances between the MRDC and the SEG Line Cities Criteria. In the absence of relevant design criteria from the SEG Line Cities, the design for electrical systems in fixed facilities for Metro Heavy and Light Rail Transit shall be governed by the MRDC.

3.3.7 Mechanical

Section 8 of the MRDC provides design criteria for the design of heating, ventilating, and air-conditioning (HVAC) systems for both above ground and underground stations and tunnels. These include systems for platform exhaust, concourse exhaust, emergency ventilation, and HVAC systems for ancillary spaces. Typical application of these systems in enclosed stations or tunnels are largely governed by local and state building codes, mechanical codes, plumbing codes, and fire codes. In the absence of any City, County, or State code, other national codes from the American National Standards Institute, the American Society of Testing and Materials, or the National Fire Protection Association should be followed. There are few, if any, comparable requirements from the SEG Line Cities Criteria for this high-level analysis. In the absence of such criteria, the mechanical design should be governed by the MRDC.

3.3.8 System

Section 9 of the MRDC provides design criteria for the design of systems for rail operations, including fair collection, train control, communications, security, emergency detection, and traction power distribution. Typical application of these systems are largely governed by local and state building codes, mechanical codes, plumbing codes, and fire codes. In the absence of any City, County, or State code, other national codes from the American National Standards Institute, the American Society of Testing and Materials, or the National Fire Protection

Association should be followed. There are few, if any, comparable requirements from the SEG Line Cities Criteria for this high-level analysis. In the absence of such criteria, the systems design should be governed by the MRDC.

3.3.9 Operations

Section 10 of the MRDC provides design criteria for the design of basic systemwide operating and maintenance criteria established for LACMTA projects. There are few, if any, comparable requirements from the SEG Line Cities Criteria for this high-level analysis. In the absence of such criteria, the operations design should be governed by the MRDC.

3.3.10 Yards and Shops

Section 11 of the MRDC provides design criteria for the design of rail operations for a particular rail line or as a systemwide facility. There are few, if any, comparable requirements from the SEG Line Cities Criteria for this high-level analysis. In the absence of such criteria, the yards and shops design should be governed by the MRDC.

3.3.11 Safety Security Systems Assurance

Section 12 of the MRDC provides design criteria for the design of safety, systems assurance, and security issues. There are few, if any, comparable requirements from the SEG Line Cities Criteria for this high-level analysis. In the absence of such criteria, the safety security systems assurance design should be governed by the MRDC.

4 Conclusions

The Metro OIG in its periodic audit of construction change orders of rail projects has discovered some inconsistencies between the MRDC and the design criteria of local AHJs. A unified design and construction standard, conformed from the MRDC and the criteria of the SEG Line Cities would be valuable to guide the development of the SGL construction contract and improve project delivery. The request from the OIG to the Mott MacDonald team was to perform the task at a high-level within a limited scope, schedule, and budget; therefore, our delivery approach matched this recommended level of effort accordingly and will serve as an initial study report to guide the future development of a unified design and construction standard.

4.1 General Alignment with SEG Line Cities Criteria

After review of the available documents for comparison and a high-level evaluation of these documents, the Mott MacDonald team provides the following insight.

- In general, the MRDC is in alignment with the available documents that make up the SEG Line Cities' Criteria, which will govern the construction of the SGL light-rail project.
- The variances identified through this exercise are limited and if further detailed evaluation were to be performed, the variances would likely remain below 1%.

It should be noted that the MRDC is clearly written with the intent of avoiding conflicts with the criteria from local AHJs. This is evidenced by numerous instances within the MRDC stating the design shall conform to the requirements of the local AHJ and adhere to the most stringent criteria when there is a conflict with the MRDC. The MRDC thus serves as a supplement to the requirements of the local AHJ when none are provided.

4.2 Conflicting Criteria

Our high-level analysis identified many parts of the MRDC that are not addressed within the SEG Line Cities Criteria and in the absence of such criteria, the requirements within the MRDC should govern. Notable conflicts with relevant criteria to the SEG Line Cities have been included in Part 3 of this report. The MRDC provides clear instruction about how to resolve these conflicts, although the inclusion of outdated criteria may cause confusion to designers that results in costly change orders for LACMTA projects.

4.3 Overly Stringent Criteria

The resolution of conflicting requirements within the MRDC with the SEG Line Cities Criteria can also result in overly stringent criteria. This occurs because the MRDC requires conformance with the most stringent criteria when there is a conflict, which is a conservative approach that provides clear guidance on how to resolve conflicts. Here again, the inclusion of outdated criteria in the MRDC has resulted in more stringent criteria than local AHJs, as shown in Part 3 of this report, with cost implications for LACMTA projects.

5 Recommendations

The MRDC includes excerpts of criteria that were the basis for development of the MRDC. These excerpts are helpful guidance when no criteria exist from the SEG Line Cities. Unfortunately, the criteria within the MRDC have not been updated at the same frequency as criteria from the SEG Line Cities. This has resulted in the inclusion of outdated criteria within the MRDC that conflicts or provides more stringent criteria than the SEG Line Cities. Both outcomes have cost implications for LACMTA projects.

5.1 Update Excerpts of Reference Criteria

The Mott MacDonald team recommends that outdated excerpts of criteria be updated and to include references to the governing criteria that form the basis of the MRDC. Currently, most sections within the MRDC include a list of references that are the basis of the criteria but there is no link to these references and the body of the MRDC that contains the criteria itself. This leaves no way to determine what reference is the basis of individual criteria. Cues could be taken from academic research papers that provide MLA type references within the body of a report with an accompanying bibliography. It should be clearly noted that newer versions of the reference criteria, published prior to the start of notice to proceed (NTP) with final design, shall govern. Any updates to referenced criteria after NTP should be discussed with LACMTA.

5.2 Link Performance Criteria to Prescriptive Criteria

The Mott MacDonald team also recommends linking performance criteria to prescriptive criteria. A good example of this are the requirements within the MRDC related to curb return radii, shown in Part E of Section 3.7.3 below:

E. Curb Return Radii

<i>City of Los Angeles</i>	25'
<i>Los Angeles Co. Master Plan Hwy.</i>	35'
<i>Other Los Angeles Co.</i>	25'

In this case, geometric considerations, like road classification, the governing design vehicle, or the design speed, and other performance criteria like site characteristics are provided in Part A and might be overlooked when applying the requirements in Part E.

5.3 A Unified Design and Construction Standard

Ultimately, the resolution of conflicting and overly stringent criteria will require a unified design and construction standard, conformed from the MRDC and the SEG Line Cities Criteria. The analysis by the Mott MacDonald team should serve as an initial study report to guide the future development of this standard as revision and amendments to the MRDC will require further analysis. The MRDC update and adoption needs to align closely with the SEG Line Cities Criteria and Metro will need to establish an acceptable revision and adoption schedule of the MRDC prior to issuance of the final design and construction contract of the SGL project.

6 Discussion

6.1 Governance and Project Delivery

Ideally, the SGL project delivered under an updated MRDC should meet nearly all the technical design criteria of the SEG Line Cities; therefore, this provides an opportunity for Metro to explore different governance models. The City of Los Angeles currently has a Master Cooperative Agreement with Metro that could serve as a model for agreements with the SEG Line Cities. “The MCA is intended to establish City and LACMTA obligations, roles and responsibilities, and processes and procedures to support the efficient, timely and safe delivery of LACMTA’s Transportation Projects.” The MCA with the City of Los Angeles also establishes a “Special Permitting Process” that is utilized to, “expedite City’s review of work performed by LACMTA in the public rights-of-way.” More progressive MCAs with the SEG Line Cities could consider self-permitting when there is significant agreement between the MRDC and the criteria from local AHJs. This would help streamline jurisdictional coordination and ensure all stakeholders work effectively to deliver projects successfully. SEG Line Cities would still maintain a primary role in the enforcement of environmental regulations, like limitations on noise, access control, and work hour restrictions.

6.2 Self-permitting Authority

Transit agencies like Metro often seek self-governance because permitting requirements from local AHJs introduce additional costs and schedule delays. In a recent memo to the Sound Transit Executive Committee in Seattle, a Technical Advisory Group noted that AHJs use the entitlement and permitting process to require improvements beyond the core project scope and sometimes beyond what appears to be reasonable. As the permitting process takes place through the final design and construction phases, the specific issues that arise from more detailed designs submitted for permit cannot always be known at the time of environmental review or even at the Project Baseline milestone. In these circumstances, project teams find themselves in a position where if permit design information does not include an AHJ’s desired request, submittals may not be accepted. These betterment requests are often contentious and policy on scope control and escalation paths when disagreements occur are often unclear or applied inconsistently across projects. What is clear is that AHJs are granted deference in interpreting their own codes and the burden is on transit agencies to prove otherwise.⁰¹

Any future MCAs between LCMTA and the SEG Line Cities should consider self-permitting for those items that are consistent, without exception, between the MRDC and the criteria of local AHJ’s. Discussion and resolution of betterment requests should be negotiated up front and with more equal bargaining power. This approach would still involve AHJ outreach and participation from community stakeholders to ensure public support and commercial awareness of impacts to local businesses. A unified design and construction standard between the MRDC and the criteria of the SEG Line Cities has the potential to streamline jurisdictional coordination and ensure all stakeholders work effectively to deliver projects successfully.

01 Moises Gutierrez, Regarding TAG Recommendation #5: Strengthen and enforce an agency betterment policy, Sound Transit Authority, 2024

Appendix A1

Disclaimer: 1. See companion report explaining methodology for comparison of relevant criteria
 2. For the purposes of this high-level analysis, the "SEG Line Cities" criteria includes the Standard Specifications for Public Works Construction (Greenbook), the Standard Plans for Public Works Construction, and the Los Angeles County Standard Plans
 3. All performance criteria within the MRDC that were not linked to prescriptive criteria within contractor control (i.e. containing numerical measurements or material specifications) were assumed to have no conflict with SEG Line Cities Criteria

METRO RAIL DESIGN CRITERIA				SEG LINE CITIES											Specs & Plans	
ID	TYPE	SECTION	DESCRIPTION	No Exception= NE Exception = EX											VARIANCE	DOCUMENT/SECTION
				LOS ANGELES	HUNTINGTON PARK	BELL	CUDAHY	DOWNEY	SOUTH GATE	PARAMOUNT	BELLFLOWER	CERITOS	ARTESIA	VERNON		
333	Prescriptive Spec		Curb Return Radius: City of Los Angeles - 25'	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
334	Prescriptive Spec		Curb Return Radius: Los Angeles Co. Master Plan Highway - 35'	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
335	Prescriptive Spec		Curb Return Radius: Other Los Angeles County - 25'	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
336	Prescriptive Spec		Curb Return Radius: Parking areas - 15'	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
337	Prescriptive Spec		Cross Slope: Concrete and asphalt concrete pavement roads: 2%	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
338	Prescriptive Spec		Cross Slope: Aggregate surface pavement: 3%	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
339	Prescriptive Spec		Cross Slope: Concrete and asphalt concrete pavement roads: 2%	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
340	Prescriptive Spec		Close Slope Parking areas: 1% min. 6% Max.	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
342	Prescriptive Spec		Sidewalk: Minimum slopes shall be 0.5%	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
388	Prescriptive Spec	1	Subject to local jurisdiction approval, street trees may be replaced on and one-for-one basis with 36" box standard. The tree species shall be designated by the local jurisdiction. Tree location shall be coordinated with the location of other sidewalk features, such as streetlights, fire hydrants, station appurtenances, and underground utilities and basements.	EX												Los Angeles: BSS
400	Prescriptive Spec		Main storm drains	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
401	Prescriptive Spec		Parking lots	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
402	Prescriptive Spec		All longitudinal drains or subdrains that could flood the roadbed	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
405	Prescriptive Spec		All other areas	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
412	Prescriptive Spec		Subdrains: -0.5%	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
413	Prescriptive Spec		Laterals: -0.5%	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
414	Prescriptive Spec		Main Collectors: -0.5%	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
415	Prescriptive Spec		Ditches: -0.5%	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
421	Prescriptive Spec	2	Materials: All underground storm drains shall be reinforced concrete pipe (RCP). RCP located in track R.O.W. shall be provided with cathodic protection as necessary. High Density Polyethylene Pipe (HDPE) and Polyvinyl Chloride Pipe (PVC) may be used where its use is approved by the governing agency. Drain connections in structural walls and floors shall be Ductile Iron Pipe (DIP). Steel pipe shall not be used in the permanent underground drainage system.	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX		
450	Standard Criteria	D3b	Parallel-to-Curb Bus Bays: Parallel to curb base shall have 10-foot-widelanes and a length of 80 feet.	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	•LA - Bus pad length 120', B4807 •All other cities = greenbook, Length = 85'	LA city std plans greenbook
476	Standard Criteria	F	Curb Returns Parking Lots and Areas 1. For cabs, 20 feet (Inside Radius) 2. For buses, 30 feet minimum (inside radius), 50 foot minimum (outside radius clear). 3. For passenger cars 15.3 feet minimum (inside radius), 25.8' minimum (outside radius clear).	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	EX	LA City Complete streets Guide Bus/Transit = 25' LA County Std 1130-1 = 17' min	

Appendix A2

METRO RAIL DESIGN CRITERIA				SEG LINE CITIES											Specs & Plans		
ID	TYPE	SECTION	DESCRIPTION	No Exception= NE Exception = EX											VARIANCE	DOCUMENT/SECTION	
				LOS ANGELES	HUNTINGTON PARK	BELL	CUDAHY	DOWNEY	SOUTH GATE	PARAMOUNT	BELLFLOWER	CERITOS	ARTESIA	VERNON			
142	Prescriptive Spec		For all normal operating conditions for escalators and elevators located in public areas, the source noise level at 3 feet from the equipment shall not exceed 55 dBA Lmax for steady-state noise, and transient noise shall not exceed 60 dBA Lmax as measured using the fast meter response.														
143	Prescriptive Spec		<u>Escalators</u> . Noise produced by escalators operating individually in either direction under no load and maximum load in the station environment shall not exceed 55 dBA Lmax 5 feet above the tread at the entrance combs at both ends of the escalator.														
		2.8	AIR QUALITY														
144	Performance Criteria			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
		2.9	ENERGY														
		2.10	SURFACE AND SUBSURFACE CONDITIONS AND HAZARDOUS MATERIALS														
		2.11	HYDROLOGY, WATER QUALITY, AND WATER EFFICIENCY														
		2.12	BIOLOGICAL														
		2.13	CULTURAL RESOURCES														
		2.14	CLIMATE CHANGE AND ADAPTATION														
		3	CIVIL														
		3.3	UTILITIES														
		3.3.1	GENERAL														
145	Performance Criteria	3.3.1.A	These criteria govern the maintenance, support, restoration, and construction of utilities encountered by, or affected by, the construction. In the performance of work, due consideration shall be given to the needs of the transit system, the requirements and obligations of the utility organizations, traffic requirements, and the cooperative agreements between the Agencies or Companies and Metro.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:
146	Definition	3.3.1.A.1	Utilities comprise facilities belonging to governmental agencies other than Metro, Public Utility Corporations, and private parties, and include service lines to adjoining properties.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:
147	Definition	3.3.1.A.2	Utilities encountered or close enough to be affected by transit construction may be:	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:
148	Performance Criteria	3.3.1.A.2.a	Supported and maintained complete in place during construction and continued in service following completion of the transit facilities.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:
149	Performance Criteria	3.3.1.A.2.b	Temporarily relocated and maintained; then, upon completion of transit facilities, replaced by new utilities.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:
150	Performance Criteria	3.3.1.A.2.c	Permanently relocated beyond the immediate limits of transit construction.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:
147	Performance Criteria	3.3.1.B	Utility service to abutting properties shall not be interrupted and, if temporarily relocated, shall be permanently restored to its prior location upon completion of work.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:
148	Performance Criteria	3.3.1.C	Replacements for any existing utilities, including government facilities, and pavements shall be designed to provide service or capacity equal to that offered by the existing installations. Designer shall comply with local codes and standards of the agencies having jurisdiction. Unless specifically noted otherwise herein, the latest edition of the code, regulation, standard and standard plan that is applicable at the time the design is initiated, not when the bid is submitted nor the contract sign date shall be used. If a new edition or amendment to a code, regulation, standard or standard plan is issued before the design is completed, the Designer shall determine the impact of the change and seek Metro direction on how to proceed. Designer shall request Metro direction on current minimum standards to be used for design of replacement facilities.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:
149	Performance Criteria	3.3.1.D	Improvements to utilities shall not be included unless specifically directed by Metro	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:
150	Performance Criteria	3.3.1.E	All designs involving maintenance, support, and relocation or other utility work shall conform to the applicable specifications, criteria, and standard drawings of the concerned corporations or agencies.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:
151	Performance Criteria	3.3.1.F	Record elevations of all utilities shall be adjusted to project datum. Pertinent utility elevations and locations shall be checked by field survey, and, where critical to design, by digging test holes at locations approved by Metro. Designer shall request Metro direction on current minimum standards to be used for design of replacement facilities, and have direction and concurrence of the utility or agency affected.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:
152	Performance Criteria	3.3.1.G	The Designer shall consider plans developed, or being developed, by others in adjoining sections to ensure that the overall utilities systems will be consistent with those existing before the start of construction, and that the systems will be compatible with those of the transit system.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:
153	Performance Criteria	3.3.1.H	Design of utility rearrangements shall ensure that construction of the transit facilities may proceed without undue hindrance and without endangering the continuity of utility service. The design shall consider space requirements for equipment and materials and clearances for installation of temporary traffic decking. The Designer shall request direction from Metro on allowable profiles and clearances for temporary deck structures. Design practice for a normal width underground station is to provide minimum clearance of 54 inches between top of temporary decking and the top of the relocated utility profile. These clearances may vary with the length of span required.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:
154	Performance Criteria	3.3.1.I	Take into account the needs of each utility for maintenance and accessibility when assigning vertical alignments.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:
155	Performance Criteria	3.3.1.J	Where utilities cross under or run parallel to rail alignments consider live loads imposed by transit facilities in design of utility and utility casings (See Figure 3.22). Protection of both the utility and the transit facility must be considered	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			City of LA: Artesia:

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1682	Prescriptive Spec	E	Minimum size for trees located in paved pedestrian areas shall be 24" box minimum. Trees shall be spaced between 20 and 50 ft apart, depending on species and local agency requirements. Entry Plazas															
1683	Performance Criteria	F	Planting design is encouraged for separating vehicles and pedestrians. Planting design and walkway layouts are encouraged to create recognizable pedestrian patterns and discourage pedestrian encroachment into planting areas; reinforce public gathering spaces, and integrate joint-use projects into the station plaza area. Station/Park-and-Ride Lots	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
1684	Performance Criteria	G	Trees shall be planted in parking areas between stalls, in the parking row-end islands or in stalls specifically designed for planting as determined by the Designer, in order to reduce monotony of parking lots and to provide a comfortable transition between the car and the station. Metro Rail At-Grade Right-of-Way	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
1685	Performance Criteria	H	At-grade right-of-way landscape treatment shall be consistent with stated objectives with an emphasis on minimal maintenance and safety. Maintenance	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
1686	Standard Criteria	I	Landscape designs shall minimize maintenance requirements. Tree Protection and Support	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
1687	Prescriptive Spec	J	All trees in pedestrian areas shall be staked. For non-pedestrian areas, trees less than 36" box size shall be staked. Trees larger than 36" box size shall be guyed. Irrigation															
1688	Performance Criteria	6.7	Design shall focus on long-term low water usage, conserving water resources, and using reclaimed water system for irrigating if available. MATERIALS	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
		6.7.1	INTRODUCTION															
1689		6.7.2	Designer shall assure that the goals of safety, durability, and economy are achieved. BASIC GOALS															
		A	Safety															
		1	Fire Resistance and Smoke Generation															
1690	Performance Criteria	2	Reduce hazard from fire by using materials with minimum burning rates; smoke generation, and toxicity characteristics for station finishes, consistent with requirements of Metro Fire/Life Safety Criteria Attachment	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
1691	Performance Criteria	3	Eliminate hazard from dislodgement due to temperature change, vibration, wind, seismic forces, aging, or other causes, by using proper attachments and adequate bond strength. Slip-resistant walking surfaces	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
1692	Prescriptive Spec		Entrances, stairways, platform edge strips, sidewalk grates, and areas around equipment shall have high slip-resistant properties. The following static coefficients of friction as defined in ASTM C1028 shall be provided as a minimum: Coefficient of Friction															
1693	Standard Criteria	B	Public horizontal surfaces --> 0.6 min. per ADAAG Non-public horizontal surfaces, exterior --> 0.6 min Non-public horizontal surfaces, interior --> 0.5 Platform edge strips --> textured visually-contrasting material conforming to ADAAG Section 705, Detectable Warnings and 406, Curb Cuts, and California Code of Regulations (CCR), Title 24 Stairs, ramps, sloping sidewalks --> 0.8 per ADAAG Area around equipment --> 0.6 Durability	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
1694	Performance Criteria	C	The materials must maintain their good appearance throughout their useful life. Materials shall be colorfast. Life of Maintenance	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
		1	Cleaning															
1695	Performance Criteria	2	Reduce cleaning costs by using materials which do not soil or stain easily, which have surfaces that are easy to clean in a single operation, and on which minor soiling is not apparent. Repair or Replacement	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
1696	Performance Criteria		Reduce cleaning costs by using materials which do not soil or stain easily, which have surfaces that are easy to clean in a single operation, and on which minor soiling is not apparent. Resistance to Vandalism	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
1697	Performance Criteria	D	A six millimeter thick anti-graffiti sacrificial film shall be installed for protection of glass surfaces and anti-graffiti coatings for protection of concrete surface as well as other finish material such as tile, steel shall be installed with Metro recommended products as indicated in Metro Baseline Specifications. Metro Arts and Design will provide direction with regard to anti-graffiti protection and maintenance of artworks. Aesthetic Qualities	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
1698	Performance Criteria	E	Create a feeling of warmth, attractiveness, quality, and design excellence to instill pride in the facility. F	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
1699	Performance Criteria		See Sustainable Design Guidelines in Design Criteria Section 2, Environmental Considerations. 6.7.3 GENERAL CRITERIA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
		A	Surface															
1700	Performance Criteria		Surfaces visible to the public shall receive applied architectural finishes consistent with Metro Systemwide Station Design Standards approach.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			

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2609	Performance Criteria	F2	<p>Operation and Controls</p> <p>Ventilation shall be as follows:</p> <p>a. Toilets – Continuous operation</p> <p>b. Custodial Room – Continuous operation</p> <p>c. Trash rooms - Continuous operation</p> <p>d. Sewage Ejector Rooms and Sump Pump Rooms - Continuous operation</p> <p>e. Elevator Machine Rooms – Continuous operation. The ventilation requirement shall be based on internal heat gain from the elevator power units with room temperature not to exceed 95°F, or as per manufacturers' recommendations. Air conditioned as required. Fans, dampers and air conditioning equipment that service elevator machine rooms shall be accessible from outside the room.</p> <p>f. Mechanical or Electrical Equipment Rooms – Continuous operation. The ventilation requirement shall be based on internal heat gain from heat generating equipment.</p> <p>g. Storage Rooms - Continuous operation</p>	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2610	Performance Criteria	G1	<p>Incoming Electrical Service (DWP) Room</p> <p>1. System Concepts</p> <p>DWP rooms shall be ventilated by a supply and exhaust system. Exhaust air shall be discharged through a relief shaft dedicated to DWP room, extending up to grade. Wall opening into relief shaft shall be equipped with security bars to prevent entry into DWP Room from shaft. Relief shaft may be adjacent to the TPSS relief shaft. Depending on the proximity of the shaft terminus at grade level, mechanical exhaust may be required. Install gravity (backdraft) damper and 3HR fire damper in relief wall opening into shaft. Fire Damper(s) must be accessible from outside of DWP Room. Equip relief wall opening with ½ inch square, 18 gauge galvanized screen, and with security bars six inches on centers to prevent entry into DWP Room from shaft. Systems and equipment shall comply with DWP requirements.</p> <p>Outside air shall be drawn from an outside air intake shaft, or directly from the outside. Air filtration shall be provided and positive pressure shall be maintained in the room by the supply fan. Room pressure shall be 0.25 inch water gauge or less.</p>	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2611	Performance Criteria	G2	<p>Ventilation Requirements</p> <p>Ventilation shall be provided at the rate of 10 air changes per hour. Ventilation air shall not be taken from the subway or exhausted into the subway.</p>	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2612	Performance Criteria	G3	<p>Equipment and Accessories</p> <p>The ventilation system shall consist of a supply fan running continuously, filter, ductwork, dampers, and double deflection registers equipped with screen.</p> <p>The supply fan may be used also to serve and pressurize the Traction Power Substation with additional capacity. Install gravity damper in the supply branch-duct serving DWP room, to isolate DWP room from TPSS, if fan stops.</p>	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2613	Performance Criteria	G4	<p>Operation and Control</p> <p>The fan shall run continuously and shall be interlocked with its outlet damper. Local manual control shall be provided inside the Incoming Service Room. Remote control shall be provided from the ROC. The ventilation system shall be automatically shut down in case of smoke or fire within the Incoming Service Room, but manual override shall be provided to purge the smoke as required. A dirty filter indicator shall transmit a system fault indication to the ROC.</p>	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2614	Performance Criteria	H1	<p>Emergency Exit Enclosure</p> <p>To alleviate possible gas accumulation, emergency exit stairs direct to surface shall be naturally ventilated through a screened opening at the topmost portion of the enclosure, leading into an airway with grating at street level.</p>	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2615	Performance Criteria	H2	<p>Enclosed emergency exit corridors equipped with mechanical ventilation to prevent gas build-up shall be kept smoke free. Supply and exhaust ducts serving corridor shall run above rated corridor ceiling, with fire/smoke dampers at each corridor wall penetration, linked to a smoke detector. The use of transfer grilles for air intake from adjacent spaces is not allowed.</p>	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2616	Performance Criteria	I	<p>Service Corridors</p> <p>Provide mechanical ventilation in service corridors as described above, under Paragraph 8.1.6.H.2, except transfer grilles to provide make-up air to adjacent ancillary rooms may be used with a fire/smoke damper (FSD) in the opening for the transfer grille, linked to a smoke detector in the corridor.</p>	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2617	Performance Criteria	J	<p>All FSDs shall be controlled directly from the fire alarm system (smoke detectors). In certain cases such as having a dedicated ventilation system for a particular corridor, FSD shall close and the associated fan shall shut down via the same signal.</p>	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2618	Performance Criteria	K	<p>Cross Passage in Tunnels</p> <p>All Cross passages located in gassy or potentially gassy areas shall be mechanically ventilated with a minimum of continuous circulation rate of 10 air changes per hour. Cross passage ventilation fan shall take air in from one tunnel and discharge air into the other tunnel. When communications equipment or electrical equipment are placed in cross passages, comply with Section 8.1.4 Table 8-1 and Section 8.1.6 space design requirements.</p> <p>Ventilation openings into tunnels shall be provided with fire/smoke dampers linked to a smoke detector located in cross passages, to prevent smoke traveling from one tunnel to another in case of a tunnel fire emergency. If mechanical ventilation is used, fan shall be shut down via fire/smoke damper interlock.</p>	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

8.1.7 TERMINALS FOR VENTILATION SHAFT AT GRADE, AND SHAFT DESIGN

METRO RAIL DESIGN CRITERIA				SEG LINE CITIES											Specs & Plans			
ID	TYPE	SECTION	DESCRIPTION	No Exception= NE Exception = EX											VARIANCE	DOCUMENT/SECTION		
				LOS ANGELES	HUNTINGTON PARK	BELL	CUDAHY	DOWNEY	SOUTH GATE	PARAMOUNT	BELLFLOWER	CERITOS	ARTESIA	VERNON				
		11.5.6	SERVICE AND INSPECTION (S&I) FACILITIES FOR SCHEDULED AND RANDOM SERVICE, INSPECTION AND LIGHT REPAIR															
	Performance Criteria		Items D through N apply to LRV only.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	A	S&I Facility may occupy a bay (bays) in Main Shop Building or be located in a Yard as a separate facility.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	B	Length of the S&I Shop shall accommodate the longest revenue train over the pit.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	C	Underground pit along with service platform at vehicle roof level for undercarriage and roof access shall be provided (roof access applies to LRV only).	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	D	Access to both sides of the vehicle at top of rail level shall be provided, including ability to open or remove vehicle skirt covers.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	E	Removable 3.5 feet tall safety railing shall be provided around the underground pit to enclose the pit perimeter, when there is no vehicle over the pit.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	F	Service platform at vehicle roof level shall be provided for roof access.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	G	Access to a roof level platform shall be blocked when there is no revenue vehicle present, using a system of interlocking entrance gates and track occupancy sensors (Platform Access System).	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	H	Platform Access System shall include traction power (OCS) shut-off feature, activated, when access is allowed and combined with a visual indication (blinking warning sign) of energized OCS. The circuitry associated with these functions shall be of fail-safe design. This means that during an open circuit and/or a dropped relay the OCS shall be automatically shut-off. Two blinking lighted signs shall be provided with independent circuitry and the OCS shall be considered energized upon the status of any single warning blinking sign.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	I	Platform Access System shall be segmented to allow service also of two-car consists and single vehicles on either side of a platform.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	J	Platform Access System shall include provisions for recognition of non-revenue vehicles on S&I tracks.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	K	Platform Access System shall block access to the platform in case of power outage in a Shop.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	L	Platform Access System shall allow exit from the platform in case of power outage in a Shop.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	M	Emergency egress and Exit lights shall be provided as required.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	N	Platform Access System shall include provisions for manual override rights by higher level supervisor in case of emergency.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	O	Platform Access System shall incorporate occupancy sensors on a secondary platform and interlocking safety devices at the vehicle end (see below).	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	P	A narrow secondary platform, not less than 4 feet wide, shall be provided on a side of a track opposite to a service platform for protection of a person working on a roof and for service flexibility.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	Q	Access to the secondary platform shall be made possible only from the main platform through the roof of the vehicle.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	R	The secondary platform may be replaced with a safety railing with Metro approval.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	S	The space between main and secondary platforms (or platform and safety railing) at the end of the last vehicle in a consist shall be blocked by a manual or mechanically operated interlocked end gate, integrated in Platform Access System.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	T	End gates shall accommodate three and two-car consists along with a single vehicle.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	U	Walking surface of the roof level platform shall be at 12.25 feet above top of rail, the edge of the platform shall be in 4.0 feet from track center and width of the platform shall not be less than 4 feet. Clearance between the platform and any part of the moving rail vehicle shall not be less than 4 inches (0.33 ft). See Exhibit 1 diagram provided as reference.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	V	Maximum gap for a technician to step from the platform over the shroud down to the roof shall be 7 inches (0.6 ft) when vehicle is positioned for service.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	V1	Mechanically operated catwalk extension shall be used to achieve a maximum gap for the shroud, if needed (for the AnsaldoBreda LRV)	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	V2	Extension mechanism may be activated only when vehicle, which requires catwalk extension, is positioned on a service track.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	V3	Extension mechanism shall be interlocked with Traction Power System to eliminate possibility of catwalk to be extended, when traction power is on. This will prevent any vehicle movement on a service track next to an extended catwalk.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	V4	Catwalk extension shall be fully retracted before traction power can be turned back on (re-energized).	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	W	Supply of compressed air and shop power shall be provided at all three service levels (two for HRV).	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
	Performance Criteria	X	Provisions shall be made for vehicle fluid supply reels in the inspection pit.	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			

METRO RAIL DESIGN CRITERIA				SEG LINE CITIES											Specs & Plans	
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				LOS ANGELES	HUNTINGTON PARK	BELL	CUDAHY	DOWNEY	SOUTH GATE	PARAMOUNT	BELLFLOWER	CERITOS	ARTESIA	VERNON		
	Performance Criteria		<p>Central/Satellite Control Facilities: The design of the central control facilities shall allow for graceful degradation of control functions enabling continued operation. Provisions shall be provided to continue operation of the rail system at full capacity in the event of loss of automated vehicle position information.</p> <p>Maintenance Facilities: The inability to perform maintenance at the facility does not directly lead to the loss of rail service. However, the ability to perform regular maintenance on the system is essential to the success of the overall operation.</p> <p>The maintenance facility shall include redundant capability to perform overnight and weekly vehicle system checks, repairs, and replenishment.</p>	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
		12.4.5	AVAILABILITY													
		12.4.5.1	SCOPE													
	Performance Criteria		<p>The Scope of availability is largely based on the types of downtimes used in the computation and on the relationship with time (i.e. the span of time to which the availability refers).</p> <p>This classification is what is sometimes referred to as the availability as seen by maintenance personnel. This classification excludes preventive maintenance downtime, logistic delays, supply delays and administrative delays. Since these other causes of delay can be minimized or eliminated, an availability value that considers only the corrective downtime is the inherent or intrinsic property of the system.</p>	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
		12.4.5.2	CALCULATIONS													
	Performance Criteria		<p>The corrective downtime reflects the efficiency and speed of the maintenance personnel, as well as their expertise and training level. It also reflects characteristics that should be of importance to the engineers who design the system, such as the complexity of necessary repairs, ergonomics factors and whether ease of repair (maintainability) was adequately considered in the design.</p> <p>For a single component, the availability can be computed by:</p> $A_I = \frac{MTTF}{MTTF + MTTR}$ <p>MT</p>	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
	Performance Criteria		<p>For a system the mean time between failures (MTBF) shall be considered and compute this as follows:</p> $A_I = \frac{MTBF}{MTBF + MTTR}$ <p>MTBF = Uptime / Number of System Failures MTTR = Corrective Maintenance Downtime / Number of System Failures</p> <p>Note that until steady state is reached, the MTBF calculation may be a function of time (e.g. a degrading system). In such cases, before reaching steady state, the calculated MTBF changes as the system ages and more data are collected. Thus, the above formulation should be used cautiously. Furthermore, it is important to note that the MTBF defined here is different from the MTTF (or, more precisely for a repairable system, MTTFF: mean time to first failure).</p> <p>System availability can be enhanced during design by including redundancies and by the planned use of effective failure management procedure.</p>	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		



Metro[™]

Interoffice Memo

Date	June 14, 2024
To	Karen Gorman, Office of the Inspector General
From	June Susilo through Tim Lindholme
Subject	Response to OIG's Report on Comparison of MRDC to Cities' Standards Along Southeast Gateway Line

The Metro Office of the Inspector General (OIG) completed a study comparing design standards between the Metro Rail Design Criteria (MRDC) and those of the cities that the Southeast Gateway Line project (Project) traverses through including Huntington Park, Bell, Cudahy, Downey, South Gate, Paramount, Bellflower, Cerritos, Vernon, Artesia, and Los Angeles.

The following are recommendations from the OIG's report:

- Recommendation 1: Metro make updates to its MRDC promptly as requirements change and include best practices to ensure cities can trust Metro's MRDC to reflect legally correct and good quality requirements.
- Recommendation 2: Metro be self-permitting for substantially consistent or more stringent standards than a city where we are performing construction.
- Recommendation 3: Metro seek an accelerated, abbreviated permitting process for the SEG Line project and for other Metro projects in the future, for the non-conforming "exception" specifications related to the project.

The results of the OIG's report could not have been timelier as the Project recently reached two significant milestones on April 25, 2024, including Board certification of the Final Environmental Impact Report (FEIR) and the release of a Request-for-Bid for a Construction Manager General Contractor (CMGC) for Advanced Works. As noted in the report's conclusion on page 26, a "unified design and construction standard, conformed from the MRDC and the criteria of the SEG [Southeast Gateway] Line Cities would be valuable to guide the development of the Southeast Gateway Line construction contract and improve project delivery." **Metro agrees with the OIG's assessment and believes the recommendations align with the project's early due diligence strategy of addressing key risks early on including critical third-party approvals.**

Currently, on Metro projects, the contractor submits a permit application and fees to perform work (ranging from utility potholing to roadway construction and striping as an example)

within city right-of-way. City staff (or their consultants) review the application with supporting documents such as construction drawings, provides plan check reviews and comments, and ultimately approves or rejects the application. On transit projects like Southeast Gateway Line, it is expected that the contractor would have to submit multiple permits to perform various work scopes within city right-of-way. This creates the potential for scope creep and schedule delays and ultimately increases costs to Metro. Allowing Metro to self-permit would likely improve Metro's control over the schedule and reduce schedule risks and costs.

For each of the OIG recommendations, Metro is undertaking the following steps:

- Recommendation 1: The MRDC is a living document in which Metro systematically updates to reflect change in law, industry practice, and lessons learned from recently executed projects. In fact, Metro is in the process of updating specific of the MRDC to address lessons learned from the K-Line/LAX and Regional Connector Projects.
- Recommendation 2: In ongoing coordination with cities within the Project, staff has mentioned the idea of Metro to self-permit for work within city and/or public right-of-way to help identify potential offset payments for cities' 3% contribution to fund the project. The cities generally have been receptive to the idea, and is expecting the Project team to present to the Southeast Gateway Line City Managers' Technical Advisory Committee on the valuation methodology this summer.
- Recommendation 3: As staff continues to refine the valuation methodology specific to the Project, Metro is planning to introduce this proposal to cities on other major transit projects including Eastside Transit Corridor Phase 2. This project also recently accomplished Board certification of the FEIR.

Office Of The Inspector General

Metro Rail Design Criteria Review Report

Presented By
Karen Gorman
Inspector General

July 2024

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Purpose Statement

The OIG initiated a study to determine what differences exist between the Metro's rail design criteria and the typical design specifications of cities in Los Angeles.

The 11 Cities along the Southeast Gateway Line were chosen to use as samples for the study.

The purpose of the review was to determine if there exists any opportunities for streamlining and further efficiency in the permitting processes in relation to the specifications.

Findings

1. MRDC and 11 Cities' specifications are 99.5% the same.
2. Permitting review is not warranted for the conforming specifications.

Recommendations

Recommendation 1: Metro make updates to its MRDC promptly as requirements change and include best practices to ensure cities can trust Metro's MRDC to reflect legally correct and good quality requirements.

Recommendation 2: Metro be self-permitting for substantially consistent or more stringent standards than a city where we are performing construction.

Recommendation 3: Metro seek an accelerated, abbreviated permitting process for the SEG Line project and for other Metro projects in the future, for the non-conforming "exception" specifications related to the project.

Metro agrees with the OIG's recommendations as they align with the Project's early due diligence strategy of addressing key risks early on including critical third-party approvals.

Allowing Metro to self-permit would likely improve Metro's control over the schedule and reduce schedule risks and costs.

Steps SEG Line already taking:

- Metro continues to update MRDC to reflect change in law, industry practice, and lessons learned from recent projects.
- Discussions with corridor cities on the idea of Metro to self-permit for work within city and/or public right-of-way to help identify offset payments for cities' 3% contribution to fund the project.
- Metro plans to introduce self-permitting idea to cities on other transit projects including Eastside Extension Phase 2.



Board Report

File #: 2024-0404, **File Type:** Informational Report

Agenda Number: 16.

**CONSTRUCTION COMMITTEE
JULY 17, 2024**

SUBJECT: METRO G LINE IMPROVEMENTS PROJECT STATUS REPORT

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on the Metro G Line Improvements Project.

ISSUE

The Project uses the Progressive Design Build (PDB) delivery method, which was selected to provide Metro with the ability to negotiate scopes of work to maintain affordability for the Project. This report provides updates on community outreach and third-party and grant funding coordination efforts that have transpired subsequent to the presentation of scope refinements communicated at the November 2023 Committee meeting.

BACKGROUND

The Project seeks to improve transit ridership through safety enhancements and improvements designed to increase operating speeds, which will benefit customers and the surrounding communities of the San Fernando Valley. The Project has allocated funding of \$391M, including Measure M (\$286M), SB-1 (\$75M) and Safe Clean Water Program (Measure W) (\$30M).

The Project uses the Progressive Design Build (PDB) delivery method, which was selected to provide Metro with the ability to negotiate scopes of work to maintain affordability for the Project. Under traditional delivery methods such as Design-Bid-Build, the scope is set at the time of bid with a contract price submitted to Metro, and increases to the contract price are realized through change orders received throughout the life of the project. This often results in a need to increase funding to projects late in the life cycle. Using a two-phase PDB delivery method and appropriate allocation of risk and contingency early in the preconstruction process, Metro can receive pricing for elements of the project and can negotiate, and eliminate as needed, scope from the project to achieve cost certainty and value for money.

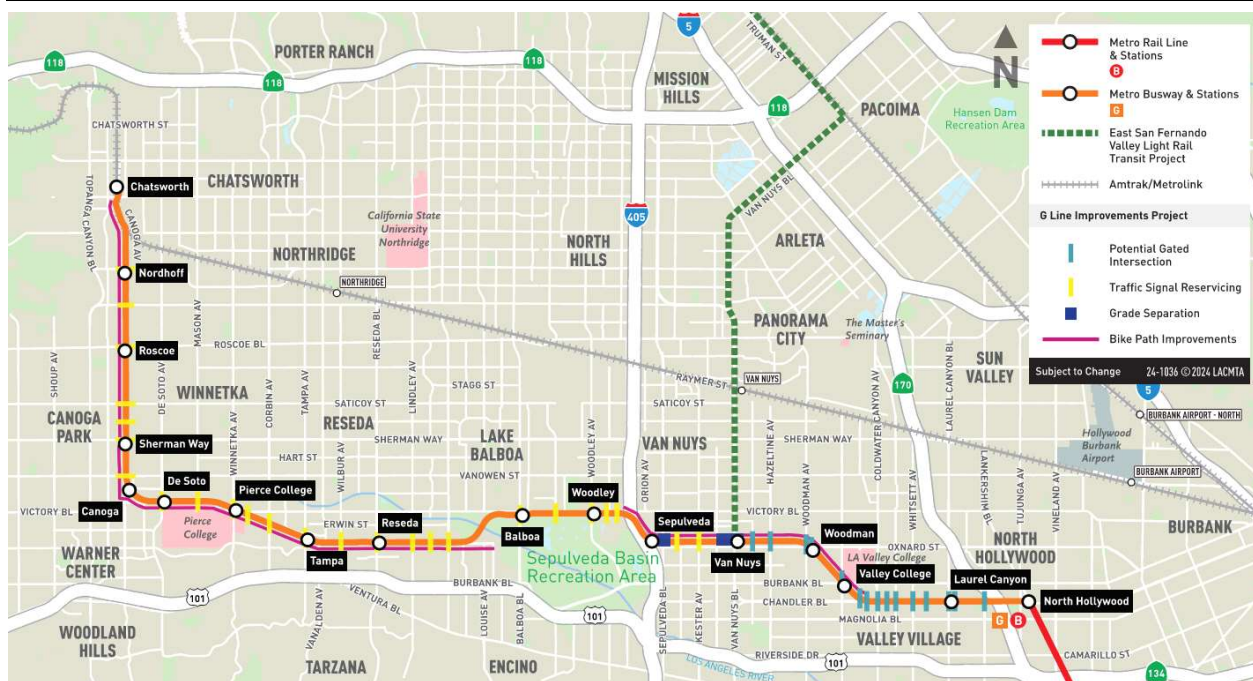
In November 2023, Project staff informed the Committee that based upon contractor and Metro estimates for the cost of Phase 2, allocated funding for the Project is not sufficient to cover costs of

the original scope. In partnership with the contractor, Valley Transit Partners (VTP), Metro evaluated value engineering (VE) and scope alternatives that could allow the Project to achieve the stated objectives of improved safety and reduced trip times at a reduced cost from the current estimates.

The recommended refinements, which are consistent with the recommendations presented at the November 2023 Committee, are outlined in the below table.

Project Improvements	Original Scope	Scope Refinements/Value Engineering
Grade Separations	Grade separated busway structures over: 1. Sepulveda Bl 2. Van Nuys Bl 3. Vesper Av	No Change
Stations	Van Nuys and Sepulveda Stations reconstructed on the new bridge structure.	Van Nuys Station reconstructed on the new bridge structure. Sepulveda Station to remain in its current location with improved bike/pedestrian access and amenities.
Gated Intersections	Four-quadrant gates at <u>up to 35</u> at-grade crossings between the North Hollywood and Chatsworth Stations.	Four-quadrant gates at 13 intersections between Colfax Av and Tyrone Av Traffic Signal Reservice (TSR) proposed at remaining intersections.
Bike Path Improvements	At-grade bicycle and pedestrian improvements along 14 miles of existing Class I bike path from Chatsworth to Valley College Stations. Improvements through Sepulveda Basin owned by Army Corps of Engineer and operated by the City of Los Angeles Recreation and Parks	At-grade bicycle and pedestrian improvements along 14 miles of existing Class I bike path from Chatsworth to Valley College Stations.

The updated Project map that reflects the latest Project scope refinements is pictured below.



Over the last seven months, Project staff have conducted community outreach, engaged funding partners, and coordinated with third parties to familiarize all stakeholders with the scope refinements. This report details these efforts and informs the Board of upcoming milestones and anticipated actions.

DISCUSSION

Community Outreach:

Following the November 2023 meeting, community relations staff continued outreach efforts to local communities to provide updates on Project scope refinements and gather feedback through presentations to the SFVCOG and its Transportation Committee, LA City Council offices, local Neighborhood Councils, the Victory Park Neighborhood Association, and chambers of commerce such as the Valley Industry & Commerce Association. Staff participated in numerous community events where booths were set up to inform stakeholders about the Project's status and scope refinements and conducted pop-up outreach to engage both Metro transit riders and bicyclists at the G Line Sepulveda Station. Project collateral materials and a Project map board were presented in English and Spanish to facilitate discussions.

Metro also hosted two community update meetings for the G Line: one on Saturday, May 11, at the Marvin Braude Constituent Center in Van Nuys, following an earlier community meeting for the Sepulveda Transit Corridor Project, and a virtual meeting at 6 pm on May 15. Meeting notices were provided in English and Spanish and distributed to an estimated 30,000 addresses located ¼ of a mile from the Project alignment. The presentations and collateral materials were presented in English and Spanish. Bilingual project team members staffed the meetings, and simultaneous Spanish language interpreting services were also available. Presentations as well as the recording of the virtual meeting were posted on the Metro website, and the link to the presentations and recording

was shared with stakeholders via email. The total attendance for both community meetings was estimated at 70 people.

During the course of outreach about the scope refinements, community members asked questions about Metro's use of value engineering, locations for the gates, connectivity at Sepulveda Station, traffic impacts, traffic signal reservicing, changes in travel time savings, future conversion of the G Line to light rail, real estate, and bus and bike path detours during construction. The majority of community members understood the necessity of the scope refinements and expressed support for the Project. The input and responses from community members did not result in changes with respect to staff recommendations. For the few stakeholders that expressed disfavor with the scope refinements, the primary issue of concern was the perception that the San Fernando Valley has historically been overlooked with respect to transportation investments. Staff will continue to engage with stakeholders and community groups including Equity Focus Communities (EFC), and local elected officials ahead of the start of major construction anticipated for Fall 2024.

SB-1 Grant Funding:

The project's \$75M in SB-1 grant funding, which was awarded at the California Transportation Commission (CTC) May 2018 meeting, is tied to the grade separations, gated intersections and bike path improvements scope of the project. As presented at the November Construction Committee, staff recommends the elimination of the aerial station at Sepulveda and the removal of the bike path scope within the Army Corps of Engineers jurisdiction. Staff also presented the value engineering proposal to refine the gated intersections scope from 35 gated intersections to 13 gated intersections with traffic signal reservicing (TSR) at the remaining intersections. The gated intersections VE proposal is anticipated to reduce Project Phase 2 costs by upwards of \$150M but reduces the travel time savings from the original Project objective of 16 minutes to 12 minutes. As a follow-up to several meetings with Caltrans and CTC representatives, Metro staff submitted a request for SB-1 grant scope change approval to the State. On May 17, 2024, the CTC unanimously approved the G Line Improvements Project Scope Amendment with an approximate \$11M grant reduction, commensurate with reductions in travel time and bike path improvements. The Project is currently undergoing its latest round of estimating, inclusive of the scope refinements, and expects to successfully offset the loss in grant funding with cost reductions that do not require further changes in scope.

Measure W Grant Funding:

Safe Clean Water Program (Measure W) funding obtained by Metro and a cost-share provided by Metro's project funding partner, the Los Angeles Department of Water and Power (LADWP), was intended to fully fund the Stormwater Capture component of the Project. However, the Stormwater Capture 30% cost estimate for Phase 2 totaled approximately \$76M, which significantly exceeded the \$34.5M Safe Clean Water Program allocated funding and \$11.09M LADWP cost-share. Furthermore, results from field investigations confirmed that the actual infiltration rates were less than 20% of anticipated infiltration rates, and the Project would not meet infiltration rates necessary to satisfy the grant requirements. Staff gave direction to the contractor to freeze design development at 60% until resolution was met on funding and infiltration requirements and pending further coordination with LADWP and Safe Clean Water Program. On November 30, 2023, staff submitted a Project Modification Request to the Safe Clean Water Program, proposing a reduced scope Project and

presented the request to the Upper Los Angeles River Watershed Area Steering Committee (ULAR WASC) at the January 25, 2024, and April 3, 2024 meetings. At the latter meeting, the ULAR WASC voted to remove the Project from the County's Stormwater Investment Plan and discontinue all future remaining funding. Without a funding source, Staff has proceeded with steps to remove the remaining scope from the Project.

Third-Party Coordination:

The introduction of the value engineering proposal to install TSR requires close coordination with the Los Angeles Department of Transportation (LADOT). TSR scope includes the replacement of the existing LADOT traffic signal system with a new system capable of dynamically sequencing traffic signal phases. In pursuing this alternative, staff have coordinated closely with LADOT and received confirmation that LADOT is in support of the scope, provided Metro covers the cost of installation, integration and training of the new traffic signal controller. Staff will continue to coordinate closely with LADOT through the design, construction, testing, and commissioning of the new system.

PDB Contract Status:

The G Line Project is at a critical stage of transition between Phase 1 (design and preconstruction services) and Phase 2 (final design and construction) of the PBD contract. Staff have successfully negotiated an Early Works Package (EWP) to progress the design of Van Nuys Grade Separation and Bike Path Improvements to Approved For Construction. Three more EWP proposals are currently under negotiation: one to test gate activation technology, a second to construct a fiber bypass that will allow G line stations to remain in operation during construction of the grade separations, and a third for the survey and design of new a fiber backbone through the B Line necessary to bring the Van Nuys Station online and support the new Van Nuys light rail station. The successful negotiation and execution of multiple EWP's is the best opportunity for the Project to start construction this year and to meet Measure M and Olympic milestone dates.

At present, the Project is undergoing its third estimating effort whereby both the Contractor and Metro are developing estimates for Phase 2 work inclusive of the latest scope refinements. Despite the \$11M reduction in SB-1 grant funding, staff will strive to offset the loss of grant funding with cost reductions that do not require further changes in scope. Estimates continue to reflect a Project that exceeds available funding. Staff continue to negotiate with the Contractor to ensure fair and reasonable pricing for all elements of the Project scope. As previously reported to the Committee, it is possible that a final contract price cannot be negotiated with the current Contractor. Should this occur, staff would exercise an off-ramp and would complete all or a portion of the scope under an Issue for Bid procurement strategy that could result in a low bid lump sum contract, similar to a traditional procurement. If negotiations are successful and fair and reasonable pricing can be reconciled this summer, staff will return to the Board in September to request approval of the Phase 2 scope included in this report and a corresponding Life of Project (LOP) Budget.

In summary, through extensive coordination over the last seven months, staff have secured support for scope changes related to grade separations, gated intersections, and bike path improvements from both the community and funding partners. Staff has also received clarity that the stormwater capture component is not a viable scope package and has removed it from the project. These scope

refinements have reduced allocated funding from \$391M to approximately \$350M. The estimated Project costs continue to exceed available funding, and staff are negotiating fair and reasonable pricing with the Contractor. Should negotiations be unsuccessful, staff will be prepared to implement an off-ramp plan and move the Project forward utilizing traditional delivery methods.

EQUITY PLATFORM

The Project seeks to improve transit passenger experience and pedestrian safety through the construction of grade separations, vehicle and pedestrian crossing gates, first/last mile improvements, and ADA-accessible features along the entire G Line alignment. The proposed removal of Project scope has an impact on the quantity of improvements made but does not impact the quality of the portions that remain and are intended to serve more vulnerable travelers.

Although the number of crossing gates have been reduced from 35 to 13, the recommended alternative preserves 12 of the anticipated 16 minutes of end-to-end run time savings, in part due to the introduction of TSR at non-gated intersections. The scope refinements also reduce cross-traffic delays and decrease CO2 emissions compared to original scope. Reductions in scope to the bike path improvements are minimal, and the planned bike path improvements are materially the same as originally planned. Impacts to the community due to construction, where noise and vibration, pollution, and construction traffic may create adverse situations for individuals near the alignment, will be reduced as the scope of the Project is reduced. For the Sepulveda Station location, all passengers, including those boarding and alighting at Sepulveda, will gain travel time benefits by not having to stop at red lights at the Sepulveda intersection. There are anticipated accessibility benefits to an at-grade station as patrons with mobility issues will not be impacted by any intermittent outages due to maintenance or malfunction of elevators and escalators to get to the boarding platform. Maintaining the at-grade station at its current location also improves station proximity to the approximately 10-acre site currently proposed for joint development under the Agency's 10,000 Home Acceleration Strategy. The Project, as originally planned, passes through or is adjacent to 18 EFCs, including communities in Van Nuys, Reseda, Canoga Park, and West Valley.

The deletion of the Stormwater Capture scope has no immediate impact on the surrounding communities as the water was being diverted from underground storm drains and was intended to recharge groundwater. There will be a reduction in construction impacts to communities due to the scope deletion.

Additional consideration will be given to the potential impacts created by bus and bike detours, and lessons learned will be drawn from the recent A Line and L Line bus detours, such as proper and timely notification provided in multiple languages, concise and prominently located signage, and having Metro Ambassadors to facilitate minimize impacts related to the disruption. Staff is currently increasing outreach efforts as construction nears and will continue to engage stakeholders, including those in EFCs about the proposed scope changes and construction activities through direct field visits, pop-up outreach at G Line stations, bike path and community events, presentations to the Metro Service Council, local area Neighborhood Councils and chambers of commerce, briefings for local elected officials, collateral material distribution, and regular in-person and virtual community update meetings. Community presentations and informational materials will be provided in English and Spanish, and bilingual staff and professional language interpreters will be available at community

meetings. Staff will continue to participate in outreach events to engage with community members in the project area, including Van Nuys, Reseda, Canoga Park, and the West Valley.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Strategic plan goal # 1, Metro will expand transportation options, improve the quality of its transit network and assets, and take steps to manage demands on the entire network.

Strategic plan goal #5, Metro will provide responsive, accountable, and trustworthy governance within the Metro organization.

NEXT STEPS

Moving forward, staff will continue outreach and engagement with impacted stakeholders, especially Metro G Line customers. The Project team is currently in negotiations with VTP for a major construction EWP. Staff will continue to look for opportunities for cost savings and value for money through the negotiation process and will return to the Board to approve the package. Staff intend to return to the Board in the fall to request approval of the Phase 2 scope and Life of Project (LOP) Budget.

Prepared by:

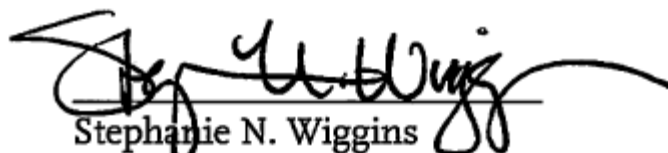
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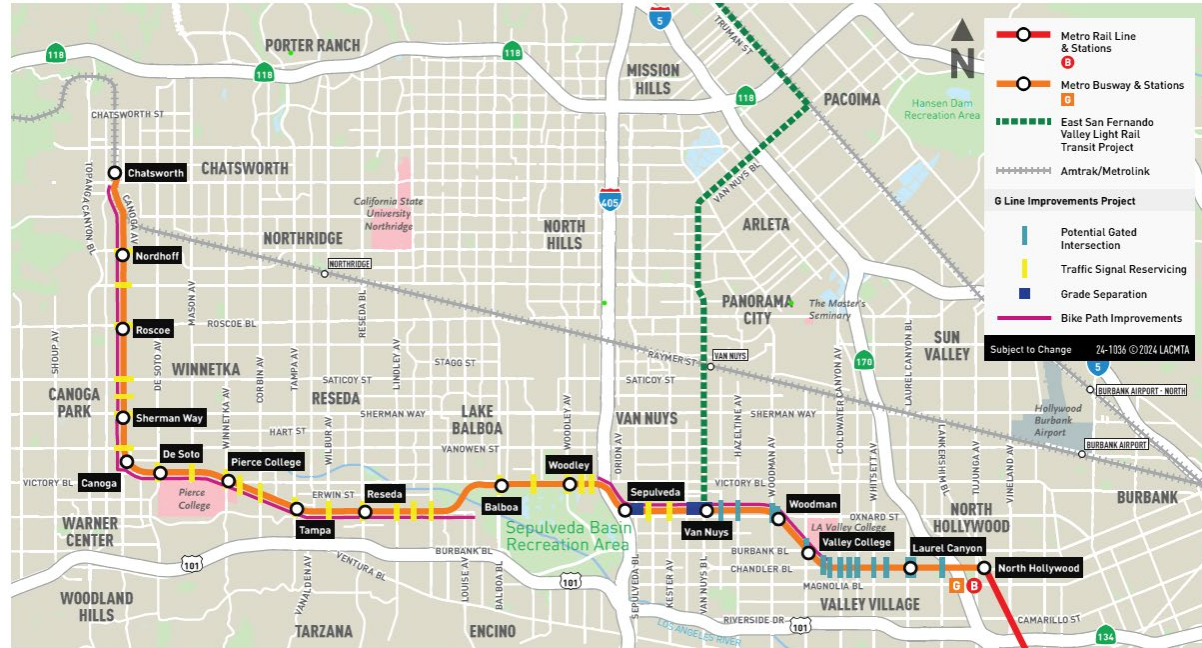


Stephanie N. Wiggins
Chief Executive Officer

Project Funding/Location

For Internal Use

- > 2027: BRT Improvements
 - Measure M and SB-1 Local Partnership Grant Program: \$350 million
- > 2057: BRT Conversion to LRT
 - Measure M: \$1.4 billion
- > Measure W Funding and SB-1 Funding Reduced



FOR INTERNAL USE



2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026

❖ **06/2016** G Line (formerly Orange Line) BRT Improvements identified for funding in Measure M

07/2027 Measure M Funding Deadline ❖

12/2017 – 03/2021
Preliminary Engineering

❖ **01/2018** Metro applied for SB-1 Grant Funding

❖ **07/2018** Metro Board determination that Project is Statutorily Exempt, pursuant to CEQA

11/2018 – 12/2023
Right of Way Property Acquisition

03/2020 – 12/2023
Advanced Utility Relocations (By Utility Owner)

❖ **01/2022** Measure W funded Water Infiltration and Quality Project scope added

❖ **11/2022** Progressive Design Build Contract Notice to Proceed (NTP)

11/2022 – 10/2024
Phase I: Design & Precon Services

04/2024 – 12/2026
Phase II (Incl. EWPs) : Final Design,
Construction, Testing



Scope Refinements Proposed at November Board

For Internal Use

Project Improvements	Original Scope (30%)	30% Construction Cost (\$)	Value Engineering (Current Scope)	Current Construction Cost (\$)
Grade Separations	Grade separated busway structures over: 1. Sepulveda Bl 2. Van Nuys Bl 3. Vesper Ave	Included in Stations Cost Below	No Change	Included in Stations Cost Below
Stations	Van Nuys and Sepulveda Stations reconstructed on the new bridge structure.	\$401,314,441	Van Nuys station reconstructed on the new bridge structure. Sepulveda station to remain in its current location with improved bike/pedestrian access and amenities.	\$262,921,714
Gated Intersections	Four-quadrant gates at up to 35 at-grade crossings between the North Hollywood and Chatsworth Stations.	\$272,996,288	Four-quadrant gates at 13 intersections between Colfax Ave and Tyrone Ave Traffic Signal Reservice (TSR) proposed at remaining intersections.	\$131,397,950
Bike Path Improvements	At-grade bicycle and pedestrian improvements along 14 miles of existing Class I bike path from Chatsworth to Valley College Stations.	\$16,686,499	At-grade bicycle and pedestrian improvements along 14 miles of existing Class I bike path from Chatsworth to Valley College Stations, with refinements to lighting and civil scope.	\$5,238,577



- > \$75M in SB-1 grant funding awarded at the California Transportation Commission (CTC) May 2018 meeting
- > Funding is tied to the grade separations, gated intersections and bike path improvements scope of the project.
- > After the November 2023 Board Meeting, and as a follow-up to several meetings with Caltrans and CTC representatives, Metro staff submitted a request for SB-1 grant scope change approval to the State consistent with the scope refinements presented to the Board in November
- > On May 17, 2024, the CTC unanimously approved the G Line Improvements Project Scope Amendment with an approximate \$11M grant reduction, commensurate with reductions in travel time and bike path improvements.



- > \$34.5M Measure W funding obtained by Metro and a cost-share of \$11.09M provided by LADWP, was intended to fully fund the Stormwater Capture Stormwater Capture
- > Field investigations determined Project as proposed would not meet infiltration rates necessary to satisfy the grant requirements, actual infiltration rates were less than 20% of anticipated infiltration rates.
- > 30% cost estimate for Phase 2 totaled approximately \$76M, which significantly exceeded allocated funding
- > November 30, 2023, staff submitted a Project Modification Request to the Safe Clean Water Program, proposing a reduced scope Project and presented the request to the Upper Los Angeles River Watershed Area Steering Committee (ULAR WASC) at the January 25, 2024 and April 3, 2024 meetings. At the latter meeting, the ULAR WASC voted to remove the Project from the County's Stormwater Investment Plan and discontinue all future remaining funding.



- > **Pre-November 2023 Board Meeting:** Staff conducted outreach to inform key stakeholders about the Project scope refinements.
 - **Engagement Activities:**
 - Metro Board staff
 - State and Federal elected offices
 - Los Angeles City Council offices along the project alignment
 - San Fernando Valley Council of Governments staff

- > **Post November 2023 Board Meeting:** Ongoing outreach efforts
 - **Presentations To:**
 - San Fernando Valley Council of Governments and its Transportation Committee
 - LA City Council offices, 2, 3, 4, 6 & 12
 - Local Neighborhood Councils
 - Victory Park Neighborhood Association
 - Valley Industry & Commerce Association



- **Community Events:**

- Ready for Reseda
- Sepulveda station pop up
- Bike Path pop up
- Rising for Reseda
- San Fernando Valley Pride

- **Community Meetings:**

- May 11, 2024, Van Nuys
- May 15, 2024, ZOOM
- 30K meeting notices distributed



- **Next Steps:**

- Continue engagement with stakeholders and community groups
- Continue elected official briefings
- Project Office Open House for elected officials, Fall 2024
- Develop collateral materials for bike and bus detours, Summer 2024
- Community Meetings in advance of the bike and bus detours, Fall 2024





Board Report

File #: 2024-0398, **File Type:** Oral Report / Presentation

Agenda Number: 1.

**CONSTRUCTION COMMITTEE
JULY 17, 2024**

SUBJECT: CALTRANS QUARTERLY UPDATE

ACTION: RECEIVE ORAL REPORT

RECOMMENDATION

RECEIVE the quarterly oral report on the status of the Caltrans construction projects.

EQUITY PLATFORM

Projects administered by Caltrans have federal aid and Disadvantaged Business Enterprise (DBE) commitment goals based on the contract bid amount for federal aid projects.

- I-405 Crenshaw Auxiliary Lane DBE goal is 14%. To date, 10% of the DBE goal for the Project has been achieved.
- SR-71 South Segment did not have federal participation and therefore was not required to establish a DBE goal. The contractor claimed and achieved 0.45% in DBE participation.

At the request of Directors Horvath and Hahn, this report includes an update on the status of the Pacific Coast Highway Safety Enhancement Project, and the I-105 at Studebaker Safety Enhancement Project, respectively.

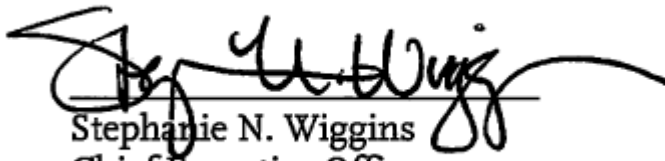
Caltrans is leading all elements of the proposed transportation improvements including procurement, environmental process, outreach, final design, and construction. Caltrans, in coordination with the local jurisdictions, determined community engagement processes specific to the type of transportation improvement. This coordination is aligned with the Caltrans Race & Equity Action Plan to address systemic racial inequities that exist within the transportation sector.

Throughout the construction phase for the projects noted, outreach efforts consisted of sending press releases to cities, communities, elected officials, and to multiple media outlets (talk radio, cable news) and social media platforms (X/Twitter, Instagram) that cover Los Angeles and Ventura Counties. Specific notices regarding construction work and/or detours were made available in multiple languages (English, Spanish, Chinese, etc.,) based on the affected communities. Caltrans also provided updates that were posted on the Caltrans and Metro websites. Every effort is made to avoid, minimize, and/or mitigate construction impacts to communities by providing advance notices to the public when there are freeway and/or ramp lane closures for construction work and/or planned detours. Any unintended equity impacts that may arise will be responded to on a case-by-case basis

by the appropriate project partners.

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Stephanie N. Wiggins
Chief Executive Officer









Caltrans Projects Status Report

July 2024



Construction Committee
Los Angeles County Metropolitan Transportation Authority





Project Budget & Schedule Status Summary Chart

		Cost Performance		Schedule Performance		
Project	DBE Goal	Variance Approved LOP	Variance Revised Budget	Variance Original	Variance Revised Schedule	Comments
1. SR-71 South Segment	N/A					Contract progress: 55% complete. Working with Contractor to agree on revised schedule and past claim resolution to complete project ahead of current schedule. RW131 soil nail installation is completed. All walls are currently being constructed along with drainage systems. Paving for NB-71 planned for summer 2024.
2. I-405 Crenshaw Aux Lane	14%					Contract progress: 92% complete. Contractor is working on Landscape items throughout the project and is expected to be in plant establishment

SR-71 South Segment

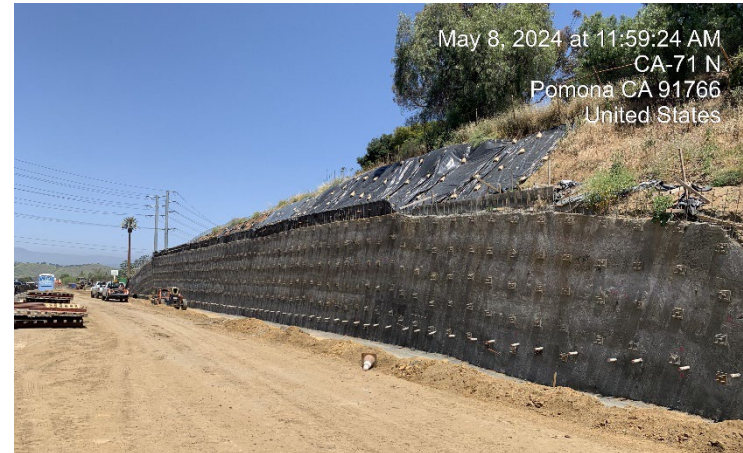
BUDGET	FA	Approved LOP*	Previous Period	Current Forecast
	\$124.1M	\$124.1M	\$124.1M	\$124.1M
Variance from Approved LOP:			\$0 (0%)	\$0 (0%) 
Variance from Revised Budget:				\$0 

SCHEDULE	Original	Approved Rebaseline	Previous Period	Current Forecast
	Spring 2024	N/A	Spring 2024	Spring 2025*
Variance from Original:			0 WD (0%)	248 WD (26%)* 
Variance from Revised Schedule:				N/A 

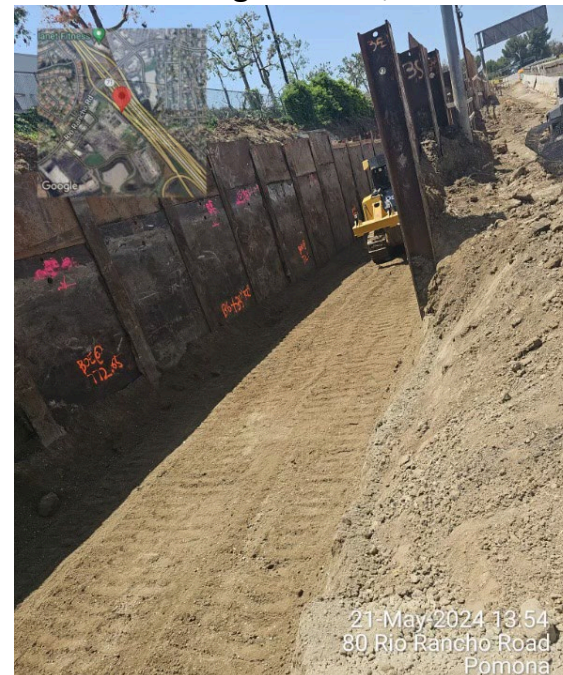
*Pending from time extension approval based on claim resolution

SR-71 South Segment

- Contract progress: 55% complete.
- Drainage System 11-7 (RCB) is complete, only cleaning and minor punch-list items remaining.
- RW 131, all soil nails are installed and complete, no issues during installation.
- Due to conflict with SCE wires, a power-down is requested to install OH sign structure on NB-71. SCE will process the outage and schedule the necessary work crew for the power-down.
- Revised schedule is being proposed by the Contractor, Department is reviewing the cost breakdown







NB-71 retaining wall 131, all soil nails installed.



SB-71 DS 16-1 excavation.

I-405 Crenshaw Aux Lane

BUDGET	FA	Approved LOP	Previous Period	Current Forecast
	\$62.0M	\$62.0M	\$62.0M	\$62.0M
Variance from Approved LOP:			\$0 (0%)	\$0 (0%) 
Variance from Revised Budget:				\$0 

SCHEDULE	Original	Approved Rebaseline	Previous Period	Current Forecast
	Spring 2024	N/A	Spring 2024	Spring 2024
Variance from Original:			0 WD (0%)	0 WD (0%) 
Variance from Revised Schedule:				0 WD 

I-405 Crenshaw Aux Lane

- Contract progress: 92% complete.
- Crenshaw Blvd off ramp re-alignment was completed at the end of April 2024.
- Contractor is working on Landscape items throughout the project and will start the plant establishment period
- There are no major issues.



NB Crenshaw Blvd to SB 405 on ramp (RW#803) completed concrete barrier slab (Looking North)



NB 405 South of Van Ness Blvd (SW #760) with completed retaining concrete barrier at 186th Street

Pacific Coast Highway (PCH) Safety Enhancement Project*

Project Limit

- State Route 1 from McClure tunnel to LA/Ventura County line

Schedule

- December, 2023 to August, 2024

Cost

- \$4,255,000

Scope

- Striping improvement
- QWICK KURB for better visibility
- Radar feedback signs
- Pedestrian countdown signals
- Sign Installations

*Caltrans Emergency Contract



PCH Safety Enhancement Project

STRIPING:

- Permanent thermoplastic striping for lane delineation completed.
- Preformed thermoplastic pavement marking installation started on March 11, 2024. This task involves installing crosswalks and speed limit on the pavement. 43 Crosswalk Improvements are completed.



QWICK KURB:

- All Qwick Kurb installation has been completed per plans. Per request from City of Malibu, some locations were replaced with shorter reflective markers. All work completed.



PCH Safety Enhancement Project

RADAR SPEED FEEDBACK SIGNS:

- Temporary radar speed feedback signs installed at 10 locations as of December 20. Installation of all 13 Permanent Radar Feedback sign poles has been completed. Signs will be installed soon.

PEDESTRIAN COUNTDOWN SIGNALS:

- Installation is completed for all 44 signals.

SIGNS:

- Caltrans team is continuously taking inventory of all signs that need to be removed or replaced to improve visibility. The removal and replacement are ongoing.



I-105 at Studebaker Safety Enhancement Project**

Project Limit

- Interstate Route 105 ramp to Studebaker

Schedule

- February 2024 to September 2024

Cost

- \$460,000

Scope

- Rumble strips
- Flashing beacon
- LED flashing sign panels
- Reflective back plates

**Caltrans Minor Contract



I-105 Safety Enhancement Project

RUMBLE STRIPS:

- Completed

REFLECTIVE BACK PLATES:

- Completed

LED FLASHING SIGN PANELS:

- Foundation and conduits completed, signs will be delivered and installed

FLASHING BEACON SIGN:

- Double beacon installed. Working on Change Order plans to bore new conduits due to vandalism





Board Report

File #: 2024-0231, File Type: Oral Report / Presentation

Agenda Number: 18.

CONSTRUCTION COMMITTEE JULY 17, 2024

SUBJECT: PROGRAM MANAGEMENT MAJOR PROJECT STATUS

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE the Program Management Major Project Status Report.

ISSUE

Program Management's capital status report provides significant highlights regarding several capital projects nearing or under construction.

BACKGROUND

Metro's mission is to provide a world-class transportation system that enhances the quality of life for all who live, work, and play within LA County. Program Management oversees the construction of capital projects. The attached project status report provides significant information about the progress of 11 major capital projects and 5 smaller capital projects.

DISCUSSION

The project status report includes a summary of 11 major projects including cost and schedule performance, small business project participation status, safety, risk, and equity (Westside Purple Line Sections 1, 2, and 3, Division 20 Portal Widening Turnback, Gold Line Foothill Ext. Phase 2B, Airport Metro Connector, I-5 North County Enhancements, East San Fernando Valley Transit Corridor, North Hollywood to Pasadena BRT Project, G Line BRT Improvements and I-105 Express Lanes Projects). The report also includes a summary status of five smaller capital projects (Rail to Rail, Metro Transit Learning Center, Soundwall 10, Eastbound 91 - Atlantic to Cherry, and I-605 South Street). The report highlights construction activities, and safety data is based on the latest available information, consistent with reporting timelines.

EQUITY PLATFORM

Major Projects

Airport Metro Connector	Equity - 100% within or adjacent to Equity Focus Communities.
Westside Purple Line Ext 1	Equity - this project is not within or adjacent to Equity Focus Communities.
Gold Line Foothill Ext. Phase 2B	Equity - 25% (1 of 4 stations) within or adjacent to Equity Focus Communities.
Division 20 Portal Widening Turnback	Equity - 100% within or adjacent to Equity Focus Communities.
Westside Purple Line Ext 2	Equity - this project is not within or adjacent to Equity Focus Communities.
I-5 North County Enhancements	Equity - this project is not within or adjacent to Equity Focus Communities.
G Line BRT Improvements	Equity - 88% (15 of 17 stations) within or adjacent to Equity Focus Communities.
Westside Purple Line Ext 3	Equity - 50% (1 of 2 stations) within or adjacent to Equity Focus Communities.
North Hollywood to Pasadena	Equity - 60% within or adjacent to Equity Focus Communities.
I-105 Express Lanes	Equity - 92% within or adjacent to Equity Focus Communities.
East San Fernando Valley Transit	Equity - 70% within or adjacent to Equity Focus Communities.

Additional Capital Projects

Rail to Rail	Equity - 100% within or adjacent to Equity Focus Communities.
Metro Transit Learning Center	Equity - 100% within or adjacent to Equity Focus Communities.
Soundwall 10	Equity - 25% within or adjacent to Equity Focus Communities.
Eastbound 91 - Atlantic to Cherry	Equity - this project is not within but adjacent to Equity Focus Communities.
I-605 South Street	Equity - this project is not within but adjacent to Equity Focus Communities.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Strategic plan goal # 1, Metro will expand transportation options, improve the quality of its transit network and assets, and take steps to manage demands on the entire network.

SAFETY

The safety national average rate is 2.4. Below are the project’s recordable injury rates as compared to the national average.

Major Projects

	Project Hours	Recordable Injury Rate	Comments
Airport Metro Connector	948,198	1.69	Below National Average
Westside Purple Line Ext 1	9,847,753	0.87	Below National Average
Gold Line Foothill Ext. Phase 2B	2,172,393	0.28	Below National Average
Division 20 Portal Widening Turnback	1,020,473	0.20	Below National Average
Westside Purple Line Ext 2	4,122,608	2.67	Above National Average
I-5 North County Enhancements	650,956	0.92	Below National Average
G Line BRT Improvements	0	0	Not in construction
Westside Purple Line Ext 3 (C1151)	1,711,660	2.45	Above National Average
Westside Purple Line Ext 3 (C1152)	1,568,895	0.38	Below National Average
North Hollywood to Pasadena BRT Project	0	0	Not in construction
I-105 Express Lanes	0	0	Not in construction
East San Fernando Valley Transit Corridor	30,170	0	Advanced Utility Adjustment Construction Only

Additional Capital Projects

	Project Hours	Recordable Injury Rate	Comments
Rail to Rail	239,800	0.83	Below National Average
Metro Transit Learning Center	N/A	N/A	N/A - Delivered via development agreement
Soundwall 10	38,130	1	Below National Average
EB 91 - Atlantic to Cherry	N/A	N/A	N/A - Construction not started
I-605 South Street	N/A	N/A	N/A - Construction not started

The safety data is based on the latest available information, consistent with reporting timelines.

NEXT STEPS

Staff will continue to work toward the completion of all capital projects. The next Program Management project status report and updates will be in September 2024.

Prepared by:

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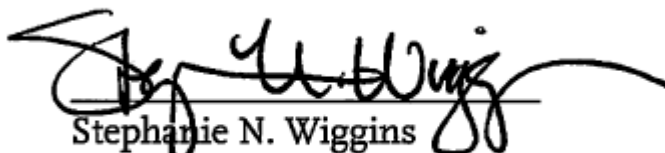
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Reviewed by:

Timothy Lindholm, Chief Program Management Officer (Interim), (213) 922-7297



Stephanie N. Wiggins
Chief Executive Officer

Program Management Project Status Report

Tim Lindholm

Chief Program Management Officer (Interim)

Construction Committee

July 2024



Metro

Project Budget & Schedule Status Summary Chart

Project	Cost Performance		Schedule Performance		Comments
	Variance Approved LOP	Variance Revised Budget	Variance Original	Variance Revised Schedule	
1. LAX/Metro Transit Center (AMC)					Project is approximately 84.8% complete. The contractor is making progress on various items. Currently working on the roof/ceiling, including fire sprinklers, utilities, and fireproofing. Also working on all the building finishes, including framing, drywall, utilities, and electrical and low voltage systems. Additionally, installing fences, working on the elevator and escalator systems, and continuing with road and site hardscape work. Finally, we began demolition and grading work on Aviation Blvd sidewalks.
2. Westside Purple Line Extension-Section 1					Project is 91% complete. The current forecast Revenue Service Date has been adjusted from Spring 2025 to Fall 2025. In May 2024, the Metro Board approved a \$225M increase to the PLE1 LOP Budget. Equity - This Project is not located within or adjacent to Equity Focus Communities.
3. Gold Line Foothill Extension Phase 2B					Project is 86% complete. Construction continues with construction at the Glendora, San Dimas, La Verne and Pomona stations, Southern California Regional Rail Authority (SCRAA) Maintenance of way (MOW) building, and Overhead Catenary System (OCS) installment. Equity - 25% of the project is within or adjacent to Equity Focus Communities.
4. Division 20 Portal Widening Turnback					Project is 70% complete. Construction continues inside the West Portal at the Union East Crossover, North Ladder tracks installation are underway, traction power substations (TPSS) assembly and LFAT complete. Equity - 100% of the project is within or adjacent to Equity Focus Communities.
5. Westside Purple Line Extension-Section 2					Project is approximately 68% complete. The Project schedule is currently trending behind the target date, which is currently under review. Equity - This project is not located within or adjacent to Equity Focus Communities.
6. I-5 North County Enhancements					Project is 38.4% complete. The current construction progress will not allow for an on-time completion. OHLA has provided Metro with schedule modifications that will allow for an on-time completion. Metro will closely monitor the progress of the revised schedule to evaluate if the progress improves as necessary. Retaining wall excavation/construction at 15 locations, work on 5 other bridges, roadway excavation, lean concrete base (LCB) placement, and drainage/barrier work continues. Equity - This project is not located within or adjacent to Equity Focus Communities.
7. G Line BRT Improvements*					Continuing to pursue scope refinements to address affordability issues, including ongoing community outreach. Advancing Gated Intersections Alternative including gates at 13 intersections and traffic signal resericing at remaining crossings. Equity: 88% of the project is within or adjacent to Equity Focus Communities.
8. Westside Purple Line Extension-Section 3					Project is 52% complete. The Project is implementing an accelerated re-sequenced schedule with a revised Revenue Service Date in Summer 2027. Equity - 50% of the project is within or adjacent to Equity Focus Communities.
9. North Hollywood to Pasadena BRT Project*					Design completed to 25% level by planning engineering firm. Program Management Support Service (PMSS) and Architect & Engineering contracts have been approved by Board. The Construction Manager/General Contractor (CM/GC) RFP was released in January 2024. 60% of the project is within or adjacent to Equity Focus Communities.
10. I-105 Express Lanes*					Design is 80% complete overall. Due to re-design of Segment 1 to reduce the construction cost, Segment 1 design is currently at 95% completion. Seg 1 subcontractor bidding is in process. Segments 2 and 3 Design is at 65% complete. Opinion of Probable Construction Cost (OPCC) based on 65% has been submitted and under evaluation. Equity: 92% of the project is within or adjacent to Equity Focus Communities.
11. East San Fernando Valley Light Rail Transit Project*					Advanced Utility Adjustment (AUA) #1 construction is now complete. FFGA Application documents were submitted on 5/10/24 to the FTA. Real Estate property acquisitions are underway. In process of awarding Early Work Packages to the contractor. Equity - 100% of the project is within or adjacent to Equity Focus Communities.

*Projects without a LOP budget



July 2024 Construction Committee



On target



Possible problem (5-10% variance)



Significant Impact (over 10% variance)

Small Business Project Status Summary Chart (reflective of payments reported through May 2024)

Project	Phase	Goal Type	Contractor Commitment	Current Participation	Status	Variance from Last Reporting +/-	**Adjusted Participation %	% Complete	Comments
1. LAX/Metro Transit Center (AMC)	Construction	SBE	20.79%	17.75%		-1.37%		79%	Tutor Perini Corporation's (TPC) has a 3.04% SBE shortfall and is exceeding the DVBE commitment by 2.35%. TPC reported a decrease in its SBE/DVBE participation of 1.37% and 0.62%, respectively during this reporting period. TPC has a shortfall mitigation plan on file.
		DVBE	4.96%	7.31%		-.62%			
2. Westside Purple Line Extension-Section 1	Design	DBE	20.25%	22.35%		-.12%		95%	Skanska-Traylor-Shea Joint Venture (STS) is exceeding the DBE commitment on both Design and Construction by 2.10% and 2.11%, respectively. STS reported a decrease in DBE participation on both Design and Construction of 0.12% and 0.06%, during this reporting period.
	Construction	DBE	17.00%	19.11%		-.06%	19.31%	96%	
3. Gold Line/Foothill 2B	Construction	--	--	--	--	--	--	--	Reporting on this contract is handled by the Metro Gold Line Foothill Extension Construction Authority.
4. Division 20 Portal Widening Turnback	Construction	SBE	19.34%	17.36%		+.29%	17.60%	79%	Tutor Perini Corporation (TPC) has a 1.98% SBE and a 0.14% DVBE shortfall. TPC reported an uptick in its SBE participation of 0.29% and no change in DVBE participation during this reporting period. TPC has an updated mitigation plan on file and staff will continue to monitor TPC progress towards meeting its commitment.
		DVBE	3.31%	3.17%		N/A	3.22%		
5. Westside Purple Line Extension-Section 2	Design	DBE	25.31%	30.14%		-1.73%		93%	Tutor Perini/O&G, A Joint Venture (TPOG) is exceeding the DBE commitment on Design by 4.83% and has a .99% shortfall on Construction. TPOG reported an increase in their DBE participation on Design of 1.73% and an increase on Construction by 0.25% during this reporting period. TPOG has a shortfall mitigation plan on file.
	Construction	DBE	17.00%	16.01%		+.25%		67%	
6. I-5 North County Enhancements	Construction	DBE	13.01%	19.72%		+.06%		31%	OHLA USA, Inc.'s (OHLA) is currently exceeding its DBE commitment by 6.71%. OHLA reported a slight uptick in their DBE participation by 0.06% during this reporting period.
7. G Line BRT Improv.* (PDB Phase 1)	PDB Phase 1	SBE	18.35%	21.02%		-.93%		84%	Valley Transit Partners' (VTP) is exceeding the SBE and DVBE commitments by 2.67% and 0.64%, respectively. VTP reported a decrease in both SBE/DVBE participation of 0.93% and 0.21%, respectively during this reporting period.
		DVBE	3.73%	4.37%		-.21%			
8. Westside Purple Line Extension-Section 3 – Tunnels	Design	DBE	11.19%	17.30%		N/A		97%	Frontier-Kemper/Tutor Perini JV (FKTP) is exceeding the DBE commitment on both Design and Construction. FKTP reported no change in their DBE participation on design and a slight decrease in its DBE participation on construction of 0.11% during this reporting period.
	Construction	DBE	17.10%	21.59%		-.11%	21.68%	86%	
8. Westside Purple Line Extension-Section 3 – Stations, Trackwork, Systems and Testing	Design	DBE	19.25%	16.68%		+.45%		93%	Tutor Perini/O&G, A Joint Venture (TPOG) has a shortfall on both Design and Construction of 2.57% and 13.21%, respectively. TPOG reported an increase in its DBE participation on both Design and Construction of 0.45% and 0.16% during this reporting period. TPOG submitted an updated shortfall mitigation plan and contends the majority of DBE work will be performed in the 3rd quarter of 2026 and through substantial completion, and the participation level will increase, accordingly. Staff will continue to monitor TPOG's progress towards meeting its commitments on this project.
	Construction	DBE	21.00%	7.79%		+.16%		45%	

On target





Possible problem (5-10% variance)

Significant Impact (over 10% variance)

*Projects without a LOP budget

**Excludes from contract value time delay, claims, settlements, incentives that Contractor contends has no DBE opportunity.

Small Business Project Status Summary Chart (reflective of payments reported through May 2024)

Project	Phase	Goal Type	Contractor Commitment	Current Participation	Status	Variance from Last Reporting +/-	**Adjusted Participation %	% Complete	Comments
9. North Hollywood to Pasadena BRT Project	PMSS	SBE	TBD	TBD	TBD	TBD		TBD	No contracts have been awarded at this time.
		DVBE	TBD	TBD	TBD	TBD		TBD	
	A&E	TBD	TBD	TBD	TBD	TBD		TBD	
		CM/GC	TBD	TBD	TBD	TBD		TBD	
10. I-105 Express Lanes*(Phase 1)	CM/GC	DBE	12.40%	9.62%		+1.32%		62%	Flatiron-Myers, A Joint Venture's (FMJV) current level of DBE participation is 9.62%, representing a 2.78% shortfall. FMJV reported an uptick in DBE participation by 1.32% during this reporting period. FMJV has a shortfall mitigation plan on file. Staff will continue to monitor GFI's progress towards meeting its commitments and will request an updated mitigation plan at 65% project completion, should a shortfall remain.
11. East San Fernando Valley Transit Corridor* (ESFV)	PE/DSDC	SBE	25.29%	23.67%		+0.40%		81%	Gannett Fleming, Inc (GFI) has a 1.62% SBE shortfall and is exceeding the DVBE commitment by 0.12%. GFI reported an uptick in its SBE participation of 0.40% and a decrease in their DVBE commitment of 0.11% during this reporting period. GFI submitted an updated mitigation in December 2023. Staff will continue to monitor GFI's progress towards meeting its commitments.
		DVBE	5.54%	5.66%		-0.11%			
11. ESFV LRT Line Project – Phase 1	PDB	DBE	19.33%	14.27%		+2.15%		80%	San Fernando Transit Constructors' (SFTC) current level of DBE participation is 14.27%, representing an 5.07% shortfall. SFTC reported an increase in DBE participation of 2.15% during this reporting period. SFTC has a shortfall mitigation plan on file. Staff will continue to monitor SFTC's progress toward meeting the DBE commitment.
11. ESFV – AUA #1	DBB	DBE	25.32%	24.38%		+2.08%		89%	W A Rasic Construction Company, Inc.'s (WA Rasic) current level of DBE participation is 24.38%, representing a 0.94% shortfall. WA Rasic reported an uptick in DBE participation of 2.08% this reporting period. WA Rasic has a shortfall mitigation plan on file. Staff will continue to monitor WA Rasic's progress toward meeting the DBE commitment.



On target



Possible problem (5-10% variance)























Significant Impact (over 10% variance)

*Projects without a LOP budget



**Excludes from contract value time delay, claims, settlements, incentives that Contractor contends has no DBE opportunity.

Smaller Capital Projects Summary Status

Project	Cost Performance		Schedule Performance		Comments
	Approved LOP	Forecast	Substantial Completion	Forecast	
1. Rail to Rail					The overall construction is 71% complete. On the Metro Right of Way, landscaping and irrigation have started in the first 4 segments, asphalt, and concrete have been placed for bicycle and pedestrian paths in the first 13 segments, and cobblestones have been installed at Figueroa and Broadway. On the Public Right of Way, 17 out of 25 intersections are finished. Currently, four intersections (Normandie, Hoover, Main, and Central Ave.) are in progress and expected to be completed by mid-July 24, while four intersections (Denker, Figueroa, San Pedro St., and Avalon) remain untouched. Project is expected to be complete early next year. Equity - This project is 100% within or adjacent to Equity Focus Communities. Project Hours: 239,800 hrs.; Recordable Injury Rate: 0.83 vs. The National Average: 2.4.
2. Metro Transit Learning Center					Construction is 35% complete. The developer's forecast indicates the building and tenant improvements are to be completed in December 2024. Equity - This project is 100% within or adjacent to Equity Focus Communities. Project Hours: N/A; Recordable Injury Rate: N/A
3. Soundwall 10					Construction is 49% complete. The current forecast for Substantial Completion is November 2025. Equity - 25% of the project is within or adjacent to Equity Focus Communities Project Hours: 38,130; Recordable Injury Rate: 1 vs. The National Average: 2.4.
4. EB 91 – Atlantic to Cherry					Contract was awarded on January 3, 2024, and Notice To Proceed (NTP) was issued on March 12, 2024. LOP was established at the November 2023 Board Meeting. Equity – this project is not within but adjacent to The project boundaries are adjacent to Equity Focus Communities. Project Hours: N/A; Recordable Injury Rate: N/A vs. The National Average: 2.4.
5. I-605 South Street					Contractor Notice of Award issued on March 12, 2024. Notice To Proceed (NTP) issued on May 31, 2024. LOP was established at the November 2023 Board Meeting. This Project is one of the I-605 Hot Spot projects. Equity – this project is not within or adjacent to Equity Focus Communities. Project Hours: N/A; Recordable Injury Rate: N/A vs. The National Average: 2.4.



Small Business Project Status Summary Chart (reflective of payments reported through May 2024)

Project	Phase	Goal Type	Contractor Commitment	Current Participation	Status	Variance from Last Reporting +/-	**Adjusted Participation %	% Complete	Comments
1. Rail to Rail	Construction	DBE	20.27%	23.15%		+0.06%		63%	Griffith Company's current level of DBE participation is 23.15%, exceeding the commitment by 2.88%.
2. Metro Transit Learning Center	Construction	--	--	--	--	--	--	--	Reporting on this contract is under the Vermont and Manchester Mixed Use Development project.
3. Soundwall 10	Construction	DBE	22.38%	29.73%		+0.04%		49%	C.A. Rasmussen, Inc.'s current level of DBE participation is 29.73%, exceeding the commitment by 7.35%.
4. EB 91- Atlantic to Cherry	Construction	DBE	21.81%	0.00%	TBD	N/A		0%	Contract recently awarded; no payments have been reported to date.
5. I-605 South Street	Construction	DBE	18.95%	0.00%	TBD	N/A		0%	Contract recently awarded; no payments have been reported to date.



On target



Possible problem
(5-10% variance)





Significant Impact
(over 10% variance)



*Projects without a LOP budget

**Excludes from contract value time delay, claims, settlements, incentives that Contractor contends has no DBE opportunity.

LAX/Metro Transit Center (AMC)

BUDGET	Approved LOP*			
	Approved LOP*	Previous Period	Current Forecast	
		\$898.6M	\$898.6M	\$898.6M
	Variance from Approved LOP:	\$0M (0%)	\$0M (0%) 	
	Variance from Revised Budget:		\$0 	

* Approved April 2021 Board

SCHEDULE	Approved Rebaseline		Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast**
	Fall 2024	N/A	Fall 2024	Fall 2024
	Variance from Original:		+0d (0%)	+0d (0%) 
	Variance from Revised Schedule:			N/A 

** Current Forecast is Metro's June 2023 Schedule Update



LAX/Metro Transit Center (AMC)

Safety

Project Hours: 948,198; Recordable Injury Rate: 1.69 vs.
The National Average: 2.4.

Updates

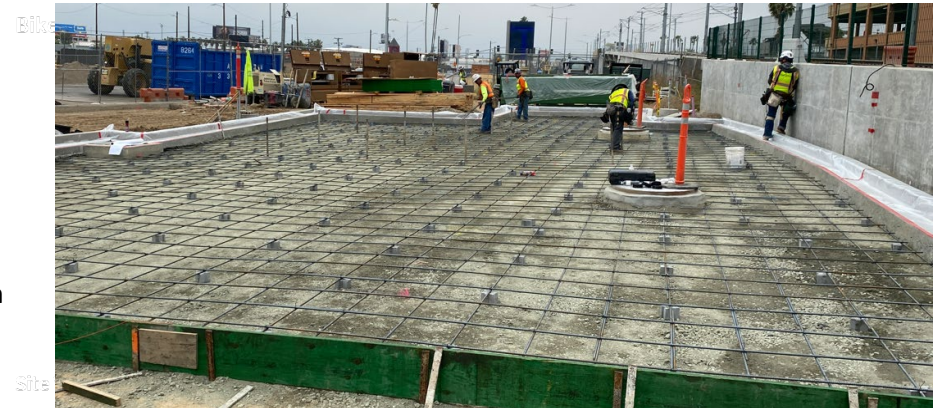
Overall project progress is 84.8% complete

Primary Station Construction at 81.6% completion

- Various activities continue at the roof/ceiling level including fire sprinkler system, exterior soffits, overhead utilities, tech bar, and fireproofing
- Station build-outs continue including interior and exterior wall framing, architectural metal mesh panels, interior framing & drywall, utility rough-ins, mechanical system, electrical system, low voltage systems, and wire pulling.
- Begin installation of platform fence and ballast retainer wall fence
- Continuation of all vertical circulation system work including elevator & escalator systems, and terrazzo stair finishes.
- Aviation Blvd B-Permit approved by City of Los Angeles. Demolition and grading operation commenced.
- Train Control SIT-1 testing has been completed.
- Construction trailers removed from site to further progress on sitework.
- Roadway and Hardscape activities progressing site-wide

Equity



- 100% of the project is located within or adjacent to Equity Focus Communities.



July 2024 Construction Committee



Los Angeles County Metropolitan Transportation Authority

Westside Purple Line Extension – Section 1

BUDGET				
	FFGA	Approved LOP* **	Previous Period**	Current Forecast**
	\$2,822M	\$2,774M	\$3,354M	\$3,354M
	Variance from Approved LOP:		\$580M (21%)	\$580M (21%) 
	Variance from Revised Budget:			\$0M (0%) 

*At time of the award of contract – Board Approval July 2014.

**LOP Budget Amendment May 2024. Excludes finance costs.

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	November 2023	Spring 2025	Spring 2025	Fall 2025
	Variance from Original:		+554d (17%)	+667d (21%) 
	Variance from Revised Schedule:			+113d (3%) 

*Current Forecast for the target Revenue Service Date (RSD) has been adjusted to Fall 2025.



Westside Purple Line Extension – Section 1

Safety

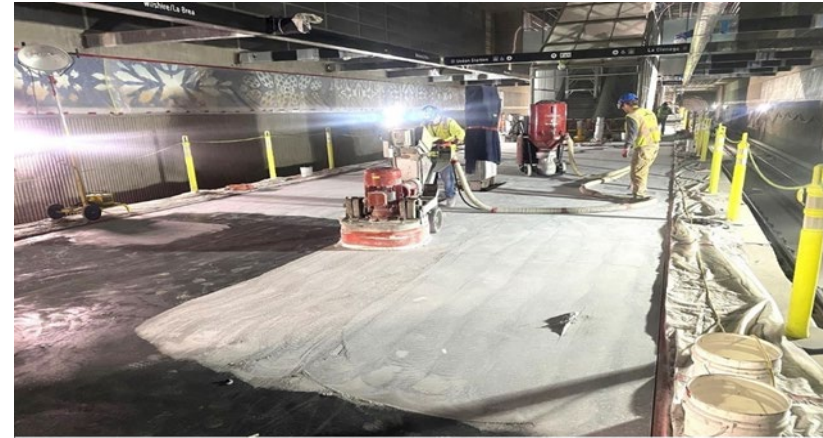
Project Hours: 9,847,753; Recordable Injury Rate: 0.87 vs. the National Average: 2.4.

Updates

- **Overall Project Progress is 91% complete.**
- **Western Station/Interface Chamber:** Continued interior room build-out and work, including weekend shutdowns, at the tunnel interface.
- **Wilshire/La Brea Station:** Ongoing civil restoration on Wilshire Boulevard, entrance structure/plaza and appendage construction. Interior room buildout, mechanical, electrical, and plumbing (MEP), elevator/escalator, and systems installations move forward.
- **Wilshire/Fairfax Station:** Continued entrance structure/plaza construction, and civil restoration on Wilshire Boulevard. Architectural, MEP, systems and escalator/elevator installation continue. Permanent power is now available.
- **Wilshire/La Cienega Station:** Entrance structure/plaza and appendage structure construction along with permanent water line installation. Ongoing architectural, MEP, systems and elevator/escalator work. Civil restoration progresses.
- **Tunneling:**
 - **Reach 1:** Systems installation. Running rail testing.
 - **Reach 2:** Systems installation. Third rail testing.
 - **Reach 3:** Systems installation. Third rail testing.
 - **Reach 4:** Systems installation.

Equity

- This Project is not located within or adjacent to Equity Focus Communities.



Wilshire/La Brea Station
Polishing Terrazzo at the Platform Level





Wilshire/Fairfax Station
Smoke Enclosure Glass Installation





July 2024 Construction Committee

Los Angeles County Metropolitan Transportation Authority

Gold Line Foothill Extension Phase 2B

BUDGET				
		Approved LOP*	Previous Period	Current Forecast
		\$1,533M	1,533M	\$1,533M
	Variance from Approved LOP:		\$0M (0%)	\$0M (0%) 
	Variance from Revised Budget:			\$0 

* At time of the award of contract – Board Approval (June 2017)

SCHEDULE			Revenue Operation	
	Original *	Approved Rebaseline	Previous Period	Current Forecast**
	January 2025	N/A	Summer 2025	Summer 2025
	Variance from Original:		0d (0%)	0d (0%) 
	Variance from Revised Schedule:		n/a	n/a 

* The Original date reflects the Authority's Substantial Completion date

** Current Forecast is from the Authority's June 2023 Schedule Update. Authority forecasts Substantial Completion at January 2025, and assumes Revenue Operation will follow 6 months later.



Gold Line Foothill Extension Phase 2B

Safety

- Project Hours: 2,172,393
- Recordable Injury Rate: 0.28 vs. the National Average: 2.4.

Updates

- **Overall Project Progress is 86% complete**

Construction is planned and will continue as follows:

- Sound wall and fencing throughout the project
- 4 new stations: Glendora, San Dimas, La Verne, and Pomona
- LRT train control, Overhead Catenary System (OCS) poles and wire installation
- Continue local field acceptance testing for traction power substations (TPSS's)
- Begin systems integration testing

Equity

- 25% of the project is located within or adjacent to Equity-Focus Communities.



Fulton to Garey - OCS



San Dimas Avenue – Roadway Paving





Division 20 Portal Widening Turnback

BUDGET				
		Approved LOP*	Previous Period**	Current Forecast***
		\$801.7 M	\$956.7 M	\$1,007 M
	Variance from Approved LOP:		\$155M (19%)	\$205M (26%) 
Variance from Revised Budget:			\$50M (6%) 	

* At time of the award of contract – Board Approval (February 2020)

** LOP increase approved at April 2023 Board meeting

*** Current project risks and impacts are under review and may require a future LOP increase, subject to Board Approval.

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline*	Previous Period	Current Forecast**
	June 2024	Summer 2026	Summer 2026	Summer 2026
	Variance from Original:		+717d (46%)	+731d (47%) 
Variance from Revised Schedule:			14d (2%) 	

* Rebaseline Schedule April 2024

** Current Forecast is Contractor's recent approved Schedule Update



Division 20 Portal Widening Turnback

Safety

- Project Hours: Project Hours: 1,046,949
- Recordable Injury Rate: 0.20 vs. The National Average: 2.4.

Construction Updates

- **Overall Project Progress is 70% complete.**
 - Traction power substation (TPSS) SCADA testing is complete, and the building is energized, currently distributing low voltage power to the car wash, Union East crossover punchlist in progress and the test results are with Metro for review, north storage yard third rail installation is underway. In the north ladder track area, new trackwork is being installed as well as train control devices. Track tie-in to existing storage tracks is underway. Paving of service access roads is underway.

C1136 TPC Portal Widening Turnback Contract

- Contract progress is 68%.
- West Portal Train control device installation and pulling traction power cables underway; East Portal ductbank, cable trench, and firewater installation continues; north storage yard light pole setting and Third Rail installation underway; north ladder tracks tie-in to existing storage yard underway; all four new train control bungalows B, C, Portal, and Pockets have been installed.

- **C1184 C3M Traction Power Substation Contract**

- Contract progress is 96%.
- Substation energized Mid-April and feeding existing car wash.

- **Coordination with Adjacent Projects**

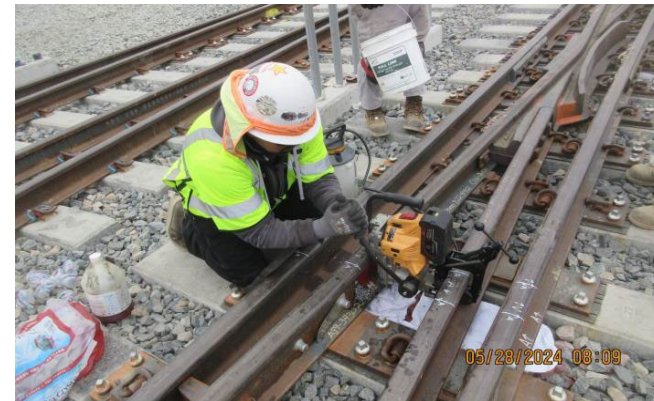
- Purple Line Extension (PLE1), Regional Connector; Metro Center Project, HR4000 and A650 Vehicle Delivery.

Equity

- 100% of the project is located within or adjacent to Equity Focus Communities.





AL Portal work



Track Bonding





Westside Purple Line Extension – Section 2

BUDGET	FFGA	Approved LOP*	Previous Period**	Current Forecast**
	\$2,499M	\$2,441M	\$2,575M	\$2,700M***
	Variance from Approved LOP:		\$134M (5%)	\$259M (11%) 
	Variance from Revised Budget:			\$125M (5%) 

*At time of the award of contract – Board Approval January 2017

**LOP Budget Amendment July 2023. Excludes finance costs.

*** Contractor's delay claims and RFCs are currently under review. The results will be reflected in future updates, subject to Board Approval.

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	August 2025	N/A	Summer 2026	Summer 2026
	Variance from Original:		+374d (12%)	+374d (12%) 
Variance from Revised Schedule:			+0d (0%) 	

*The Current Forecast is based on Project Revised Schedule reflecting a target RSD of Summer 2026.



Westside Purple Line Extension – Section 2

Safety

- Project Hours: 4,122,608
- Recordable Injury Rate: 2.67 vs. The National Average: 2.4

Construction Updates-

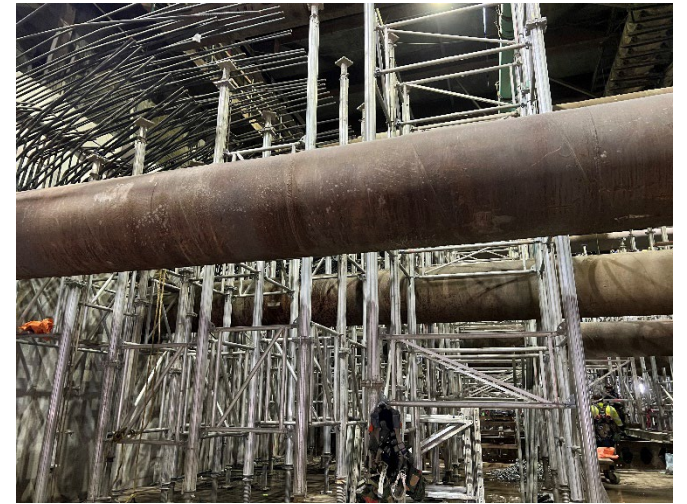
- **Overall Project Progress: 68% complete.**
- **Century City Constellation Station (CCCS)**
 - Installation of rebar and embedded conduits and placement of concrete for concourse level walls in the station box is ongoing. Roof falsework assembly is underway.
 - Installation of waterproofing for concourse level walls in the station entrance is underway.
 - Storm drain backfill in Avenue of the Stars is ongoing.
- **Wilshire/Rodeo Station (WRS)**
 - Installation of rebar, formwork and concrete for the roof is ongoing.
 - Excavation for the TPSS equipment shaft is complete.
 - The S. Canon Dr. ventilation structure invert slab is complete. Work on walls is ongoing.
- **Tunnels**
 - Final linings for cross passages in Reach 5 (WRS to CCCS) are complete. Final lining construction in Reach 4 (La Cienega to WRS) is ongoing.
 - First stage invert concrete placement in Reach 4 tunnels is ongoing.

Equity

- This Project is not located within or adjacent to Equity Focus Communities.





Century City Constellation Station
Concourse Level Looking East





Wilshire Rodeo Station
Roof Falsework at East End of the Station



I-5 North County Enhancements

BUDGET				
		Approved LOP*	Previous Period	Current Forecast
		\$679.3M	\$679.3M	\$679.3M
	Variance from Approved LOP:		\$0M (0%)	\$0M (0%) 
	Variance from Revised Budget:			\$0 

* At time of the award of contract - Board Approval (March 2021)

SCHEDULE			Substantial Completion	
	Original	Approved Rebaseline	Previous Period	Current Forecast
	July 2026	N/A	Summer 2026	Summer 2026
	Variance from Original:		+0d (0%)	+0d (0%) 
	Variance from Revised Schedule:			N/A 



I-5 North County Enhancements

Safety

Project Hours: 650,956; Recordable Injury Rate: 0.92 vs.
The National Average: 2.4.

Updates

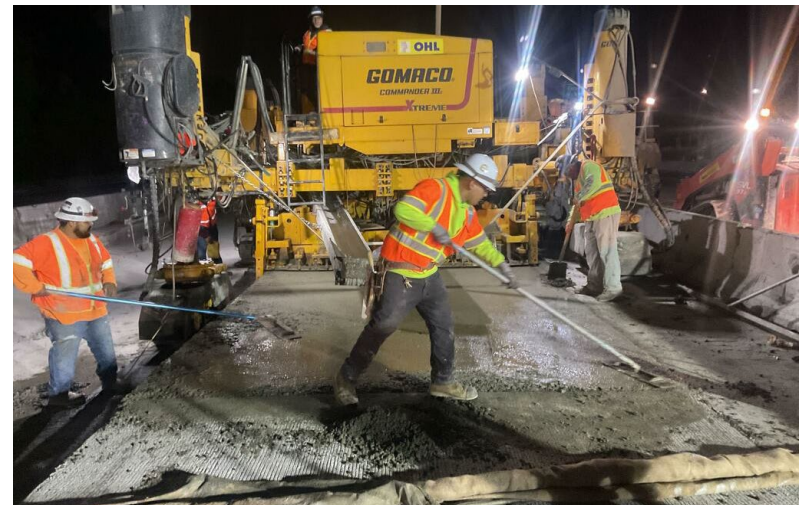
- **Overall Project progress is 38.4% complete.**
- Construction Stage 1, Phases 1 & 2 continues:
 - Work on 5 bridges throughout the project.
 - Construction of approximately 15 Retaining Walls on-going throughout the project.
 - On-going Drainage, Electrical, Barrier, and Signage work in the Median.
 - Lean Concrete Base (LCB) placement and Jointed Plain Concrete Paving (JPCP) in the median.
- Preparations for the first 30-day ramp closure at Calgrove Blvd. which is planned for the coming months.
- Project Team continues to coordinate with various stakeholders.

Equity

- This project is not located within or adjacent to Equity Focus Communities.






On-going work at Retaining Wall 2577





Jointed Plain Concrete Paving in Median



G Line BRT Improvements

BUDGET	Approved Budget to Date			Previous Period	Current Forecast
	Pre-Construction	\$149.7M*		\$149.7M	\$149.7M
	Project	N/A		\$488.1-511M	\$488.1-511M**
	Variance from Approved Pre-Construction Budget:			\$0M (0%)	\$0M (0%) 
	Variance from Approved LOP:			N/A	N/A 
	Variance from Revised Budget:				\$0M 

*Approved Budget only includes the Pre-Construction Budget. The project will request LOP budget prior to PDB Contract Phase 2 award. **Based on implementing value engineering and cost reduction measures shared at the November 2023 Construction Committee Meeting.

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast
	N/A	N/A	December 2026***	December 2026***
	Variance from Original:		+0d (0%)	+0d (0%) 
Variance from Revised Schedule:			N/A 	

***Current Forecast is Phase 2 Substantial Completion milestone, Phase 2 baseline schedule is not yet approved.



G Line BRT Improvements

Safety

Project Construction Hours: 0; Recordable Injury Rate: N/A vs. National Average: 2.4.

Updates

- **Progressive Design Build Contract**
 - Continue to pursue scope refinements discussed at November Board to address affordability issues
 - Ongoing outreach to communicate project status and scope refinements, including in-person and virtual Community Meetings in May
 - 100% Van Nuys and Bike Path Improvements are underway and 60% Sepulveda design is under review.
 - Safe Clean Water Program voted to remove G Line Stormwater Capture scope from the Program.
 - California Transportation Commission (CTC) approved Scope Amendment based on scope refinements with approximate \$11M grant adjustment
 - Advancing Gated Intersections Alternative including gates at 13 intersections and traffic signal reservicing at remaining crossings
 - Pursuing Early Work Packages (EWPs) for 85-100% design and pilot gate
- **Utility Owner-Performed Advanced Utility Relocation (AURs)**
 - Sepulveda – removal of poles and overhead wires pending PDB contractor installation of new power service
 - Vesper – DWP relocation complete, Charter cutover pending
 - Sylmar – AUR completed. Department of Water and Power (DWP) undergrounding complete. Charter vacated.
- **Property Acquisitions**
 - Value Engineering Alternatives eliminated five of eight acquisitions
 - Metro has obtained possession of two of three required properties

Equity

- 15 of 17 stations (88%) are within or adjacent to Equity Focus Communities.





May Community Meeting





July 2024 Construction Committee

Westside Purple Line Extension – Section 3

BUDGET	FFGA	Approved LOP*	Previous Period**	Current Forecast**
	\$3,599 M	\$3,224 M	\$3,277 M	\$3,277 M
	Variance from Approved LOP:		+\$53M (1.6%)	+\$53M (1.6%) 
	Variance from Revised Budget:			\$0 

* At time of the award of contract – Board Approval February 2019

** Excludes finance costs. In June 2023, the Board approved \$53M LOP increase for Concurrent Non-Full Funding Grant Agreement (Non-FFGA) activities.

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	March 2027	Summer 2027	Summer 2027	Summer 2027
	Variance from Original:		+131d (3.91%)	+131d (3.91%) 
Variance from Revised Schedule:			+0d (0%) 	

* Based upon agreed acceleration modification.



Westside Purple Line Extension – Section 3

Safety

Project Hours: 3,280,555 Recordable Injury Rate: 1.46 vs. The National Average: 2.4.

- C1151: Project Hours: 1,711,660; Recordable Injury Rate: 2.45.
- C1152: Project Hours: 1,568,895; Recordable Injury Rate: 0.38.

Updates

- **Overall Project Progress is 52% complete.**
- **Final design progress is 97% complete.**
- **Westwood/UCLA Station**
 - Excavation is 95% complete. Walers and struts continue to be installed at level 5; 92% of walers and struts have been installed.
- **Westwood/VA Hospital Station**
 - Excavation is 93% complete. Walers and struts continue to be installed at level 5; 92% of struts and walers have been installed. 95% of tiebacks and shotcrete have been installed.
 - Mechanical, Electrical, and Plumbing fit-out inside the VA steam tunnel is 99% complete.
- **Tunnels**
 - Cross passage work in the tunnels continues.

Equity

- 1 of 2 stations (50%) are within or adjacent to Equity Focus Communities.





Westwood/UCLA Station:
Placing Shotcrete for Row 4 Soil Nails at East Headwall





Westwood/VA Hospital Station:
Excavation in Station Box



North Hollywood to Pasadena BRT

BUDGET	Approved Budget to Date*			Previous Period	Current Forecast
	Project	N/A		\$263M-386M	\$308-515M
	Variance from Approved LOP:			N/A	N/A 
	Variance from Revised Budget:				N/A 

* Project will work within the annual budget constraints until Life of project (LOP) is established. The goal is to use CM/GC process to reduce forecasted project costs.

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast**
	N/A	N/A	Summer 2027	Summer 2027
	Variance from Original:		N/A	N/A 
Variance from Revised Schedule:			N/A 	

** Current Forecast is Metro's Internal Schedule, Baseline schedule is not yet approved at time of update.



North Hollywood to Pasadena BRT

Safety

- Project Construction Hours: 0; Recordable Injury Rate: N/A vs. National Average: 2.4.

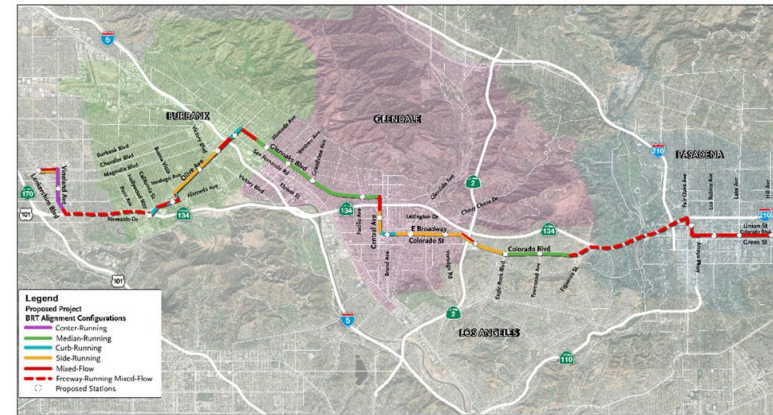
Updates

Design is 25% complete.

- Environmental Impact Report (EIR) Approved April 2022
- Program Management Support Service (PMSS) awarded in March 2024
- Architect & Engineering (A&E) contract awarded in May 2024
- Construction Manager/General Contractor (CM/GC) Proposals received in April and are being evaluated

Equity

- 60% of the project is within or adjacent to Equity Focus Communities





Project Map





View of Vineland Ave / Lankershim Blvd



105 Express Lanes

BUDGET	Approved Budget to Date			Previous Period	Current Forecast
	Pre-Construction	\$119 M		\$119 M	\$119 M
	Project	N/A		\$1B - \$1.44B	\$1B - \$1.44B
	Variance from Approved Pre-Construction Budget:			\$0M (0%)	\$0 M (0%) 
	Variance from Approved LOP:			N/A	N/A 
	Variance from Revised Budget:				\$0M

The Revised Forecast is derived from the ongoing Project estimate, which is in progress following the recent finalization of OPCC for Segment 1 and a more precise estimate for Segments 2 & 3 by CMGC.

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast
	N/A	N/A	Spring 2028*	Spring 2028* 
	Variance from Original:		+0d (0%)	+0d (0%) 
	Variance from Revised Schedule:		N/A	N/A

*Note: Spring of 2028 operation is for Segment 1. Segment 2/3 currently is forecasting Spring of 2029



105 Express Lanes

Safety

- Project Construction Hours: 0; Recordable Injury Rate: N/A vs. The National Average: 2.4.

Updates

Design is 80% complete.

Segment 1

- 100% Opinion of Probable Construction Cost (OPCC) was submitted. Agreed-to-Price achieved in December 2023
- Sub-contractor bid packages are released. Final pricing and Segment 1 LOP is expected to go to the Board in October 2024
- Equity Assessment is in progress; seven roundtable meetings held to date with Community Based Organizations
- Receipt of State's funding allocation of \$150M from California Transportation Commission (CTC) in May 2024

Segment 2 and 3

- 95% design is in progress and 100% design will be complete by late summer 2025
- 65% OPCC has been submitted and is under evaluation
- Value engineering is underway to reduce cost. Proposed value engineering elements is under review by Caltrans
- Segment 3 design is coordinating with Southeast Gateway Line project

Roadside Toll Collection System (RTCS)

- Started Milestone A-3: Requirements Traceability Matrix Approval
- Completion of initial drafts Roadside System Detailed Design Documents
- Continued progress on RTCS Infrastructure Design Document

Equity

- 92% of the project is within or adjacent to Equity Focus Communities.



Traffic on 105 Freeway Eastbound





The Project Map





July 2024 Construction Committee

East San Fernando Valley Transit Corridor

BUDGET	Approved Budget to Date*			Previous Period	Current Forecast
	Pre-Construction	\$496.9M		\$496.9M	\$496.9M
	Project	N/A		\$3.57B	\$3.57B
	Variance from Approved Pre-Construction Budget:			\$0M (0%)	\$0M (0%) 
	Variance from Approved LOP:			N/A	N/A
	Variance from Revised Budget:				\$0M 

*The Board has only approved a Pre-Construction Budget to date.

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast**
	N/A	N/A	September 2031	September 2031
	Variance from Original:		+0d (0%)	+0d (0%) 
Variance from Revised Schedule:			N/A 	

**Current schedule forecast reflects Metro's Internal Schedule. The actual Baseline schedule will be negotiated with Progressive Design Builder as part of the Phase 2 Supplement.



