



Board Report

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Agenda Number: 32.

**CONSTRUCTION COMMITTEE
OCTOBER 21, 2021**

SUBJECT: PROGRAM MANAGEMENT MAJOR PROJECT STATUS REPORT

ACTION: ORAL REPORT

RECOMMENDATION

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

DISCUSSION

Update report covering the month of October 2021 by the Chief Program Management Officer.

Prepared by:

- **Crenshaw/LAX** - Sameh Ghaly, Sr EO Project Mgmt., (213) 418-3369
- **Regional Connector** - Sameh Ghaly, Sr EO Project Mgmt., (213) 418-3369
- **Westside Purple Line Ext 1** - James Cohen, EO Project Mgmt., (213) 922-7911
- **Westside Purple Line Ext 2** - Michael McKenna, EO Project Mgmt., (213) 312-3132
- **Westside Purple Line Ext 3** - Kimberly Ong, EO Project Mgmt., (323) 903-4112
- **Airport Metro connector (AMC)** - Timothy Lindholm, Sr. EO Project Engr., (213) 922-7297
- **Division 20 Portal Widening Turnback** - Rick Meade, Sr EO Project Mgmt., (562)524-0517
- **G Line BRT Improvements Project** - Timothy Lindholm, Sr. EO Project Engr., (213) 922-7297
- **I-5 North County Enhancements** - Timothy Lindholm, Sr. EO Project Engr., (213) 922-7297
- **I-5 North** - Abdollah Ansari, Sr EO Construction & Engr., (213) 922-4781
- **I-5 South** - Abdollah Ansari, Sr EO Construction & Engr., (213) 922-4781
- **Presentation** - Yohana Jonathan, Mgr, Project Control, (213) 418-3031



Stephanie N. Wiggins
Chief Executive Officer

Program Management Major Project Status Report

Presented By

Bryan Pennington

Chief Program Management Officer

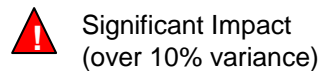
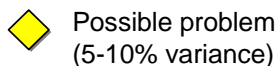
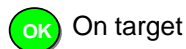
PROJECT BUDGET & SCHEDULE STATUS SUMMARY CHART

Project	Cost Performance		Schedule Performance		Comments
	Variance Approved LOP	Variance Revised Budget	Variance Original	Variance Revised Schedule	
Crenshaw/LAX					Project is 99.24% complete. Contractor is not applying sufficient work force to complete their remaining work. Remaining work is primarily underground station finishing, facility equipment and communications system testing. Metro continues to work with contractor to mitigate the delays and impacts to the project schedule; emphasizing safety and reliability in final acceptance of project elements and systems. Equity - 8 of 8 stations (100%) are within or adjacent to Equity Focus Communities.
Regional Connector					Project is 85% complete. Comprehensive planning for testing underway for 7th/Metro Center interfaces; Site work and restoration throughout alignment continues; and MEP and systems work continues in stations and guideway. Equity - 3 of 3 stations (100%) are within or adjacent to Equity Focus Communities.
Westside Purple Line Extension-Section 1					Project is 72% complete. The Project team continues to evaluate and monitor post-TBM tunnel activities. The current schedule update is being adjusted to reflect the current construction approach. The Project's forecast Revenue Service Date is Fall 2024. Equity - This Project is not located within or adjacent to Equity Focus Communities.
Westside Purple Line Extension-Section 2					Project is 46% complete and proceeding on schedule and within budget. Equity - This project is not located within or adjacent to Equity Focus Communities.
Westside Purple Line Extension-Section 3					Project is 28% complete and proceeding on schedule and within budget. Equity - 1 of 2 stations (50%) are within or adjacent to Equity Focus Communities.
Airport Metro Connector					Early Works Phase is 26% complete. Site work continuing with demolition and grading work with utility work initiated in the Southwestern Yard. Primary station contract process is nearing completion with NTP expected within a month. Equity - 100% of the project is within or adjacent to Equity Focus Communities.
Division 20 Portal Widening Turnback					Project is 27% complete. Construction continues with the excavation and grading for duct banks and vaults, Portal excavation, utility installation, the 1st Bridge, duct banks and manholes for the Traction Power Substation and commence the preparation for MicroLok. Contingency continues to trend downward, and currently working with contractor to finalize an updated schedule. Equity - 100% of the project is within or adjacent to Equity Focus Communities.
G Line BRT Improvements					Progressive Design Build Contract under internal review. Industry review anticipated Oct 2021. Contract award anticipated Summer 2022. Pilot Gate construction commenced Sept 2021. AURs and property acquisitions underway. Equity: 8 of 18 stations (45%) are within or adjacent to Equity Focus Communities
1-5 North County Enhancements					Construction NTP was issued in August 2021. Field work expected to begin in October 2021. Equity - This project is not located within or adjacent to Equity Focus Communities
I-5 North: SR 118 to SR 134					Segment 1, 2 and 4 are completed. Segment 3 (Empire Ave & Burbank) is 92% complete. Equity - I-5 North: 4 of 4 segments of the corridor project are within or adjacent to Metro's Equity Focus Communities. Only 1 segment of the project remains to be completed. Caltrans is the lead on the project.
I-5 South: Orange County Line to I-605					Segments 1, 3, 4, and the Carmenita Interchange are completed. Segment 2 (Valley View) is 83% complete. Segment 5 (Florence) is 94% complete and started the one-year plant establishment period in April 2021. Equity - I-5 South: 4 of 6 segments of the corridor project are within or adjacent to Metro's Equity Focus Communities. Only 2 segments of projects remain to be completed. Caltrans is the lead on the project.

October 2021

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro 2

CRENSHAW/LAX TRANSIT PROJECT

BUDGET	Approved	Previous	Current
TIFIA	LOP*	Period**	Forecast**
\$2,148M	\$2,058M	\$2,148M	\$2,148M
Variance from Approved LOP:		\$90M (4%)	\$90M (4%) OK
Variance from Revised Budget:			\$0 OK

*At time of the award of contract - Board Approval June 2013
 **Excludes finance costs and includes \$10M Non-TIFIA activities

SCHEDULE	Approved	(REVENUE OPERATION)	Current
Original	Rebaseline	Previous	Forecast*
Oct.2019	May 2020	Winter 2021	Winter 2021
Variance from Original:		+860d (27%)	+873d (28%) !
Variance from Revised Schedule:		+639d (26%)	+652d (27%) !

*Current Forecast is Contractor's July Schedule update

- Safety: Project Hours: 11,178,251 Recordable Injury Rate: 1.82 vs The National Average: 2.4 (as of July 31, 2021)
- Overall Project Progress is 99.24% complete.
- Contractor is not applying sufficient specialty work force to complete remaining work, testing/test reports on time.
- Remaining work is primarily underground station finishing, permanent remediations of OCS balance weight NCR issue, the completion of facility equipment, system local field testing, and system integration testing.
- Metro continues to work with contractor to minimize delays and impacts to the project; emphasizing safety and reliability in final acceptance of project elements and systems.
- Equity - 8 of 8 stations (100%) are within or adjacent to Equity Focus Communities.



Hindry Station – Mounting wind screen glass



MLK Stations – Installed and grounded bike storage lockers

October 2021

OK On target
 ◆ Possible problem (5-10% variance)
 ! Significant Impact (over 10% variance)



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
REGIONAL CONNECTOR TRANSIT PROJECT

BUDGET

FFGA	Approved LOP*	Previous Period**	Current Forecast**
\$1,402M	\$1,420M	\$1,755M	\$1,755M
Variance from Approved LOP:		\$335M (24%)	\$335M (24%) 
Variance from Revised Budget:		\$0	

*At time of the award of contract – Board Approval April 2014
 **Excludes finance costs

SCHEDULE

Original	Approved** Rebaseline	Previous Period	Current Forecast*
May 2021	Fall 2022	Fall 2022	Fall 2022
Variance from Original:		+480d (19%)	+480d (19%) 
Variance from Revised Schedule:		0d	

*Current Forecast is Contractor's March Schedule update
 **Approval in process

(REVENUE OPERATION)

- Safety: Project Hours: 6,416,290 Recordable Injury Rate: 0.72 vs The National Average: 2.4 (as of July 31, 2021)
- Overall Project Progress is 85% complete.
- **Little Tokyo/Arts District Station & Surrounding Area:** Alameda Cut and Cover guideway concrete, MSE wall modifications, street restorations, MEP, systems and finishes continue.
- **Historic Broadway Station:** Overbuild Load Transfer System structural concrete complete; vent structures along Spring and Broadway near completion; systems, station finishes and MEP advancing; backfill and street restoration continues.
- **Grand Av Arts/Bunker Hill Station:** Schedule -critical elevator installations behind schedule – mitigation efforts underway; backfill and street restoration continuing; station finishes, systems and MEP are grinding on all levels; pedestrian bridge near completion.
- **Flower Street:** Decking removals have been completed throughout; backfill and restorations continuing with focus now south of Wilshire; remedial work related to height clearances for overhead power completed clearing the way for downstream operations to catch-up; systems cut-over work at 7th/Metro progressing well with six of planned eight bus bridges completed.
- **Trackwork:** Preparations for last legs of trackwork on 1st and Alameda Streets continuing; crossover assembly on Alameda expected to soon commence. Grinding and profiling of rail expected to complete mid-fall.
- **Systems:** Installations of traction power, train control and communications continuing; entire alignment now on permanent power; comprehensive systems testing now underway.
- **Equity:** 3 of 3 stations (100%) are within or adjacent to Equity Focus Communities.



Dead pull test in Crossover Cavern



Train control testing at Flower T&C Room

October 2021



On target



Possible problem
(5-10% variance)



Significant Impact
(over 10% variance)





Metro 4

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WESTSIDE PURPLE LINE EXTENSION – SECTION 1



BUDGET

	Approved	Previous	Current
FFGA	LOP* **	Period**	Forecast**
\$2,822M	\$2,774M	\$3,129M	\$3,129M
Variance from Approved LOP:		\$355M (13%)	\$355M (13%) 
Variance from Revised Budget:		\$0	\$0 

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

**Excludes finance costs

SCHEDULE

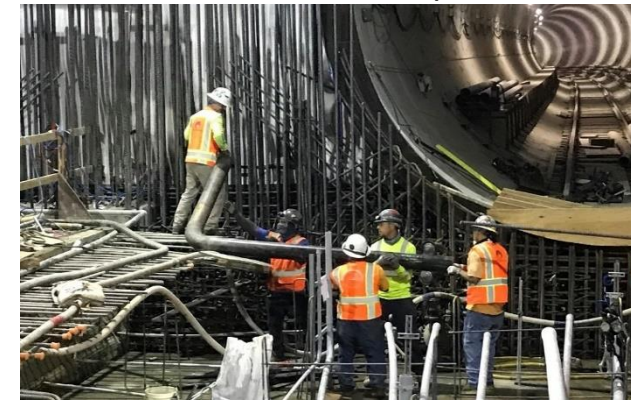
	Approved	Previous	Current
Original	Rebaseline	Period	Forecast*
Nov.2023	Fall 2024	Fall 2024	Fall 2024
Variance from Original:		+365d (11%)	+365d (11%) 
Variance from Revised Schedule:		0d	0d 

*Current Forecast is Contractor's August Schedule update

- Safety: Project Hours: 6,064,578 Recordable Injury Rate: 1.29 vs The National Average: 2.4 (as of July 31, 2021)
- Overall Project progress is 72% complete.
- **Wilshire/La Brea Station:** Permanent utility installation/backfill (above the roof) activities, west hammerhead and entrance structure work, interior MEP installation and appendage construction are ongoing.
- **Wilshire/Fairfax Station:** Structural concrete activities continue. Eleven out of 16 concrete roof blocks have been placed to date. East and west hammerhead structure work moves forward. Entrance plaza and appendage work are ongoing.
- **Wilshire/La Cienega Station:** All TBM gantries have been removed from the Station. East hammerhead, interior walls and appendage construction are progressing.
- **Reach 1 Tunnel:** Tunnel invert and walkway concrete activities continue. Track installation is scheduled to start in October 2021.
- **Reach 2 Tunnel:** One out of six cross passages (CPs) has been excavated (CP #20). Additional grouting on the other CPs is being performed prior to excavation.
- **Budget/Schedule:** An FTA/PMOC risk assessment has been performed. Results will be shared once findings are analyzed.
- **Equity:** This Project is not located within or adjacent to Equity Focus Communities.



Roof Falsework Installation at Wilshire/Fairfax Station



View of Wilshire/La Cienega Station South Infill Slab Area

WESTSIDE PURPLE LINE EXTENSION – SECTION 2

BUDGET	Approved	Previous	Current
<u>FFGA</u>	<u>LOP*</u>	<u>Period**</u>	<u>Forecast**</u>
\$2,499M	\$2,441M	\$2,441M	\$2,441M
Variance from Approved LOP:		\$0M (0%)	\$0M (0%) OK
Variance from Revised Budget:			\$0 OK

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

**Excludes finance costs

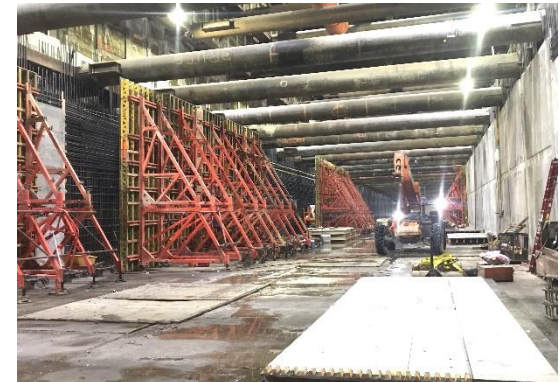
SCHEDULE		(REVENUE OPERATION)	
Approved	Previous	Current	
<u>Original</u>	<u>Rebaseline</u>	<u>Period</u>	<u>Forecast*</u>
Aug. 2025	N/A	Summer 2025	Summer 2025
Variance from Original:		+0d (0%)	+0d (0%) OK
Variance from Revised Schedule:			0d OK

*Current Forecast is Contractor's April Schedule update

- Safety: Project Hours: 2,233,078 Recordable Injury Rate: 3.31 vs The National Average: 2.4 (as of July 31, 2021)
- Overall Project progress is 46% complete as of period ending August 2021.
- **Century City Constellation Station**
 - Excavation of the station box was 23% complete as of Sept. 15, 2021.
- **Wilshire/Rodeo Station**
 - Installation of waterproofing membrane, rebar, and framework for first level walls is ongoing.
 - Concrete placement for the first level Wilshire/Rodeo Station walls has commenced and is 21% complete.
- **Tunneling**
 - Both tunnel boring machines (TBMs) “Ruth” and “Harriet” are operating within the City of Beverly Hills. Progress as of September 16, 2021, is as follows:
 - Ruth (eastbound subway tunnel) – 3,236ft (28%)
 - Harriet (westbound subway tunnel) – 3,237ft (28%)
- **Equity** - This project is not located within or adjacent to Equity Focus Communities



Constellation Station Box Excavation



First Level Walls at Wilshire/Rodeo Station

October 2021

OK On target

◆ Possible problem (5-10% variance)

▲ Significant Impact (over 10% variance)



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WESTSIDE PURPLE LINE EXTENSION – SECTION 3

BUDGET

<u>FFGA</u>	<u>Approved LOP*</u>	<u>Previous Period**</u>	<u>Current Forecast**</u>
\$3,599M	\$3,224M	\$3,224M	\$3,224M
Variance from Approved LOP:		\$0M (0%)	\$0M (0%) OK
Variance from Revised Budget:		\$0	\$0 OK

SCHEDULE

		(REVENUE OPERATION)	
<u>Original</u>	<u>Approved Rebaseline</u>	<u>Previous Period</u>	<u>Current Forecast*</u>
Mar. 2027	N/A	Spring 2027	Spring 2027
Variance from Original:		+0d (0%)	+0d (0%) OK
Variance from Revised Schedule:		0d	0d OK

*Current Forecast is Contractor's March Schedule update
**Approval in process

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

- Safety: Project Hours: 1,305,735 Recordable Injury Rate: 1.53 vs The National Average: 2.4 (as of July 31, 2021)
- Overall Project Progress is 28% complete.
- Final design progress is 89% complete.
- Tunneling
 - TBM Iris (BR) – Re-launched TBM in early August 2021 and has mined 874 feet to date.
 - TBM Aura (BL) – Full gantry assembly continues in the starter tunnel.
- Stations
 - Westwood/VA: Utility relocation continues, installation of dewatering wells in progress.
 - Westwood/UCLA: Utility relocation continues; Support of Excavation pile installation began on UCLA parking lot 36.
- Equity - 1 of 2 stations (50%) are within or adjacent to Equity Focus Communities.



Muck Removal System at Bottom of Tail Track Exit Shaft



Sewer Relocation for Westwood/UCLA Station

October 2021

OK On target

◆ Possible problem (5-10% variance)

▲ Significant Impact (over 10% variance)

AIRPORT METRO CONNECTOR (AMC) PROJECT

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

*Approved May 2021 Board

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

*Current Forecast is Metro's May Schedule update

- Early Works Phase construction (26% complete) continues with demolition and site grading work. Work has begun for utility work within Southwestern Yard.
- Primary Station Construction Contract nearing release of NTP - scheduled for Fall 2021.
- APM Station structural concrete completed. Structural Steel work in progress.
- Equity - 100% of the project is located within or adjacent to Equity Focus Communities.



Backfill Work at South End of Site



LAVA APM Steel Work in Progress



Utility Work on Arbor Vitae



On Site Grading and Backfilling Work



October 2021



On target



Possible problem (5-10% variance)



Significant Impact (over 10% variance)

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Metro 8

DIVISION 20 PORTAL WIDENING TURNBACK

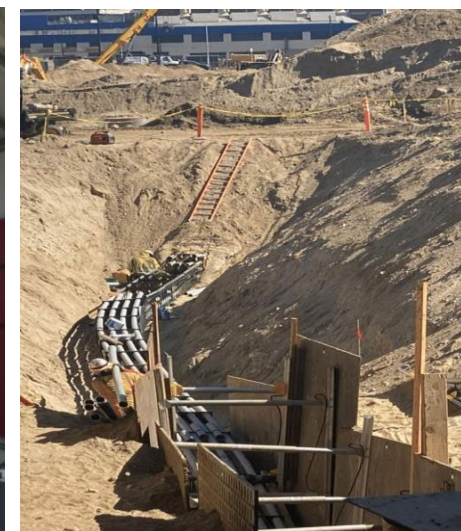
BUDGET	Approved LOP*	Previous Period	Current Forecast
TOTAL COST	\$801.7M	\$801.7M	\$801.7M
Variance from Approved LOP:		\$0M (0%)	\$TBD 
Variance from Revised Budget:			\$TBD 

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

SCHEDULE	Approved Rebaseline	(Substantial Completion) Previous Period	Current Forecast*
Original June 2024	N/A	June 2024	TBD
Variance from Original:		+0d (0%)	TBD 
Variance from Revised Schedule:			TBD 

*Current Forecast is Contractor's Schedule update

- Overall Project progress is 27% complete.
 - Includes Real Estate Acquisitions, Environmental, Design, Contract Mobilization, Early Demolition, Power, Utility contracts and contract change orders
- C1136 Portal Widening Turnback Contract**
 - PWT C1136 Contract progress is 34%.
 - Phase 1 Track, utilities, and civil work continues
 - 1st Street Bridge Rehabilitation and Portal excavation & prep for first MicroLok cutover ongoing
- Major Change Orders to Date:**
 - Hazardous Material Removal
 - 1st Street Bridge Rehabilitation
 - Completion of Utility Contracts
 - 3rd Party Unforeseen Interfaces
 - Design Revisions (*in progress*)
- C1184 Traction Power Substation Contract** at 58%
- Coordination with Adjacent Projects**
 - Purple Line Extension (PLE1)
 - Regional Connector; Metro Center Project
 - 6th Street Bridge (City of L.A. Project)
- Continued Regular risk assessments to determine budget/schedule**
- Equity - 100% of the project is located within or adjacent to Equity Focus Communities



October 2021



On target



Possible problem
(5-10% variance)



Significant Impact
(over 10% variance)



Metro 9

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G LINE BRT IMPROVEMENTS PROJECT

BUDGET	Approved LOP	Previous Period	Current Forecast
TOTAL COST	N/A	N/A	\$361M
Variance from Approved LOP:		\$0M (0%)	\$0M (0%)
Variance from Revised Budget:			\$0

**Project will work within the annual budget constraints until LOP is established*

OK
OK

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

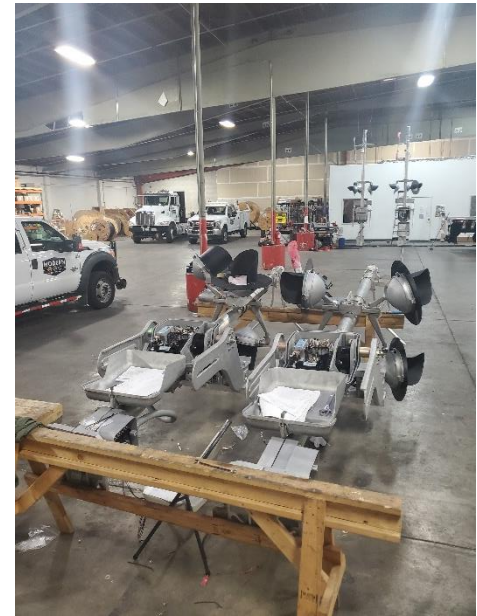
**Current Forecast is Metro's Internal Schedule, Baseline schedule not yet approved at time of update*

OK
OK

- Progressive Design Build Contract under internal review
- Industry Review anticipated for October 2021
- Pilot Gate construction commenced September 2021
- Owner-performed AURs underway at Sepulveda, Vesper and Sylmar
- Ongoing coordination with interfacing contracts:
 - ESFV Light Rail Project
 - District NoHo Joint Development Project
 - LADOT Chandler Bike Path
- Measure W Stormwater Capture scope added to project, grant funding secured
- Nine Property Acquisitions underway:
 - Two acquisitions in negotiation phase
 - Seven acquisitions in appraisal stage
- PDB Contract Award anticipated Summer 2022
- Equity: 8 of 17 stations (47%) are within or adjacent to Equity Focus Communities



Pilot Gate - DWP Service Pedestal Installation



Pilot Gate - Gate Assembly

October 2021

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I-5 Construction Projects (Administered by Metro)



October 2021



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I-5 NORTH COUNTY ENHANCEMENTS

BUDGET	Approved LOP*	Previous Period	Current Forecast
TOTAL COST	\$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	Approved Rebaseline	(Substantial Completion) Previous Period	Current Forecast*
Original Spring 2026	N/A	Spring 2026	Spring 2026
Variance from Original:		+0d (0%)	0d (0%) 
Variance from Revised Schedule:			N/A 

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

- Notice to Proceed was issued August 23, 2021. Contractor is mobilizing to begin field work in October 2021.
- Construction Community Meeting and Groundbreaking anticipated in the fall
- Equity - This project is not located within or adjacent to Equity Focus Communities



I-5 Construction Projects (By Caltrans)



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Metro 13

I-5 NORTH: SR 118 TO SR 134

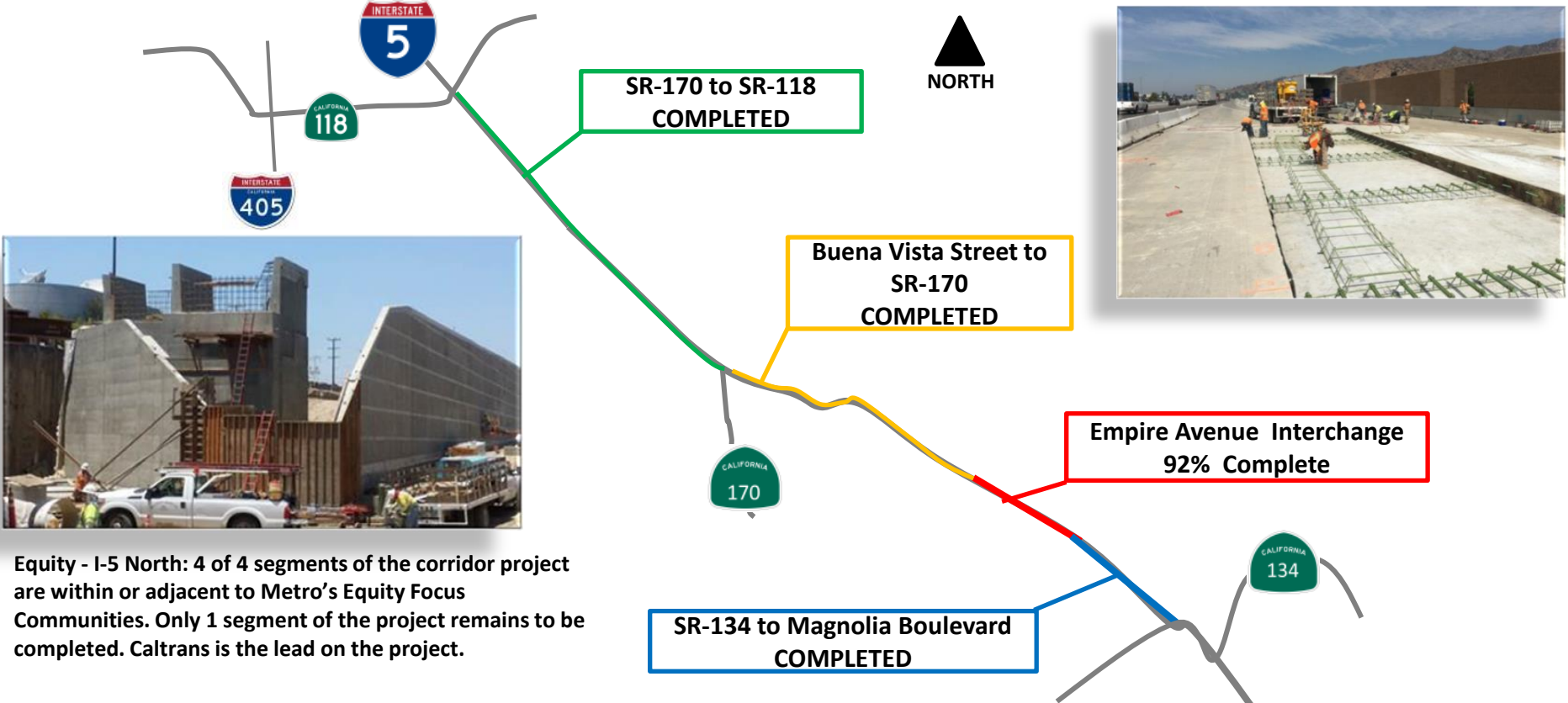


BUDGET	Approved LOP*	Previous Period	Current Forecast
TOTAL COST	\$845.1M	\$954.1M*	\$935.3M*
Variance from Approved LOP:		\$109M (13%)	\$90.2M (11%)
Variance from Revised Budget:		\$ 73.2M (8%)	\$ 54.4M (6%)

*At time of the award of contract – Board Approval (December 2012)

SCHEDULE	(Anticipated Project Completion)		
Original	Approved Rebaseline	Previous Period	Current Forecast*
Fall 2017	Summer 2022	Spring 2023	Spring 2023
Variance from Original:		+2034d (77%)	+2034d (77%)
Variance from Revised Schedule:		+266d (6%)	+266d (6%)

* Current Forecast is Contractor's July Schedule update



- Equity - I-5 North: 4 of 4 segments of the corridor project are within or adjacent to Metro's Equity Focus Communities. Only 1 segment of the project remains to be completed. Caltrans is the lead on the project.

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

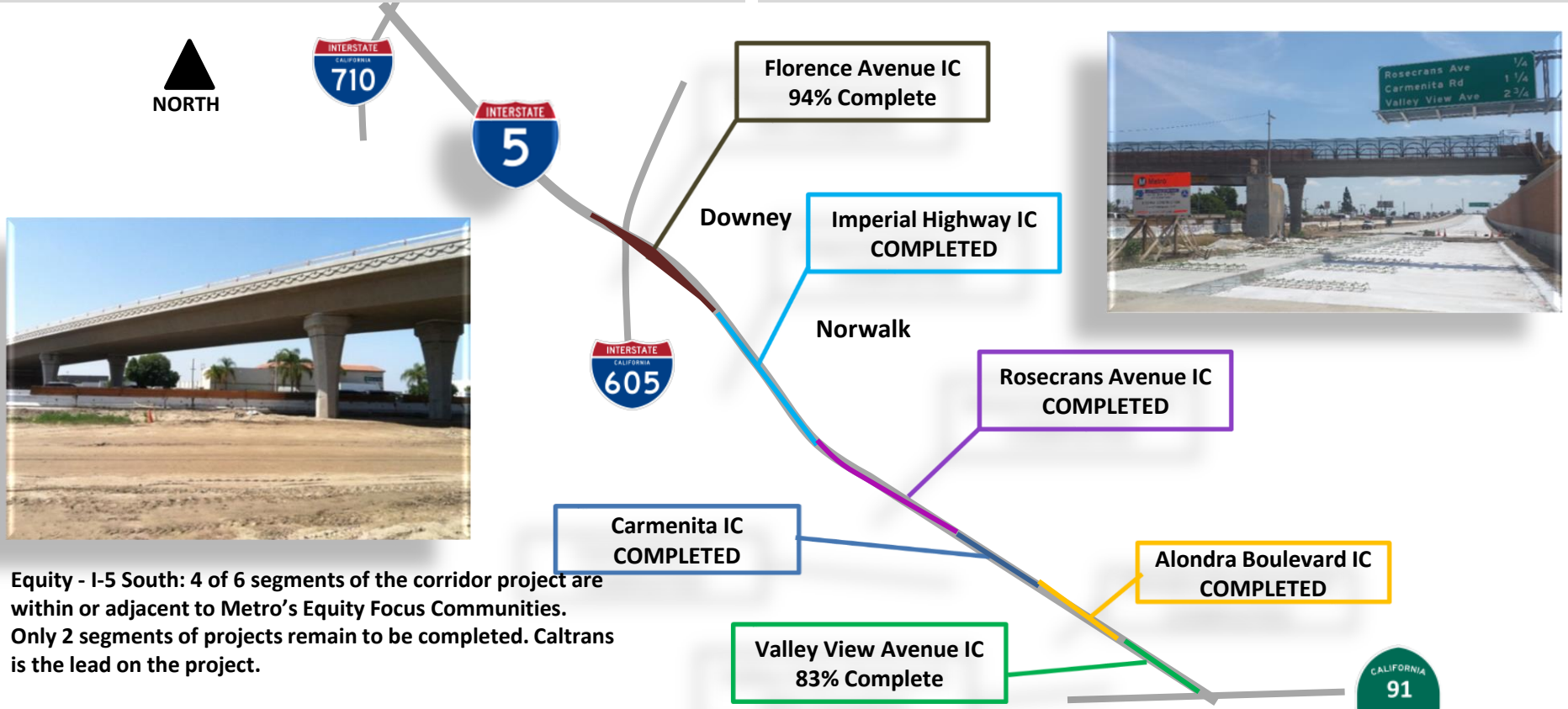


BUDGET	Approved LOP*	Previous Period	Current Forecast
TOTAL COST	\$1,844M	\$1,888M	\$1,888M*
Variance from Approved LOP*:		\$44M (2%)	\$44M (2%)
Variance from Revised Budget:		\$0	\$0

* At time of the award of contract – Board Approval (Jun 2013 & May 2009)

SCHEDULE	(Anticipated Project Completion)		
	Approved Rebaseline	Previous Period	Current Forecast*
Original	Spring 2022	Spring 2023	Spring 2023
Variance from Original:		+2324d (87%)	+2324d (87%)
Variance from Revised Schedule:		+372d (10%)	+372d(10%)

*Current Forecast is Contractor's July Schedule update



• Equity - I-5 South: 4 of 6 segments of the corridor project are within or adjacent to Metro's Equity Focus Communities. Only 2 segments of projects remain to be completed. Caltrans is the lead on the project.

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● On target
 ◆ Possible problem (5-10% variance)
 ▲ Significant Impact (over 10% variance)



* Risk Analysis, Aug 2021