



Board Report

File #: 2017-0044, **File Type:** Oral Report / Presentation

Agenda Number: 19.

**CONSTRUCTION COMMITTEE
FEBRUARY 16, 2017**

RECEIVE oral report by the Program Management Chief Officer.

DISCUSSION

oral report by the Program Management Chief Officer.

ATTACHMENTS

Attachment A - Program Management Chief Officer's Report - February 2017

Prepared by:

- **Crenshaw/LAX** - Charles Beauvoir, Deputy Executive Officer, Project Mgmt., (213)299-3095
- **Regional Connector** - Gary Baker, Deputy Executive Officer, Project Mgmt., (213)893-7191
- **Westside Purple Line Ext 1 and 2-** Dennis Mori, EO Project Mgmt., (213)922-7238
- **Patsaouras Plaza Busway Station** - Timothy Lindholm, EO Project Engr., (213)922-7297
- **Presentation** - Yohana Jonathan, Departmental System Analyst, (213)922-7592

Reviewed by:

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

Program Management Chief Officer's Report











Project Status Report

Presented By

Richard Clarke

Chief Program Management Officer

PROJECT BUDGET & SCHEDULE STATUS SUMMARY CHART

Project	Cost Performance	Schedule Performance	Comments
Crenshaw/LAX			Design-builder is on schedule but there is no critical path schedule contingency. The remaining cost contingency is approaching the 3% Project Reserve level.
Regional Connector			Board approved LOP increase. Schedule re-baselined.
Westside Purple Line Extension-Section 1			Overall construction progress is 15.0% complete versus 8.8% planned.
Westside Purple Line Extension-Section 2			CMSS awarded on December 2, 2016. FFGA executed by FTA on December 15, 2016, and TIFIA loan obtained on December 20, 2016.
Patsaouras Plaza			Demolition activities has started. Utility relocation and foundation work started in January 2017 with major construction work in February 2017. Schedule negotiations in progress to determine revised substantial completion date.

February 2017



On target



Possible problem



Major issue



Metro

Construction Committee

Los Angeles County Metropolitan Transportation Authority

CRENSHAW/LAX TRANSIT PROJECT

◆ BUDGET

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

◆ SCHEDULE

	Current	Forecast
REVENUE OPERATION	Oct 2019	Oct 2019

- Overall project progress is 60% complete.
- The northbound TBM holed through at MLK Jr Station and is setting up for mining to Leimert Park Station.
- All six underground structures on schedule.
- Street widening continues in Park Mesa Heights area.
- Five of six bridges are structurally substantially complete and on schedule.
- Southwestern Yard design-builder continues site excavation, underground utilities, and main shop foundation concrete.



Underground guideway No. 1 open cut at struted u-wall



Initiating southbound tunnel concrete invert work

February 2017



On target



Possible problem



Major issue

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REGIONAL CONNECTOR TRANSIT CORRIDOR

OK BUDGET

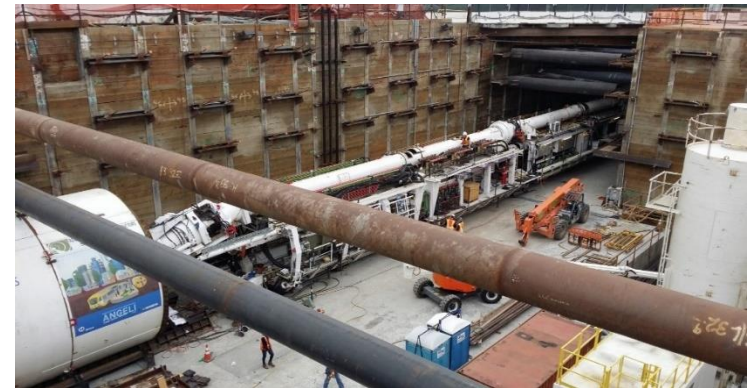
	Current	Forecast
TOTAL COST	\$1,805M	\$1,805M

* Includes Board approved LOP plus Planning and Finance costs.

- Overall Project Progress is 30.4%, Construction is 26.0% and Final Design is 96.0% complete.
- TBM assembly is underway in preparation for commencing tunnel mining operations.
- Pile installation, decking and utility hanging continue under 2nd/Broadway Phase 2 Mid-Block Closure.
- Installation of tie-backs, struts and walers continue at 2nd/Hope Support of Excavation (SOE).
- Deck beam and panel installation continues at 4th/Flower on weekends; excavation, utility hanging, water line and power relocation continues along Flower Street.
- Adit construction at the Flower Street Tie-back Removal Shaft is complete. Backfilling has begun to restore site and roadway to steady state.

OK SCHEDULE

	Current 2021	Forecast 2021
REVENUE		
OPERATION		



TBM assembly underway (1st/Central Station)



Piling on 2nd Street (2nd/Broadway Station)

February 2017



On target



Possible problem



Major issue



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WESTSIDE PURPLE LINE EXTENSION – SECTION 1

BUDGET

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

* Includes Board approved LOP plus Planning and Finance costs.

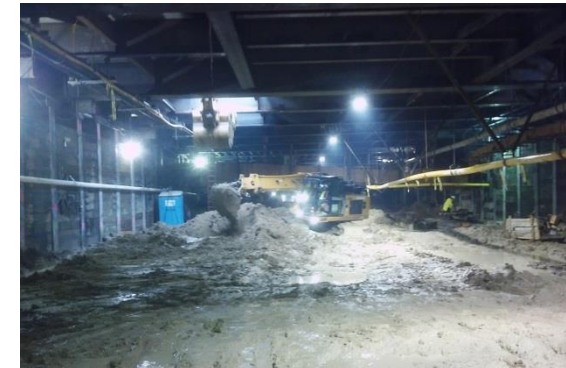
SCHEDULE

	Current	Forecast
REVENUE OPERATION	Oct 2024 FFGA	Nov 2023

Overall Project Progress is 15.0 % complete vs. 8.8% planned

Tunnels, Stations, Trackwork and Systems Design-Build Contract

- Excavation for the Wilshire/La Brea Station that started on October 12, 2016 continues beneath the concrete deck.
- The Wilshire/Fairfax Station pile installation operation that started on August 18, 2016, is scheduled to complete in February 2017. Station decking is currently planned to start on the February 11, 2017 weekend.
- Potholing for noise barrier installation at the Wilshire/La Cienega Station staging area has started.
- The jet grouting operation along Wilshire Boulevard at the cross passages continues. This work along the tunnel section from Wilshire/La Brea to Wilshire/Western is scheduled to continue through July 2017.
- Tunnel Boring Machines (TBMs) are being fabricated for delivery at the end of 2017. Tunneling is planned to start in 2018.



La Brea Station excavation under the deck panels



Drilling Piles near Wilshire and Fairfax

February 2017



On target



Possible problem



Major issue

Construction Committee

Los Angeles County Metropolitan Transportation Authority

WESTSIDE PURPLE LINE EXTENSION – SECTION 2

OK BUDGET

	Current	Forecast
TOTAL COST	\$2,499M	\$2,499M

OK SCHEDULE


	Current	Forecast
REVENUE OPERATION	Dec 2026	Aug 2025


- Full Funding Grant Agreement (FFGA) was executed by the FTA on December 15, 2016.
- In January, Metro awarded a 102-month firm fixed price contract under Request for Proposal (RFP) No. C1120 to Tutor Perini/O & G, a Joint Venture (TPOG), the responsive and responsible Proposer determined to provide Metro with the best value for the final design and construction of the Project for a firm fixed price of \$1,376,500,000.00.
- NTP for the C1120 Design/Build Contract is anticipated by April 2017.
- The Board also Establish a Life-of-Project Budget (LOP) Budget of \$2,440,969,299 for the Project (excludes finance costs).
- Advanced utility relocations forecasted to start in March at Wilshire/Rodeo Station.



Telecom joint trench construction at Constellation Boulevard

PATSAOURAS PLAZA BUSWAY STATION

 BUDGET	Current	Forecast
TOTAL COST	\$39.7M	\$39.7M

 SCHEDULE	Current	Forecast
SUBSTANTIAL COMPLETION	Dec 2017	TBD

- Vignes On/Off ramp closed Jan 3, 2017 to allow for utility relocation and foundation work to start.
- Bridge overhead demolition is ongoing, to be completed by the end of January 2017.
- Ramirez St and Center St closures have been submitted to DOT, expect approval within the next two (2) weeks.
- Drilling subcontractor to mobilize in January 2017, and have ongoing work through March 2017.
- ADL remediation ongoing, although progress slowed by wet weather
- Schedule negotiations in progress to determine revised substantial completion date



Vignes Closure



Edge of Deck Removal



Utility Relocation



Industrial Waste Tanks

February 2017



On target



Possible problem



Major issue

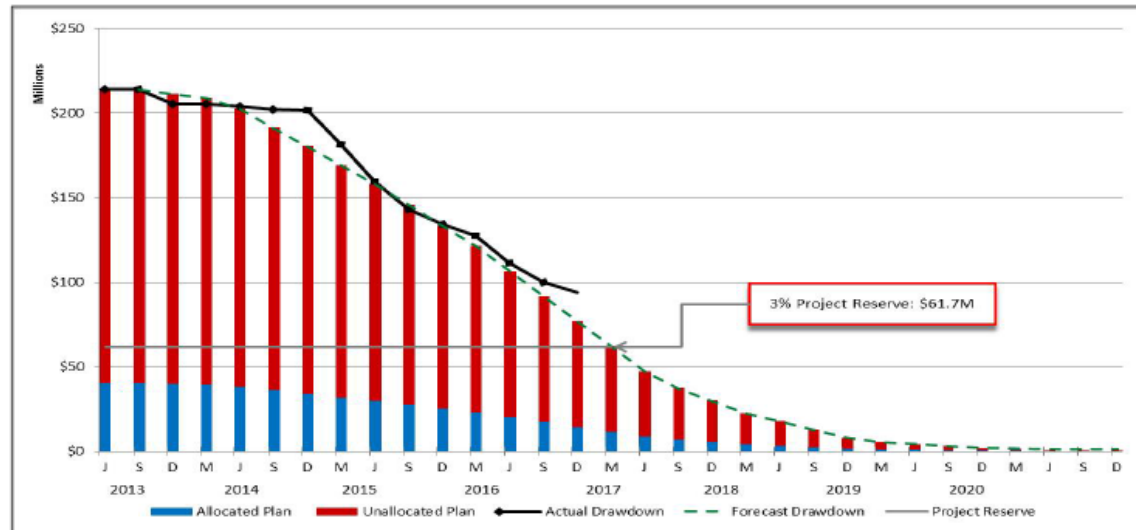


Metro

CONSTRUCTION CONTRACT CHANGES

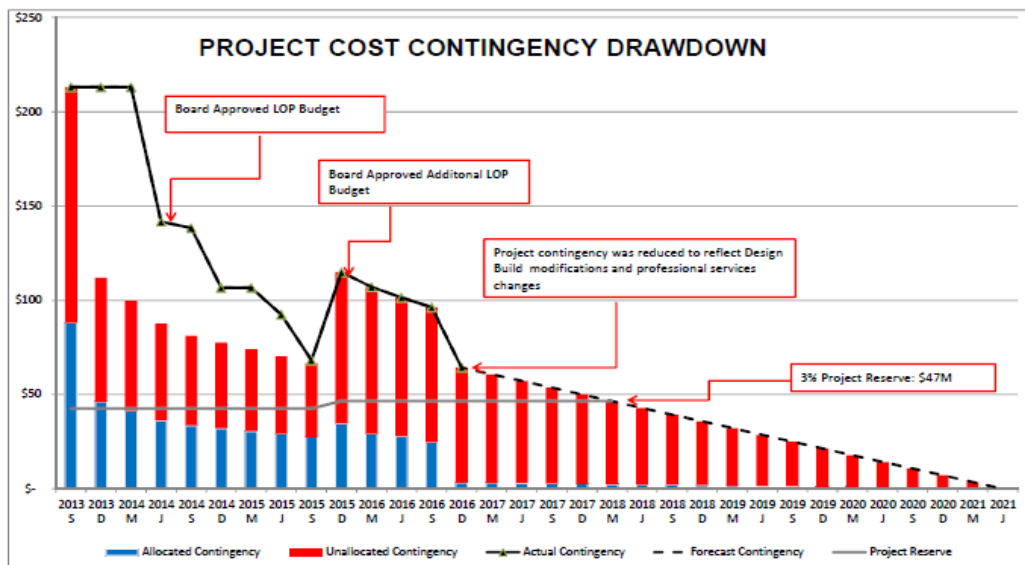
Change Notice #	Description	Number of Mod/ Change Orders	Cost Value
TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS AND APPROVED CHANGE ORDERS:		235	\$31,450,752
TOTAL PENDING MODIFICATIONS AND CHANGE ORDERS ROUGH ORDER OF MAGNITUDE COST:		31	\$2,411,873
CONTRACT C0988			
MOD 201	Design Deluge System at Expo Crossover		Less than \$1 million
MOD 202.1	Turnback and Speed Restrictions		Less than \$1 million
MOD 219.1	Qwest Potholing-Sta214+00 to STA 257		Less than \$1 million
MOD 222	Non-Compliance DBE Req. Assesm Agrmt		Less than \$1 million
MOD 224	Pedestrian Lights Slauson Station		Less than \$1 million
MOD 225	Contaminated Soil Testing & Remvl		Less than \$1 million
MOD 226	Maint. ROW Adj. Properties La Colina		Less than \$1 million
MOD 229	Century & Aviation Unknown 8" Utilit		Less than \$1 million
MOD 230	CCTV Camera at 48th		Less than \$1 million
MOD 231	Design 65-ft Mast Arm Foundation		Less than \$1 million
MOD 233	LADOT Requested Comment Matrix		Less than \$1 million
MOD 227	Station Signage Revision (ADA)		Less than \$1 million
MOD 228	Relocate LAWA Water Serv 111th-Const		Less than \$1 million
MOD232	Vernon Station Contaminated Soil		Less than \$1 million
CO 084.2	Crenshaw Landscaped Median Rendering		Less than \$1 million
CO 125	Florence/West Park-and-Ride Parking		Less than \$1 million
CO 129	Elimination Crossover Sta 66+57.50		Less than \$1 million
CN 229	Unsuitable Soils for Subgrade RW192		Less than \$1 million
CN 231	Trash Removal at MSE Wall 111		Less than \$1 million
CN 238	Centinela Crossing Tree Preser-Const		Less than \$1 million
CN 239	Centinela Crossings/Eucalyptus-Const		Less than \$1 million
CN 241	Update Station Customer Signage Cons		Less than \$1 million
CN 278	Additional Curb Ramps at Westmount		Less than \$1 million
CN 289	Underground Stations- Platform Gates		Less than \$1 million
CN 293	Asbestos Cement Pipe Aviation & 111		Less than \$1 million
CN 322	Metro Specification Rev Rail Welding		Less than \$1 million
CN 325	Clarify Rail Welding Inspection Req.		Less than \$1 million
CN 328	Segment C Design Revisions per LADOT		Less than \$1 million
CN 328	Black Diamond Vault 5438 Crenshaw Bl		Less than \$1 million
CN 183.1	TPSS #10 Build-Out & LADWP Power		Less than \$1 million
CN 244	LADOT Fiber Optic Cable Betterment		Less than \$1 million
TOTAL MODIFICATIONS AND CHANGE ORDERS:		266	\$33,862,625

PROJECT COST CONTINGENCY DRAWDOWN



CONSTRUCTION CONTRACT CHANGES

Change Notice #	Description	Number of Mod/Change Orders	Cost Value
TOTAL VALUE OF ALL EXECUTED CONTRACT MODIFICATIONS AND CHANGE ORDERS:		80	\$ 125,291,665
TOTAL PENDING MODIFICATIONS ROUGH ORDER OF MAGNITUDE COST:		34	\$ 27,000,000
	1st/Alameda Bumpout (Construction)		Less Than \$1 Million
	Flower Street Modification: future 2-way Traffic /Bumpout/Ped Lighting (Construction Only)		Between \$1 and \$5 Million
	Revise Metro Rail Station Signage and Incorporate Metro Underground Station Signage (Construction)		Less Than \$1 Million
	Add Wye Junction Fan Plant - Construction		Between \$10 and \$15 Million
	Fully Coupled Dynamic Analysis for SEM Cavern		Less Than \$1 Million
50.00	Revisions to TPIS Requirements -Construction		Less Than \$1 Million
66.00	Commonwealth Agreement Provisions		Less Than \$1 Million
68.00	Flower Street Zanja Additional Potholing		Less Than \$1 Million
71.00	Revised Emergency Walkways at Curves (30' to 35')		Less Than \$1 Million
72.00	Relocate Zayo Ductbank at 2nd/Broadway		Less Than \$1 Million
78.00	ATT Ductbank Relocation @ Hewitt		Less Than \$1 Million
79.00	Deputy Grading Inspector 2nd/Broadway Station SOE		Less Than \$1 Million
86.00	Flower Maintenance of Traffic (MOT) West Piles		Less Than \$1 Million
	Flower Street Delete Crossover/Revised Emergency Exiting - Construction (Potential Credit)		Less Than \$1 Million
87.00	Support Veolia 24" Chilled Water Pipes at 2nd/Hope Station		Less Than \$1 Million
99.00	Option 3 Pedestrian Bridge Revisions / Broad Coordination (Construction)		Between \$1 and \$5 Million
91.10	Option 3 Pedestrian Bridge Revisions / Broad Coordination (Design)		Less Than \$1 Million
	Spray-on Acoustical Finishes Additional Quantities		Between \$1 and \$5 Million
101.00	Add Perforated Metal Dropped Ceiling at 2nd/Hope Station Plaza		Less Than \$1 Million
103.00	1st/Central Station HMI Units for Escalator Controllers		Less Than \$1 Million
104.00	Add One Add 1 VHF Radio Operational Channel - Design Only		Less Than \$1 Million
	Add One Add 1 VHF Radio Operational Channel - Construction		Less Than \$1 Million
105.00	Revise Flower SOE to Construct TBM Retrieval Pit (Construction)		Between \$1 and \$5 Million
108.00	Revisions to Metro Optical Network Switch		Less Than \$1 Million
108.00	Revision to Wye Junction Fan Plant Design		Less Than \$1 Million
109.00	Testing & Repair of insulation Joints (Waterline)		Less Than \$1 Million
110.10	Increase Schedule C. Line Item No.3 - Third Party		Less Than \$1 Million
	Revise Communication Radio System SOW (Construction)		Less Than \$1 Million
	DSC -Pea gravel in waterline trench		Less Than \$1 Million
	DSC - Miscellaneous buried object in tie-back removal		Less Than \$1 Million
	Infrastructure for Insite Wireless in Tunnels		Less Than \$1 Million
	10 inch sewer bypass 1st/Alameda		Less Than \$1 Million
	2nd St. Mid Block T.C. Revisions/Relocate Traffic Controller @ 2nd/Spring		Less Than \$1 Million
	Broadway Power Utility Vault Steel Bases (Cradles)		Less Than \$1 Million
TOTAL MODIFICATIONS/CHANGE ORDERS		114	\$ 152,291,665



CONSTRUCTION CONTRACT CHANGES

Change Notice #	Description	Number of Mod/Change Orders	Cost Value
TOTAL VALUE OF ALL EXECUTED CONTRACT MODIFICATIONS AND CHANGE ORDERS:		125	\$ 8,109,616
TOTAL PENDING MODIFICATIONS ROUGH ORDER OF MAGNITUDE COST:		19	\$ 10,389,967
CONTRACT C1045		12	
CN-25	Metro Furnished Equipment Tpis		Less Than \$1 Million
CN-26	Betterment: Median Reconstruction At San Vicente Blvd		Less Than \$1 Million
CN-31.1	Station Canopy Changes		Less Than \$1 Million
CN-32	Pin Station (Identifier) Changes		Less Than \$1 Million
CN-37.1	Rev Metro Furnished Fujitsu 9500 Equipment To Be Furnished By Contractor		Less Than \$1 Million
CN-39	Revisions To Metro Station Signage Standards		Less Than \$1 Million
CN-42.2	Radio System Redundancy		Less Than \$1 Million
CN-43	Isolate Track Circuits At Western		Less Than \$1 Million
CN-44.1	Wilshire/Western Construction Staging Area Soundwall Permit Fees		Less Than \$1 Million
CN-48.1	Bike Enclosure Electrical Power & Communication Additions		Less Than \$1 Million
CN-53	Additional Material Testing - Deck Panels		Less Than \$1 Million
CN-54	Additional Geotech Monitoring At Fairfax (Support Of Deviation Request)		Less Than \$1 Million
CONTRACT C1078		7	
CN-4	Inspection Pit Track Location		Less Than \$1 Million
CN-5	Additional Track Design		Less Than \$1 Million
CN-7.1	Additional Vertical Lifting Modules		Less Than \$1 Million
CN-8	Relocation Of 8-inch Sanitary Sewer		Less Than \$1 Million
CN-9	Relocation Of 21-inch Storm Drain		Less Than \$1 Million
CN-10	Construction Impacts For Building 61s		Between \$5 to \$10 Million
CN-11	Schedule Impacts Due To Third Party		Less Than \$1 Million
TOTAL MODIFICATIONS/CHANGE ORDERS:		144	\$ 18,499,583

PROJECT COST CONTINGENCY DRAWDOWN

