Program Management Major Project Status Report

Presented By

Richard Clarke

Chief Program Management Officer

September 2017

Construction Committee Los Angeles County Metropolitan Transportation Authority



PROJECT BUDGET & SCHEDULE STATUS SUMMARY CHART

Project	Cost Performance	Schedule Performance	Comments
Crenshaw/LAX	\diamond	\diamond	The remaining cost contingency is below 2% of total project budget (\$38 million in contingency remains). Contractor is 11 days behind schedule and is required to mitigate schedule to maintain planned revenue service in October 2019.
Regional Connector	OK	<u>()</u>	Project is proceeding consistent with schedule forecast and revised LOP budget as approved by the Board in January 2017.
Westside Purple Line Extension-Section 1	ОК	OK	Project is 22% complete, no significant issues.
Westside Purple Line Extension-Section 2	ОК	OK	Notice to Proceed for the Design/Build Contract C1120 was issued on April 26, 2017.
Westside Purple Line Extension-Section 3	<u>(</u>	<u>()</u>	Entry into the Engineering Phase was requested of the FTA in April 2017.
Patsaouras Plaza	<u>ok</u>	\diamond	Schedule negotiations in progress regarding revised substantial completion date of November 2018.
Willowbrook/Rosa Parks Station	<u>ok</u>	OK	Design activities progressed to 100% complete and in final reviews.

September 2017

On target 🔶

Possible problem Ma

Major issue



Construction Committee

TRANSIT MASTER SCHEDULE (Page 1 of 2)

ty Name	PMIS Project Manager	Start	Finish	Original Budget	FY2017 FY2018 2017 2018	FY2019 FY2020 2019 2020		Y2022 FY202 2022 2023		FY2025 FY20 2025 202			FY2029 2029	FY2
ransit Projects		1-Mar-2007 A	22-Jan-2048	\$33,614,403,650.00	2010	2010 2020	LULI	LULL	LULY	2020 202	0 2027	2020	2020	
Environmental		1-Mar-2007 A	22-Jan-2048	\$18,554,000,000.00										
North San Fernando Valley BRT Improvements	Cencic	4-Jan-2017 A	23-Feb-2024	\$180,000,000.00				2	P					
North Hollywood to Pasadena BRT	Richmai	30-Jan-2015 A	7-Jun-2023	\$267,000,000.00										
Orange Line Grade Separations	Patel	23-May-2016 A	10-Jan-2024	\$286,000,000.00										
East San Fernando Valley Transit Corridor	Davis	11-Oct-2010 A	5-Nov-2027	\$1,331,000,000.00										
Vermont BRT Corridor	Cencic	30-Jan-2015 A	24-Apr-2028	\$425,000,000.00										
Crenshaw Northern Extension	Moosavi	29-Sep-2017	22-Jan-2048	\$2,240,000,000.00										-++
West Santa Ana Transit Corridor	Pan	1-Oct-2009 A	29-Aug-2028	\$4,000,000,000.00										
Sepulveda Pass Phase 1 - Express Lanes	Wong	31-Jul-2017	12-Aug-2027	\$260,000,000.00	_				_					
South Bay Green Line Ext. Crenshaw Blvd in Torr	Khanna	23-Mar-2017 A	29-Jan-2032	\$891,000,000.00										_
Sepulveda Pass Phase 2 & 3 - Transit Corridor	Zelmer	26-Apr-2017 A	17-Jul-2035	\$5,674,000,000.00										_
Eastside Transit Corridor Phase 2 (1 Align)	Liu	1-Mar-2007 A	6-Apr-2035	\$3,000,000,000.00										_
Design		4-Oct-2010 A	28-Apr-2027	\$5,508,270,758.00					-					
Airport Metro Connector	Zelmer	4-Oct-2010 A	3-Jul-2023	\$623,400,000.00										
Purple Line Extension Section 3	McKenna	29-Feb-2016 A	3-Sep-2026	\$3,478,000,000.00		_								
Gold Line Foothill Extension Phase 2B	Meade	2-Oct-2013 A	28-Apr-2027	\$1,406,870,758.00										
Construction Contract		1-Jun-2007 A	31-Dec-2026	\$9,552,132,892.00										
Crenshaw/LAX Transit Corridor	Beauvoir	1-Jul-2009 A	30-Oct-2019	\$2,058,000,000.00										
Regional Connector Transit Corridor	Baker	26-Jan-2009 A	24-Feb-2023	\$1,810,132,892.00			_							
Purple Line Extension Section 1	Cohen	1-Jun-2007 A	31-Oct-2024	\$3,154,300,000.00										
Purple Line Extension Section 2	McKenna	2-Mar-2015 A	31-Dec-2026	\$2,529,700,000.00										
ransit Facilities		17-Dec-2013 A	10-Apr-2024	\$690,246,000.00										
Design		17-Dec-2013 A	10-Apr-2024	\$690,246,000.00										
Willowbrooks/Rosa Parks Station Improvement	Lindholm	7-May-2015 A	3-Jun-2021	\$102,546,000.00										
Planning / Env	vironmental	ROW / Utility Re	elocation	DB Construction	stem Testing	[] N	ot Funded (Er	nv/ROW/Test)			3			_

TRANSIT MASTER SCHEDULE (Page 2 of 2)

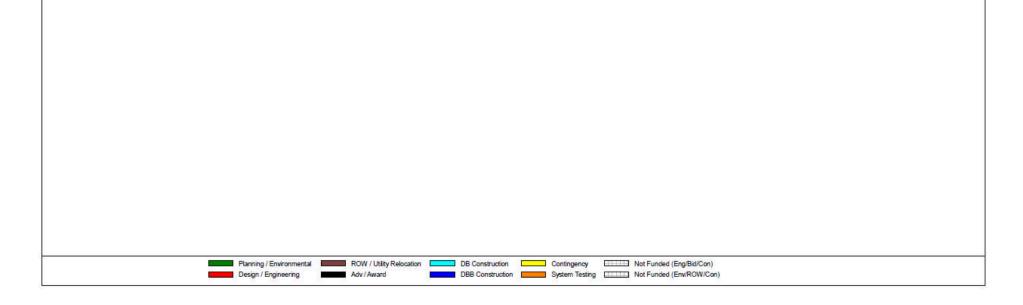
ty Name	PMIS Project Manager	Start	Finish	Original Budget	FY2017 2017	FY2018 2018	FY2019 2019	FY2020 2020	FY2021 2021	FY2022 2022	FY2023 2023	FY2024 2024	FY2025 2025	FY2026 2026	FY2027 2027	FY2028 2028	FY2029 2029	2
Div 20 Portal/Turnback	Meade	16-May-2016 A	10-Apr-2024	\$475,000,000.00								1		2020		2020		
Emergency Security Operations Center	Owens	17-Dec-2013 A	23-Sep-2021	\$112,700,000.00			_											
Regional Rail Projects	Owens	2-Sep-2013 A	17-Jun-2027	\$3,099,400,000.00														
Environmental	Owens	1-Dec-2014 A	17-Jun-2027	\$2,662,000,000.00														
Link Union Station	Owens	1-Dec-2014 A	17-Jun-2027	\$2,662,000,000.00														
Design	Owens	1-Apr-2015 A	26-Oct-2021	\$422,400,000.00			080017											
Brighton to Roxford Double Track	Owens	1-Sep-2015 A	23-Aug-2021	\$186,600,000.00														
Lone Hill to CP White	Owens	3-May-2016 A	26-Oct-2021	\$82,000,000.00						-								
Rosecrans & Marquardt Grade Separation	Owens	1-Apr-2015 A	11-Dec-2020	\$153,800,000.00					1									
Construction Contract	Owens	2-Sep-2013 A	1-Jun-2018	\$15,000,000.00		- 62												
Bob Hope Airport Station	Owens	2-Sep-2013 A	1-Jun-2018	\$15,000,000.00														
Bus Facilities Projects	Gurrola	31-Mar-2014 A	28-Feb-2019	\$0.00														
Construction Contract	Gurrola	31-Mar-2014 A	28-Feb-2019	\$0.00														
Patsouras Plaza	Gurrola	31-Mar-2014 A	28-Feb-2019	\$0.00														
State of Good Repair/Improvements		1-Jul-2013 A	3-Aug-2020	\$180,999,946.00														
Design	Danielans	13-Jun-2016 A	31-Mar-2020	\$11,078,366.00														
210 Freeway Barrier Rail	Danielans	13-Jun-2016 A	31-Mar-2020	\$11,078,366.00														
Procurement	Wei	21-Sep-2015 A	3-Aug-2020	\$118,990,580.00														
MBL Resignaling	Wei	21-Sep-2015 A	3-Aug-2020	\$118,990,580.00					2									
Construction Contract		1-Jul-2013 A	31-Aug-2018	\$50,931,000.00														
Pershing Sq. Esc. Replace & New Canopy Project	Patel	11-May-2015 A	31-Aug-2018	\$20,756,000.00														
MBL Ped Safety Enhancement At-Grade Crossing	Chong	1-Jul-2013 A	29-Dec-2017	\$30,175,000.00		3 (5 – 3) 2												
				1		1									<u> </u>			
Planning / Envi		ROW / Utility Re		DB Construction	ystem Tes	1010	-	Not										

HIGHWAY MASTER SCHEDULE (Page 1 of 2)

ame	PMIS Project Manager	Start	Finish	Original Budget	FY2017 FY 2017 2			2020	FY2021 2021	FY2022 2022	2023 FY2 2023 203	March 1996	025 FY20 25 202	della anticipationale	FY2028 2028
ghway Projects		1-Jan-1996 A	30-Jun-2042	\$29,275,621,000.00											
Environmental		2-Jan-2008 A	30-Jun-2042	\$25,242,560,000.00											
SR-138 Corridor Improvement Project	Ansari	1-Apr-2013 A	2-Oct-2025	\$880,000,000.00											
High Desert Corridor	Panuco	10-Sep-2010 A	20-Jun-2016 A	\$11,451,000,000.00											
I-710 South	Chaves	2-Jan-2008 A	1-Mar-2030	\$8,023,100,000.00											
SR-57/SR-60 Interchange Improvements	Jong	3-Jul-2018	30-Sep-2030	\$770,000,000.00											
I-5 Corridor Improvements (I-605 to I-710)	Chaves	2-Jul-2018	30-Jun-2042	\$1,105,060,000.00		-	++++++				=				
I-605 Interchange Improvements	Various	1-Jun-2016 A	15-Jan-2030	\$673,300,000.00											
I-605/SR-91 Interchange Improvements	Various	1-Jun-2016 A	1-Aug-2025	\$143,300,000.00			_		1111						
I-710/SR-91 Interchange Improvements	Various	1-Aug-2017	15-Jan-2030	\$530,000,000.00	-		+++++++						l as c		
I-605 Corridor Improvements	Panuco	1-Oct-2015 A	1-May-2030	\$2,340,100,000.00											
I-605/I-5 Interchange Improvements	Panuco	1-Oct-2015 A	1-Sep-2027	\$1,108,100,000.00											
I-605/SR-60 Interchange Improvements	Panuco	31-Aug-2016 A	1-May-2030	\$1,232,000,000.00				_							
Design		15-Dec-2010 A	1-Apr-2024	\$1,291,580,000.00											
I-710 Early Action Projects	Delgadillo	1-Dec-2011 A	1-Jun-2020	\$60,200,000.00											
I-5 North Capacity Enhancement (SR-14 to Parker Rd.)	Ogunrinde	2-Jul-2012 A	29-Jul-2022	\$784,080,000.00			- 1								
SR-71 Gap Between I-10 to SR-60	Jong	1-Jul-2012 A	1-Apr-2024	\$275,000,000.00											
Countywide Soundwall Construction	Owen	15-Dec-2010 A	18-Feb-2021	\$156,800,000.00											
Package #11 - SR-170 from 101 to Sherman Way and I-405	Owen	15-Dec-2010 A	18-Feb-2021	\$97,500,000.00											
Package #10 - SR-210 Fair Oaks, Lake and Baldwin to Santa Anita	Owen	2-Sep-2014 A	17-Feb-2021	\$59,300,000.00		_									
I-605 Hot Spots	Montez	1-Jun-2014 A	1-Jul-2021	\$15,500,000.00											
Arterial Intersections - Whittier	Montez	2-Jun-2014 A	1-Jul-2021	\$5,600,000.00				B							
Arterial Intersections - La Mirada	Montez	2-Jun-2014 A	28-Feb-2020	\$4,300,000.00											
Arterial Intersections - Cerritos	Montez	1-Jun-2014 A	2-Mar-2020	\$2,900,000.00											
Arterial Intersections - Bellflower	Montez	1-Jun-2014 A	28-Feb-2020	\$1,200,000.00											
Arterial Intersections - Long Beach	Montez	1-Jun-2014 A	1-Jul-2019	\$1,500,000.00			+++++								
								1						i	

HIGHWAY MASTER SCHEDULE (Page 2 of 2)

lame	PMIS Project	Start	Finish	Original Budget	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	Y2027	FY2028
	Manager		A		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Construction Contract		1-Jan-1996 A	1-Aug-2022	\$2,741,481,000.00												
I-5 North Capacity Enhancements SR-134 to SR-118	Subeh	1-Apr-1998 A	15-Jun-2020	\$853,900,000.00												
SR-118 to SR-170 (Segment 1A)	Subeh	30-Jul-1999 A	15-Jul-2016 A	\$219,400,000.00												
SR-170 to Buena Vista (Segments 2)	Subeh	1-Apr-1998 A	16-Dec-2015 A	\$94,700,000.00												
Magnolia to SR-134 (Segment 4)	Subeh	1-Apr-1998 A	18-Dec-2019	\$137,400,000.00				-								
Buena Vista to Magnolia (Segment 3)	Subeh	1-Apr-1998 A	15-Jun-2020	\$402,400,000.00												
I-5 South Capacity Enhancements from I-605 to Orange County Line	Gau	1-Jan-1996 A	1-Aug-2022	\$1,887,581,000.00												
I-5 Carmenita Road Interchange	Gau	1-Jan-2001 A	1-Mar-2018	\$419,214,000.00												
Alondra (Segment 1)	Gau	1-Jan-2001 A	19-May-2016 A	\$114,071,000.00												
Imperial Highway (Segment 4)	Gau	1-Jan-2001 A	1-Apr-2019	\$323,285,000.00												
Shoemaker - Rosecrans (Segment 3)	Gau	1-Jan-1996 A	3-Dec-2018	\$188,216,000.00			-03									
Florence (Segment 5)	Gau	1-Jan-2001 A	30-Jul-2020	\$211,671,000.00			- Ki		3							
Valley View (Segment 2)	Gau	1-Jan-1996 A	1-Aug-2022	\$631,124,000.00												



CRENSHAW/LAX TRANSIT PROJECT

	-		♦ S	CHED	ULE	
TOTAL COST	Current \$2,058M	Forecast \$2,058M			Current Oct 2019	Forecast Oct 2019

- Overall Project Progress is 70% complete; main line contractor needs to mitigate 11 day delay.
- Contractor continues trackwork installation along southern area of alignment.
- Successful lane closures on the I-405 freeway to remove the falsework for the new LRT bridge.
- Established entire 8.5 mile right-of-way with traffic switch on Crenshaw Blvd in Park Mesa Heights area.
- Southwestern Yard contractor is on schedule working on main shop, other facilities, and track areas.



Installation of formwork for UG#3 walls south of Hyde Park Blvd.

September 2017





Southwestern Yard steel installation for main shop.

Major issue



Construction Committee

REGIONAL CONNECTOR TRANSIT CORRIDOR



- Overall Project Progress is 39%.
- TBM breakout at 4th/Flower occurred July 19, 2017
- Tunneling operations: first bore completed; second bore scheduled to start late September
- 1st/Central Station is under steady state until tunnel operations are completed
- 2nd/Broadway Station is also under steady state; support of excavation is underway, including a 126" storm drain replacement
- 2nd/Hope Station excavation complete and invert poured
- Flower Street Guideway power relocations, support of excavation, decking and excavation underway

Current Forecast REVENUE Dec 2021 Dec 2021 OPERATION



LA County storm drain demolition adjacent to Hobas replacement



TBM shield extraction for transport to Mangrove Yard

September 2017

이 On target 🛛 🗸

Major issue

Possible problem



Construction Committee

WESTSIDE PURPLE LINE EXTENSION – SECTION 1

BUDGET		
-	Current	Forecast
TOTAL COST*	\$3,154M	\$3,154M
* Includes Board approved	LOP plus Finance costs.	

- Overall Project Progress is 22% complete.
- Excavation for the Wilshire/La Brea Station commenced on October 12, 2016 and continues beneath the deck panels. Station excavation is scheduled to complete by December 2017.
- Street decking at the Wilshire/Fairfax Station commenced on the weekend of February 11, 2017, and completed on June 19, 2017. Steady-state traffic control was implemented on July 15, 2017. The hanging of utilities under the concrete deck panels is ongoing. Station excavation has begun.
- The Wilshire/La Cienega Station piling operation, which commenced on March 20, 2017, continues. Stage 1 piling along the south side of Wilshire Boulevard was completed on June 4, 2017. The Stage 2 piling operation began on July 15, 2017.
- Tunnel Boring Machines (TBMs) are being fabricated for delivery at the end of 2017. One TBM has been accepted by the contractor. Tunneling is planned to start in 2018.

SCHEDULE Current REVENUE Oct 2024 OPERATION (FFGA)

Forecast Nov 2023



Under Deck Excavation at Wilshire/La Brea Station



Securing Cap Beams at Wilshire/La Cienega Yard



September 2017

On target

et 🔶 Possible problem 🛛



Construction Committee

WESTSIDE PURPLE LINE EXTENSION – SECTION 2



- Contract C1120 Tunnels, Stations, Trackwork and Systems (Design/Build): Final design by the D/B Contractor is underway. Submittal of 60% Design (Package #1-Utility/Civil Design at Launch Box) received in August 2017.
- Draft Supplemental Environmental Impact Statement (SEIS): Public comments were received and are under review.
- Century City Constellation: Telecom joint trench civil work completed in June 2017. Cable pulling and splicing work anticipated to complete in September 2017. LADWP Power construction began in May 2017. SCG and AT&T utility relocations are underway.
- Wilshire/Rodeo: SCE will begin relocation of power lines in September 2017, followed by SCG and AT&T.
- Negotiations with the City of Beverly Hills for a Memorandum of Agreement governing utility work began in March 2017 and is continuing. First construction permit for SCE was issued by Beverly Hills City Council in July 2017.

SCHEI	DULE	
	Current	Forecast
REVENUE	Dec 2026	Aug 2025
OPERATION	(FFGA)	



LADWP power relocation work in Century City

Construction Committee



Los Angeles County Metropolitan Transportation Authority

t 🔶 Possible problem

Major issue



WESTSIDE PURPLE LINE EXTENSION – SECTION 3



- Metro requested entry into the FTA New Starts Engineering Phase on April 28, 2017.
- **Construction Management Support Services** (CMSS) - Request for Proposals (RFP) was issued on April 10, 2017. Recommendation for award anticipated in October 2017.
- C1151 Tunnel Contract Request for Qualifications (RFQ)/Request for Proposals (RFP) was issued on April 19, 2017. The five pre-qualified contractors were notified on July 25, 2017.
- C1153 Advanced Utility Relocations (AUR) Contract - Invitation for Bids (IFB) was issued on May 31, 2017. Bids received on July 17, 2017. Award anticipated in October 2017.
- C1152 Stations, Trackwork and Systems Contract - Request for Qualifications (RFQ)/Request for Proposals (RFP) to be issued in September 2017.



September 2017

On target

Major issue

Possible problem



PATSAOURAS PLAZA BUSWAY STATION

CurrentForecastTOTAL COST\$39.7M\$39.7M	CurrentForecastSUBSTANTIALNov 2018Nov 2018COMPLETIONCOMPLETIONCOMPLETION

- All drilled foundations were completed in July 2017. Column construction is ongoing.
- First concrete pour for bridge abutment completed August 2017. Falsework on north and south sides ongoing.
- Sanitary sewer and storm drain relocations were completed in August 2017.
- Ramirez Street closure was implemented June/July 2017 and is complete. Vignes Street on/off-ramp is scheduled to open September 15, 2017.
- Schedule negotiations in progress for revised substantial completion date due to weather and design delays.



Aerial view of site



Completed bridge column



Bent 4 Foundation

September 2017

On target

Possible problem





Construction Committee

WILLOWBROOK/ROSA PARKS STATION

CurrentForecastTOTAL COSTN/A\$92.4M	CurrentForecastSUBSTANTIALDec 2020Dec 2020COMPLETIONCOMPLETIONCOMPLETION

- Early Start Phase (Project E) IFB advertised August 2017 scheduled to break ground November 2017
- Phase A and C at 100% design completion. Phase A in review by County, Phase C with Caltrans
- Pedestrian grade crossing documents submitted to UP and PUC
- Phase B at 100% design completion and in early coordination for Peer review with CalTrans
- Phase A&C invitation for bids scheduled for October 2017



South Platform Improvements

Central Plaza & Bus Bays

Possible problem

Main Plaza

September 2017

Construction Committee

On target



Metro 13

METRO BLUE LINE PROJECTS

Project Name	Budget	Percent Completed	Forecast Completion	Status
 Station Refurbishment Pedestrian Gates City of Long Beach Fare Gates Design (PE) Blue Line Rehabilitation (OCS, Signals, Div. 11) 	\$30.4M \$30.2M \$8M* \$119M*	100% 85% 95%(PE)	Completed March 2018 Aug 2019 Aug 2021**	
Tota	al: \$186.6M			





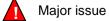


*Budget Estimate **Project Closeout

September 2017



Possible problem





Construction Committee

Crenshaw/LAX Transit Project Change Activity

Mod/Change Change Notice # Description Cost Value Orders **DESIGN BUILD - CONTRACT C0988** TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS AND APPROVED CHANGE ORDERS \$ 72,302,463 296 \$ TOTAL PENDING MODIFICATIONS AND CHANGE ORDERS ROUGH ORDER OF MAGNITUDE COST 422.875 21 MOD 00256 Black Diamond Vault 5436 Crenshaw Bl Less than \$1 million MOD 00269 Remove Trees over MWD Easement Less than \$1 million MOD 00293 Asbestos Cement Pipe 63rd & Tesoro Less than \$1 million MOD 00294.1 Station Entrance Artwork - Design Less than \$1 million MOD 00297 Site Remediation Victoria - UG3 Less than \$1 million MOD 00298 Design- Delete Tree Well Brick Pavers Less than \$1 million MOD 00301 Claim 72 Widen Ctr Walkway Skt-Desgn Less than \$1 million MOD 00302 LABSL Added Light Pole Centry-Design Less than \$1 million MOD 00303 Security Guard Crenshaw Year 4 Less than \$1 million MOD 00234 LADOT Fiber Optic Cable Betterment Less than \$1 million MOD 00270 Unit Rates for Incidental Const Work Less than \$1 million MOD 00304 BkChrg Metro pymnts to COLA TCO Credit Less than \$2 million CO 00046.5 Underground Conduit & Cable Less than \$1 million CO 00129 Elimination Crosver Sta 56+57.50 Credit Less than \$1 million CO 00140 Disp Remove Contam, Soil STA 182+25 Less than \$1 million CO 00141.2 Underground Conduit Cable Emgcy Ligh Less than \$1 million CO 00142.1 Underground Stations and UG1 Ancilla Less than \$1 million CO 00143.1 Underground Conduit and Cable 20 Less than \$1 million CO 00144.1 Underground Station Damper Modificat Less than \$1 million CO 00164 **DWPPS Power Feed to TPSS #8** Less than \$1 million CO 00169 Unforeseen Concrete at 104th Bridge Less than \$1 million TOTAL MODIFICATIONS AND CHANGE ORDERS 317 \$ 72,725,338 PROFESSIONAL SERVICES CONTRACT **Design Support Services During Construction - CONTRACT E0117** TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS AND APPROVED CHANGE ORDERS 42 \$ 59,217,720 TOTAL PENDING MODIFICATIONS AND CHANGE ORDERS ROUGH ORDER OF MAGNITUDE COST 0 \$ -TOTAL MODIFICATIONS 42 \$ 59.217.720 **Construction Management Support Services - CONTRACT MC069** TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS AND APPROVED CHANGE ORDERS 16 \$ 53.350.394 TOTAL PENDING MODIFICATIONS AND CHANGE ORDERS ROUGH ORDER OF MAGNITUDE COST \$ 0 -

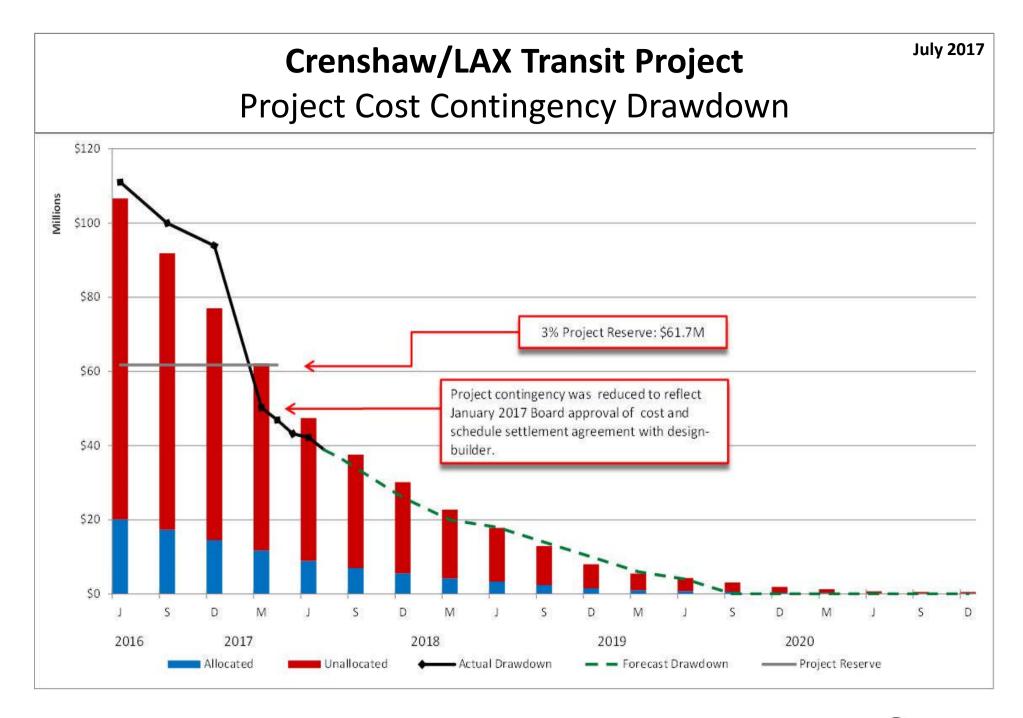
TOTAL MODIFICATIONS



July 2017

Number of

16



July 2017

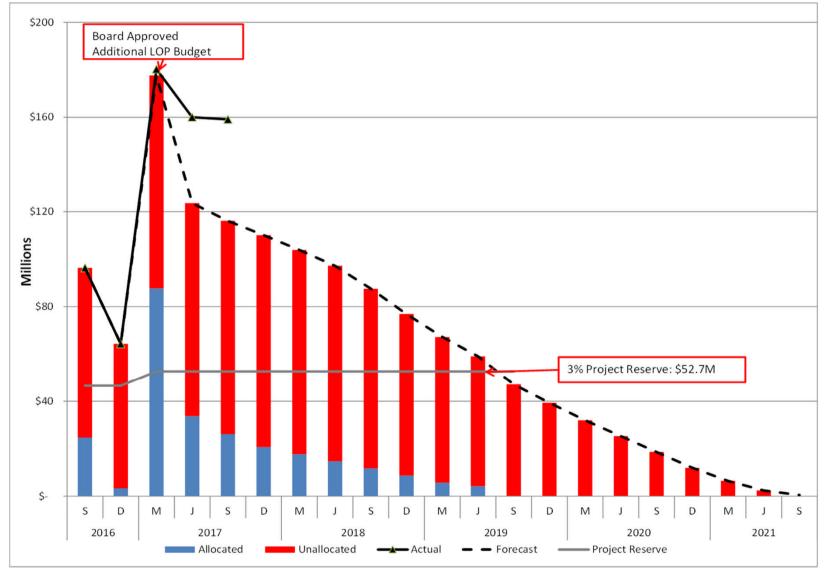
Regional Connector

Change Activity

Change Notice #	Description	Number of Mod/ Change Orders	Cost Value
DESIGN	BUILD CONTRACT (C0980)		
	TOTAL VALUE OF ALL EXECUTED CONTRACT MODIFICATIONS AND CHANGE ORDERS:	92	\$ 148,956,791
	TOTAL PENDING MODIFICATIONS AND CHANGE ORDERS ROUGH ORDER OF MAGNITUDE COST:	35	\$ 67,510,247
	1st/Alameda Bumpout (Construction)		Less Than \$1 Million
TBD	Flower Street Modification: future 2-way Traffic /Bumpout/Ped Lighting (Construction Only)		Between \$1 and \$5 Million
TBD	Revise Metro Rail Station Signage and Incorporate Metro Underground Station Signage (Construction)		Less Than \$1 Million
TBD	Add Wye Junction Fan Plant- Construction		Between \$10 and \$15 Million
TBD	Fully Coupled Dynamic Analysis for SEM Cavern		Less Than \$1 Million
50.0	Revisions to TPIS Requirements -Construction		Less Than \$1 Million
68.0	Flower Street Zanja Additional Potholing		Less Than \$1 Million
78.0	ATT Ductbank Relocation @ Hewitt		Less Than \$1 Million
86.0	Flower Maintenance of Traffic (MOT) West Piles		Less Than \$1 Million
87.0	Support Veolia 24" Chilled Water Pipes at 2nd/Hope Station		Less Than \$1 Million
99.0	Option 3 Pedestrian Bridge Revisions / Broad Coordination (Construction)		Between \$1 and \$5 Million
103.0	1st/Central Station HMI Units for Escalator Controllers		Less Than \$1 Million
TBD	Add One Add 'I VHF Radio Operational Channel - Construction		Less Than \$1 Million
106.0	Revisions to Metro Optical Network Switch		Less Than \$1 Million
TBD	Revise Communication Radio System SOW (Construction)		Less Than \$1 Million
TBD	Infrastructure for Insite Wireless in Tunnels		Less Than \$1 Million
TBD	Add Perforated Metal Dropped Ceiling at 2nd/Hope Station Plaza - Construction		Less Than \$1 Million
107.0	Delays and schedule mitigation measures, electrical and water utility relocation costs, add 'I fire life safety engineering and other design and construction		More than \$15 Million
111.0	Spray-on Acoustical Finishes Additional Quantities		Between \$1 and \$5 Million
TBD	Revised Emergency Walkways at Curves (30" to 35") - Construction		Less Than \$1 Million
121.00	Utility Conflicts during Decking at 4th & Flower St.		Less Than \$1 Million
122.00	Asbestos Abatement on Flower St. thru May 2017		Less Than \$1 Million
124.00	Blue Light Stations		Less Than \$1 Million
TBD	Insurance Claim		Less Than \$1 Million
132.00	TBM Acceleration (24/7) to Flower St.		Less Than \$1 Million
133.00	Deleting OCS Work at 7th Metro (CREDIT)		Less Than \$1 Million
134.00	2nd/Broadway - LA Times Communication Line Realignment Due to Differing Site Conditions		Less Than \$1 Million
136.00	TBM Cutterhead Repairs Due to DSC		Less Than \$1 Million
137.00	Revise SOE and Train Control and Mechanical Rooms (Charles Dunn SOE DSC)		Less Than \$1 Million
138.00	LADWP Switch Room Requirements for 1st and Central Station - Design Only		Less Than \$1 Million
139.00	Flower Street - C0981 Power Vault MH 470 Support Frame		Less Than \$1 Million
140.00	Flower St. Road Settlement Temp Repair and Monitoring		Less Than \$1 Million
141.00	1st and Central Station –Escalator Controllers PE1 and PE3 Revised Locations		Less Than \$1 Million
TBD	TBM failure - delays and repair		Between \$1 and \$5 Million
TBD	Add 'I Commonwealth Agreement (noise barrier)		Between \$1 and \$5 Million
	TOTAL MODIFICATIONS AND CHANGE ORDERS	127	\$ 216,467,038
PROFES	SIONAL SERVICES CONTRACT		
Design S	support Services During Construction (E0119)		
	TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS	12	\$ 44,629,810
	TOTAL PENDING MODIFICATIONS ROUGH ORDER OF MAGNITUDE COST	0	\$ -
		-	•
	TOTAL MODIFICATIONS	12	\$ 44,629,810
-		12	+ +,023,010
Constru	ction Management Support Services (MC070)		
	TOTAL VALUE OF EXECUTED CONTRACT MODIFICATIONS	5	\$ 35,630,672
	TOTAL PENDING MODIFICATIONS ROUGH ORDER OF MAGNITUDE COST	0	\$-
	TOTAL MODIFICATIONS	5	\$ 35,630,672

Regional Connector

Project Cost Contingency Drawdown



Metro 18

July 2017

Westside Purple Line Extension – Section 1

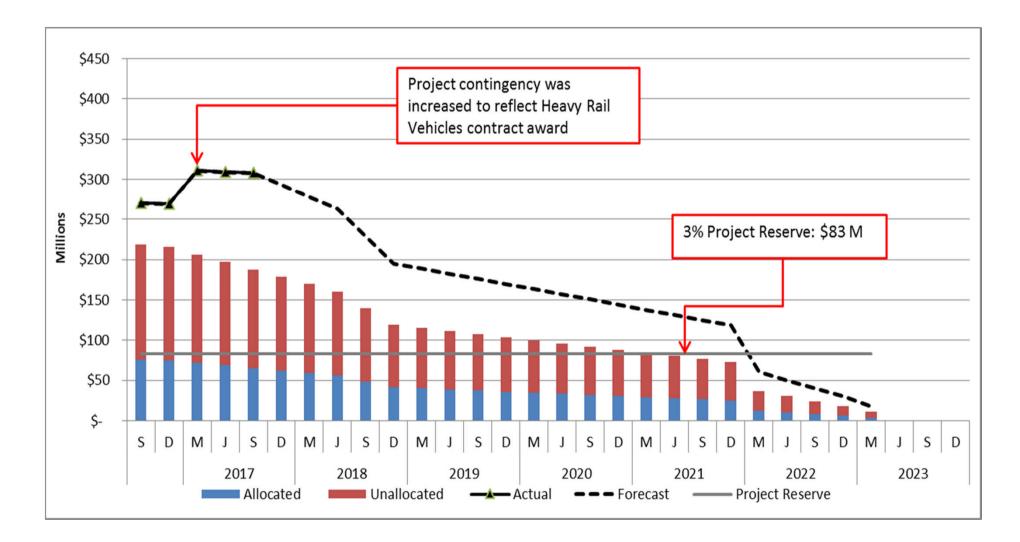
Change Activity

Change Notice #	Description	Number of Mod/ Change Orders	Cost Value
	TOTAL VALUE OF ALL EXECUTED CONTRACT MODIFICATIONS AND CHANGE ORDERS:	141	\$ 13,488,827
ΤΟΤΑ	L PENDING MODIFICATIONS AND CHANGE ORDERS ROUGH ORDER OF MAGNITUDE COST:	41	More than \$15 Million
DESIGN/BUILD CO		31	
CN-26	Betterment City of Beverly Hills - Median Reconstruction at San Vicente Blvd		Less Than \$1 Million
CN-32	Pin Station (Identifier) Changes		Less Than \$1 Million
CN-39.1	Revision to Metro Station Signage		Less Than \$1 Million
CN-42.3	Radio Subsystem Redundancy		Less Than \$1 Million
CN-43.2	Isolate Track Circuits at Wilshire/Western		Less Than \$1 Million
CN-47.1	Stainless Steel Enclosure for TVM and PTEL		Less Than \$1 Million
CN-56	Implement City of Beverly Hills Memorandum of Agreement (MOA)		Between \$10M - \$15M
CN-63	La Brea- Additional Instrumentation Requested by BOE		Less Than \$1 Million
CN-64.1	Additional SOE Design Work - La Brea Station		Less Than \$1 Million
CN-65.1	Additional SOE Design Work for Fairfax Station Due to Deviation Request for Building Settlement		Less Than \$1 Million
CN-66	Additional Dewatering Treatment & Discharge Costs at La Brea		Less Than \$1 Million
CN-67	Tactile Guidance (Construction and Plaza Material Change)		Less Than \$1 Million
CN-68	Increased Ventilation of Station Ancillary Rooms		Less Than \$1 Million
CN-72	Stations - Art Related Changes		Less Than \$1 Million
	Additional SOE Design Work for La Cienega Station Due to Deviation Request for Building Settlement		Less Than \$1 Million
CN-77	Additional Interpretation for Building Settlement		Less Than \$1 Million
CN-78	Fairfax - DWP Ductbank Conflict with Deck Beams		Less Than \$1 Million
CN-79	Wilshire/Western - Permit Approval and Inspection for Access Shaft		Less Than \$1 Million
CN-80	Stand by Generator Enclosure Aesthetic Improvements at La Cienega		Less Than \$1 Million
CN-81	Additional Instrumentation (Project Wide) as Required by LABOE and STS EOR		Less Than \$1 Million
CN-82	Additional Geotechnical Instrumentation at Western		Less Than \$1 Million
CN-83	Additional Dewatering Treatment & Discharge Impacts at Western		Less Than \$1 Million
CN-84	Additional SOE Design Work for the Western Shaft Due to Deviation Request for Building Settlement		Less Than \$1 Million
CN-85 CN-87	La Brea Utility hanging Changes for Sewer and Storm Drains		Less Than \$1 Million
CN-87 CN-88	La Brea - Bracing Impacts Due to DWP Ductbank at La Brea Ave (ECI-004) TCE Slab Demolition and Removal at the Western Shaft		Less Than \$1 Million Less Than \$1 Million
CN-89	La Cienega-Removal of AT&T Abandoned Cables		Less Than \$1 Million
CN-90	La Brea Station Excavation Advancement of Work		Between \$10M - \$15M
CN-91	La Brea-DWP Conflict and Impacts to Cap Beam Walers 28 & 29		Less Than \$1 Million
CN-92	La Dione DW - Connect and impacts to Cap Dealer Wales 20 225		Less Than \$1 Million
TBD	Fairfax - Piling Obstructions, Conflicts, Delays		Less Than \$1 Million
DESIGN/BUILD CC		10	2000 1101 \$1 11000
CO5/CN-10	Revised Building Construction Impacts		Between \$5M - \$10M
CN-11	Schedule Impacts Due to Third Party		Less Than \$1 Million
CN-12	Betterment - Motorized Sliding Gate for the City of LA		Less Than \$1 Million
CN-13	AST Leak Detection and Remote Lubrication Fill/Extract Station		Less Than \$1 Million
CN-16	Betterment: Install Street Lights, Trees and Drip Irrigation for the City of LA		Less Than \$1 Million
CN-17	Support of Building Art Work		Less Than \$1 Million
CN-21	Betterment: 6th Street Viaduct - Site Re-Grading, Ornamental Fenc, Etc.		Less Than \$1 Million
CN-20	Hazardous Materials - Chalmers Pan Handle		Less Than \$1 Million
CN-19	Storm Drain - Differing Site Conditions		Less Than \$1 Million
CN-18	On-Site LIDs		Less Than \$1 Million
TBD	TOTAL MODIFICATIONS AND CHANGE ORDERS	182	
PROFESSIONAL S	SERVICES CONTRACTS		
	rvices During Construction - CONTRACT PS43502000		
	TOTAL VALUE OF ALL EXECUTED CONTRACT MODIFICATIONS:	22	\$ 92,608,453
	TOTAL PENDING MODIFICATIONS	0	\$ -
	TOTAL MODIFICATIONS	22	\$ 92,608,453
Construction Manag	gement Support Services - CONTRACT MC071		
	TOTAL VALUE OF ALL EXECUTED CONTRACT MODIFICATIONS:	3	\$ 39,731,796
	TOTAL PENDING MODIFICATIONS	1	More Than \$15 Million
CN-5	Continuation of Construction Management Support Services	•	More Than \$15 Million
0.10	Continuation of Construction Management Support Services	4	
	ARTY AGREEMENTS		
OTHER - THIRD P	ARTY AGREEMENTS Annual work plan for Fiscal Year 2018 with the City of Beverly Hills, in an amount not-to-exceed		Between \$10M - \$15M
	Annual work plantor risear zoro with the City of Bevery Fills, in an amount not-to-exceed		
l			I

July 2017

Metro 19

Westside Purple Line Extension – Section 1 Project Cost Contingency Drawdown





July 2017

Westside Purple Line Extension Section 2 Project July 2017 Change Activity

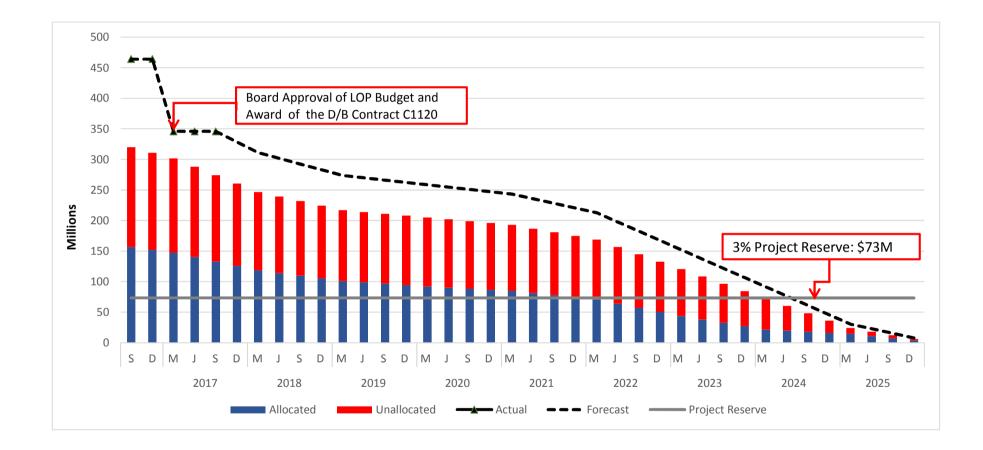
Change Notice #	Description	Number of Mod/ Change Orders	Cost Value
TOTAL	VALUE OF EXECUTED CONTRACT MODIFICATIONS AND APPROVED CHANGE ORDERS	0	\$-
TOTAL PE	NDING MODIFICATIONS AND CHANGE ORDERS ROUGH ORDER OF MAGNITUDE COST:	9	More than \$15 Million
DESIGN/BUILD CON	TRACT C1120		
CN-1.1	Century City Constellation Station West Ancillary & OPE Reconfiguration (Design)		Less Than \$1 Million
TBD	Century City Constellation Station West Ancillary & OPE Reconfiguration (Construction)		Less Than \$1 Million
CN-2.1	Geotechnical and Environmental Investigation Program		Less Than \$1 Million
CN-3	Century City Constellation Station: Main Entrance (Design)		Less Than \$1 Million
TBD	Century City Constellation Station: Main Entrance (Construction)		More Than \$15 Million
CN-4	Third Party Utility Final Design		Less Than \$1 Million
TBD	AT&T Building Demolition		Between \$1M - \$5 M
CN-5	PB Name Change and Update		0
CN-6	Furnish Cradles for LADWP Power Vaults		Less Than \$1 Million
	TOTAL MODIFICATIONS AND CHANGE ORDERS	9	\$-

PROFESSIONAL SERVICES CONTRACT		
Design Support Services During Construction		
TOTAL VALUE OF EXECUTED CON	ITRACT MODIFICATIONS 0	\$-
TOTAL PE	NDING MODIFICATIONS 0	\$-
	TOTAL MODIFICATIONS 0	\$-
Construction Management Support Services		
TOTAL VALUE OF EXECUTED CON	ITRACT MODIFICATIONS 0	\$ -
TOTAL PE	NDING MODIFICATIONS 0	\$-
	TOTAL MODIFICATIONS 0	\$ -

OTHER - THIRD PARTY AGREEMENTS		j
Annual Work Plan for Fiscal Year 2018 with the City of Beverly Hills (not-to-exceed amount)	Between \$5M - \$10M	
The Auto Club of Southern California (AAA) - reimbursement agreement for tenant improvements and building	Between \$1M - \$5M	M
maintenance for construction field office	Between \$ IM - \$5M	

Metro 21

Westside Purple Line Extension – Section 2 Project Cost Contingency Drawdown





July 2017