



# Metro

February 18, 2020

**TO:** Distribution

**FROM:** Gary Baker *GB*  
Executive Officer/Project Manager

**SUBJECT:** Regional Connector Transit Project  
January 2020 Monthly Project Status Report

Enclosed is the Monthly Project Status Report for the Regional Connector Transit Project. This report contains the Los Angeles County Metropolitan Transportation Authority's (LACMTA) representation of the Regional Connector Transit Project status for the period ending January 31, 2020.

If you have any questions regarding this report or its supporting information, please contact Dan Estrada, Deputy Executive Officer of Program Control at (213) 893-7130.

GB: CS  
Enclosure

Los Angeles County  
Metropolitan Transportation Authority

# Regional Connector Transit Project

MONTHLY PROJECT STATUS REPORT

January 2020



**Metro**

# **REGIONAL CONNECTOR TRANSIT PROJECT**

## **MONTHLY PROJECT STATUS REPORT**

THE PREPARATION OF THIS DOCUMENT HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA).

**January 2020**

## TABLE OF CONTENTS

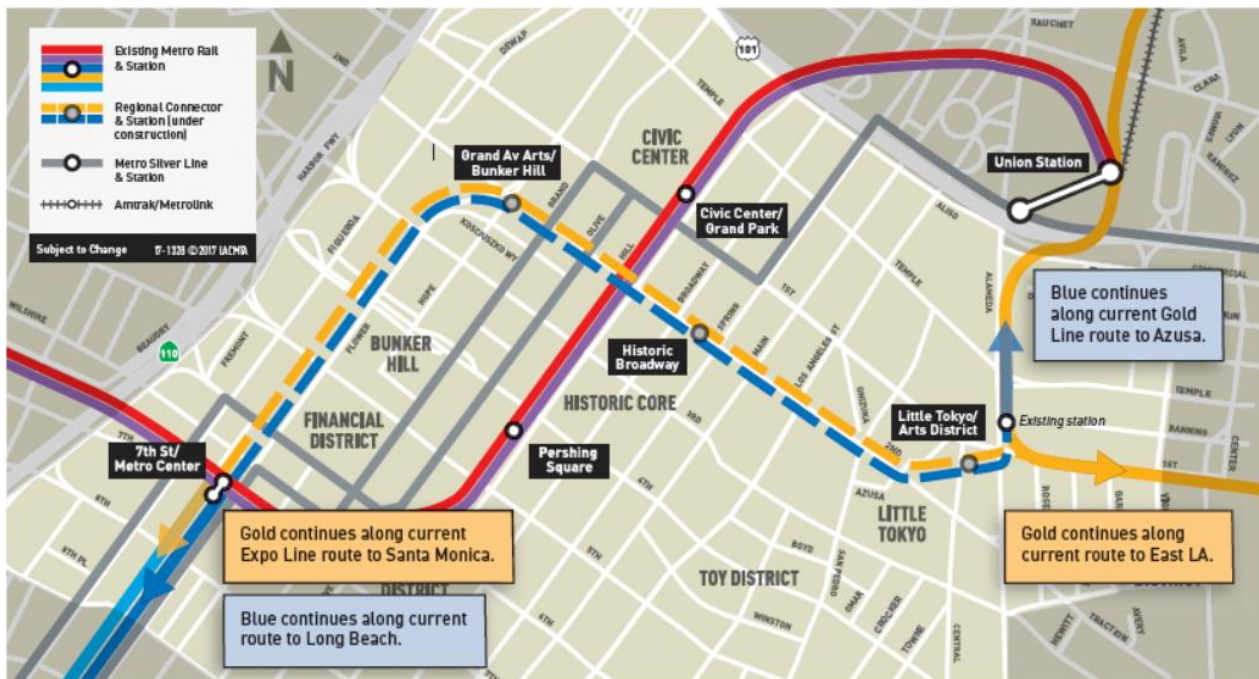
<b>Project Overview .....</b>	<b>1</b>
<b>Executive Summary .....</b>	<b>5</b>
<b>Project Update .....</b>	<b>9</b>
Project Schedule.....	9
Project Summary Schedule .....	9
Progress Summary.....	10
Planned vs. Actual Progress.....	10
Key Milestones Six-Month Look Ahead.....	11
Major Equipment Delivery.....	11
Critical Path .....	12
Project Cost.....	13
Project Cost Analysis.....	13
Cost Contingency Drawdown and Analysis .....	15
Summary of Contract Modifications .....	16
<b>Disadvantaged Business Enterprise (DBE) .....</b>	<b>17</b>
<b>Project Labor Agreement .....</b>	<b>17</b>
<b>Financial/Grant .....</b>	<b>18</b>
<b>Project Staffing.....</b>	<b>19</b>
<b>Real Estate.....</b>	<b>21</b>
<b>Quality Assurance.....</b>	<b>22</b>
<b>Environmental .....</b>	<b>23</b>
<b>Construction and Community Relations.....</b>	<b>24</b>
<b>Creative Services .....</b>	<b>25</b>
<b>Safety and Security .....</b>	<b>26</b>
<b>Appendix.....</b>	<b>27</b>
Chronology of Events	

## PROJECT OVERVIEW

### Project Background

The Regional Connector Transit Project (Project) will link the terminus of the Blue and Expo Lines at 7th/Metro Center to the Gold Line near the current Little Tokyo/Arts District Station through a new 1.9-mile underground alignment in downtown Los Angeles. The alignment includes three underground stations: Grand Av Arts/Bunker Hill; Historic Broadway; and Little Tokyo/Arts District.

From the existing 7th Street/Metro Center Station, the Project alignment will extend north under Flower Street to 2nd Street. It will then proceed east underneath 2nd Street to just west of Central Avenue where the alignment will veer northeast under privately-held property to the new Little Tokyo/Arts District Station at 1st and Central. The alignment continues briefly eastward through a Wye Junction (Wye) constructed beneath the 1st and Alameda intersection. To the north of the Wye at Temple and Alameda, and to the east of the Wye at 1st and Vignes, trains will connect with the Gold Line by rising to the surface through two new transition portals heading north to Pasadena, and east to East Los Angeles.



Upon completion, the Project will in effect facilitate regional light rail service along a 49-mile north-south route – Azusa to Long Beach, and a 23-mile east-west route – East LA to Santa Monica.

Passenger forecasts in 2035, as a result of the improved service, indicate 90,000 daily transit trips will occur through the 1.9-mile downtown trunk, including 17,000 new riders.

The above Project configuration is based on years of planning and environmental work that is reflected in the following milestones:

- Metro Board approval of Alternative Analysis – January 2009
- Initiation of Draft EIS/EIR – February 2009
- Initiation of Preliminary Engineering (PE) – January 2011
- Metro Board certification of Final EIS/EIR – April 2012
- FTA issuance of Record of Decision – June 2012
- PE and Advanced PE complete – March 2013
- FTA award of Full Funding Grant Agreement – February 2014.

### **Major Procurements**

Utility Relocation: Advanced Utility Relocation Contract, C0981R, was awarded to Pulice Construction, Inc. in January 2014 and the Notice to Proceed (NTP) issued on February 18, 2014. Contract C0981R was terminated for convenience on April 14, 2015 and remaining AUR work was transferred to the C0980 Design/Build (D/B) Contractor.

Guideway & Systems Contract: The Board authorized to solicit a major D/B contract, C0980, in August 2011. A contract was awarded on April 24, 2014 to Regional Connector Constructors (RCC), a joint venture of Skanska USA Civil West California District, Inc. and Traylor Brothers, Inc. in the amount of \$927,226,995. NTP was issued July 7, 2014. The final engineering and design for the joint venture was performed by Mott McDonald.

Vehicles: Metro is procuring four (4) Light Rail Vehicles (LRVs) for the Project. The vehicles are being built and delivered by Kinkisharyo International, LLC under Option 2 of Contract P3010. Delivery and acceptance of four LRVs is under review by Metro and Kinkisharyo. The outlook appears to be mid-2020.

Rail Operations Center (ROC): The existing functional operations at the ROC are being expanded to accommodate the central control functions associated with five new rail lines to include Regional Connector. The Project is contributing \$4.07M towards this expansion which is scheduled to be completed by June 2021.

Fare Collection: Procurement of Universal Fare System and Ticket Vending Machine equipment was completed in January 2018 with award to Cubic Corporation. Metro is coordinating with RCC for installation and testing schedules, which are currently expected to begin in late 2020. The scope addition of fare transfer equipment in the three Regional Connector stations is on hold pending decision to proceed. A decision will be made in early 2020.

## **Program Management**

The RCC contract is being managed by a team of Metro and consultant personnel jointly located at the Integrated Project Management Office (IPMO). The consultant component is comprised of The Connector Partnership, a joint venture between AECOM, Inc. and WSP (CPJV) which provides engineering and design support services while Arcadis, Inc., provides construction management support services. An overview of management staffing is provided under the Staffing Section of this report. The on-site program management team is also supported by Metro Headquarters resources to include, but not limited to, engineering, risk management, environmental, quality management, operations and creative services departments.

Project Schedule and Budget: The Revenue Service Date (RSD) is planned for Summer/Fall 2022.

In January 2017, the Metro Board revised the Life of Project (LOP) Budget for Regional Connector Transit Project 860228 to \$1.756 billion. *The LOP budget for Concurrent Non-FFGA activities related to Project 861228 remains at \$39.9 million.* Financing costs are estimated at \$14M. Cost forecasts remain consistent with budgets. A detailed FFGA budget forecast is included under the Project Cost Section of this report.

Funding has been secured from a variety of sources, detailed in the Financial/Grant Section on Page 18, to include:

- Federal New Starts Grant
- Federal Congestion Management Air Quality and RIP Programs
- USDOT TIFIA loan proceeds
- State Proposition 1A/1B and Capital Project Loan proceeds
- City of Los Angeles
- Lease revenues.

Construction and Community Relations: The Construction and Community Relations Team is tasked with promoting the Project and performing public outreach within the communities to keep stakeholders informed of construction activities occurring along the Project alignment. To facilitate the communication, community leadership councils have been formed which represent geographic-based constituent groups along the alignment.

The Project is also engaged in social media outreach and various marketing and advertising efforts designed to keep the public informed and supportive of the Project. These efforts are aimed at promoting businesses that are affected by construction. An overview of monthly activities is presented in the Construction and Community Relation Section of this report.

System Integration: The Project's integration of three separate lines, each possessing distinct system technologies, presents significant challenges for both the Project and Metro at-large. Extensive planning continues to be performed to define logistics of the systems' cut-overs that will be required. The Project will continue to coordinate the completed systems interface design, with on-going procurement in preparation for construction and testing as Metro maintains revenue service on the three operating lines.

Rail Activation: The Project and Metro Operations recognize the extensive planning required in preparation for rail activation of the new regional light rail service the Project will enable through downtown Los Angeles. The training of 400+ operators and supervisors across the regions has surfaced as a key component to rail activation. This training will require dedicated time during rail activation to ensure safety.

Planning efforts have outlined a sequence of dependent testing, training, simulation, and safety certification. From the sequence, a twenty-week schedule has been developed to guide the testing, rail activation and start-up. The twenty weeks are initiated by the Project's issuance of the Substantial Completion milestone to RCC.

## EXECUTIVE SUMMARY

In *January*, the Project achieved 63.0% completion based on earned value measurements for design and construction. The focus of the Project is on facilitating advancement of construction activities throughout the alignment.

The following is an overview of current design and construction activities.

### Design Status

Final Design has been completed. Miscellaneous design changes to approved design packages continue to be managed as an Engineering Change Instruction (ECI), enabling required changes to be promptly addressed while the balance of the scope is built.

### Construction Status

1st Street Cut & Cover Tunnel & U-Channel: *Completed roof deck at the Cut & Cover Tunnel section and exterior walls at the U-Channel section. Started backfill at the Cut & Cover Tunnel section.*

Wye Structure: *Started backfill and removal of the temporary deck at the Wye Cut & Cover Tunnel.*

Little Tokyo/Arts District Station: *Completed Ancillary mid-level exterior walls. Continued walls for the platform deck. Started Ancillary mid-level interior walls and tunnel/vent deck.*

Floating Slab Track: *Continued delivery and staging of material and pre-cast segments at Grand Av Arts/Bunker Hill Station. A total of 214 slabs installed in the left tunnel; right tunnel installation began at end of January.*

Historic Broadway Station: *In the station box area, continued the west concourse level exterior walls. Continued east platform level exterior walls, and walls for the platform deck.*

Crossover Cavern: *Continued the plenum concrete placement and the arch rebar and formwork installation. Completed the interior wall concrete placement.*

Grand Av Arts/Bunker Hill Station: *In the west station box area, completed the lower ancillary exterior walls and started the interior walls. In the center station box area, started the upper ancillary exterior walls. In the east station box area, completed the upper ancillary deck. In the entrance area, started the upper ancillary level exterior walls. Started rebar placement for the Emergency Exit 1 & 2 structure invert.*

Flower Cut & Cover Tunnel: *In the south section (5th Street to 7th/Metro Center Station), continued the invert placement and exterior walls.*

**Cost and Schedule Summary**

As of the reporting date, RCC was late in submitting the *January 2020* Schedule Update.

**RCC Schedule Metrics**

	<b>Original Contract Date/Duration</b>	<b>Time Extension (CD)</b>	<b>Current Contract Schedule</b>	<b>Forecast (Metro PMS)</b>	<b>Variance CD (Trending)</b>
NTP	7/7/14				
Substantial Completion	10/22/20	527	04/01/22	05/26/22	-55 days

**Critical Path**

*This month the critical path continued through the future Little Tokyo/Arts District Station. Crews previously dedicated to the station’s schedule critical concrete operations were diverted by the Contractor to lend support to efforts related to the initiation of rail welding along 1st Street. While a boost to the schedule readiness of the welding operation was realized, a loss of float was measured on the critical path.*

*A corresponding impact to Bus Bridge #3 is also demonstrated on the critical path as the bus bridge is linked to run concurrent with the balance of operations.*

*Incremental improvements to schedule performance through focused and augmented resources - throughout the alignment - are needed to meet targeted milestones.*

**Costs**

Project costs continue to track within budget. Contingency draw-downs are lagging as large modifications continue to take longer to reconcile. However, no material net variance in contingency use is anticipated. To date, the design and construction changes related to base scope represent approximately 6.8% of the contract value. There is one notice of intent to claim by RCC. The notice relates to Historic Broadway Station SOE stability issues. Detailed cost and budget information is provided on Page 13.

### Key Management Concerns

Item 1: Given the impact the Project will have on light rail operations through downtown Los Angeles and the region, the Rail Activation effort is exceedingly complex. Schedule and cost impacts are likely to surface.

Status/Action: Ongoing cut-over, testing and rail activation meetings are being conducted with various Metro Departments. Through this process, specific work items have been identified and those requiring further investigation are being evaluated. Notwithstanding considerable progress, planning meetings continue, as the team plans the complex rail activation and certification process. *Cutover requirements may stress Metro resource availability.*

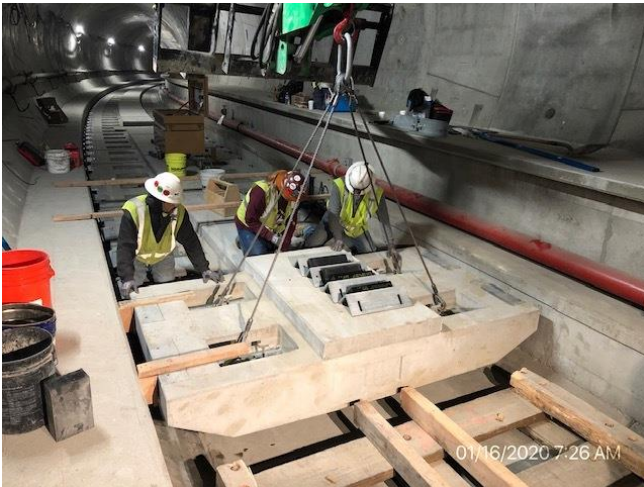
Item 2: Design comments from the over-build developer at the Historic Broadway Station has led to design revisions with cost impacts.

Status/Action: Metro/RCC have collaborated closely with the developer and finalized design elements necessary to meet development objectives while working within available budget. Constructability analysis has been completed with acceptance of the design by the developer. Metro is now moving to reconcile final design and construction costs dictated by the agreed-to design. Related change notices have been issued to RCC. Cost and schedule proposals are pending.

Item 4: *Installation of CTS link for the Gold Line Eastside Extension during Bus Bridge #3 has been delayed due to procurement set-backs. If not remedied, the delays will adversely impact schedule and costs.*

Status/Action: *Design workarounds are being explored to find viable alternatives routing dual fiber optic lines from the 1<sup>st</sup> Street bridge through Division 20 to Union Station. These designs are considering temporary and permanent infrastructure options, or combinations thereof, to meet the Project's needs. Final selection of options must be made by May 1, 2020 to ensure forecast schedule milestones are maintained.*

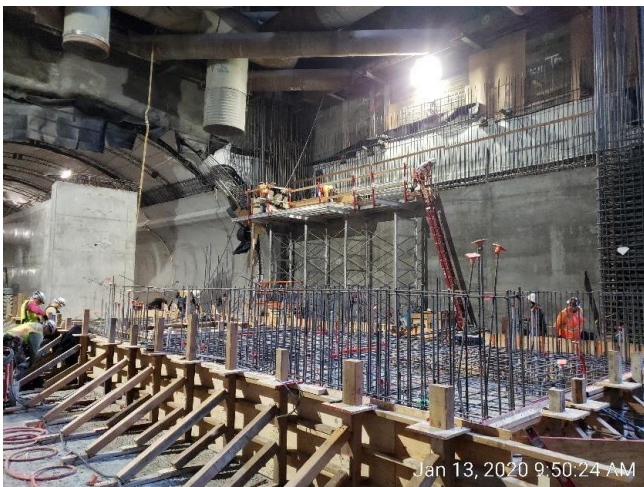
Project Construction Photos



Pre-cast Floating Slab installation



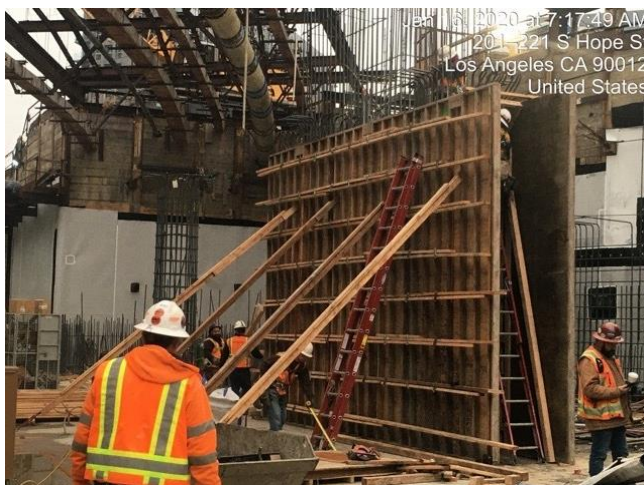
Protection slab placement at 1st St Leg



Wall form installation at Historic Broadway Station



Concrete placement at SEM Cavern plenum



Wall forming at Upper Ancillary Level at Grand Av Arts/Bunker Hill Station

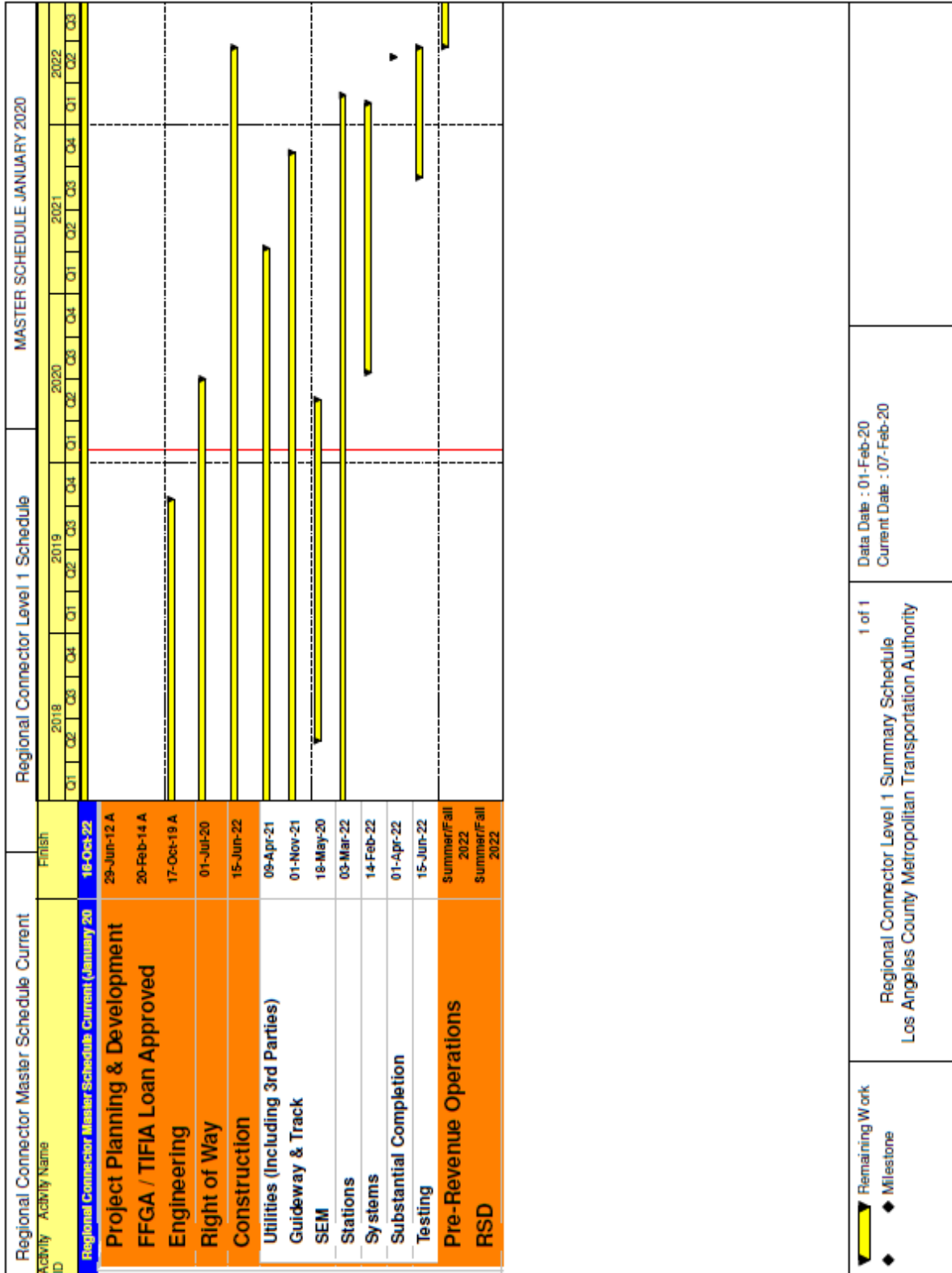


Top mat rebar installation at Flower

# PROJECT UPDATE

## PROJECT SCHEDULE

### Project Summary Schedule

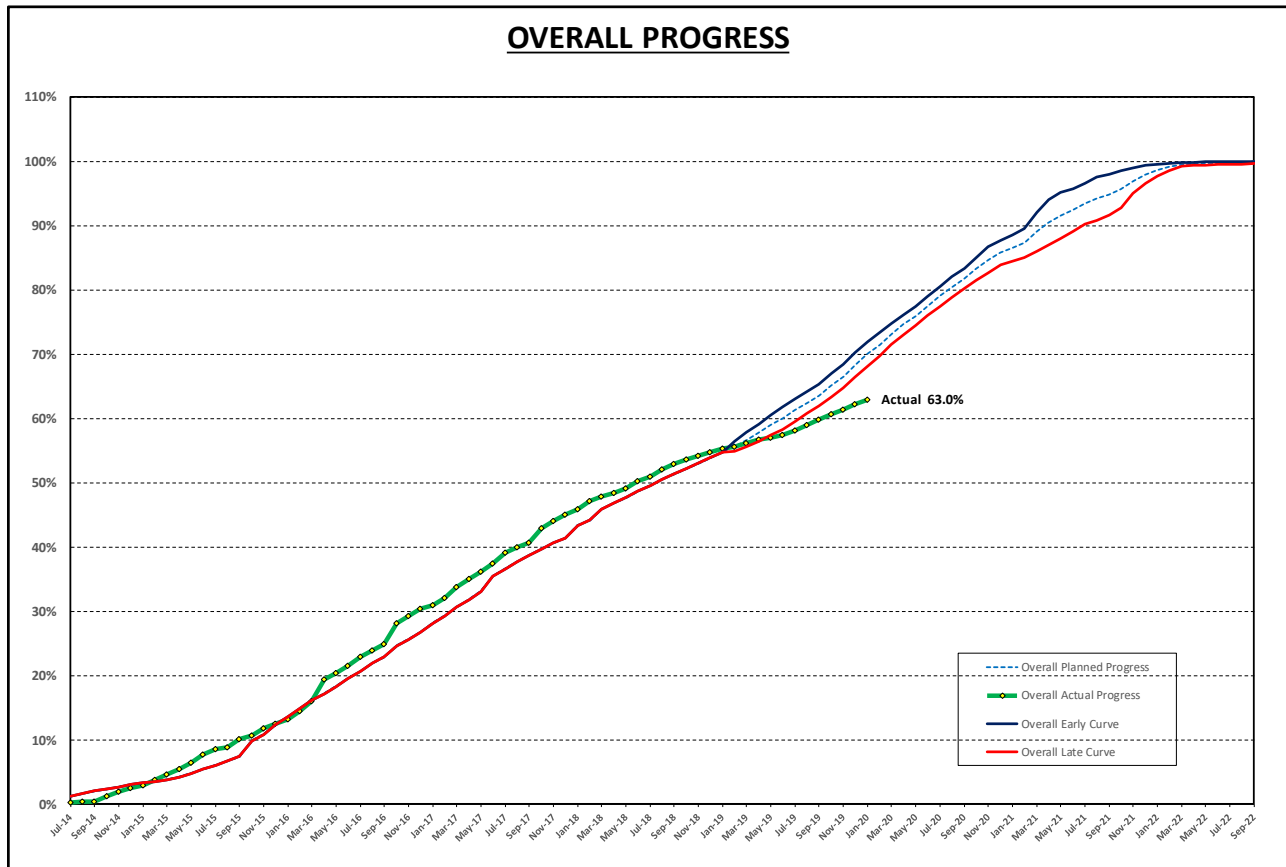


**Progress Summary**

	Status	Change from Last Month	Comment
Forecast Revenue Service	Summer/Fall 2022	None	
Proposed TIFIA Revenue Service	2/25/2023	None	
Proposed FFGA Revenue Service	2/25/2023	None	
<b>Final Design Progress:</b>			
Contract C0980	100%	0.0%	
<b>Construction Contracts Progress:</b>			
Contract C0981R & C0980	61.0%	0.9%	

**Note:** Construction Progress excludes General Requirements, Construction and Design Mobilization, Final Design and Provisional Sum costs (Schedule C). Progress values include executed modifications and change orders.









**Planned vs. Actual Progress**



Current overall planned progress reflects median of early and late finish dates.

**Key Milestone Six-Month Look Ahead**

	Milestone Date	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
Complete 1st Street Tunnel / U-Channel Tunnel Roof Deck	1/3/20 A	◡					
Complete SEM Interior Walls Concrete	1/17/20 A	◡					
Complete West Concourse Station Box Exterior Walls at Historic Broadway Station	02/07/20		◡				
Complete Lower Ancillary Level Walls at Grand Ave / Bunker Hill Station	02/10/20		◡				
Complete Fabrication Pre-Cast Floating Slab Sections	03/05/20			◡			
Complete Wye Cut & Cover Tunnel Temporary Deck Removal	03/08/20			◡			
Complete West Ancillary Tunnel Vent Fan Deck at Little Tokyo / Art District Station	03/13/20			◡			
Complete SEM Plenum Slab Concrete	03/23/20			◡			
Complete South Flower Cut & Cover Tunnel Invert	04/01/20				◡		
Complete Ancillary Upper Level Exterior Walls at Little Tokyo / Art District Station	05/13/20					◡	
Complete Upper Ancillary Level Walls at Grand Ave / Bunker Hill Station	05/29/20					◡	
Complete Station Entrance Ancillary Deck at Historic Broadway Station	06/01/20						◡

 MTA Staff    
  MTA Board Action    
  FTA (Federal Transit Administration)    
  Utility Company  
 Other Agencies    
  Contractors    
  Design Consultant    
  C0980 D/B Contractor

\*A" following date is actual and completed

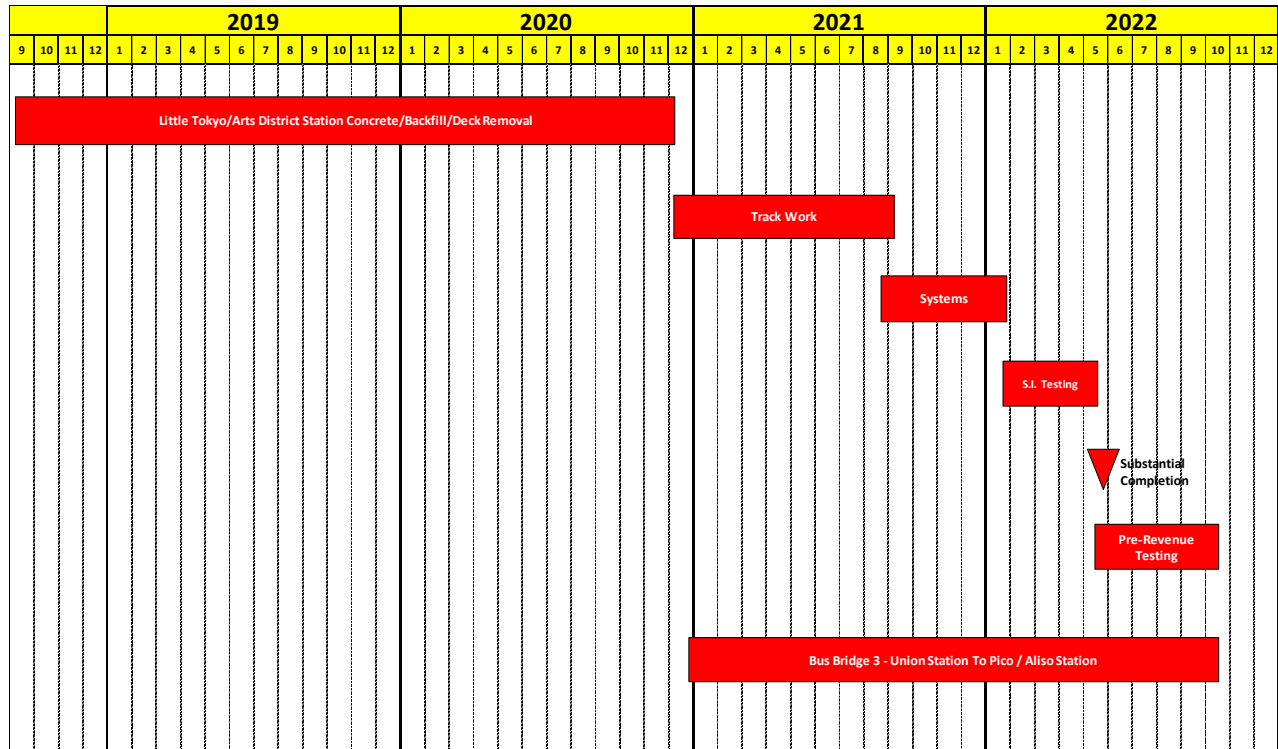
\* New

**Major Equipment Delivery**

**Metro Supplied Equipment**

Equipment	Initial Procurement	Scheduled Delivery	Scheduled Installation
LRT Vehicles	(NTP) 08/20/2012	Option 2 06/30/2020	N/A
Ticket Vending Machines	~ 01/30/2018	07/08/19 A (warehoused)	05/25/2021 ~08/26/2021

**Critical Path (C0980)**



This month, the critical path continues to run through the Little Tokyo/Arts District Station structure.

In Metro’s Project Master Schedule, the primary critical path *is traced* through the future Little Tokyo/Arts District Station concrete. The critical path runs through structural concrete. The current focus is the ancillary west tunnel vent fan deck and the upper level exterior walls.

After station concrete and backfill are completed, the critical path continues through the removal of the temporary decking and pin pile removal at the East Station Box (1st/Alameda). Track provisioning will begin after track access is available at all station areas and tunnel reaches and will be followed *track installation*, then the critical OCS and train control installations. After the majority of the systems installations are complete, systems integration will commence and continue through pre-revenue testing.

## PROJECT COST

### Project Cost Analysis – 860228

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT (860228)  
COST REPORT  
DOLLARS IN THOUSANDS

SCC CODE		FFGA BUDGET	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		BUDGET/ FORECAST VARIANCE
				PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
10	GUIDEWAYS & TRACK ELEMENTS	280,622	204,691	0	272,696	455	253,654	2,318	193,614	605	274,330	1,634
20	STATIONS, STOPS, TERMINALS, INTERMODAL	354,268	219,477	0	230,857	0	229,795	1,366	90,061	1,500	233,300	2,443
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	0	0	0	0	0	0	0	0	0	0	0
40	SITWORK & SPECIAL CONDITIONS	141,785	422,453	0	626,831	0	581,162	2,959	483,578	568	627,399	568
50	SYSTEMS	69,667	73,848	0	77,972	0	67,724	36	18,687	95	78,067	95
	CONSTRUCTION SUBTOTAL (10-50)	846,343	920,468	0	1,208,356	455	1,132,334	6,680	785,940	2,768	1,213,095	4,740
60	ROW, LAND, EXISTING IMPROVEMENTS	115,889	74,208	0	59,315	14	52,630	24	52,623	0	59,315	0
70	VEHICLES	16,275	16,275	0	16,275	0	16,275	0	7,316	0	16,275	0
80	PROFESSIONAL SERVICES	261,455	257,973	0	394,216	121	325,091	2,789	304,154	218	395,477	1,261
	SUBTOTAL (10-80)	1,239,963	1,268,925	0	1,678,162	590	1,526,330	9,493	1,150,033	2,985	1,684,163	6,001
90	UNALLOCATED CONTINGENCY	135,399	126,892	0	51,179	0	0	0	0	-2,985	45,178	-6,001
100	FINANCE CHARGES	27,571	7,115	0	14,301	0	0	0	0	0	14,301	0
	TOTAL PROJECTS (10-100)	1,402,932	1,402,932	0	1,743,642	590	1,526,330	9,493	1,150,033	0	1,743,642	0
	ENVIRONMENTAL/PLANNING - 400228		6,075	0	6,075	0	6,075	0	6,075	0	6,075	0
	ENVIRONMENTAL/PLANNING - 460228		18,125	0	20,425	0	20,425	0	18,988	0	20,425	0
	TOTAL PROJECTS (EVN/PLAN'G)		24,200	0	26,500	0	26,500	0	25,063	0	26,500	0
	TOTAL	1,402,932	1,427,132	0	1,770,142	590	1,552,830	9,493	1,175,096	0	1,770,142	0

#### Original Budget:

The Original Budget of \$1.427 billion reflects the April 2014 Board approved LOP Budget, plus finance costs of \$7.1 million.

#### Current Budget:

In January 2017, the Metro Board revised the LOP Budget for the Regional Connector Project 860228 to \$1.756 billion. Finance costs, estimated at \$14.3 million, are also reflected leading to a total of \$1.770 billion. Budgets were adjusted throughout the SCC structure reflecting revised values as of September 30, 2019.

#### Commitments:

Overall commitments increased by \$0.6 million this month to \$1.55 billion which represents 87.7% of the Current Budget. The increase is related to RCC executed mods, purchase orders from *Legal and an increased commitment in real estate*.

#### Expenditures:

Expenditures are cumulative through *January 2020* and increased by \$9.5 million this month for costs associated with C0980 Design Build Contract, Engineering Management Support, Metro Project Administration, Construction Management Support Services, Third Party Master Cooperative Agreements with the City of LA, Community Relations, and Environmental Consultant Services. The \$1.18 billion in expenditures to date represent 66.4% of the Current Budget.

#### Current Forecast:

The total current forecast remains equal to the total current budget.

**Project Cost Analysis – 861228**

CONCURRENT NON-FFGA ACTIVITIES (861228)  
PROJECT COST STATUS BY FTA SCC  
DOLLARS IN THOUSANDS

SCC CODE		ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		BUDGET/ FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
10	GUIDEWAYS & TRACK ELEMENTS	0	0	0	0	0	0	0	0	0	0
20	STATIONS, STOPS, TERMINALS, INTERMODAL	0	0	0	0	0	0	0	0	0	0
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	10,480	0	10,480	0	10,480	0	0	0	10,480	0
40	SITWORK & SPECIAL CONDITIONS	0	0	0	0	0	0	0	0	0	0
50	SYSTEMS	0	0	5,950	0	500	0	0	0	5,950	0
	CONSTRUCTION SUBTOTAL (10-50)	10,480	0	16,430	0	10,980	0	0	0	16,430	0
60	ROW, LAND, EXISTING IMPROVEMENTS	27,748	0	27,748	0	27,748	0	22,470	0	27,748	0
70	VEHICLES	0	0	0	0	0	0	0	0	0	0
80	PROFESSIONAL SERVICES	650	0	1,150	0	646	7	395	0	1,150	0
	SUBTOTAL (10-80)	38,878	0	45,328	0	39,374	7	22,865	0	45,328	0
90	UNALLOCATED CONTINGENCY	1,113	0	1,113	0	0	0	0	0	1,113	0
100	FINANCE CHARGES	0	0	0	0	0	0	0	0	0	0
	TOTAL PROJECTS (10-100)	39,991	0	46,441	0	39,374	7	22,865	0	46,441	0
	861228 TOTAL	39,991	0	46,441	0	39,374	7	22,865	0	46,441	0

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH JAN 2020.

**Original Budget:**

The Original Budget, Current Budget, and Current Forecast reflect the Board approved LOP Budget established April 24, 2014.

**Current Budget:**

*The budget remains unchanged this month.*

**Commitments:**

*Commitments reflect actions through January 2020.*

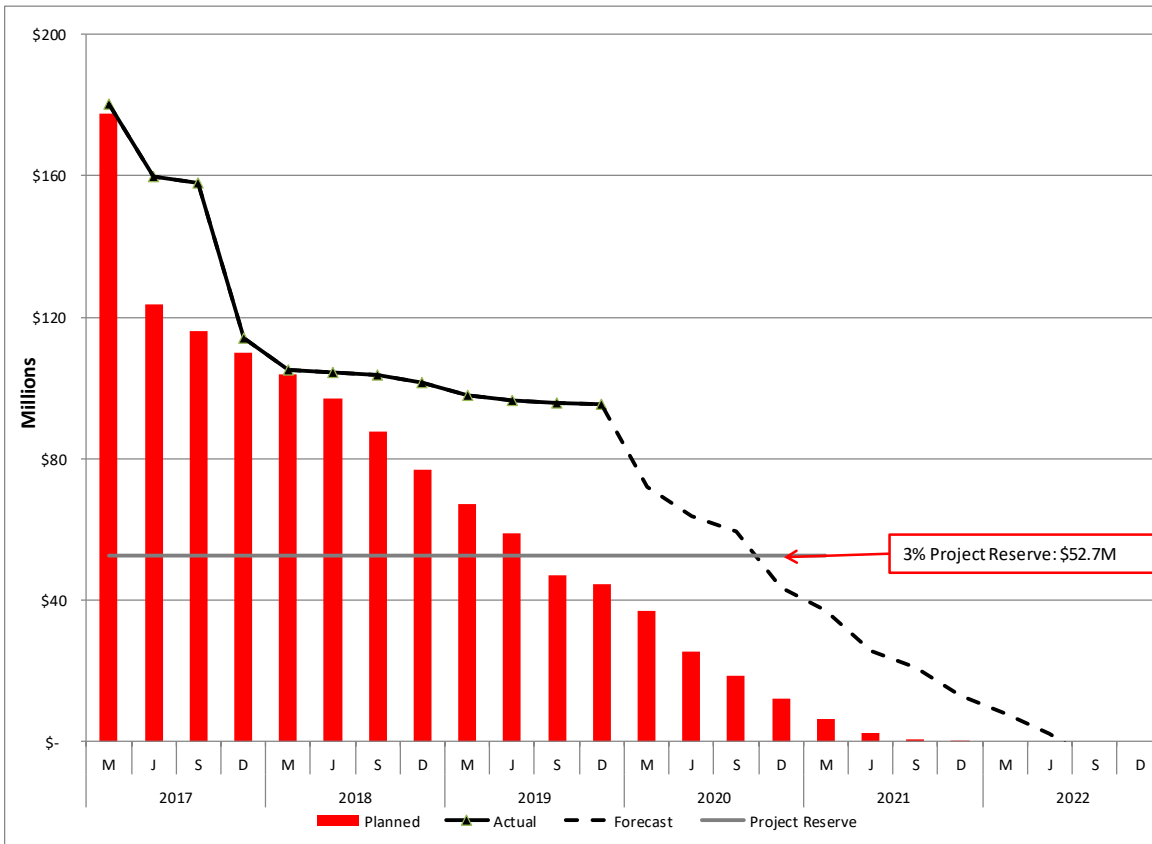
**Expenditures:**

Expenditures are cumulative through *January 2020* and this month's expenditures increased by \$7 thousand. The cumulative \$22.9 million through *January 2020* represent 49.2% of the Current Budget.

**Current Forecast:**

The total current forecast *remains unchanged this month.*

### Cost Contingency Drawdown



### Cost Contingency Drawdown Analysis

In January 2017, the Metro Board revised the LOP Budget to \$1.756 billion, which included increasing the unallocated contingency to \$89 million and allocated contingency to \$92.8 million. From that action, a revised drawdown plan for unallocated contingency, correlated to anticipate risk trends, was developed to monitor and measure drawdowns moving forward.

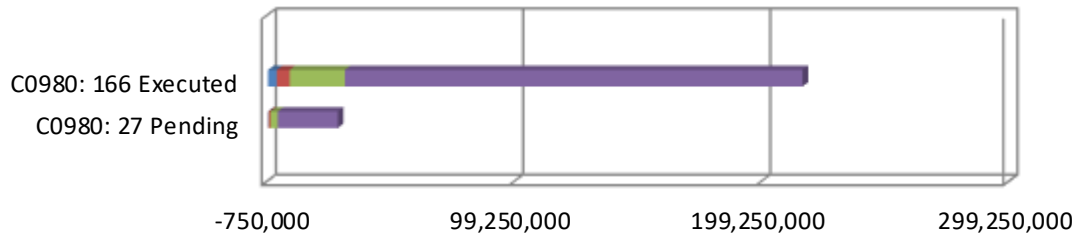
Highlighted in the drawdown is a 3% Project Reserve threshold measured against the LOP Budget. Metro’s Board is to be notified when it becomes necessary to drawdown contingency below the threshold to cover Project costs.

In *January*, there was a \$0.5 million drawdown from contingency due to executed mods. The remaining total Project Contingency (allocated and unallocated) remains \$100.8 million this month.

PROJECT COST CONTINGENCY						
DOLLARS IN THOUSANDS						
	Original Contingency	LOP Contingency	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	124,919	89,946	(41,862)	(2,906)	(44,768)	45,178
Allocated Contingency	86,345	92,809	(39,678)	2,451	(37,226)	55,582
<b>Total Contingency</b>	<b>211,263</b>	<b>182,754</b>	<b>(81,540)</b>	<b>(455)</b>	<b>(81,994)</b>	<b>100,760</b>

**Summary of Contract Modifications**

**Contract Modifications (MODs) by Cost Level**



	C0980		Total
	166 Executed	27 Pending	
■ Under \$100K	3,588,361	203,000	3,791,361
■ \$100K to \$250K	5,221,107	873,396	6,094,503
■ \$250K to \$1M	22,374,051	2,896,269	25,270,320
■ Over \$1M	185,077,940	24,300,000	209,377,940
<b>Total Contract MODs</b>	<b>216,261,459</b>	<b>28,272,665</b>	<b>244,534,125</b>
<b>Contract Award Amount</b>	<b>927,226,995</b>	<b>927,226,995</b>	
<b>% of Contract MODs</b>	<b>23.3%</b>	<b>3.0%</b>	

Note:

1. Percent of Contract MODs equals the Total Contract MODs divided by the Contract Award Amount.
2. Pending Mods are under negotiation.

One hundred and sixty-six (166) changes with a total value of \$216.26 million have been executed since NTP of Contract C0980. An additional 27 changes, with a total estimated value of \$28.3 million, are pending.

## DISADVANTAGED BUSINESS ENTERPRISE (DBE)

As of *December* 2019:

<b>DBE Commitment – Design</b> The percentage of funds apportioned to Design Contracts	22.63%
<b>Current DBE Commitment Design</b> Total DBE Committed Dollars divided by Total Contract Value for Design	\$14.5M (22.63%)
<b>Current DBE Participation</b> Total amount paid to date to DBEs divided by the amount paid to date to Prime	24.09%

Twelve (12) Design DBE sub-consultants have been identified to date.

<b>DBE Commitment – Construction</b> The percentage of funds apportioned to Construction Contracts	18%
<b>Current DBE Commitment Construction</b> Contract commitment divided by current contract value for Construction	\$194.9M (18%)
<b>Current DBE Participation</b> Total amount paid to date to DBEs divided by the amount paid to date to Prime	14.93%

Ninety-four (94) Construction DBE sub-contractors have been identified to date.

## PROJECT LABOR AGREEMENTS (PLA)

As of *December* 2019:

<b>Targeted Worker Goal</b> Construction work to be performed by residents from Economically Disadvantaged Area in the United States	40.00%
<b>Targeted Worker Current Attainment</b>	59.50%
<b>Apprentice Worker Goal</b> Construction work to be performed by Apprentices	20.00%
<b>Apprentice Worker Current Attainment</b>	18.28%
<b>Disadvantaged Worker Goal</b> Construction work to be performed by Disadvantaged Workers who are residents of the United States	10.00%
<b>Disadvantaged Worker Current Attainment</b>	10.28%

## FINANCIAL/GRANT

### Status of Funds by Source

January 2020

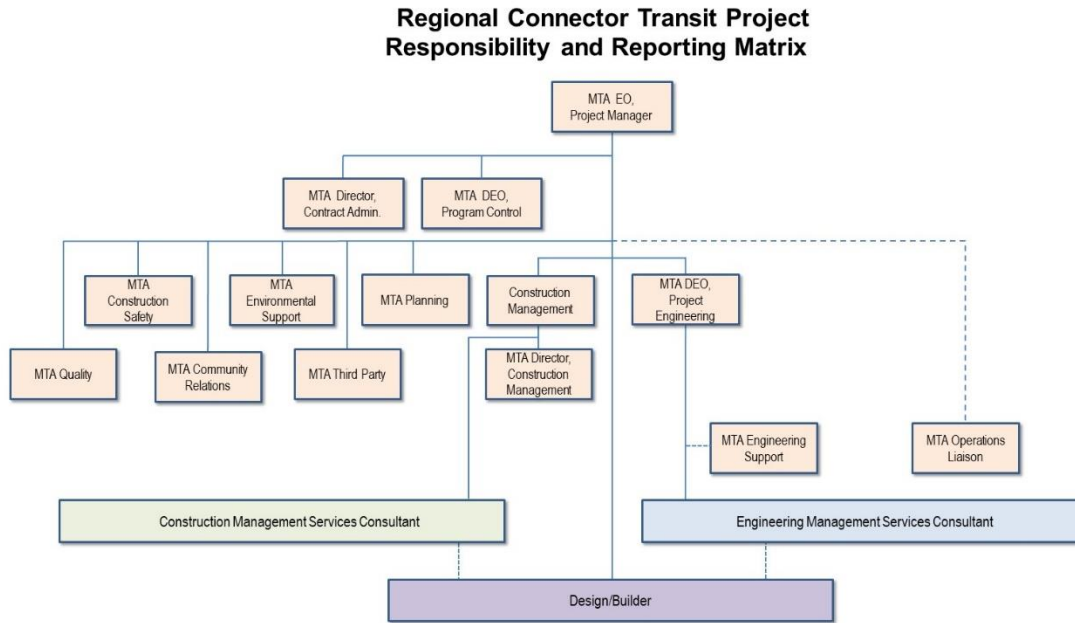
SOURCE	ORIGINAL BUDGET	TOTAL FUNDS	TOTAL FUNDS	COMMITMENTS		EXPENDITURES		BILLED TO FUNDING SOURCE	
		ANTICIPATED	AVAILABLE	\$	%	\$	%	\$	%
FEDERAL - CMAQ	\$64.00	\$218.11	\$64.00	\$128.91	59%	\$49.98	23%	\$46.13	21%
FEDERAL - SECTION 5309 NEW STARTS	\$669.90	\$669.90	\$465.00	\$652.35	97%	\$417.86	62%	\$411.84	61%
FEDERAL - RIP	\$0.00	\$1.41	\$1.41	\$1.41	100%	\$1.41	100%	\$1.41	100%
MEASURE R - TIFIA LOAN	\$160.00	\$160.00	\$141.89	\$160.00	100%	\$141.89	89%	\$141.89	89%
STATE PROPOSITION 1A HSRB *	\$114.87	\$114.87	\$114.87	\$114.87	100%	\$114.87	100%	\$114.87	100%
STATE PROPOSITION 1B PTMISEA **	\$149.50	\$135.16	\$135.16	\$135.16	100%	\$135.16	100%	\$135.16	100%
STATE STIP RIP	\$2.59	\$17.00	\$2.59	\$15.58	92%	\$2.59	15%	\$2.59	15%
STATE CAPITAL PROJECT LOANS - OTHERS ***	\$132.47	\$274.83	\$274.83	\$274.83	100%	\$241.62	88%	\$224.14	82%
MEASURE R	\$27.57	\$0.00	\$0.00	\$0.00	0%	\$0.00	0%	\$0.00	0%
CITY OF LOS ANGELES	\$41.98	\$41.98	\$28.00	\$28.00	67%	\$28.00	67%	\$28.00	67%
LEASE REVENUE	\$64.25	\$79.07	\$0.00	\$0.00	0%	\$0.00	0%	\$0.00	0%
GENERAL FUND - METRO	\$0.00	\$43.50	\$43.50	\$41.71	96%	\$41.71	96%	\$41.71	96%
<b>TOTAL</b>	<b>\$1,427.13</b>	<b>\$1,755.84</b>	<b>\$1,271.26</b>	<b>\$1,552.83</b>	<b>88%</b>	<b>\$1,175.10</b>	<b>58%</b>	<b>\$1,147.75</b>	<b>65%</b>

**NOTES:**

1. EXPENDITURES ARE CUMULATIVE THROUGH JANUARY 31, 2020
  2. METRO AND TRIBUNE AGREED ON REIMBURSEMENT OF \$1.6 MILLION RELATED TO 2ND/BOARDWAY OVERBUILD.
  3. ORIGINAL BUDGET BASED ON FUNDING PLAN INCLUDED IN THE APPROVED FULL FUNDING GRANT AGREEMENT
  4. LACMTA RESERVES THE ABILITY TO UPDATE COSTS AND CHANGE FUND SOURCES AS REQUIRED.
- \* STATE PROPOSITION 1A HIGH SPEED RAIL BONDS  
 \*\* STATE PROPOSITION 1B PUBLIC TRANSPORTATION MODERNIZATION, IMPROVEMENT AND SERVICE ENHANCEMENT ACCOUNT  
 \*\*\* OTHERS INCLUDE TDA ADMINISTRATION, AND NB PROPOSITION A ADMINISTRATION (FOR A TOTAL OF \$.255M)  
 \*\*\*\* OTHERS INCLUDE TDA ADMINISTRATION, AND NB PROPOSITION A ADMINISTRATION (FOR A TOTAL OF \$.255M)

## PROJECT ORGANIZATION AND STAFFING

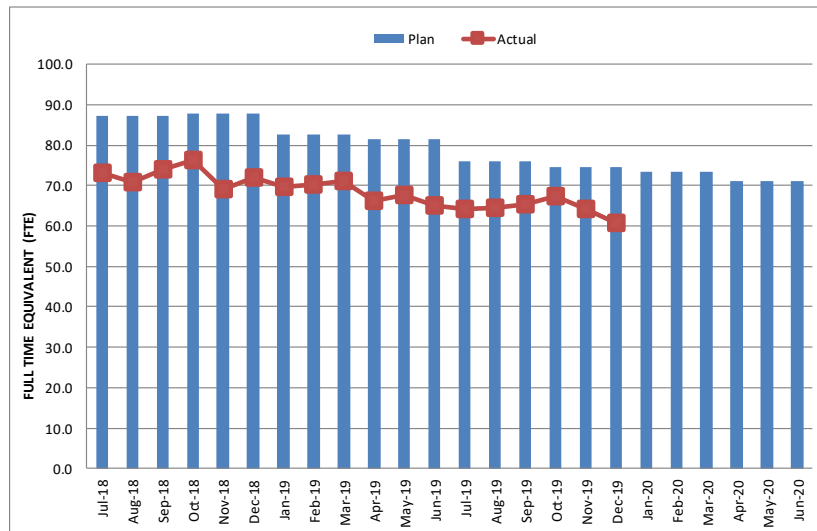
The D/B contract is being managed by a joint team of Metro and consultant personnel jointly located at the Integrated Project Management Office (IPMO).



Updated: 09/2019

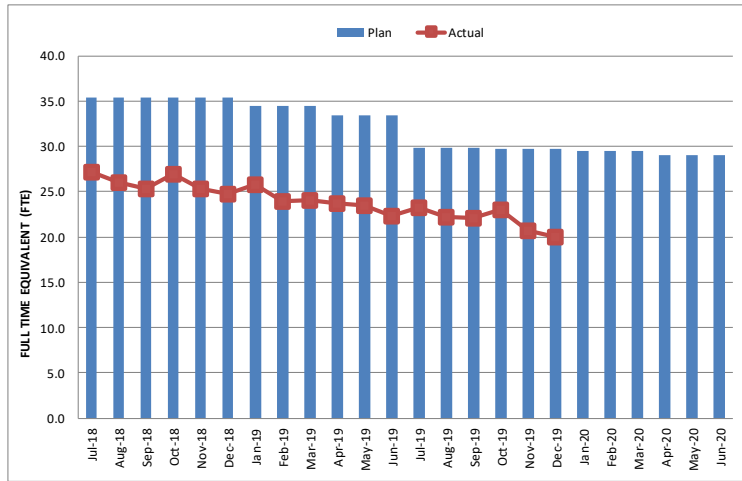
The overall FY20 Total Project Staffing plan averages 73.7 FTE's per month. The total actual project staffing for *December 2019* was 60.8; 20.1 FTEs for Metro's Project Administration staff and 40.7 FTEs for consulting staff. Review of staffing plans is on-going to ensure staffing needs are appropriately managed.

### Total Project Staffing – Metro and Consultants

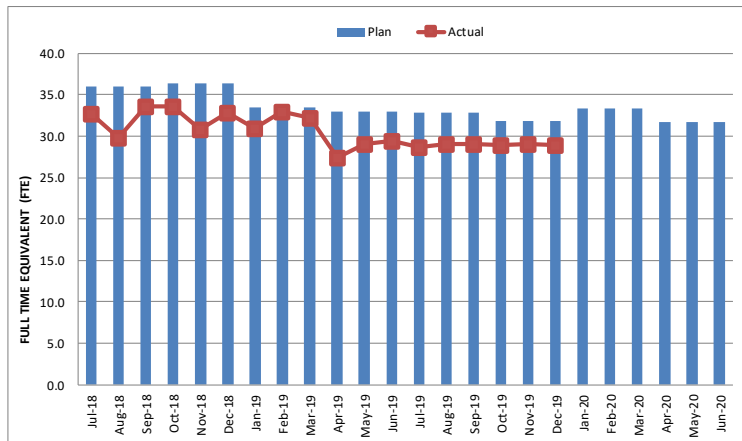


December actuals include 2.4 FTEs related to PMSS Services.

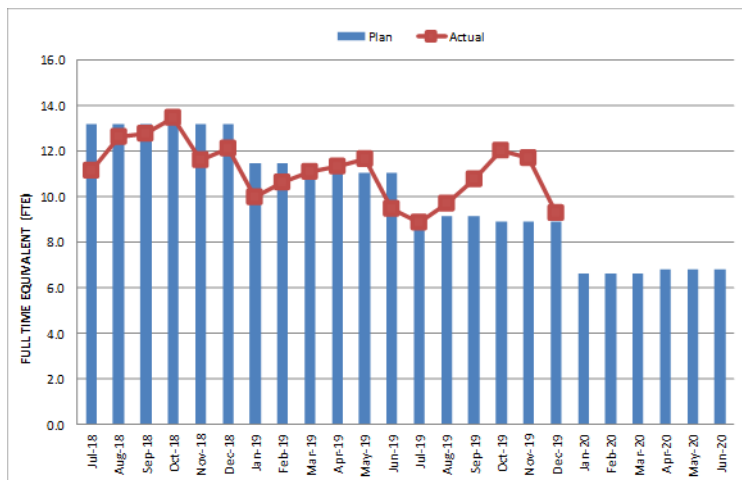
### Metro Staff



### CM Support Services Staff (Consultant)



### Engineering Services Staff (Consultant)



### Staffing by Group

The opposing graphs represent planned vs. actual staffing levels by group.

Metro staffing includes full-time staff located in the IPMO as well as part-time support located at Gateway Headquarters.

Staffing plans are developed for each fiscal year based on Project needs.

All above data through December 2019

## REAL ESTATE

Type of Take	Number of Parcels	Certified	Decertified	Appraisals In Process / Completed	Offers Made	Escrow Closed	Effective OIP	Parcels Available	Remaining
Full Takes	2	2		2	2		2	2	
Part Takes	3	3		3	3			2	1
SSE	12	8	4	9	9	6	2	7	
TCE/ROE	14	5	3	6	6	4	1	5	
PE	3	3		3	3	2		3	
<b>Sub Total</b>	<b>34</b>	<b>21</b>	<b>7</b>	<b>23</b>	<b>23</b>	<b>12</b>	<b>5</b>	<b>20</b>	<b>1</b>
Pedestrian Bridge	420-1, 420-2, 420-3								1
Mangrove Fan Plant	TBD								1
<b>Grand Total</b>	<b>36</b>	<b>21</b>	<b>7</b>	<b>23</b>	<b>23</b>	<b>12</b>	<b>5</b>	<b>20</b>	<b>3</b>

### Open Real Estate Matters

#### City of Los Angeles (Mangrove Parcels)

- Agreement *has been reached with the City of Los Angeles to acquire the remaining easements required from the Mangrove Parcel. County Counsel and Real Estate staff are working with the City Attorney and the City staff to finalize the transfer documents for the fan plant easements and the temporary construction easement which will extend to June 2022.* FTA and the MTA Board approval of the extension was obtained in July 2019. The outlook for closure of this agreement is late first quarter 2020.

#### Department of Water and Power 'Duco Yard' – DWP (RC-473)

- The Purchase Agreement has been reviewed and accepted by Metro. Adoption by the LADWP Board is pending.

#### 2nd and Hope

- *Unknown Ownership Parcel – Hearing to Adopt a Resolution of Necessity to acquire fee interest is scheduled for the February 27, 2020 Regular Board Meeting.*
- *CRALA Parcel – CRALA has accepted the offer, the acquisition will be presented to CRALA's Board on March 5, 2020 or April 2, 2020.*
- *County of Los Angeles Parcel – the County has accepted the offer; the acquisition will be presented to the County's Board in March 2020.*
- *City of Los Angeles Parcel – Working with City staff on terms and conditions to convey the required right of way.*

#### Tribune

- *Finalizing property swap for subsurface easement area.*

## QUALITY ASSURANCE

Metro QA performed the following activities during the month of *January*:

- Reviewed and provided comments on RCC's quality-related submittals
- Performed oversight verification of RCC's design and construction activities
- Reviewed test results for Portland Cement Concrete, Soils Testing, Asphalt Testing and Non-Destructive Testing of Welding
- Attended "Readiness Review" meetings with RCC
- Attended Bi-Weekly Quality Review Meetings with RCC Quality Management
- *Metro QA conducted a surveillance (C980-Surv-2020-01) for the Structural Concrete Placement of the 1st/Central Platform Walls. All activities for this installation were found to be satisfactory and the surveillance was closed.*

*RCC NCR 0062 was issued for damage of (4) Lenton Forms Savers at the North Wall at the future Little Tokyo/Arts District Station. The disposition was approved by the Engineer of Record and Metro, repairs completed by RCC, and the NCR was closed.*

*RCC NCR 0081 was issued for Form Savers not being installed correctly at the future Little Tokyo/Arts District Station. This NCR was sent to the Engineer of Record for disposition approval. The disposition was a rework, work was completed and accepted, and the NCR was closed.*

*RCC NCR 0082 was issued for dowels or couplers not being installed per RFI instructions at the column locations for the elevator pit walls located at Track level B/5-7 at the future Little Tokyo/Arts District Station. The NCR was approved by the Engineer of Record for disposition approval, repairs were completed, and the NCR was closed.*

*RCC NCR 0086 was issued due for an 8" ductile steel line for the west sump ejector at Historic Broadway Station not holding pressure. This NCR is with the RCC for disposition.*

*RCC NCR 0087 was issued for grout termination boxes at the Flower Street Cut and Cover Tunnel West Wall #9 being installed 3 ft. from the top of the invert vs. 5ft. 6 in. as shown on the approved drawings. This NCR is with the RCC for disposition.*

RCC NCRs 0038, 0041, 0047, 0052, 0053, 0054, 0057, 0064, 0067, 0068, 0069, 0073, 0074, 0076, 0077, 0079, 0083, 0084, and 0085 remain open with no change.

## ENVIRONMENTAL

- Stormwater Pollution Prevention Plan (SWPPP) inspections of *most* active Project work areas are conducted weekly by RCC. Metro staff conducted oversight site observations and shared feedback on ways to improve BMP preparation and execution. A comprehensive SWPPP update *is in development by the contractor*. *There were no qualifying rain events in January, but there were days with high winds.*
- In *January*, Metro and the PMOC *met* to review *documentation related to the PMOC comments on the 27th Quarterly Mitigation Monitoring and Reporting Plan covering August 2019 to October 2019.*
- *In January*, Metro *began preparation of the 28th Quarterly Mitigation Monitoring and Reporting Plan covering November 2019 to January 2020 and plans to submit the report no later than February 14, 2020.*
- Noise and vibration spot checks continue to be conducted weekly at multiple sensitive locations, and at the location of new activities along the alignment. *The Contractor conducted attended monitoring weekly at active construction sites or when work and/or equipment changed. In addition, noise and vibration monitoring was also conducted continuously and data was available in an online system. The Contractor also provided a compliance report weekly.* There have been inquiries from stakeholders adjacent to the future Grand Av Arts/Bunker Hill Station and Historical Broadway Station construction sites; however, Metro/RCC's Community Relations team have been responsive and continue to actively address community concerns *in coordination with Area Leads, Resident Engineers, and field staff with respect to each construction site.*
- *No new historic period isolates and no new historic period feature was recorded during January.*

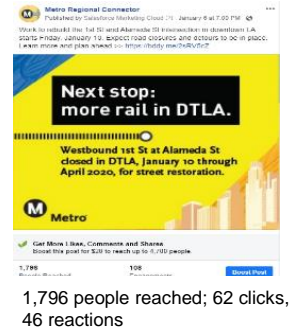
## CONSTRUCTION AND COMMUNITY RELATIONS

### Construction Relations

- Responded and addressed Project related inquiries from the public received via the hotline, email and during office hours at the Little Tokyo Community Office. Concerns were addressed by RCC and Metro project staff.
- Performed public outreach and construction coordination to impacted area stakeholders regarding the following construction activities: concrete placement throughout the alignment, planned street closures at 1st/Alameda for *street* restoration, equipment mobilization *and utility investigation on Flower St*, and geotechnical monitor maintenance.
- *Distributed six (6)* construction notices to the public on the above activities through email and made it available on the Project website and social media outlets.
- Completed a total of *four (4)* construction coordination activities with project adjacent property owners to perform maintenance on geo-tech equipment: Metropolitan News, Onni Times Square, *Square, Café Dulce, Colburn School*.
- Provided weekly construction updates and coordinated work activities with 23 stakeholders: The Westin-Bonaventure Hotel, 444 S Flower St, Central Library/Maguire Gardens, City National Plaza, The California Club, The Standard Hotel, Public School 213, Pegasus Apartments, Charles Dunn, Paragon Parking, Takami Sushi, The Roosevelt Lofts, 888 Figueroa, and 818 7th St, LTBA, LTCC, LT BID, LTSC, JACCC, Sustainable Little Tokyo, JANM, MOCA at Geffen, and Savoy Community Association.
- Presented to *three (3)* community organizations with updates on planned street closures at 1st/Alameda for restoration: *Little Tokyo Business Association/Little Tokyo Business Improvement District (LTBA/LTBID), Little Tokyo Community Council (LTCC), and Little Tokyo Community Council All Committees*.
- Conducted *twelve (12)* briefings to local stakeholders on planned construction activities:
  - *1st/Alameda street closures and restoration: Koyasan Buddhist Temple, Zenshuji Soto Mission, Nishi Hongwanji Temple, Chado Tea Room, KC Beauty, Environmental Contracting Corporation, JANM, MOCA at Geffen, and Savoy Community Association.*
  - *Flower St concrete placement, excavation, and equipment mobilization schedule: Charles Dunn, Westin Bonaventure Hotel, City National Plaza.*
  - Continued standing meetings with: LA City Council District 14, the Mayor's Office.

### Social Media Outreach

- Published *nine (9)* newsletters, including *six (6)* construction updates, totaling *11.9k* mailings.
- Trending stories on social media included *notice* of street restoration closures at 1st/Alameda St; *street restoration detour routes for weekend closures and weekday closures*; progress photos of *deck removal*; and *NextGen bus plan*.



### Eat, Shop, Play – Construction Impact Business Mitigation Program Highlights

- *Through social media, promoted two E.S.P participating businesses taking part in DineLA: Kues and Sake Dojo.*
- *Enrolled two new Little Tokyo business in the program: Yapa and CRFT by Maki.*

### Community Relations

- *Hosted Metro’s Youth Career Experience 2020 Program and presented to 26 high school students on how to build a Regional Connector station module.*
- Continued bi-weekly coordination meetings with Little Tokyo Community Council, Little Tokyo Service Center and additional community partners as part of a new collaboration with Little Tokyo with the goal to better serve Little Tokyo businesses through Metro’s Eat, Shop, Play program.
- Continued work with the monthly Little Tokyo Marketing & Business Task Force to promote special events in Little Tokyo. Launched digital and printed holiday guides to promote unique gift ideas only found in Little Tokyo. Reviewed special programming that will occur in 2020.

## CREATIVE SERVICES

### Art Program

- *Presented Art Program update to Regional Connector Project staff.*
- Reviewed glass mosaic artwork fabrication progress for Grand Ave/Bunker Hill and Historic Broadways Stations.
- Reviewed and responded to RCC PSR, CN and RFI submittals.
- Continued assessment of Project operating impacts to signage systemwide.



Artist Mark Greenfield visits glass mosaic fabrication studio

## SAFETY & SECURITY

### C0980 Regional Connector

- Monitored RCC's pre-employment drug/alcohol testing and new employee safety orientation to ensure compliance with contract specifications.
- Participated in weekly progress meetings with RCC's management personnel and Metro's Construction Manager to discuss safety/security/quality related issues and construction work schedules.
- Conducted Project Safety Orientation for new Metro/Consultants, visitors, and IPMO project staff. Training sessions included Safety Orientation, Underground Safety, and Self Rescuer Training.
- Participated in work plan reviews, daily crew safety meetings, and the RCC 'Safety Stand Down' sessions.
- Monitored construction field activities daily to ensure compliance with contract specifications. Participated with RCC staff in field safety inspection walks of multiple project worksites, laydown areas, and storage yards.
- Monitored Third Party contractor's work activities to ensure safety compliance.
- Made recommendations to utility crews regarding contract activities and improving overall traffic control and pedestrian safety.

### Project Safety Record

- RCC reported no Recordable Injuries during the month of December 2019.
- RCC reported 67,176 work hours for *December 2019*. RCC's total Contract to Date work hours through *December 2019* are 3,507,401 with a total of 17 Recordable Injuries and no Lost Workday (Days Away) case injuries. The C0980 Contract Recordable Injury Rate is 0.97. The Bureau of Labor Statistics reports that the National Average Recordable Injury Rate is 2.5 for heavy civil construction projects.
- Total Contractors' Project to Date Work Hours, including both the C0980 and the completed C0981 AUR contract, through *December 2019* is 3,618,460 hours with 18 recordable injuries. The Total Project Contractor Recordable Injury Rate is 0.99.
- Total Aggregate Project work hours for Contractors, Metro, and Support Services Consultants, through *December 2019* is 4,390,772 with 19 Recordable Injuries and no Lost Workday (Days Away) injury cases. The Total Project Aggregate Safety Rate is 0.87.\*

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\* Using RIR method of calculating.

## APPENDIX CHRONOLOGY OF EVENTS

June 2007	Began Alternatives Analysis study
January 2009	Board approval of Alternatives Analysis study and next phase
February 2009	Began Draft Environmental Impact Statement / Report (EIS / EIR)
October 2010	Board approval of Draft EIS / EIR and selection of locally preferred alternative
January 2011	FTA approval to Enter into Preliminary Engineering
January 2011	Began Preliminary Engineering
August 2011	Board authorized to solicit major D/B contract C0980
October 2011	Issued RFQs for D/B contract C0980
December 2011	Began Real Estate Acquisition
March 2012	Completed PE and began Advanced PE
April 2012	Board certification of Final EIS / EIR and adoption of project
April 2012	Began Final Design - Advanced Utility Relocations (AUR)
June 2012	FTA Record of Decision
August 2012	Issued RFQs for D/B contract C0980
January 2013	Issued RFPs for D/Build contract C0980
March 2013	Completed Final Design - Advanced Utilities Relocation (AUR)
May 2013	NTP for Construction Management Services contract MC070
June 2013	Beginning of AUR contract C0981R Bid Period
July 2013	Submitted TIFIA loan application
July 2013	Submitted first draft FFGA application to FTA for review

September 2013	Received proposals for D/B Contract C0980
September 2013	Submitted second draft FFGA application to FTA, incorporating FTA comments
October 2013	Submitted Application to FTA Requesting an FFGA
November 2013	Started Emergency Generator Replacement Tank at 2nd Street and Historic Broadway Station (LA Times Building)
December 2013	Issued "Notice of Intent to Award" letter to contract C0981R contractor Pulice Construction Inc.
January 2014	Awarded AUR contract C0981R to Pulice Construction Inc.
February 2014	Issued Notice to Proceed for AUR Contract C0981R
February 2014	FTA issued Full Funding Grant Agreement to Metro
March 2014	Issued Amendment # 11 for D/B Contract C0980
March 2014	Started Survey for AUR Contract C0981R
April 2014	Metro Board approved the award of D/B Contract C0980 and established a LOP Budget
May 2014	Awarded D/B Contract C0980 to Regional Connector Constructors, Joint Venture
June 2014	Obtained possession of the Mangrove property from the City of Los Angeles
July 2014	Issued Notice to Proceed for D/B contract C0980
August 2014	C0980 D/B Contractor (RCC) began Final Design
September 2014	Metro performed the ground-breaking ceremony for C0980 D/B Contract
October 2014	EN077 Contractor, Arcadis, removed the underground storage tank at LA Times Parking Lot
November 2014	C0981R AUR Contractor completed DWP power work at 1st St. and Alameda
December 2014	Metro completed Field Vibration Testing for existing Expo and Gold Lines
January 2015	Demolish Buildings at 1st/Central Station
February 2015	Metro approved the Baseline Schedule for C0980 D/B Contract

March 2015	RCC started Historic Broadway Station Site Move-In
April 2015	Metro terminated C0981R Contract for convenience
May 2015	RCC started pile installation at Mangrove Launch Pit
June 2015	RCC started decking for shoofly bridge (Pile Cap & Grade Beam)
July 2015	DWP Water started installing 36" Water Valve at Alameda St.
August 2015	RCC completed DWP Power work at Flower & 5th Street
September 2015	RCC started Phase 2 DWP Power Relocation work at Broadway (Behind K Rail).
October 2015	RCC started pile installation at 1st/Central Station
November 2015	RCC completed Central Ave Full Closure (Pile & Decking)
December 2015	Metro Board approved the increase (\$131.8M) of the Project LOP Budget to \$1,589.9 million.
January 2016	RCC began implementation of Bus Bridge # 1 (Shoofly Tie-In Work at Little Tokyo).
February 2016	RCC began implementation of full closure at 2nd/Broadway intersection.
March 2016	RCC completed Bus Bridge # 1 (Shoofly Tie-In at Little Tokyo) work.
March 2016	Excavation of 1st/Central Station was initiated.
April 2016	TBM (Tunnel Boring Machine) was delivered to the temporary storage site.
May 2016	Closed 1st Street between Alameda and Central Streets. Opened northbound 1st East of Alameda Street.
June 2016	RCC completed excavation at 1st/Central Station Box
June 2016	RCC began pile installation on west side of Flower Street between 4th and 5th Street
July 2016	RCC initiated pile installation at Historic Broadway Station (West Hammer Head)
July 2016	RCC Initiated CIP invert at 1st/Central Station Box
August 2016	RCC completed 36" waterline replacement at 1st/Alameda

September 2016	RCC completed temporary decking at 1st/Alameda intersection (Wye)
October 2016	Metro performed TBM lowering ceremony
October 2016	RCC completed CIP invert at 1st/Central Station Box
November 2016	RCC completed CIP invert at Mangrove Launch Pit and Wye
December 2016	RCC completed Phase 1, 2nd Street Decking in front of LA Times Bldg.
January 2017	Metro Board approved a LOP Budget increase
February 2017	RCC initiated TBM mining (1st – Left)
March 2017	RCC completed TBM mining under JVP (first 500 ft.)
March 2017	RCC completed temporary decking on Flower St. (between 4th and 5th)
April 2017	RCC completed sub-invert at TBM retrieval pit
April 2017	RCC completed CIP invert at Grand Av Arts/Bunker Hill Station Box
May 2017	RCC completed temporary decking at Historic Broadway Station
May 2017	RCC completed water relocation work along Flower Street
June 2017	RCC completed mining and broke through at Grand Av Arts/Bunker Hill Station
June 2017	Five-month full closure of 6th Street approved by LADOT, Caltrans and LADWP
July 2017	RCC completed TBM mining of the first tunnel
August 2017	RCC extracted TBM shields from the Retrieval Shaft
September 2017	RCC began TBM mining of the second tunnel (right)
October 2017	RCC completed TBM mining under JVP (first 500 ft.)
October 2017	RCC completed temporary decking on Flower St. (between 5th and 6th, deck beam 16 to deck beam 58)
November 2017	Completed five-month full closure of 6th Street

November 2017	Initiated underpinning related to the Historic Broadway Station
December 2017	RCC completed mining and broke through at Grand Av Arts/Bunker Hill Station (Right Tunnel)
January 2018	RCC completed TBM mining of the second tunnel (right)
February 2018	RCC began excavation of cross passages
February 2018	RCC began SEM canopy pipe installation
March 2018	RCC began tunnel invert concrete
March 2018	RCC completed infrastructure for power relocation work at 6th/Flower
April 2018	RCC completed entrance structure excavation of Historic Broadway Station
May 2018	RCC began SEM excavation
June 2018	LADWP Power completed cable pulling at 6 <sup>th</sup> /Flower
June 2018	Completed underpinning related to the Historic Broadway Station
July 2018	RCC completed station box excavation of Historic Broadway Station
August 2018	Completed entrance structure invert of Historic Broadway Station
September 2018	Completed temporary decking of Flower Street
October 2018	RCC started the CN 106.2 Final Design of the Revised Cable Transmission System for the Gold Line
October 2018	Metro completed approval of floating slab test results
October 2018	RCC completed SEM left drift excavation
October 2018	RCC completed Trainway Feeder duct bank at Flower St & 7 <sup>th</sup> St
November 2018	RCC completed Little Tokyo / Arts District Station Box Excavation
November 2018	RCC completed Grand Av Arts/Bunker Hill Station East Platform Level Exterior Walls
December 2018	RCC completed SEM right drift excavation

December 2018	RCC completed the Historic Broadway Station west invert
December 2018	RCC started tunnel walkways between the future Little Tokyo/Arts District Station to Historic Broadway Station
December 2018	RCC started the future Little Tokyo/Arts District Station east invert
December 2018	RCC completed Grand Av Arts/Bunker Hill Station mezzanine concrete
January 2019	RCC completed Grand Av Arts/Bunker Hill Station invert concrete
January 2019	RCC completed SEM center top drift excavation.
January 2019	RCC started Little Tokyo/Arts District Station west cable pit and sump pit
February 2019	RCC completed SEM excavation
February 2019	RCC completed platform level exterior walls at Grand Av Arts/Bunker Hill Station
February 2019	RCC started fire protection in tunnels
March 2019	RCC completed Little Tokyo/Arts District Station invert concrete
March 2019	RCC completed Bored Tunnels walkway concrete
April 2019	RCC completed Grand Av Arts/Bunker Hill Station east concourse deck concrete
April 2019	RCC completed 1 <sup>st</sup> Street Cut & Cover / U-Channel Level 1 excavation
May 2019	RCC completed North Flower Cut & Cover tunnel invert concrete
May 2019	RCC completed Wye Cut & Cover tunnel invert concrete
June 2019	RCC completed Right Tunnel floating slab curb
July 2019	RCC completed Left Tunnel floating slab curb
July 2019	RCC completed SEM Cavern concrete invert
August 2019	RCC completed 7th Street / Metro Center Wall Demolition
August 2019	RCC completed the Historic Broadway Station West Concourse Deck

September 2019	RCC completed Historic Broadway Station east invert
September 2019	RCC completed South Flower Cut & Cover tunnel excavation
October 2019	RCC completed Wye Tunnel Cut & Cover walls
October 2019	RCC completed Grand Av Arts/Bunker Hill Station concourse walls
November 2019	RCC completed Wye Tunnel Cut & Cover Roof Deck
November 2019	RCC completed SEM Cavern Exterior Walls
December 2019	RCC completed Little Tokyo/Arts District Station plenum deck concrete
<i>January 2020</i>	<i>RCC completed SEM Cavern Interior Walls</i>
<i>January 2020</i>	<i>RCC completed 1st Street Tunnel Cut &amp; Cover Roof Deck</i>