

Los Angeles County  
Metropolitan Transportation Authority

# Regional Connector Transit Corridor

East Los Angeles ↔ Santa Monica

Azusa ↔ Long Beach



**Metro**<sup>®</sup>

# **REGIONAL CONNECTOR TRANSIT CORRIDOR 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).

**October 2016**

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**PROJECT SUMMARY**

**As of October 2016**

<b>LOCATION:</b> Downtown Los Angeles		<b>CONSTRUCTION MANAGEMENT CONSULTANT:</b> ARCADIS																																																																	
<b>DESIGN CONSULTANT:</b> Connector Partnership JV		<b>CONTRACTOR:</b> Regional Connector Constructors, Joint Venture																																																																	
<b>TBM Lowering Ceremony</b>		<b>WORK/ACTIVITY DURING PAST MONTH</b>																																																																	
		<ul style="list-style-type: none"> <li>Completed "Steady State" implementation on Flower Street</li> <li>Concrete pour for invert at 1st/Central Station continued</li> <li>Compensation grouting under Central Ave continued</li> <li>TBM shaft excavation and SOE at Mangrove Yard continued</li> <li>Excavation and installation of walers and struts at the Wye continued</li> <li>Pile installation at 2nd/Broadway continued</li> <li>Installation of deck beams at 2nd/Broadway intersection continued</li> <li>Relocation of communication utilities in 2nd/Spring Intersection continued</li> <li>Installation of tie-backs, struts and walers at 2nd/Hope SOE continued</li> <li>Water relocations along Flower Street continued</li> <li>Began deck beams and deck panels installation at 4th/Flower Sts.</li> <li>Cap beam installation on Flower St. continued</li> <li>Excavation and installation of steel liner plates and grouting at the Tie-back Removal Pit continued</li> <li>Geotechnical monitoring equipment installation across the project alignment continued</li> </ul>																																																																	
<b>EXPENDITURE STATUS (\$ In Millions)</b>		<b>SCHEDULE ASSESSMENT</b>																																																																	
<b>ACTIVITIES</b>	<b>CURRENT BUDGET</b>	<b>EXPENDED AMOUNT</b>	<b>PERCENT EXPENDED</b>																																																																
<b>DESIGN</b>	\$133.9	\$118.2	88.3%																																																																
<b>RIGHT-OF-WAY</b>	\$110.5	\$68.9	62.4%																																																																
<b>CONSTRUCTION</b>	\$1,085.6	\$349.9	32.2%																																																																
<b>OTHER</b>	\$269.0	\$100.7	37.4%																																																																
<b>TOTAL</b>	<b>\$1,598.9</b>	<b>\$637.7</b>	<b>39.9%</b>																																																																
<p>Current Budget reflects Board approved Life-of-Project Budget and includes Finance Charges.</p> <p>Note: Expended amounts are through 09/30/2016.</p>		<p><b>MAJOR SCHEDULE ACTIVITIES</b></p> <table border="1"> <thead> <tr> <th>MAJOR SCHEDULE ACTIVITIES</th> <th>PRIOR PERIOD</th> <th>CURRENT PLAN</th> <th>VARIANCE WEEKS</th> </tr> </thead> <tbody> <tr> <td colspan="4"><b>Environmental</b></td> </tr> <tr> <td>FEIS / FEIR</td> <td>N/A</td> <td>04/26/12</td> <td>Complete</td> </tr> <tr> <td>SEIS Flower St.</td> <td>N/A</td> <td>12/18/15</td> <td>Complete</td> </tr> <tr> <td colspan="4"><b>Design</b></td> </tr> <tr> <td>PE Notice to Proceed</td> <td>N/A</td> <td>01/04/11</td> <td>Complete</td> </tr> <tr> <td>Final Design complete</td> <td>05/31/17</td> <td>05/31/17</td> <td>0</td> </tr> <tr> <td colspan="4">Note: Completion of systems design is now projected for end of December 2016. No adverse impact to the overall schedule is anticipated from these design delays.</td> </tr> <tr> <td colspan="4"><b>Right-of-Way</b></td> </tr> <tr> <td>All parcels available</td> <td>08/15/18</td> <td>08/15/18</td> <td>0</td> </tr> <tr> <td colspan="4">Note: ROW dates are adjusted to reflect the latest D/B Contractor's coordinated Need Dates. Duco Yard need date is in August 2018.</td> </tr> <tr> <td colspan="4"><b>Construction - Design / Build Contract</b></td> </tr> <tr> <td>Notice to Proceed</td> <td>07/07/14</td> <td>07/07/14</td> <td>Complete</td> </tr> <tr> <td>Construction complete</td> <td>05/02/16</td> <td>05/02/21</td> <td>0</td> </tr> <tr> <td>Revenue Service Date</td> <td>07/15/16</td> <td>07/15/21</td> <td>0</td> </tr> <tr> <td colspan="4">Note: *The project is reflecting an approximate seven-month delay to the RSD due to differing site conditions related to underground utilities.</td> </tr> </tbody> </table>		MAJOR SCHEDULE ACTIVITIES	PRIOR PERIOD	CURRENT PLAN	VARIANCE WEEKS	<b>Environmental</b>				FEIS / FEIR	N/A	04/26/12	Complete	SEIS Flower St.	N/A	12/18/15	Complete	<b>Design</b>				PE Notice to Proceed	N/A	01/04/11	Complete	Final Design complete	05/31/17	05/31/17	0	Note: Completion of systems design is now projected for end of December 2016. No adverse impact to the overall schedule is anticipated from these design delays.				<b>Right-of-Way</b>				All parcels available	08/15/18	08/15/18	0	Note: ROW dates are adjusted to reflect the latest D/B Contractor's coordinated Need Dates. Duco Yard need date is in August 2018.				<b>Construction - Design / Build Contract</b>				Notice to Proceed	07/07/14	07/07/14	Complete	Construction complete	05/02/16	05/02/21	0	Revenue Service Date	07/15/16	07/15/21	0	Note: *The project is reflecting an approximate seven-month delay to the RSD due to differing site conditions related to underground utilities.			
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<b>AREAS OF CONCERN</b>		<b>CRITICAL ACTIVITIES / 3 MONTH LOOK AHEAD</b>																																																																	
<ul style="list-style-type: none"> <li>Schedule mitigation measures are being implemented across the alignment to address continuing and new delays precipitated by utility relocations. Major street and intersection closures are being coordinated with LADOT, LABOE, and Council District 14 to facilitate construction plans and schedules. Additionally, Metro and RCC are coordinating with DWP and third party utility owners on utility design and relocation issues along Flower, Broadway, and Alameda streets to advance construction fronts at these locations. Schedule recovery measures notwithstanding, schedule float and flexibility is minimal; opportunities for improvement continue to be reviewed.</li> <li>Studies continue regarding the design solution(s) for accommodating higher than anticipated elevation of DWP power assets at 6th/Flower. Minimizing impacts to area stakeholders, traffic flows and project schedule are driving considerations.</li> </ul>		<ul style="list-style-type: none"> <li>100% design packages for all three stations, bored tunnel, SEM cavern and systems; review of the related AFCs</li> <li>Begin preparation activities for TBM Launch</li> <li>Begin pile installation for SEM access shaft</li> <li>Complete traffic switch to Broadway Phase 2 mid-block closure</li> <li>Complete Alimak (personnel construction elevator) installation and certification at 2nd/Hope Station</li> <li>Begin shotcrete and removal of tie-backs at Removal Shaft</li> <li>Reconcile path-forward for schedule and costs</li> </ul>																																																																	
<b>ROW ACQUISITION</b>	<b>PLAN</b>	<b>CERTIFIED</b>	<b>ACQUIRED</b>	<b>REMAINING</b>																																																															
PERMANENT PARCELS	5	5	4	1*																																																															
TEMPORARY PARCELS	31	16	15	3*																																																															
<b>TOTAL PARCELS</b>	<b>36</b>	<b>21</b>	<b>19</b>	<b>4**</b>																																																															
* Remaining parcels are scheduled in-advance of need dates.																																																																			
** Broad SSE, DucoYard, 2nd & Hope Pedestrian Bridge and Wye Fan Plant.																																																																			

## **PROJECT OVERVIEW & STATUS**

The Regional Connector Transit Corridor Project (Project) will link the current terminus of the Blue and Expo Lines at 7th/Metro Center to the Gold Line near the Little Tokyo/Arts District Station in a new underground alignment along Flower Street and 2<sup>nd</sup> Street in Downtown Los Angeles. The Project is scheduled to become operational in two phases: one to tie into the existing Eastside Gold Line along 1st Street; and subsequently to the existing Gold Line to Pasadena along Alameda Street toward Union Station. Revenue Service Date (RSD) is forecasted for July 2021 (FFGA planned RSD is May 2021).

The alignment will extend underground from the 7th Street/Metro Center Station under Flower Street to 2nd Street. It will then proceed east underneath the 2nd Street tunnel to just west of Central Avenue where the alignment will veer northeast under privately-held property, Japanese Village Plaza. At 1<sup>st</sup> Street and Central, the tracks continue underground heading northeast under 1<sup>st</sup> and Alameda Streets. A junction ("Wye") will be constructed beneath the 1st and Alameda intersection. To the north and east of the junction, trains will rise to the surface through two new portals to connect to the Metro Gold Line heading north to Pasadena and east to Atlantic Boulevard. One portal will be located northeast of the Little Tokyo/Arts District Station and tracks. This portal will rise to the north within the City of LA DWP Maintenance Yard and connect to the existing LRT bridge over the US-101 freeway, allowing a connection to the Metro Gold Line to Pasadena. The portal will be connected to the 1st and Alameda junction by a new cut and cover box structure crossing beneath Temple Street and the parcel on the northeast corner of 1st and Alameda Streets, running immediately east of the existing Little Tokyo/Arts District Station and tracks. The second portal will be located within 1st Street between Alameda and Vignes Streets. Tracks will rise to the east within this second portal and connect at-grade to the existing Metro Gold Line tracks toward Atlantic Boulevard.

### **Major Contract Procurement**

The Board authorized to solicit a major Design/Build (D/B) contract, C0980, in August 2011. Metro staff recommended to award contract C0980 to the Regional Connector Constructors (RCC), a joint venture of Skanska USA Civil West California District, Inc. and Traylor Brothers, Inc. and Metro Board authorized award of the contract on April 24, 2014; Notice to Proceed (NTP) to RCC, issued July 7, 2014. Solicitation of an Advanced Utility Relocations Contract, C0981R, completed February 2014 after Metro's Procurement team awarded the contract to Pulice Construction, Inc. in January 2014 and issued NTP on February 18, 2014. Contract C0981R was terminated for convenience on April 14, 2015 and remaining AUR work has been transferred to C0980, D/B contractor.

## **PROJECT OVERVIEW & STATUS (Cont.)**

### **Construction**

*Varied operations are underway throughout the alignment to include: guideway and station box support of excavation, station box excavation, TBM assembly, settlement monitoring instrumentation placement, utility relocation, and structural concrete. Operations are currently active seven days with some being performed on a multiple-shift basis.*

### **Systems**

The existing functional operations at the Rail Operations Center (ROC) necessitate an expansion to accommodate the central control functions associated with five new rail lines and extensions including the Regional Connector Transit Corridor Project. Design for the ROC Reconfiguration Project was completed to reconfigure the second floor to prepare for Expo II and Foothill Rail Line extensions, and the design will be further updated with each successive integration of the Crenshaw/LAX, Regional Connector and Purple Line projects.

### **Light Rail Vehicle**

Four Light Rail Vehicles (LRVs) for the Project will be procured and delivered by Kinkisharyo International, LLC under Contract P3010. The base contract includes 235 LRVs and options which will add up to 157 LRVs to the total. The four LRVs for the Regional Connector Project are currently in Option 2 of the P3010 Contract. Manufacturer continued performing qualification and post shipment tests on prototype cars 1 and 2 at LACMTA's Green Line shop.

### **Program Management**

The current budget was established in the December 2015 session of the Metro Board. The Board revised the Life-of-Project (LOP) budget to \$1.552 billion for the RCTC Project No. 860228 and maintained the LOP budget of \$39,991,168 for RCTC Project No. 861228 for Concurrent Non-FFGA Project activities.

Funding for the project comes from a variety of sources to include Federal New Starts, TIFIA Loan, State repayment of capital project loan, State Proposition 1B, State proposition 1A (High Speed Rail), local agency and lease revenues, and from the Congestion Mitigation and Air Quality Improvement Program. The bulk of the funding - 56% - comes from federal sources.

## **PROJECT OVERVIEW & STATUS (Cont.)**

Project commitments through *October 2016* increased by \$32.9 million to \$1.41 billion or 90.5% of the Current Budget. *The increase includes RCC executed modifications and FY17 Work Orders issued to the City of Los Angeles.* Project expenditures through *September 2016* are \$615.0 million or 39.4% of the budget. The expenditures to date are for engineering management, construction management support services, third party utility relocation work, agency administration, design build contract (C0980), right-of-way, various master cooperative agreements, and other professional services.

The project master schedule forecasts July 2021 for Revenue Service, which will be executed in two phases. Phase I Revenue Service Date to Eastside is in March 2021 and Phase II Revenue Service Date to Pasadena is in July 2021.

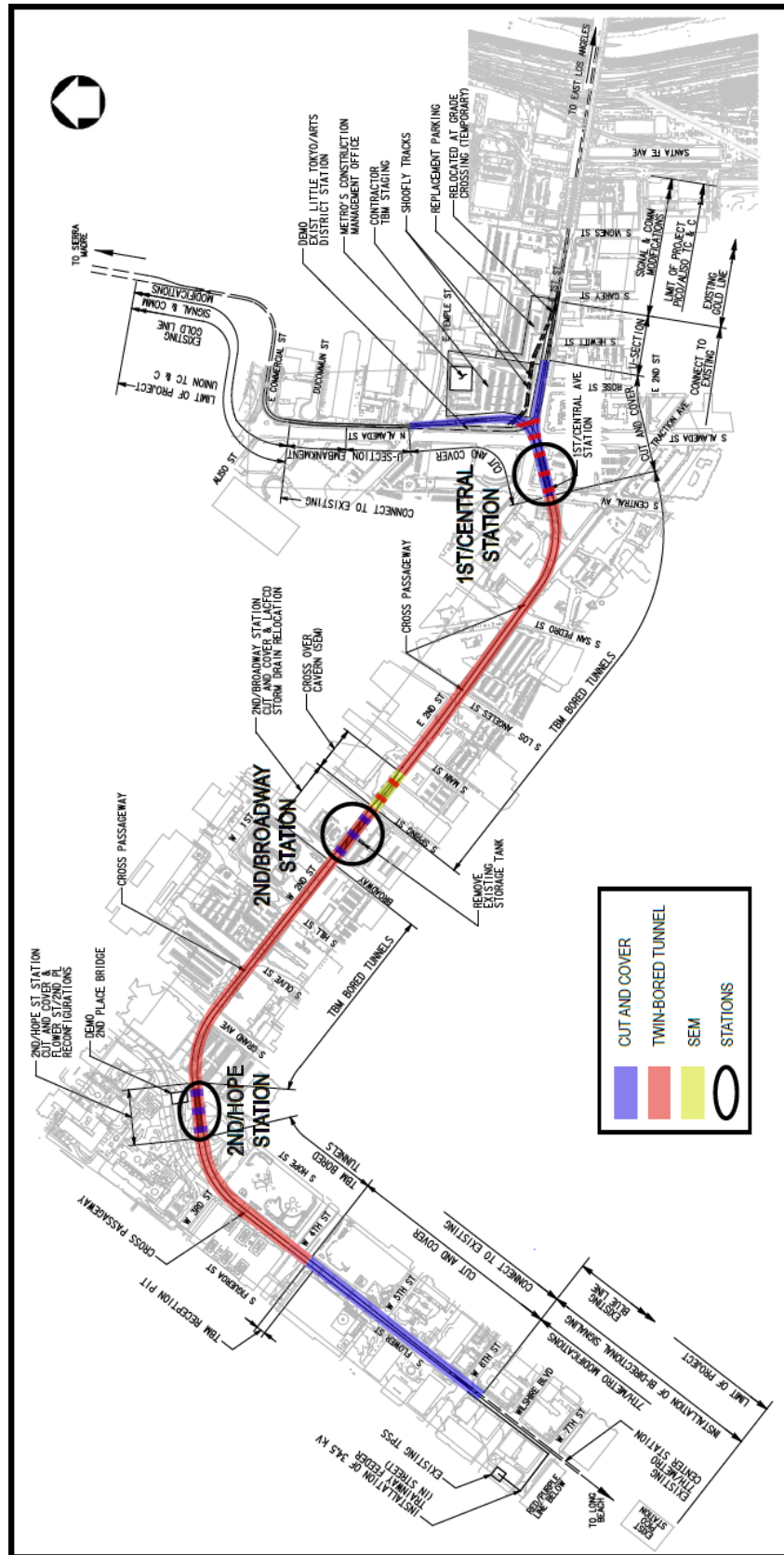
A comprehensive risk register is reviewed and updated on a monthly basis. Risk Management reporting will continue to be on a quarterly basis. Metro is targeting an updated risk register in November 2016.



## MANAGEMENT ISSUES / OPPORTUNITIES

<b><u>Concern No.1:</u></b>	Utility relocations have been delayed, impacting RCC's schedule.
<b>Status/Action</b>	Metro and RCC are collaborating on a schedule plan which includes significant re-sequencing of work and additional measures to complete the project expeditiously. Elements of this plan are dependent upon obtaining various street closures for station and guideway construction. Approvals of such closures are being vigorously pursued.
<b><u>Concern No. 2:</u></b>	Resource limitations impact the City's ability to review multiple Traffic Control Plans, therefore impacting construction progress on Flower and 2nd Streets.
<b>Status/Action</b>	Metro is working with RCC, LADOT and BOE to actively expedite submissions, quality reviews, and approvals of required plans.
<b><u>Concern No. 3:</u></b>	<i>Plans to relocate LADWP power assets under 6<sup>th</sup>/Flower will adversely impact project schedule and costs.</i>
<b>Status/Action</b>	<i>Designs are underway in concert with LADWP parameters. Said designs are focused on limiting impacts to area stakeholders and traffic flow. Close collaboration with City of LA entities is essential.</i>
<b><u>Opportunity No. 1:</u></b>	Metro is working with RCC to identify alternate sequencing to complete the Wye construction and commissioning earlier, while minimizing impacts from bus bridges.
<b>Status/Action</b>	Collaboration between Metro and RCC continues to establish plans and sequences to affect the efficiencies sought. Schedule drafts are anticipated in <i>November</i> 2016.

# PROJECT ALIGNMENT



## **BASE PROJECT SCOPE**

### **Engineering**

This phase consists of Preliminary Engineering (PE), Advanced PE (APE) and Final Design. During Preliminary Engineering, the Design Consultant, CPJV, was responsible for engineering, design, and development of fixed facilities, stations, guideways, tunnels, and related facilities for the Project to a level sufficient to provide the basis for final design. CPJV was also responsible for documentation necessary to support the Environmental Assessment process and the engineering and final design for advanced utility relocations.

Alignment modifications and Value Engineering were developed during Advanced PE to accommodate environmental mitigations and further develop the design to better accommodate rail operations and reduce the cost of the Project. PE and APE were completed in March 2013.

Final design for advanced utility relocations performed by Metro and Engineering Design Consultant was completed during Advanced PE and it included DWP water and power lines as well as City of LA sewer lines. AUR final design for other utilities was performed by individual utility companies. The balance of Final Design is being performed by the D/B Contractor Team as part of the C0980 Contract.

### **Metro Furnished Equipment**

Metro is procuring Light Rail Vehicles and Universal Fair System (UFS) equipment. Four Light Rail Vehicles for the Project will be procured and delivered by Kinkisharyo International, LLC under Option 2 of Contract P3010. The vehicles will be tested and accepted at the Gold Line Yard and put in service when the line is open for Revenue Service. UFS equipment will be designed, fabricated and installed under a Metro contract.

### **Construction**

The scope of work in this phase is performed by third party utility companies and Design Build (C0980) Contractor as follows:

#### **Third Party Advanced Utility Relocations**

A number of utility owners have already relocated many of their assets and will continue to do so through early 2017. The utilities include fiber optic, telephone, cable television, electrical (power cable pulling and splicing), and natural gas lines. Utility work started in late 2012 *and has progressed* at the following locations:

- Flower Street cut-and-cover tunnel box
- 2<sup>nd</sup>/Hope Station box area
- 2<sup>nd</sup>/Broadway Station box area
- 1<sup>st</sup>/Central Station box area and Wye Structure

## **BASE PROJECT SCOPE (Cont.)**

### **Contract C0980 Regional Connector Design Builder**

This is the largest construction contract of the project that includes: final design and construction of underground guideway; station structures; miscellaneous underground structures; trackwork; traction power; overhead conductor rail; train control; communications; and all electrical and mechanical equipment and testing. The contractor will restore the Mangrove site and impacted streets to their previous condition at the end of the project.

The design-build contractor also has to meet sensitive noise and vibration standards at Disney Music Hall and the Colburn Music School, control subsidence along the alignment, and meet various other requirements for the various stakeholders along the alignment. This contract was awarded to Regional Connector Constructors, JV (RCC) on May 6, 2014 and NTP was issued July 7, 2014. Metro has exercised several contract options as well adding the remaining Advanced Utility Relocation work (C0981R Contract) to the C0980 Contract.

### **Contract C0981R Regional Connector Advanced Utility Relocations**

Metro awarded the design-bid-build Advanced Utility Relocations Contract (Metro Contract No. C0981R) to Pulice Construction, Inc. to complete specific relocations at each of the future stations and along Flower Street in advance of the main D/B Contract C0980. The relocated utilities were long-lead construction tasks that were known to conflict with cut and cover excavations.

The scope of this work included the following relocations: LADWP water lines, LADWP power lines, and City of Los Angeles sewer lines. Metro assisted the contractor in obtaining exemptions as necessary for the City of LA nighttime work as well as for Peak Hour work hours.

Contract C0981R was terminated for convenience on April 14, 2015 and all remaining work was transferred to C0980 Contract. Contract C0981R was closed out and final payment processed.

### **Contract MCO70 – Construction Management Support Services**

Metro awarded the contract for Construction Management Support Services (CMSS) to ARCADIS, Inc. ARCADIS Project Manager and other staff are co-located with Metro at the Integrated Project Management Office (IPMO) located at the Mangrove site. Additionally, the Metro Board approved a contract modification for Arcadis to fund services through FY 2017. *Reviews are underway to determine funding needs beyond the present commitment.*

## **BASE PROJECT SCOPE (Cont.)**

### **Contract E0119 – Preliminary Engineering and Design Support Services During Construction**

Metro awarded this contract to The Connector Partnership, a joint venture between AECOM, Inc. and Parsons Brinkerhoff (CPJV). CPJV provided preliminary engineering services to support the EIR/EIS, prepared project definition documents for Contract C0980, and prepared the basis for final design development for Contract C0981. CPJV is currently performing design support during construction (DSDC) for the C0980 contract. Action to extend funding through FY17 was approved by the Metro Board on May 26, 2016. *Reviews are underway to determine funding needs beyond the present commitment.*

**KEY MILESTONES SIX- MONTH LOOK AHEAD**

	Milestone Date	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17
Complete Flower North Pile Installation	10/09/16	⬡					
2nd/Hope Station Package - AFC Submittal	10/14/16	⬡					
Civil Segment A (Flower to Hope) - 85% Design Submittal	10/14/16	⬡					
Start Flower Street Decking (North of 5th)	10/15/16	⬡					
Complete Temp Decking at 2nd/Broadway West Hammer Head	10/15/16	⬡					
End of 2nd/Broadway Intersection Full Closure / Start Mid Block Closure	10/15/16	⬡					
TBM Lowering Ceremony	10/19/16	◆					
Complete TBM Launch Pit Mud Mat	11/05/16		⬡				
Complete WYE Intersection Excavation	11/09/16		⬡				
Civil Segment B (Broadway to 1st/Central) - 85% Design	11/18/16		⬡				
Complete WYE CIP Invert	11/22/16		⬡				
2nd/Broadway Station Package - AFC	12/02/16			⬡			
Complete 2nd/Hope Excavation	12/16/16			⬡			
LADOT Approve Flower South SOE Traffic Control Plan	01/06/17				⬡		
Initiate TBM Mining	01/03/17				⬡		
Complete Flower St Decking (North of 5th)	01/22/17				⬡		
Initiate Flower North Excavation and Support	02/13/17					⬡	
Civil Segment B (Broadway to 1st/Central) - 100% Design	02/28/17					⬡	
Initiate 2nd/Broadway Station Excavation	03/02/17						⬡
Complete Flower St Water Line (South of 5th)	03/24/17						⬡
Complete TBM Retrieval Pit Excavation/Mud Mat	03/28/17						⬡



MTA Staff



MTA Board Action



FTA (Federal Transit Administration)



Utility Company



Other Agencies



Contractors



Design Consultant

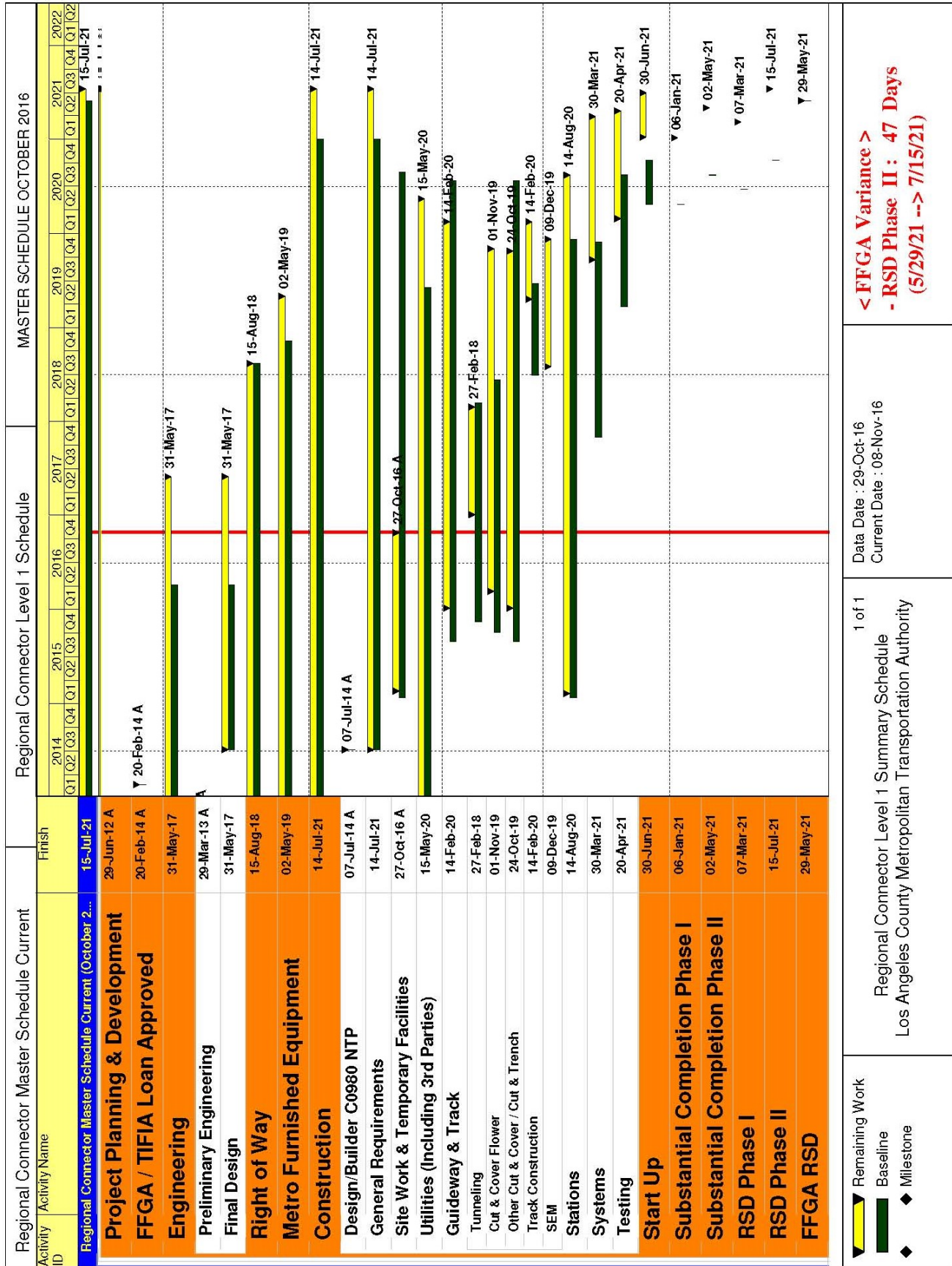


C0980 D/B Contractor

"A" following date is actual and completed

\* New

# PROJECT SUMMARY SCHEDULE



< FFGA Variance >  
 - RSD Phase II : 47 Days  
 (5/29/21 --> 7/15/21)

Data Date : 29-Oct-16  
 Current Date : 08-Nov-16

1 of 1  
 Regional Connector Level 1 Summary Schedule  
 Los Angeles County Metropolitan Transportation Authority

Remaining Work  
 Baseline  
 Milestone

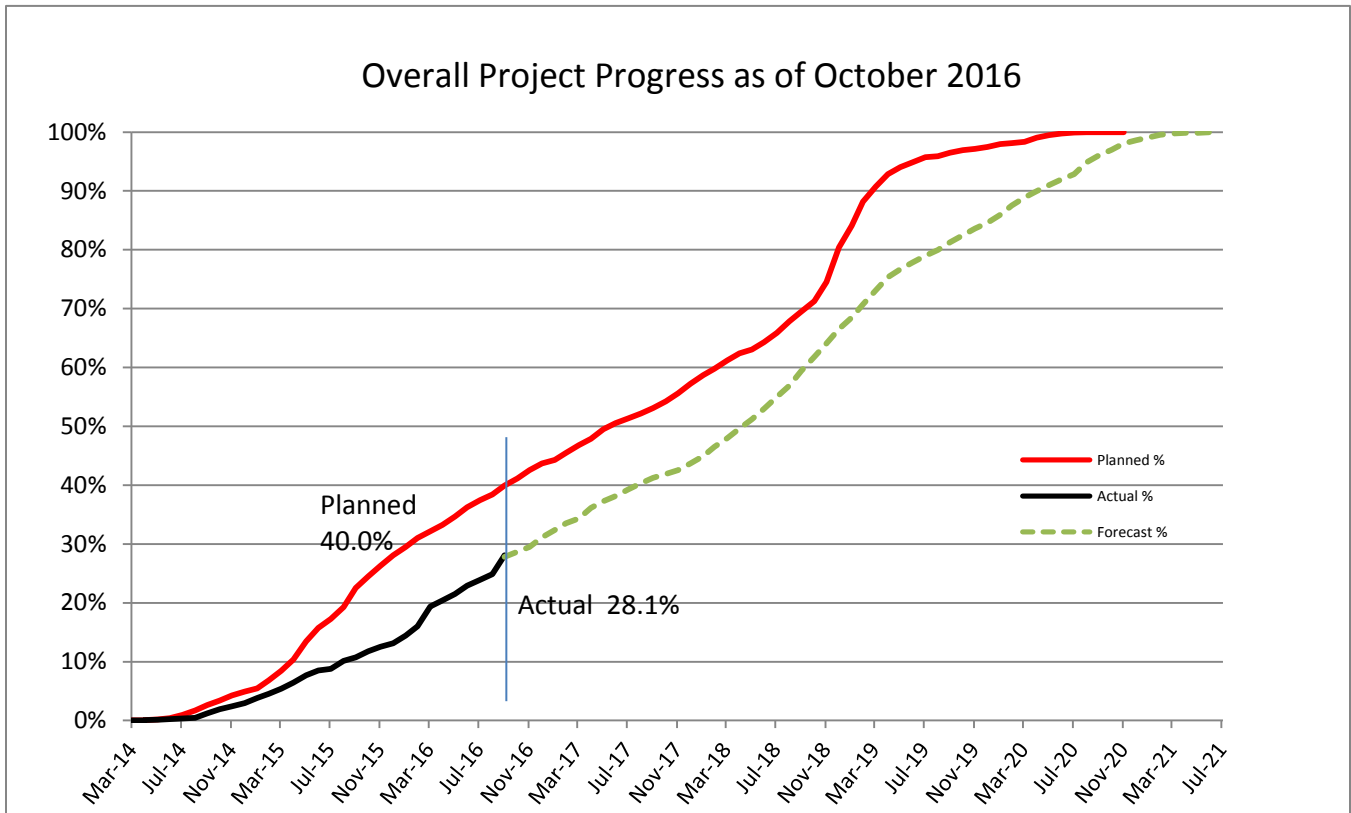
**SCHEDULE MEASUREMENTS**

	<b>Status</b>	<b>Change from Last</b>	<b>Comment</b>
Forecast Revenue Service	7/15/2021	0 CD	Schedule Recovery Measures and Acceleration plans are being implemented
TIFIA Revenue Service	5/29/2021	None	
FFGA Revenue Service	5/29/2021	None	
<b>Final Design Progress:</b>			
Contract C0980	94.5%	0%	13 months Behind
<b>Construction Contracts Progress:</b>			
Contract C0981R & C0980	23.7%	3.9%	2 months behind (Compared to the Contract Substantial Completion)

**Note:** Method of Construction Progress Measurement has been modified to reflect current methodology: excluding all General Requirements, Construction Mobilization, Design Mobilization, Final Design and Provisional Sum (Schedule C) Value include executed modifications and change orders.



## PROJECT PROGRESS STATUS



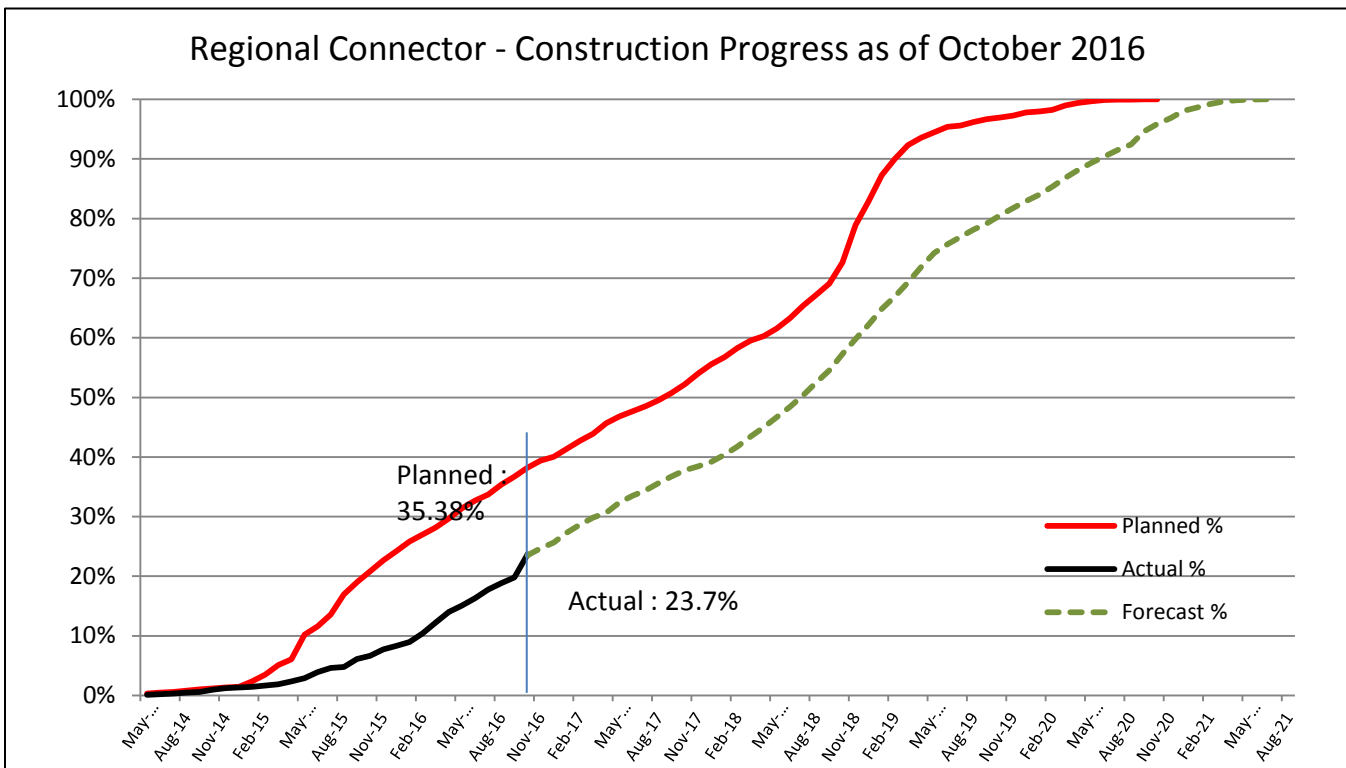
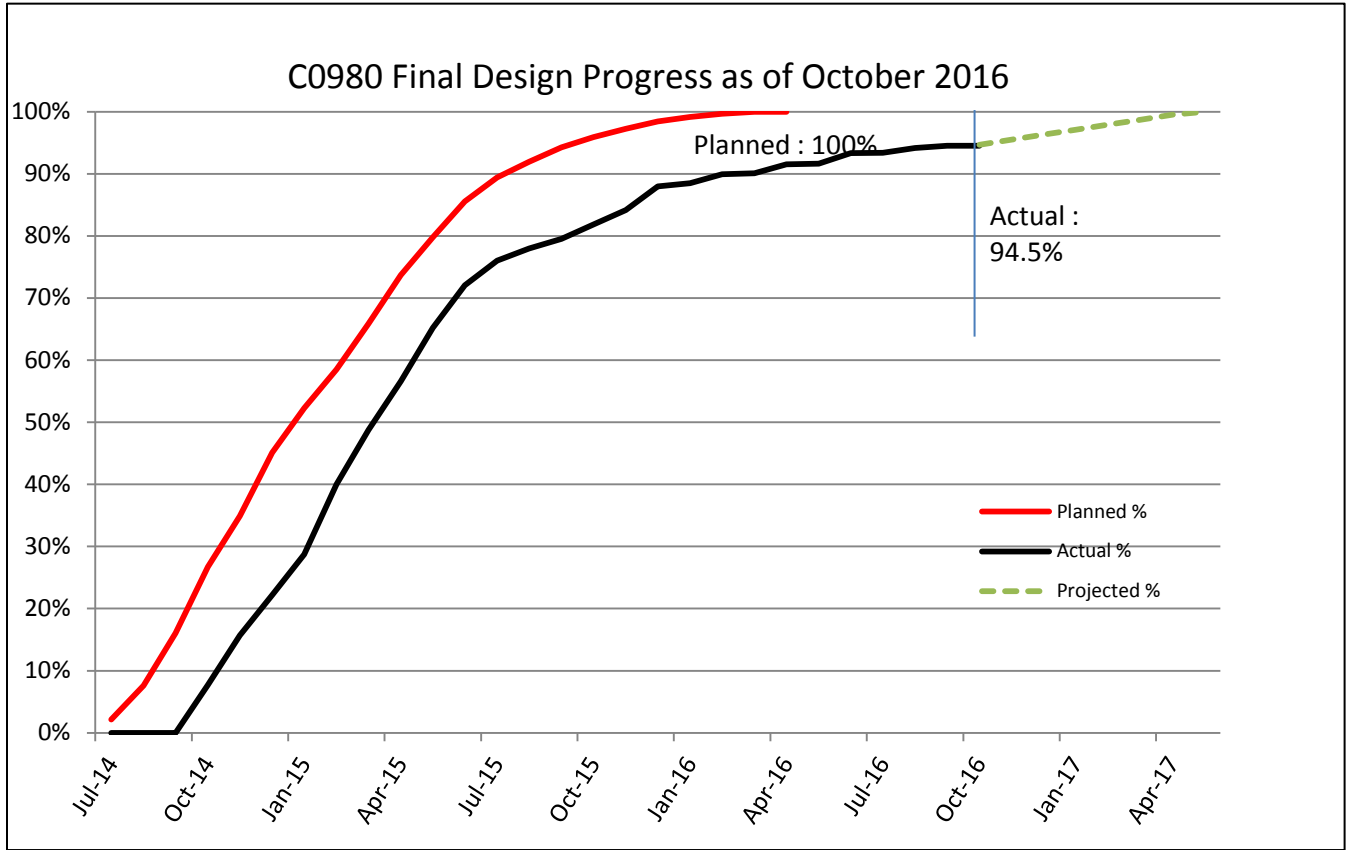
The above progress curve is based on planned expenditures of C0980 (Design- Build and C0981 (AUR) Baseline Schedule against their actual expenditures.

The cumulative overall project progress for C0980 and C0981R Contract is 28.1%.

Final Design for C0980 commenced upon MTA issuing NTP on July 7, 2014. Cumulative final design progress is 94.5% and the cumulative construction progress is 23.7%.

**Note:** Method of Overall Project Progress Measurement was modified in January 2016 to reflect current methodology: excluding all General Requirements, Construction Mobilization, Design Mobilization and Provisional Sum (Schedule C). *Values include* executed Modifications and change orders.

**PROJECT PROGRESS STATUS (Cont.)**



## **MAJOR EQUIPMENT DELIVERY STATUS**

### **Tunnel Boring Machine**

RCC, the design-builder for C0980, has designed, procured and delivered the tunnel boring machine (TBM) and equipment.

The TBM is currently at a temporary storage site where assembly preparations are underway.

### **Light Rail Vehicles**

Four Light Rail Vehicles (LRVs) for the Project will be procured and delivered by Kinkisharyo International, LLC under Contract P3010. The four LRVs for the Regional Connector Project are currently in Option 2 of the P3010 Contract. LRV design and design reviews as well as manufacturing of the prototype vehicles continued this period. Manufacturer continued performing qualification and post shipment tests on prototype cars 1 and 2 at LACMTA's Green Line shop.

### **UFS (Universal Fare System) & TVM (Ticket Vending Machines)**

Procurement of UFS and TVM will commence after the design-builder completes the final design. Metro is coordinating with RCC for installation and testing schedules.

**DESIGN-BUILDER'S (C0980) LONG LEAD ITEM LIST**

<b>Activity Name</b>	<b>Early Finish</b>	<b>Need Date</b>
FAB/DELIVER DECK BEAMS - 2ND/BROADWAY	5-Mar-16	4-May-16
FAB/DELIVER SHORING BEAMS - 2ND/BROADWAY	19-Feb-16	9-Nov-16
FAB/DELIVER SHORING BEAMS - 2ND/HOPE	19-Feb-16	18-May-16
FAB/DELIVER SHORING BEAMS - FLOWER ST	19-Feb-16	15-Mar-16
FAB/DELIVER PIPE STRUTS - 1ST/CENTRAL	15-Jan-16	19-Jan-16
FAB/DELIVER PIPE STRUTS - MANGROVE LAUNCH PIT	11-Feb-16	23-Jun-16
PROCURE PLATE PURCHASE ORDER	25-Apr-16	16-Dec-16
VERIFIED ASSEMBLY / TEST OF TBM AT FABRICATION SHOP	22-Jan-16	27-May-16
PROCURE PIPE SPECIALTY STORM DRAIN PIPE PURCHASE ORDER	15-Sep-16	12-Mar-20
PROCURE PIPE (PVC) PURCHASE ORDER	28-Mar-16	29-Apr-16
PROCURE PIPE (VCP) PURCHASE ORDER	28-Mar-16	29-Apr-16
FAB/DELIV OCS POLES / EQUIPMENT - SHOOFLY	5-Jan-16	29-Jan-16
FAB/DELIV TRAIN CONTROL CABLE - SHOOFLY	4-Jan-16	25-Jan-16
PROCURE PRECAST COMM STRUCTURE PURCHASE ORDER	10-Mar-16	12-Dec-19
PROCURE PLUMBING SUBCONTRACTOR	10-Mar-16	11-Aug-16
FAB/DELIVER WALES - 2ND/BROADWAY	26-Feb-16	1-May-16
FAB/DELIVER PIPE STRUTS - 2ND/BROADWAY	26-Feb-16	1-May-16
FAB/DELIV TBM MACHINE TO SITE	21-Feb-16	22-Aug-16
PROCURE BALLASTED TRACK - NORTH ALAMEDA LEG	20-Jul-16	9-Feb-21
PROCURE NEW 115RE RAIL - STANDARD RAIL	26-May-16	12-Aug-19
PROCURE NEW 115RE RAIL - HIGH STRENGTH RAIL	26-May-16	12-Aug-19
PROCURE RAIL - JOBWIDE	26-May-16	12-Aug-19
PROCURE SPECIAL TRACK - JOBWIDE	26-May-16	4-Oct-19
VERIFIED TBM SHIPPED TO SITE	22-Feb-16	23-Aug-16
FAB/DELIVER WALES - FLOWER ST	8-Apr-16	12-Jun-16
FAB/DELIVER PIPE STRUTS - FLOWER ST	8-Apr-16	12-Jun-16
FAB/DELIVER DECK BEAMS - FLOWER ST	9-May-16	8-Jul-16
FAB/DELIV OCS POLES / EQUIPMENT	14-Aug-17	17-Dec-19
FAB/DELIV OCR FOR TUNNEL	14-Aug-17	20-Jan-20
PROCURE MSE PANEL PURCHASE ORDER	1-Jul-16	3-Dec-20
PROCURE REBAR - FLOWER ST C/C	5-May-16	3-Jul-18
PROCURE HDPE - FLOWER ST C/C	5-May-16	15-Jun-18
**PROCURE RAIL - FLOATING SLAB MATERIALS	29-Jul-16	1-Aug-19
FAB/DELIVER WALES - 2ND/HOPE	20-May-16	24-Jul-16
FAB/DELIVER PIPE STRUTS - 2ND/HOPE	20-May-16	24-Jul-16
FAB/DELIV LIGHT FIXTURES - CENTRAL STA	5-Aug-16	15-Apr-20
FAB/DELIV EDGE LIGHTING - CENTRAL STA	3-Oct-16	20-Feb-20
FAB/DELIV GLAZING SPIDERS - ALL STATIONS	12-Sep-16	6-Apr-20
PROCURE LANDSCAPING SUBCONTRACTOR	5-Oct-16	18-Jun-20
FAB/DELIV LIGHT FIXTURES - BROADWAY STA	14-Nov-16	15-Apr-20
FAB/DELIV EDGE LIGHTING - BROADWAY STA	13-Jan-17	26-May-20
FAB/DELIV LIGHT FIXTURES - HOPE STA	21-Nov-16	22-Apr-20

**DESIGN-BUILDER'S (C0980) LONG LEAD ITEM LIST (Cont.)**

<b>Activity Name</b>	<b>Early Finish</b>	<b>Need Date</b>
FAB/DELIV EDGE LIGHTING - HOPE STA	20-Jan-17	26-May-20
PROCURE ARCHITECTURAL PRECAST PAVER SUBCONTRACTOR	21-Nov-16	6-Mar-20
PROCURE GRANITE STONework SUBCONTRACTOR	21-Nov-16	29-Jun-20
PROCURE MASONRY SUBCONTRACTOR	21-Nov-16	9-Sep-19
PROCURE PRECAST STRUCTURAL ELEMENTS SUBCONTRACTOR	21-Nov-16	7-Apr-20
PROCURE ARCHITECTURAL CONCRETE PAVING SUBCONTRACTOR	21-Nov-16	23-Mar-20
PROCURE DOORS & HARDWARE SUBCONTRACTOR	21-Nov-16	9-Jan-20
PROCURE DRYWALL & FRAMING SUBCONTRACTOR	21-Nov-16	30-Jun-20
PROCURE ESCALATORS SUBCONTRACTOR	21-Nov-16	25-May-18
PROCURE FIRE PROTECTION SUBCONTRACTOR	21-Nov-16	6-Nov-18
PROCURE FLOORING SUBCONTRACTOR	21-Nov-16	23-Jul-20
PROCURE GLAZING SUBCONTRACTOR	21-Nov-16	16-Mar-20
PROCURE HVAC SUBCONTRACTOR	21-Nov-16	18-Oct-19
PROCURE METAL CEILING SUBCONTRACTOR	21-Nov-16	27-Feb-20
PROCURE PAINT SUBCONTRACTOR	21-Nov-16	20-Feb-20
PROCURE SHEET METAL SUBCONTRACTOR	21-Nov-16	29-Apr-20
PROCURE SPRAY ON ACCOUSTICAL FINISH SUBCONTRACTOR	21-Nov-16	23-Jan-20
PROCURE STAINLESS STEEL SUBCONTRACTOR	21-Nov-16	8-Jan-20
PROCURE STATION SIGNS SUBCONTRACTOR	21-Nov-16	17-Jul-20
PROCURE STEEL (PERMANENT) SUBCONTRACTOR	21-Nov-16	12-Feb-20
PROCURE TERRAZZO SUBCONTRACTOR	21-Nov-16	10-Jul-20
PROCURE TILE SUBCONTRACTOR	21-Nov-16	24-Jan-20
PROCURE FLUID APPLIED WATERPROOFING SUBCONTRACTOR	21-Nov-16	23-Dec-19
PROCURE ELEVATORS SUBCONTRACTOR	21-Nov-16	22-Aug-18
FAB/DELIV EMERGENCY VENTILLATION FANS - CENTRAL (4)	30-Jun-17	13-May-20
FAB/DELIV EMERGENCY BOOSTER FANS (12)	30-Jun-17	20-May-20
FAB/DELIV EMERGENCY VENTILLATION FANS - BROADWAY (4)	30-Jun-17	13-May-20
FAB/DELIV EMERGENCY VENTILLATION FANS - HOPE (4)	30-Jun-17	13-May-20
ELEVATOR COORDINATION DRAWINGS - 1ST/CENTRAL	9-Feb-17	10-Nov-18
ESCALATOR COORDINATION DRAWINGS - 1ST/CENTRAL	9-Feb-17	13-Aug-18
**ASSEMBLY OF THE TBM AND BACKUP EQUIP / INST FIRST 10 RINGS	8-Dec-16	14-Nov-16
FAB/DELIV 2ND/HOPE TPSS	21-May-18	23-May-19
FAB/DELIV 2ND/HOPE UNIT SUBSTATION AND TRANSFORMER	25-Aug-17	13-Mar-20
FAB/DELIV 2ND/BROADWAY UNIT SUBSTATION AND TRANSFORMER	25-Aug-17	18-Feb-20
FAB/DELIV HIGH VOLTAGE DISCONNECT - 1ST & CENTRAL	29-Mar-17	6-Dec-19
FAB/DELIV TRAIN CONTROL CABLE	27-Dec-17	27-Dec-18
FAB/DELIV ELEVATORS - 1ST/CENTRAL	9-Feb-18	2-Dec-19
ELEVATOR COORDINATION DRAWINGS - 2ND/BROADWAY	30-Apr-17	29-Jan-19
ESCALATOR COORDINATION DRAWINGS - 2ND/BROADWAY	30-Apr-17	1-Nov-18
FAB/DELIV ESCALATORS - 1ST/CENTRAL	9-Feb-18	25-Jun-20
FAB/DELIV ELEVATORS - 2ND/BROADWAY	30-Apr-18	29-Jan-20

**DESIGN-BUILDER'S (C0980) LONG LEAD ITEM LIST (Cont.)**

<b>Activity Name</b>	<b>Early Finish</b>	<b>Need Date</b>
ELEVATOR COORDINATION DRAWINGS - 2ND/HOPE	19-Jul-17	23-Apr-19
FAB/DELIV ESCALATORS - 2ND/BROADWAY	30-Apr-18	15-Jan-20
ESCALATOR COORDINATION DRAWINGS - 2ND/HOPE	19-Jul-17	20-Jan-19
FAB/DELIV ELEVATORS - 2ND/HOPE	19-Jul-18	22-Apr-20
FAB/DELIV ESCALATORS - 2ND/HOPE	19-Jul-18	20-Jan-20
FAB/DELIV 2ND/BROADWAY TPSS	13-Feb-19	18-Feb-20
FAB/DELIV TRAIN CONTROL EQUIPMENT	14-Jan-19	14-Jan-20

## **CRITICAL PATH NARRATIVE**

### **Critical Path (C0980):**

The current forecast for the Revenue Service Date is July 15, 2021 and is 47 days behind the FFGA date of May 29, 2021. The critical path *remained the same as September schedule*.

The critical path is currently running through the excavation and invert pour at the Wye. Upon the completion of the critical activities at the Wye, the critical path continues through the tunnel excavations. In conjunction with the Wye, the TBM Launch Pit excavation and invert pour at Mangrove are also critical. After TBM mining, the crossover SEM excavation and concrete at 2<sup>nd</sup>/Broadway will commence. Once the crossover structure is complete, the special track work installation will follow. The critical path continues through systems installation and testing from 1<sup>st</sup>/Alameda to 7<sup>th</sup>/Flower, which will be followed by systems integration testing (Eastside Gold Line Phase 1) and pre-revenue testing. Phase 1 Revenue Service to the Eastside Gold Line is forecast to be complete on March 7, 2021.

After Phase 1 Revenue Service is achieved, the critical path continues through the Alameda Street civil, structural, and systems work. Upon the completion of the systems work, the critical path continues through the systems integration testing (Pasadena Gold Line Phase 2) and pre-revenue testing. Phase 2 Revenue Service to the Pasadena Gold Line is forecast to be complete on July 15, 2021.

**PROJECT COST STATUS**

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT  
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	5,494	249,324	9,292	238,790	3,231	49,154	5,494	249,404	80
20	STATIONS, STOPS, TERMINALS, INTERMODAL	354,268	219,477	55	229,834	55	223,834	2,524	17,347	0	230,294	460
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	153	527,977	17,946	513,690	3,390	281,680	3,650	542,570	14,593
50	SYSTEMS	69,667	73,848	-620	73,979	0	63,689	151	1,710	0	74,149	170
	CONSTRUCTION SUBTOTAL (10-50)	846,343	920,468	5,081	1,081,114	27,293	1,040,003	9,296	349,891	9,144	1,096,417	15,303
60	ROW, LAND, EXISTING IMPROVEMENTS	115,889	74,208	0	82,704	0	74,151	22	46,386	0	82,704	0
70	VEHICLES	16,275	16,275	0	16,275	0	16,275	0	1,678	0	16,275	0
80	PROFESSIONAL SERVICES	261,455	257,973	4,602	283,276	5,572	254,475	2,608	192,126	3,977	284,104	828
	SUBTOTAL (10-80)	1,239,963	1,268,925	9,684	1,463,369	32,865	1,384,905	11,927	590,082	13,121	1,479,500	16,131
90	UNALLOCATED CONTINGENCY	135,399	126,892	-9,684	61,972	0	0	0	0	-13,121	45,841	-16,131
100	FINANCE CHARGES	27,571	7,115	0	7,115	0	0	0	0	0	7,115	0
	TOTAL PROJECTS 460228 & 860228 (10-100)	1,402,932	1,402,932	0	1,532,456	32,865	1,384,905	11,927	590,082	0	1,532,456	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	61	18,838	0	20,425	0
	TOTAL PROJECTS 400228 & 460228 (EVN/PLAN'G)	0	24,200	0	26,500	0	26,500	61	24,913	0	26,500	0
	400228, 460228, 860228 TOTAL	1,402,932	1,427,132	0	1,558,956	32,865	1,411,405	11,988	614,996	0	1,558,956	0

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH 09/30/2016

**PROJECT COST ANALYSIS – 860228**

**Original Budget:**

The Original Budget of \$1.427 billion reflects the Board approved Life-of-Project (LOP) budget on April 24, 2014 plus finance charges of \$7.1 million.

**Current Budget:**

In December 2015 the Board approved an increase to the Life-of-Project (LOP) budget of \$131.8 million to \$1,558.9 million. The new budget includes \$7.1 million finance charges. Budgets have been assigned for recovery schedule modifications under SCC 10, 40, and 80 from allocated contingency and unallocated contingency. There was a budget transfer from unallocated contingency and allocated contingency for SCC 20, 50 and 80 for Contract C0980 Modifications, *and Work Orders to City of Los Angeles*.

**Commitments:**

Commitments increased by \$32.9 million this period to \$1.41 billion which represents 90.5% of the Current Budget. The increase is due to execution of Contract C0980 Modifications, *and Work Orders to City of Los Angeles*.

**Expenditures:**

Expenditures are cumulative through *September* 2016. Expenditures increased by \$12.0 million this period for costs associated with C0980 Design Build contract, Engineering Management Support, Metro Project Administration, Construction Management Support Service, Legal Services, and Third Party Master Cooperative Agreements with the City of LA, Community Relations, ROW and Environmental Consultant Services. The \$615.0 million in expenditures to date represents 39.4% of the Current Budget.

**Current Forecast:**

The forecast includes pending and potential modifications.



CONCURRENT NON-FFGA ACTIVITIES (861228)

PROJECT COST STATUS BY FTA SCC  
DOLLARS IN THOUSANDS

SCC CODE	Description	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
20	STATIONS, STOPS, TERMINALS, INTERMODAL	-	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	SITework & SPECIAL CONDITIONS	0	0	0	0	0	0	0	0	0	0
50	SYSTEMS	0	0	0	0	0	0	0	0	0	0
	CONSTRUCTION SUBTOTAL (10-50)	10,480	0	10,480	0	10,480	0	0	0	10,480	0
60	ROW, LAND, EXISTING IMPROVEMENTS	27,748	0	27,748	0	27,748	0	22,498	0	27,748	0
70	VEHICLES	0	0	0	0	0	0	0	0	0	0
80	PROFESSIONAL SERVICES	650	0	650	0	650	0	201	0	650	0
	SUBTOTAL (10-80)	38,878	0	38,878	0	38,878	0	22,699	0	38,878	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 861228 (10-100)	39,991	0	39,991	0	38,878	0	22,699	0	39,991	0
	861228 TOTAL	39,991	0	39,991	0	38,878	0	22,699	0	39,991	0

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH 09/30/2016

## PROJECT COST ANALYSIS – 861228

### Original Budget:

The Original Budget, Current Budget, and Current Forecast reflect the Board approved Life-of-Project (LOP) budget on April 24, 2014.

### Current Budget:

There is no change to the Budget for this period.

### Commitments:

Commitments reflect the Board approved Life-of-Project (LOP) budget on April 24, 2014 less the Unallocated Contingency of \$1.1 million. Right-of-Way (ROW) numbers shown under Commitment are the obligated numbers.

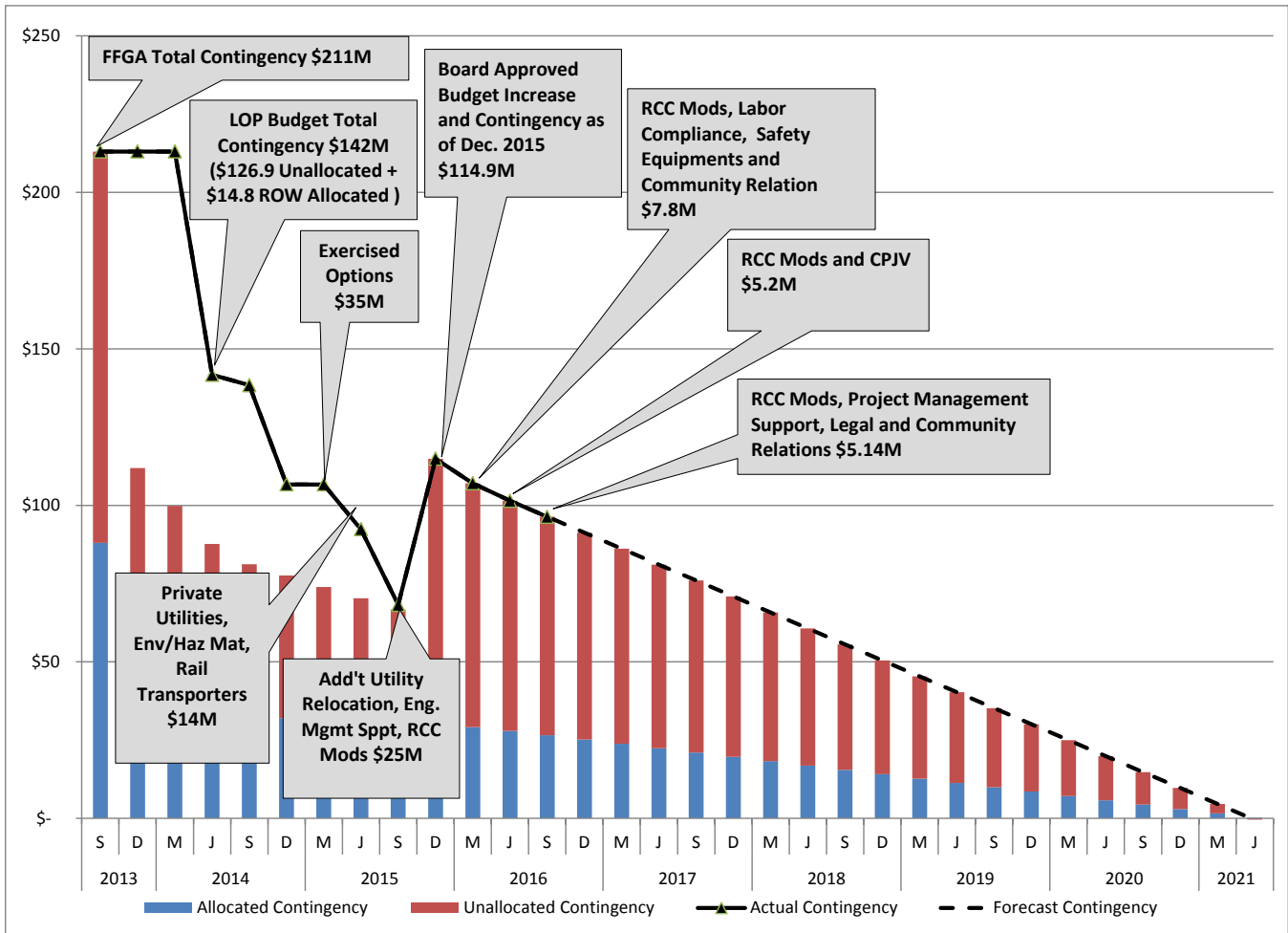
### Expenditures:

Expenditures are cumulative through *September* 2016. There was no expenditure this month. The \$22.7 million in expenditures to date represents 56.8% of the Current Budget.

### Current Forecast:

There was no change to the Forecast for this period.

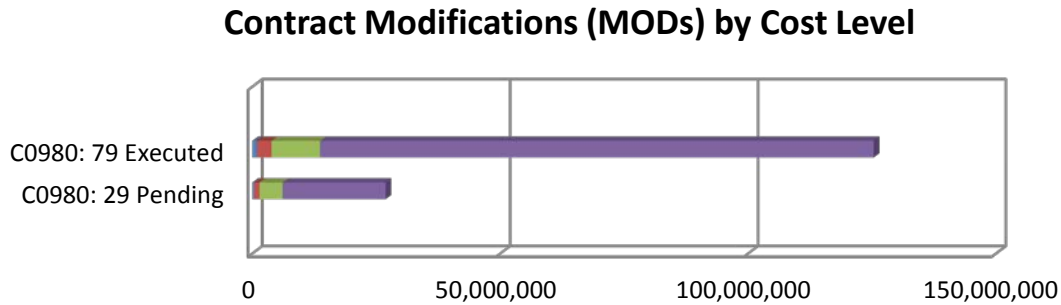
### COST CONTINGENCY DRAWDOWN



### COST CONTINGENCY DRAWDOWN ANALYSIS

In December 2015 the Board approved an increase to the Life-of-Project budget of \$131.8 million. The Regional Connector Transit Corridor Project budget of \$1.56 billion reinstated the total project cost contingency to \$114.9 million, \$80.3 million in “unallocated contingency”, which is included as a separate Standard Cost Category (SCC) element and \$31.3 million in an “allocated contingency” to Design Build Contract, \$3.00 million allocated for Private Utilities, and \$0.25 million to Environmental Planning. This month there is a drawdown of \$27.9M from the Design Build Contract: \$21.4M from “allocated contingency” and \$6.5M from “unallocated contingency”. *There was also drawdown of \$3.1M for MCAs.* The remaining project cost contingency for October 2016 is \$65.2 million.

## SUMMARY OF CONTRACT MODIFICATIONS



	C0980		
	79 Executed	29 Pending	Total
■ Under \$100K	938,796	335,000	1,273,796
■ \$100K to \$250K	2,919,632	1,115,000	4,034,632
■ \$250K to \$1M	9,816,323	4,631,267	14,447,590
■ Over \$1M	111,665,914	20,784,000	132,449,914
<b>Total Contract MODs</b>	<b>125,340,665</b>	<b>26,865,267</b>	<b>152,205,932</b>
<b>Contract Award Amount</b>	<b>927,226,995</b>	<b>927,226,995</b>	
<b>% of Contract MODs</b>	<b>13.5%</b>	<b>2.9%</b>	

Note:

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

Seventy-nine (79) changes with total value of \$125.3 million have been executed since NTP of Contract C0980. An additional *twenty-nine* (29) changes, with a total estimated value of \$26.9 million are pending.

## **DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATUS**

### **Contract C0980 Regional Connector Transit Corridor Design-Build**

*As of October 2016:*

- DBE Goal – Design: 20%
- Current DBE Commitment - Design: \$11.3M (22.63%)
- Current DBE Participation: 23.15%
- Twelve (12) Design DBE sub-consultants have been identified to date
  
- DBE Goal – Construction: 18%
- Current DBE Commitment - Construction: \$157.1M (18%)
- Current DBE Participation: 18.79%
- *Fifty-five (55)* Construction DBE sub-consultants have been identified to date

## **PROJECT LABOR AGREEMENTS (PLA) STATUS**

### **Contract C0980 Regional Connector Transit Corridor Design-Build**

- |  |          |
|--|----------|
| • Targeted Worker Goal -                     | 40.00%   |
| Targeted Worker Current Participation -      | 57.73%   |
| • Apprentice Worker Goal -                   | 20.00%   |
| Apprentice Worker Current Participation -    | - 19.26% |
| • Disadvantaged Worker Goal -                | 10.00%   |
| Disadvantaged Worker Current Participation - | 8.53%    |

**FINANCIAL/GRANT STATUS**

**Status of Funds Anticipated**

**October 2016**

<b>FEDERAL - CMAQ</b>	METRO SUBMITTED ON NOVEMBER 25, 2013 A GRANT APPLICATION OF \$64.0M TO THE FTA. GRANT APPROVAL WAS EXECUTED ON SEPTEMBER 24, 2014. FUNDS ARE AVAILABLE FOR DRAW DOWN
<b>FEDERAL - SECTION 5309 NEW STARTS</b>	METRO SUBMITTED ON NOVEMBER 25, 2013 A GRANT APPLICATION OF \$65.0 M TO THE FTA. GRANT APPROVAL WAS EXECUTED ON SEPTEMBER 23, 2014. METRO SUBMITTED ON JUNE 11, 2015 A GRANT AMENDMENT OF \$100M. GRANT AWARDED AUGUST 2015. FUNDS ARE AVAILABLE FOR DRAW DOWN METRO SUBMITTED A GRANT AMENDMENT OF \$100M IN JULY 2016. GRANT APPROVAL WAS EXECUTED ON AUGUST 18, 2016. FUNDS ARE AVAILABLE FOR DRAW DOWN.
<b>MEASURE R - TIFIA LOAN:</b> (Transportation Infrastructure Finance & Innovation Act)	A TIFIA LOAN AGREEMENT BETWEEN THE DEPARTMENT OF TRANSPORTATION AND METRO FOR \$160M WAS EXECUTED ON FEBRUARY 20, 2014. THE DISBURSEMENT OF \$61,864,368 WAS SPLIT INTO TWO PARTS. RECEIVED THE FIRST DISBURSEMENT OF \$25.2 MILLION 4TH QUARTER FY2016. RECEIVED THE SECOND DISBURSEMENT OF \$36.7 MILLION 1ST QUARTER FY2017.
<b>STATE PROP 1A HSRB</b>	ALLOCATION REQUEST OF \$114.9M TO THE CTC WAS SUBMITTED ON JUNE 27, 2013. ALLOCATION WAS APPROVED ON JULY 18, 2014. FUNDS HAVE BEEN DRAW DOWN.
<b>STATE PROP 1B PTMISEA</b>	ALLOCATION REQUEST OF \$135.1M WAS APPROVED ON APRIL 24, 2013. FUNDS ARE AVAILABLE FOR DRAW DOWN.
<b>CITY OF LA</b>	FUNDING AGREEMENT OF \$42M WITH THE CITY OF LA WAS APPROVED IN JUNE 2014. THE FIRST PAYMENT DRAWDOWN OF \$5.0M WAS IN JUNE 2016.

**Status of Funds by Source**

**October 2016**

SOURCE	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
	ORIGINAL BUDGET	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	\$	%	\$	%	BILLED TO FUNDING SOURCE \$	%
FEDERAL - CMAQ	\$64.000	\$64.000	\$64.000	\$64.000	100%	\$40.934	64%	\$40.934	64%
FEDERAL - SECTION 5309 NEW STARTS	\$669.900	\$669.900	\$265.000	\$669.900	100%	\$186.280	28%	\$167.288	25%
FEDERAL - RIP	\$0.000	\$14.400	\$0.000	\$14.400	100%	\$0.000	0%	\$0.000	0%
MEASURE R - TIFIA LOAN	\$160.000	\$160.000	\$61.864	\$160.000	100%	\$61.864	39%	\$61.864	39%
STATE PROPOSITION 1A HSRB *	\$114.874	\$114.874	\$114.874	\$114.874	100%	\$114.874	100%	\$114.874	100%
STATE PROPOSITION 1B PTMISEA **	\$149.500	\$135.100	\$135.100	\$135.100	100%	\$135.100	100%	\$121.919	90%
STATE STIP RIP	\$2.590	\$2.590	\$2.590	\$2.590	100%	\$2.590	100%	\$2.590	100%
STATE CAPITAL PROJECT LOANS - OTHERS ***	\$132.466	\$284.730	\$284.730	\$245.541	86%	\$68.354	24%	\$68.354	24%
MEASURE R	\$27.571	\$7.115	\$0.000	\$0.000	0%	\$0.000	0%	\$0.000	0%
CITY OF LOS ANGELES	\$41.984	\$42.000	\$5.000	\$5.000	12%	\$5.000	12%	\$5.000	12%
LEASE REVENUE	\$64.247	\$64.247	\$0.000	\$0.000	0%	\$0.000	0%	\$0.000	0%
<b>TOTAL</b>	<b>\$1,427.132</b>	<b>\$1,558.956</b>	<b>\$933.158</b>	<b>\$1,411.405</b>	<b>90.5%</b>	<b>\$614.996</b>	<b>39.4%</b>	<b>\$582.823</b>	<b>37.4%</b>

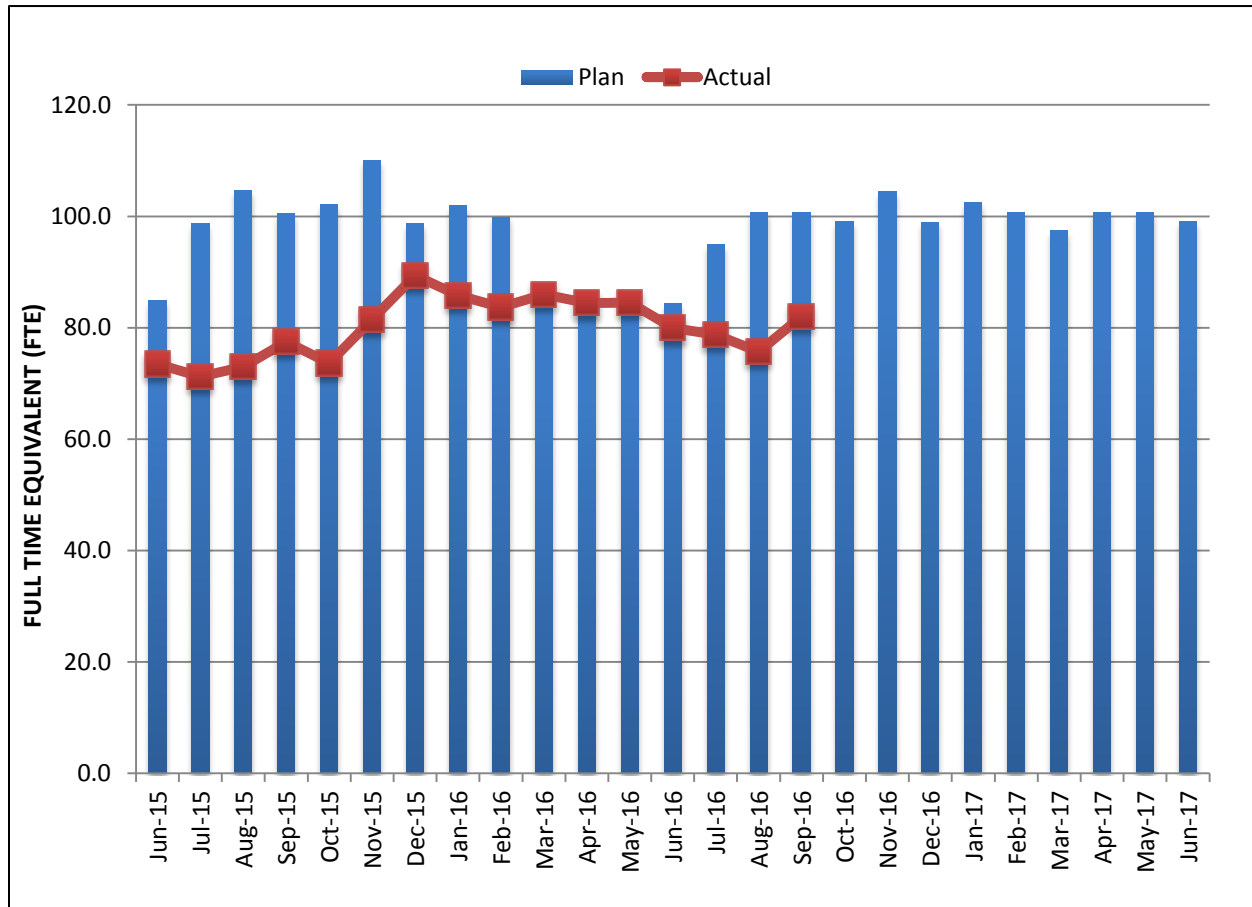
EXPENDITURES ARE CUMULATIVE THROUGH SEPTEMBER 2016  
ORIGINAL BUDGET BASED ON FUNDING PLAN INCLUDED IN THE APPROVED FULL FUNDING GRANT AGREEMENT

\* STATE PROPOSITION 1A HIGH SPEED RAIL BONDS

\*\* STATE PROPOSITION 1B PUBLIC TRANSPORTATION MODERNIZATION, IMPROVEMENT AND SERVICE ENHANCEMENT ACCOUNT

\*\*\* OTHERS INCLUDE TDA ADMINISTRATION, NB PROPOSITION A ADMINISTRATION, AND PROPOSITION 1B INTEREST (FOR A TOTAL OF \$.318M)

**STAFFING STATUS  
TOTAL PROJECT STAFFING – METRO AND CONSULTANTS**



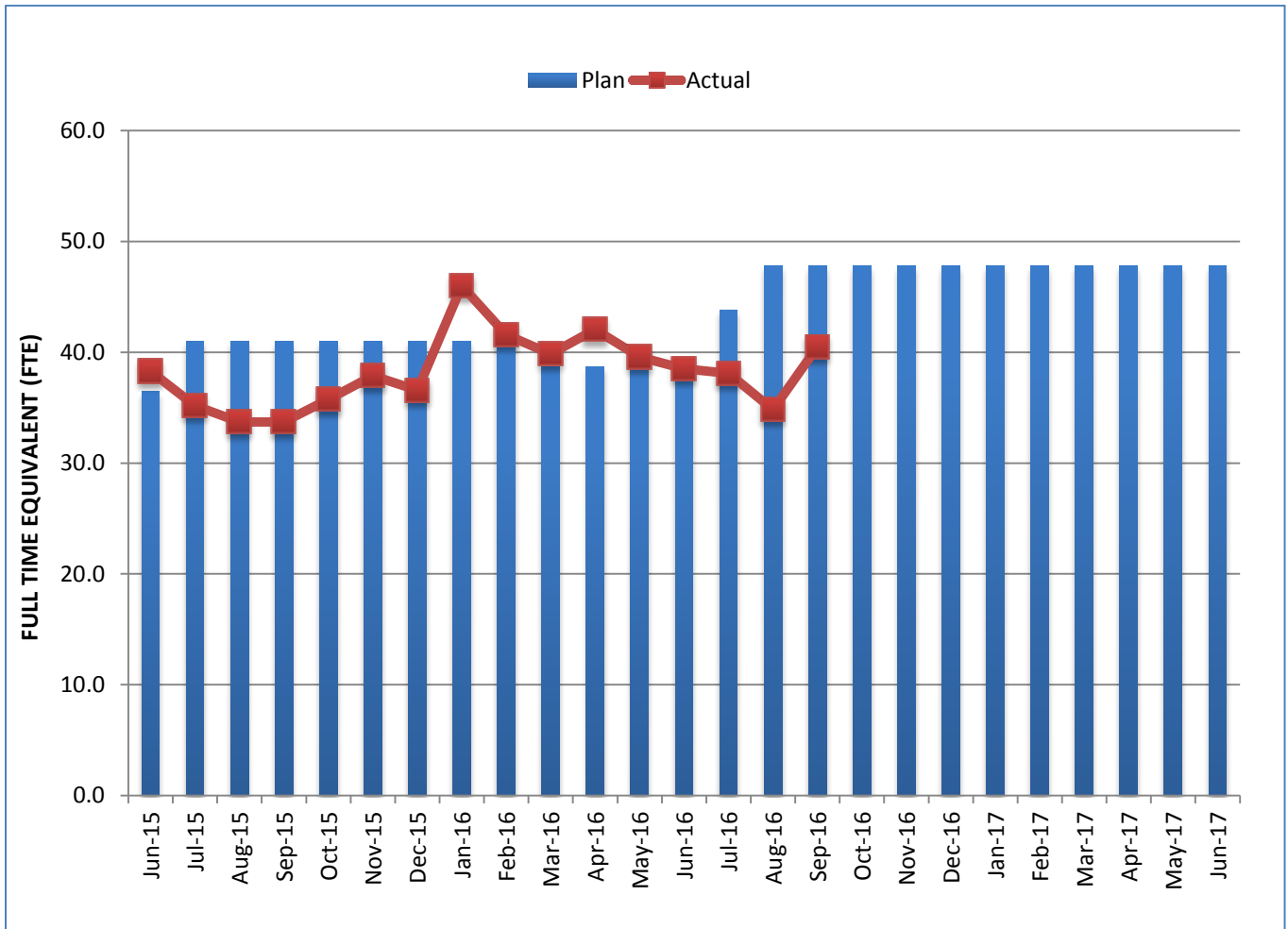
**TOTAL PROJECT STAFFING**

The overall FY16 Total Project Staffing plan averages 82.0 FTE's per month.

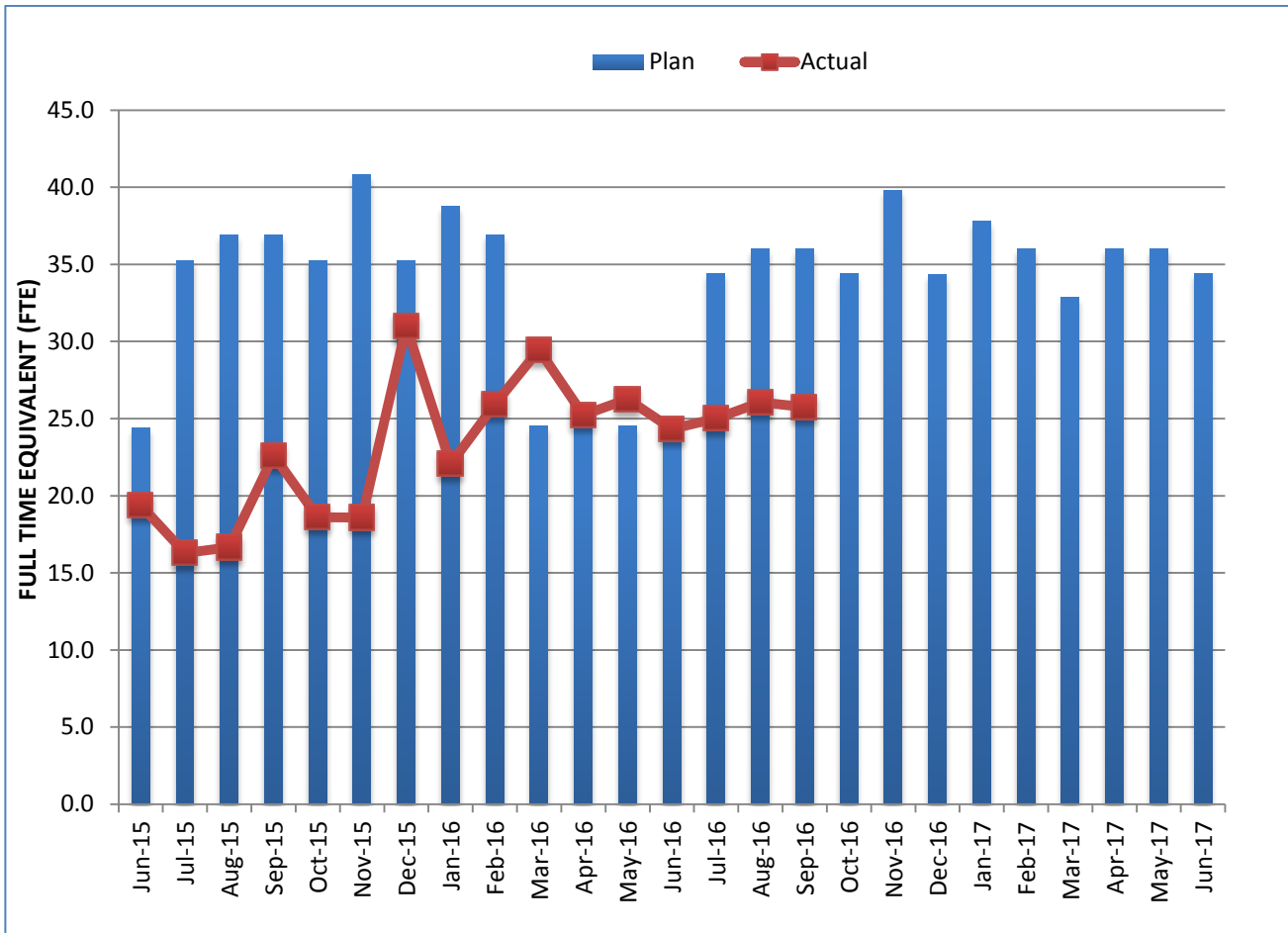
For *September* 2016, there were a total of 40.5 FTEs for MTA's Project Administration staff and 41.5 FTEs for consulting staff. The total actual project staffing for *September* 2016 was 82.0 FTEs versus FTEs planned (100.6).

*The apparent shortfall in staffing has not impacted MTA's capability to effectively manage the Project. Review of current staffing plans is underway to re-calibrate expected needs.*

**STAFFING STATUS (Cont.)  
 METRO STAFF**



**STAFFING STATUS (Cont.)  
CONSTRUCTION MANAGEMENTSUPPORT SERVICES CONSULTANT**

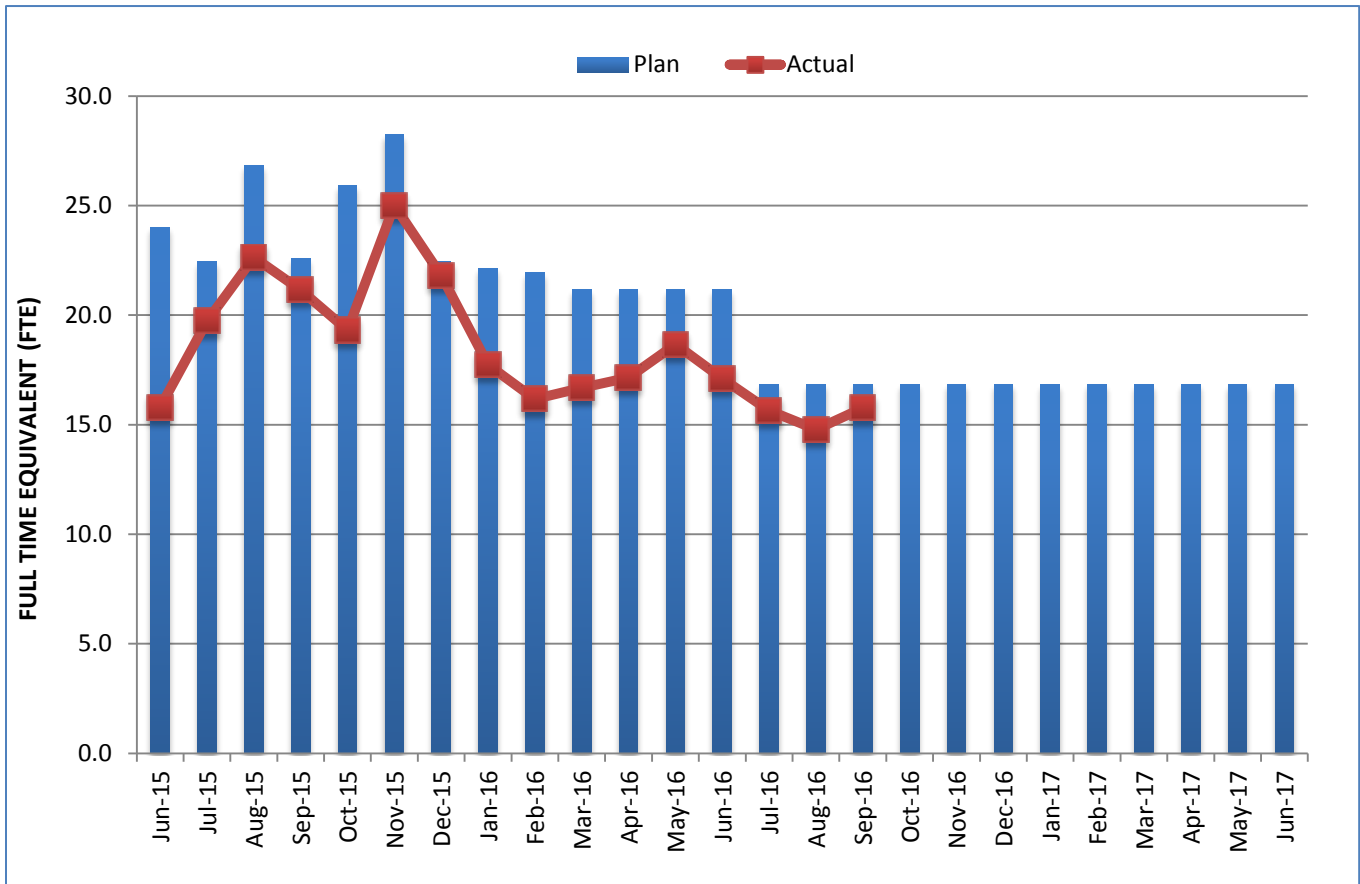


**Note:**

- a) The variance in FTEs is due to holiday time off (Nov. 14), extensive weekend work (Dec.14) and additional field support staff.
- b) The Actual FTEs for the month are based on the FTE hours submitted in the invoice that month.



### STAFFING STATUS (Cont.) ENGINEERING SERVICES CONSULTANTS



Note:

- a) The variance in FTEs is due to holiday time off and in support of C0980 submittals and C0981R beyond planned completion.
- b) The Actual FTEs for the month are based on the FTE hours submitted in the invoice of that month.

## REAL ESTATE STATUS

Regional Connector - Real Estate Status Summary October 28, 2016									
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	1
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>19</b>	<b>2</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>19</b>	<b>4</b>

## REAL ESTATE ACQUISITION

### **Central Plants**

- The Project obtained legal possession of the portion of the parcel required for the Project via a Stipulation for Possession effective July 1, 2015. The remaining property interests were acquired through an escrow which closed September 2, 2016 and the condemnation was terminated.

### **LA Times – LA Times Square**

- Required real estate was transferred at no cost to Project on March 2, 2015.

### **Japanese Village Plaza – “JVP”**

- Metro submitted an offer to Japanese Village Plaza in November 2013. JVP rejected the offer; MTA Board adopted a resolution to acquire property through the condemnation process in June 2014. Tenants have also been named in the condemnation lawsuit by the Judge in order to acquire the rights to survey the property, monitor grout pipe installation, and install and monitor deformation monitoring devices in tenant’s spaces. This action required a new resolution of necessity be adopted by the MTA Board of Directors. The Board action took place at the April 2015 Board meeting and the Board adopted the Resolution of Necessity to include the tenants.
- Court approved Motion on Order of Possession for tunnel and grouting pipe easements against JVP on June 30, 2015. Order for Possession effective July 31, 2015.

## **REAL ESTATE ACQUISITION (Cont.)**

- Court granted motion to acquire the right to conduct pre-construction surveys and grout pipe installation monitoring effective May 11, 2015. Currently working through Court referee to schedule surveys and grout pipe monitoring in tenant spaces - ongoing.
- Motion filed to obtain Order for Possession allowing the right to install and monitor the deformation monitoring devices in 19 tenant spaces. Court granted motion for OP on 8/19/15 and OP became effective September 21, 2015. Real Estate has obtained rights on 17 of the 19 tenant spaces via right of entry.
- Motion for Proposed First Amended Complaint for modified take area filed with Court to allow amended RON in March.
- Project rescinded Motion for Proposed First Amended Complaint for modified take area – Project redesign did not require additional take area. Amended RON approved in April by Metro Board to allow for bifurcated tunnel easement.
- Awaiting Court reschedule of condemnation trial originally scheduled for September 2016.

### **Volk**

- FTA and MTA approved the proposed settlement with Volk on the value of the property. Agreement has now been reached with the remaining tenants with regard to their Loss of Good Will claims. Final payments processed and complete by the end of September 2016.
- C0980 Contractor using site for laydown area.

### **Broad Collection**

- *Broad's Board approved the acquisition agreement at the end of October 2016 and are awaiting the final executed agreement by mid to late December 2016.*

### **ANAIBIV**

- *Easement recorded April 2016 and property rights transferred to Project.*

### **Hull's Hope**

- *Matter closed.*

### **401 E Second St (Office Depot)**

- *Received formal decertification of parcel from Project in June 2015.*

## **REAL ESTATE ACQUISITION (Cont.)**

### **City of Los Angeles (Mangrove Parcels) – No Change**

- Project is still considering potential change to the tunnel easement. Once decision is made, will advise City of Los Angeles and negotiate for the revised easement area.

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

- Appraisal completed of temporary and permanent Easement areas.
- *DWP was provided with valuation of required TCE and permanent easement areas. DWP to provide cost to redesign yard.*

### **(Former) CRA Parcels - Decertified 6/10/14**

#### **TBM (Temporary) Storage Yard:**

Metro has acquired (leased) a parcel at 703 E. Commercial Street for the purpose of temporary storage at TBM. The lease period is from February-August with an option to extend it until December 2016.

## **QUALITY ASSURANCE STATUS**

### **C0980 Regional Connector D/B**

- Metro QA reviewed and provided comments on RCC's quality related submittals, construction work plans and milestone submittals. During the month *October three (3)* Construction Quality Work Plans (CQWPs) were submitted and reviewed. *Two (2)* additional submissions of inspection and test procedures (ITPs) are currently under review. Metro QA also reviewed test results for Portland Cement Concrete Lab, Asphalt Concrete, Tie-Back Anchors, Soils Compaction and Welding MT/UT. *Metro QA also reviewed qualification and certifications of Contractor's certified welding inspectors and material quality certifications for rebar and piping embedded in the Invert Slab Placement. Metro QA accepted updated welding procedure for Flux Core Arc Welding (AWS D1.5) in support of the SOE installation.*
- Contractor Tests performed to date are as follows:
  1. Portland Cement Concrete 28-day test results: 552 number accepted: 552
  2. Asphalt Concrete Density tests results: 185 number accepted: 185
  3. Soil Field Density tests performed to date: 161 number accepted: 161
  4. Welding MT/UT testing to date is: 4761 number accepted: 4761
- Attended "Readiness Review" meetings with RCC.
- Performed oversight verification of RCC's design and construction activities, as well as ongoing monitoring of RCC's QA/QC activities.
- *RCC opened NCR-18 (10-07-16) and closed the NCR (10-27-16). It was issued because a diagonal member connection to a traffic deck beam had been welded after the certified welding inspector (CWI) left the jobsite upon completion of his work shift. Also, a fabricated connection for same traffic deck assembly did not match the approved drawing detail (3/R4-SH-500); field modification was resolved by the EOR's response to RFI.*
- *Metro QA opened NCR-002 to RCC relating to two (2) failed tie-back tests at 1st and Central Station SOE. It will be closed after last segment of Invert Slab Concrete Placement achieves the required 28-day compressive strength.*
- *RCC issued CARs 002 & 003; CAR-002 to RMA Group for mistakenly accepting questionable traffic deck fabrications at EW Corporation (and delivered to Flower St. point of placement) and CAR-003 to EW Corporation for lacking quality control sufficient to avert producing the questionable fabrications. Both CARs will likely close next month after corrective actions made are deemed effective.*

## **ENVIRONMENTAL STATUS**

- Pre-Construction Surveys have been completed for 61 adjacent buildings, which include the following sensitive, historic, and/or Flower Street properties: Hikari Apartments, Japanese Village Plaza Parking, Japanese Village Plaza, Japanese Village Plaza Mall, Nakamura Tetsujiro Building, The Broad Art Foundation Museum, The Colburn School, General Petroleum, Superior Oil Co. Building, The California Club, the Los Angeles Central Library , Maguire Gardens and Underground Parking Structure, WDCH, LA Times Building, LA Times Mirror Building, Higgins Building, Cathedral of Saint Vibiana, Citibank Group (Hines Property), the Downtown YMCA, the Parking Structure (Commonwealth), the Westin Bonaventure, and the 2<sup>nd</sup> Street Tunnel. Pre-Construction Surveys for the City National Bank/Commonwealth Buildings are in-progress. These surveys are prepared for all properties within 21 feet of vibration producing construction activities to assess the building category and the potential for ground borne vibration to cause damage to the buildings.
- As of June 30, 2016, RCC has installed noise monitors at six Metro-approved locations along the Project alignment. The noise monitors will be instrumental in verifying compliance of construction-generated noise with the local ordinance and thresholds listed in the Project Contract Specifications.
- RCC has installed vibration monitors at WDCH, REDCAT, the Broad Museum, the Japanese Village Plaza, the LA Times, the Hikari Apartments, and the Colburn School. *A Right-of-Entry has been negotiated for a vibration monitor to be installed at the Nakamura Tetsujiro Building in November.* Locations are based on the Vibration Monitoring Plan to monitor vibration continuously during peak vibration generating construction.
- SWPPP inspections of all project areas are conducted weekly by RCC to observe site conditions and report on performance of stormwater protection Best Management Practices.
- Metro has begun preparing the 15<sup>th</sup> Quarterly Mitigation Monitoring and Reporting Plan (MMRP) covering August 2016 to October 2016, and will submit the report to the FTA no later than November 14, 2016.
- RCC identified thirteen (13) trees requiring removal. RCC submitted a request a for a tree removal permit from Urban Forestry in August. The permit (1-123807031) was issued on September 19, 2016.

## **CONSTRUCTION AND COMMUNITY RELATIONS STATUS**

### **Construction Relations**

- Responded and addressed project related inquiries from the public received on the project hotline, email and during office hours at the Little Tokyo Community Office.
- Continued outreach to impacted area stakeholders regarding construction activities: utility relocation; station excavation, pile and deck installation, geotechnical instrumentation, *intersection closure at 2<sup>nd</sup>/Broadway and transportation of TBM*. Distributed *twenty (20)* construction notices to the public through email and door-to-door, and made it available on the project website and social media outlets.
- Coordinated construction activities with *forty-one (41)* stakeholders throughout the project.
- *Three (3)* Metro sponsored public meetings were held to provide updates on the progress of construction:
  - Regional Connector Community Leadership Council Committees: *1<sup>st</sup>/Central, 2<sup>nd</sup>/Hope and Flower St/Financial District committees*.
- *Two (2)* presentations were made *on the status of the project: Westside Service Council and the Little Tokyo Community Council*.
- Continued bi-weekly and weekly meetings with: L.A. City Councilmember District 14, the Mayor's Office, Los Angeles Times, Common Wealth Partners, and Bonaventure Hotel.
- *Hosted the TBM Lowering Ceremony – symbolic of the start of tunneling – and announced the Art and Naming Contest winners*.
- *Provided tours of the project to the City of Commerce and Supervisor Solis' Office*.

### **Social Media Outreach and Marketing Efforts**

- *Facebook had a 2% increase to 7,135 “likes” with a total reach of 571,947. Twitter had 99.4K impressions with 2,150 total followers and 58 mentions. The most popular campaigns included deck installation weekend closures on Flower St, with 7,200 people reached on Facebook. While Twitter had 6,330 impressions generated during the announcement of the TBM name, Angeli.*

## **CONSTRUCTION AND COMMUNITY RELATIONS STATUS (Cont.)**

### **Community Relations**

- Conducted monthly updates with the Regional Connector Community Leadership Council for station areas representatives on construction related work, mitigations review, upcoming marketing and advertising efforts.
- Continued monthly Eat, Shop, Play (ESP) implementation and promotion of small businesses impacted by construction along the line. ESP provides social media and in-community promotions of area businesses.
- Continued work with the monthly Little Tokyo Marketing & Business Task Force.

## **CREATIVE SERVICES STATUS**

### **Art Program**

- *Provided art program update to elected officials*
- Responded to RFIs and Submittals
- Participated in Design Build document reviews
- Continued to support mitigation efforts

### **Signage & Environmental Graphic Design**

- Responded to RFIs and Submittals
- Participated in Design Build document reviews



## **SAFETY & SECURITY STATUS**

### **C0980 Regional Connector**

- Monitored RCC's pre-employment drug/alcohol testing and new employee safety orientation to insure 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 and IPMO project staff. Training sessions included 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 on a daily basis to insure compliance with contract specifications. Participated with RCC staff in field safety inspection walks of multiple project worksites, laydown, and storage yards.
- Monitored Third Party contractor's work activities to insure safety compliance.
- Made recommendations to Utility crews regarding contract activities and improving overall traffic control and pedestrian safety.
- *RCC reported one (1) recordable injury in the month of October 2016.*
- C0980 Contractor RCC reported 67,701 work-hours for the month of *September* 2016. The total C0980 Contract to Date work hours through *September* 2016 are 1,053,318 with a total of *six (6)* recordable injuries and no Lost Time injuries. The C0980 Contract Recordable Injury Rate is 1.14. The Bureau of Labor Statistics National Average Recordable Injury Rate is 3.2 for heavy civil construction projects.
- Project to Date Total Work Hours including both the C0980 and the C0981 Advanced Utility Relocation contract through *September* is now 1,164,367 hours with *seven (7)* recordable injuries. Project Total Recordable Injury Rate is now 1.20.

### THIRD PARTY AGREEMENT STATUS

Agency	Type of Agreement	Status/ Comments
City of Los Angeles	Amendment to Master Cooperative Agreement	Parties will work under 2003 MCA.
Los Angeles Department of Water and Power	Amendment to Memorandum of Understanding	Metro and LADWP will continue to work under the terms of the previous Cooperative Agreement.
Los Angeles County Public Works	Letter of Agreement	Executed in April 2011
Caltrans	Amendment	Executed in August 2011
Private Utilities	LOA, MOU or UCA	All agreements in place with exception of Level 3, Qwest, XO Comm, Zayo and Time Warner. Metro is in discussion with those utilities to establish agreements.

### ADVANCED UTILITY RELOCATION STATUS

LADWP-Power Services anticipated completion dates for cable pulling, splicing and removal of old facilities including the following:

- *On Flower Street between 5<sup>th</sup> and 6<sup>th</sup> Street, the LADWP power crew started their work on August 8, 2016 (Saturday) on Flower Street between 5th and 6th Streets, and are tentatively scheduled to complete their work by on November 3, 2016.*

## **ADVANCED UTILITY RELOCATION STATUS (Cont.)**

LADWP-Water Services anticipated completion dates for water installation and removal of old facilities including the following:

- At the 1<sup>st</sup> and Alameda Street intersection, RCC started the installation of the 36" water line the first week of June 2016, and *completed their work in early September.*
- At 2<sup>nd</sup> and Spring Street, the water relocation of the 8" water line started on April 19, 2016, and *was completed October 10, 2016.*

## **C0980 UTILITY WORK STATUS**

RCC is currently coordinating with all affected utility owners to relocate their utilities by lowering in place or support and protect in order to accommodate the Regional Connector Project.

## **PEAK HOUR CONSTRUCTION VARIANCES**

Metro is actively pursuing extended hour variances/exemptions to accommodate Project needs by working with the City of Los Angeles, Bureau of Engineering, the Los Angeles Police Commission, the City of Los Angeles Department of Transportation and the City Council District 14<sup>th</sup> Office to obtain Peak Hour Exemptions.

### **1st/Central Station:**

- Work activities at the intersection of 1<sup>st</sup>/Alameda have currently reached a Steady State Phase, where construction of the future tunnel portal structure is underway. The intersection of the 1<sup>st</sup> and Alameda Streets has been decked, and underground operations are proceeding. Work is anticipated to last until approximately 2020. Future closures are anticipated at the intersection of Temple and Alameda Streets to perform utility relocations and piling/decking. Metro will be reaching out to the appropriate agencies to obtain street closure approvals.

### **2<sup>nd</sup>/Broadway Station**

- *Permission to a full closure of 2<sup>nd</sup> Street (Broadway to Spring St, Phase 1) was granted by the Board of Public Works from 10/15/16 to 11/19/16. This approval allows the project to continue utility relocations, and soldier piling/decking operations in support of the 2<sup>nd</sup>/Broadway Station. Future street closures at the 2<sup>nd</sup>/Spring intersection are currently being pursued to support the aforementioned construction work. Activities are planned to last until March 2017 followed by Steady State. Metro will continue to coordinate with applicable City agencies to facilitate station construction.*
- At the intersection of 2<sup>nd</sup>/Spring Streets, AM Peak Hours were granted by LABOE to perform wet and dry utility relocations. *Metro is currently working to extend the exemption into early December 2016.*

### **2<sup>nd</sup>/Hope Station**

- AM and PM exemptions for the 2<sup>nd</sup>/Hope full closure have been obtained from January 23, 2016 to April 20, 2019. This is to support utility relocations, piling/decking operations, and the 2<sup>nd</sup>/Hope Station construction.

### **Flower Street Cut & Cover Area**

- *Metro obtained an AM and PM peak hour exemption to place k-rail on the eastside of Flower Street (between 4<sup>th</sup> and 5<sup>th</sup> Sts.) to support above and below ground construction operations for decking along Flower Street. Approval was granted by the Board of Public works from October 1, 2016 to November 9, 2019.*
- *Metro obtained an AM and PM peak hour exemption to place k-rail on the southeast corner of the 3<sup>rd</sup>/Flower Streets intersection. Work supports construction of a tieback removal shaft 25' (diameter) x 60' (deep) to facilitate future tunneling activities near the Flower Street area. Original approval was granted from August 8, 2016 to November 18, 2016. An extension is being pursued until February 18, 2017 to continue construction of the shaft.*

## **POLICE COMMISSION CONSTRUCTION VARIANCES**

Metro continues to work closely with the Los Angeles Police Commission and actively pursue new night/Sunday work hour variances as well as expanded geographic limits and time extensions for existing variances to accommodate Project needs.

In *October* 2016, LAPD approved time extensions for two (2) existing variance for the following locations:

- At the 2<sup>nd</sup>/Broadway area, one (1) variance was given for time extension for *electrical and vault installation* work.
- At the 2<sup>nd</sup>/Hope area, one (1) variance was given for the station excavation work.

*In October 2016, LAPD approved one (1) new variance for the Flower Street location.*

- *Flower Street between 4<sup>th</sup> and 5<sup>th</sup> Streets, one (1) variance was approved for the installation of decking.*

*In October 2016, LAPD received one (1) night time variance application for their review and approval for the location below:*

- *At the 2<sup>nd</sup> and Hope work area, one (1) variance application was submitted for the station invert activities.*

## CPUC CROSSING SUMMARY

### Current Status

Contract C0980 requires RCC to design and obtain CPUC approval for the temporary relocation of the existing at-grade crossing of 1<sup>st</sup> Street adjacent to Alameda Street, approximately 500 feet east of its current location at 1<sup>st</sup>/Hewitt Streets. Also, the south Little Tokyo station pedestrian crossing will have to be re-opened to provide pedestrian access. The temporary modification of the existing at-grade crossing will remain in-place until construction of the underground Wye junction necessitates closure of the existing Little Tokyo Station, at which point bus bridging will be implemented to transfer passengers between the Pico/Aliso and Union Station. When complete, the Regional Connector Project will no longer have an at-grade crossing at the intersections of 1<sup>st</sup>/Alameda and Temple/Alameda Streets.

On May 13, 2015, RCC received CPUC approval for the temporary relocation of the existing at-grade crossing of 1<sup>st</sup> Street adjacent to Alameda Street. Additionally, on May 26, 2015, RCC received CPUC approval of the South Little Tokyo station pedestrian crossing Form GO-88B application package.

*As of October 2016, RCC has submitted their Safety Certification Checklist for Metro approval. In July 2016, Metro and RCC finalized the items that needed to be included in the checklist for the Safety Certification Status. This involves both design and construction items noted below:*

- Passenger Stations, Train Control and Signals, Traction Power, Overhead Catenary, Communications, Track and Structures, Vertical Transportation (elevators, escalators), Fire Life Safety Systems, Security Systems, and CPUC Specific Requirements.
- Metro and RCC staff have reached a consensus of each Systems Safety Certification item per discipline that needs to be included in the plan. These items *have been inserted* into a Microsoft Access Database for tracking, sorting, and distribution to key staff members for alerting of any potential issues that must be resolved. This will ensure that the completion of the Safety Certification Plan will be completed in a timely manner and not impact the Revenue Operation Date (ROD).

## **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 1st draft FFGA application to FTA for review
September 2013	Received proposals for D/B Contract C0980

## **CHRONOLOGY OF EVENTS (Cont.)**

September 2013	Submitted 2nd 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 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 2nd/Broadway Station Site Move-In



**CHRONOLOGY OF EVENTS (Cont.)**

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 2nd/Broadway Station (West Hammer Head)
July 2016	RCC Initiated CIP invert at 1st/Central Station Box
August 2016	RCC completed 36" waterline replacement at 1 <sup>st</sup> /Alameda
September 2016	RCC completed temporary decking at 1 <sup>st</sup> /Alameda intersection (Wye)
October 2016	<i>Metro performed TBM lowering ceremony</i>
October 2016	<i>RCC completed CIP invert at 1<sup>st</sup>/Central Station Box</i>

## CONSTRUCTION CONTRACTS

<p><b>Description: Design-Build Contract</b> <b>Contractor: Regional Connector Constructors</b></p>	<p><b>Contract No. C0980</b> <b>Status as of: October 28, 2016</b></p>
<p><b>Work Completed:</b></p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>Metro conducted reviews and provided response on 100% DU07 2nd/Broadway Station Design package, AFC APDU DU07 2nd/Broadway Station package, DU3 Tieback removal shaft, DU16.1 2nd/Broadway Underpinning Design Package, DU063 2nd/Hope Ped Bridge and Specifications 31 63 26 CIDH submittal, 2nd/Broadway Construction Ventilation Plan, DU12 Communications 85% Supplemental Tunnel Radio Coverage Analysis design package, DU11 85% Train Control 7th/Metro Software Application logic design package, and DU3A SEM Cavern and Cross Passage AFC design Package.</li> </ul> <p><b>Construction</b></p> <p><b>1st/Central</b></p> <ul style="list-style-type: none"> <li>RCC completed hanging utilities in the Wye.</li> <li>RCC completed installation for rebar for station invert.</li> <li>RCC completed installation of conduits on protection slab.</li> <li>RCC completed the pre-condition phase of compensation grouting from Central Ave.</li> </ul> <p><b>Broadway</b></p> <ul style="list-style-type: none"> <li>Re-opened northbound and southbound Broadway and implemented 2nd Street Phase 1 mid-block closure</li> </ul> <p><b>Flower</b></p> <ul style="list-style-type: none"> <li>RCC completed pile installation between 4th and 5th on west side of Flower Street.</li> <li>RCC completed implementation of Steady State configuration.</li> </ul>	<p><b>Major Activities (In Progress):</b></p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>Metro will continue coordination with Fire Life Safety of exiting along Flower, Hope Street &amp; Alameda Fan Plant, 6th/Flower DWPPS relocation preliminary engineering, the Train Control Room Equipment Installation Product Data packages, the DU10 60% Traction Power Design Package, the Hope Street Elevator Casing Shop Drawings, the DU08 AFC Revised Station Spec Package, the DU14 Flower Street SOE Design Package (New Temporary Bulkhead) and the DU15 2nd/Hope SOE Design Package.</li> </ul> <p><b>Construction</b></p> <p><b>1st/Central</b></p> <ul style="list-style-type: none"> <li>RCC continues excavation/lagging and installation of walers and struts for TBM SOE/Wye.</li> <li>RCC continues removal of tie-backs for station bulkhead removal.</li> <li>RCC initiated invert pours.</li> <li>RCC continues geotechnical installation and monitoring at 1st/Central Yard and Alameda Public ROW.</li> </ul> <p><b>2nd/Broadway</b></p> <ul style="list-style-type: none"> <li>RCC continues pile installation at 2nd/Broadway intersection (hammerhead).</li> <li>RCC continues water work at 2nd/Spring.</li> <li>RCC continues installing deck beams in the 2nd/Broadway intersection.</li> <li>RCC continues utility hanging in the 2nd/Broadway intersection.</li> <li>RCC continues installation of piles in the ancillary structure.</li> </ul> <p><b>2nd/Hope</b></p> <ul style="list-style-type: none"> <li>RCC continues station excavation at 2nd/Hope Station.</li> <li>RCC continues station lagging at 2nd/Hope Station.</li> <li>RCC continues SOE waler and strut installation at 2nd /Hope Station.</li> <li>RCC continues station tie-back installation at 2nd/Hope.</li> </ul> <p><b>Flower</b></p> <ul style="list-style-type: none"> <li>RCC continues excavation and installation of 24" waterline on Flower Street.</li> <li>RCC continues installation of cap beam and lagging.</li> <li>RCC continues excavation for the tie-back removal pit.</li> <li>RCC continues deck beam and decking installation at 4th/Flower during weekend closures</li> </ul> <p><b>Project-wide</b></p> <ul style="list-style-type: none"> <li>RCC continues pre-con survey (photograph existing conditions) at various locations, as needed.</li> <li>RCC continues underground investigation – potholing Hydrovac and exploratory trenching at various locations project wide.</li> <li>RCC continues preparation of submittals and traffic control plans, including weekly meetings with LADOT and City Council District 14.</li> </ul>

**CONSTRUCTION CONTRACTS (Cont.)**

<p><b>Description: Design-Build Contract</b> <b>Contractor: Regional Connector Constructors</b></p>	<p><b>Contract No. C0980</b> <b>Status as of: October 28, 2016</b></p>
<p><b>Areas of Concern:</b></p> <ul style="list-style-type: none"> <li>• Utility relocations have been delayed, impacting RCC's schedule. Schedule mitigation measures are being implemented across the alignment. Major street and intersection closures are being coordinated with LADOT, LABOE, and Council District 14 to facilitate construction plans and schedules. Additionally, Metro and RCC are coordinating with DWP and third-party utility owners on utility design and relocation issues along Flower, Broadway, Alameda and 2<sup>nd</sup> Street to advance construction fronts at these locations.</li> <li>• Schedule recovery measures notwithstanding, schedule float and flexibility is minimal; opportunities for improvement continue to be reviewed.</li> </ul>	<p><b>Major Activities Next Period:</b></p> <p><b>Design</b></p> <ul style="list-style-type: none"> <li>• Metro will review the Ventilation and Fire Life Safety Report, the Basis of Design Crossover Cavern Dynamic Analysis, the Flower Street (DU14) and 2nd/Broadway (DU16) decking beam submittals, the AFC package for DU11 Train Control 1st/Central Station BOP Design and AFC design package for DU06 2nd/Hope without pedestrian bridge.</li> </ul> <p><b>Construction</b></p> <p><b>1st/Central</b></p> <ul style="list-style-type: none"> <li>• RCC will begin concrete pours for station invert.</li> <li>• RCC will begin installation of top mat of rebar for station invert.</li> <li>• RCC will begin setup and installation of track level rebar conduits.</li> </ul> <p><b>2nd/Broadway</b></p> <ul style="list-style-type: none"> <li>• RCC will re-open northbound and southbound Broadway and implemented 2nd Street Phase 1 mid-block closure.</li> <li>• RCC will begin station excavation.</li> <li>• RCC will begin installation of tie-backs at station hammerhead.</li> </ul> <p><b>2nd/Hope</b></p> <ul style="list-style-type: none"> <li>• RCC will complete installation and certification of Alimak (construction personnel elevator)</li> </ul> <p><b>Flower</b></p> <ul style="list-style-type: none"> <li>• RCC will begin Phase 2 of sewer bypass work at 4th/Flower.</li> <li>• RCC will begin work on temporary power sub-station at 5th/Flower.</li> <li>• RCC will begin shotcrete and removal of tie-backs at Removal Shaft</li> </ul> <p><b>Project-wide</b></p> <ul style="list-style-type: none"> <li>• RCC will begin installation of MPBX along 2nd Street.</li> <li>• RCC will begin installation of UMP at 3rd/Flower (tie-back removal shaft).</li> </ul>

**CONSTRUCTION CONTRACTS (Cont.)**

<b>Description: Design-Build Contract Contractor: Regional Connector Constructors</b>			<b>Contract No. C0980 Status as of: October 28, 2016</b>					
<b>Schedule Summary:</b>				Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs
Date of Award:	5/6/2014		Notice to Proceed	07/07/14	0	07/07/14	07/07/14	0
Notice to Proceed:	7/7/2014		Milestone 1:	10/22/20	150	03/21/21	05/02/21	-42
Original Contract Duration:	2579	CD	Milestone 2:	06/14/20	212	01/12/21	01/06/21	6
			Milestone 3:	05/15/16	Deleted (Mod #10 / Mod #32)			
			Milestone 4:	05/27/18	Deleted (Mod #10 / Mod #32)			
Current Contract Duration:	2579	CD	Milestone 5:	08/19/19	155	07/02/20	05/18/20	45
Elapsed Time from NTP:	845	CD	Milestone 6:	09/18/19	288	07/02/20	08/13/20	-42
			Milestone 7:	10/10/15	0	03/21/16	3/21/2026 A	0
			Milestone 8:	04/22/18	0	05/11/20	03/08/20	64
			Milestone 9A:	07/14/20	0	10/14/20	11/27/20	-44
			Milestone 9B:	10/22/20	0	03/13/21	03/07/21	6
			Milestone 10:	10/12/20	0	05/20/21	06/30/21	-41
			Milestone 11:	10/27/20	0	06/04/21	07/15/21	-41
			Milestone 12:	03/01/21	149	07/28/21	09/29/21	-63
<b>Physical Percent Complete as of :</b>		10/29/16	<b>Cost Summary:</b>				<b>\$ In millions</b>	
Design	94.5%		1. Award Value:				927.2	
Construction	22.0%		2. Executed Modifications:				124.9	
Total Incurred Cost	39.4%		3. Approved Change Orders:				0.1	
* Note: Physical completion assessment excludes mobilization, general mobilization and Provisional Sum.			4. Current Contract Value (1+2+3):				1052.2	
			5. Incurred Cost:				414.4	

## CONSTRUCTION PHOTOS



TBM Lowering Ceremony



Concrete pours of invert slab



2<sup>nd</sup> /Broadway restoration in preparation for street re-opening



Continued excavation at Wye



"Steady State" implementation complete



Installation of 3<sup>rd</sup> Level walers below Hope Street decking



Decking preparations at 4<sup>th</sup> /Flower Intersection

**APPENDIX**

**COST AND BUDGET TERMINOLOGY**

**Project Cost Descriptions**

ORIGINAL BUDGET	The Original Project Budget established upon Board approval of Life-of-Project (LOP) budget.
CURRENT BUDGET	The Original Budget plus all budget amendments approved by formal Metro Board action. Also referred to as Approved Budget.
COMMITMENTS	The total of actual contracts awarded, executed change orders or amendments, approved work orders of Master Cooperative Agreements, and other Metro actions which have been spent or result in the obligation of specific expenditures at a future time.
EXPENDITURES	The total dollar amount of funds expended by Metro for contractor or consultant invoices, third party invoices, staff salaries, real estate and other expenses that is reported in Metro's Financial Information System (FIS).
CURRENT FORECAST	The best estimate of the final cost of the project when all checks have been issued and the project is closed out. Current Forecast is composed of actual costs incurred to date, the best estimate of work remaining and a current risk assessment for each budgeted cost item.

**Cost Report by Element Descriptions**

CONSTRUCTION	Includes construction contracts. Cost associated with Guideways, Stations, Southwestern Yard, Sitework/Special Conditions and Systems.
RIGHT-OF-WAY	Includes purchase cost of parcels, easements, right-of-entry permits, escrow fees, contracted real estate appraisals and tenant relocation.
VEHICLES	Includes the purchase of LRT vehicles and spare parts for the project.
PROFESSIONAL SERVICES	Includes design engineering, project management assistance, construction management support services, legal counsel, agency staff costs, and other specialty consultants.
CONTINGENCY	A fund established at the beginning of a project to provide for anticipated but unknown additional costs that may arise during the course of the project.
PROJECT REVENUE	Includes all revenue receivable to the Metro as a direct result of project activities. This includes cost sharing construction items, insurance premium rebates, and the like.

## **APPENDIX**

### **LIST OF ABBREVIATIONS AND ACRONYMS**

AFC	Approved for Construction
APE	Advanced Preliminary Engineering
ATC	Automatic Train Control
ATSAC	Automated Traffic Surveillance and Control
AUR	Advanced Utility Relocation
BAFO	Best and Final Offer
BIM	Building Information Modeling
CADD	Computer Aided Drafting and Design
CALTRANS	California Department of Transportation
CCTV	Closed Circuit Television
CD	Calendar Day
CEQA	California Environmental Quality Act
CM	Construction Manager
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CN	Change Notice
CO	Change Order
CPM	Critical Path Method
CPUC	California Public Utilities Commission
CQWP	Construction Quality Work Plan
CR	Camera Ready
CSPP	Construction Safety Phasing Plan
CTC	California Transportation Commission
CUD	Contract Unit Description
DB	Design Build
DBB	Design Bid Build
DDR	Design Deviation Request
DOT	Department of Transportation
DWP	Department of Water and Power
ECI	Engineering Change Instruction
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPB TBM	Earth Pressure Balance Tunnel Boring Machine
FAR	Federal Acquisition Regulation
FD	Final Design
FEIS	Final Environmental Impact Statement
FEIR	Final Environmental Impact Report
FFGA	Full Funding Grant Agreement
FIS	Financial Information System
FLSR	Fire Life Safety Report
FONSI	Finding of No Significant Impact
FRA	Federal Railroad Administration
FSEIR	Final Supplemental Environmental Impact Report
FSEIS	Final Supplemental Environmental Impact Statement
FTA	Federal Transit Administration
FTE	Full Time Equivalent

**APPENDIX**

**LIST OF ABBREVIATIONS AND ACRONYMS (Cont.)**

GBN	Ground Borne Noise
GBR	Geotechnical Baseline Report
GDSR	Geotechnical Design Summary Report
HABS/HAER	Historical American Building Survey / Historical American Engineering Record
IFB	Invitation for Bid
IPMO	Integrated Project Management Office
JV	Joint-Venture
LA	Los Angeles
LABOE	Los Angeles Bureau of Engineering
LABOS	Los Angeles Bureau of Sanitation
LABSL	Los Angeles Bureau of Street Lighting
LACFCD	Los Angeles County Flood Control District
LACMTA	Los Angeles County Metropolitan Transportation Authority
LADOT	Los Angeles Department of Transportation
LADPW	Los Angeles Department of Public Works
LADWP	Los Angeles Department of Water and Power
LAFD	Los Angeles Fire Department
LAPD	Los Angeles Police Department
LNTP	Limited Notice to Proceed
LONP	Letter of No Prejudice
LOP	Life-of-Project
LPA	Locally Preferred Alternative
LRT	Light Rail Transit
L RTP	Long Range Transportation Plan
LRV	Light Rail Vehicle
MCA	Master Cooperative Agreement
MIS	Major Investment Study
MMRP	Mitigation Monitoring and Reporting Program
MOU	Memorandum of Understanding
MPSR	Monthly Project Status Report
N/A	Not Applicable
NEPA	National Environmental Protection Act
NOD	Notice of Determination
NPDES	National Pollution Discharge Elimination System
NTE	Not to Exceed
NTP	Notice to Proceed
OCC	Operations Control Center
OCR	Overhead Conductor Rail
OCS	Overhead Catenary System
OSHA	Occupational Health and Safety Administration
PA/VMS	Public Address/Visual Messaging Sign
PCTL	Precast Concrete Tunnel Lining
PE	Preliminary Engineering
PEER	Permit Engineering Evaluation Report
PIP	Project Implementation Plan



**APPENDIX**

**LIST OF ABBREVIATIONS AND ACRONYMS (Cont.)**

PLA	Project Labor Agreement
PM	Project Manager
PMOC	Project Management Oversight Consultant
PMP	Project Management Plan
PR	Project Report
PSR	Project Study Report
QA	Quality Assurance
QAR	Quality Assurance Report
QC	Quality Control
QPSR	Quarterly Project Status Report
RAMP	Real Estate Acquisition Management Plan
RCC	Regional Connector Contractors
RCMP	Risk Assessment Management Plan
RFC	Request for Change
RFP	Request for Proposals
RHA	Risk Hazard Analysis
ROC	Rail Operations Center
ROD	Record of Decision
ROM	Rough Order of Magnitude
RON	Resolution of Necessity
ROW	Right-Of-Way
RSD	Revenue Service Date
SCAQMD	Southern California Air Quality Management District
SCADA	Supervisory Control and Data Acquisition
SCC	Standard Cost Category
SCG	Southern California Gas Company
SEIS	Supplemental Environmental Impact Statement
SHPO	State Historic Preservation Office
SIT	System Integration Testing
SOE	Support of Excavation
SOQ	Statement of Qualification
SOV	Schedule of Values
SOW	Statement of Work
SP	Special Provision
SSMP	Safety and Security Management Plan
TBD	To Be Determined
TBM	Tunnel Boring Machine
TCC	Train Control Center
TCE	Temporary Construction Easement
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIGER	Transportation Investment Generating Economic Recovery
TPSS	Traction Power Substation
TVA	Threat Vulnerability Analysis
TVM	Ticket Vending Machine
UFS	Universal Fare System

**APPENDIX**

**LIST OF ABBREVIATIONS AND ACRONYMS (Cont.)**

UST	Underground Storage Tank
USDOT	United States Department of Transportation
VE	Value Engineering
WBS	Work Breakdown Structure
WP	Work Package
WTCP	Worksite Traffic Control Plan
YOE	Year of Expenditure