

# Westside Purple Line Extension



Metro®

# **WESTSIDE PURPLE LINE EXTENSION 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).

**MAY 2014**


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**PROJECT SUMMARY**

<b>LOCATION:</b> Los Angeles / Beverly Hills				<b>CONSTRUCTION MANAGEMENT CONSULTANT:</b> WEST JV			
<b>DESIGN CONSULTANT:</b> Parsons / Brinckerhoff				<b>CONTRACTOR:</b> TBD			
<b>ADVANCED UTILITY RELOCATIONS AT WILSHIRE/FAIRFAX</b>				<b>WORK COMPLETED PAST MONTH</b>			
				<ul style="list-style-type: none"> <li>- C1034 Exploratory Shaft monitoring period is ongoing</li> <li>- C1048 Advanced Utilities Relocations (AUR) continuing at La Brea</li> <li>- CES and LADWP power AUR continuing at La Brea</li> <li>- Peak hour exemptions received for pile installation at Wilshire/Fairfax and Wilshire/Western</li> <li>- Continuing real estate needs coordination for Division 20</li> <li>- C1055 Fairfax AUR NTP issued 05/01/14</li> <li>- Continued design for 3rd-party and advanced utility relocations &amp; traffic control</li> <li>- C1056 La Cienega AUR Bids received 05/21/14</li> </ul>			
<b>EXPENDITURE STATUS (\$ In Millions)</b>				<b>SCHEDULE ASSESSMENT</b>			
<b>ACTIVITIES</b>	<b>CURRENT ESTIMATE</b>	<b>EXPENDED AMOUNT</b>	<b>PERCENT EXPENDED</b>	<b>MAJOR SCHEDULE ACTIVITIES</b>	<b>PRIOR PLAN</b>	<b>CURRENT PLAN</b>	<b>VARIANCE WEEKS</b>
<b>DESIGN</b>	\$163.0	\$56.7	34.8%	<b>Environmental</b>			
				FEIS / FEIR	N/A	05/31/12	Complete
<b>RIGHT-OF-WAY</b>	\$212.5	\$2.1	1.0%	<b>Design</b>			
<b>CONSTRUCTION</b>	\$1,437.6	\$13.7	1.0%	PE Notice to Proceed	N/A	01/12/11	Complete
<b>OTHER</b>	\$1,048.2	\$60.5	5.8%	Final Design complete	02/22/17	03/22/17	0
<b>TOTAL</b>	\$2,861.3	\$133.0	4.6%	<b>Right-of-Way</b>			
				All parcels available	05/23/15	05/23/15	0
Current Estimate includes Environmental/Planning and Finance Costs.				<b>Construction - Main Design / Build Contract</b>			
<b>AREAS OF CONCERN</b>				Notice to Proceed	08/25/14	09/25/14	0
-Market conditions may lead to higher construction costs				Construction complete	06/25/23	07/25/23	0
<b>ROW ACQUISITION</b>	<b>PLAN</b>	<b>ACQUIRED</b>	<b>REMAINING</b>	<b>CRITICAL ACTIVITIES / 3 MONTH LOOK AHEAD</b>			
PERMANENT PARCELS	15	0	15	<ul style="list-style-type: none"> <li>- C1034 Exploratory Shaft: Continue monitoring period</li> <li>- CES: Complete advanced utility relocations at La Brea</li> <li>- C1045 Design / Build Contract Award</li> <li>- Fairfax: Fiber optics, C1055 construction of water &amp; power relocation</li> <li>- C1056 La Cienega Advanced Utility Relocations issue NTP</li> <li>- C1078 Div 20 MOW &amp; NRV facilities: Prepare Design-Build RFP package</li> </ul>			
TEMPORARY PARCELS	3	0	3				
<b>TOTAL PARCELS</b>	18	0	18				

## **PROJECT OVERVIEW & STATUS**

*Section 1 of the Westside Purple Line Extension Project is the first of three sections to be designed and constructed as part of the Los Angeles County Metropolitan Transportation Authority (LACMTA) Measure R Program. The program was approved by Los Angeles County voters in November 2008 and provides a half-cent sales tax to finance new transportation projects. In April 2012, the three sections of the Project were environmentally cleared and adopted by LACMTA Board of Directors.*

*Section 1 will extend the existing Purple Line by 3.92 miles beginning at the Wilshire/Western Station. From this station, the twin tunnel alignment will travel westerly within the existing Wilshire Boulevard right-of-way. Stations will be located at the intersections of Wilshire/La Brea, Wilshire/Fairfax, and Wilshire/La Cienega. All three of the station boxes will be located within the Wilshire Boulevard right-of-way with station portals extending to off-street entrances. Two of the stations, Wilshire/La Brea and Wilshire/Fairfax are within the jurisdiction of the City of Los Angeles. The Wilshire/La Cienega Station is within the City of Beverly Hills jurisdiction.*

### **Design**

The Engineering Management Services Consultant continues to advance the Division 20 Maintenance-of-Way Building (MOW) and the Non Revenue Vehicle (NRV) facility, supporting Metro in the procurement of the major Design/Build Contract (C1045), and supporting Metro during the monitoring stage of the exploratory shaft and design support to the three advanced utility relocation (AUR) contracts.

For the Wilshire/La Brea AUR Contract (C1048) and the Wilshire/Fairfax AUR Contract (C1055), the design team is continuing to develop for LADOT approval additional traffic control stages requested by Metro in support of the contractors and responding to Request for Information (RFI's) and submittals.

For the Wilshire/La Cienega Station AUR Contract (C1056), the team assisted Metro in studying construction related traffic circulation and parking requirements and providing updates to the traffic control plans for water, sewer and storm drain work. The team also continued coordinating the layout of the AT&T conduits and SCG designs.

The design team has advanced the design towards the camera ready submittal for the Division 20 MOW Building and the NRV facility. A Contract Documents Requirements List (CDRL) will also part of the submittal. The submittal is expected next period.

For the Exploratory Shaft Contract (C1034), the design team will continue to monitor the geotechnical instruments and gas monitoring testing. The team advanced the post construction analysis report that will be part of the final exploratory shaft documentation.

## **PROJECT OVERVIEW & STATUS (Continued)**

### **Major Contract Procurement**

Contract C1045 RFP proposals were received on January 30, 2014. A request for a Best and Final Offer (BAFO) was issued on May 2, 2014. BAFOs were received on May 30, 2014 and are being evaluated towards completing the RFP process.

The Notice to Proceed (NTP) for the Wilshire/Fairfax Station AUR Contract (C1055) was issued on May 1, 2014.

The Wilshire/La Cienega AUR Contract (C1056) was advertised for bid on February 28, 2014. Price bids were received on May 21, 2014. Contract award is expected in July 2014 with an NTP in August 2014.

### **Construction**

Peak hour exemptions were approved by the City of Los Angeles Departments of Transportation and Bureau of Engineering on May 12, 2014. These peak hour exemptions are for the installation of piles for the Wilshire/Fairfax Station and the Wilshire/Western tunnel boring machine retrieval shaft.

The monitoring/observation period is continuing at the Wilshire/Fairfax Exploratory Shaft Contract (C1034).

The advanced utility relocations at Wilshire/La Brea Contract (C1048) are anticipated to complete in August 2014.

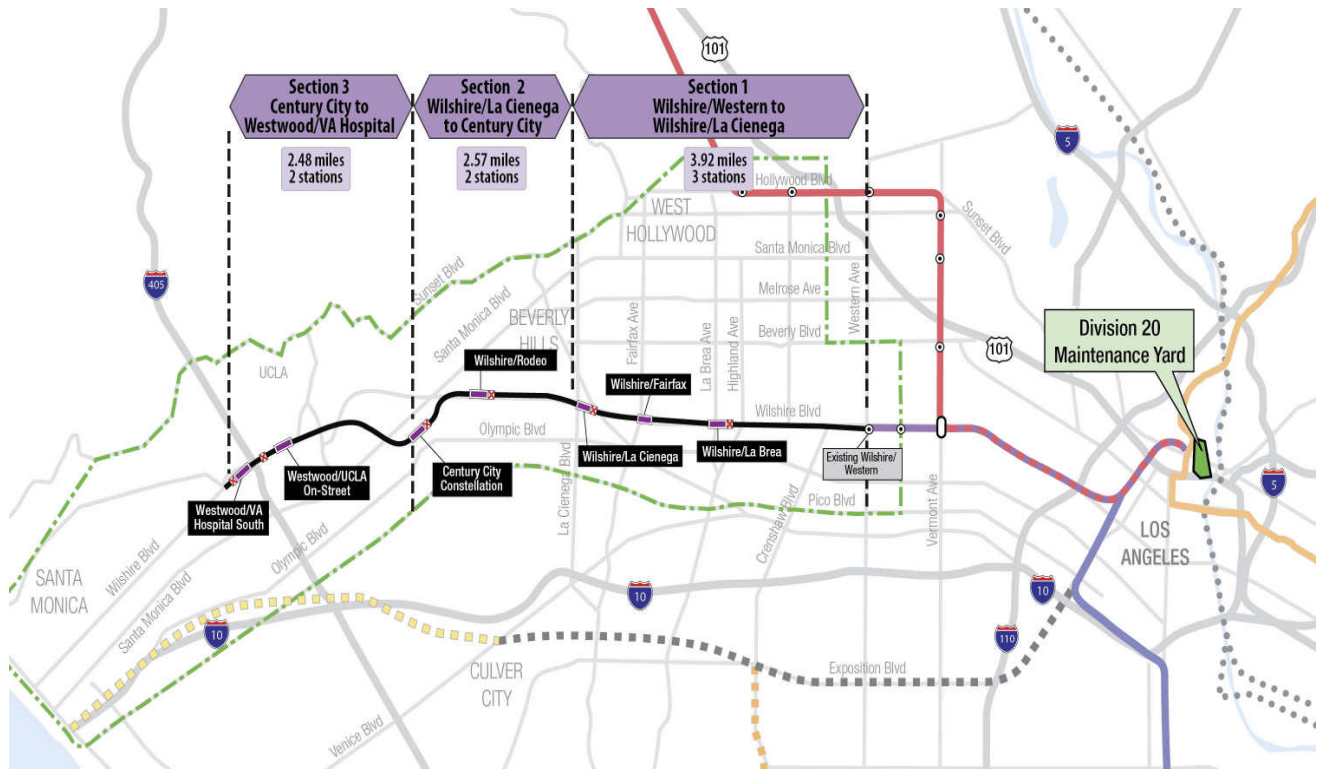
CES is continuing the relocation of fiber optic cables at the Wilshire/Fairfax Station area. Trenching and conduit work has been completed and the planned two months of fiber pulling and splicing activities will begin in early June 2014.

The Wilshire/Fairfax AUR (C1055) contractor is processing submittals and plans to mobilize to the construction site in late July 2014.

## **MANAGEMENT ISSUES**

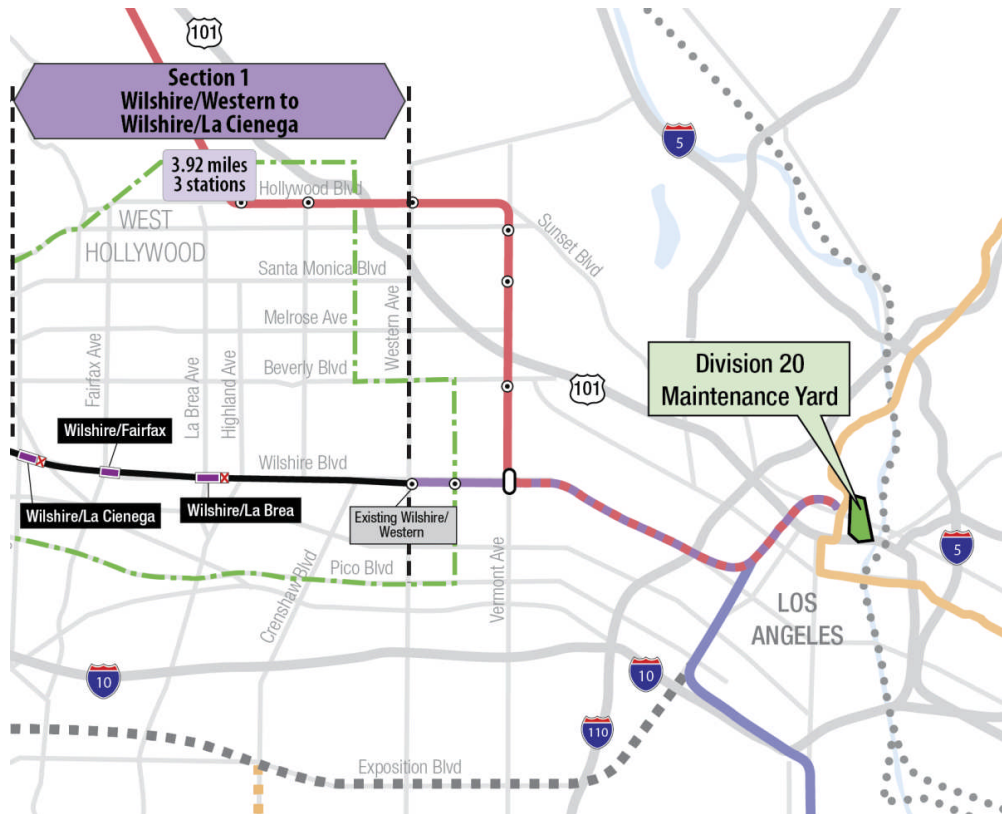
No Management Issues this period.

**PROJECT ALIGNMENT by SECTIONS**





**PROJECT ALIGNMENT SECTION 1**



## **BASE PROJECT SCOPE**

Section 1 of the Westside Purple Line Extension Project is the first of three sections to be designed and constructed as part of the Los Angeles County Metropolitan Transportation Authority (LACMTA) Measure R Program. The program was approved by Los Angeles County voters in November 2008 and provides a half-cent sales tax to finance new transportation projects. In April 2012, the three sections of the Project were environmentally cleared and adopted by LACMTA Board of Directors.

Section 1 will extend the existing Purple Line by 3.92 miles beginning at the Wilshire/Western Station. From this station, the twin tunnel alignment will travel westerly within the existing Wilshire Boulevard right-of-way. Stations will be located at the intersections of Wilshire/La Brea, Wilshire/Fairfax, and Wilshire/La Cienega. All three of the station boxes will be located within the Wilshire Boulevard right-of-way with station portals extending to off-street entrances. Two of the stations, Wilshire/La Brea and Wilshire/Fairfax are within the jurisdiction of the City of Los Angeles. The Wilshire/La Cienega Station is within the City of Beverly Hills jurisdiction.

The Wilshire/La Brea Station box will be located under the center of Wilshire Boulevard in between Detroit Street and Orange Drive. A double crossover will be located east of the station box. The station entrance will be on the northwest corner of Wilshire Boulevard and La Brea Avenue.

The Wilshire/Fairfax Station box will be located under the center of Wilshire Boulevard west of Fairfax Avenue to west of Ogden Drive. The station entrance will be on the southeast corner of Wilshire Boulevard and Orange Grove Avenue.

The Wilshire/La Cienega Station box will be located under the center of Wilshire Boulevard immediately east of La Cienega Boulevard. A double crossover will be located east of the station box. The station entrance will be on the northeast corner of Wilshire Boulevard and La Cienega Boulevard. Since the station will be the terminus station for Section 1, tail tracks will be located west of the station box.

### **Contract C1034 – Wilshire/Fairfax Exploratory Shaft**

Metro is constructing an exploratory shaft to observe ground conditions prior to the award of Contract C1045. The location of the exploratory shaft is adjacent to the future Wilshire/Fairfax Station. The construction of the shaft includes furnishing and installing monitoring instruments, ventilation, and record and report instrumentation data during the excavation of the shaft. After construction of the shaft, the shaft will be maintained for an observation time period. Afterwards, the shaft will be dismantled and the site backfilled in a condition acceptable to the property owner.

## **BASE PROJECT SCOPE (Continued)**

### **Contract C1048 – Wilshire/La Brea Advanced Utility Relocations**

Relocate existing LADWP power, water utilities and a sewer line within the construction limits of the Wilshire/La Brea Station. The contractor is responsible for working in streets, procure materials, and coordinate with the utility owner. The contractor is to construct the new facilities in accordance with utility plans and specifications, provide traffic control, restore streets, and support utility crews installing cabling and during cut-over of the existing utilities.

### **Contract C1055 – Wilshire/Fairfax Advanced Utility Relocations**

Relocate existing LADWP power and water utilities within the construction limits of the Wilshire/Fairfax Station. The contractor is responsible for working in streets, procure materials, and coordinate with the utility owner. The contractor is to construct the new facilities in accordance with utility plans and specifications, provide traffic control, restore streets, and support utility crews installing cabling and during cut-over of the existing utilities.

### **Contract C1056 – Wilshire/La Cienega Advanced Utility Relocations**

Relocate existing City of Beverly Hills water, storm drain and sewer utilities within the construction limits of the Wilshire/La Cienega Station. The contractor is responsible for working in streets, procure materials, and coordinate with the utility owner. The contractor is to construct the new facilities in accordance with utility plans and specifications, provide traffic control, restore streets, and support utility crews during cut-over of the existing utilities.

### **Contract C1045 – Tunnels, Stations, Trackwork, Systems and Systems Integration Testing**

The procurement of this contract utilizes a two-step approach with the submittal of qualification statements through a Request for Qualification (RFQ) process, prequalification of qualified proposers followed by the release of a Request for Proposals (RFP) soliciting technical and price proposals with an option at Metro's discretion for Best and Final Offers (BAFO).

The Design/Build contract provides for final design and construction of the infrastructure along the 3.92 mile alignment. Contract scope includes demolition and removal of structures and clearing sites to facilitate construction operations. The structures to be constructed include twin bored tunnels, complete with cross-passages and walkways, including all mechanical, electrical and finish work. A retrieval shaft will be constructed to the west of the existing Wilshire/Western Station for extraction of the tunnel boring machines. Three underground stations are to be constructed, two with double-crossovers, and the terminus station to include tail tracks. Each station has a single entrance plaza with stairs, escalators and elevators which meet ADA requirements. The scope of work includes all architectural finishes, mechanical, electrical, systems and equipment including train control, traction power, communications, trackwork and the system tie-in to the existing Metro Purple Line, testing and commissioning.

## **BASE PROJECT SCOPE (Continued)**

### **Metro Furnished Equipment**

Metro will procure separate contacts to provide the 34 Heavy Rail Vehicles (HRV) and the Universal Fare System (UFS) necessary to operate the extension to the Purple Line. The scope of the HRV contract includes design, manufacturing, testing and delivery of the vehicles. The scope of the UFS contract includes design, fabrication and installation of equipment at the three stations and system testing.

### **Start Up**

The commencement of pre-revenue operations will be determined by Metro. Generally, all systems integration testing will have been completed and passed. All testing will be required to include and pass a “stress test” of maximum operational service levels to be acceptable. Pre-Revenue Operations include train runs, especially those involving multiple trains, on the integrated and fully operational extension; rehearsal of expected revenue operations scenarios; as well as abnormal and emergency scenarios in which random combinations of system interactions are tested; equipment “burned-in”; and training of Metro personnel who will eventually operate and maintain the extension and for emergency services personnel. Activities occurring during Pre-Revenue Operations are carried out by a designated Metro Project Rail Activation Group.

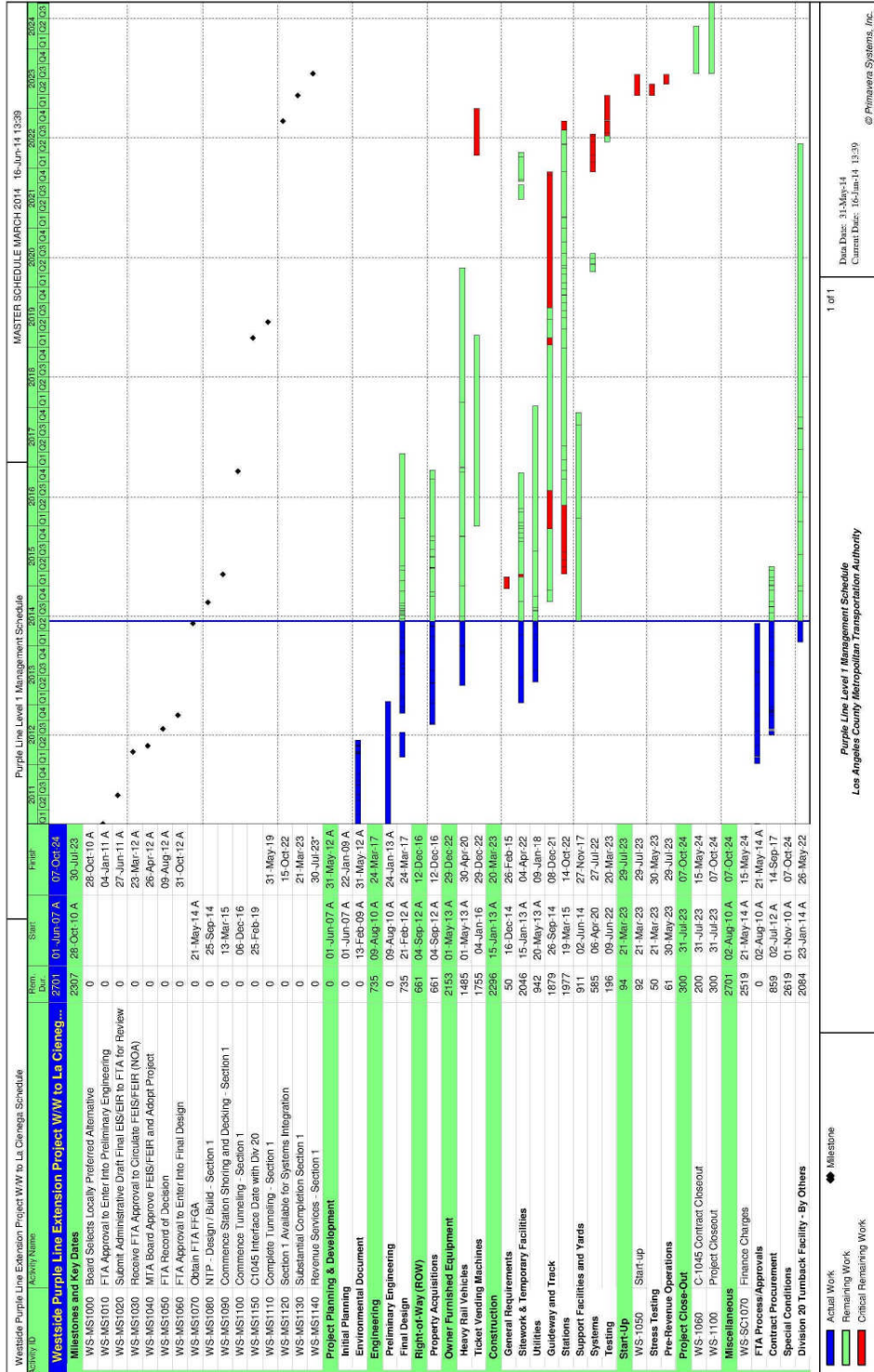
**KEY MILESTONES SIX- MONTH LOOK AHEAD**

	Milestone Date	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14
C1055 Fairfax AUR - NTP	5/1/14A	◆					
C1056 La Cienega AUR - Bids Due	5/21/14A	□					
FTA Awarded FFGA	5/21/14A	FTA					
Received TIFIA Loan	5/21/14A	△					
Complete Final Design of 3rd Party Utilities - La Brea	06/22/14		△				
C1055 Fairfax AUR - Begin Construction - Water / Power	06/25/14		□				
C1048 La Brea AUR - Complete Construction - Power	06/27/14		□				
Complete Final Design of AUR Utilities - La Cienega	07/08/14			△			
C1056 La Cienega AUR - Award	07/17/14			◆			
C1045 Design / Build Contract - Board Approval to Award	07/24/14			Ⓜ			
C1078 Division 20 Design / Build Contract - Issue IFB	08/01/14				◆		
C1048 La Brea AUR - Complete Construction - Water	08/15/14				□		
C1056 La Cienega AUR - NTP	08/21/14				◆		
C1045 Design / Build Contract - NTP	09/25/14					◆	

◆ MTA Staff	Ⓜ MTA Board Action	FTA (Federal Transportation Authority)
△ Other Agencies	□ Contractors	○ PB
"A" following date is actual and completed	* New	

PROJECT SUMMARY SCHEDULE



## **CRITICAL PATH NARRATIVE**

### **Critical Path:**

The critical path for the Westside Purple Line Extension Project begins with the procurement process for the C1045 Design / Build contract, mobilization of the design team for the selected contractor, and the start of final design for station boxes and tunnels. Final design is concurrent with the La Brea advanced utilities that are being relocated under the C1048 contract and by third parties. Upon completion of utility relocations, the contractor begins installation of soldier piles, first on the north side of the La Brea station box, and then on the south side. Street decking is then installed, the station structural box is excavated, and invert concrete is placed. Tunneling then begins, first driving eastbound from Wilshire / La Brea to Wilshire / Western. TBMs are removed through a retrieval shaft at Wilshire / Western, re-assembled at Wilshire / La Brea, and then driven westbound to Wilshire / La Cienega. Following construction of cross passages, the critical path continues through construction of the Wilshire / Fairfax station box, installation of trackwork and traction power, systems integration and testing, and pre-revenue operations.

**PROJECT COST STATUS**

**COST REPORT**

DOLLARS IN THOUSANDS

DESCRIPTION	ORIGINAL BUDGET	CURRENT ESTIMATE		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		ESTIMATE / FORECAST VARIANCE
		PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
ENGINEERING/CONSTRUCTION (465518 & 865518)	2,821,957	-	2,821,957	119	278,698	3,568	94,074	-	2,821,957	-
<b>465518 &amp; 865518 SUBTOTAL</b>	<b>2,821,957</b>	<b>-</b>	<b>2,821,957</b>	<b>119</b>	<b>278,698</b>	<b>3,568</b>	<b>94,074</b>	<b>-</b>	<b>2,821,957</b>	<b>-</b>
ENVIRONMENTAL/PLANNING - 405518	8,505	-	8,505	-	8,505	-	8,505	-	8,505	-
ENVIRONMENTAL/PLANNING - 465518	30,865	-	30,865	-	30,865	24	30,419	-	30,865	-
<b>405518 &amp; 465518 SUBTOTAL</b>	<b>39,370</b>	<b>-</b>	<b>39,370</b>	<b>-</b>	<b>39,370</b>	<b>24</b>	<b>38,924</b>	<b>-</b>	<b>39,370</b>	<b>-</b>
<b>TOTAL</b>	<b>2,861,327</b>	<b>-</b>	<b>2,861,327</b>	<b>119</b>	<b>318,067</b>	<b>3,592</b>	<b>132,998</b>	<b>-</b>	<b>2,861,327</b>	<b>-</b>

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH APRIL 2014

**PROJECT COST ANALYSIS**

**Original Budget**

The Original Budget of \$2.9 billion reflects the Project Budget in the adopted Full Funding Grant Agreement (FFGA), dated May 21, 2014 plus Planning and Environmental costs of \$39.4 million.

**Current Estimate**

The Current Estimate is \$2.9 billion. A Current Budget will be established upon Board approval of the Life-of-Project budget.

**Current Forecast**

The Current Forecast is \$2.9 billion.

**Commitments**

The Commitments increased by \$0.1 million due to executed modifications associated with the Advanced Utility Relocations Contract C1048. The \$318.1 million in Commitments to date represents 11.1% of the Current Estimate.

**Expenditures**

The expenditures are cumulative through April 2014. The expenditures increased by \$3.6 million this period primarily for costs associated with the Advanced Utility Relocations, Environmental Compliance Services, Real Estate Relocations, IPMO Tenant Improvements, Engineering Services, Construction Management Support Services, and Metro Project Administration. The \$133.0 million in Expenditures to date represents 4.6% of the Current Estimate.

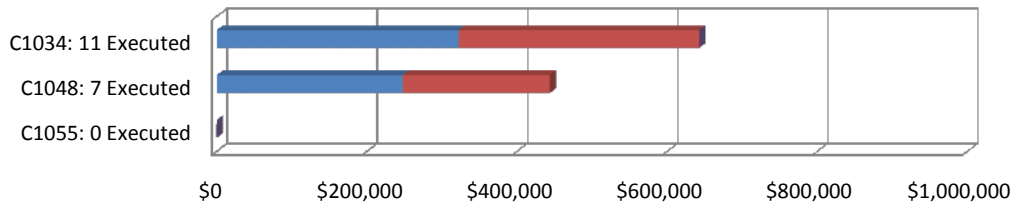


**FINANCIAL/GRANT STATUS**

Funding source chart will be provided upon adoption of the Life-of-Project Budget.

**SUMMARY OF CONTRACT MODIFICATIONS**

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



	C1034: 11 Executed	C1048: 7 Executed	C1055: 0 Executed	Total
■ Under \$100K	322,286	247,878	-	<b>570,164</b>
■ \$100K to \$250K	321,000	196,184	-	<b>517,184</b>
■ \$250K to \$1M	-	-	-	-
■ Over \$1M	-	-	-	-
<b>Total Contract MODs</b>	<b>643,286</b>	<b>444,062</b>	-	<b>1,087,348</b>
<b>Contract Award Amount</b>	<b>6,487,020</b>	<b>6,181,000</b>	<b>14,430,000</b>	<b>27,098,020</b>
<b>% of Contract MODs</b>	<b>9.9%</b>	<b>7.2%</b>	<b>0.0%</b>	<b>4.0%</b>

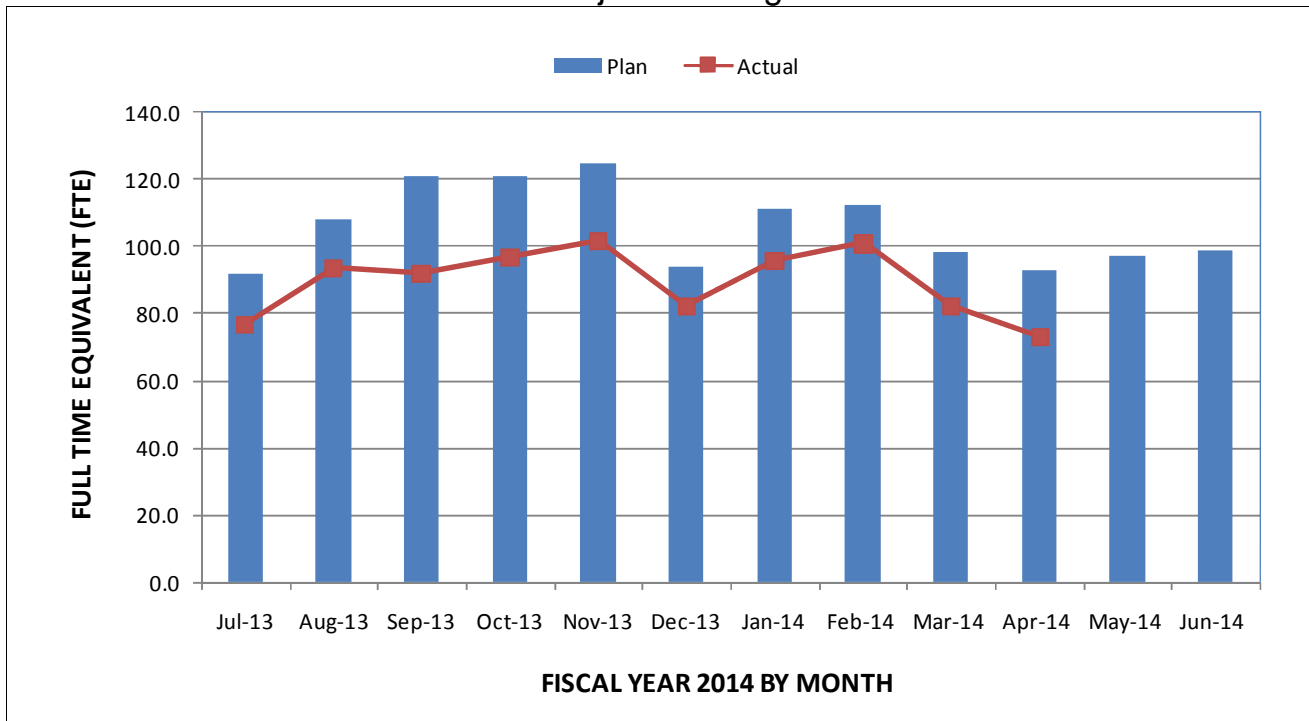
Percent of Contract MODs equals the Total Contract MODs divided by the Contract Award Amount.

Eleven Contract MODs with a total value of \$0.6 million have been executed since the award of Contract C1034 – Exploratory Shaft Construction by Innovative Construction Solutions (ICS).

Seven Contract MODs with a total value of \$0.4 million have been executed since the award of Contract C1048 – Advanced Utility Relocations at Wilshire/La Brea by Metro Builders & Engineering Group, LTD.

No Contract MODs have been executed since the award of Contract C1055 - Advanced Utility Relocations at Wilshire/Fairfax by W A Rasic Construction Company, Inc.

**STAFFING STATUS**  
Total Project Staffing – FTES

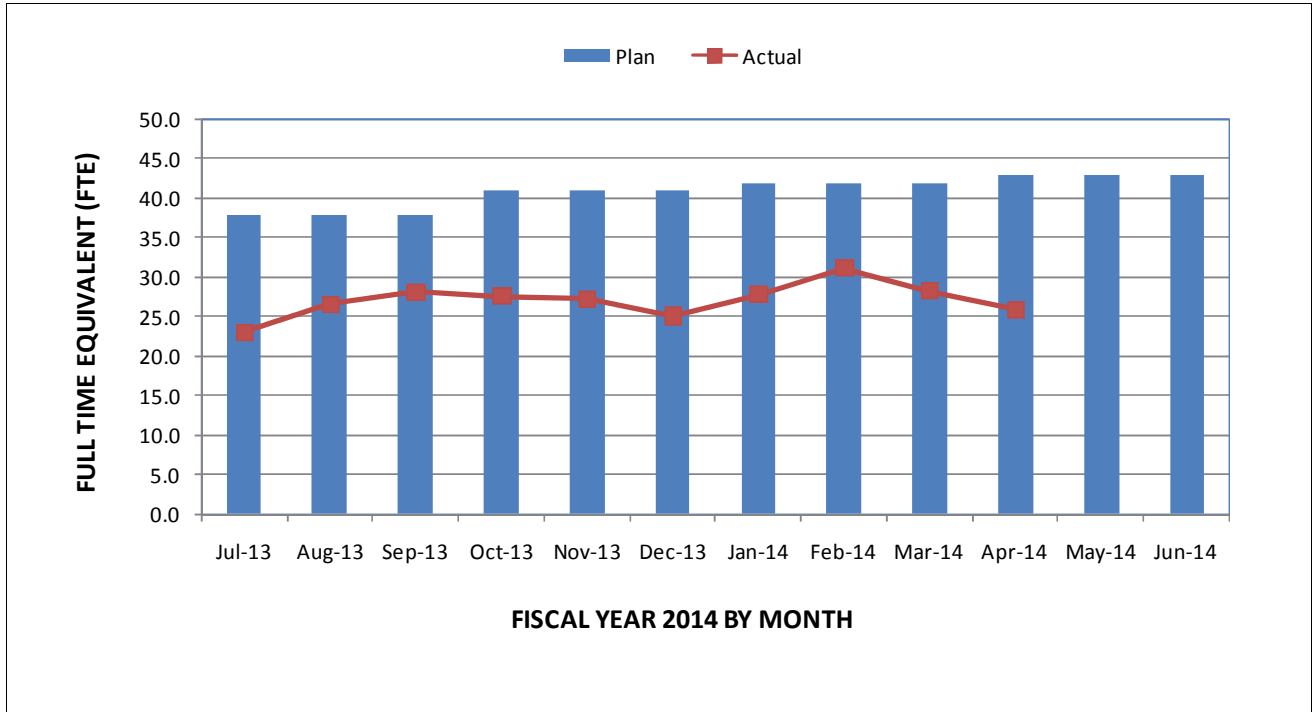


**TOTAL PROJECT STAFFING**

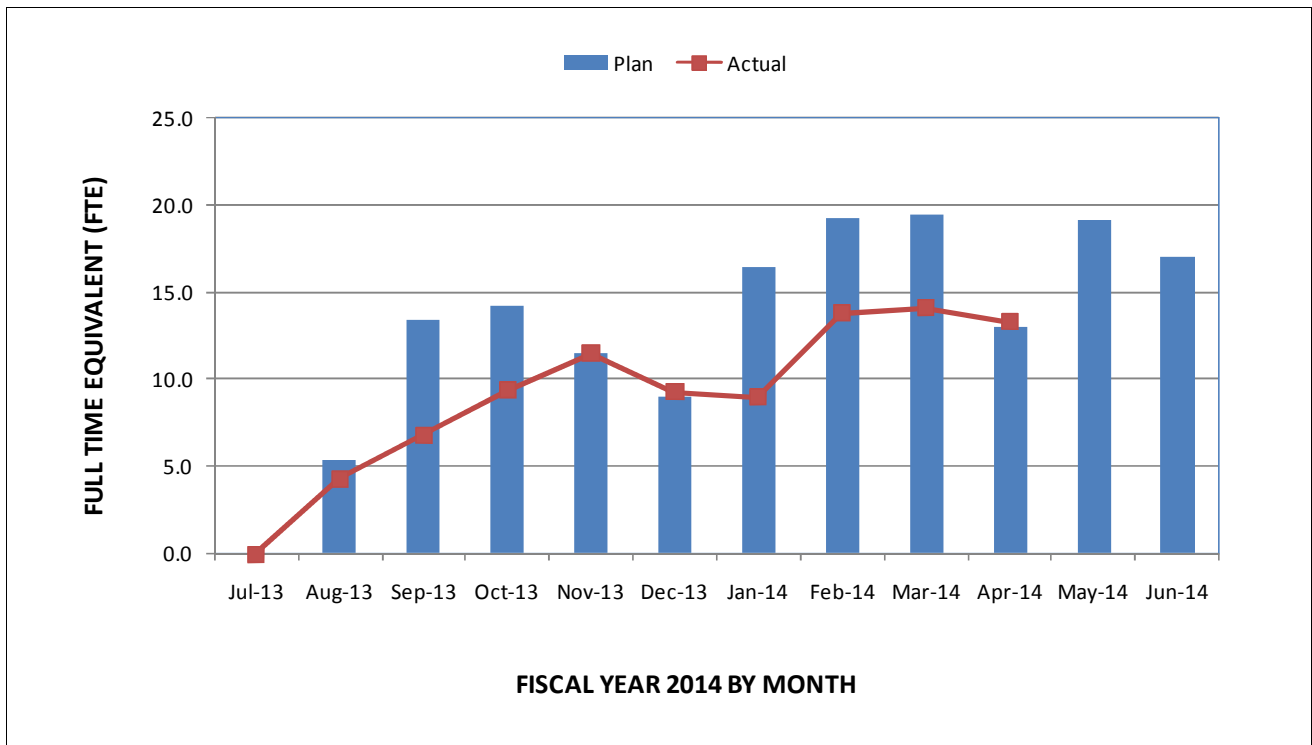
The overall FY14 Total Project Staffing plan averages 106.1 FTE's per month.

For April 2014, there were a total of 25.9 FTE's for MTA's Project Administration staff and 47.3 FTE's for consulting staff. The total project staffing for April 2014 was 73.2 FTEs.

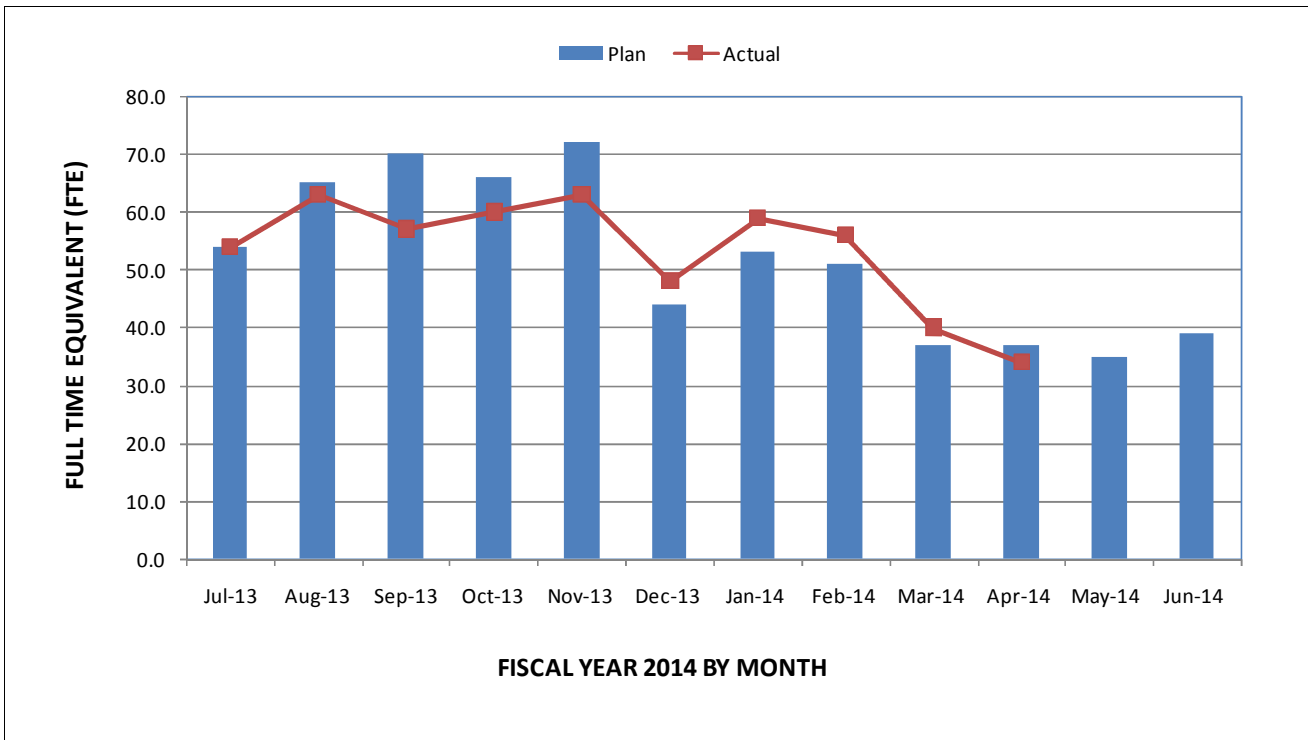
**STAFFING STATUS (Continued)  
METRO STAFFING – FTES**



**CONSTRUCTION MANAGEMENT  
SERVICES CONSULTANT – FTES**



**STAFFING STATUS (Continued)**  
**ENGINEERING MANAGEMENT SERVICES CONSULTANT – FTES**



**REAL ESTATE STATUS**

<b>Purple Line Extension Section 1 - Real Estate Status Summary</b>									
Description	Number of Parcels	Certified	Appraisals In Process/ Completed	Offers Made	Agreements Signed	Condemnation Filed	Relocations		Parcels Available
							Required	Completed	
Full Takes	15	15	14	14	1	2	109	14	0
Part Takes	1	1	1	0	0	0	0	0	0
TCE	2	2	2	2	0	0	0	0	0
<b>Total Parcels</b>	<b>18</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>1</b>	<b>2</b>	<b>109</b>	<b>14</b>	<b>0</b>

**QUALITY ASSURANCE STATUS**

**C1034 Exploratory Shaft**

- Reviewed inspection and testing reports and invoices from Smith and Emery Laboratories for the previous activities.

**C1045 Segment 1 Design/Build**

- Attended bi-weekly Project staff meetings and pre-construction meetings.
- Ongoing discussions with the Project staff to plan for CMSS coordination and oversight.

**C1048 Segment 1 Advanced Utility Relocations – La Brea**

- Reviewed and provided comments on submittals.
- Coordination with CMSS Inspector.

## **ENVIRONMENTAL STATUS**

- Continued environmental monitoring support for test shaft for VOC/GAS AQMD Rule 1116, 1150, construction SWPPP and noise. Preparing for contract permit closeout. Project is in observational phase.
- Noise and VOC monitoring in support of AUR Contracts and basic oversight on SWPPP requirements. Currently working on Fairfax Specs submittals.
- Finalizing the Baseline Ambient Noise Report and waiting on comments from City of Beverly Hills staff.
- Attending weekly progress meetings kickoff meeting for Fairfax and La Brea AUR contracts.
- Finalizing the Odor Study document and expect final report by end of June.
- Providing ongoing Noise Awareness Training.
- Preparing a supplemental tree removal plan for City of Beverly Hills and Los Angeles.
- Finalizing MMRP's and will be submitted by June 13, 2014.

## **CONSTRUCTION RELATIONS STATUS**

- Attended the following meetings: Pre-Construction, Construction Management, Advanced Utility Relocation, Exploratory Shaft, Construction and Environmental Mitigation, LADOT new contractor training session, City of Beverly Hills staff and LADWP Readiness Review Meetings.
- Produced and distributed work notices for advance utility relocations at Wilshire/ La Brea, Wilshire/Fairfax and Wilshire La Cienega and conducted surveys of affected businesses and residences in advance of water shutdowns for Wilshire/LA Brea.
- Initiated outreach meeting for the Wilshire/Western Station with Korea Town businessmen and community activists and coordinated the second meeting with the Miracle Mile Median Advisory Group.
- Attended Miracle Mile and Century City Chamber of Commerce events and participated in the Stage 1 Advisory Group quarterly presentation.
- Responded to complaints and issues through the Purple Line Extension hotline, direct calls and emails regarding noise at the Crenshaw Yard, construction work at La Brea and Wilshire and residents concerns about Wilshire/La Brea and Fairfax.
- Met with Councilman Tom La Bonge and staff of CD4 to address community concerns over tree removal, noise and overnight construction work as well as traffic mitigation issues.
- Initiated Contract for replacement parking required for City of Beverly Hills pre-construction permits and researched options for 24/7 live response to construction related calls.

## **CREATIVE SERVICES STATUS**

### Art Program

- Continue to support mitigation efforts.

## **SAFETY & SECURITY STATUS**

- There were no recordable injuries on the Project during May, 2014.
- Safety Staff participated in scheduled readiness review meetings to ensure compliance with approved Work Plans and contract specifications.
- Construction activities (Advance Utility Relocation and Exploratory Shaft) continue to be monitored during both day and night work shifts to ensure contractor compliance with contract specifications.
- Construction Safety Staff assisted with special event at the Exploratory Shaft site during the month.
- Safety staff attended weekly Progress Meetings, and other project meetings to evaluate Contractors Safety Program compliance with contract requirements.
- Construction Safety staff continue to work with Program Management and Construction Relations staff to monitor issues related to public concerns regarding noise and traffic hazards as well as public interactions with the construction crews.
- Safety staff completed work with Procurement and Program Management staff to prepare documents for upcoming maintenance facility design contract packages.
- Metro Construction Safety Staff is providing Safety & Security Contract Compliance oversight during both day and night shifts.



**THIRD PARTY AGREEMENT STATUS**

<b>Third Party</b>	<b>Type of Agreement</b>	<b>Forecast Execution Date</b>	<b>Required Need Date</b>	<b>Status/ Comments</b>
City of Los Angeles	Amendment to Master Cooperative Agreement	N/A	N/A	Parties will work under 2003 MCA.
City of Beverly Hills	MOA (La Cienega only)	7/14	7/14	Metro received comments from City of Beverly Hills (BH). Metro County Counsel is planning to respond to City of BH by mid-June 2014.
Los Angeles Department of Water and Power	Amendment to Memorandum of Understanding	N/A	N/A	Metro and LADWP will continue to work under the terms of the previous Cooperative Agreement.
Los Angeles County Public Works	Letter of Agreement	4/11	3/12	Executed
Caltrans	Amendment	8/11	3/12	Executed
Private Utilities	LOA, MOU or UCA	5/14	N/A	Metro is working with affected third party utilities under existing agreements except for Qwest and Level 3 of which comments have been received by Metro from each utility to establish a new MCA. Metro County Counsel is reviewing comments.

**ADVANCED UTILITY RELOCATION STATUS**

- C0148 AUR for Wilshire/La Brea Station to be completed by mid-August 2014.
- NTP for C1055 AUR for Wilshire/Fairfax Station was issued on May 1, 2014.
- CES continued fiber relocations at Wilshire/Fairfax Station area.
- LADWP Power continued cable pulling at the Wilshire/La Brea Station site; anticipated completion is October 2014.
- CES began fiber relocations at La Cienega Station area in May 2014.
- CES will begin AT&T relocations in June 2014 at the Wilshire/La Brea Station area.

## **PEAK HOUR AND NIGHTTIME CONSTRUCTION VARIANCES**

Metro is actively pursuing extended hour variances/exemptions to accommodate the Project needs. Metro staff is working with the City of Los Angeles Bureau of Engineering and the Los Angeles Police Commission to obtain Peak Hour Exemption and Night Time Work Variances. Current efforts center around extending the existing nighttime noise variances to accommodate advanced utility relocations at the Wilshire/La Brea and Wilshire/Fairfax Station sites as well as obtaining new nighttime and peak hour exemptions to allow night work and weekend work to accommodate the Wilshire/La Brea, Wilshire/Fairfax and Wilshire/Western piling operations for the Design/Build contractor.

- The Peak Hour Exemption for Wilshire/La Brea pile installation was approved by the City of Los Angeles on November 8, 2013.
- The Peak Hour Exemptions for Wilshire/Fairfax and Wilshire/Western pile installations were approved by the City of Los Angeles on May 12, 2014.
- The Nighttime Noise Variance for the Wilshire/La Brea and Wilshire/Fairfax Advanced Utility Relocation work was extended to October 17, 2014 by the Los Angeles Police Commission.
- A new Nighttime Noise Variance application is planned to be submitted in early June 2014 for pile installations at the Wilshire/La Brea Station area.
- A new Nighttime Noise Variance application for pile installations at the Wilshire/Fairfax Station area will be submitted in late 2014.
- New Nighttime Noise Variance applications will be submitted for the laydown yards at Wilshire/Crenshaw and Wilshire/Detroit in early June 2014.
- A new Nighttime Noise Variance will be submitted in June 2014 to the City of Los Angeles for Advanced Utility Relocation at the Wilshire/La Cienega Station area that is east of San Vicente Boulevard.

## **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 Preliminary Engineering
May 2011	Began Preliminary Engineering
April 2012	Board certification of Final EIS / EIR and adoption of project
July 2012	Completion of Exploratory Shaft final design
August 2012	FTA Record of Decision
September 2012	Began Real Estate Acquisition
November 2012	Began Final Design - C1048 - Advanced Utilities Relocation contract - La Brea
November 2012	Began Final Design - C1055 - Advanced Utilities Relocation contract - Fairfax
November 2012	Issued RFQ for C1045 Design / Build contract
December 2012	Began Final Design - C1056 - Advanced Utilities Relocation contract - La Cienaga
January 2013	Began C1034 Exploratory Shaft construction
February 2013	Received RFQ responses for C1045 Design / Build contract

**CHRONOLOGY OF EVENTS (Continued)**

June 2013	Issued RFP for C1045 Design/Build Contract
June 2013	Beginning of C1055 AUR Fairfax Bid Period
July 2013	Submitted draft FFGA application
July 2013	Completed Final Design - C1048 - Advanced Utilities Relocation contract La Brea
July 2013	Submitted TIFIA loan application
August 2013	Began C1048 Advanced Utilities Relocation at La Brea
August 2013	NTP for Construction Management Services Contract
January 2014	Submitted application to FTA requesting an FFGA
January 2014	Received RFP Proposals for Contract C1045
February 2014	Beginning of C1056 AUR La Cienega Bid Period
May 2014	FTA awarded FFGA
May 2014	Received TIFIA Loan

**CONTRACT C1034 STATUS**

<p><b>Description: Exploratory Shaft</b> <b>Contractor: Innovative Construction Solutions (ICS)</b></p>	<p><b>Contract No. C1034</b> <b>Status as of: May 30, 2014</b></p>															
<p><b>Progress / Work Completed:</b></p> <ul style="list-style-type: none"> <li>- Notice to Proceed: 01/15/13</li> <li>- Demolition / site preparation: 04/05/13 - 06/17/13</li> <li>- Site Utilities: 05/06/13 - 09/04/13</li> <li>- Soldier Piles: 07/05/13 - 08/27/13</li> <li>- Shaft excavation started: 09/03/13</li> <li>- Shaft excavation to 15' depth: 10/18/13</li> <li>- Shaft excavation to 20' depth: 11/01/13</li> <li>- Shaft excavation to 32' depth: 11/30/13</li> <li>- Shaft excavation to 44' depth: 12/27/13</li> <li>- Shaft excavation to 58' depth: 01/31/14</li> <li>- Shaft excavation to 66' depth: 02/28/14</li> <li>- Shaft excavation to bottom of pit: 03/28/14</li> <li>- Monitoring period began: 04/01/14</li> </ul> <p><b>Areas of Concern:</b></p>	<p><b>Major Activities (In Progress):</b></p> <ul style="list-style-type: none"> <li>- Monitoring period continues</li> </ul> <p><b>Major Activities Next Period:</b></p> <ul style="list-style-type: none"> <li>- Monitoring period through Oct 2014</li> </ul>															
<p><b>Schedule Summary:</b></p> <p>Date of Award: 11/26/12          Notice to Proceed: 01/15/13          Original Contract Duration: 669 CD          Current Contract Duration: 699 CD          Elapsed Time from NTP: 441 CD</p>		<p>Original Contract Dates</p>	<p>Time Extension</p>	<p>Current Contract</p>	<p>Forecast</p>	<p>Variance CDs</p>										
	<p>Notice to Proceed</p>	<p>01/15/13</p>	<p>0</p>	<p>01/15/13</p>	<p>01/15/13</p>	<p>0</p>										
	<p>Milestone 1: Shaft Completion</p>	<p>02/14/14</p>	<p>16</p>	<p>03/07/14</p>	<p>03/28/14</p>	<p>-21</p>										
	<p>Milestone 2: Substantial Completion</p>	<p>11/15/14</p>	<p>0</p>	<p>11/15/14</p>	<p>11/15/14</p>	<p>0</p>										
<p><b>Physical Percent Complete:</b></p> <p>Physical completion as of 05/30/14: 80%*</p> <p><i>* Note: Physical completion assessment reflects work completed and work in progress.</i></p>	<p><b>Cost Summary: \$ In millions</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">1. Award Value:</td> <td style="text-align: right;">6.5</td> </tr> <tr> <td>2. Executed Modifications:</td> <td style="text-align: right;">0.6</td> </tr> <tr> <td>3. Approved Change Orders:</td> <td style="text-align: right;">0.0</td> </tr> <tr> <td>4. Current Contract Value (1+2+3):</td> <td style="text-align: right;">7.1</td> </tr> <tr> <td>5. Incurred Cost:</td> <td style="text-align: right;">6.0</td> </tr> </table>						1. Award Value:	6.5	2. Executed Modifications:	0.6	3. Approved Change Orders:	0.0	4. Current Contract Value (1+2+3):	7.1	5. Incurred Cost:	6.0
1. Award Value:	6.5															
2. Executed Modifications:	0.6															
3. Approved Change Orders:	0.0															
4. Current Contract Value (1+2+3):	7.1															
5. Incurred Cost:	6.0															

**CONTRACT C1048 STATUS**

<p><b>Description: AUR - Wilshire/La Brea</b> <b>Contractor: Metro Builders &amp; Engineers Group, Ltd.</b></p>	<p><b>Contract No. C1048</b> <b>Status as of: May 30, 2014</b></p>																													
<p><b>Progress / Work Completed:</b></p> <p>Working on Vault #677 Completed Waterline Sycamore North of Wilshire Completed Vault VL5204 Completed Waterline La Brea North of Wilshire Began Waterline La Brea South of Wilshire Began waterline Intersection Orange &amp; La Brea</p> <p><b>Areas of Concern:</b></p>	<p><b>Major Activities (In Progress):</b></p> <p>At various locations throughout La Brea Station area:</p> <ul style="list-style-type: none"> <li>- Traffic control</li> <li>- Conduit installation</li> <li>- Encase conduit</li> <li>- Slurry backfill</li> <li>- Vault Installation</li> <li>- Pavement Restoration</li> <li>- Waterline relocation</li> </ul> <p><b>Major Activities Next Period:</b></p> <p>At various locations throughout La Brea Station area:</p> <ul style="list-style-type: none"> <li>- Traffic control</li> <li>- Complete vault installation</li> <li>- Hydrant / water line installation</li> <li>- Completion of power relocation and final vault</li> </ul>																													
<p><b>Schedule Summary:</b></p> <p>Date of Award: 05/13/13 Notice to Proceed: 08/01/13 Original Contract Duration: 230 CD Current Contract Duration: 379 CD Elapsed Time from NTP: 304 CD</p>	<table border="1"> <thead> <tr> <th></th> <th>Original Contract Dates</th> <th>Time Extension</th> <th>Current Contract</th> <th>Forecast</th> <th>Variance CDs</th> </tr> </thead> <tbody> <tr> <td>Notice to Proceed</td> <td>08/01/13</td> <td>0</td> <td>08/01/13</td> <td>08/01/13</td> <td>0</td> </tr> <tr> <td>Milestone 1: Completion of LADWP Power Work</td> <td>12/28/13</td> <td>0</td> <td>12/28/13</td> <td>05/22/14</td> <td>-145</td> </tr> <tr> <td>Milestone 2: Substantial Completion</td> <td>03/18/14</td> <td>150</td> <td>08/15/14</td> <td>08/15/14</td> <td>0</td> </tr> </tbody> </table>							Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs	Notice to Proceed	08/01/13	0	08/01/13	08/01/13	0	Milestone 1: Completion of LADWP Power Work	12/28/13	0	12/28/13	05/22/14	-145	Milestone 2: Substantial Completion	03/18/14	150	08/15/14	08/15/14	0
	Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs																									
Notice to Proceed	08/01/13	0	08/01/13	08/01/13	0																									
Milestone 1: Completion of LADWP Power Work	12/28/13	0	12/28/13	05/22/14	-145																									
Milestone 2: Substantial Completion	03/18/14	150	08/15/14	08/15/14	0																									
<p><b>Physical Percent Complete:</b></p> <p>Physical completion as of 05/30/14: 57%* * Note: Physical completion assessment reflects work completed and work in progress. Physical completion % decreased due to issuance of contract modifications.</p>	<p><b>Cost Summary:</b> <span style="float: right;"><b>\$ In millions</b></span></p> <table> <tr> <td>1. Award Value:</td> <td style="text-align: right;">6.2</td> </tr> <tr> <td>2. Executed Modifications:</td> <td style="text-align: right;">0.4</td> </tr> <tr> <td>3. Approved Change Orders:</td> <td style="text-align: right;">0.0</td> </tr> <tr> <td>4. Current Contract Value (1+2+3):</td> <td style="text-align: right;">6.6</td> </tr> <tr> <td>5. Incurred Cost:</td> <td style="text-align: right;">4.5</td> </tr> </table>						1. Award Value:	6.2	2. Executed Modifications:	0.4	3. Approved Change Orders:	0.0	4. Current Contract Value (1+2+3):	6.6	5. Incurred Cost:	4.5														
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3. Approved Change Orders:	0.0																													
4. Current Contract Value (1+2+3):	6.6																													
5. Incurred Cost:	4.5																													

**CONTRACT C1055 STATUS**

<p><b>Description: Fairfax AUR</b> <b>Contractor: W.A. RASIC Construction</b></p>	<p><b>Contract No. C1055</b> <b>Status as of: May 30, 2014</b></p>																																			
<p><b>Progress / Work Completed:</b></p> <ul style="list-style-type: none"> <li>- Notice to Proceed: 05/01/14</li> <li>- Submittal process has begun</li> <li>- Material procurement process has begun</li> </ul> <p><b>Areas of Concern:</b></p> <ul style="list-style-type: none"> <li>-Water pipe lead time</li> </ul>	<p><b>Major Activities (In Progress):</b></p> <ul style="list-style-type: none"> <li>- Submittal process</li> <li>- Material procurement</li> <li>- Project Schedule Development</li> <li>- Processing of traffic control &amp; permits</li> </ul> <p><b>Major Activities Next Period:</b></p> <ul style="list-style-type: none"> <li>-Mobilization</li> <li>-Material fabrication &amp; delivery</li> <li>-Layout of waterline Wilshire/La Brea</li> <li>-Layout of Electrical Wilshire/Fairfax</li> </ul>																																			
<p><b>Schedule Summary:</b></p> <p>Date of Award: 04/22/14          Notice to Proceed: 05/01/14          Original Contract Duration: 535 CD          Current Contract Duration: 535 CD          Elapsed Time from NTP: 30 CD</p>		<table border="1"> <thead> <tr> <th></th> <th>Original Contract Dates</th> <th>Time Extension</th> <th>Current Contract</th> <th>Forecast</th> <th>Variance CDs</th> </tr> </thead> <tbody> <tr> <td>Notice to Proceed</td> <td>05/01/14</td> <td>0</td> <td>05/01/14</td> <td>05/01/14</td> <td>0</td> </tr> <tr> <td>Milestone 1: Water @ La Brea</td> <td>08/29/14</td> <td>0</td> <td>08/29/14</td> <td>08/29/14</td> <td>0</td> </tr> <tr> <td>Milestone 2: Power @ Fairfax</td> <td>07/25/15</td> <td>0</td> <td>07/25/15</td> <td>07/25/15</td> <td>0</td> </tr> <tr> <td>Milestone 3: Substantial Completion</td> <td>10/18/15</td> <td>0</td> <td>11/15/14</td> <td>11/15/14</td> <td>0</td> </tr> </tbody> </table>		Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs	Notice to Proceed	05/01/14	0	05/01/14	05/01/14	0	Milestone 1: Water @ La Brea	08/29/14	0	08/29/14	08/29/14	0	Milestone 2: Power @ Fairfax	07/25/15	0	07/25/15	07/25/15	0	Milestone 3: Substantial Completion	10/18/15	0	11/15/14	11/15/14	0				
	Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs																															
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Milestone 1: Water @ La Brea	08/29/14	0	08/29/14	08/29/14	0																															
Milestone 2: Power @ Fairfax	07/25/15	0	07/25/15	07/25/15	0																															
Milestone 3: Substantial Completion	10/18/15	0	11/15/14	11/15/14	0																															
<p><b>Physical Percent Complete:</b></p> <p>Physical completion as of 05/30/14: 0%*</p> <p><i>* Note: Physical completion assessment reflects work completed and work in progress.</i></p>	<p><b>Cost Summary: \$ In millions</b></p> <table border="0"> <tr> <td>1. Award Value:</td> <td>14.4</td> </tr> <tr> <td>2. Executed Modifications:</td> <td>0.0</td> </tr> <tr> <td>3. Approved Change Orders:</td> <td>0.0</td> </tr> <tr> <td>4. Current Contract Value (1+2+3):</td> <td>14.4</td> </tr> <tr> <td>5. Incurred Cost:</td> <td>0.0</td> </tr> </table>						1. Award Value:	14.4	2. Executed Modifications:	0.0	3. Approved Change Orders:	0.0	4. Current Contract Value (1+2+3):	14.4	5. Incurred Cost:	0.0																				
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## **CONSTRUCTION PHOTOGRAPHS**



Traffic control equipment for AUR lane closure near Wilshire/La Brea intersection.



C1048 contractor making use of compact excavator to minimize traffic impacts.



**APPENDIX  
COST AND BUDGET TERMINOLOGY**

**Project Cost Descriptions**

ORIGINAL BUDGET	The Original Project Budget as authorized by the Metropolitan Transportation Authority (Metro) Board (to be established).
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, offers accepted for purchase of real estate, 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 services, third party services, 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 Heavy Rail 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 received by Metro as a direct result of project activities. This includes cost sharing construction items, insurance premium rebates, and the like.

**APPENDIX  
LIST OF ACRONYMS**

ATC	Automatic Train Control
ATSAC	Automated Traffic Surveillance and Control
BAFO	Best and Final Offer
BIM	Building Information Modeling
BNSF	Burlington Northern Santa Fe Railway Company
BRT	Bus Rapid Transit
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
CMSC	Construction Management Services Consultant
CN	Change Notice
CO	Change Order
COBH	City of Beverly Hills
COLA	City of Los Angeles
CPM	Critical Path Method
CPUC	California Public Utilities Commission
CR	Camera Ready
CSPP	Construction Safety Phasing Plan
CTC	California Transportation Commission
CUD	Contract Unit Description
DB	Design Build
DBB	Design Bid Build
DOT	Department of Transportation
DWP	Department of Water and Power
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMSC	Engineering Management Services Consultant
EPBM	Earth Pressure Balance Machine
FAA	Federal Aviation Administration
FAR	Federal Acquisition Regulation
FD	Final Design
FEIS	Final Environmental Impact Statement
FEIR	Final Environmental Impact Report
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

**APPENDIX  
LIST OF ACRONYMS (Continued)**

FTA	Federal Transit Administration
FTE	Full Time Equivalent
GBR	Geotechnical Baseline Report
GDSR	Geotechnical Design Summary Report
HMM	Hatch Mott MacDonald
HRT	Heavy Rail Transit
HRV	Heavy Rail Vehicle
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
LAUSD	Los Angeles Unified School District
LAWA	Los Angeles World Airports
LAX	Los Angeles International Airport
LNTP	Limited Notice To Proceed
LONP	Letter Of No Prejudice
LOP	Life-of-Project
LPA	Locally Preferred Alternative
LRTP	Long Range Transportation Plan
LRV	Light Rail Vehicle
MCA	Master Cooperative Agreement
MIS	Major Investment Study
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
OSHA	Occupational Health and Safety Administration
PA/VMS	Public Address/Visual Messaging Sign
PE	Preliminary Engineering

**APPENDIX  
LIST OF ACRONYMS (Continued)**

PEER	Permit Engineering Evaluation Report
PIP	Project Implementation Plan
PLA	Project Labor Agreement
PM	Project Manager
PMIP	Project Management Implementation Plan
PMOC	Project Management Oversight Consultant
PMP	Project Management Plan
P&P	Policies & Procedures
PR	Project Report
PSR	Project Study Report
QA	Quality Assurance
QAR	Quality Assurance Report
QC	Quality Control
QPSR	Quarterly Project Status Report
QTIB	Qualified Transit Improvement Bonds
RAMP	Real Estate Acquisition Management Plan
RCHAR	Rail Crossing Hazards Analysis Report
RCMP	Risk Assessment Management Plan
RFC	Request For Change
RFP	Request For Proposals
RFSC	Request for Special Consideration
RHA	Risk Hazard Analysis
RLPE	Red Light Photo Enforcement
ROC	Rail Operations Center
ROD	Record Of Decision
ROM	Rough Order of Magnitude
ROW	Right-Of-Way
RPZ	Runway Protection Zone
RSD	Revenue Service Date
SAV	Stand Alone Validator
SCAQMD	Southern California Air Quality Management District
SCADA	Supervisory Control and Data Acquisition
SCC	Standard Cost Category
SCE	Southern California Edison
SCG	Southern California Gas Company
SCRRA	Southern California Regional Rail Authority
SHA	State Highway Account
SHPO	State Historic Preservation Office
SIT	System Integration Testing
SOQ	Statement of Qualification
SOV	Schedule Of Value
SOW	Statement Of Work

**APPENDIX  
LIST OF ACRONYMS (Continued)**

SP	Special Provision
SSMP	Safety and Security Management Plan
STB	Surface Transportation Board
STIP	State Transportation Improvement Program
STP	Surface Transportation Program
STV	STV Group
TBD	To Be Determined
TBM	Tunnel Boring Machine
TCE	Temporary Construction Easement
TCRP	Traffic Congestion Relief Program
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIGER	Transportation Investment Generating Economic Recovery
TPSS	Traction Power Substation
TRACS	Transit Automatic Control System
TVA	Threat Vulnerability Analysis
TVM	Ticket Vending Machine
UFS	Universal Fare System
USDOT	United States Department Of Transportation
VE	Value Engineering
WBS	Work Breakdown Structure
WP	Work Package
YOE	Year of Expenditure