

Los Angeles County
Metropolitan Transportation Authority

Metro Division 13 Quarterly Project Status Report



Metro®

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METRO DIVISION 13 PROJECT

QUARTERLY PROJECT STATUS REPORT

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DECEMBER 2015

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PROJECT OVERVIEW & STATUS

The Division 13 Bus Maintenance and Operations facility is a bus maintenance, operations, and service facility located in downtown Los Angeles, California. The project is to be constructed on existing LACMTA properties located at the northeast corner of East Cesar Chavez Avenue and Vignes Street. The project delivery method is Design/Bid/Build. The facility is designed to accommodate a fleet of CNG buses and consists of a multi-level structured parking garage, a maintenance building, bus fueling, bus washing, chassis wash and non-revenue vehicle washing, non-revenue vehicle fueling, and maintenance and transportation offices and support areas.

Division 13 strives to set an example of sustainable design (LEED Gold goal) and the responsible use of natural resources. Many of the materials specified in the construction of this project are regionally sourced and/or have a high recycled content. Attention has been paid to the use of potable water with an exemplary system of storm water reclamation and reuse for bus operations and washing, and low maintenance native vegetation. Storm water run-off and the urban heat island effect are also addressed by a demonstration green roof on the Transportation Building.

Service and vehicle equipment include two and three-post in-ground lifts with modern, computer controlled automated adjustment, a bus wash system utilizing reclaimed storm water, non-revenue vehicle wash systems utilizing 100% recycled water, three-axis lift systems for accessing roof mounted equipment on buses, mobile work platforms at lower level work areas, high-density palletized stacking systems, carousel and vertical retrieval modules for parts.

Division 13 is 99% complete and project commitments and expenditures through December 2015 indicate that the current budget may not require increasing contract modification authority for the next reporting period. However, the contract project completion was scheduled for July 24, 2015. Metro continues to work with the project team to discuss schedule critical path and review potential schedule mitigation opportunities as well as concurrent delays available to the project to reduce impacts to the project budget. Substantial completion date was achieved on November 2, 2015 and Metro Bus Operations are working diligently to move into Division 13 in January 2016 and begin revenue operations in February 2016. The project is working on completing final acceptance in March 2016.

MANAGEMENT ISSUES

Concern No. 1: Project Schedule Re-assessment

Status/Action The August 2013 Schedule update had 75 working days of negative float. The Contractor has provided written Time Impact Analysis (TIAs) illustrating the impact of the delays on the Critical Path utilizing the current CPM Schedule and a separate fragnets showing Contractor's plan to mitigate various issues. Metro issued modifications to extend the contract completion date.

Concern No. 2: Project Cost Re-assessment

Status/Action Professional Services costs are being reassessed, especially those related to design cost.

Concern No. 3: Soil Export and Import Issues

Status/Action Over excavation and poor soils as directed by Project Geotechnical Engineer resulted in a significant and unanticipated export of Southern California Gas contaminated soil. Project has to import additional soils to be used as structural backfill throughout the site.

Concern No. 4: CNG Contractor Coordination

Status/Action With Metro Board approval, Metro recently awarded Division 13 CNG Facility's design and construction to Clean Energy. Metro continues to coordinate CNG layout and construction with the Division 13 Contractor (McCarthy).

Concern No. 5: Central Maintenance Facility Coordination

Status/Action Metro continues to coordinate work within the existing CMF Building 1, including new equipment warranties for the Radiator and Welding Shops.

Concern No. 6: Time Impact Analysis

Status/Action The contractor has submitted various TIAs in order to determine the total time impacts incurred to the Contract Milestone as a result of Concerns 2 and 5 related to unforeseen sewer obstructions at the intersections of Vignes Street and Cesar Chavez Avenue as well as time impacts due to importing of clean soil for backfill. Metro has issued modifications extending the completion date.

MANAGEMENT ISSUES (Continued)

Concern No. 7: Direct Cost Impacts

Status/Action McCarthy has submitted Metro reviewed and both parties settled the Direct Cost Impacts related to McCarthy's concrete operations due to installation and schedule impacts from the sewer manholes on Vignes Street.

Concern No. 8: Contractual Issues

Status/Action Metro has issued directives and unilateral change orders to the contractor and in return the contractor has issued notices of intent to claim as well as claims on design and construction related issues. In addition, design errors and omissions are above the typical industry standard.

Concern No. 9: Partial Shoring Failure During Elevated Roof Deck #14 Concrete Pour

Status/Action Contractor submitted investigation, demolition and remediation plans as well as safety and quality control protocol to restart all elevated concrete deck pours. Contractor provided a report that evaluated damage to permanent structure. Metro accepted their remedial plans and allowed contractor to re-start roof deck concrete pours. Contractor re-sequenced the work. The shoring failure caused a project delay completion from December 2014 to May 2015. Metro will have contractor perform a load test on Deck Pour #2 that concrete and shoring collapsed onto.

Concern No. 10: Permanent Electrical Power

Status/Action Metro continues to work with Department of Water and Power for new permanent electrical power service and not impact the project schedule.

Concern No. 11: ITS Infrastructure

Status/Action Numerous Project Bulletins were issued for completing the ITS Infrastructure, including: a close circuit television (CCTV) system, security access control system, Local Area Network, M3 kiosks, desktop computer, copiers, printers, smart-boards and the installation of these items in order to enable the individuals working in Division 13 to communicate across the Agency on the enterprise network. Staff will be requesting quotes from vendors for the Procurement and awarding a purchase order.

MANAGEMENT ISSUES (Continued)

Concern No. 12: Public Art Component

Status/Action Metro continues to work with the contractor and its subcontractors on the lighting design and engineering for the Division 13 Lantern, in order to not impact the fabrication, delivery and erection of the artwork's structural steel.

Concern No. 13: Installation of Garage Equipment

Status/Action Metro is coordinating with the Division 13 and Metro's Revenue Department's contractors for a complete and operational garage equipment system, including wireless access points, vaults, probes, bins, garage computer with appropriate software and security cameras.

Concern No. 14: Contract Close Out

Status/Action Metro is working with contractor to coordinate process and procedures to close out construction contract, including punch list procedure.

Concern No. 15: Division 13 Activation Plan

Status/Action The project team is coordinating with Metro Operations, Maintenance, Transportation, ITS, Service Development, TAP and Facility Maintenance departments to develop a comprehensive activation plan based on the project's substantial completion date.

Concern 16: Division 13 Commissioning

Status/Action Metro is initiating commissioning services to ensure building systems function within the optimal ranges as designed, developing pre-functional checklists, submittal reviews and functional performance testing for each active energy system.

Concern 17: Division 13 Test and Balance

Status/Action Metro has initiated testing and balancing related to all mechanical systems at Division 13. Most deficiencies found would need to be adjusted as required to achieve optimum performance of the Division 13 mechanical equipment prior to substantial completion.

MANAGEMENT ISSUES (Continued)

Concern 18: FFE Installation and Coordination

Status/Action Metro is coordinating with the affected parties to install all FFE, including data lacing and hardwire electrical connections, prior to Substantial Completion. The delayed FFE installation has resulted in monthly storage charges to the project.

Concern 19: Substantial Completion

Status/Action Metro is working with all involved parties to issue a Certificate of Substantial Completion, in accordance with the contract, on November 2, 2015.

Concern 20: Division 13 Punch List

Status/Action Metro is coordinating Punch List requirements and procedure per contract specifications with the Designer- and Engineer- of Record and the contractor for Metro to initiate Punch List next reporting period.

Concern 21: Division 13 Contract Modifications

Status/Action Metro is working diligently with the contractor to fact-find and process merited changed work contract modifications by the end of the next reporting period. However, due to the significant number of remaining contract modifications these may not be processed by Final Completion.

Concern 22: Division 13 Errors & Omissions

Status/Action Metro is evaluating an E&O claim against the design contractor and its insurers to recover all E&O related issues, including damages for delays as part of the E&O claim.

Concern 23: Division 13 Final Acceptance

Status/Action *Metro is working with the contractor on completing all the necessary contractual obligations, including closing out punch list items, resolving non-conforming reports and negotiating change orders and claims, to achieve Final Acceptance during the next reporting period.*

MANAGEMENT ISSUES (Continued)

Concern 24: ***Division 13 LEED Gold Certification***

Status/Action *Metro is working with the Commissioning Agent to complete all enhanced commissioning activities including owner systems commissioning and acceptance and completing the checklist to USGBC for Division 13 LEED Gold certification.*

Concern 25: ***Division 13 Tenant Improvements***

Status/Action *Metro is working with Division 13 Operations and Maintenance activation team on developing a tenant improvement list for any items that the project team may have missed during design.*

PROJECT SCOPE

PROJECT SIZE:

Site Area:

8.25 Acres (Division 13 only) / 10.58 Acres (including the entire site area)

Garage and Bus Fueling/Washing:

442,655 sf (~145,000 sf on each of 3 floors; lower level: employee & visitor parking; main level: bus parking, fuel & wash facilities; upper level: bus parking)

Maintenance:

71,000 sf (~7,800 sf – lower level; ~54,000 sf – main level; ~9,200 sf mezzanine level)

Operations/Transportation Building:

21,000 sf (~5,500 sf – lower level; ~9,000 sf – main level; ~6,500 sf – level two)

Bus Parking:

200 equivalent bus parking spaces

Employee Parking:

397 Spaces

FEDERAL GRANTS AWARDED TO PROJECT:

\$47,750,000 State of Good Repair Grant

\$5,500,000 Clean Fuels Grant

PROJECT BACKGROUND:

Public and infrastructure projects represent a commitment by government to the people they represent. The LA Metro Division 13 project is an example of this commitment. Its high-quality design will convey an element of respect to both the citizens that engage public transportation during their daily routine, and to those the agency employs to operate within the facility. As an efficient and highly functional facility, Division 13 is designed to realize operational savings while being a responsible, sustainable and aesthetically pleasing addition to the community.

- First new maintenance and operation facility to be commissioned by Metro in over 27 years with the goal of providing better service for LA residents
- Designed to optimize Metro's bus transit service throughout Central Los Angeles and the surrounding area
- Division 13's prominent siting will alter the urban landscape by replacing an inefficient surface parking lot with a landmark architectural icon for the LA community

PROJECT SCOPE (Continued)

- The LA Metro Division 13 project:
 - Includes a maintenance facility with 19 service bays for the operation and maintenance of Metro's fleet
 - Can accommodate up to 200 CNG standard sized buses
 - Is designed to handle 60' long articulated buses
 - Provides a two story bus parking garage with fuel and wash facilities that can park and service 200 standard sized CNG buses daily and a Fleet Operations and Transportation Building for 329 employees
 - Will also accommodate 41 non-revenue vehicles and employee parking for 397

- Sustainable design features:
 - Site and building shade structures
 - Natural ventilation
 - Glare and heat gain reduction glazing
 - Daylighting to all major work areas
 - 275,000 gallon underground storm water retention tank
 - Green Roof garden, accessible to Metro employees
 - Cool Roof to reduce Heat Island Effect
 - Water efficient landscaping
 - Registered with the USGBC as Pursuing LEED-NC Gold

Division 13's primary architectural concept addresses the two major street facades of the facility with one palette of materials reflecting two separate conditions of movement. The Cesar Chavez elevation uses architectural panels to screen bus parking and circulation ramps, reflecting the high speed automobile activity that defines western American cities. At night the façade's focus shifts to highlight the functional movement of buses. The Vignes St. elevation addresses a slower, pedestrian scale appropriate to its urban setting and will encourage the public to utilize the urban plaza adjacent to the intersection of the two streets. The transportation building resides in front of the two story garage and is placed adjacent to the street to accommodate a need to screen operational functions while promoting a walkable, urban environment.

PARKING STRUCTURE

The parking structure will be in 3 levels as explained below.

- The Ground Level Parking will accommodate fare retrieval, bus fueling, and wash activities with enough storage area to accommodate 52 standard buses. The ground floor of the parking structure will be dedicated to bus maintenance activities including tire and repair bays, a brake shop and a materials handling area. An entry lobby, providing elevator and stairway access to each floor of the proposed parking structure, will be located at the northeast and northwest portion of the parking structure.

PROJECT SCOPE (Continued)

- The 2nd level Parking will provide parking for approximately 108 buses and 40 layover spaces. This level will also provide office spaces, break rooms, training room, rest rooms and conference room for Metro Staff.
- The 3rd level Parking will include 397 employee and visitor parking spaces.

BUS MAINTENANCE FACILITY

The proposed parking structure will be flanked by two administrative uses, on the west end immediately north of the Vignes Street/Cesar E. Chavez Avenue intersection, by the two-story administration/office building, while the maintenance building will be located on the east end of the parking structure. The ground floor of the operations building will include dispatch offices, a kitchen and employee lounges, while the second floor will be comprised primarily of office uses. The ground floor of the maintenance building will include general maintenance uses such as tire bays and repair shops as well as a welding and materials handling area. The second floor will include maintenance and transportation offices, a training room and other office-related uses.

BAUCHET PARKING STRUCTURE

A three-story parking structure has been constructed at the northern portion of the project site. This structure contains 427 parking spaces. The structure will provide approximately 50 employee parking spaces for the Bauchet Street Storage and Facilities' Maintenance Structure and replace the Central Maintenance Facility (CMF) Lot A surface parking lot that has been removed as part of the project. Access to this structure is provided via an entrance located on Macy Street, east of Bauchet Street. Additional egress only will be provided via an egress road located on CMF property that will exit on Cesar Chavez Avenue or Keller Street.

PROJECT SCOPE (Continued)

PROJECT LOCATION

The project site is situated in the industrial area northeast of Downtown Los Angeles.

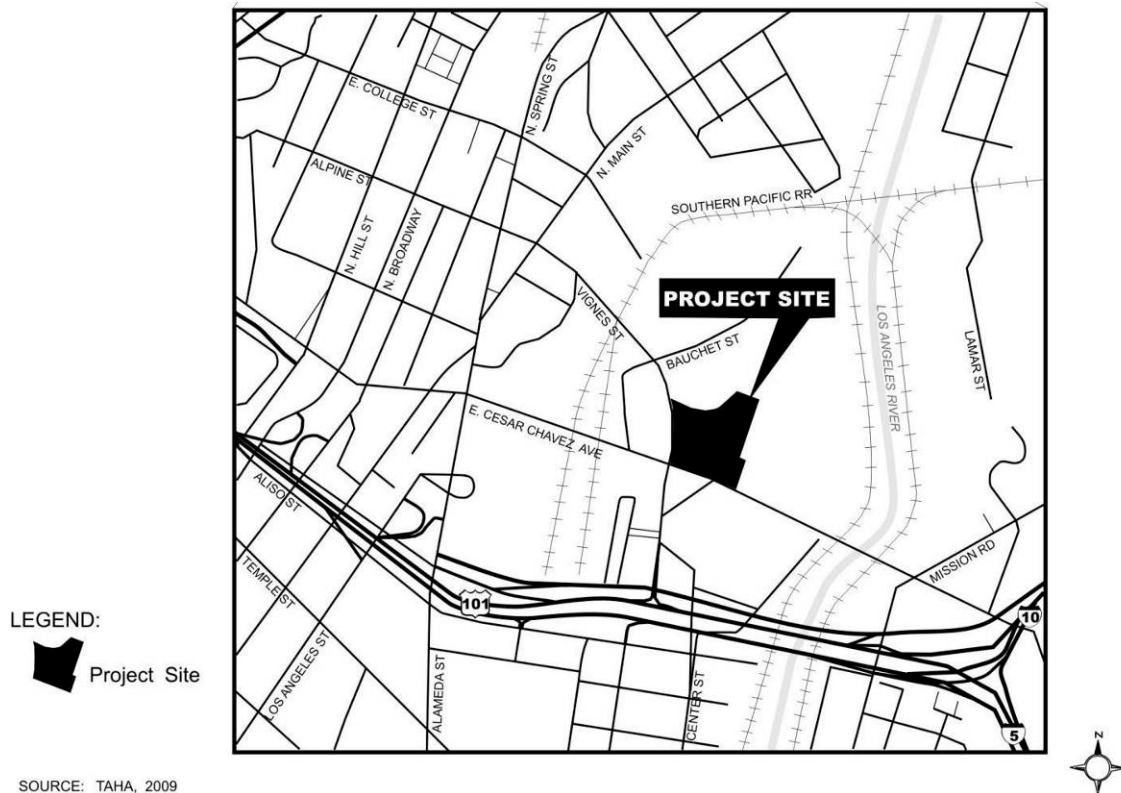





Figure 1 – Location Map

Regional access to the project site is provided by U.S. Highway 101/Interstate 5 (Hollywood Freeway/Santa Ana Freeway), which is less than 0.5 miles south of the project site, and Interstate 10 (San Bernardino Freeway), which is approximately 0.5 miles southeast of the project site.

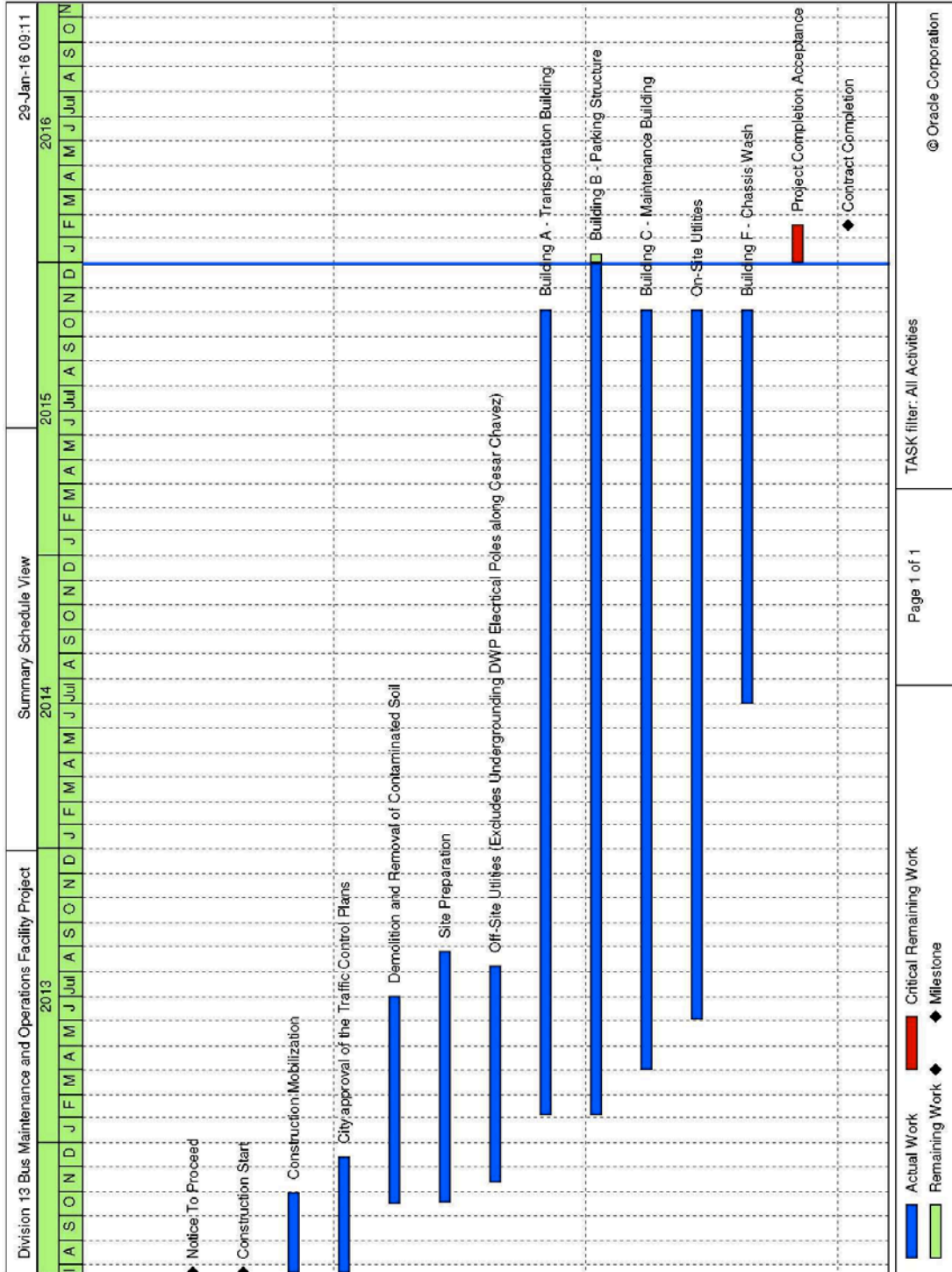
The project site is located on the northeast corner at the intersection of Vignes St. and Cesar E. Chavez Ave. It is bound by the Twin Towers Correctional Facility and Bauchet Street to the north; Vignes St. to the west; the Metro Support Services Center (MSSC), the Burlington Northern Santa Fe Railroad (BNSF) intermodal yard, and the Los Angeles River to the east and the C. Erwin Piper Technical Center and Cesar E. Chavez Ave. to the south (Figure 1).

KEY MILESTONE SCHEDULE SIX-MONTH LOOKAHEAD

	Milestone Date	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16
Complete Final Punch List Corrections	1/29/2016*	○					
Contractor's Final Completion Date	2/16/2016*	○					

 Metro Milestone
  Contractor
  Third Parties Approval
 * New Date

PROJECT SUMMARY SCHEDULE



CRITICAL PATH NARRATIVE

Based on the current summary schedule, the primary critical path runs through Building B – Parking Structure and Project Completion and Acceptance.

PROJECT COST STATUS

DIVISION 13
 FEDERAL PROJECT # CA-04-0190-00, PROJECT 202001
 ENGINEERING CAPITAL IMPROVEMENT PROJECTS DIVISION
 METRO TRANSIT PROJECT DELIVERY DEPARTMENT
 COMBINED COST REPORT BY ELEMENT
 PERIOD ENDING: December 31, 2015
 DOLLARS

ELEMENT CODE	ELEMENT DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		BUDGET / FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
C	CONSTRUCTION - Division 13 Facility	70,947,000	-	82,412,000	1,652,000	82,274,000	2,290,000	80,509,000	(1,099,000)	81,800,000	(612,000)
C	CONSTRUCTION - CNG Facility	5,500,000	-	6,420,000	-	6,645,000	-	6,624,000	-	6,716,000	296,000
S	SPECIAL CONDITIONS	-	-	7,888,000	-	7,663,000	1,048,000	7,902,000	974,000	8,459,000	571,000
R	RIGHT-OF-WAY	-	-	-	-	-	-	-	-	-	-
P	PROFESSIONAL SERVICES	13,425,000	-	22,706,000	1,077,000	23,223,000	839,000	22,360,000	125,000	23,367,000	661,000
PC	PROJECT CONTINGENCY	5,128,000	-	916,000	-	-	-	-	-	-	(916,000)
TOTAL PROJECT		95,000,000	-	120,342,000	2,729,000	119,805,000	4,177,000	117,395,000	-	120,342,000	-

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH December 31, 2015

PROJECT COST ANALYSIS

Original and Current Budget

The original Life of Project (LOP) budget of \$95,000,000 was established in September 2008 when the project was in preliminary design. In April 2013, the Metro Board increased the Project 202001 LOP by \$9,200,000 from \$95,000,000 to \$104,200,000 and the Current Budget was revised to match the LOP increase. In October 2014, the Metro Board increased the LOP budget from \$104,200,000 to \$120,342,000, and the project budget was reallocated to match the forecasts for construction, professional services special conditions and to replenish contingency as indicated on Attachment C of the October 2014 Board Report. *The project budget established in October 2014 did not change for the period ending December 31, 2015.*

Current Forecast

The overall project forecast remained at \$120,342,000 this reporting period. The overall Construction forecast decreased \$1,099,000 driven primarily by contract modifications and unilateral change orders issued for less than the original Change Proposal Requests (CPRs) submitted by the contractors. Several new cost issues submitted by the contractors are yet to be reviewed for merit and negotiated. McCarthy has continued submit CPRs for work they deemed to be a change in the scope. This quarter, the forecast for Special Conditions increased by \$974,000 as Metro's Accounting Department assigned over \$1M in Capitalized Interest charges. Project staff is working with its OMB Department to reverse the expense, but for now it is hitting project costs and included in the forecast. The forecast for Professional Services increased by \$125,000 this quarter primarily because of the legal counsel staff retained to pursue E&O claims against the designer of record.

PROJECT COST ANALYSIS (Continued)

Commitments

Commitments at the end of December 2015 were \$119.805 million, an increase of \$2.73 million over last quarter. About \$1.652 million of the increase was due to previously forecasted construction change notices now encumbered as executed contract modifications. The Capitalized Interest expense discussed in the Forecast has not been identified as a commitment since the project team hopes to reverse the expense. The remaining \$1.077 million in new commitments this period was for Professional Services, primarily CMC support, document control, Metro employees assigned to Division13, and the legal counsel retained to address E&O concerns.

Expenditures

Through December 31, 2015, Metro has incurred 117.395 million in cumulative expenditures. Expenditures increased \$4.177 million this reporting period. Most of the expenditures, \$2.29 million, were payments for the construction contracts. An additional \$1.048 was spent on Special Conditions but consisted primarily of the Capitalized Interest expenses discussed above. Metro spent \$0.839 million this period on professional services for costs associated with in-house project administration, the construction management consultants, construction support by the design consultants, and legal fees.

FINANCIAL/GRANT STATUS

DECEMBER 2015

STATUS OF FUNDS BY SOURCE

\$ in millions

SOURCE	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
	ORIGINAL BUDGET	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	COMMITMENTS \$	%	EXPENDITURES \$	%	BILLED to FUNDING SOURCE \$	%
STATE PROP 1B - PTMISEA*	85.0	52.8	52.8	52.8	100%	52.8	100%	51.9	98%
TDA ARTICLE 4	10.0	14.3	14.3	13.8	96%	11.7	82%	0.0	0%
FEDERAL - 5309	0.0	47.8	47.8	47.8	100%	47.8	100%	47.8	100%
FEDERAL - 5308	0.0	5.5	5.5	5.5	100%	5.2	94%	5.2	94%
PROP C 40% RAIL CAPITAL	0.0	0.0	0.0	0.0	100%	0.0	100%	0.0	100%
TOTAL	95.0	120.3	120.3	119.8	99.6%	117.4	97.6%	104.8	87.1%

* PTMISEA: Public Transportation Modernization and Improvement Surface Enhancement Account

NOTE: Expenditures are cumulative through December 2015.

STATUS OF FUNDS ANTICIPATED

STATE PROP 1B PTMISEA: State Proposition 1B Bond sales provided \$31M to the project and the funds are available for drawdown. A grant allocation to Caltrans for the remaining \$5.6M was requested in March 2013. Allocation request was approved in January 2014. Funds are available for drawdown. In November 2014, \$16.1 was transferred from the bus procurement project to the Division 13 Project. Funds are available for drawdown.

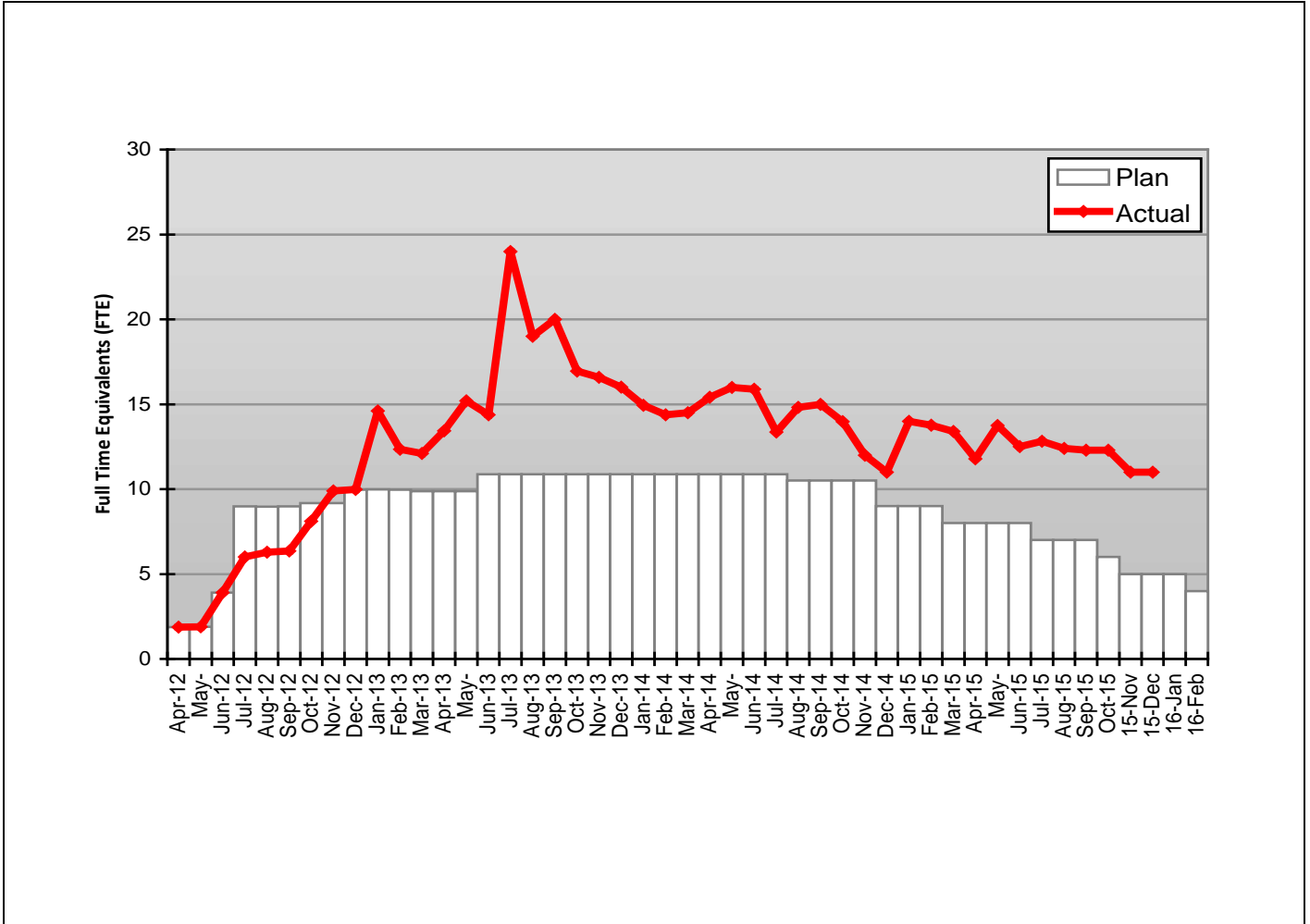
TDA ARTICLE 4: In April 2013, the Metro Board approved an increase of \$9.2M for a revised funding of \$14.3M. The FY15 revised funding plan includes \$14.3M of TDA Article 4.

FEDERAL 5309: \$47.8M under FTA grant CA-04-0190 is available for drawdown for the construction of Division 13 Bus Operations and Maintenance Facility.

FEDERAL 5308: \$5.5M under FTA grant CA-58-0006 is available for drawdown for the construction of Division 13 CNG Fueling Facility.

STAFFING STATUS

Total Project Staffing – FTEs



Total Project Staffing

The changes to the staffing status are due to unanticipated number of Request-For-Information (RFIs), unanticipated number of Change Notices, changes to design, additional design need and construction delays. The indicated unanticipated work and delays increased the need for additional staffing to support the construction management.

ENVIRONMENTAL STATUS

Environmental Status since issuance of the FTA NEPA Categorical Exclusion:

- A NEPA CE was granted by the FTA on December 18, 2009.
- Lyon Street was vacated on November 18, 2009.
- A street tree removal permit was granted from the City of LA on May 19, 2011.
- All encountered contaminated wastes have been properly characterized and disposed of at permitted facilities.
- Metro Environmental Contractor removed existing clarifier on south side of existing Building 3 (Dec 2012).

The following IS/MND mitigation measures have been addressed and included in the Specification and/or Design drawings: AE 1, AE 2 (LEED requirements), AE3, CR4, N4, GS 1. The Aesthetics mitigation measures have been addressed as part of the LEED design process.

The following construction mitigation measures are being implemented as required: They are continually renewed and adjusted per changing site conditions: AQ1, AQ 2, AQ3, AQ4, AQ5, AQ6, AQ7, CR1, CR2, CR3, CR4, CR5, CR6, G52, HM1, HM2, HM3, N3.

- Regarding mitigation measures CR1 – CR6, Archaeological and Paleontology monitoring have been occurring since project excavation began. To date, 17 historic features have been uncovered and will be evaluated against Section 106 requirements. In addition, a prehistoric human bone was discovered and the LA County Coroner was notified. Consultation then ensued between the Native American Most Likely Descendent (MLD), Federal Transit Administration, State Historic Preservation Officer and Metro. Consultation and the resulting process are documented in a letter to SHPO dated May 20, 2013. Native American monitoring will continue through the remainder of the excavation per agreement with the MLD. Carbon dating of the human remains is completed and will be documented in the final Section 106 report. Main excavation is completed and only a small amount of follow up work completed in February 2015. Construction work continues, but remaining work is not expected to require monitoring. As agreed, archaeological and Native American monitoring will continue during ground disturbance that has the potential to encounter intact cultural or paleontological materials. Completed review of the draft Archeological Findings Report which will be delivered to SHPPO repository and FTA when completed. Regarding the noise mitigation measure (N1-N4), no noise complaints have been received to date. Continue with MLD monitoring throughout the remainder of project as necessary. Prepared Notice of Termination (NOT) to file with the RWQCB for construction SWPPP.
- *Final Archeological Monitoring Report Submitted to FTA*

QUALITY ASSURANCE STATUS

C0974 Division 13 Maintenance & Operations Facility

- *A Metro-issued Nonconformance Report (NCR) regarding the Insufficient Lumen Output of the garage light fixtures. McCarthy will be installing compliant K1 fixtures in January 2016.*
- *Successfully completed the Roof Trench Drain Repair using an epoxy coating system.*
- *Thermal Imaging Test (for Leaks) of the Single-Ply Roofing System was conducted in October 2015. Test results were acceptable.*
- *Testing/Equipment System Commissioning and Staff Training continued through the quarter.*
- *Punch List Inspections continued through the quarter.*
- *Participated in weekly Project Status Meetings.*

SAFETY AND SECURITY STATUS

- *There were no recordable injuries on the Project during the quarter from October to December 2015.*
- Safety Staff participated in site walks to ensure compliance with approved Work Plans and contract specifications.
- Monitoring construction activities during day shifts to ensure contractor compliance with contract specifications.
- Safety staff attended weekly Progress Meetings, Foreman's Weekly Safety Meetings and other project meetings to evaluate Contractors Safety Program compliance with contract requirements.
- Completed over the shoulder reviews with McCarthy Builders for Job Hazard Analysis and Construction Work Plans.
- Performed project wide safety walks with the Contractor and assisted with any safety concerns and corrective actions on these concerns.
- The project had decreased the work force as the project is nearing completion.
- McCarthy conducted new hire orientations for all new employees working on the site. It covers jobsite safety rules for McCarthy and Metro compliance regulations.
- *October - December: McCarthy Work Hours: 1,500*
- *October - December: Design and Metro Construction: 3,193*
- *Contractor – Project to Date Work Hours: 559,836*
- *Total Project to Date Work Hours (Contractor & Metro Staff): 559,836*
- Project to Date Recordable Injury Rate: 0.36 (each rate is per 200,000 work hours)
- Project to Date Total Time Away Injury Rate: 0.0 (Zero Time Away From Work Injuries)
- Project to Date Total Days Away Rate: 0.0 (Zero Days Away From Work)

THIRD PARTY AGREEMENT STATUS

Third Party	Type of Agreement	Forecast Execution Date	Required Need Date	Status/ Comments
City of Los Angeles	Master Cooperative Agreement	Completed	N/A	Executed
LADWP Power	Utility Cooperative Agreement	Completed	N/A	Executed
LADWP Water	Utility Cooperative Agreement	Completed	N/A	Executed
Verizon	Utility Cooperative Agreement	Completed	N/A	Executed
AT&T	Utility Cooperative Agreement	Completed	N/A	Executed
Southern California Gas Company	Utility Cooperative Agreement	Completed	N/A	Executed

CONTRACT STATUS

<p>Metro Division 13 Bus Maintenance and Operations Facility Project Contractor: McCarthy</p>	<p>Contract No.: C0974 Status as of: January 1, 2016</p>																															
<p>Major work started/completed this period:</p> <ul style="list-style-type: none"> • Fire Marshall issued Certificate of Occupancy Dec. 3, 2015. • Punch list completed at Building 1. • Emergency lighting and signage by Fire Marshall completed. • Power and transformer for parts washer access. completed. • Installation of piano hinged gates completed. • Expansion joint connections for sunscreen panels completed. • Pre-testing of intercom and PA Systems completed. • Completion of mechanical, plumbing, electrical, BMS, air heat units, exhaust, fans, lighting control system, fire alarm, and fire protection systems. • Bldg. B lower level punch list completed. • Stripping of slab on grade for lower and level 2 completed. • Structural repairs of concrete cracking completed. • Maintenance Bldg. C punch list completed. • Chassis Wash Area ATF Tank relocations completed. • Veeder Root Communication Schedule completed. • Building 1 punch list commenced. • Transportation Bldg. A punch list commenced. • Parking Garage Bldg. B punch list commenced. • Maintenance Bldg. C punch list commenced. • Chassis Wash Area punch list commenced. • Site work punch list commenced. • DWP Service Yard punch list in progress. • CNG Yard start-up and commissioning, pre-testing and fueling of Metro buses. • Chassis Wash Area lift installation in progress. <p>Areas of Concern:</p> <ul style="list-style-type: none"> • Installed lighting fixtures at parking garage lower level . • Lower level SOG finishes. 	<p>Major Activities (In Progress):</p> <ul style="list-style-type: none"> • HVAC air balance of exhaust fans at lower level parking garage. • Installation of street lighting and signals at Cesar Chavez.. • Expansion joint steel connection for sunscreen Transportation Bldg. • Substantial completion. • Metro IT provides tele/data connectivity to all rooms. • Installation of graphic annunciator panel for CNG detection. • Training of Metro staff personnel. <p>Major Activities Next Period:</p> <ul style="list-style-type: none"> • Punch list work corrections throughout the buildings. • Staff training of systems and equipment. • Owner systems commissioning and acceptance. • LEED Gold Certification. • Project close-out. • Open Division 13 Facility for Metro Bus Operations and Maintenance. 																															
		Original Baseline	Time Extension	Current Contract	Forecast Completion	Variance Cur-Fcast																										
Commencement	07/23/12	0	07/23/12	07/23/12	07/23/12	0																										
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* Calendar Days

CONTRACT STATUS

<p>Metro Division 13 Bus Maintenance and Operations CNG Facility Project Contractor: Clean Energy</p> <p>Major work started/completed this period:</p> <ul style="list-style-type: none"> • Final inspections of the system and equipment. • Performance testing of the CNG Fuel Facility and compressor units. • Start-up and commission of equipment. • Owner punch list. <p>Areas of Concern:</p> <ul style="list-style-type: none"> • None. 	<p>Contract No.: C0974</p> <p>Status as of: January 1, 2016</p> <p>Major Activities (In Progress):</p> <ul style="list-style-type: none"> • Punch list work and corrections. <p>Major Activities Next Period:</p> <ul style="list-style-type: none"> • Punch list work. • Start of maintenance period of contract. • Final completion and project closeout of design-build section of contract. 																																				
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CONSTRUCTION PHOTOGRAPHS

FLY OVER JOBSITE PHOTOGRAPH (10-30-2015)



Transportation Building, Parking Garage and Maintenance Building in construction at the bottom side Cesar Chavez Avenue and at the left side Vignes Street.

FLY OVER JOBSITE PHOTOGRAPH (11-30-2015)



CONSTRUCTION PHOTOGRAPHS (Continued)

FLY OVER JOBSITE PHOTOGRAPHS (12-28-2015)



Transportation Building, Parking Garage and Maintenance Building in construction; at the bottom side Cesar Chavez Avenue and at the bottom left side Vignes Street with all lanes open.

CONSTRUCTION PHOTOGRAPHS (Continued)



Striping work completed at Maintenance Bldg. Level 1.



Crack repairs in progress at lower level of Parking Garage.



Installation of light fixtures in progress at Trans. Bldg. L.



Leaking repairs in progress at Maintenance Bldg. Roof.

CONSTRUCTION PHOTOGRAPHS (Continued)



Trench drain repairs commenced at Upper Level Roof Parking Bldg.



Sealing concrete deck at Level 1 Parking Garage Bldg.



Changes in progress at Transportation Bldg. Level 2.



Finishes completed at Transportation Bldg. Level 2.

CONSTRUCTION PHOTOGRAPHS (Continued)



Night version of Vegetated Green Roof.



Hardware door work in progress at Transportation Bldg. Lvl 1.



Furniture in place at Transportation Bldg. Level 1.



Painting of bollards in progress at Utility Yard Area.

CONSTRUCTION PHOTOGRAPHS (Continued)



Exhaust Fans Redesign construction in progress at Bldg. B LL



ADA and Beam supports re-design done at LL Parking Garage.



Furniture placed at location at Transportation Bldg. Level 1.



Crack testing and fixing on Parking Garage building in progress.

CONSTRUCTION PHOTOGRAPHS (Continued)



West Coast Cable Inc. at location for Tele/Data work.



Elevator 3 work under progress at Maintenance Bldg. Level 1 North.



Concrete Slab crack repair completed and painted at Parking Bldg.



Concrete slab crack appearance at Parking Garage Level 1.

CONSTRUCTION PHOTOGRAPHS (Continued)



Concrete Finish work under progress at Parking Gar. Bldg. L1.



Hardware and doors work under progress at Trans. Level 1.



Vegetated Roof re-planting and cleaning completed and done.



Water Leaking from storm drain connection at Parking Bldg. L1.

CONSTRUCTION PHOTOGRAPHS (Continued)



Broken concrete slab crack to repair.



Cleaning before repair.



Trench created to repair crack.



Lift to repair pipes.

CONSTRUCTION PHOTOGRAPHS (Continued)



Repair of concrete slab crack.



Stripping at level 1 parking garage.



Repair of concrete slab crack.



Water leaks in parking garage from roof.

CONSTRUCTION PHOTOGRAPHS (Continued)



Water leaks in parking garage.



Cracks in concrete slab in parking garage.



Parking Garage level 1 finishing layer.



Preparation for chassis wash lift installation.

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY

December 2, 2011	Project put on hold by Metro Management.
April 3, 2012	Project hold released by Metro Management.
May 15, 2012	Award Notice issued to successful bidder.
May 24, 2012	Contract awarded to McCarthy Building Companies.
May 24, 2012	Limited Notice to Proceed issued to contractor for non-construction, non-craft labor work.
July 23, 2012	Notice to Proceed issued to Contractor.
December 3, 2012	The City of Los Angeles (Department of Transportation) approved temporary Traffic Control Plans.
December 18, 2012	Start of hazardous soil removal.
December 18, 2012	Start City utilities at Vignes Street.
January 8, 2013	Mass grading, over-excavation and recompaction at Transportation and Parking Structure.
January 31, 2013	Mass grading, over-excavation and recompaction at Maintenance Building.
February 6, 2013	Start layout for foundations at Transportation and Parking Garage buildings.
February 28, 2013	Start concrete placement for foundations at Transportation and Parking Structure.
March 12, 2013	Start lower level shear and retaining walls reinforcement at Transportation and Parking Structure.
March 26, 2013	Discover fossilized human bone at Vignes Street.
April 18, 2013	Start excavation and layout foundations at maintenance building.
April 24, 2013	Start footing reinforcement at Maintenance Building.
April 25, 2013	Complete installation of Shoring Piles and Shoring at Diamond Building.

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY (Continued)

April 25, 2013	Complete excavation of foundations at Building C.
April 30, 2013	Start footing concrete placement at Maintenance Building.
May 13, 2013	Start on-site utilities at Transportation Building.
May 15, 2013	Start installation of below grade waterproofing.
May 23, 2013	Complete slot cutting at west side of Building 1.
June 12, 2013	Approval of Cesar Chavez Traffic Plans.
June 18, 2013	Complete installation of storm drain.
July 13, 2013	Install foundation at Building C along H Line.
July 14, 2013	Complete jack and bore from MH #24 to MH #25 intersection Vignes/Cesar.
July 19, 2013	Slot cutting at the south of Building No. 1.
July 23, 2013	Complete foundation of wash pit.
July 29, 2013	Completion of 10 and 8 inch water line.
August 2, 2013	Start relocation of Radiator Shop.
August 7, 2013	Complete installation of offsite sewer line.
August 19, 2013	Complete Slab-on-Grade Phase No. 1 at Building B.
August 22, 2013	Complete wash pit walls.
August 23, 2013	Complete excavation and removal of Lyon Street.
August 30, 2013	Install telephone and data line at Radiator Shop.
Sept. 27, 2013	Install equipment and HVAC System at Radiator Shop.
Sept. 30, 2013	Complete foundations at Building B.
October 11, 2013	Start layout for foundations at Maintenance Building.
October 11, 2013	Start foundations at Building C.

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY (Continued)

October 16, 2013	Start excavation of foundations at Maintenance Building.
October 26, 2013	Start reinforcement for spread footings and grade beams at Maintenance Building.
November 5, 2013	Start demolition of Building No. 1.
November 6, 2013	Concrete placement for foundations at Maintenance Building.
November 7, 2013	Start slab-on grade concrete placement at Transportation Building.
November 13, 2013	Start walls and columns at Building C Level 1.
November 13, 2013	Complete slot cutting at west side of Building 1.
November 22, 2013	Complete relocation of Radiator Shop.
December 4, 2013	Concrete deck pour No.1, Building B elevated deck at Level 1.
December 9, 2013	Complete slab-on grade at Building B.
December 11, 2013	Start 1 st level deck panel and beam buildup at Parking Garage.
December 13, 2013	Contractor completed slab-on grade concrete placement at Parking Garage.
December 20, 2013	Start pouring deck at Building B Level 1.
December 23, 2013	Stress reinforcing cables pour No.1.
December 30, 2013	Concrete deck pour No. 2, Building B elevated deck at Level 1.
January 7, 2014	Complete installation of ramp deck no. 1.
January 9, 2014	Contractor completed hard demolition at Building No. 1.
January 21, 2014	Complete installation of 3 Hours Wall at Building C.
January 27, 2014	Complete reinforcement and concrete placement for the elevated decks pour 2, 2, 4, 5 and 6.

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY (Continued)

January 28, 2014	Layout, excavate and install reinforcement for foundations at Area 8 and 9.
February 11, 2014	Completion of elevator shaft Walls, Level 1.
February 14, 2014	Complete installation of Deck Pour No. 8, 9, 10, 11 and 12.
February 17, 2014	Contractor completed balance of concrete Deck Pours No. 7 thru 12, Building B elevated deck at Level 1.
February 17, 2014	Start layout CIP electrical trenches at the DWP Utility Service Yard.
February 21, 2014	Start roof level setting Deck Panel No. 13 at Building B.
March 12, 2014	Complete concrete Deck Pour No. 13, Building B elevated deck roof level.
March 25, 2014	Complete concrete Deck Pour No. 15, Building B elevated deck roof level.
March 28, 2014	Contractor starts concrete Deck Pour No. 14, Building B elevated deck roof level.
March 28, 2014	Roof Deck Pour No. 14 partial shoring collapse. No major injuries, four first aid cases.
April 1, 2014	Contractor Developed and provided Phase 1 demo plan of collapsed Deck #14.
April 8, 2014	SEOR and Metro returned final review and comments of Phase 1 demo plan to Contractor.
April 9, 2014	Contractor starts investigation of Deck #14 collapse.
April 17, 2014	Contractor executes Phase 1 demo plan, the removal of concrete debris of deck #14 collapse.
April 21, 2014	Metro/ WJE starts investigation analysis of deck #14 collapse.

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY (Continued)

April 29, 2014	Contractor/WDP developed initial plan for Phase 2 removal of deck rebar and tendons of collapsed deck #14 and ramp #3.
April 29, 2014	Contractor WDP performs nondestructive testing of structural slab, columns and ramp elements.
May 12, 2014	Contractor completes concrete Deck Pour No. 17, Building B Elevated Deck Roof Level.
May 19, 2014	SEOR approves design for permanent structure rebuild plan.
May 19, 2014	Contractor completes concrete Deck Pour No.9, Building B Elevated Deck Roof Level.
May 23, 2014	SEOR approves design for permanent structure rebuild plan.
June 6, 2014	Contractor completes concrete Deck Pour No.21 Building B Elevated Deck Roof Level.
June 16, 2014	Contractor completes concrete Deck Pour No.23 Building B Elevated Deck Roof Level.
June 20, 2014	Contractor completes concrete Deck Pour No. 14 and Ramp Deck #3 Building B Elevated Deck Roof Level.
July 1, 2014	Contractor completes foundations.
July 1, 2014	Contractor starts installation of axle-lift equipment at Running Repair Bays in Area 7.
July 2, 2014	Paint prep, prime and first coat begins at lower level Parking Garage and Maintenance Building.
July 9, 2014	LADWP starts electrical pole removal and power is ran underground along Cesar Chavez.
August 4, 2014	Contractor completes Deck Pour No. 22, Building B Elevated Deck Roof Level.
August 6, 2014	LADWP final inspection of DPW switchgears completed.
August 11, 2014	Contractor completes Deck Pour No. 24 and Ramp #4, Building B Elevated Deck Roof Level.

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY (Continued)

August 22, 2014	Contractor begins excavation of the retaining wall foundation at Metro Driveway.
September 4, 2014	Contractor completes concrete pour of delay strips at roof elevation.
September 12, 2014	Contractor completes concrete pour of Retaining Wall Section #2 along Cesar Chavez Avenue.
September 15, 2014	LADWP schedule to start work for the installation of the new 10-in fire service.
September 20, 2014	LADWP starts pulling underground cable to Utility Yard Service.
September 24, 2014	Contractor submits the Load Test Procedure for Deck #1 at Parking Garage.
September 24, 2014	Contractor completes tree removal along Cesar Chavez Avenue.
September 26, 2014	Contractor completes stripping of false work of decks of Building B and C except for delay strip section at Parking Garage Building B.
September 26, 2014	Contractor completes stripping of false work of decks of Building B and C except for delay strip section at parking Garage Building B.
September 26, 2014	Contractor starts structural steel installation.
October 3, 2014	LADWP completes installation of the new 10 inch fire service.
October 7, 2014	Balance of masonry walls completed at Building B.
October 9, 2014	Contractor completes the installation and backfilling of sewer lateral L at Building No. 1.
October 25, 2014	Contractor completes placement of retaining wall at Metro Driveway.
November 13, 2014	Completed final Load Testing procedures at Deck #2.
November 14, 2014	Contractor stripped false work for delay strip at Building B.
November 14, 2014	Contractor completes shop drawings for art work.

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY (Continued)

November 18, 2014	Approval to proceed with revised 10 ½" PCC pavement section at Metro Driveway and east side.
November 19, 2014	Completed placement of exterior light poles at Building B.
November 21, 2014	Contractor starts exterior metal framing at Building A.
December 19, 2014	LADWP completes permanent power and installs meter to utility DWP Yard service.
December 19, 2014	Approved LADOT signaling and stripping plans provided to Contractor.
December 24, 2014	Contractor starts placement of steel rebar reinforcement at Metro Driveway.
January 9, 2015	Completed installation of overhead light fixture at Building No. 1.
January 15, 2015	Completed installation of overhead fire sprinkler piping at Bldg. No. 1.
January 22, 2015	Completion of structural steel top out.
January 22, 2015	Completed installation of HVAC exhaust ducts/fans and louvers at Building B lower level.
January 23, 2015	Completed installation of overhead duct work at Building No. 1.
January 23, 2015	Completed all tank vault activities at Building B lower level tank walls.
February 6, 2015	Completion of Southern California Gas installation of MSA at Main Gas Service.
February 20, 2015	Relocation of traffic signals at Cesar Chavez Avenue.
February 26, 2015	Pouring of sidewalks and driveways at Vignes Street (8').
February 26, 2015	Bulletin #22 added 10" fire line completed
March 12, 2015	Completed installation of vehicle wash equipment (EQ. ID#3838) at RM's 103 and 104
March 20, 2015	Completed structural steel frame artwork.
March 20, 2015	Building B elevated deck upper level application for traffic coating completed at mid-section.

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY (Continued)

March 26, 2015	SCG turned on gas to CNG Yard.
March 27, 2015	Completed Building B and C south elevation PV panel and perforated panels.
March 27, 2015	Completed Building A exterior finishes.
April 24, 2015	Completed relocation and construction of new fire hydrant at Cesar Chavez.
April 25, 2015	Exterior improvements parking bumpers and pavement approved.
April 27, 2015	Plants for exterior improvements landscaping work delivered.
April 27, 2015	Installation of graphics at lower level at Building B.
April 27, 2015	Completed final coat of paint on Building 1 interior buildout.
April 28, 2015	Installation of balance of temporary fence at Vignes Street.
April 29, 2015	Installation of lighting devices /XFRMERS in panels at art work lighting.
May 1, 2015	Unknown brick manhole found on Cesar Chavez.
May 4, 2015	Installation of wicket door and hardware in existing coiling at Building C.
May 14, 2015	US Transportation Secretary Anthony Foxx visits Metro Bus Division 13.
May 18, 2015	Building 1 interior build out completed and ready to turn over.
May 18, 2015	Bulletin 083 security screening zinc 2 and zinc 3 panels installed.
May 22, 2015	Completed installation of graphic panels at artwork cube.
May 27, 2015	Completed installation of bird deterrent at artwork cube.
June 2, 2015	Striping and bumpers at Building B upper level finishes.
June 8, 2015	Completed installation of security system devices at Bldg. A level 2.
June 9, 2015	Removed scaffolding at Building C south elevation.
June 11, 2015	Completed Bulletin 084 installation of conduits in rom C105.

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY (Continued)

June 12, 2015	Completion work on RFI 1119: 1 stair 6 gate swing.
June 14, 2015	Bicycle racks delivered.
June 23, 2015	Perforated 11GA steel panel at Building C south elevation.
June 25, 2015	Compressed Natural Gas Test and IOR sign-off.
June 25, 2015	Relocation of traffic signals at Cesar Chavez Avenue.
July 7, 2015	<i>Finish elevator #1.</i>
July 10, 2015	<i>Start-up lighting controls systems at Building A.</i>
July 10, 2015	<i>Begin fire sprinkler system pre-test at Building A.</i>
July 27, 2015	<i>Begin HVAC air balance pre-test at Building A.</i>
July 27, 2015	<i>Begin fire alarm system pre-testing at Building A.</i>
July 30, 2015	<i>Begin start-up equipment at Building B parking garage.</i>
July 30, 2015	<i>Begin doors and hardware (fire life/safety) pre-testing at Building A.</i>
July 31, 2015	<i>Finish tree planting at Vignes. St.</i>
August 10, 2015	<i>Finish start-up process piping systems at Building B & C.</i>
August 17, 2015	<i>Start-up and commissioning of CNG Yard equipment and systems.</i>
August 18, 2015	<i>Finish SOG stripping, bumpers and coating for all parking levels at parking garage.</i>
August 21, 2015	<i>City of LA approves traffic light mast arm for Cesar Chavez & Vignes St.</i>
August 25, 2015	<i>Start punch list and corrections at Transportation Building.</i>
August 25, 2015	<i>Finish final paint coat at Chassis Wash Area.</i>
August 27, 2015	<i>Start punch list and corrections at Chassis Wash Area.</i>

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY (Continued)

<i>September 2, 2015</i>	<i>Start punch list and corrections at Maintenance Building C.</i>
<i>September 2, 2015</i>	<i>Start punch list and corrections at parking garage.</i>
<i>September 14, 2015</i>	<i>Start punch list and corrections of street electrical at Ceasar Chavez Avenue.</i>
<i>September 28, 2015</i>	<i>Finish HVAC air balance pre-test and QC at Lower Level 1 and Level 2 by Contractor.</i>
<i>September 28, 2015</i>	<i>Finish Building B Lower Level Area parking garage.</i>
<i>October 2, 2015</i>	<i>Completed re-balance at Building A and validate humidity controls.</i>
<i>October 13, 2015</i>	<i>Finish Building A HVAC test and balance.</i>
<i>October 22, 2015</i>	<i>Finished testing of doors and hardware (Fire Life Safety) at Bldg. A Levels 1 and 2.</i>
<i>October 27, 2015</i>	<i>Completed remedial work of trench drain at roof level.</i>
<i>October 30, 2015</i>	<i>Completed Bulletin 88R concrete repairs.</i>
<i>November 2, 2015</i>	<i>Substantial completion accepted by Metro.</i>
<i>December 2, 2015</i>	<i>Fire Marshall issued Certificate of Occupancy for Division 13 Facility.</i>
<i>December 31, 2015</i>	<i>Contractor demobilized their field trailer from project site.</i>

CHRONOLOGY OF EVENTS – CNG FACILITY PROJECT

May 5, 2014	Approval to start construction.
May 9, 2014	Contractor to start mobilization on site.
June 10, 2014	Contractor begins 6-inch suction gas line trench excavation on Metro Driveway.
July 8, 2014	Contractor completes concrete pouring for the light pole footings.
July 8, 2014	Contractor completes 100% design submittal.
July 22, 2014	Underground 6-inch gas suction line installation complete along Metro Driveway.
July 24, 2014	6-inch gas suction line trench excavation and backfill complete at the CNG Compound.
August 14, 2014	Underground electrical conduits installation begins.
August 25, 2014	Contractor completes installation of interior pipe racks structure.
September 4, 2014	Concrete poured for equipment pads at the CNG Yard.
September 17, 2014	Major CNG compressors/dryer skids, diesel fuel generator delivered on site.
September 18, 2014	Contractor completes setting of major gas compression equipment at the CNG Yard.
October 6, 2014	Contractor starts installation of overhead mechanical piping and electrical conduits.
October 27, 2014	Contractor continues installing electrical conduits and mechanical piping in electrical rooms, dispensing and service equipment at the compound area.
December 8, 2014	Contractor starts pressure testing of high pressure system.

CHRONOLOGY OF EVENTS – CNG FACILITY PROJECT

January 31, 2015	Pressure testing of CNG piping by EFS/West, witness by Metro Fire Marshall.
February 27, 2015	De-mobilize clean energy from project site due to lack of permanent power and CNG Building sensors operational to continue work.
March 6, 2015	3200A feed to electrical room for CNG Yard.
March 26, 2015	SCG turned on gas to CNG Yard.
April 28, 2015	Performed cathodic protection testing (2 nd).
May 4, 2015	Energize MCC.
May 5, 2015	Begin equipment start-up.
August 13, 2015	Finish final electrical inspection.
August 14, 2015	Finish equipment start-up.
August 15, 2015	Finish test safety system.
<i>September 9, 2015</i>	<i>Begin fueling MTA buses.</i>
<i>September 12, 2015</i>	<i>Begin performance testing.</i>
<i>September 24, 2015</i>	<i>Performance Test passed.</i>
<i>September 30, 2015</i>	<i>Substantial Completion.</i>
<i>November 2, 2015</i>	<i>Finish CNG startup and commissioning.</i>
<i>November 12, 2015</i>	<i>Fire Marshall acceptance for fire life safety code requirements.</i>

APPENDICES

COST AND BUDGET TERMINOLOGY

ADOPTED BUDGET: The Approved Project Budget as established by Metro Board of Directors at the time it authorizes Construction Project Management Division to commence full design and construction of the project (Project Adoption).

CURRENT FORECAST: Evaluation of costs to go combined with actual expenditures.

COMMITMENTS: The total of actual contract awards, 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. Also includes commitments reported by other agencies.

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 and expenditures reported by other agencies.

APPENDIX LIST OF ACRONYMS

AFC	Approved For Construction
BNSF	Burlington Northern Santa Fe Railway
CADD	Computer Aided Drafting and Design
CCTV	Closed Circuit Television
CD	Calendar Day
CM	Construction Manager
CMAC	Congestion Mitigation Air Quality
CMIA	Cash Management Improvement Act
CN	Change Notice
CNG	Compressed Natural Gas
CO	Change Order
CPM	Critical Path Method
CPUC	California Public Utilities Commission
CR	Camera Ready
CO	Change Order
CTC	California Transportation Commission
D-B	Design-Build
D-B-B	Design-Bid-Build
DBOM	Design, Build, Operate and Maintain
DD	Design Development
DEIR	Draft Environmental Impact Report
DWP	Department of Water and Power
EA	Environmental Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FD	Final Design
FEIR	Final Environmental Impact Report
FHWA	Federal Highway Administration
FIS	Financial Information System
FOCT	Fiber Optics Cable Transmission System
FTE	Full Time Equivalent
IFB	Invitation for Bid
IPO	Integrated Project Office
LA	Los Angeles
LADWP	Los Angeles Department of Water and Power
LFAT	Local Field Acceptance Test
LNTF	Limited Notice To Proceed
LONP	Letter Of No Prejudice
LOP	Life of Project
MCA	Master Cooperative Agreement
METRO	Los Angeles County Metropolitan Transportation Authority

APPENDIX LIST OF ACRONYMS (Continued)

MIS	Major Investment Study
MOT	Maintenance of Traffic
MOU	Memorandum of Understanding
MSA	Meter Set Assembly
MSSC	Metro Support Services Center
N/A	Not Applicable
NOA	Notice of Award
NTE	Not to Exceed
NTP	Notice To Proceed
O & M	Operations and Maintenance
PC	Project Control
PE	Preliminary Engineering
PIP	Project Implementation Plan
PLA	Project Labor Agreement
PM	Project Manager
PMA	Project Management Assistance
PMP	Project Management Plan
P&P	Policies & Procedures
PR	Project Report
PS&E	Plans, Specs & Engineering
PSR	Project Study Report
QA	Quality Assurance
QAR	Quality Assurance Report
QC	Quality Control
QPSR	Quarterly Project Status Report
RFC	Request For Change or Released for Construction (based on context)
RFP	Request For Proposal
ROM	Rough Order of Magnitude
ROW	Right-Of-Way
RSTP	Regional Surface Transportation Program
RWQCB	Regional Water Quality Control Board
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SCE	Southern California Edison
SD	Storm Drain
SEOR	Structural Engineer of Record
SIT	System Integration Testing
SOW	Statement Of Work
SP	Special Provision
TBD	To Be Determined
UPS	Uninterrupted Power Supply
USDOT	United States Department of Transportation
VE	Value Engineering

APPENDIX
LIST OF ACRONYMS (Continued)

WBS	Work Breakdown Structure
WDP	Whitlock Dalnymple Poston
WP	Work Package