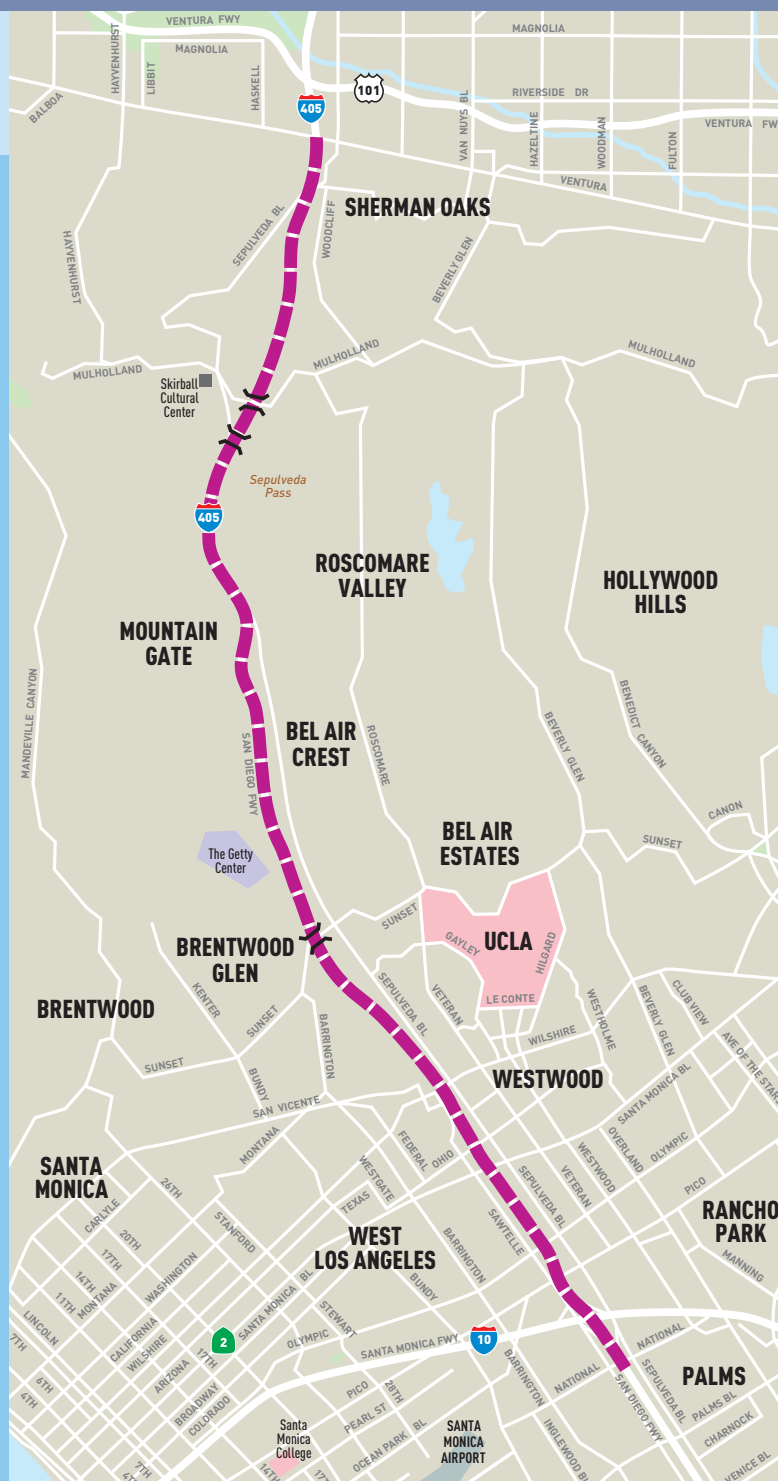




# I-405 Sepulveda Pass Improvements Project

## QUARTERLY PROJECT STATUS REPORT



**Metro**



11-0062PJ © 2010 LACMTA © 2010 LACMTA

# **INTERSTATE 405 SEPULVEDA PASS IMPROVEMENTS PROJECT**

## **QUARTERLY PROJECT STATUS REPORT**

THE PREPARATION OF THIS DOCUMENT HAS BEEN FINANCED IN PART THROUGH GRANTS FROM THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) AND THE AMERICAN RECOVERY AND REINVESTMENT ACT (AARA) AND FUNDS FROM THE STATE OF CALIFORNIA.

**MARCH 2013**

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## **PROJECT OVERVIEW & STATUS**

*The I-405 Sepulveda Pass Improvements Project will add a 10-mile HOV lane and improve supporting infrastructure such as ramps, bridges, and soundwalls on the San Diego Freeway (I-405); while widening lanes from the Santa Monica Freeway (I-10) to Ventura Freeway (U.S. 101). This project will reduce existing and forecasted traffic congestion on the I-405 and enhance traffic operations by adding freeway capacity in an area that experiences heavy congestion. In addition to these modifications, the project will improve both existing and future mobility and enhance safety throughout the corridor. Project benefits include a decrease in commuter time, reduce air pollution, and promote ridesharing. The I-405 Sepulveda Pass Improvements Project features include:*

- *Add a 10-mile HOV lane on the northbound I-405 between the I-10 and US-101 freeways*
- *Remove and replace the Skirball Center, Sunset Blvd. and Mulholland Dr. Bridges*
- *Realign 20 on and off ramps*
- *Widen 20 existing overpasses and structures*
- *Construct approximately 18 miles of retaining walls and soundwalls*

*Interstate 405 (I-405), also known as the San Diego Freeway, is a north/south route classified as an interstate/interregional loop freeway. It is part of the National Highway System (NHS), originating at the I-5 in Orange County in the City of Irvine and terminating at the I-5 in Los Angeles County, in the City of Los Angeles near the community of Mission Hills.*

*The design-build contract Notice to Proceed (NTP) was given on 6/2/2009, with commencement of contract time (1550 calendar days) on August 31, 2009. Substantial completion is currently expected to occur in May 2013, with final acceptance of the project required by November 27, 2013.*

Reconstruction of the Mechanically Stabilized Earth (MSE) Walls is nearly complete for the ones which were deconstructed.

Kiewit submitted an Impacted Schedule which showed a Substantial Completion date way beyond the contractual completion date. It should be noted that Kiewit and Caltrans/Metro, after exhaustive reviews with technical staff in April-May 2012, developed a schedule that showed completion dates per Area ranging from July 2013 to February 2014. Since that time, Kiewit has added additional 9 months of delay to the dates agreed to in April-May 2012. Metro staff reviewed Area 4 critical path and believe that there is a potential of 2 months of time saving. At this point, further discussion will not help Metro understand how the 9 months were added. Therefore, the Project will proceed with using the new schedule for record and planning purposes, but not for recovery. Project started the Time Impact Analysis and will work with Kiewit to recover schedule time and reduce these delays. We expect that the preliminary TIA results will be complete by April 15, 2013. This initial analysis will determine the preliminary excusable delay days which Metro may use to revise contract substantial completion date.

Key project activities for March 2013 include:

- Project has assessed the feasibility of opening the HOV lane early in Segments 1, 2, and 3. Segment 2 is not feasible, Segment 1 appears to be feasible, and Segment 3 is questionable. Project has set June 26, 2013 for opening of General Purpose lane in Segment 1.

## PROJECT OVERVIEW & STATUS (Cont'd)

- Executive Partnering started in August–September 2012 and has dictated the Project to work with Kiewit to establish a realistic schedule, irrespective of contractual responsibility for schedule delay. While this appears to be reasonable, Kiewit submitted a new schedule which added significant amount of time to the schedule compared to the one which was developed during the April-May 2012 timeframe. As stated above, Project has allowed Kiewit to use the schedule for construction planning purposes and resolve cost and time impacts to the Project over the next 6-9 months, and with commitments on both sides, recover schedule to mid-2014, or earlier.
- Work at Getty is moving along and Kiewit, Metro, Caltrans, and Getty are close to finalizing scope of work and schedule.
- Estimating process changes are being implemented by Metro. Project will address supervision issues and other inefficiencies at job level.
- Maintenance of Traffic (MOT) will be a concern as the Project is expecting significant concurrent work on Sepulveda Blvd. which will impact Community/Traffic. Community Outreach will take place along with monitoring to determine impacts to traffic and potential for resolution.

## MANAGEMENT ISSUES

**Concern No. 1:** Align I-405 Closer to the Getty Parking Structure (96" MWD Waterline)

**Status/Action** Negotiation of the design cost is in progress with anticipated completion by end of April 2013. Construction costs have been agreed to with Kiewit and Project will send the change order to the Board in April 2013 for approval of the cost increase based on resolution with Kiewit. The design portion is still in Fact Finding.

**Concern No. 2:** Provisional Sums

**Status/Action** There will be a significant cost increase in Provisional Sums caused by unknown utility conflicts at bid time. Project is reviewing Utility scopes to verify their accuracy and identify other issues, such as future changes, that could impact the project later. In addition, the Project is actively pushing Kiewit to forward price all relocations and stop Time and Material (T&M), except in emergency type situations. Kiewit has exceeded original estimates by double in some cases which has made resolution difficult, but Project is working the issue with Kiewit.

## MANAGEMENT ISSUES (Cont'd)

### **Concern No. 3:** Kiewit and Metro Estimating Approaches

**Status/Action** Metro and Kiewit have found it difficult to reconcile estimates. While Metro implemented staff changes and refocused efforts on estimates to try and resolve issues with Kiewit, the Project still continues to have problems. At the Executive Partnering Meeting, Kiewit mentioned that they would like to reconcile the estimates and finalize the associated payments. In the past several months, Kiewit has quoted the outstanding numbers to be in the range of \$45 to \$70 million. These numbers were checked against Project records and the result was not close to Kiewit's figures. It is obvious that Kiewit is asking for reimbursement of disputed items which are documented as non-payable. Project is meeting with Kiewit staff weekly to identify a complete list, prioritize, and resolve issues. As noted in Concern No. 1 above, Metro and Kiewit have met for several months attempting to reconcile the estimating process. It should be noted that Kiewit's additional supervision (not allowed by contract) quantities and inefficiencies are the cause of most of the discrepancies. Metro has decided to allow supervision on a case by case basis. Procurement and Project Director have been given this responsibility by Metro Management.

### **Concern No. 4** Project Cost and Schedule Reassessment

**Status/Action** Life of Project Budget and schedule impacts will be discussed at May 2013 meeting.

### **Concern No. 5:** Widening of Sepulveda between Montana and Church

**Status/Action** This is part of the Westwood Hills lawsuit settlement and resolution of issues with the LADOT regarding the width of Sepulveda. The Project is behind in fact-finding and cost resolution.

### **Concern No. 6:** Retaining Walls 1720 and 1730

**Status/Action** The changes to these walls are related to the potential Westwood Hills lawsuit settlement, LADOT requests for widening of Sepulveda, and reduced work for Kiewit at this location. Metro has been fact-finding with Kiewit for quite some time to get closer to resolving cost estimate differences. Area 5 (Getty) is taking priority so the resolution of this issue has been delayed. Metro Board approved the initial change and the Project is working under the assumption that this work is a credit to the project. After two years of requesting details of how artwork would be placed on Walls 1720 and 1730, Kiewit was able to convince the Mayor's office to scale back the artwork. Unfortunately, Cultural Affairs and Artists are not cooperating and an artwork of some kind will still need to be incorporated on walls. This is being worked on by Kiewit and Artist at this time.

## MANAGEMENT ISSUES (Cont'd)

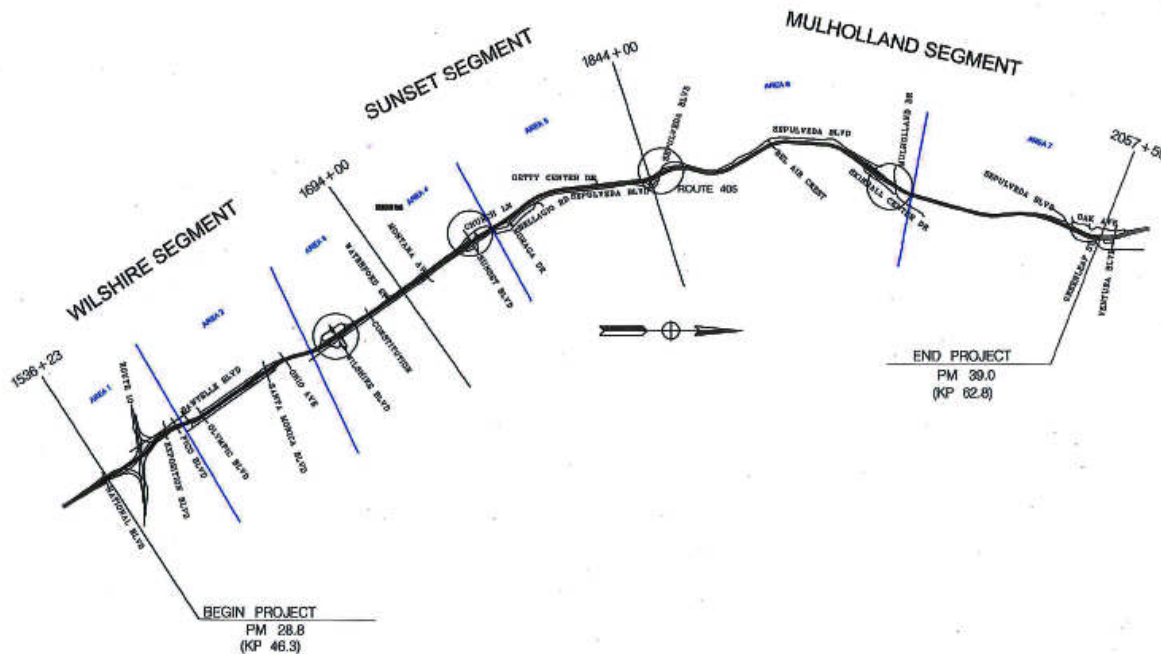
**Concern No. 7:** Giro Lawsuit

**Status/Action** Caltrans has decided that modifying the existing ramps to tie into new freeway widening, and then pursue a new ramp design after I-405 Project is complete, is the preferred resolution. The project is also looking into closing the northbound Getty on-ramp, based on construction requirements, to help reduce construction impacts.

**Concern No. 8:** MSE Walls Failure

**Status/Action** Reconstruction of the Mechanically Stabilized Earth (MSE) Walls is nearly complete for the ones which were deconstructed.

## PROJECT SCOPE



The I-405 Sepulveda Pass Improvements Project is a Design-Build contract to add a 10-mile High Occupancy Vehicle (HOV) lane on the northbound San Diego Freeway (I-405) between the Santa Monica (I-10) and Ventura (US 101) Freeways. The purpose of the project is to reduce congestion by adding the HOV lane and closing the HOV gap, which will provide a continuous HOV lane from the Orange County Line to the I-405/US-101 interchange. The scope entails an 11-foot half median, one 12-foot HOV lane, a 1-foot HOV buffer, five 12-foot mixed-flow lanes (six 12-foot mixed-flow lanes between Mulholland Bridge and Valley Vista), and a 10-foot outside shoulder.

Most of the freeway widening required for this project occurs along the east side of I-405 along Sepulveda Blvd. between Montana Ave. and Moraga Dr. and between Getty Center Drive and the northbound Getty Center off-ramp. Sepulveda Blvd. is going to be slightly realigned at the relocated southbound I-405 Skirball Center Drive on/off-ramps in order to add a dual-left-turn lane to the on-ramp.

Some freeway widening also occurs along the west side of the freeway between Olympic Blvd. and Waterford Street, and between Bel Air Crest to just north of Ventura Blvd. This entails NB and SB lanes and shoulder standardization.

In order to reduce accidents associated with traffic on the ramps, project scope includes several interchange improvements as detailed below:

## **PROJECT SCOPE**

- Wilshire Blvd. interchange in both directions  
The northbound on-ramp from eastbound Wilshire Blvd. is grade-separated from the northbound off-ramp to westbound Wilshire Blvd. and from Sepulveda Blvd. The southbound off-ramp to eastbound Wilshire Blvd. is grade-separated from the southbound off-ramp to westbound Wilshire Blvd.
- Northbound I-405 Sunset Blvd. interchange  
The northbound I-405 off-ramp to eastbound Sunset Blvd. is widened to include one more lane. Two exclusive 12-foot lanes on the reconstructed Sunset Blvd. overcrossing and two 12-foot lanes on the on-ramp are provided for the northbound I-405 on-ramp from eastbound Sunset Blvd. In the eastbound direction three 12-foot lanes and in the westbound direction three 11-foot lanes are provided which solves the existing reduction from three lanes to two lanes in the eastbound direction. In both directions, 4-foot shoulders and 5-foot sidewalks as well as a 13-foot median are provided on the Sunset Blvd. overcrossing.
- The irregular northbound I-405 on/off-hook ramps at the Getty Center interchange are reconfigured to a standard diamond interchange to increase stopping sight distances in order to improve safety.
- The southbound I-405 Skirball Center Drive interchange is relocated to form a “T” intersection with Sepulveda Blvd. This eliminates the existing intersection at Skirball Off-Ramp and Skirball Center Drive.
- The southbound Valley Vista On and Off Ramps are realigned due to freeway widening and freeway mainline realignment between SB Valley Vista On/Off Ramps. The realignment will improve the stopping sight distance for the SB Valley Vista Off Ramp. A third lane will be added to the SB Valley Vista On-Ramp to increase the ramp capacity.
- A second NB lane will be added on Skirball Center Drive between the Skirball Bridge and NB Skirball ramps.
- A NB auxiliary lane and bike lanes will be added on Sepulveda Blvd. on each direction, between the new SB Skirball ramps and Skirball Bridge.

A total of 12 soundwalls and 54 retaining walls within the project limits are constructed at embankments where right-of-way is constrained.

A total of 12 undercrossings within the project limits are widened. Three overcrossings at Sunset Boulevard, Skirball Center Drive, and Mulholland Drive are replaced.

## KEY MILESTONE SCHEDULE SIX-MONTH LOOKAHEAD

|                                                                                                            | Milestone Date | Mar-13 | Apr-13 | May-13 | Jun-13 | Jul-13 | Aug-13 |
|------------------------------------------------------------------------------------------------------------|----------------|--------|--------|--------|--------|--------|--------|
| SB I405 Off-ramp to WB Wilshire - Begin 14 day maximum closure window                                      | 3/8/13A        | ○      |        |        |        |        |        |
| Bridge 6B SB I405 Off-ramp to EB Wilshire - Pour Top Deck                                                  | 3/12/13A       | ○      |        |        |        |        |        |
| Bridge 7 - NB405 to EB Wilshire Off-ramp - Complete Installation of CIP Box Girder (Stem Spans 4-3) - PH 2 | 3/15/13A       | ○      |        |        |        |        |        |
| SB I405 Off-ramp to WB Wilshire - Re-open Off-ramp (End closure window)                                    | 3/16/13A       | ○      |        |        |        |        |        |
| Bridge 18 - Getty Center UC - Complete Soundwall Construction on West Side of Bridge.                      | 3/21/13A       | ○      |        |        |        |        |        |
| Bridge 22 - Mulholland OC. Begin forming bottom deck.                                                      | 3/22/13A       | ○      |        |        |        |        |        |
| Bridge 2 - Exposition UC - Begin Demolition of Existing Bridge Spans 4 - Abutment 9.                       | 3/25/13A       | ○      |        |        |        |        |        |
| Bridge 6A SB I405 Off-ramp to EB Wilshire - Pour Top Deck                                                  | 3/25/13A       | ○      |        |        |        |        |        |
| Bridge 15 - Sunset NB On-ramp - Complete Falsework Removal.                                                | 3/29/13A       | ○      |        |        |        |        |        |
| Bridge 4 - Santa Monica UC NB - Complete Bridge work                                                       | 4/2/13         |        | ○      |        |        |        |        |
| Bridge 2 - Exposition UC - Complete Demolition of Existing Bridge Spans 4 - Abutment 9.                    | 4/5/13*        |        | ○      |        |        |        |        |
| Bridge 7 - NB Wilshire Off-ramp Top Deck (Spans 4-1) - Complete Deck Pour                                  | 4/16/13        |        | ○      |        |        |        |        |
| Bridge 2 - Exposition UC - Begin Installation of CIP Box Girder Stems, Stage 2 (Span 4-8)                  | 4/21/13*       |        | ○      |        |        |        |        |
| Santa Monica Area NB - Complete Paving Activities                                                          | 4/25/13        |        | ○      |        |        |        |        |
| Bridge 2 - Exposition UC - Complete Installation of CIP Box Girder Deck, Stage 2 (Span 4-8)                | 5/6/13*        |        |        | ○      |        |        |        |
| Bridge 7 - NB Wilshire Off-ramp CIP Box Girder (Top Deck Spans 4-3) - PH 2 Complete Installation           | 5/7/13*        |        |        | ○      |        |        |        |
| Bridge 21 - Skirball OC - Begin Installation of Precast Concrete Girders-South Side.                       | 5/13/13*       |        |        | ○      |        |        |        |



Metro Milestone



Design/Build



Third Parties Approval

CT

Caltrans Milestone



New Date

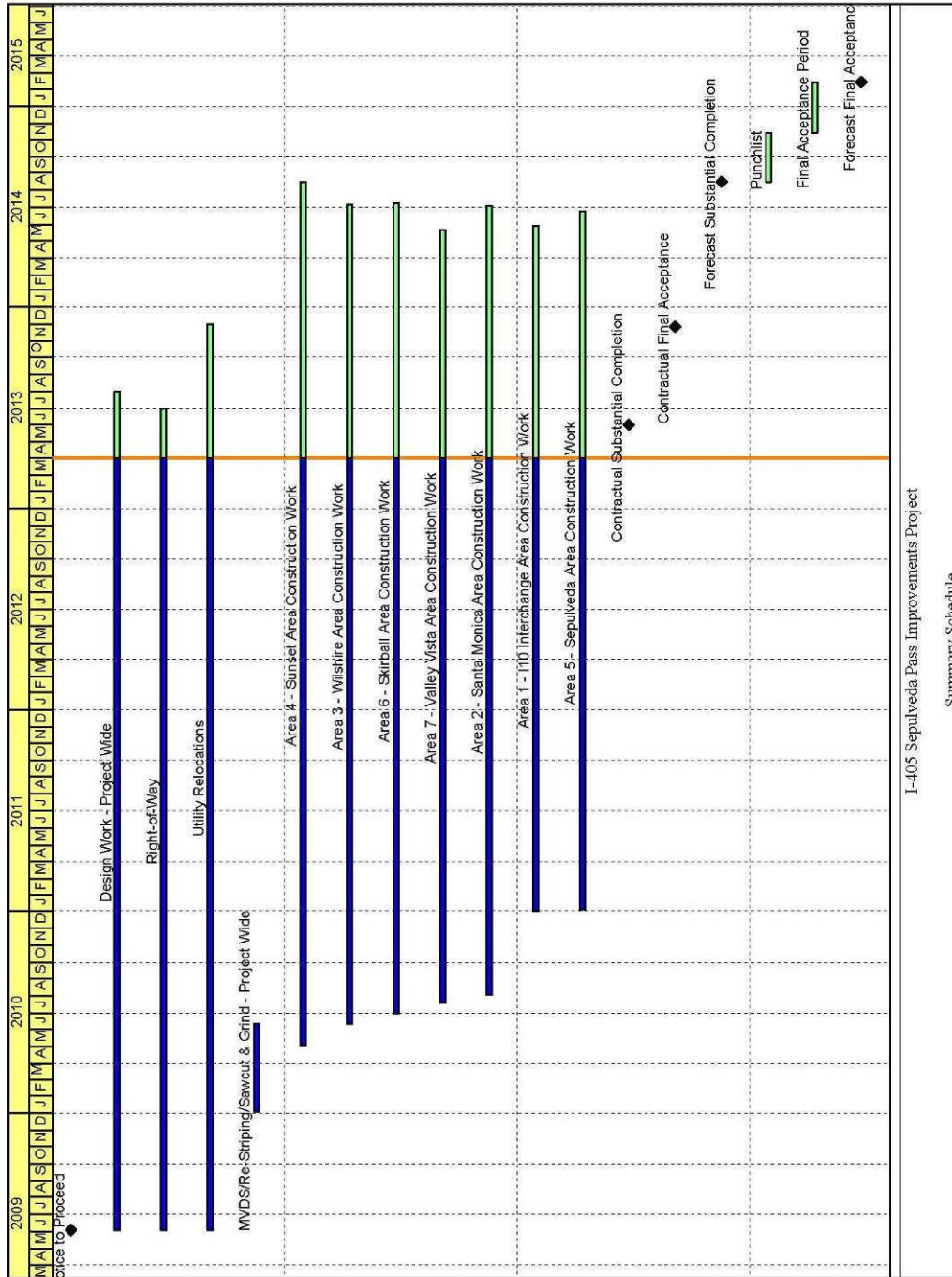
FHWA

FHWA Federal Highway Administration Approval

## KEY MILESTONE SCHEDULE SIX-MONTH LOOKAHEAD

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Milestone Date | Mar-13 | Apr-13 | May-13 | Jun-13 | Jul-13 | Aug-13 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------|--------|--------|--------|--------|--------|
| I-10 Interchange Area - Complete Concrete Paving on NB side.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5/30/13*       |        |        | ○      |        |        |        |
| Bridge 8 - NB Wilshire On-ramp - Complete Installation of CIP Box Girder Top Deck - (abut #9, bent 6-8) - PH 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6/7/13*        |        |        |        | ○      |        |        |
| Bridge 22 - Mulholland OC - Complete Pouring Top Deck                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 6/12/13*       |        |        |        | ○      |        |        |
| Bridge 7 - NB Wilshire Off-ramp - Complete Construction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 6/25/13        |        |        |        | ○      |        |        |
| I-10 Interchange Area NB - Complete Landscaping & Irrigation installation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6/28/13*       |        |        |        | ○      |        |        |
| Bridge 2 Exposition UC - Complete Bridge work.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 7/9/13         |        |        |        |        | ○      |        |
| NB 405 in Wilshire Blvd. Area - Complete Concrete Paving.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 7/10/13*       |        |        |        |        | ○      |        |
| Bridge 17 Church Lane UC - Begin Installation of Falsework for Top Deck.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 7/12/13        |        |        |        |        | ○      |        |
| SB 405 in Santa Monica Blvd. Area - Complete Concrete Paving.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 7/15/13        |        |        |        |        | ○      |        |
| Bridge 23 Sepulveda - Complete Installation of Structural Steel Girders                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 7/16/13*       |        |        |        |        | ○      |        |
| SB 405 in Wilshire Blvd. Area - Complete Concrete Paving.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 7/18/13*       |        |        |        |        | ○      |        |
| Bridge 23 Sepulveda UC - Begin Steel Girder Top Deck & Diaphragms Installation Phase 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 8/1/13         |        |        |        |        |        | ○      |
| Bridge 14 Sunset Offramp - Complete Steel Girder Top Deck & Diaphragms/Bridge Bearing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 8/2/13         |        |        |        |        |        | ○      |
| Santa Monica Area SB - Complete Paving Activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 8/9/13         |        |        |        |        |        | ○      |
| Wilshire Area SB - Complete Paving Activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 8/14/13        |        |        |        |        |        | ○      |
| Bridge 19 Sepulveda UC - Complete Setting Precast Concrete Girders.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 8/22/13        |        |        |        |        |        | ○      |
| Bridge 8 - NB Wilshire On-ramp - Complete Construction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 8/30/13        |        |        |        |        |        | ○      |
| <div> <div>  Metro Milestone         </div> <div>  Design/Build         </div> <div>  Third Parties Approval         </div> </div> <div> <div>  Caltrans Milestone         </div> <div>  New Date         </div> <div>  FHWA Federal Highway Administration Approval         </div> </div> |                |        |        |        |        |        |        |

## PROJECT SUMMARY SCHEDULE



I-405 Sepulveda Pass Improvements Project

Summary Schedule

## **CRITICAL PATH NARRATIVE**

The project has several critical paths which may potentially change as the work progresses. Based on the current project update, the primary critical path runs through MSE Wall 1766, Moraga On-Ramp, and MSE Wall 1764. The path then continues with construction of MSE Wall 1760 and Sunset Area NB widening. The path ends with Area 4 median work.

## PROJECT COST STATUS

### I-405 SEPULVEDA PASS IMPROVEMENTS PROJECT

FEDERAL PROJECT #: SARRA-405-3(015)N, METRO PRIME CONTRACT# C0882

METRO CONSTRUCTION MANAGEMENT DIVISION / CALTRANS

COMBINED COST REPORT BY PHASE

PERIOD ENDING: MARCH 2013

DOLLARS IN THOUSANDS

| PHASE #          | PHASE CODE | DESCRIPTION                                             | ORIGINAL BUDGET | CURRENT BUDGET |           | COMMITMENTS |         | EXPENDITURES |         | CURRENT FORECAST |           | BUDGET / FORECAST VARIANCE |
|------------------|------------|---------------------------------------------------------|-----------------|----------------|-----------|-------------|---------|--------------|---------|------------------|-----------|----------------------------|
|                  |            |                                                         |                 | PERIOD         | TO DATE   | PERIOD      | TO DATE | PERIOD       | TO DATE | PERIOD           | TO DATE   |                            |
| 0                | PA&ED      | PROJECT APPROVAL & ENVIRO DOCS                          | 22,000          | -              | 21,457    | -           | 21,078  | -            | 21,078  | -                | 21,457    | -                          |
| 1                | PSE        | PLANS, SPECS, & ENGINEERING                             | 63,100          | -              | 25,560    | -           | 25,613  | -            | 25,677  | -                | 25,632    | 72                         |
| 2                | RS         | RIGHT-OF-WAY SUPPORT                                    | 14,000          | -              | 9,543     | 99          | 6,511   | 99           | 6,511   | -                | 8,076     | (1,467)                    |
| 3                | CS         | CONSTRUCTION SUPPORT                                    | 28,000          | -              | 67,813    | 1,072       | 76,209  | 1,992        | 63,630  | -                | 75,355    | 7,542                      |
| 4                | C          | CONSTRUCTION                                            | 823,900         | -              | 810,441   | 7,940       | 808,838 | 16,814       | 547,630 | -                | 842,688   | 32,247                     |
| 9                | RC         | RIGHT-OF-WAY CAPITAL                                    | 83,000          | -              | 99,186    | 479         | 53,918  | 527          | 42,777  | -                | 60,792    | (38,394)                   |
| SUBTOTAL PROJECT |            |                                                         | 1,034,000       | -              | 1,034,000 | 9,590       | 992,167 | 19,432       | 707,302 | -                | 1,034,000 | -                          |
| 4                | C          | CONSTRUCTION OF CITY OF L.A.'S REVERSIBLE LANES PROJECT | -               | -              | 6,000     | -           | -       | -            | -       | -                | 6,000     | -                          |
| 4                | C          | CONSTRUCTION OF CALTRANS DRAINAGE SYSTEM REPAIRS        | -               | -              | 8,000     | -           | -       | -            | -       | -                | 8,000     | -                          |
| TOTAL PROJECT    |            |                                                         | 1,034,000       | -              | 1,048,000 | 9,590       | 992,167 | 19,432       | 707,302 | -                | 1,048,000 | -                          |

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH FEBRUARY 28, 2013.

KIEWIT EXPENDITURES ARE ONLY THROUGH NOVEMBER 30, 2012 DUE TO INVOICING LAG.

## PROJECT COST ANALYSIS

### Original and Current Budgets

The Original Budget reflects the Metro Board adopted Life-of-Project (LOP) Budget which was approved in April 2009 in the amount of \$1,034 million. An additional \$6.0 million was approved by the Metro Board to add the City of LA's Reversible Lanes Project Scope funded by the City of Los Angeles, along with another \$8.0 million approved by the Metro Board to add Caltrans drainage system repairs to be funded by Caltrans. This brings the Total Current Budget to \$1,048 million.

### Current Budget and Current Forecast

The Current Budget is \$1,048 million. Trends 1 through 147 have been approved and are included in the Current Forecast of \$1,048 million. Project Budget Change Requests (PBCR) 1 through 5 have been approved and included in the Current Budget.

### Commitments

The Commitments increased by \$9.6 million this period primarily for purchase orders associated with Caltrans real estate acquisitions, consulting services, Kiewit change orders, and Metro/Caltrans staff charges. Total Commitments are \$992.2 million.

## **PROJECT COST ANALYSIS (Contd)**

### **Expenditures**

Expenditures are cumulative through February 2013. The expenditures increased by a total of \$19.4 million this period. Expenditures within the construction support phase included Metro and Caltrans project staff and miscellaneous consultant contract services. Costs in the right-of-way categories were for 3<sup>rd</sup> party Metro staff costs and for third party and utility relocation expenditures. Caltrans right-of-way expenditures for the period included staff charges for right-of-way support and real estate acquisitions. An invoice for Kiewit in the amount of \$16.8 million for the period ending November 30, 2012 was processed by Metro Accounting this period. The \$707.3 million in Project Expenditures to date represents 67.5% of the Current Budget.

**FINANCIAL/GRANT STATUS – ORIGINAL SCOPE ACTIVITIES**

**MARCH 2013**

**STATUS OF FUNDS BY SOURCE**

| SOURCE             | (A)                | (B)                           | (C)                         | (D)               | (D/B) | (E)                | (E/B) | (F)                                 | (F/B) |
|--------------------|--------------------|-------------------------------|-----------------------------|-------------------|-------|--------------------|-------|-------------------------------------|-------|
|                    | APPROVED<br>BUDGET | TOTAL<br>FUNDS<br>ANTICIPATED | TOTAL<br>FUNDS<br>AVAILABLE | COMMITMENTS<br>\$ | %     | EXPENDITURES<br>\$ | %     | BILLED TO FUNDING<br>SOURCE *<br>\$ | %     |
| FEDERAL SAFETEA-LU | \$117.000          | \$117.000                     | \$117.000                   | \$117.000         | 100%  | \$51.375           | 44%   | \$51.375                            | 44%   |
| FEDERAL ARRA       | \$189.900          | \$189.900                     | \$189.900                   | \$189.900         | 100%  | \$189.900          | 100%  | \$189.900                           | 100%  |
| STATE CMIA         | \$614.000          | \$614.000                     | \$614.000                   | \$583.042         | 95%   | \$419.295          | 68%   | \$332.652                           | 54%   |
| STATE TCRP         | \$90.000           | \$90.000                      | \$90.000                    | \$90.000          | 100%  | \$34.507           | 38%   | \$34.507                            | 38%   |
| STATE RSTP         | \$10.100           | \$10.100                      | \$10.100                    | \$10.100          | 100%  | \$10.100           | 100%  | \$10.100                            | 100%  |
| PROPOSITION C 25%  | \$13.000           | \$13.000                      | \$13.000                    | \$2.125           | 16%   | \$2.125            | 16%   | \$2.125                             | 16%   |
| SUB TOTAL FUNDS    | \$1,034.000        | \$1,034.000                   | \$1,034.000                 | \$992.167         | 96%   | \$707.302          | 68%   | \$620.659                           | 60%   |
| CITY OF LA **      | \$6.000            | \$6.000                       | \$0.000                     | \$0.000           |       | \$0.000            |       | \$0.000                             |       |
| CALTRANS           | \$8.000            | \$8.000                       | \$8.000                     |                   |       |                    |       |                                     |       |
| TOTAL FUNDS        | \$1,048.000        | \$1,048.000                   | \$1,042.000                 | \$992.167         |       | \$707.302          |       | \$620.659                           |       |

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH FEBRUARY 2013.

\* BILLING AMOUNT IS LESS THAN EXPENDITURES AMOUNT DUE TO SYSTEM LAG IN SUBMITTING INVOICES TO CALTRANS.

\*\* CONSTRUCTION OF CITY OF LA REVERSIBLE LANES PROJECT.

\*\*\* CONSTRUCTION OF CALTRANS DRAINAGE SYSTEM REPAIRS.

**STATUS OF FUNDS ANTICIPATED**

**FEDERAL SAFETEA-LU:** \$117M is available for drawdown for specific phases of the Project as agreed upon in the Cooperative Agreement between Caltrans and Metro.

**FEDERAL ARRA:** \$189.9M is available for drawdown for specific phases of the Project as agreed upon in the Cooperative Agreement between Caltrans and Metro with consultation with FHWA.

**STATE CMIA:** State Proposition 1B Bond sales provided \$254.7M to the project. Funds are available for drawdown. The remaining balance of \$359.3M has been allocated and are available for drawdown.

**STATE TCRP:** \$42M is available for drawdown for specific phases of the Project as agreed upon in the Cooperative Agreement between Caltrans and Metro. The remaining balance of \$48M has been made available by the CTC and is available for drawdown.

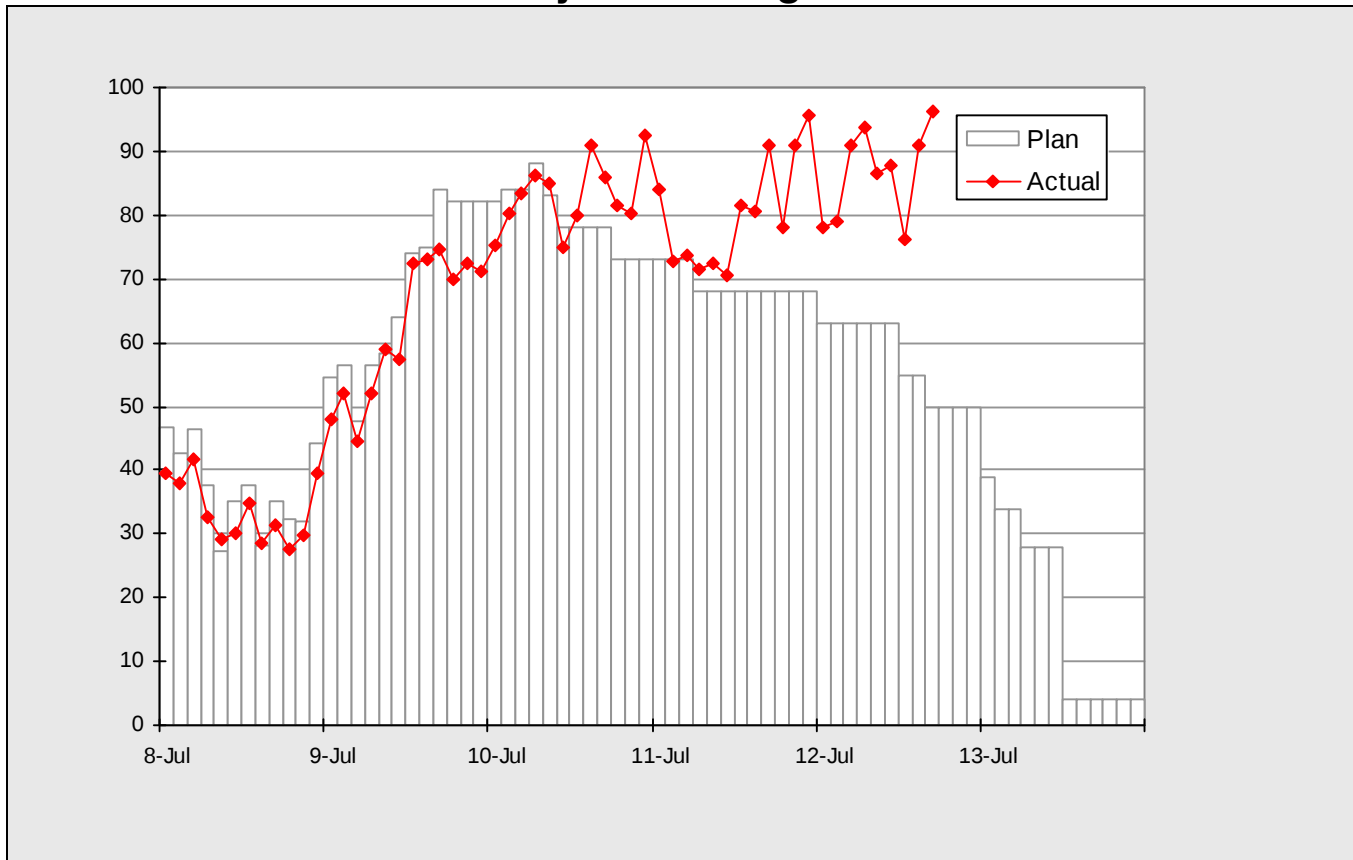
**STATE RSTP:** \$10.1M is available for drawdown for specific phases of the Project as agreed upon in the Cooperative Agreement between Caltrans and Metro.

**PROPOSITION C 25%:** The Metro Board approved the allocation of \$13M to the Project.

**CALTRANS:** Metro Board authorized staff in July 2012 to execute a Memorandum of Understanding between Caltrans Maintenance and Metro for a total amount of \$8M for the cleaning and the reconstruction of Caltrans drainage. Funds are available for drawdown.

## STAFFING STATUS

### Total Project Staffing - FTEs

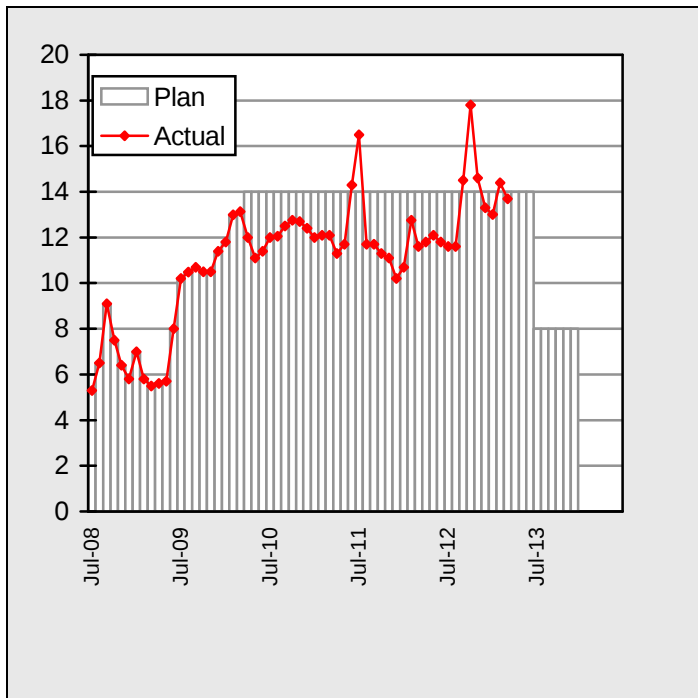


### Total Project Staffing

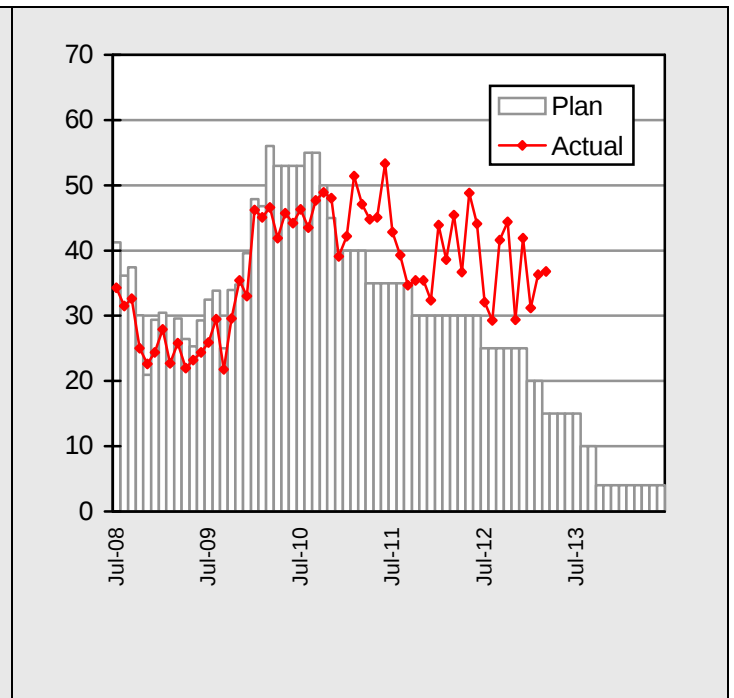
Project Staffing Plan is presently being reassessed as a component of the Cost Schedule Reassessment.

## STAFFING STATUS

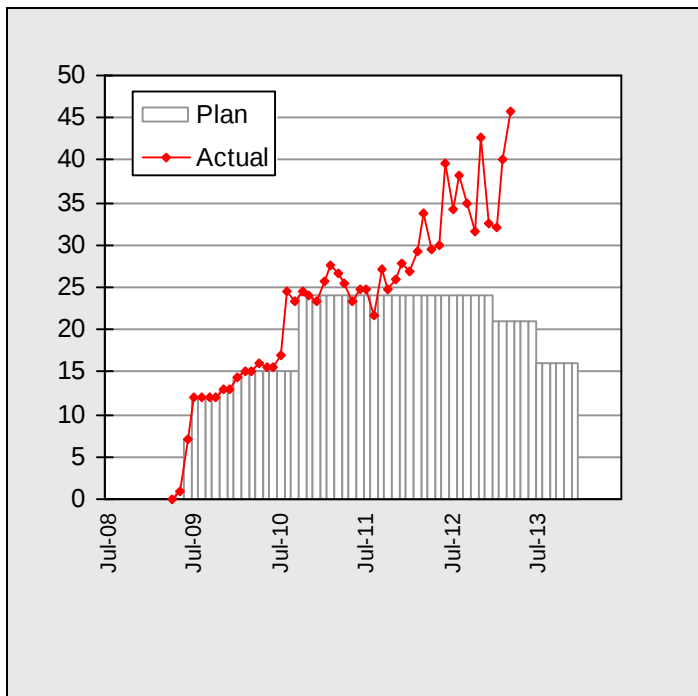
MTA - FTEs



CALTRANS- FTEs



STANTEC - FTES



## **REAL ESTATE STATUS**

The Real Estate acquisition process is proceeding and the Project is working on obtaining and releasing the past due parcels to the Contractor.

- Parcel 79612 (MWD) – Right-of-Entry (ROE) in place until July 31, 2013. Additional Right-of-Way (ROW) required which has not yet been fully identified and may impact the project schedule.
- ROW Tie-back easements at 1791/1797 – ROW maps for the Getty owned parcels are being reviewed prior to requesting an ROE.
- Parcel 80373 - DWP work at 11390 Thurston –Undergrounding of utilities is required. Caltrans is in process of acquiring the Temporary Construction Easement (TCE) or Right-of-Entry (ROE).
- Parcel 79619 (LACMTA) – Access has been provided but parcel has not been acquired yet. Acquisition will take place after the completion of project. This parcel has no apparent schedule impact.
- Parcel 79692 (Skirball) – ROE has been provided for the additional ROW but the parcel has not been acquired yet. This parcel has no apparent schedule impact.
- TCE for the 22 parcels in the Westwood Hills Area have been extended until December 31, 2012 to facilitate completion of the work. Work was not completed by December 31, 2012. TCEs have been extended to June 30, 2014.
- Parcel 80376/80378 (Formally Parcels 79630/79629) - Additional ROW requirements are needed for grading and drainage. ROE from Sanitation has been obtained and Caltrans is currently working with County for the ROE. ROEs for Clear and Grub have been obtained.
- Additional TCEs are required to modify the existing drainage system at Curtis School – Caltrans is in process of acquiring the TCE.
- Permanent and Temporary easements are required at the Leo Baeck Temple to install signal foundation at Getty Center Drive and Sepulveda – Caltrans is in process of acquiring TCE or ROE.

## **ENVIRONMENTAL STATUS**

- Ongoing coordination with Santa Monica Mountains Conservancy (SMMC) and National Park Service on wildlife crossings and the redesign of NB Getty on-ramp and the associated wildlife culvert. The project provided direction to the Contractor to keep the on/off ramps in their existing location. Further coordination will be required with SMMC and NPS regarding this project change and will be addressed in the Environmental Addendum. Received a commitment letter from SMMC regarding the use of mitigation funds committed for the project for a new trail project in Mission Canyon. Preparation of a Cooperative Agreement between Caltrans and SMMC is in process to transfer mitigation funds to SMMC.
- Ongoing preparation of an Environmental Addendum for changes associated with the final design of the N/B Getty on-ramp. Awaiting traffic analysis for maintaining ramps at their existing location. A separate new project has been programmed to modify existing ramps.
- Ongoing coordination regarding landscaping along Sepulveda Blvd. between Constitution and Sunset and required mitigation associated with tree removal from City and State R/W. Caltrans, Metro and LABSS continue to discuss outstanding tree removal permits and tree replacement plans.
- Regional Water Quality Control Board inspected the project on 2/19/13 and requested the project immediately address erosion control prior to the forecasted rain event. Follow up inspections are expected. Received a Notice of Violation (NOV) for the RWQCB on 3/21/13. Caltrans provide response letter on 3/26/13 to rescind the NOV.

## **COMMUNITY RELATIONS STATUS**

- Distributed construction notices for the following construction activities: drainage work demolition, repaving, realignment work at northbound Getty on-ramp, Sepulveda overpass demolition work, full nighttime closure of Sepulveda from Montana to Moraga for eastward shift of Sepulveda Blvd. and reopening of Sepulveda Way, and demolition and construction work at Church Lane Bridge, one lane reduction on westbound Sunset Blvd. for utility, traffic signals and repaving work at North Thurston Avenue, Chevron grouting work on abandoned line, from Montana to Moraga, shotcrete night work at wall 1730, extending from Homedale to south of Bronwood, nighttime closure of 3 consecutive northbound on-ramps, Skirball, Getty and Moraga, street closure for southbound Santa Monica on-ramp work at Beloit Ave. between Santa Monica and Iowa, northbound Sepulveda between Ohio and Wilshire for eastbound Wilshire on-ramp to northbound 405 Bridge, street closure for work on Best Management Practices, Cotner Avenue, Mississippi to La Grange, extended ramp closure for demo and reconstruction, southbound 405 off-ramp to westbound Wilshire, street closure for westbound I-10 connector to northbound 405 work, Pico for Sawtelle to Cotner, southbound Sepulveda lane reduction at Constitution for traffic signal work, southbound 405, I-10 connector closures, Los Angeles Marathon notice, Wilshire Blvd full closure for bridge pour to the southbound 405 off ramp to eastbound Wilshire, Pico Blvd, northbound 405 I-10 connector, Mulholland Bridge false work, and plate girders, Sherman Oaks storm drain work.
- Participated in the following meetings: Global Traffic Management Meeting, Critical Issues Meeting, Brentwood Glen Homeowners Association Meeting, Los Angeles Police Department Traffic Meeting, California Highway Patrol Meeting, Mission Canyon Meeting and Sherman Oaks Homeowners Association Meeting.
- Coordinated the following work activities: 55 hour lane reduction follow up, landscape right-of-way issued limits Caltrans and City of Los Angeles, noise and vibration training, demolition work at Church Lane Bridge undercrossing nighttime noise and vibration, limited parking on Acanto Street due to construction vehicle parking, clean out pool at project-owned property with concerns of flies and mosquitos, ramp closure times, Exposition/Sawtelle sound blankets for demo work at Bridge 2, 90 day ramp closure meeting, pre-activity meeting Bridge 2, Sherman Oaks and Valley Vista Community landscaping, Sherman Oaks construction noise impacts, vehicle damage claims, property damage claims, traffic impacts due to new southbound Skirball ramps, traffic signage problems and calendar of events in Mulholland Segment to alleviate impacts of closures.
- 4,844 followers on Twitter.
- 18,626 likes on Facebook.
- 76,270 page views on Website.

## **QUALITY ASSURANCE STATUS**

- Metro Quality participated in:
  - o Four Pre-Activity Meetings.
  - o Two Joint Project Quality Meeting
- Caltrans METS has advised that the Structural Representative assigned to the project will change.
- Metro approved the formal submittal Kiewit's newly appointed Construction Quality Control Manager.
- Sixteen Nonconformance Reports (NCRs) were issued this month.
- Twenty-three Deficiency Reports (DRs) were issued this month.

## **SAFETY AND SECURITY STATUS**

- There were three recordable injuries on the Project during the month of February 2013, one of which resulted in one day away from work for the employee.
- Safety Staff participated in pre-activity (readiness review) meetings to ensure compliance with approved Work Plans and contract specifications.
- Construction activities are monitored during day and night shifts to ensure contractor compliance with contract specifications.
- Safety staff attended weekly Progress Meeting, Foreman's Weekly Safety Meetings and other project meetings to evaluate Contractors Safety Program compliance with contract requirements.
- February Contractor Work Hours (Design & Construction): 196,938
- Contractor – Project to Date Work Hours (Design & Construction): 5,308,628
- Total Project to Date Work Hours (Contractor & the IPO Staff): 5,850,641
- Project to Date Recordable Injury Rate: 0.7 (Twenty-one Recordable Injuries) (each rate is per 200,00 work hours)
- Project to Date Total Time Away Injury Rate: 0.3 (Ten Time Away From Work Injuries)
- Project to Date Total Days Away Rate: 17.1 (499 Days Away From Work)
- Metro Construction Safety is once again providing 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                                                              | MCA                      | 9/13                           | 6/09                      | A stand-alone Master Cooperative Agreement (MCA) between the City of Los Angeles and LACMTA is currently being drafted for the I-405 Project.                                                                                                                |
| Los Angeles County Department of Public Works/Los Angeles Flood Control District | MCA                      | Cancelled                      | Cancelled                 | On advice of County Counsel, LACMTA is not required to enter into a Master Cooperative Agreement with the Los Angeles County Department of Public Works/Los Angeles Flood Control District since the I-405 Project is a State Project, not a LACMTA Project. |
| Utility Owners                                                                   | Utility Agreements       | Various                        | Various                   | Caltrans style Utility Agreements (similar to MTA Work Order Authorizations) will be completed as relocation plans are approved for each location.                                                                                                           |

## CONTRACT STATUS

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      |                   |                     |                        |                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------|---------------------|------------------------|-----------------------|
| <b>I-405 Sepulveda Pass Improvements Project</b><br><b>Design/Build Contractor: Kiewit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | <b>Contract No.: C0882</b><br><br><b>Status as of: March 29, 2013</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                      |                   |                     |                        |                       |
| <b>Progress/Work Completed:</b><br>Major work started/completed this period:<br>• Bridge 6a/6b SB Wilshire Off-ramp. Complete street girder top deck & diaphragms construction.<br>• Bridge 6a/6b top deck is poured..<br>• SB to WB Wilshire Off-ramp 14 day closure window is started and completed early.<br>• Bridge 2 began demolition of existing Bridge spans.<br>• Bridge 15 Falsework is removed.<br>• Bridge 22 bottom deck form is started.<br>• Bridge 16 Soundwall is completed at the Getty Center.<br>• Bridge 7 and 8 stem construction completed.<br>• Maintenance during construction - SWPPP cleanout and repairs, graffiti removal from k-rails, trash and debris removal. |  | <b>Major Activities (In Progress):</b><br>• Grading and paving.<br>• Construction of Retaining Walls and sound walls.<br>• Utility Relocations.<br>• Bridge 1 and 2 construction.<br>• Bridge 3 construction.<br>• Bridge 4a/4b construction.<br>• Bridge 5a/5b construction.<br>• Bridge 6a/6b construction.<br>• Bridge 7 and Bridge 8 construction.<br>• Bridge 9 construction.<br>• Bridge 12 and Bridge 13 construction.<br>• Bridge 14 and Bridge 15 construction.<br>• Bridge 17 and Bridge 18 construction.<br>• Bridge 19 and Bridge 20 construction.<br>• Bridge 21 and Bridge 22 construction.<br>• Bridge 23 construction.<br>• Maintenance during construction. |                      |                   |                     |                        |                       |
| <b>Areas of Concern:</b><br>• Area 4 utilities.<br>• Wall 1921 construction.<br>• Global Maintenance of Traffic (MOT).<br>• General Purpose Lane onstruction in Segment 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | <b>Major Activities Next Period:</b><br>• Retaining Walls 1720 and 1730 - Begin shotcrete installation.<br>• Complete concrete roadway paving on SB 405 at the I-10 Interchange.<br>• Begin pouring Bridge 7 and Bridge 8 top deck.<br>• Complete demolition of Bridge 2.<br>• Complete paving in Santa Monica Area NB.                                                                                                                                                                                                                                                                                                                                                      |                      |                   |                     |                        |                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Original<br>Baseline | Time<br>Extension | Current<br>Contract | Forecast<br>Completion | Variance<br>Cur-Fcast |
| Commencement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | 08/31/09                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0                    | 08/31/09          | 08/31/09            | 0                      |                       |
| Completion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | 05/31/13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0                    | 05/31/13          | 08/15/14            | -441                   |                       |
| Punchlist Complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | 08/29/13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0                    | 08/29/13          | 11/13/14            | -441                   |                       |
| Final Acceptance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | 11/27/13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0                    | 11/27/13          | 02/11/15            | -441                   |                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      |                   |                     |                        |                       |
| <b>Schedule Summary:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | <b>Cost Summary:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      |                   |                     |                        |                       |
| Notice of Award 04/29/09<br>Notice to Proceed 06/02/09<br>Original Contract Duration (CD) 1640<br>Approved Time Extensions (CD) 0<br>Current Contract Duration (CD) 1640<br>Elapsed Time from NTP (CD) 1,397<br>Contract Elapsed Time Percent 85.2%                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | <b>\$ In 000's</b><br>1. Award Value: 720,922<br>2. Executed Modifications: 82,416<br>3. Approved Change Orders: 21,122<br>4. Current Contract Value (1 + 2 + 3): 824,460<br>5. Incurred Cost: 581,025<br>6. Percent Incurred Cost: 70.5%                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |                   |                     |                        |                       |

## **CHRONOLOGY OF EVENTS**

|                                     |                                                                                                                                                                  |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| May 18, 2007                        | The Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) is issued.                                                                      |
| May 22, 2007 to<br>October 1, 2007  | Public review of draft EIS.                                                                                                                                      |
| February 29, 2008                   | The Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) is issued.                                                                      |
| March 10, 2008                      | The Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) errata with U. S. General Services Administration (GSA) comments is issued.     |
| March 14, 2008 to<br>April 14, 2008 | Public review of Final EIS.                                                                                                                                      |
| April 25, 2008                      | Record of Decision (ROD) approved.                                                                                                                               |
| October 10, 2008                    | LACMTA issued Invitation For Bid (IFB) for the project.                                                                                                          |
| February 20, 2009                   | Project bids opened.                                                                                                                                             |
| April 23, 2009                      | LACMTA Board authorized the Chief Executive Officer to award Design-Build Contract C0882 to Kiewit Pacific Co.                                                   |
| April 23, 2009                      | LACMTA Board approved establishing a budget of \$1.034 billion for project 405523.                                                                               |
| April 23, 2009                      | LACMTA awarded Contract C0882 to Kiewit Pacific in the amount \$694,156,000 to include Schedules A, C, and H (Option 4).                                         |
| April 29, 2009                      | LACMTA issued a revised NOA to Kiewit Pacific in the amount \$720,922,000 to include Schedules A, C, E (Option 1), F (Option 2), G (Option 3), and H (Option 4). |
| June 2, 2009                        | LACMTA issued Notice to Proceed to Kiewit Pacific for the Design-Build Contract C0882.                                                                           |
| August 31, 2009                     | Contract Commencement Date.                                                                                                                                      |
| September 24, 2009                  | Kiewit Pacific submitted the Project Baseline Schedule.                                                                                                          |
| October 14, 2009                    | Project Design Quality Management Plan approved.                                                                                                                 |

### **CHRONOLOGY OF EVENTS (Cont'd)**

|                    |                                                                                                                                                                                   |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| December 14, 2009  | Project Quality Management System approved.                                                                                                                                       |
| January 20, 2010   | Project Baseline Schedule was approved.                                                                                                                                           |
| January 27, 2010   | Roadway Restriping commenced.                                                                                                                                                     |
| March 12, 2010     | Major Project Permits were obtained; Permit 401 – Water Quality Control Board, Permit 404 – U.S. Army Corps of Engineers, and Permit 1600 – California Department of Fish & Game. |
| May 31, 2010       | The Project completed one year without a Recordable Injury.                                                                                                                       |
| July 23, 2010      | Sunset Bridge major demolition of the south side top deck and center column.                                                                                                      |
| August 2, 2010     | Commenced construction on Bridge 4a/b.                                                                                                                                            |
| August 16, 2010    | Commenced ExxonMobil 16" utility relocation at Bridge 16.                                                                                                                         |
| August 20, 2010    | Operating Engineers Local 12 initiate labor action by striking.                                                                                                                   |
| August 24, 2010    | Completed ductbank work on Sepulveda for DWP utility undergrounding.                                                                                                              |
| August 24, 2010    | Commenced construction of Walls 1720/1730.                                                                                                                                        |
| August 24, 2010    | ITS Backbone is cut.                                                                                                                                                              |
| September 7, 2010  | DWP started pulling wires for utility undergrounding on Sepulveda.                                                                                                                |
| September 9, 2010  | Operating Engineers Local 12 Labor action is settled and strike ends.                                                                                                             |
| September 13, 2010 | Completed the excavation of Roadway at 1685/1691.                                                                                                                                 |
| September 15, 2010 | Completed the removal of Wall 1665.                                                                                                                                               |
| September 18, 2010 | Completed installation of Temporary walkway at Skirball Bridge.                                                                                                                   |
| September 28, 2010 | Pioneer access to Sunset on-ramp, Bridge 15 Abutment 1.                                                                                                                           |

### **CHRONOLOGY OF EVENTS (Cont'd)**

|                   |                                                                             |
|-------------------|-----------------------------------------------------------------------------|
| October 12, 2010  | Began excavation of Sunset Bridge 16 Abutment 1 Footing.                    |
| October 12, 2010  | Began demolition of Skirball Bridge 21.                                     |
| October 15, 2010  | Completed demolition Skirball Bridge 21.                                    |
| October 15, 2010  | Began driving piles at Santa Monica Bridge 4.                               |
| October 15, 2010  | Installed Beams at Sunset Bridge 16, Bent #2.                               |
| October 15, 2010  | Began driving piles on Santa Monica Bridge 4.                               |
| October 19, 2010  | Completed demolition of Sunset Bridge 16, Abutment 4.                       |
| October 21, 2010  | Installed beams at Sunset Bridge 15 On Ramp, Abutment 1.                    |
| October 22, 2010  | Began Demolition of Sunset Bridge 16, Abutment 1.                           |
| October 22, 2010  | Installed Piles at Wall 1720.                                               |
| October 25, 2010  | Began Excavation at Walls 1685/1691.                                        |
| October 28, 2010  | Began the relocation of overhead power lines at Ohio Ave Bridge 5.          |
| October 28, 2010  | Clear and grub area at Wall 1746.                                           |
| November 12, 2010 | Completed demolition of soundwall, barrier rail, and overhang at Bridge 13. |
| November 15, 2010 | Completed installation of SOE at Abutment 1 NB at Bridge 4 Santa Monica.    |
| November 15, 2010 | Completed demolition of existing ExxonMobil 16" Oil Pipeline.               |
| November 17, 2010 | Completed excavation of CIP at Wall 1640.                                   |
| November 18, 2010 | Began excavation at Wall 1635.                                              |
| November 29, 2010 | Began Excavation at Bridge 13.                                              |
| November 30, 2010 | Began relocation of SCE underground vault.                                  |

### **CHRONOLOGY OF EVENTS (Cont'd)**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| December 7, 2010  | Began driving piles at Bridge 13 - Montana Avenue UC.                                                 |
| December 14, 2010 | Completed Pile driving at Abutment 1 Bridge 16 Sunset OC.                                             |
| December 15, 2010 | Completed the installation of new power poles and raised the utility wires at Bridge 5 - Ohio Avenue. |
| December 16, 2010 | Completed piles at abutments 1 and 2 for Bridge 13 Montana Ave UC.                                    |
| December 17, 2010 | Began installation of SOE beams at Bridge 15 Sunset on-ramp.                                          |
| January 3, 2011   | Began Construction of Piers and Columns at Bridge 16.                                                 |
| January 11, 2011  | Began Construction Activities at Bridge 5.                                                            |
| January 13, 2011  | Began Construction Activities at Bridge 12.                                                           |
| January 17, 2011  | Began Installation of Footings and Pile Caps at Bridge 16.                                            |
| February 1, 2011  | Began Construction Activities at Bridge 21 – Skirball Center Drive.                                   |
| February 14, 2011 | Began Field Work relocating Storm Drain at Veterans Administration (VA).                              |
| February 21, 2011 | Began Field Work relocating Chevron Oil Pipeline at Bridge 23 – Sepulveda UC.                         |
| February 23, 2011 | Began Construction Activities at Bridge 15 – Sunset On-Ramp.                                          |
| February 25, 2011 | Completed Drilling and Placing Beams at NB Abutments 1 & 2 at Bridge 12 – Constitution UC.            |
| February 28, 2011 | Completed Pouring Columns at Bent 3, Bridge 16 – Sunset OC.                                           |
| March 2, 2011     | Began Field Work relocating LADWP 4" Waterline at Valley Vista.                                       |
| March 2, 2011     | Completed Driving 14" Square Piles at Bridge 3 Abutment 1.                                            |
| March 15, 2011    | Began Field Work relocating So Cal Gas Line at Wall 1746.                                             |

### **CHRONOLOGY OF EVENTS (Cont'd)**

|                |                                                                                      |
|----------------|--------------------------------------------------------------------------------------|
| March 18, 2011 | Completed Setting Soldier Beams at Bridge 15 Bent 2 & 3 Mainline.                    |
| March 23, 2011 | Began Field Work Encasing Sewer Lines 401-403 at Walls 1720, 1730 and 1746.          |
| March 31, 2011 | Completed Setting and Backfilling Wall Panels at Wall 1942B.                         |
| April 4, 2011  | Began Installation of Bent 2 & Bent 3 Columns at Bridge 21 Skirball Center Drive OC. |
| April 5, 2011  | Began Installation of Storm Drain at Walls 1720 and 1730.                            |
| April 10, 2011 | Completed Installation of Girders at Bridge 13 Montana Ave UC.                       |
| April 22, 2011 | Completed Bridge 9 Wilshire Blvd. UC demolition for widening.                        |
| April 25, 2011 | Began Work Relocating Shell Oil Line at Bridge 23 Sepulveda UC.                      |
| May 2, 2011    | Began Relocation of Area 2 Sewer Lines # 201-203.                                    |
| May 6, 2011    | Completed Setting Girders at Southside of Bridge 16 Sunset OC.                       |
| May 11, 2011   | Began Construction Work on Bridge 3 Olympic Blvd.                                    |
| May 25, 2011   | Completed Tie Back Installation at Walls 1720 and 1730.                              |
| June 3, 2011   | Completed Girder Installation on the North Side of Bridge 21 Skirball OC.            |
| June 13, 2011  | Began Installation of Precast Deck Panels on Bridge 16 Sunset OC.                    |
| June 24, 2011  | Began Demolition of Existing Walls 1720 and 1730 along Sepulveda Blvd.               |
| June 30, 2011  | Completed Installation of Precast Deck Panels on Bridge 16 Sunset OC.                |

### **CHRONOLOGY OF EVENTS (Cont'd)**

|                    |                                                                                                       |
|--------------------|-------------------------------------------------------------------------------------------------------|
| July 6, 2011       | Began Relocation of LADWP Overhead Power Lines at Mulholland Bridge.                                  |
| July 13, 2011      | Completed installation of Void Slab Deck at Bridge 12 Constitution UC.                                |
| July 14, 2011      | Completed Pouring Diaphragms 1, 2, and 3 at Bridge 21 Skirball OC.                                    |
| July 16, 2011      | Began Demolition of South Side of Bridge 22 Mulholland OC.                                            |
| July 17, 2011      | Completed Demolition of South Side of Bridge 22 Mulholland OC.                                        |
| July 20, 2011      | Completed Installation of Pre-cast Girders at Bridge 4SB Santa Monica UC.                             |
| July 26, 2011      | Began Driving Piling at Bridge 8 NB from EB Wilshire, Bent 8.                                         |
| August 1, 2011     | Began installation of forms and rebar for Top Deck at Bridge 21, Skirball Center Drive.               |
| August 3, 2011     | Began work on the Interchange Ramp from Westbound I-10 to Northbound I-405.                           |
| August 6, 2011     | Began work installing Top Deck at Bridge 4 Santa Monica Blvd.                                         |
| August 24, 2011    | Completed pouring the Top Deck at Bridge 13, Montana Ave.                                             |
| August 26, 2011    | Completed installation of Footing & Pile Cap/Abutment-Wingwalls/Bridge Bearing Bridge 3 Olympic Blvd. |
| August 31, 2011    | Completed pouring the Top Deck at South Side of Bridge 16, Sunset Blvd.                               |
| September 15, 2011 | Completed installation of Top Deck and Diaphragm on Bridge 16, Sunset Blvd.                           |
| September 16, 2011 | Completed pouring the Top Deck at Bridge 21, Skirball Center Drive.                                   |
| September 23, 2011 | Began construction of LADWP Power Utilities undergrounding ductbank between Stations 1740 and 1760.   |

### **CHRONOLOGY OF EVENTS (Cont'd)**

|                    |                                                                                                                                                                                                |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| September 27, 2011 | Completed pouring curb and gutter on west side of Bridge 16, Sunset Blvd.                                                                                                                      |
| September 29, 2011 | Completed pouring Lateral Retaining Walls #6, #7, and #8 at Retaining Wall 1720.                                                                                                               |
| October 14, 2011   | Completed pouring footing for Bent 2 at Bridge 22, Mulholland Drive.                                                                                                                           |
| October 17, 2011   | Began installation of Bent 2 Forms at Bridge 22, Mulholland Drive.                                                                                                                             |
| October 18, 2011   | Began construction activities at Bridge 18, Bel Air Crest.                                                                                                                                     |
| October 22, 2011   | New Bridge 16, Sunset Blvd. South Side opened to vehicle traffic.                                                                                                                              |
| October 27, 2011   | Completed pouring Abutment 1 at Bridge 22, Mulholland Drive.                                                                                                                                   |
| November 1, 2011   | Began demolition of Bridge 16 Sunset Blvd. north side.                                                                                                                                         |
| November 7, 2011   | Began installation of CIDH Piles for I-10 Connector.                                                                                                                                           |
| November 9, 2011   | Completed demolition of Bridge 16 Sunset Blvd. north side.                                                                                                                                     |
| November 22, 2011  | Received the VA License to Enter agreement.                                                                                                                                                    |
| November 22, 2011  | Completed pouring Bridge 22 Mulholland OC Bent 2 Columns.                                                                                                                                      |
| November 22, 2011  | Completed pouring Bridge 5 Ohio NB Abutments 1 & 2.                                                                                                                                            |
| December 1, 2011   | MSE Wall 1897 along NB Sepulveda Blvd. south of Skirball Center Drive ruptures. Kiewit stops work on all MSE Walls throughout the project and begins investigation into MSE Wall deficiencies. |
| December 1, 2011   | Began 2 <sup>nd</sup> pouring of Bridge 22 Mulholland Abutment 1.                                                                                                                              |
| December 8, 2011   | Completed subgrade for NM Connector.                                                                                                                                                           |
| December 17, 2011  | Began installation of Precast Girders at Bridge 5A Ohio Ave.                                                                                                                                   |
| December 19, 2011  | Began installation of falsework beams for Bridge 15 Sunset on-ramp.                                                                                                                            |

### **CHRONOLOGY OF EVENTS (Cont'd)**

|                   |                                                                                                                                                                                                                                       |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| December 19, 2011 | Began driving piles for Bridge 16 Sunset Blvd. Bent 3.                                                                                                                                                                                |
| January 4, 2012   | Began De-construction of MSE Wall 1738A.                                                                                                                                                                                              |
| January 9, 2012   | Began De-construction of MSE Wall 1665.                                                                                                                                                                                               |
| January 16, 2012  | Completed demolition of the I-405 median barrier at Mulholland Bridge and began erection of Falsework.                                                                                                                                |
| January 19, 2012  | Began pouring footings for Soundwalls at Retaining Walls 1720 and 1730.                                                                                                                                                               |
| January 20, 2012  | Completed pouring column # 1 @ Sunset Blvd. Bridge.                                                                                                                                                                                   |
| January 25, 2012  | Began De-construction of MSE Wall 1634.                                                                                                                                                                                               |
| January 27, 2012  | Kiewit stopped work on all Soil Nail Walls due to developing cracks, pending investigation.                                                                                                                                           |
| January 31, 2012  | Poured columns at Bel Air Crest Bridge.                                                                                                                                                                                               |
| February 13, 2012 | Construction activities are started in Area 5 at Bridge 18 Getty Center UC and Bridge 19 Sepulveda UC.                                                                                                                                |
| February 15, 2012 | De-construction of MSE Wall 1738A at Sunset NB Off-Ramp is completed.                                                                                                                                                                 |
| February 18, 2012 | Piers and Columns are poured for Bridge 16 Sunset Blvd.                                                                                                                                                                               |
| February 18, 2012 | LADWP completes installation of new underground cabling in ductbank along Sepulveda Blvd and Wilshire Ave. Final paving of Sepulveda trench is completed.                                                                             |
| February 28, 2012 | Kiewit submits notification to LACMTA that all remaining MSE Walls, with the exceptions of completed MSE Walls 1619 and 1942B will be de-constructed.                                                                                 |
| March 2, 2012     | Full NB Freeway Closure at Mulholland Bridge to install Falsework Girders.                                                                                                                                                            |
| March 6, 2012     | Caltrans identifies a potential Safety Concern during Mulholland Bridge Falsework Girder Installation on the SB Side and orders girders to be removed. Caltrans issues Stop Work Order pending review of Girder Installation Process. |

## **CHRONOLOGY OF EVENTS (Cont'd)**

|                |                                                                                                                                                                                            |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| March 8, 2012  | Caltrans completes review of Girder Installation Process and authorizes resumption of installation of Falsework Girders at Mulholland Bridge. SB Side Falsework Girders are installed.     |
| March 22, 2012 | Concrete Girders are installed at Bridge 5B Ohio UC SB side.                                                                                                                               |
| April 7, 2012  | Kiewit completes installation of Mulholland Bridge (South Side) Sheet Decking and begins installation of structural rebar.                                                                 |
| April 10, 2012 | Kiewit resumes construction of MSE Walls. Construction of Wall 1672 new leveling pad is started.                                                                                           |
| April 14, 2012 | Kiewit begins installation of top deck and diaphragm structural rebar at Bridge 4 Santa Monica UC.                                                                                         |
| April 20, 2012 | Kiewit pours concrete top deck, curb, and gutter at Bridge 9 Wilshire UC.                                                                                                                  |
| May 1, 2012    | Begin installation of Concrete girders at Bridge 16 Sunset OC North Side.                                                                                                                  |
| May 4, 2012    | Kiewit resumes construction of MSE Walls using an approved new Wall Panel Vendor and Construction Plan. Construction begins at MSE Wall 1672 along Sepulveda Blvd. north of Wilshire Blvd. |
| May 4, 2012    | Completion of installation of Concrete Girders at Bridge 16 Sunset OC North Side.                                                                                                          |
| May 18, 2012   | Construction of MSE Wall 1808 along Sepulveda Blvd. north of Getty Center Drive is started using new Wall Panels and Construction Plan.                                                    |
| May 24, 2012   | Structural construction is started within the GSA Property. Construction of Bridge 7 Bent 3 is started.                                                                                    |
| May 31, 2012   | Construction of MSE Wall 1686 along Sepulveda Blvd. north of Constitution Drive is started using new Wall Panels and Construction Plan.                                                    |

### **CHRONOLOGY OF EVENTS (Cont'd)**

|                    |                                                                                                      |
|--------------------|------------------------------------------------------------------------------------------------------|
| June 2, 2012       | NW1 Ramp from WB I-10 to NB I-405 is opened for traffic.                                             |
| June 6, 2012       | GSA Microwave Security System is installed.                                                          |
| June 7, 2012       | Bridge 7 NB I-405 to EB Wilshire Off-ramp Columns for Bents 3 and 4 are constructed on GSA Property. |
| June 22, 2012      | 90-Day Shutdown of Bridges 10 & 11 NB I-405 to WB Wilshire and WB Wilshire to NB I-405 commenced.    |
| June 27, 2012      | Demolition of existing Bridges 10 & 11 is completed.                                                 |
| July 15, 2012      | Bridge 21 Skirball Center Drive, North side, is opened to traffic.                                   |
| July 20, 2012      | Bridge 22 Mulholland Drive, Top Deck is poured.                                                      |
| July 21, 2012      | Bridges 10 & 11 Pre-cast Girders are installed.                                                      |
| July 30, 2012      | Bridge 21 Skirball Center Drive, South Side, Demolition is started.                                  |
| August 3, 2012     | Bridge 21 Skirball Center Drive, South Side, Demolition is Completed.                                |
| August 10, 2012    | Bridges 10 & 11 Top Deck is Poured.                                                                  |
| August 23, 2012    | Bridge 16 Sunset Blvd. Top Deck is Poured.                                                           |
| August 31, 2012    | Bridges 10 & 11 are Opened for Traffic.                                                              |
| September 4, 2012  | Bridge 7 Falsework installation begins.                                                              |
| September 24, 2012 | Bridge 16 is fully opened for traffic.                                                               |
| September 24, 2012 | Bridge 22 South Side is opened for traffic.                                                          |
| September 28, 2012 | Began demolition of the north side of Mulholland Bridge 22.                                          |
| September 30, 2012 | Complete demolition of the north side of Mulholland Bridge 22.                                       |
| October 1, 2012    | Began construction activities for Bridge 17, Church Lane UC.                                         |

### **CHRONOLOGY OF EVENTS (Cont'd)**

|                   |                                                                                                                     |
|-------------------|---------------------------------------------------------------------------------------------------------------------|
| October 1, 2012   | Began construction activities for Bridge 22, Mulholland OC north side.                                              |
| October 15, 2012  | MSE Wall 1897 reconstruction is completed.                                                                          |
| October 19, 2012  | Bridge 15 Sunset NB On-ramp, top deck is poured.                                                                    |
| October 23, 2012  | RW 1720 punch list work begins.                                                                                     |
| November 4, 2012  | Re-aligned Sepulveda Blvd. to the east at Bronwood Apartments.                                                      |
| November 6, 2012  | Begin construction activities for Bridge 14 Sunset NB Off-ramp.                                                     |
| November 8, 2012  | Bridges 6A and 6B SB Off-ramp to EB Wilshire abutments poured.                                                      |
| November 28, 2012 | Completed re-striping and realignment of Sepulveda Blvd. to the east at walls 1720 & 1730.                          |
| November 29, 2012 | Completed pouring Top Deck at Bridge 1 I-10 Connector.                                                              |
| December 4, 2012  | Completed installation of Pre-Cast Girders at Bridge 2 Exposition.                                                  |
| December 6, 2012  | Sepulveda Blvd. is restriped and realigned from Montana Avenue to Bridge 14 NB Sunset Off-Ramp.                     |
| December 20, 2012 | Completed pouring Top Deck at Bridge 18 Getty Center Drive NB and SB.                                               |
| December 21, 2012 | Completed girder installation at Bridge 6A and 6B SB Wilshire Off-Ramp.                                             |
| January 4, 2013   | False work for Bridge 7 is completed allowing construction of CIP Box Girder to progress from abutment to abutment. |
| January 4, 2013   | Completed installation of 10' diameter CIDH Piles for Bridge 14 Construction of foundation piles is started.        |
| January 15, 2013  | Completed pouring outside stems for Bridge 8.                                                                       |

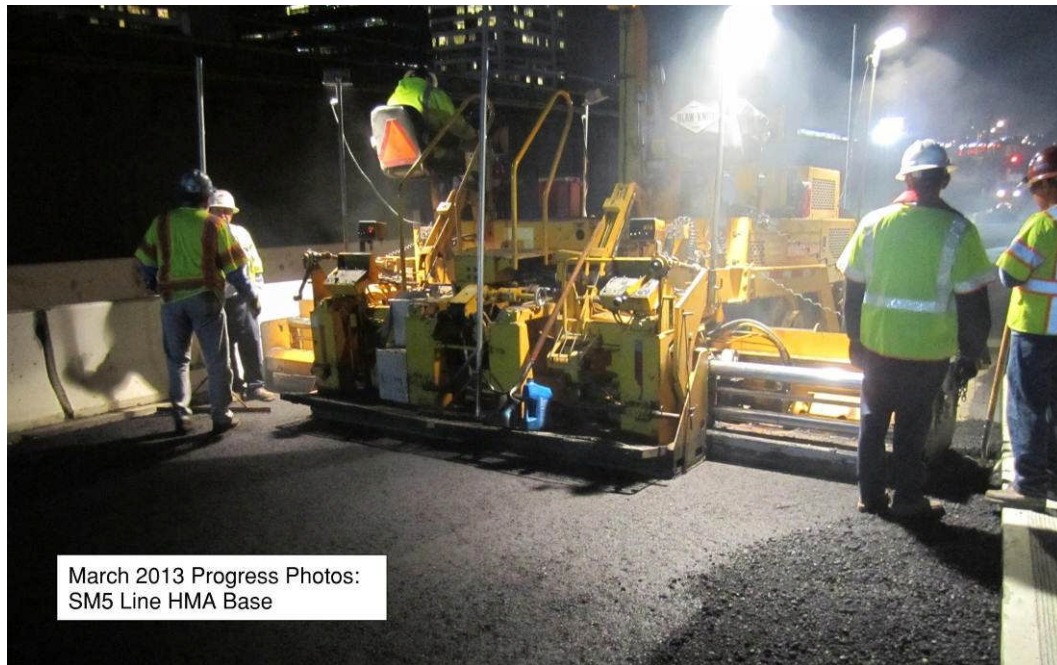
### **CHRONOLOGY OF EVENTS (Cont'd)**

|                   |                                                                                                           |
|-------------------|-----------------------------------------------------------------------------------------------------------|
| January 23, 2013  | Completed installation of top deck metal decking for Bridge 6A.                                           |
| February 3, 2013  | Opened new SB 405 On-ramp from Skirball Center Drive.                                                     |
| February 11, 2013 | Began installation of Falsework for Mulholland Bridge north side.                                         |
| February 21, 2013 | Opened new SB 405 On-ramp from EB Wilshire Blvd.                                                          |
| February 22, 2013 | Opened new NB 405 On-ramp from Cotner Ave. at Olympic Blvd.                                               |
| March 8, 2013     | Began 14-day closure of SB I-405 to WB Wilshire Off-ramp to allow construction of new Off-ramp.           |
| March 16, 2013    | Completed construction of new SB I-405 to WB Wilshire Off-ramp and re-opened the Off-ramp 6 days early.   |
| March, 22, 2013   | Began forming bottom deck of north side of Bridge 22, Mulholland OC.                                      |
| March 25, 2013    | Opened new Bridge 1, I-10 EB to I-405 NB, and began demolition of existing Bridge 2 Span 4 to Abutment 9. |

## CONSTRUCTION PHOTOGRAPHS



## CONSTRUCTION PHOTOGRAPHS

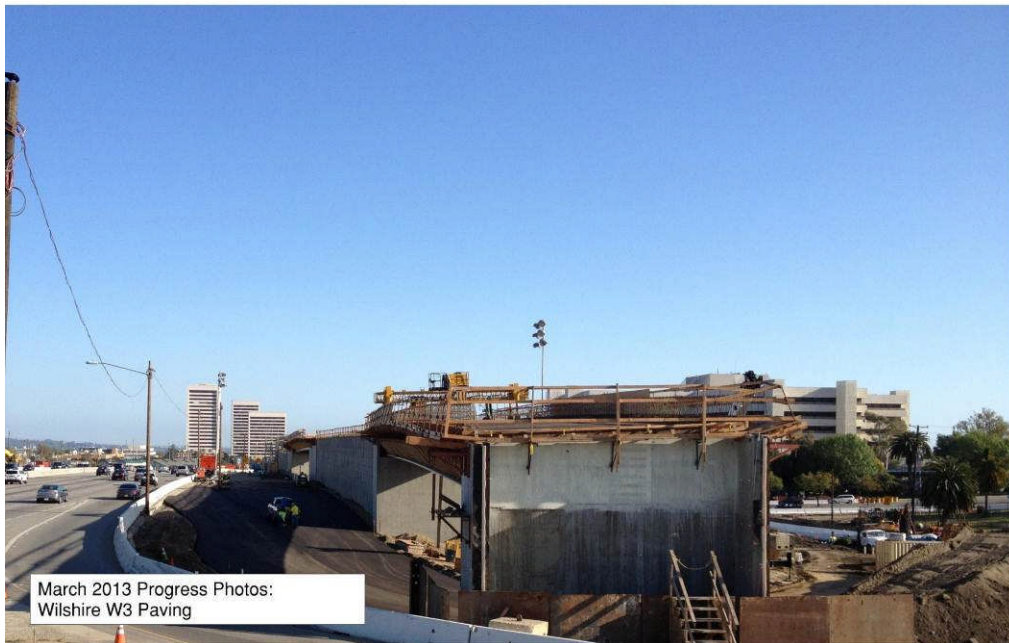


March 2013 Progress Photos:  
SM5 Line HMA Base

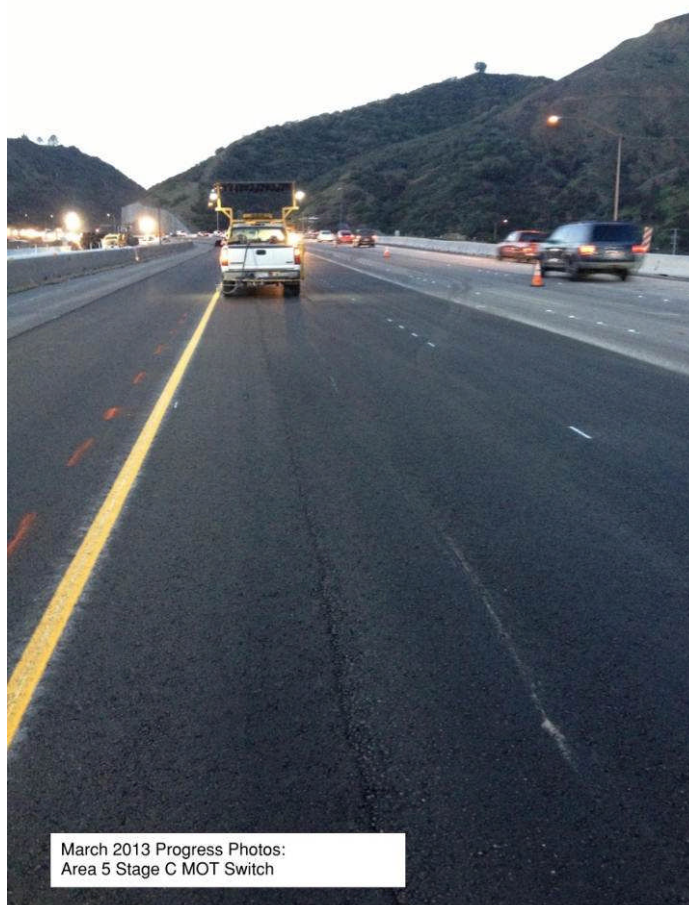


March 2013 Progress Photos:  
Area 5 NB HMA Overlay Base Pave (1 of 2)

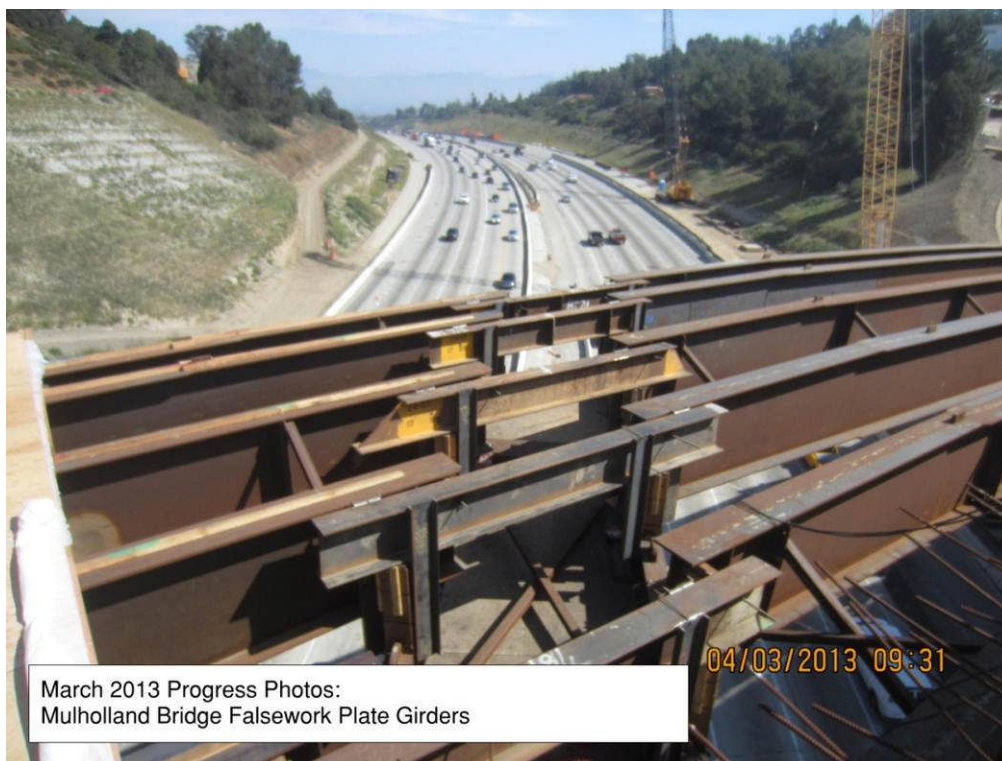
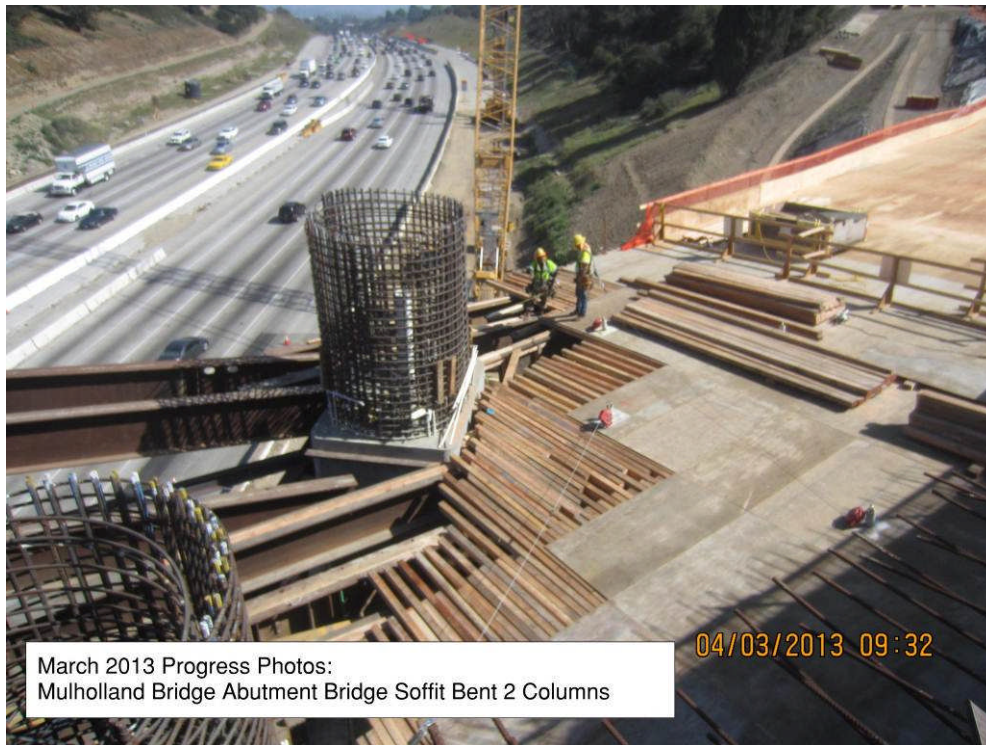
## CONSTRUCTION PHOTOGRAPHS



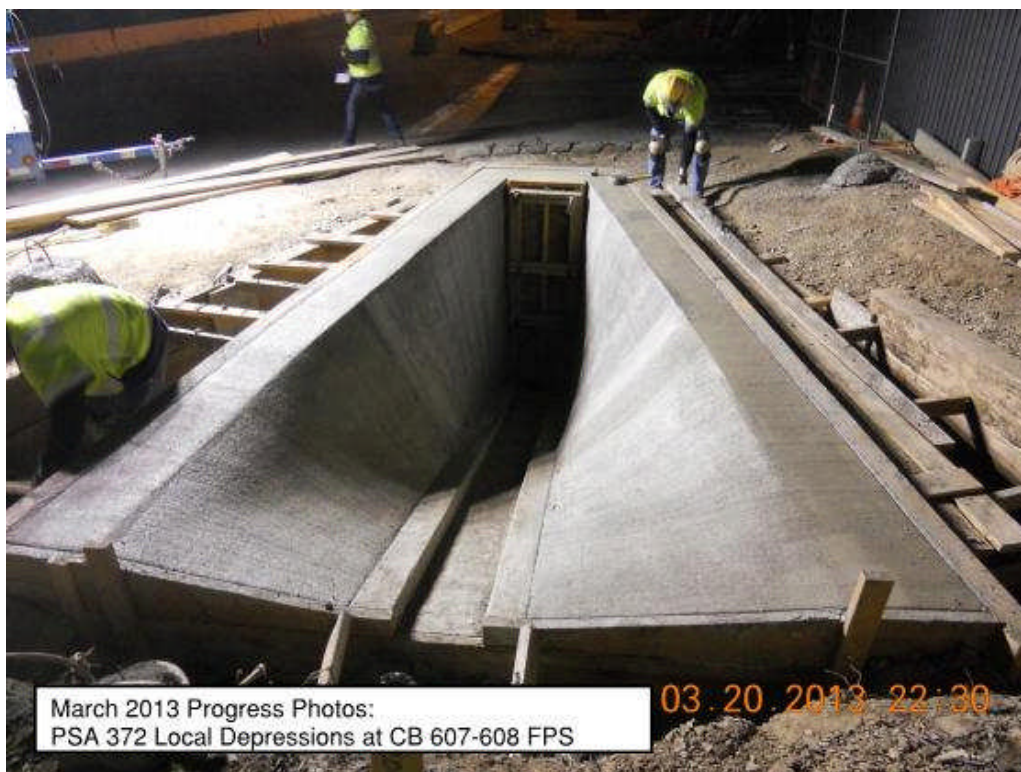
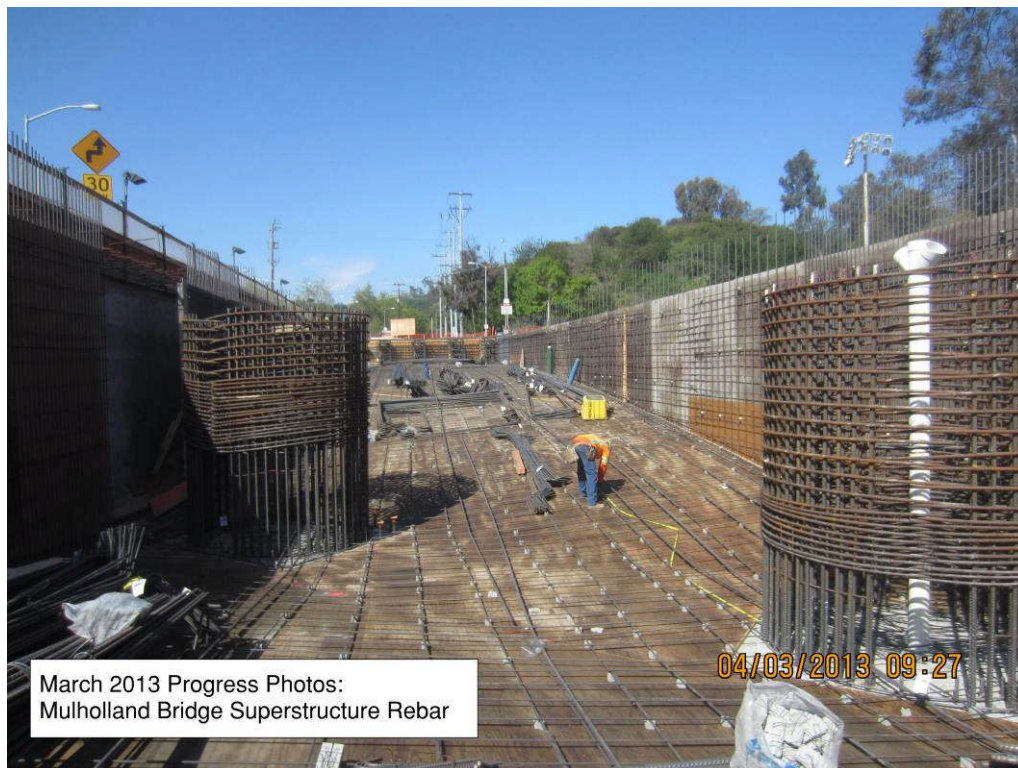
## CONSTRUCTION PHOTOGRAPHS



## CONSTRUCTION PHOTOGRAPHS



## CONSTRUCTION PHOTOGRAPHS



## **APPENDICES**

### **COST AND BUDGET TERMINOLOGY**

**APPROVED 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 BUDGET:** The Original Budget plus all budget amendments approved by formal Metro action. Also referred to as Approved Budget.

**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.

**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).

**PROJECT APPROVAL & ENVIRONMENTAL DOCUMENTS:** Costs for agency staff and consulting contracts leading to project approval and environmental clearances.

**PLANS, SPECS. & ENGINEERING:** Agency staff and consulting contract costs between the initial project approval and environmental clearances but prior to start of construction.

**RIGHT-OF-WAY SUPPORT:** Costs for agency staff involved in real estate appraisal and parcel purchase activities and agency staff costs involved in utility relocations and third party agreements. Includes real estate appraisal costs.

**CONSTRUCTION SUPPORT:** Agency staff and consulting contract costs occurring during the construction phase of the project.

**CONSTRUCTION:** Costs for highway construction, bridge and on/off ramp construction and modifications, retaining wall and sound wall construction. Includes final design costs by Design/Build Contractor.

**RIGHT-OF-WAY CAPITAL:** Costs for real estate parcel purchases and utility relocations costs after approval of utility company agreements. Includes costs for Master Cooperative Agreements after approval by agencies.

## **APPENDIX**

### **LIST OF ACRONYMS**

|          |                                         |
|----------|-----------------------------------------|
| ARRA     | American Recovery & Reinvestment Act    |
| AWIS     | Automated Work Zone Information Systems |
| CADD     | Computer Aided Drafting and Design      |
| CALTRANS | California Department of Transportation |
| CCTV     | Closed Circuit Television               |
| CD       | Calendar Day                            |
| CDFG     | California Department of Fish and Game  |
| CEQA     | California Environmental Quality Act    |
| CM       | Construction Manager                    |
| CMAC     | Congestion Mitigation Air Quality       |
| CMIA     | Cash Management Improvement Act         |
| CMS      | Changeable Message Signs                |
| CN       | Change Notice                           |
| CO       | Change Order                            |
| COE      | Corps of Engineers                      |
| COLA     | City Of Los Angeles                     |
| CPM      | Critical Path Method                    |
| CPUC     | California Public Utilities Commission  |
| CR       | Camera Ready                            |
| CTC      | California Transportation Commission    |
| D-B      | Design-Build                            |
| D-B-B    | Design-Bid-Build                        |
| DD       | Design Development                      |
| DEIR     | Draft Environmental Impact Report       |
| DR       | Deficiency Report                       |
| DWP      | Department of Water and Power           |
| 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                    |
| GDSR     | Geotechnical Design Summary Report      |
| GSA      | General Services Administration         |
| GSRD     | Gross Solids Removal Devices            |
| HAR      | Highway Advisory Radio                  |
| HOV      | High Occupancy Vehicle                  |
| IFB      | Invitation for Bid                      |
| IPO      | Integrated Project Office               |
| ITS      | Intelligent Transportation Systems      |

**APPENDIX**  
**LIST OF ACRONYMS (Continued)**

|        |                                                          |
|--------|----------------------------------------------------------|
| LA     | Los Angeles                                              |
| LABOE  | Los Angeles Bureau of Engineering                        |
| LACFCD | Los Angeles County Flood Control District                |
| LADOT  | Los Angeles Department of Transportation                 |
| LADPW  | Los Angeles Department of Public Works                   |
| LADWP  | Los Angeles Department of Water and Power                |
| LARTMC | Los Angeles Regional Transportation Management Center    |
| LFAT   | Local Field Acceptance Test                              |
| LNTP   | Limited Notice To Proceed                                |
| LONP   | Letter Of No Prejudice                                   |
| LOP    | Life of Project                                          |
| MCA    | Master Cooperative Agreement                             |
| METRO  | Los Angeles County Metropolitan Transportation Authority |
| MIS    | Major Investment Study                                   |
| MOT    | Maintenance of Traffic                                   |
| MPSR   | Monthly Project Status Report                            |
| MSE    | Mechanically Stabilized Earth                            |
| MVDS   | Microwave Vehicle Detection System                       |
| MVP    | Maintenance Vehicle Pullouts                             |
| MWD    | Metropolitan Water District                              |
| N/A    | Not Applicable                                           |
| NCR    | Non-Conformance Report                                   |
| NEPA   | National Environmental Quality Act                       |
| NHS    | National Highway System                                  |
| NOA    | Notice of Award                                          |
| NTE    | Not to Exceed                                            |
| NTP    | Notice To Proceed                                        |
| NTSC   | National Television System Committee                     |
| P6     | Primavera Project Planner® (scheduling software)         |
| PC     | Project Control                                          |
| PE     | Preliminary Engineering                                  |
| PIP    | Project Implementation Plan                              |
| 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                                 |

**APPENDIX**  
**LIST OF ACRONYMS (Continued)**

|            |                                                                                      |
|------------|--------------------------------------------------------------------------------------|
| QC         | Quality Control                                                                      |
| QPSR       | Quarterly Project Status Report                                                      |
| RFC        | Request For Change or Released for Construction (based on context)                   |
| RFP        | Request For Proposal                                                                 |
| RMS        | Ramp Metering Systems                                                                |
| ROM        | Rough Order of Magnitude                                                             |
| ROW        | Right-Of-Way                                                                         |
| SIT        | System Integration Testing                                                           |
| 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                                                           |
| SONET      | Synchronous Optical Network                                                          |
| SOV        | Schedule Of Value                                                                    |
| SOW        | Statement Of Work                                                                    |
| SP         | Special Provision                                                                    |
| TBD        | To Be Determined                                                                     |
| TCRP       | Traffic Congestion Relief Program                                                    |
| TMS/CS     | Traffic Monitoring Stations/Count Stations                                           |
| TPM        | Transportation Management Plan                                                       |
| VE         | Value Engineering                                                                    |
| WBS        | Work Breakdown Structure                                                             |
| WP         | Work Package                                                                         |