



SAS Superstructure

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 6:57 AM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 1144 Const Calendar Day: 717 Date: 22-May-2014 Thursday

Inspector Name: Brignano, Bob Title: Transportation Engineer

Inspection Type:

Shift Hours: Break: Over Time:

Federal ID:

Location:

Reviewer: Schmitt, Alex Approved Date: Status: Submit

04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge

Weather

Temperature 7 AM 12 PM 4PM
Precipitation Condition overcast am, clear pm

Working Day [checked] If no, explain:

Diary:

Dispute

General Comments

CCO 314, SAMPLING AND TESTING A354 GRADE BD MATERIAL:



ABF Engineer Kelvin Chen is working part time in the field and office on CCO 314.

There is work in the field on setup of TR's 14-17. Crews at the Pier 7 warehouse area are working an 8-hour shift 0600 through 1430. Laborer Carlos (Pedro) Garcia works in the morning on CCO 314, with the non-CCO 314 operations elsewhere at the Pier 7 warehouse area later in the day not covered by this diary. Ironworker Jared Garrett works all day on CCO 314. Ironworker Jonathan Canites works at the CCO 314 site for less than an hour (~1345 to ~1400), with the non-CCO 314 operations elsewhere at the Pier 7 warehouse area at other times in the day not covered by this diary. Operator John Sabatino works at the CCO 314 site for less than an hour (~0730 to ~0800 and ~0830 to ~0845), with the non-CCO 314 operations elsewhere at the Pier 7 warehouse area at other times in the day not covered by this diary.

Yesterday, the ironworker and laborer started assembly of the fourth tent frame but did not finish it. First thing this morning, the laborer finishes assembly of this tent frame, completing the work about 0630. Note that after the assembly of this fourth tent, ABF is waiting for the arrival of parts for 4 more tents (4 of the tents from TR's 1-4 are not useable because of storm damage).

Yesterday, the ironworker started work at the bellows/flashing at TR14S, but did not finish all of the steps. This morning, at the dry chamber side, in the area of the diaphragm plate, flashing flange, and plate washer, caulking is applied all around. The caulking used is Loctite 598 High Performance RTV Silicone Gasket Maker - product approved by the DJV for use in the wet chamber. This caulking operation is complete about 0630. There is also additional caulking applied over the 1/4" bolt heads inside the wet chamber that were caulked yesterday - there were some holidays in the caulking that needed to be addressed - the caulking used is the same Permatex Ultra Black Maximum Oil Resistance RTV Silicone Gasket Maker - product approved by the DJV for use in the wet chamber - that was used at this location yesterday.

Then the ironworker, with help from the laborer, begins work at the bellows/flashing at TR14N. First, the flashing/bellows and plate washer at TR 14N are bolted using 1/4" hardware to the diaphragm plate. Note that caulking (Permatex Ultra Black Maximum Oil Resistance RTV Silicone Gasket Maker - product approved by the DJV for use in the wet chamber) is applied between the flashing flange and the diaphragm plate. The 1/4" hardware bolt heads are in the wet chamber and the nuts are tightened from the dry chamber side with access through the handhole in the top of the test rig. Then, at the dry chamber side, in the area of the diaphragm plate, flashing flange, and plate washer, caulking is applied all around. The caulking used is Loctite 598 High Performance RTV Silicone Gasket Maker - product approved by the

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DJV for use in the wet chamber. Then the bolt heads inside the wet chamber are covered with caulk to isolate that mechanically galvanized material from the wet chamber and to assist with sealing. The nuts in the dry chamber are also caulked to assist with sealing the wet chamber. The caulking used on the bolt heads and nuts is Loctite 598 High Performance RTV Silicone Gasket Maker - product approved by the DJV for use in the wet chamber. At this point, all the flashing/bellows work at TR 14S and 14N is complete except the addition of the hose clamp and the caulking at the rod to flashing/bellows joint.

After the work on the flashing/bellows at TR 14, the laborer cleans north of TR's 14 & 15, and then cleans north of TR's 16 & 17. This is cleaning excess sand from old broken sandbags in this area. After doing this work, the laborer shakes out the tent tarps – tops, sides, and end pieces are gathered from different areas around the test rig site and then sorted and folded.

Between ~0730 to ~0800, when the ironworker has the assistance an operator with an extendable forklift, the TR14S end plate is erected. Just prior to end plate erection, the wet chamber is vacuumed for a final cleanout. The holes in the top of the test rig at the wet chamber are covered with tape to prevent debris or any accidental dropping of items into the wet chamber. Between the end plate being erected and the end plate welded to the test rig, a bead of Loctite 598 High Performance RTV Silicone Gasket Maker - product approved by the DJV for use in the wet chamber - is applied and then will be compressed when the end plate bolts are tightened. After erecting the TR 14S end plate (aligned with temp pins), the temporary A325 bolt assemblies with nuts and washers are installed to attach the end plate, but they are not tightened at this time. Then, between ~0830 to ~0845, when the ironworker has the assistance an operator with an extendable forklift, the TR14N end plate is erected. Just prior to end plate erection, the wet chamber is vacuumed for a final cleanout. The holes in the top of the test rig at the wet chamber are covered with tape to prevent debris or any accidental dropping of items into the wet chamber. Between the end plate being erected and the end plate welded to the test rig, a bead of Loctite 598 High Performance RTV Silicone Gasket Maker - product approved by the DJV for use in the wet chamber - is applied and then will be compressed when the end plate bolts are tightened. After erecting the TR 14S end plate (aligned with temp pins), the A325 bolts, nuts, and washers are installed to attach the end plate, but they are not tightened at this time. Then, the TR 14S and TR 14N end plate bolts are tensioned by the turn of the nut method after first snug tightening the joint. This A325 bolt assembly tensioning work is complete by about 1200.

While the ironworker is tensioning the bolt assemblies at the TR 14S and 14N locations, the laborer starts work on the hoses from the 300 gallon tanks. He gathers the appropriate diameter hoses that are clean and cuts them to length and then attaches them with hose clamps to the ball valves on the 300 gallon poly tanks. Before going to the next steps of adding another ball valve on the end of the hose with a smaller diameter hoses that fits in the holes in the tops of the test rig wet chambers, the laborer is called to other operations at the Pier 7 warehouse area, leaving the CCO work late in the morning and not returning to CCO work today.

After 1200, the ironworker begins work on the test rod nuts and washers at TR 14. At TR14S, Teflon plumbers tape is added to the test rod in the area of the back half of the nut – wrap 2 times, for 1.5" of the 3" tall nut, keeping away from the area of the first thread of the nut engagement with the rod. The start of the Teflon plumbers tape and planned end point of the nut starts 6-1/8" from the stickout end of TR 14S to leave 6" plus a small gap for the engagement of the coupler that will extend the test rod with the jacking rod. Then, the nut at TR 14N is installed temporarily without Teflon plumbers tape – the nut will need to be removed for future work to etch the intentional holiday in the galvanizing at the rod's first thread engagement with the nut.

About 1230, the ironworker begins work at TR 15 now that VGO is complete with strain gauge installation – VGO is done rotating the rod for strain gauge installation. The first step is to shift and secure the test rod in the center of the hole in the diaphragm plates between the wet chambers and the dry chamber. Then, a small quantity of touchup epoxy paint (Carboline Carboguard 890) is mixed so that damaged paint in the holes in the diaphragm plates for the test rod can be replaced – this touchup paint is at both the TR15S and TR15N diaphragms. Then the flashing/bellows and plate washer at TR 15N are bolted using 1/4" hardware to the diaphragm plate. Note that caulking (Permatex Ultra Black Maximum Oil Resistance RTV



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Silicone Gasket Maker - product approved by the DJV for use in the wet chamber) is applied between the flashing flange and the diaphragm plate. The 1/4" hardware bolt heads are in the wet chamber and the nuts are tightened from the dry chamber side with access through the handhole in the top of the test rig. Then, at the dry chamber side, in the area of the diaphragm plate, flashing flange, and plate washer, caulking is applied all around. The caulking used is Loctite 598 High Performance RTV Silicone Gasket Maker - product approved by the DJV for use in the wet chamber. Work is almost completed at the TR 15N bellows/flashing this afternoon, but the 1/4" bolt heads and nuts are not caulked and there is not enough time in the shift to do any of the bellows/flashing work at TR 15S.

For the TR 7 test rod for which testing was completed in February, lab testing is now scheduled to begin soon to pull it to failure (couldn't pull to failure in February due to failure of the jacks). The DJV and CT-METS have requested the removal of the cylindrical sleeve that was located at the diaphragm between the wet chamber and the dry chamber, but the removal a few weeks ago was unsuccessful. Yesterday (5/21/2014), the laborer did additional cleaning of the test rod threads to facilitate removal of the cylindrical sleeve. Today, between ~1345 and ~1400, the ironworkers attempt to remove the cylindrical sleeve. They use chain wrenches to turn the cylindrical sleeve while holding the rod. They are only able to move the cylindrical sleeve about 3" to 4" before it gets stuck. The cylindrical sleeve was advanced onto a portion of the rod that had been cleaned yesterday (wire wheel brush removed zinc oxide / white rust and other debris) and the area where the cylindrical sleeve partially engaged previously has residue from the thread sealant. Work will continue on this work on a later date because the cylindrical sleeve is not successfully removed today.

Dave Van Dyke from VGO arrives on site approximately 0630. Yesterday he completed 6 of 8 strain gauges at TR 15, and this morning by about 0830, he completes installation of the last 2 of 8 strain gauges at TR 15 (at the north location TR 15N), including adding all of the protection layers to the strain gauges installed today and yesterday. Strain gauge installation at TR's 14 & 15 is now complete. He then cleans up and packs up the equipment, leaving the site about 0930. He has a flight back to Oregon about noon today.

A 7kW generator – Whisperwatt 7000 – ABF ID 002343 is used at the test rig work area for a few hours by the laborer. A 40kW generator – MQ Power 40 – ABF ID is on idle/standby at the test rig work area. A Hydraulic Pump for running the jacks is on idle/standby at the test rig work area. An oxyacetylene torch is on idle/standby at the test rig work area. A compressor – IR P185 ABF ID 000002 is used for less than an hour. A Kubota Cart is in use today by the laborer, and a second Kubota Cart is used by the ironworker. An extendable forklift is used briefly at the test rig work area and a small (CAT) forklift is used for part of the day at the TR's.

Note that there is k-rail at this work area. Some of the k-rail is rented and addressed by the rental agreement. Some of the k-rail is ABF's k-rail used on site and paid as rented from ABF on a daily basis. To elevate the k-rail, crane mats and timber blocking (12x12's) are in use. The k-rail quantities are as follows:

10' bought k-rail = 20 pieces  
20' rented k-rail = 10 pieces  
20' ABF k-rail = 6 pieces

The tabulation of the 20' ABF k-rail is as follows:  
Two (2) 20' ABF k-rail at the north end of TR 17.  
Two (2) 20' ABF k-rail at the north end of TR 16.  
One (1) 20' ABF k-rail at TR 15 (longitudinal running).  
One (1) 20' ABF k-rail at TR 14 (longitudinal running).

The agreed extra work with ABF is as follows:  
Engineer Kelvin Chen - 0.5 hr  
Laborer Carlos (Pedro) Garcia - 5 hrs  
Ironworker Jared Garrett - 8 hrs  
Radios (2 radios) - 13 hrs



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Small Forklift - 4 hrs  
Kubota Cart - 5 hrs  
7kW Generator - 4 hrs  
k-rail: 6 pcs @20'  
Crane Mats (12x12 - 5'x16') - 2 pcs  
Crane Mats (12x12 - 5'x7') - 8 pcs  
See the attached Extra Work Order - Signed with ABF for CCO 314 work

### INSPECTOR OT REMARK:

Office 2 hours: ABF's shift is 0600 to 1430, and I am present in the field most of the time between 0600 and 1430. Then I am in the office addressing several CCO 314 issues, including discussions with the DJV and CT-management regarding the DJV's requested modifications to the displacement transducers. My shift is 0600 to 1630 and my OT hours are 1430 to 1630.