



SAS Superstructure

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 6:56 AM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 1155 Const Calendar Day: 728 Date: 02-Jun-2014 Monday
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, partly cloudy 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. Ironworkers Jared Garrett and Jonathan Canites work all day on CCO 314. Laborer Carlos (Pedro) Garcia works all day on CCO 314. Operator John Sabatino works at the CCO 314 site for a combined time of about 1 hour with work happening at various times today - the non-CCO 314 operations elsewhere at the Pier 7 warehouse area at other times in the day not covered by this diary.

At the start of the day, the laborer continues work on the timber stacks for support of the traffic plates. He continues work to secure the timber so they work together and are stable to support the traffic plates.

At the start of the day, the ironworkers continue bellows/flashing work at TR 17. Friday, the TR 17S bellows/flashing was bolted and this morning the TR 17N bellows/flashing is bolted. The flashing/bellows and plate washer are bolted using 1/4" hardware to the diaphragm plate. Note that caulking (Loctite 598 High Performance 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 caulk is applied all around the flashing/bellows flange and the plate washer against the diaphragm plate to assist with sealing at TR's 17S and 17N. 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 at TR's 17S and 17N. Then the nuts in the dry chamber are also caulked to assist with sealing the wet chamber at TR's 17S and 17N. The caulking used is Loctite 598 High Performance RTV Silicone Gasket Maker, product approved by the DJV for use in the wet chamber.

The ironworkers then add the wire rope ties between k-rail at TR's 14N, 14S, 15N, and 15S. Then the previously assembled tent frames (without tarps at this point) are moved over TR's 14 and 15. After the tent frames are in place, the laborer attaches the feet to the tent frame legs (pin through foot to secure to leg) and secures the feet to the asphalt. He uses a rotohammer to drill holes in the asphalt under the holes in the tent feet and then adds the wedge expansion anchors. Note that some of the original tent feet from TR's 1 & 2 are still intact and anchored, meaning they can be used to anchor the new tents at TR's 14 & 15; however, other tent have been broken over the months they remaining in place after the completion of work at TR's 1 & 2 and are replaced today with new feet. The ironworker also works on a TR 17 traffic plate to torch cut a larger handhole for better future access to the test rig nut below. This cutting is done with the traffic plate not on the test rig yet.



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The ironworkers start to assemble 4 new tent frames for use at TR's 16 & 17 – necessary to reduce thermal effects on the test rigs. These are the new tents that arrived on site last week. Due to availability and delivery date issues, these new tents are from a different supplier than the previously used tents. As ABF starts to assemble the first new tent frame, we realize that these new tent frames have no mechanical connections between the components – the tent tarp is supposed to hold everything together. However, just moving the tent frame around is not possible without all the components coming apart. The reason new tents had to be ordered is half of the previously ordered and assembled tents have been damaged during high wind days, so having components not mechanically connected to each other is risky given the wind that is sometime present at the test rig site. Having tents with mechanical connections between the components is necessary to avoid the tents coming apart during the test and to avoid damage to surrounding property (cars downwind in the parking lot just to the east of the test rig site). ABF orders 200 each 1/4" bolts and nuts to be used to secure the pieces – the material from Bay Bolt is expected to be on site tomorrow. ABF has left over drill bits from other test rig work to drill holes through the tent frame components at the points that need the mechanical connections. ABF also has some left over 1/4" bolts and nuts from the previously assembled tent frames that allow them to make some of the connections on the first assembled tent frame. They also use duct tape to temporarily connect the sections to hold them in place prior to drilling the holes and adding the hardware.

Working from VGO on site today are Rob Rutledge and Mattea. Rob starts work on site at 0800, but he leaves the site a little later to pick up Mattea from the airport (she is flying from Oregon to the Bay Area this morning). Work includes completing the wiring connections at TR's 16 and 17. Also, a check of the data from over the weekend reveals that there is an issue with one strain gauge at TR 15S. VGO re-solders the connection between the wire run and the tail from the strain gauge to see if that solves the problem – it will take checking over days to confirm that it is ok. VGO also does other data checks today. VGO works in the field to about 1600 and then continues work on data checks and programming at the hotel.

Separate from the TR's 14-17 setup work, ABF cuts pieces from other 2013 rods for Test V. Work on this operation starts about 0930 when the two ironworkers and the operator take the galvanized rod TR-03A from the storage area of the warehouse to the welding shop in the warehouse where the table bandsaw is located. A can of Wasser organic zinc touchup paint is mixed for use at the cut ends of the galvanized rod. Then, the 2' sample piece from the threaded end of the rod is cut between ~0950 and ~1000. Then the cut ends (the sample and remaining rod section) are chamfered with a disk grinder. Then the cut ends (the sample and remaining rod section) are cleaned with MEK and the first coat of organic zinc paint is applied. This work is completed by about 1005. Then, they take the ungalvanized rod TR-03B from the storage area of the warehouse to the welding shop in the warehouse where the table bandsaw is located. The 2' sample piece from the threaded end of the rod is cut between ~1010 and ~1020. The 6" sample piece from the shank end of the rod is cut between ~1025 and ~ 1035. Then the cut ends (both samples and both ends of the remaining rod section) are chamfered with a disk grinder. Then, after the lunch break, at about 1130, the second coat of organic zinc paint is applied to the cut ends of the galvanized rods (the sample and remaining rod section). The left over rod pieces (after cutting the samples) are not moved back to the storage area of the warehouse and the samples are not put on a pallet for delivery, with these steps planned for tomorrow.

Also, related to Test IV, but from a previous phase with TR 7, CT-METS takes the previously removed and cleaned TR 7 test rod from the site in the morning (~0800) to a local heat treating facility for heat tinting. The rod is then returned to the site in the afternoon (~1400) after the heat tinting operation. Then, later in the afternoon, I add labels to the rod. I mark the location of the cylindrical sleeve that was in place on the test rod during Test IV but was later removed for the heat tinting operation – the marks for the limits of the cylindrical sleeve denote which parts of the rod were in the wet chamber or dry chamber during Test IV. Also labeled are the coupler end and nut ends of the rod. I also install the washer and nut on the dead end of the rod, with the nut in the same position as it was during the Test IV. I use previous stickout measurements to identify the amount of rod stickout for the reinstalled nut, plus I use photos from during Test IV to also ensure that the previously identified top of the nut lines up with the previously identified top of the rod from during Test IV. I add labeling – match marks to ensure that the rod and nut relative



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position (rotation of the nut) can be duplicated in the lab when this sample is pulled to failure. The TR 7 rod/nut is scheduled to be picked up tomorrow morning for freight to the testing facility, so this labeling needs to happen today.

A compressor – IR 185 ABF ID 002039 – is on idle/standby at the test rig work area. A 7kW generator – Whisperwatt 7000 – ABF ID 002343 is used for parts of the day. A 40kW generator – MQ Power 40 – ABF ID 002051 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 used for portions of the day. An extendable forklift (Gradall 544D – ABF ID 002005), Hoist P360 forklift (ABF ID 002131), Hyster 155 forklift (ABF ID 002375), and small forklift (CAT – ABF ID 002004) are used at different times on CCO 314 work. A Kubota Cart is used by the laborer. The warehouse table bandsaw is used for less than an hour to cut rod samples.

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 - 2 hrs

Laborer Carlos (Pedro) Garcia - 8 hrs

Ironworker Jared Garrett - 8 hrs

Ironworker Jonathan Canites - 8 hrs

Radios (3 radios) - 24 hrs

Extendable Forklift - 3 hrs

Small Forklift - 2 hrs

Bandsaw - 1 hr

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

### CCO 278S1 AND CCO 96: SPARE SUSPENDER DELIVERY AND STORAGE:

The first truck arrives early in the morning and is unloaded by ABF (ironworker Obra Paulk and operator John Sabatino using Hoist P360 forklift – ABF ID 002131). This first truck has 1 reel with spare wire rope and 1 box/pallet with 4 spare sockets and molds for zinc buttons. This material is unloaded by ABF and placed in Bay 26 in the warehouse, but I discuss with ABF that it is supposed to be located in Bay 30 in the warehouse per previous CT direction, so ~0930 they move the material from Bay 26 to Bay 30. The second truck arrives late in the morning and is unloaded by ABF (ironworker Obra Paulk and operator John Sabatino using Hoist P360 forklift – ABF ID 002131) with the material placed in Bay 30 in the warehouse. This second truck has 1 reel with spare wire rope and 2 stacked pallets with 6 spare sockets. A third truck was also expected today, but it was delayed and is now scheduled to arrive here tomorrow.

INSPECTOR OT REMARK:



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Field and Office 2 hours: ABF's shift is 0600 to 1430, VGO is in the field 0800 to 1600, and I am present in the field most of the time between 0600 and 1630. In the 1430 to 1630 time period, I am also in the office addressing CCO 314 issues. Most of the later afternoon hours in the field and office are addressing the exact stickout dimension for the TR 7 rod – it was returned from heat tinting this afternoon and will be shipped out tomorrow morning for the pull to failure operation, and the nut position is supposed to be the same as it was during Test IV. My shift is 0600 to 1630 and my OT hours are 1430 to 1630.

