



SAS Superstructure

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 6:54 AM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 1204 Const Calendar Day: 777 Date: 21-Jul-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, 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 18 & 19. Crews at the Pier 7 warehouse area are working an 8-hour shift 0600 through 1430. Working on the CCO operation today are Laborer Carlos (Pedro) Garcia (~1000~1330), Operator John Sabatino (<1/2 hr before lunch, none after lunch), Ironworker Jared Garrett (0600-1430), and Ironworker Jonathan Canites (0600-1430). The non-CCO 314 operations elsewhere at the Pier 7 warehouse area at other times in the day are not covered by this diary.

The ironworkers start the day by moving the A325 bolt assemblies from next to the Pier 7 warehouse (where they were unloaded last week on Friday afternoon) to the test rig area. Then, they remove the test rods from the couplers and nuts (the rods, couplers, and nuts arrived Thursday last week from the machine shop fully assembled to verify fitup). Then the ironworkers grind both ends of the two test rods smoother with a disk grinder - the previous saw-cutting of the rods resulted in rough surfaces that need to be smoother for CT-METS to do hardness testing. CT-METS is scheduled to do hardness testing on these pieces tomorrow. ABF finishes the grinding of the rod ends about 0710.

Later in the day, when the laborer starts work on site ~1000, the two test rods are cleaned of the oils used during the thread machining and for the fit-up check. The rods need to be clean, dry, and not sticky for CT-METS to do MT. CT-METS is scheduled to do MT on these pieces tomorrow. Cleaning is with MEK, a hand wire brush, and a wire wheel grinder. The laborer also cleans the internal threads of the nuts. The laborer is done cleaning the external threads of the 2 rods and internal threads of the 2 nuts by about 1315. Then, the laborer does some miscellaneous cleaning until he leaves the site ~1330.

TR's 18 & 19 Jacking Rods and Test Rig Labeling:

At about 0715, the ironworkers start assembly of the couplers on the test rods. The couplers to be installed today were test fit on specific test rods that are designated for certain test rigs. Last week on Thursday 7/17/2014, the rod labeled TR 18 was installed in the box designated for TR 19 and the rod labeled TR 19 was installed in the box designated for TR 18. At that time, it was a pending decision on whether to switch the labels on the boxes or the rods. Today, the labels on the boxes are changed - the eastern box is now TR 18 and the western box is now TR 19. By switching the labels on the test rigs instead of on the jacking rods, the VGO diameter measurements on the numbered jacking rods a few weeks ago still apply to the same test rig numbers used on that date.

The first coupler installed on a jacking rod is the coupler that was test fit on the S1-A7 test rod, which is

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Monday

planned to be called TR 18 in the next round of testing. This is the previously used coupler from TR 13 that was cleaned and inspected for use at TR's 18 or 19. This coupler is installed on the jacking rod labeled TR 18. This is the previously used jacking rod from TR 11 that was cleaned and inspected for use at TR's 18 or 19. This jacking rod is located in the test rig box that was labeled TR 19 but is relabeled TR 18 today. This is the previously used test rig box from TR's 11 and 13 that was cleaned and inspected for use at TR's 18 or 19. To facilitate the threading of the coupler on the jacking rod, an anti-seize product is first applied to the rod threads. The product used is Loctite C5-A Copper Based Anti-Seize Lubricant. After getting the coupler started by hand, the threading becomes more difficult so a chain wrench is used to turn the coupler and another chain wrench is used to hold the jacking rod from turning. After the first ~5-1/2" of 8" per plan engagement of the coupler on the 4" diameter 8 TPI jacking rod, the threading becomes much more difficult. The coupler is backed off a little and then threaded forward again. With extra effort put into the turning of the coupler, the coupler is eventually fully engaged on the jacking rod -> 8" of 8" engaged. The installation of this coupler started about 0715 and is complete by about 0750.

The second coupler installed on a jacking rod is the coupler that was test fit on the S2-H6 test rod, which is planned to be called TR 19 in the next round of testing. This is the previously used coupler from TR 6 that was cleaned and inspected for use at TR's 18 or 19. This coupler is installed on the jacking rod labeled TR 19. This is the previously used jacking rod from TR's 9 and 12 that was cleaned and inspected for use at TR's 18 or 19. This jacking rod is located in the test rig box that was labeled TR 18 but is relabeled TR 19 today. This is the previously used test rig box from TR's 10 and 12 that was cleaned and inspected for use at TR's 18 or 19. To facilitate the threading of the coupler on the jacking rod, an anti-seize product is first applied to the rod threads. The product used is Loctite C5-A Copper Based Anti-Seize Lubricant. After getting the coupler started by hand, the threading becomes more difficult so a chain wrench is used to turn the coupler and another chain wrench is used to hold the jacking rod from turning. There are no threading difficulties, and the coupler is quickly fully engaged on the jacking rod -> 8" of 8" engaged. The installation of this coupler started about 0800 and is complete by about 0807.

After the work to install the couplers, the ironworkers begin the operation to install the north end plates – located at the jacking rod ends, not the test rod ends, of the test rigs. The north end plate at TR 19 is installed starting about 0815. Then the 1-1/4"x8" A325 bolt assemblies are installed hand tight only at this stage. Then north end plate at TR 18 is installed starting about 0850. Then the 1-1/4"x8" A325 bolt assemblies are installed hand tight only at this stage.

Then moving to another operation at the TR's, the plate washers and nuts are installed on the test rig feet – anchors to the concrete slabs where grout pads are located. Some of the nuts and plate washers were removed from the previously used TR's 12 & 13 for use at the guide angles at TR's 14 to 17. Now the nuts and washers are moved back to the next test rigs where work will happen (TR's 18 & 19).

Starting about 1010, the A325 bolt assemblies installed previously hand tight at the TR's 18 & 19 north end plates are snug tightened and then fully tensioned by the turn of the nut method (snug + 1/2 turn). This bolt tensioning is complete by about 1100.

Concurrent with one ironworker tensioning the A325 bolt assemblies at the TR's 18 & 19 north end plates, the other ironworker is installing shim plates on the end plate lugs for the jacks starting about 1015. These end plates were previously used with 400-ton jacks, but those jacks are no longer available (ABF has sold that equipment) and 300-ton jacks will be used instead. Because of the smaller diameter of the 300-ton jacks, shim plates need to be added to the original jack support lugs on the end plates. The 2"x1"x3/4" shim plates were previously fabricated by ABF a few weeks ago in the welding bay in the warehouse (7/2/2014). First a welding machine is brought to the test rig area, then the epoxy paint on the end plates and lugs is removed in the area where welding is planned, and then the shim plates are fit up and tack welded. The work installing these shim plates for the jacks is complete by about 1200 (note lunch break in the middle of this operation).

After 1200, the ironworkers get crane mats to support the sandbags and k-rail at the south end of TR's 18 & 19. They get 4 crane mats and place them two deep to the south of the test rigs. The sandbags and k-rail need to be elevated because of the height of the concrete slab on which the test rig box sits.



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Prior to installing all of the crane mats, the ironworkers also use a forklift to shift the jacking rods farther to the north while they still have access without all of the crane mats and sandbags being in the way. The jacking rods were previously shifted to the south of their final location to provide access for installing the couplers on the jacking rods. After the work to shift the rods farther north, the jacking rods are still not in their final position yet because they are still left a little to the south of their final planned position to provide access for holding the coupler while installing the test rod, which is an operation planned for a later date (cannot do yet because CT-METS needs to do MT and hardness testing).

The last work by the ironworkers is placing 2 pallets of sandbags to the south of TR 18. Then, they take the afternoon break and then they put away their tools before the end of the shift.

A 7kW generator – Whisperwatt 7000 – ABF ID 002343 is used for parts of the day and is on idle/standby at the test rig work area for other 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 on idle/standby at the test rig work area. A compressor – IR 185 ABF ID 002039 - is used briefly (impact gun to tighten bolts at end plates) and is on idle/standby at the test rig work area for other parts of the day. A welding machine – Lincoln Vantage 500 ABF ID 000073 is brought to the test rig site about 1015, used to tack weld spacer plates at the end plates, and is removed from the test rig site about 1230. ABF's Hyster 155 forklift (ABF ID 002375), Hyster 80 forklift (ABF ID 002306), and extendable forklift (Gradall 544D - ABF ID 002005) are used at the test rig work area at various times. A Kubota Cart is used by the laborer at the test rig work area and another Kubota Cart is used by the ironworkers at various times.

Note that there is k-rail at this work area. All the remaining k-rail at the CCO 314 test rig site is State owned. There are 20 pieces of 10' bought k-rail. This k-rail is not currently in a test rig setup but it is at the test rig site awaiting use in the new test rigs (TR's 18 & 19).

To elevate the k-rail and sandbags, crane mats (built from 12x12's) and timber blocking (12x12's) will be used. Today, crane mats are brought to TR's 18 & 19 and placed. The crane mat and 12x12's quantities are as follows:

1 each 4'x20' crane mat (1 x 80 LF)
1 each 5'x19' crane mat (1 x 95 LF)
2 each 5'x20' crane mats (2 x 100 LF)
0 LF additional 12x12's
Total 12x12's quantity = 375 LF

The agreed extra work with ABF is as follows:

Laborer Carlos (Pedro) Garcia - 3 hrs

Ironworker Jared Garrett - 8 hrs

Ironworker Jonathan Canites - 8 hrs

Kubota Cart - 3 hrs

Extendable Forklift - 2 hrs

Hyster 155 Forklift - 2 hrs

Hyster 80 Forklift - 2 hrs

Lincoln Vantage 500 Welding Machine - 2 hrs

185 CFM Compressor - 2 hrs

7 kW Generator - 4 hrs

12x12 timber - 380 LF

See the attached Extra Work Order - Signed with ABF for CCO 314 work

HIGH STRENGTH FASTENER ASSEMBLY MATERIAL SAMPLING (QC AND QA):

CCO 379, TRAVELER RAIL FIELD ADJUSTMENT

CCO 96, B16 CABLE BAND EXTENSION PLATES FOR W2 HANDROPE

CCO 378, CABLE SECURITY GATE



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Between ~1345 and ~1430, ABF (Chris Bausone) pulls QC samples from the lots that need to be onsite QC rocap tested and I pull QA samples for CT-METS for Translab QA testing. ABF also provides certification documents for this material. All of this material has been supplied by Bay Bolt in the last week. Rocap testing where necessary will happen tomorrow. QA samples will go to Translab for testing; ABF will either not use the material prior to release or they will use the material at their risk and track where it is installed in case it does not pass the QA testing.

CCO 379 traveler rail field adjustment:

5/8" x 3" – 250 bolts, nuts, and washers

9 sampled for QA per frequency in Special Provisions

5 sampled for QA testing – minimum tension, inspection torque, and rocap

All of these components are hot dip galvanized

Rocap was not performed by the supplier, but this will be addressed by ABF's QC rocap that will happen on site tomorrow.

Also note that the nuts are from one lot and the washers are from one lot, but the bolts are from 2 lots.

The bolt Lot#328898A with 240 pieces was sampled, but the bolt Lot#132556A with only 10 pieces was not sampled and will not be used – these 10 bolts are set aside (quarantined).

CCO 96 B16 cable band extension plates for W2 handrope:

All of these components are hot dip galvanized

1" x 4-1/2" – 112 bolts and nuts with 224 washers

8 sampled for QA per frequency in Special Provisions

5 sampled for QA testing – minimum tension, inspection torque, and rocap

CCO 378 cable security gate:

M22 x 150 bolts (no nuts or washers) – 25 pieces – 4 sampled for QA per frequency in Special Provisions

M22 x 170 bolts (no nuts or washers) – 25 pieces – 4 sampled for QA per frequency in Special Provisions

No QC sampling for onsite testing because no minimum tension, inspection torque, or rocap testing required for these bolts that will be installed snug + 1/2 turn in drill and tap holes (per response to ABF-RFI-002855R00 for stanchion bolts). Note that the supplier performed QC testing on the material they supplied.

Both bolt lots are hot dip galvanized. ABF also ordered M22 + 0.021 thousandths taps to chase the M22 threads in the cable bands to accommodate these hot dip galvanized bolts.

INSPECTOR OT REMARK:

Office 2 hours: ABF's shift is 0600 to 1430. I am in the field part time for operations on CCO 314 test rig work between 0600 and 1430. During this time, I pull samples of A325 bolt assemblies for CT-METS/Translab QA testing. Then, later in the afternoon, I summarize information for CT-METS on these samples and prepare tracking sheets for the bolt QC testing (min tension, inspection torque, and rocap) scheduled for tomorrow morning. I also assist CT-METS and the DJV with A354 Grade BD information as requested. My shift is 0600 to 1630, with the OT between 1430 and 1630.