



SAS Superstructure

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 21-Nov-14

Time 11:07 PM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 653 Const Calendar Day: 81 Date: 24-Aug-2012 Friday

Inspector Name: Bruce, Matt Title: Transportation Engineer

Inspection Type: Intermittent

Shift Hours: 07:00 am 05:30 pm Break: 00:30 Over Time: 02:00

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 50 - 60 12 PM 60 - 70 4PM 60 - 70

Precipitation 0.00"

Condition Overcast in the AM to mostly sunny in the PM

Working Day If no, explain:

Diary:

Dispute

Work description.

- Prepared to take local longitudinal measurements of the Shear Keys and Bearings. This is being done in response to RFI 3006R00 in addition to the surveying already done. The technique selected and acquiring the equipment necessary for this measurement took some time this morning.

- Measured the local longitudinal dimensions of the Shear Keys and Bearings from 9:30am to 11:00am. A laser level was shot in between the 2.000m offset punchmarks placed on the underside (bottom plate) of the OBG in China, see photos below for more details.

- Went to inspect the Shear Key lower housings with Bob Brignano at 1:00pm in response to RFI 3006R00. The dust covers were recently removed and orientation of these components was double checked. Also the vertical center of rotation of the spherical bearing of the Shear Key lower housing was inspected. Bob and myself began to devise ways of checking this critical structural element of the bridge. It should be noted that the center of movement for all eight components needs to be along the same plane to mitigate any eccentric loading of the Bearing and Shear Key components.

- Prepared for surveying the points mentioned below starting tonight with the total station. One of the tasks that takes some time to prepare for a survey like this includes setting up backsights over control points AJ631, E2, and E3 located on the existing SFOBB east span piers.

- Began to survey the additional points with the total station requested by TY-Lin designers Paul Chou and Hyat Tazir for the laser scan point cloud at the east end of the bridge. The intent of this survey is to provide points which will help define prominent features of the Hinge A interface. The following are the areas which need to be surveyed for the laser scan post processing:

- 1.) Seismic joint corners of both the Skyway and SAS
- 2.) North, South, and Centerline punchmarks on the SAS need to be reshoot since the release of the cradles under OBG lifts 13 and 14 has altered the geometry of the laser scan.
- 3.) OBG lift 14E/W top deck plate chamfer tangents at the OBG and Crossbeam 19 interface

The survey began at 11:20pm today with the official time of sunset at 7:50pm per weather.com. The ambient temperature during the survey was 53F under fair skies. The corresponding steel temperature was 52F measured on the E-Line Skyway tub section. Wind speed during the survey was from the West



Daily Diary Report by Bid Item

Job Name: 04-0120F4

Inspector Name Bruce, Matt

Diary #: 653

Date: 24-Aug-2012

Friday

Northwest direction at 7mph and the barometric pressure was 29.88"Hg.

Attachment



Laser level line projected through the China punchmarks backsighting the adjacent one for a reference line to measure from.



Exposed lower housing of Shear Key S4 looking north.



Shims placed to ensure no vertical displacement between the upper and lower housings of the Shear Keys to take out the dust covers.



Loose bolts were seen in all of the Shear Key and Bearing upper housings while measuring.



Typical longitudinal local measurement taken of the Shear Key and Bearing upper housing using the China 2.000m offset punchmarks.



Shear Key S4 lower housing shown, notice the removal of the turnbuckles between the two components.