



SAS Superstructure

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 7:55 AM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 802 Const Calendar Day: 284 Date: 15-Mar-2013 Friday
Inspector Name: Bruce, Matt Title: Transportation Engineer
Inspection Type: Continuous
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 40 - 50 12 PM 50 - 60 4PM 50 - 60
Precipitation 0.00" Condition Partly cloudy to mostly sunny

Working Day [ ] If no, explain:

Diary:

Dispute

Work description.

- Prepared for todays surveys, see comments below for more details.
- Continued to process the surveying report for the T1 tower axial compression (shortening) and foundation settlement.
- Met with HNTB designer John Mountin to perform a topographic survey for the IERBYS project. Topcon GPS equipment was used for this survey from 11:30am to 12:45pm. The planetary index or K-value was at 1 during the survey. All measurements were taken at 15 epochs as the points surveyed were based on John's recommendation and documented by him of the approximate location. The two 36"-diameter manholes located in between two conex boxes were not surveyed since the GPS receiver would have been too close to these obstructions.
- Performed a check survey of the steel tape marks elevation near the foundation (approximately 4m) located on the north and west tower shafts. Used the base plate elevation from the west tower shaft as a reference point. The elevations checked today were still at the same elevation as measured on Tuesday March 12th, 2013.
This was done since the tower parapet elevation was discussed/disputed today between myself and ABF party chief Dave Adams. Even with this elevation check the steel tape is not considered the most accurate way to measure the height of the T1 tower.
Also used GPS equipment to get an approximate check of elevations at the tower head parapet and top plate. This survey began at 3:30pm and was completed at 4:20pm. The planetary index or K-value was at 0 during the survey.
Multiple points were checked at the south tower head parapet and top plate confirming the reciprocal trig elevations. Working point T1SX was occupied for 180 epochs which is the specified amount of time for control points. All other points were at the top of the tower were measured at 15 epochs. It should be noted that elevations of known points (JA1000, JA1001, and SKY3) with a history on the bridge were checked within +/- 2" before and after the survey at the top of the tower.
Even though GPS equipment elevations are not the most accurate, a vertical bust of 4" can be found. ABF contends that the parapet is higher by 4" using only a steel tape for the measurement. Caltrans surveys utilized the steel tape, total station (reciprocal trig leveling), and GPS equipment to determine the elevation at the top of the tower.



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- Processed todays surveying data obtained with the Topcon GPS equipment.

