



SAS Superstructure

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 21-Nov-14

Time 11:31 PM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 495 Const Calendar Day: 878 Date: 03-Feb-2012 Friday
Inspector Name: Bruce, Matt Title: Transportation Engineer
Inspection Type: Continuous
Shift Hours: 05:00 am 05:30 pm Break: 01:30 Over Time: 03:00
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 60 - 70
Precipitation 0.00" Condition Partly overcast

Working Day [ ] If no, explain:

Diary:

Dispute

Work description.

- The tasks completed today by the Alta Vista surveyors included the following:
1.) Dave continued to process the surveying data for all of the Hinge K tie down related surveys done to date.
2.) Chris and Erol shot the 24 deflection monitoring points on the W-Line YBITS bridge.
\* I discussed with the consultants working at night next week to survey the centerline of the OBGs.
- The following is the hours worked by the Alta Vista consultants today:
Dave Garrett (survey party chief) = 8hrs
Chris Ferrucci (instrumentman) = 8hrs
Erol Schaller (rodman) = 8hrs
- Continued to obtain quotes on the Trimble S8 total station and TSC3 data collector. I obtained a quote from Jarrett Price of Geoline located in Bellvue, Washington. Once this quote was received I sent it to Bill Casey in an email and informed him that the quote given by David Hovey of Sitech was not valid since it was for a different total station, not the Trimble S8.
- Myself, John Lyons, and Alex Schmitt checked the out to out distance for the cable strands today as my measurements are tabulated below. John assisted me with the measurements and tabulating the data. The information below was conveyed to Alex to inform ABF engineer Zach Lauria which cable strands were either adjusted properly (accepted) or if the cable strand required more adjusting (rejected). I used the Maletic modified calipers (gauge - Yellow #1) to take the out to out measurements of the cable strands. Ambient temperatures were taken with the red temperature gauge. Wind speeds were obtained from weather.com at the time of the measurements. For steel temperature measurements, the infrared temperature gun probe was wedged in between the cable strand wires to obtain the steel temperature. See Alex Schmitt's diary on the discussions with ABF engineer Zach Lauria and the decision for acceptance or rejection. The official sunrise time per weather.com for San Francisco today was at 7:12am. The following measurements were of the adjusted cable strand taken today at the given times below:
// North Mainspan //
Time = 5:09am
Ambient Temperature = 49F
Condition = Partly cloudy
Wind = NNW @ 12mph
ABF Surveyors = Terry Denis and Bonidici were initially present while I took my measurements. However I exchanged information with James Allen who was checking Terry's measurements.



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Caltrans Engineer (s) = Matt Bruce and John Lyons

Cable Strand	O-O (#1Y) CT / ABF (mm)	Theor(mm) / CT Delta (mm)	Steel Temperature (F)
1	Baseline or Zero	75 / 0	50
10	209, 207 - Ave = 208 / N/A	198 / +10	49
11	258, 258 - Ave = 258 / N/A	255 / +3	50
12	310, 310 - Ave = 310 / 300	311 / -1	50
13	393, 392 - Ave = 393 / 390	368 / +25	49
14	112, 107 - Ave = 110 / 105	93 / +17	50
15	167, 171 - Ave = 169 / 167	150 / +19	
50			
16	217, 217 - Ave = 217 / 213	207 / +10	
50			
17	N/A / 392	264 / N/A	
18	N/A / 387	320 / N/A	

// South Mainspan //

Time = 5:51am

Ambient Temperature = 47F

Condition = Partly cloudy

Wind = NNW@12mph

ABF Surveyors = James Allen and Steve Smith

Caltrans Engineer(s) = Matt Bruce and John Lyons

Cable Strand	O-O (#1Y) CT / ABF (mm)	Theor(mm) / CT Delta (mm)	Steel Temperature (F)
1	Baseline or Zero	76 / 0	49
10*	252, 252 - Ave = 252 [191] / N/A	201 / -10	50
11	261, 263 - Ave = 262 / N/A	259 / +3	49
12	328, 327 - Ave = 328 / 318	318 / +10	49
13	398, 400 - Ave = 399 / 402	377 / +22	48
14	100, 100 - Ave = 100 / 102	91 / +9	49
15	168, 167 - Ave = 168 / 168	150 / +18	
49			
16	219, 220 - Ave = 220 / 218	208 / +12	
49			
17	N/A / 488	267 / N/A	
18	N/A / 536	326 / N/A	

Comments: The \* denotes that a 61mm block was used between the flat plate of the calipers and cable strand number 1. The number in brackets is the subtracted value of 61mm for the block used to measure the out-to-out distance. I recommended to Alex that the adjustment for cable strand number 13 was out of tolerance and should be rejected until further adjustment.

- Since the measurements for the required cable strands were due at 7:00am the preliminary measurements on the mainspans were abandoned. However after the required numbers were given to Alex. John went and measured the preliminary out-to-out distance for cable strands 17, 18, and 19 on both mainspans after the required cable strands were completed. See his diary for more details on these measurements.

- After all of the measurements for the cable strand adjustment was completed at 7:30am. Myself and John went to compile all of the data and submit the cable adjustment sheets to Alex.

- At 9:30am myself and John went to go spot-check his preliminary measurements for cable strands 17, 18, and 19 on both the mainspans. While checking the south mainspan I observed Scott Yeager marking the recently hauled cable strand number 22. I told him that this is helpful for the rest of us to identify the cable strand to be measured at the midspans and to ensure no strand crossing or improper placing and

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bearing.

- From 10:15am myself and John went to go check out the perceived misnumbering of cable strands 10 and 11 on the south sidespan. It is believed that strand 11 is labeled 10 and vice versa. The inspection started at the tower saddle and ended at the W2E west deviation saddle. A string was looped around cable strand number 10 and dragged approximately 1/4 down the span before the string could no longer be dragged along the cable strands. At this point a wedge and ruler were used to keep track of cable strand number 10. When midspan was reached a black mark was placed on cable strand 10, see photo below for details and comments. At this point the cable strand labeled number 10 was correct. The same technique to identify the strand was used to the W2E west deviation saddle and the strand checked-out in the saddle. Therefore my answer was that the proper strand was labeled, however the inspection was difficult and I could not say with 100% certainty that the cable strands 10 and 11 on the south side span were labeled correctly. I informed Roman who initial inspected this cable strand with Saman the other day. It also should be noted that cable strand number 22 was floated during this inspection, denoting that the time from the rollers to being floated is approximately 45 minutes to an hour.

- Continued to review submittal 2505R01- Cable Band Installation for surveying.
- Continued to review submittal 259R01- PWS Compaction Plan for surveying and fabricating the compaction frame used for inspection.
- Began to prepare for surveying a cable strand most likely on the south mainspan to measure the sag throughout the day due to thermal expansion/contraction.
- Began to prepare tomorrow mornings cable strand measurements and for taking responsibility to report to ABF engineer Zach Lauria in Alex Schmitts absence.
- Continued to write outstanding diaries.

### Attachment



Hauling cable strand number 24 up the north mainspan close to the end of shift.



Cable strand number 22 which was marked by Scott Yeager at the south mainspan after the strand was completely hauled.

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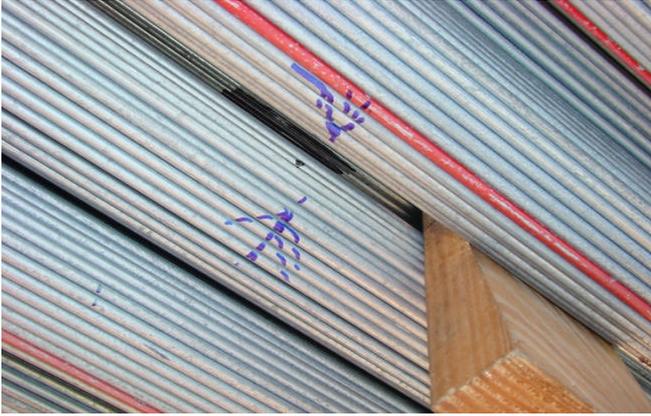
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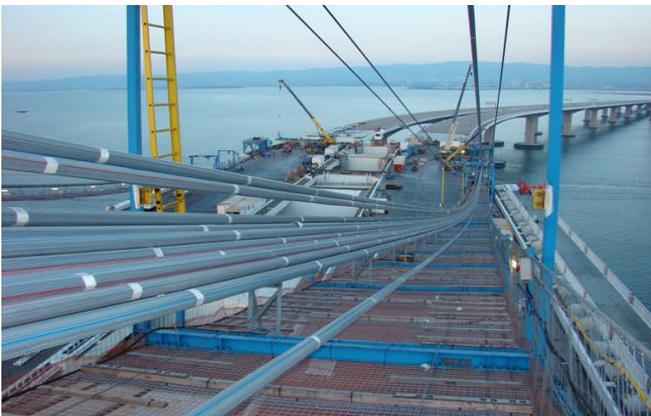
Friday



Black mark in between the cable strand bundle of cable strand no. 10 at the south sidespan, the blue marks point to the black one.



Cable strand number 23 which was marked by Scott Yeager at the south mainspan after the strand was completely hauled.



View from the south mainspan catwalk looking east where the total station will be set up to measure sag of a single strand throughout the day.



John Lyons and James Allen both measuring the out-to-out distance between cable strands at the south mainspan.