



Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 475 Const Calendar Day: 539 Date: 25-Nov-2013 Monday
 Inspector Name: Soheilifard, Saman Title: Transportation Engineer
 Inspection Type: Continuous
 Shift Hours: 07:00 am 05:45 pm Break: 00:30 Over Time: 02:00
 Federal ID:
 Location:
 Reviewer: Awal, Mohammad Approved Date: 30-May-14 Status: Approved

04-0120F4
 04-SF-80-13.2/13.9
 Self-Anchored
 Suspension Bridge

Weather

Temperature 7 AM 50 - 60 12 PM 50 - 60 4PM
 Precipitation none Condition Rain

Working Day If no, explain:

Diary:

Dispute

Work description.

Monday, November 25, 2013

Pile Driving
 Day 5: Impact Hammer: Piles #9 & #10
 Vibratory Hammer: Piles #11 & #12

The following two outfits hired by Caltrans will be present during this pile driving operation:

Illingworth & Rodkin, Inc (Acoustic Monitoring)

Jordan Roberts

Jarred McDaniel

Garcia & Associates (Mammal Monitoring)

Phil Thorson

Adam Fox

Marina Olson

- By 8:30, the crane barge was re-positioned to the right location;
- At 8:30, attention turned to the BC as it was supposed to be extended by a 6'-6" section; Once again, this is the task that could have been done concurrently with the re-positioning of the Manitowoc, had Steve Fryer was not the only tug boat operator and was solely the crane operator. This theme repeats itself time & time again.
- Brandon, a new Dutra Engineer on-site taking Jonathan's place;
- ABF in the process of re-positioning the Flexi-Float and 2 other barges at this location;
- At 9:05, just as Lucas was about done with the fastening of bolts on the Bubble Curtain (BC), pile #9 was being lifted off Barge 217. The earliest start, yet.
- BC holes were re-welded and fixed;
- BC length: 11'-6" + 21'-10" + 13'-1" + 6'-6" + 13'-11" = 66'-10";
- One surveyor;
- Some References: Pile #9 at the 77-ft mark with respect to (WRT) Top Flange; -All prior to the start of VH;
- At 9:15, pile #9 is hoisted over water;
- At 9:26, Pile #9 is in the water;
- At 9:30, Vibratory Hammer (VH) is placed on the pile;
- At 9:35, start the VH;
- Due to the weight of VH the pile sank another foot; a few more pulling and re-driving, shooting, checking for plumb...before calling the location adequate;
- At 9:43, end VH;



Daily Diary Report by Bid Item

Job Name: 04-0120F4

Inspector Name: Soheilifard, Saman

Diary #: 475

Date: 25-Nov-2013

Monday

•
Pile #9 at the 97 1/2-ft mark with respect to (WRT) Top Flange (no sounding done for water depth);
Therefore, the Embedment Length (EL) = $97 \frac{1}{2} - 77 = 20 \frac{1}{2}$ ft (approx.);

•
NOTE: This pile was driven using the VH; there could be a problem here as well;

- At 9:51, pile #10 was attached to the crane;
- At 9:57, pile hoisted over water;
- At 10:10, pile was lowered into the water;
- At 10:16, start VH;
- At 10:28, End VH;
- Some references: Pile #10 Before Vibration: at the 77 1/2 -ft mark WRT top flange and Water at the 69-ft mark; After VH: at the 98-ft mark WRT top flange and water at the 90-ft mark; The initial EL = 8 ft (approx.);
- At 10:35, hook the crane to BC and finish at 10:46 (with placement and connections);
- At 10:59, hook up to Impact Hammer (IH);
- At 11:12, place on pile #9;
- At 11:16, BC turned on;
- At 11:17, start IH;

Depth	Blow Count
1	4
2	7
3	8
4	8
5	15
6	15
7	16
7 1/2	8 ???

- Stop at 11:24
- Top ring of BC at about the top of the pile-100ft-mark;

- At 11:44, resume IH;
- At 11:46, stop again and conclude IH;

•
NOTE: Without the usage of any visible elevation marks on the pile, and totally relying on approximation and educated stipulation, the blow count for the next feet were as follows:

8 1/2	20
9 1/2	37

•
There are some problems with the hammer and I am not sure about the energy imparted to the pile or the accuracy of Blow Counts; hence, building adequate bearing capacity for this pile. Conversing with Dutra about my concern, all I have heard is that they will look into the matter and if deemed necessary, they will weld another section on top of the affected piles. Given the fact that the piles are covered by water during the high tide, that window for welding a section is limited.

•
Pile #9 sticks out 1 1/2ft, the depth of water is approx. 69' (if the sounding is accurate), and the pile is 100 feet long; thus, the EL = $100 - (69 + 1 \frac{1}{2}) = 29 \frac{1}{2}$ ft;

- At 11:50, Disconnected hoses to BC and remove the BC off Pile #9 and place on Pile #10;
- By 12:02, BC on Pile #10;
- By 12:08, all hoses connected;
- At 12:46, IH on top of pile #10;
- BC is completely submerged;

•
Some references: Pile #10 at the 95 1/2-ft mark WRT Bottom Flange and water at the 89 1/2 -ft mark of the pile;

Daily Diary Report by Bid Item

Job Name: 04-0120F4

Inspector Name: Soheilifard, Saman

Diary #: 475

Date: 25-Nov-2013

Monday

•At 12:49, Begin the VH;

Mark	Depth	Blow Count
91		No significant Blows, just taps
92	1	4
93	2	4
94	3	4
95	4	5
96	5	6
96 $\frac{3}{4}$	5 $\frac{3}{4}$	6

•
At 12:51, Stop Driving as the lead was about to bang on the template beam just as was the case during the driving of Pile #9;

•Note: An attempt was made at resuming the driving of the pile but soon halted and the IH removed altogether off Pile #10. The pile was proceeding through the strata just like hot knife through butter;

•At 12:56, unhooked hoses to BC;

•At 13:06, the lead and the IH on the deck and as the crane was unloading the IH, the BC was already ready to be picked up;

•At 13:20, BC was on the deck;

•At 13:22, after abandoning pile #10, Manitowoc was being re-positioned to drive the last two piles;

•At 15:10, end re-positioning;

•At 15:36, Pile #11 was hoisted over the water;

•At 15:48, following the welding of angles on the template beam and wrapping the come-along chain around the beams, the pile was let down easy;

•At 15:55, begin the VH;

•At 16:07; stop the VH;

•At 16:09, Resume VH;

•At 16:11, Stop VH;

•
Some References: Prior to VH: Pile #11 at the 79 $\frac{1}{2}$ -ft mark WRT top flange and water was at the pile's 72-ft mark; After VH: Pile #11 at the 98 $\frac{1}{2}$ -ft mark WRT top flange and water was at the pile's 90 $\frac{1}{2}$ -ft mark;

•Embedment Length (initial): $98.5 - 79.5 = 19$ ft;

•At the 86 $\frac{1}{2}$ mark the pile was shaking more than moderately, hence, operation stopped and hammer re-positioned before resuming the operation at 16:09;

•X-reference: Water Depth: 70 ft (by Sounding) at 16:15; therefore, $EL = 90.5 - 70 = 20$ to 21 ft;

•Immed. Thereafter crane grabbed Pile #12;

•At 16:25, over water;

•At 16:35, being lowered;

•At 16:40, VH on pile #12;

•AT 16:41, Start the VH;

•At 16:48, end VH;

•Some references: Prior to VH: Pile #12 at the 74 $\frac{1}{2}$ -ft mark WRT top flange and water was at the pile's 66 $\frac{1}{2}$ -ft mark; After VH: Pile #11 at the 97 -ft mark WRT top flange and water was at the pile's 89 $\frac{1}{2}$ -ft mark;

•Embedment Length (initial): $97 - 74.5 = 23 \frac{1}{2}$ ft;

•
Note 1: Pile #12 was vibrated in the mud even easier than Pile #11;

•Note 2: Speaking to Terry in regards to adding new sections to these piles, he said that tomorrow morning he will attempt to drive them to determine whether or not splicing is needed. At any rate, he continued, 3-12ft sections with chill rings attached are to be shipped tonight from Alameda and be here tomorrow morning at 7:00 in case it is determined that splicing is needed. He (Dutra) is hoping that the soil/mud will have solidified enough around the pile as to afford them to continue driving without adding sections.

Daily Diary Report by Bid Item

Job Name: 04-0120F4 **Inspector Name:** Soheilifard, Saman **Diary #:** 475 **Date:** 25-Nov-2013 **Monday**

•Note #3: I spoke to M. Awal who was in the field during the driving of Piles #9 & #10, regarding this predicament, which just got worse during the vibration of piles #11 & #12. He indicated that he will have a discussion with Stanley Ku regarding piles #9 & #10 and even #8. He was gone before the situation worsened during the vibration of the last two piles.

CCO-323 Bid Item: 001 0-BCS-ELS.323 Pier T1 Bubble Curtain System

DUTRA MATERIALS

Labor

Trade	Class	Name	RT Hrs	OT Hrs	DT Hrs	Total	Remarks	Dispute
Contractor: DUTRA MATERIALS								
Operator	OTH	STEVE FRIYER	0.00	0.00	0.00	0.00		<input type="checkbox"/>
Operator	OTH	STEVE FRIYER	3.00	0.00	0.00	3.00		<input type="checkbox"/>
Operator	OTH	STEVE FRIYER	5.00	2.00	0.00	7.00		<input type="checkbox"/>
Operator	OTH	STEVE FRIYER	2.00	0.00	0.00	2.00		<input type="checkbox"/>
Piledriver	JNM	LUKE HUDSON	8.00	2.00	0.00	10.00		<input type="checkbox"/>
Piledriver	JNM	JEFF SAINZ	8.00	2.00	0.00	10.00		<input type="checkbox"/>
Piledriver	JNM	GILBERT MAYA	8.00	2.00	0.00	10.00		<input type="checkbox"/>
Piledriver	JNM	DAVID SELPA	8.00	2.00	0.00	10.00		<input type="checkbox"/>
Piledriver	JNM	SAMI TAVAKE	8.00	2.00	0.00	10.00		<input type="checkbox"/>
Piledriver	GEN	TREVER MURRAY	8.00	2.00	0.00	10.00		<input type="checkbox"/>
Piledriver	APP	ROBERT UTLEY	8.00	2.00	0.00	10.00		<input type="checkbox"/>
Piledriver	APP	JAMES SAVAGE	8.00	2.00	0.00	10.00		<input type="checkbox"/>
Operator	OTH	STEVE FRIYER	8.00	2.00	0.00	10.00		<input type="checkbox"/>

Equipment

Equipment ID	Description	RT Hrs	OT Hrs	ST Hrs	IT Hrs	Rental Company	Remarks	Dispute
Contractor: DUTRA MATERIALS								
*E0660562							No	
		2.00	0.00	0.00	0.00			<input type="checkbox"/>
*E0650562							No	
		5.00	2.00	0.00	0.00			<input type="checkbox"/>
*E0620562							No	
		2.00	0.00	0.00	0.00			<input type="checkbox"/>

Attachment



Daily Diary Report by Bid Item

Job Name: 04-0120F4

Inspector Name: Soheilifard, Saman

Diary #: 475

Date: 25-Nov-2013

Monday

