

Job Stamp
04-0120F4
SFOBB SAS

Const. Calendar: 869
Project Work Day No.: 1079

Date: 04/30/2009
Inspectors Start 06:30 Stop 13:10
Hours
Shift Hours 06:30 15:00

ASSISTANT RESIDENT ENGINEER'S

CONTRACTOR – ABFJV, Subs SDI and CMC-RS

EQUIPMENT AND/OR LABOR:			HOURS - ITEM NO.								REMARKS		
Equip. #	NO. MEN	DESCRIPTION (Of Equipment or Labor)	#34 Prestressing Cast-In-Place Concrete (Pier W2)								IDLE OR DOWN	Name	Contractor
1	1	Field Superintendent	8									Ralph Craig	SDI
2	1	Ironworker Foreman	8									Erin Jones	SDI
3	1	Ironworker Journeyman									8	Darrin Kurz	SDI
4	1	Ironworker Journeyman	8									James Carriker	SDI
5	1	Ironworker Journeyman	8									Randy Hill Jr.	SDI
6	1	Materials Technician	8									Joel Nadler	Smith Emery
HPU-E-30-10K-02	1	A-Frame Ram Support									8		SDI
HPU-D-110-3K-02	1	Hydraulic Pumping Unit									8		SDI
SPH.60.3K.06	1	Strand Pushing Unit									8		SDI
CH600-B-110	1	600 Ton Ram									8		SDI
CH820-B-03	1	820 Ton Ram									8		SDI
B-117	1	110 Ton Ram									8		SDI
B-36	1	110 Ton Ram									8		SDI
HPU-E-10K-21	1	Hydraulic Pump									8		SDI
CH150-5-4	1	150 Ton Ram									8		SDI
	1	150 Ton Ram									8		SDI
	1	Grout Mixer	8										SDI

Weather: Overcast in the morning with cool temperatures to sunny in the afternoon with mild temperatures – Hi 67°F Low 52°F (per weather.com forecast)

Description of Operations @ W2 Cap Beam:

ABF

- Continued bushing the concrete surfaces of the W2W continuity tendon blockouts and Panel BB of the W2W deviation saddle.
- Continued to strip W2E continuity tendon blockout forms and remove polystyrene grout pad blockout for the W2E Hinge K assemblies on the the west end of the cap beam.
- Assisted SDI with mobilizing grout pallets near the grout mixing equipment.
- Continued to disassemble the woodshop below the W2 falsework on the north end of the W2E caissing.

CMC-RS

- Began to place horizontal and vertical #19 rebar at the W2W construction joint with the OBG, see Lalit's diary for additional details and labor.

SDI

- Grouted transverse tendons CBT-11 to 22 from the south end of the cap beam.
- Grouted long vertical bars VB-3E to VB-9E at W2E.

Notes:

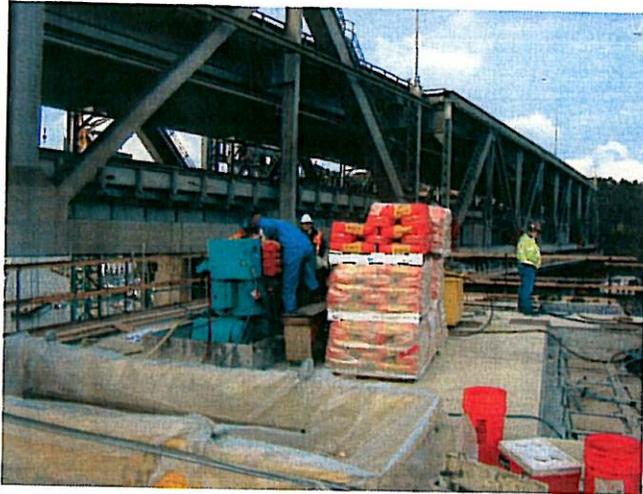
- 1) Smith Emery was the subcontractor hired by ABF to conduct material testing for today's grouting operation. Joel Nadler was the representative onsite from Smith Emery who made grout cubes, tested ambient/grout temperatures and efflux times for the same tendons that Saman and myself performed the testing. QC manager Chuck Kanapicki witnessed only the first transverse tendon to be grouted and made sure S/E was adequately prepared to perform materials testing.
- 2) The average time to grout the transverse tendon CBT-11 to 22 was approximately 17 minutes.
- 3) Three total sets of grout cubes were made, and ambient/grout temperatures were taken for CBT-12, 16, and 22. The grout efflux times measured for CBT-12, 15, 16, and 22 was over 11 seconds. The mud balance was used to test the specific gravity/wet unit density of the grout for CBT-12 and 22 with the $\gamma_w = 138\text{pcf}$. The manufacturer estimates a wet unit density of 125 pcf for the grout per ASTM C-1090. Quiescence tests were not conducted due to the high efflux time and due to the fact that the grout would develop a layer of film in the bucket after 15 minutes.
- 4) Saman and myself witnessed the entire operation as we watched inlet and outlet valves at both ends of the cap beam. The outlet valve wasn't closed until there was good grout. In a few cases water came out before the grout for roughly 10 seconds before "good" grout was seen. The inlet was then pressurized to 70 to 100 psi before closing the inlet valve.
- 5) SDI ironworkers had to work on the grout mixing equipment at the start of the day as there wasn't much pressure to push the grout. Oil had to be put in the motor and miscellaneous hoses and pipes had to be fixed.
- 6) The grout mix was consistently thick as seen by the long efflux time and a $\gamma_w = 138\text{pcf}$.
- 7) Overall the grout mix looked consistently thick and was pumped at a pressure of 25 to 50 psi prior to recharge. It was discovered midway through the operation that the water tank wasn't level. This prevented all 13 gallons of the water from going into the mixing tank which would explain why the grout mix was thicker than it should have been.

Office work:

- Continued to review pertinent specifications and manufacturers data for the SIKA 300 PT grout.
- Wrote today's diary.

Inspector:

Matt Bruce *Matt Bruce* Transportation Engineer (D)

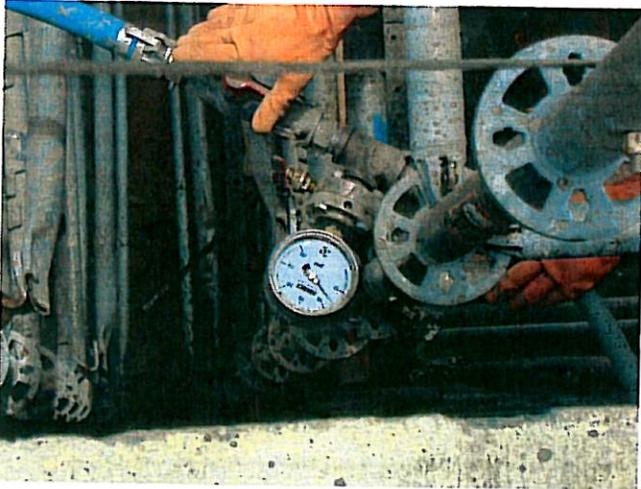


File Name:	Apr-30-2009 W2 Cap 002		
Date:	04-30-09	By Int:	M Bruce

Description: SDI ironworker mixing grout and water before placing into CBT-11 to 22.

File Name:	Apr-30-2009 W2 Cap 004		
Date:	04-30-09	By Int:	M Bruce

Description: Placing grout into CBT-22 under pressure from the south end of the cap beam.



File Name:	Apr-30-2009 W2 Cap 007		
Date:	04-30-09	By Int:	M Bruce

Description: A recharge pressure of 70psi to 100psi was seen /achieved at the inlet valve. The recharge is done after "good" grout comes out of the outlet valve and closed on the north end.

File Name:	Apr-30-2009 W2 Cap 008		
Date:	04-30-09	By Int:	M Bruce

Description: SDI ironworkers grouting vertical bar VB-9 at W2E. It took 43 seconds on average to grout these ducts. After the pressure from the pump was released and the grout valve was closed the grout head dropped roughly 50 to 80mm from the hexnut grout vents.