

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT**

**Resident Engineer:** Casey, William  
**Address:** 333 Burma Road  
**City:** Oakland, CA 94607

**Report No:** WIR-027058  
**Date Inspected:** 16-Jan-2012

**Project Name:** SAS Superstructure  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV  
**Contractor:** American Bridge/Fluor Enterprises, a JV

**OSM Arrival Time:** 700  
**OSM Departure Time:** 1730  
**Location:** Jobsite

<b>CWI Name:</b>	As noted below	<b>CWI Present:</b>	Yes	No	
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes	No	N/A
		<b>Delayed / Cancelled:</b>	Yes	No	N/A
<b>Bridge No:</b>	34-0006	<b>Component:</b>	SAS OBG		

**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

## 13E/PP118.5/E3 Lifting Lug Hole W2 (Exterior)

This QA Inspector randomly observed QC Inspector Fred Von Hoff perform fit-up operations on lifting lug hole W2 located at 13E/PP118.5/E3. The QC Inspector utilized a Bridge Cam Gauge to measure the planar offset to be within + or - 1 mm from "A" deck and this QA Inspector verified the fit-up as acceptable and employed a 93°C Tempilstik to ensure the minimum pre-heat temperature had been achieved. This QA Inspector randomly observed ABF welder Salvador Sandoval (welder ID 2202) performing the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position and observed the QC Inspector verify the welding parameters were in accordance with ABF-WPS-D15-1050A-CU. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general compliance with the approved WPS and the contract specifications.

## 12E/13E/E1 Repair (Exterior)

This QA Inspector randomly observed ABF welding operator James Zhen (ID 6001) performing repair operations as pertaining to the Flux Core Arc Welding with gas (FCAW-G) process utilizing a "Bug-O" motorized rail system with a magnetic base attached in the (4G) overhead position on face "B" of side plate "E1", at 12E/13E

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of the OBG. This QA Inspector observed QC Inspector John Pagliero monitoring the welding to ensure the parameters were in compliance pertaining to ABF-WPS-D15-3000-4-Repair. The parameters were recorded as (A=230/V=24/TS=190/HI=1.74). This QA inspector made subsequent observations throughout the shift to monitor quality and noted that the work is in progress and appears to be in general conformance to the contract requirements.

### 12E/13E/D2 Repair (Exterior)

This QA Inspector randomly observed ABF welder Xiao Jian Wan (Welder ID 9677) performing the repair welding operation of a rejectable ultrasonic indication as per the SMAW process in the (4G) overhead position on "D2" at 12E/13E on the exterior of the OBG. The dimensions of the excavation was recorded as; y + 70 (240mm's in length, 30mm's in width and 20mm's in depth). This QA Inspector observed QC Inspector John Pagliero perform a Magnetic Particle Inspection (MT) of the excavation to determine the soundness of the metal. This QA Inspector noted that Mr. Pagliero found no rejectable indications. This QA Inspector observed the QC Inspector monitor the welding and the parameters to ensure compliance with the approved welding procedure. The welding parameters observed at this location appeared to be in general compliance with approved WPS and the contract specifications and this QA Inspector noted that the work is in process.

### 13E/PP119.5/E4 Lifting Lug Hole W3 (Exterior)

This QA Inspector observed QC Inspector Sal Merino utilize a Bridge Cam Gage to measure the fit-up of the 20 mm plate in the B-U4a joint on lifting lug hole 13E/PP119.5/E4. This QA Inspector verified the fit-up as acceptable and employed a 93°C Tempilstik to ensure the minimum pre-heat temperature had been achieved. This QA Inspector randomly observed ABF welder Jorge Lopez (ID 6149) performing the Shielded Metal Arc Welding (SMAW) process in the (1G) flat position and observed the QC Inspector verify the welding parameters were in accordance with ABF-WPS-D1.5-1050A-CU. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general compliance with the approved WPS and the contract specifications.

### 13E/PP118.5/E3 Lifting Lug Hole W3 (Exterior)

This QA Inspector observed at random intervals QC Inspector Sal Merino conducting fit-up operations on the 20mm insert for lifting lug hole W3 located at 13E/PP118.5/E3 on the exterior of the OBG. This QA Inspector verified the fit-up and found it to be satisfactory. Upon approval, ABF welder Salvador Sandoval (ID 2202) began to preheat the B-U4a complete penetration joint (CJP) to a temperature of 93.3° C. The welder began the SMAW process in the 1G flat position and this QA Inspector noted that the QC Inspector monitored the welding and the parameters. This QA Inspector observed the QC Inspector measure the inter-pass temperatures with the welder grinding and blending the work after each pass. This QA Inspector made subsequent observations and noted that the parameters at this located appeared to be in general conformance with ABF-WPS-D1.5-1050A-CU.

Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. The issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

### Summary of Conversations:

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The were no pertinent conversations to report.



## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Frey,Doug	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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