

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012633**Date Inspected:** 09-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

<b>CWI Name:</b>	Mike Johnson, Jesse Cayabayab, JCWI	<b>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 1E/2E-A,D 1W/2W-A	

**Summary of Items Observed:**

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified as 1E/2E-A, and 1E/2E-C the following observations were made:

1) 1E/2E-C-2 in process welding

1E/2E-A

Upon the arrival of the QA Inspector it was observed the above identified weld was completed. The QA Inspector randomly observed grinding was still being performed in preparation of the ultrasonic testing (UT). The QA Inspector noted no UT was performed on the QA Inspectors shift. The ABF Representative John Callaghan informed the QA Inspector, he would like to get the center section of the weld accepted by Smith Emery (SE) Quality Control (QC) and Caltrans Quality Assurance (QA) so the welding connexes can be moved. Mr. Callahan went on to inform the QA Inspector; ABF needs to move a 90 ton crane across the center of the weld joint. Mr. Callaghan went on to inform the QA Inspector the welding connex center section is removable, thus the reason for completing the inspections of the center section of the complete joint penetration (CJP) groove weld identified above.

1E/2E-C-2

The QA Inspector randomly observed the ABF welders Rory Hogan and Jeremy Doleman setting up the flux cored arc welding (FCAW) machines at the above identified weld joint. The QA Inspector was informed by the QC Inspector Tom Pasqualone the fit was previously accepted by the SE QC. The QA Inspector performed a random

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visual and dimensional inspection of the fit up and noted it appeared to meet the general requirements of the contract documents. The QA Inspector randomly observed the ABF welders had previously started the induction heating blankets to ensure the minimum required preheat of 150°F was achieved prior to welding. The QA Inspector randomly verified utilizing a 150°F temperature indicating marker and noted the minimum required preheat had been achieved. The QA Inspector observed the ABF welder to be utilizing a semi automated FCAW track system for welding the above identified weld joint. The QA Inspector randomly observed the SE QC Inspector identified as Jim Cunningham set the FCAW machine to the parameters of the approved WPS identified as ABF-WPS-D1.5-3042A-1. The QA Inspector randomly observed the FCAW parameters were 270 Amps, 21.9 Volts and a travel speed of 254mm/min. The QA Inspector randomly observed the ABF welder Jeremy Doleman begin the FCAW root pass, once the semi automated track system reached a certain point the ABF welder Rory Hogan would observe the welding arc for the remainder of the weld. The QA Inspector noted the ABF welders did not complete the weld joint on the QA Inspectors shift.

**Summary of Conversations:**

see above.

**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 Mohammad Fatemi (916)-813-3677, who represents the Office of Structural Materials for your project.

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

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