

**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-027622**Date Inspected:** 16-May-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

<b>CWI Name:</b>	As noted below		
<b>Inspected CWI report:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A

<b>CWI Present:</b>	Yes	No	
<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved WPS:</b>	Yes	No	N/A
<b>Delayed / Cancelled:</b>	Yes	No	N/A
<b>Component:</b>	SAS OBG		

**Bridge No:** 34-0006**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/14E (Interior)

This QA Inspector observed the following ABF welders noted below performing 4G (overhead position) Shielded Metal Arc Welding (SMAW) on the Seismic Performance Critical Member (SPCM) Complete Joint Penetration (CJP) splice butt joint using 3.2mm E7018-H4R electrodes with amperage of 123. This welding was in progress for the duration of the shift. The welding consists of back fill passes at the 13E-A1 location by Edward Brown (ID 9331) 13E-E2.1 by Salvador Sandoval (ID 2202) and 13E PP121.2 by Khit Lounechaney (ID 4985). QC Inspector Sal Merino was observed monitoring the welding parameters for compliance to ABF-WPS-D1. 5-1040C-CU Revision 0 and measuring inter-pass temperatures between passes. This QA Inspector verified that the electrodes were stored in electric rod ovens and appeared to be in accordance with AWS D1.5 Section 4.5.2 and exposure rates appeared to be in accordance with AWS D1.5 Table 4.7. During subsequent observations it was noted that the welders were using a power disc grinder and/or rotary die grinders at weld starts and stops as needed and were cleaning between weld passes with power wire wheel brushes. It was noted that the work on 13E PP121.2 was completed on this date and appeared to be in general conformance with the contract specifications.

## 13E Drop-In Plates (Interior)

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# WELDING INSPECTION REPORT

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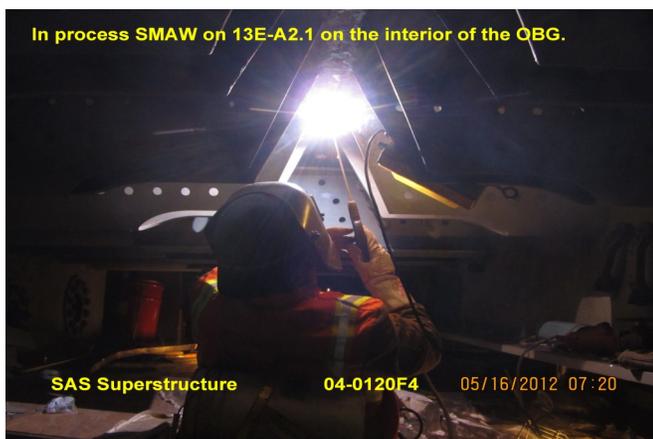
This QA Inspector observed QC Inspector Sal Merino perform MT Testing and Inspection on the back-gouge of 13E PP122.2 from y+0mm to 1900mm on the interior of the OBG. (Beyond 1900mm the backing bar was still in place). This QA Inspector observed two (2) indications at random locations along PP122.2. ABF welder Jacob Stafford (ID 8020) was assigned to perform minor grinding of indications identified by QC. Upon completion of the grinding, The QC Inspector tested the locations and approved the repairs. At 13E-PP121.2 from 0mm to 1900mm two (2) indications were observed and repaired. At 13E-E2.1 from 0mm to 9500mm the QC Inspector marked two (2) indications for repair. Upon completion of the grinding, the sites were re-tested and found to be acceptable. At 13E PP121.6 three (3) indications were noted and repaired. At 13E-A.1 and A2.1, the U-Rib Plates have to remain in sections therefore allowing testing in sections and 13E PP122.2 from 1900mm, the preparation for testing is in progress. The QC Inspector was observed performing the MT testing with yoke orientation at parallel and less than perpendicular angles to the weld axis. This QA Inspector observed the QC Inspector perform the MT to SE-MT-CT-D1.5-105. Upon acceptance by QC, this QA Inspector performed MT testing on 10% of the welds listed above. This QA Inspector performed MT testing utilizing the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

## PS-5 Bracket welding (Exterior)

This QA Inspector made random observations of FW Spencer welder Damian Llanos performing SMAW on PS-5 Pipe Support brackets to the deck at the following locations; 12W PP109.5 W5, 13E PP117.7 E5 and 13E PP118.7 E5. The brackets required 6mm fillet all around and QC Inspector Steve Jensen monitored the welding and the parameters as they pertained to WPS-FWS Fillets Murex SFOBB Revision 1. The welder was observed implementing E7018-H4R Murex electrodes which this QA Inspector verified that they were obtained from a new container. This QA Inspector made subsequent observations throughout the shift for quality and noted that the work at the above locations was completed on this date and the weld numbers were recorded as; 120516-01, 02, 03, 04, 05 and 06.

## Summary of Conversations:

There were no pertinent conversations today.



## Comments

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# WELDING INSPECTION REPORT

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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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