

**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 #: 01.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029962**Date Inspected:** 17-Aug-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

<b>CWI Name:</b>	Jesus Cayabyab & Bernie Docena			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>

**Bridge No:** 34-0006**Component:** See Below**Summary of Items Observed:**

Quality Assurance Inspector (QAI) Edward Leach was at the American Bridge/Flour (ABF) job site at Yerba Buena Island between the times noted above in order to monitor Smith Emery Quality Control (QC) functions and the in process work being performed by ABF personnel. The following items were observed:

**Tower Skirt Ring Beam**

The QAI periodically observed ABF welding personnel Gao Wu Chin utilizing the Shielded Metal Arc Welding (SMAW) process in the vertical (3G) position with Atom Arc E7018-1 HR4, 1/8" diameter electrode to begin welding the various weld joints on the corner of the South shaft. The weld joints are identified as a Complete Joint Penetration (CJP) skewed tee joint, single bevel Partial Joint Penetration (PJP) skewed and vertical fillet welds (weld #167, #168, #169). The fit up was visually accepted by Bernie Docena and verified by the QAI Joe Adame on Friday (8/16/2013). As welding continued the QAI verified welding amperage at approximately 128 amperes. Several verifications of this reading were made throughout the day with similar readings. The Welding Procedure Specification (WPS) designated for this work is identified as ABF-WPS-D1.5-1020, Rev1, ABF-WPS-D1.5-F1201A and ABF-D1.5-1160. QC Inspector Bernie Docena was observed monitoring the work at this location on this date.

**ESW Weld Repair "Q"**

The QAI periodically observed ABF welding personnel Donald Plumb utilizing the Shielded Metal Arc Welding (SMAW) process in the vertical (3G) position with Atom Arc E7018-1 H4R, 5/32" diameter electrode to weld excavation for a weld repair. The welding is taking place on the exterior (east) side at joint Q, weld #E-043 on Face A side for a repair designated as 201308-003. Excavation dimensions are noted as Y=3390mm-3760mm,

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# WELDING INSPECTION REPORT

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Length=370mm, Width=70mm, Depth=55mm. The welder was observed applying filler passes on this date. The QAI observed the interpass temperature was maintained at approximately 410 degrees Fahrenheit with electric heating coil blankets through a heat induction system. As welding continued the QAI periodically verified welding amperage at approximately 130 amperes. Several verifications of this reading were made throughout the day with similar readings. The Welding Procedure Specification (WPS) designated for this repair was identified as ABF-WPS-D1.5-1000Repair, Rev.3. QC Inspector Bernie Docena was monitoring the progress of this repair on this date.

The welding & workmanship observed on this date appeared to be in general compliance with the contract specifications. The following pictures below detail some of the observations made on this date.



## Summary of Conversations:

General conversations with ABF/JV QC NDT personnel relevant to work and testing performed during this shift.

## 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 Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Leach,Ed	Quality Assurance Inspector
<b>Reviewed By:</b>	Reyes,Danny	QA Reviewer

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