

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026052**Date Inspected:** 06-Aug-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1400**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder & Tower**Summary of Items Observed:**

At the start of the shift the Quality Assurance Inspector (QAI) traveled to the project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) personnel. The inspection was performed on the various field fit-up of weld joints and the Complete Joint Penetration (CJP). The welding was performed utilizing the Shielded Metal Arc Welding (SMAW) process.

A). Tower Shear Plates

The Request for Weld Repair Approval identified with the Weld Repair Report No.: 201108-002, 201108-003, 201108-004, 201108-005 and 201108-006 were approved on Friday, August 5, 2011 by Structures Representative Douglas Wright but was inadvertently omitted on the QAI Weld Inspection Report(WIR)for the above mentioned date.

The QAI observed the base metal repair welding located at joint "E" above the shear plate ESW identified as WN: N-045. The welding was performed by Jeremy Dolman ID-5042 utilizing the WPS identified as ABF-WPS-D15-1000-Repair, Rev.2. The welding parameters were measured by the QC inspector John Pagliero and were noted as 116 amps.

The also QAI observed the base metal repair welding located at joint "F" above the shear plate ESW identified as WN: E-045. The welding was performed by Rory Hogan ID-Rory Hogan ID-3186 utilizing the WPS identified as ABF-WPS-D15-1000-Repair, Rev.2. The welding parameters were measured by the QC inspector John Pagliero and were noted as 123 amps.

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Later in the shift, the QAI observed the base metal repair welding located at joint "S" above the shear plate ESW identified as WN: S-042. The welding was performed by Fred Kaddu ID-2188 utilizing the WPS identified as ABF-WPS-D15-1000-Repair, Rev.2. The welding parameters were measured by the QC inspector John Pagliero and were noted as 143 amps.

The QC inspector utilized the repair WPS as a reference to monitor the welding and the related work pertaining the base metal repairs. The welding was performed in the horizontal (2G) position with the work positioned in an approximate vertical plane with the excavations approximately horizontal.

The QAI observed the QC inspector monitoring the welding operation and verifying the welding parameters at random intervals during the scheduled shift. The welding was not completed during the QAI's presence and the work appeared to comply with the contract specifications.

This QA Inspector also performed a daily review of field inspection reports and update of the field document control tracking records regarding the Orthotropic Box Girders, Longitudinal and Transverse "A" Deck Stiffeners and Deck Access Holes.

QA Summary

The welding was performed in the flat and horizontal positions utilizing the E7018-H4R. The 3.2 mm H4 electrodes were stored in electrically heated, thermostatically controlled oven after the removal from the sealed containers. The exposure limits of the electrodes appeared to comply with the minimum storage oven temperature of 120 degrees Celsius as per the contract documents. The welding parameters and surface temperatures were verified by the QC inspector's utilizing a Fluke 337 clamp meter to measure the electrical welding parameters and Tempil Heat Indicators for verifying the preheat and interpass temperatures. At the time of the observation no issues were noted by the QAI.

The digital photographs below illustrate some of the work observed during this scheduled work date.



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Summary of Conversations:

There were general conversations with Quality Control Lead Inspector, Bonifacio Daquinag, Jr., at the start of the shift regarding the location of welding, inspection and N.D.E. testing personnel scheduled for 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 Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Reyes,Danny	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
