

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-025085**Date Inspected:** 11-Jul-2011**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**CWI Name:** Steve Jensen**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:** Tower**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

Prior to the start of welding this QA Inspector observed an induction heating system consisting of the blanket type appeared to have been positioned over the area to be welded in order to start the preheating process, gas troches are used to bring the preheat temperature to be within the range specified in the Welding Procedure Specification (WPS). At the completion of welding and/or at the end of the shift it appears the same induction heating system is used to perform the 3 hour post heating.

114 Meter elevation – West Tower – Splice Plates

This QA Inspector observed ABF welding personnel Salvador Sandoval (#2202) using the Flux Cored Arc Welding (FCAW) process for tack welding in the vertical (3F) position on weld joints #165-Northwest and #166-Northwest. This QA Inspector randomly observed as QC Inspector Steve Jensen verified the following parameters; 272 amperes and 21.5 volts at a travel speed of 100 mm per minute to produce a heat input value of 3.51 KJ per mm. The welding observed by this QA Inspector appeared to comply with the Welding Procedure Specification (WPS) ABF-WPS-D15-F2200-3.

This QA Inspector periodically observed QC Inspector Steve Jensen monitoring the preheat/interpass temperatures

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and welding parameters during the shift. In general the work observed by this QA Inspector appeared to comply with the contract requirements.

The Splice Plates in the North corner were previously welded. QC personnel had previously performed and accepted the visual inspections and QA personnel had previously completed the visual verifications, but the Magnetic Particle Testing (MT) had not been performed by QC personnel. QC Inspector Tony Sherwood informed this QA Inspector he would be performing MT on weld joints #165-North and #166-North this date. This QA Inspector randomly observed as QC Inspector Tony Sherwood performed the MT inspections on a minimum of 10% of the weld length and informed this QA Inspector he had accepted the welds. This QA Inspector performed a random MT verification and the work appeared to comply with the contract requirements.

114 Meter elevation – East Tower – Splice Plates

This QA Inspector was informed by QC Inspector Steve Jensen that welding had been completed on weld joints #165-Southeast, visually inspected and accepted. This QA Inspector confirmed with QA Inspector Doug Frey that he had performed and accepted the visual verification on weld joint #165-Southeast. This QA Inspector had previously completed the visual verification on weld joint #166-Southeast. This QA Inspector was informed by QC Inspector Tony Sherwood that Magnetic Particle Testing (MT) would be performed on all Splice Plate weld joints in the East Tower, elevation 114 meters. This QA Inspector randomly observed as QC Inspector Tony Sherwood performed MT on a minimum of 10% of the weld length on weld joints #165-Southeast and #166-Southeast. See photo below. QC Inspector Tony Sherwood informed this QA Inspector that he had accepted the welds. This QA Inspector performed a random MT verification and the work appeared to comply with the contract required.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted below there were no notable conversations.



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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:	Hager,Craig	Quality Assurance Inspector
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Reviewed By:	Levell,Bill	QA Reviewer
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