

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-022768**Date Inspected:** 15-Apr-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.

Tower Splice – 83 Meter elevation, South Tower leg: This QA Inspector randomly observed the status of the upper and lower Interior Corner Closure Splice Plates located at the B- C corner and C-D corner. During this shift the following was observed.

B-C corner, upper plate: This QA Inspector randomly observed ABF welding personnel Salvador Sandoval (#2202) using the carbon arc process and grinder to remove the weld metal from the bottom fillet weld. Please note this weld had previously been performed using an E9018 electrode instead of an E7018 electrode. This QA Inspector observed QC Inspector Steve Jensen perform a visual inspection after removal of the weld metal at this location. This QA Inspector also randomly observed QC Inspector Salvador Merino perform Magnetic Particle Testing (MT) of the existing vertical welds and base material at this location. Both QC Inspectors (Steve Jensen and Salvador Merino) informed this QA Inspector the inspections performed were accepted. This QA Inspector performed a visual verification and the work observed appeared to comply with the contract requirements. See photo below. This QA Inspector observed ABF welding personnel Salvador Sandoval (#2202) using the Shielded Metal Arc Welding (SMAW) process to re-weld the bottom fillet welding using an E7018 electrode. This QA Inspector randomly observed QC Inspector Steve Jensen verify the following SMAW welding parameters; 160 amperes using a 4 mm diameter E7018 electrode. The welding observed by this QA Inspector appeared to comply

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with Welding Procedure Specification (WPS) ABF-WPS-D15-F1200A.

This QA Inspector observed QC Inspector Steve Jensen performing a visual inspection on the fillet welds at the following locations; C-D corner upper and lower splice plates. QC Inspector Steve Jensen informed this QA Inspector he had finished his visual inspection and found various defects such as; undercut, under fill and unacceptable weld contour. This QA Inspector performed a random visual verification noting the areas marked by the QC Inspector and found several other small areas with the same typical defects. This QA Inspector informed QC Inspector Steve Jensen of these observations. QC Inspector Steve Jensen informed this QA Inspector later that he had re-inspected the welds and agreed with the areas marked by this QA Inspector. This QA Inspector randomly observed ABF personnel Paul Frambini using a power grinder at these locations. By the end of the shift some of the areas had been ground but nothing had turned back over to QC for inspection.

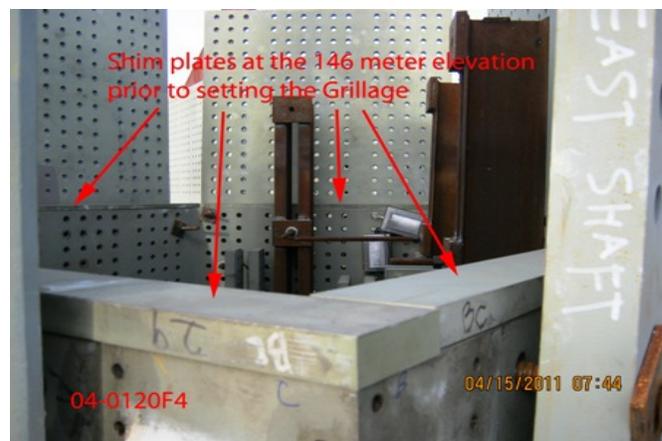
Tower Splice – 83 Meter elevation, West Tower leg: This QA Inspector did not observe welding at this location this date.

Tower Base – 3 to 13 Meter elevation; This QA Inspector was informed by QC Inspector Pat Swain that fit up and welding on the various pates used as temporary attachments for the Electro Slag Welding (ESW) would not be performed this date and was pending due to access issues on the outside of the tower. This QA Inspector observed that sand blasting was being performed inside the tower at this elevation this date.

Tower Elevation – 146: This QA Inspector observed the shim plates have been placed on top of the tower sections (North, South, East and West) but that tack welding has not been performed as of approximately 0745 hours this date. This QA Inspector spoke with ABF Engineer Mark McDonald later this date and was informed the shim plates will not be tack welded to the tower sections. This QA Inspector informed Caltrans Engineer Doug Wright of this conversation and information. See photo below of shim plates in position.

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
Reviewed By:	Levell,Bill	QA Reviewer
