

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-022769**Date Inspected:** 19-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.

C- D corner, upper and lower plates and B-C upper plate: This QA Inspector randomly observed ABF welding personnel Mike Jiminez (#4671) using the Shielded Metal Arc Welding (SMAW) process to weld the under fill and undercut areas previously marked by QC Inspector Steve Jensen. This QA Inspector observed QC Inspector Steve Jensen monitoring the welding and informed this QA Inspector of the following welding parameters: 125 amperes using a 3.2 mm diameter E7018H4R electrode. The welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-F1200A. This QA Inspector observed the welding appeared to be completed. The status of the work in the South tower at this elevation; all welds have been visually inspected by QC Inspector Steve Jensen at least once, the areas marked for additional welding appear to have been completed as noted above, there are still multiple areas that had been marked by QC for grinding to correct weld contour which has not been performed as of this date.

Tower Splice – 83 Meter elevation, West Tower leg: This QA Inspector randomly observed the status of the upper

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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, lower plate: This QA Inspector randomly observed the induction heating blanket was being used to preheat the bottom half of the plate prior to welding. This QA Inspector observed the induction heating blanket was removed and a hand held gas torch was used by ABF welding personnel Salvador Sandoval (#2202) to bring the area for welding up to temperature. This QA Inspector observed QC Inspector Steve Jensen use an electronic temperature gauge to verify the preheat temperature. This QA Inspector randomly observed as ABF welding personnel Salvador Sandoval (#2202) using the Flux Cored Arc Welding (FCAW) process to start production welding at this location. This QA Inspector randomly observed as QC Inspector Steve Jensen monitored and verified the following welding parameters; 250 amperes and 21.2 volts at a travel speed of 95 mm per minute to produce a heat input of 3.35Kj per mm. The welding observed appeared to comply with ABF-WPS-D15-F2200-3. This QA Inspector observed welding appeared to be completed on the lower half of the plate and ABF welding personnel Salvador Sandoval (#2202) start welding on the upper half of the same plate.

C-D corner, upper plate: This QA Inspector observed ABF welding personnel Gil Peralta (#9453) using the FCAW process to finish tack welding at this splice plate. This QA Inspector randomly observed QC Inspector Steve Jensen verify the following parameters: 255 amperes and 22 volts at travel speed of 110 mm per minute to provide a heat input of 3.06 Kj per mm. The welding observed by this QA Inspector appeared to comply with ABF-WPS-D15-F2200-3. Tack welding at this location appeared to be completed this date.

Tower Splice – 83 Meter elevation, North 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. This QA Inspector observed ABF personnel welding Richard Garcia (#5892) and ABF personnel Paul Frambini using a grinder to remove paint from the bolted corner closure plates and tower plates and lay out the locations for the fit up of the splice plates.

Tower Base – 3 to 13 Meter elevation; This QA Inspector was observed the status of the various plates used as temporary attachments for the Electro Slag Welding (ESW) as follows: The North and South exterior plates appeared to be completed. The East exterior plates are not fit /welded. The West exterior plates are completed at the ESW joint on the Northwest end but not fit/welded at the Southwest end. This QA Inspector observed ABF welding personnel Rick Clayborn (#2773) and ABF welding personnel Morgan Winter (#3305) in the process of fitting up a metal ladder at the Southwest corner on the West side. This QA Inspector observed QC Inspector Pat Swain periodically monitoring the work at this location. This QA Inspector did not observed any welding at this location this date.

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.

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.

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