

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-019829**Date Inspected:** 20-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1100**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Tony Sherwood**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:** OBG Section**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 to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:

- 1) At weld joint 9E/10E –F, outside the OBG section: ABF welding personnel Hua Qiang Hwang (#2930) was performing production welding using the Shielded Metal Arc Welding (SMAW) process. QC Inspector Tony Sherwood was monitoring the work.
- 2) At weld joint 9E/10E –B, outside the OBG section: ABF welding personnel Xiao Jian Wan (#9677) was fitting up the weld joint. QC Inspector Tony Sherwood was monitoring the work.
- 3) At weld joint 9E/10E –A4, outside the OBG section this QA Inspector observed QC Inspector Jesus Cayabyab performing Ultrasonic Testing (UT).
- 4) At weld joint 8EPP61.5E2-SW, outside the OBG section: ABF welding personnel Wen Han Yu (#6317) was performing repair welding using the SMAW process. QC Inspector Steve McConnell was monitoring the work.
- 5) At weld joint 8E/9E –B, inside the OBG section: ABF welding personnel Fred Kaddu (#2188) was performing SMAW repair welding. QC Inspector Jesus Cayabyab was monitoring the work.

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6) At weld joint 8E/9E – E1 and E2, outside the OBG section: ABF welding personnel Rory Hogan (#3186) and Jeremy Dolman (#5042) were observed performing Flux Cored Arc Welding (FCAW) production welding. QC Inspector Steve Jensen was monitoring the work.

At weld joint 9E/10E –F, outside the OBG section this QA Inspector observed ABF welding personnel Hua Qiang Hwang (#2930) performing production welding using the Shielded Metal Arc Welding (SMAW) process. This QA Inspector randomly observed as QC Inspector Tony Sherwood verified the following welding parameters: 128 amperes using a 3.2 mm diameter E7018H4R electrode. The work observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1040B-Rev-1 and the contract requirements.

At weld joint 9E/10E –B, outside the OBG section this QA Inspector observed ABF welding personnel Xiao Jian Wan (#9677) in the process of fitting up the weld joint. Later this shift QC Inspector Tony Sherwood informed this QA Inspector he had performed a fit up inspection and observed at the bottom of the weld joint an area of plainer misalignment at Y-1285 to 1330 of 4 mm and at Y-1331 to 1392 of 5 mm. This QA Inspector performed a random verification and observed the same results. QC Inspector Tony Sherwood informed this QA Inspector he had recorded the results and informed his supervisor.

At weld joint 9E/10E –A4, outside the OBG section this QA Inspector observed QC Inspector Jesus Cayabyab performing Ultrasonic Testing (UT). This QA Inspector observed approximately 10 areas at sections A1 thru A3 marked as rejects for repair.

At weld joint 8EPP61.5E2-SW, outside the OBG section this QA Inspector observed ABF welding personnel Wen Han Yu (#6317) performing repair welding using the SMAW process. Prior to the start of welding this QA Inspector randomly observed ABF welding personnel Wen Han Yu (#6317) performing grinding to remove the defect and QC Inspector Steve McConnell performing Magnetic Particle Testing (MT). This QA Inspector observed the final dimension of the excavation at Y-2345 was 150 mm long and 13 mm deep. QC Inspector Steve McConnell informed this QA Inspector this was the first cycle of repair (R-1) at this location. This QA Inspector randomly observed as QC Inspector Steve McConnell verify the preheat and the following welding parameters; 135 amperes using a 3.2 mm diameter E7018H4R electrode. The welding observed appeared to comply with ABF-WPS-D15-1001-Repair and the contract requirements.

At weld joint 8E/9E –B, inside the OBG section this QA Inspector observed ABF welding personnel Fred Kaddu (#2188) performing SMAW repair welding. This QA Inspector verified the following welding parameters; 124 amperes using a 3.2 mm diameter E7018H4R electrode. The repair was located at Y-175 and this QA Inspector observed adjacent to the area the following dimensions had been marked: 145 mm long and 16 mm deep. This QA Inspector periodically observed QC Inspector Jesus Cayabyab monitoring the work. The welding observed appeared to comply with ABF-WPS-D15-1002-Repair and the contract requirements.

At weld joint 8E/9E – E1 and E2, outside the OBG section this QA Inspector observed ABF welding personnel Rory Hogan (#3186) and Jeremy Dolman (#5042) performing Flux Cored Arc Welding (FCAW) production welding. This QA Inspector randomly observed QC Inspector Steve Jensen verify the following parameters; 240 amperes and 23 volts at a travel speed of 172 mm per minute. The welding observed appeared to comply with ABF-WPS-D15-3040A-3 and the contract requirements.

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Summary of Conversations:

As noted above.

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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