

**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-017454**Date Inspected:** 12-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**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:** SAS OBG**Summary of Items Observed:**

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified as 7W/8W-A and hole restoration, and the following observations were made:

**2E-pp17.5-E2-SE Access Hole Restoration**

The QA Inspector randomly observed the American Bridge/Fluor (ABF) welder Wai Kit Lai setting up to continue performing the shielded metal arc welding (SMAW) back weld. The QA Inspector previously performed random visual testing and dimensional verification of the bevel angle and root opening of the above identified fit up. The QA Inspector randomly observed the fit up appeared to be in general compliance with ABF-WPS-D1.5-1030. Upon the arrival of the QA inspector, it was noted the SMAW 4G back weld appeared to be approximately 80% complete. The QA Inspector randomly observed the SE QC Inspector John Pagliero was on site monitoring the in process welding. The QA Inspector randomly observed the SMAW parameter were 125 Amps while utilizing 1/8" E7018 low hydrogen electrodes. The QA Inspector noted the SMAW parameters appeared to be in general compliance with the contract requirements. The QA Inspector randomly observed the ABF welder completed the 4G back weld at approximately 0830. The QA Inspector noted the ABF welder spent the remainder of the shift back grinding the weld joint from the opposite side of the back weld.

**7W/8W-A1-A5**

Upon the arrival of the QA Inspector in the am it was observed the above identified weld joint was fit up with the approved temporary attachments or fit up gear in place. The QA Inspector randomly observed the ends of the above identified weld joint had been previously welded to completion. The QA Inspector randomly observed the

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## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

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first 600mm of A1 and the last 600mm of A5 had been welded root/fill/cover, locking the top deck plate in place. The QA Inspector randomly observed the ABF welders identified as Xiao Jian Wan and Hua Qiang Hwang performing shielded metal arc welding (SMAW) of the gaps between the steel backing and the bottom of the bevel. The QA Inspector randomly observed and noted the QA Inspector randomly observed the Smith Emery (SE) Quality Control (QC) Inspector Tony Sherwood was on site monitoring the in process SMAW tack welding. The QA Inspector randomly observed and noted the SMAW parameters for both of the above identified ABF welders and they were; 128 Amps while utilizing 1/8" E7018 low hydrogen electrodes. The QA Inspector randomly observed the full length tack weld was approximately 90% completed only the 15 locations where there were gaps previously approved to weld. The QA Inspector noted the approval to weld the areas was granted on the previous 10-8-10 shift. The QA Inspector randomly observed the ABF welder Hua Qiang Huang begin performing SMAW of the areas where the gaps exceeded 2mm. The QA Inspector noted the full length tack weld was nearly completed at the end of the QA Inspectors shift. The ABF welding Superintendent Dan Ieraci informed the QA Inspector the SAW root pass would be performed in the morning of the next day shift. The QA Inspector noted the FCAW/SMAW seal weld or full length tack weld was completed on this date.

### 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 Mohammad Fatemi (916)-813-3677, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Bettencourt,Rick	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell,Bill	QA Reviewer

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