

**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:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029159**Date Inspected:** 23-Feb-2013**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:** As noted 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:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

This QA observed the following welders working on the OBG at various locations:

This QA Inspector at random intervals, observed ABF welder Wai Kit Lai #2953 utilize the Shielded Metal Arc Welding (SMAW) process in the 4G overhead position to fill the B-U2a Complete Penetration Joint (CJP) on the East OBG Alignment Lug Hole (ALH) #4 on the interior of the OBG/Skyway. The welder was observed working with 4.0mm E7018 low Hydrogen electrodes drawing amperage of 136. The QC Inspector monitored the welding and the parameters to ensure compliance with ABF-WPS-D1.5-1110A-CU. This QA Inspector made subsequent observations to monitor quality and noted that the work at this location was completed on this date and appeared to be in general conformance with the contract documents.

This QA Inspector randomly observed the weld repair operations of the West ALH #3 at y=270 mm. ABF welders Mike Jimenez utilized the Carbon Arc Gouging (CAG) process to remove metal and eliminate the indication. The dimensions of the excavation were recorded as; 100L/24W/15D. Upon completion of the gouging, the QC Inspector performed a Magnetic Particle (MT) Inspection of the site to ensure sound and a clean shiny metal appearance. This QA Inspector observed no relevant indications and the welder began to fill the site utilizing the SMAW process in the 1G flat position with 3.2mm E7018 electrodes drawing amperage of 127. The QC Inspector monitored the welding and the parameters in accordance with ABF-WPS-D1.5-1001-Repair. Upon completion of

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# WELDING INSPECTION REPORT

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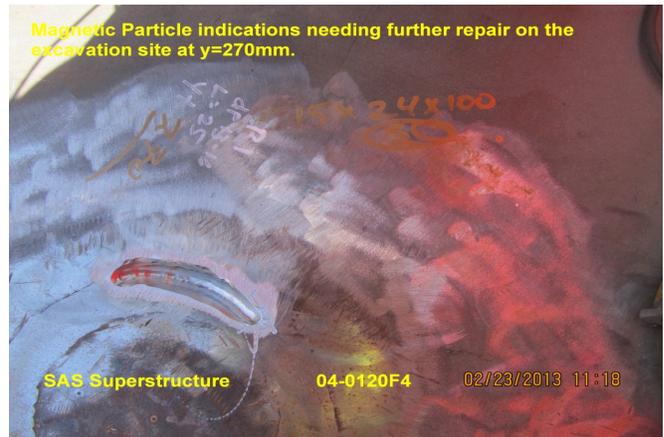
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the repair the site was post weld heat treated below heat blankets to a temperature of 450 to 650° for a period of not less than 1 hour. This QA Inspector made subsequent observations to monitor quality and noted that the work at this location was completed on this date and appeared to be in general conformance with the contract documents.

This QA observed QC Inspector Salvador Merino performing welding parameter checks such as voltage, amps, electrodes and preheats throughout the day. This QA also observed QC Inspector's Jesse Cayabyab performing various Non-Destructive Testing (NDT) on completed weld repairs as they became available for testing. Non-Destructive Testing methods utilized by the QC Inspectors were Visual Testing (VT), Magnetic Particle Testing (MPT) and Ultrasonic Testing Shear Wave (UTSW). QC Inspectors were observed performing inspection per applicable code and or contract criteria. Unless otherwise noted, all work observed on this date appeared to generally comply with the contract documents.

### Summary of Conversations:

Conversations were relevant to work performed.



### 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 Gary Thomas 916-764-6027 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Frey,Doug	Quality Assurance Inspector
<b>Reviewed By:</b>	Reyes,Danny	QA Reviewer

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