

**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:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028635**Date Inspected:** 23-Oct-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job site**CWI Name:** Bernard Docena**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**Summary of Items Observed:**

Quality Assurance Inspector (QAI) Rodney Patterson 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:

**Ultrasonic Testing OBG**

This QA performed verification Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) Deck and corner drop-in related welds for lifts 12E and 13W as well as deck access hole stiffener connections for lift 2W at W5. The welds were previously tested and accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The QAI's findings are as follows;

**2W Deck Access Hole stiffener Splice (Weld No. DAH-2W-PP13.5-W5-LS-W)**

The QAI performed 100% verification of this weld. No rejectable indications were observed at the time of inspection.

**12E Corner Drop-in Deck Splice (Weld No. 12E-E2.1-A1)**

The QAI performed verification of this weld from Y=0~1000. No rejectable indications were observed at the time of inspection however due to rejectable indications observed by QA inspector Doug Frey at other locations on this weld further repairs will be required at a later date.

**13W Deck Drop-in Flange Splice (Weld No. 13W-PP123-E2.1-BF2)**

The QAI performed 50% verification of this weld from Y=0~220. No rejectable indications were observed at the

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

---

---

time of inspection.

The QAI noted and periodically observed ABF/JV welder Wai Kit Lai performing Carbon Arc Gouging (CAG) for the repair of the deck drop-in longitudinal splice designated as 13W-W2.8. The ABF/JV QC inspector Bernard Docena was observed performing magnetic particle testing (MT) in way of the completed repair excavation at the following locations,

13W-W2.8

Y=2450, Depth 7, Width 20mm, Length 95mm

Y=3125, Depth 6, Width 20mm, Length 100mm

The ABF welder Wai Kit Lai was observed later in the shift performing Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specifications ABF-WPS-D1.5-1004-Repair. The weld and surrounding area was brought to a temperature of 325°F by the use of induction heaters and maintained throughout the welding process. The QAI observed a post weld heat treatment of 450°F for one hour as required by the repair procedure. The repair was performed in accordance with the approval for repair document RWR201210-018.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### **Summary of Conversations:**

Conversations relevant to the work being 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.

---

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

---