

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 #: 1x.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013562**Date Inspected:** 27-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1200**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Bonifacio Daquinag Jr.**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 Sections**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) In process production welding at W3/W4 – A1 thru A5; ABF welding personnel Jordan Hazelaar (# 2135) and QC Inspector Bonifacio Daquinag Jr.
- 2) Repair welding was being performed as E1/E2 – D1 - inside; ABF welding personnel Mitch Sittinger (#0315) and QC Inspector Tony Sherwood.
- 3) Work in progress at E1/E2 – F regarding RFI 2097-R0; ABF welding personnel Chun Fai Tsui (#3426) and James Zhen (#6001) with QC Inspector Tony Sherwood.

At W3/W4 – A1 thru A5 this QA Inspector randomly observed QC Inspector Bonifacio Daquinag Jr. monitoring the Submerged Arc Welding (SAW) being performed by ABF welding personnel Jordan Hazelaar (# 2135). The QA Inspector observed the following welding SAW parameters; 556 amperes and 32.3 volts with a travel speed of 393 mm per minute. The welding observed appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-4040A-1. QC Inspector Bonifacio Daquinag Jr. informed the QA Inspector the welding consisted of several cover passes to finish filling the weld joint and should be done in several hours.

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At E1/E2 – D1 this QA Inspector randomly observed QC Inspector Tony Sherwood monitoring repair welding using the Shielded Manual Arc Welding (SMAW) process by ABF welding personnel Mitch Sittinger (#0315) from inside the Orthotropic Box Girder (OBG). This QA Inspector observed the excavation of a defect rejected by ultrasonic testing approximately 600 mm from the side plate (C). The excavation was 165 mm in length, 8 mm side and 8 mm deep. The QA Inspector randomly observed QC Inspector Tony Sherwood perform and accept the Magnetic Particle Testing (MT) on the excavation prior to welding. This QA Inspector observed QC Inspector Tony Sherwood verify the following welding parameters prior to the start of repair welding: 148 amperes using a 3.2 mm diameter E7018 electrode. The welding observed appeared to comply with WPS - ABF-WPS-D15-1001-Repair.

At E1/E2 – F and B this QA Inspector randomly observed QC Inspector Tony Sherwood monitoring Shielded Manual Arc Welding (SMAW) by ABF welding personnel Chun Fai Tsui (#3426) at edge plate B and James Zhen (#6001) at edge plate F. This QA Inspector observed the welding being performed at both locations was from the backing strap of the top deck plate (A) to a transition the edge plate (F and B). The QA Inspector observed QC Inspector Tony Sherwood verify 145 amperes as the welding parameters for Chun Fai Tsui (#3426) and 160 amperes for welding personnel James Zhen (#6001). The work observed appeared to comply with RFI 2097-R0 and WPS - ABF-WPS-D15-1200A.

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.

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