

**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-027611**Date Inspected:** 16-May-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:** jobsite**CWI Name:** William 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**Summary of Items Observed:**

At the start of the shift this Quality Assurance Inspector (QALI) traveled to the SAS project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) Quality Control (QC) personnel. The observations and inspections were performed as noted below:

OBG W13, Drop-In Plate Splices.

This QAI observed the welding of the "A" deck plate drop-in field splice identified as weld number W2.4 at pp120.6. The welding was performed by the welding operator Ken Chappell, ID 3833, utilizing the Submerged Arc Welding (SAW) process as per the Welding Procedure Specification (WPS) ABF-WPS-D15-4042B-1 Rev. 0. The WPS was also used by the Quality Control (QC) Inspector William Sherwood to monitor the welding and verify the welding parameters during the Complete Joint Penetration (CJP) groove welding of the transverse field splice. The QAI observed the QC inspector verify the welding parameters and were noted as follows: 350 amps, 30 volts and a travel speed measured at 457 mm per minute. The minimum preheat temperature of 65 degrees Celsius and the maximum interpass temperature of 230 degrees Celsius was also verified by the QC inspector.

This QAI also observed the welding of the "A" deck plate drop-in field splices identified as weld number pp 121.2-W2.5. The welding was performed by the welding operator Mr. Chappell utilizing the above mentioned arc welding process and Mr. Sherwood was also observed performing the in process weld inspection and QC verification. This QAI observed and verified the welding and QC inspection at random intervals.

Later in the shift, this QAI observed the welder Wai KitLai, ID-2953, perform the welding of the "A" deck drop-in

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field splice identified as weld number A2.2 at splice 13W-14W. The welding was performed, utilizing the Submerged Arc Welding (SAW) process, in the flat (1G) position with the work placed in an approximately horizontal plane and the weld metal deposited from the upper side. The welding was performed utilizing the WPS ABF-WPS-D15-4042B-1 rev 0, which was also used by the QC inspector to monitor the welding and verify the welding parameters which were noted as 550 amps 32volts, 482 mm/m. This QAI observed and verified the welding and QC inspection at random intervals.

Due to a design modification of the suspender bracket located at 12W-PP106, Submittal 2617, this QAI observed the fit-up of the stiffeners identified as 1 and 2. At conclusion of the fit-up inspection performed by Mr. Sherwood no issues were noted and the welding commence at this time. The welding was performed by the welder Eric Sparks, ID 3040, utilizing the Shield Metal Arc Welding (SMAW) process which appeared to comply with WPS identified as ABF-WPS-D15F-1200a rev 2. The WPS was also used by QC inspector to monitor the welding and verify welding parameters which were noted as follows: 125amps. The welding on stiffeners 1 and 2 was completed during this shift.

### Summary of Conversations:

There were general conversations with Quality Control Inspector, William Sherwood, at the start of the shift regarding the location of the welding and inspection personnel scheduled for this shift.

### 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.

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

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