

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-028793**Date Inspected:** 19-Nov-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:** Barry Drake and Steve Jensen**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:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 13W-PP123-W2.8 BF2 drop-in floor beam inside, QA randomly observed ABF/JV welder Ric Chouinard perform CJP groove welding surface repair due to various surface defects. The welder was observed welding in 4G (overhead) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1001-Repairs. The surface repairs were preheated to more than 150 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC Fred Michels was noted monitoring the welder. These surface repairs were noted after ABF QC has turned them over to QA and these were rejected due to surface defects. At the end of the shift, surface welding repair was still continuing and should remain tomorrow.

At OBG 8W-PP61.5-W2 deck access hole inside, QA randomly observed ABF/JV welder Wai Kit Lai continuing to perform CJP groove welding repair on a non-Seismic Performance Critical Member (SPCM) due to Ultrasonic Testing (UT) detected defect on welded butt joint. The welder preheated the repair area and its vicinity to >150°F using propylene gas torch prior excavation and then ground smooth the groove of the excavation. The welder was noted using propylene gas torch to preheat the repair area and its vicinity to 150°F and as soon as the required temperature was attained the welder started performing the welding repair. These repairs listed below don't need Request for Weld Repair (RWR) due to second time repair only. Welder Wai Kit Lai was observed manually welding in 4G (overhead) position utilizing Shielded Metal Arc Welding (SMAW) with 3.2mm diameter

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E7018H4R electrode implementing Caltrans welding procedure ABF-WPS-D15-1000 Repair. Welder Wai Kit Lai was noted welding at various Y locations. During welding, ABF QC Barry Drake was noted monitoring the welder's welding parameter with measured working current of 122 amperes on the 3.2mm diameter E7018H4R electrodes. At the end of the shift, repair welding at the various locations was still continuing and should remain tomorrow.

Y-location	Length	Width	Depth	RWR#	Remarks
1. 2080mm	170mm	40mm	13mm	N/A	R2- completed.
2. 3210mm	100mm	30mm	11mm	N/A	R2- completed.

At the request of Quality Control Field Supervisor Bonifacio Daquinag and per Request for Information (RFI)ABF-RFI-003106R00, QA has randomly verified the QC VT/MT on the cantilever box bracket for panel point PP121 two (2) fillet weld joints and one (1) ground off paint base metal of the same. The QA verification was performed to verify that the VT/MT inspection performed by the QC inspector meet the requirements of the contract documents. At the conclusion of the QA verification it appeared that the welds and the QC inspection complied with the contract documents.

1. Bike Path cantilever box bracket assembly – two fillet weld joints and ground off paint base metal

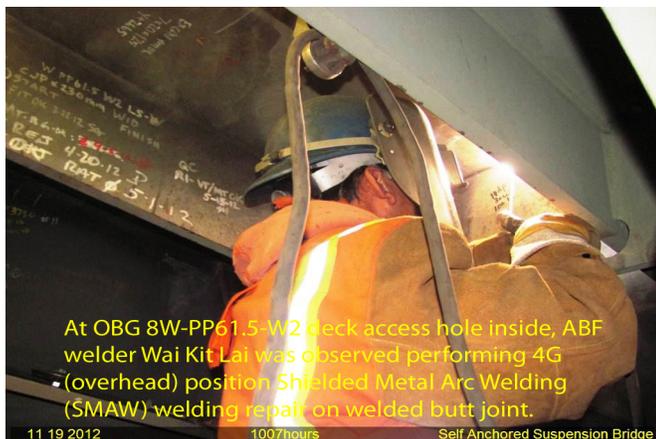
FW Spenser:

The QAI observe the ongoing installation, field fit-up and tack welding of the utility pipe support lug 5" long x 1" wide x 3/8" thick along the W5 grid line (panel point PP101). The lug pipe support was fillet welded on both sides of the 2 1/2" diameter domestic water line. The QC inspection was performed by Steve Jensen utilizing the Welding Procedure Specification (WPS) identified as Fillet Murex to monitor the tack welding and fillet welding to verify the welding parameters. The welding parameters were observed and recorded as 90 amps utilizing 2.4 mm electrodes with the welding performed in the 2F/4F positions. The tack welding/fillet welding was performed and completed by FW Spenser welder Damian Llanos. At the end of the shift, two (2) support lugs welded on 2 1/2" domestic water line were completed.



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Summary of Conversations:

No significant conversation occurred today.

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

Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
Reviewed By:	Reyes, Danny	QA Reviewer
