

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-013982**Date Inspected:** 14-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	William Sherwood and Jim Cunningham			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:	Orthotropic Box Girder		

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 L5E/L6E bottom plate 'D' inside, certified ABF welder Jordan Hazelaar (ID #2135) was noted performing flat (1G) Submerged Arc Welding (SAW) welding fill to cover pass on the splice butt joint. The welder was utilizing F7A6-EM12K-H8, 3.2mm electrode with corresponding Esab OK Flux 10.62 flux and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-4042B-1. The welder was welding using a track mounted Lincoln Electric "Cruiser Tractor" wire feeder and a Lincoln Electric AC/DC 1000 SD Power Wave welding machine. The plates were preheated to >150 degree F using two Miller Proheat 35 Induction Heating System located at the opposite side of the plate prior/during welding. Welding parameters was monitored by Jim Cunningham. Parameters measured by QA during welding were 550 amperes, 32.2 volts and 355mm per minute travel speed. QA noted the welding parameters, the workmanship and appearance of the completed fill and cover passes satisfactory and were deemed acceptable to contract requirements. During the shift, the welder has completely welded the area (6300mm long) where the wire feeder could reach. At the North side of the joint, approximately 1400mm long still need to be welded either by hand SMAW/FCAW-G and at the South side of the joint there is also 800mm long still need to be welded.

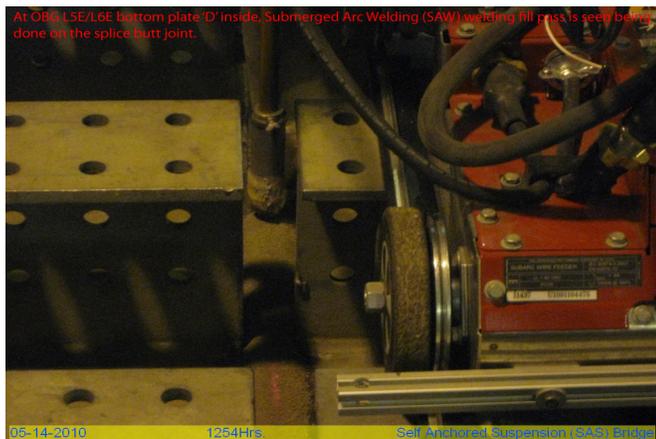
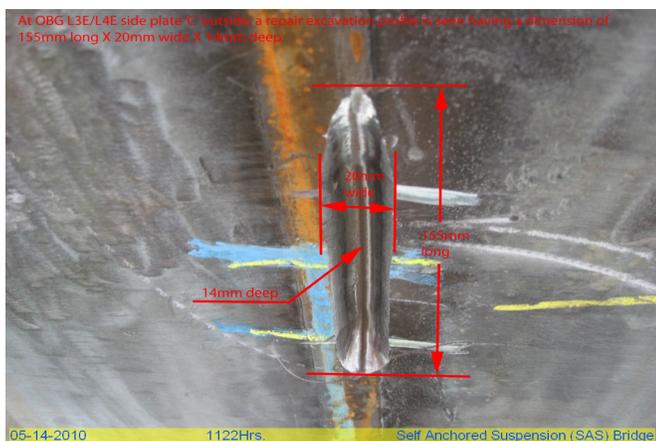
At OBG L3E/L4E side plate 'C' outside, QA randomly observed ABF/JV qualified welder Mitch Sittinger continue perform CJP groove welding repair. The welder was observed welding in the 4G (overhead) position utilizing Shielded metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding

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procedure ABF-WPS-D15-1000-Repairs. The repair excavations were preheated to more than 140 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC William Sherwood was noted monitoring the welder. Prior welding, ABF QC William Sherwood was also observed performing Magnetic Particle Testing (MT) using Parker Contour Probe with red magnetic powder as detecting media on the repair excavation. During the shift, the welder has completed three welding repairs outside and was noted flush grinding the repaired areas and fixing the temporary welding attachment removal.

At OBG L5E/L6E side plate 'C' outside, ABF welder Rick Clayborn was observed installing fitting gear at the plate to be used as an aid in installing the backing bar of the splice butt joint. During the installation, the welder was noted welding the fitting gear/temporary attachment using 1/8" diameter E7018H4R electrode. During the installation, ABF QC Bonifacio Daquinag was noted monitoring the welder and his parameters. Installation/tack welding of the fitting gear was seen complete at the end of the shift.



Summary of Conversations:

As stated 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 SMR Mohammad Fatemi (916) 227-5298, who represents the Office of Structural Materials for your project.

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Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
Reviewed By:	Levell, Bill	QA Reviewer
