

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 #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017531**Date Inspected:** 21-Oct-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:	Tom Pasqualone and Jesse Cayabyab			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 7W/8W top deck plate 'A1' outside, QA randomly observed ABF/JV qualified welder James Zhen ID # 6001 perform CJP groove welding first time repair. The welder was observed welding in the 1G (flat) position utilizing Shielded Metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1001-Repairs. The repair was located at Y-dimension 1150mm to 1300mm with excavation 460mm long x 20mm wide x 20mm deep. The boat shape excavation was preheated to more than 140 degree Fahrenheit using propane gas torch prior welding. During the shift, ABF QC Steven Mc Connell was noted monitoring the welder. Prior welding, ABF QC Steven Mc Connell was also observed performing Magnetic Particle Testing (MT) using Parker Contour Probe with red magnetic powder as detecting media on the repair excavation. There were no significant defects noted during the test. During the shift, repair welding at the location mentioned above was completed.

At OBG 6W/7W side plate 'C' inside, QA randomly observed ABF welder Songtao, Huang continuing to perform 3G SMAW welding fill to cover pass on 9955mm to 10555mm location of the splice butt joint. This location was welded manually using the SMAW due to limited access when using the automatic FCAW-G track mounted Bug-o nozzle holder. The welders were using 1/8" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-1040A. During welding, ABF QC William Sherwood was noted monitoring the welder's welding parameters. At the end of the shift, cover pass welding on

WELDING INSPECTION REPORT

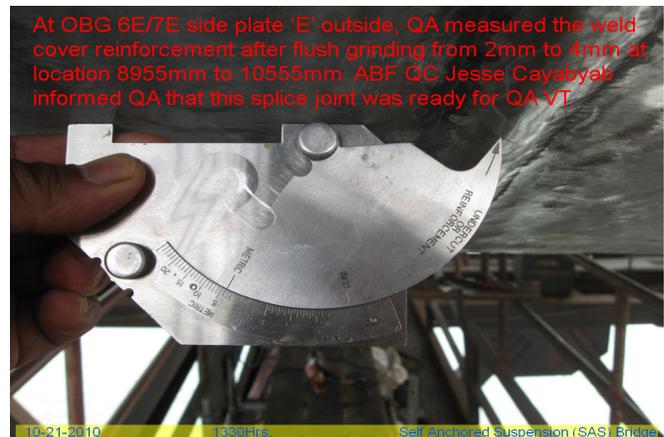
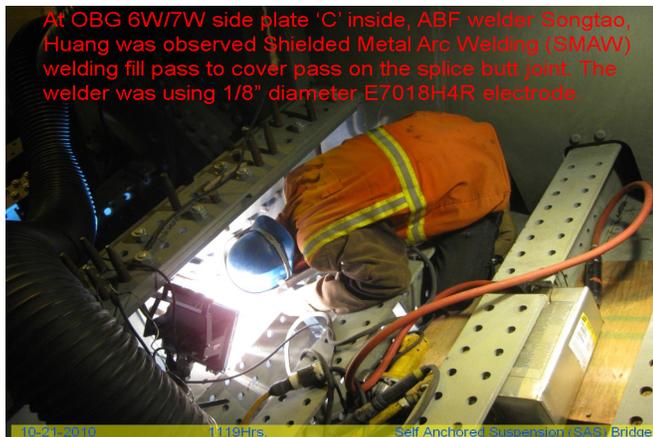
(Continued Page 2 of 3)

this location was completed.

At OBG 6W/7W side plate 'C' outside, QA randomly observed ABF personnel Rory Hogan and Jeremy Dolman continuing to perform plasma arc gouging on the backing bar removal of the splice butt joint. The personnel were using an Esab plasma arc gouging machine that has the nozzle holder attached to a Bug-o track. Gouging of the backing bar was not completed today and should continue tomorrow.

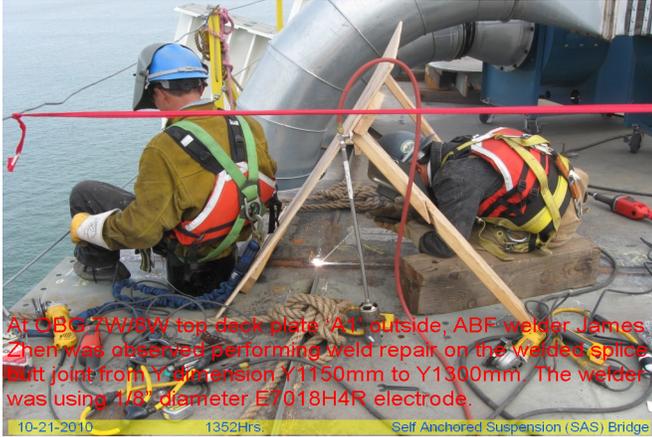
At OBG 6E/7E side plate 'E' outside, this QA performed 100% visual test (VT) on the flushed ground weld cover reinforcement after ABF QC Jesse Cayabyab informed this QA that the joint was ready. During the verification, the joint was noted with undercut and excessive reinforcement from 8955mm to 10555mm. The ABF QC was informed and verified these findings. QC has acknowledged the presence of the undercut and excessive reinforcement and told this QA that he will inform ABF about the surface defects and fix them. Also at bottom plate 'D' inside of the same OBG, ABF QC informed this QA that the welded splice butt joint was ready for QA VT verification. QA performed random verification and noted multiple locations of excessive reinforcement.

At OBG 7W/8W top deck plate 'A2' and 'A5' outside, ABF QC Steven Mc Connell and Tom Pasqualone were observed performing Ultrasonic Testing (UT) respectively on the welded splice butt joint. QC were using General Electric USM35 ultrasonic machine. Both QC were also observed scanning from both sides of face 'A' of the joint. Steven Mc Connell was noted marking nine weld repairs while Tom Pasqualone has marked six weld repairs. During the shift, ultrasonic testing on the welded splice butt joint was still continuing and should remain tomorrow.



WELDING INSPECTION REPORT

(Continued Page 3 of 3)



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 Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By: Lizardo, Joselito

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer