DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-028157
Date Inspected: 10-Aug-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1730
Location: Job Site

CWI Name:	As noted below.	**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:**	Tower / OBG

Summary of Items Observed:

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

Electroslag Weld Repair Welding

This QA randomly observed ABF/JV qualified welder James Zhen #6001 performing Shielded Metal Arc Welding (SMAW) with 3.2mm" diameter E7018H4R electrode and implementing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D15-1000-R. The joint being welded was tower shear plate designated as ESW weld, location "B" from face A.

Dimensions excavated for these repairs were:
Weld "B" – Y=3940mm, L=170mm, W50mm, D=19mm

During welding, ABF Quality Control (QC) Andrew Keech was noted monitoring the welding parameters. Welding parameters were recorded as (A=121).

Electroslag Weld Excavation

This QA observed ABF/JV welding personnel James Zhen #6001 performing excavation of an Electroslag Weld (ESW) previously Ultrasonic Tested (UT) by Quality Control (QC) technicians.

The UT discovered indication was found to be oriented in the longitudinal position. The indication was found to be rejectable per AWS D1.5 Table 6.4).

The weld being excavated is designated as "ESW B" and was excavated on Face A at location:
Weld "B" – Y=3940mm, L=170mm, W50mm, D=19mm

The carbon arc gouging process, as well as machine grinding, were used to excavated approximately 2mm-5mm at a time. In between excavation passes both QA and QC performed Magnetic Particle Testing (MT).

WRR-201208-019

This QA observed ABF/JV welding personnel Wen Han Yu #6317 performing excavation of an Electroslag Weld (ESW) previously Ultrasonic Tested (UT) by Quality Control (QC) technicians.

The UT discovered indication was found to be oriented in the longitudinal position. The indication was found to be rejectable per AWS D1.5 Table 6.4).

The weld being excavated is designated as “ESW B” and was excavated on Face B at location:
Weld “B” – Y=9660mm

The carbon arc gouging process, as well as machine grinding, were used to excavated approximately 2mm-5mm at a time. In between excavation passes both QA and QC performed Magnetic Particle Testing (MT).

This excavation is currently in-progress and final measurements have not been made. Please see attached photographs for more information.

*Note: Approximately 13:30 this excavation had to be halted do to pressure washing being performed above. Water from the pressure washing process was contaminating the weld excavation making mechanical grinding and MT unsustainable.

WRR-201208-022

This QA observed ABF/JV welding personnel Wen Han Yu #6317 performing excavation of an Electroslag Weld (ESW) previously Ultrasonic Tested (UT) by Quality Control (QC) technicians.

The UT discovered indication was found to be oriented in the longitudinal position. The indication was found to be rejectable per AWS D1.5 Table 6.4).

The weld being excavated is designated as “ESW B” and was excavated on Face B at location:
Weld “B” – Y=1090mm

The carbon arc gouging process, as well as machine grinding, were used to excavated approximately 2mm-5mm at a time. In between excavation passes both QA and QC performed Magnetic Particle Testing (MT).

This excavation is currently in-progress and final measurements have not been made. Please see attached photographs for more information.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

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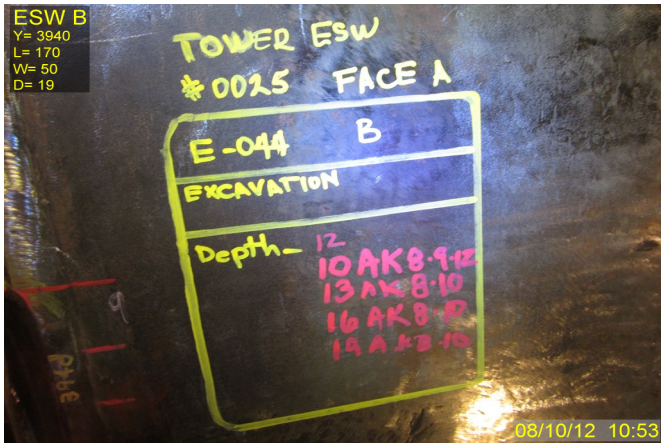

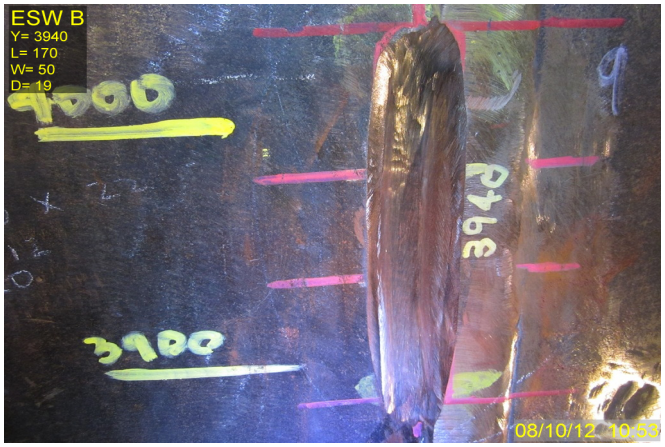

Summary of Conversations:

Conversations were relevant to work performed.

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 Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Clifford,William	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer