

**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:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029949**Date Inspected:** 26-Aug-2013**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

<b>CWI Name:</b>	Jesse Cayabyab, Bernie Docena	<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>
<b>Inspected CWI report:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
		<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Bridge No:</b>	34-0006	<b>Component:</b>	SAS Tower	

**Summary of Items Observed:**

Caltrans Quality Assurance Inspector (QA) Joe Adame arrived at the American Bridge/Fluor (ABF) JV job site between the times noted above in order to monitor ABF Quality Control activities and the in process work being performed by ABF production personnel. The following items were observed:

ESW Repair excavation

RWR-201308-003

ESW E-043, Location "Q"-Face A:

The QA Inspector was later present to observe ABF welder Donald Plumb (WID-0891) performing Shield Metal Arc Welding (SMAW) of the repair excavation on Electroslag Weld (ESW) "Q", at face B. Locations are listed as detailed in Request for Weld Repair (RWR) 201308-003 from Ultrasonic Testing indications designated for repair.

The repair locations were noted as:

Y= 3800mm~4300mm

L= 500mm

W= 80mm

D= 70mm

Prior to welding, Welder -0891 was observed preheating the weld to over 300° Fahrenheit prior to welding using the Miller ProHeat 35 with heat induction blankets. The welder was using 4.0mm diameter electrode (E7018-1 HR4) per ABF Welding Procedure Specification (WPS) ABF-WPS-D15-1000-Repair Rev.3. The welding parameters were verified by ABF QC Inspector Bernie Docena with a Fluke 337 current clampmeter and preheat was verified with temperature indicators. Mr. Docena performed welding parameters verifications at random intervals throughout the shift. The welding observed appeared to be in compliance with the WPS noted above.

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Welding repair at this location approx. 75% complete.

ESW Repair excavation

ESW E-043, Location "Q"-Face B:

ABF-RFI-003457R00

RWR-201306-002

The QA Inspector was present to observe ABF welder Wai Kit Lai (WID-2953) completing work to remove a section of 9m Diaphragm plate as per ABF Request for Information (RFI) -003457R00. Mr. Lai was then observed performing excavation of ESW "Q" Face B@ Y-6000mm (Actual 9m) to remove indications observed during visual and magnetic particle inspection. Mr. Lai was performing the excavation using an air carbon arc gouging and a grinder. Mr. Lai was instructed by ABF QC Inspector Jesse Cayabyab to notify him when indications are visible to allow QC/QA time to inspect the excavation. Location of the repair is as follows:

Weld previously excavated at 10mm dp- planar indication @ Y-5940mm

Weld excavated at 15mm dp after removal of 9m diaphragm plate- No indications observed.

Weld excavated at 20mm dp- No indications observed.

Weld excavated at 31mm dp- No indications observed.

Excavation Y=5800mm~6150mm, L=350mm, W=50mm, D=31mm.

After grinding to bright metal the QC Inspector performed MT testing of the excavation. The QC Inspector stated the excavation appears to be free of discontinuities and he would complete ABF daily inspection report and magnetic particle testing report to detail the findings. The QA Inspector also performed MT inspection of the final excavation. After excavation Mr. Lai was observed setting up to perform SMAW repair welding on this date. See TL-6028 for additional details on items inspected on this date.



## Summary of Conversations:

Only general conversations with ABF/JV QC NDT personnel relevant to work and testing performed during 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 Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Adame,Joe	Quality Assurance Inspector
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<b>Reviewed By:</b>	Mertz,Robert	QA Reviewer
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