

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-029872  
**Date Inspected:** 27-Jul-2013

**Project Name:** SAS Superstructure **OSM Arrival Time:** 700  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **OSM Departure Time:** 1530  
**Contractor:** American Bridge/Fluor Enterprises, a JV **Location:** Job Site

<b>CWI Name:</b>	Jesus Cayabyab, Bernie Docena	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes	No N/A
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes	No N/A
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes	No N/A
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes	No N/A
		<b>Delayed / Cancelled:</b>	Yes	No N/A
<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) job site between the times noted above in order to monitor ABF Quality Control functions and the in work being performed by ABF personnel. The following items were observed:

**In Process Visual Inspection**

RWR201305-009

ESW W-043, Location "V"-Face B

The QA Inspector observed, at random intervals, ABF/JV welder Mike Jimenez (WID-4671) performing weld repairs of the repair excavation on Electroslag Weld (ESW) "V", at face B locations noted as:

Y= 6200~7000mm

L= 800mm

W= 80mm

D= 70mm

Prior to the repair work, ABF Quality Control (QC) Inspector Bernie Docena performed an informational MT verification of the repair area to verify the weld was clear of any discontinuities. The welder 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-MH4-R) per ABF Welding Procedure Specification (WPS) ABF-WPS-D15-1000-Repair Rev.3 for Shield Metal Arc Welding (SMAW). The welding parameters were verified by QC Inspector Bernie Docena throughout the day and appeared to be in compliance with the WPS noted above.

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## In Process Visual Inspection

RWR201307-005

ESW S-045, Location "G"-Face A

The QA Inspector observed, at random intervals, ABF/JV welder Kit Lai (WID-2953) performing weld repairs of the repair excavation on Electroslag Weld (ESW) "G", at face A locations noted as:

Y= 9400~9620mm

L= 220mm

W= 50mm

D= 38mm

The welder 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-MH4-R) per ABF Welding Procedure Specification (WPS) ABF-WPS-D15-1000-Repair Rev.3 for Shield Metal Arc Welding (SMAW). The welding parameters were verified by QC Inspector Bernie Docena throughout the day and appeared to be in compliance with the WPS noted above.

## Investigative excavation

ESW E-045,"F"-Face A:

RWR201306-002

The QA Inspector was later present to observe ABF welder Simon Ma performing exploratory excavation of ESW "F" Face A @ Y-8790mm, 8960mm to verify indications observed during Ultrasonic Testing pulse/echo & pitch/catch. Mr. Ma was performing grinding on the excavation. ABF QC Inspector Jesse Cayayab stated that Mr. Ma will excavate every 2mm deep and allow QC/QA to inspect the excavation. Location of the repair is as follows:

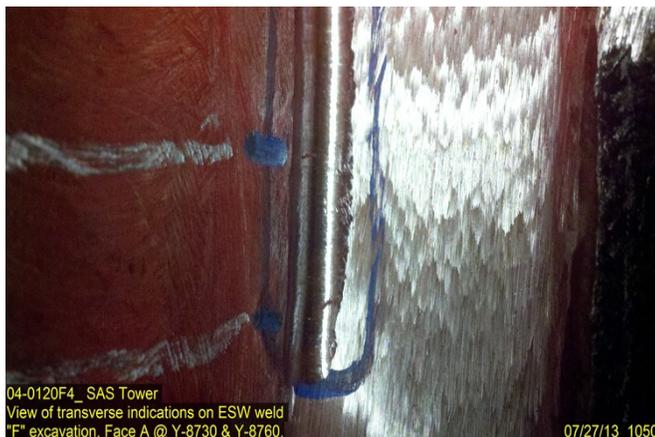
Weld excavated at 10mm- Transverse indication @Y-8730

Weld excavated at 12mm- Transverse indication @Y-8730, Transverse indication @Y-8760

Weld excavated at 14mm- Transverse indication @Y-8730, Transverse indication @Y-8760

Excavation Length Y=8680mm~9090mm (Excavation work in progress to be continued on the next work shift)

After grinding to bright metal the QC Inspector performed MT testing of the excavation to inspect for weld discontinuities at each hold point. Please note that the toe crack indication on the surface of the ESW weld @ 8520mm~8700mm still remains. The information regarding the toe crack was passed along to ABF and CT METS representatives for further review. See TL-6028 for additional details on items inspected.



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**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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