

**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-030085  
**Date Inspected:** 27-Sep-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>	Bernie Docena, Jesse Cayabyab	<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) 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-201308-009

ESW W-042, Location "M"-Face A:

The QA Inspector observed ABF welder Mike Jimenez (WID-4671) performing excavation of Electroslag Weld (ESW) "M" Face A @ Original Y's-5670mm, 5700mm & 5720mm to remove planar indications observed during Ultrasonic Testing with pulse/echo & pitch/catch. The repair information is described in Request for Weld Repair (RWR) 201308-009. Mr. Jimenez was performing the excavation using an air carbon arc gouging and a grinder. Mr. Jimenez was instructed by ABF QC Inspector Bernie Docena to notify him when indications are visible to allow QC/QA time to inspect the excavation. Location of this repair is as follows:

Weld excavated at 46mm dp- No indications observed.

Final excavation length (Y-5500mm~5850mm) L-350mm, W-60mm, D-46mm

After grinding to bright metal the QC Inspector performed Magnetic Particle Testing (MT) of the final 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 an MT verification of the final excavation. See TL-6028 for additional details on items inspected on this date. Mr. Jimenez was later observed setting up equipment at the repair location in preparation for SMAW of the repair excavation.

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### Ultrasonic Testing of Electroslag Welds (ESW) Pre-Repair verification

ESW W-044, Location "D"- Face A, B:

The QA Inspector observed ABF QC Inspector Jesse Cayabyab performed Ultrasonic Testing (UT) on Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as ESW "D" at face A, B. Mr. Cayabyab stated that he was instructed by ABF to perform pulse echo UT to document the depths and indications prior to repair (pre-repair verification). The original Y locations were indications identified with pitch/catch UT as rejectable or recordable and designated to be removed and repaired.

Y Location was noted as -750mm and HAZ areas located 300mm above and below the prosed repair locations.

QC/QA observed two recordable indications with pulse echo UT.

The QA Inspector also performed UT of the above mentioned ESW location in accordance with the ABF approved supplemental procedure for confirmation and evaluation of planar defects. Tandem report for work performed on this date will be completed by QC Inspector Jesse Cayabyab and signed by both QA/QC parties. Items listed on tandem report reflect indications agreed upon by QA/QC. The areas will be reinspected after SMAW repairs. See TL-6027 for additional details on the items inspected on this date.

### Ultrasonic Testing of Electroslag Welds (ESW) Pre-Repair verification

RWR-201307-005

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

The QA Inspector observed ABF QC Inspector Jesse Cayabyab performed Ultrasonic Testing (UT) on Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as ESW "G" at face A, B. Mr. Cayabyab stated that he was instructed by ABF to perform pulse echo UT to document the depths and indications prior to repair (pre-repair verification). The original Y locations were indications identified with pitch/catch UT as rejectable or recordable and designated to be removed and repaired.

Y Location was noted as -5585mm and HAZ areas located 300mm above and below the prosed repair locations.

QC/QA observed one rejectable indication with pulse echo UT.

QC/QA observed three recordable indications with pulse echo UT.

The QA Inspector also performed UT of the above mentioned ESW location in accordance with the ABF approved supplemental procedure for confirmation and evaluation of planar defects. Tandem report for work performed on this date will be completed by QC Inspector Jesse Cayabyab and signed by both QA/QC parties. Items listed on tandem report reflect indications agreed upon by QA/QC. The areas will be reinspected after SMAW repairs. See TL-6027 for additional details on the items inspected on this date.

### Ultrasonic Testing of Electroslag Welds (ESW) Pre-Repair verification

RWR-201308-005

ESW E-044, Location "B"- Face A, B:

The QA Inspector observed ABF QC Inspector Jesse Cayabyab performed Ultrasonic Testing (UT) on Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as ESW "B" at face A, B. Mr. Cayabyab stated that he was instructed by ABF to perform pulse echo UT to document the depths and indications prior to repair (pre-repair verification). The original Y locations were indications identified with pitch/catch UT as rejectable or recordable and designated to be removed and repaired.

Y Location was noted as -8200mm, 8420mm and HAZ areas located 300mm above and below the prosed repair locations.

QC/QA observed two recordable indications with pulse echo UT.

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The QA Inspector also performed UT of the above mentioned ESW location in accordance with the ABF approved supplemental procedure for confirmation and evaluation of planar defects. Tandem report for work performed on this date will be completed by QC Inspector Jesse Cayabyab and signed by both QA/QC parties. Items listed on tandem report reflect indications agreed upon by QA/QC. The areas will be reinspected after SMAW repairs. See TL-6027 for additional details on the 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>	Riley,Ken	QA Reviewer
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