

**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-029921**Date Inspected:** 15-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**CWI Name:** Bernie Docena, 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:** 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 functions and the in process work being performed by ABF production personnel. The following items were observed:

**NDT Inspection of Electroslag Welds (ESW)**

RWR-201307-009

ESW E-045, Location "F"- 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 "F" 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 areas will be reinspected after SMAW repairs. 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 – 6470mm and HAZ areas located 300mm above and below the proposed repair locations.

QC/QA did not observe any rejectable indications with pulse echo UT.

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

QA also performed UT of the above mentioned ESW location in accordance with the ABF approved supplemental procedure for confirmation and evaluation of planar type 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. See TL-6027 for additional details on the items inspected on this date.

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## NDT Inspection of Electroslag Welds (ESW)

RWR-201308-004

ESW S-043, Location "T"- Face 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 "T" at face 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 areas will be reinspected after SMAW repairs. The original Y locations were indications identified with pitch/catch UT as rejectable or recordable and designated to be removed and repaired. Y Locations were noted as – 4260mm, 4870mm and HAZ areas located 300mm above and below the prosed repair locations.

QC/QA did not observe any rejectable indications with pulse echo UT.

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

QA 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. See TL-6027 for additional details on the items inspected on this date.

## Repair excavation

RWR201308-003

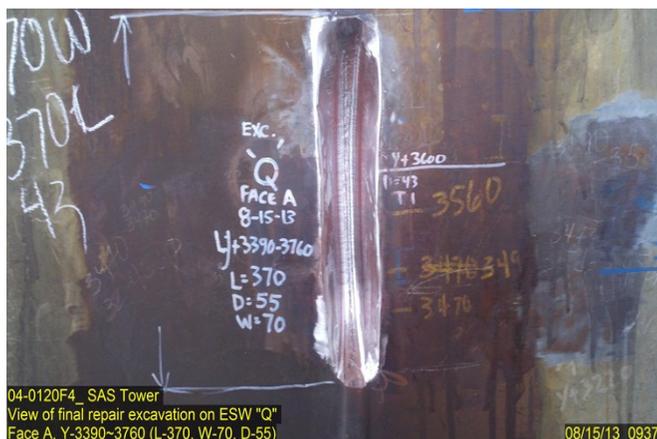
ESW E-043,"Q"-Face A:

The QA Inspector observed ABF/JV welder Donald Plumb (WID-0891) performing excavation of Electroslag Weld (ESW) "Q" face A, to verify indications observed during Ultrasonic Testing with pulse/echo & pitch/catch. Mr. Plumb was performing air carbon arc gouging and grinding on the excavation. After grinding to bright metal the ABF QC Inspector Bernie Docena performed MT testing of the excavation. Details of the final repair excavation are as follows:

WeId excavated at 55mm-No indications observed.

Excavation Length (Y=3390mm~3760mm) L-370mm, W= 70mm, D= 55mm.

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 See TL-6028 for additional details on items inspected on this date.



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# WELDING INSPECTION REPORT

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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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