

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-027999**Date Inspected:** 18-Jul-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**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 Component**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:

Ultrasonic Testing of ESW

ESW J, Face B:

This QA performed Ultrasonic Testing (UT) on approximately 1900mm of Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as "ESW J" face B. Location (Y=7950~9850) of this weld was inspected using this testing method.

This weld was previously accepted by QC Ultrasonic technicians in accordance with supplemental procedure SE-UT-D1.5-CT-108-ESW-R5.

This QA observed no linear recordable indications at the time of testing.

This QA generated a TL-6027 UT report on this date.

The following indications were observed as having a transverse orientation. Due to joint configuration and weld cap shape these indications could not be evaluated for length or "X" location.

Indication #1: Y= 9275mm

Sizing – A=82db, B= 54db, C= 5db, D= 22db

Sound Path= 91.40mm, Depth= 29.45mm

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Indication #2: Y= 9170mm

Sizing – A=81db, B= 54db, C= 7db, D= 20db

Sound Path= 114.5mm, Depth= 36.90mm

Note: This location appeared to be a grouping of two (2) or more transverse indications.

Indication #3: Y= 9150mm

Sizing – A=82db, B= 54db, C= 7db, D= 21db

Sound Path= 111.6mm, Depth= 35.97mm

Indication #4: Y= 9145mm

Sizing – A=82db, B= 54db, C= 6db, D= 23db

Sound Path= 84.46mm, Depth= 27.22mm

Indication #5: Y= 90900mm

Sizing – A=82db, B= 54db, C= 4db, D= 24db

Sound Path= 76.49mm, Depth= 24.65mm

Indication #6: Y= 9020mm

Sizing – A=75db, B= 54db, C= 7db, D= 14db

Sound Path= 117.3mm, Depth= 37.81mm

Indication #7: Y= 8925mm

Sizing – A=76db, B= 54db, C= 5db, D= 17db

Sound Path= 84.46mm, Depth= 27.22mm

Indication #8: Y= 8860mm

Sizing – A=76db, B= 54db, C= 6db, D= 16db

Sound Path= 106.1mm, Depth= 34.22mm

Indication #9: Y= 8840mm

Sizing – A=82db, B= 54db, C= 3db, D= 25db

Sound Path= 66.00mm, Depth= 21.27mm

Indication #10: Y= 8725mm

Sizing – A=77db, B= 54db, C= 5db, D= 18db

Sound Path= 83.38mm, Depth= 26.87mm

Indication #11: Y= 8690mm

Sizing – A=69db, B= 54db, C= 5db, D= 10db

Sound Path= 88.05mm, Depth= 28.37mm

Indication #12: Y= 8625mm

Sizing – A=66db, B= 54db, C= 7db, D= 5db

Sound Path= 117.5mm, Depth= 37.87mm

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Indication #13: Y= 8610mm

Sizing – A=79db, B= 54db, C= 7db, D= 18db

Sound Path= 110.3mm, Depth= 35.57mm

Indication #14: Y= 8540mm

Sizing – A=81db, B= 54db, C= 6db, D= 21db

Sound Path= 104.7mm, Depth= 33.75mm

Indication #15: Y= 8475mm

Sizing – A=76db, B= 54db, C= 7db, D= 15db

Sound Path= 109.2mm, Depth= 35.22mm

Note: This location appeared to be a grouping of two (2) or more transverse indications.

Indication #16: Y= 8380mm

Sizing – A=61db, B= 54db, C= 4db, D= 3db

Sound Path= 71.70mm, Depth= 23.10mm

Note: This location appeared to be a grouping of two (2) or more transverse indications.

Indication #17: Y= 8300mm

Sizing – A=80db, B= 54db, C= 6db, D= 20db

Sound Path= 107.0mm, Depth= 34.51mm

Indication #18: Y= 8275mm

Sizing – A=80db, B= 54db, C= 7db, D= 19db

Sound Path= 115.2mm, Depth= 37.15mm

Indication #19: Y= 8185mm

Sizing – A=79db, B= 54db, C= 4db, D= 21db

Sound Path= 75.91mm, Depth= 24.46mm

Indication #20: Y= 8125mm

Sizing – A=83db, B= 54db, C= 4db, D= 25db

Sound Path= 87.40mm, Depth= 28.26mm

Indication #21: Y= 8045mm

Sizing – A=75db, B= 54db, C= 5db, D=165db

Sound Path= 97.73mm, Depth= 31.49mm

Indication #22: Y= 7960mm

Sizing – A=81db, B= 54db, C= 8db, D= 19db

Sound Path= 131.7mm, Depth= 42.46mm

This QA performed UT of weld designated as ESW J in accordance with the approved supplemental procedure.

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This testing was performed in tandem with QC technician Scott Kortum. Tandem report for work performed on this date will be completed by QC technician and signed by both QA/QC parties. Items listed on tandem report reflect indications agreed upon by QA/QC. Due to QA/QC disagreement on indication interpretation, tandem report may not reflect all indications discovered by QA at time of testing. Please see TL-6027 for complete listing of QA recorded indications.

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

Summary of Conversations:

Conversations were relevant to testing 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.

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