

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018401**Date Inspected:** 23-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** See 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:** SAS OBG**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance Inspector (QAI) Bert Madison was present at Yerba Buena Island in California between the times noted above for observations relative to the work being performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below.

- 1). OBG Field Welding of Lifting Rod Access Penetration Inserts - (SMAW)
- 2). OBG Field Splice of Access Penetration Insert Longitudinal Stiffeners (SMAW)
- 3). OBG Field Splice of Access Penetration Insert Longitudinal Stiffeners (QA verification)
- 4). OBG Field Splice 7E/8E Weld ID: ALS-3 - (SMAW)

- 1). OBG Field Welding of Lifting Rod Access Penetration Insert (SMAW)

Exterior: OBG 2E-PP17-E3 – weld 1

The QAI periodically observed AB/F approved welder Salvador Sandoval (ID 2202) performing grinding of six (6) excavated areas and subsequent R-1 repair welding per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. See photo below. QC Inspector Patrick Swain was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1001 Repair. The QAI observed QC Inspector Pat Swain performing Magnetic Particle Testing (MT) of the excavated areas prior to back welding. The QAI observed that the performance and evaluation of the MT appeared to comply with the MT procedure identified as SE-MT-CT-D1.5-101 Rev. 4. Repair welding was completed and the QAI observed that the work at this location appeared to be in general compliance with contract documents.

Interior: OBG 4E-PP27-E4 - weld 2

The QAI periodically observed AB/F approved welder Mike Jimenez (ID 4671) performing pick-up welding per

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the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position of E4-weld 2. QC Inspector John Pagliero was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1110B rev.1. The welding, grinding and finish grinding at welds 2 & 4 was completed and the QAI observed that the work at this location appeared to be in general compliance with contract documents.

### 2). OBG Field Splice of Access Penetration Insert Longitudinal Stiffeners (SMAW)

The QAI periodically observed AB/F approved welder Xiao Jian Wan (ID 9677) performing welding per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position of OBG Field Splice of Access Penetration Insert Longitudinal Stiffeners at 6E-PP37.5-E2 LS-East. The QAI periodically observed the cover pass welding. The welding was completed at this location and appeared to be in general compliance with contract documents. The QAI also periodically observed welder 9677 performing local pre-heating and welding per the SMAW process in the 3G position of butter passes at OBG Field Splice of Access Penetration Insert Longitudinal Stiffeners at 6E-PP37.5-E2 LS-West. The buttering was completed at this location and appeared to be in general compliance with contract documents. QC Inspector John Pagliero was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1012-3.

### 3). OBG Field Splice of Access Penetration Insert Longitudinal Stiffeners (QA verification)

The QAI performed verification Magnetic Particle Testing (MT) of 25% and Ultrasonic Testing (UT) of 100% of the lengths of OBG Field Splice of Access Penetration Insert Stiffeners at 3E PP19.5 E5- LS- East, LS-West and the Transverse Stiffener at this location. The OBG Field Splices verified by the QAI at this location appeared to be in general compliance with contract documents. See Magnetic Particle Testing Report Form TL-6028 & Ultrasonic Testing Report Form TL-6027 generated by the QAI on this date.

### 4). OBG Field Splice 7E/8E Weld ID: ALS-3, – (SMAW)

The QAI periodically observed AB/F approved welder Hua Qiang Hwang (ID 2930) performing welding per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position of OBG Field Splice 7E/8E Weld ID: ALS-3. The QAI periodically observed the fit-up (see photo below) and the root, fill and cover pass welding. QC Inspector John Pagliero was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1012-3. The welding was completed from the first side and back grinding was in process on the second side. The work at this location appeared to be in general compliance with contract documents.

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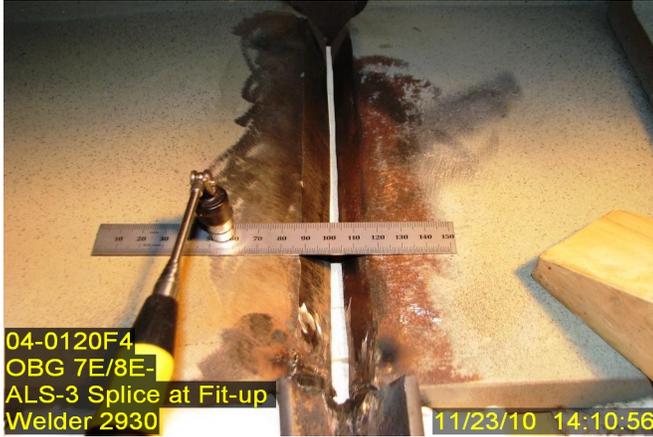
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## Summary of Conversations:

The QAI was informed by QC John Pagliero that OBG Field Splices of Access Penetration Insert Transverse Stiffener and Longitudinal Stiffeners at 3E PP19.5 E5 were accepted by QC and released to the QAI for verification testing.

Other conversations on this date with Quality Control Inspectors were general in nature and pertained to locations of welding and QC activities.

## 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 Nina Choy (510) 385 5910, who represents the Office of Structural Materials for your project.

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**Inspected By:** Madison, Bert

Quality Assurance Inspector

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**Reviewed By:** Levell, Bill

QA Reviewer