

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017243**Date Inspected:** 04-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 930**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1800**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). East Line OBG Splice Welding of Backing Bar for 8E/9E A (SMAW)
- 2). OBG Field Welding of East Line Lifting Rod Penetration Insert Welds. (R-1 Repair SMAW)
- 3). OBG Field Splice 5E/6E Weld D1 & D2, Face A (QAI Verification)
- 4). OBG Field Splice 7E/8E Weld ID: F1, Face A
- 5). OBG Field Splice 7E/8E Weld ID: B1, Face A
- 6). QC UT of East Line Lifting Rod Penetration Insert Welds (QC UT of welds and R-1 Repairs)

- 1). East Line OBG Splice Welding of Backing Bar for 8E/9E A (SMAW)

The QAI periodically observed AB/F approved welder Mike Maday (ID 3391) performing fit-up and Complete Joint Penetration (CJP) welding per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position of backing bar sections for the OBG Field Splice 8E/9E "A". See photo below. 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-D1.5-1030. Work was completed at this location and appeared to be in general compliance with contract documents.

- 2). OBG Field Welding of East Line Lifting Rod Penetration Insert Welds. (R-1 Repair SMAW)

Exterior:

The QAI periodically observed AB/F approved welder Darcel Jackson (ID 9967) performing R-1 repair welding of

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

the (4) four excavated areas at PP9.5, E4 weld 2 per the Shielded Metal Arc Welding (SMAW) process. See photo below. QC Inspector Steve McConnell 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-D1.5-1001-Repair. The repair welding was completed at this location during the QA Inspectors shift and the work appeared to be in general compliance with contract documents.

3). OBG Field Splice 5E/6E Weld D1 & D2, Face A (QAI Verification)

The QAI performed verification Ultrasonic Testing (UT) of 10% of the lengths of OBG Field Splice 5E/6E Weld ID: D1 & D2. The 5E/6E Weld ID: D2 verified by the QAI appeared to be in general compliance with contract documents. The 5E/6E Weld ID: D1 verified by the QAI did not appear to be in general compliance with contract documents. See Ultrasonic Testing Report Form TL-6027 generated by the QAI on this date. See Summary of Conversations below.

4). OBG Field Splice 7E/8E Weld ID: F1, Face A

The QAI periodically observed AB/F approved welder Xiao Jian Wan (ID 9677) preparing to perform SMAW on the A face of OBG Field Splice 7E/8E Weld ID: F1. 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-D1.5-3040B-3. The QAI observed welder Xiao Jian Wan welding on a test piece as Mr. Pagliero measured the welding parameters and noted the welding amps = 125A. The welding of the root pass did not commence duration of the QA Inspectors shift. The work at this location appeared to be in general compliance with contract documents.

5). OBG Field Splice 7E/8E Weld ID: B1, Face A

The QAI periodically observed AB/F approved welder Hua Qiang Hwang (ID 2930) performing SMAW on the A face of OBG Field Splice 7E/8E Weld ID: B1. 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-D1.5-3040B-3. The welding of the root pass commenced and welding was in process for the duration of the QA Inspectors shift. The work at this location appeared to be in general compliance with contract documents.

6). QC UT of East Line Lifting Rod Penetration Insert Welds (QC UT of welds and R-1 Repairs)

The QAI periodically observed QC Inspector Steve McConnell performing UT of R-1 repairs from the A Face of East Line Lifting Lug Rod Penetration Insert Welds. The QAI periodically observed that the QC Inspectors utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the insert welds. The QC technicians performed the required shear wave testing during the testing for weld soundness utilizing a .63 x .75 rectangular transducer. The UT examination was completed from face A during the QA Inspectors shift at the following location: PP8.5 E4 weld 2. The QAI noted that the QC UT results marked on the steel indicated that the R-1 repairs in weld 2 were acceptable. The QAI also periodically observed QC Inspector Steve McConnell performing UT of East Line Lifting Lug Rod Penetration Insert Welds at PP11 E4. The welds tested at this location were Welds 1, 2 and 3 and UT results for these welds were as follows: PP11 E4 weld 1 – (5 rejects), weld 2 – (2 rejects) and weld 3 - (3 rejects). The work at this location appeared to be in general compliance with contract documents.

---

---

# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

---



### Summary of Conversations:

In a conversation with QC Lead Inspector Bonafacio Daquinag Jr. at the beginning of the shift, the QAI asked Mr. Daquinag if any OBG field splices were available for QAI verification testing. Mr. Daquinag stated that 5E/6E welds D1 & D2 were QC completed by QC Inspector Jesse Cayabyab and were ready for QA.

From Item 3).

The QAI located QC Inspector Jesse Cayabyab and informed him of the rejectable Class A indication observed by the QAI in weld D1 at OBG Field Splice 5E/6E. Mr. Cayabyab stated that he would UT the location in question and contact the QAI afterwards. The QAI did not see Mr. Cayabyab for the duration of the shift.

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 Mohammed Fatemi (916) 813 3677, who represents the Office of Structural Materials for your project.

---

**Inspected By:** Madison, Bert

Quality Assurance Inspector

---

**Reviewed By:** Levell, Bill

QA Reviewer