

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-019332**Date Inspected:** 13-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**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 Splice of East Line Lifting Lug Hole Insert Weld (Fit-up and SMAW)
- 2). OBG Field Splice of West Line Lifting Lug Hole Insert Weld (QAI Verification)
- 3). OBG Field Splice 7E/8E Weld ID: D1, Face A – (SMAW R-2 Repairs)
- 4). OBG Field Splice 9W/10W Weld ID: D1 & D2, Face A (FCAW-G & SAW)

- 1). OBG Field Splice of East Line Lifting Lug Hole Insert Weld (Fit-up and SMAW)

Exterior: OBG 5E PP39 E4 weld 3

The QAI periodically observed AB/F approved welder Salvador Sandoval (ID 2202) performing fit-up and welding from the exterior of OBG 5E PP39 E4 weld 3 per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. See photo below. QC Inspector Steve McConnell 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-D1.5-1070. Welding 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 West Line Lifting Lug Hole Insert Weld (QAI Verification)

Interior: 2W PP17 W3

The QAI performed verification Visual Testing (VT) of the interior surface of the Lifting Lug Hole (LLH) Insert Weld at 2W PP17 W3. The OBG Field Splice visually verified by the QAI at this location appeared to be in general compliance with contract documents.

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3). OBG Field Splice 7E/8E Weld ID: D1, Face A – (SMAW R-2 Repairs)

The QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing R-2 repair welding per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position on the interior of OBG Field Splice 7E/8E Weld D1. The QAI observed that QC Inspector Jesse Cayabyab was present periodically to monitor the progress and verify that the repair 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 that fill and cover pass welding of two excavations was completed during the QA Inspectors shift on this date and work at this location appeared to be in general compliance with contract documents. Note: Repair welding at this location was to repair two indications identified by the QA Inspector during verification testing on 01-12-11.

4). OBG Field Splice 9W/10W Weld ID: D1 & D2, Face A (FCAW-G & SAW)

The QAI periodically observed AB/F approved welder Hua Qiang Hwang (ID 2930) performing welding of the continuous tack welds on weld ID: D1 & D2 per the Flux Cored Arc Welding (FCAW-G) process in the 2F (horizontal) position. The QAI also periodically observed AB/F approved welder Xiao Jian Wan (ID 9677) performing welding of the first 1000mm on weld ID: D1 per the Flux Cored Arc Welding (FCAW-G) process in the 1G (flat) position. The QAI observed QC Inspector Fred Von Hoff 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-F3200-2 and ABF-WPS-D1.5-F3040A-1. The QAI observed that the work at this location was completed and appeared to be in general compliance with contract documents. Later in the shift the QAI observed AB/F approved welder James Zhen (ID 6001) assisted by AB/F approved welder Jin Pei Wang (ID 7299) setting the track and adjusting the welding machine in preparation for Submerged Arc Welding (SAW).

The QAI periodically observed AB/F approved welder James Zhen (ID 6001) performing welding of the root and fill passes on weld ID: D1 & D2 per the Submerged Arc Welding (SAW) process in the 1G (flat) position. See photo below. The QAI observed QC Inspector Fred Von Hoff 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-D1.5-4042B-1. The QAI observed that the work at this location was in process and appeared to be in general compliance with contract documents.

From item 2 above: The QAI spoke with Mr. Daquinag regarding (2) two Class A rejectable indications observed by the QAI in Weld ID 7E/8E D1. The QAI informed Mr. Daquinag that the indications would need to be confirmed by QC during this shift repaired within 24 hrs. Mr. Daquinag stated at approximately 14:30 hours that the QC Inspector Jesse Cayabyab was going to go directly to the location and perform confirmation testing. Mr. Daquinag also stated that the UT rejectable indication discovered at the Deck Access Hole (DAH) at OBG 5E-PP29.5-E2 during QAI UT verification testing on 01-10-10 would be repaired on 01-13-11.

From item 3 above: QC Inspector Sherwood informed the QAI that one isolated area of misalignment in excess of that allowed (2mm) was identified and requested the QAI to verify the amount of misalignment. Mr. Sherwood also requested the QAI to verify that the remainder of the joint was within tolerances.

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Summary of Conversations:

Conversations on this date with Quality Control Inspectors were general in nature and pertained to locations of welding and QC activities and locations of welds released to the QAI for verification testing.

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.

Inspected By: Madison, Bert

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer