

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-018478**Date Inspected:** 02-Dec-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 Splice 7E/8E Weld ID: C1, Face B – (FCAW-G)
- 2). OBG Field Splice 6E/7E A Longitudinal Stiffener (LS) 5 (SMAW)
- 3). OBG Field Splice 7E/8E A Longitudinal Stiffener (LS) 5 (SMAW)
- 4). OBG Field Splice 6E/7E Weld ID: B1, Face B – (R-2 Repair Excavating and SMAW)
- 5). OBG Field Welding of West Line Lifting Rod Access Penetration Insert (SMAW)
- 6). OBG Field Splice of West Line Access Penetration Insert Weld (SMAW)
- 7). OBG Field Splice 7E/8E Weld ID: A5, Face A – (SMAW R-2 Repair)

- 1). OBG Field Splice 7E/8E Weld ID: C1, Face B – (FCAW-G)

The QAI periodically observed AB/F approved welder Rory Hogan (ID 3186) assisted by AB/F approved welder Jeremy Dolman (ID 5042) performing fill and cover pass welding per the Flux Cored Arc Welding (FCAW-G) process in the 4G (overhead) position. The QAI periodically observed QC inspector Mike Johnson was present periodically 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-D1.5-3042B-1. The welding was in process at this location and the work appeared to be in general compliance with contract documents.

- 2). OBG Field Splice 6E/7E A Longitudinal Stiffener (LS) 5 (SMAW)

The QAI periodically observed AB/F approved welder Xiao Jian Wan (ID 9677) performing back welding of fill and cover pass per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position of OBG Field

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

Splice 6E/7E ALS-5. See photo below. QC Inspector John Pagliero was present periodically 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 at this location and appeared to be in general compliance with contract documents.

3). OBG Field Splice 7E/8E A Longitudinal Stiffener (LS) 5 (SMAW)

The QAI periodically observed AB/F approved welder Hua Qiang Hwang (ID 2930) performing flush grinding of the cover passes at OBG Field Splice 6E/7E ALS-4 and ALS-6. The QAI later observed that OBG Field Splice 6E/7E ALS-5 had the Pro-heat element, ceramic backing and run-off tabs installed. Subsequently the QAI periodically observed AB/F approved welder Hua Qiang Hwang (ID 2930) performing root, fill and cover pass welding per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position. 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 in process at this location and appeared to be in general compliance with contract documents.

4). OBG Field Splice 6E/7E Weld ID: B1, Face B – (R-2 Repair Excavating and SMAW)

The QAI periodically observed AB/F approved welder Jorge Lopez (ID 6149) performing air carbon arc gouging and grinding to prepare R-2 Ultrasonic Testing (UT) repair locations for welding. The QAI later periodically observed the R-2 repair welding by Mr. Lopez per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position of one (1) of four (4) repair excavations on the exterior of the OBG. See photo below. QC Inspector Jesse Cayabyab was present periodically 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-D1.5-1000 Repair. The QAI observed that welding of fill and cover passes was completed at excavation #4 during the shift and work at this location appeared to be in general compliance with contract documents. The QAI observed that the (4) four excavations had the following dimensions at the following Y location:

Excavation #1 Y = 275mm, Length = 110mm, Depth = 13mm and Width = 34mm.

Excavation #2 Y = 810mm, Length = 110mm, Depth = 14mm and Width = 30mm.

Excavation #3 Y = 1055mm, Length = 120mm, Depth = 18mm and Width = 30mm.

Excavation #4 Y = 1125mm, Length = 200mm, Depth = 10mm and Width = 28mm.

5). OBG Field Welding of West Line Lifting Rod Access Penetration Insert (SMAW)

Exterior: OBG 1W PP8.5 W3 weld 2

The QAI periodically observed AB/F approved welder Darcel Jackson (ID 9967) performing welding of fill and cover passes per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. QC Inspector Mike Johnson 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 and flush grinding was completed and the QAI observed that the work at this location appeared to be in general compliance with contract documents.

Exterior: OBG 1W PP8.5 W4 weld 2

The QAI periodically observed AB/F approved welder Mike Jimenez (ID 4671) performing fill and cover passes per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. QC Inspector Mike Johnson was periodically present to monitor the progress and verify that the welding parameters were within the limits

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1070. Welding and flush grinding was completed and the QAI observed that the work at this location appeared to be in general compliance with contract documents.

6). OBG Field Splice of West Line Access Penetration Insert Weld (SMAW)

The QAI periodically observed AB/F approved welder Mick Chan (ID 9265) performing welding of root and fill passes per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position from the exterior of the OBG. QC Inspector Mike Johnson 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-D1.5-1010 rev. 1. Welding was in process and the QAI observed that the work at this location appeared to be in general compliance with contract documents.

7). OBG Field Splice 7E/8E Weld ID: A5, Face A – (SMAW R-2 Repair)

The QAI periodically observed AB/F approved welder Wai Kitlai (ID 29539265) performing grinding to excavate and prepare one (1) R-1 Ultrasonic Testing (UT) repair location for welding. The QAI periodically observed QC Inspector Steve McConnell performing Magnetic Particle Testing (MT) of the excavated area prior to repair 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. The QAI periodically observed AB/F approved welder Wai Kitlai (ID 2953) performing R-2 repair welding per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position of OBG Field Splice 7E/8E Weld: A5. 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 QAI observed that welder (2953) was halted during fill pass welding due to inclement weather. The QAI observed that the (1) one excavation in weld A5 had the following dimensions at the following Y location:

1. (A5) R-2 Indication # 1) – reported at Y = 4660mm,

Excavation Y = 4600, Length = 225mm, Depth = 19mm and Width = 25mm.

The QAI observed that work at this location appeared to be in general compliance with contract documents.



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.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

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
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Reviewed By:	Levell,Bill	QA Reviewer
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