

**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-028174**Date Inspected:** 15-Aug-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:** 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:** OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Fritz Belford 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:

OBG 12W (Interior)

This QA observed the following welders working in OBG 12W and 13W at various locations:

Authorized welder Chris Bruce #8901:

Welder Chris Bruce was observed welding on welds 12W PP116 W2.1-PS1 (3G, CJP) PS2 (1G & 4G, CJP), and on weld 12W PP116 W2.1-BW4 utilizing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D15-1030 and ABF-WPS-D15-1040. This QA verified the following welding parameters: 3.2mm E7018 H4R, 130Amps.

Authorized welder Chau Tran #3139:

Welder Chau Tran was observed welding on the welds 12W 13W LS3S DSF (4G, PJP) and 12W 13W LS3N DSF (4G, PJP) attaching the deck stiffener flange to the deck rib stiffeners to LS3. Welder Chau Tran was observed utilizing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D15-1162-4. A heat blanket was put in place to heat the deck stiffener and attachment flanges. Once the flanges and stiffeners reached a pre heat temperature of 250 degrees Fahrenheit the welder commenced welding the 4G weld for attaching the flanges. Once the root pass was in place and cleaned, Magnetic Particle Testing (MT) was performed and the weld was

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found suitable to continue.

This QA randomly observed OBG 12W QC Chris Conche, checking fit up of various welds, and checking WPS compliance of welders throughout the day and performing Magnetic testing (MT) on back gouges as they become available for testing.

## 12W W2.1-A1

This QA discussed with QA Lead Danny Reyes and 12W QC Chris Conche the porosity issue noted on weld 12W W2.1-A1. Porosity was noted throughout the weld and since QC had not turned over the weld to QA for its inspection it was determined that the welders may go ahead and carbon arc gouge (CAG) the weld to a depth of 12mm (65% of material thickness) before an RWR would be required. QC and QA will be monitoring the weld porosity excavation to ensure compliance.

## OBG 13W (Exterior)

Authorized welder Xiao Hua Luo #1291:

Welder Xiao Hua Luo was observed welding on weld 13W PP120 W2.0-FB1 (2G) and 13W PP120 W2.0-FB2 (3G), utilizing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D1.5-1040A. Welder was observed pre heating weld to the WPS specified temperature before welding the back gouge.

Authorized welder Mike Jimenez #4671:

Welder Mike Jimenez was observed welding on weld 13W PP121 W2.0-BW1 (2G & 3G) and weld 13W PP121 W2.0-BF1(1G & 4G), utilizing Caltrans approved Welding Procedure Specification's (WPS) ABF-WPS-D1.5-1040A. Welder was observed pre heating weld to the WPS specified temperature before welding.

## Magnetic Particle Testing

This QA performed Magnetic Particle Testing (MT) on the following welds:

Weld 12W PP116 W2.1-BW4 (1G & 4G, CJP):

- MT Back Gouge( 210mm, MT Accept.)

Weld 12W PP116 W2.1-PS2 (1G & 4G, CJP):

- MT Back Gouge( 100mm, MT Accept.)

Weld 12W 13W-LS3N DSF (4G, PJP):

- Deck Stiffener Flange Root Pass. (1500, MT Accept.)

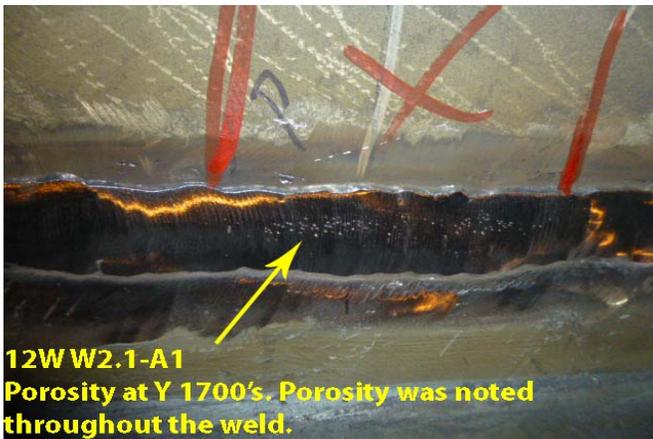
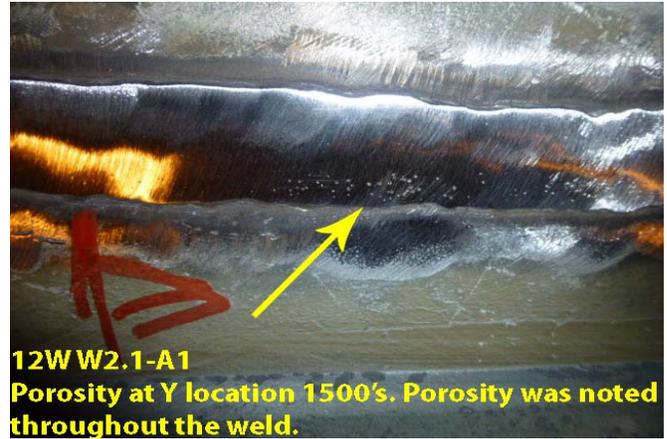
Weld 12W 13W-LS3S DSF (4G, PJP):

- Deck Stiffener Flange Root Pass. (1500, MT Accept.)

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

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## Summary of Conversations:

Conversations relevant to work performed on this date.

## 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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<b>Inspected By:</b>	Belford, Fritz	Quality Assurance Inspector
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<b>Reviewed By:</b>	Levell, Bill	QA Reviewer
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