

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022666**Date Inspected:** 19-Apr-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** Gary Ehram**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:**

Quality Assurance inspector (QA) Douglas Frey 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:

1. 7W 8W Longitudinal Stiffener #5
2. 7W 8W Longitudinal Stiffener #4
3. 7W 8W PP61.5 Access Plate Stiffener
4. 9W 10W D2
5. 7W PP56 W3 Lifting Lug Holes #2 and #4
6. 8W 9W A Longitudinal Stiffeners 1-6 Ultrasonic Testing
7. 10W 11W A1-A4
8. 7W PP52-W3 Lifting Lug Holes #1-4 Ultrasonic testing

1. 7W 8W Longitudinal Stiffener #5

The QA Inspector observed the ABF welder Jin Pei Wang grinding and blending the back gouge of Longitudinal Stiffener (LS) #5 north face. The QA Inspector noted the welder began the root pass in the am. QC inspector Gary Ehram was noted to be present in order to monitor the progress and ensure the welding was within the established Welding Procedure Specification (WPS) noted as ABF-WPS-D1.5-1012-3 and supporting Procedure Qualification Records (PQR). The QA Inspector periodically observed the welder in progress. The QA Inspector noted that the welding was not complete at the end of the QA Inspector's shift.

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## 2. 7W 8W Longitudinal Stiffener #4

The QA Inspector noted an excavation site of a UT repair on the LS #4 north face. The dimensions were verified and recorded as 20mm's deep, 100mm's long and 20mm's wide.

## 3. 7W 8W PP61.5 Access Plate Stiffener

The QA Inspector observed the ABF welder Xiao Jian Wan grinding and blending the joint fit-up on the Access Plate Stiffener (APS). The QA Inspector observed the QC Inspector approve the fit-up and the welder begin the root pass. The QA Inspector observed the QC Inspector monitor the welding parameters and observe the welding. The QA Inspector randomly observed the work. It was noted by the QA Inspector that the joint had not been completed by the end of the QA Inspectors shift.

## 4. 9W 10W D2

The QA Inspector observed the ABF welder Rory Hogan perform Plasma Arc Cutting (PAC) on 9W 10W D2. The QA Inspector noted two (2) ABF workers grinding slag and excess backing bar material from E2. The QA Inspector periodically observed the welder performing a second pass with the PAC. The QA Inspector noted that the work was in progress at the end of the QA Inspectors shift.

## 5. 7W PP56 W3 Lifting Lug Holes #2 and #4

The QA Inspector observed ABF welder Darcel Jackson continue SMAW on hole #2 from the previous shift. The QA Inspector observed the QC Inspector monitor the welder's progress and compliance to the approved WPS. The QA Inspector periodically observed the welder complete hole #2 and begin the root pass on hole #4. The work progressed throughout the shift and appeared to be in general conformance with the contract documents.

## 6. 8W 9W A Longitudinal Stiffeners 1-6 Ultrasonic Testing

The QA Inspector performed Ultrasonic Testing on the LS's 1-6 located at 8W 9W A. The QA Inspector utilized a G.E./Krautkramer USM 60. The QA Inspector also utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination. Upon completion of the testing, it was noted by the QA Inspector that no indications were present and the work was found to be acceptable.

## 7. 10W 11W A1-A4

The QA Inspector performed Ultrasonic Testing on Deck Plate A at 10W 11W A1 at y=1000 to 1500. At A2 from y=3000 to 3500. At A3 at y=500 to 1000. At A4 from y=4000 to 4500. The QA Inspector utilized a G.E./Krautkramer USM 60. The QA Inspector also utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination. Upon completion of the testing, it was noted by the QA Inspector that no indications were present and the work was found to be acceptable.

## 8. 7W PP52-W3 Lifting Lug Holes #1-4 Ultrasonic testing

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The QA Inspector performed Ultrasonic Testing on LLH's #1-4 at 7W PP52-W3. The QA Inspector utilized a G.E. /Krautkramer USM 60. On Hole #1 from y=0 to 340mm's. On Hole #2 from y=340mm's to 680mm's. On Hole #3 from y=340 to 680mm's. On Hole #4 from y=0 to 340mm's. During the inspection, the QA Inspector utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination. Upon completion of the testing, it was noted by the QA Inspector that no indications were present and the work was found to be acceptable.

### Summary of Conversations:

As noted above

### 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>	Frey,Doug	Quality Assurance Inspector
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<b>Reviewed By:</b>	Levell,Bill	QA Reviewer
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