

**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 #: 13.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012947**Date Inspected:** 06-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, OR**CWI Name:** M. Gregson, J. Salazar**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:** Hinge K Pipe Beams**Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Oregon Iron Works, Inc (OIW) in Clackamas, OR, to randomly observe the in process welding of the Hinge K Pipe Beam assemblies. The QA Inspector arrived on site to randomly observe the OIW Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

**AG Machining (Boring, OR)**

On this date, the QA Inspector arrived at AG Machine to observe OIW perform the weld repairs, on the finished overlay surface, on this Fuse 120A-6. The QA Inspector met with OIW QC Inspector Jose Salazar, OIW welder (WID# C34) Mark Craig and AG Machinist, Terry Schmale. QC Inspector Salazar explained that WID #C34 will be performing the Gas Tungsten Arc Welding (GTAW), on the previously excavated areas, on the finished overlay. QC Inspector Salazar explained that WID #C34 is currently qualified to perform these repairs and will be utilizing welding procedure specification (WPS 8022). The QA Inspector then witnessed WID #C34 performing the pre-heat required, utilizing a torch and then observed QC Inspector Salazar perform a pre-heat check, utilizing a digital thermometer, of approximately 200 degrees Fahrenheit, after the pre-heat was complete. The QA Inspector noted that 125 degrees Fahrenheit minimum was required, per WPS 8022. The QA Inspector then witnessed AG Machinist, Terry Schmale, rotating the fuse assembly in the horizontal lathe, to access the weld repair areas in the flat position. The QA Inspector then observed WID #C34 continue to perform the GTAW on the previously excavated repair areas and observed QC Inspector Jose Salazar, recording in-process welding parameters of 123 amps and 16 volts. The QA Inspector also verified these welding parameters. At approximately 1200, QC Inspector Salazar explained that the GTAW was complete and the QA Inspector noted that an OIW machinist had arrived at AG. QC Inspector Salazar explained that the OIW machinist will perform the grinding

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flush of the repair areas. See attached picture below.

## Material, Equipment, and Labor Tracking (MELT)

QA Inspector Sean Vance performed a verification of material, personnel and equipment involved with the project.

The QA Inspector observed at Oregon Iron Works: 2 OIW production personnel and 2 QC Inspectors.

The QA Inspector observed at AG Machine shop. 1 AG Machinist, 1 OIW Welder and 1 OIW QC.



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

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<b>Inspected By:</b>	Vance,Sean	Quality Assurance Inspector
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<b>Reviewed By:</b>	Adame,Joe	QA Reviewer
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