

**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 #: 70.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-005497**Date Inspected:** 20-Feb-2009**Project Name:** SAS Superstructure**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Contractor:** Japan Steel Works**OSM Arrival Time:** 830**OSM Departure Time:** 1630**Location:** Muroran, Japan**CWI Name:** Chung Kuan**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:** Tower, Jacking and Deviation saddles**Summary of Items Observed:**

Steel Structure Welding Shop:

W2W1 West Deviation Saddle Steel Structure (FCAW welding): Caltrans QAI representative observed Japan Steel Works (JSW) welders performed FCAW processes on on rib plates 4-7 and 4-8 and the welds W1Y-9L and W1Y-10L of W2W1 west deviation saddle. The filler metal and shield gas used for FCAW is Hoballoy wire TM-95K2, 1.6 diameter with 100% CO<sub>2</sub>. The entire welding zone has been preheated to minimum 110 C prior welding. The FCAW welding process and parameters have been monitored and recorded by CWI inspector Mr. Chung Kuan. Based on Caltrans QA observation, the FCAW fillet weld welding operation appeared to be in general compliance with requirements of AWS D1.5 2002 and Caltrans contract documents.

Casting Shop:

W2W1 West Deviation Saddle Casting: Caltrans QAI observed a JSW a welder perform SMAW standard repair welding on exterior rib 2U and 3U section of W2W1 west deviation saddle casting portion. The repair welding areas have been excavated 2mm to 5mm depth. The proper filler metal used for SMAW is LB62 with 5mm diameter electrode made by Kobe, Japan. The entire casting portion is preheated to temperature of 150 C during repair welding. Based on Caltrans QA observation, the buildup SMAW welding operation appeared to be in general compliance with requirements of ASME IX 2005.

**Summary of Conversations:**

As noted within the report above.

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# WELDING INSPECTION REPORT

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## 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 Venkatesh Iyer (858)697-6363, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Pau,Wai	Quality Assurance Inspector
<b>Reviewed By:</b>	Lanz,Joe	QA Reviewer

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