

**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-008051**Date Inspected:** 28-Jul-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Japan Steel Works**Location:** Muroran, Japan

<b>CWI Name:</b>	Chung Fu Kuan		
<b>Inspected CWI report:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A

<b>CWI Present:</b>	Yes	No	
<b>Rod Oven in Use:</b>	Yes	No	N/A
<b>Weld Procedures Followed:</b>	Yes	No	N/A
<b>Verified Joint Fit-up:</b>	Yes	No	N/A
<b>Approved WPS:</b>	Yes	No	N/A
<b>Delayed / Cancelled:</b>	Yes	No	N/A

**Bridge No:** 34-0006**Component:** Tower, Jacking, and Deviation Saddles**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Art Peterson was present during the times noted above for observations relative to the work being performed in Fabrication shop #4 and the Foundry at Japan Steel Works.

**Fabrication Shop #4:**

Weld Operation in process on Saddle: Tower Saddle Segment T1-3

The QA Inspector observed the fillet weld operation on the inside of the cope holes on the rib plate to base plate of tower saddle T1-3. The QA Inspector observed Quality Control (QC) Inspector Mr. Chung Fu Kuan verify prior to and during the fillet weld operation that the minimum preheat temperature of 160 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. K. Nakasato (91-2247) on weld joint no. 9Y-6L were in compliance with WPS SJ-3012-11 per the SMAW process in the (2F) horizontal position using (5.0) mm diameter LB52 electrode. The QA Inspector observed that the fillet weld operation was in process at the end of the QA Inspectors' shift.

NDT Operation in process on Saddle: West Deviation Saddle Segment W2-W2

The QA Inspector observed Nikko Inspection Services (NIS) Quality Control (QC) NDT Inspector Mr. R. Kumagai (#132) performing the magnetic particle test (MPT) inspection (dry method) of the partial-joint penetration (PJP) groove welds prior to the final post weld heat treatment (PWHT) stress relief operation on the rib plate to stem plate; stem plate to base plate; and the rib plate to base plate of west deviation saddle segment W2-W2. The QA Inspector observed that the MPT inspection was in process at the end of the QA Inspectors' shift.

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## WELDING INSPECTION REPORT

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Weld Operation in process on Saddle: West Deviation Saddle Segment W2-W3

The QA Inspector observed the partial-joint penetration (PJP) groove (fill pass) weld operation on the rib plate (built-up section) to rib (cast section) of west deviation saddle segment W2-W3. The QA Inspector observed Quality Control (QC) Inspector Mr. Chung Fu Kuan verify prior to and during the PJP groove weld operation that the minimum preheat temperature of 160 degrees Celsius was maintained and the welding parameters of JSW welding personnel Mr. R. Iizuka (06-2643) on weld joint no. W3Y-17U-2, Mr. T. Kawakami (08-5079) on weld joint no. W3Y-11U, and Mr. M. Kashiwada (08-2008) on weld joint no. W3Y-12U were in compliance with WPS SJ-3011-6 and WPS SJ-3011-7 per the FCAW-G process in the (1G) flat position using (1.6) mm diameter TM95 electrode. The QA Inspector observed that the PJP groove (fill pass) weld operation was in process at the end of the QA Inspectors' shift.

Foundry:

Post Weld Heat Treatment Operation completed on Saddle: East Saddle E2-E1 (cast saddle)

The QA Inspector observed that the post weld heat treatment (PWHT) operation was completed on east saddle E2-E1. The JSW Representative Mr. Hideaki Kon informed the QA Inspector that the next operation to be performed is the blast cleaning operation.

NDT Operation on Saddle: East Saddle E2-W1 (cast saddle)

The QA Inspector observed that Nikko Inspection Services (NIS) QC NDT personnel Mr. H. Kohama (#86) completed the magnetic particle test (MPT) inspection (wet method) on the as finished surface of the base plate of east saddle E2-W1 after the final post weld heat treatment operation. The QA Inspector observed that no other work was performed on east saddle E2-W1.

NDT Operation in process on Saddle: West Jacking Saddle (cast saddle)

The QA Inspector observed Nikko Inspection Services (NIS) QC NDT personnel Mr. A. Seino (#82) performing the liquid penetrant test (PT) inspection on the exterior of the trough section and on the rib sections. The QA Inspector observed that the inspection was in accordance with ASTM E165 and to the acceptance criteria of the contract special provisions- (Indications less than 3mm for Level 1 zones and and less than 6 mm elsewhere may be disregarded). The QA Inspector observed that Mr. A. Seino was in process with the PT inspection at the end of the QA Inspectors' shift.

Unless otherwise noted, all observations reported on this date appeared to be in general compliance with the applicable contract specifications.

### Summary of Conversations:

No significant conversations were reported 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>	Peterson, Art	Quality Assurance Inspector
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<b>Reviewed By:</b>	Guest, Kittric	QA Reviewer
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