

**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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000126**Date Inspected:** 15-Apr-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Zhou Daqing	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes No N/A	
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes No N/A	
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes No N/A	
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes No N/A	
		<b>Delayed / Cancelled:</b>	Yes No N/A	
<b>Bridge No:</b>	34-0006	<b>Component:</b>	N/A	

**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector, Alfredo Acuna was present for the welder and welding operator qualification tests scheduled for this project. Moody International representative, Zhou Daqing and assistants, were observed by the QA inspector performing verifications of the welding parameters, amperages, voltages, travel speeds, preheat and interpass temperatures for the welder qualification tests as follows:

Flux Cored Arc Welding: ZPMC welders, Li Ai Min, Wang Hong Lei, Yuan Wei, Fei Cheng Xiang, Li Xing, Zhang Jian Quan, Du Heng Hua, Song Xun Tian, Du Heng You, Tang Jian Xin, Liu Qing Tian, Cao Tao, Han Kun, Liu Guo Xuan and Bi Kai were observed by the QA Inspector performing welder qualification test plates 2007-0406001 through 20070406015 respectively using the semi-automatic flux cored arc welding gas (FCAW-G) process in the vertical (3G) position with the 1.4 mm diameter Supercore 71-H electrode following the welding procedure specification WPS-B-T-2233-B-U2a-F on the 25 mm thick, fracture critical test plates. The root opening of the joint was approximately 6 mm. The QA Inspector performed random verifications of amperages, voltages, travel speeds, preheat and interpass temperatures after Moody International verifications. The QA inspector recorded that the welding appeared to be in compliance with contract documents.

Submerged Arc Welding: ZPMC, welding operators Han Chang Hou and Xiang Huan Feng were observed by the QA Inspector performing welding operator qualification test plates 2007-0406-080 and 082 respectively using the automated submerged arc welding (SAW) process single electrode in the flat (1G) position with the 4.8 mm diameter JW-3 electrode following the welding procedure specification WPS-B-T-2221-1-FB on the 25 mm thick fracture critical test plates. The root opening of the joint was approximately 16 mm. The QA Inspector performed random verifications of amperages, voltages, travel speeds, preheat and interpass temperatures after Moody International verifications. The QA inspectors recorded that the welding parameters appeared to be in compliance with contract documents.

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# WELDING INSPECTION REPORT

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The digital photographs below show FCAW-G test coupons welded on this date.



## Summary of Conversations:

The QA inspector did not have any significant conversations 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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**Inspected By:** Acuna, Alfredo

Quality Assurance Inspector

**Reviewed By:** McClary, David

QA Reviewer