

**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-003318**Date Inspected:** 20-Jul-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2330**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Zhu Zong Hai  
**Inspected CWI report:** Yes No N/A  
**Electrode to specification:** Yes No N/A  
**Qualified Welders:** Yes No N/A  
**Approved Drawings:** Yes No N/A

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

**Bridge No:** 34-0006**Component:** OBG and Tower**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present observe production welding and perform Ultrasonic Testing (UT) of Orthotropic Box Girder (OBG) and Tower components, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

The Caltrans QA Inspector observed ZPMC welder I.D # 048659 performing Shielded Metal Arc Welding (SMAW) in the 3G position on the 89 Meter mock-up Skin A to SA13 diaphragm Partial Joint Penetration (PJP) weld MUB MA 21 A/J-10. The following parameters were recorded from MUB MA 21 A/J -10, amperage 167, volts 23.8, travel speed of 100 mm/min., with a heat input of 2.38 kJ/mm. The above mentioned welding appeared to be in conformance with the posted welding procedure specification, WPS-B-T-4313-TC-P4-1. Please see the attached photo of ZPMC personnel preheating weld joint MUB MA 21 A/J -10.

The Caltrans QA performed Ultrasonic Testing Verification of ZPMC Quality Control (QC) tested and accepted Tower Diaphragm CJP welds SSD1-SA248- 1A (1B), 2A (2B) and WSD1-SA309-11A (11B) and 12A (12B). Testing of the 75 mm diaphragm CJP weld was performed from face A with a 70 degree transducer for the bottom quarter and middle half in the first leg. Testing of top quarter was performed with a 45 degree transducer in the second leg. Diaphragm welds tested appeared to meet the requirements of AWS D1.5 (2002) table 6.3. Please see UT report TL-6027 generated on this date for further information.

Sub Assembly Bay # 7

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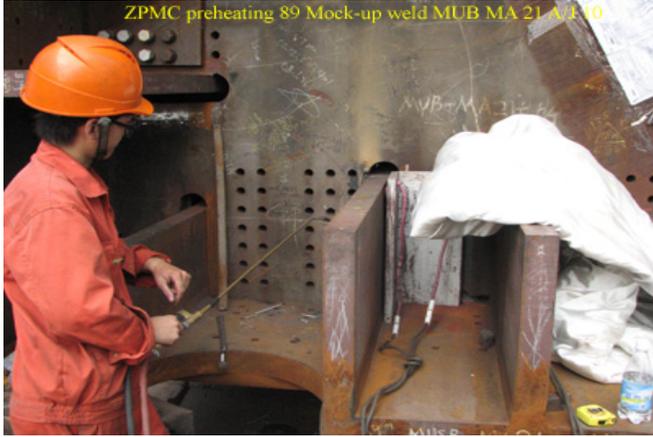
# WELDING INSPECTION REPORT

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The Caltrans QA Inspector performed Ultrasonic verification of ZPMC tested and accepted Floor Beam repair welds FB034-001-122 (R1) and FB011-006-043 (R1). Ultrasonic testing was performed with a 70 degree transducer. Repair areas appeared to meet the requirements of AWS D1.5 (2002) table 6.3. Please see UT report TL-6027 generated on this date for further information.



### Summary of Conversations:

No relevant conversations observed 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 Ryan Smith, (858) 232-6799, who represents the Office of Structural Materials for your project.

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

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