

**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-000403**Date Inspected:** 07-Sep-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 2330**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 800**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Xu Le Feng & Hou Jing Yao	<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

**Bridge No:** 34-0006**Component:** Mock-Up**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77.00, 89.00 and 114.00, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Item	Description	WBS	Dwg No.	Status
1	Diaphragm Plate (bottom)	NA	NA	Work In Progress
	Mock-Up 89.00, Diaphragm (bottom plate): Caltrans QA Inspector observed submerged arc welding (SAW) in progress at plate splice weld, piecemark, P213 to P1235. The approved welder operator is observed welding a complete joint penetration (CJP) fill pass weld in the flat position. Prior to welding of the splice weld butt joint. ZPMC QA inspector, Mr. Shen Xue Jun notified Caltrans QA Inspector that the backgouge weld preparation has been completed and visually inspected and accepted for compliance by ZPMC QC department inspector Mr. Chan Tan. Caltrans QA visually inspected the weld backgouge material prep and concurred with ZPMC acceptance. This assembly was then partially welded out from one side and then flipped over and welded from the other side, per fabrication procedure, welding sequence requirement. Welder is identified as Mr. Wu Zhi Bin. The welder is using welding procedure specification WPS-B-T-3221-B-U3c-S, Revision 1. Caltrans QA measured current welding parameters at approximately 575 amps, 30 volts and travel speed, 480 millimeters per minute (mm/min). Preheat and interpass temperatures were verified during welding activities. Preheat temperature prior to the start of welding measures more than 180 degrees Celsius (350 degree Fahrenheit) but less than 232 degrees Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. SAW consumables were verified and identified as LA85, classification ENi5, diameter 4.8 mm (.189 inches) electrode and, Mil800-HPNi, classification F9A4 flux. Following digital pictures illustrate butt weld backgouge prep and welding in progress.			

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# WELDING INSPECTION REPORT

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## Summary of Conversations:

As identified within the contents of this report.

## 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:** Hasler, Mike

Quality Assurance Inspector

**Reviewed By:** Cuellar, Robert

QA Reviewer