

**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-001921**Date Inspected:** 06-Apr-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Xi**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:** OBG & Tower**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, 77M, 89M, 114M, Orthotropic Box Girders (OBG) and Tower, 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 Deck Plate	NA	NA	Welding

New Tower Shop Bay 3: Caltrans QA Inspector observed submerged arc welding (SAW), complete joint penetration (CJP) plate splice, fill pass weld. The subassembly identified as deck plate (Pl 375A to Pl 374B), section 6A-6A-E, DP300-001, weld 007. The welder operator is identified as Mr. Hanchang Hou, welder stamp 059464. The welder is observed using welding procedure specification, WPS-B-T-2221-B-L2c-S-1. Caltrans QA measured current welding parameters at approximately 530 amps, 30.0 volts and 430mm/min (millimeters per minute) travel speed. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 20 degrees Celsius but less than 230 degrees Celsius during maximum interpass temperature verification. Caltrans QA observed ZPMC Quality Control (QC/CWI), Mr. Chen Xi monitoring the welding activities at the work-station. The following digital photograph illustrates welding in progress at the work-station.

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2 89M Mock-Up NA NA Welding

New Tower Shop Bay 1, 89M Mock-Up: Caltrans QA Inspector observed shielded metal arc welding (SMAW), complete joint penetration (CJP) plate splice, cover pass weld. The location is identified as P300 to SA13 plate. The welder is identified as Mr. Tan Xiang Bo, welder stamp 066459, welding in the 3G (horizontal) position. The welder is observed using welding procedure specification, WPS-B-T-3212-B-U2a-2, revision 0. Caltrans QA observed current welding parameters; measured approximately 250 amps, 24.3 volts and 170mm/min (millimeters per minute) travel speed. Caltrans QA verified preheat and interpass temperatures during welding activities. The preheat temperature prior to the start of welding measures more than 195 degrees Celsius but less than 230 degrees Celsius during maximum interpass temperature verification. Caltrans QA observed ZPMC Quality Control (QC), Mr. Lv Liqing monitoring the welding activities at the work-station. The following digital photograph illustrates the completed cover pass weld.



## 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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# WELDING INSPECTION REPORT

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<b>Inspected By:</b>	Hasler, Mike	Quality Assurance Inspector
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<b>Reviewed By:</b>	Cuellar, Robert	QA Reviewer
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