

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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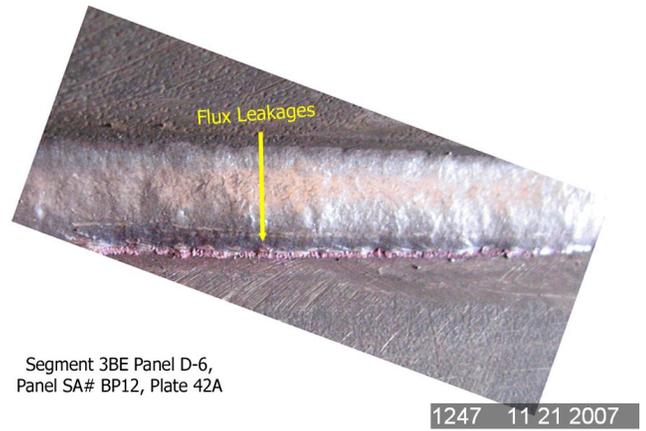
Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002789**Date Inspected:** 21-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei**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:** Tower Mock-up and OBG**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

Item	Description	WBS	Dwg No.	Status
1	OBG Mock-up Bottom plate Tee Stiffeners UT The QA inspector started performing ultrasonic testing (UT) after ZPMC verifications on the weld splice for the RSX7D, RSX3D and RSX3B. The QA inspector was notified by ZPMC representative Fu Yu Hong that the weld splices connecting two W57x21 were accepted by the ZPMC QC and that were ready for Caltrans verifications. During Ultrasonic examination to the above mentioned W shapes the QA inspector observed rejectable indications at the toe weld reinforcement that were not reported by QC inspector. The QA inspector had a conversation with ABF representative Kevin Carpenter. The QA inspector relayed that the QA inspector found rejectable indications (appeared to be no relevant indications) at the toe of the weld reinforcement that were not reported by ZPMC QC. Mr. Kevin Carpenter agreed and said that the welds needed to be ground.			
2	Visual inspection to the PL42A The QA inspector assisted to Larry Viars to perform preliminary visual weld inspection to the fillet welds on three Tee stiffeners at the junctions of the bottom plate PL 42A and the Tee stiffeners joint # BP-012-01-013 thru 018. After ZPMC repair areas marked by the QA inspector welds appeared to be in compliance with contract documents. The photographs below shows the bottom plate PL42A and the magnetic particle indications detected by Caltrans QA inspector Larry Viars.			

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Segment 3BE Panel D-6,  
Panel SA# BP12, Plate 42A

- 3 OBG Bottom plate Tack weld Crack  
ZPMC representative Fu Yu Hong relayed to the QA inspector that a tack weld crack at the PL 81A, SP-026 weld joint # 01-014. ZPMC relayed to the QA inspector that ZPMC would removed the tack by grinding.
- 4 Milling bevel for Tower 89M Mock-up  
The QA inspector observed ZPMC performing milling operations on the bevel preparations for the longitudinal plate mp537 for the skin D.
- 5 Welding Tower Mock-up  
Tower Mock-up 114 M  
The QA inspector observed ZPMC welder Chang Chuan Cang performing welding operations with the flux cored arc welding (FCAW) at the completed joint penetration on the interior splice A-67 weld joint # 2B in the 1G (flat) position.  
The QA inspector observed ZPMC welder Bo Wen Ming performing welding operations with the flux cored arc welding (FCAW) at the interior splice A-65 weld joint # 2B in the 1G (flat) position.  
The QA inspector observed ZPMC performing heat straightening operations to the skin B, MA101 subassembling. Tower Mock-up 77  
The QA inspector observed ZPMC performing welding operations to the web plates and the diaphragm plate SA-95.
- 6 OBG Mock-up Deck plate  
The QA inspector verified the bevel angle for the two panel that ZPMC is being installed according with standard joint configuration. Caltrans Task Leader Mr. Robert Cuellar and the QA inspector measured an bevel angle of approximately 15 degrees on both sides of the splice.
- 7 OBG Bottom plates MT examinations  
The QA inspector observed ZPMC QC inspector Zhou Dong Yun performing 10 % magnetic particle inspection (MT) at the junction of the Tee stiffeners and the bottom plate PL-42, joint # BP-012-01-013 thru BP-012-01-024.

## Summary of Conversations:

The QA inspector had a conversation with ABF representative Kevin Dye. Mr. Kevin Dye relayed to the QA inspector that ZPMC representative Hu Gang confirmed to him that ZPMC performed cold (mechanical) bending to the Seismic Performance Critical Member shear link subassemblies MA-25 and MA-26, 3 webs and 6 flanges.

## 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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<b>Inspected By:</b>	Acuna, Alfredo	Quality Assurance Inspector
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<b>Reviewed By:</b>	Cuellar, Robert	QA Reviewer
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