

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021996**Date Inspected:** 21-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Hua Jie**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 Segments**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 13AE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3007R-001, Deck Plate Diaphragm splice. The welder is identified as #200113 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-345-3G (3F)-FCM-repair-1 for WR20472.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated SEG3007AD-133, FL3 full height stiffener to Side Plate. The welder is identified as #037743 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-P-2114-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3007K-006, Deck Plate Diaphragm splice. The

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welder is identified as #037743 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-345-3G (3F)-FCM-repair-1 for WR20472.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG300AH-68, Floor Beam I-rib to K Plate I-rib splice. The welder is identified as #050242 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2231-ESAB.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a UT repair on a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SEG3007R-002, Deck Plate Diaphragm splice. The welder is identified as #200113 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-345-3G (3F)-FCM-repair-1 for WR20472.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspector is identified as Li Hua Jie. The welding variables recorded by QC appeared to comply with the Applicable WPS.

### Segment 12AE/Cross Beam 17

This QA Inspector observed match drilling of bolt holes on the FL3 I-ribs and Side Panel horizontal I-ribs for the bolted splice plate at CB to 12AE connection at panel points 110.

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the fillet welds of the Partial Height Diaphragm at panel points 111 to 112.

### Segment 13AE

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Side Plate to Bottom Plate longitudinal splice, D scan was performed.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

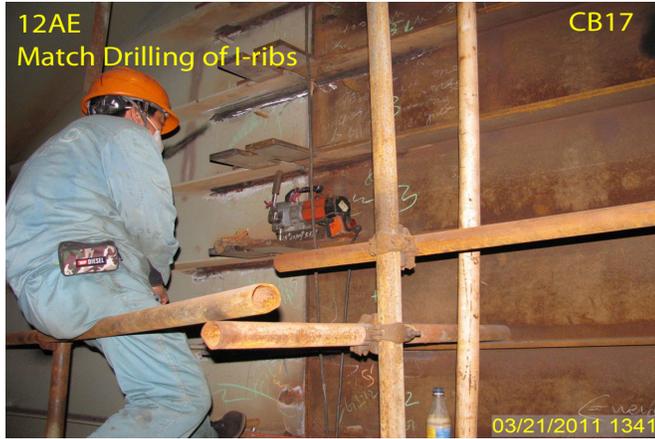
Due to inclement Weather work in the OBG Trial Assembly was limited.

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## Summary of Conversations:

No relevant conversations.

## 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 Eric Tsang, 150-0042-2372 , who represents the Office of Structural Materials for your project.

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**Inspected By:** Hernandez,Dan

Quality Assurance Inspector

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**Reviewed By:** Miller,Mark

QA Reviewer