

**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-014916**Date Inspected:** 15-Jun-2010**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 Yang**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 Segment**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 8BW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG047F-015. The welder is identified as #048800 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-345-SMAW-3G (3F)-FCM-repair-1, UT repair for WR13614 Y location 30mm.

Segment 7CW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW7E-049. The welder is identified as #067183 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-P-2213-B-U2-FCM-1.

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## WELDING INSPECTION REPORT

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This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of fillet weld joint. The Weld joint is designated as OBW7D-053, 054. The welder is identified as #067572 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-P-2114-FCM-1.

### Segment 7DW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW7E-052. The welder is identified as #037996 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-P-2213-B-U2-FCM-1.

### Segment 7CW/7DW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of fillet weld joint. The Weld joint is designated as OBW7E-050, 051. The welder is identified as #067183 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-P-2114-FCM-1.

### Segment 8BW

This QA Inspector observed heat straightening on the bottom Counter Weight Connection Plate at panel point 64 to 66 following HSR1(B)-8596.

### Segment 7BW

This QA Inspector observed ZPMC personnel performing Magnetic Particle Testing on the FL3 I rib hold back fillet welds at panel point 50 to 52.

### Segment 8CW

This QA Inspector observed ZPMC personnel performing Ultrasonic Testing on the Longitudinal Diaphragm web to floor beam CJP connection at panel point 71 west, counter weight side.

### Segment 7DW

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Side Plate to Side Plate longitudinal splice at the corner assembly after heat straightening, counter weight side at panel point 56 to 58.

### Segment 9AW/9BW

This QA Inspector observed back gouging of the Edge Plate transverse CJP splice root pass, cross beam side.

ZPMC Quality Control (QC) Inspector is identified as Zhang Hai Tao. QA Inspector observed QC Inspector verify welding parameters. The welding variables recorded by QC appeared to comply with the Applicable WPS.

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# WELDING INSPECTION REPORT

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Segment 8CE

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC MT personnel. The following items were tested:

- OBW7B-012
- OBW7B-013
- OBW7B-022
- OBW7B-023
- OBW7B-028
- OBW7B-027
- OBW7B-032
- OBW7B-033

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

**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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<b>Inspected By:</b>	Hernandez,Dan	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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