

**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-009248**Date Inspected:** 19-Sep-2009**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:** Xu Yumin**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 1AW

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 OBW1B-014. The welder is identified as #037743 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-P-2213-TC-U4b-FCM-1.

Segment 1AAE/IAE

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 OBE1-001. The welder is identified as #045196 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-345-SMAW-1G (1F)-repair-1.

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This QA Inspector observed ZPMC personnel perform Magnetic Particle Testing (MT) during excavations of 6 (six) ZPMC UT rejectable indications on OBE1-001 Deck Plate segment splice. Transverse indications were discovered in each excavation by ZPMC MT technician. Y locations for the excavations were documented by ZPMC QC starting from the Bike Path Edge Plate. Locations for the 6 indications are as follows:

5110mm- 3 transverse indications  
5960mm- 1 transverse indication  
8500mm- 1 transverse indication  
8950mm- 1 transverse indication  
18380mm- 1 transverse indication  
22900mm- 6 transverse indications

Segment 5BE/5CE

This QA Inspector observed grinding along the Side Plate transverse CJP splice at areas of fit up plate attachment, cross beam side.

Segment 1AAW/1AW

This QA Inspector observed excavations in progress of ZPMC Ultrasonic Testing (UT) rejectable indications in the Bottom Plate transverse CJP splice. Excavations were performed with the use of an arc gouger and grinder.

Segment 2AE

This QA Inspector observed blasting in progress at the exterior portion of the FL3's.

Segment 1AW

This QA Inspector observed fit up in progress of the cable trays for match drilling, cable trays were tack welded in place.

Segment 5CE

This QA Inspector observed heat straightening had been performed on the short LD at panel point 35, cross beam side. A hydraulic jack was in place during heating of material. HSR1 (B)-6723 was being followed to perform procedure.

Segment 5BW

This QA Inspector observed grinding in progress of the Edge Plate to Side Plate hold back welds at the exterior 5BW/5CW segment splice.

Segment 5BE

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This QA Inspector observed trimming of the Deck Plate at the CB4 bolted connection, trimming was performed with the use of a mechanically guided torch.

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

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
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<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer
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