

**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-012517**Date Inspected:** 10-Mar-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**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG Assembly Yard

6AE

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 166 located at SSD17-PP039 on the cross beam side of segment. Welder is identified as Mr. Dai Lu (048659). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-3G (3F)-FCM-Repair-1 and WR10683 repair procedure.

6AW

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 001 located at SEG027D-PP039 on the counter weight side of segment. Welder is identified as Mr. Dai Lu (048659). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair-1 and CWR1261 repair procedure.

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6BW

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 001 located at CA027 on the counter weight side of segment. Welder is identified as Mr. Du Hengyou (037743). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair-1 and WR10755 repair procedure.

6CW

Shield Metal Arc Welding (SMAW) welding (buttering ends) was performed on bottom plate and panel point 44 stiffeners (various areas) located at the cross beam side of segment. Welder is identified as Mr. Wang Changfa (058102). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-3G (3F)-FCM-Repair-1 and WR10880 repair procedure.

7AE

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 004 located at CA034 on the bike path side of segment. Welder is identified as Mr. Yang Yunfeng (215553). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair-1 and CWR1210 repair procedure.

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 004 located at CA034 on the bike path side of segment. Welder is identified as Mr. Chen Renzhi (058087). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair-1 and CWR1210 repair procedure.

7BW+7CW

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 007 located at OBW7B on the counter weight side of segment. Welder is identified as Mr. Jiang Jinyong (066361). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2214-B-U2-FCM-1.

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 007 located at OBW7B on the counter weight side of segment. Welder is identified as Mr. Zhang Quanfa (066326). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2214-B-U2-FCM-1.

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 006 located at OBW7B on the counter weight side of segment. Welder is identified as Mr. Zang Yanbo (045196). ZPMC QC is identified as Li Yang. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2214-B-U2-FCM-1.

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## NDT Observation

This QA Inspector observed ZPMC Magnetic Particle Testing (MT) Technician performed MT on various locations in the trial assembly yard. Locations and indications are as followed:

### 7BE

1. Excavation on edge to deck plate weld joint at bike path side of segment. Y locations are approximately 1810mm (1 transverse indication), 4325mm, 4730mm, 6550mm (1 transverse indication), 6680~6770mm (4 transverse indications), 6850~6950mm (5 transverse indications), 9260~9310mm (2 transverse indications) 10600mm, 12700~12715mm (2 transverse indications) and 12980mm (2 transverse indications).

## Miscellaneous Work In Progress

QA Inspector observed ZPMC's personnel performing various job functions in the trial assembly yard. Locations and description of work are as followed:

### 7BE

UT reject excavation was performed at deck plate to Edge plate weld joint on bike path side of segment.

1. Y location 6670mm~6950mm, 7460mm~7520mm, 9120mm~9335mm and 10600mm~12715mm per CWR1224.

### 7BW+7CW

1. Back gouging performed on bottom plate weld splice OBW7B-008 of segment.

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



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**Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

**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>	Alaniz,Joe	Quality Assurance Inspector
<b>Reviewed By:</b>	Miller,Mark	QA Reviewer

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