

**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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022845**Date Inspected:** 21-Apr-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) Chanxing Island **Location:** Shanghai, China**CWI Name:** Mr. LIU 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 Segment**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance (QA) Inspector Santhosh Ramakrishna Pillai was present during the times noted above for observations relative to fabrication work of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China.

This QA inspector randomly observed the following work:

## 1. INPROCESS:

Orthotropic Box Girder (OBG) at Trial Assembly Area:

ZPMC welding personnel performing Shielded Metal Arc Welding of Complete Joint Penetration welds joining the edge plate to deck plate hold back weld joint located on 12CE+13AE at cross beam side. The weld is designated as SEG3007AB-094(13AE). The welder is identified as 052493. ZPMC QC Mr. WANG LI YANG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-B-P-2212-TC-U4b-FCM-1.

ZPMC welding personnel performing Shielded Metal Arc Welding of Complete Joint Penetration welds joining the edge plate to deck plate hold back weld joint located on 12CE+13AE at bike path side. The weld is designated as CA3005-006(12CE) & SEG3007AB-096(13AE). The welder is identified as 052493. ZPMC QC Mr. WANG

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# WELDING INSPECTION REPORT

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LI YANG was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-B-P-2212-TC-U4b-FCM-1.

## 2. NDT:

### Magnetic Particle Testing (MT):

MT carried out for the ZPMC submitted Notification No 08891.

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% of the area that has been previously tested and accepted by ZPMC MT technicians. This QA Inspector generated a TL-6028 MT report on this date. The members are identified as fillet weld joint between stiffener to Longitudinal Diaphragm & Floor Beam located on 13CE at cross beam side. The weld designation numbers is as follows: LD3030-001-305, 306, 309, 310, 311, 312, 315, 316, 333, 334, 337, 338, 339, 340, 343, 344, FB3166-001-004, 005, 010, 011, FB3166A-001-017, 018, 031, 032, 037, 038, 043, 044, SEG3011C-018, 019, 062, 063, SEG3011N-183, 184, 179, 180, 175, 176, 171, 172, 167, 168, 163, 164, 159, 160, 155, 156, 151 & 152.

### Ultrasonic Testing (UT):

UT carried out for the ZPMC submitted Notification No 08890.

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10 % of CJP welds that has been previously tested and accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The members are identified as CJP joint between bike path weld joint located on BAY-10. This QA inspector generated a UT (TL-6027) report for this date. Weld identification numbers were BK010A2-001-099 & 100, BK010A5-001-118, 121, 128 & 131.

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

### Summary of Conversations:

No relevant conversations were reported on this date.

### 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>	Pillai,Santosh	Quality Assurance Inspector
<b>Reviewed By:</b>	Miller,Mark	QA Reviewer

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