

**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-020516**Date Inspected:** 11-Feb-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. LI YAN HUA**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 Bay-14 Area:

ZPMC welding personnel performing Shielded Metal Arc Welding of Repair weld for the vertical shear plate to bottom plate weld joint located on 14E at bike path side. The weld is designated as SEG3019BB-081. The welder is identified as 066418. ZPMC QC Mr. GUO SHI HUI was onsite monitoring the welding variables. The inprocess Shielded Metal Arc Welding appears to be progressing in compliance with WPS-345-SMAW-2G (2F)-FCM-Repair-1. The weld repair report number is named as CWR-2737.

ZPMC welding personnel performing Flux Core Arc Welding of Complete Joint Penetration welds joining the vertical shear plate to bottom plate weld joint located on 14E at bike path side. The weld is designated as SEG3019BB-069. The welder is identified as 067877. ZPMC QC Mr. GUO SHI HUI was onsite monitoring the welding variables. The inprocess Flux Core Arc Welding appears to be progressing in compliance with

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WPS-B-T-2233-ESAB.

ZPMC welding personnel performing Flux Core Arc Welding of Complete Joint Penetration welds joining the vertical shear plate to bottom plate weld joint located on 14E at bike path side. The weld is designated as SEG3019BB-157. The welder is identified as 066763. ZPMC QC Mr. GUO SHI HUI was onsite monitoring the welding variables. The inprocess Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2233-ESAB.

ZPMC welding personnel performing Flux Core Arc Welding of Complete Joint Penetration welds joining the vertical shear plate to bottom plate weld joint located on 14E at bike path side. The weld is designated as SEG3019BB-125. The welder is identified as 067079. ZPMC QC Mr. GUO SHI HUI was onsite monitoring the welding variables. The inprocess Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2233-ESAB.

ZPMC welding personnel performing Flux Core Arc Welding of Complete Joint Penetration welds joining the deck panel diaphragm to deck panel diaphragm weld joint located on 13CE at Panel Point (PP-124.5). The weld is designated as SEG3011B-001. The welder is identified as 052696. ZPMC QC Mr. ZHONG YONG HONG was onsite monitoring the welding variables. The inprocess Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2233-ESAB.

ZPMC welding personnel performing Flux Core Arc Welding of Complete Joint Penetration welds joining the deck panel diaphragm to deck panel diaphragm weld joint located on 13BE at Panel Point (PP-124.5). The weld is designated as SEG3009F-001. The welder is identified as 067138. ZPMC QC Mr. ZHONG YONG HONG was onsite monitoring the welding variables. The inprocess Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2233-ESAB.

ZPMC welding personnel performing Flux Core Arc Welding of Complete Joint Penetration welds joining the deck panel diaphragm to deck panel diaphragm weld joint located on 13CE at Panel Point (PP-124.5). The weld is designated as SEG3011C-001. The welder is identified as 052696. ZPMC QC Mr. ZHONG YONG HONG was onsite monitoring the welding variables. The inprocess Flux Core Arc Welding appears to be progressing in compliance with WPS-B-T-2233-ESAB.

2. NDT:

Ultrasonic Testing (UT):

UT carried out as per the ZPMC submitted Notification No 08326.

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. This QA inspector generated a (UT) (TL-6027) report for this date. The QA Inspector generated a TL-6027 UT report on this date. Weld identification numbers were SEG3007P-179, 177, 175, 173, 171, 169, 167, 165, 163, SEG3007P-161, 159, 084, 097, 187, 192, 197, 202, 085, 098.

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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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