

**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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-009943**Date Inspected:** 30-Oct-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Xu Yumin and Wu Zhi Cheng			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	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:

Trail Assembly Yard

1AAW+1AW

SMAW repair welding on weld joint 003 located at OBW1 bottom plate (exterior).

Welder is identified as Mr. Zhang Feng (049769). ZPMC QC is identified as Wu Zhi Cheng. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-4G (4F)-FCM-Repair-1 and CWR repair procedure #876.

Y Locations of excavations by above noted welder (049769) are located at approximately 3200 and 2250mm.

SMAW repair welding on weld joint 003 located at OBW1 bottom plate (internal).

Welder is identified as Mr. Dai Lu (048659). ZPMC QC is identified as Wu Zhi Cheng. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-1G (1F)-FCM-Repair-1 and CWR repair procedure #876.

Y Location of excavation by above noted welder (048659) is located at approximately 6170mm.

---

---

# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

## NDT Observation

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

### 1AAW+1AW

1. Excavation areas at OBW1A-004 side plate (external) weld joint on segment 1W. Y locations of excavations and numbers of MT Indications observed are as followed:

Y locations 6130mm (1 MT transverse indication observed), 5600mm, 2930mm, 2730mm, 700mm and 150mm.

2. Excavation areas at OBW1A-003 bottom plate (external) weld joint on segment 1W. Y locations of excavations and numbers of MT Indications observed are as followed:

Y locations 1400mm, 1700mm, 2250mm, 3200mm (1 MT transverse indication observed), 3390mm, 3980mm (1 MT transverse indication observed) and 6170mm.

3. Excavation areas at OBW1-001 deck plate (external) weld joint on segment 1W. Y locations of excavations and numbers of MT Indications observed are as followed:

Y locations 22480mm, 18630mm, 18100mm, 17700mm, 16990mm (1 MT transverse indication observed), 13370mm (1 MT transverse indication observed), 13320mm (2 MT transverse indication observed), 6170mm, 8100mm, 7100mm (1 MT transverse indication observed), 6080mm (4 MT transverse indication observed), 2500mm and 180mm.

4. Excavation areas at OBW1-002 edge plate (external) weld joint on counter weight side of segment 1W. Y locations of excavations and numbers of MT Indications observed are as followed:

Y location is 690mm.

5. Excavation areas at OBW1-003 edge plate (external) weld joint on crossbeam side of segment 1W. Y locations of excavations and numbers of MT Indications observed are as followed:

Y location is 530mm.

## 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:

UT reject excavation was performed at OBW1A-008 bottom plate (external) weld joint on segment 1W. Y locations and lengths are as followed:

---

---

## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

---

1. Y location 2090mm (off crossbeam side) and length of excavation is approximately 290mm.

2. Y location 370mm (off crossbeam) and length of excavation is approximately 70mm.

UT reject excavation was performed at OBW1-002 (counter weight) edge plate (external) weld joint on segment 1W. Y locations and lengths are as followed:

1. Y location 700mm (off side plate to edge plate weld joint) and length of excavation is approximately 120mm.

UT reject excavation was performed at OBE1-004 (cross beam) edge plate (external) weld joint on segment 1E. Y locations and lengths are as followed:

1. Y location 0mm (off side plate to edge plate weld joint) and length of excavation is approximately 95mm.

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

### 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 (134-8257-0045), who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Alaniz,Joe	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

---