

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016980**Date Inspected:** 21-Sep-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:** Mr. Xu xian ping**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:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

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

BAY- 6

This QA Inspector Randomly observed the following work in progress:

Submerged Arc Welding (SAW) of weld joint CB3003C-019-007. Welder is identified as 053748. ZPMC Quality Control (QC) is identified as Mr. Zhang zhi wei. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2221-B-L2c-S-2.

Shielded Metal Arc Welding (SMAW) of weld joint WJF-0-002. Welder is identified as 057795. ZPMC Quality Control (QC) is identified as Mr. Huang min. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-3311-TC-P4.

SMAW of weld joint WJF-0-003. Welder is identified as 048659. ZPMC Quality Control (QC) is identified as Mr. Huang min. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-3311-TC-P4.

SMAW of weld joint WJF-0-0128. Welder is identified as 053753. ZPMC Quality Control (QC) is identified as

---

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

---

Mr. Huang min. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-3311-TC-P4.

SMAW of weld joint WJF-0-005. Welder is identified as 054467. ZPMC Quality Control (QC) is identified as Mr. Huang min. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-3311-TC-P4.

SMAW of weld joint WJF-0-158. Welder is identified as 049769. ZPMC Quality Control (QC) is identified as Mr. Huang min. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-3311-TC-P4.

During the Caltrans QA in-process observations of the fabrication of West Jacking Frame (WJF) WJF-0, this QA observed ZPMC has fit and commenced welding closure plates that do not comply with the approved shop drawings. The approved shop drawing identified as WJF-0 3/3 specifies members identified as 5, 6 and 7 having a 75mm radius cope hole in each corner. The members being used in production do not have these cope holes. The affected weld joints are identified as WJF-0-001~005, 123, 128, 129, 137, 138, 139, 147, 148, 149, 157, 158, 159, 164, 165 and 166. The welds are Partial Joint Penetration (PJP) welds joining plates identified as WJF-0-5, 6 and 7 to WJF-0-1, 2 and 3. The plate material is A709-HPS-485W (TTP), Non-Seismic Performance Critical Material (Non-SPCM). The material thickness is 40mm and 65mm.

This QA generated an incident report on this date for the above issue, for further information see the incident report and attached photos.

BAY- 7

Flux Cored Arc Welding (FCAW) of weld joint W2-SB1H-003-019. Welder is identified as 215689. ZPMC Quality Control (QC) is identified as Mr. Xu Hai Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2231-B-U2-F.

FCAW of weld joint SA3078-006-002. Welder is identified as 053609. ZPMC Quality Control (QC) is identified as Mr. Xu Hai Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2331-C-P2-F-2.

FCAW of weld joint W2-SB1-027-096. Welder is identified as 051246. ZPMC Quality Control (QC) is identified as Mr. Xu Hai Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2133.

FCAW of weld joint W2-SB1-018-100~105. Welder is identified as 048625. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2133.

BAY- 8

FCAW of weld joint BK004A1-061-043. Welder is identified as 040671. ZPMC Quality Control (QC) is identified as Mr. Liu Chuan gang. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2232-TC-U4c-F.

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

---

---

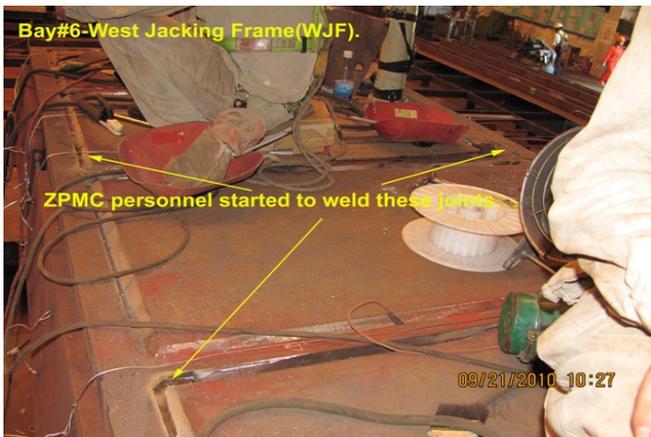
# WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

---

documents.



## Summary of Conversations:

Only general conversation was held between QA and Quality Control (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 15000422372, who represents the Office of Structural Materials for your project.

---

**Inspected By:** Prabhu,Surendra

Quality Assurance Inspector

**Reviewed By:** Hall,Steven

QA Reviewer