

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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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-027194**Date Inspected:** 24-Oct-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**CWI Name:** Wai Tao**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 date Caltrans OSM Quality Assurance (QA) Inspector R. Hernandez was present during the time noted above and conducted observations relative to the work being performed.

The QA Inspector randomly observed the following work in progress:

## Bay Number 1

FCAW welding of fillet welds located on Barrier Rails components identified as E2-SB1C-001 weld number(s) 026~031, 057~062, 088~093, 106, 108, 122, & 124.. Welder is identified as welder no. 045207. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2132-3 & WPS-B-T-2133.

FCAW welding of fillet welds located on Barrier Rails components identified as E2-SB1C-001 weld number(s) 132~179, 180~192. Welder is identified as welder no. 045227. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2132-3 & WPS-B-T-2133.

## Bay Number 2

This inspector performed verification of fit-up of sub-assembly components to sub assembly anchorage plate on component AP3032-001 for lift 14 west segment line. All components were verified for compliance with drawing number AP3032 dated and approved as noted by Caltrans on 07.30.10.

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Performed verification VT for the component(s) and corresponding welds for component on OBG sub assembly vertical plate listed as VP3010-001 for the following designated weld number(s): 001, 002, 003, 004, 005, 006, 007 & 008. This QA inspector signed green tag #15135.

Performed verification VT for the component(s) and corresponding welds for component on OBG Barrier Rail component listed as E5-SB1-018, 021, 026, & 036 for the following designated weld number(s): 001~179. This QA inspector signed green tag #15137.

FCAW welding of fillet weld joint(s) located on lift 14 OBG floor beam identified as FB3315-001 weld number(s) 081~098. Welder is identified as welder no. 068554. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2132-3.

FCAW welding of fillet weld joint(s) located on lift 14 OBG floor beam identified as FB3331-001 weld number(s) 002 & 003. Welder is identified as welder no. 068554. The welding variables recorded by ZPMC QC identified as Wai Tao. appeared to comply with applicable WPS(s) WPS-B-T-2132-3.

ZPMC personnel heat straightening Orthotropic Box Girder (OBG) sub assembly member identified as VP3014-001 for weld(s) 002~009, 011~019, 022~030, 033~041, 044~052. Distortion appeared to be caused by welding. ZPMC Quality Control (QC) inspector identified as Mr. Wai Tao was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) no. HSR(B)-419.

### Bay Number 3

FCAW welding of complete joint penetration weld joint(s) located on lift 14 OBG sub assembly component identified as SA3824-001 weld number(s) 059 & 042. Welder is identified as welder no. 206623. The welding variables recorded by ZPMC QC identified as Wai Tao appeared to comply with applicable WPS(s) WPS-B-T-2232-TC-U4b-F.

FCAW welding of fillet weld joint(s) located on lift 14 OBG longitudinal diaphragm identified as LD3041-001 weld number(s) 278. Welder is identified as welder no. 052686. The welding variables recorded by ZPMC QC identified as Wai Tao. appeared to comply with applicable WPS(s) WPS-B-T-2132-3.

FCAW welding of fillet weld joint(s) located on lift 14 OBG longitudinal diaphragm identified as LD3041-001 weld number(s) 368. Welder is identified as welder no. 217805. The welding variables recorded by ZPMC QC identified as Wai Tao. appeared to comply with applicable WPS(s) WPS-B-T-2132-3.

### Bay Number 4

This QA inspector assisted in the performance MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel, by the lot method testing procedure. This QA Inspector assisted in the generation an MT report for this date by inspector lot no. B315. All components were as listed on NWIT notification no. 07085. The member(s) is/are identified as OBG Sub Assembly. The weld designations reviewed

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are as follows:

1. SA3365-001-001.
2. SA3363-001-001.
3. SA3357-001-001.

Unless otherwise noted above all items observed on this day appeared to be in general compliance with the applicable contract documents

### **Summary of Conversations:**

Pertinent conversations are included in the body of the report.

### **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 1500-0042-02372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hernandez,Rene	Quality Assurance Inspector
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<b>Reviewed By:</b>	Levell,Bill	QA Reviewer
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