

**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-019689**Date Inspected:** 20-Jan-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), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Xu Le Feng.**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:** Tower and Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad 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:

NDT

BAY 11:

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as Tower lift 6. The weld designations reviewed are as follows.

WSD1-FFSA6-4-11, 26

ESD1-TPSA6-2-19A/B,

WSD1-TPSA6-3-20A/B

NDT Notification No-08232

BAY 10:

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Traveler rail. The weld designations

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reviewed are as follows.

28TR1-004, 005, 014, 015

29TR1-003, 005, 014, 015

NDT Notification No-08233

BAY 10

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as OBG. The weld designations reviewed are as follows.

BK-EAP-5-11, 22

NDT Notification No-08239

BAY 10

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

BK008A1-001-043

NDT Notification No-08241

This QA Inspector observed the following work in progress:

BAY 10: FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 053869, Perform Flux Core Arc Welding (FCAW) on OBG Bike Path stringer plate. Joint identified as BK010A3-001-071, 073, 066. ZPMC QC Identified as Lijun. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2232-ESAB.

Repair welding, FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 053869, Perform Flux Core Arc Welding (FCAW) on OBG Bike Path side plate to deck plate joint. Joint identified as BK008A1-001-043, ZPMC CWI Identified as Guo Yan Fei with temporary welding repair report. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-FCAW-2G (2F)-ESAB-Repair.

Repair welding, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 052493, 0540363, Perform Shielded Metal Arc Welding (SMAW) on OBG Bike path Path side plate to deck plate joint. Joint identified as BK008A1-001-043. ZPMC CWI Identified as Guo Yan Fei with temporary welding repair report. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-2G (2F) Repair. For more information see attached picture number 1.

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Repair welding, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040582, 050038, 040270, Perform Shielded Metal Arc Welding (SMAW) on OBG Bike path suspending bracket edge plate. Plate identified as BKX51A weld build up 50mm. ZPMC QC Identified as Li Peng Fei with critical welding repair report CWR-B-CWR1868. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-2G (2F) Repair. For more information see attached picture number 2.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the 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 Thomas Ho: 150002048250, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Gaikwad,Shailesh	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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