

**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-016892**Date Inspected:** 05-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:** Zhu Zhong Hai**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:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune 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:

This QA Inspector randomly observed the following work in progress:

**OBG # TRIAL ASSEMBLY YARD**

Segment # 9BE &amp; 9DE

This Quality Assurance (QA) received ZPMC inspection notification sheet 00475 to perform final tension verification for Bottom Panel FL3 Location at Cross Beam Side Panel Points (PP) 74 to PP 76 & PP 80 to PP 82 for Segment 9BE & 9DE. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M24 x 60 DHGM220014 and final torque required was 567 N-m.

Bolt sizes used were M24 x 65 DHGM220013 and final torque required was 540 / 1100 N-m.

Bolt sizes used were M24 x 70 DHGM220010 and final torque required was 1200 N-m.

Manual Torque wrench was been used with Sr. No. XO2-666. See the attached Photo.

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### Segment # 10BW

This Quality Assurance (QA) received ZPMC inspection notification sheet 00472 to perform final tension at T-Rib Small Splice Plate Cross Beam and Counter Weight side between Panel Points (PP) 89 to PP 91 for Segment 10BW. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M16 x 45 DHGM160008 and final torque required was 200 N-m.

Bolt sizes used were M22 x 85 DHGM160006 and final torque required was 180 N-m.

Manual Torque wrench was been used with Sr. No. XO2-666

### Bay # 4

This QA received ZPMC inspection notification sheet 06586 to perform dimensional inspection of traveler rails identified as 11TR2-007, Dimensional inspections performed on each of these traveler rails include, but is not limited to, overall length, Thickness at Typical Section, Flange Width, Depth Typical Section, flange Curl at Typical Section, Web to Flange Offset The results of the inspection were recorded on Caltrans (CT) QA form "OBG DCP Hand Measurements Survey: Traveler Rails and submitted to CT QA lead for review.

### Segment # 10BW

This QA inspector observed, ZPMC qualified welding personnel identified as 040609 perform Flux Core Arc Welding (FCAW), weld joint identified as CA073-005; ZPMC QC is identified as Mr. Wang Zhu. The welding parameters measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2231-TC-U4b-F.

### Segment # 10AE ~ 10BE

This QA inspector observed, ZPMC qualified welding personnel identified as 044504 perform Shielded Metal Arc Welding (SMAW), weld joint identified as DP701-001-035; ZPMC QC is identified as Mr. Wang Li Yang. The welding parameters measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-B-U3b.

### Segment # 10BW ~ 10CW

This QA inspector observed, ZPMC qualified welding personnel identified as 067752 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SP138-001-052; ZPMC QC is identified as Mr. Wang Zhu. The welding parameters measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-B-U2-FCM-1. See the attached Photo.

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

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## 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 phone: 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Prabhune,Manoj	Quality Assurance Inspector
<b>Reviewed By:</b>	Patterson,Rodney	QA Reviewer

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