

**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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022607**Date Inspected:** 01-Apr-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) Chanxing Island**Location:** Shanghai, China**CWI Name:** Mr. An Qing Xing**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 Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) – NWIT Document No: 008696

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment 13BW. The weld designations reviewed are as follows:

1. SEG3014E-062, 067, 072, 077, 082, 087, 092, 097
2. SEG3014E-102, 107, 112, 117, 122, 127, 132, 137, 142
3. SEG3014E-063, 068, 073, 078, 083, 088, 093, 098
4. SEG3014G-061, 065, 069, 073, 077, 081, 085, 089
5. SEG3014G-093, 097, 101, 105, 109, 113, 117, 121, 125

Bay 14

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint SEG3020AQ-025 located on Anchor Plate to Side Plate at panel point 125 to 127 of OBG Segment 14W. ZPMC Welder is identified as 067520. ZPMC Quality

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Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2211-Tc-U5b-FCM.

SMAW welding of weld joint SEG3020BB-065 located on Vertical Shear Plate to Anchor Plate of OBG Segment 14W. ZPMC Welders are identified as 069841 and 066261. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3020BB-011 located on Vertical Shear Plate to Anchor Plate of OBG Segment 14W. ZPMC Welder is identified as 067904. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2214-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3020AV-011 located on SA3416 to Floor Beam at panel point 128.3 of OBG Segment 14W. ZPMC Welder is identified as 066443. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2211-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3020AV-006 located on SA3416 to Floor Beam at panel point 128.3 of OBG Segment 14W. ZPMC Welder is identified as 066021. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2211-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3020L-018 and 019 located on Anchor Plate to Floor Beam at panel point 127 of OBG Segment 14W. ZPMC Welder is identified as 069896. ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2114-FCM-1.

SMAW repair welding of weld joint SEG3014C-146 located on Floor Beam to Corner Assembly at panel point 121.5 of OBG Segment 13BW. ZPMC Welder is identified as 066179. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G-(3F)-FCM-Repair, which is used as per Welding Repair Report (WRR) B-WRR-20537.

SMAW repair welding of weld joint SEG3014C-008 located on Deck Panel Diaphragm to Deck Panel Diaphragm of OBG Segment 13BW. ZPMC Welder is identified as 066179. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-3G-(3F)-FCM-Repair, which is used as per Welding Repair Report (WRR) B-WRR-20537.

Flux Core Arc Welding (FCAW) welding of weld joint SEG3014-001 located on Deck Panel to Deck Panel of OBG Segment 13BW. ZPMC Welder is identified as 066421. ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-T-223(2)1T-ESAB.

This QA inspector observed ZPMC personnel performed Ultrasonic Testing on Side Plate to Corner Assembly Splice weld at panel point 120.5 to 122 cross beam side of OBG Segment 13BW. The weld numbers are identified as SEG3014M-001.

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This QA inspector observed ABF personnel performed Magnetic particle Testing (MT) on Bottom Plate RS stiffener at panel point 122 to 122.5 bike path side of OBG Segment 13BW. See the attached pictures.

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 , who represents the Office of Structural Materials for your project.

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**Inspected By:** Kumar,Vibin

Quality Assurance Inspector

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**Reviewed By:** Patel,Hiranch

QA Reviewer