

**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-019072**Date Inspected:** 08-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) Chanxing Island**Location:** Shanghai, China**CWI Name:** Mr. Qui Wen**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: 008094

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. The weld designations reviewed are as follows:

1. SA8515-002
2. SEG3019A-027

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This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW) repair welding of weld joint SEG3014F-095, 100 located on Floor Beam to Bottom Plate Stiffener of the OBG Segment 13BW. ZPMC Welder is identified as 045143. ZPMC Quality Control (QC) is identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with the Applicable WPS- 345-FCAW-3G (3F)-FCM-Repair-ESAB, which is used as per Welding Repair Report (WRR) B-WRR-19634.

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FCAW repair welding of weld joint SEG3014F-105, 110 located on Floor Beam to Bottom Plate Stiffener of the OBG Segment 13BW. ZPMC Welder is identified as 201583. ZPMC Quality Control (QC) is identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-FCAW-3G (3F)-FCM-Repair-ESAB, which is used as per Welding Repair Report (WRR) B-WRR-19634.

Shielded Metal Arc Welding (SMAW) repair welding of weld joint SEG3014D-226 located on Vertical Plate to Floor Beam corner joint of OBG Segment 13BW. ZPMC Welder is identified as 045196. ZPMC Quality Control (QC) is identified as Mr. Wang Xiang Pin. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-4G (4F) – FCM – Repair, which is used as per Welding Repair Report (WRR) B-WRR-18957.

SMAW repair welding of weld joint SEG3014H-154 located on Vertical Plate stiffener to Floor Beam corner joint of OBG Segment 13BW. ZPMC Welder is identified as 045204. ZPMC Quality Control (QC) is identified as Mr. Wang Xiang Pin. 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-18958.

SMAW repair welding of weld joint SEG3014C-089 and 097 located on Bottom Plate to Floor Beam joint at panel point 122 of OBG Segment 13BW. ZPMC Welder is identified as 067993. ZPMC Quality Control (QC) is identified as Mr. Wang Xiang Pin. 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-18318.

SMAW repair welding of weld joint SEG3015E-069 and 070 located on Side plate to Floor Beam joint panel point 124 of OBG Segment 13CW. ZPMC Welder is identified as 068917. ZPMC Quality Control (QC) is identified as Mr. Wang Xiang Pin. 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-18318.

SMAW repair welding of weld joint SEG3015C-101 and 097 located on Side Plate to Floor Beam joint panel point 124.5 of OBG Segment 13CW. ZPMC Welder is identified as 067829. ZPMC Quality Control (QC) is identified as Mr. Wang Xiang Pin. 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-18318.

This QA inspector observed ABF personnel performed Magnetic Particle Testing on Floor beam and Longitudinal Diaphragm Stiffeners of the OBG Segment 13CW at panel point 123.5.

ZPMC personnel performing heat straightening on deck plate of OBG Segment 13BW member identified as DP3130A, DP3131A and DP3132A. Distortion appeared to be caused by mishandling of the welding/material. ZPMC Quality Control (QC) inspector identified as Mr. Li Ming Yang was present to monitor the heat straightening process. The heat straightening appeared to comply with HSR1 (B) number 10040. See the attached picture.

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This QA Inspector observed the following work in progress:

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SMAW repair welding of weld joint BK004A1-062-043 located on Side plate to Deck Plate of OBG Bike Path BK004A-062. ZPMC Welder is identified as 069894. ZPMC Quality Control (QC) is identified as Mr. Liu Chuan Gang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-2G (2F) – Repair, which is used as per Critical Welding Repair Report (CWR) B-CWR-2481.

Flux Core Arc Welding (FCAW) welding of weld joint BK004A6-064-002 and 007 located on the OBG bike path BK004A-064. ZPMC Welder is identified as 500405. ZPMC Quality Control (QC) is identified as Mr. Liu Chuan Gang. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2132-ESAB.

FCAW welding of weld joint BK004A8-064-002 and 007 located on the OBG bike path BK004A-064. ZPMC Welder is identified as 054459. ZPMC Quality Control (QC) is identified as Mr. Liu Chuan Gang. The welding variables recorded by QC appeared to comply with the Applicable WPS- B-T-2132-ESAB.

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

**Reviewed By:** Patel,Hiranch

QA Reviewer