

**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-017437**Date Inspected:** 01-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, China**CWI Name:** 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 & OBG Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

**TOWER JETTY**

This QA Inspector observed the following work in progress

Shielded Metal Arc Welding (SMAW):

Repair welding of a weld joint # 28 as per the weld repair report T-WR 3682 located on West tower Lift-3, 109 M backfill plate WSD1 – FASA3 – 2B/E. Welder is identified as 040610. ZPMC Quality Control (QC) Inspector is identified Fu Wei Min. The welding variables recorded by QC appeared to comply with the WPS – 345+485 – SMAW – 2G (2F) – FCM – REPAIR. (See attached photo)

Weld joint # 13 located on South Tower 99 M elevation skin ‘A’ to Façade plate SSD1 – FASA3 – 1B/E. Welder is identified as 040365. ZPMC Quality Control (QC) Inspector is identified as Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 4113 – 2.

Weld joint # 04 located on South Tower 99 M elevation skin ‘E’ to Façade plate SSD1 – FESA3 – 1D/D. Welder is identified as 050038. ZPMC Quality Control (QC) Inspector is identified as Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2113.

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Weld joint # 07 located on South Tower 99 M elevation skin 'E' to Façade plate SSD1 – FESA3 – 2D/D. Welder is identified as 202100. ZPMC Quality Control (QC) Inspector is identified as Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2113.

Weld joint # 14 located on South Tower 99 M elevation skin 'A' to Façade plate SSD1 – FASA3 – 1B/E. Welder is identified as 050038. ZPMC Quality Control (QC) Inspector is identified as Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 4113 – 2.

### BAY#10

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 006818

#### Ultrasonic Testing (UT)

This QA inspector performed UT of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The member is identified as Tower Component. The weld designation reviewed as follows:

LIFT-5; NORTH TOWER – INTERIOR WELD  
NSD1 – TL5 – 3F/F – 28A/B

### ORTHOTROPIC BOX GIRDER (OBG) AT BAY#10

This QA Inspector observed the following work in progress

#### Heat Straightening:

Heat Straightening being performed on Bike Path identified as BK004A - 27 by oxy-acetylene flame method to remove the distortion that occurred after welding. ZPMC Quality Control (QC) Inspector is identified as Yuan Hui Gang present at the location. This activity appeared to comply with the Heat Straightening Report # HSR1 (B) – 9343.

### BAY#11

This QA Inspector observed the following work in progress

#### Shielded Metal Arc Welding (SMAW):

Weld joint # 10B located on Lift-5 Bracket SD1 – BRSA5 – 1. Welder is identified as 041271. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – Tc – U4b.

Weld joint # 14B located on Lift-5 Bracket SD1 – BRSA5 – 1. Welder is identified as 046769. ZPMC Quality Control (QC) Inspector is identified as Yu Dong Ping. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – Tc – U4b.

### ORTHOTROPIC BOX GIRDER (OBG) AT BAY#11

This QA Inspector observed the following work in progress

#### Fluxcored Arc Welding (FCAW):

Weld joint # 27 located on Bike Path BK004A4 – 023. Welder is identified as 040723. ZPMC Quality Control

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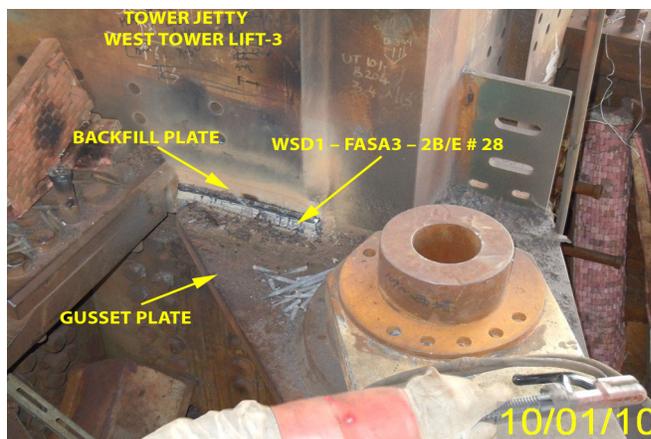
(QC) Inspector is identified as Mao Bin Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2131.

Weld joint # 46 located on Bike Path BK004A7 – 023. Welder is identified as 049220. ZPMC Quality Control (QC) Inspector is identified as Mao Bin Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

Weld joint # 08 located on Bike Path BK004A1 – 020. Welder is identified as 067138. ZPMC Quality Control (QC) Inspector is identified as Mao Bin Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – B – U2 – F. (See attached photo)

Weld joint # 189 located on Bike Path BK004A7 – 023. Welder is identified as 042218. ZPMC Quality Control (QC) Inspector is identified as Mao Bin Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

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



### Summary of Conversations:

No Relevant Conversations.

### 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 Michael Ng - 15921845703, who represents the Office of Structural Materials for your project.

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**Inspected By:** Kumar,Sandeep

Quality Assurance Inspector

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**Reviewed By:** Clifford,William

QA Reviewer