

**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-016976**Date Inspected:** 23-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:** Qiu 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:** 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**

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 006740

**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:

**NORTH TOWER LIFT-3; 89 M ELEVATION**

NSD1 – FASA3 – 1C/E – 12

**BAY#10**

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 006749

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### 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 OBG Component. The weld designation reviewed as follows:

#### BIKE PATH

BK4A1 – 029 – 009

This QA Inspector observed the following work in progress

#### Fluxcored Arc Welding (FCAW):

Weld joint # 134 located on Bike Path BK004A5 – 025. Welder is identified as 040302. ZPMC Quality Control (QC) Inspector is identified as Ma Qian Li. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – B – U2 – F.

Weld joint # 135 located on Bike Path BK004A5 – 025. Welder is identified as 057258. ZPMC Quality Control (QC) Inspector is identified as Ma Qian Li. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2233 – B – U2 – F.

#### BAY#11

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 006745

### 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 OBG Component. The weld designation reviewed as follows:

#### BIKE PATH

BK005B – 004 – 009

BK004A – 022 – 009

This QA Inspector observed the following work in progress

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

Weld joint # 12B located on Lift-5 Bracket ND1 – BRSA5 – 2. Welder is identified as 054461. ZPMC Quality Control (QC) Inspector is identified as Liu Dao Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – Tc – U4b.

Repair welding of weld joint # 20A/B as per the critical eld repair report T-CWR#688 located on East tower Lift-5 Grillage Assembly ESD1 – TL5 – 2E/F. Welder is identified as 041271. ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 3G (3F) - Repair.

Weld joint # 8B located on Lift-5 Bracket SD1 – BRSA5 – 1. Welder is identified as 044541. ZPMC Quality Control (QC) Inspector is identified as Liu Dao Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – Tc – U4b.

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Repair welding of weld joint # 2A/B as per the critical eld repair report T-CWR#690 located on East tower Lift-5 Grillage Assembly ESD1 – TL5 – 2E/F. Welder is identified as 046769. ZPMC Quality Control (QC) Inspector is identified as Xu Jie. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 3G (3F) - Repair.

This QA Inspector observed the following work not in compliance:

Description of Incident:

During the Caltrans Quality Assurance (QA) in-process observations of the fabrication of Façade built-up channel Assembly, this QA Inspector discovered the following issues:

-Stiffeners' snipes were closed by welding.

-The affected members are identified as follows:

- 1) NSD1-SFSA4-336; 131 M – Closed snipes on two (2) façade stiffener plates (SF4-19).
- 2) NSD1-SFSA4-326; 143 M – Closed snipes on two (2) façade stiffener plates (SF4-19).

- Façade stiffener plates (SF4-19) were fabricated with snipes shown in the approved shop drawings.

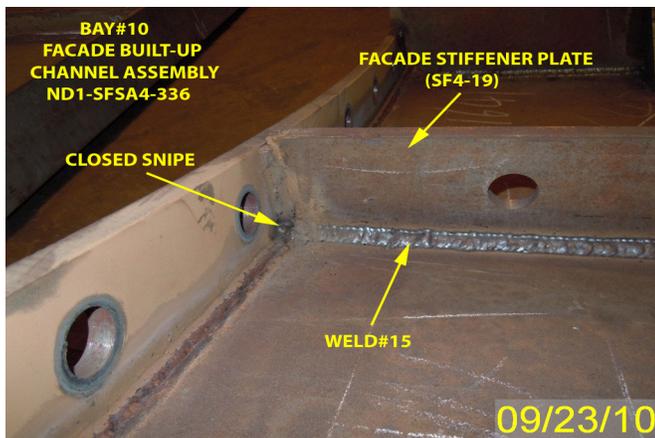
Applicable reference:

Approved Drawings: ND1 – SFSA4 – 336; ND1 – SFSA4 – 326; SF4 – 19

This QA notified ZPMC QC identified as Mr. Yin Chun Fang and ABF inspector identified as Mr. Lu Yi Jun of the above issue and that an incident report will be generated.

For further information see below pictures:-

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



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## 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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<b>Inspected By:</b>	Kumar,Sandeep	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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