

**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-018960**Date Inspected:** 13-Dec-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:** Mr. 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**Summary of Items Observed:**

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

Bay #11

This QA Inspector observed the following work in progress

Tower

**Shielded Metal Arc Welding (SMAW)**

Weld joint # 23 located on West Tower, Lift4, Skin A, Façade support plate WSD1- FASA4 -2 B/E. Welder is identified as 041271. ZPMC Quality Control (QC) Inspector is identified as Zhang lei. The welding variables recorded by QC appeared to comply with the WPS – B – P – 4112 -1.

Weld joint # 7, 21 located on West Tower, Lift4, Skin A, Façade support plate WSD1- FASA4 -2 C/E. Welder is identified as 040667, 041271. ZPMC Quality Control (QC) Inspector is identified as Zhang lei. The welding variables recorded by QC appeared to comply with the WPS – B – P – 4112 -1.

Weld joint # 21 located on West Tower, Lift4, Skin A, Façade support plate WSD1- FESA4 -4 B/E. Welder is identified as 040677. ZPMC Quality Control (QC) Inspector is identified as Zhang Lei. The welding variables

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recorded by QC appeared to comply with the WPS – B – P – 4112 -1.

Weld joint # 19A located on North tower, Lift 5, Bracket ND1-BRSA5 -2. Welder is identified as 040724. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3212 –B –U4B.

Weld joint # 19A located on South tower, Lift 5, Bracket SD1-BRSA5 -1. Welder is identified as 046769. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3212 –B –U4B.

Orthotropic Box Girder (OBG)

Shielded Metal Arc Welding (SMAW)

Weld joint # 026 located on Bike path BK004A -020 –MEP. Welder is identified as 040723. ZPMC Quality Control (QC) Inspector is identified as Shao Hai Lang. The welding variables recorded by QC appeared to comply with the WPS – B –P-2112.

Flux cored Arc welding (FCAW)

Weld joint # 035 located on Bike path BK004A -019 –MEP. Welder is identified as 040704. ZPMC Quality Control (QC) Inspector is identified as Shao Hai Lang. The welding variables recorded by QC appeared to comply with the WPS – B –T-2132 -Esab.

Magnetic Particle Testing (MT)

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 07758

This QA inspector performed (MT) of approximately 15% of an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA Inspector generated a TL 6028 MT report for this date. The member is identified as Tower components. The weld designations reviewed are as follows:

WSD1 –TL5 -4E/F – Jt. nos. -13, 14, 15, 16

Bay #10

This QA Inspector observed the following work in progress

Tower

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### Shielded Metal Arc Welding (SMAW)

Weld joint # 68, 69 located on North Tower, Lift4, Skin B, Façade support plate NSD1- FBSA4 -1A/C. Welder is identified as 040582, 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 -2114.

### Orthotropic Box Girder (OBG)

### Flux cored Arc welding (FCAW)

Repair welding of Weld joint # 02 located on U Rib splice plate GGL –MQ -2021 -30. Welder is identified as 052763. ZPMC Quality Control (QC) Inspector is identified as Li peng fei. The welding variables recorded by QC appeared to comply with the WPS – 345 –FCAW -2G (2F) –Esab -Repair.

### Blast shop #1

This QA inspector, Baskar Govindarajan, performed Post blast inspection of external surfaces of East tower, Lift 4. All the areas marked which requires grinding, weld repair, Grinding & MT wherever applicable in all the Skins of Tower from 114 mtr. to 146 mtr. Elevation. This inspection was carried out along with QA Inspector Mr. Sandeep ( B 227), Mr. Pillai (B 286) . All the marked points shown to ABF Inspector Mr. Xing Xiao Guang. All the weld repair areas (7 nos) marked in weld map in detail and the same was signed by ABF Inspector.

For further information see below pictures:-

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the 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 Thomas Hu (15002048250), who represents the Office of Structural Materials for your project.

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**Inspected By:** Baskar, Govindarajan

Quality Assurance Inspector

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**Reviewed By:** Clifford, William

QA Reviewer