

**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-016967**Date Inspected:** 17-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:** 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 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):

Weld joint # 22 located on East tower Lift-3, 109 M backfill plate ESD1 – FASA3 – 2B/E. Welder is identified as 046769. ZPMC Quality Control (QC) Inspector is identified Fu Wei Min. The welding variables recorded by QC appeared to comply with the WPS – B – T – 4212 – B – u2a – 2.

Repair welding of a weld joint # 25 as per the weld repair report T-WR3612 located on East tower Lift-3, 99 M backfill plate ESD1 – FASA3 – 2B/E. Welder is identified as 202323. ZPMC Quality Control (QC) Inspector is identified Zhu Feng. The welding variables recorded by QC appeared to comply with the WPS – 345+485 – SMAW – 2G (2F) – FCM – REPAIR – 2.

Weld joint # 28 located on East tower Lift-3, 109 M backfill plate ESD1 – FASA3 – 2B/E. Welder is identified as 046769. ZPMC Quality Control (QC) Inspector is identified Fu Wei Min. The welding variables recorded by QC appeared to comply with the WPS – B – T – 4212 – Tc – U4c – 4.

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Repair welding of a weld joint # 26 as per the weld repair report T-WR3611 located on West tower Lift-3, 99 M backfill plate WSD1 – FASA3 – 2B/E. Welder is identified as 040614. ZPMC Quality Control (QC) Inspector is identified Zhu Feng. The welding variables recorded by QC appeared to comply with the WPS – 345+485 – SMAW – 2G (2F) – FCM – REPAIR – 2.

Weld joint # 21 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 – B – T – 4212 – B –u2a – 2.

Weld joint # 33 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 – B – T – 4213 – Tc –U4c – 1.

### BACKING BAR SURVEY ON LIFT-5 TOWER SHAFTS AT BAY#10 & 11

During survey the following discrepancies found on lift-5 tower shafts: -

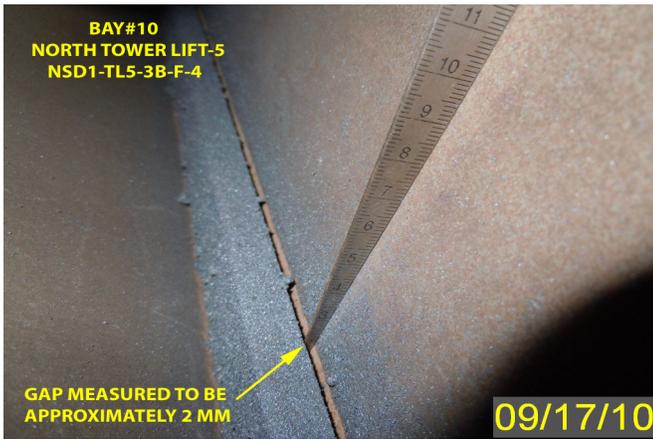
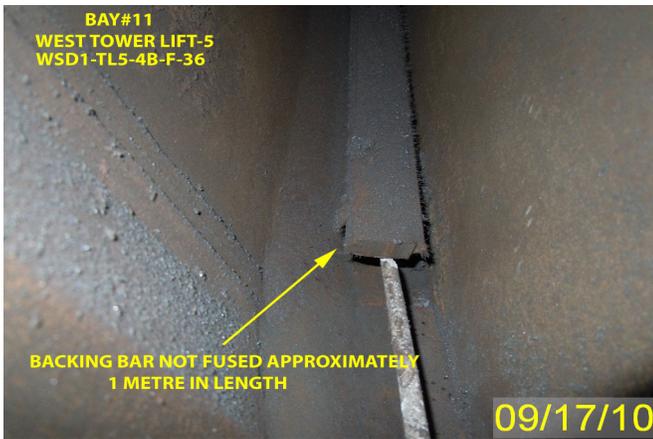
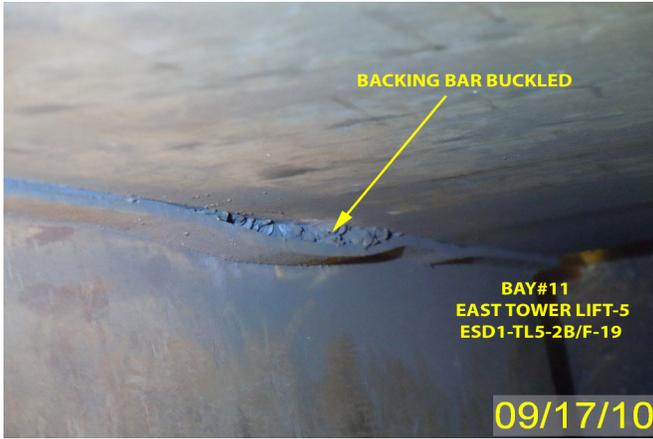
1. SOUTH TOWER LIFT-5: Found gap from 1mm to 2mm (SSD1-TL5-1B-F#19)
2. NORTH TOWER LIFT-5: Found gap from 1mm to 3mm (NSD1-TL5-3B-F#4)
3. EAST TOWER LIFT-5: Found gap from 1mm to 2mm (ESD1-TL5-2B-F#13)
4. EAST TOWER LIFT-5: Found gap from 1mm to 2mm (ESD1-TL5-2B-F#14)
5. EAST TOWER LIFT-5: Buckled (ESD1-TL5-2B-F#19)
6. WEST TOWER LIFT-5: Found gap from 1mm to 2mm (WSD1-TL5-4B-F#23)
7. WEST TOWER LIFT-5: Found gap from 1mm to 2mm (WSD1-TL5-4B-F#3)
8. WEST TOWER LIFT-5: Found gap from 1mm to 2mm (WSD1-TL5-4B-F#35)
9. WEST TOWER LIFT-5: Buckled (WSD1-TL5-4B-F#24)
10. WEST TOWER LIFT-5: Not fused approximately 1 metre in length (WSD1-TL5-4B-F#36)

For further details see the attached photos:

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
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<b>Reviewed By:</b>	Clifford,William	QA Reviewer
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