

**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-019059**Date Inspected:** 31-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. Liu fa wen  
**Inspected CWI report:** Yes No N/A  
**Electrode to specification:** Yes No N/A  
**Qualified Welders:** Yes No N/A  
**Approved Drawings:** Yes No N/A

**CWI Present:** Yes No  
**Rod Oven in Use:** Yes No N/A  
**Weld Procedures Followed:** Yes No N/A  
**Verified Joint Fit-up:** Yes No N/A  
**Approved WPS:** Yes No N/A  
**Delayed / Cancelled:** Yes No N/A

**Bridge No:** 34-0006**Component:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

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This QA Inspector Randomly observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint identified as BK004A2-057-014. Welder is identified as 037840. ZPMC Quality Control (QC) is identified as Mr. Liu chuan gang. The welding variables appeared to comply with the Applicable WPS: B-P-2112-plug.

Flux Cored Arc Welding (FCAW) welding of weld joint identified as BK004A6-057-002. Welder is identified as 500405. ZPMC Quality Control (QC) is identified as Mr. Liu chuan gang. The welding variables appeared to comply with the Applicable WPS: B-T-2232-ESAB.

FCAW welding of weld joint identified as BK004A6-057-007. Welder is identified as 054459. ZPMC Quality Control (QC) is identified as Mr. Liu chuan gang. The welding variables appeared to comply with the Applicable WPS: B-T-2232-ESAB.

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SMAW Repair welding of weld joint identified as BK004A1-060-043. Welders are identified as 069894. ZPMC Quality Control (QC) is identified as Mr. Liu chuan gang. The welding variables appeared to comply with the Applicable WPS: WPS-345-SMAW-2G (2F)-Repair. The repair welding was being performed as per the Welding Repair Report (WRR) No: B-WR19704. This weld was rejected by ZPMC QC personnel and recorded on UT report B787-UT-17843.

SMAW buttering welding of bike path stringer plate member is identified as BK004A-064-BKX10A. Welder is identified as 069894. ZPMC Quality Control (QC) is identified as Mr. Liu chuan gang. The welding variables appeared to comply with the Applicable WPS: WPS-345-SMAW-3G (3F)-Repair. The repair welding was being performed as per the Caltrans Engineer approved Critical Welding Repair Report (CWR) No: B-CWR2533.

ZPMC Quality Control MT Technicians performing Magnetic Particle Testing(MT) for the welds located on bike path identified as BK4A-063. Refer the attached photos for reference.

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FCAW welding of weld joint identified as SP3079-001-025,026. Welder is identified as 058087. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: B-T-2132-ESAB.

SMAW welding of weld joint identified as AH3151-001. Welder is identified as 058087. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: B-P-2212-B-U2.

ZPMC personnel heat straightening OBG member identified as 20TR2-042. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Zhang yaxu was present to monitor the heat straightening process. The heat straightening appeared to comply with the Caltrans Engineer approved Heat Straightening Report (HSR) HSR (B)-362 Rev.1.

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



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**Summary of Conversations:**

Only general conversation was held between QA and Quality Control (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 Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Prabhu,Surendra	Quality Assurance Inspector
<b>Reviewed By:</b>	Hall,Steven	QA Reviewer

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