

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-017289**Date Inspected:** 10-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:** Mr. Chen xi**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:** 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:

**BAY- 2**

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) of weld joint FB3325-001-001,002. Welder is identified as 066746. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint FB3342-001-003,004. Welder is identified as 045227. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

FCAW of weld joint FB3316-001-066,067. Welder is identified as 045209. ZPMC Quality Control (QC) is identified as Mr. Zhu Jun. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2132-3.

**BAY- 3**

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## WELDING INSPECTION REPORT

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FCAW Repair welding of weld joint FB3272-001-016. Welder is identified as 050242. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-345-FCAW-2G (2F)-FCM-Repair. The repair welding was being performed as per the Caltrans Engineer approved Critical Welding Repair Report (CWR) No: B-CWR2019. This weld was rejected by ZPMC UT Technicians and recorded on UT report No: B787-UT- UT-15599.

FCAW of weld joint FB3271-001-011,012. Welder is identified as 055491. ZPMC Quality Control (QC) is identified as Mr. Zhan hai feng. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2231-TC-U4b-F.

### BAY- 4

Submerged Arc Welding (SAW) of weld joint SA3364-001-001. Welder is identified as 050502. ZPMC Quality Control (QC) is identified as Mr. Zhang Yaxu. The welding variables appeared to comply with the Applicable WPS: WPS-B- T-2221-B-L2c-S-2.

SAW of weld joint SA3360-001-001. Welder is identified as 207288. ZPMC Quality Control (QC) is identified as Mr. Zhang Yaxu. The welding variables appeared to comply with the Applicable WPS: WPS-B-T-2221-B-L2c-S-2.

### BLASTING SHOP-2

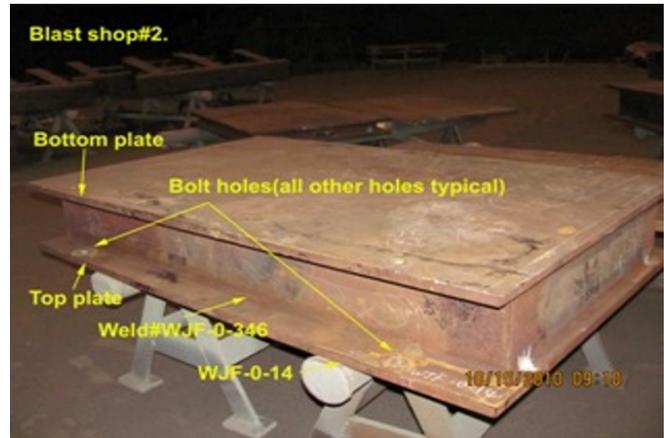
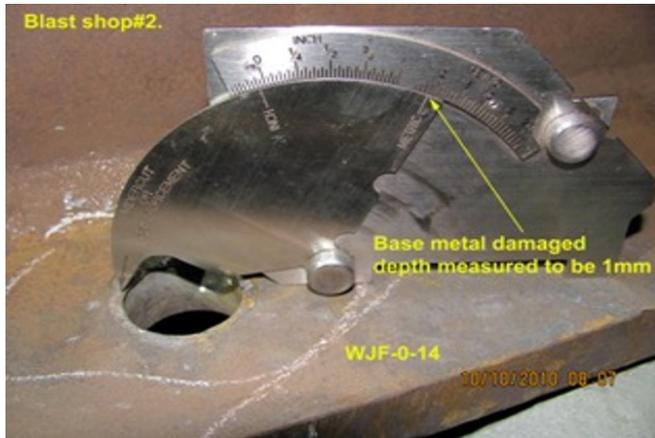
During the Caltrans Quality Assurance in-process observations of the fabrication of West Jacking Frame (WJF) WJF-0, this QA observed base metal damage around bolt holes due to tightening of temporary bolt assemblies without using washers on faying surface. Base metal damage depth as measured by this QA is approximately 0.5~1mm. Total of 18 bolt holes are affected by this condition. Approved shop drawing WJF-0 3/3 identifies these plates as "member 14" (5 Top and 1 Bottom plate). These plates are components of the shim stack. The plate material is A709-HPS-485W (TTP), Non-Seismic Performance Critical Material (Non-SPCM). The material thickness is 25mm.

This QA generated an incident report on this date for the above issue, for further information see the incident report and 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:

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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## WELDING INSPECTION REPORT

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