

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013066**Date Inspected:** 12-Apr-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. Tian Lei**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:

This QA Inspector Randomly observed the following work in progress:

**BAY-1- Traveler Rail (TR)**

Flux Cored Arc Welding (FCAW) welding of Repair weld joint 20TR1-020-007. Welder is identified as 215797. ZPMC Quality Control (QC) is identified as Mr. Ai Wei. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-1G (1F)-Repair-1. The Repair welding was performed against the Welding Repair Report (WRR) No: B-WR11618 Rev No: 0 and ZPMC Ultrasonic Testing (UT) Report No: B787-UT-12174.

FCAW welding of Repair weld joint 20TR1-020-001. Welder is identified as 216575. ZPMC Quality Control (QC) is identified as Mr. Ai Wei. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-1G (1F)-Repair-1. The Repair welding was performed against the Welding Repair Report (WRR) No: B-WR11615 Rev No: 0 and ZPMC Ultrasonic Testing (UT) Report No: B787-UT-12174.

**BAY-2-Floor Beam (FB)**

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Submerged Arc Welding (SAW) welding of weld joint FB3178-001-001. Welder is identified as 045265. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2221-B-L2c-S-2.

SAW welding of weld joint FB3231-001-010. Welder is identified as 045270. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2221-B-L2c-S-2.

### BAY-2-TR

FCAW welding of Repair weld joint 20TR1-014-007. Welder is identified as 054209. ZPMC Quality Control (QC) is identified as Mr. Yang Qing feng. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-1G (1F)-Repair-1. The Repair welding was been performed against the Welding Repair Report (WRR) No: B-WR11806 Rev No: 0 and ZPMC Ultrasonic Testing (UT) Report No: B787-UT-12200.

### BAY-5-TR

FCAW welding of Repair weld joint 11TR1-006-014. Welder is identified as 222387. ZPMC Quality Control (QC) is identified as Mr. Sheng jian gao. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-2G (2F)-Repair-1. The Repair welding was been performed against the Welding Repair Report (WRR) No: B-WR11745 Rev No: 0 and ZPMC Ultrasonic Testing (UT) Report No: B787-UT-12186.

FCAW welding of Repair weld joint 11TR3-026-014. Welder is identified as 203710. ZPMC Quality Control (QC) is identified as Mr. Sheng jian gao. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-2G (2F)-Repair-1. The Repair welding was been performed against the Welding Repair Report (WRR) No: B-WR11742 Rev No: 0 and ZPMC Ultrasonic Testing (UT) Report No: B787-UT-12186.

### BAY-6-WEST JACKING FRAME (WJF)

SMAW welding of weld joint WJF-0-337 and WJF-0-170. Welders are identified as 048800 and 066261 respectively. ZPMC Quality Control (QC) is identified as Mr. Zhang sheng jun. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-3312-TC-P4 and WPS-B-T-3212-TC-U4c respectively.

### BAY-7-TR

This QA Inspector observed ZPMC welding personnel performing Buttering by FCAW process for 10TR1-014. Welder is identified as 051246. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e. WPS-345-FCAW-1G (1F)-Repair-1. The Buttering welding was been performed against the B-CWR1100 Rev No: 0 and ZPMC Quality Control (QC) is identified as Mr. Cui jun jie and Certified

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Welding Inspector (CWI) is identified as Mr. Liu fa wen.

This QA Inspector observed ZPMC welding personnel performing Buttering by FCAW process for 10TR2-006. Welder is identified as 062447. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e. WPS-345-FCAW-1G (1F)-Repair-1. The Buttering welding was been performed against the B-CWR1100 Rev No: 0 and ZPMC Quality Control (QC) is identified as Mr.Cui jun jie and Certified Welding Inspector (CWI) is identified as Mr. Liu fa wen.

This QA Inspector observed ZPMC welding personnel performing Buttering by FCAW process for 10TR2-007. Welder is identified as 048625. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e. WPS-345-FCAW-1G (1F)-Repair-1. The Buttering welding was been performed against the B-CWR1100 Rev No: 0 and ZPMC Quality Control (QC) is identified as Mr.Cui jun jie and Certified Welding Inspector (CWI) is identified as Mr. Liu fa wen.

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

**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>	Miller,Mark	QA Reviewer

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