

**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-004789**Date Inspected:** 22-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2200**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Island, Shanghai**CWI Name:** Kim Xiao, Zhang Qin Jian**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 OSM Quality Assurance (QA) representative was present for observations relative to fabrication performed by Zhenhua Port Machinery Company (ZPMC) for the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Changxing Island, in Shanghai, China. While on site the QA Inspector noted the following:

Tower section.

1. The QA Inspector performed a random Visual (VT) and Ultrasonic Testing (UT) verifications on the Complete Joint Penetration (CJP) butt splice welds identify as weld number: NSD1- SA279E/F- 22B, 25A 25B and NSD1- SA279D/F- 14B on inspection part WSD1- SA279E/F and NSD1- SA279D/F for the tower LIFT 1 SKIN B section. Please see the ZPMC Non Destructive Examination (NDE) notification document number 001472 for additional information. The QA Inspector performed the UT verification after ZPMC QC Inspectors reported the welds to be acceptable and ready for verification. The QA Inspector did not observe any rejectable welding discontinuities on any of the verified welds mentioned above. The QA Inspector notified ZPMC QC Inspection personnel and Lead QA Inspector Paul Dawson of the QA Inspector verification results. Please see the QA Inspector Ultrasonic Test report (TL 6027) generated on this date for additional information.

Tower section.

2. The QA Inspector was requested by the ZPMC QC Inspection personnel to observe a weld defect found during an excavation on a complete joint penetration weld number SSD1-SA164 E/F 16A/B made between longitudinal

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## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

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stiffener number A2 on side B and skin plate on inspection part number SSD1-SA164 E/F on the SKIN A LIFT 2 assembly of the tower section. The QA Inspector was notified by the QC Inspection personnel the excavation was being performed to remove a weld discontinuity found by QC Inspectors during the UT after the weld was completed. The excavation is part of a Critical Weld Repair (CWR) number 34. The QC Inspection personnel notified QA Inspector the CWR documentation was not submitted as of this time but it will be submitted on 11-24-08 during the day shift. The QA Inspector was also notified ABF personnel "Steve" notified the Caltrans Engineer of the CWR number 34, 35 and 36 by email (document showed to QA Inspector). At the location the QA Inspector observed the found defect that appeared to be a linear transverse indication. Please see digital images below for additional information. The QA Inspector notified Task Leader Robert Cuellar and Lead QA Inspector Paul Dawson of the not submitted CWR documentation and the discovered defect. The QA Inspector periodically observed ZPMC personnel removing the defect by grinding in the presence of the QC Inspection personnel. After defect was removed the QC Inspection personnel performed Magnetic Particle Testing (MT) on the excavated area. The QC Inspection personnel notified QA Inspector no additional welding discontinuities were found and the excavated area was reported to be acceptable. At this location the QA Inspector performed visual and MT verifications on the entire excavation and observed the excavated area to be in general compliance. Please see the QA Inspector's Magnetic Particle Testing (TL 6028) report generated on this date for additional information.



### Summary of Conversations:

As noted in the body of the report above.

### 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 Peter Dautermann, (1500) 129-9593, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Medina,Ricardo	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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