

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000888**Date Inspected:** 26-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Changxing Island**CWI Name:** Chan Woo Lee**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:** OBG & 114 Mock-up**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Larry Viars was present to observe Fabrication and Ultrasonic Testing (UT) of the Caltrans Orthotropic Box Girder (OBG) and 114.00 Meter Mock-up, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Caltrans QA Inspector observed ZPMC shop personnel performing semi automatic Flux Core Arc Welding (FCAW) tack welding at OBG SP052 T stiffener to side plate. ZPMC welder Sun Ti Yu performed the welding in accordance to WPS-B-T-2132-1. Caltrans QA Inspector Viars recorded the following welding parameters, amperage 284, voltage 27.9, travel speed of 502 and a heat input of 0.94 kJ/mm.

Caltrans QA Inspector observed an area of underfill on OBG SP001 PL63A to PL63B splice weld. The area measured 0.6 mm in depth and 180 mm in length. ZPMC Chan Woo Lee Stated the area would be repaired by ZPMC.

Caltrans QA observed ZPMC QC Mr. Li Liming performing UT of Mock-up 114.00 Interior splice assembly A67 and A79 stiffener plate Complete Joint penetration welds. Testing was still in progress at the end of shift.

Caltrans QA Inspector Viars observed ZPMC personnel performing Heat straightening of Mock-up 89 Face D Longitudinal plate mp536a to mp536b to mp542. A two ton weight was placed on longitudinal plate while heat straightening was in progress. Caltrans QA inspector Viars informed American Bridge Flour (ABF) representative Mr. Lei Wensheng of the heat straightening with the weight. Mr. Lei Wensheng requested ZPMC personnel

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remove the weight before proceeding with heat straightening.

The Caltrans QA Inspector observed the above mentioned items. Welding and testing appear to be in conformance with AWS D1.5 requirements.



## Summary of Conversations:

As identified within the contents of this report.

## 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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| <b>Inspected By:</b> | Viars,Larry    | Quality Assurance Inspector |
| <b>Reviewed By:</b>  | Cuellar,Robert | QA Reviewer                 |

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