

**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-000774**Date Inspected:** 28-Aug-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:** Shanghai, China**CWI Name:** Xu Lefeng**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 Mock-up 77 M**Summary of Items Observed:**

The CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication of the Mock-up 77 meters elevation scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

The QA inspector observed ZPMC performing heat straightening operations at the skin panel D before the fitting operations. The heat straightening operations appeared to be in compliance with the contract documents.

ZPMC was observed performing air carbon arc gouging operations at the junction of the skin panel A and the stiffener mp2 joint # 3.

The QA inspector observed ZPMC performing layout of the fitting, inspections, control and cutting lines at the skin panel E for the Tower Mock-up 77 meter elevation.

ZPMC completed with the machining operations at the end (land) of the skin panel C before beveling the ends of the skin panel with the oxyfuel gas cutting.

Item	Description	WBS	Dwg No.	Status
1	Skin A Welding Longitudinal Stiffeners. The QA inspector performed random dimensional verifications before welding started at the Skin panel A, longitudinal stiffeners. The QA inspector found that dimensions appeared to be in compliance with the contract documents. ZPMC welder Liu Xie was observed by the QA Inspector performing welding operations at the junction of the stiffener plate mp2 to skin panel A, joint # 3 following the approved welding procedure specification WPS-B-T-2332-TC-U5-F. Base metal was designated as A-709 Grade 50. ZPMC was using the flux cored arc welding (FCAW) process in the horizontal (2G) position with the 1.4 mm diameter electrode designated as E71T-1			

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# WELDING INSPECTION REPORT

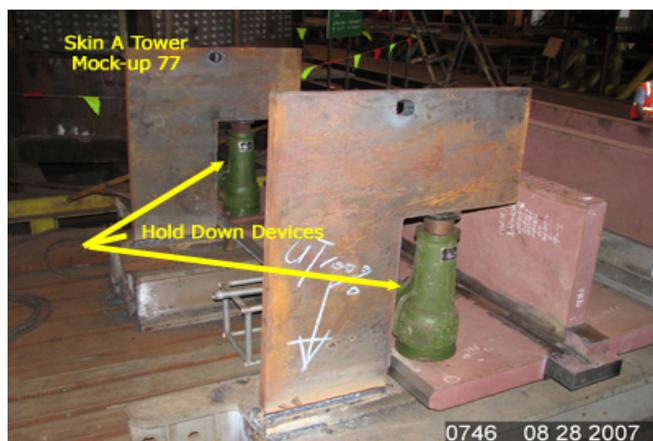
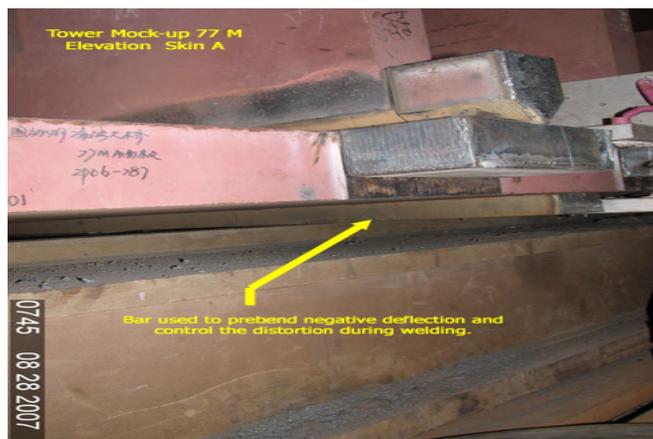
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/AWS A5.20, brand name Supercored. The QA Inspector verified amperage, voltage, travel speed, preheat and heat interpass temperatures for the filler passes. The QA inspector found that the welding parameters recorded after ZPMC approved Certified Welder Inspector Xu Lefeng appeared to be in accordance with the contract documents. ZPMC was observed performing air carbon arc gouging operations at the junction of the skin panel A and the stiffener mp2 joint # 3.

The photos below show the fit-up and welding operations performed on this date.



## Summary of Conversations:

The QA inspector did not have any relevant conversations on this date.

## 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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**Inspected By:** Acuna, Alfredo

Quality Assurance Inspector

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**Reviewed By:** Cuellar, Robert

QA Reviewer