

**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-001137**Date Inspected:** 24-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:** Shanghai, China**CWI Name:** Lu Jian Ping**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 and OBG**Summary of Items Observed:**

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

Item Description	WBS	Dwg No.	Status
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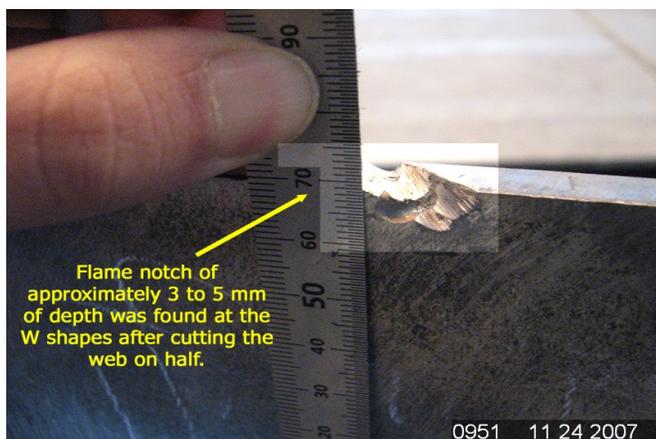
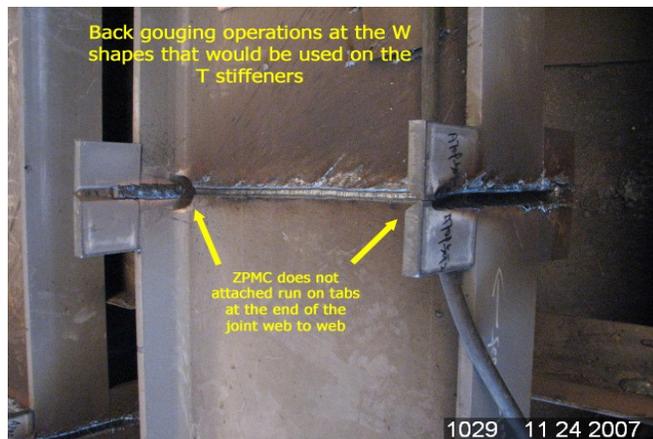
1	OBG Tee stiffeners		
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The QA inspector observed occasional flame notches at the edges of the split W shapes after oxyfuel gas cutting operations. The QA inspector had a conversation with the ZPMC representative Li Xiu Yang. The QA inspector asked Mr. Li Xiu Yang how ZPMC was going to repair the flame notches with less than 5 mm of depth. ZPMC representative informed that ZPMC was going to weld these areas. The QA inspector recommended ZPMC to follow the contract documents when repairing flame notches by welding.

Note: The QA inspector was concerned that ZPMC was going to weld over the notches without any preparation and cleaning.

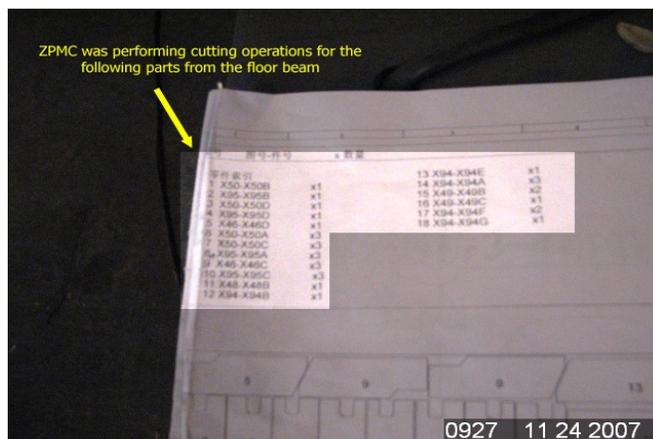
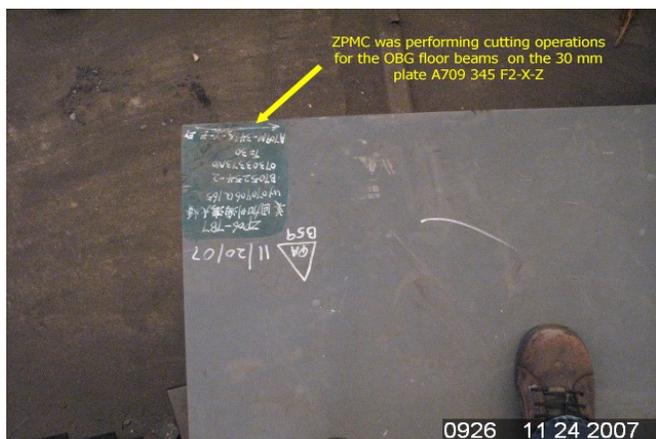
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## 2 OBG Floor Beam Cutting operations

The QA inspector observed that ZPMC was performing cutting operations on the steel plate shown on digital photographs below.



## 3 Tower Mock-up 77 Diaphragm welding

The QA inspector observed ZPMC welders Zhai Qingshan, Yang Lei, Ma Zhi Yong and Xu Wei performing welding operations with the shielded metal arc welding process (SMAW) at the junction of the SA-104 to web plates with a 4 mm diameter electrode designated as E9018 H4R. The QA inspector performed a random verifications of the welding parameters. The QA inspector found that the welding parameters appeared to be in general compliance with the contract documents.

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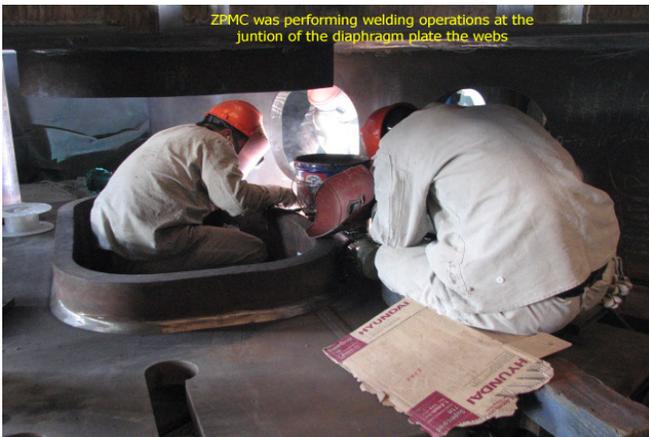
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#### 4 Welding Interior splice A-79 Tower 114 M

The QA inspector observed ZPMC welder Jiang Zhou performing welding operations at the junction of the longitudinal stiffeners and the interior splice plate A-79, weld joint # 2B. The QA inspector performed a random verifications of the welding parameters. The QA found that the welding parameters appeared to be in general compliance with the contract documents.



#### 5 OBG Mock-up deck panel

No fabrication activities were performed on Bay # 1 on the OBG Mock-up deck panel on this date.

#### 6 OBG Dimensional Inspections

The QA inspector performed assembly control lines verifications at the side plate PL-109A. The QA inspector found that the dimensions appeared to be in accordance with ZPMC's shop drawings.

#### 7 Tower 89 Skin C MT verifications

The QA inspector performed 10 % of magnetic particle (MT) verifications at the junction of skin C and the stiffener plate, weld joint # 5 and 6, partial joint penetration weld (PJP). The QA inspector did not observed any relevant indication during the test. A Magnetic particle report TL\_6028 was generated on this date.

### Summary of Conversations:

As noted 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

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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>	Acuna,Alfredo	Quality Assurance Inspector
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<b>Reviewed By:</b>	Cuellar,Robert	QA Reviewer
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