

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.21**WELDING WITNESS REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WWR-000458**Date Inspected:** 19-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 600**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>Witness:</b>	<b>Procedure Qualification Record</b>	<b>Welder Qualification</b>	<b>Fracture Critical</b>
	<b>Welding</b>	<b>Mechanical Testing, describe:</b>	
	<b>NDT</b>		
<b>Index Lot #:</b> L30-139-07		<b>Witness Lot #:</b> N/A	
<b>Bridge No:</b> 34-0006		<b>Component:</b> Bid item 52,55 Tower & Girder	
<b>Welder:</b> Zhu Haiping		<b>ID #:</b> N/A	
<b>Joint Description:</b> T-Joint		<b>N/A</b>	<b>WPS ID #:</b> PWPS-B-T-3112 N/A
<b>Base Metal:</b> ASTM A709 Grade HPS485W		<b>N/A</b>	<b>PQR ID #:</b> HP2007261 N/A
<b>Thickness:</b> 90mm		<b>N/A</b>	<b>Process:</b> SMAW N/A
<b>Electrode Spec/Class:</b> AWS A5.1/E7018-1		<b>N/A</b>	<b>Positions:</b> 2F N/A
<b>Backing Material:</b>		<b>N/A</b>	<b>CWI:</b> Huang Wei N/A
<b>Average Amps:</b> 213.5		<b>N/A</b>	<b>AWS Code:</b> AWS D1.5 (2002) N/A
<b>Average Volts:</b> 24.5		<b>N/A</b>	<b>Applicable Sec:</b> AWS Section 5.10 N/A
<b>Travel Speed:</b> 112.6		<b>N/A</b>	<b>Heat Input:</b> 2.79 Kj N/A
<b>Preheat:</b> 187 C		<b>N/A</b>	

**Summary of Items Observed:**

CalTrans Quality Assurance (QA) Inspector was on site at ZPMC Welding Lab to observe the welding of the Procedure Qualification Record (PQR) test plate HP2007261. PQR HP 2007261 is a single and multiple pass fillet weld test coupon welding in the 2F position using the shielded metal arc welding (SMAW) process. Filler metal specification AWS A5.1 and classification E7018-1, electrode diameter 5.0 mm. Test plates were 90 mm thick in a T-Joint fit up. Welding was performed per AWS D1.5 2002, Section 5.10 Fillet Weld WPS Qualification. Welding was performed by Zhu Haiping. Total passes deposited were 4; pass #1 was a single pass and passes #2-#4 were multiple. The welding on test coupon appeared to be in compliance with the contract documents. QA Inspector issued lot number L30-139-07 to the test coupon. ZPMC Quality Control (QC) Certified Welding Inspector (CWI) Mr. Haung Wei and Bureau Veritas Inspector Mr. Arbin Huang were observed monitoring welding activities at the workstation.

**Summary of Conversations:**

As identified within the contents of this report.

**Observed welding, testing or results:**

---

---

## WELDING WITNESS REPORT

( Continued Page 2 of 2 )

---

---

is in general conformance with the contract requirements.  
is not in conformance with the contract requirements.

### 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.

---

<b>Inspected By:</b>	Hernandez, Dan	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar, Robert	QA Reviewer

---