

**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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023563**Date Inspected:** 01-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai

<b>CWI Name:</b>	Tian Lei, Liu Fa Wen, Chen Shigang			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	OBG		

**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector R. Hernandez was present during the time noted above and conducted observations relative to the work being performed.

The QA Inspector randomly observed the following work in progress:

Bay Number 1

SMAW welding of fillet welds located on Bike Path Handrail component identified as BKR-NS-3 for miscellaneous 6mm welds attaching P-10 to P-37 and 8mm welds attaching P-3 to P-37 parts. Welder is identified as welder no. 049769. The welding variables recorded by ZPMC QC identified as Tian Lei appeared to comply with applicable WPS(s) WPS-B-P-2112.

This inspector observed ZPMC personnel welding of components identified as Lift 13 & 14 lifting frame beam.

Bay Number 5

ZPMC personnel heat straightening Orthotropic Box Girder (OBG) traveler rail member identified as 3009TR1-002 for weld(s) 002, 003, 006~011, 013, & 014. Distortion appeared to be caused by welding. ZPMC Quality Control (QC) inspector identified as Mr. Tian Lei was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) no. HSR(B)-10291.

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## WELDING INSPECTION REPORT

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ZPMC personnel heat straightening Orthotropic Box Girder (OBG) traveler rail member identified as 3025TR1-001 for weld(s) 001~011. Distortion appeared to be caused by welding. ZPMC Quality Control (QC) inspector identified as Mr. Tian Lei was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) no. HSR(B)-10291.

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. All components were as listed on NWIT notification no. 08966. The member(s) is/are identified as OBG Traveler Rail components identified below with the following identifying weld no.(s):

1. 3010TR1-002-002, 003, 008, 013, 014, 009.
2. 3020TR1-001-009, 012, 015, 018, 019.
3. 3023TR1-002-001, 004, 007, 010, 011.
4. 3023TR1-003-011, 009, 004, 007, 010.

### Bay Number 7

FCAW welding of complete joint penetration root pass welds located on Cantilever Box Bracket Assembly component identified as BKSA018-001 weld no.(s) 015. Welder is identified as welder no. 046706. The welding variables recorded by ZPMC QC identified as Liu Fa Wen appeared to comply with applicable WPS(s) WPS-B-T-2231-ESAB.

### Bay Number 8

Performed verification VT for the component(s) identified as OBG Sub Assembly for component listed as SA7046, This QA inspector signed green tag #16059.

### Bay Number 9

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. All components were as listed on NWIT notification no. 08966. The member(s) is/are identified as OBG Traveler Rail components identified below with the following identifying weld no.(s):

1. 3013TR2-002-003 & 004.

FCAW welding of complete joint penetration welds located on Traveler Rails component identified as 3014TR1-002 as identified on weld repair data sheet B-WR-20866 for repaired complete joint penetration welds identified as weld no.(s): 002. Welder is identified as welder no. 062265. The welding variables recorded by ZPMC QC identified as Tian Lei appeared to comply with applicable WPS(s) WPS-345-FCAW-3G(3F)-repair-ESAB.

FCAW welding of complete joint penetration welds located on Traveler Rails component identified as 3016TR4-002 as identified on weld repair data sheet B-WR-20865 for repaired complete joint penetration welds

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# WELDING INSPECTION REPORT

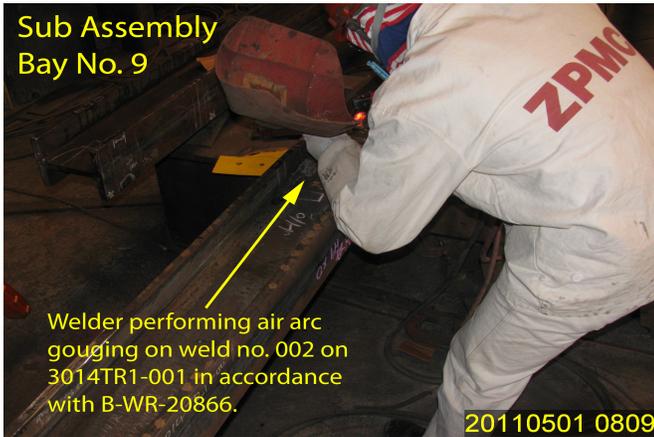
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identified as weld no.(s): 007. Welder is identified as welder no. 062265. The welding variables recorded by ZPMC QC identified as Tian Lei appeared to comply with applicable WPS(s) WPS-345-FCAW-3G(3F)-repair-ESAB.

Unless otherwise noted above all items observed on this day appeared to be in general compliance with the applicable contract documents



## Summary of Conversations:

Pertinent conversations are included in the body of the 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 Eric Tsang 1500-0042-02372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Hernandez,Rene

Quality Assurance Inspector

**Reviewed By:** Hall,Steven

QA Reviewer