

**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-008974**Date Inspected:** 15-Sep-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Yumin**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**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

OBG Assembly Yard

2AE

SMAW welding (repair) on side plate stiffener on panel point 12 at crossbeam side of segment.

Welder is identified as Mr. Hu Yanming (062092). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-Repair.

1AE &amp; 1BE

SMAW welding (repair) on bottom plate stiffeners on panel point 8.5 at crossbeam side of segment.

Welder is identified as Mr. Li Jian (067829). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-2G (2F)-FCM-Repair.

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## 1AAE & 1AE

SMAW welding of weld joint 002 located on OBE1A.

Welder is identified as Mr. Zang Yanbo (045196). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-4G (4F)-FCM-Repair-1.

## BK2

FCAW welding of backing bar located at the connection end side of cantilever member.

Welder is identified as Mrs. Zhang Hanming (220066). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-B-T-2133.

## CB4

SMAW welding of weld joint 013 located on CB201A.

Welder is identified as Mr. Li Guangzu (069493). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-B-P-2212-Tc-U4b-FCM-1.

SMAW welding of weld joint 015 located on CB201A.

Welder is identified as Mr. Ge Hongqi (037780). ZPMC QC is identified as Xu Yumin.

The welding variables recorded by QC appeared to comply with WPS-B-P-2212-Tc-U4b-FCM-1.

## NDT Observation

QA Inspector observed ZPMC Magnetic Particle (MT) Technician performing MT on various locations in the trial assembly yard. Locations are as followed:

1. Longitudinal diaphragm (shear plate) on the hold back weld at panel point 9 bike path side of segment.

QA Inspector observed ZPMC Ultra Sonic (UT) Technician performing UT on various locations in the trial assembly yard. Locations are as followed:

2. Deck plate diaphragm to floor beam member at panel point 8.5 cross beam side of segment.

## Miscellaneous Work In Progress

QA Inspector observed ZPMC's personnel performing various job functions in the trial assembly yard. Locations and description of work are as followed:

1. Heat straightening was being performed on longitudinal diaphragm between panel point 34 & 35 bike path side of segment. Work was performed per HSR1 (B)-6723 in 5BE and 5CE.

2. Air arc gouging of UT discontinuities at weld seam OBW1A-007 per B-WR7252 procedure.

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3. Prepping miss located holes (2ea) for plug welding with a carbine air arc on bottom plate in 1AAW.

1AAE & 1AE

This QA Inspector performed Magnetic Particle Testing (MT) and observed 3 transverse linear indications on CJP weld OBW1A-007 (in UT reject back gouge area). Location is approximately 6770mm from counter weight side of segment edge. QA Inspector observed indications were removed, accepted by ZPMC MT technician and rewelded. Engineer was not notified of the removal of indication at noted weld. This QA Inspector issued an incident report on the above noted MT rejection.

At approximately 1350 this QA Inspector was performing in process MT inspection of excavation of UT rejects on OBW1A-007. During the course of inspection, ZPMC production personnel unplugged the power cord at power box. QA Inspector asked to be plugged back in to complete inspection. ZPMC production personnel unplugged QA Inspector power cord connected to ZPMC power cord (second time). This QA Inspector contact Caltrans supervisory personnel (Mark Miller) and informed him of situation. Caltrans QA Manager (Mahlon Lindenmuth) arrived and informed ZPMC production personnel of the Contract requirement to provide QA with access at all times. SMR (Eric Tsang) of the OBG was present to translate conversation between Caltrans QA Manager and ZPMC production personnel.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

**Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

**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 (134-8257-0045), who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Alaniz,Joe	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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