

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017743**Date Inspected:** 02-Nov-2010**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, China**CWI Name:** Yu Dong Ping, Xu Le Feng**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/TOWER**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad 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:

BAY 11, OBG BIKE PATH (NWIT # 07200)

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% and random Visual Testing (VT) of an area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows.

BK004ASD1-018-001~004, 022~024, 027

This Quality Assurance (QA) Inspector observed the following work in progress:

BAY 11

OBG BIKE PATH REPAIR (B-WR16477)

SMAW welding of weld joint 023 located on BK004ASD1-021.

Welder is identified as 044541. ZPMC QC is identified as Mr. Shao Hai Lang.

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

### OBG BIKE PATH REPAIR (B-WR16478)

SMAW welding of weld joint 024 located on BK004ASD1-021.

Welder is identified as 044541. ZPMC QC is identified as Mr. Shao Hai Lang.

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

### OBG BIKE PATH

FCAW welding of weld joint 044 located on BK004C1-024.

Welder is identified as 040723. ZPMC CWI is identified as Yu Dong Ping.

The welding variables recorded by QC appeared to comply with WPS-B-T-2232-Tc-U4c-F.

FCAW welding of weld joints 005 & 021 located on BK004CSD1-024.

Welder is identified as 040704. ZPMC CWI is identified as Yu Dong Ping.

The welding variables recorded by QC appeared to comply with WPS-B-T-2232-B-U2-F.

FCAW welding of weld joints 006 & 018 located on BK004CSD1-024.

Welder is identified as 040690. ZPMC CWI is identified as Yu Dong Ping.

The welding variables recorded by QC appeared to comply with WPS-B-P-2212/2213-B-U2.

During the Quality Assurance in process inspection of bike path BK004A-020, this Quality Assurance (QA) Inspector discovered the following issues:

#### Issue 1:

- The welding/tack welding has been performed on the tight fit area as shown in drawing.
- The parts are joining the Bearing Plate (BKPL7A/B) and 25mm centre plates (BKX11B, BKX11CA & BKX11DA).
- The member is located in bay 11.

#### Issue 2:

- Steel backing has been removed by using Air Carbon Arc gouging prior approval of engineer.
- The weld is Complete Joint Penetration (CJP) with steel backing joining the End Diaphragm Plate (BKPL6A) and End Plate (BKPL3A/B) of bike path.
- The welds are identified as: BK004A5-020-004 and BK004A3-020-005.
- The member is located in bay 11.

The attached photographs provide additional detail. This issue has an incident report.

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

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## 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 : 15000422372, who represents the Office of Structural Materials for your project.

**Inspected By:** Gaikwad, Umesh

Quality Assurance Inspector

**Reviewed By:** Clifford, William

QA Reviewer