

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-018881**Date Inspected:** 22-Dec-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)**Location:** Shanghai, China**CWI Name:** Li Yang and Zhu Zhong Hai**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 Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

BAY 11 – (Skid More Test)

This QA Inspector witnessed Bolt Testing for ASTM A325 Grade. Observed ZPMC QC Mr. Zou Jian performing bolts testing and ZPMC QA Inspector Mr. Zhao Jianeng was present during the course of Bolt Testing.

The testing of bolts was performed for determining High Tension bolt capability verification test.

Bolt assembly identified as ASTM A325 (High Strength Bolt), Bolt Assembly comprises of (a Bolt, a Nut and a Washer).

Bolt testing was performed on a Unit: Skidmore-Wilhelm; Model: HT; Serial Number: 1014 (Calibration Expiration due date on April 29, 2011) and Torque Wrench identified as XO-326 and Torque Wrench with Dial gauge on it is identified as XO-2 (Calibration Expiration due date on April 14, 2011).

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Tested bolt sizes were identified as M27x130 RC Set# DHGM270026.

5 bolt assemblies were tested per lot.

After determining High Tension bolt capability verification test Inspection Report # 275 for bolt size M27x130 was generated by ZPMC QA for RC Set # DHGM270026.

Note: Testing of bolts was performed by turning the bolts head.

The generated reports were submitted to the Caltrans Lead Inspector Mr. Mark Miller and Caltrans Engineer Mr. Aaron Prchlik for review and disposition.

Bike Path at Bay # 11

This QA Inspector performed Dimension Control Inspection on the Bike Path bottom plate for flatness check across the longitudinal butt weld. Flatness check was performed on following mentioned Bike Paths and Bike Path are identified as:

BK004A-023.

The QA Inspector measured the flatness using 600mm long straight edge across the Butt (CJP) weld and using 1500mm long straight edge between the stiffeners which are plug weld to bottom plate.

Observed flatness within the allowable tolerance.

The result of the inspection was informed to ZPMC QC Mr. Liu Fawen, ABF Mr. Huang Wen Guang and Caltrans Lead Inspector Mr. Mark Miller and Mr. Hiranch Patel.

Segment 12AE to Segment 12BE (Transverse Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12D-003. The welder identification was 044504 and 044515 observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Side Panel, Bike Path side at transverse splice.

Segment 12AE to Segment 12BE (Transverse Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA6502-008. The welder identification was 050289 observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Side Panel Corner Assembly, Bike Path side at transverse splice.

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Segment 12AE to Segment 12BE (Transverse Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12-003. The welder identification was 045515 observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Deck Panel at transverse splice.

Please reference the pictures attached for more comprehensive details.

Segment 12AE to Segment 12BE (Transverse Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as CA6502-009. The welder identification was 045515 observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Deck Panel Corner Assembly, Bike Path side at transverse splice.

Segment 12AW to Segment 12BW

This QA Inspector observed the Segment 12AW and Segment 12BW which is welded together been shifted from its earlier location, next to Cross Beam # 17 at Trial Assembly Area. Cross Beam # 17 is sitting next to Segment 12AE FL3 extension area.

Please reference the pictures attached for more comprehensive details.

Cross Beam # 17

This QA Inspector observed the Cross Beam # 17 been shifted from back side of Bay 15 to OBG Trial Assembly area.

Lift 11 East (Segment 11AE + Segment 11BE + Segment 11CE + Segment 11DE and Segment 11EE)

This QA Inspector observed Scaffolding removal from the ceiling for the whole Lift 11 East and Temporary Sea Fastening structure been shifted all over the Lift 11 East for Installation (Preparation for Shipment is in progress).

Lift 11 West (Segment 11AW + Segment 11BW + Segment 11CW-Cross-brace Cable for Cable Tray's)

This QA Inspector observed installation of cross-brace cables for the Cable Tray structure connected diagonally by Crosby clips. The Cable Trays were installed at Bottom Panel Cross Beam and Counter Weight side for Segment 11AW, Segment 11BW and Segment 11CW. The QA Inspector verified the tensioning of cross-brace cables and ZPMC personnel are performing the work in compliance with RFI No. ABF-RFI-001874R00 Dated August 27, 2009.

Segment 11EE

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This QA Inspector observed the Segment 11EE, bevel preparation for the whole transverse splice (11EE is the field splice). Spot welding was performed at visual discontinuities and flame cut notches areas. The welder identification was 053871 observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-Tc-U4b-FCM.

Segment 11EW

This QA Inspector observed the Segment 11EW, bevel preparation for the whole transverse splice (11EE is the field splice). Spot welding was performed at visual discontinuities and flame cut notches areas. The welder identification was 040320 observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-Tc-U4b-FCM.

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



Summary of Conversations:

No relevant conversations were reported on this date.

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 Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
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Reviewed By:	Dsouza,Christopher	QA Reviewer
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