

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 #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-010748**Date Inspected:** 12-Dec-2009**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:** Li Yang**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 Trail Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, 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) Trial Assembly Areas

Segment 6AE

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray between PP 37, 38, 39 and 40 for Segment 6AE. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M3/4 x 21/4 RC Set# DHG60580 and final torque required is 340 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 118.

Note: Between Panel Point (PP) 38 to PP 38.5 the Cable Tray between PP 38 to PP 38.5 not installed due to Temporary Shipment Structure to be installed as per Fastening Plan.

Segment 6BE

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This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray between PP 41, PP 42 and PP 43 for Segment 6BE. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M3/4 x 21/4 RC Set# DHG60580 and final torque required is 340 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 118.

Segment 6CE

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray between PP 44, PP 45, PP 46 and PP 47 for Segment 6CE. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M3/4 x 21/4 RC Set# DHG60580 and final torque required is 340 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 118.

Note: Between Panel Point (PP) 44 to PP 44.5 the Cable Tray between PP 38 to PP 38.5 not installed due to Temporary Shipment Structure to be installed as per Fastening Plan.

Segment 6BE to 6CE

This QA Inspector measure and recorded the Offset for the U-Ribs to U-Ribs along with Caltrans (Ct) QA Mr. Manikandhan between PP 43 to PP 44 for Segment 6BE to 6CE (Individual Ct Survey) and the reading are as following.

Survey Points

- U Rib No. 1, Left -1 and Right -2.
- U Rib No. 2, Left -2 and Right -3.
- U Rib No. 3, Left -1 and Right -1.
- U Rib No. 4, Left 2 and Right 2.
- U Rib No. 5, Left 3 and Right 1.
- U Rib No. 6, Left 5 and Right 4.
- U Rib No. 7, Left 4 and Right 3.
- U Rib No. 8, Left 6 and Right 2.
- U Rib No. 9, Left 5 and Right 0.
- U Rib No. 10, Left 5 and Right 2.
- U Rib No. 11, Left 6 and Right 4.
- U Rib No. 12, Left 6 and Right 3.
- U Rib No. 13, Left 2 and Right 1.
- U Rib No. 14, Left 2 and Right 0.
- U Rib No. 15, Left 3 and Right 2.
- U Rib No. 16, Left 2 and Right 0.
- U Rib No. 17, Left 2 and Right 2.

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U Rib No. 18, Left 2 and Right 2.
U Rib No. 19, Left 1 and Right 1.
U Rib No. 20, Left 3 and Right 1.
U Rib No. 21, Left 2 and Right 2.
U Rib No. 22, Left 4 and Right 1.
U Rib No. 23, Left 1 and Right 2.
U Rib No. 24, Left 5 and Right 5.
U Rib No. 25, Left 4 and Right 3.
U Rib No. 26, Left 4 and Right 4.
U Rib No. 27, Left 5 and Right 6.
U Rib No. 28, Left -3 and Right -3.
U Rib No. 29, Left 1 and Right 1.
U Rib No. 30, Left 0 and Right 0.
U Rib No. 31, Left 0 and Right -2.
U Rib No. 32, Left 2 and Right 2.
U Rib No. 33, Left -1 and Right 2.
U Rib No. 34, Left 1 and Right 1.
U Rib No. 35, Left 1 and Right -1.
U Rib No. 36, Left 0 and Right 2.
U Rib No. 37, Left 2 and Right 1.
U Rib No. 38, Left 3.5 and Right 3.
U Rib No. 39, Left 4 and Right 2.

Segment 6CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Side Panel T-Ribs at 6CE at Two Locations. The welding was been performed against the B-WR8988 Rev. No.0 and Weld Nos. are Identified as SP529-001-029, 030, 025, 026, 027 and 028. The welder was identified as 044779. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-2G (2F)-FCM-Repair, WPS-345-SMAW-3G (3F)-FCM-Repair and WPS-345-SMAW-4G (4F)-FCM-Repair.

Segment 5CE

This QA Inspector observed ZPMC personnel performing Heat Straightening for Bottom Panel which got distorted due to Jacking for Bottom Panel which in turn had distorted the Longitudinal Diaphragm. The Heat Straightening was been performed for Bottom Panel between PP 35 and 36. At LD2A Panel Point 36 the LD web had been flame cut and removed.

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

Summary of Conversations:

No relevant conversations.

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

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer
