

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-010749**Date Inspected:** 13-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 2AE

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray Structure between Panel Point (PP) 14 and PP 15 Cross Beam Side for Segment 2AE. 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 2AW

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray Structure between Panel Point (PP) 14 and PP 15 Cross Beam Side for Segment 2AW. Inspected 10% on a random basis and found

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

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 1AE to 1AAE

This Quality Assurance (QA) Inspector witnessed final tension verification for Longitudinal Diaphragm to Longitudinal Diaphragm at Panel Point (PP) 8.0 and PP 8.5 for Segment 1AE to 1AAE. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M 27 x 130 RC Set# DHGM 270026 and final torque required is 827 N-m and

Bolt sizes used were M 27 x 150 RC Set# DHGM 270027 and final torque required is 860 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 625.

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. 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.

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

U Rib No. 38, Left 3.5 and Right 3.

U Rib No. 39, Left 4 and Right 2.

Segment 6AW to 6BW

This QA Inspector observed ZPMC welding personnel performing Heat Straightening for Longitudinal Diaphragm to Longitudinal Diaphragm between Panel Point (PP) 40 and PP 41 Counter Weight side and Heat Straightening been performed against HSR1 (B)-7992 Rev.0 Dated 12.11.2009.

Segment 6AW to 6BW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Side Panel T-Ribs to T-Ribs at 6AW to 6BW. Weld Nos. are Identified as SP412-001-037 and 038. The welder was identified as 220067. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2233-B-U2-F. Noticed the parameters recorded by QC are in compliance with approved WPS.

Segment 6BE to 6CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Deck Panel Corner Assembly at I-Rib at 6BE to 6CE at E2 Location (Bike Path). Weld Nos. are Identified as DP636-001-023 and 024. The welder was identified as 054467. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-3213-B-U3b. Noticed the parameters recorded by QC are in compliance with approved WPS.

Segment 6BE to 6CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Deck Panel Corner Assembly at I-Rib at 6BE to 6CE at E5 location. Weld Nos. are Identified as DP636-001-023 and 024. The welder is identified as 048659. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-3213-B-U3b. Noticed the parameters recorded by QC are in compliance with approved WPS.

Segment 6BE to 6CE

This QA Inspector observed ZPMC welding personnel performing Longitudinal Diaphragm to Floor Beam Cross Beam Side. Weld Nos. are Identified as Seg 030B-032. The welder is identified as 220069. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2233-Tc-U4b-F. Noticed the parameters recorded by QC are in compliance with approved WPS.

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

Summary of Conversations:

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

No relevant conversations.

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
---------------------	-------------	-------------