

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-010751**Date Inspected:** 16-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 1AE

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray Structure between Panel Point (PP) 8.5 and PP 10 at Bottom Panel (North and South) side for Segment 1AE. 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.

Bolt sizes used were M3/4 x 31/4 RC Set# DHG60573 and final torque required is 193 N-m and

Bolt sizes used were M3/4 x 31/4 RC Set# DHG60583 and final torque required is 293 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 114.

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Segment 1BE

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray Structure between Panel Point (PP) 11 and PP 12 at Bottom Panel (North and South) side for Segment 1BE. 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.

Bolt sizes used were M3/4 x 31/4 RC Set# DHG60573 and final torque required is 193 N-m and

Bolt sizes used were M3/4 x 31/4 RC Set# DHG60583 and final torque required is 293 N-m.

Manual Torque wrench is been used with Sr. No. XO2 - 114.

Segment 6BE to 6CE

This QA Inspector along with Caltrans (Ct) QA Mr. Manikandhan were been asked to attend the Joint Survey with ABF QC's. Measured and recorded the Offset for the U-Ribs to U-Ribs (Total 39 Nos.) between PP 43 to PP 44 for Segment 6BE to 6CE and the reports will be generated by ABF QC and will be submitted for Caltrans QA review.

Segment 5BW to 5CW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Edge Panel Splice W1 location. Weld Nos. are Identified as OBW5-001. The welder was identified as 037743. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-3G (3F)-FCM-Repair-1. The welding parameters measured and

Segment 5BE

This QA Inspector observed ZPMC personnel performing flame cutting and removing the T-Rib 2nd from the Longitudinal Diaphragm Counter Weight Side as the T-Rib flange is mis-drilled and T-Rib identified as RS99B of SP602B and the activity is been performed against the ABF RFI No. ABF-RFI-001980 Rev 0.

Segment 5CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Longitudinal Diaphragm LD2A Web to Bottom Panel for Segment 5CE Panel Point(PP) 35 to PP 36 Bike Path Side. Weld Nos. are Identified as Seg 026C-011, 012, 015, 014 and 013. The welder was identified as 066258. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2232-B-U2-F and WPS-B-T-2233-B-U2-F. The welding parameters

Segment 6BE to 6CE

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This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Deck Panel Corner Assembly. Weld No is identified as DP517-001-007. 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-P-3213-B-U3b. The welding parameters measured and recorded by ZPMC

Segment 6BE to 6CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Deck Panel Corner Assembly. Weld No is identified as DP636-001-023 and 024. The welder was identified as 048659. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-3213-B-U3b. The welding parameters measured and recorded by ZPMC

Segment 6BE to 6CE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Bottom Panel T-Rib to T-Rib Transverse Segment Weld for Segment 6BE to 6CE between Panel Point (PP) BP-114-001-020-030. Weld No is identified as BP-114-001-020/021 and 022/023. The welder was identified as 220069. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2233-B-U2-F. The welding parameters measured and recorded by ZPMC

Segment 6BE to 6CE

This QA Inspector observed ZPMC personnel performing Heat Straightening for T-Rib at following areas as mentioned below against the HSR1 (B)-7990 Rev.0

SP088-001-009~010

SP607-001-025~026

SP362-001-025~026

BP168-001-043~044

SP608-001-037~038

SP363-001-037~038

BP115-001-037~048

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

Summary of Conversations:

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.

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Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Miller,Mark

QA Reviewer