

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-009984**Date Inspected:** 04-Nov-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang and Xu Yumin**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) Assembly Area

Segment 5AW

This Quality Assurance (QA) Inspector witnessed final tension verification for Corner Assembly Back to Back Angles, X37B and Road Barriers Angles Bolts between PP 29.5, PP 30 and PP 31 for Segment 5AW. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M22 x 55 RC Set# DHGM220044 and final torque required is 473 N-m.

Bolt sizes used were M22 x 85 RC Set# DHGM220047 and final torque required is 427 N-m.

Bolt sizes used were M22 x 120 RC Set# DHGM220051 and final torque required is 433 N-m.

Bolt sizes used were M24 x 60 RC Set# DHGM240014 and final torque required is 567 N-m.

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Bolt sizes used were M24 x 65 RC Set# DHGM240009 and final torque required is 567 N-m.

Bolt sizes used were M24 x 80 RC Set# DHGM240011 and final torque required is 533 N-m.

Manual Torque wrench has been used with Sr. No. XO2 - 675.

Note: At PP 29 to 29.5 Bolts for Back to Back Angle, X37B and Road Barrier Brackets bolts not installed and thus not offered for Inspection reason been change in the design for Deck Panel Corner Assembly.

Segment 5BW

This Quality Assurance (QA) Inspector witnessed final tension verification for Corner Assembly Back to Back Angles, X37B and Road Barriers Angles Bolts between PP 32, PP 33 and PP 34 for Segment 5BW. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used were M22 x 55 RC Set# DHGM220044 and final torque required is 473 N-m.

Bolt sizes used were M22 x 85 RC Set# DHGM220047 and final torque required is 427 N-m.

Bolt sizes used were M22 x 120 RC Set# DHGM220051 and final torque required is 433 N-m.

Bolt sizes used were M24 x 60 RC Set# DHGM240014 and final torque required is 567 N-m.

Bolt sizes used were M24 x 65 RC Set# DHGM240009 and final torque required is 567 N-m.

Bolt sizes used were M24 x 80 RC Set# DHGM240011 and final torque required is 533 N-m.

Manual Torque wrench has been used with Sr. No. XO2 - 675.

Segment 5CE

This QA Inspector and Mr. Chandra measured and recorded the dimension for the T-Rib to T-Rib for Side Panel to Side Panel for the Segment 5CE between PP 33.5 to 34. ABF Mr. David Wu was the part of joint inspection. The reading recorded has been submitted to Task Leaders and Client

Segment 5CE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Hold Back areas for the T-Ribs at Side Panel Corner Assembly, Cross Beam side for Segment 5CE at PP 36. The Weld No. are identified as SP 422-001 021/022, 023/024, 025/026. Welders were identified as 220077 and 220069. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2132. The parameters noted down by QC found in compliance with WPS.

Segment 5CE

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This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Hold Back areas for the T-Ribs at Side Panel, Cross Beam side for Segment 5CE at PP 36. The Weld No. are identified as SP 524-001 029/030, 031/032, 033/034. Welders were identified as 220077 and 220069. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2132. The parameters noted down by QC found in compliance with WPS.

Lift 1 West

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for UT Rejected Transverse Segment to Segment weld for Segment 1AW to 1BW at Bottom Panel and Weld No. is identified as OBW1A-008. Welders were identified as 066258, 067577, 048659, 054467 and 066326. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-1G (1F)-FCM-Repair-1. The parameters noted down by QC found in compliance with WPS.

Excavation Performed from Internal Side of OBG at one location.

1. Y Location Start at 0mm and Stops at 3665 Total Length of Excavation = 3665mm.
2. Y Location Start at 3965mm and Stops at 8500 Total Length of Excavation = 4535mm.

Segment 5BW

This QA Inspector observed Segment 5BW Counter Weight side for Side Panel Corner Assembly temporary support for rain diverter removed by flame cut and left over are flush grind.

Segment 6AE

This QA Inspector observed ZPMC personnel performing Fit up for Transverse Diaphragm inside the FL3 at PP 38, 39 and 40.

Lift 1 West

This QA Inspector observed ABF personnel performing Ultrasonic Test 1AW to 1AAW and 1AW to 1BW Deck Panel to Edge Panel Cross Beam side.

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
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Reviewed By:	Carreon,Albert	QA Reviewer
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