DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-009241
Date Inspected: 29-Sep-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 645
OSM Departure Time: 1845
Location: Shanghai, China

CWI Name:	Li Jha 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 day CALTRANS OSM Quality Assurance Inspector (QA) S. Manjunath. Math was present during the times noted above for observations relative to the work being performed.

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 2AE

This Quality Assurance (QA) Inspector witnessed final tension verification against ZPMC Inspection Notification 00161 for Continuity Plate installed next to the U-Ribs at PP 13, PP 13.5, PP 14 and at PP 14.5 for Segment 2AE. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used are M24x70 RC Lot No. DHGM240003 and final Torque required was 543 N-m and

Bolt sizes used are M24x60 RC Lot No. DHGM240014 and final Torque required was 567 N-m.

Manual Torque wrench was been used with Serial No. XQ2-599 was been used for tension verification.

Segment 2AE to 2BE

This Quality Assurance (QA) Inspector witnessed final tension verification against ZPMC Inspection Notification 00161 for Longitudinal Diaphragm for Segment 2AE and 2BE between PP 16 and PP 17 South (Bike Path) side.

Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used are M24x95 RC Lot No. DHGM240021 and final Torque required was 540 N-m and

Bolt sizes used are M27x80 RC Lot No. DHGM270011 and final Torque required was 820 N-m.

Manual Torque wrench was been used with Serial No. XQ2-599 was been used for tension verification.

Segment 2AE

This Quality Assurance (QA) Inspector witnessed final tension verification against ZPMC Inspection Notification 00161 for Plate Bracket Connecting Side Panel to Floor Beam at FL3 area at PP 14, 15 and 16 for Segment 2AE. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used are M24x65 RC Lot No. DHGM240008 and final Torque required was 547 N-m.

Manual Torque wrench was been used with Serial No. XQ2-599 was been used for tension verification.

Segment 5CE

This Quality Assurance (QA) Inspector witnessed final tension verification against ZPMC Inspection Notification 00162 for Lower Chevron at PP 36 North (Cross Beam) side for Segment 5CE. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used are M22x70 RC Lot No. DHGM220004 and final Torque required was 453 N-m

Bolt sizes used are M22x75 RC Lot No. DHGM220005 and final Torque required was 473 N-m and

Bolt sizes used are M24x60 RC Lot No. DHGM220050 and final Torque required was 486 N-m.

Manual Torque wrench was been used with Serial No. XQ2-599 was been used for tension verification.

Segment 2AE to 2BE

This Quality Assurance (QA) Inspector witnessed final tension verification against ZPMC Inspection Notification 00163 for Bottom Panel T-Rib to T-Rib between PP 16 and PP 17. T-Rib 3rd, 4th and 10th Half Set of bolt tensioning offered for Inspection for Segment Lift 2 East. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt sizes used are M22x70 RC Lot No. DHGM220004 and final Torque required was 453 N-m

Manual Torque wrench was been used with Serial No. X02-584 and Hydraulic Wrench was been used for inaccessible areas with Model No. MP532-2 and with Serial No. PW090331002.

Signed Off Green Tag's

This Quality Assurance (QA) Inspector witnessed final tension verification for following depicted locations. Inspected 10% on a random basis and found the tension to be in general compliance and thus signed off the Green Tags.

At Segment 5AE, 5BE and 5CE Lower Chevron Brace and Bolt Size used were M22 x 80 RC Set# DHGM220050 and final torque required was 486 N-m and Green Tag No. 349.

At Segment 5AE, 5BE and 5CE Upper Chevron Brace and Bolt Size used were M22 x 70 RC Set# DHGM220004 and final torque required was 453 N-m and Green Tag No. 350.

At Segment 5AE, 5BE and 5CE Lower Chevron Brace and Bolt Size used were M22 x 70 RC Set# DHGM220004 and final torque required was 453 N-m and Green Tag No. 347.

At Segment 5AE, 5BE and 5CE Lower Chevron Brace and Bolt Size used were M22 x 75 RC Set# DHGM220005 and final torque required was 473 N-m and Green Tag No. 348.

At Segment 5AW, 5BW and 5CW Upper Chevron Brace and Bolt Size used were M22 x 70 RC Set# DHGM220020 and final torque required was 520 N-m and Green Tag No. 352.

At Segment 5AW, 5BW and 5CW Lower Chevron Brace and Bolt Size used were M22 x 80 RC Set# DHGM220012 and final torque required was 427 N-m and Green Tag No. 351.

At Segment 5AW, 5BW and 5CW Lower Chevron Brace and Bolt Size used were M22 x 75 RC Set# DHGM220005 and final torque required was 473 N-m and Green Tag No. 354 and

At Segment 5AW, 5BW and 5CW Lower Chevron Brace and Bolt Size used were M22 x 70 RC Set# DHGM220020 and final torque required was 520 N-m and Green Tag No. 353.

1AW to 1AAW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Deck Panel Transverse Weld. The weld joint is identified as OBW1-001. The welding was performed against Critical Welding Repair Report B-CWR774. The welder is identified as 068764. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-1G(1F)-Repair.

Segment 5BE to 5CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Transverse Splice weld the back gouged areas at Side Panel Bike Path side. The weld joint is identified as OBE5-006 and 007. The welder is identified as 220067. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-B-U2-FCM-1.

Segment 5BE to 5CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Transverse Splice weld the back gouged areas at Bottom Panel. The weld joint is identified as OBE5A-008. The welder is identified as 066179. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-B-U2-FCM.

1AE to 1AAE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Deck Panel Transverse Weld. The weld joint is identified as OBE1-001. The welding was performed against Welding Repair Report B-WR7875. The welders were identified as 045138 and 045133. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-1G(1F)-Repair.

Segment 5BE to 5CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Transverse Splice weld the back gouged areas at Side Panel Cross Beam side. The weld joint is identified as OBE5A-009 and 010. The welder is identified as 220067. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2214-B-U2-FCM.

Segment 2AW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Mis-drilled hole repair to cable tray bolt hole in T-Stiffener at PP 14 and 15. Welding was performed against Critical Welding Report B-CWR-755 Rev.1. The welder is identified as 220069. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-FCAW-1G(1F)-Repair-Misdrilled hole.

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.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer