

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-010255**Date Inspected:** 21-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:****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 5BW

This Quality Assurance (QA) Inspector witnessed final tension verification for Lower Chevron Angle X3B the Angle connects the Floor Beam Flange to the Splice Plate at PP 33 Cross Beam side for Segment 5BW. Inspected 10% on a random basis and found the tension to be in general compliance.

Bolt size used were M22 x 65 RC Set# DHGM220021 and final torque required was 543 N-m as the wrench is not accessible and thus performed Turn of Nut to 180 Degree.

Bolt size used was M22 x 75 RC Set# DHGM20005 and final torque required is 473 N-m.

Manual Torque wrench is been used with Sr. No. XQ2- 625.

Signed Off Green Tag's

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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 from Panel Point 29 to 37 Corner Assembly Cross Beam (North and South) and Bolt Size used was M22 x 55 RC Set# DHGM220001 and final torque required was 443 N-m and Green Tag No. 433.

At Segment 5AE, 5BE and 5CE from Panel Point 29 to 37 Corner Assembly Cross Beam (North and South) and Bolt Size used was M22 x 85 RC Set# DHGM220013 and final torque required was 433 N-m and Green Tag No. 434.

At Segment 5AE, 5BE and 5CE from Panel Point 29 to 37 Corner Assembly Cross Beam (North and South) Except at 3(three) locations i.e., PP 29, PP 32 and PP 35 to West Direction, each locations 10 Bolts and Bolt Size used was M22 x 120 RC Set# DHGM220053 and final torque required was 435 N-m and Green Tag No. 435.

At Segment 5AE, 5BE and 5CE from Panel Point 29 to 37 Corner Assembly Cross Beam (North and South) and Bolt Size used was M24 x 60 RC Set# DHGM240014 and final torque required was 467 N-m and Green Tag No. 436.

At Segment 5AE, 5BE and 5CE from Panel Point 29 to 37 Corner Assembly Cross Beam (North and South) and Bolt Size used was M24 x 65 RC Set# DHGM240008 and final torque required was 547 N-m and Green Tag No. 437.

At Segment 5AE, 5BE and 5CE from Panel Point 29 to 37 Corner Assembly Cross Beam (North and South) and Bolt Size used was M24 x 80 RC Set# DHGM240004 and final torque required was 570 N-m and Green Tag No. 438.

Segment 6AE to 6BE

This QA Inspector measured and recorded the Offset and Mis-alignment for T-Rib to T-Rib for Bottom Panel (18 Nos.), Side Panel Bike Path side (19 Nos.) and Side Panel Cross Beam side (19 Nos.) for Segment 6AE to 6BE at PP 40 and PP41. The report submitted to Engineer for review).

Segment 6AE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for FL3 Floor Beam Extension. The welder is identified as 220069. The Weld Joint is identified as SSD27-PP39-171 and 174. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2231T and WPS-B-T-2233T.

Segment 6AE

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This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for FL3 Floor Beam Extension. The welder is identified as 220066. The Weld Joint is identified as SSD27-PP39-099 and 100. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2231T and WPS-B-T-2233T.

Segment 6AE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for FL3 Floor Beam Extension. The welder is identified as 220063. The Weld Joint is identified as SSD27-PP39-137 and 117. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2231T and WPS-B-T-2233T.

Segment 6AW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for FL3 Floor Beam Extension. The welder is identified as 220066. The Weld Joint is identified as SSD25-PP39-171 and 174. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2231T and WPS-B-T-2233T.

Segment 6AW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for FL3 Floor Beam Extension. The welder is identified as 220069. The Weld Joint is identified as SSD25-PP39-099 and 100. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2231T and WPS-B-T-2233T.

Segment 6AW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for FL3 Floor Beam Extension. The welder is identified as 220063. The Weld Joint is identified as SSD25-PP39-117 and 137. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2231T and WPS-B-T-2233T.

Segment 2AW to 2BW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Segment 2BW for UT rejected area at Edge Panel to Deck Panel Weld the Planar Indications were found during UT Test. The welding is in progress against the Critical Weld Repair B-CWR907 Rev.0. The weld joint number was identified as CA102-002/004. The welder is identified as 044339. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-2G (2F)-Repair-1.

Segment 2BE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for

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Segment 2BE. The weld joint number was identified as CA104-004. The welder is identified as 044779. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-4G (4F)-FCM-Repair-1.

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:	Miller,Mark	QA Reviewer
