

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-011714**Date Inspected:** 30-Jan-2010**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:** Wu Zhi Cheng**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 7AW to 7BW

This QA Inspector along with Caltrans QA Manikandan measured and recorded the Root Gap and Offset measurement for the following area.

Location W5 to W6 (Edge Panel Cross Beam side)

Location W2 to W1 (Edge Panel Counter Weight side)

Location W3 to W4 (Bottom Panel)

Location W6 to W4 (Side Panel Cross Beam side)

Location W3 to W1 (Side Panel Counter Weight side)

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Expect Edge Panel rest of the location few locations root gap exceeds the WPS thus asked CWI for generating the Welding Repair Report (WRR) before commencing of the weld.

Location W2 to W5 (Deck Panel)

The measurements were not performed/recorded as fit-up was not completed.

Segment 6AE to 6BE

This QA Inspector observed ZPMC welding personnel performing repair welding by Shielded Metal Arc Welding (SMAW) for Side Panel to Bottom Panel at E4 location weld joint no. Seg 028B-021 and Seg 030A-007. The welder is identified as 066261. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-1G (1F)-FCM-Repair. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS. The Ultrasonic test report no. UT-6E-026 Dated Jan 25, 2010. The repair welding was been performed against Critical Weld Repair Report no. B-CWR1146 Rev. 0 Dated Jan 26, 2010.

Segment 7AE to 7BE

This QA Inspector observed ZPMC welding personnel performing repair welding by Flux Cored Arc Welding (FCAW) for Transverse Splice Weld at Side Panel Bike Path side. The weld joints are identified as OBE7B-002. The welder is identified as 220067. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2231-B-U2-F-3. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

Segment 7AE to 7BE

This QA Inspector observed ZPMC welding personnel performing repair welding by Flux Cored Arc Welding (FCAW) for Transverse Splice Weld at Side Panel Corner Assembly Bike Path side. The weld joints are identified as OBE7B-001. The welder is identified as 053742. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2231-B-U2-F-3. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

Segment 6CW to 7AW

This QA Inspector observed ZPMC personnel performing Heat Straightening for T-Ribs to T-Ribs at Side Panel and Bottom Panel at 300mm hold back welded area against the HSR report no. HSR 1(B)-8131 Rev. 0 Dated Jan 25, 2010.

Segment 6BW to 6CW

This QA Inspector observed ZPMC welding personnel performing repair welding by Shielded Metal Arc Welding (SMAW) for Bottom Panel to Side Panel connecting weld at W4 location. The weld joints are identified as

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Seg028B-005. The welder is identified as 054467. 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. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS. The repair welding was been performed against Critical Weld Repair Report no. B-CWR445 Rev. 0.

Segment 6AE to 6BE

This QA Inspector observed ZPMC welding personnel performing repair welding by Shielded Metal Arc Welding (SMAW) for gouged area at Edge Panel plate I-Rib the base material was gouged 1800mm length maximum 3mm deep at 7 locations in total. The welder is identified as 044779 and 049339. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-3G (3F)-FCM-Repair. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

Segment 6AW, 6BW and 6CW

This QA Inspector observed ZPMC welding personnel performing repair welding by Shielded Metal Arc Welding (SMAW) for gouged area at Edge Panel plate I-Rib the base material was gouged 1800mm length maximum 3mm deep at 7 locations in total. The welder is identified as 045221. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-3G (3F)-FCM-Repair. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS.

Segment 6AE to 6BE

This QA Inspector observed ZPMC welding personnel performing repair welding by Shielded Metal Arc Welding (SMAW) Edge Panel T-Stiffeners (X106H) which were removed due to mis-aligned holes for Segment 6AE to 6BE between PP 40 to PP 41. The welder is identified as 049339 and 048047. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-3G (3F)-FCM-Repair. It was observed that the parameters noted down by ZPMC QC are in compliance with WPS. The repair welding was been performed against Critical Weld Repair Report no. B-WR9848 Rev. 0.

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 Eric T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer
