

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: 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-008803**Date Inspected:** 08-Sep-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:** Xu Yumin and Li Jia**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

Lift 2 (East)

This Quality Assurance (QA) Inspector witnessed final tension verification for Longitudinal Stiffener to Longitudinal Stiffener. The Inspection being performed against the Bolting Inspection Notification No. 144 for Lift 2 East Cross Beam Side. Inspected 10% on a random basis the bolts and found the tension to be in general compliance. Bolt sizes used were M24 x 75 with RC Set# DHGM240020 and final Torque required was 600 N-m and M24 x 95 with RC Set# DHGM240021 and final Torque required was 540 N-m. Manual Torque wrench is been used with Sr. No. XQ2-584.

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 4AW and 4BW at PP 24 to 26 and PP 27 to 28 Cable Tray Support (Angle Plate location) and Bolt

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Size used was M19 x 55 RC Set# DHG60580 and final torque required was 340 N-m and Green Tag No. 316.

At Segment 3AW and 3BW at PP 19 to 20 and PP 21 to 24 Cable Tray Support (Angle Plate location) and Bolt Size used was M19 x 55 RC Set# DHG60580 and final torque required was 340 N-m and Green Tag No. 317.

At Segment 1BW and 2AW at PP 10.5, 11, 11.5, 12, 12.5, 13, 13.5, 14 and 14.5 U-Rib Continuity Plate and Bolt Size used was M24 x 70 RC Set# DHGM240010 and final torque required was 560 N-m and Green Tag No. 318. Lift 2 (West)

This Quality Assurance (QA) Inspector performed Visual Inspection for the Weld connecting Deck Panel Diaphragm to Floor Beam Flange at PP 13 East and West side and marked out various locations for discontinuities. Marking being performed by writing QA enclosed by Triangle.

## Segment 5BW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) and Shielded Metal Arc Welding (SMAW) for weld joint Seg. 023 C-001 at PP 32 for Segment 5BW. The welder is identified as 220063. In process FCAW and SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-4G (4F)-FCM-Repair-1 and WPS-345-FCAW-4G(4F)-FCM-Repair.

## Segment 1AW to 1BW

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) welding for weld joint EP104-001-013. The welding was being performed against the B WR-7356. The welder is identified as 045196. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-345-SMAW-3G(3F)-Repair-1 and WPS-345-SMAW-4G(4F)-Repair-1.

## Segment 1AW

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) welding for weld joint SSD34-8.5-087. The welding was being performed against BWR 667 Rev.0. The welder is identified as 220069. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2233-Tc-U4C-F.

## Segment 5BE and 5CE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) welding for weld joint SP332A-001-020 to 030 and SP305A-001-23 to 35. The welder is identified as 220066 and 053609. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2233-B-U2F.

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

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## 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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<b>Inspected By:</b>	Math,Manjunath	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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