

**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-008859**Date Inspected:** 07-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 4 (West)**

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray Bolts next to the top one of the frame against Bolting Inspection Notification No. 141 for Lift 4 West between PP 24 to 25, PP 25 to 26, PP 27 to 28 and PP 28 to 28.5 North and South Side. Inspected 10% on a random basis the bolts and found the tension to be in general compliance. Cable Tray not been installed between PP 26 to 27 due to scaffolding obstructions. Bolt sizes used were M3/4 x 2 1/4 RC Set# DHG60580 and final Torque required was 340 N-m. Manual Torque wrench is been used with Sr. No. XQ2-118.

**Lift 3 (West)**

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray Bolts next to the top one of the frame against Bolting Inspection Notification No. 143 for Lift 3 West between PP 19 to 20, PP 21 to 22, PP 22 to 23 and PP 23 to 23.5 North and South Side. Inspected 10% on a random basis the bolts and found the tension to be in general compliance. Cable Tray not been installed between PP 20 to 21 due to scaffolding obstructions. Bolt sizes used were M3/4 x 2 1/4 RC Set# DHG60580 and final Torque required was 340 N-m.

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Manual Torque wrench is been used with Sr. No. XQ2-118.

Lift 2 (West)

This Quality Assurance (QA) Inspector witnessed final tension verification for U-Rib Continuity Plate against Bolting Inspection Notification No. 142 for Lift 2 West. Notice Continuity Plate installed at PP 13 were 21 pieces, PP 13.5 were 23 pieces, PP 14 were 13 pieces and at PP 14.5 were 7 pieces. Inspected 10% on a random basis the bolts and found the tension to be in general compliance. Bolt sizes used were M24 x 70 RC Set# DHGM240010 and final Torque required was 560 N-m. Manual Torque wrench is been used with Sr. No. XQ2-584.

Lift 1 (West)

This Quality Assurance (QA) Inspector witnessed final tension verification for U-Rib Continuity Plate against Bolting Inspection Notification No. 142 for Lift 1 West. Notice Continuity Plate installed at PP 10.5 was 01 piece, PP 11 were 2 pieces, PP 11.5 were 4 pieces, PP 12 were 3 pieces and at PP 12.5 were 7 pieces. Inspected 10% on a random basis the bolts and found the tension to be in general compliance. Bolt sizes used were M24 x 70 RC Set# DHGM240010 and final Torque required was 560 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 2AW at Panel Point 16 Suspender Bracket and Bolt Size used was M24 x 75 RC Set# DHGM240020 and final torque required was 600 N-m and Green Tag No. 313.

At Segment 2AW at Panel Point 16 Suspender Bracket and Bolt Size used was M24 x 85 RC Set# DHGM240015 and final torque required was 517 N-m and Green Tag No. 314.

At Segment 2AW at Panel Point 16 Suspender Bracket and Bolt Size used was M27 x 85 RC Set# DHGM270001 and final torque required was 853 N-m and Green Tag No. 315.

Note: Gap was evident between the faying surfaces of Suspender Bracket to Edge Panel. Same being brought to the notice of Caltrans Engineer Mr. Aaron Prchlik, he personally reviewed the Gap and accepted for more information please refer the attached pictures.

Segment 5BE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) welding for weld joint no. SP 345A-001- 043 to 054 and SP332A-001- 043 to 054. The welder is identified as 220077. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2132.

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### Segment 5CE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) welding for weld joint no. SP306A-001-001 to 014, SP333A-001-001 to 012 and SP 425A-001 from SP425A-001-011 to 020. The welder is identified as 220077. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2132.

### Segment 5BE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) welding for weld joint DP633A-001 -014/13 and 016/015 and DP630A-001 -018/017 and 015/016. The welder is identified as 068764. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2114-FCM-1.

### Segment 5CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) welding for weld joint DP634A-001-012/011, 010/009 and DP631A-001 -008/007, 012/011. The welder is identified as 068764. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2114-FCM-1.

### Segment 5BE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) welding for weld joint EP49B-001 – 010/009 and EP52A-001-010/009, 012/011. The welder is identified as 053609. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2232-B-U2-F and WPS-B-T-2234-B-U2-F.

### Segment 1AE

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) welding for weld joint SSD34-PP 8.5-153. The welder is identified as 045280. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2232-Tc-U4b-F2.

### Segment 5CE

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) welding for weld joint DP634A-001-012/011, 010/009 and DP631A-001 -008/007, 012/011. The welder is identified as 068764. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2114-FCM-1.

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

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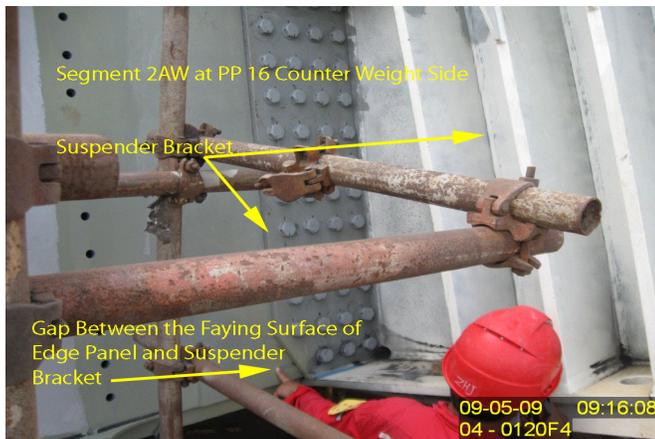
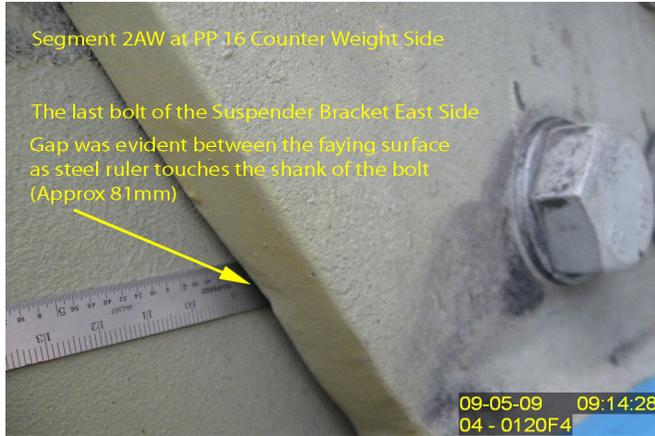
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## Summary of Conversations:

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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**Inspected By:** Math,Manjunath

Quality Assurance Inspector

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**Reviewed By:** Carreon,Albert

QA Reviewer