

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-012705**Date Inspected:** 09-Mar-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:****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 Trial 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 5AW to 5BW (T-Ribs)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at T-Ribs to T-Ribs at Segment Transverse Splice Side Panel (Cross Beam Side), Bottom Panel and Side Panel (Counter Weight side) at Panel Point (PP) 31 and PP 32 for Segment 5AW to 5BW. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00274 Dated March 09, 2010.

Bolt sizes used were M22 x 65 RC Set# DHGM220021 and final torque required was 543 N-m (Side Panel Cross Beam Side)

Bolt sizes used were M22 x 70 RC Set# DHGM220020 and final torque required was 520 N-m (Bottom Panel)

Bolt sizes used were M22 x 70 RC Set# DHGM220020 and final torque required was 520 N-m (Side Panel)

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Counter Weight Side)

Manual Torque wrench was been used with Sr. No. XQ2-584. The Vertical Offset measured at all the T-Ribs locations for Side Panel and Bottom Panel and observed no single reading exceeding 4.5mm.

Note: Please refer the pictures attached for more comprehensive detail.

Segment 5AW to 5BW (Longitudinal Diaphragm)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at Longitudinal Diaphragm to Longitudinal Diaphragm at W3 and W4 (North and South side) at Panel Point (PP) 31 and PP 32 for Segment 5AW to 5BW. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00274 Dated March 09, 2010.

Bolt sizes used were M24 x 70 RC Set# DHGM240010 and final torque required was 560 N-m and

Bolt sizes used were M24 x 95 RC Set# DHGM240021 and final torque required was 540 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-584.

Note: Please refer the pictures attached for more comprehensive detail.

Segment 5AW (Cable Tray)

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray Installed at Bottom Panel (North and South side) at Panel Point (PP) 29, PP 30 and PP 31 for Segment 5AW. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00274 Dated March 09, 2010.

Bolt sizes used were M3/4 x 2 1/4 RC Set# DHG60580 and final torque required was 340 N-m.

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

Segment 5BW (Cable Tray)

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray Installed at Bottom Panel (North and South side) at Panel Point (PP) 32, PP 33 and PP 34 for Segment 5BW. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00274 Dated March 09, 2010.

Bolt sizes used were M3/4 x 2 1/4 RC Set# DHG60580 and final torque required was 340 N-m.

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

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Segment 5CW (Cable Tray)

This Quality Assurance (QA) Inspector witnessed final tension verification for Cable Tray Installed at Bottom Panel (North and South side) at Panel Point (PP) 34, PP 35 and PP 36.75 for Segment 5CW. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00274 Dated March 09, 2010.

Bolt sizes used were M3/4 x 2 1/4 RC Set# DHG60580 and final torque required was 340 N-m.

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

Segment 6AE

This QA Inspector performed Offset measurement for Deck Panel to Deck Panel Diaphragm from West facing between the all U-Ribs to U-Ribs (Total 39 nos.) for Segment 6AE at Panel Point (PP) 38. Report forwarded to team leader for further action.

Segment 6AE

This QA Inspector performed Offset measurement for Deck Panel to Deck Panel Diaphragm from East facing between the all U-Ribs to U-Ribs from U-Rib 1 through to 20 and from West facing between the all U-Ribs to U-Ribs from U-Rib 21 through to 39 for Segment 6AE at Panel Point (PP) 39. Report forwarded to team leader for further action.

Segment 6AE

This QA Inspector performed Offset measurement for Deck Panel to Deck Panel Diaphragm from West facing between the all U-Ribs to U-Ribs (Total 39 nos.) for Segment 6AE at Panel Point (PP) 40. Report forwarded to team leader for further action.

Segment 6BE

This QA Inspector performed Offset measurement for Deck Panel to Deck Panel Diaphragm from West facing between the all U-Ribs to U-Ribs (Total 39 nos.) for Segment 6AE at Panel Point (PP) 41. Report forwarded to team leader for further action.

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 6AE, 6BE and 6CE for Lower Chevron (North and South)-Angle Location X3D Green Tag No. 636.

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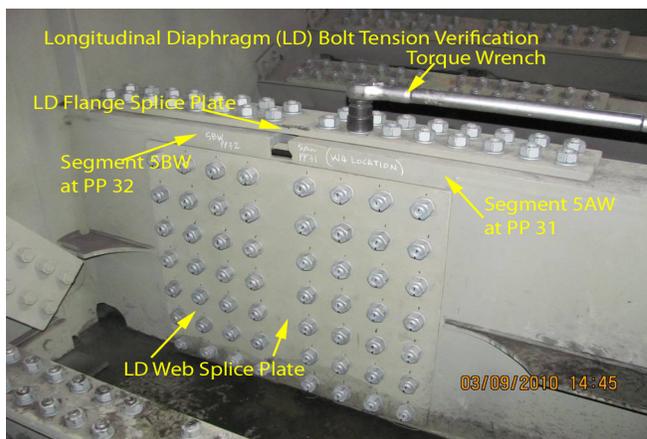
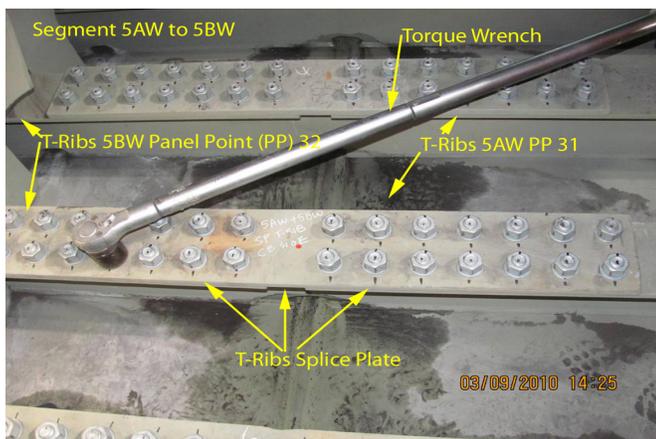
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At Segment 5AW for Corner Assembly Cross Brace (North and South) Green Tag No. 635.

Segment 7BW to 7CW (U-Ribs)

This QA Inspector prepared the punch list to identify the locations where shims to be installed and where Reinforcing Splice Plate to be installed for the U-Ribs to U-Ribs (Total 39 nos.) for Segment 7BW to 7CW (Shop Segment Splice) between Panel Point (PP) 52 and PP 53 from North towards South side i.e., from Counter Weight side to Cross Beam Side. Report forwarded to team leader for further action.

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.

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