

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-011574**Date Inspected:** 25-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:****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 6AW (Corner Assembly)

This Quality Assurance (QA) Inspector witnessed final tension verification for Corner Assembly 6AW at Panel Point (PP) 37, PP 38, PP 39 and PP 40 for Segment 6AW. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00242 Dated January 25, 2010.

Bolt sizes used were M24 x 65 RC Set# DHGM240009 and final torque required was 567 N-m.

Bolt sizes used were M24 x 60 RC Set# DHGM240014 and final torque required was 567 N-m.

Bolt sizes used were M24 x 80 RC Set# DHGM240011 and final torque required was 553 N-m.

Bolt sizes used were M22 x 55 RC Set# DHGM220044 and final torque required was 473 N-m.

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Bolt sizes used were M22 x 85 RC Set# DHGM220047 and final torque required was 427 N-m and RC Set# DHGM220013 and final torque required was 433 N-m.

Bolt sizes used were M22 x 120 RC Set# DHGM220051 and final torque required was 433 N-m.

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

Segment 6BW (Corner Assembly)

This Quality Assurance (QA) Inspector witnessed final tension verification for Corner Assembly 6AW at Panel Point (PP) 41, PP 42 and PP 43 for Segment 6BW. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00242 Dated January 25, 2010.

Bolt sizes used were M24 x 65 RC Set# DHGM240009 and final torque required was 567 N-m.

Bolt sizes used were M24 x 60 RC Set# DHGM240014 and final torque required was 567 N-m.

Bolt sizes used were M24 x 80 RC Set# DHGM240011 and final torque required was 553 N-m.

Bolt sizes used were M22 x 55 RC Set# DHGM220044 and final torque required was 473 N-m.

Bolt sizes used were M22 x 85 RC Set# DHGM220047 and final torque required was 427 N-m and RC Set# DHGM220013 and final torque required was 433 N-m.

Bolt sizes used were M22 x 120 RC Set# DHGM220051 and final torque required was 433 N-m.

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

General Note for 6AW, 6BW and 6CW :Against Bolting Inspection Notification Sheet Document No. 00242 Dated Jan 25, 2010 for Segment 6AW/6BW and 6CW (Corner Assembly North and South Side). Following are the locations where inspection was not performed.

At 6AW Panel Point (PP) 37.5 to 38 – X37B bracket and Cross Truss Post bolts not installed due to deck panel design modification (Cross Beam side)

At 6AW Panel Point (PP) 37 to 37.5 – X37B bracket and Cross Truss Post bolts not installed due to deck panel design modification (Counter Weight side)

At 6AW Panel Point (PP) 38.5 to 39 – Cross Truss Post bolts not installed (Cross Beam Side).

At 6AW Panel Point (PP) 39 to 40 – No bolts installed at PP39.25, PP 39.5, PP 39.75 as Vertical T-Stiffeners welded on Edge Panel removed by carbon arc gouging (Cross Beam Side).

At 6AW to 6BW Panel Point (PP) 40.5 to 41 – Cross Truss Post bolts not installed (Counter Weight Side).

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At 6AW Panel Point (PP) 40.25, PP40.5 and 40.75 bolts not installed as Vertical T-Stiffeners welded on Edge Panel removed by carbon arc gouging (Cross Beam Side).

At 6BW Panel Point (PP) 41.25, PP 41.5 and 41.75 bolts not installed as Vertical T-Stiffeners welded on Edge Panel removed by carbon arc gouging (Cross Beam Side).

At 6BW Panel Point (PP) 42.25, PP 42.5 and 42.75 bolts not installed as Vertical T-Stiffeners welded on Edge Panel removed by carbon arc gouging (Cross Beam Side).

At 6BW Panel Point (PP) 43.125, 41.25, PP 43.5 and 43.75 bolts not installed as Vertical T-Stiffeners welded on Edge Panel removed by carbon arc gouging (Cross Beam Side).

At 6BW Panel Point (PP) 43 to 43.5 Cross Truss Post bolts not installed (Counter Weight Side).

At 6CW Panel Point (PP) 44.25, PP 44.5 and 44.75 bolts not installed as Vertical T-Stiffeners welded on Edge Panel removed by carbon arc gouging (Cross Beam Side).

At 6CW Panel Point (PP) 46.5 to 47 – Cross Truss Post bolts not installed due to deck panel design modification (Cross Beam side)

Segment 6CE (Lower Chevron)

This Quality Assurance (QA) Inspector witnessed final tension verification for Lower Chevron (North and South side) at Panel Point (PP) 44, PP 45, PP 46 and PP 47 for Segment 6CE. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00242 Dated January 25, 2010.

Bolt sizes used were M22 x 70 RC Set# DHGM220004 and final torque required was 453 N-m.

Bolt sizes used were M22 x 80 RC Set# DHGM220050 and final torque required was 486 N-m and

Bolt sizes used were M22 x 75 RC Set# DHGM220005 and final torque required was 473 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-675 and Hydraulic Torque wrench was been used with Model No.

MP582-2 and Sr. No. PW090331001.

Segment 6CE (Upper Chevron)

This Quality Assurance (QA) Inspector witnessed final tension verification for Upper Chevron (North and South side) at Panel Point (PP) 44, PP 45, PP 46 and PP 47 for Segment 6CE. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00242 Dated January 25, 2010.

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Bolt sizes used were M22 x 70 RC Set# DHGM220004 and final torque required was 453 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-675.

Cross Beam (CB6)

This QA Inspector along with Caltrans QA Mr. Manoj Prabhune performed Joint Inspection for the Cross Beam 6 for the Gap and Offset at PP 44 (East and West Side) Vertical at PP 45 East side only, and Deck Panel between PP 44 to PP 45 and PP 45 to PP 46 East side only. The measured readings were recorded.

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.

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