

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-015500**Date Inspected:** 08-Jul-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:	N/A	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 Mr. 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 8CE (FL3 to Bottom Plate)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the FL3 Flange to the Bottom Plate and the Bottom Plate to Bottom Panel between Panel Points (PP) 69, PP 70 and PP 71 for Segment 8CE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00413 dated July 08, 2010.

The bolt sizes used were M24 x 60 RC Lot # DHGM240014 and the final torque value established was 567 N-m.

The bolt sizes used were M24 x 65 RC Lot# DHGM240013 and the final torque value established was 540 N-m.

The bolt sizes used were M24 x 65 RC Lot# DHGM240013 and the final torque value established was 1100 N-m.

The bolt sizes used were M24 x 70 RC Lot # DHGM240075 and the final torque value established was 1480 N-m.

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The manual torque wrench used to verify tension was S/N XO-747 and S/N XO2-666. Please reference the pictures attached for more comprehensive details.

Segment 10AW

This QA Inspector performed Dimension Control Inspection along with Caltrans QA Inspector Mr. Manikandan Murugan for the following location:

The Deck Panel to the Deck Panel Diaphragm plate plumbness was verified after Heat Straightening and measured from east and west side of the Deck Panel Diaphragm for Segment 10AW at Panel Points (PP) 86. The QA Inspector measured the plumbness using carpenter square.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 10BW

This QA Inspector performed Dimension Control Inspection along with Caltrans QA Inspector Mr. Manikandan Murugan for the following location:

The Deck Panel to the Deck Panel Diaphragm plate plumbness and flatness was verified and measured after Heat Straightening from east and west side of the Deck Panel Diaphragm for Segment 10BW at Panel Points (PP) 89, PP 90 and PP 91. The QA Inspector measured the plumbness using carpenter square and performed a flatness check using 710mm Straight Edge.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 10CW

This QA Inspector performed Dimension Control Inspection along with Caltrans QA Inspector Mr. Manikandan Murugan for the following location:

The Deck Panel to the Deck Panel Diaphragm plate plumbness and flatness was verified and measured after Heat Straightening from east and west side of the Deck Panel Diaphragm for Segment 10CW at Panel Points (PP) 92 and PP 94. The QA Inspector measured the plumbness using carpenter square and performed a flatness check using 710mm Straight Edge.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Incident Report for Segment 9DE

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This Quality Assurance (QA) Inspector wrote an Incident Report for welding the unknown material to the Floor Beam FB14A at E4 Location for Segment 9DE at Panel Point (PP) 82. Please refer the Incident Report # 04-0120F4_TL-15_B278_07-08-2010_Floor Beam_9DE_Unknown Material dated July 08, 2010.

Please reference the pictures attached for more comprehensive details.

Retro-fit (Plates)

This Quality Assurance (QA) Inspector performed visual inspection on the Retro-fit plates installed on the T-Ribs at the Side Panels and at the Longitudinal Diaphragm. Retro-fit plates were installed and the skin flatness inspection was performed and the results were measured for out of tolerance at the following locations.

East Line

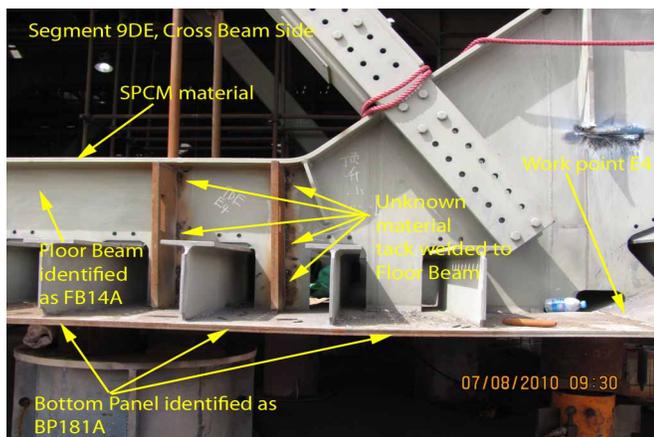
Segment 8AE to Segment 8BE at E4 location between Panel Points (PP) 64 to PP 65.
Segment 8BE to Segment 8CE at E4 location between Panel Points (PP) 67 to PP 68.
Segment 7DE to Segment 7EE at E4 location between Panel Points (PP) 58 to PP 59.

West Line

Segment 7AW to Segment 7BW at W4 location between Panel Points (PP) 49 to PP 50.
Segment 7BW to Segment 7CW at W4 location between Panel Points (PP) 52 to PP 53.
Segment 7CW to Segment 7DW at W4 location between Panel Points (PP) 55 to PP 56.
Segment 7DW to Segment 7EW at W3 location between Panel Points (PP) 58 to PP 59.
Segment 8AW to Segment 8BW at W3 location between Panel Points (PP) 64 to PP 65.
Segment 8BW to Segment 8CW at W4 location between Panel Points (PP) 67 to PP 68.

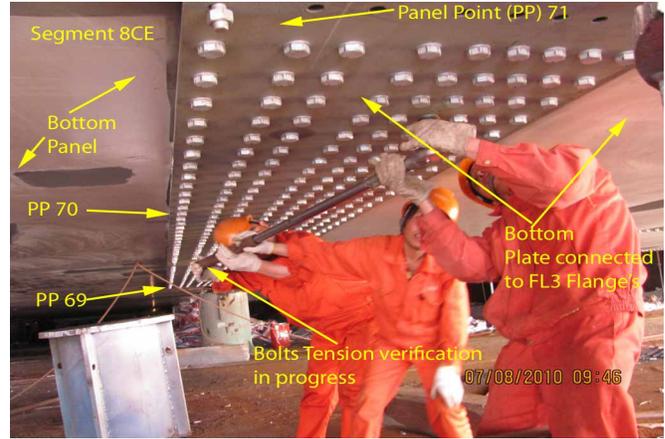
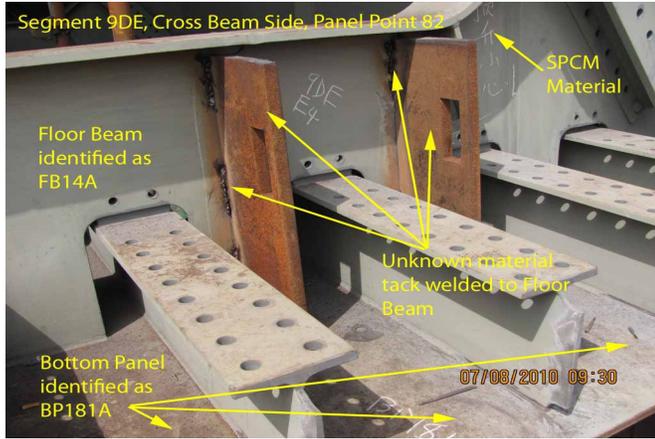
The QA Inspector measured and verified the fillet weld size on a random basis and performed paint inspection between the faying surfaces of Retro-Fit flanges to T-Rib webs.

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 were reported on this date.

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: Peterson,Art

QA Reviewer