

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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016631**Date Inspected:** 08-Sep-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)**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) at Trial Assembly Areas

Incident Report generated at Segment 9DE (FL3 Location)

This Quality Assurance (QA) Inspector wrote an Incident Report for base metal damage by flame cutting the flange of Partial Height Diaphragm at FL3 location for Segment 9DE at PP 80.5. Please reference the Incident Report # 04-0120F4_TL-15_B278_09-08-2010_9DE_PP 80.5_Partial Height Diaphragm_Flange_Base Metal Damage_Flame Cutting dated September 08, 2010 for further detail.

Please reference the pictures attached for more comprehensive details

Segment 10AW to 10BW (Transverse Splice T-Ribs)

This QA Inspector performed Dimension Control Inspection along with ABF QA personnel on the Transverse Splice T-Ribs to T-Ribs for the Segment 10AW to Segment 10BW between Panel Point (PP) 88 to PP 89 at the following locations:

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Work Point W6 towards Work Point W4 (Side Panel Cross Beam Side) total 19 T-Ribs.

Work Point W4 towards Work Point W3 (Bottom Panel) total 18 T-Ribs.

Work Point W3 towards Work Point W1 (Side Panel Counter Weight Side) total 19 T-Ribs.

The QA Inspector measured the Vertical Offset using 1(One) Meter Straight Edge and measured the Horizontal Offset on the web using a Bridge Cam gauge.

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 9BE (Catwalk at FL3)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Plate I-Ribs at FL3 area between Panel Points (PP) 74 and PP 75 for Segment 9BE. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00481 Dated September 08, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160010 and final torque required was 200 N-m.

Bolt sizes used were M16 x 50 RC Set# DHGM160011 and final torque required was 200 N-m.

The Manual Torque wrench used was Serial No. XO2-114.

Segment 9DE (Cable Tray at FL3)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Cable Tray structure at FL3 which is connected to Bottom Plate I-Ribs at FL3 area between Panel Points (PP) 80 and PP 81 for Segment 9DE. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00481 Dated September 08, 2010.

Bolt sizes used were M3/4" x 2" RC Set# DHGM160010 and final torque required was 200 N-m.

The Manual Torque wrench used was Serial No. XO2-114.

Segment 9DW (Cable Tray at FL3)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Cable Tray structure at FL3 which is connected to Bottom Plate I-Ribs at FL3 area between Panel Points (PP) 80 and PP 81 for Segment 9DW. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00481 Dated September 08, 2010.

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Bolt sizes used were M3/4" x 2" RC Set# DHGM160010 and final torque required was 200 N-m.

The Manual Torque wrench used was Serial No. XO2-114.

Segment 10AE to Segment 10BE

This QA Inspector performed Dimension Control Inspection at transverse splice to measure the T-Rib to T-Rib flange distance for Segment 10AE to Segment 10BE and bolt holes distance from the edge for the flange for Segment 10AE at following locations.

Work Point E1 towards Work Point E3 (Side Panel Bike Path Side) total 19 T-Ribs.

Work Point E3 towards Work Point E4 (Bottom Panel) total 18 T-Ribs.

Work Point E4 towards Work Point E6 (Side Panel Cross Beam Side) total 19 T-Ribs.

The QA Inspector measured the distance using 6" steel ruler.

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.

Lift 9 East

This QA Inspector performed Dimension Control Inspection at transverse splice to measure the T-Rib to T-Rib flange distance for following segments.

Segment 9AE to Segment 9BE between Panel Points (PP) 73 and PP 74.

Segment 9BE to Segment 9CE between Panel Points (PP) 76 and PP 77.

Segment 9CE to Segment 9DE between Panel Points (PP) 79 and PP 80.

Segment 9DE to Segment 9EE between Panel Points (PP) 82 and PP 83.

At following locations:

Work Point E1 towards Work Point E3 at 1st T-Rib, 2nd T-Rib, 18th T-Rib and 19th T-Rib (Side Panel Bike Path Side) total 4 T-Ribs.

Work Point E3 towards Work Point E4 at 1st T-Rib, 2nd T-Rib, 17th T-Rib and 18th T-Rib (Bottom Panel) total 4 T-Ribs.

Work Point E4 towards Work Point E6 at 1st T-Rib, 2nd T-Rib, 18th T-Rib and 19th T-Rib (Side Panel Cross Beam Side) total 4 T-Ribs.

The QA Inspector measured the distance using 6" steel ruler.

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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.

Lift 9 West

This QA Inspector performed Dimension Control Inspection at transverse splice to measure the T-Rib to T-Rib flange distance for following segments.

Segment 9AW to Segment 9BW between Panel Points (PP) 73 and PP 74.

Segment 9BW to Segment 9CW between Panel Points (PP) 76 and PP 77.

Segment 9CW to Segment 9DW between Panel Points (PP) 79 and PP 80.

Segment 9DW to Segment 9EW between Panel Points (PP) 82 and PP 83.

At following locations:

Work Point W6 towards Work Point W4 at 1st T-Rib, 2nd T-Rib, 18th T-Rib and 19th T-Rib (Side Panel Cross Beam Side) total 4 T-Ribs.

Work Point W4 towards Work Point W3 at 1st T-Rib, 2nd T-Rib, 17th T-Rib and 18th T-Rib (Bottom Panel) total 4 T-Ribs.

Work Point W3 towards Work Point W1 at 1st T-Rib, 2nd T-Rib, 18th T-Rib and 19th T-Rib (Side Panel Counter Weight side) total 4 T-Ribs.

The QA Inspector measured the distance using 6" steel ruler.

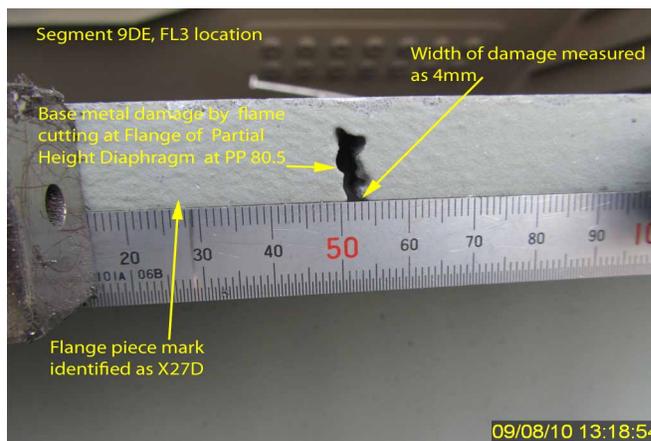
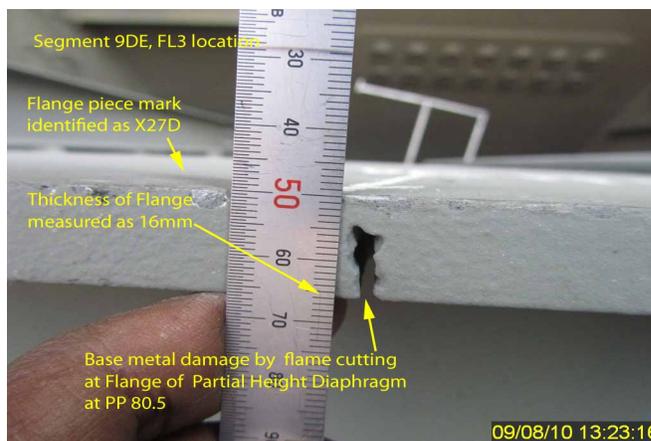
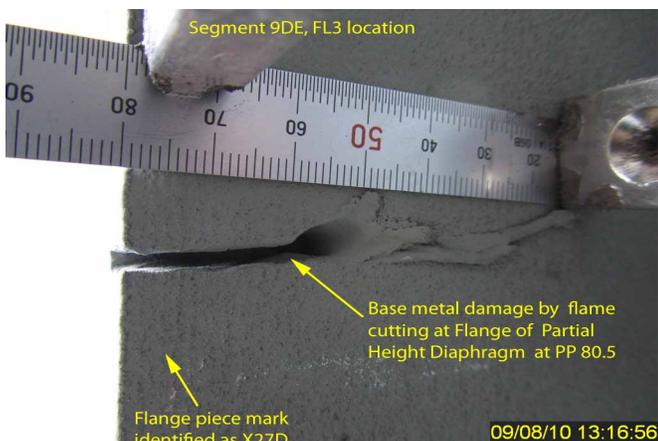
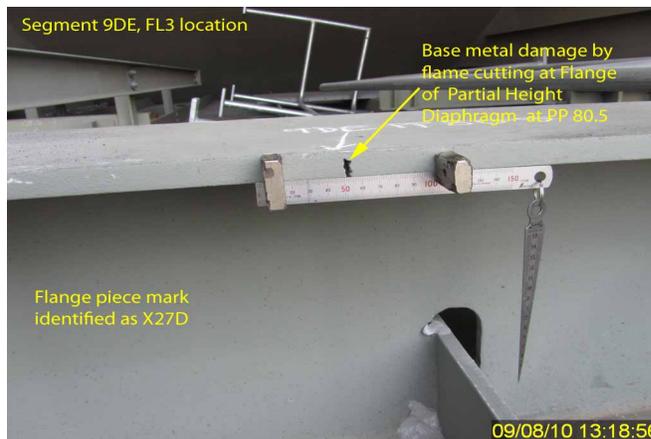
The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

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 Tsang 150000422372, 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:	Peterson,Art	QA Reviewer
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