

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023362**Date Inspected:** 04-May-2011**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

<b>CWI Name:</b>	N/A	<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>
<b>Inspected CWI report:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b> <b>No</b> <b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
		<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b> <b>N/A</b>
<b>Bridge No:</b>	34-0006	<b>Component:</b>	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

Cross Beam (CB) # 17 to Segment 12AW (FL3 location)

This QA Inspector performed Dimension Control Inspection for measuring gap between the stiffeners at floor beam (FL3) extension, at bottom panel, vertical web plate and deck plate of Segment 12AW at PP 110, PP 111 and PP 112 stiffeners to Cross Beam # 17 at following locations.

At Panel Point (PP) 110, Segment 12AW gap measurement performed between floor beam stiffeners to west side Vertical Web Plate stiffeners of cross beam # 16 total 13 stiffeners.

At Panel Point (PP) 111, Segment 12AW gap measurement performed between floor beam stiffeners to centre Vertical Web Plate stiffeners of cross beam # 16, total 13 stiffeners.

At Panel Point (PP) 112, Segment 12AW gap measurement performed between floor beam stiffeners to east side Vertical Web Plate stiffeners of cross beam # 16, total 13 stiffeners.

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Between Panel Points (PP) 110 to PP 111, Segment 12AW gap measurement performed between deck panel stiffeners to deck panel stiffeners of cross beam # 16, total 11 stiffeners.

Between Panel Points (PP) 111 to PP 112, Segment 12AW gap measurement performed between deck panel stiffeners to deck panel stiffener of cross beam # 16, total 11 stiffeners.

Between Panel Points (PP) 110 to PP 111, Segment 12AW gap measurement performed between bottom panel stiffeners to bottom panel stiffeners of cross beam # 16, total 5 stiffeners.

Between Panel Points (PP) 111 to PP 112, Segment 12AW gap measurement performed between bottom panel stiffeners to bottom panel stiffener of cross beam # 16, total 5 stiffeners.

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.

Cross Beam (CB) # 17 to Segment 12AE (FL3 location)

This QA Inspector performed Dimension Control Inspection for measuring gap between the stiffeners at floor beam (FL3) extension, at bottom panel, vertical web plate and deck plate of Segment 12AE at PP 110, PP 111 and PP 112 stiffeners to Cross Beam # 17 at following locations.

At Panel Point (PP) 110, Segment 12AE gap measurement performed between floor beam stiffeners to west side Vertical Web Plate stiffeners of cross beam # 16 total 13 stiffeners.

At Panel Point (PP) 111, Segment 12AE gap measurement performed between floor beam stiffeners to centre Vertical Web Plate stiffeners of cross beam # 16, total 13 stiffeners.

At Panel Point (PP) 112, Segment 12AE gap measurement performed between floor beam stiffeners to east side Vertical Web Plate stiffeners of cross beam # 16, total 13 stiffeners.

Between Panel Points (PP) 110 to PP 111, Segment 12AE gap measurement performed between deck panel stiffeners to deck panel stiffeners of cross beam # 16, total 11 stiffeners.

Between Panel Points (PP) 111 to PP 112, Segment 12AE gap measurement performed between deck panel stiffeners to deck panel stiffener of cross beam # 16, total 11 stiffeners.

Between Panel Points (PP) 110 to PP 111, Segment 12AE gap measurement performed between bottom panel stiffeners to bottom panel stiffeners of cross beam # 16, total 5 stiffeners.

Between Panel Points (PP) 111 to PP 112, Segment 12AE gap measurement performed between bottom panel stiffeners to bottom panel stiffener of cross beam # 16, total 5 stiffeners.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the

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Lead Inspector and Engineer for review and disposition.

Lift 12 West (X37B Brackets)

This QA Inspector performed Dimension Control Inspection for the Segment 12AW, Segment 12BW and Segment 12CW and measured the distance between road barrier bolt hole drilled at X37B from deck panel to the cope hole at X37B bracket installed at Corner Assembly at east and west side of the X37B brackets at following locations and verified the locations where ZPMC has taken corrective action for rectifying the out of tolerance areas.

At Panel Point (PP) 109.75, Cross Beam side.

At Panel Point (PP) 109.75, Counter Weight side.

At Panel Points (PP) 110.25 and PP 110.75, Cross Beam side.

At Panel Points (PP) 110.25 and PP 110.75, Counter Weight side.

At Panel Points (PP) 111.25 and PP 111.75, Cross Beam side.

At Panel Points (PP) 111.25 and PP 111.75, Counter Weight side.

At Panel Points (PP) 112.25 and PP 112.75, Cross Beam side.

At Panel Points (PP) 112.25 and PP 112.75, Counter Weight side.

At Panel Points (PP) 113.25 and PP 113.75, Cross Beam side.

At Panel Points (PP) 113.25 and PP 113.75, Counter Weight side.

At Panel Points (PP) 114.25 and PP 114.75, Cross Beam side.

At Panel Points (PP) 114.25 and PP 114.75, Counter Weight side.

At Panel Points (PP) 115.25 and PP 115.75, Cross Beam side.

At Panel Points (PP) 115.25 and PP 115.75, Counter Weight side.

At Panel Point (PP) 116.75, Cross Beam side.

At Panel Point (PP) 116.75, Counter Weight side.

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.

Cross Beam # 17

This QA Inspector observed that ZPMC personnel moved the Cross Beam # 17 from OBG Trial Assembly to the Jetty # 5, for loading on the ZPMC Ship Zhenhua # 18.

Please reference the pictures attached for more comprehensive details.

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

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documents.



## 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 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Math,Manjunath	Quality Assurance Inspector
<b>Reviewed By:</b>	Miller,Mark	QA Reviewer

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