

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016209**Date Inspected:** 13-Aug-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

<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

Segment 9AW to Segment 9BW

This QA Inspector performed Dimension Control Inspection for measuring Offset and Sweep along with Caltrans QA Inspector Mr. Manoj Prabhune on the Longitudinal Diaphragm to Longitudinal Diaphragm at Work Point W3 (Counter Weight side) for the Segment 9AW to Segment 9BW between Panel Point (PP) 73 to PP 74 at the following locations:

The offset was measured at 5 (five) different locations in which 2 (Two) locations were at Flange area and 3 (Three) locations were at Web area. The QA Inspector measured the Offset using a 1(One) Meter Straight Edge.

The Sweep was measured at 100 mm from both ends of the Longitudinal Diaphragm and 800mm from both ends of Longitudinal Diaphragm and at Center for the total 5 locations using a string line.

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.

Segment 9BW to Segment 9CW

This QA Inspector performed Dimension Control Inspection for measuring Offset and Sweep along with Caltrans QA Inspector Mr. Manoj Prabhune on the Longitudinal Diaphragm to Longitudinal Diaphragm at Work Point W3 (Counter Weight side) and W4 (Cross Beam side) for Segment 9BW to Segment 9CW between Panel Point (PP) 76 to PP 77 at the following locations:

The offset was measured at 5 (five) different locations in which 2 (Two) locations were at Flange area and 3 (Three) locations were at Web area. The QA Inspector measured the Offset using a 1(One) Meter Straight Edge.

The Sweep was measured at 100 mm from both ends of the Longitudinal Diaphragm and 800mm from both ends of Longitudinal Diaphragm and at Center for the total 5 locations using a string line.

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 9DW

This QA Inspector performed Dimension Control Inspection for the Segment 9DW after heat straightening was performed at Panel Point (PP) 81 to PP 82 at the following locations:

The skin flatness was verified and measured across the longitudinal butt weld at Deck Panel (DP) to Corner Assembly (CA) on the Counter Weight (CW) side from Panel Point (PP) 81 to PP 82. The QA Inspector measured the skin flatness using a 600mm Straight Edge.

The skin flatness was verified and measured across the longitudinal butt weld at Deck Panel (DP) to Corner Assembly (CA) at the Cross Beam (CB) and Counter Weight (CW) side from Panel Point (PP) 71.75 to PP 73.75. The QA Inspector measured the skin flatness using 600mm 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 9AE

This QA Inspector performed Dimension Control Inspection along with ABF QA personnel for Segment 9AE at Panel Point (PP) 72 at the following locations after heat straightening was performed on an out of tolerance area:

The Floor Beam (FB) flatness was verified and measured from the East side and West side of the FB at Panel Points (PP) 80. The QA Inspector measured the flatness using a 1500mm 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.

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### Segment 9EE

This QA Inspector performed Dimension Control Inspection along with ABF QA personnel for Segment 9EE from Panel Point (PP) 85 at the following locations after heat straightening was performed on an out of tolerance area:

The Deck Panel to the Deck Panel Diaphragm plate plumbness was verified and measured from east and west side of the Deck Panel Diaphragm at Panel Point (PP) 85. The QA Inspector measured the plumbness using a 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 9AE

This QA Inspector performed Dimension Control Inspection along with ABF QA personnel for the Segment 9AE from Panel Point (PP) 72 and PP 73 at the following locations after heat straightening was performed on an out of tolerance area:

The Deck Panel to the Deck Panel Diaphragm plate plumbness was verified and measured from the east side and west side of the Deck Panel Diaphragm at Panel Points (PP) 72 and PP 73. The QA Inspector measured the plumbness using a 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.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract 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 150000422372, who represents the Office of Structural Materials for your project.

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