

**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-017931**Date Inspected:** 09-Nov-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>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes No N/A	
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes No N/A	
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes No N/A	
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes No N/A	
		<b>Delayed / Cancelled:</b>	Yes No N/A	
<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

Traveler Rail at Paint Shop # 3

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail at paint shop # 3. The QA Inspector verified the bolt tension for bolts connecting the Angle to Traveler Rail web on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00546 dated November 09, 2010.

The bolt sizes used were M16 x 75 RC Lot # DHGM160023 and the final torque value established was 190 N-m.

The Manual Torque wrench used was Serial No. XO2-776.

The Traveler Rail on which bolt tension verification performed are identified as depicted below total 10 pieces.

10TR3-014

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11TR3-013

11TR8-002

11TR2-004

10TR2-002

11TR1-001

11TR11-001

11TR3-017

10TR3-018

11TR3-021

The Manual Torque wrench used was Serial No. XO2-776.

Note: The QA Inspector measured the gap between the Angle to Traveler Rail flange and submitted the report to SMR for review and disposition.

Please reference the pictures attached for more comprehensive details.

Segment 11DW (Lower Chevron Flatness Survey)

This QA Inspector performed Dimension Control Inspection along with ZPMC QC Mr. Hu Mei Gang on the Splice plate installed at Lower Chevron from East and West side to ensure flatness is within the allowable tolerance before snug tightening the bolts for Segment 11DW at Panel Points (PP) 104, PP 105 and PP 106 at Cross Beam side, work point W4 and Counter Weight side, work point W3.

The QA Inspector measured the Flatness using 1(One) Meter Straight Edge and the results appeared to be in general compliance with contract requirements.

Segment 12BE (Plumbness and Flatness after Heat Straightening)

This QA Inspector performed Dimension Control Inspection along with Caltrans QA Inspector Mr. Murugan Manikandan for measuring plumbness and flatness on the deck panel to deck panel diaphragm between U-Rib at 12th, 22nd, 28th and 29th locations (reference of numbering taken from Cross Beam side towards Counter Weight side) on Segment 12BE at Panel Point (PP) 113 after heat straightening.

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 12AW

This QA Inspector performed Dimension Control Inspection along with Caltrans QA Inspector Mr. Murugan Manikandan for the Segment 12AW from Panel Point (PP) 108.75 to PP 112.5 at the following locations:

The Floor Beam (FB) flatness was verified and measured from the East and West side of the FB at Panel Points (PP) 109, PP 110, PP 111 and PP 112 at Counter Weight side and Cross Beam side. The QA Inspector measured the flatness using 1500mm Straight Edge.

The diameter of the cope holes at the Corner Assembly (CA) were verified and measured at Panel Points (PP) 109, PP 109.5, PP 110, PP 110.5, PP 111, PP 111.5, PP 112 and PP 112.5 at the Cross Beam (CB) and Counter Weight (CW) side. The QA Inspector measured the diameter of the cope holes using a 150mm steel ruler.

The protrusion of the Deck Panel (DP) stiffener inside cope holes area at the Corner Assembly (CA) were verified and measured at the Panel Points (PP) 109, PP 109.5, PP 110, PP 110.5, PP 111, PP 111.5, PP 112 and PP 112.5 at the Cross Beam (CB) and Counter Weight (CW) side. The QA Inspector measured the protrusion of stiffener using a 150mm 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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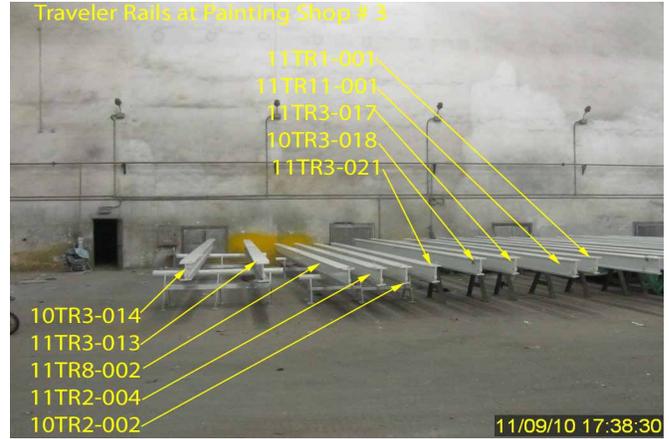
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## Summary of Conversations:

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:** Dsouza,Christopher

QA Reviewer