DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-013087
Date Inspected: 15-Mar-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
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: Orthotropic Box Girder(OBG)

Summary of Items Observed:

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

LAY DOWN YARD (North side of Bay#18&19).

SEGMENT: 9AW -Panel Point (PP) #72 &73.

This QA Inspector Randomly performed joint Inspection along with Caltrans QA Inspector Mr.Manoj Prabhune for the Panels flatness at SEGMENT: 9AW -Panel Point (PP) #72 &73.The flatness deformation was measured only at locations which were suspected. The following locations are not comply with the contract document.

During random Panel flatness inspection this Caltrans Quality Assurance Inspector (QA) observed a following Issues:

- The Deformation was measured to be approximately 19 mm in 2250 mm Maximum template size.
- The Segment and Panel Point no is 9AW-PP#72 Looking West at Crossbeam (CB) Side.

- The Deformation was measured to be approximately 18 mm in 2250 mm Maximum template size.
- The Segment and Panel Point no is 9AW-PP#72 Looking West at Counter Weight (CW) Side.

- The Deformation was measured to be approximately 24 mm in 2250 mm Maximum template size.
- The Segment and Panel Point no is 9AW-PP#73 Looking West at CW Side.

- The Deformation was measured to be approximately 16 mm in 2250 mm Maximum template size.
- The Segment and Panel Point no is 9AW-PP#73 Looking West at CB Side.

This QA generated a report on this date for the above issues and submitted to the Task Leader for further action. The attached photographs provide additional detail.

This QA Inspector along with Caltrans QA Mr. Manoj Prabhune performed Joint Inspection for the Deck panel diaphragm flatness for the SEGMENT: 9AW -Panel Point (PP) #72 &73. The flatness has been measured by using 600 mm length straight edge. Total number of readings 78 No's. The measured readings were data recorded, generated the report and submitted to the Task Leader for further action.
The maximum flatness readings noted in each Panel Points as follows:

1. Segment: 9AW-PP#72, Survey point: 21 (West side), Maximum Flatness reading is: 5.4 mm.
2. Segment: 9AW-PP#73, Survey point: 32 (West side), Maximum Flatness reading is: 4.0 mm.

Bay 11, Bolt Tension Test.
This QA inspector witnessed the lot testing of the A325M High Strength Bolts to determine the torque values for the minimum tension required. Below is a list of the lots tested and the average torque values determined. Also witnessed the testing for rotational capacity on same lot numbers.

1. Bolt Lot No: ND541Z, size M24 x 150, RC Set# DHGM240059, Nut Lot No: ND151Z, Washer Lot No: C0819Z and average torque value was 590 N-m.

2. Bolt Lot No: 6727Z, size M16 x 75, RC Set# DHGM160023, Nut Lot No: NS331Z, Washer Lot No: B9900Y and average torque value was 190 N-m.

3. Bolt Lot No: 6728Z, size M16 x 85, RC Set# DHGM160024, Nut Lot No: NS331Z, Washer Lot No: B9900Y and average torque value was 183 N-m.

4. Bolt Lot No: 6729Z, size M16 x 95, RC Set# DHGM160036, Nut Lot No: NS331Z, Washer Lot No: B9900Y and average torque value was 183 N-m.

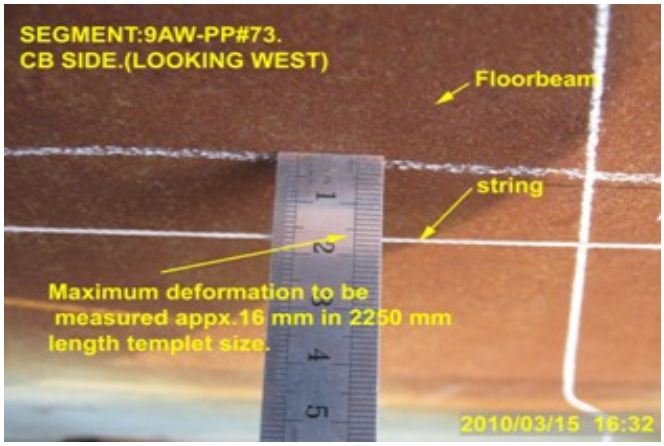
5. Bolt Lot No: NP701Z, size M22 x 80, RC Set# DHGM220091, Nut Lot No: NK671Z, Washer Lot No: C0520Y and average torque value was 460 N-m.

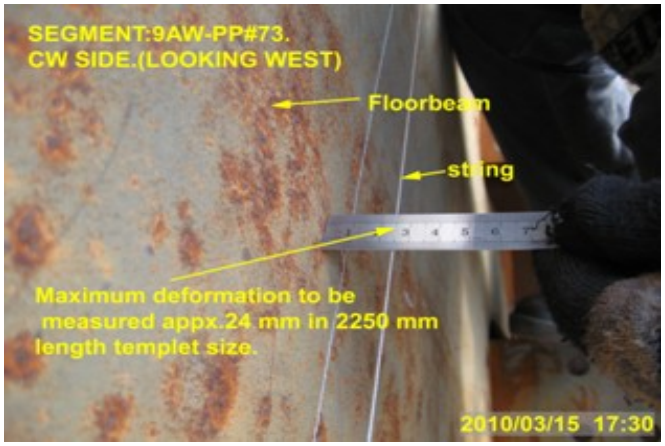
6. Bolt Lot No: NT171Z, size M24 x 160, RC Set# DHGM240074, Nut Lot No: NT091Z, Washer Lot No: C1290Z and average torque value was 443 N-m.

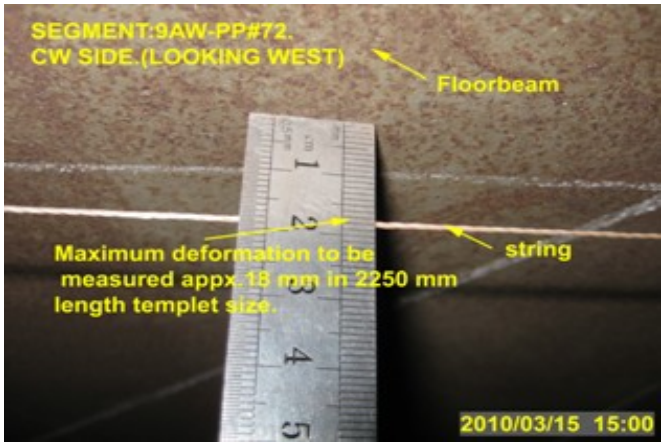
Torque wrench was been used with Sr. No. 2#, Calibration Expiry date: March 10, 2011.
Skidmore Sr.No: 15865 and 1015, Calibration Expiry dates: June 01, 2010 and June 04, 2010 respectively.

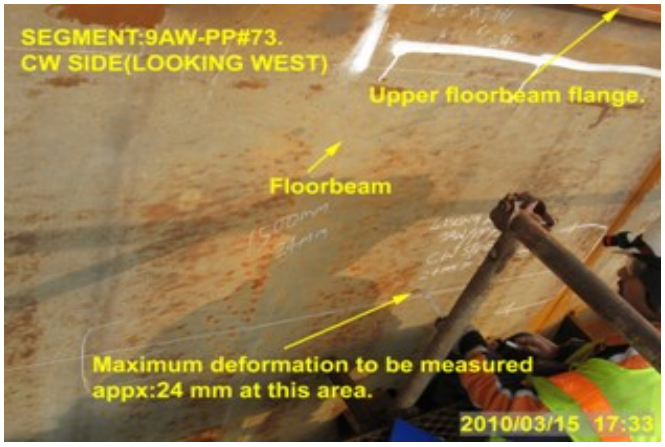
This QA notified ZPMC QC identified as Mr. Shen jian Bo and ABF inspector identified as Mr. David Wu are present during inspection.

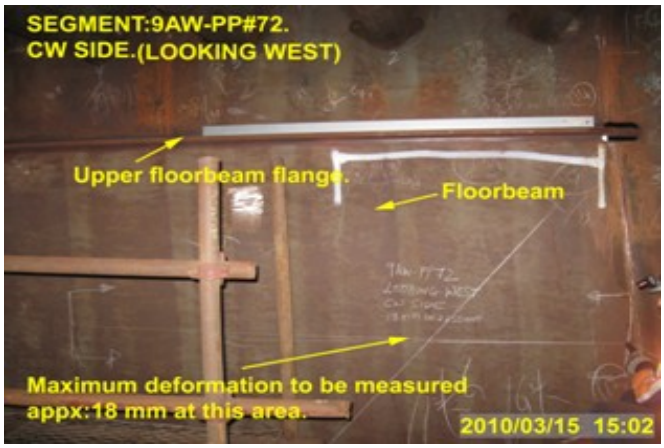
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.











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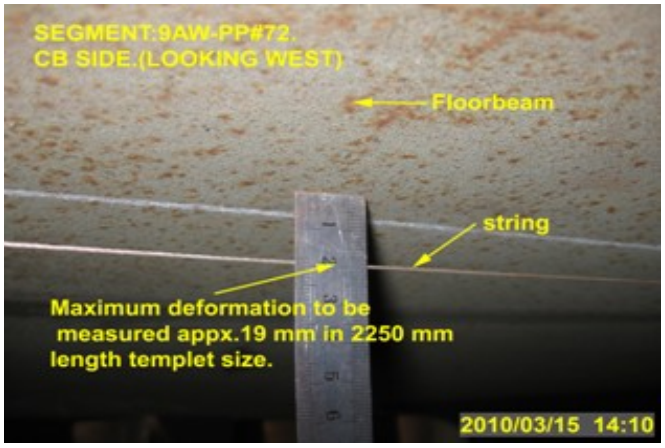

Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

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.

Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer