

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015402**Date Inspected:** 25-Jun-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), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**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 Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, M. Manikandan was present during the time noted above for observations relative to the work being performed.

**OBG # TRIAL ASSEMBLY YARD**

During Quality Assurance (QA) random in-process visual inspection, this QA inspector observed the Floor Beam (FL3) extending to connect with Cross Beam 9 and Cross Beam 10 is out of Flatness for OBG Segment 8AE, 8CE, 8AW and 8CW and does not meet Contract requirements for Skin Plate flatness. Specific details of said non conformance are provided below:

Piece Mark of affected member is identified as FB24A for Segment 8AE at Panel Point (PP) 63 on the Approved Shop Drawings.

Piece Mark of affected member is identified as FB28A for Segment 8CE at Panel Point (PP) 70 on the Approved Shop Drawings.

Piece Mark of affected member is identified as FB23A for Segment 8AW at Panel Point (PP) 63 on the Approved Shop Drawings.

Piece Mark of affected member is identified as FB27A for Segment 8CW at Panel Point (PP) 70 on the Approved Shop Drawings.

Maximum allowable distortion by AASHTO 11.4.13.2 for this material thickness over a length of 630mm is 5mm. The maximum distortion recorded was at FB24A for Segment 8AE at PP 63 recorded as 6mm over a length of 630mm.

The maximum distortion recorded was at FB28A for Segment 8CE at PP 70 recorded as 6mm over a length of

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630mm.

The maximum distortion recorded was at FB23A for Segment 8AW at PP 63 recorded as 6mm over a length of 630mm.

The maximum distortion recorded was at FB27A for Segment 8CW at PP 70 recorded as 7mm over a length of 630mm.

Material is designated as Seismic Performance Critical Material (SPCM).

Out of Flatness measured by using 20mm Standard Blocks and 630mm Straight Edge.

Segment 8AE, 8CE, 8AW and 8CW is located in the Trial Assembly yard.

For additional information please reference the pictures below.

## OBG # TRIAL ASSEMBLY YARD

This QA inspector performed visual inspection and dimensional checks on weld access cope holes on segment 8AW. Inspection was been performed against ABF Inspection report CWAHIR-8AW-01 dated 18th Dec. 2009. The locations exhibited radii edge discontinuities are identified and after repair appears to be comply with the contract documents.

## OBG # TRIAL ASSEMBLY YARD

This QA inspector performed visual inspection and dimensional checks on weld access cope holes on segment 8BW. Inspection was been performed against ABF Inspection report CWAHIR-8BW-01 dated 22nd Dec. 2009. The locations exhibited radii edge discontinuities after repair appears to be comply with the contract documents.

## OBG # TRIAL ASSEMBLY YARD

This QA inspector performed visual inspection and dimensional checks on weld access cope holes on segment 8CW. Inspection was been performed against ABF Inspection report CWAHIR-8CW-01 dated 30th Dec. 2009. The locations exhibited radii edge discontinuities after repair appears to be comply with the contract documents.

This QA Inspector randomly observed the following work in progress:

## OBG # TRIAL ASSEMBLY YARD (9BE-9CE)

SMAW Process:

Welding of weld joint – 007 located on PCMK OBE9B, Transverse splice weld joins segment 9BE and 9CE. Welder is identified as 067752. ZPMC CWI is identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-B-U2-FCM-1.

SMAW Process:

Welding of weld joint – 006 located on PCMK OBE9B, Transverse splice weld joins segment 9BE and 9CE. Welder is identified as 062092. ZPMC CWI is identified as Li Yang. The welding variables recorded by QC

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appeared to comply with the WPS-B-P-2214-B-U2-FCM-1.

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



## Summary of Conversations:

No relevant conversation.

## 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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**Inspected By:** Manikandan, Murugan

Quality Assurance Inspector

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**Reviewed By:** Carreon, Albert

QA Reviewer