

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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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-007281**Date Inspected:** 02-Jun-2009**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:** Wu Zhi Cheng**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 crossbeams and catilever brackets**Summary of Items Observed:**

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

OBG cross beam CB1 (in superstructure trial assembly)

This QA observed ZPMC personnel grinding and preparing splice joints to OBG segments 2BE and 2BW. QA observed ZPMC personnel installing cat walk components. No other significant work was being performed during the time QA was present.

OBG cross beam CB2 (in superstructure trial assembly)

This QA observed ZPMC personnel grinding and general clean up on this crossbeam. QA noted that this crossbeam has been detached from the superstructure trial assembly. No other significant work was being performed during the time QA was present.

OBG cross beam CB3 (in superstructure trial assembly)

This QA observed ZPMC personnel grinding and general clean up on this crossbeam. QA noted that SEG 4BE has been detached and removed from the superstructure trial assembly where this crossbeam is located. No other

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significant work was being performed during the time QA was present.

### OBG cross beam CB4

This QA observed that this crossbeam is still in the paint bay. No significant work was observed on this crossbeam during the time QA was present.

### OBG cross beam CB5

This QA observed ZPMC qualified welding personnel identified as 051359 perform SMAW weld repair on weld joint identified as CB202C-001-003. According to ZPMC QA identified as Mr. Wang Lu ZPMC had notified Caltrans on 5/31/09 in writing that ZPMC needed to remove approximately one meter area of this weld due to a misalignment issue at the joint between the two panels. ZPMC QC identified as Mr. Guo Yuan Ting was present to monitor the repair welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-345-SMAW-1G (1F)-FCM-repair.

### OBG cross beam CB6

This QA observed that no significant work was being performed on this crossbeam during the time this QA was present.

### OBG cross beam CB7

This QA observed ZPMC personnel splicing the deck panel together. No other significant work was observed during the time this QA was present.

### OBG cross beam CB8

This QA observed that no significant work was being performed on this crossbeam during the time this QA was present.

### OBG bay 5 bike path cantilever brackets

This QA observed ZPMC personnel heat straighten cantilever bracket identified as BK001-015-018. The heat straightening appeared to be in general compliance with the heat straightening report presented to this QA by the contractors QC. This QA noted that it appeared that the contractor has nine bike path cantilever brackets fit and welded in this bay.

### OBG Segment 5AE superstructure trial assembly

This QA observed ZPMC personnel remove four fillet welds joining gusset identified as X37 to deck panel stiffeners. This gusset is located in the corner assembly area on the inboard side (crossbeam side) between panel point PP029 and PP029.5. ABF QA inspector identified as Mr. Kevin Chen informed this QA that ZPMC is cutting these welds in order to pull up the gap at the bolted connection of this gusset to another deck panel stiffener.

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This gusset is welded to two deck panel stiffeners and bolted to a third stiffener (no weld to the deck panel). Mr. Chen informed this QA that ZPMC is trying to see if this procedure will work on this gusset. If they are successful at pulling the gap out of the faying surfaces at the bolted connection, they intend to use the same procedure in all of the OBG segments with these same gussets where similar problems exist.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



### Summary of Conversations:

As mentioned above.

### 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>	Hall,Steven	Quality Assurance Inspector
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<b>Reviewed By:</b>	Prue,Erik	QA Reviewer
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