

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

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-012068**Date Inspected:** 19-Jan-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**CWI Name:** ZPMC and ABF**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:** Tower**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. Wai Pau, was present during the times noted above for observations relative to the work being performed.

Strut connection U shape plate: - Caltrans QA Inspector observed seven ZPMC welders performed SMAW process on CJP weld of strut connection U shape plates. The material of strut connection U shape plate is ASTM 485 with 40mm wall thickness. The CJP weld and plate ID are ED1-SA4-8-135M-1-1B, ED1-SA4-68-135M-2-1B, ED1-SA4-68-135M-3-1B, ED1-SA-68-131M-8-1B, ND1-SA4-68-131M-1-1B, ND1-SA4-68-131M-2-1B, ED1-SA4-68-123M-1-1B, ED1-SA4-68-123M-2-1B, ED1-SA4-68-123M-3-1B, ND1-SA4-68-131M-5-1B, ND1-SA4-68-131M-4-1B and ND1-SA4-68-131M-3-1B. The SMAW process was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA inspector observations, no discrepancies were noted.

Strut connection flat plate: - Caltrans QA Inspector observed a ZPMC welding operator performed SAW process on CJP weld of tower strut connection flat plate for tower elevation 135m, 149m and 143m. The material of strut connection flat plate is ASTM 345 with 25mm wall thickness. The CJP weld and plate ID are ND1-STSA4-6-153M-1-7B, ED1-STSA4-6-135M-2-7B, ED1-STSA4-6-135M-1-7B, ED1-STSA4-6-143M-1-7B, ND1-STSA4-6-139M-2-7B and ND1-STSA4-6-139M-1-7B. The SAW welding was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA inspector observations, no discrepancies were noted.

West tower lift #4:- Caltrans QA Inspector observed two welders performed FCAW repair process on the interior corner longitudinal seam welds that connected skin plate C to D. All the repair weld areas have been pre heat prior welding. The repair welding located at elevation 119m and 123m. The FCAW repair processes were monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QA inspector observations, no discrepancies were noted.

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West tower lift#4:- Caltrans QA Inspector observed seven welders performed FCAW process on CJP weld for corner diagonal stiffener that connected skin plate C to D of east tower lift #4. The welding located at elevation 114m to 146.28m. The FCAW was monitored and recorded by ZPMC and ABF QC inspector. Based on Caltrans QAI observations, no discrepancies were noted.

Tower assembly yard

Tower lift #1:- Caltrans QA Inspector with ASMR Mr. Michael Ng performed in process alignment inspection on the connection areas of the tower strut plates to tower skin plates which installed on north, south, east and west tower lift #1 with various elevations. Caltrans QA found every alignment of tower strut plates to skin plates have been either horizontal or vertical off set more than 10mm as requirement. However, ABF office informed that survey of north, south, east and west tower lift #1 have not been accepted by ABF. Caltrans QA Inspector will continuous monitor and record the alignment of tower strut plates in the further.

## CLOSING STATEMENT

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



## Summary of Conversations:

As notes within report 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 Skyler Guest 15000422360 , who represents the Office of Structural Materials for

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your project.

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| <b>Inspected By:</b> | Pau, Wai | Quality Assurance Inspector |
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| <b>Reviewed By:</b> | Clifford, William | QA Reviewer |
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