

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019666**Date Inspected:** 11-Jan-2011**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:** Mr. Zhu Zhong Hai.**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 and Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad 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:

NDT

BAY 11:

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

ETM-1C/C-23-6

ETM-1C/C-24-5

NDT Notification No-08128

Vessel Deck:

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as Tower Lift 4. The weld designations reviewed are as follows.

Façade connection Plate (Reference IR 1794)

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

NDT Notification No-08137

BAY 10

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6027 (UT) report for this date. The member is identified as OBG. The weld designations reviewed are as follows.

BK009A2-001-032, 033, 034, 035, 036, 037, 038, 039

NDT Notification No-08132

BAY 10:

This QA Inspector performed randomly Visual Inspection of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

BK007A3-001-065, 067, 068, 100, 102, 101, 071, 070, 069, 105, 104, 103

BK007A4-001-080, 083, 082, 100, 102, 101, 087, 086, 085, 105, 104, 103

NDT Notification No-08133

This QA Inspector observed the following work in progress:

BAY 10:

OBG Bike path, FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 053869 Perform Flux Core Arc Welding (FCAW) on OBG Bike path Stringer plate. Joint identified as BK009A7-001-067, 070, 071, 074. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132-ESAB and WPS-B-T-2133-ESAB.

SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 057220, Perform Shielded Metal Arc Welding (SMAW) on OBG Traveler rail. Joint identified as 29TR1-014, 015. ZPMC QC Identified as Xu Jie. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-B-U2.

This QA Inspector observed ZPMC qualified welding personnel identified as 057258, 044511, Perform Shielded Metal Arc Welding (SMAW) on North Tower lift 6, A/B Corner joint from Outside. Joint identified as NSD1-TL6-3C/D-20. ZPMC QC Identified as Li Peng Fei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T--2214-Tc-U5.

This QA Inspector observed ZPMC qualified welding personnel identified as 500363, 056200, Perform Shielded Metal Arc Welding (SMAW) on North Tower lift 6, C/D Corner joint from Inside. Joint identified as NSD1-TL6-3C/D-13. ZPMC QC Identified as Li Peng Fei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2314-Tc-P5.

Repair Welding SMAW process:

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

This QA Inspector observed ZPMC qualified welding personnel identified as 500363, 056200, Perform Shielded Metal Arc Welding (SMAW) on OBG Bike path plate. Joint identified as BK004ASD1-032-003, 002. ZPMC QC Identified as Yu Zhi Lai with temporary welding repair report. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-1G (1F) Repair.

BAY 11:

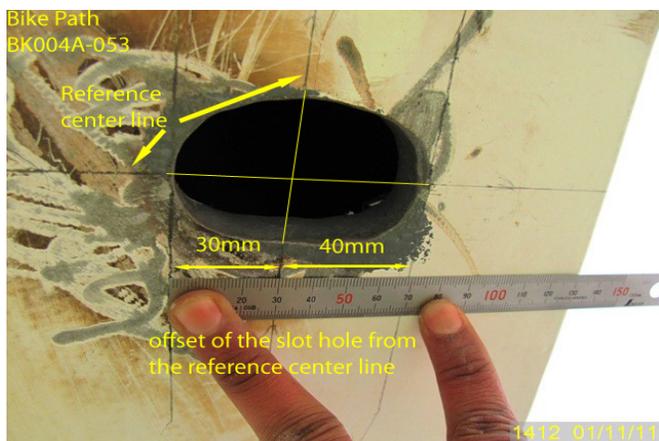
SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 044541, 040690, Perform Shielded Metal Arc Welding (SMAW) on Tower grillage top plate. Joint identified as GTSA5-B/G-11B. ZPMC QC Identified as Deng Zhi Bing. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2212-Tc-U5b.

During Quality Assurance (QA) dimensional check of the slotted hole on the bearing plate of the bike path, This QA inspector discovered the following issues:

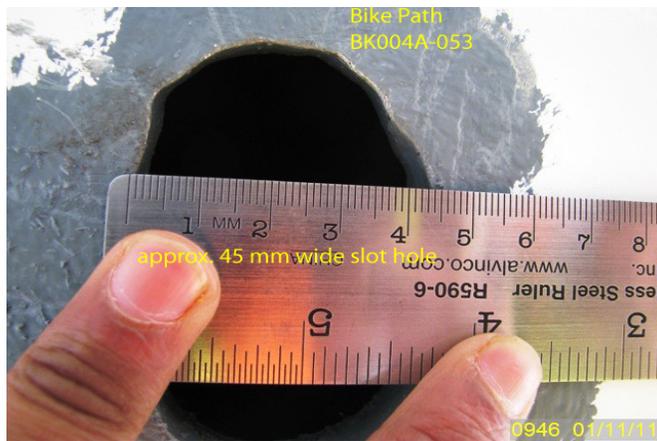
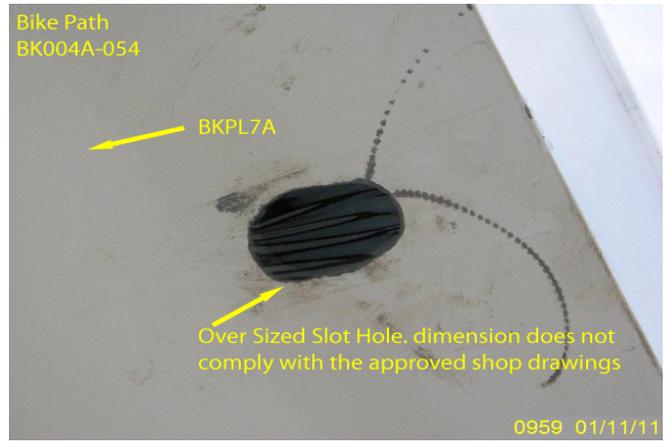
QA Inspector observed the oversized slotted holes on the bearing plate (BKPL7A for BK4A and BKPL14A for BK6A) of the bike paths. The affected Bike Path components are identified as; BK004A-001, BK004A-003, BK004A-004, BK004A-005, BK004A-008, BK004A-009, BK004A-010, BK004A-012, BK004A-017, BK004A-019, BK004A-020, BK004A-021, BK004A-026, BK004A-053, BK004A-054, BK004A-056, BK006A-002. The slotted hole dimensions measured approx. 68~72 mm long and 40~45mm wide. The measured dimensions do not comply with the approved shop drawings. This QA inspector also observed the miss located slotted hole from its reference center line. The final Green Tag for the above mentioned bike paths were submitted for QA review. Above mentioned bike paths will be in the shipment#6. For more information see attached picture.

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



WELDING INSPECTION REPORT

(Continued Page 4 of 4)



Summary of Conversations:

Only general conversation was held between QA and 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 Thomas Ho: 150002048250, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Shailesh

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer