

**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-015653**Date Inspected:** 17-Jul-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, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 9AW

This QA Inspector observed Base Metal Repair using the Shielded Metal Arc Welding (SMAW) process at locations of removed fit up plates along the exterior of the Deck Plate transverse CJP splice at 8CW/9AW field splice location. The welder is identified as #068097 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-345-SMAW-1G (1F)-FCM-repair-1 for CWR1679 R1.

Segment 9DE/9EE

This QA Inspector observed Submerged Arc Welding (SAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBE9A-008, Deck Plate splice. The welder is identified as #067947 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-223(2)1T-2.

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# WELDING INSPECTION REPORT

( Continued Page 2 of 4 )

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## Segment 9BW/9CW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW9B-007, Side Plate splice. The welder is identified as #045240 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233T-1.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW9B-009, Side Plate splice. The welder is identified as #045143 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233T-1.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW9B-006, Side Plate splice. The welder is identified as #045280 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233T-1.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW9B-010, Side Plate splice. The welder is identified as #069683 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233T-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW9-006, Edge Plate splice. The welder is identified as #045196 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2214-B-U2-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW9-010, Edge Plate splice. The welder is identified as #066326 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2214-B-U2-FCM-1.

## Segment 9DE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as DP699-001-015, 016, Deck Plate I-rib hold back weld. The welder is identified as #067765 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-T-4114-1.

## Segment 9EE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as DP699-001-015, 016, Deck Plate I-rib hold back weld. The welder is identified as #067765 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification

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# WELDING INSPECTION REPORT

( Continued Page 3 of 4 )

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WPS-B-T-4114-1.

## Segment 9BW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as SSD25-PP75-051, 052, Partial Height Diaphragm to Bottom Panel. The welder is identified as #207465 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as Liu Hua Jie and Wang Zhu. The welding variables recorded by QC appeared to comply with the Applicable WPS.

## Segment 9DE/9EE

This QA Inspector observed ZPMC personnel performing Magnetic Particle Testing on the FCAW root pass of the Deck Plate splice.

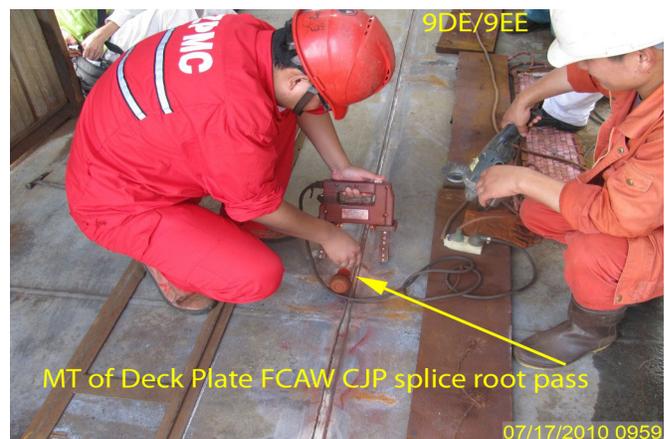
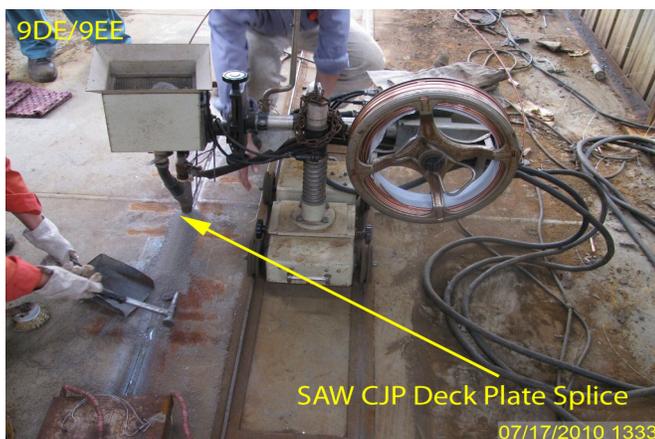
## Segment 9DW

This QA Inspector observed the alignment of 9DW with 9CW and Cross Beam 12 with the use of hydraulic jacks.

## Segment 9BE/9CE

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Side Plate transverse CJP splice at locations of removed fit up plates, bike path side.

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



## Summary of Conversations:

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# WELDING INSPECTION REPORT

( Continued Page 4 of 4 )

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No relevant conversations.

## **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, 150-0042-2372 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hernandez,Dan	Quality Assurance Inspector
<b>Reviewed By:</b>	Peterson,Art	QA Reviewer

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