

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017838**Date Inspected:** 08-Nov-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 Segments**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 11DW/11EW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBW11A-006, Edge Plate transverse splice. The welder is identified as #040611 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-P-2213-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 OBW11A-010, Edge Plate transverse splice. The welder is identified as #044551 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-P-2213-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 SP116-001-059, Side Plate WT stiffener web splice. The welder is

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identified as #057333 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-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 OBW11C-008, Bottom Plate transverse splice. The welder is identified as #040656 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

### Segment 11DW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated SP745-001-051, Side Plate WT stiffener hold back weld. The welder is identified as #049220 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated SP507-001-057, Side Plate WT stiffener hold back weld. The welder is identified as #053486 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

### Segment 11EW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated SP746-001-003, Side Plate WT stiffener hold back weld. The welder is identified as #049220 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated SP508-001-001, Side Plate WT stiffener hold back weld. The welder is identified as #053486 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

### Segment 11CE/11DE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBE11C-003, Bottom Plate transverse splice. The welder is identified as #040484 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-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 SP716-001-031, Side Plate I-rib web splice. The welder is identified as #047353 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233-B-U2-F.

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### Segment 11CE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated EP172-001-001, Edge Plate I-rib stiffener hold back weld. The welder is identified as #050289 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-T-2114-FCM-1.

### Segment 11DE/11EE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBE11C-007, Side Plate transverse splice. The welder is identified as #040367 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233T.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBE11C-006, Side Plate transverse splice. The welder is identified as #040458 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233T.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBE11C-009, Side Plate transverse splice. The welder is identified as #058763 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233T.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBE11C-010, Side Plate transverse splice. The welder is identified as #040533 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233T.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as An Qing Xiang and Zhou Yuan Yuan. The welding variables recorded by QC appeared to comply with the Applicable WPS.

### Segment 11CE/11DE

This QA Inspector observed ABF personnel performing Magnetic Particle Testing along the Bottom Plate transverse CJP splice at locations of removed fit up plates.

### Segment 11BE/11CE

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Bottom Plate transverse CJP splice, Edge Plate transverse CJP splice ( cross beam side) and Side Plate transverse CJP splice (bike path and cross beam side). D scan was performed.

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## Segment 11AE/11BE

This QA Inspector observed ABF personnel performing Magnetic Particle Testing along the Deck Plate transverse CJP splice at locations of removed fit up plates.

## Segment 11BW/11CW

This QA Inspector observed fit up of the bottom Counter Weight Connection Plate at panel points 100-102.

This QA Inspector observed ABF personnel performing Ultrasonic Testing on the Bottom Plate transverse CJP splice, D scan was performed.

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Side Plate WT stiffener hold back fillet welds, counter weight side.

## Segment 11BE

This QA Inspector observed match drilling of the Bottom Plate WT stiffener flange with splice plate at 11AE/11BE.

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



### Summary of Conversations:

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
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<b>Reviewed By:</b>	Dsouza,Christopher	QA Reviewer
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