

**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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022387**Date Inspected:** 05-Apr-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:** Li Yang and 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:** OBG Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 13AE (Edge Beam Stiffener)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Fillet weld. The weld joint was designated as Seg3007Q-315. The welder identification was 068917 and observed welding in the 4F (Overhead) position using approved Welding Procedure Specification WPS-B-P-2114-FCM. The piece mark was identified as the weld connecting the Stiffeners Plates to the Edge Beam Stiffener between PP 118 to PP 118.35 at work point E13.

Please reference the pictures attached for more comprehensive details.

Segment 13AE (Deck Panel I-Stiffener to Floor Beam)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Completed Joint Penetration (CJP) weld. The weld joint was designated as Seg3007Q-018. The welder

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identification was 066422 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-P-4213-Tc-U4b-2. The piece mark was identified as the weld connecting the Deck Panel I-Stiffener to Floor Beam, Bike Path side.

Please reference the pictures attached for more comprehensive details.

Segment 13AW (Grillage support Stiffener Plates to Side Panel)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) weld. The weld joint was designated as Seg3013K-0026. The welder identification was 067707 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-P-2213-Tc-U4b-FCM-1. The piece mark was identified as the weld connecting the Grillage support Stiffeners Plates to Side Panel, Counter Weight side.

Please reference the pictures attached for more comprehensive details.

Segment 13AW (Deck Panel to Edge Panel)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) weld. The weld joint was designated as Seg3013-001. The welder identification was 066443 and observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-Tc-U4b-FCM-1. The piece mark was identified as the weld connecting the Deck Panel to Edge Panel at work point W2, Counter Weight side.

Please reference the pictures attached for more comprehensive details.

Cross Beam # 17 (Deck Plate to Vertical Web Plate)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) weld. The weld joint was designated as Seg3001A-017-014. The welder identification was 066459 and observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-345-SMAW-2G(2F)-Repair-FCM-1. The piece mark was identified as the weld connecting the Deck Plate to vertical Web Plate at PP 110.

Please reference the pictures attached for more comprehensive details.

Suspender Brackets (Faying Surface Gap Measurements)

This Quality Assurance (QA) Inspector verified and measured the gap between the faying surfaces of Suspender Brackets connection plate to Deck Panel and Suspender Bracket connection plate to Edge Panel at the pre-installation stage along with ZPMC QC Inspector Mr. Zhang Hai Jung and observed the gap to be in general compliance with contact requirements. Inspection was performed against the Notification No. 00022.

The following Suspender Brackets were inspected.

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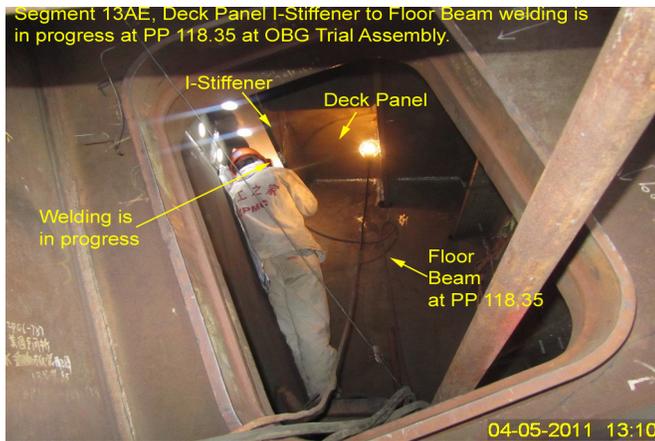
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SB110E installed at Segment 12AE at PP 110, Bike Path side.

SB110W installed at Segment 12AW at PP 110, Counter Weight side.

The gap measurements was recorded within the allowable tolerance and informed to the Lead Inspector.  
Please reference the pictures attached for more comprehensive details.

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



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Segment 13AE, Edge Beam at work point E13, Stiffener welding is in progress at Edge Beam web location between PP 118 to PP 118.35 at OBG Trial Assembly.



Segment 13AW, Deck Panel to Edge Panel connecting weld, welding is in progress at OBG Trial Assembly at OBG Trial Assembly at work point W2.



Segment 12AW, PP 110, Suspender Bracket Gap measurement performed



## Summary of Conversations:

No relevant conversations were reported on this date.

## 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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**Inspected By:** Math,Manjunath

Quality Assurance Inspector

**Reviewed By:** Miller,Mark

QA Reviewer

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