

**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-023549**Date Inspected:** 07-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**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 Components**Summary of Items Observed:**

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

Bay 11

This QA Inspector randomly observed the following work in progress in the Bay 11:

SMAW welding of weld joint BK011A1-001-043 located on PCMK OBG bike path. Welder was identified as 041271. QC was identified as ZPMC CWI Li Jun (QC1). Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Mao Bin Bin (QCA1), who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2212-TC-U4c as verbally identified by QCA1.

OBG Trial Assembly Area

This QA Inspector randomly observed the following work in progress in the OBG Trial Assembly Area:

FCAW welding of weld joints SA3060-003-003, 005; SA3060-004-003, 005 located on PCMK OBG 13CE. Welder was identified as 050977. QC was identified as Li Yan Hua (QC2). Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Zhan Hai Feng (QCA2), who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2231-ESAB as verbally identified by QCA2.

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SMAW repair welding of weld joints VP3007-001-053, 057; VP3008-001-006, 009 located on PCMK OBG 13CE.

Welder was identified as 058102. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-345-SMAW-1G(1F)-FCM-repair-1 as displayed on ZPMC Weld Repair Reports B-WR20769 and B-WR20767, respectively, as presented to this QA Inspector and verbally identified by QCA2.

FCAW repair welding of weld joint OBE13B-002 located on PCMK OBG 13AE/13BE, deck plate transverse joint.

Welder was identified as 055564. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-345-FCAW-1G(1F)-ESAB-repair-1 as displayed on ZPMC Weld Repair Report B-WR20680 as presented to this QA Inspector and verbally identified by QCA2. See photo below of weld joint OBE13B-002 after repair.

FCAW welding of weld joints SEG3009L-253; SEG3007U-109 located at the PCMK OBG 13AE/13BE transverse joint area. Welder was identified as 050242. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2232-ESAB as verbally identified by QCA2.

FCAW welding of weld joints BP3038-001-013~024 located at the PCMK OBG 13AE. Welder was identified as 052696. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA2, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-2132-ESAB as verbally identified by QCA2.

This QA Inspector observed Segment 12E suspended from the ZPMC 2200 ton floating crane over the ship at the end of the Heavy Dock.

SMAW welding of weld joints SEG3020AY-014, 015, 016 located at the PCMK OBG 14W. Welder was identified as 067942. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Shen Jian Bo (QCA3), who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-B-P-2214-TC-U4b-FCM-1 as verbally identified by QCA3.

FCAW welding of weld joints SEG3020B-015~018 located at the PCMK OBG 14W. Welder was identified as 037705. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA3, who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-B-T-2133-ESAB as verbally identified by QCA2.

SMAW welding of weld joints SEG3020-023, 024 located on PCMK OBG 14W. Welder was identified as 066673. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA3, who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-B-P-2113-FCM-1 as verbally identified by QCA3.

SMAW welding of weld joint SEG3020AH-002 located on PCMK OBG 14W. Welder was identified as 067520.

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QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA3, who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-B-P-2112-TC-U4b-FCM-1 as verbally identified by QCA3.

SMAW welding of weld joints SEG3020A\*-014; SEG3020AY-001 located on PCMK OBG 14W. Welder was identified as 069896. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA3, who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-B-P-2114-TC-U4b-FCM-1 as verbally identified by QCA3. See photo below of the welding operation at this location.

SMAW welding of weld joint SEG3020AH-002 located on PCMK OBG 14W. Welders were identified as 067520, 066674. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation and recording data was QCA3, who was not a CWI. Weld variables recorded by QCA3 appeared to comply with WPS-B-P-2112-TC-U4b-FCM-1 as verbally identified by QCA3.

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



### Summary of Conversations:

As noted 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 James Devey 15000026784, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Goulet, George	Quality Assurance Inspector
<b>Reviewed By:</b>	Riley, Ken	QA Reviewer

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