

**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-018647**Date Inspected:** 16-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1500**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** ShangHai, China**CWI Name:** Chen Xi**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**Summary of Items Observed:**

Summary of Items Observed: On this date Caltrans OSM Quality Assurance(QA) Inspector, DJ Shin was present during the times noted above for observations relative to the work being performed.

**Bay 1**

This QA Inspector observed the following work in progress for Bay 1.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Xiang Feng Feng

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components: Traveler Rail

PCMK: 20TR2-034-013

Welder: 215082

Report: B-WR15433

WPS-345-FCAW-1G (1F)-repair-1

**Bay 2**

This QA Inspector observed the following work in progress for Bay 2.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Xiang Zhu Jun

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

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Listed below are the locations that were identified by this QA inspector.

Components: Floor Beam

PCMK: FB3343-001-101~109,221-262,231~264

Welder: 045240, 045175, 045227, 045276

WPS-B-T-2233-TC-U5-F-2

Components: Barrier Rail

PCMK: E5-SB1-003-026~031

Welder: 045203

WPS-B-T-2132-3

PCMK: E5-SB1-023-088~093

Welder: 201583

WPS-B-T-2132-3

Heat straightening of PCMK, SA3409-001 under approved Heat Straightening procedure, HSR 1(B)-9635, The in process temperature was at the time of this observation witnessed at less than 600°C. The ZPMC QC was identified as Zhu Jun. The approved HSR procedure stated that a maximum temperature of 650°C with 1-3 applications. The distortion that was previously measured and recorded on the HSR was Maximum 8mm.

Bay 3

This QA Inspector observed the following work in progress for Bay 3.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Xiang Zhang Ya Xu

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components: Floor Beam

PCMK: FB3268-001-060

Welder: 206623

WPS-B-T-2233-TC-U4b-F

PCMK: FB3260-001-043,144

Welder: 217805

WPS-B-T-2132-3

PCMK: FB3266-001-015

Welder: 052696, 055564

Report: B-WR16021

WPS-345-FCAW-1G (1F)-Repair

PCMK: FB3266-001-016

Welder: 055491, 050242

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Report: B-WR16022  
WPS-345-FCAW-1G (1F)-Repair

### Bay 6

This QA Inspector observed the following work in progress for Bay 6.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Chen Xi

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components: Cross Beam  
PCMK: CB3002J-001-045  
Welder: 053609  
WPS-B-T-2233-TC-U4b-F

### Bay 7

This QA Inspector observed the following work in progress for Bay 7.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Xu Hai Yang.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components: Barrier Rail  
PCMK: W2-SB9-010-57~62  
Welder: 048625  
WPS-B-T-2132-3

PCMK: W2-SB9-016-26~31  
Welder: 204342  
WPS-B-T-2132-3

PCMK: W2-SB9-013-26~31  
Welder: 051246  
WPS-B-T-2132-3

This QA Inspector observed the following work in progress for Bay 7.

ZPMC was using the Shield Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Xu Hai Yang.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components: Cross Beam  
PCMK: X4253C-002-001  
Welder: 048659

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Report: B-CWR-2022  
WPS-345-SMAW-1G (1F)-FCM-Repair

PCMK: X4253D-001-001

Welder: 057795

Report: B-CWR-2023  
WPS-345-SMAW-1G (1F)-FCM-Repair

PCMK: X4253E-002-001

Welder: 049769

Report: B-CWR-2026  
WPS-345-SMAW-1G (1F)-FCM-Repair

Trial Assembly Yard

This QA inspector performed Magnetic Particle Testing (MT) and Visual Inspection (VT) of approximately 15 % of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member(s) is/are identified as follows; RETRO-B2-10BE for item number 1 on NWIT tracker document # 06987.

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 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Shin,DJ	Quality Assurance Inspector
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<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer
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