

**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:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-009292**Date Inspected:** 25-Sep-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Xu Xian Ping  
**Inspected CWI report:** Yes No N/A  
**Electrode to specification:** Yes No N/A  
**Qualified Welders:** Yes No N/A  
**Approved Drawings:** Yes No N/A

**CWI Present:** Yes No  
**Rod Oven in Use:** Yes No N/A  
**Weld Procedures Followed:** Yes No N/A  
**Verified Joint Fit-up:** Yes No N/A  
**Approved WPS:** Yes No N/A  
**Delayed / Cancelled:** Yes No N/A

**Bridge No:** 34-0006**Component:** OBG & TOWER Components**Summary of Items Observed:**

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

**BAY 2**

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #001 located on Floor Beam FB3062 – 001. Welder is identified as 045203. ZPMC QC is identified as Zhang Hai Feng. The welding variables recorded by QC appeared to comply with the WPS – 345 – SMAW – 2G (2F) – FCM – Repair, according to CWR report no: B-CWR 762.

FCAW process welding of weld joint #008 located on Super (Deck) Panel10BW – SEG061. Welder is identified as 045218. ZPMC QC is identified as Xu Tao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – B – U2 – F.

SMAW process Tack welding of weld joint #005 located on Super (Deck) Panel10BW – SEG061. Welder is identified as 045213. ZPMC QC is identified as Xu Tao. The welding variables recorded by QC appeared to comply with the WPS – B – P – 2211 – B – U2.

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## BAY 3

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #012 located on Longitudinal Diaphragm LD016 – 036. Welder is identified as 051356. ZPMC QC is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – Tc – P4 – F.

FCAW process welding of weld joint #005 located on Longitudinal Diaphragm LD004 – 057. Welder is identified as 044790. ZPMC QC is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

FCAW process welding of weld joint #099 located on CSD9 – PP096. Welder is identified as 044824. ZPMC QC is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132 – 3.

FCAW process welding of weld joint #010 located on Longitudinal Diaphragm LD004 – 057. Welder is identified as 044790. ZPMC QC is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2133.

## BAY 5

### Magnetic Particle Testing

This QA inspector performed MT 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 members are identified as OBG Components. The weld designations reviewed are as follows:

1. 10TR3 – 029 – 004
2. 10TR3 – 021 – 004
3. 10TR3 – 009 – 003
4. 10TR3 – 022 – 003

### Ultrasonic Testing

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows:

1. 10TR3 – 025 – 003
2. 10TR3 – 009 - 004
3. 10TR3 – 024 – 003
4. 10TR3 – 023 - 004

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## WELDING INSPECTION REPORT

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This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #007 located on Traveler Rail 11TR2 – 012. Welder is identified as 215185. ZPMC QC is identified as Meng Linnan. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – Tc – U4b – F.

FCAW process welding of weld joint #005 located on Traveler Rail 11TR2 – 014. Welder is identified as 058174. ZPMC QC is identified as Meng Linnan. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – Tc – U4b – F.

FCAW process welding of weld joint #010 located on Traveler Rail 11TR2 – 013. Welder is identified as 215185. ZPMC QC is identified as Meng Linnan. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – Tc – U4b – F.

FCAW process welding of weld joint #014 located on Traveler Rail 11TR2 – 015. Welder is identified as 058174. ZPMC QC is identified as Meng Linnan. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – Tc – U4b – F.

BAY 6

### Visual Inspection Testing

This QA inspector performed VT of the area previously tested and accepted by ZPMC Quality Control personnel. The members are identified as Tower Components. The weld designations reviewed are as follows:

#### 9M DIAPHRAGM BENDING SUB-ASSEMBLIES

1. A507 – 03; 05; 06; 08
2. A72 – 01
3. A511 – 02
4. A509 – 01

### Magnetic Particle Testing

This QA inspector performed MT 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 members are identified as TOWER Components. The weld designations reviewed are as follows:

#### 9M DIAPHRAGM BENDING SUB-ASSEMBLIES – GREEN TAG # 009249

1. A507 – 03; 05; 06; 08
2. A72 – 01
3. A511 – 02
4. A509 – 01

This QA Inspector observed the following work in progress:

TOWER

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SMAW process welding of weld joint #1B located on ND1 – SA658 – 77M – 8. Welder is identified as 067707. ZPMC QC is identified as Zhao Chen Sun. The welding variables recorded by QC appeared to comply with the WPS – 485 – SMAW – 1G (1F) FCM – Repair – 1.

Cross Beam – 8

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #005 located on Cross Beam CB202A – 008. Welder is identified as 053609. ZPMC QC is identified as Liu Chuan Gang. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U4b – F.

Cross Beam – 9

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #041 located on Cross Beam CB202G – 021. Welder is identified as 220688. ZPMC QC is identified as Zhou Jie. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2233 – Tc – U4c – F.

FCAW process welding of weld joint #035 located on Cross Beam CB202G – 024. Welder is identified as 220688. ZPMC QC is identified as Zhou Jie. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2233 – Tc – U4c – F.

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>	Kumar,Sandeep	Quality Assurance Inspector
<b>Reviewed By:</b>	Whitehead,Lonnie	QA Reviewer

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