

**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-013539**Date Inspected:** 22-Apr-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:** Zhao Chen Sun  
**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:** Tower Components**Summary of Items Observed:**

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

BAY#11

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005580

Visual Inspection Testing (VT)

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

WEST TOWER LIFT-5 AE CORNER SEAM

WSD1 – TL5 – 4B/F – 33A/B; 12A/B

WEST TOWER LIFT-5 DE CORNER SEAM

WSD1 – TL5 – 4B/F – 37A/B; 6A/B

WEST TOWER LIFT-5 BC CORNER SEAM

WSD1 – TL5 – 4B/F – 39A/B; 21A/B

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### Magnetic Particle Testig (MT)

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 member is identified as Tower Component. The weld designation reviewed as follows:

WEST TOWER LIFT-5 AE CORNER SEAM

WSD1 – TL5 – 4B/F – 33A/B; 12A/B

WEST TOWER LIFT-5 DE CORNER SEAM

WSD1 – TL5 – 4B/F – 37A/B; 6A/B

WEST TOWER LIFT-5 BC CORNER SEAM

WSD1 – TL5 – 4B/F – 39A/B; 21A/B

### Tower Trial Assembly

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005573

### Visual Inspection Testing (VT)

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

TOWER SHEAR PLATE WITH THE BASE PLATE

NSD1 – A26B/B – 44; 45; 53; 54

### Magnetic Particle Testig (MT)

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 member is identified as Tower Component. The weld designation reviewed as follows:

TOWER SHEAR PLATE WITH THE BASE PLATE

NSD1 – A26B/B – 44; 45; 53; 54

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005578

### Visual Inspection Testing (VT)

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

SOUTH TOWER LIFT-1 EXTERNAL BEARING PLATE SKIN 'C'

SSD1 – SA17F/G – 50

### Magnetic Particle Testig (MT)

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 member is identified as

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Tower Component. The weld designation reviewed as follows:  
SOUTH TOWER LIFT-1 EXTERNAL BEARING PLATE SKIN 'C'  
SSD1 – SA17F/G – 50

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005579

Visual Inspection Testing (VT)

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

CABLE TRAY OF EAST TOWER SKIN 'C'  
B22 – 1 – EL8.000M – 1 – 1 – E

Magnetic Particle Testig (MT)

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 member is identified as Tower Component. The weld designation reviewed as follows:

CABLE TRAY OF EAST TOWER SKIN 'C' – GREEN TAG#12499  
B22 – 1 – EL8.000M – 1 – 1 – E

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW):

Weld joint # 043 located on East Tower Lift-1 Bearing stiffener ESD1 – SA227F/H. Welder is identified as 040723. ZPMC Quality Control (QC) Inspector is identified as Fu Wei Min. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2333 – Tc – P4 – F.

Weld joint # 037 located on shear plate ND1 – A26B/B. Welder is identified as 053116. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2333 – Tc – P4 – F.

Weld joint # 059 located on South Tower Lift-1 Bearing stiffener SSD1 – SA16F/G. Welder is identified as 054069. ZPMC Quality Control (QC) Inspector is identified as Fu Wei Min. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2333 – Tc – P4 – F.

Weld joint # 034 located on East Tower Lift-1 Bearing stiffener ESD1 – SA227F/H. Welder is identified as 049220. ZPMC Quality Control (QC) Inspector is identified as Fu Wei Min. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2333 – Tc – P4 – F.

(See attached photo)

Weld joint # 038 located on shear plate ND1 – A26B/B. Welder is identified as 040367. ZPMC Quality Control (QC) Inspector is identified as Li Jun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2333 – Tc – P4 – F.

Weld joint # 031 located on South Tower Lift-1 Bearing stiffener SSD1 – SA16F/G. Welder is identified as

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053869. ZPMC Quality Control (QC) Inspector is identified as Fu Wei Min. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2333 – Tc – P4 – 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 Skyler Guest - 15000422360, 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>	Clifford,William	QA Reviewer

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