

**DEPARTMENT OF TRANSPORTATION**  
 DIVISION OF ENGINEERING SERVICES  
 Office of Structural Materials  
 Quality Assurance and Source Inspection



Bay Area Branch  
 690 Walnut Ave. St. 150  
 Vallejo, CA 94592-1133  
 (707) 649-5453  
 (707) 649-5493

Contract #: 04-0120F4  
 Cty: SF/ALA Rte: 80 PM: 13.2/13.9  
 File #: 69.25B

**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT**

**Location:** Changxing Island, Shanghai, P.R. China **Report No:** NCR-000729  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Date:** 05-May-2010  
**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0692

**Type of problem:**

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> Segment 7BW Longitudinal Diaphragm
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b> Missed MT indication by QC	

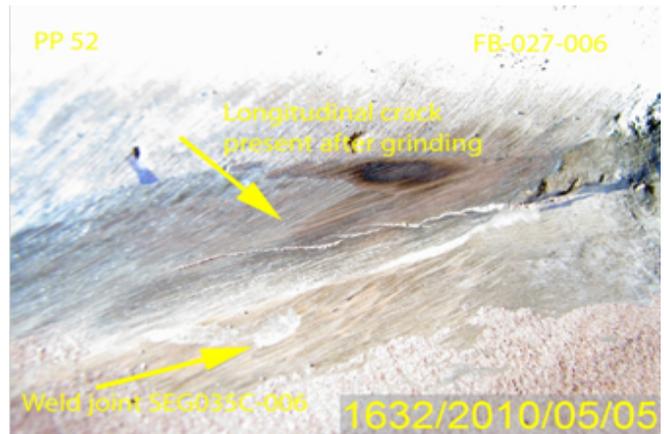
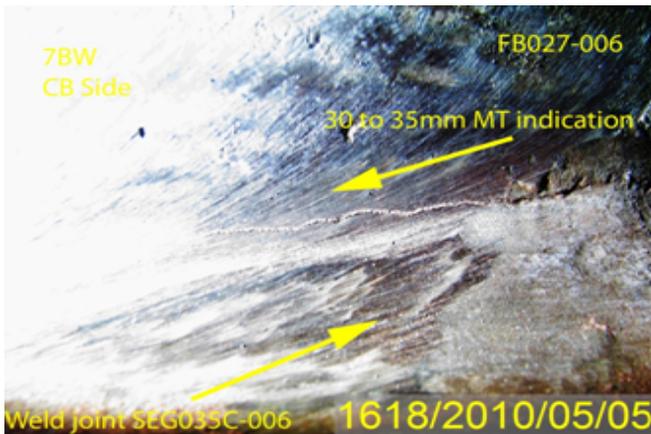
**Reference Description:** Missed MT Indication by QC in OBG Segment 7BW at Longitudinal Diaphragm to FB Weld

**Description of Non-Conformance:**

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of base metal and welds located on Segment 7BW, this QA Inspector discovered the following issues:

- One (1) longitudinal linear crack measuring approximately 30 to 35mm in length.
- The weld is identified as SEG035C-006.
- The weld is a CJP T-joint joining the longitudinal diaphragm (Piece mark LD018-012) to floor beam web (Piece mark FB027-006).
- Location of this weld joint is at panel point PP52 Cross Beam side of the segment.
- The indication is clearly marked on the material.
- Lift 7 West is located in the OGB Trial Assembly Area.

The Notice of Witness Inspection Number (NWIT) is 005670. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel and ABF QC personnel. According to the contract documents ZPMC Quality Control (QC) is required to perform 100% MT of this weld.



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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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### Applicable reference:

Special Provisions Section 8.3: "Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents."

AWS D1.5 (02) Section 6.26.2: "Welds that are subject to MT in addition to visual inspection shall have no cracks.

**Who discovered the problem:** Joe Alaniz

**Name of individual from Contractor notified:** CK Chan

**Time and method of notification:** 1630 hours, 05/05/10, Verbal

**Name of Caltrans Engineer notified:** Sean Eagen

**Time and method of notification:** 1300 hours, 05/06/10, Verbal

**QC Inspector's Name:** Wang Lu

**Was QC Inspector aware of the problem:** Yes No

**Contractor's proposal to correct the problem:**

N/A

### 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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Tsang, Eric	SMR
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<b>Reviewed By:</b>	Wahbeh, Mazen	SMR
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**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge**  
 666 Feng Bin Road Room 708, Changxing Island  
 Shanghai 201913 PR China  
 Tel: 021-56856666 ext 207061 Fax:

**NON-CONFORMANCE REPORT TRANSMITTAL**

**To:** AMERICAN BRIDGE/FLUOR, A JV  
 375 BURMA ROAD  
 OAKLAND CA 95607

**Date:** 06-May-2010

**Contract No:** 04-0120F4  
 04-SF-80-13.2 / 13.9

**Dear:** Mr. Charles Kanapicki  
**Job Name:** SAS Superstructure

**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager  
**Document No:** 05.03.06-000687

**Subject:** NCR No. ZPMC-0692

**Reference Description:** Missed MT Indication by QC in OBG Segment 7BW at Longitudinal Diaphragm to FB Weld

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

**Material Location:** OBG **Lift:** 07

**Remarks:**

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of base metal and welds located on Segment 7BW, this QA Inspector discovered the following issues:

- One (1) longitudinal linear crack measuring approximately 30 to 35mm in length.
- The weld is identified as SEG035C-006.
- The weld is a CJP T-joint joining the longitudinal diaphragm (Piece mark LD018-012) to floor beam web (Piece mark FB027-006).
- Location of this weld joint is at panel point PP52 Cross Beam side of the segment.
- The indication is clearly marked on the material.
- Lift 7 West is located in the OGB Trial Assembly Area.

The Notice of Witness Inspection Number (NWIT) is 005670. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel and ABF QC personnel. According to the contract documents ZPMC Quality Control (QC) is required to perform 100% MT of this weld.

**Action Required and/or Action Taken:**

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Sean Eagen Transportation Engineer

**Attachments:** ZPMC-0692

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao, Bill Casey

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

**To:** CALTRANS - SAS Superstructure  
333 Burma Road  
Oakland CA 94607

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000687

**Subject:** NCR No. ZPMC-0692

**Dated:** 17-May-2010

**Contract No.:** 04-0120F4  
04-SF-80-13.2 / 13.9

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000660 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC has repaired the indications referenced in the NCR and is providing the NDT report to show that the weld is now acceptable. Based on this ZPMC requests closure of this NCR.

ZPMC has repaired the indications referenced in the NCR and is providing the NDT report to show that the weld is now acceptable. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000660R00;

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### Caltrans' comments:

**Status:** CLO

**Date:** 23-May-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0692 is closed.

**Submitted by:** Eagen, Sean

**Attachment(s):**

**Date:** 23-May-2010



No. B-756

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-5-13**

**REGARDING: NCR-000577(ZPMC-0550) NCR-000589(ZPMC-0562)  
NCR-000708(ZPMC-0675) NCR-000729(ZPMC-0692)**

ZPMC is providing the NDT records show these indications have been removed and repaired and are acceptable now. Based on this, ZPMC is requesting closure of these NCRs.

**ATTACHMENT:**

NCR-000577(ZPMC-0550)

B787-MT-17495 R1

B787-MT-22807 R1

NCR-000589(ZPMC-0562)

B787-MT-22772 R1

NCR-000708(ZPMC-0675)

B787-MT-21930 R1

NCR-000729(ZPMC-0692)

B787-MT-22769 R1

A handwritten signature in black ink, appearing to be "J. Wang" or similar, is written over the list of attachments.

J/17/10



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge  
333 Burma Road  
Oakland CA 94607  
Tel: Fax:

## NON-CONFORMANCE REPORT TRANSMITTAL

**To:** AMERICAN BRIDGE/FLUOR, A JV  
375 BURMA ROAD  
OAKLAND CA 95607

**Date:** 02-Jan-2010

**Contract No:** 04-0120F4  
04-SF-80-13.2 / 13.9

**Dear:** Mr. Charles Kanapicki

**Job Name:** SAS Superstructure

**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager

**Document No:** 05.03.06-000540

**Subject:** NCR No. ZPMC-0550

**Reference Description:** Missed MT Indications by QC, Crossbeam CB11, welds CB202G-029-087 and CB202G-031-180

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

**Material Location:** Xbeam

**Lift:** 09

### Remarks:

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on Orthotropic Box Girder (OBG) Crossbeam CB11, the Quality Assurance Inspector (QA) discovered the following issue:

-Two (2) longitudinal linear indications measuring approximately 10mm and 8mm in length.

-The welds are identified as: CB202G-029-087 (8 mm) and CB202G-031-180 (10 mm).

-Weld CB202G-029-087 is a horizontal Fillet Weld joining the Side Panel (SP205A) Seismic Performance Critical Member (SPCM) stiffener connecting to the Floor Beam Intermediate Diaphragm (FB205-029).

-Weld CB202G-031-180 is a vertical Fillet Weld joining the Side Panel (SP205A) SPCM stiffener connecting to the Floor Beam Intermediate Diaphragm (FB205-031).

-The OBG Crossbeam CB11 is located at west side of bay 14.

-The Notice of Witness Inspection Number (NWIT) is 004973. The indications are located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel are required to perform hundred (100%) percent MT inspection of these welds.

### Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval. Ensure the MT technician that missed these indications is trained and equipped in a manner so these indications are not missed in the future. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Bill Howe Sr. Transportation Engineer

**Attachments:** ZPMC-0550

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao

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**NCT :**

*( Continued Page 2 of 2 )*

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**File:** 05.03.06

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave. St. 150

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(707) 649-5453

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.25B

**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000577**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 01-Jan-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0550**Type of problem:**Welding  Concrete  Other Welding  Curing  Procedural  Bridge No: 34-0006Joint fit-up  Coating  Other  Component: Crossbeam CB11Procedural  Procedural  Description:**Reference Description:** Missed MT Indications by QC, Crossbeam CB11, welds CB202G-029-087 and CB202G-031-180**Description of Non-Conformance:**

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on Orthotropic Box Girder (OBG) Crossbeam CB11, the Quality Assurance Inspector (QA) discovered the following issue:

-Two (2) longitudinal linear indications measuring approximately 10mm and 8mm in length.

-The welds are identified as: CB202G-029-087 (8 mm) and CB202G-031-180 (10 mm).

-Weld CB202G-029-087 is a horizontal Fillet Weld joining the Side Panel (SP205A) Seismic Performance Critical Member (SPCM) stiffener connecting to the Floor Beam Intermediate Diaphragm (FB205-029).

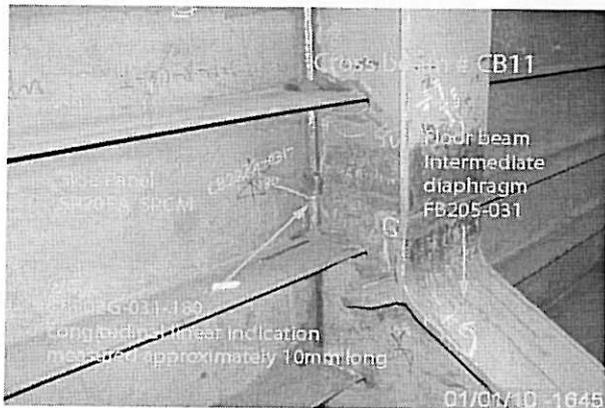
-Weld CB202G-031-180 is a vertical Fillet Weld joining the Side Panel (SP205A) SPCM stiffener connecting to the Floor Beam Intermediate Diaphragm (FB205-031).

-The OBG Crossbeam CB11 is located at west side of bay 14.

-The Notice of Witness Inspection Number (NWIT) is 004973. The indications are located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel are required to perform hundred (100%) percent MT inspection of these welds.

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



### Applicable reference:

Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.”

AWS D1.5 (02) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks.”

**Who discovered the problem:** Dhanasingh Sukanthan  
**Name of individual from Contractor notified:** Cao Haizhou  
**Time and method of notification:** 1645 hours, 01/01/10, Verbal  
**Name of Caltrans Engineer notified:** Bill Howe  
**Time and method of notification:** 1830 hours, 01-01-10, Verbal  
**QC Inspector's Name:** Lay Tao  
**Was QC Inspector aware of the problem:**  Yes  No  
**Contractor's proposal to correct the problem:**

### Comments:

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 3 of 3 )

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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:** Guest, Skyler

SMR

**Reviewed By:** Wahbeh, Mazen

SMR

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**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge**  
333 Burma Road  
Oakland CA 94607  
Tel: Fax:

## NON-CONFORMANCE REPORT TRANSMITTAL

**To:** AMERICAN BRIDGE/FLUOR, A JV  
375 BURMA ROAD  
OAKLAND CA 95607

**Date:** 05-Jan-2010

**Contract No:** 04-0120F4  
04-SF-80-13.2 / 13.9

**Dear:** Mr. Charles Kanapicki

**Job Name:** SAS Superstructure

**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager

**Document No:** 05.03.06-000552

**Subject:** NCR No. ZPMC-0562

**Reference Description:** Base Metal linear indication discovered with MT after ZPMC had tested and accepted this Temporary Attachment removal area

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

**Material Location:** OBG

**Lift:** 08

### Remarks:

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG Corner Assembly 8BE, this Quality Assurance Inspector (QA) discovered the following issue:

- One (1) linear indication that measured approximately 10mm in length.
- The linear indication was discovered in the base metal at SP579A (PL1043A Exterior).
- The adjacent weld is identified as: SEG046A-002
- This weld joins SP579A (PL1043A) to SP539A (PL1042A).
- This base metal linear indication was located in a temporary attachment removal area.
- The OBG Segment 8BE is located in the outside yard, south side of the Bay14.

The Notice of Witness Inspection Number (NWIT) is 004978. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMCs QC personnel are required to perform 100% Magnetic particle inspection of this weld.

### Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. Missed MT indications are a chronic issue. Provide the required training and equipment necessary so the ZPMC MT technician does not miss this type of indication in the future. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Bill Howe Sr. Transportation Engineer

**Attachments:** ZPMC-0562

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Contract Files, Ching Chao

**File:** 05.03.06

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

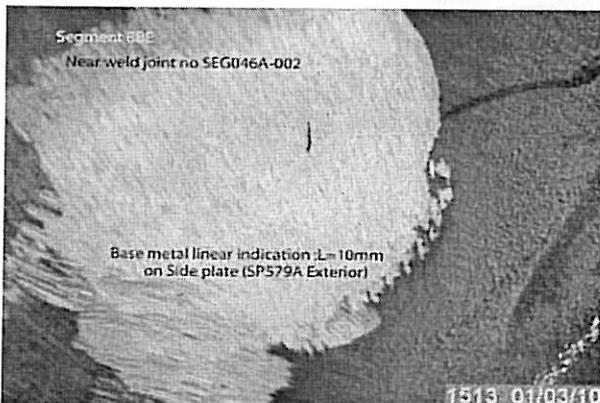
File #: 69.25B

**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000589**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 03-Jan-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0562**Type of problem:**Welding  Concrete  Other Welding  Curing  Procedural  Bridge No: 34-0006Joint fit-up  Coating  Other  Component: Segment 8BE Side PanelProcedural  Procedural  Description: Missed MT indication by QC**Reference Description:** Base Metal linear indication discovered with MT after ZPMC had tested and accepted this Temporary Attachment removal area in Segment 8BE Side Panel**Description of Non-Conformance:**

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG Corner Assembly 8BE, this Quality Assurance Inspector (QA) discovered the following issue:

- One (1) linear indication that measured approximately 10mm in length.
- The linear indication was discovered in the base metal at SP579A (PL1043A Exterior).
- The adjacent weld is identified as: SEG046A-002
- This weld joins SP579A (PL1043A) to SP539A (PL1042A).
- This base metal linear indication was located in a temporary attachment removal area.
- The OBG Segment 8BE is located in the outside yard, south side of the Bay14.

The Notice of Witness Inspection Number (NWIT) is 004978. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMCs QC personnel are required to perform 100% Magnetic particle inspection of this weld.



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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

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**Applicable reference:**

AWS D1.5 2002 Section 3.3.8: "Temporary Welds, removal of temporary welds shall conform to section 3.3.7.4."

Special Provisions Section 8.3: "Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents."

**Who discovered the problem:** Chandra Sudalaimuthu

**Name of individual from Contractor notified:** Man Kit Lee

**Time and method of notification:** 1530 hours, 01-03-10, Verbal

**Name of Caltrans Engineer notified:** Bill Howe

**Time and method of notification:** 2230 hours, 01-03-10, Email

**QC Inspector's Name:** Wang Xian Ping

**Was QC Inspector aware of the problem:**  Yes  No

**Contractor's proposal to correct the problem:**

N/A

**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 Mazen Wahbeh, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

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**Inspected By:** Carreon, Albert

Lead Reviewer/Task Leader

**Reviewed By:** Wahbeh, Mazen

SMR

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DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge  
666 Feng Bin Road Room 708, Changxing Island  
Shanghai 201913 PR China  
Tel: 021-56856666 ext 207061 Fax:

## NON-CONFORMANCE REPORT TRANSMITTAL

**To:** AMERICAN BRIDGE/FLUOR, A JV  
375 BURMA ROAD  
OAKLAND CA 95607

**Date:** 09-Apr-2010

**Contract No:** 04-0120F4  
04-SF-80-13.2 / 13.9

**Dear:** Mr. Charles Kanapicki  
**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager  
**Subject:** NCR No. ZPMC-0675

**Job Name:** SAS Superstructure  
**Document No:** 05.03.06-000665

**Reference Description:** Missed MT Indications by QC on OBG Segment 9CE Deck Panel to Diaphragm Weld

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

**Material Location:** OBG

**Lift:** 09

### Remarks:

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Segment 9CE, this QA Inspector discovered the following issues:

- One (1) Transverse linear indication (crack) measuring approximately 12 mm in length.
- One (1) Longitudinal linear indication (crack) measuring approximately 20 mm in length.
- The weld is identified as: DP448-001-030 @ Panel Point-079.
- The weld is a Fillet Weld type joining DP448 to Deck Panel Diaphragm plate X1C.
- The OBG 9CE segment is located at the back side of Bay # 13.

The Notice of Witness Inspection Number (NWIT) is 005476. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel are required to perform twenty five (25%) percent MT inspection of this weld.

### Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Sean Eagen Transportation Engineer

**Attachments:** ZPMC-0675

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao, Bill Casey

**File:** 05.03.06

**DEPARTMENT OF TRANSPORTATION**  
 DIVISION OF ENGINEERING SERVICES  
 Office of Structural Materials  
 Quality Assurance and Source Inspection



Bay Area Branch  
 690 Walnut Ave. St. 150  
 Vallejo, CA 94592-1133  
 (707) 649-5453  
 (707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China

Report No: NCR-000708

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 08-Apr-2010

Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

NCR #: ZPMC-0675

### Type of problem:

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Segment 9CE Deck Panel to Diaphragm
Procedural	Procedural	Description: Missed MT indication by QC	

Reference Description: Missed MT Indications by QC on OBG Segment 9CE Deck Panel to Diaphragm Weld

### Description of Non-Conformance:

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Segment 9CE, this QA Inspector discovered the following issues:

- One (1) Transverse linear indication (crack) measuring approximately 12 mm in length.
- One (1) Longitudinal linear indication (crack) measuring approximately 20 mm in length.
- The weld is identified as: DP448-001-030 @ Panel Point-079.
- The weld is a Fillet Weld type joining DP448 to Deck Panel Diaphragm plate X1C.
- The OBG 9CE segment is located at the back side of Bay # 13.

The Notice of Witness Inspection Number (NWIT) is 005476. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. ZPMC's QC personnel are required to perform twenty five (25%) percent MT inspection of this weld.



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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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( Continued Page 2 of 2 )

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-Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.”

-AWS D1.5 (02) Section 6.26.2 – “Welds that are subject to MT in addition to visual inspection shall have no cracks.

**Who discovered the problem:** Vikram Singh

**Name of individual from Contractor notified:** Peter Shaw

**Time and method of notification:** 1700 hours, 04/08/10, Verbal

**Name of Caltrans Engineer notified:** Sean Eagen

**Time and method of notification:** 0830 hours, 04/09/10, Verbal

**QC Inspector's Name:** Zhong Wei

**Was QC Inspector aware of the problem:**  Yes  No

**Contractor's proposal to correct the problem:**

N/A

**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 Mazen Wahbeh, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Tsang, Eric	SMR
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<b>Reviewed By:</b>	Wahbeh, Mazen	SMR
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DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge  
666 Feng Bin Road Room 708, Changxing Island  
Shanghai 201913 PR China  
Tel: 021-56856666 ext 207061 Fax:

## NON-CONFORMANCE REPORT TRANSMITTAL

**To:** AMERICAN BRIDGE/FLUOR, A JV  
375 BURMA ROAD  
OAKLAND CA 95607

**Date:** 06-May-2010

**Contract No:** 04-0120F4  
04-SF-80-13.2 / 13.9

**Dear:** Mr. Charles Kanapicki

**Job Name:** SAS Superstructure

**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager

**Document No:** 05.03.06-000687

**Subject:** NCR No. ZPMC-0692

**Reference Description:** Missed MT Indication by QC in OBG Segment 7BW at Longitudinal Diaphragm to FB Weld

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

**Material Location:** OBG

**Lift:** 07

### Remarks:

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of base metal and welds located on Segment 7BW, this QA Inspector discovered the following issues:

- One (1) longitudinal linear crack measuring approximately 30 to 35mm in length.
- The weld is identified as SEG035C-006.
- The weld is a CJP T-joint joining the longitudinal diaphragm (Piece mark LD018-012) to floor beam web (Piece mark FB027-006).
- Location of this weld joint is at panel point PP52 Cross Beam side of the segment.
- The indication is clearly marked on the material.
- Lift 7 West is located in the OGB Trial Assembly Area.

The Notice of Witness Inspection Number (NWIT) is 005670. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel and ABF QC personnel. According to the contract documents ZPMC Quality Control (QC) is required to perform 100% MT of this weld.

### Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Sean Eagen Transportation Engineer

**Attachments:** ZPMC-0692

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao, Bill Casey  
**File:** 05.03.06

**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF ENGINEERING SERVICES**  
 Office of Structural Materials  
 Quality Assurance and Source Inspection



Bay Area Branch  
 690 Walnut Ave. St. 150  
 Vallejo, CA 94592-1133  
 (707) 649-5453  
 (707) 649-5493

Contract #: 04-0120F4  
 Cty: SF/ALA Rte: 80 PM: 13.2/13.9  
 File #: 69.25B

**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT**

**Location:** Changxing Island, Shanghai, P.R. China

**Report No:** NCR-000729

**Prime Contractor:** American Bridge/Fluor Enterprises, a JV

**Date:** 05-May-2010

**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

**NCR #:** ZPMC-0692

**Type of problem:**

**Welding**  **Concrete**  **Other**

**Welding**  **Curing**  **Procedural**  **Bridge No:** 34-0006

**Joint fit-up**  **Coating**  **Other**  **Component:** Segment 7BW Longitudinal Diaphragm

**Procedural**  **Procedural**  **Description:** Missed MT indication by QC

**Reference Description:** Missed MT Indication by QC in OBG Segment 7BW at Longitudinal Diaphragm to  
 FB Weld

**Description of Non-Conformance:**

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of base metal and welds located on Segment 7BW, this QA Inspector discovered the following issues:

- One (1) longitudinal linear crack measuring approximately 30 to 35mm in length.
- The weld is identified as SEG035C-006.
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- The indication is clearly marked on the material.
- Lift 7 West is located in the OGB Trial Assembly Area.

The Notice of Witness Inspection Number (NWIT) is 005670. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel and ABF QC personnel.

According to the contract documents ZPMC Quality Control (QC) is required to perform 100% MT of this weld.



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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

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**Applicable reference:**

Special Provisions Section 8.3: "Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents."

AWS D1.5 (02) Section 6.26.2: "Welds that are subject to MT in addition to visual inspection shall have no cracks."

**Who discovered the problem:** Joe Alaniz

**Name of individual from Contractor notified:** CK Chan

**Time and method of notification:** 1630 hours, 05/05/10, Verbal

**Name of Caltrans Engineer notified:** Sean Eagen

**Time and method of notification:** 1300 hours, 05/06/10, Verbal

**QC Inspector's Name:** Wang Lu

**Was QC Inspector aware of the problem:**  Yes  No

**Contractor's proposal to correct the problem:**

N/A

**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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Tsang, Eric	SMR
<b>Reviewed By:</b>	Wahbeh, Mazen	SMR

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**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCS-000625**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 24-May-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0692**Type of problem:**

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b>
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b>	

**Date the Non-Conformance Report was written:** 05-May-2010**Description of Non-Conformance:**

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of base metal and welds located on Segment 7BW, this QA Inspector discovered the following issues:

- One (1) longitudinal linear crack measuring approximately 30 to 35mm in length.
- The weld is identified as SEG035C-006.
- The weld is a CJP T-joint joining the longitudinal diaphragm (Piece mark LD018-012) to floor beam web (Piece mark FB027-006).
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- Lift 7 West is located in the OGB Trial Assembly Area.

The Notice of Witness Inspection Number (NWIT) is 005670. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel and ABF QC personnel. According to the contract documents ZPMC Quality Control (QC) is required to perform 100% MT of this weld.

**Contractor's proposal to correct the problem:**

Repair said indication and perform NDT required to verify weld quality.

**Corrective action taken:**

Contractor submitted post weld repair NDT documentation verifying the weld is in conformance with Contract weld quality requirements.

**Did corrective action require Engineer's approval?** Yes No**If so, name of Engineer providing approval:** **Date:****Is Engineer's approval attached?** Yes No**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 Jim Simonis, who represents the Office of Structural

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## QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 2 )

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Materials for your project.

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**Inspected By:** Simonis,Jim

Quality Assurance Inspector

**Reviewed By:** Wahbeh,Mazen

QA Reviewer

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