

**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-000689**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 27-Feb-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0656**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 6BE FB to LD weld
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b> Missed MT indication by QC	

**Reference Description:** Missed MT Transverse Indications by QC on the LD to FB weld splice on Segment 6BE

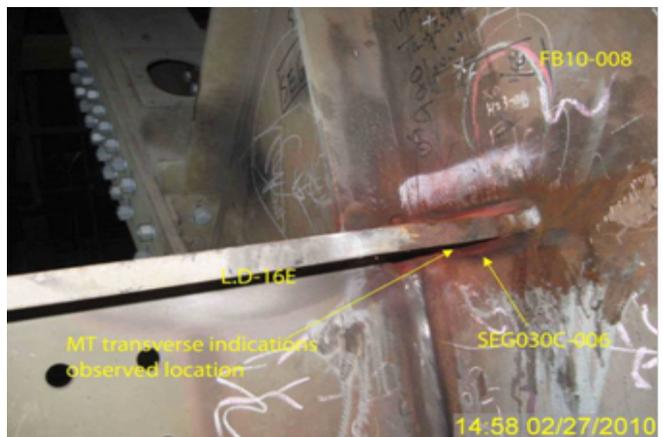
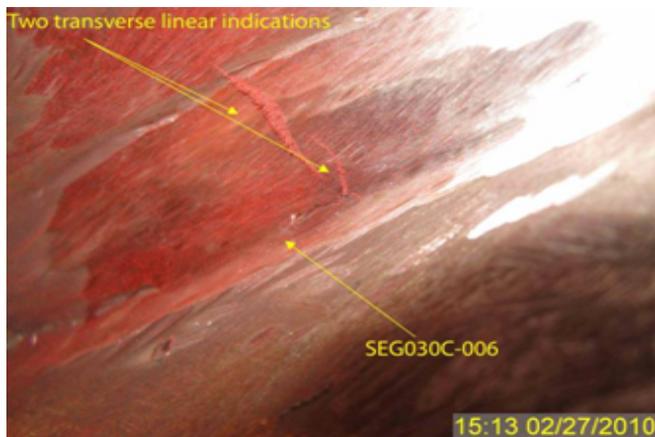
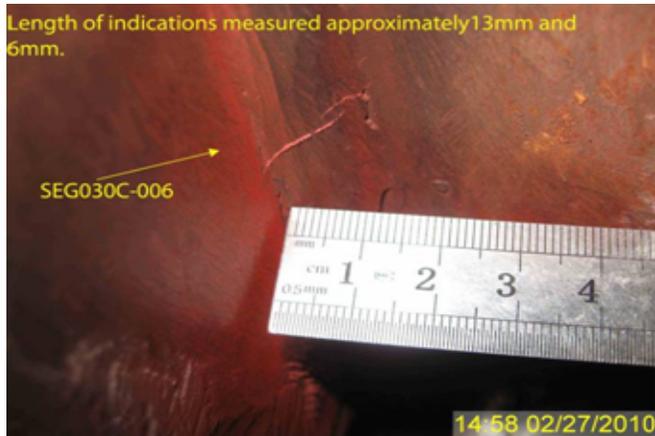
**Description of Non-Conformance:**

During the Quality Assurance (QA) Magnetic Particle (MT) testing review of welds located on OBG Segment 6BE, this QA Inspector discovered the following issue:

- Two (2) Transverse linear indications in the Longitudinal Diaphragm 16E flange (X42M), CJP attachment to panel point 41 Floor Beam web (X47B).
- The indications are located at Y locations 110 and 115 respectively when measures from the leading edge of the flange.
- The weld designation is SEG030C-006
- The transverse indications are clearly marked on the weld.
- Length of indications measured approximately 13mm and 6mm.
- The weld was previously cut apart and re-welded due to issues with fit up.
- The OBG segment 6BE is located in the trail assembly.
- The Notice of Witness Inspection Number (NWIT) is 005237. 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, ZPMC QC personnel are required to perform 100% Magnetic particle 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:** Shrikant Utekar

**Name of individual from Contractor notified:** Zou Hu

**Time and method of notification:** 1510 hours, 02/27/10, Verbal

**Name of Caltrans Engineer notified:** Ching Chao, Bill Howe

**Time and method of notification:** 1800 hours, 02/28/10, Email

**QC Inspector's Name:** Wang Li Yang

**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

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 3 of 3 )

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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**

<b>To:</b>	AMERICAN BRIDGE/FLUOR, A JV 375 BURMA ROAD OAKLAND CA 95607	<b>Date:</b>	01-Feb-2010
<b>Dear:</b>	Mr. Charles Kanapicki	<b>Contract No:</b>	04-0120F4 04-SF-80-13.2 / 13.9
<b>Attention:</b>	Mr. Thomas Nilsson Project/Fabrication Manager	<b>Job Name:</b>	SAS Superstructure
<b>Subject:</b>	NCR No. ZPMC-0656	<b>Document No:</b>	05.03.06-000646

**Reference Description:** Missed MT Transverse Indications by QC on the LD to FB weld splice on Segment 6BE

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:** 06

**Remarks:**

During the Quality Assurance (QA) Magnetic Particle (MT) testing review of welds located on OBG Segment 6BE, this QA Inspector discovered the following issue:

- Two (2) Transverse linear indications in the Longitudinal Diaphragm 16E flange (X42M), CJP attachment to panel point 41 Floor Beam web (X47B).
- The indications are located at Y locations 110 and 115 respectively when measures from the leading edge of the flange.
- The weld designation is SEG030C-006
- The transverse indications are clearly marked on the weld.
- Length of indications measured approximately 13mm and 6mm.
- The weld was previously cut apart and re-welded due to issues with fit up.
- The OBG segment 6BE is located in the trail assembly.
- The Notice of Witness Inspection Number (NWIT) is 005237. 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, ZPMC QC personnel are required to perform 100% Magnetic particle inspection of these welds.

Please see attached NCR ZPMC No. 656 for details.

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

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences and repair the indications per contract requirements and submit required repair documentation including passing NDT for the Engineer's review. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Ching Chao  
**Attachments:** ZPMC-0656

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# NCT

( *Continued Page 2 of 2* )

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**cc:** Rick Morrow, Gary Pursell, Stanley Ku, Ching Chao, Bill Howe

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000646

**Subject:** NCR No. ZPMC-0656

**Dated:** 19-Mar-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000630 Rev: 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC has repaired the missed indication and is providing NDT documentation to show that it is acceptable.

ZPMC has repaired the missed indication and is providing NDT documentation to show that it is acceptable. ZPMC has conducted training with its inspectors to reduce these types of incidents and there has been a decrease in since the training has occurred. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000630R00;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 24-Mar-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0656 is closed.

**Submitted by:** Eagen, Sean

**Attachment(s):**

**Date:** 24-Mar-2010



No. B-697

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-3-18**

**REGARDING: NCR-000689(ZPMC-0656)**

ZPMC is providing the NDT record show this weld is now acceptable. Please refer to B-CWR1245. After NDT verification by CT, this NCR has been removed from punchlist. Based on this, ZPMC requests this NCR to be closed.

**ATTACHMENT:**

NCR-000689(ZPMC-0656)

B787-MT-17994 R1

*[Handwritten signature]*  
3/18/10



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge  
 666 Feng Bln 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: 01-Feb-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-0656

Job Name: SAS Superstructure  
 Document No: 05.03.06-000646

Reference Description: Missed MT Transverse Indications by QC on the LD to FB weld splice on Segment 6BE

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

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Please see attached NCR ZPMC No. 656 for details.

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Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences and repair the indications per contract requirements and submit required repair documentation including passing NDT for the Engineer's review. A response for the resolution of this issue is expected within 7 days.

Transmitted by: Ching Chao

Attachments: ZPMC-0656

02.02.15.04  
 05.03.06-000646.NCT

Received  
 NCT-000646 01 Mar 10 Page 1 of 2

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NCT

( Continued Page 2 of 2 )

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cc: Rick Morrow, Gary Pursell, Stanley Ku, Ching Chao, Bill Howe

File: 05.03.06

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DIVISION OF ENGINEERING SERVICES  
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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-000689

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 27-Feb-2010

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

NCR #: ZPMC-0656

### Type of problem:

Welding  Concrete  Other   
 Welding  Curing  Procedural  Bridge No: 34-0006  
 Joint fit-up  Coating  Other  Component: Segment 6BE FB to LD weld  
 Procedural  Procedural  Description: Missed MT indication by QC

Reference Description: Missed MT Transverse Indications by QC on the LD to FB weld splice on Segment 6BE

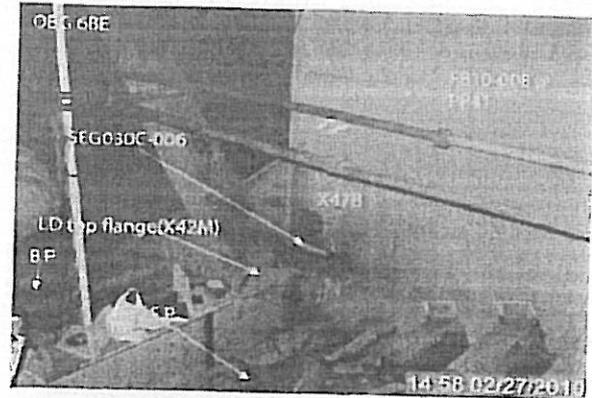
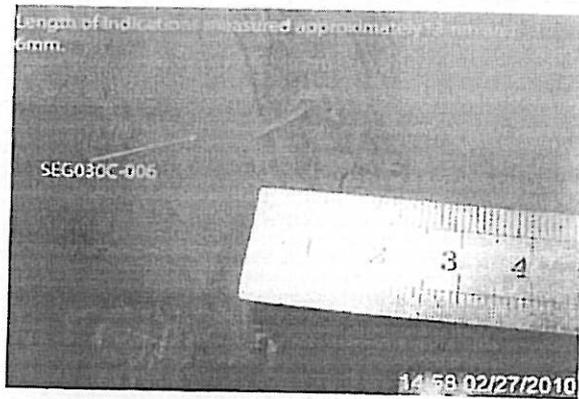
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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(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: Shrikant Utekar

Name of individual from Contractor notified: Zou Hu

Time and method of notification: 1510 hours, 02/27/10, Verbal

Name of Caltrans Engineer notified: Ching Chao, Bill Howe

Time and method of notification: 1800 hours, 02/28/10, Email

QC Inspector's Name: Wang Li Yang

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

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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*(Continued Page 3 of 3)*

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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:** Tsang, Eric

SMR

**Reviewed By:** Wahbeh, Mazen

SMR

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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-000585**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 15-Apr-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0656**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:** 27-Feb-2010**Description of Non-Conformance:**

During the Quality Assurance (QA) Magnetic Particle (MT) testing review of welds located on OBG Segment 6BE, this QA Inspector discovered the following issue:

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

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

**Corrective action taken:**

Contractor supplied post repair NDT reports verifying welds are now in conformance with Contract specifications.

**Did corrective action require Engineer's approval?** Yes No

**If so, name of Engineer providing approval:**

**Date:**

**Is Engineer's approval attached?**

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## QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 2 )

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**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 152.1675.3703, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Simonis,Jim	Quality Assurance Inspector
<b>Reviewed By:</b>	Wahbeh,Mazen	QA Reviewer

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