

**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, China **Report No:** NCR-000824  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV **Date:** 09-Aug-2010  
**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0786

**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> FB3155A, SEG 13CE
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

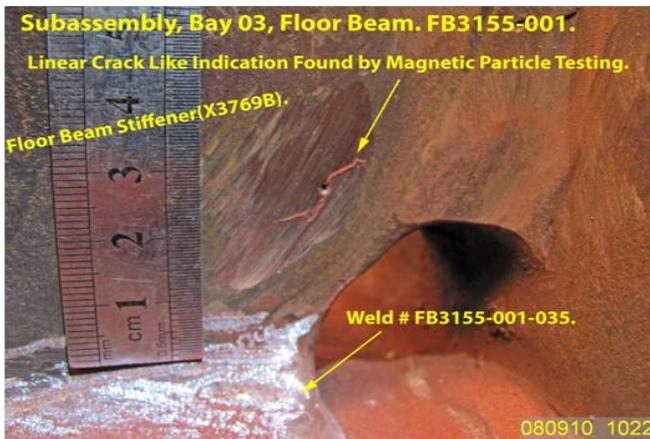
**Reference Description:** Missed MT Indication discovered by QA

**Description of Non-Conformance:**

During Magnetic Particle Testing (MT) review of OBG Floor Beam FB3155-001 for segment 13CE, this Quality Assurance Inspector (QA) observed following:

- One linear crack indication measuring approximately 16mm in length near Floor Beam to stiffener weld joint on the Stiffener (base metal).
- Weld is identified as FB3155-001-035.
- The weld is a T-joint fillet weld joining Floor beam Plate (X3572D) to Floor beam Stiffener (X3769B).
- The crack is located adjacent to the cope hole on the stiffener
- The indication is clearly marked on the material.

The Notice of Witness Inspection Number (NWIT) is 06364. The indication is located within an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. Per the contract documents ZPMC's QC personnel are required to perform 25% MT inspection of this weld.



**Applicable reference:**

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( 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 (2002) Section 6.26.2 - “Welds that are subject to RT or MT in addition to visual inspection shall have no cracks....”

**Who discovered the problem:** Amit K. Juvekar

**Name of individual from Contractor notified:** Wan Wen Bin

**Time and method of notification:** 1022 hours, 08/09/10, Verbal

**Name of Caltrans Engineer notified:** Laraine Woo

**Time and method of notification:** 17:30 hours, 08/09/10, Email

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

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

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

NA

**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>	Devey,Jim	SMR
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<b>Reviewed By:</b>	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:** 10-Aug-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-0786

**Job Name:** SAS Superstructure  
**Document No:** 05.03.06-000781

**Reference Description:** Missed MT Indication discovered by QA

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:** 13

**Remarks:**

During Magnetic Particle Testing (MT) review of OBG Floor Beam FB3155-001 for segment 13CE, Caltrans Quality Assurance Inspector (QA) observed the following:

- One linear crack indication measuring approximately 16mm in length near Floor Beam to stiffener weld joint on the Stiffener (base metal).
- Weld is identified as FB3155-001-035.
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**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:** Laraine Woo Transportation Engineer  
**Attachments:** ZPMC-0786

**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:** 05.03.06-000781

**Subject:** NCR No. ZPMC-0786

**Dated:** 25-Aug-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000747 Rev: 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC has repaired the indication in the base metal and is providing the NDT documentation after repair to show the base metal is acceptable.

ZPMC has repaired the indication in the base metal and is providing the NDT documentation after repair to show the base metal is acceptable. The ZPMC NDT department has instructed the MT inspectors to be aware of not only the weld when inspecting but also the adjacent base metal. Based on this, ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000747R00;

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### Caltrans' comments:

**Status:** CLO

**Date:** 31-Aug-2010

The proposed resolution is acceptable. This NCR is considered closed.

**Submitted by:** Woo, Laraine

**Date:** 31-Aug-2010

**Attachment(s):**



No. B-850

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-08-25**

**REGARDING: NCR-000824(ZPMC-0786)**

ZPMC NDT leader has noticed this problem. Operators will pay attentions on the base matel nearby when performing MT on welds. ZPMC is providing the NDT record shows this indication has been removed, repaired and tested to be accpetable. Based on this, please consider closure of this NCR.

**ATTACHMENT:**

NCR-000824(ZPMC-0786)

B787-MT-25940 R1

*Handwritten signature*  
8/25/10



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

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375 BURMA ROAD  
OAKLAND CA 95607

Date: 10-Aug-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: 05.03.06-000781

Subject: NCR No. ZPMC-0786

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Material Location: OBG Lift: 13

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Transmitted by: Laraine Woo Transportation Engineer

Attachments: ZPMC-0786

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

02.02.15.04  
05.03.06-000781.NCT

Received  
NCT-000781 10 Aug 10 Page 1 of 1

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Location: Changxing Island, Shanghai, China

Report No: NCR-000824

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 09-Aug-2010

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

NCR #: ZPMC-0786

Type of problem:

Welding  Concrete  Other

Welding  Curing  Procedural

Joint fit-up  Coating  Other

Procedural  Procedural  Description:

Bridge No: 34-0006

Component: FB3155A, SEG 13CE

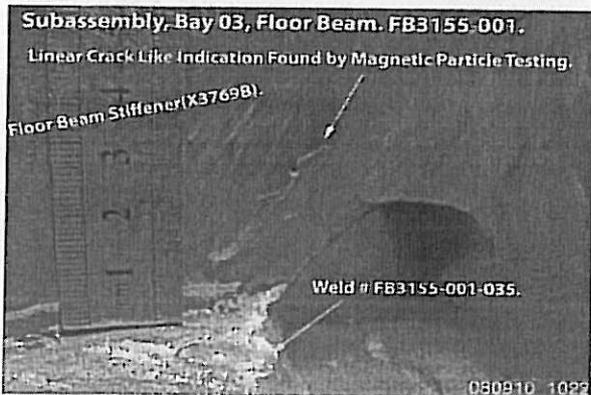
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Applicable reference:

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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(Continued Page 2 of 2)

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

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

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

NA

**Comments:**

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**Inspected By:** Devey, Jim

SMR

**Reviewed By:** Wahbeh, Mazen

SMR

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# REPORT OF MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 B787-MT-25940R1		DATE日期 2010.08.25		PAGE OF页码 1/1	Revision No: 0	
PROJECT NO. 工程编号: ZP06-787			CONTRACTOR: 用户: CALTRANS			
DRAWING NO. 图号: FB3155 floor beam			CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4			
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 <sup>ST</sup> , 2010			
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5395 5617 5620			
MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC			
PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm			
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材,厚度	A709M-345T2-X  20mm			
WELDING PROCESS 焊接方法	NA	TYPE OF JOINT 焊缝类型	NA			
WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
X3632E	1R1			ACC.		100%MT
AFTER B-CWR1789 REV0						
BLANK						
EXAMINED BY主探 Jin Jianting jin jianting 2010.08.25 LEVEL - II SIGN 签名 / DATE日期			REVIEWED BY 审核 SUN Weib 2010.08.25 LEVEL-II SIGN / DATE日期			
质量经理 / QCM			用户CUSTOMER			
签字 SIGN / 日期 DATE			签字 SIGN / 日期 DATE			

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(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, China**Report No:** NCS-000769**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 31-Aug-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0786**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>Description:</b>	

**Date the Non-Conformance Report was written:** 09-Aug-2010**Description of Non-Conformance:**

During Magnetic Particle Testing (MT) review of OBG Floor Beam FB3155-001 for segment 13CE, this Quality Assurance Inspector (QA) observed following:

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

Repair said indication and perform NDT required to verify complete defect removal.

**Corrective action taken:**

Contractor supplied post repair NDT documentation verifying repair was made and is in conformance with Contract weld quality requirements. A discrepancy was noted between the piecemark listed in the NCR and the piecemark listed in the MT report. After review of the pictures supplied and the approved drawings, it should be noted that the correct piecemark is listed in the MT report.

**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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