

**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-000533**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 11-Dec-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0506**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 11EE FB vertical flange to LD flange
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** The fit-up of Floor Beam welds and cope holes deviated from the contract drawings in Segment 11EE

**Description of Non-Conformance:**

During a random visual inspection of segment 11EE located in Bay 14 of the Floor Beam (FB) vertical flanges to the Longitudinal Diaphragm (LD) flanges, the Quality Assurance (QA) Inspector discovered the following issues:

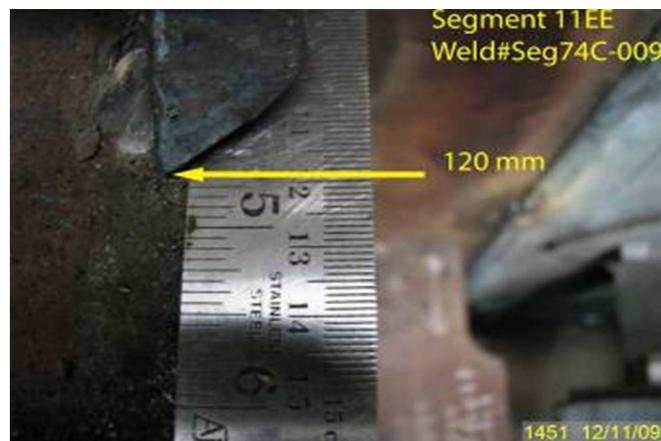
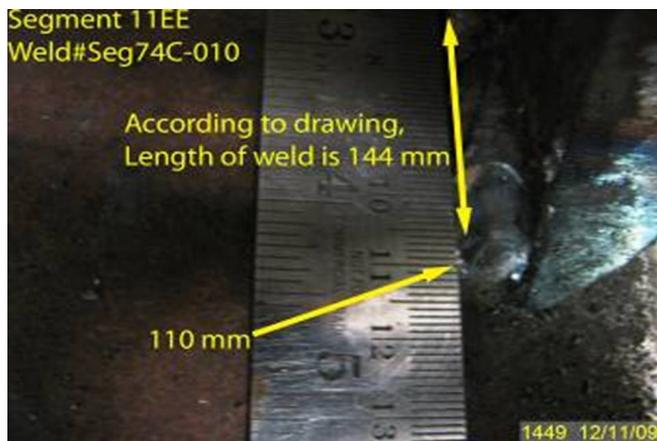
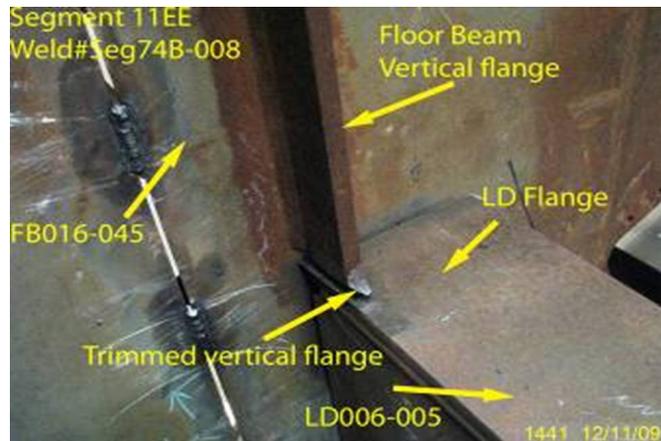
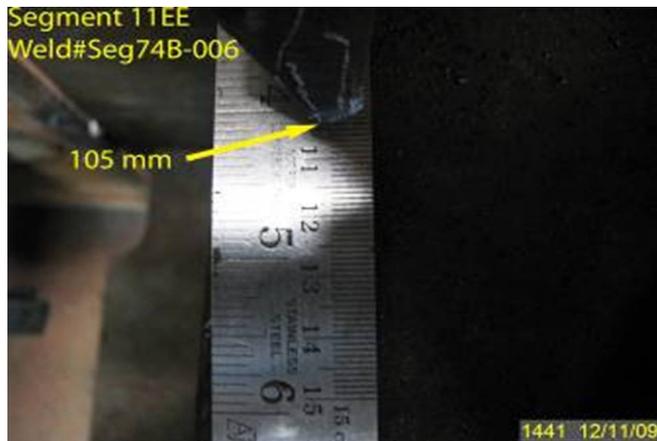
Due to fit-up issues, ZPMC has trimmed the FB vertical flanges, which reduced the designed radius and length of the partial joint penetration (PJP) welds. According to approved drawing the FB vertical flange should have a 50mm radius and the PJP welds should be 144 mm in length. This fabrication observed does not comply with approved drawing identified as X-7J.

The welds and locations affected are listed below:

1. Seg074B-006, @ Panel Point (PP)-107, Length of weld is 105 mm.
2. Seg074B-007, @ Panel Point (PP)-108, Length of weld is 115 mm.
3. Seg074B-008, @ Panel Point (PP)-108, Length of weld is 110 mm.
4. Seg074C-009, @ Panel Point (PP)-108, Length of weld is 120 mm.
5. Seg074C-010, @ Panel Point (PP)-108, Length of weld is 110 mm.
6. Seg074C-015, @ Panel Point (PP)-107, Length of weld is 115 mm.

# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 3 )



## Applicable reference:

Caltrans approved; "X detailed" drawing- X7

AWS D1.5 2002 Section 3.1.4: Size and lengths of welds shall be no less than those specified by design requirements and detailed drawings except as by 6.26.1.7. The location of the welds shall not be changed without approval.

**Who discovered the problem:** Hiranch Patel

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

**Time and method of notification:** 1700 hours, Verbal

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

**Time and method of notification:** 1800 hours, Email

**QC Inspector's Name:** Geng 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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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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**Inspected By:** Carreon,Albert

Lead Reviewer/Task Leader

**Reviewed By:** Wahbeh,Mazen

SMR



**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:** 24-Dec-2009

**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:** 05.03.06-000494

**Subject:** NCR No. ZPMC-0506

**Reference Description:** The fit-up of Floor Beam welds and cope holes deviated from the contract drawings in Segment 11EE

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:** 11

**Remarks:**

During a random visual inspection of segment 11EE located in Bay 14 of the Floor Beam (FB) vertical flanges to the Longitudinal Diaphragm (LD) flanges, the Quality Assurance (QA) Inspector discovered the following issues:  
Due to fit-up issues, ZPMC has trimmed the FB vertical flanges, which reduced the designed radius and length of the partial joint penetration (PJP) welds. According to approved drawing the FB vertical flange should have a 50mm radius and the PJP welds should be 144 mm in length. This fabrication observed does not comply with approved drawing identified as X-7J.

The welds and locations affected are listed below:

1. Seg074B-006, @ Panel Point (PP)-107, Length of weld is 105 mm.
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4. Seg074C-009, @ Panel Point (PP)-108, Length of weld is 120 mm.
5. Seg074C-010, @ Panel Point (PP)-108, Length of weld is 110 mm.
6. Seg074C-015, @ Panel Point (PP)-107, Length of weld is 115 mm.

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

submit a repair procedure to the engineer for approval. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Bill Howe

**Attachments:** ZPMC-0506

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

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000494

**Subject:** NCR No. ZPMC-0506

**Dated:** 31-Aug-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000758 Rev: 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** This issue has been resolved by the attached RFI. Based on this ZPMC requests closure of this NCR.  
This issue has been resolved by the attached RFI. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000758R00;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 08-Sep-2010

An RFI has been issued to resolve this NCR.

**Submitted by:** Woo, Laraine

**Date:** 08-Sep-2010

**Attachment(s):**

# REQUEST FOR INFORMATION (RFI)

RFI No.: ABF-RFI-002075R00 Submitted By: Jiao, Gang Pages: 3  
 RFI Date: 05-March-2010 Contact Name: Jiao, Gang Pages Attached: 2  
 Phone No. 86-134-8265-6572

**Subject:** Reentrant Corner at Floorbeam Vertical Flange

**References:**

**Sub/Sup:** ABF **Sub RFI #:**

**Response Required by:** 12-March-2010 **Response affects critical path activity?** Yes

## Description:

The reentrant corner (flare) in the approved drawings specify a 50mm radius for the connection between vertical floorbeam flange (stiffener) X7J and Longitudinal Diaphragm flange plate X42A. It has been noted that at some locations the as-built reentrant corner is less than 50mm in radius. Per AWS D1.5 Section 3.2.4, ABFJV considers the minimum acceptable radius for a reentrant corner as 25mm provided there is a smooth transition that meets the adjacent edges. Please confirm this understanding is correct.

For your information please find Contract Drawing 632 showing the weld for the area in question and WD20W on shop drawing WD2 showing the as fabricated condition.

Please review and respond.

## Contractor Disposition:

This RFI is being submitted for:

The Cost and Time Impact from this RFI is: Not selected

## Response:

**Agreed Ext. Due Date:**

**Pages:**

**Pages Attached:** \_\_\_\_\_

Where the base metal of the vertical flange PL has not been altered (cut, grind, burn, etc) after initial welding was preformed and the welding passed the NDT testing, no action is needed.

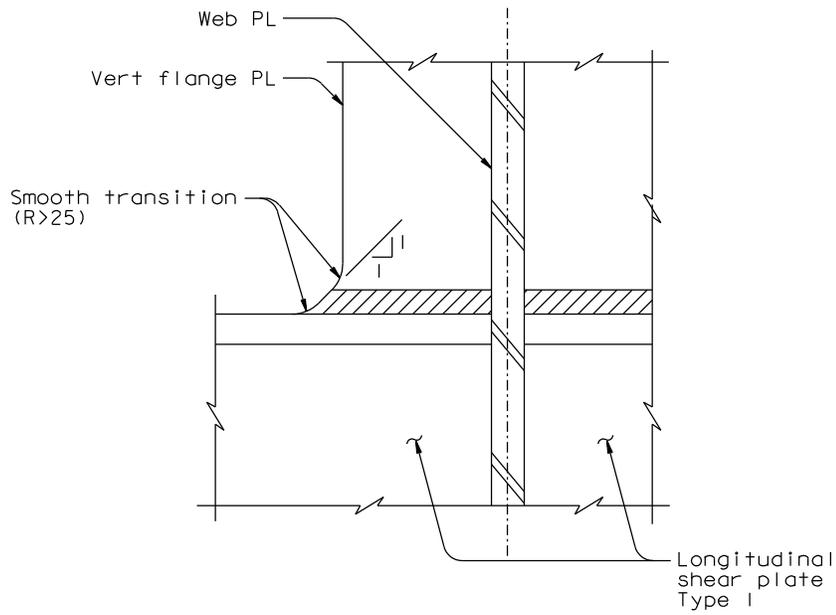
Where the base metal of the flange PL has been altered by any mechanical means (cut, grind, burn, etc.), the reentrant corner shall be transitioned at a 1:1 slope for the height of the PJP 11(8). A smooth transition of radius 25 mm or greater shall be provided at the start and finish of the 1:1 transition.

See attached sketch SK 2075R0-1.

## Administrative Action:

This response resolves this RFI.

<b>Date:</b> 12-March-2010	<b>Respondent:</b> Lai, Gary	<b>Phone No.:</b>
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**DETAIL 2**  
NTS

**SFOBB SAS (SAS) Project #04-0120F4**  
RFI: \* 20752R0

Date: 2010-03-11  
File Name: SK-2075R0-1

**DEPARTMENT OF TRANSPORTATION**

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Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A


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**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION**


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**Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCS-000749**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 07-Sep-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0506**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:** 11-Dec-2009**Description of Non-Conformance:**

During a random visual inspection of segment 11EE located in Bay 14 of the Floor Beam (FB) vertical flanges to the Longitudinal Diaphragm (LD) flanges, the Quality Assurance (QA) Inspector discovered the following issues:

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6. Seg074C-015, @ Panel Point (PP)-107, Length of weld is 115 mm.

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

N/A

**Corrective action taken:**

Reentrant corner was found to be acceptable with a minimum radius of 25mm. Reference ABF-RFI-002075R0

**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:**

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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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