

**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, PRC**Report No:** NCR-000361**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 14-Jul-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0335**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> 2BW
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** Oversized Holes Drilled in LD**Description of Non-Conformance:**

Caltrans Quality Assurance (QA) Inspector observed oversized holes drilled at the Longitudinal Stiffener (LD) for Segment 2AE to 2BE, between PP 16 and 17 (Cross Beam Side) in the web area. Holes drilled for M24 bolts are generally drilled with a 26mm diameter. The holes at this area were measured as being 28mm and 30mm diameter bolt holes.

For further information, please see the attached pictures below.



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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Applicable reference:**

Caltrans Standards Specifications July 1999: Steel Structure Section 55-3.14A, 'Bolt Holes': "The finished holes shall be cylindrical, perpendicular to the plane of the connection and shall be not more than 1.6 mm larger than the nominal diameter of the bolt."

**Who discovered the problem:** S. Manjunath Math

**Name of individual from Contractor notified:** David Wu

**Time and method of notification:** 1050 hours, Verbal

**Name of Caltrans Engineer notified:** Ching Chao

**Time and method of notification:** 1105 hours, Verbal

**QC Inspector's Name:** Lay Tao

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

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

**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>	Simonis,Jim	QA Inspector
<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:** 04-Aug-2009

**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-0335

**Job Name:** SAS Superstructure  
**Document No:** 05.03.06-000314

**Reference Description:** Oversized Holes Drilled in LD

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:** 02

### Remarks:

Caltrans Quality Assurance (QA) Inspector observed oversized holes drilled at the Longitudinal Stiffener (LD) for Segment 2AE to 2BE, between PP 16 and 17 (Cross Beam Side) in the web area. Holes drilled for M24 bolts are generally drilled with a 26mm diameter. The holes at this area were measured as being 28mm and 30mm diameter bolt holes.

See attached NCR No. ZPMC-0335 for details.

### Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance with revised procedures to remedy defect work and prevent future occurrences.

**Transmitted by:** Ching Chao

**Attachments:** ZPMC-0335

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Doug Coe, Jason Tom, Contract Files, 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:** 05.03.06-000314

**Subject:** NCR No. ZPMC-0335

**Dated:** 14-Aug-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000298 Rev: 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC has provided a response letter as well as an RFI addressing this NCR. ZPMC requests closure of this NCR.  
ZPMC has provided a response letter as well as an RFI addressing this NCR. ZPMC requests closure of this NCR.

**Submitted by:**

**Attachment(s):** ABF-NPR-000298R00;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 21-Aug-2009

The proposed resolution is acceptable. The Department concurs that Non-Conformance ZPMC-0335 is closed.

**Submitted by:** Wright, Doug

**Date:** 21-Aug-2009

**Attachment(s):**



No. B-444

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2009-8-11**

**REGARDING: NCR-000361 (ZPMC-335)**

With this letter of response, ZPMC requests closure for Caltrans **NCR-000361 (ZPMC-335)**. We agree what describe in the non-conformance report, and then talk with the engineer immediately, since the bolt hole distance from the edge is within the tolerance and the total holes in this splice plate are oversized, we prepared an new RFI to engineer approval, directly install the 27mm bolts to instead of the original drawing required 24mm bolts. Remind here that the length is similar between the two type of the permanent bolts.

so base on the above explanation and attached documentations, ZPMC applies to close the caltrans's report **NCR-000361 (ZPMC-335)**.

Please reference attached document for acceptance and closure the **NCR-000361 (ZPMC-335)**.

**ATTACHMENT:**

**NCR-000361 (ZPMC-335)**

**The approved RFI**

*Zhao Shuangbao*

*2009.8.11*



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:** 04-Aug-2009

**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-0335

**Job Name:** SAS Superstructure  
**Document No:** 05.03.06-000314

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**Lift:** 02

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Propose a resolution for the identified non-conformance with revised procedures to remedy defect work and prevent future occurrences.

**Transmitted by:** Ching Chao

**Attachments:** ZPMC-0335

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

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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, PRC

**Report No:** NCR-000361

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

**Date:** 14-Jul-2009

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

**NCR #:** ZPMC-0335

**Type of problem:**

- Welding  Concrete  Other
- Welding  Curing  Procedural
- Joint fit-up  Coating  Other
- Procedural  Procedural  Description:

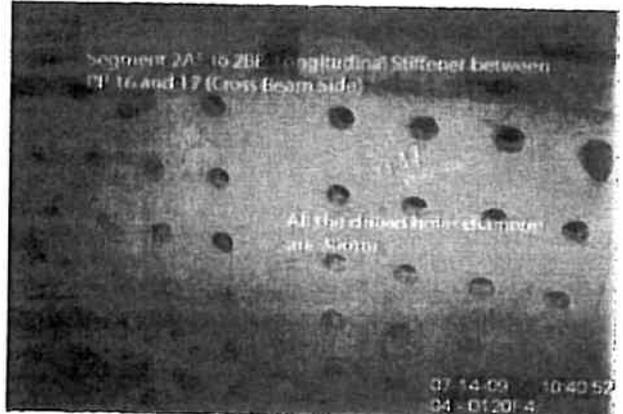
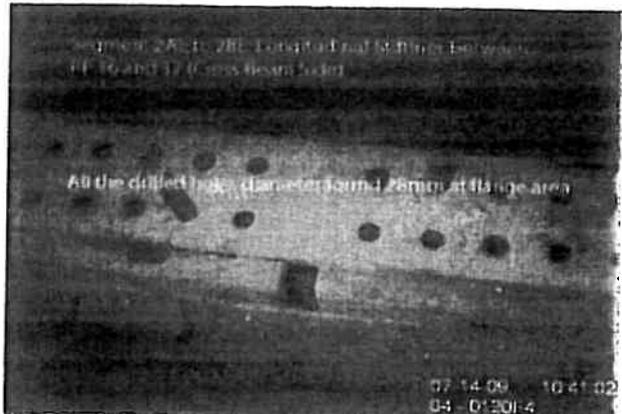
**Bridge No:** 34-0006  
**Component:** 2BW

**Reference Description:** Oversized Holes Drilled in LD

**Description of Non-Conformance:**

Caltrans Quality Assurance (QA) Inspector observed oversized holes drilled at the Longitudinal Stiffener (LD) for Segment 2AE to 2BE, between PP 16 and 17 (Cross Beam Side) in the web area. Holes drilled for M24 bolts are generally drilled with a 26mm diameter. The holes at this area were measured as being 28mm and 30mm diameter bolt holes.

For further information, please see the attached pictures below.



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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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( Continued Page 2 of 2 )

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**Applicable reference:**

Caltrans Standards Specifications July 1999: Steel Structure Section 55-3.14A, 'Bolt Holes': "The finished holes shall be cylindrical, perpendicular to the plane of the connection and shall be not more than 1.6 mm larger than the nominal diameter of the bolt."

**Who discovered the problem:** S. Manjunath Math

**Name of individual from Contractor notified:** David Wu

**Time and method of notification:** 1050 hours, Verbal

**Name of Caltrans Engineer notified:** Ching Chao

**Time and method of notification:** 1105 hours, 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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**Inspected By:** Simonis, Jim

QA Inspector

**Reviewed By:** Wahbeh, Mazen

SMR

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# REQUEST FOR INFORMATION (RFI) – ABF&SUB.

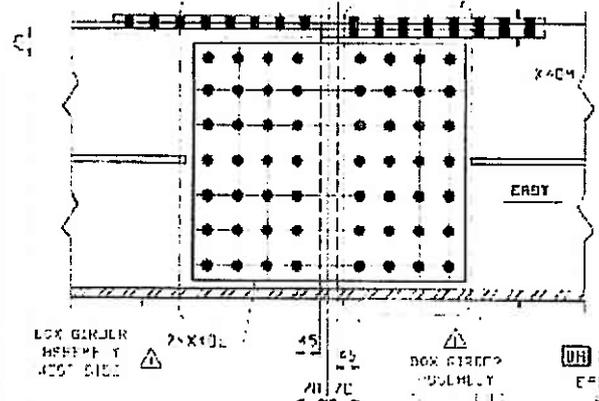
RFI No.: RFI-ZPM-000692R00 Submitted by: Lu Jun Page(s): 1  
 RFI Date: 2009-7-16 Contact Name: Sun Weidong Phone No. +86-21-51907428

Subject: Fabrication Issue: Oversized Holes in Longitudinal Shear PL at SEG2AE and SEG2BE Splice	
References: SEG10C	
Response required by: <u>2009-7-23</u> (date)	Response affects critical path activity? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

**Description:**

During fabrication, it is found all the holes in longitudinal shear PL at SEG2AE and SEG2BE splice are mistakenly drilled into 30mm while per shop drawings it shall be 27mm. There are 112 mistakenly oversized holes in total and edge distance is 45mm. ZPMC proposes to,

1. Leave the oversized holes "as built" and use M24 HSB on them. Then minimum edge distance ( $24 \times 1.75 = 42\text{mm}$ ) can be kept.
2. Leave the oversized holes "as built" and use M27 HSB on them.



Please review and respond.

This RFI is being submitted for:

- Material Procurement
- Contractor Convenience
- Clarification of the Contract Documents
- Engineering Review Request (ERR) for missing design information/coordination.

The Cost and Time Impact from this RFI is:

- No cost or time impacts in the performance of our Work.
- Cost and/or time impacts in the performance of our Work will result.
- We are unable to determine at this point whether there will be cost and/or time impacts.

Response:

Date:	Respondent: Gene Rosamilia	Phone No.:
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ZPMC's proposal to use 27mm bolts in lieu of 24mm bolts is acceptable.

For this type of substitution it is also critical to check the center to center spacing on the bolts in question. In this instance the center to center spacing is 90mm and is greater than  $3 \times \text{DIA}$  and therefore acceptable.

ZPMC should revise shop drawing to indicate the location of this change.

Please also provide us with the size and quantity of bolts which will be used so that substitute bolts can be replaced.

Cost for replacement bolts and detailing changes are the responsibility of ZPMC.

RFI Status: (sign and date)

Closed:	Revision Pending:
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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, PRC**Report No:** NCS-000253**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:****Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0335**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:** 14-Jul-2009**Description of Non-Conformance:**

Caltrans Quality Assurance (QA) Inspector observed oversized holes drilled at the Longitudinal Stiffener (LD) for Segment 2AE to 2BE, between PP 16 and 17 (Cross Beam Side) in the web area. Holes drilled for M24 bolts are generally drilled with a 26mm diameter. The holes at this area were measured as being 28mm and 30mm diameter bolt holes.

For further information, please see the attached pictures below.

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

Contractor has acknowledged that this item must be addressed, and the item was added to the Master Punchlist.

**Corrective action taken:**

Completion of work being tracked on Master Punchlist. Submittal of documentation by Contractor being tracked on Documentation Punchlist.

**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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**Inspected By:** Simonis, Jim

Quality Assurance Inspector

**Reviewed By:** Wahbeh, Mazen

QA Reviewer