

**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-000727**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 02-May-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0690**Type of problem:****Welding****Concrete****Other****Welding****Curing****Procedural****Bridge No:** 34-0006**Joint fit-up****Coating****Other****Component:** Crossbeam 14 Bottom Panel**Procedural****Procedural****Description:****Reference Description:** Crossbeam 14 Bottom Panel Base Metal Repair without prior Engineer's approval**Description of Non-Conformance:**

During Quality Assurance (QA) random in-process observations of the fabrication of crossbeam CB14, this QA inspector discovered the following issue:

- Base metal repairs being performed on Seismic Performance Critical Members (SPCM) without prior Engineer's approval or Critical Weld Repair (CWR).
- The repairs were performed at the removal of temporary attachment (lifting lugs) area, locating at the four corners of the bottom panel (BP204) for Crossbeam CB14. The Y locations for the four corners are about 1960mm away from the connection to the OBG Segment, and X locations are near the connection to the CB side panels. (See picture for more details)
- The typical base metal repair has a T-shaped area of approximately 300x400mm.
- The bottom panel of the crossbeam is designated as a Seismic Performance Critical Member (SPCM).
- OBG crossbeam CB14 is located in the Outside Yard.



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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 12.17.4: "All critical repairs to base metal and welds shall be approved by the Engineer prior to beginning the repair..."

**Who discovered the problem:** Shailesh Wadkar

**Name of individual from Contractor notified:** Yang Yu

**Time and method of notification:** 14:30 hours, 05-02-10, Verbal

**Name of Caltrans Engineer notified:** Stanley Ku, Sean Eagen

**Time and method of notification:** 7:30 hours, 05-03-10, Verbal

**QC Inspector's Name:** Guo Yuan Ting & Tian Lei

**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:** 04-May-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-0690

**Job Name:** SAS Superstructure  
**Document No:** 05.03.06-000685

**Reference Description:** Crossbeam 14 Bottom Panel Base Metal Repair without prior Engineer's approval

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:** 10

**Remarks:**

- During Quality Assurance (QA) random in-process observations of the fabrication of crossbeam CB14, this QA inspector discovered the following issue:
- Base metal repairs being performed on Seismic Performance Critical Members (SPCM) without prior Engineer's approval or Critical Weld Repair (CWR).
  - The repairs were performed at the removal of temporary attachment (lifting lugs) area, locating at the four corners of the bottom panel (BP204) for Crossbeam CB14. The Y locations for the four corners are about 1960mm away from the connection to the OBG Segment, and X locations are near the connection to the CB side panels. (See picture for more details)
  - The typical base metal repair has a T-shaped area of approximately 300x400mm.
  - The bottom panel of the crossbeam is designated as a Seismic Performance Critical Member (SPCM).
  - OBG crossbeam CB14 is located in the Outside Yard.

**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-0690

**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:** 05.03.06-000685

**Subject:** NCR No. ZPMC-0690

**Dated:** 11-Jun-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000694 **Rev:** 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC will provide NDT to show that the base metal repairs are acceptable and the repairs successful. Based on this proposal ZPMC requests that this NCR be approved, with actions pending.

ZPMC will provide NDT to show that the base metal repairs are acceptable and the repairs successful. Based on this proposal ZPMC requests that this NCR be approved, with actions pending.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000694R00

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### Caltrans' comments:

**Status:** AAP

**Date:** 14-Jun-2010

This proposed resolution is accepted, action pending. Please provide NDT results for these base metal repairs.

**Submitted by:** Eagen, Sean

**Attachment(s):**

**Date:** 14-Jun-2010

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000685

**Subject:** NCR No. ZPMC-0690

**Dated:** 17-Aug-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000694 Rev: 01

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC has repaired the base metal in accordance with B-CWR-1485 and is providing the NDT to show that the repairs are acceptable.

ZPMC has repaired the base metal in accordance with B-CWR-1485 and is providing the NDT to show that the repairs are acceptable. ZPMC is working to eliminate this issue through prompt notification to the Department and having a CWR or WWR on hand during repair. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000694R01;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 23-Aug-2010

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

**Submitted by:** Woo, Laraine

**Date:** 23-Aug-2010

**Attachment(s):**



No. B-844

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-08-17**

**REGARDING: NCR-000727(ZPMC-0690)**

Based on the attached NDT records ZPMC is requesting closure of this NCR.

**ATTACHMENT:**

NCR-000727(ZPMC-0690)

B787-MT-25793

B787-MT-24815

A handwritten signature in black ink, appearing to be "J. W.", is written over the printed text.

8/17/10



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-May-2010

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

**Dear:** Mr. Charles Kanapicki  
**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager

**Job Name:** SAS Superstructure

**Subject:** NCR No. ZPMC-0690

**Document No:** 05.03.06-000685

**Reference Description:** Crossbeam 14 Bottom Panel Base Metal Repair without prior Engineer's approval

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:** 10

### Remarks:

During Quality Assurance (QA) random in-process observations of the fabrication of crossbeam CB14, this QA inspector discovered the following issue:

- Base metal repairs being performed on Seismic Performance Critical Members (SPCM) without prior Engineer's approval or Critical Weld Repair (CWR).
- The repairs were performed at the removal of temporary attachment (lifting lugs) area, locating at the four corners of the bottom panel (BP204) for Crossbeam CB14. The Y locations for the four corners are about 1960mm away from the connection to the OBG Segment, and X locations are near the connection to the CB side panels. (See picture for more details)
- The typical base metal repair has a T-shaped area of approximately 300x400mm.
- The bottom panel of the crossbeam is designated as a Seismic Performance Critical Member (SPCM).
- OBG crossbeam CB14 is located in the Outside Yard.

### 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-0690

**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

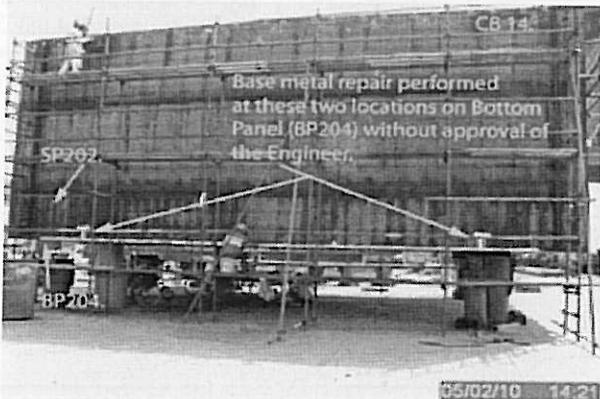


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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000727**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 02-May-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0690**Type of problem:**Welding  Concrete  Other Welding  Curing  Procedural Joint fit-up  Coating  Other Procedural  Procedural  Description:**Bridge No:** 34-0006**Component:** Crossbeam 14 Bottom Panel**Reference Description:** Crossbeam 14 Bottom Panel Base Metal Repair without prior Engineer's approval**Description of Non-Conformance:**

During Quality Assurance (QA) random in-process observations of the fabrication of crossbeam CB14, this QA inspector discovered the following issue:

- Base metal repairs being performed on Seismic Performance Critical Members (SPCM) without prior Engineer's approval or Critical Weld Repair (CWR).
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- OBG crossbeam CB14 is located in the Outside Yard.



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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 12.17.4: "All critical repairs to base metal and welds shall be approved by the Engineer prior to beginning the repair..."

**Who discovered the problem:** Shailesh Wadkar

**Name of individual from Contractor notified:** Yang Yu

**Time and method of notification:** 14:30 hours, 05-02-10, Verbal

**Name of Caltrans Engineer notified:** Stanley Ku, Sean Eagen

**Time and method of notification:** 7:30 hours, 05-03-10, Verbal

**QC Inspector's Name:** Guo Yuan Ting & Tian Lei

**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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**Inspected By:** Tsang, Eric

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-25793      DATE日期 2010.07.10      PAGE OF页码 1/1      Revision No: 0

PROJECT NO.      ZP06-787      CONTRACTOR:      CALTRANS  
 工程编号:      用户:

DRAWING NO.      SP202A/205A/BP204A/205A      CALTRANS CONTRACT NO.:  
 图号:      BOTTOM/ WEB PLATE      加州工程编号      04-0120F4

REFERENCING CODE      ACCEPTANCE STANDARD      PROCEDURE NO.      CALIBRATION DUE DATE  
 参考规范编码      接受标准      程序编号      仪器校正有效期  
 AWS D1.5-2002      AWS D1.5-2002      ZPQC-MT-01      Dec. 28<sup>ST</sup>, 2010

EQUIPMENT 设备      MANUFACTURER 制造商      MODEL NO. 样式编号      SERIAL NO. 连续编号  
 MT YOKE      PARKER      B310S      5395 5617 5620

MAGNETIZING METHOD      Continuous magnetic yoke      CURRENT      AC  
 磁化方法      磁轭式连续法      电流

PARTICLE TYPE      Dry magnet powder      YOKE SPACING      70~150mm  
 磁粉类型      干磁粉      磁轭间距

MATERIAL TO BE EXAMINED      √ WELDING 焊接件      Material & thickness      A709M-345T2-X  
 检测材料       CASTING 铸件      母材,厚度      14mm  
     FORGING 锻造

WELDING PROCESS      NA      TYPE OF JOINT      NA  
 焊接方法      焊缝类型

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			
SP202A				ACC.		100%MT
SP205A				ACC.		100%MT
BP204A				ACC.		100%MT
BP205A				ACC.		100%MT

BASE METAL PER B-CWR1485 REV0

BLANK


EXAMINED BY主探      REVIEWED BY 审核  
*Diy Achay*      *Zu Zhigang*  
 LEVEL - II SIGN 签名 / DATE日期      LEVEL-II SIGN      DATE日期 10.07.10  
 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, P.R. China**Report No:** NCS-000731**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Aug-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0690**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:** 02-May-2010**Description of Non-Conformance:**

During Quality Assurance (QA) random in-process observations of the fabrication of crossbeam CB14, this QA inspector discovered the following issue:

- Base metal repairs being performed on Seismic Performance Critical Members (SPCM) without prior Engineer's approval or Critical Weld Repair (CWR).
- The repairs were performed at the removal of temporary attachment (lifting lugs) area, locating at the four corners of the bottom panel (BP204) for Crossbeam CB14. The Y locations for the four corners are about 1960mm away from the connection to the OBG Segment, and X locations are near the connection to the CB side panels. (See picture for more details)
- The typical base metal repair has a T-shaped area of approximately 300x400mm.
- The bottom panel of the crossbeam is designated as a Seismic Performance Critical Member (SPCM).
- OBG crossbeam CB14 is located in the Outside Yard.

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

Submit CWR for tracking purposes and perform NDT required to verify weld quality.

**Corrective action taken:**

Contractor submitted CWR documenting location of repairs performed along with NDT documentation verifying repairs conform 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 Materials for your project.

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# QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 2 )

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**Inspected By:** Simonis,Jim

Quality Assurance Inspector

**Reviewed By:** Wahbeh,Mazen

QA Reviewer