

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-000243**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 26-Feb-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0217**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: FB063-002 Segment 1AW
Procedural	Procedural	Description: Fabrication is not following the approved drawing	

Reference Description: Grinding of FB063-002 rib stiffener (RS) cutouts**Description of Non-Conformance:**

Caltrans Quality Assurance (QA) Inspector observed non-conformance on five floor beam cutouts for the bottom plate rib stiffeners (RS). These cutouts had been ground on one side to facilitate the fit-up with the RS. The approved shop drawing indicates that the floor beam cutout has a width of 60mm. ZPMC ground these cutouts to the following dimensions:

For bottom plate 309A:

RS77E cutout width: 68mm

RS78E cutout width: 66mm

For bottom plate 311A:

RS77EA cutout width: 69mm

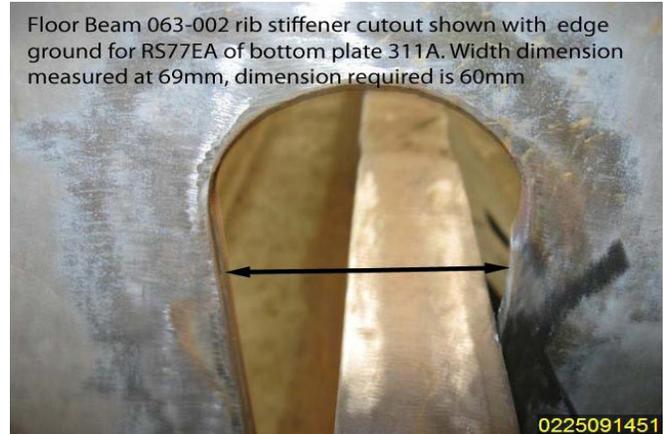
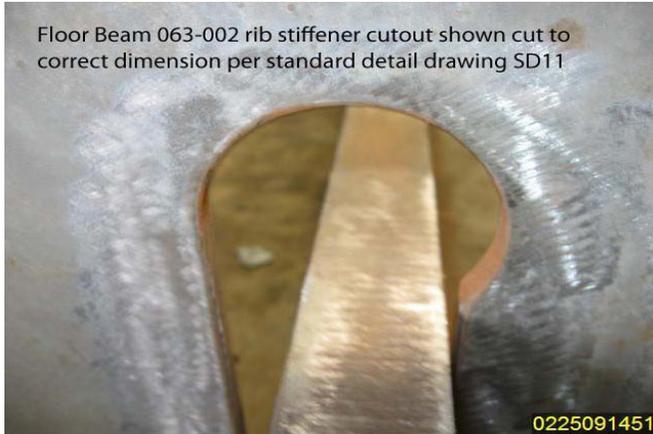
RS87GA cutout width: 65mm

RS85C cutout width: 65mm

The fabrication of the floor beam cutouts for RS in segment 1AW is not according to the approved shop drawing.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

ZPMC Shop Drawing SD11- Detail 11J

Who discovered the problem: Erik Prue

Name of individual from Contractor notified: Peter Shaw

Time and method of notification: 0900 hours, 02/26/2009, verbal

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 0915 hours, 02/26/2009, verbal

QC Inspector's Name: Hu Wei Oing

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 Eric Tsang, +(86) 150.0042.2372, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang, Eric	SMR
Reviewed By:	Wahbeh, Mazen	SMR



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: 06-Apr-2009

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

Dear: Mr. Charles Kanapicki
Attention: Mr. Thomas Nilsson Project Manager - OBG
Subject: NCR No. ZPMC-0217

Job Name: SAS Superstructure
Document No: 05.03.06-000209

Reference Description: Grinding of FB063-002 rib stiffener (RS) cutouts

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:**

Remarks:

Caltrans Quality Assurance (QA) Inspector observed non-conformance on five floor beam cutouts for the bottom plate rib stiffeners (RS). These cutouts had been ground on one side to facilitate the fit-up with the RS.

The approved shop drawing indicates that the floor beam cutout has a width of 60mm. ZPMC ground these cutouts to the following dimensions:

For bottom plate 309A:
 RS77E cutout width: 68mm
 RS78E cutout width: 66mm

For bottom plate 311A:
 RS77EA cutout width: 69mm
 RS87GA cutout width: 65mm
 RS85C cutout width: 65mm

The fabrication of the floor beam cutouts for RS in segment 1AW is not according to the approved shop drawing.

Action Required and/or Action Taken:

Please propose a resolution for the identified non-conformance.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0217

cc: Rick Morrow, Gary Pursell, Brian Boal, Jason Tom, 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: 05.03.06-000209

Subject: NCR No. ZPMC-0217

Dated: 20-May-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000218 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: An RFI or weld repair procedure will be submitted to CT for resolution of this detail.

An RFI or weld repair procedure will be submitted to CT for resolution of this detail.

Submitted by:

Attachment(s): ABF-NPR-000218R00

Caltrans' comments:

Status: REJ

Date: 04-Jun-2009

The proposed resolution is not acceptable. Please re-submit the proposed resolution when the RFI or repair procedure has been submitted and approved. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0217 at that time.

Submitted by: Wright, Doug

Date: 04-Jun-2009

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000209

Subject: NCR No. ZPMC-0217

Dated: 18-Sep-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000218 **Rev:** 01

Contractor's Proposed Resolution:

Reference Resolution: For the 5 locations listed in this NCR, both an RFI and drawing have been submitted and approved by CT. ZPMC requests closure of this NCR.

For the 5 locations listed in this NCR, both an RFI and drawing have been submitted and approved by CT. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000218R01;

Caltrans' comments:

Status: AAP

Date: 24-Sep-2009

Contractor submitted RFI 1872R0, proposed method of correction, which was not accepted entirely. Contractor has indicated that they will repair the misalignment by submitting CWR per agreed method discussed with the Department. Provide proper documentation after repair for engineer's review and acceptance.

Submitted by: Chao, Ching

Date: 24-Sep-2009

Attachment(s):

REQUEST FOR INFORMATION (RFI)

RFI No.: ABF-RFI-001872R00 Submitted By: Rosamilia, Gene Pages: 3
 RFI Date: 26-August-2009 Contact Name: Weidong, Sun Pages Attached: 2
 Phone No. 86-21-51907434

Subject: Fabrication Issue: Misalignment between Plate Stiffeners and FB Web Slots in SEG1AW	
References:	
Sub/Sup: ZPM	Sub RFI #: RFI-ZPM-000726R00
Response Required by: 02-September-2009	Response affects critical path activity? Yes

Description:

Please review and respond to the attached RFI from ZPMC (RFI-ZPM-000726R00)

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: _____

The proposal to enlarge the web slots in SEG1AW is not acceptable.

Follow the repair procedure already provided in FCN 137A, which corrects the mislocated stiffener openings by cutting out the affected web and installing a patch plate.

Provide the locations where this procedure is required and the dimensions of the patch plate for review and approval by the Department's representatives at the fabrication shop.

As the 12mm web plates are welded to the bottom plate, provide 25mm rat holes in the web at the girder skin plate in order to perform the vertical butt joint on the web plate.

Administrative Action:

This response resolves this RFI. Further information is required.

Date: 04-September-200	Respondent: Lai, Gary	Phone No.:
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NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000209

Subject: NCR No. ZPMC-0217

Dated: 13-Nov-2009

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000218 **Rev:** 02

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has conducted the repair of the cut outs in accordance with the approved CWR. Attached NDT of the areas shows that the base metal is acceptable.

ZPMC has conducted the repair of the cut outs in accordance with the approved CWR. Attached NDT of the areas shows that the base metal is acceptable which has been confirmed by Caltrans inspectors. ZPMC requests closure of this NCR.

Submitted by:

Attachment(s): ABF-NPR-000218R02;

Caltrans' comments:

Status: CLO

Date: 30-Nov-2009

The documentation submitted has been reviewed by the Engineer and is considered sufficient to close the NCR.

Submitted by: Chao, Ching

Date: 30-Nov-2009

Attachment(s):



No. B-489

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2009-11-12

REGARDING: NCR-000243 (ZPMC-0217)

With this letter of response, ZPMC requests closure for Caltrans NCR-000243 (ZPMC-0217). We agree what describe in the non-conformance report. Per the ABF's survey data, we have prepared one CWR prior perform the build up weld on the over more cutout areas, with the comments of the CWR we have done the repair and accepted with the NDT inspection. The final condition has been verified by the caltrans inspector and the related item in the punchlist is also been closed out. We are providing the documentation to support the repair has been performed and the NDT which have been accepted with the three parties.

so base on the above explanation, ZPMC applies to close the caltrans's report NCR-000243 (ZPMC-0217).

Please reference attached document for acceptance and closure the NCR-000243 (ZPMC-0217).

ATTACHMENT:

NCR-000243 (ZPMC-0217)

The critical weld repair report

The acceptable MT report

ZhaoShuangbao

2009. 11. 12

DEPARTMENT OF TRANSPORTATION
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-000243

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 26-Feb-2009

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

NCR #: ZPMC-0217

Type of problem:

Welding Concrete Other

Welding Curing Procedural Bridge No: 34-0006

Joint fit-up Coating Other Component: FB063-002 Segment IAW

Procedural Procedural Description: Fabrication is not following the approved drawing

Reference Description: Grinding of FB063-002 rib stiffener (RS) cutouts

Description of Non-Conformance:

Caltrans Quality Assurance (QA) Inspector observed non-conformance on five floor beam cutouts for the bottom plate rib stiffeners (RS). These cutouts had been ground on one side to facilitate the fit-up with the RS. The approved shop drawing indicates that the floor beam cutout has a width of 60mm. ZPMC ground these cutouts to the following dimensions:

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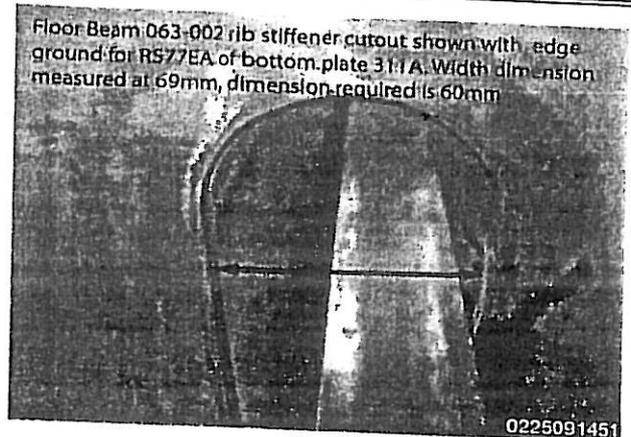
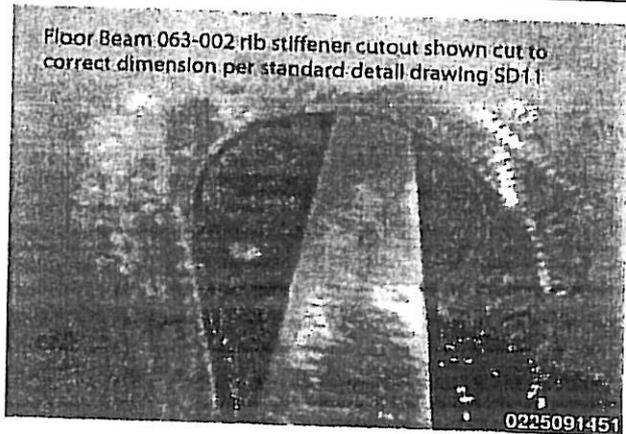
RS77EA cutout width: 69mm

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RS85C cutout width: 65mm

The fabrication of the floor beam cutouts for RS in segment IAW is not according to the approved shop drawing.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT
(Continued Page 2 of 2)



Applicable reference:

ZPMC Shop Drawing SD11- Detail 11J

Who discovered the problem: Erik Prue

Name of individual from Contractor notified: Peter Shaw

Time and method of notification: 0900 hours, 02/26/2009, verbal

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 0915 hours, 02/26/2009, verbal

QC Inspector's Name: Hu Wei Oing

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 Eric Tsang, +(86) 150.0042.2372, who represents the Office of Structural Materials for your project.

Inspected By: Tsang, Eric

SMR

Reviewed By: Wahbeh, Mazen

SMR



关键焊缝返修报告
Critical Welding Repair Report (CWR)

版本
Rev. No.:

0

项目名称 Project Name:	英国海湾大桥 SFOBB	部件图号 Drawing No.:	1AE/1AW	报告编号 Report No.	B-CWR775
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	FLOOR BEAM	NDT报告编号 Report No. of NDT	NA
项目编号 Project No.:	ZP06-787				

焊缝缺陷描述:

Description of Welding Discontinuity:

1AE/1AW箱体内, 横隔板上的穿越孔与I肋的开档尺寸与图纸尺寸不符, 1AE(PP9) 2处, 1AW(PP9)1处, 图纸要求尺寸为25mm, 详见附页:

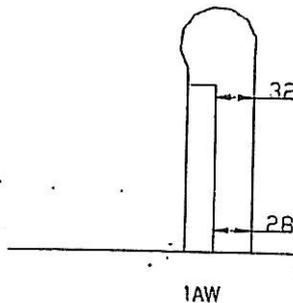
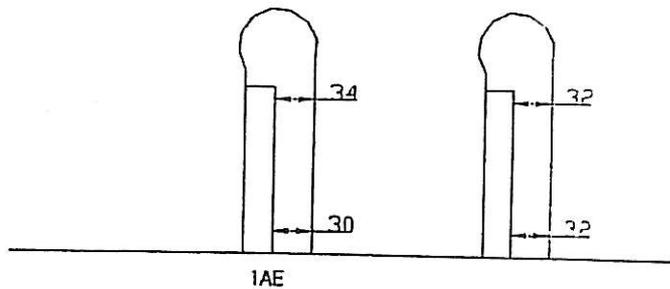
1AE and 1AW box, the size between floor beam weld through hole and I-rib wasn't according to drawing requirement, 1AE(PP9) two position, 1AW (PP9) one position, it shall be 25mm according to drawing requirement, see the following draft.

检验员 (Inspector): Yang Ding

日期 (Date): 2009.09.22

焊缝返修位置示意图:

Draft of Welding Discontinuity:



<input type="checkbox"/>	APPROVED
<input checked="" type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	RETURNED FOR CORRECTION
Pursuant to Section 5-1.02 of the Standard Specifications State of California	
DEPARTMENT OF TRANSPORTATION	
Division of Engineering Services	
Office of Structure Construction	
<u>SJE for RM</u>	<u>9/25/09</u>
Structure Representative	Date

产生原因:

Cause:

焊接变形和制作误差。

Weld distortion and fabricate error.

<input type="checkbox"/>	APPROVED
<input checked="" type="checkbox"/>	APPROVED AS NOTED
<input type="checkbox"/>	RETURNED FOR CORRECTION
Pursuant to Section 5-1.02 of the Standard Specifications State of California	
DEPARTMENT OF TRANSPORTATION Division of Engineering Services Office of Structure Construction	
SJE for RM	9/25/09
Structure Representative	Date

车间负责人 (Foreman):

Gar Jun

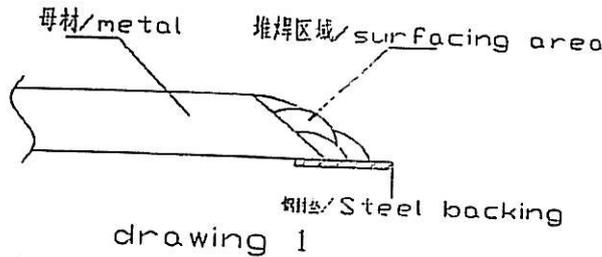
日期 (Date):

09.09.23

处理意见

Disposition:

1. QC和CWI在整个修补过程中都应在场;
2. 将要进行堆焊修补的区域打磨光滑;
3. 准备一个正确的接头形式, 具体参见返修的WPS;
4. 做100%VT确认无缺陷存在, 并在背面贴钢衬垫;
5. 根据返修的焊接返修工艺规程 (WPS) 进行预热及焊接, 将超标肋穿越孔堆至图纸要求;
6. 焊后去除钢衬垫, 并将修补区域打磨与母材平齐;
7. 对返修区域进行相应的VT和MT检测;



1. QC and CWI should be present to witness the repair.
2. Grind the repairing area cleanly;
3. Prepare an right joint according to the approved WPS;
4. Perform 100%VT ^{± MT} to ensure no defects exist, and add steel backing before welding.
5. Preheat and weld according to the relevant WPS; and weld the unacceptable through holes to meet the requirement of work drawing;
6. Gouge off the steel backing after welding and then grind the weld flush with base metal.
7. Perform VT and MT ^{BOTH SIDES & WELD FRONT} inspection to the repaired area.

工艺:

Technical Engineer:

Nin Tofaf

审核:

Approved By:

for chenbin

日期:

Date:

9-24-09

09.09.23



关键焊缝返修报告

Critical Welding Repair Report (CWR)

版本
Rev. No.:

0

项目名称 Project Name:	美国海湾大桥 SFOBB	部件图号 Drawing No.:	1AE/1AW	报告编号 Report No.	B-CWR775
合同号 Contract No.:	04-0120F4	部件名称 Item Name:	FLOOR BEAM	NDT报告编号 Report No. of NDT	NA
项目编号 Project No.:	ZP06-787				

纠正措施:

Corrective Action to Prevent Re-occurrence:

加强制作过程中的监控, 减少误差。

Enhance supervision in process of fabrication to reduce error.

车间负责人 (Foreman):

Gao Jun

日期 (Date):

07.09.23

参照的WPS编号 Repair WPS No.:	WPS-345-SMAW-2 G(2F)-Repair WPS-345-FCAW-2 G(2F)-Repair WPS-345-SMAW-3 G(3F)-Repair WPS-345-FCAW-3 G(3F)-Repair	工艺员 Technologist:	Nin Trefef 07.09.23
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返修(碳刨)前预热温度 Preheat Temperature Before Gouging:	NA	返修的缺陷 Description of Discontinuity:	NA
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焊前处理检查 Inspection Before Welding:	NA	焊前预热温度 Preheat Temperature Before Welding:	95°C
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最大碳刨深度 Max. Depth of Gouge:	NA	碳刨总长 Total Length of Gouge:	NA
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焊工 Welder:	045246	焊接类型 Welding Type:	SMAW	焊接位置 Position:	3F
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焊接电流 Current:	156	焊接电压 Voltage:	23	焊接速度 Speed:	110
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返修后检查
Inspection After Repair:

外观检查 VT Result:	Acc	检验员 Inspector:	Li Yanhua 07/20/01	日期 Date:	2009.07.25
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NDT复检 NDT Result:	Acc	探伤员 NDT Person:	Xu Huaxian	日期 Date:	2009.10.27
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见证:
Witness/Review:备注:
Remark:

APPROVED
 APPROVED AS NOTED
 RETURNED FOR CORRECTION
 Pursuant to Section 5-1.02
 of the Standard Specifications
 State of California
 DEPARTMENT OF TRANSPORTATION
 Division of Engineering Services
 Office of Structure Construction
 SJE Gr R17
 Structure Representative
 9/25/09
 Date

#R787-QCP-900

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 #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCS-000290**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 26-Aug-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0217**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component:
Procedural	Procedural	Descriptor:	

Date the Non-Conformance Report was written: 26-Feb-2009**Description of Non-Conformance:**

Caltrans Quality Assurance (QA) Inspector observed non-conformance on five floor beam cutouts for the bottom plate rib stiffeners (RS). These cutouts had been ground on one side to facilitate the fit-up with the RS. The approved shop drawing indicates that the floor beam cutout has a width of 60mm. ZPMC ground these cutouts to the following dimensions:

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RS77EA cutout width: 69mm

RS87GA cutout width: 65mm

RS85C cutout width: 65mm

The fabrication of the floor beam cutouts for RS in segment 1AW is not according to the approved shop drawing.

Contractor's proposal to correct the problem:

Contractor has acknowledged that the issues must be addressed, and it has been added to the Master Punchlist.

Corrective action taken:

Completion of work being tracked by master Punchlist. Submission of required documentation being tracked by Documentatin Punchlist.

Did corrective action require Engineer's approval?

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

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.

Inspected By: Simonis,Jim

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer