

**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

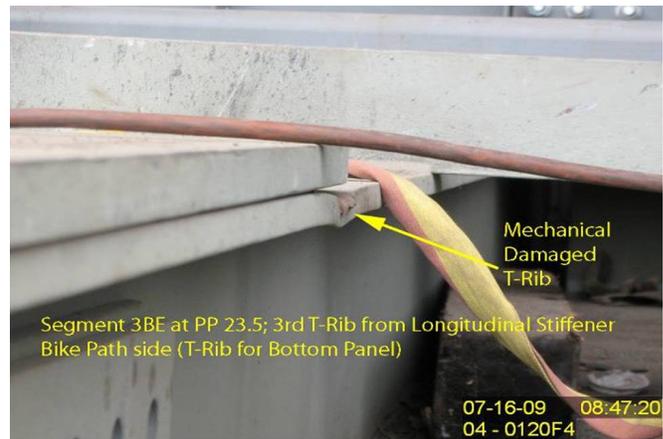
Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, PRC**Report No:** NCR-000354**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 16-Jul-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0328**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> OBG Segment 3BE
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** Mechanical Damage to T-Stiffener**Description of Non-Conformance:**

Caltrans Quality Assurance (QA) Inspector observed mechanical damage to the T-Rib flange area which is welded to the Bottom Panel. The damage was observed to be on the 3rd T-Rib from the Longitudinal Stiffener from the bike path side of Segment 3BE.

For further information, please see the attached pictures below.

**Applicable reference:**

Standard Specification Section 55 section 55-1.04; 'Shipping, Handling and Storing Materials': "In handling and shipping of the steel work, every care shall be taken to avoid bending, scraping or overstressing the pieces. All pieces bent or otherwise injured will be rejected."

**Who discovered the problem:** S. Manjunath. Math.**Name of individual from Contractor notified:** Steve Lawton**Time and method of notification:** 0850 hours, Verbal**Name of Caltrans Engineer notified:** Bill Howe

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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

**QC Inspector's Name:** Wang Lu.

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

QA Inspector

**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:** 05-Aug-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:** 05.03.06-000329

**Subject:** NCR No. ZPMC-0328

**Reference Description:** Mechanical Damage to T-Stiffener

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:** 03

**Remarks:**

Caltrans Quality Assurance (QA) Inspector observed mechanical damage to the T-Rib flange area which is welded to the Bottom Panel. The damage was observed to be on the 3rd T-Rib from the Longitudinal Stiffener from the bike path side of Segment 3BE.

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

Submit repair procedure for approval.

**Transmitted by:** Bill Howe

**Attachments:** ZPMC-0328

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Doug Coe, 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:** 05.03.06-000329

**Subject:** NCR No. ZPMC-0328

**Dated:** 24-Aug-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000326 **Rev:** 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC fabrication personnel have completed repair of the damage and will submit the necessary inspection reports at a later date to close this NCR.

ZPMC fabrication personnel have completed repair of the damage and will submit the necessary inspection reports at a later date to close this NCR.

### Submitted by:

**Attachment(s):** ABF-NPR-000326R00

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### Caltrans' comments:

**Status:** AAP

**Date:** 10-Sep-2009

The response is acceptable, but the Non-Conformance is not closed.

Please provide documentation of the straightening that was performed and inspection documents on all affected welds. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0328 at that time.

**Submitted by:** Wright, Doug

**Date:** 10-Sep-2009

**Attachment(s):**

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000329

**Subject:** NCR No. ZPMC-0328

**Dated:** 16-Sep-2009

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000326 **Rev:** 01

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### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC has now included the necessary documentation to provide objective evidence repair work has been completed. ZPMC requests closure of this NCR.

ZPMC has now included the necessary documentation to provide objective evidence repair work has been completed. ZPMC requests closure of this NCR.

### Submitted by:

**Attachment(s):** ABF-NPR-000326R01;

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### Caltrans' comments:

**Status:** CLO

**Date:** 24-Sep-2009

Contractor has submitted all required documentation.

**Submitted by:** Chao, Ching

**Date:** 24-Sep-2009

**Attachment(s):**



No. B-466

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2009-9-10**

**REGARDING: NCR-000354 (ZPMC-0328)**

With this letter of response, ZPMC requests closure for Caltrans NCR-000354 (ZPMC-0328). We agree what describe in the non-conformance report, and have repair the T-rib with the flush grinding, according with the visual and NDT inspection , the three parties all accepted the final condition and already close out the item in the punchlist.

so base on the above explanation, ZPMC applies to close the caltrans's report NCR-000354 (ZPMC-0328).

Please reference attached document for acceptance and closure the NCR-000354 (ZPMC-0328).

**ATTACHMENT:**

**NCR-000354 (ZPMC-0328)**

**The ZPMC internal NCR**

**The complete VT/UT/MT reports**

A handwritten signature in black ink, which appears to read "Wen Shuang Bao". The signature is written in a cursive, flowing style.

2009. 9. 10



# Nonconformance Report

## 不符合项报告

Project Name: S.F.O.B.B  
 项目名称: 美国加州海湾大桥

NCR Number:  
 NCR 编号: NCR-B-224 (ZPMC-0328)

Item: Mechanical Damage to  
 T-Stiffener  
 名称描述: T 肋翼板损伤

Item Number:  
 件号:  
 OBG T-rib

Drawing:  
 图号: OBG 3BE

Location: OBG 3BE  
 位置:

Date:  
 日期: 2009-8-12

Description of Nonconformance:  
 不符合项状态描述:

Caltrans Quality Assurance (QA) Inspector observed mechanical damage to the T-rib flange area which is welded to the Bottom Panel. The damage was observed to be on the 3<sup>rd</sup> T-rib from the longitudinal Stiffener from the bike path side of segment 3BE.

加州检验员在 3BE 箱体底板上, 从自行车道侧, 纵桁处数起第三根 T 肋翼板母材损伤。

Work By:

施工方: Xia Fa Limy

Prepared by:

准备: 2009.8.13

Reviewed by QCE:

质量工程师批准: Lu Jinhua

Drawing Error  
 图纸错误

Material Defect  
 材料缺陷

Fabrication Error  
 制作错误

Other  
 其他原因

Disposition:  
 处理措施:

Use as is  
 回用

Repair  
 返修

Reject  
 拒收

Recommendation:  
 建议:

Prepared by:  
 准备

Approved by QCA:  
 质量经理批准

Reason for Nonconformance:  
 不符合原因:

不符合原因:

由于 3BE 箱体底板上从自行车道侧, 纵桁处数起第三根 T 肋翼板母材损伤。  
 3BE box bottom plate face bike way, the base metal of longitudinal diaphragm was gouged for daisy.

Prevention of Re-occurrence:  
 预防措施:

预防措施:

加强现场监控和检查。  
 Enhance supervision and inspection.

Approved by/批准:

690 JUN 09.8.14

Technical Justification for Use-As-Is/Repair: <input type="checkbox"/> Attachment <input type="checkbox"/> Non-attachment 回用或返修的技术依据: 附件 无附件	
根据 AWS D1.5, 3.2.3.5 的缺陷范围要求对母材进行 外壁, 禁止不当操作, 避免损伤母材。	
Reviewed /批准: <del>ManLi</del> ManLi / 8.13/09	
Verification: <input checked="" type="checkbox"/> Acceptable <input type="checkbox"/> Unacceptable 确认: 可接受 不可接受	
Jiu rong Jian 5/12/01 S.P. 6.	
Verified by QCI/质检确认: _____	Reviewed by QCA/质检主任审核: _____

#R787-QCP-1300

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

*In Reply*

### NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV  
375 BURMA ROAD  
OAKLAND CA 95607

Date: 05-Aug-2009

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

Job Name: SAS Superstructure

Document No: 05.03.06-000329

Dear: Mr. Charles Kanapicki  
Attention: Mr. Thomas Nilsson Project/Fabrication Manager  
Subject: NCR No. ZPMC-0328

Reference Description: Mechanical Damage to T-Stiffener

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: 03

Remarks:

Caltrans Quality Assurance (QA) Inspector observed mechanical damage to the T-Rib flange area which is welded to the Bottom Panel. The damage was observed to be on the 3rd T-Rib from the Longitudinal Stiffener from the bike path side of Segment 3BE.

Action Required and/or Action Taken:

Submit repair procedure for approval.

Transmitted by: Bill Howe

Attachments: ZPMC-0328

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

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, PRC

Report No: NCR-000354

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 16-Jul-2009

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

NCR #: ZPMC-0328

### Type of problem:

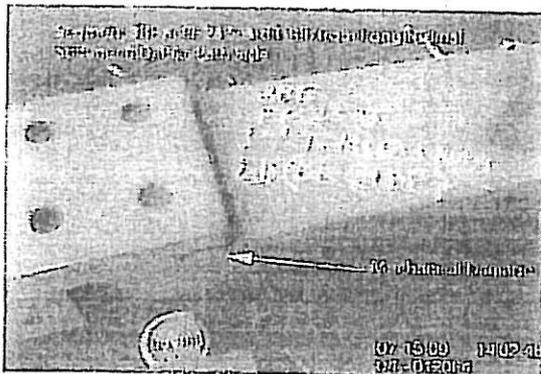
Welding  Concrete  Other   
 Welding  Curing  Procedural  Bridge No: 34-0006  
 Joint fit-up  Coating  Other  Component: OBG Segment 3BE  
 Procedural  Procedural  Description:

Reference Description: Mechanical Damage to T-Stiffener

### Description of Non-Conformance:

Caltrans Quality Assurance (QA) Inspector observed mechanical damage to the T-Rib flange area which is welded to the Bottom Panel. The damage was observed to be on the 3rd T-Rib from the Longitudinal Stiffener from the bike path side of Segment 3BE.

For further information, please see the attached pictures below.



### Applicable reference:

Standard Specification Section 55 section 55-1.04; 'Shipping, Handling and Storing Materials': "In handling and shipping of the steel work, every care shall be taken to avoid bending, scraping or overstressing the pieces. All pieces bent or otherwise injured will be rejected."

Who discovered the problem: S. Manjumath, Math.

Name of individual from Contractor notified: Steve Lawton

Time and method of notification: 0850 hours, Verbal

Name of Caltrans Engineer notified: Bill Howe

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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(Continued Page 2 of 2)

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Time and method of notification: 1105 hours, Verbal

QC Inspector's Name: Wang Lu.

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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Inspected By: Simonis, Jim

QA Inspector

Reviewed By: Wahbeh, Mazen

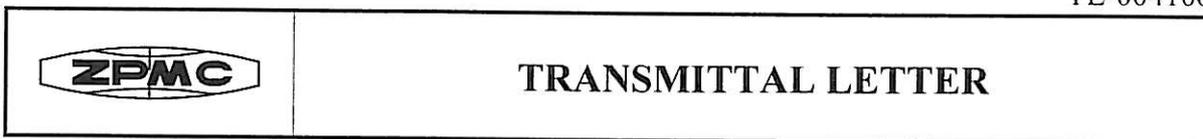
SMR

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PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 09/15/2009

TO: ROSE MARY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: CT NCR FOR CLOSURE

SUBMITTED FOR YOUR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE COPY OF

- (1) LETTER OF RESPONSE WITH NO.B-474 FOR CLOSURE.
- (2) CT NCR-000354(ZPMC-0328)
- (3) THE WELD REPAIR REPORTS

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

*Rosemary*

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PLAN HOLDER

16:15  
RECEIVED 15 SEP 2009

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DATE

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COMPANY

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PHONE NO.

PLAN NUMBER: N/A  
#R787-QCP-102



No. B-474

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2009-9-15**

**REGARDING: NCR-000354 (ZPMC-0328)**

With this letter of response, ZPMC requests closure for Caltrans NCR-000354 (ZPMC-0328). Per the comments of the NPR we are providing the weld repair report that the repair has been performed and the final condition has been accepted too.

so base on the above explanation, ZPMC applies to close the caltrans's report NCR-000354 (ZPMC-0328).

Please reference attached document for acceptance and closure the NCR-000354 (ZPMC-0328).

**ATTACHMENT:**

**NCR-000354 (ZPMC-0328)**

**The weld repair reports**

*Zhao Shuangbao*

*2009. 9. 15*



# 焊缝返修报告

版本 Rev. No.

## Welding Repair Report

0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No	SEG16	报告编号 Report No.	B-WR7591
合同号 Contract No.:	04-0120F4	部件名称 Items Name	RS9D	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:**

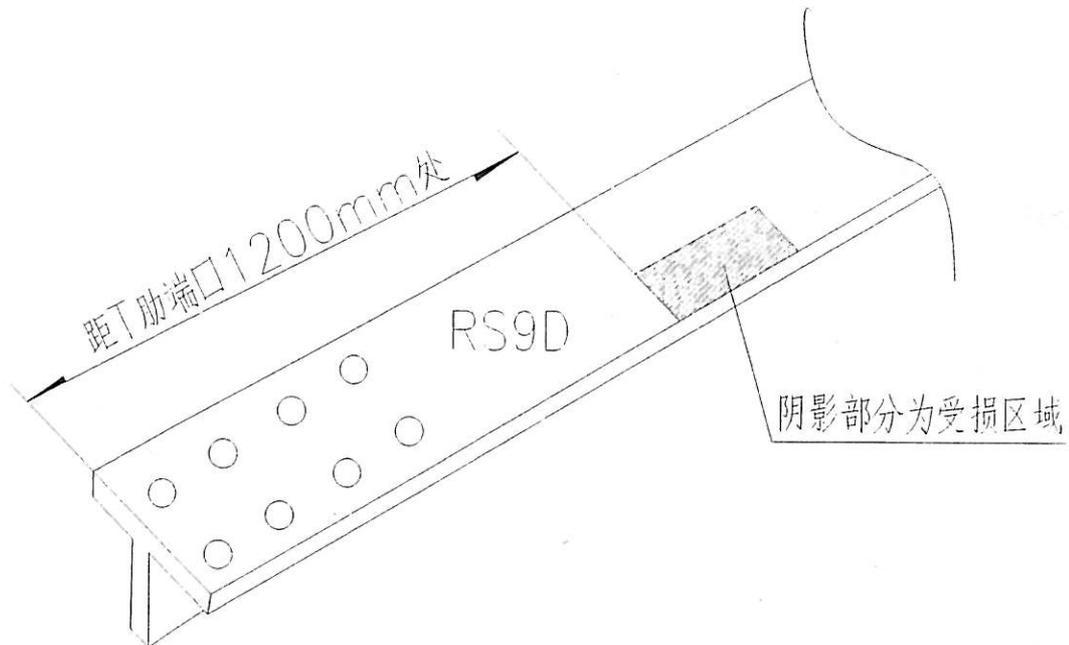
检查发现: 3BE箱体底板上从自行车道侧、纵桁处数起第三根T肋 (RS9D) 翼板母材砸伤, 如图所示:

After inspection: the third t-shape RS9D flange base metal was gouged at 3BE box bottom plate at bike way side, the detail see the following draft.

检验员 (Inspector): SONG HUI 日期(Date): 09.09.15

焊缝返修位置示意图:

Draft of welding discontinuity:



Gouged area in shadow.

产生原因:

Caused:

工人碳刨时，操作失误，导致母材损伤。

Worker operated error during gouged caused base metal gouged.

车间负责人(Foreman): *Lizhigang* 日期(Date): *09.09.15*

处理意见

Disposition :

1. 按照焊接返修工艺规程 (WPS) 打磨缺陷区域;
2. 对该区域作100%MT检查, 确保缺陷全部去除;
3. 根据批准的焊接返修工艺规程 (WPS) 进行预热及焊接;
4. 将焊接区域打磨至与母材平齐;
5. 对修补区域进行VT与MT检测;

1. Remove all the defects according to the approved repair WPS by means of grinding.
2. Verify with MT and VT no defects remain in the repair area prior to weld;
3. Preheat and weld according to the relevant WPS.
4. Grind the weld flush with base metal after welding.
5. Perform VT and MT inspection of the repaired area.

工艺: *MexiaoLin*  
Technical engineer

*09.09.15*

审核:  
Approved by

*Lujiashuo*

日期  
Date

*9.15*



# 焊缝返修报告

版本 Rev. No.

## Welding Repair Report

0

项目名称 Project Name	美国海湾大桥 SFOBB	部件图号 Drawing No.	SEG16	报告编号 Report No.	B-WR7591
合同号 Contract No.:	04-0120F4	部件名称 Items Name	RS9D	NDT报告编号 Report No. of NDT	NA
项目编号 Project No.:	ZP06-787				

纠正措施:

**Correction action to prevent re occurrence:**

培训和教育操作工, 提高操作水平。

Train and educate operator to improve skill.

车间负责人(Foreman):

日期(Date):

参照的WPS编号 Repair WPS No.	WPS-345-SMAW-1 G(1F)-Repair WPS-345-FCAW-1 G(1F)-Repair-1	工艺员 technologist	HexiaoLin 09.09.15
返修(碳刨)前预热温度 Preheat temperature before gouging	NA	返修的缺陷 Description of discontinuity	母材换修
焊前处理检查 Inspection before welding	Acc	焊前预热温度 Preheat temperature before welding	126°C
最大碳刨深度 Max. depth of gouging	NA	碳刨总长 Total length of gouging	NA
焊工 welder	048617	焊接类型 welding type	SMAW
		焊接位置 position	1G
焊接电流 Current	156	焊接电压 Voltage	21.5
		焊接速度 Speed	127

返修后检查

**Inspection After repairing:**

外观检查 VT result	Acc	检验员 Inspector	gurongjian 09120671	日期 Date	09.09.15
NDT复检 NDT result	Acc	探伤员 NDT person	CC... ...	日期 Date	09.09.15

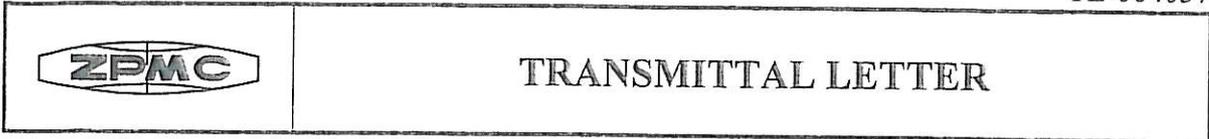
见证:

Witness/Review:

备注:

Remark:

#R787-QCP-900



PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 09/10/2009

TO: ROSE MARY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: CT NCR FOR CLOSURE

SUBMITTED FOR YOUR APPROVAL.

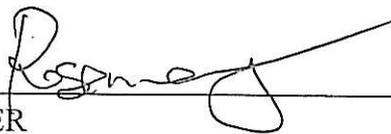
ENCLOSED WITH THIS TRANSMITTAL IS ON

- (1) LETTER OF RESPONSE WITH NO.B-466 FOR
- (2) CT NCR-000354(ZPMC-0328)
- (3) ZPMC INTERNAL NCR NCR-B-224
- (4) THE COMPLETE VT/UT/MT REPORTS



PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

  
 \_\_\_\_\_  
 PLAN HOLDER

13:50  
 RECEIVED 10 SEP 2009  
 \_\_\_\_\_  
 DATE

\_\_\_\_\_  
 COMPANY

\_\_\_\_\_  
 PHONE NO.

PLAN NUMBER: N/A  
 #R787-QCP-102

**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, PRC**Report No:** NCS-000273**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 25-Aug-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0328**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:** 16-Jul-2009**Description of Non-Conformance:**

Caltrans Quality Assurance (QA) Inspector observed mechanical damage to the T-Rib flange area which is welded to the Bottom Panel. The damage was observed to be on the 3rd T-Rib from the Longitudinal Stiffener from the bike path side of Segment 3BE.

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:**

Work was completed and item was cleared on Master Punchlist by Caltrans on 8-12-09. 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:**

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**