

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-000852**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 01-Oct-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0814**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Bikepath BK004A-017
Procedural	Procedural	Description:	

Reference Description: Contractor performed CJP welding on Bikepath without following the D1.5 requirements (No run-off tap, improper fit-up)

Description of Non-Conformance:

During the Quality Assurance (QA) in process inspection of bike path BK004A-017 in Bay 11, this QA Inspector discovered the following issues:

Issue 1:

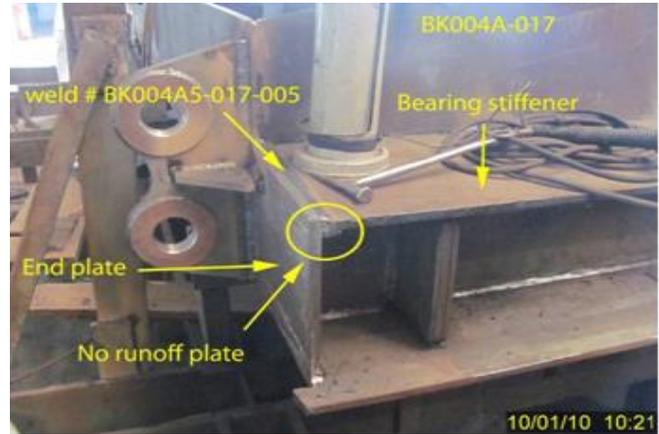
- The welding has been performed without the use of runoff plates.
- The welds are Complete Joint Penetration (CJP) with steel backing joining the Bearing Plate (BKPL7A/B) and end plate (BKPL3A/B).
- The welds are identified as: BK004A5-017-005 and BK004A3-017-002.

Issue 2:

- Steel backing that was tacked on the bearing plate (horizontal plate) was not properly "placed and held in intimate contact" with the end plate.
- The maximum gap between the steel backing and end plate is over 4mm.
- The weld is Complete Joint Penetration (CJP) with steel backing joining the Bearing Plate (BKPL7B) and End Plate (BKPL3B) of bike path.
- The weld is identified as: BK004A5-017-008.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

-AWS D1.5 (02) Section 3.12.1 – “Welds shall be terminated at the end of a joint in a manner that will ensure sound welds. Whenever possible, this shall be done by use of weld tabs (extension bars and runoff plates) placed in a manner that will duplicate the joint detail being welded.”

-AWS D1.5 (02) Section 3.13.5 – “Steel backing shall be placed and held in intimate contact with the base metal. The maximum gap between steel backing and the base metal at the weld root shall be 2 mm [U16 in.]”

-Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.”

Who discovered the problem: Umesh D. Gaikwad

Name of individual from Contractor notified: Zhao Xian He

Time and method of notification: 1045 Hrs, 10/01/2010, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 14:00 Hrs, 10/01/2010, Verbal

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

QC Inspector's Name: Shao Hai Lang

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.

Inspected By: Tsang, Eric SMR

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: 01-Oct-2010

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: 05.03.06-000809

Subject: NCR No. ZPMC-0814

Reference Description: Contractor performed CJP welding on Bikepath without following the D1.5 requirements (No run-off tap, improper fit-up)

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: Bike Path **Lift:**

Remarks:

During the Quality Assurance (QA) in process inspection of bike path BK004A-017 in Bay 11, Caltrans QA Inspector discovered the following issues:

Issue 1:

- The welding has been performed without the use of runoff plates.
- The welds are Complete Joint Penetration (CJP) with steel backing joining the Bearing Plate BKPL7A/B) and end plate (BKPL3A/B).
- The welds are identified as: BK004A5-017-005 and BK004A3-017-002.

Issue 2:

- Steel backing that was tacked on the bearing plate (horizontal plate) was not properly “placed and held in intimate contact” with the end plate.
- The maximum gap between the steel backing and end plate is over 4mm.
- The weld is Complete Joint Penetration (CJP) with steel backing joining the Bearing Plate (BKPL7B) and End Plate (BKPL3B) of bike path.
- The weld is identified as: BK004A5-017-008.

Action Required and/or Action Taken:

Please propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of these issues is expected within 7 days.

Transmitted by: Laraine Woo Transportation Engineer

Attachments: ZPMC-0814

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: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000809

Subject: NCR No. ZPMC-0814

Dated: 01-Nov-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000826 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has discussed this issue with the Production personnel to ensure they understand the requirements of runoff tabs and backing bars.

ZPMC has discussed this issue with the Production personnel to ensure they understand the requirements of runoff tabs and backing bars. In addition, ZPMC has written an internal NCR regarding this to make this non conformance known. As this has not occurred widespread in the project, ZPMC is confident that this will non conformance will be resolved. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000826R00;

Caltrans' comments:

Status: CLO

Date: 02-Nov-2010

The proposed resolution is acceptable. This NCR is closed.

Submitted by: Woo, Laraine

Date: 02-Nov-2010

Attachment(s):



No. B-923

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-11-01

REGARDING: NCR-000852(ZPMC-0814)

ZPMC QA personnel have talked with the floor CWI to address these problems. ZPMC is providing the NDT records to show the soundness of the affected welds in NCR. BK004A5-017-005 has been revised to be BK004A5-017-002. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000852(ZPMC-0814)

B787-UT-17020

A handwritten signature in black ink, appearing to be 'J. W.' or similar, written in a cursive style.

11/01/2010

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Contract #: 04-0120F4
 Cty: SF/ALA Rtc: 80 PM: 13.2/13.9
 File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, P.R. China

Report No: NCR-000852

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 01-Oct-2010

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

NCR #: ZPMC-0814

Type of problem:

Welding Concrete Other

Welding Curing Procedural

Joint fit-up Coating Other

Procedural Procedural Description:

Bridge No: 34-0006

Component: Bikepath BK004A-017

Reference Description: Contractor performed CJP welding on Bikepath without following the D1.5 requirements (No run-off tap, improper fit-up)

Description of Non-Conformance:

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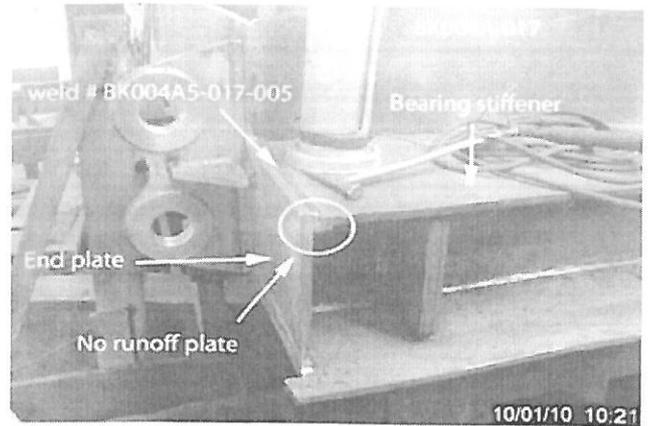
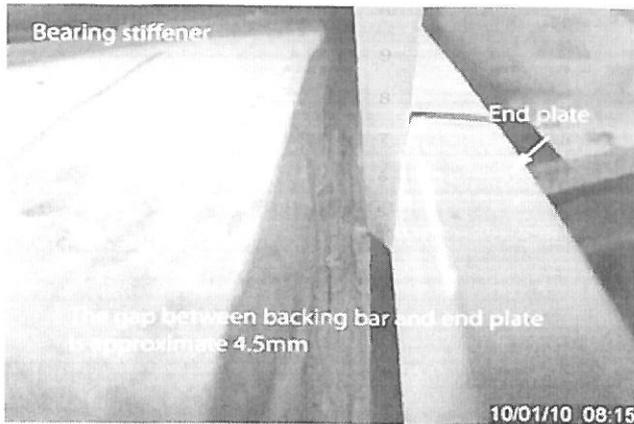
-The maximum gap between the steel backing and end plate is over 4mm.

-The weld is Complete Joint Penetration (CJP) with steel backing joining the Bearing Plate (BKPL7B) and End Plate (BKPL3B) of bike path.

-The weld is identified as: BK004A5-017-008.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



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-AWS D1.5 (02) Section 3.12.1 – “Welds shall be terminated at the end of a joint in a manner that will ensure sound welds. Whenever possible, this shall be done by use of weld tabs (extension bars and runoff plates) placed in a manner that will duplicate the joint detail being welded.”

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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

QC Inspector's Name: Shao Hai Lang

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

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Inspected By: Tsang, Eric SMR

Reviewed By: Wahbeh, Mazen SMR



REPORT OF ULTRASONIC EXAMINATION

UT探伤报告

REPORT NO. 报告编号 B787-UT-17020 DATE 2010.10.08 PAGE 1 OF 1 Revision No: 0

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

ITEMS NAME: BIKE PATH DRAWING NO.: BK004A-017 CALTRANS CONTRACT NO.: 04-0120F4
 部件名称 图号 加州工程编号

REFERENCING CODE 参考规范: AWS D1.5-2002 ACCEPTANCE STANDARD 接受标准: AWS D1.5-2002(Table 6.3) PROCEDURE NO. 程序编号: ZPQC-UT-01

WELDING PROCESS 焊接方法: FCAW JOINT TYPE 焊缝类型: T-JOINT CALIBRATION DUE DATE 仪器校正有效期: Dec. 28ST, 2010

EQUIPMENT 设备: UT SCOPE MANUFACTURER 制造商: OLYMPUS MODEL NO. 样式编号: EPOCH 4B SERIAL NO. 序列编号: 081610708

CALIBRATION BLOCK 试块: AWS IIW BLOCK TYPE II COUPLANT 耦合剂: C.M.C MATERIAL/THICKNESS 材料厚度: A709M-345T2-X 16mm

TRANSDUCER 探头

MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸	MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸
AMERICA	70°	2.25MHz	0.75×0.625in				
Reference Level 参考灵敏度						20dB	

Base metal inspected per AWS D1.5-2002 Section 6.19.5 0° UT OK.

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)						
					a	b	c	d	Length 长度	Sound Path 声程	Depth from Surface 距表面深度	From'X 距X	From'Y 距Y		
BK004A3-017-002		70				46								ACC.	100%
BK004A3-017-010		70				46								ACC.	100%
BK004A5-017-002		70				46								ACC.	100%
BK004A5-017-008		70				46								ACC.	100%

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EXAMINED BY 主探: <u>Xue hui Rong</u> LEVEL - II SIGN / DATE: <u>2010.10.08</u>	REVIEWED BY 审核: <u>Tangxing Shan</u> LEVEL - II SIGN / DATE: <u>2010.10.08</u>
质量经理 / QCM: <u>Lujianhua</u> 签字 SIGN / 日期 DATE: <u>2010.10.08</u>	用户CUSTOMER: _____ 签字 SIGN / 日期 DATE: _____

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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, P.R. China**Report No:** NCS-000826**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 02-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0814**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: 01-Oct-2010**Description of Non-Conformance:**

During the Quality Assurance (QA) in process inspection of bike path BK004A-017 in Bay 11, this QA Inspector discovered the following issues:

Issue 1:

- The welding has been performed without the use of runoff plates.
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- The maximum gap between the steel backing and end plate is over 4mm.
- The weld is Complete Joint Penetration (CJP) with steel backing joining the Bearing Plate (BKPL7B) and End Plate (BKPL3B) of bike path.
- The weld is identified as: BK004A5-017-008.

Contractor's proposal to correct the problem:

Contractor will discuss with the Production personnel to ensure they understand the requirements of runoff tabs and backing bars. Contractor will issue an internal NCR to make the inspector aware this is a non-conformance.

Corrective action taken:

Contractor discussed with the Production personnel to ensure that they understand the requirements of runoff tabs and backing bars. Contractor issued an internal NCR to the inspector involved.

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:

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Inspected By: Ng,Michael

Quality Assurance Inspector

Reviewed By: Wahbeh,Mazen

QA Reviewer