

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-000884**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 01-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0846**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Bikepath BK004A2-054
Procedural	Procedural	Description:	

Reference Description: ZPMC performed weld repair without following the WRR for bikepath BK004A2-054; subsequently, alternating the weld detail from the approved shop drawings

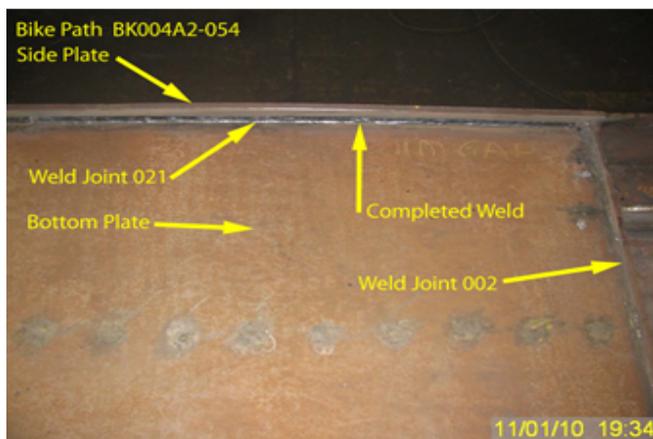
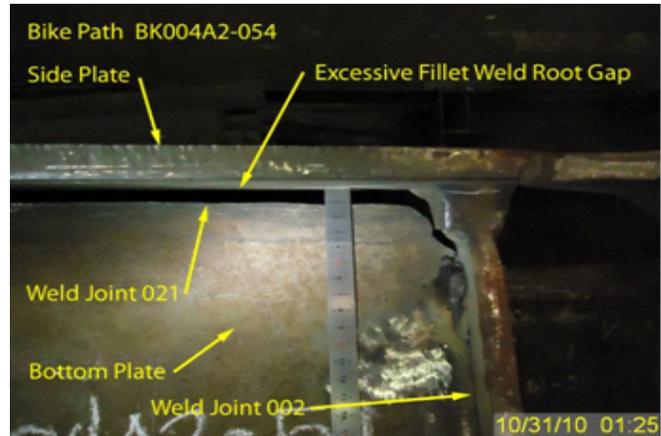
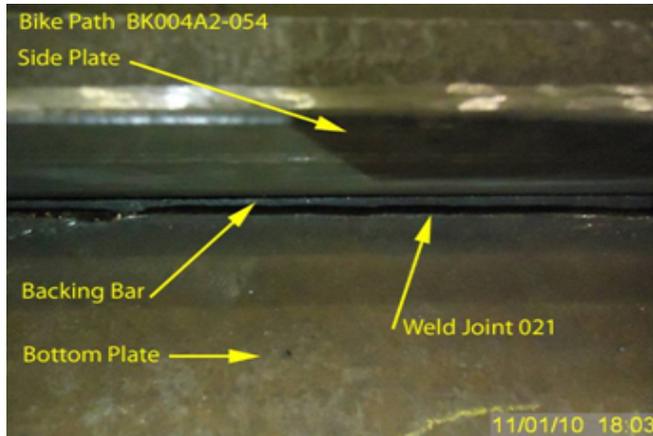
Description of Non-Conformance:

During Quality Assurance (QA) random in-process observations of the fabrication of Bike Path Segment BK004A2-054, this Caltrans QA inspector discovered the following issues:

- The bottom cover plate is distorted
- At 2 corner sections of the cover plate (1500mm and 2000mm sections), there exist root gaps of maximum 11mm.
- ZPMC personnel had a WRR# is B-WR 15580, which is for the weld build up.
- According to the approved shop drawing this weld is 6 mm fillet weld.
- ZPMC proceeded with fabrication by changing the joint detail to complete joint penetration (CJP) with backing bar to be remained rather than what it is in the WRR.
- These 2 CJP weld only cover the 1500mm and 2000mm sections, thus not a continuous CJP weld.
- Excessive root gap of more than 5mm at fit-up of CJP were measured at the bottom plate to side.
- The added tack welds on the CJP backing bar was not inspected by MT.
- The member is identified as Bike Path Segment BK004A2-054.
- The weld is fillet weld identified as BK004A2-054-021, joining BKPL4B to BKPL3B.
- The weld joins the bottom plate edge to side plate.
- OBG Bike Path is located in Bay-8.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

-AWS D1.5 2002 section 3.3.1 "The parts to be joined by fillet welds shall be brought into as close contact as practicable. The root opening shall not exceed 5 mm [3/16 in.] except in cases involving either shapes or plates 75 mm [3 in.] or greater in thickness if, after straightening and in assembly, the root opening cannot be closed sufficiently to meet this tolerance. In such cases, a maximum root opening of 8 mm [3/16 in.] may be used, with a backing weld or suitable backing."

-AWS D1.5 2002 section 6.5.1, The Inspector shall make certain that the size, length, and location of all welds conform to the requirements of this code and to the detail drawings and that no unspecified welds have been added

-AWS D1.5 2002 section 3.3.1.2 The use of filler plates shall be prohibited except as specified on the drawings or as specially approved by the Engineer and made in conformance with 2.5.

-Approved shop drawing: BK004A

Who discovered the problem: Dennis Combs

Name of individual from Contractor notified: Ady Valesco

Time and method of notification: 11:00 hours, 11/2/2010, Verbal.

Name of Caltrans Engineer notified: Laraine, Woo, Chris Havel

Time and method of notification: 14:00 hours, 11/2/2010, Verbal

QC Inspector's Name: Liu Chuan Gang

Was QC Inspector aware of the problem:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

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.

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: 04-Nov-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-0846

Job Name: SAS Superstructure
Document No: 05.03.06-000842

Reference Description: ZPMC performed weld repair without following the WRR for bikepath BK004A2-054; subsequently, alternating the weld detail from

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 Quality Assurance (QA) random in-process observations of the fabrication of Bike Path Segment BK004A2-054, Caltrans QA inspector discovered the following issues:

- The bottom cover plate is distorted
- At 2 corner sections of the cover plate (1500mm and 2000mm sections), there exist root gaps of maximum 11mm.
- ZPMC personnel had a WRR# is B-WR 15580, which is for the weld build up.
- According to the approved shop drawing this weld is 6 mm fillet weld.
- ZPMC proceeded with fabrication by changing the joint detail to complete joint penetration (CJP) with backing bar to be remained rather than what it is in the WRR.
- These 2 CJP weld only cover the 1500mm and 2000mm sections, thus not a continuous CJP weld.
- Excessive root gap of more than 5mm at fit-up of CJP were measured at the bottom plate to side.
- The added tack welds on the CJP backing bar was not inspected by MT.
- The member is identified as Bike Path Segment BK004A2-054.
- The weld is fillet weld identified as BK004A2-054-021, joining BKPL4B to BKPL3B.
- The weld joins the bottom plate edge to side plate.
- OBG Bike Path is located in Bay-8.

Action Required and/or Action Taken:

Proposed 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: Laraine Woo Transportation Engineer

Attachments: ZPMC-0846

NCT

(Continued Page 2 of 2)

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, 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: 05.03.06-000842

Subject: NCR No. ZPMC-0846

Dated: 29-Nov-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000848 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: PMC acknowledges that the fillet weld was changed to a CJP, they have issued an internal NCR and discussed this matter with their production crews to prevent future occurrences.

ZPMC acknowledges that the fillet weld was changed to a CJP, they have issued an internal NCR and discussed this matter with their production crews to prevent future occurrences. In this case the CJP was welded between 6mm plates so ZPMC is providing MT results to show that the welds is acceptable as well as NDT of the base metal repair. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000848R00;

Caltrans' comments:

Status: AAP

Date: 30-Nov-2010

Provide joint change detail to document a section of the weld that was partially performed without following the approved shop drawings.

Submitted by: Woo, Laraine

Attachment(s):

Date: 30-Nov-2010



No. B-938

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-11-26

REGARDING: NCR-000884(ZPMC-0846)

ZPMC is providing the NDT records which show the acceptance of the base metal and affected welds after repair. ZPMC QA personnel have talked with the floor CWI to enhance the welding control during repair and the requirement to following the repair procedure as described in WRR. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000884(ZPMC-0846)

B787-MT-33254

B787-MT-32066

A handwritten signature in black ink, appearing to be 'L. J. ...' with a stylized flourish at the end.

11/26/2010



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: 04-Nov-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: 05.03.06-000842

Subject: NCR No. ZPMC-0846

Reference Description: ZPMC performed weld repair without following the WRR for bikepath BK004A2-054; subsequently, alternating the weld detail from
 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 Quality Assurance (QA) random in-process observations of the fabrication of Bike Path Segment BK004A2-054, Caltrans QA inspector discovered the following issues:

- The bottom cover plate is distorted
- At 2 corner sections of the cover plate (1500mm and 2000mm sections), there exist root gaps of maximum 11mm.
- ZPMC personnel had a WRR# is B-WR 15580, which is for the weld build up.
- According to the approved shop drawing this weld is 6 mm fillet weld.
- ZPMC proceeded with fabrication by changing the joint detail to complete joint penetration (CJP) with backing bar to be remained rather than what it is in the WRR.
- These 2 CJP weld only cover the 1500mm and 2000mm sections, thus not a continuous CJP weld.
- Excessive root gap of more than 5mm at fit-up of CJP were measured at the bottom plate to side.
- The added tack welds on the CJP backing bar was not inspected by MT.
- The member is identified as Bike Path Segment BK004A2-054.
- The weld is fillet weld identified as BK004A2-054-021, joining BKPL4B to BKPL3B.
- The weld joins the bottom plate edge to side plate.
- OBG Bike Path is located in Bay-8.

Action Required and/or Action Taken:

Proposed 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: Laraine Woo Transportation Engineer
Attachments: ZPMC-0846

NCT

(Continued Page 2 of 2)

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, 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



Contract #: 04-0120F4

Bay Area Branch
 690 Walnut Ave. St. 150
 Vallejo, CA 94592-1133
 (707) 649-5453
 (707) 649-5493

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-000884**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 01-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0846**Type of problem:**Welding Concrete Other Welding Curing Procedural **Bridge No:** 34-0006Joint fit-up Coating Other **Component:** Bikepath BK004A2-054Procedural Procedural Description:

Reference Description: ZPMC performed weld repair without following the WRR for bikepath BK004A2-054; subsequently, alternating the weld detail from the approved shop drawings

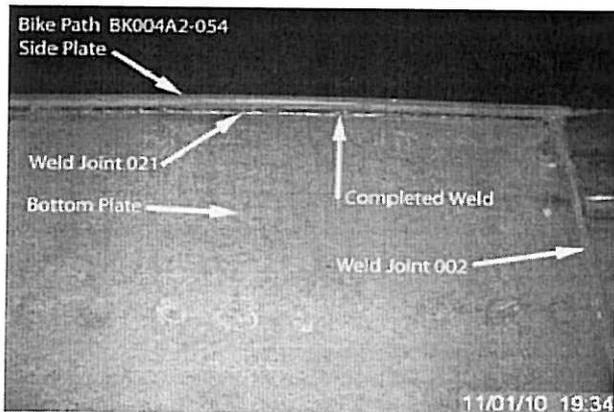
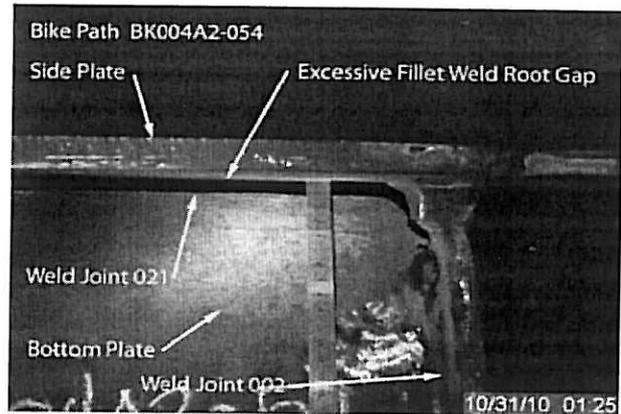
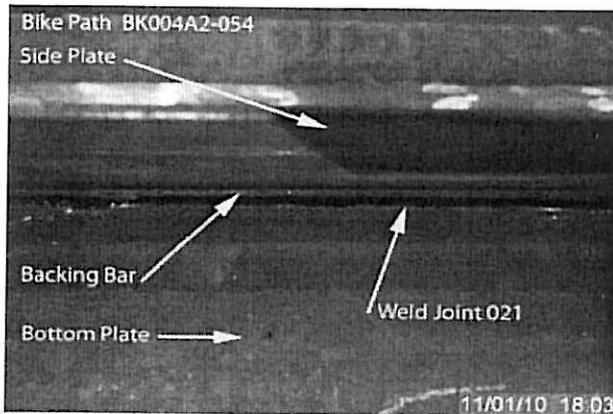
Description of Non-Conformance:

During Quality Assurance (QA) random in-process observations of the fabrication of Bike Path Segment BK004A2-054, this Caltrans QA inspector discovered the following issues:

- The bottom cover plate is distorted
- At 2 corner sections of the cover plate (1500mm and 2000mm sections), there exist root gaps of maximum 1mm.
- ZPMC personnel had a WRR# is B-WR 15580, which is for the weld build up.
- According to the approved shop drawing this weld is 6 mm fillet weld.
- ZPMC proceeded with fabrication by changing the joint detail to complete joint penetration (CJP) with backing bar to be remained rather than what it is in the WRR.
- These 2 CJP weld only cover the 1500mm and 2000mm sections, thus not a continuous CJP weld.
- Excessive root gap of more than 5mm at fit-up of CJP were measured at the bottom plate to side.
- The added tack welds on the CJP backing bar was not inspected by MT.
- The member is identified as Bike Path Segment BK004A2-054.
- The weld is fillet weld identified as BK004A2-054-021, joining BKPL4B to BKPL3B.
- The weld joins the bottom plate edge to side plate.
- OBG Bike Path is located in Bay-8.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

-AWS D1.5 2002 section 3.3.1 "The parts to be joined by fillet welds shall be brought into as close contact as practicable. The root opening shall not exceed 5 mm [3/16 in.] except in cases involving either shapes or plates 75 mm [3 in.] or greater in thickness if, after straightening and in assembly, the root opening cannot be closed sufficiently to meet this tolerance. In such cases, a maximum root opening of 8 mm [3/16 in.] may be used, with a backing weld or suitable backing."

-AWS D1.5 2002 section 6.5.1, The Inspector shall make certain that the size, length, and location of all welds conform to the requirements of this code and to the detail drawings and that no unspecified welds have been added

-AWS D1.5 2002 section 3.3.1.2 The use of filler plates shall be prohibited except as specified on the drawings or as specially approved by the Engineer and made in conformance with 2.5.

-Approved shop drawing: BK004A

Who discovered the problem: Dennis Combs

Name of individual from Contractor notified: Ady Valesco

Time and method of notification: 11:00 hours, 11/2/2010, Verbal.

Name of Caltrans Engineer notified: Laraine, Woo, Chris Havel

Time and method of notification: 14:00 hours, 11/2/2010, Verbal

QC Inspector's Name: Liu Chuan Gang

Was QC Inspector aware of the problem:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

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.

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



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-33254		DATE日期 2010.11.03		PAGE OF页码 1/1	Revision No: 0	
PROJECT NO. 工程编号: ZP06-787			CONTRACTOR: 用户: CALTRANS			
DRAWING NO. 图号: BK4A BIKE PASS			CALTRANS CONTRACT NO.: 加州工程编号 04-0050F4			
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2010			
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 DA-400S	SERIAL NO. 连续编号 17369			
MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC			
PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm			
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材,厚度	A709M-345T2 6\16MM			
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	NA			
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			
BK4A				ACC.		100%MT
BASE METAL PER WR15580						
BLANK						
EXAMINED BY主探 DI KUN LUN <u>Di Kun Lun</u> 2012.11.13			REVIEWED BY 审核 <u>Li Guoqing</u> 2012.11.13			
LEVEL - II SIGN 签名 / DATE日期 质量经理 / QCM			LEVEL-II SIGN / DATE日期 用户CUSTOMER			
签字 SIGN / 日期 DATE			签字 SIGN / 日期 DATE			



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-32066 DATE日期 2010.11.13 PAGE OF页码 1/1 Revision No: 0

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

DRAWING NO. 图号: BK004A2 BIKE PATH CALTRANS CONTRACT NO.: 加州工程编号: 04-0120F4

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

EQUIPMENT 设备: MT YOKE MANUFACTURER 制造商: PARKER MODEL NO. 样式编号: DA-400S SERIAL NO. 连续编号: 17371

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

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

MATERIAL TO BE EXAMINED 检测材料: WELDING 焊接件 Material & thickness 母材,厚度: A709M-345T2
 CASTING 铸件 16 mm
 FORGING 锻造

WELDING PROCESS 焊接方法: FCAW TYPE OF JOINT 焊缝类型: BUTT

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			
BK004A2-054-021				ACC.		after repaired

AFTER B-WR15580

BLANK

EXAMINED BY主探: Di Kunlun *Di Kunlun* 2010.11.13 REVIEWED BY 审核: Li Li *Li Li* 2010.11.13

LEVEL - II SIGN 签名 / DATE日期 LEVEL-II SIGN / DATE日期

质量经理 / QCM: *Li Li* 2010.11.13 用户CUSTOMER: _____

签字 SIGN / 日期 DATE 签字 SIGN / 日期 DATE

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000842

Subject: NCR No. ZPMC-0846

Dated: 03-Jan-2011

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000848 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC is submitting the NDT of the CJP weld which shows it is acceptable as well as the revised weld map to show the addition of the weld joint.

ZPMC is submitting the NDT of the CJP weld which shows it is acceptable as well as the revised weld map to show the addition of the weld joint. ZPMC QA has discussed this incident with the CWI responsible for the area to ensure in the future the WRRs are followed and prior approval is received before changing weld joints. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000848R01;

Caltrans' comments:

Status: CLO

Date: 04-Jan-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0846 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 04-Jan-2011



No. B-954

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-12-30

REGARDING: NCR-000884(ZPMC-0846)

ZPMC has provided the NDT records which show the acceptance of the base metal and affected welds after repair. ZPMC QA personnel have talked with the floor CWI to enhance the welding control during repair and the requirement to following the repair procedure as described in WRR. And now ZPMC submits the detail weld map. The joint changing report has been approved by CT's engineer. ZPMC transmittal letter number is TL-0008978. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000884(ZPMC-0846)

Weld Map BK004A2-054

Zhangwei

12/30/10



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: 04-Nov-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-0846
Document No: 05.03.06-000842

Reference Description: ZPMC performed weld repair without following the WRR for bikepath BK004A2-054; subsequently, alternating the weld detail from
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 Quality Assurance (QA) random in-process observations of the fabrication of Bike Path Segment BK004A2-054, Caltrans QA inspector discovered the following issues:

- The bottom cover plate is distorted
- At 2 corner sections of the cover plate (1500mm and 2000mm sections), there exist root gaps of maximum 11mm.
- ZPMC personnel had a WRR# is B-WR 15580, which is for the weld build up.
- According to the approved shop drawing this weld is 6 mm fillet weld.
- ZPMC proceeded with fabrication by changing the joint detail to complete joint penetration (CJP) with backing bar to be remained rather than what it is in the WRR.
- These 2 CJP weld only cover the 1500mm and 2000mm sections, thus not a continuous CJP weld.
- Excessive root gap of more than 5mm at fit-up of CJP were measured at the bottom plate to side.
- The added tack welds on the CJP backing bar was not inspected by MT.
- The member is identified as Bike Path Segment BK004A2-054.
- The weld is fillet weld identified as BK004A2-054-021, joining BKPL4B to BKPL3B.
- The weld joins the bottom plate edge to side plate.
- OBG Bike Path is located in Bay-8.

Action Required and/or Action Taken:

Proposed 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: Laraine Woo Transportation Engineer
Attachments: ZPMC-0846

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, P.R. China

Report No: NCR-000884

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 01-Nov-2010

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

NCR #: ZPMC-0846

Type of problem:

Welding **Concrete** **Other**

Welding **Curing** **Procedural** **Bridge No:** 34-0006

Joint fit-up **Coating** **Other** **Component:** Bikepath BK004A2-054

Procedural **Procedural** **Description:**

Reference Description: ZPMC performed weld repair without following the WRR for bikepath BK004A2-054; subsequently, alternating the weld detail from the approved shop drawings

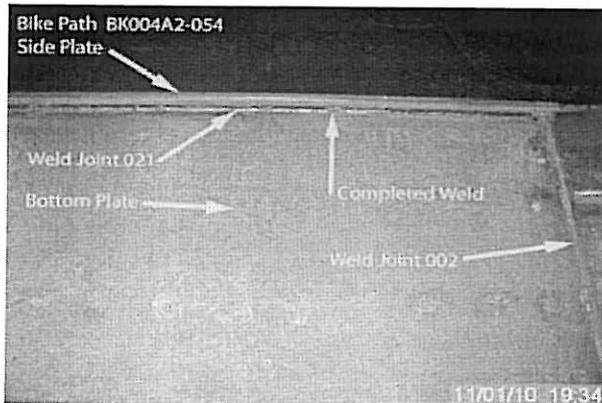
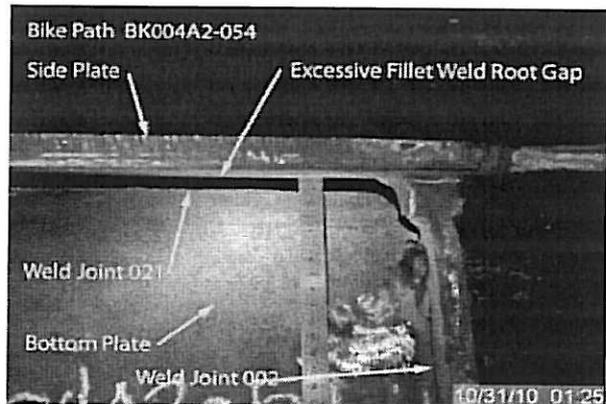
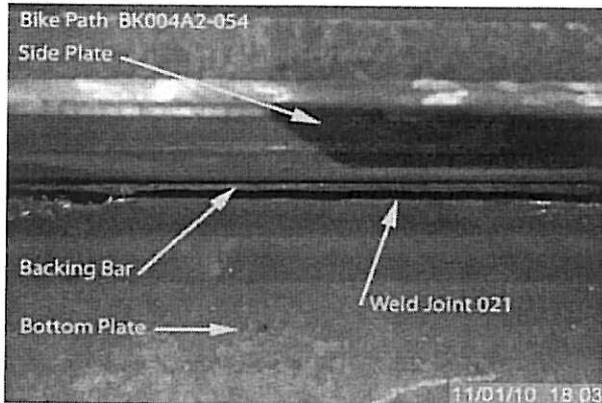
Description of Non-Conformance:

During Quality Assurance (QA) random in-process observations of the fabrication of Bike Path Segment BK004A2-054, this Caltrans QA inspector discovered the following issues:

- The bottom cover plate is distorted
- At 2 corner sections of the cover plate (1500mm and 2000mm sections), there exist root gaps of maximum 11mm.
- ZPMC personnel had a WRR# is B-WR 15580, which is for the weld build up.
- According to the approved shop drawing this weld is 6 mm fillet weld.
- ZPMC proceeded with fabrication by changing the joint detail to complete joint penetration (CJP) with backing bar to be remained rather than what it is in the WRR.
- These 2 CJP weld only cover the 1500mm and 2000mm sections, thus not a continuous CJP weld.
- Excessive root gap of more than 5mm at fit-up of CJP were measured at the bottom plate to side.
- The added tack welds on the CJP backing bar was not inspected by MT.
- The member is identified as Bike Path Segment BK004A2-054.
- The weld is fillet weld identified as BK004A2-054-021, joining BKPL4B to BKPL3B.
- The weld joins the bottom plate edge to side plate.
- OBG Bike Path is located in Bay-8.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

-AWS D1.5 2002 section 3.3.1 "The parts to be joined by fillet welds shall be brought into as close contact as practicable. The root opening shall not exceed 5 mm [3/16 in.] except in cases involving either shapes or plates 75 mm [3 in.] or greater in thickness if, after straightening and in assembly, the root opening cannot be closed sufficiently to meet this tolerance. In such cases, a maximum root opening of 8 mm [3/16 in.] may be used, with a backing weld or suitable backing."

-AWS D1.5 2002 section 6.5.1, The Inspector shall make certain that the size, length, and location of all welds conform to the requirements of this code and to the detail drawings and that no unspecified welds have been added

-AWS D1.5 2002 section 3.3.1.2 The use of filler plates shall be prohibited except as specified on the drawings or as specially approved by the Engineer and made in conformance with 2.5.

-Approved shop drawing: BK004A

Who discovered the problem: Dennis Combs

Name of individual from Contractor notified: Ady Valesco

Time and method of notification: 11:00 hours, 11/2/2010, Verbal.

Name of Caltrans Engineer notified: Laraine, Woo, Chris Havel

Time and method of notification: 14:00 hours, 11/2/2010, Verbal

QC Inspector's Name: Liu Chuan Gang

Was QC Inspector aware of the problem:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

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.

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



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-32066 DATE日期 2010.11.13 PAGE OF页码 1/1 Revision No: 0

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

DRAWING NO. 图号: BK004A2 BIKE PATH CALTRANS CONTRACT NO.: 加州工程编号: 04-0120F4

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

EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 DA-400S	SERIAL NO. 连续编号 17371
-------------------------	----------------------------	---------------------------	--------------------------

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

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

MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材,厚度	A709M-345T2 16 mm
---------------------------------	---	-------------------------------	--------------------------

WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	BUTT
-------------------------	------	-----------------------	------

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			
BK004A2-054-021				ACC.		after repaired

AFTER B-WR15580

BLANK

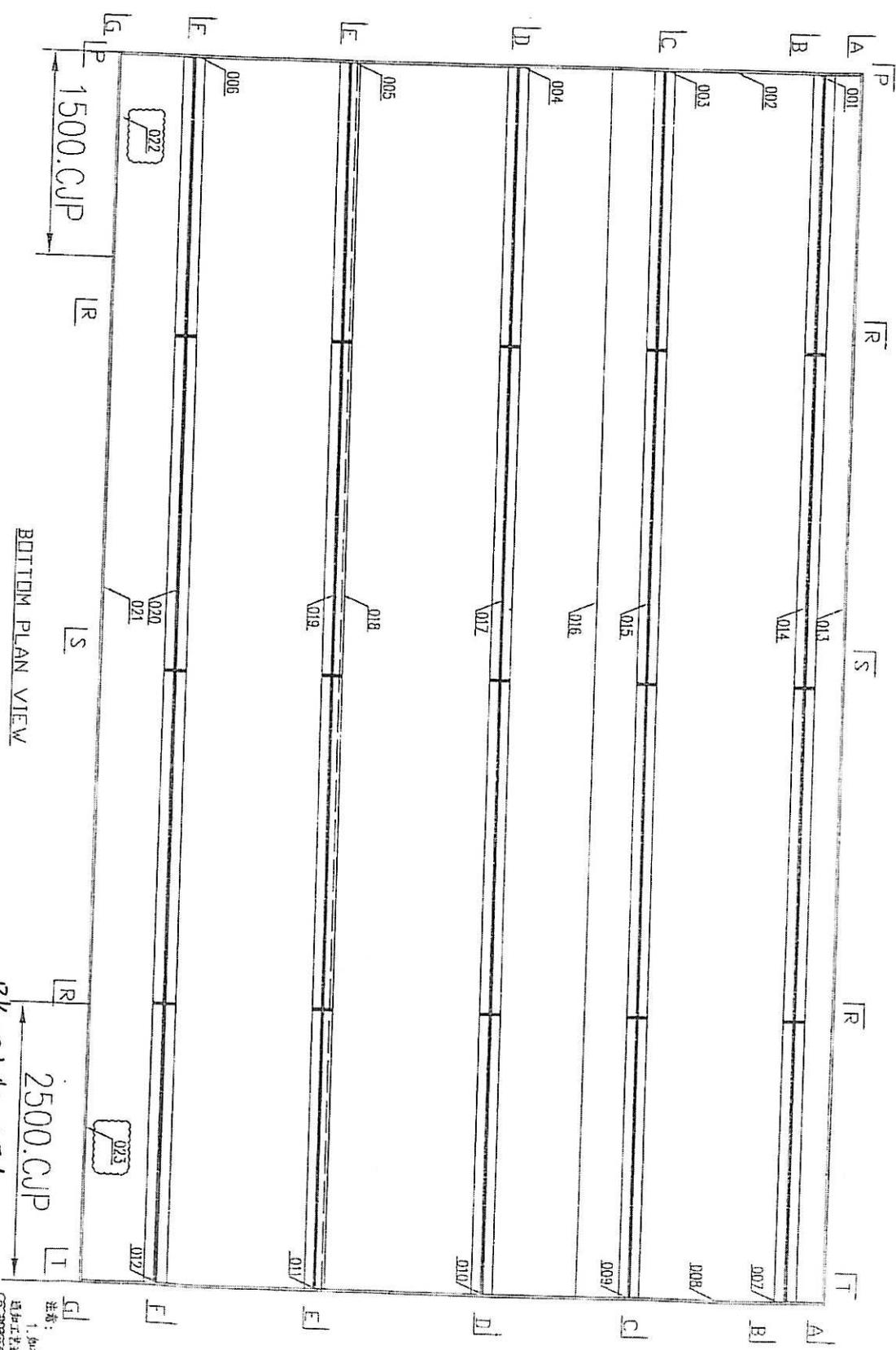
EXAMINED BY 主探 Di Kunlun <i>Di Kunlun</i> 2010.11.13 LEVEL - II SIGN 签名 / DATE日期 质量经理 / QCM <i>Li Li</i> 2010.11.13 签字 SIGN / 日期 DATE	REVIEWED BY 审核 <i>Li Li</i> 2010.11.13 LEVEL-II SIGN / DATE日期 用户CUSTOMER 签字 SIGN / 日期 DATE
--	--



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-33254		DATE日期 2010.11.03	PAGE OF页码 1/1	Revision No: 0		
PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS				
DRAWING NO. 图号: BK4A BIKE PASS		CALTRANS CONTRACT NO.: 加州工程编号 04-0050F4				
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2010			
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 DA-400S	SERIAL NO. 连续编号 17369			
MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC			
PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm			
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材,厚度	A709M-345T2 6\16MM			
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	NA			
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			
BK4A				ACC.		100%MT
BASE METAL PER WR15580						
BLANK						
EXAMINED BY主探 DI KUN LUN <u>Di Kun Lun</u> 2012.11.13			REVIEWED BY 审核 <u>Li Guoqing</u> 2012.11.13			
LEVEL - II SIGN 签名 / DATE日期 质量经理 / QCM			LEVEL-II SIGN / DATE日期 用户CUSTOMER			
签字 SIGN / 日期 DATE			签字 SIGN / 日期 DATE			



BOTTOM PLAN VIEW

焊接图号: BK000 EP 000
 BK004A2-054

焊接符号
 物料生产流水号
 零件车间图号

注意:
 1. 如有虚线或重复标注的焊缝, 需C.A. 通知工艺, 进行标注更改。
 2. 焊缝022、023按照“BK004A-054”
 见附件进行标注—JC109RO



WELDING MAP

图号	BK004A2
图名	焊接图
比例	1/1
日期	2010.12.21

2010.12.21

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-000876**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 05-Jan-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0846**Type of problem:**

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

Date the Non-Conformance Report was written: 01-Nov-2010**Description of Non-Conformance:**

During Quality Assurance (QA) random in-process observations of the fabrication of Bike Path Segment BK004A2-054, this Caltrans QA inspector discovered the following issues:

- The bottom cover plate is distorted
- At 2 corner sections of the cover plate (1500mm and 2000mm sections), there exist root gaps of maximum 11mm.
- ZPMC personnel had a WRR# is B-WR 15580, which is for the weld build up.
- According to the approved shop drawing this weld is 6 mm fillet weld.
- ZPMC proceeded with fabrication by changing the joint detail to complete joint penetration (CJP) with backing bar to be remained rather than what it is in the WRR.
- These 2 CJP weld only cover the 1500mm and 2000mm sections, thus not a continuous CJP weld.
- Excessive root gap of more than 5mm at fit-up of CJP were measured at the bottom plate to side.
- The added tack welds on the CJP backing bar was not inspected by MT.
- The member is identified as Bike Path Segment BK004A2-054.
- The weld is fillet weld identified as BK004A2-054-021, joining BKPL4B to BKPL3B.
- The weld joins the bottom plate edge to side plate.
- OBG Bike Path is located in Bay-8.

Contractor's proposal to correct the problem:

ZPMC will submit the NDT of the CJP weld.
The joint change will be noted in the new weld map.
ZPMC QA has discussed the issue with the CWI.

Corrective action taken:

Provided the new weld map.
Completed the welding with subsequent NDT.
Acceptable NDT records provided.

