

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-000886**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 03-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0848**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 MT on the excavation for bikepath BK004A2-054

Description of Non-Conformance:

During the Quality Assurance (QA) random visual inspection of the Bike path bottom plate of BK004A2-054, this QA Inspector discovered the following issues:

- ZPMC welding personnel were performing weld repair on the excavated cracked plug welds areas not according to the approved Critical Welding Repair (CWR) report No.B-CWR-2102.
- The approved CWR 2102 specifies that before welding, the excavated areas shall be verified with Visual Testing (VT) and MT to ensure that they are free of defect.
- The excavation depth is approximately 5 mm in depth.
- ZPMC personnel did not verify the excavated area by MT prior to welding.
- QA noted that the excavated area has a crack and reminded ZPMC that MT shall be performed prior to weld repair.
- The weld with the VT crack is BK004A2-054-020 (3rd hole from BKPL6B)
- ZPMC proceeded with welding without MT.
- The Bike path number is identified as BK004A2-054.
- The welds are identified as BK004A2-054-014,015,017,019,020.
- The thickness of the bottom plate is 6 mm.
- This Bike Path is located in Sub assembly Bay#8.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

Caltrans Engineer approved CWR No: B-CWR-2102

Who discovered the problem: Surendra Prabhu

Name of individual from Contractor notified: Liu Hua Jie

Time and method of notification: 1515 hours, 11/03/10, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 1100 hours, 11/04/10, Email

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

QC Inspector's Name: Liu Fa Wen

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.

Inspected By:	Tsang, Eric	SMR
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Reviewed By:	Wahbeh, Mazen	SMR
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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-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-0848

Job Name: SAS Superstructure
Document No: 05.03.06-000843

Reference Description: ZPMC performed weld repair without MT on the excavation for bikepath BK004A2-054

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) random visual inspection of the Bike path bottom plate of BK004A2-054, Caltrans QA Inspector discovered the following issues:
- ZPMC welding personnel were performing weld repair on the excavated cracked plug welds areas not according to the approved Critical Welding Repair (CWR) report No. B-CWR-2102.
 - The approved CWR 2102 specifies that before welding, the excavated areas shall be verified with Visual Testing (VT) and MT to ensure that they are free of defect.
 - The excavation depth is approximately 5 mm in depth.
 - ZPMC personnel did not verify the excavated area by MT prior to welding.
 - QA noted that the excavated area has a crack and reminded ZPMC that MT shall be performed prior to weld repair.
 - The weld with the VT crack is BK004A2-054-020 (3rd hole from BKPL6B)
 - ZPMC proceeded with welding without MT.
 - The Bike path number is identified as BK004A2-054.
 - The welds are identified as BK004A2-054-014,015,017,019,020.
 - The thickness of the bottom plate is 6 mm.
 - This Bike Path is located in Sub assembly 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-0848

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: 05.03.06-000843

Subject: NCR No. ZPMC-0848

Dated: 29-Nov-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000845 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has removed the weld observed with the indication, performed the MT after excavation and MT after the repair

ZPMC has removed the weld observed with the indication, performed the MT after excavation and MT after the repair. ZPMC has issued an internal NCR to document this non conformance and is providing the NDT after to show the weld is acceptable. ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000845R00;

Caltrans' comments:

Status: CLO

Date: 30-Nov-2010

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

Submitted by: Woo, Laraine

Date: 30-Nov-2010

Attachment(s):



No. B-933

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-11-25

REGARDING: NCR-000886(ZPMC-0848)

ZPMC acknowledged this problem and has released an internal NCR. The unsatisfied repair welds have been removed. MT were performed to ensure these areas were free of defects after excavation. And ZPMC is providing the NDT record to show the acceptance of these welds after repair. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000886(ZPMC-0848)

B787-MT-33333

B787-MT-32067

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

11/25/2010



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 Date: 05-Nov-2010
 375 BURMA ROAD
 OAKLAND CA 95607 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: 05.03.06-000843
 Subject: NCR No. ZPMC-0848

Reference Description: ZPMC performed weld repair without MT on the excavation for bikepath BK004A2-054

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) random visual inspection of the Bike path bottom plate of BK004A2-054, Caltrans QA Inspector discovered the following issues:

- ZPMC welding personnel were performing weld repair on the excavated cracked plug welds areas not according to the approved Critical Welding Repair (CWR) report No. B-CWR-2102.
- The approved CWR 2102 specifies that before welding, the excavated areas shall be verified with Visual Testing (VT) and MT to ensure that they are free of defect.
- The excavation depth is approximately 5 mm in depth.
- ZPMC personnel did not verify the excavated area by MT prior to welding.
- QA noted that the excavated area has a crack and reminded ZPMC that MT shall be performed prior to weld repair.
- The weld with the VT crack is BK004A2-054-020 (3rd hole from BKPL6B)
- ZPMC proceeded with welding without MT.
- The Bike path number is identified as BK004A2-054.
- The welds are identified as BK004A2-054-014,015,017,019,020.
- The thickness of the bottom plate is 6 mm.
- This Bike Path is located in Sub assembly 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-0848

15.04
 05.03.06-000843.NCT

Received
 NCT-000843 05 Nov 10 Page 1 of 2

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
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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-000886

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 03-Nov-2010

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

NCR #: ZPMC-0848

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 MT on the excavation for bikepath BK004A2-054

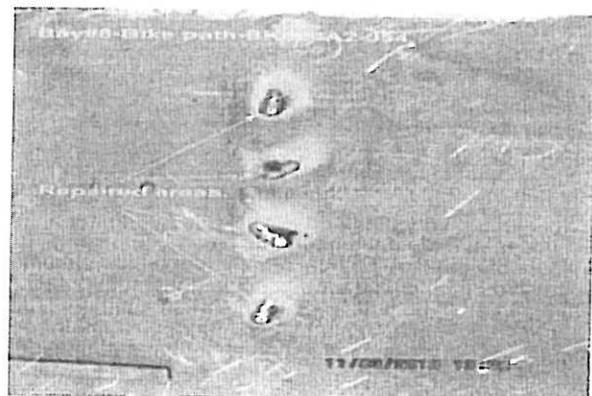
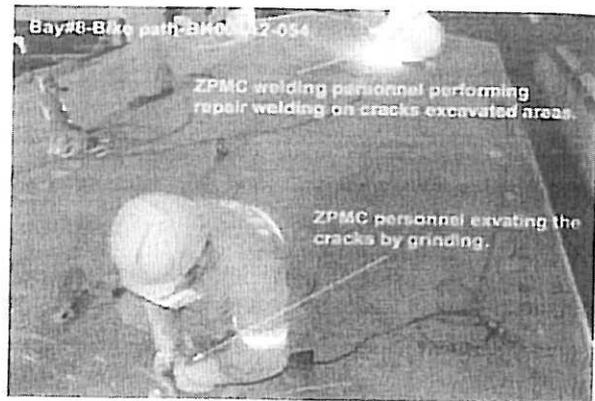
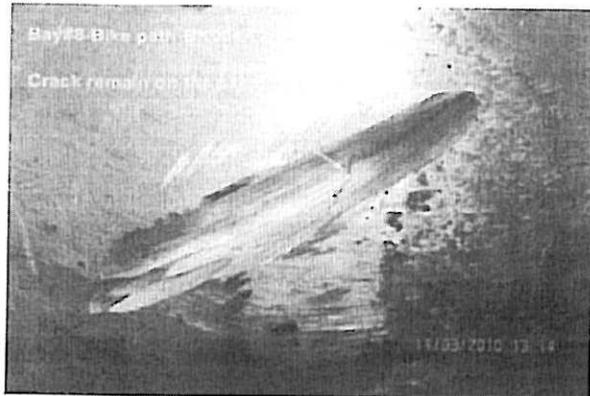
Description of Non-Conformance:

During the Quality Assurance (QA) random visual inspection of the Bike path bottom plate of BK004A2-054, this QA Inspector discovered the following issues:

- ZPMC welding personnel were performing weld repair on the excavated cracked plug welds areas not according to the approved Critical Welding Repair (CWR) report No.B-CWR-2102.
- The approved CWR 2102 specifies that before welding, the excavated areas shall be verified with Visual Testing (VT) and MT to ensure that they are free of defect.
- The excavation depth is approximately 5 mm in depth.
- ZPMC personnel did not verify the excavated area by MT prior to welding.
- QA noted that the excavated area has a crack and reminded ZPMC that MT shall be performed prior to weld repair.
- The weld with the VT crack is BK004A2-054-020 (3rd hole from BKPL6B)
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- The welds are identified as BK004A2-054-014,015,017,019,020.
- The thickness of the bottom plate is 6 mm.
- This Bike Path is located in Sub assembly Bay#8.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)



Applicable reference:

Caltrans Engineer approved CWR No: B-CWR-2102

Who discovered the problem: Surendra Prabhu

Name of individual from Contractor notified: Liu Hua Jie

Time and method of notification: 1515 hours, 11/03/10, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 1100 hours, 11/04/10, Email

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

QC Inspector's Name: Liu Fa Wen

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.

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-33333		DATE日期 2010.11.07	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: BK004A2-054 bike path		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 616MM	
WELDING PROCESS 焊接方法	NA	TYPE OF JOINT 焊缝类型	T JIONT	

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			
BK004A2-054-014				ACC.		after excavation
BK004A2-054-015				ACC.		after excavation
BK004A2-054-017				ACC.		after excavation
BK004A2-054-019				ACC.		after excavation
BK004A2-054-020				ACC.		after excavation

AFTER B-CWR2160

BLANK

EXAMINED BY主探 DI KUN LUN <u>Di Kun Lun</u> LEVEL - II SIGN 签名 / DATE日期 <u>2010.11.12</u> 质量经理 / QCM <u>Li Jianhua</u> <u>2010.11.12</u> 签字 SIGN / 日期 DATE	REVIEWED BY 审核 <u>Li Jianhua</u> <u>2010.11.12</u> 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-32067		DATE日期 2010.11.12	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: BK004A2-054 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	T JIONT	

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			
BK004A2-054-014				ACC.		100%MT
BK004A2-054-015				ACC.		100%MT
BK004A2-054-017				ACC.		100%MT
BK004A2-054-019				ACC.		100%MT
BK004A2-054-020				ACC.		100%MT

AFTER B-CWR2160

BLANK

EXAMINED BY主探 DI KUN LUN <u>Di Kun Lun</u>	REVIEWED BY 审核 <u>Li Li ming</u>
LEVEL - II SIGN 签名 / DATE日期 2010-11-12	LEVEL-II SIGN / DATE日期 2010-11-12
质量经理 / QCM <u>Li Jian hua</u> 2010-11-12	用户CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

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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-000839**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 30-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0848**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: 03-Nov-2010**Description of Non-Conformance:**

During the Quality Assurance (QA) random visual inspection of the Bike path bottom plate of BK004A2-054, this QA Inspector discovered the following issues:

- ZPMC welding personnel were performing weld repair on the excavated cracked plug welds areas not according to the approved Critical Welding Repair (CWR) report No.B-CWR-2102.
- The approved CWR 2102 specifies that before welding, the excavated areas shall be verified with Visual Testing (VT) and MT to ensure that they are free of defect.
- The excavation depth is approximately 5 mm in depth.
- ZPMC personnel did not verify the excavated area by MT prior to welding.
- QA noted that the excavated area has a crack and reminded ZPMC that MT shall be performed prior to weld repair.
- The weld with the VT crack is BK004A2-054-020 (3rd hole from BKPL6B)
- ZPMC proceeded with welding without MT.
- The Bike path number is identified as BK004A2-054.
- The welds are identified as BK004A2-054-014,015,017,019,020.
- The thickness of the bottom plate is 6 mm.
- This Bike Path is located in Sub assembly Bay#8.

Contractor's proposal to correct the problem:

ZPMC to remove the weld in question, identify the indications found and perform MT after the excavation and before reweld. Perform MT after the weld repair. ZPMC to issue internal NCR to the parties involved.

Corrective action taken:

The weld in question was removed and the affected area including the location where original defects found was inspected by MT. MT was also performed after the subsequent repair. NDT report showed that the original defects have been removed and the repair was acceptable. Internal NCR was issued by ZPMC to the welder and QC involved.

