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-000849
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 25-Sep-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0811

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☑	**Component:** Bikepath Assembly BK004A6-008 and BK004A3-018
Procedural	☐	**Procedural**	☐	**Description:** Missed MT cracks by QC		

Reference Description: QA found a missed MT transverse crack and MT longitudinal crack after ZPMC had tested and accepted the welds in Bikepath Assembly

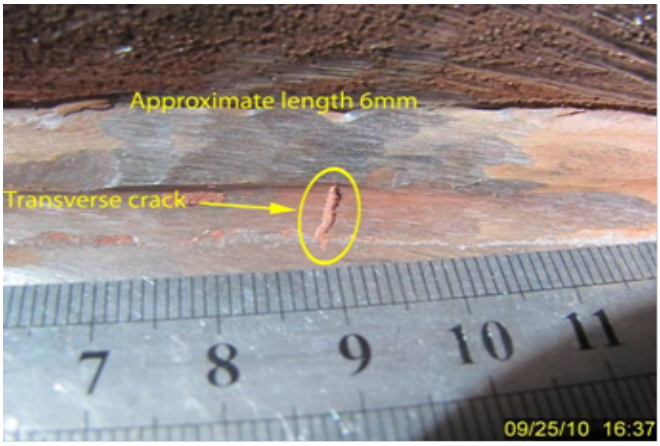
Description of Non-Conformance:

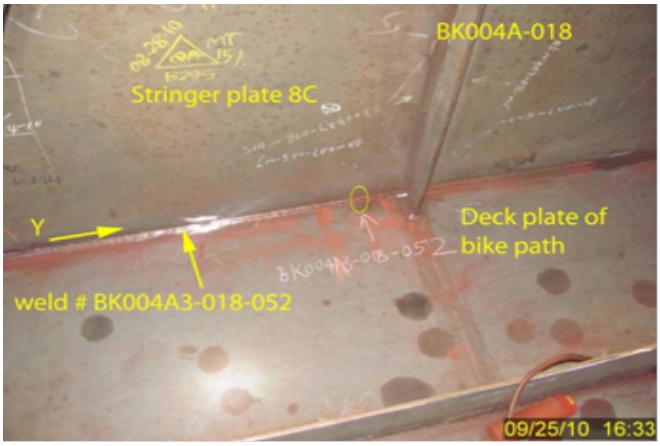
During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Bike Path 008, this QA Inspector discovered the following issues:
-One Longitudinal linear crack in the weld measuring approximately 15mm in length.
-The weld is identified as BK004A6-008-080.
-The weld is partial joint penetration (PJP), joining the End Diaphragm plate identified as BKX11G to the Deck Plate identified as BKPL1A.
-This weld joint is designated as Non-Seismic performance critical (Non-SPCM) weld member.
-The crack is clearly marked on the material near the weld.
-The OBG Bike Path 008 is located in Bay #19.
The Notice of Witness Inspection Number (NWIT) is 006765. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel.

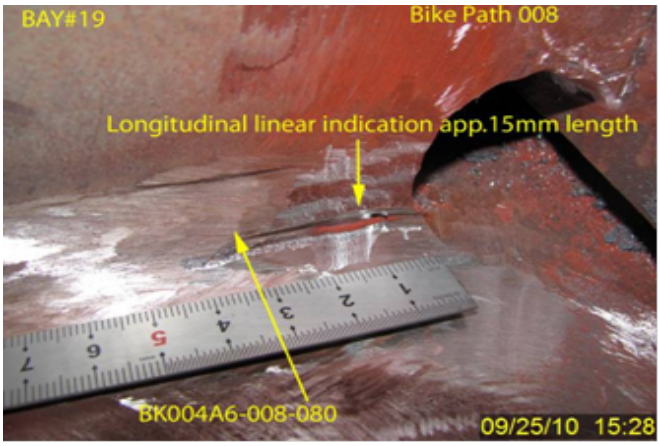
Quality Assurance (QA) Magnetic Particle Testing (MT) review of fillet welds located on OBG bike path BK004A-018, this QA Inspector discovered the following issues:
-One (1) transverse crack found on the weld measuring approximately 6mm in length.
-Y location of the indication is measured to be 2160mm.
-The crack is clearly marked on the weld joint.
-The weld is identified as: BK004A3-018-052.
-The Weld is a fillet weld joining the stringer plate (8C) to the deck plate of bike path.
-The member is located in bay 11.
The Notice of Witness Inspection Number (NWIT) is 06769. The indication is located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel.

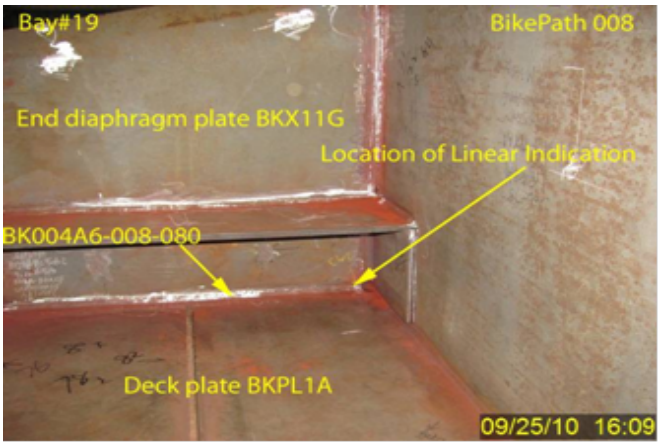
QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)









Applicable reference:
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."

AWS D1.5 (02) Section 6.26.2 – "Welds that are subject to MT in addition to visual inspection shall have no cracks.

Who discovered the problem: Nagalingam Pandaram Pillai & Umesh D. Gaikwad
Name of individual from Contractor notified: Peng Wen Jun and Zhao Xian He
Time and method of notification: 1715 hours, 09/25/10, Verbal
Name of Caltrans Engineer notified: Laraine Woo
Time and method of notification: 1600 hours, 09/26/10, Email
QC Inspector's Name: Xu Tao and Weng Cheng Xin
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

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

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:**	27-Sep-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:**	05.03.06-000806
Subject:	NCR No. ZPMC-0811		

Reference Description: QA found a missed MT transverse crack and MT longitudinal crack after ZPMC had tested and accepted the welds in Bikepath Asse

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) Magnetic Particle Testing (MT) review of welds located on Bike Path 008, Caltrans QA Inspector discovered the following issues:

-One Longitudinal linear crack in the weld measuring approximately 15mm in length.

-The weld is identified as BK004A6-008-080.

-The weld is partial joint penetration (PJP), joining the End Diaphragm plate identified as BKX11G to the Deck Plate identified as BKPL1A.

-This weld joint is designated as Non-Seismic Performance Critical (Non-SPCM) weld member.

-The crack is clearly marked on the material near the weld.

-The OBG Bike Path 008 is located in Bay #19.

The Notice of Witness Inspection Number (NWIT) is 006765. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel.

Quality Assurance (QA) Magnetic Particle Testing (MT) review of fillet welds located on OBG bike path BK004A-018, Caltrans QA Inspector discovered the following issues:

-One (1) transverse crack found on the weld measuring approximately 6mm in length.

-Y location of the indication is measured to be 2160mm.

-The crack is clearly marked on the weld joint.

-The weld is identified as: BK004A3-018-052.

-The Weld is a fillet weld joining the stringer plate (8C) to the deck plate of bike path.

-The member is located in bay 11.

The Notice of Witness Inspection Number (NWIT) is 06769. The indication is located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel.

Action Required and/or Action Taken:

Please proposed a resolution for the identified non-conformnace with revised procedures to prevent future occurrences. A response for this resolution of this issue is expected within 7 days.

Transmitted by: Laraine Woo Transportation Engineer

Attachments: ZPMC-0811

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao, Bill Casey

File: 05.03.06

AMERICAN BRIDGE/FLUOR ENTERPRISES, a JV

P.O. BOX 23223 Oakland, CA 94623

Phone (510) 419-0120 / Fax (510) 839-0666

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000806

Subject: NCR No. ZPMC-0811

Dated: **28-Oct-2010**

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

Job Name: SAS Superstructure

Document No.: **ABF-NPR-000818 Rev: 00**

Contractor's Proposed Resolution:

Reference Resolution: ABFJV has noted which inspector was responsible for the missed indication and is monitoring his performance as well as all inspector performance.

"Please see ZPMC's comments. In addition to the repairs and NDT performed, ABFJV has noted which inspector was responsible for the missed indication and is monitoring his performance as well as all inspector performance, if he continues to miss indications disciplinary action will be undertaken. Based on these actions, ZPMC requests closure of this NCR."

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000818R00;

Caltrans' comments:

Status: CLO

Date: 31-Oct-2010

Contractor repaired and provided acceptable NDT records to close the issues. The proposed resolution is acceptable. This NCR is closed.

Submitted by: Woo, Laraine

Date: 31-Oct-2010

Attachment(s):

No. B-920

LETTER OF RESPONSE

TO: American Bridge/Flour
DATE: 2010-10-27
REGARDING:NCR-000840(ZPMC-0802)NCR-000847(ZPMC-0809)
NCR-000849(ZPMC-0811)NCR-000858(ZPMC-0820)
NCR-000861(ZPMC-0823)NCR-000862(ZPMC-0824)
NCR-000866(ZPMC-0828)NCR-000868(ZPMC-0830)
NCR-000869(ZPMC-0831)

ZPMC-0802
These welds were designated to be PJP welds and no UT is required. The NWIT were submitted due to the internal fault between the floor QC & NDT operator of ZPMC. ZPMC is providing the MT records to show the acceptance of these welds and is requesting closure of this NCR.

ZPMC-0809
ZPMC acknowledged the indication was missed and has issued an internal NCR to address this problem. ZPMC has repaired the indication and is providing the NDT record to show the acceptance of this weld. Based on this, ZPMC is requesting closure of this NCR.

ZPMC-0811
ZPMC acknowledged the indications were missed and has issued an internal NCR to address this problem. ZPMC has repaired the indications and is providing the NDT records to show the acceptance of the welds. Based on this, ZPMC is requesting closure of this NCR.

ZPMC-0820
ZPMC acknowledged the indications were missed and has issued an internal NCR to address this problem. ZPMC has repaired the indications and is providing the NDT records to show the acceptance of the welds. Based on this, ZPMC is requesting closure of this NCR.

ZPMC-0823
ZPMC acknowledged the indication was missed and has issued an internal NCR to address this problem. ZPMC has repaired the indication and is providing the NDT record to show the acceptance of this weld. Based on this, ZPMC is requesting closure of this NCR.

ZPMC-0824
ZPMC acknowledged the indication was missed and has issued an internal NCR to address this problem. ZPMC has repaired the indication and is providing the NDT record to show the acceptance of this weld. Based on this, ZPMC is requesting closure of this NCR.

ZPMC-0828

ZPMC acknowledged the indication was missed and has issued an internal NCR to address this problem. ZPMC has repaired the indication and is providing the NDT record to show the acceptance of this weld. Based on this, ZPMC is requesting closure of this NCR.

ZPMC-0830

ZPMC acknowledged the indication was missed and has issued an internal NCR to address this problem. ZPMC has repaired the indication and is providing the NDT record to show the acceptance of this weld. Based on this, ZPMC is requesting closure of this NCR.

ZPMC-0831

ZPMC acknowledged the indication was missed and has issued an internal NCR to address this problem. ZPMC has repaired the indication and is providing the NDT record to show the acceptance of this weld. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000840(ZPMC-0802)
B787-MT-28327
NCR-000847(ZPMC-0809)
B787-MT-28711 R1
NCR-000849(ZPMC-0811)
B787-MT-30018 R1
B787-MT-28314 R1
NCR-000858(ZPMC-0820)
B787-UT-16620 R1
B787-UT-16622 R1
NCR-000861(ZPMC-0823)
B787-MT-11297 R1
NCR-000862(ZPMC-0824)
T787-UT-3371 R1
NCR-000866(ZPMC-0828)
B787-UT-16173 R1
NCR-000868(ZPMC-0830)
B787-UT-17146 R1
NCR-000869(ZPMC-0831)
B787-UT-16232 R1

10/27/2015

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, China **Report No:** NCR-000840
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 16-Sep-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0802

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☑	**Component:** Segment 13BE and 13CE
Procedural	☐	**Procedural**	☐	**Description:** Missed UT indications		

Reference Description: QA found UT indications on Segment 13 LD after ZPMC had tested and accepted the welds

Description of Non-Conformance:

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of welds located on Orthotropic Box Girder (OBG) segment13BE and 13CE, this QA Inspector discovered the following issues:

-Three (3) longitudinal linear class "A" rejectable indications measuring approximately 180mm~260mm in length.

-The welds are identified as LD3028-001-031, LD3027-001-026 and LD3030-001-053.

-Material thickness for all joints is 30mm.

-The indication db rating for joint LD3028-001-031 is a -6.

-The indication db rating for joint LD3027-001-026 is a -4.

-The indication db rating for joint LD3030-001-053 is a -5.

-The depth of the indications are from 20mm~23mm deep.

-The Weld LD3028-001-031 is joining longitudinal diaphragm (X3682A) to lifting Lug.

-The Weld LD3027-001-026 is joining longitudinal diaphragm (X3684B) to lifting Lug.

-The Weld LD3030-001-053 is joining longitudinal diaphragm (X3685A) to lifting Lug.

-All Welds are Complete Joint Penetration (CJP) "T" joint.

-All welds are Seismic Performance Critical Members (SPCM).

-The Y distance for joint LD3028-001-031 is 110mm from bottom cope hole.

-The Y distance for joint LD3027-001-026 is 40mm from bottom cope hole.

-The Y distance for joint LD3030-001-053 is 700mm from bottom cope hole.

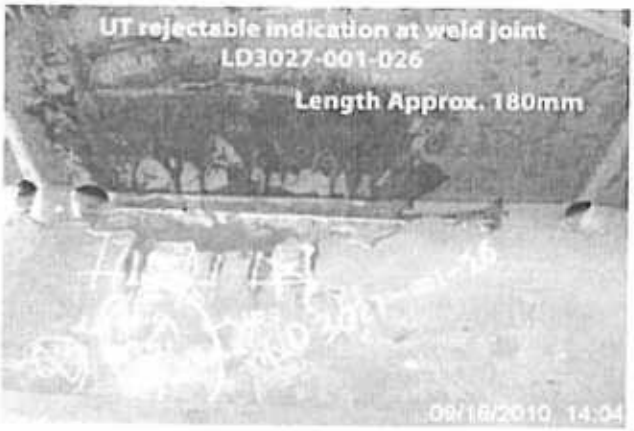
-The indications are clearly marked on or near the weld.

-All components are located in fabrication Bay#3.

The Notice of Witness Inspection (NWIT) No. is 006680. The indications all joints are located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

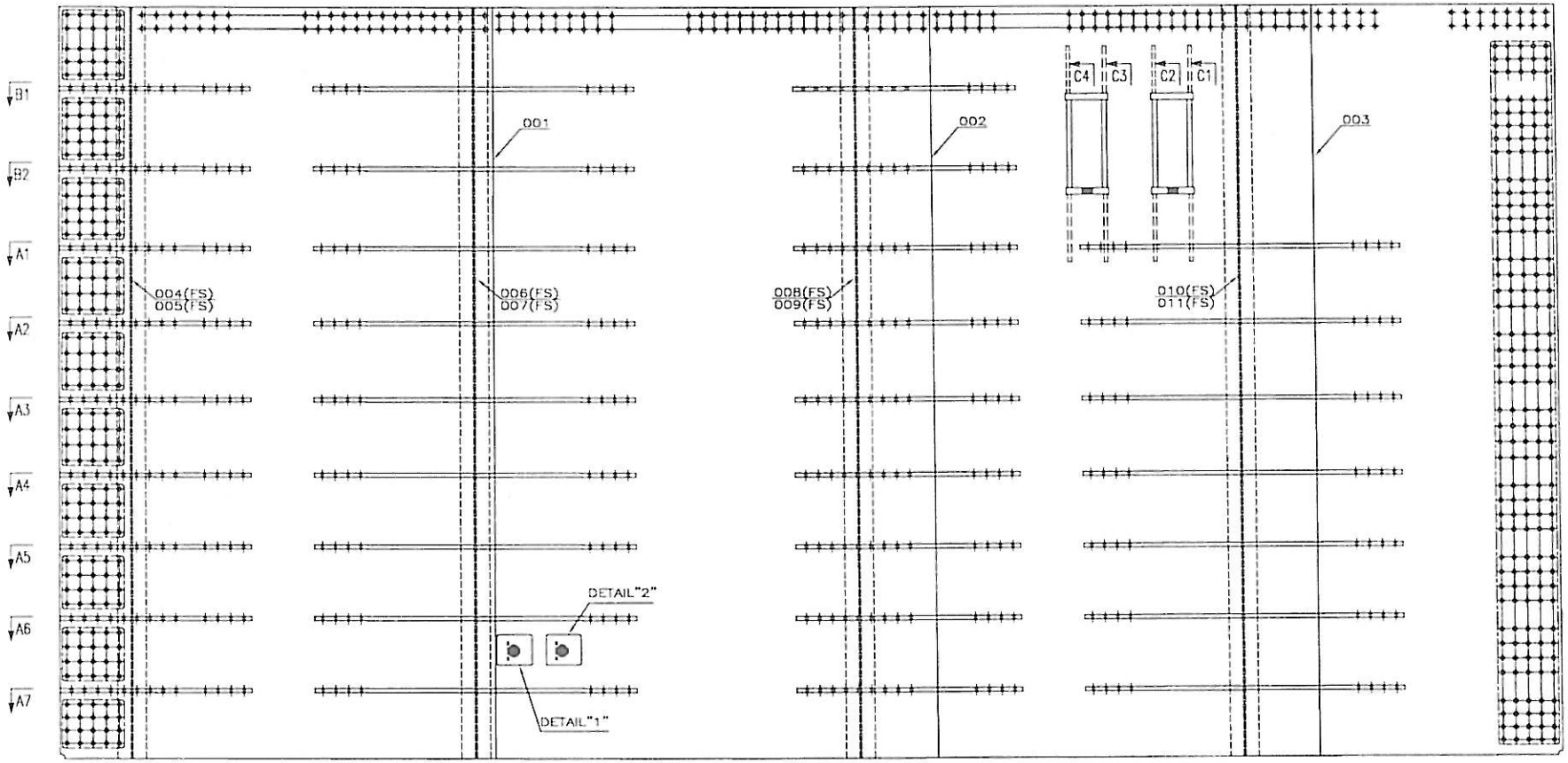


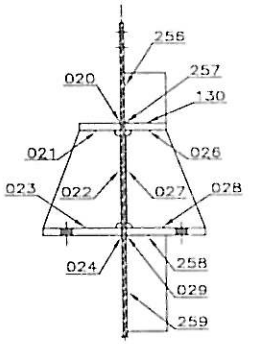
Applicable reference:
AWS D1.5-02 Section 6; Table 6.3 specifies a class "A" indication as having a rating of 8d and under for material thicknesses 21mm through 38mm.

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."

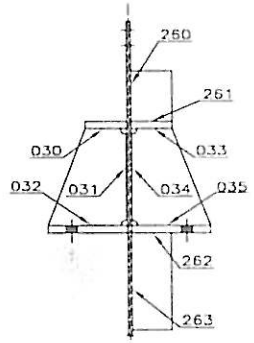
Who discovered the problem: Subhasis Bera
Name of individual from Contractor notified: Chen Jiuei
Time and method of notification: 1330 hours, 09-16-10, Verbal
Name of Caltrans Engineer notified: Laraine Woo
Time and method of notification: 1500 hours, 09-18-10, Verbal
QC Inspector's Name: Lay Tao
Was 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

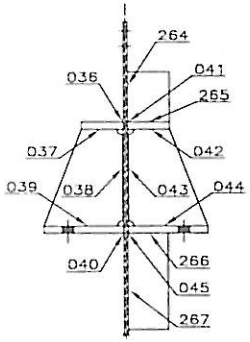




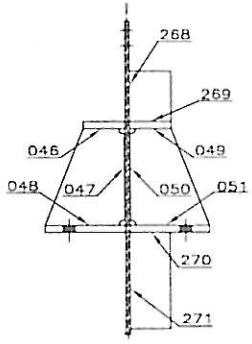
SECTION C1



SECTION C2



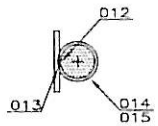
SECTION C3



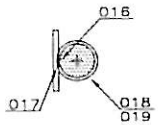
SECTION C4

LONGITUDINAL DIAPHRAGM SUB-ASSY ~ MARK LD3028A

(TYPE 2) (⊕ E3, LOOKING NORTH - DEVELOPED)



DETAIL"1"



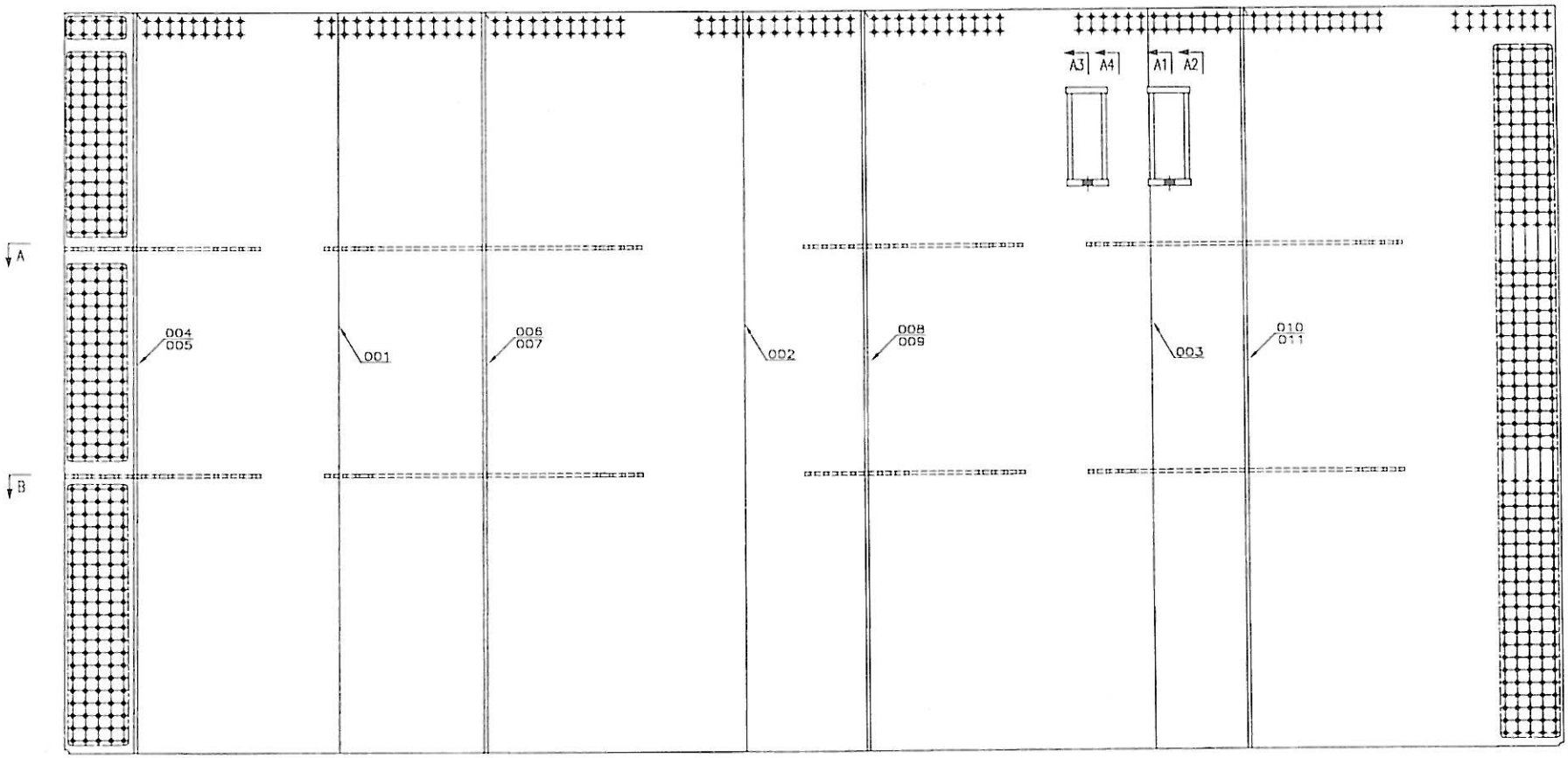
DETAIL"2"

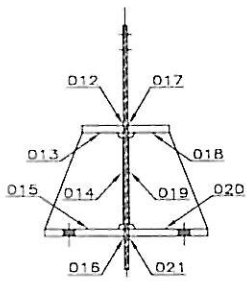
注意: 如有遗漏或重复的标注焊缝, 请QC人员通知工艺进行补标或删减

焊缝编号说明: LD000 000 000

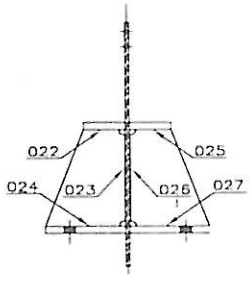
- 焊缝序号
- 部件生产流水号
- 部件车间图纸号

ZPMC SHANGHAI ZHENHUA PORT MACHINERY CO., LTD			ZHENHUA HEAVY INDUSTRIES
WELDING MAP			
DRAWN		SHOP DRAWING NO.	PAGINATION
		LD3028	1/3

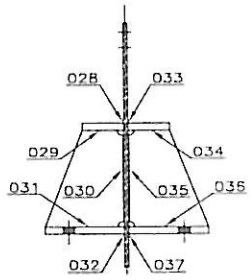




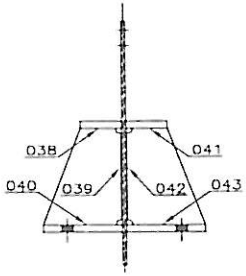
SECTION A1



SECTION A2



SECTION A3



SECTION A4

焊缝编号说明：FB000 000 000

- 焊缝序号
- 部件生产流水号
- 部件车间图纸号

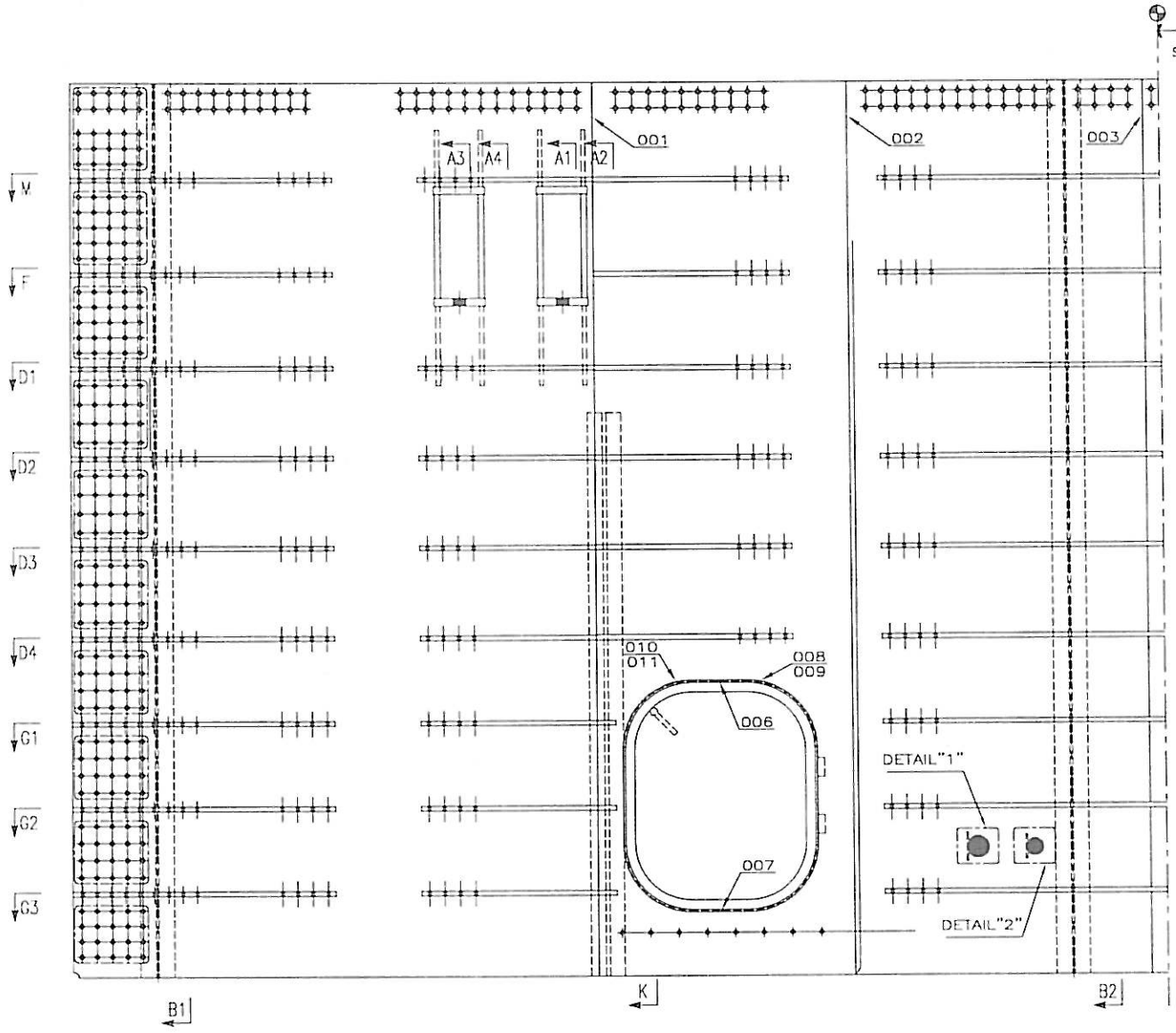
注意：如有遗漏或重复的标注焊缝，请QC人员通知工艺进行补标或删减

ZPMC
SHANGHAI ZHENHUA PORT MACHINERY CO., LTD.
GANDRAFT-TENSOR LLC

WELDING MAP

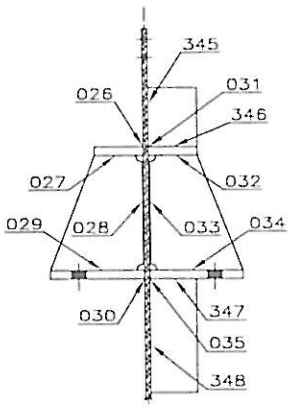
DRAWN		SHOP DRAWNING NO.	PAGINATION
CHECKED		LD3027	1/2

2010.9.15

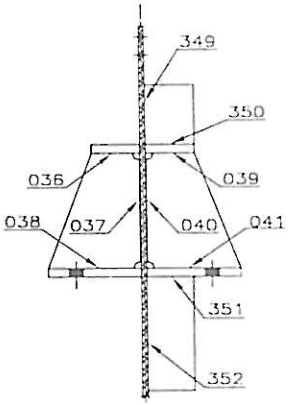


LONGITUDINAL DIAPHRAGM SUB-ASSY ~ MARK LD3030A

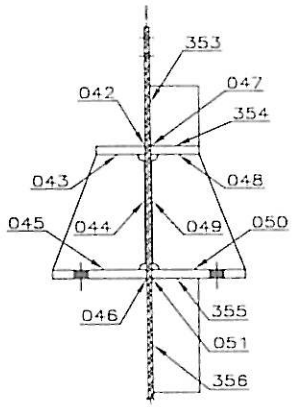
(TYPE 2) (O E3, LOOKING NORTH - DEVELOPED)



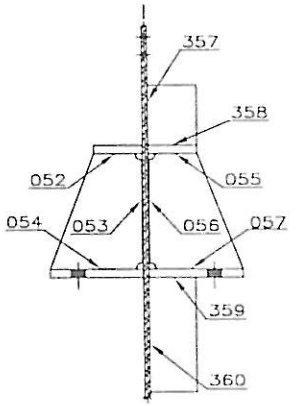
SECTION A1



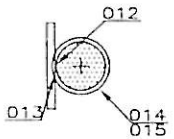
SECTION A2



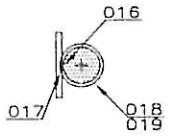
SECTION A3



SECTION A4



DETAIL"1"



DETAIL"2"

注意: 如有遗漏或重复的标注焊缝, 请QC人员通知工艺进行补标或删减

焊缝编号说明: LD000 000 000

- 焊缝序号
- 部件生产流水号
- 部件车间图纸号

ZPMC

SHANGHAI ZHENHUA PORT MACHINERY CO., LTD.

WELDING MAP

DRAWN		SHOP DRAWING NO.	PAGINATION
CHECKED		LD3030	1/4

2010.9.15

REPORT OF MAGNETIC PARTICLE EXAMINATION
磁粉检测报告

REPORT NO. 报告编号 B787-MT-28327	DATE日期 2010.10.16	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:	LD3028/3027/3030 LONGITUDINAL DIAPHRAGM	CALTRANS CONTRACT NO.: 加州工程编号	04-0120F4

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

EQUIPMENT 设备	MANUFACTURER 制造商	MODEL NO. 样式编号	SERIAL NO. 连续编号
MT YOKE	PARKER	DA-400S	17372

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 □ CASTING 铸件 □ FORGING 锻造	Material & thickness 母材,厚度	A709M-345T2 25mm
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-JOINT

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			
LD3028-001-031				ACC.		100%MT
LD3027-001-026				ACC.		100%MT
LD3030-001-053				ACC.		100%MT
BLANK						

EXAMINED BY主探 Wang Wei Wang Wei LEVEL - II SIGN 签名 / DATE日期 2010.10.16	REVIEWED BY 审核 Xu Hai LEVEL-II SIGN / DATE日期 2010.10.16
质量经理 / QCM Lv Jianhua 签字 SIGN / 日期 DATE 2010.10.16	用户CUSTOMER 签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

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-000847
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 23-Sep-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0809

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☑	**Component:** Bikepath BK004A-010
Procedural	☐	**Procedural**	☐	**Description:** Missed MT Indication by QC		

Reference Description: QA found a missed MT transverse crack after ZPMC had tested and accepted the weld in the Bikepath

Description of Non-Conformance:

During the Quality Assurance (QA) Magnetic particle Testing (MT) review of welds located on OBG Bike path BK004A-010, this QA Inspector discovered the following issue:

-One transverse crack that measured approximately 10mm in length.

-The weld is identified as BK004A8-010-092.

-The weld is a Partial joint penetration (PJP) T joint, joining the Stringer plate (BKX9C) to the End diaphragm plate (BKX11GA).

-The Y Location is 100mm from the bearing plate.

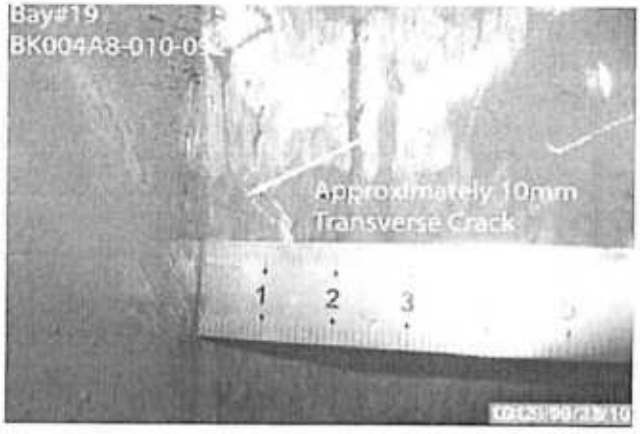
-The OBG Bike path is located in BAY#19.

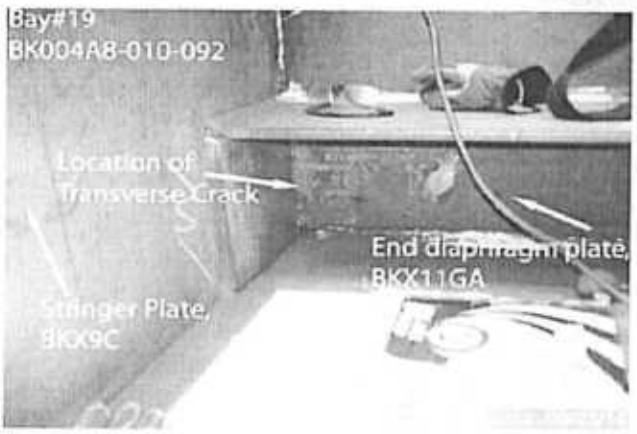
-This crack is clearly marked on the material on/near the weld.

-This weld joint is designated as Non-Seismic performance critical (Non-SPCM) weld member.

-The Notice of Witness Inspection Number (NWIT) is 006731.

-The crack is located within the area that has been re-tested and accepted by ZPMC Quality Control (QC) subsequent to the heat straightening procedure.





QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Applicable reference:

Applicable reference: 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."

AWS D1.5 (02) Section 6.26.2 – "Welds that are subject to MT in addition to visual inspection shall have no cracks.

Who discovered the problem: Chandra Sudalaimuthu

Name of individual from Contractor notified: Peng Wen Jun

Time and method of notification: 1100 hours, 09/23/10, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 0800 hours, 09/24/10, Verbal

QC Inspector's Name: Xu Tao

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

ZPMC

REPORT OF MAGNETIC PARTICLE EXAMINATION
磁粉检测报告

REPORT NO. 报告编号 B787-MT-28711R1	DATE日期 2010.10.15	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 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 KOREA	MODEL NO. 样式编号 MP-A2L	SERIAL NO. 连续编号 MP1193
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 □ CASTING 铸件 □ FORGING 假造	Material & thickness 母材,厚度	A709M-345T2-X 10/16mm
WELDING PROCESS 焊接方法	SMAW	TYPE OF JOINT 焊缝类型	T-JOINT

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			
BK004A8-010-092	1R1			ACC.		100%MT
AFTER B-CWR1952 REV0						
BLANK						

EXAMINED BY主探
Xu Huaxiang Xu Huaxiang
LEVEL - II SIGN 签名 / DATE日期 20.10.15

REVIEWED BY 审核
XU Hai
LEVEL-II SIGN / DATE日期 20.10.15

质量经理 / QCM
Li Jianhua
签字 SIGN / 日期 DATE 20.10.15

用户CUSTOMER
签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

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-000849
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 25-Sep-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0811

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☑	**Component:** Bikepath Assembly BK004A6-008 and BK004A3-01
Procedural	☐	**Procedural**	☐	**Description:** Missed MT cracks by QC		

Reference Description: QA found a missed MT transverse crack and MT longitudinal crack after ZPMC had tested and accepted the welds in Bikepath Assembly

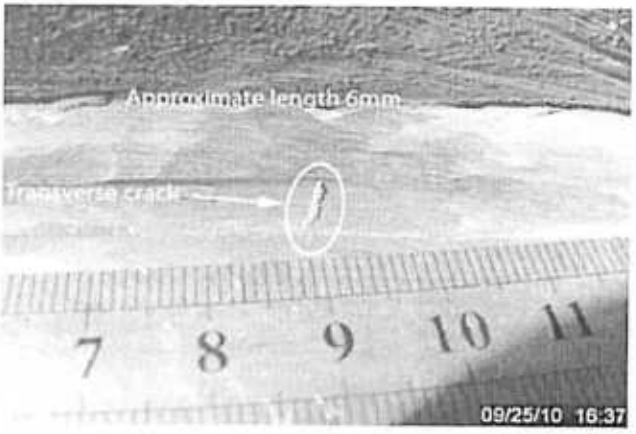
Description of Non-Conformance:

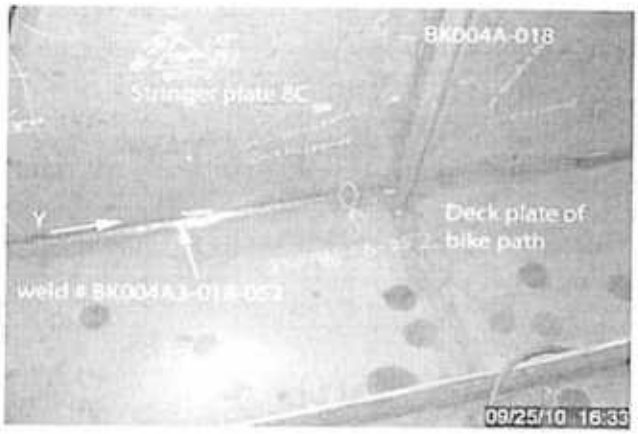
During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Bike Path 008, this QA Inspector discovered the following issues:
-One Longitudinal linear crack in the weld measuring approximately 15mm in length.
-The weld is identified as BK004A6-008-080.
-The weld is partial joint penetration (PJP), joining the End Diaphragm plate identified as BKX11G to the Deck Plate identified as BKPL1A.
-This weld joint is designated as Non-Seismic performance critical (Non-SPCM) weld member.
-The crack is clearly marked on the material near the weld.
-The OBG Bike Path 008 is located in Bay #19.
The Notice of Witness Inspection Number (NWIT) is 006765. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel.

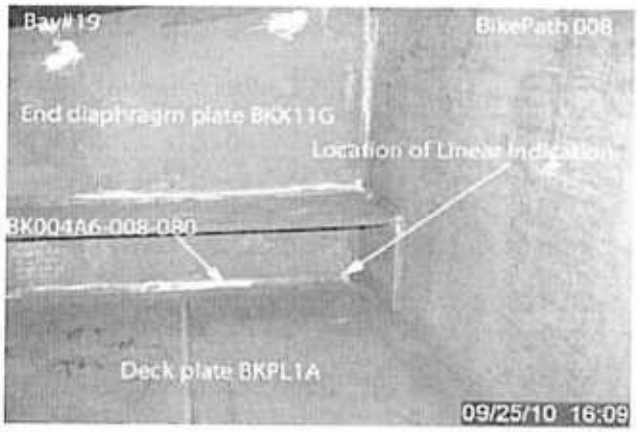
Quality Assurance (QA) Magnetic Particle Testing (MT) review of fillet welds located on OBG bike path BK004A-018, this QA Inspector discovered the following issues:
-One (1) transverse crack found on the weld measuring approximately 6mm in length.
-Y location of the indication is measured to be 2160mm.
-The crack is clearly marked on the weld joint.
-The weld is identified as: BK004A3-018-052.
-The Weld is a fillet weld joining the stringer plate (8C) to the deck plate of bike path.
-The member is located in bay 11.
The Notice of Witness Inspection Number (NWIT) is 06769. The indication is located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)







Applicable reference:

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."

AWS D1.5 (02) Section 6.26.2 – "Welds that are subject to MT in addition to visual inspection shall have no cracks.

Who discovered the problem: Nagalingam Pandaram Pillai & Umesh D. Gaikwad

Name of individual from Contractor notified: Peng Wen Jun and Zhao Xian He

Time and method of notification: 1715 hours, 09/25/10, Verbal

Name of Caltrans Engineer notified: Laraine Woo

Time and method of notification: 1600 hours, 09/26/10, Email

QC Inspector's Name: Xu Tao and Weng Cheng Xin

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

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

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

ZPMC

REPORT OF MAGNETIC PARTICLE EXAMINATION
磁粉检测报告

REPORT NO. 报告编号 B787-MT-30018R1	DATE日期 2010.10.15	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: BK004A bike path	CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4

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

EQUIPMENT 设备	MANUFACTURER 制造商	MODEL NO. 样式编号	SERIAL NO. 连续编号
MT YOKE	KOREA	MP-A2L	MP1193

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 ☐ CASTING 铸件 ☐ FORGING 锻造	Material & thickness 母材,厚度	A709M-345T2-X 6/25mm
WELDING PROCESS 焊接方法	SMAW	TYPE OF JOINT 焊缝类型	T-JOINT

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			
BK004A6-008-080	1R1			ACC.		100%MT
AFTER B-WR15535						
BLANK						

EXAMINED BY主探 Xu Huaxiang XU Hua Xiang LEVEL - II SIGN 签名 / DATE日期 20/0.10.15	REVIEWED BY 审核 Wang Wei LEVEL-II SIGN / DATE日期 20/0.10.15
质量经理 / QCM LU Hanhua 签字 SIGN / 日期 DATE 20/0.10.15	用户CUSTOMER 签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

REPORT OF MAGNETIC PARTICLE EXAMINATION
磁粉检测报告

REPORT NO. 报告编号 B787-MT-28314R1	DATE日期 2010.10.25	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-018-8C BIKE PATH	CALTRANS CONTRACT NO.: 加州工程编号	04-0120F4

REFERENCING CODE 参考规范编码	ACCEPTANCE STANDARD 接受标准	PROCEDURE NO. 程序编号	CALIBRATION DUE DATE 仪器校正有效期
AWS D1.5-2002	AWS D1.5-2002	ZPQC-MT-01	Dec. 28ST ,2010
EQUIPMENT 设备	MANUFACTURER 制造商	MODEL NO. 样式编号	SERIAL NO. 连续编号
MT YOKE	PARKER	DA-400S	17365
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 □ CASTING 铸件 □ FORGING 锻造	Material & thickness 母材,厚度	A709M-345T2-X 10/16mm
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T JOINT

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			
BK004A3-018-052	1R1			ACC.		100%MT
AFTER B-CWR1954 REV0						
BLANK						

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

(FORM# ZPQC-MT01)

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-000858
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 10-Oct-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0820

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☑	**Component:** Bikepath Assembly BK004A5
Procedural	☐	**Procedural**	☐	**Description:** Missed UT Indication by QC		

Reference Description: QA found 2 missed UT indications after ZPMC had tested and accepted these weld in bikepath assembly BK004A5

Description of Non-Conformance:

During the Quality Assurance (QA) Ultrasonic Testing (UT) review of welds located on the Bike Path, these QA Inspectors discovered the following issues:

-Two (2) Class "A" indications measuring approximately 25-30mm in length.

-The welds are Complete Joint Penetration butt joints joining the stiffener to stiffener.

-The indication details are given as below:

1. The Indication rating is +3dB and length approximately 25mm.
The nominal thickness of the plate is 10mm and depth of the indication approximately 6mm.
The indication is located on the weld joint identified as BK004A5-001-112.
The "Y" location for this indication is approximately 50mm from top edge of the stiffener.
The weld is a Complete Joint Penetration (CJP) butt weld joint splice of stiffener (BKX7) to stiffener (BKX7).

2. The Indication rating is +8dB and length approximately 30mm.
The nominal thickness of the plate is 10mm and depth of the indication approximately 8mm.
The indication is located on the weld joint identified as BK004A5-008-122
The "Y" location for this indication approximately 50mm from deck plate.
The weld is a Complete Joint Penetration (CJP) butt weld joint splice of stiffener (BKX7) to stiffener (BKX7).

-The indications are clearly marked by the QA Inspectors near the weld.
- The OBG Bike Paths are located in the inside of fabrication bay 19.

The Notice of Witness Inspection Number (NWIT) is 006908. The indications are located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

Applicable reference:

AWS D1.5-2002, Section 6, Table 6.3; "Specifies a class A indication as having a db rating of -10 and lower for weld thicknesses 8mm through 20mm."

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: Vibin Kumar S. and Subhasis Bera

Name of individual from Contractor notified: Peng Wen Jan

Time and method of notification: 1500 hours, 10/10/10, Verbal

Name of Caltrans Engineer notified: Laraine Woo, Ching Chao

Time and method of notification: 1500 hours, 10/11/10, Email

QC Inspector's Name: Xu Tao

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

REPORT OF ULTRASONIC EXAMINATION
UT探伤报告

REPORT NO. 报告编号	DATE	PAGE	Revision No:
B787-UT-16620R1	2010.10.27	1 OF 1	0

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

ITEMS NAME: 部件名称	DRAWING NO.: 图号	CALTRANS CONTRACT NO.: 加州工程编号
BIKE PATH	BK004-008	04-0120F4

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

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

EQUIPMENT 设备	MANUFACTURER 制造商	MODEL NO. 样式编号	SERIAL NO. 序列编号
UT SCOPE	AMERICA	EPOCH 4B	071565511

CALIBRATION BLOCK 试块	COUPLANT 耦合剂	MATERIAL/THICKNESS 材料厚度	
AWS IIW BLOCK TYPE II	C.M.C	A709M-345T2	10mm

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		
BK004A5-008-122	1R1	70				40								ACC.	100%
AFTER B-WR15857															
BLANK															

EXAMINED BY主探

LEVEL - II SIGN / DATE 2010.10.27

REVIEWED BY 审核

LEVEL - II SIGN DATE 2010.10.27

质量经理 / QCM

签字 SIGN / 日期 DATE 2010.10.27

用户CUSTOMER

签字 SIGN / 日期 DATE

(FORM# ZPQC-UT01)

REPORT OF ULTRASONIC EXAMINATION
UT探伤报告

REPORT NO. 报告编号	DATE	PAGE	Revision No:
B787-UT-16622R1	2010.10.27	1 OF 1	0

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

ITEMS NAME: 部件名称	DRAWING NO.: 图号	CALTRANS CONTRACT NO.: 加州工程编号
BIKE PATH	BK004-001	04-0120F4

REFERENCING CODE 参考规范	ACCEPTANCE STANDARD 接受标准	PROCEDURE NO. 程序编号
AWS D1.5-2002	AWS D1.5-2002(Table 6.3)	ZPQC-UT-01
WELDING PROCESS 焊接方法	**JOINT TYPE 焊缝类型**	**CALIBRATION DUE DATE 仪器校正有效期**
SMAW	BUTT	Dec. 28ST ,2010

EQUIPMENT 设备	MANUFACTURER 制造商	MODEL NO. 样式编号	SERIAL NO. 序列编号
UT SCOPE	AMERICA	EPOCH 4B	071565511

CALIBRATION BLOCK 试块	COUPLANT 耦合剂	MATERIAL/THICKNESS 材料厚度
AWS IIW BLOCK TYPE II	C.M.C	A709M-345T2 10mm

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		
BK004A5-001-112	1R1	70				40								ACC.	100%
AFTER B-WR15855															
BLANK															

EXAMINED BY主探	REVIEWED BY 审核
LEVEL - II SIGN / DATE 2010.10.27	LEVEL - II SIGN / DATE 2010.10.27
质量经理 / QCM	用户CUSTOMER
LV Jianhua	
签字 SIGN / 日期 DATE 2010.10.27	签字 SIGN / 日期 DATE

(FORM# ZPQC-UT01)

STATE OF CALIFORNIA--BUSINESS,TRANSPORTACTION AND HOUSING AGENCY Arnold Schwarzenegger, Governor

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-000861
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 11-Oct-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0823

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☑	**Component:** Lift 5 Grillage Plate
Procedural	☐	**Procedural**	☐	**Description:**		

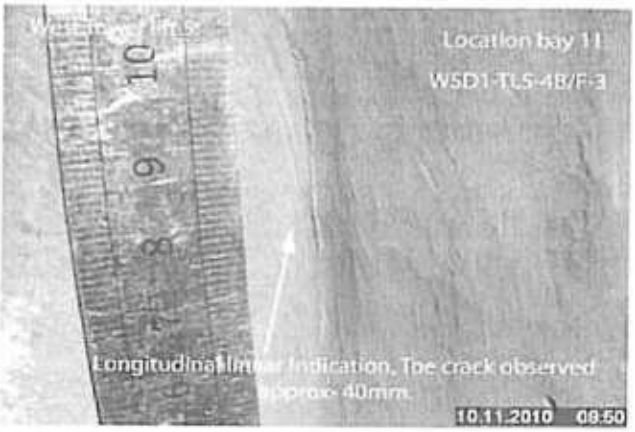
Reference Description: Lift 5 West Shaft: Missed MT Crack at Skin D and Transverse Plate

Description of Non-Conformance:

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located in West Tower lift 5 Grillage plate, WSD1-TL5-4B/F-3, this Quality Assurance (QA) Inspector discovered the following issues:

-One longitudinal toe crack measuring approximately 40mm in length.
-The weld is identified as: WSD1-TL5-4B/F-3.
-The Weld is a Complete Joint Penetration (CJP) weld, joining the grillage plate to skin plate.
-The material is Non Seismic Performance Critical Member (NOS SPCM)
-The member is located in Bay 11.

-The Notice of Witness Inspection Number (NWIT) is 06917. The indication is located on CJP weld area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% MT inspection of this weld. The attached photographs provide additional detail.



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n jojn vn -!ui f!Dpousbdups!ti brmtqfsgpsn !jotqfdujpo!boe!uftujoh!pgfbdi !x fre!kpjoulqsjps!up!x frejoh-!evsjoh!
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ZPMC

REPORT OF MAGNETIC PARTICLE EXAMINATION
磁粉检测报告

REPORT NO. 报告编号 T787-MT-11297R1	DATE日期 2010.10.13	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:	WSD1-TL5-4B/F FIFTH LIFTING TOWER(W)	CALTRANS CONTRACT NO.: 加州工程编号	04-0120F4

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

EQUIPMENT 设备	MANUFACTURER 制造商	MODEL NO. 样式编号	SERIAL NO. 连续编号
MT YOKE	PARKER	B310S	5395 5617 5620

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 □ CASTING 铸件 □ FORGING 锻造	Material & thickness 母材,厚度	A709M-HPS-485WT2-Z 65/70/90mm
WELDING PROCESS 焊接方法	SMAW	TYPE OF JOINT 焊缝类型	T-JOINT

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			
WSD1-TL5-4B/F-3	1R1			ACC.		100%MT
AFTER T-WR3726						
BLANK						

EXAMINED BY主探 Xu Bing XU Bing LEVEL - II SIGN 签名 / DATE日期 2010.10.13	REVIEWED BY 审核 Li Limin LEVEL-II SIGN / DATE日期 2010.10.13
质量经理 / QCM LU Jian hua 签字 SIGN / 日期 DATE 2010.10.13	用户CUSTOMER 签字 SIGN / 日期 DATE

(FORM# ZPQC-MT01)

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-000862
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 13-Oct-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0824

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☑	**Component:** Lift 5 Grillage Plate
Procedural	☐	**Procedural**	☐	**Description:**		

Reference Description: Missed UT Indication: West Lift 5 Grillage Plate

Description of Non-Conformance:

During the Quality Assurance Ultrasonic Testing (UT) verification of welds located on grillage plate of West Tower lift 5, this Quality Assurance (QA) Inspector discovered the following issues:

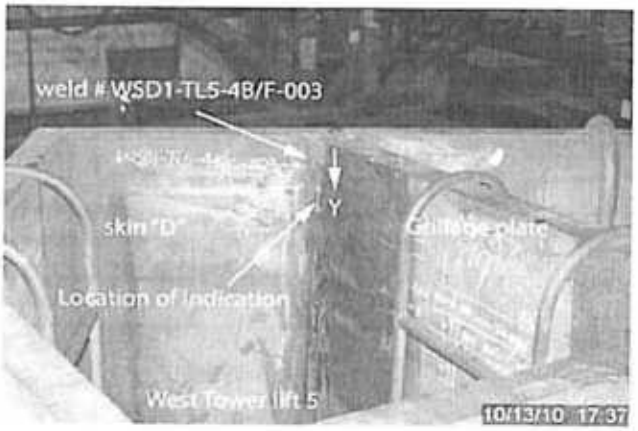
-One class "A" longitudinal indication measuring approximately 50mm in length.
-The depth of the indication is 57mm.
-The db rating is -2.
-The material thickness is 65mm.
-The weld is identified as: WSD1-TL5-4B/F-003.
-The Weld is a Complete Joint Penetration (CJP) with steel backing, T-joint, joining the grillage plate to the skin plate (skin "D").
-The "Y" location of the indication is 110mm from top side
-The indication is clearly marked on the component.
-The member is located in Bay 11.

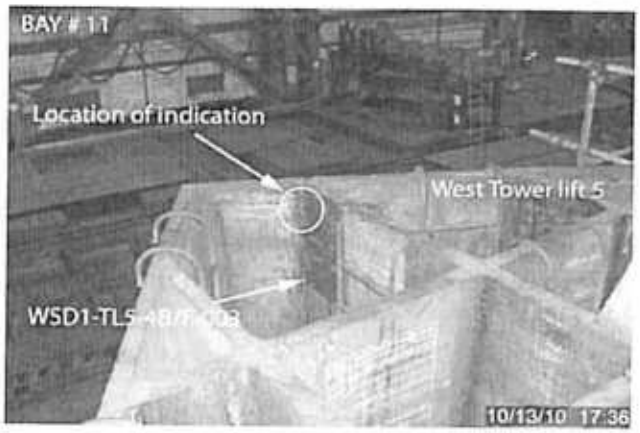
The Notice of Witness Inspection Number (NWIT) is 06938. The indication is located inside the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

-Attached photographs provide additional location details.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)





Applicable reference:

AWS D1.5-02 Section 6.6.2 "The Contractor shall be responsible for visual inspection and NDT described in 6. 7 and necessary correction of all deficiencies in materials and workmanship in conformance with the requirements of Clause 3 and 6.26 and as specified elsewhere in the contract documents."

AWS D1.5-02 Table 6.3 Specifies a class A indication for material thicknesses between 60mm and 100mm as having a dbs rating of +1 and lower.

Who discovered the problem: Umesh D. Gaikwad

Name of individual from Contractor notified: Wang Jiang Hun

Time and method of notification: 1700, 10/13/10, Verbal

Name of Caltrans Engineer notified: Sean Eagen

Time and method of notification: 1300, 10/14/10, Email

QC Inspector's Name: Deng Gai Sheng

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 , who represents the Office of Structural Materials for your project.

Inspected By:	Ng,Michael	QA Inspector
Reviewed By:	Devey,Jim	SMR

REPORT OF ULTRASONIC EXAMINATION
UT探伤报告

REPORT NO. 报告编号	DATE	PAGE	Revision No:
T787-UT-3371R1	2010.10.22	1 OF 1	0

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

ITEMS NAME: 部件名称	DRAWING NO.: 图号	CALTRANS CONTRACT NO.: 加州工程编号
FIFTH LIFTING TOWER(W)	WSD1-TL5-4B/F	04-0120F4

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

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

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

CALIBRATION BLOCK 试块	COUPLANT 耦合剂	MATERIAL/THICKNESS 材料厚度
AWS IIW BLOCK TYPE II	C.M.C	A709M-HPS-485WT2-Z 65/90mm

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'×0.625'	AMERICA	45°	2.25MHz	0.75'×0.625'
Changchao	0°	2.5MHz	20mm	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		
WSD1-TL5-4B/F-3	1R1	70				45								ACC.	100%
		45				39								ACC.	100%
AFTER T-WR3727															
BLANK															

EXAMINED BY主探	REVIEWED BY 审核
Dai Gengsheng	Lilimin
LEVEL - II SIGN / DATE 2010.10.22	LEVEL - II SIGN / DATE 2010.10.22
质量经理 / QCM	用户CUSTOMER
Wjianhua	
签字 SIGN / 日期 DATE 2010.10.22	签字 SIGN / 日期 DATE

(FORM# ZPQC-UT01)

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-000866
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 17-Oct-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0828

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☑	**Component:** OBG Segment 12AE DP
Procedural	☐	**Procedural**	☐	**Description:** Missed UT Indication by QC		

Reference Description: QA found a missed UT indication after ZPMC had tested and accepted these weld in Segment 12AE Deck Panel Diaphragm

Description of Non-Conformance:

During the Quality Assurance (QA) Ultrasonic Testing (UT) verification of weld located on OBG Segment 12AE, this QA Inspector discovered the following issue:

-One Class "A" indication measuring approximately 20mm in length.
-The Indication rating is -9dB and length approximately 20mm.
-The thickness of the plate is 14mm and depth of the indication approximately 5mm.
-The indication is located on the weld joint identified as SEG3001J-002.
-The "Y" location for this indication is approximately 280mm from deck panel.
-The weld is a Complete Joint Penetration (CJP) butt joint joining deck panel diaphragm (X3021E) to deck panel diaphragm (X3021G).
-The indication is clearly marked by QA on/near the weld.
-OBG Segment 12AE is located in outside yard (west side of Blast Shop 1).

The Notice of Witness Inspection Number (NWIT) is 006956. The indication is located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

Applicable reference:

-AWS D1.5-2002, Section 6, Table 6.3. Specifies a class 'A' indication as having a db rating of -10 and lower for weld thicknesses 8mm through 20mm.

-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: Vibin Kumar S

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Name of individual from Contractor notified: Wang Heng
Time and method of notification: 15:00 hours 10/17/10 Verbal
Name of Caltrans Engineer notified: Laraine Woo, Ching Chao
Time and method of notification: 16:00 hours 10/18/10 Email
QC Inspector's Name: Li Ping
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

REPORT OF ULTRASONIC EXAMINATION
UT探伤报告

REPORT NO. 报告编号	DATE	PAGE	Revision No:
B787-UT-16173R1	2010.10.27	1 OF 1	0

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

ITEMS NAME: 部件名称	DRAWING NO.: 图号	CALTRANS CONTRACT NO.: 加州工程编号
12AE DECK PLATE	SEG3001J	04-0120F4

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

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

EQUIPMENT 设备	MANUFACTURER 制造商	MODEL NO. 样式编号	SERIAL NO. 序列编号
UT SCOPE	AMERICA	EPOCH 4B	071565511

CALIBRATION BLOCK 试块	COUPLANT 耦合剂	MATERIAL/THICKNESS 材料厚度
AWS IIW BLOCK TYPE II	C.M.C	A709M-345T2-X 14mm

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		
SEG3001J-002	1R1	70				40								ACC.	100%
AFTER B-WR16070															
BLANK															

EXAMINED BY主探
LEVEL - II SIGN / DATE 20.10.27

REVIEWED BY 审核
LEVEL - II SIGN / DATE 20.10.27

质量经理 / QCM
LU Jianhua
签字 SIGN / 日期 DATE 20.10.27

用户CUSTOMER
签字 SIGN / 日期 DATE

(FORM# ZPQC-UT01)

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 #: xx.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, China **Report No:** NCR-000868
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 18-Oct-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0830

Type of problem:

Welding	☑	**Concrete**	☐	**Other**	☐	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☐	**Component:** SA3361-001 Lift 14 East Anch Vertical Plate
Procedural	☑	**Procedural**	☐	**Description:**		

Reference Description: Missed UT Indication Discovered by Quality Assurance

Description of Non-Conformance:

During the Quality Assurance Ultrasonic Testing (UT) review of welds located on OBG Sub Assembly SA3361-001 this Quality Assurance Inspector (QA) discovered the following issues:

-One ultrasonic longitudinal linear indication measuring approximately 15mm in length on a 40mm thick plate.
-The weld is identified as: SA3361-001-001.
-Indication rating is 0 dbs.
-Depth of indication is 12mm
-Y location is approximately 1420mm from the edge of the plate.
-The weld is a Complete Joint Penetration (CJP) joint, joining web plate X4757A to web plate X4757B.
-The OBG Sub assembly SA3161-001 is located in Bay-4-west side.

The NDT Inspection Notification Sheet is Document No. 07013. The indication is located within an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. According to the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

Please reference the following attached pictures:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 3)

Applicable reference:

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."

AWS D1.5 (02) Table 6.3 – "Specifies a Class A indication having a dbs rating of 4 and lower for material thicknesses between 38mm and 60mm."

Who discovered the problem: Rene Hernandez

Name of individual from Contractor notified: Wang Wen Bin

Time and method of notification: 1430 hours, 10/18/10, Verbal

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 10:00 hours, 10/20/10, Email

QC Inspector's Name: Chen Xi

Was QC Inspector aware of the problem: ☐ **Yes** ☑ **No**

Contractor's proposal to correct the problem:

NA

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

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 3 of 3)

concerning repairs or remedial efforts please contact Mazen Wahbeh,(818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Devey,Jim	SMR
Reviewed By:	Wahbeh,Mazen	SMR

REPORT OF ULTRASONIC EXAMINATION
UT探伤报告

REPORT NO. 报告编号	DATE	PAGE	Revision No:
B787-UT-17146R1	2010.10.24	1 OF 1	0

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

ITEMS NAME: 部件名称	DRAWING NO.: 图号	CALTRANS CONTRACT NO.: 加州工程编号
PLATE PANEL SPLICE	SA3361	04-0120F4

REFERENCING CODE 参考规范	ACCEPTANCE STANDARD 接受标准	PROCEDURE NO. 程序编号
AWS D1.5-2002	AWS D1.5-2002(Table 6.3)	ZPQC-UT-01
WELDING PROCESS 焊接方法	**JOINT TYPE 焊缝类型**	**CALIBRATION DUE DATE 仪器校正有效期**
FCAW	BUTT	Dec. 28ST ,2010

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

CALIBRATION BLOCK 试块	COUPLANT 耦合剂	MATERIAL/THICKNESS 材料厚度	
AWS IIW BLOCK TYPE II	C.M.C	A709M-345F2	40mm

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	0.75×0.625 in				
				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		
SA3361-001-001	1R1	70				43								ACC.	100%
AFTER B-WR16066															
BLANK															

EXAMINED BY主探	REVIEWED BY 审核
Dai Guangsheng	
LEVEL - II SIGN / DATE 2010.10.24	LEVEL - II SIGN / DATE 2010.10.24
质量经理 / QCM	用户CUSTOMER
LU Jianhua	
签字 SIGN / 日期 DATE 2010.10.24	签字 SIGN / 日期 DATE

(FORM# ZPQC-UT01)

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Office of Structural Materials
Quality Assurance and Source Inspection

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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-000869
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 19-Oct-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0831

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☑	**Component:** Segment 12AE Floorbeam Joint
Procedural	☐	**Procedural**	☐	**Description:** Missed UT Indication by QC		

Reference Description: QA found a missed UT indication after ZPMC had tested and accepted the weld in Segment 12AE Floorbeam Joint

Description of Non-Conformance:

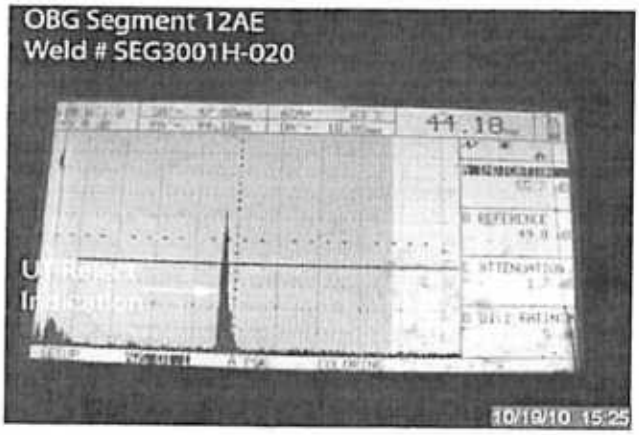
During the Quality Assurance (QA) Ultrasonic Testing (UT) verification of weld located on Segment 12AE, this QA Inspector discovered the following issue:

- One (1) Class "A" indication measuring approximately 25mm in length.
- The Indication rating is +5dB and length approximately 25mm.
- The thickness of the plate is 30mm and depth of the indication is approximately 15mm.
- The indication is located on the weld joint identified as SEG3001H-020.
- The "Y" location for this indication is approximately 500mm from Bottom plate.
- The weld is a Complete Joint Penetration (CJP) butt joint, joining Floor Beam FB3033A (X3009A) to Floor Beam FB03031A (X3003E).
- The indication is clearly marked by QA on/near the weld.
- This weld is identified as Seismic Performance Critical Member (SPCM).
- OBG Segment 12AE is located at the outside yard west side of Blast Shop 1.

-The Notice of Witness Inspection Number (NWIT) is 006956. The indication is located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 100% UT inspection of this weld.

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

-AWS D1.5-2002, Section 6, Table 6.3; "Specifies a class A indication as having a dBs rating of +8 and lower for weld thicknesses 21mm through 38mm."

-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: Vikram Singh

Name of individual from Contractor notified: Wang Heng

Time and method of notification: 1530 hours, 10/19/10, Verbal

Name of Caltrans Engineer notified: Laraine Woo, Ching Chao

Time and method of notification: 1500 hours, 10/20/10, Email

QC Inspector's Name: Wang Wei Ming

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

REPORT OF ULTRASONIC EXAMINATION
UT探伤报告

REPORT NO. 报告编号	DATE	PAGE	Revision No:
B787-UT-16232R1	2010.10.27	1 OF 1	0

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

ITEMS NAME: 部件名称	DRAWING NO.: 图号	CALTRANS CONTRACT NO.: 加州工程编号
12AE FLOOR BEAM FL2	SEG3001H	04-0120F4

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

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

EQUIPMENT 设备	MANUFACTURER 制造商	MODEL NO. 样式编号	SERIAL NO. 序列编号
UT SCOPE	AMERICA	EPOCH 4B	071565511

CALIBRATION BLOCK 试块	COUPLANT 耦合剂	MATERIAL/THICKNESS 材料厚度
AWS IIW BLOCK TYPE II	C.M.C	A709M-345T2-X 30mm

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	0.75×0.625 in				
				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 缺陷评估	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		
SEG3001H-020	1R1	70				43								ACC.	100%
AFTER B-WR16105															
BLANK															

EXAMINED BY主探
LEVEL - II SIGN / DATE 2010.10.27

REVIEWED BY 审核
LEVEL - II SIGN / DATE 2010.10.27

质量经理 / QCM
签字SIGN / 日期 DATE 2010.10.27

用户CUSTOMER
签字 SIGN / 日期 DATE

(FORM# ZPQC-UT01)

DEPARTMENT OF TRANSPORTATION
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: xx.25A

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

Location: Changxing Island, Shanghai, P.R. China **Report No:** NCS-000863
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 28-Oct-2010
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0811

Type of problem:

Welding	☐	**Concrete**	☐	**Other**	☑	
Welding	☐	**Curing**	☐	**Procedural**	☐	**Bridge No:** 34-0006
Joint fit-up	☐	**Coating**	☐	**Other**	☑	**Component:**
Procedural	☐	**Procedural**	☐	**Descripton:**		

Date the Non-Conformance Report was written: 25-Sep-2010

Description of Non-Conformance:

During the Quality Assurance (QA) Magnetic Particle Testing (MT) review of welds located on Bike Path 008, this QA Inspector discovered the following issues:
-One Longitudinal linear crack in the weld measuring approximately 15mm in length.
-The weld is identified as BK004A6-008-080.
-The weld is partial joint penetration (PJP), joining the End Diaphragm plate identified as BKX11G to the Deck Plate identified as BKPL1A.
-This weld joint is designated as Non-Seismic performance critical (Non-SPCM) weld member.
-The crack is clearly marked on the material near the weld.
-The OBG Bike Path 008 is located in Bay #19.
The Notice of Witness Inspection Number (NWIT) is 006765. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel.

Quality Assurance (QA) Magnetic Particle Testing (MT) review of fillet welds located on OBG bike path BK004A-018, this QA Inspector discovered the following issues:
-One (1) transverse crack found on the weld measuring approximately 6mm in length.
-Y location of the indication is measured to be 2160mm.
-The crack is clearly marked on the weld joint.
-The weld is identified as: BK004A3-018-052.
-The Weld is a fillet weld joining the stringer plate (8C) to the deck plate of bike path.
-The member is located in bay 11.
The Notice of Witness Inspection Number (NWIT) is 06769. The indication is located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel.

Contractor's proposal to correct the problem:

Contractor proposes to repair the weld indication, and provide NDT report to prove the weld is acceptable. Contractor will monitor the inspector who missed the indication, and take disciplinary action should be

continuously making similar mistakes.

Corrective action taken:

Contractor repaired and provided acceptable NDT records to close the issues. Contractor has identified the inspector responsible and is monitoring his performance.

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 Wahbeh, Mazen 818-292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Ng,Michael	Quality Assurance Inspector
Reviewed By:	Devey,Jim	QA Reviewer