

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
MATERIALS ENGINEERING AND TESTING 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

FAX: (707) 649-5493



Contract #: 04-0120E4
Cty SF Rte 80 PM 13.4, 13.8
File # 13.25 B

QUALITY ASSURANCE - NONCONFORMANCE REPORT

Location: Oregon Iron Works-Vancouver, Washington

Date: 08-30-06

Prime Contractor: Kiewit, FCI and Manson - A Joint Venture

NCR #118

Submitting Contractor: Oregon Iron Works

Type of problem:

- Welding [X] Concrete [] Other []
Welding: [X] Curing: [] Procedural: [] Bridge No. 34-006
Joint fit-up: [] Coating: [] Other: [] Component: E 2
Procedural: [X] Procedural: []

Description of Non-Conformance: Oregon Iron Works Quality Control Department allowed a second time repair of the Support Beam to Pile Sleeve 306-1 complete joint penetration weld on the G111 side of the support, without the Engineer's approval.

Applicable reference: Caltrans Special Provisions, Shop Welding-Design Details (F)

Who discovered the problem: Caltrans Quality Assurance Inspector Chuck Franco

Name of individual from Contractor notified: Peter Hale and Mike Gregson

Time and method of notification: 08-30-06, 1845, verbal

Name of Caltrans Engineer notified: Mark Vilcheck, Structure Representative

Time and method of notification: 08/31/06 via verbal notification

QC Inspector's Name: Kevin Williams

Was the QC Inspector aware of problem: Yes

Contractor's proposal to correct the problem: Oregon Iron Works Quality Control Inspectors Peter Hale and Mike Gregson were aware that there was no critical weld repair for the area being welded. Both Mr. Hale and Mr. Gregson informed the Quality Assurance Inspector that they had been told to let the welders proceed and to take the non-conformance if the Quality Assurance Inspector discovered the unapproved weld repair.

Comments: This report is for the purpose of determining general 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 Ryan Smith, (858) 232-6799,, who represents the Office of Structural Materials for your project.

Inspected By: Chuck Franco

Quality Assurance Inspector

Reviewed By: David McClary

Lead QA Reviewer

005178 SEP-1 06 RECEIVED

DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program

333 Burma Rd.
Oakland, CA 94607
(510) 286-0538, (510) 286-0550 fax



Kiewit-FCI-Manson, JV
220 Burma Rd.
Oakland, CA 94607

September 14, 2006

Attn: Mr. Lee Zink
Project Director

Contract No. 04-0120E4
04-SF-80-13.4, 13.8
SAS T1 & E2 Foundations
SFOBB-ESSSP

Letter No. 05.003.01-001877

Subject: Response to Submittal No. 885, Revision No. 00 (Oregon Iron Works Response to NCR Generated by State Letter 1808)

Dear Lee,

The Department has reviewed Kiewit-FCI-Manson (KFM) Submittal No. 885, Revision No. 00, dated September 8, 2006, which responded to the Department's Letter No. 1808 dated September 1, 2006, which notified KFM of a Non-conformance Report (NCR) for Oregon Iron Works (OIW) dated August 30, 2006. The Department hereby approves Submittal No. 885, Revision No. 00, pursuant to Section 8-3.01, "Welding," of the Special Provisions. The NCR for OIW dated August 30, 2006, is considered to be resolved.

If you have any questions or need additional information, please contact Mark Vilcheck at (510) 286-0526.

Sincerely,

Rafael Bolon
District Representative

For: Pedro J. Sanchez
Resident Engineer

cc: P. Sanchez
M. Woods
R. Smith

file: 05.003.01, 09.006.03, 55.0885

Memorandum

*Flex your power!
Be energy efficient!*

To: MARK VILCHECK
Structure Representative
333 Burma Road
Oakland, CA 94607

Date: September 7, 2006

File: 04-0120E4
E2/T1 Foundations

From: RYAN T. SMITH
Structural Materials Representative
Quality Assurance and Source Inspection Branch
Office of Structural Materials

KFM SUBMITTALS FOR OREGON IRON WORK'S (OIW) RESPONSES TO NCRs

The Materials Engineering and Testing Service (METS) has reviewed the following submittals requesting to close Nonconformance Reports (NCRs) regarding the fabrication of the E2 and T1 Steel Piling in Napa, CA. Please find the following comments regarding NCRs:

Submittal Number	Date Submitted	Description	Approved / Rejected	Notes
206-01	08/24/06	OIW Response to NCR 018	Approved	1
851-00	08/29/06	OIW Response to NCR 091	Approved	2
872-00	09/06/06	OIW Response to NCR 113	Approved	3
873-00	09/06/06	OIW Response to NCR 34 & 51	Approved	4
870-00	08/30/06	OIW Response to NCR 081	Approved	5
875-00	09/06/06	OIW Response to NCR 098	Approved	6
871-00	09/06/06	OIW Response to NCR 022	Approved	7
874-00	09/06/06	OIW Response to NCR 099	Approved	8
869-00	09/05/06	OIW Response to NCR 104	Approved	9
885-00	09/07/06	OIW Response to NCR 118	Approved	10

884-00	09/07/06	OIW Response to NCR 116	Approved	11
883-00	09/07/06	OIW Response to NCR 097	Approved	12
882-00	09/07/06	OIW Response to NCR 100	Approved	13
881-00	09/07/06	OIW Response to NCR 106	Approved	14
880-00	09/06/06	OIW Response to NCR 105	Approved	15
879-00	09/06/06	OIW Response to NCR 055	Approved	16

Notes:

1. METS NCR 018 was issued on October 24, 2005 to document the Contractor allowing the heat straightening of ring segment A43-6 without prior approval by the Engineer. In order to continue with the removal of the distortion in the ring segments, the Contractor forwarded KFM Submittal 206-00, dated November 2, 2005, outlining the procedure and conditions for “pre-approved” heat straightening. In accordance with State Letter 05.003.01.000631, dated December 8, 2005, the Department agreed to allow the heat straightening with provided that three conditions were included in the Contractor’s procedure. Although KFM and OIW agreed to these conditions verbally in December 2005, they were not incorporated into OIW’s Welding Quality Control Plan until Submittal 206-01, dated August 28, 2006. METS takes no exception to the revisions contained in Submittal 206-01; however, it should be noted that the attached Ultrasonic Examination Reports show the examination results of the pile sleeves after heat straightening and are not necessary for approval of Submittal 206-01 or the closure of NCR 018. METS considers this issue resolved as a heat straightening request would not have been necessary to remove the distortion from A43-6 per the approved changes to Submittal 206-01.
2. In accordance with the OIW letter dated August 25, 2006, the welders have received additional training regarding the use of proper preheat before welding the steel piling. Additionally, OIW has installed Cooperheat thermal pads to aide in achieving and maintaining the heat during welding operations. As of the date of this memorandum, METS understands that the Contractor has addressed the issue and has implemented measures to control

the heat before, during, and after welding. METS considers this NCR to be resolved at this time.

3. Per the comments in OIW's response letter to State Letter 05.003.01-001764, dated September 6, 2006, METS understands that the Contractor's use of an unapproved WPS was an isolated oversight by the Quality Control Department and should not be an issue in the future. Additionally, it should be noted that the WPS in question was approved by METS in KFM Submittal 864-00 on September 7, 2006. METS considers this NCR to be resolved at this time.
4. Per the comments in OIW's response letter to State Letter's 05.003.01-00828 and 05.003.01-001069, the OIW staff was counseled regarding the importance of receiving approval prior to proceeding with Heat Straightening. METS concurs that no further instances of this issue occurred after the above documented instances. Additionally, HSR 026 and HSR 041 have documented the heat straightening performed. At this time HSR 026 has been closed; however, HSR 041 is still pending. METS considers this NCR to be resolved provided that the Contractor will clear the repair through the closing documents for HSR 026 and HSR 041.
5. In OIW's response letter to State Letter 05.003.01-001174, dated August 30, 2006, OIW repaired a crack in the weld connecting Pile Sleeve 301-1 to Girder G121-2 as a result in miscommunication between the Quality Control and Production departments regarding the status of approval by the Engineer. METS understands that OIW has counseled their staff about the importance of receiving approval prior to proceeding with Critical Weld Repairs. METS considers this NCR to be resolved provided that the Contractor will clear the CWR through the closing documents for CWR 020.
6. As stated in OIW's response letter to State Letter 05.003.01-001450, dated September 6, 2006, the joint connecting G181-3 and G171-1 was originally a Partial Joint Penetration (PJP) weld and was approved to be a changed to a Complete Joint Penetration (CJP) weld per KFM RFI 258. METS understands that the welder was unaware of this change and welded the joint as a PJP weld. OIW has since verified that all welders understand the detail change in order to prevent future occurrences. The PJP weld has been removed and rewelded as a CJP in accordance with the approved repair procedure in OIW CWR 028. METS considers this issue to be resolved at this time.
7. In OIW's response letter to State Letter 05.003.01-000591, dated September 6, 2006, METS understands that OIW performed the CWR as a result of

miscommunication with their night shift personnel. OIW has counseled their staff regarding the importance of receiving approval prior to proceeding with Critical Weld Repairs. METS considers this NCR to be resolved provided that the Contractor will clear the CWR through the closing documents for CWR 006.

8. NCR 099 was issued to document the Contractor welding the joints on G181-3 and 171-1 with excessive root gaps. As stated in OIW's response letter to State Letter 05.003.01-001451, dated September 6, 2006, OIW ensured the root pass in question was removed during the backgouging of the CJP weld. Additionally, the Contractor's Quality Control Inspectors examined the area by Magnetic Particle Testing (MT) before depositing the subsequent fill passes. The attached MT reports verify the suspect area to be clear. The Contractor also agreed that future buttering of welds would be performed with Flux Cored Arc Welding (FCAW) in lieu of Submerged Arc Welding (SAW) in order to obtain the correct joint geometry prior to welding root pass.
9. In accordance with the OIW letter dated August 30, 2006, the welders have received training regarding the use of proper preheat before welding the steel piling. Additionally, OIW has installed Cooperheat thermal pads to aide in achieving and maintaining the heat during welding operations. As of the date of this memorandum, METS understands that the Contractor has addressed the issue and has implemented measures to control the heat before, during, and after welding. METS considers this NCR to be resolved at this time.
10. NCR 118 was issued to document the Contractor proceeding with second time repairs on the weld connecting the support beam to Pile Sleeve 306-1. METS understands that this issue occurred as a result of the Contractor's decision to proceed in order to meet deadlines in their schedule. METS personnel have discussed this issue with the KFM and OIW Quality Control Managers and have reminded them of their contractual requirement to receive Engineer approval before proceeding with CWRs. METS does not expect this to be an issue with OIW in the future. Additionally, OIW has included the NDT reports of the repairs made to the above referenced weld and the results appear to be acceptable. METS considers this NCR to be resolved at this time.
11. NCR 116 was issued to document the Contractor proceeding with a CWR without approval by the Engineer. In accordance with OIW's response letter to NCR 116, dated September 7, 2006, METS understands that OIW proceeded with the G181-3/G121-3 connection as a result of a misunderstanding that it had been approved

with multiple other repairs that had been submitted the same day. METS believes this to be an isolated instance and does not expect it to be a reoccurring issue as the Contractor typically obtains approval before proceeding with CWRs. METS considers this NCR to be resolved at this time.

12. Due to difficulties when the Contractor was installing the inter-tie girders between the two half pods in the South Pod Assembly, the Contractor chose to grind the edge of several joints in order to provide additional space during fit-up operations. As a result, this created excessive root gaps (7-12mm) in the PJP welds on the bottom flanges of multiple inter-tie girders. NCR 097 was issued when OIW proceeded with welding the joint connecting G181-4 and G121-2 without building the weld to achieve the correct joint geometry. The Department approved the change from a Partial Joint Penetration (PJP) weld to a Complete Joint Penetration (CJP) weld per the response to KFM RFI 258. METS understands that this weld was subsequently backgouged and welded in accordance with the approved procedure that was included with the Contractor's response to the NCR. Additionally, the Contractor has included the NDT reports verifying the examination of the modified CJP weld. METS understands this is no longer an issue and considers the NCR to be resolved at this time.
13. NCR 100 was issued to document the Contractor's use of temporary attachments on the shear key angles which have not been approved in the shop drawings. As stated in OIW's response to State Letter 05.003.01-001452, the Contractor has issued METS an advanced copy of the revised drawings on September 7, 2006. METS takes no issue with the use of the attachments and has verified their removal from the structure. METS considers this issue to be resolved provided that the revised drawings are submitted by the Contractor and approved by the Department.
14. NCR 106 was issued to document the Contractor allowing the welding of G181-3 to G121-3 without maintaining the required preheat. The insufficient preheat was apparent as the top flange of G121-3 was remained wet during the welding operations. In discussions with the Contractor regarding this issue, OIW stated that the proper preheat temperature was maintained on the bottom side of the G121-3 flange during the entire time the joint was welded. Additionally, OIW has provided the NDT reports for this joint and they appear to be acceptable. METS considers this NCR to be resolved at this time.
15. NCR 105 was issued on July 10, 2006 to document the Contractor welding outside the parameters of the WPS for the connection of G191-1 to Pile Sleeve 301-1. The

WPS requires a flux filled channel as backing for the weld joint; however, the channel did not contain any flux. As stated in OIW's response letter to State Letter 05.003.01-001517, dated September 7, 2006, the Contractor performed a deeper backgouge to ensure the root and butter passes were removed before depositing subsequent fill passes. METS agreed to this proposal and has verified the repair. METS considers this NCR to be resolved at this time.

16. NCR 055 was issued on February 27, 2006 to document the Contractor welding over a crack in the weld connecting G101-2 to Pile Sleeve 302-1. As stated in OIW's response to State Letter 05.003.01-001070, the issue occurred as a result of a welder excavating an in-process repair that extended close to the root of the weld. Instead of backgouging the area and having to reweld the root pass, the welder chose to deposit additional weld passes and repair the area from the other side. OIW subsequently informed all welders not to weld over cracks under any circumstances. METS understands this issue was an isolated instance and is no longer an issue. METS considers this NCR to be resolved provided that the Contractor will clear the repair through closing documents for CWR 016.

If you have any questions, or would like to discuss the issues, please call me at (858) 232-6799.

cc: Rafael Bolon
Tom Shimada
David McClary



OREGON IRON WORKS, INC.

9700 S.E. LAWNFIELD ROAD • CLACKAMAS, OREGON 97015
TELEPHONE (503) 653-6300 • FAX (503) 653-5870

September 7, 2006

KIEWIT / FCI / MANSON JV
220 Burma Rd.
Oakland, CA 94607

Reply to: SL-2083-174

Attention: Chris Webb

Reference: OAKLAND BAY BRIDGE PIER CAP E2 / CONTRACT NO. 04-0120E4
KFM Material Contract Dated April 22, 2004

Subject: METS NCR 118 (QA/QC Issue #49) State Letter 1808

Gentlemen:

Oregon Iron Works, Inc. (OIW) has received State Letter 1808, which documents a non-conformance for performing a Critical Weld Repair (CWR) prior to receiving Engineer's Approval on the PS-306-1 to G-111 support beam.

All required QC Inspections have been completed on this weld and the results are attached.

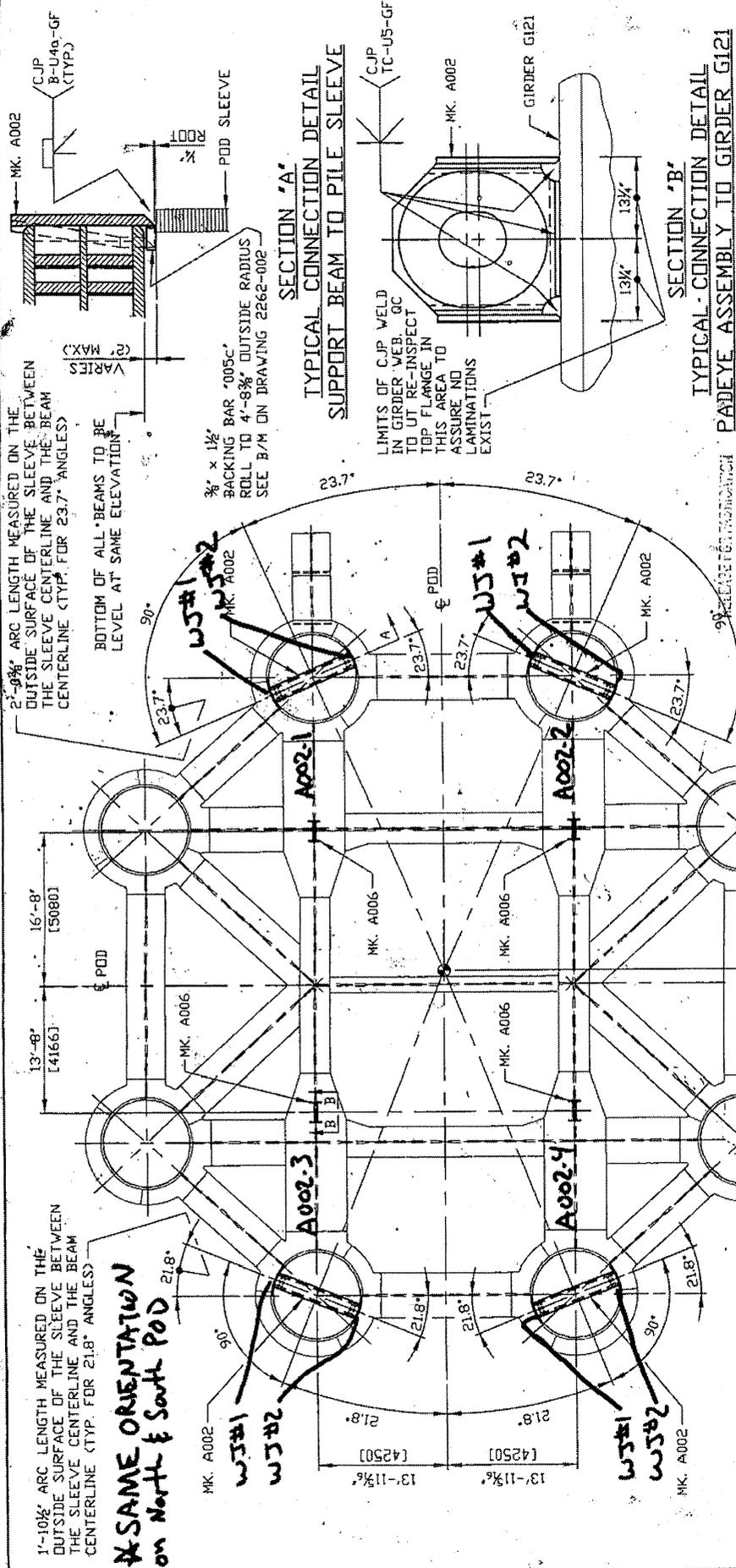
OIW considers this NCR resolved.

If you have any questions or need further clarification, please contact me at your earliest convenience.

Sincerely,

OREGON IRON WORKS, INC.

Jerry Takeuchi
Quality Assurance Manager



2'-0% ARC LENGTH MEASURED ON THE OUTSIDE SURFACE OF THE SLEEVE BETWEEN THE SLEEVE CENTERLINE AND THE BEAM CENTERLINE (TYP. FOR 23.7° ANGLES)

BOTTOM OF ALL BEAMS TO BE LEVEL AT SAME ELEVATION

3/8" x 1 1/2" BACKING BAR "005c" ROLL TO 4'-8 3/8" OUTSIDE RADIUS SEE B/M ON DRAWING 2262-002

SECTION 'A'

TYPICAL CONNECTION DETAIL SUPPORT BEAM TO PILE SLEEVE

LIMITS OF CJP WELD IN GIRDER WEB TO CUT RE-INSPECT TOP FLANGE IN THIS AREA TO ASSURE NO LAMINATIONS EXIST

SECTION 'B'

TYPICAL CONNECTION DETAIL PILE ASSEMBLY TO GIRDER G121

ALL WORK GENERATED BY THIS DRAWING WITH REGARD TO MK. #'S A002 TO BE CHARGED AGAINST WORK ORDER 2262-10

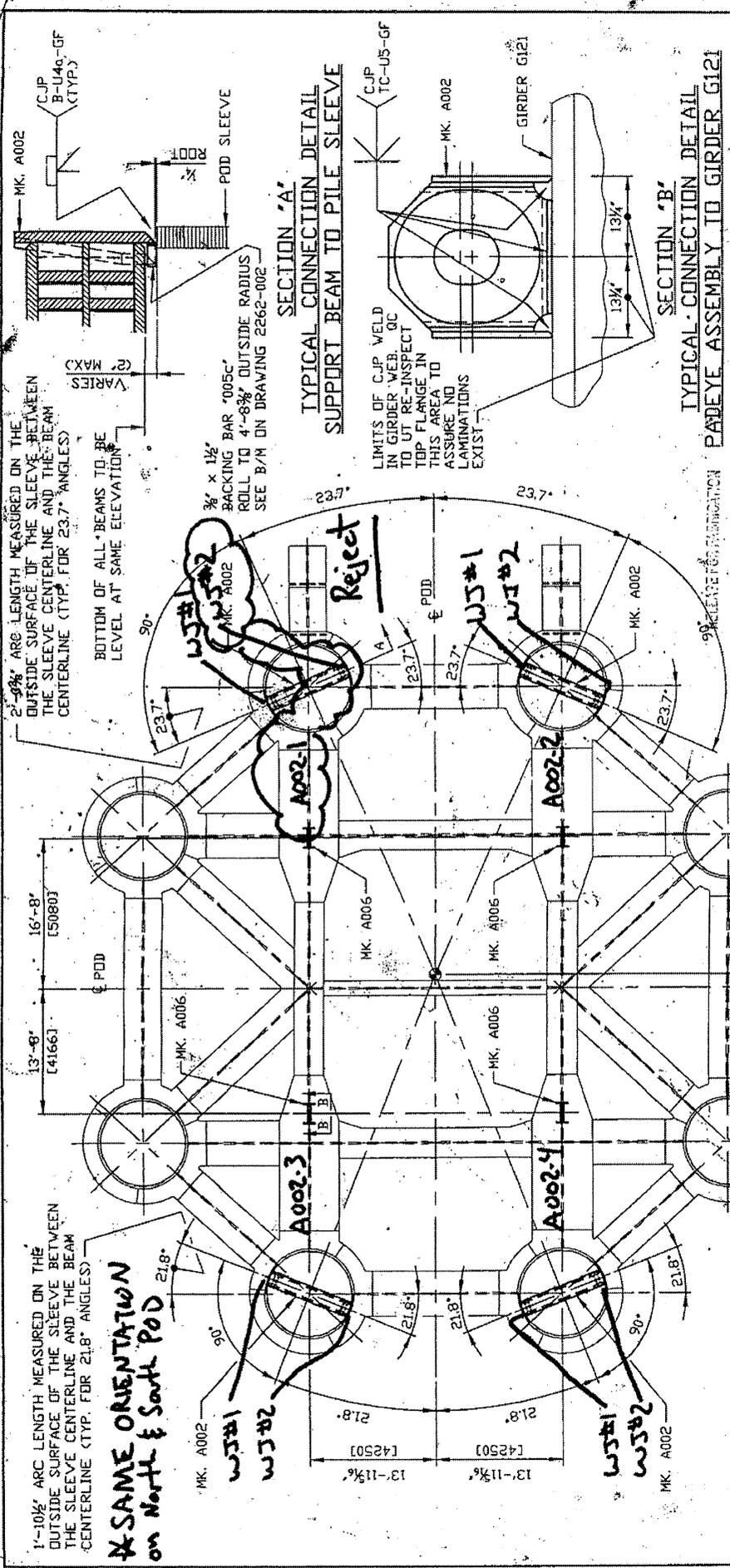
ALL WORK GENERATED BY THIS DRAWING WITH REGARD TO MK. #'S A006 TO BE CHARGED AGAINST WORK ORDER 2262-12

PLAN
PIER E2 PILE CAP FOOTING PLAN
TEMPORARY SUPPORTS - TYPICAL FOR (2) PODS
D/W PCD'S 2083-10' & 2083-12

THIS DRAWING WITH DRAWINGS SURU 2262-006

SOUTH POD

0	RELEASED FOR APPROVAL AND FABRICATION	DATE	6/12/06	PRC	BAKUC
1	REVISED FOR APPROVAL AND FABRICATION	DATE	6/12/06	PRC	BAKUC
REV. 1: THIS DRAWING CONTAINS PROVISIONS FOR THE PROTECTION OF THE PUBLIC INTEREST AND THE SAFETY OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE USER TO OBTAIN NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.					
OREGON IRON WORKS, INC.					
DATE	6/8/06	DATE	6/8/06	DATE	6/8/06
BY	PRC	BY	PRC	BY	PRC
SAN FRANCISCO OAKLAND BAY BRIDGE PIER E2 PILE CAP STEEL TEMPORARY FOOTING SUPPORTS					
CONTRACTOR: K&M DESIGN/ENGINEERING, A JV K&M JOB #3447347 DIV. PROJECT #083					
TITLE: SEBBER PILE CAP DRAWING NUMBER: 2262-006 CALTRANS CONTRACT #04-00061					



2'-9 3/8" ARC LENGTH MEASURED ON THE OUTSIDE SURFACE OF THE SLEEVE BETWEEN THE SLEEVE CENTERLINE AND THE BEAM CENTERLINE (TYP. FOR 23.7° ANGLES)

BOTTOM OF ALL BEAMS TO BE LEVEL AT SAME ELEVATION

3/8" x 1 1/2" BACKING BAR '005C' ROLL TO 4'-8 3/8" OUTSIDE RADIUS SEE B/M ON DRAWING 2262-002

Reject

LIMITS OF CJP WELD IN GIRDER WEB, QC TO UT RE-INSPECT TOP FLANGE IN THIS AREA TO ASSURE NO LAMINATIONS EXIST

1'-10 1/2" ARC LENGTH MEASURED ON THE OUTSIDE SURFACE OF THE SLEEVE BETWEEN THE SLEEVE CENTERLINE AND THE BEAM CENTERLINE (TYP. FOR 21.8° ANGLES)

Same Orientation on North & South Pile

ALL WORK GENERATED BY THIS DRAWING WITH REGARD TO MK. #'S A006 TO BE CHARGED AGAINST WORK ORDER 2262-12

ALL WORK GENERATED BY THIS DRAWING WITH REGARD TO MK. #'S A002 TO BE CHARGED AGAINST WORK ORDER 2262-10

PIER E2 PILE CAP FOOTING PLAN
 TEMPORARY SUPPORTS - TYPICAL FOR (2) PILES
 DW PCD's 2083-10' & 2083-12

THIS DRAWING WITH DRAWINGS SHEET 2262-006

SECTION 'A'
 TYPICAL CONNECTION DETAIL
 SUPPORT BEAM TO PILE SLEEVE

SECTION 'B'
 TYPICAL CONNECTION DETAIL
 PADEYE ASSEMBLY TO GIRDER G121

0	RELEASED FOR APPROVAL AND FABRICATION	DATE	06/12/86	BY	PER
REV.	CHANGE DESCRIPTION	DATE		BY	PER
THE INFORMATION CONTAINED ON THIS DRAWING IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE U.S. DEPARTMENT OF TRANSPORTATION.					
OREGON IRON WORKS, INC.					
DRAWN	DATE	CHECKED	DATE	BY	REVIEWED BY
	06/27/86		06/27/86		
SAN FRANCISCO OAKLAND BAY BRIDGE PIER E2 PILE CAP STEEL TEMPORARY FOOTING SUPPORTS					
CONTRACTOR: KFH (REVIT-FCI-HANSON, A.P.C.)			SHEET NO. 2262/007		
TITLE: SFOBB E2 PILE CAP			DRAWING MARKED		
DWTN CONTRACT 84-80564			2262-006		

RELEASE FOR FABRICATION
 JUN 23 1986

Ultrasonic Examination Report				DATE:	Wednesday, August 30, 2006			
San Francisco Oakland Bay Bridge / E-2 Pile Cap				Report #				
CALTRANS #04-0120E4		KFM JOB#364 / 4347		NA		R1		
Sub-Assembly Title:		Pile Sleeve Support Beams		Reference Previous Report #				
Drawing #		2262-001		N/A				
O.I.W. Mark#		A002 -1 SOUTH POD		OIW				
Candraft #		NA		DWG# 2262-001		REV# 0		

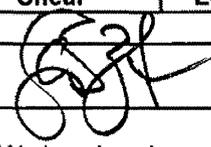
* Welds Listed Below~100% FVT, Final examination unless otherwise noted.

Part / Weld Identification	Visual Inspection		NDE		Transducer Angle	Reference Level	Note:		
	Accept	Reject	Accept	Indication#					
A002-1 R1WJ#2	YES		NO	1	70	44			
Indication Plotting									
Indication Level ~A	#1	#2	#3	#4	#5	#6	#7	#8	#9
Reference Level ~B	51								
Attenuation Factor ~C	44								
Indication Rating ~D	7								
Sound Path:	0								
Surface Distance:	70								
Depth From "A"	53								
Length:	23								
Distance From "X"	25								
Distance From "Y"	-5								
Accept/Reject(A/R)	100								
REJECT									

~Comments~

SEE ATTACHED MAP FOR LOCATION OF EACH ASSY.

Procedure #	QC~115	Material Thickness:	43	Welding Process:	fcaw
Spec./Standard #	AWS D1.5~2002 sec.6	Weld Joint /Criteria:	tee	Table	6.3
Equipment:	kkUSN 52R	Transducer:	2.25Mhz	2.25Mhz	
Serial #	00L23M	Wave Mode:	Shear	Longitudinal	

Inspector:	TROY S. ZUERCHER	Signature:	
CWI #	96120251	Date:	Wednesday, August 30, 2006
NDE Certification:	Level II		

Ultrasonic Examination Report			DATE:	Tuesday, August 29, 2006		
San Francisco Oakland Bay Bridge / E-2 Pile Cap			Report #			
CALTRANS #04-0120E4	KFM JOB#364 / 4347		NA			
Sub-Assembly Title:	Pile Sleeve Support Beams		Reference Previous Report #			
Drawing #	2262-001		N/A			
O.I.W. Mark#	A002 -2 SOUTH POD		OIW			
Candraft #	NA		DWG#	2262-001	REV#	0

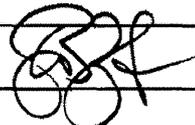
* Welds Listed Below~100% FVT, Final examination unless otherwise noted.

Part / Weld Identification	Visual Inspection		NDE		Transducer Angle	Reference Level	Note:		
	Accept	Reject	Accept	Indication#					
A002-2-WJ#1	YES		YES		70	44			
A002-2-WJ#2	YES		YES		70	44			
Indication Plotting	#1	#2	#3	#4	#5	#6	#7	#8	#9
Indication Level -A									
Reference Level -B									
Attenuation Factor -C									
Indication Rating -D									
Sound Path:									
Surface Distance:									
Depth From "A"									
Length:									
Distance From "X"									
Distance From "Y"									
Accept/Reject(A/R)									

~Comments~

SEE ATTACHED MAP FOR LOCATION OF EACH ASSY.

Procedure #	QC~115	Material Thickness:	43	Welding Process:	fcaw
Spec./Standard #	AWS D1.5~2002 sec.6	Weld Joint /Criteria:	tee	Table	6.3
Equipment:	kkUSN 52R	Transducer:	2.25Mhz	2.25Mhz	
Serial #	00L23M	Wave Mode:	Shear	Longitudinal	

Inspector:	TROY S. ZUERCHER	Signature:	
CWI #	96120251	Date:	Tuesday, August 29, 2006
NDE Certification:	Level II		

Ultrasonic Examination Report			DATE:	Wednesday, August 30, 2006		
San Francisco Oakland Bay Bridge / E-2 Pile Cap			Report #			
CALTRANS #04-0120E4	KFM JOB#364 / 4347		NA			
Sub-Assembly Title:	Pile Sleeve Support Beams		Reference Previous Report #			
Drawing #	2262-001		N/A			
O.I.W. Mark#	A002 -3 SOUTH POD		OIW			
Candraft #	NA		DWG#	2262-001	REV#	0

*** Welds Listed Below~100% FVT, Final examination unless otherwise noted.**

Part / Weld Identification	Visual Inspection		NDE		Transducer Angle	Reference Level	Note:		
	Accept	Reject	Accept	Indication#					
A002-3-WJ#1	YES		YES		70	44			
A002-3-WJ#2	YES		YES		70	44			
Indication Plotting	#1	#2	#3	#4	#5	#6	#7	#8	#9
Indication Level ~A									
Reference Level ~B									
Attenuation Factor ~C									
Indication Rating ~D									
Sound Path:									
Surface Distance:									
Depth From "A"									
Length:									
Distance From "X"									
Distance From "Y"									
Accept/Reject(A/R)									
~Comments~									
SEE ATTACHED MAP FOR LOCATION OF EACH ASSY.									
Procedure #	QC~115		Material Thickness:		43	Welding Process:		fcaw	
Spec./Standard #	AWS D1.5~2002 sec.6		Weld Joint /Criteria:		tee		Table	6.3	
Equipment:	kkUSN 52R		Transducer:		2.25Mhz		2.25Mhz		
Serial #	00L23M		Wave Mode:		Shear		Longitudinal		

Inspector:	TROY S. ZUERCHER	Signature:	
CWI #	96120251	Date:	Wednesday, August 30, 2006
NDE Certification:	Level II		

Ultrasonic Examination Report				DATE:	Wednesday, August 30, 2006			
San Francisco Oakland Bay Bridge / E-2 Pile Cap				Report #				
CALTRANS #04-0120E4		KFM JOB#364 / 4347				NA		
Sub-Assembly Title:		Pile Sleeve Support Beams		Reference Previous Report #				
Drawing #		2262-001		N/A				
O.I.W. Mark#		A002 -4 SOUTH POD		OIW				
Candraft #		NA		DWG#		2262-001		REV# 0

* Welds Listed Below~100% FVT, Final examination unless otherwise noted.

Part / Weld Identification	Visual Inspection		NDE		Transducer	Reference	Note:		
	Accept	Reject	Accept	Indication#	Angle	Level			
A002-4-WJ#1	YES		YES		70	44			
A002-4-WJ#2	YES		YES		70	44			
Indication Plotting	#1	#2	#3	#4	#5	#6	#7	#8	#9
Indication Level -A									
Reference Level -B									
Attenuation Factor -C									
Indication Rating -D									
Sound Path:									
Surface Distance:									
Depth From "A"									
Length:									
Distance From "X"									
Distance From "Y"									
Accept/Reject(A/R)									

~Comments~

SEE ATTACHED MAP FOR LOCATION OF EACH ASSY.

Procedure #	QC~115	Material Thickness:	43	Welding Process:	fcaw
Spec./Standard #	AWS D1.5~2002 sec.6	Weld Joint /Criteria:	tee	Table	6.3
Equipment:	kkUSN 52R	Transducer:	2.25Mhz	2.25Mhz	
Serial #	00L23M	Wave Mode:	Shear	Longitudinal	

Inspector:	TROY S. ZUERCHER	Signature:	
CWI #	96120251	Date:	Wednesday, August 30, 2006
NDE Certification:	Level II		

DEPARTMENT OF TRANSPORTATIONDIVISION OF ENGINEERING SERVICES
MATERIALS ENGINEERING AND TESTING 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

FAX: (707) 649-5493



Contract # : 04-0120E4

Cty SF Rte 80 PM 13.4, 13.8File # 13.25 B**QUALITY ASSURANCE - NONCONFORMANCE REPORT****Location:** Oregon Iron Works-Vancouver, Washington**Date:** 08-30-06**Prime Contractor:** Kiewit, FCI and Manson - A Joint Venture**NCR #**118**Submitting Contractor:** Oregon Iron Works**Type of problem:****Welding** **Concrete** **Other** **Welding:** **Curing:** **Procedural:** **Bridge No.** 34-006**Joint fit-up:** **Coating:** **Other:** **Component:** E 2**Procedural:** **Procedural:** **Description of Non-Conformance:** Oregon Iron Works Quality Control Department allowed a second time repair of the Support Beam to Pile Sleeve 306-1 complete joint penetration weld on the G111 side of the support, without the Engineer's approval.**Applicable reference:** Caltrans Special Provisions, Shop Welding-Design Details (F)**Who discovered the problem:** Caltrans Quality Assurance Inspector Chuck Franco**Name of individual from Contractor notified:** Peter Hale and Mike Gregson**Time and method of notification:** 08-30-06, 1845, verbal**Name of Caltrans Engineer notified:** Mark Vilcheck, Structure Representative**Time and method of notification:** 08/31/06 via verbal notification**QC Inspector's Name:** Kevin Williams**Was the QC Inspector aware of problem:** Yes**Contractor's proposal to correct the problem:** Oregon Iron Works Quality Control Inspectors Peter Hale and Mike Gregson were aware that there was no critical weld repair for the area being welded. Both Mr. Hale and Mr. Gregson informed the Quality Assurance Inspector that they had been told to let the welders proceed and to take the non-conformance if the Quality Assurance Inspector discovered the unapproved weld repair.**Comments:** This report is for the purpose of determining general 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 Ryan Smith, (858) 232-6799,, who represents the Office of Structural Materials for your project.**Inspected By:** Chuck Franco

Quality Assurance Inspector

Reviewed By: David McClary

Lead QA Reviewer