STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY Arnold Schwarzenegger, Governor

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 # 1 .25 B

QUALITY ASSURANCE - NONCONFORMANCE REPORT

Location: SFOBB E2/T1 Foundations **JOBSITE NCR** ☒ **Date**: 11-12-2007

Prime Contractor: Keiwit/FCI/Mason (KFM)-Joint Venture **NCR #**219

Submitting Contractor: KFM

Type of problem: Loss of preheat/interpass temperature

Welding	☐	**Concrete**	☐	**Other**	☐	
Welding:	☒	**Curing:**	☐	**Procedural:**	☐	**Bridge No.** 34-0006
Joint fit-up:	☐	**Coating:**	☐	**Other:**	☐	**Component:** T1 Foundation
Procedural:	☒	**Procedural:**	☐	Loss of Preheat/interpass Temperature at Pile 7H-1 and 2		

Description of Non-Conformance: The Contractor failed to maintain the preheat temperature during the welding of T1 pile head connection plate (PHCP) as required by Caltrans Special Provisions, Section 10-1.31, Field Welding of Pile/Sleeve Connection Plates, Line F. The loss in preheat occurred on PHCP's pile 7, plate H, welds 1 & 2. The loss of preheat occurred on beginning at the bottom weld radius and extending approximately 20cm upwards. The preheat/interpass was verified utilizing temperature indicating markers and noted the temperature within the weld zone was 150°F to 200°F. There were several subsequent weld passes which were deposited prior to the loss of heat

Applicable reference: Caltrans Special Provisions,Section 10-1-1.31, Field Welding of the Pile/Sleeve Connection Plates, Line F

Who discovered the problem: Quality Assurance Inspector, Mike Garcia

Name of individual from Contractor notified: KFM Welding Supervisor, Jim Belcher

Time and method of notification: Nov 12, 2007 at approximately 2300 hours via verbal notification

Name of Caltrans Engineer notified: Assistant Structure Representative, Quang Pham

Time and method of notification: Nov 12, 2007 at approximately 2300 hours via verbal notification

QC Inspector's Name: KFM Quality Control Inspector, Dan Smith

Was the QC Inspector aware of problem: yes

Contractor's proposal to correct the problem: The Contractor elected to leave the weld passes in place and bring the weld up to the required minimum preheat temperature and have QC perform magnetic particle testing prior to welding.

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: Mike Garcia Quality Assurance Inspector

Reviewed By: Albert Carreon Lead QA Reviewer

Hardcopy Routing Instructions:
1. Resident Engineer *2. Inspecting Branch Contract File* *3. Responsible Branch Contract File (with supporting documentation)*

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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

Attn: Mr. Rich Bienek
Welding Quality Control Manager

November 16, 2007

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

Letter No. 05.003.01-003654

Subject: NCR - Kiewit-FCI-Manson, 11/12/07 (Failure to Maintain Preheat)

Dear Rich,

The Department issued a Non-conformance Report (NCR) at the SAS T1/E2 Foundations project site on November 12, 2007. The NCR was generated when the Contractor failed to maintain the preheat temperature as required by the Special Provisions, Section 10-1.31, Subsection "Field Welding of Pile/Sleeve Connector Plates," Line F, during welding of Pier T1 Pile Head Connection Plate (PHCP) at pile 7, welds H1 and H2. QA verbally notified Mr. Jim Belcher, KFM Welding Supervisor, of this non-conformance on November 12, 2007.

The Department understands that the Contractor returned the weld to the minimum preheat temperature and that MT was performed on the in-place welds prior to resuming welding at these locations. The Department considers this NCR to be closed. However future instances of loss of preheat will be documented as necessary.

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

Sincerely,

Mark Vilcheck
Structure Representative

For: Pedro J. Sanchez
Resident Engineer

cc: P. Sanchez
M. Woods
R. Smith

file: 05.003.01, 09.006.03