

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028060**Date Inspected:** 30-Jul-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	As noted below		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No	
Rod Oven in Use:	Yes	No	N/A
Weld Procedures Followed:	Yes	No	N/A
Verified Joint Fit-up:	Yes	No	N/A
Approved WPS:	Yes	No	N/A
Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

12E-PP111.1-B1 (Exterior)

This QA Inspector made random observations of excavation operations by ABF/JV welder Chau Tran #3139 on 12E-PP111.1-B1 on the exterior of the OBG. QC Inspector Salvador Merino measured the dimensions of the excavation at y+0 as 1240mm in length, 35mm wide and 18mm deep. This QA Inspector observed the QC Inspector perform Magnetic Particle Inspection on the site to ensure soundness of the metal and recorded no indications. Upon completion of the testing, this QA Inspector observed ABF welder Wai Kit Lai performing repair welding operations on a first time repair listed above utilizing the SMAW process in the 3G vertical position. The welder employed 3.2mm E7018-H4R electrodes with an amperage of 132. QC Inspector Salvador Merino monitored the welding and the parameters to ensure compliance as they pertain to ABF-WPS-D1.5-1000-Repair. The work at this location was completed on this date and appeared to be in general conformance with the contract documents. No RWR was required for this repair.

12E-E2.1-C1 (Exterior)

This QA Inspector randomly observed ABF/JV qualified welder Chau Tran #3139 perform the Shielded Metal Arc Welding process in the 2G horizontal position of the B-U2a Complete Joint Penetration (CJP) splice on 12E-E2.

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1-C1 on the exterior of the OBG. QC Inspector Salvador Sandoval verified prior to the start of welding that the pre-heat temperature was in compliance with ABF-WPS-D1.5-1040C-CU. This QA Inspector observed the welder utilizing E7018-H4R electrodes at amperage of 129 and witnessed the cleaning of the joint between passes as QC measured the inter-pass temperatures. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that there were no issues at this location and appeared to be in general conformance with the contract specifications.

13E PP122.5-E2.8-BW1 (Interior)

This QA Inspector randomly observed ABF welder Wai Kit Lai#2953 performing excavation operations of an ultrasonic rejectable indication on the location and dimensions listed below on the interior of the OBG located at 12E PP122.5-E2.8-BW1. Upon completion of the excavations QC Inspector Salvador Merino performed a Magnetic Particle(MT) Inspection of the site to determine the soundness of the metal. This QA Inspector noted that QC found no rejectable indications.

13E PP122.5-E2.8-BW1: y+450mm: 45mm in length, 18mm wide and 8mm deep.

This QA Inspector observed ABF welder Wai Kit Lai performing repair welding operations on a first time repair listed above utilizing the SMAW process in the 3G vertical position. The welder employed 3.2mm E7018-H4R electrodes with an amperage of 132. QC Inspector Salvador Merino monitored the welding and the parameters to ensure compliance as they pertain to ABF-WPS-D1.5-1004-Repair. Upon completion of the welding, ProHeat 35 thermal heating blankets were placed over the joint for a period of 1 hour at a temperature range of 450°F to 650°F. The work at this location was completed on this date and appeared to be in general conformance with the contract documents. No RWR was required for this repair.

12E PP111.1-B1 (Exterior)

QA NDT 13E Drop-In Panel (Interior)

This QA Inspector performed Magnetic Particle (MT) testing on the weld listed below. This QA Inspector performed MT testing utilizing the yoke method in conformance with ASTM E 709 and the standard of acceptance with D1.5 section 6.26. This QA Inspector noted that no rejectable indications were found at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work at this location appeared to be in general conformance with the contract specifications.

13E PP124-E2.8-BF1

13E PP123-E2.1-BF3

13E PP122.5-E2.1-BW1

13E PP122-E2.1-BW1

13E PP121-E2.4-BF1

QC UT (Exterior)

This QA Inspector randomly observed QC Inspector Jesse Cayabyab at 13E-E2.2, Chris Concha at 13E-PP123.6

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and Andrew Keech at 13E-E2.8 performing Ultrasonic Testing (UT) on the exterior of the OBG.. The QC Inspectors were observed scanning from each side of the weld and the scanning pattern as described in D1.5 6.24. The QC Inspectors were noted as identifying rejectable indications and the work at these locations is ongoing and appeared to be in general conformance with the contract documents and SE-UT-D1.5-CT-100-Revision 4.

Summary of Conversations:

Discussed welder assignments and locations with Quality Control Inspector Salvador Merino.



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 Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By:	Frey,Doug	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
