

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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-027135
Date Inspected: 03-Feb-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Jobsite

CWI Name:	As noted below	CWI Present:	Yes	No
Inspected CWI report:	Yes No N/A	Rod Oven in Use:	Yes No N/A	
Electrode to specification:	Yes No N/A	Weld Procedures Followed:	Yes No N/A	
Qualified Welders:	Yes No N/A	Verified Joint Fit-up:	Yes No N/A	
Approved Drawings:	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:

13E/PP121.5/E4 Lifting Lug Hole #2 (Exterior)

ABF welder Salvador Sandoval was observed utilizing a propane burner to pre-heat lifting lug hole #2 located at 13E/PP121.5/E4 prior to performing Shielded Metal Arc Welding (SMAW) in the 1G flat position. This QA Inspector noted that Mr. Sandoval obtained 3.2mm E7018 electrodes from a baking oven and drew amperage of 128 during welding. QC Inspector Fred Von Hoff monitored the welding and the parameters to ensure compliance pertaining to ABF-WPS-D15-1050A-CU and the contract specifications. This QA Inspector observed the welder employed a small disc grinder to blend the start/stop edges of the work as the QC Inspector measured the inter-pass temperatures. This QA Inspector made subsequent observations and noted that the work at this location was completed on this date and appeared to be in general conformance with the contract specifications. The joints at this location are Seismic Performance Critical Members (SPCM).

12E/PP115/E3 Lifting Lug Holes #3 and #4 (Exterior)

This QA Inspector randomly observed ABF welding personnel performing excavation operations of ultrasonic rejectable indications on lifting lug hole #3 located at y+320, and on #4 at y+471. Upon completion of the excavations QC Inspector Fred Von Hoff performed a magnetic particle inspection of the sites to determine the

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soundness of the metal and recorded the dimensions of the excavations. #3 was recorded as; 50mm's in length, 25mm's wide and 13mm's deep. #4 was recorded as; 250mm's in length, 25mm's wide and 17mm's deep.

This QA Inspector observed ABF welder Rick Clayborn performing repair welding operations on lifting lug holes #3 and #4 at 12E/PP115/E3 utilizing the SMAW process in the 1G flat position. The welder employed 3.2mm E7018 electrodes with an amperage of 126. QC Inspector Fred Von Hoff monitored the welding and the parameters at this location appeared to be in general conformance with ABF-WPS-D1.5-1001-Repair.

12W/13W/A QA NDT (Exterior)

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of the welds located at the locations listed below. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

12W/13W/A3-y+4850mm-5500mm

12W/13W/A4-y+0mm-1800mm

12W/13W/A5-y+300mm-3580mm

12E/PP114/E4/Lifting Lug Holes #1-4 QA NDT (Exterior)

This QA Inspector performed a Magnetic Particle (MT) Inspection at the locations listed above. This QA Inspector performed 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.

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of the welds located at 12E/PP114/E4. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

13E/14E/A2 (Interior)

This QA Inspector randomly observed ABF welding personnel Wen Han Yu utilize the Plasma Arc Cutting (PAC) method to remove the backing bar from face "B" of "A2" at 13E/14E on the interior of the OBG. The welder employed the use of scaffolding to access the joint utilizing a "Bug-O" motorized rail system with a magnetic base attached in the (4G) overhead position to operate the PAC system. This QA Inspector noted the use of respiratory masks and proper safety procedures were followed. This QA Inspector made subsequent observations and noted that the work was in progress and appeared to be in general conformance with the contract documents.

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Note: The QAI reviewed the observations and inspection with QA Lead Inspector, Daniel Reyes, written in this report. No issues were noted by the QAI and the QA Lead Inspector concurs with the QA report.

Summary of Conversations:

The were no pertinent conversations to report.



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
