

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-028388
Date Inspected: 11-Sep-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: 1700
Location: Job Site

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:

12E PP116-BW3 (Interior)

This QA Inspector made random observations of ABF/JV qualified welder Guo Wu Chen #1571 performing the Shielded Metal Arc Welding (SMAW) process in the 3G vertical position utilizing E7018-H4R electrodes on the beam web located at 12E PP116-BW3 on the interior of the OBG. QC Inspector Salvador Merino verified the temperature and recorded the parameters as acceptable and within the requirements of ABF-WPS-D1. 5-1040A-CU-Revision1. The welder was observed welding the height of the joint followed by grinding and blending of the work utilizing a small disc grinder. The welder completed face "A" of the work and back-gouged from the root side of the weld. QC performed an MT test and inspection of the joint and found no relevant indications. This QA Inspector observed the welder begin work on face "B" of the plate. On a subsequent observation, this QA Inspector noted that the welding was performed in the 3G vertical position utilizing the E7018-H4R low hydrogen electrodes. The 3.2mm electrodes were stored in electrically heated, thermostatically controlled oven after removal from the sealed containers. The exposure limits of the electrodes appeared to comply with the minimum storage oven temperature of 120 degrees Celsius as per the contract documents. The welding parameters and surface temperatures were verified by the QC inspector's utilizing a Fluke 337 clamp meter to measure the electrical welding parameters and Tempilstik Heat Indicators for verifying the preheat and inter-pass temperatures. Upon completion of BW3, QC conducted fit-up operations on PS1 at 12E PP116.5-PS1. The fit-up

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was found to be satisfactory and welding commenced on the joint. The welder completed face “A” of the work and back-gouged from the root side of the weld. QC performed an MT test and inspection of the joint and found no relevant indications. At the time of the observation no issues were noted by the QA. On subsequent observations throughout the shift to monitor quality, it was noted that the work was in progress and appeared to be in general conformance with the contract documents.

12E PP113.5-BW1 (Interior)

This QA Inspector randomly observed ABF/JV qualified welder R. Alex Blanco #9650 perform the on-going in process SMAW in the 3G horizontal position on the beam web located at 12E PP113.5-BW1 on the interior of the OBG. QC Inspector Salvador Merino was observed monitoring the welding on the material the pre-heat and parameters as they pertain to ABF-WPS-D1.5-1040A-Revision 1. The welder was observed drawing 134 amperes with the 3.2mm E7018-H4R electrodes and was noted as cleaning the work between passes utilizing a small disc grinder. This QA Inspector observed the welder continuing work on face “B” of the web. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was completed on this date and appeared to be in general conformance with the contract specifications.

12E PP111.5-PS3 (Interior)

This QA Inspector randomly observed ABF/JV qualified welder Deli Zhang #4735 perform the SMAW process in the 2G horizontal position on the plate stiffener located at 12E PP111.5-PS3 on the interior of the OBG. QC Inspector Salvador Merino was observed monitoring the welding on the material the pre-heat and parameters as they pertain to ABF-WPS-D1.5-1040A-Revision 1. The welder was observed drawing 136 amperes with the 3.2mm E7018-H4R electrodes and was noted as cleaning the work between passes utilizing a small disc grinder. The welder completed face “A” of the work and back-gouged from the root side of the weld. QC performed an MT test and inspection of the joint and found no relevant indications. This QA Inspector observed the welder begin work on face “B” of the plate. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted that the work was in progress and appeared to be in general conformance with the contract specifications.

12E/13E-LS1-DSF (Interior)

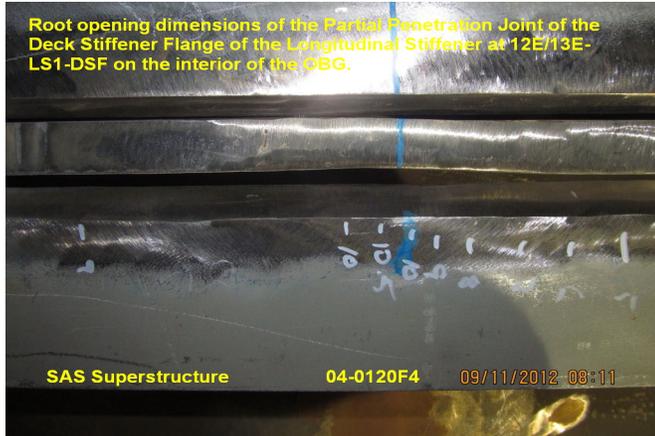
This QA inspector observed at random intervals ABF/JV qualified welder Jose Torres #6235 performing SMAW in the 4G Overhead position with E9018-M-HR electrodes drawing amperage of 127 utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1.5-1162-4. The welds are Partial Joint Penetration (PJP) butt joint splice Deck Stiffener Flange (DSF) to Longitudinal Stiffener-3 (LS-3). The weld surface and surrounding area was brought to temperature by the use of a gas torch and the preheat temperature was confirmed by ABF personnel prior to welding. The ABF Quality Control (QC) Salvador Merino was noted monitoring the welding parameters during welding. The welding at this location was observed to be in progress prior to the end of the QA inspectors shift.

Summary of Conversations:

Conversations with Quality Control Inspector Slavador Merino pertaining to welder locations and testing required.

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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 Gary Thomas 916-764-6027 , who represents the Office of Structural Materials for your project.

Inspected By: Frey,Doug

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer