

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING 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
(707) 649-5493

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-027115
Date Inspected: 26-Jan-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:	Steve Jensen	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 project	

Summary of Items Observed:

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

SAS – Tower – F.W. Spencer:

This QA Inspector observed F.W. Spencer personnel and welding personnel Damian Llanos (#6645) fitting up and welding the 1-inch diameter weld-o-lets on the compressed air and water lines on the westbound side. This QA Inspector observed that QC Inspector Steve Jensen was assigned to monitor and perform inspections for F.W. Spencer this shift. This QA Inspector randomly observed the following during the fit up of the weld joints; the hole in the a joining piping appeared to be cleaned and have the paint removed around the area for welding, what appeared to be a 3/32-inch diameter electrode (with the flux removed) was positioned between the weld-o-let and pipe to create a root opening and the fittings checked for level and square just prior to tack welding and after tacking. This QA Inspector randomly observed during the Shielded Metal Arc Welding (SMAW) process a 1/8-inch diameter E6010 electrode was used to weld the root pass and then a 3/32-inch diameter E7018 electrode was used to weld the fill and cover passes. This QA Inspector was informed by QC Inspector Steve Jensen of the following welding parameters for F.W. Spencer welding personnel Damian Llanos (#6645); 75 amperes for the 1/8-inch diameter E6010 electrode and 87 amperes for the 3/32-inch diameter E7018 electrode. The welding observed by this QA Inspector appeared to comply with WPS-12-1-1 Revision-2, being used by the QC Inspector. See below for the list of weld joints in which this QA Inspector performed a random verification of the fit up

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

and/or a final weld visual verification after QC inspection and acceptance: 1/CA2/42/NW, 1/CA2/44/NW, 1/DW1/42/NW3 and 1/DW1/44/NW.

Orthotropic Box Girder (OBG):

12W/13W-D-2: This QA Inspector randomly observed QC Inspector John Pagliero performing Ultrasonic Testing (UT) on this weld joint from inside this OBG section at one of two repair locations. QC Inspector John Pagliero informed this QA Inspector he had performed the final UT inspection of a second time (R-2) repair located at Y-2030 and accepted the welding. This QA Inspector observed the UT being performed at repair area Y-5900 and observed a UT screen indication during the scanning process that appeared to have high amplitude. This QA Inspector observed QC Inspector John Pagliero complete the scanning and was informed that he was rejecting the weld due to a class A indication for a length of approximately 40 mm and at a depth of 25 mm. The UT observed by this QA Inspector appeared to comply with the contract requirements. QC Inspector John Pagliero informed this QA Inspector he had completed and accepted the UT inspections at welds 12W/13W-D-1 and 12W/13W-D3. This QA Inspector informed Lead QA Inspector Danny Reyes of this and was requested to perform the QA portion of the UT at these locations. This QA Inspector performed UT on slightly greater than 10% of the weld length at these locations.

This QA Inspector was informed and requested to perform UT at the following locations; 12W-PP114-W4 lifting lug holes 1 thru 4 and 12W-PP114-W3 lifting lug holes 1 and 2. See Ultrasonic Testing Report (TL-6027) for further details regarding this UT and the UT noted above.

This QA Inspector verbally informed QA SPCM Lead Inspector, Daniel Reyes, of the issues noted in this report for compliance therefore for further details of issues of significance see QA SPCM Lead Inspector, Daniel Reyes, Daily Inspection Report (6031) for this date.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) personnel, QC personnel and Caltrans personnel during this shift. Except as described above there were no notable conversations.

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:	Hager,Craig	Quality Assurance Inspector
----------------------	-------------	-----------------------------

Reviewed By:	Levell,Bill	QA Reviewer
---------------------	-------------	-------------