

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:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-022182**Date Inspected:** 28-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** See 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:**

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified as 5W-pp31-W3-4, 7W-pp53-E4-2&4, 5E-pp35-E4-2&4, 6E/7E-A Burn thru area and the following observations were made:

5W-pp31-W3-4

The QA Inspector randomly observed the ABF welder Darcel Jackson performing excavation and weld repair of UT rejects at the above identified location. The QA Inspector randomly observed the ABF welder excavate the weld defects that were previously indicated by the SE QC department. The QA Inspector observed the ABF welder utilize a burr bit grinder and excavate the defects. Once the defects had been removed the QA Inspector observed the SE QC Inspector Gary Ersham perform MT of the excavations and accept the excavation prior to welding. The QA Inspector observed the ABF welder preheat the area with a rosebud torch and begin the SMAW repair. The QA Inspector randomly observed the welder to be utilizing 5/32" E7018 low hydrogen electrodes with 225 amps. The QA Inspector noted the SMAW repair welding appeared to be in general compliance with the contract requirements. After the welding was completed the welder ground the weld reinforcement flush with the base material.

7W-pp53-E4-2&4

The QA Inspector randomly observed the ABF welder Jason Collins performing carbon arc gouging and back grinding of the above identified weld joints. The QA inspector randomly observed the ABF welder grind the back gouged weld joints to bright metal. The QA Inspector randomly observed the back gouged weld joints and noted

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they appeared to be in general compliance with the contract requirements. The QA Inspector randomly observed the SE QC Inspector Steve McConnell form magnetic particle testing of the back gouged weld joint and noted no relevant indications were present at the time of the testing. The QA Inspector randomly observed the ABF welder continue welding the in process lift lug hole restoration of the lifting lug hole identified as #1. The QA Inspector noted the weld joint was approximately 50% complete at the time of the SMAW 4G back weld. The QA Inspector randomly observed the ABF welder continue the SMAW cover pass. The QA Inspector noted the ABF welder completed #1 and moved over to #3. The QA Inspector randomly observed the SMAW parameters were 1/8" E7018 low hydrogen electrodes with 120 Amps. The QA Inspector noted the parameters appeared to be in general compliance with ABF-WPS-1070A R1. The QA Inspector randomly observed the ABF welder did complete the above identified lifting lug hole on this date. The QA Inspector noted the weld reinforcement was ground flush on the QA Inspectors shift. The QA Inspector observed the grinding did appear to comply with the contract requirements for the lifting lug hole identified as #1 & #3.

5E-pp35-E4-2&4

The QA Inspector randomly observed the ABF welder Salvador Sandoval performing carbon arc gouging and back grinding of the above identified weld joints. The QA inspector randomly observed the ABF welder grind the back gouged weld joints to bright metal. The QA Inspector randomly observed the back gouged weld joints and noted they appeared to be in general compliance with the contract requirements. The QA Inspector randomly observed the SE QC Inspector Steve McConnell form magnetic particle testing of the back gouged weld joint and noted no relevant indications were present at the time of the testing. The QA Inspector randomly observed the ABF welder continue welding the in process lift lug hole restoration of the lifting lug hole identified as #1. The QA Inspector noted the weld joint was approximately 50% complete at the time of the SMAW 4G back weld. The QA Inspector randomly observed the ABF welder continue the SMAW cover pass. The QA Inspector noted the ABF welder completed #1 and moved over to #3. The QA Inspector randomly observed the SMAW parameters were 1/8" E7018 low hydrogen electrodes with 129 Amps. The QA Inspector noted the parameters appeared to be in general compliance with ABF-WPS-1070A R1. The QA Inspector randomly observed the ABF welder did complete the above identified lifting lug hole on this date. The QA Inspector noted the weld reinforcement was ground flush on the QA Inspectors shift. The QA Inspector observed the grinding did appear to comply with the contract requirements for the lifting lug hole identified as #1 & #3.

6E/7E-A Burn thru area

The QA Inspector randomly observed the ABF welder Eric Sparks performing grinding tasks of the "burn thru" areas at the above identified weld splice. The QA Inspector noted the ABF welder was utilizing a burr bit grinder with a 10" extension to enable the grinding bit to reach between the rib stiffeners under the top deck plate. The QA Inspector randomly observed the QC Inspector remove the burn thru at 1 locations Y=2000mm-3020mm The QA Inspector noted the burn thru or dross was removed by grinding with a Christmas tree shaped grinding bit to the best of the ability with the equipment utilized. The QA Inspector noted the access was very limited due to the stiffeners and splice plates bolted into place. The QA Inspector performed a random visual inspection of the completed grinding and noted the grinding appeared to be in general compliance with ABF submitted 2290 R00.

Summary of Conversations:

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QC Bonifacio Daquinag informed the QA Inspector, ABF requests Caltrans QA to witness the grinding of the burn thru at 6E/7E-A. The QA Inspector informed the QC Inspector Caltrans QA will be present at the time of the repair.

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:	Bettencourt,Rick	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
