

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-025891**Date Inspected:** 10-Aug-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Fred Von Hoff**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:** OBG Sections**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.

Orthotropic Bridge Girder (OBG) Sections:

9E-PP80-E3 Lifting Lug Holes (LLH) #1 thru #4: This QA Inspector randomly observed ABF welding personnel Sal Sandoval (#2202) using the Shielded Metal Arc Welding (SMAW) process in the overhead (4G) position on holes #2 and #4 inside the OBG at this location. This QA Inspector observed QC Inspector Fred Von Hoff perform a verification of the following welding parameters; 130 amperes using a 3.2 mm diameter E7018H4R electrode. This QA Inspector performed a random verification of the base metal temperature using an electronic temperature gauge and observed the preheat and interpass temperatures were within the ranges specified on the Welding Procedure Specification (WPS). This QA Inspector randomly observed grinding being performed and that it appeared the welding at these two holes (#2 and #4) were completed. See photo below of grinding in process. This QA Inspector later observed ABF welding personnel Sal Sandoval (#2202) had switched sides and was using the carbon arc process to back gouge the #1 and #3 holes. This QA Inspector observed QC Inspector Fred Von Hoff periodically monitoring the work at this location. The welding observed this date appeared to comply with ABF-WPS-D15-1050A-CU.

10E-PP88-E4 Lifting Lug Holes (LLH) #2 and #4: This QA Inspector randomly observed ABF welding personnel

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Mike Jimenez (#4671) using the SMAW process in the overhead position (4G) on holes #2 and #4 inside the OBG at this location. This QA Inspector observed QC Inspector Fred Von Hoff perform a verification of the following welding parameters; 130 amperes using a 3.2 mm diameter E7018H4R electrode. This QA Inspector performed a random verification of the base metal temperature using an electronic temperature gauge and observed the preheat and interpass temperatures were within the ranges specified on the Welding Procedure Specification (WPS). This QA Inspector was informed the welding for holes #2 and #4 were completed and ready for a visual inspection by ABF welding personnel Mike Jimenez (#4671). This QA Inspector observed QC Inspector Fred Von Hoff perform a visual inspection and was informed that both welds were accepted. This QA Inspector performed a random visual verification and the work appeared to comply with the contract requirements. QC Inspector Fred Von Hoff informed ABF welding personnel Mike Jimenez (#4671) and this QA Inspector he would perform the Magnetic Particle Testing (MT) the following day, 24 hours after welding was completed in order to comply with the contract requirements. The work observed at this location appeared to comply with ABF-WPS-D15-1050A CU.

10E-9988-E3 Lifting Lug Holes #1 thru #4 and 10E-PP92-E4 Lifting Lug Holes #1 thru #4: This QA Inspector randomly observed QC Inspector Jesus Cayabyab performing Ultrasonic Testing (UT) on the Lifting Lug Hole, Complete Joint Penetration (CJP) welds at these locations. This QA Inspector observed a 90 degree, longitudinal wave transducer was used to scan the base material prior to the shear wave inspection. See photo below of the scanning in process. This QA Inspector observed a 70 degree shear wave transducer was being used for the weld inspection. The scanning techniques and patterns appeared to provide coverage and be in accordance with the contract requirements. QC Inspector Jesus Cayabyab informed this QA Inspector of the following UT results:

10E-9988-E3 Lifting Lug Holes #1 thru #4 - All welds accepted

10E-PP92-E4 Lifting Lug Holes #1 thru #4 – Welds #1, #3 and #4 were accepted and #2 rejected (two repair areas)

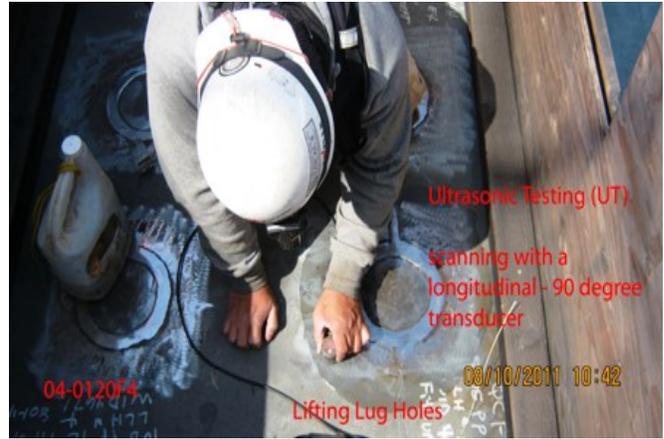
The QC Ultrasonic Testing observed by this QA Inspector this date appeared to comply with the contract requirements.

Summary of Conversations:

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

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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 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