

**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-029315**Date Inspected:** 05-Mar-2013**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:** William Sherwood**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:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At Hinge 'A' expansion joint of OBG to skyway, QA randomly observed ABF welder Mathew Cochran continuing to perform flat and horizontal stud welding on 3/4" diameter x 4 3/16" stud to the top and side of the expansion joint deck implementing procedures ABF-WPS-D1.5-5062 (horizontal position) and ABF-WPS-D1.5-5063 (flat position). The welder performed a preproduction test on of the two studs and after cooling they were bent to 30 degrees. The ABF QC Inspector, William Sherwood, also inspected the diameter of the welds for 360 degree flash all around and no discrepancies noted. This QA also performed visual verification on the flash of the stud welds and noted same results. Later in the shift, the welder performed a horizontal test stud welding of two 3/4" diameter x 4 3/16" stud and the bend test. The test appeared to comply with the contract specifications. At the conclusion of the test the started welder started the welding of the studs on the vertical plate of the expansion deck using the Welding Specification Procedure (WPS) ABF-WPS-D1.5-5062. This QAI, at random intervals observed and verified welding and the QC inspection performed at this location. The welding of the studs were not completed during this shift and will be continued on the next scheduled shift.

At the east bound Transition Span, the lifting rod hole plate to top "A" deck SLLH #5, this QA randomly observed ABF welder Wai Kit Lai performing the 1G SMAW welding. The weld joint appeared to have a 45 degrees single bevel groove joint with a copper backing plate that will be removed, back gouged, ground to a bright metal and back welded. The welder was noted welding the plate to top deck using 1/8" diameter E7018H4R electrode as per

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the Welding Procedure Specification (WPS) ABF-WPS-D15-1030-1. The ABF QC Inspector, William Sherwood, was noted monitoring the welding parameters. Prior to welding, Mr. Sherwood with this QAI performed the fit up inspection, verification and appeared to comply with the contract specifications. At the end of the shift the welding was completed on the "A" face. The welding of the lifting rod hole was not completed during this shift and will be continued on the next scheduled shift.

At east bound Skyway alignment lifting lug hole (ALLH) #2 plate to "A" deck plate, ABF welder Mike Jimenez was observed performing welding using the Shielded Metal Arc Weld (SMAW) process. The welder was noted using a 1/8" diameter electrode, identified as E7018H4R as per the Welding Procedure Specification (WPS) ABF-WPS-D15-1050B. Prior to welding the ABF QC Inspector, Fred Michels, was observed inspecting the fit-up alignment and at the conclusion of the inspection the fit-up was noted as acceptable. During welding, ABF QC Inspector, Mr. Michels, was observed checking the parameters which were noted as 180 amperes. The welding performed during this shift was completed.

FW Spencer:

At location Panel Point PP23.5-PP24.5 Bikepath 'E', this QA randomly observed FW Spencer welder Rick Kiiikvee, ID-5319, perform the Complete Joint Penetration (CJP) welding using the Shielded Metal Arc Welding (SMAW) process of the 2" weldolet for a 4" diameter compressed air line. The welder was noted welding the root pass with 3/32" diameter E6010 electrode and the fill pass to cover pass using 3/32" diameter E7018H4R electrode implementing procedure identified as WPS 1-12-1. The welder was noted preheating and removing the moisture of the joint using a portable propane gas torch prior to welding. During the welding, ABF QC Bonifacio Daquinag was noted monitoring the parameters. At the end of the shift, two (2) 2" diameter weld-o-let were completed and visually accepted by the QC inspecctor and verified by this QAI. The welding appeared to be in compliance with contract requirements.

At Bikepath 'E', this QA randomly observed FW Spencer qualified welder Damian Llanos perform the Complete Joint Penetration (CJP) welding using the Shielded Metal Arc Welding (SMAW) process. The welding was performed on the 1" diameter weldolet to 2 1/2" domestic water line. The welder was noted welding the root pass with 3/32" diameter E6010 electrode and the welding of the fill pass to cover pass using 3/32" diameter E7018H4R electrode as per the Welding Procedure Speicification WPS 1-12-1. During welding, ABF QC Bonifacio Daquinag was noted monitoring the welding parameters. The CJP welding on four (4) 1" diameter to 2 1/2" diameter domestic water weld-o-let T- joints were completed.

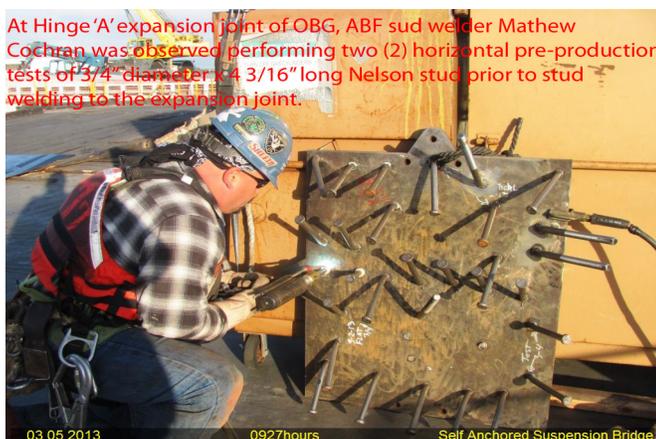
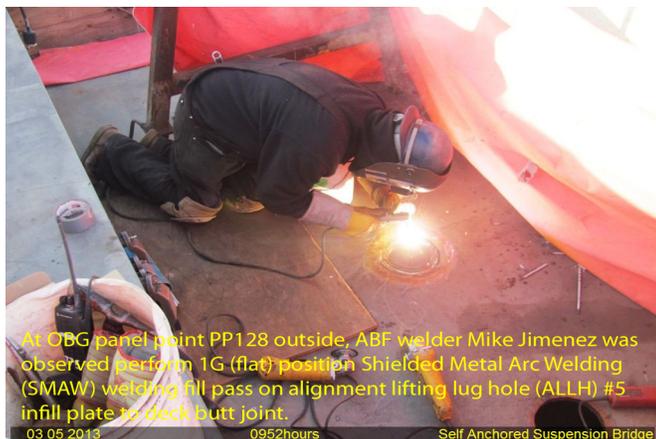
Line Service	Pipe Size	Panel Point	Location	Joint	Designation
1.	Domestic Water	1"	weldolet 35.5	Bikepath 'E'	1/DW1/35.5/BE
3.	Domestic Water	1"	weldolet 36.5	Bikepath 'E'	1/DW1/36.5/BE
3.	Domestic Water	1"	weldolet 37.5	Bikepath 'E'	1/DW1/37.5/BE
4.	Domestic Water	1"	weldolet 38.5	Bikepath 'E'	1/DW1/38.5/BE

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## Summary of Conversations:

No significant conversation occurred today.

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

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**Inspected By:** Lizardo, Joselito

Quality Assurance Inspector

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**Reviewed By:** Reyes, Danny

QA Reviewer