

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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029723**Date Inspected:** 19-Jun-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** USA Hoist**Location:** Crest Hill, IL

CWI Name:	Robert Zimny		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No	
Rod Oven in Use:	Yes	No	N/A
Weld Procedures Followed:	Yes	No	N/A
Verified Joint Fit-up:	Yes	No	N/A
Approved WPS:	Yes	No	N/A
Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** SAS Tower Elevator**Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at USA Hoist, Crest Hill, IL as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At USA Hoist assembly shop, qualified welder Matt Wasiqi was observed continuing to perform fillet welding the front tie-in brackets for the tower elevator. The welder was noted using the gas shielded Flux Cored Arc Welding (FCAW-G) with 1.1mm E71T-1C Familiarc DW-50 wire electrode and implementing welding procedure specification FCAW 3210. The shielding gas being used was noted a combination of 75% Argon and 25% CO₂ with flow rate of 38 CFH. During the shift, the working welding parameters were measured 29 volts and 230 amperes which deemed in compliance to the project requirements. This QA randomly checked the workmanship and measured the required ¼" fillet on all sides of the stiffener which was found in compliance to the requirement.

Another USA Hoist qualified welder Andres Luna was observed continuing to perform fillet welding the same front tie-in brackets for the tower elevator as mentioned above. The welder was noted using the same process and implementing the same welding procedure specification. The welder was noted using gas shielded FCAW-G with 1.1mm E71T-1C Familiarc DW-50 wire electrode implementing USA Hoist Welding Procedure Specification FCAW 3210. The shielding gas being used was noted a combination of 75% Argon and 25% CO₂ with flow rate of 40 CFH. During the shift, the working welding parameters were measured 26 volts and 200 amperes which deemed in compliance to the project requirements. This QA randomly checked the workmanship and measured the required ¼" fillet on all sides of the stiffener which it was found in compliance to the requirement. With the two

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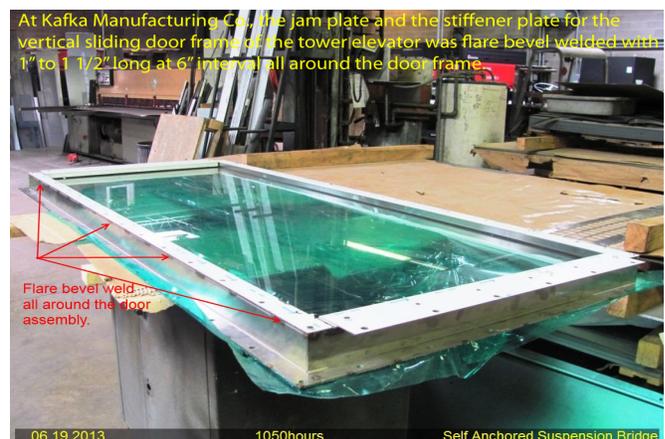
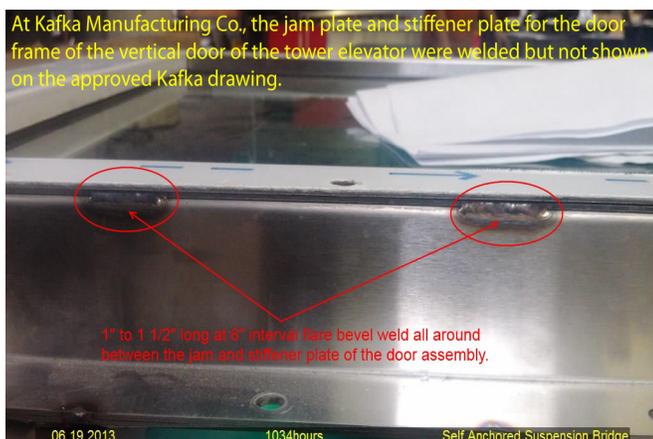
welders welding side by side on the front tie-in brackets, all the 146 pieces were completed as of to date.

This QA went to Kafka Manufacturing Co. to perform tower elevator glass door green tag release per Caltrans TL-38. Upon arrival, this QA met with the company Project Manager Paul Sienko who assisted this QA to the shop where the glass door was located. During the inspection of the glass door the following observations were noted;

1. The frame for the glass door was made from 0.075" thick 316/316L stainless steel base from the material certificate that was provided.
2. The Trulite laminated glass which is 0.25" thick was annealed glass and labeled ANZI Z97.1-2009. According to Mr. Paul Sienko, Kafka does not have the paperwork that certifies the quality of the glass including the glazing blocks (Per ASTM C864) they used but said he will ask their supplier.
3. The vertical glass door frame was noted welded with 1" to 1 1/2" long at 6" interval flare bevel between the jam and stiffener all around the door frame. There were no WPS and welder's qualification paper provided to document the welding performed.
4. Black Silicone Sealant per ASTM C920 was also used all around the corner of the glass to the jam of the frame assembly.

While this QA was at Kafka Manufacturing Co., Caltrans SMR Tim Truong informed not to release the elevator glass door assembly pending Kafka provision of relevant supporting documents.

This QA also initiated an Incident Report due to Kafka Manufacturing Co. welded the glass door frame without the Engineer's approval.



Summary of Conversations:

During the shop visit at the Kafka Manufacturing Co. where this QA was tasked to green tag release the glass door assembly of the tower elevator, some issues were raised as mentioned above and that SMR Tim Truong informed this QA to hold the release until the issues are clarified.

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

Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
Reviewed By:	Foerder, Mike	QA Reviewer
