

**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 #: 74.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019375**Date Inspected:** 10-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Goodwin Steel, UK**Location:** Trentham, UK

<b>CWI Name:</b>	N/A	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes No N/A	
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes No N/A	
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes No N/A	
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes No N/A	
		<b>Delayed / Cancelled:</b>	Yes No N/A	
<b>Bridge No:</b>	34-0006	<b>Component:</b>	Cable Band	

**Summary of Items Observed:**

The following report is based on METS observations at Goodwin International, Trentham, UK on this date.

The QA Inspector observed welding of Casting GG29445-1, Drawing Number 5540-B13-2-F. This is the 5th repair cycle and is being completed in accordance with Weld Map R4. The welding was being performed by Mr. Dan McDonagh. Mr. McDonagh was using WPS 271 Revision 1. The welding was being performed at 15.6 volts and 160 amps. The heat input and the travel speed were being monitored. The filler metal was AWS A5.28 ER70S-A1 batch 14585. The shielding gas was Argon with a flow rate of 12 L/min. These are within the allowable range of the WPS. Welding was being performed in the 2G position.

The QA inspector received and reviewed a copy of the Goodwin Steel Castings "Weld Excavation Map" for casting GG29431-2(R1), B7-2-F. The Weld Excavation Map was reviewed for accuracy and compliance with contract documents. This second repair cycle is a major repair and requires post weld heat treatment. Caltrans Lot Number B243-001-11 was assigned for tracking purposes.

The QA inspector received and reviewed a copy of the Goodwin Steel Castings "Weld Excavation Map" for casting GG29441-2(R7), B10-2-F. The Weld Excavation Map was reviewed for accuracy and compliance with contract documents. This eighth repair cycle is a major repair and requires post weld heat treatment. Caltrans Lot Number B243-002-11 was assigned for tracking purposes.

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# WELDING INSPECTION REPORT

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The cable band for east panel point 62, a B6 Type 1 cable band was observed under localized heat treatment. The trace on the heat treatment chart appeared to be unusual in that the programmed ramp rate for the temperature was not tracking. This was pointed out to Mr. Dan McDonagh, welder who verified with a Tempilstik that the temperature of the casting was not tracking with the temperature displayed on the chart recorder. The heat treatment was halted and the setup will be reviewed prior to recommencement of the heat treatment. The casting temperature was ramping up, and the casting did not reach the heat treatment temperature. This was verified with a Tempilstik.



## Summary of Conversations:

The QA Inspector discussed the schedule for the project at this location with Mr. M. Goodwin, Managing Director. Mr. Goodwin stated that it is the goal of Goodwin International to have all weld repairs and machining of castings completed in 3 to 5 weeks.

The QA Inspector had a conversation with Mr. C. Ryder, QA Engineer concerning the status of the paint. Mr. Ryder indicates that the paint was shipped to Belgium on 4 January, 2011. In the meeting with representatives of Rust-Oleum, The representatives indicated that the testing of the paint would take approximately two weeks.

Mr. Ryder indicates that the certifications for the cable band bolts has been received from BST, and that he is in the process of review of that information.

## 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.

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<b>Inspected By:</b>	Riegler,Randy	Quality Assurance Inspector
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<b>Reviewed By:</b>	Edmondson,Fred	QA Reviewer
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