

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-027132
Date Inspected: 01-Feb-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: L & M Industrial Fabricators

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Tangent, Oregon

CWI Name:	Tom Dreyer	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:	Tower Head Chimney	

Summary of Items Observed:

This Quality Assurance (QA) Inspector, Art Peterson arrived at L & M Industrial Fabricators between the times noted above to randomly observe Quality Control (QC) personnel monitor the welding operations performed by L & M personnel and the NDT inspection on the fabrication of chimney parapet walls to the Tower Head Top Plate. The following observations for the extra work being performed to the following contract change order were:

CCO: 196 - Description: Construct parapet walls at the Tower Head

South Tower Chimney Parapet:

This QA Inspector observed QC NDT Inspector Troy Zuercher perform magnetic particle test (MT) inspection on previous repair areas of the partial-joint penetration (PJP) corner-joint weld connecting base plate- (A5a) to the Tower Head top plate of the South Tower Head Chimney and observed four (4) rejectable linear indications at "Y" locations (1500~1578) mm-(longitudinal to the weld); (1710~1809) mm-(longitudinal to the weld); (1835) mm-(transverse to the weld) and (1968~2028) mm-(longitudinal to the weld). This QA Inspector observed L & M welder Otis Smith (Welder ID #19) grind out the rejectable indications and prepare the U groove joint detail dimension in accordance with L & M Industrial Fabricators' WPS LM-FC-01 Repair. The depths of the four (4) rejectable linear indications were at approximately (16) mm and the widths of the U grooves varied from (16~18) mm.

Afterwards, This QA Inspector randomly observed L & M welder Otis Smith (Welder ID #19) performing the repair weld operation per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (3G) vertical

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position on the PJP corner-joint weld connecting base plate- (A5a) to the Tower Head top plate of the South Tower Head Chimney. The four (4) repair area dimensions and the "Y" locations were as mentioned above. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the repair weld operation that the minimum preheat temperature and the welding parameters (Amps and Volts) were in accordance with WPS-LM-FC-01 Repair using Hobart Excel Arc E71T-1 (.052") diameter electrode.

The repair weld operation was completed and QC NDT Inspector Troy Zuercher performed the MT inspection on the repairs areas as mentioned above and observed no rejectable indications at the time of his inspection.

This QA Inspector observed QC NDT Inspector Troy Zuercher perform magnetic particle test (MT) inspection on previous repair areas of the partial-joint penetration (PJP) corner-joint weld connecting base plate- (A4a) to the Tower Head top plate of the South Tower Head Chimney and observed two (2) rejectable linear indications at "Y" location (291~398) mm-(both indications were longitudinal to the weld). This QA Inspector observed L & M welder Otis Smith (Welder ID #19) grind out the rejectable indications and prepare the U groove joint detail dimension in accordance with L & M Industrial Fabricators' WPS LM-FC-01 Repair. The depths of the two (2) rejectable linear indications were at approximately (16) mm and the width of the U groove varied from (16~18) mm along its length.

Afterwards, This QA Inspector randomly observed L & M welder Otis Smith (Welder ID #19) performing the repair weld operation per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (3G) vertical position on the PJP corner-joint weld connecting base plate- (A4a) to the Tower Head top plate of the South Tower Head Chimney. The two (2) repair area dimensions and the "Y" location were as mentioned above. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the repair weld operation that the minimum preheat temperature and the welding parameters (Amps and Volts) were in accordance with WPS-LM-FC-01 Repair using Hobart Excel Arc E71T-1 (.052") diameter electrode.

The repair weld operation was completed and QC NDT Inspector Troy Zuercher performed the MT inspection on the repairs areas as mentioned above and observed no rejectable indications at the time of his inspection.



Summary of Conversations:

Only general conversations between QA and QC on this date.

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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:	Peterson, Art	Quality Assurance Inspector
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Reviewed By:	Levell, Bill	QA Reviewer
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