

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 #: 82.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017078**Date Inspected:** 22-Sep-2010**Project Name:** SAS Superstructure**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Contractor:** Westmont Industries**OSM Arrival Time:** 500**OSM Departure Time:** 1330**Location:** Santa Fe Springs, CA.

CWI Name:	R. Rodriguez, R. Dominguez	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:	Travelers	

Summary of Items Observed:

The Quality Assurance Inspector Sean Vance arrived on site at Westmont Industries (WMI) in Santa Fe Springs, CA, to randomly observe the in process welding of the Travelers. The QA Inspector arrived on site to randomly observe the WMI Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

Traveler Test Rack

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Alberto Cortes (WID # 3141) performing Flux Core Arc Welding (FCAW) tacking and grinding activities for the Traveler Test Rack. The QA Inspector observed that Mr. Cortes was utilizing a Miller brand machine and wire feeder, to perform the FCAW tacking and that Ultracore 71A85 (.045") diameter wire was being utilized, for the filler metal. The QA Inspector observed that the FCAW Tacking and grinding activities were being performed on the support column, identified as A-5-M19.

E2/E3-EB Traveler

On this date, the QA Inspector observed Westmont Industries (WMI) production personnel Mr. Tim Hartnett, cutting material, which will be utilized for the fabrication of the E2/E3-EB Traveler Frames. The QA Inspector observed that Mr. Hartnett was utilizing a Marvel Brand 15 A series horizontal band saw, to perform the cutting operations and observed that the material being cut, is identified as 2" x 4" x .175" (51 mm x 102 mm x 5 mm), rectangular tube steel. Mr. Hartnett explained to the QA Inspector that he was provided a list of material to be cut to a specific length, by the WMI shop foreman, Mr. George Grayum, per the shop drawings. Mr. Hartnett further explained that he was cutting the material to these specific lengths, which were provided and then marking the cut

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material with a white paint stick marker, to identify the individual cut pieces, per the shop drawing bill of material list. The QA Inspector observed that prior to identifying the tube steel with a paint marker, Mr. Harnett utilized acetone liquid cleaner, to prepare an area so that the identifying paint mark will stick. The QA Inspector observed that Mr. Harnett continued cutting TS material throughout the shift and observed that the Material Test Reports (MTR's) had been previously provided to the QA Inspector. The QA Inspector had previously written "OK to Cut" on the material and MTR's.

On this date, the QA Inspector observed Westmont Industries (WMI), production welders Larry Swanson and Raymundo Anaya continuing to perform Flux Core Arc Welding (FCAW) fitting, tacking and grinding activities for the Traveler Frames. The QA Inspector observed that Mr. Swanson and Mr. Anaya continued to perform these activities on the backing bars, which will be utilized for the Complete Joint Penetration (CJP) Traveler Frame splices. The QA Inspector observed Mr. Swanson and Mr. Anaya continue to cut and bevel 4 each pieces of backing bar material. After the material was cut and beveled, the QA Inspector observed the pieces of material being placed or fit into the end of the TS material. After the pieces were fit, the QA Inspector then observed Mr. Swanson and Mr. Anaya FCAW tack weld the 4 pieces of material and then remove the tack welded backing bar. The QA Inspector then observed Mr. Swanson and Mr. Anaya FCAW the 4 each ends of the backing bar. After the FCAW welding was complete, the QA Inspector then observed Mr. Swanson grind flush the 4 each welds and then contour or "round off" the corners of the backing bar. The QA Inspector observed the grinding continued until the completed backing bar, achieved a tight fit on the interior of the TS end. The QA Inspector observed that the backing bar material being utilized was A572 Gr. 50 and listed in the same group as the base metal, per the applicable Welding Procedure Specification (WPS) requirements.

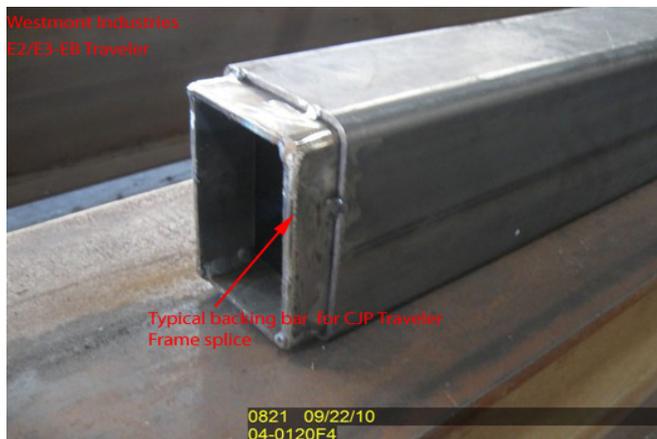
On this date, the QA Inspector observed Westmont Industries (WMI), production welder Eutimo Lopez (WID # 3035), continuing to perform Flux Core Arc Welding (FCAW) activities on the E2/E3-EB Traveler frames. The QA Inspector observed Mr. Lopez performing the FCAW on previously fit and tack welded Tube Steel (TS) on the Frame Assembly, identified as B235, per the approved shop drawings. The QA Inspector observed that Mr. Lopez was utilizing a Miller brand machine and wire feeder, to perform the FCAW and that Ultracore 71A85 (.045") diameter wire was being utilized, for the filler metal.

The QA Inspector observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the above mentioned welding and tacking activities and QC Inspector Dominguez explained that approved Welding Procedure Specifications (WPS's) were being utilized. QC Inspector Dominguez explained that the in-process welding parameters were randomly verified including voltage, amperage, pre-heat and travel speed and explained that the parameters were in compliance to the applicable WPS. The QA Inspector randomly verified these parameters and concurred with QC Inspector Dominguez.

See attached pictures below.

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Summary of Conversations:

On this date, QCM Rick Rodriguez explained that Westmont Industries (WMI) has received Tube Steel (TS) material, from CCC Steel Inc. and the material will be utilized for the fabrication of the Traveler frames. Mr. Rodriguez requested that an inspection be performed on the material, prior to cutting. Mr. Rodriguez then provided the applicable MTR's and explained that the material was located in Production Bay 3 and that WMI production personnel Tim Hartnett will probably start cutting to length, on this date. The QA Inspector then located the material in WMI Bay 3 and observed that the material was strategically stacked in a pile and observed that the material grade, dimensions and heat #, were identified on the material and appeared to match the provided MTR's.

The QA Inspector then wrote "OK to Cut" on the material and the material is identified as follows:

6 each-4" x 2" x .188" x 480"-Ht. # ACO145-Rectangular Tubing

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:	Vance,Sean	Quality Assurance Inspector
Reviewed By:	Edmondson,Fred	QA Reviewer
