DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 82.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-017490
Date Inspected: 13-Oct-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Westmont Industries

OSM Arrival Time: 700
OSM Departure Time: 1530
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

The QA Inspector observed WMI production fitter, Mr. Jesse Araya and WID # 3059, Mr. Juan Jimenez continuing to perform grinding, dimensional layout and Flux Core Arc Welding (FCAW) activities, for the Traveler Test Rack. The QA Inspector observed that the piece marks were identified as Vertical Post Assemblies, reference shop drawing WMI-TTR-13 and WMI-TTR-14. The QA Inspector observed that these activities were being performed on the plate and TS material, for these assemblies.

Trolley Test Stand

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Jose Rodriguez (WID # 3031) performing Gas Metal Arc welding (GMAW) activities, for the Trolley Test Stand. The QA Inspector observed that Mr. Rodriguez was performing the FCAW in the 1G (flat) position and the fit up appeared to be designated as an AWS D1.1 B-U3-GF, Complete Joint Penetration, 30 degree bevel prep angle (60 degree included). The QA Inspector observed that the GMAW was being performed on the piece mark identified as Rail Y flange to flange splice, per the shop drawing # WMI-TTC-4 and that the fit up appeared to have been previously verified, as noted next to the weld joint, by Smith Emery QC Inspector Ruben Dominguez.

SAS-EB Traveler

Elevated Truss Section

On this date, the QA Inspector observed Westmont Industries (WMI) production Daniel Grayum (WID # 3049) continuing to perform FCAW and grinding activities on the Traveler Elevated Truss Section Assembly. The QA Inspector observed that the activities were being performed on completed Fillet and Flare Groove welds and were previously marked areas by QC Inspector Ruben Dominguez, during the Visual Testing of the welds. The QA Inspector observed that the marked areas included excessive undercut, underfill, excessive weld spatter and weld profiles which appeared to be not in conformance to the requirements of AWS D1.1 2002, Visual Testing Criteria. At approximately 0800, the QA Inspector was informed by WMI QCM Rick Rodriguez, that Mr. Grayum had completed the above mentioned activities and requested that the QA Inspector perform additional Visual Testing (VT) on the completed welds.

The QA Inspector then performed random VT and marked up additional areas of the welds, which appeared to be non conforming to the requirements of AWS D1.1 2002. At approximately 1200, the QA Inspector was informed by Mr. Grayum that the FCAW and grinding activities were complete on these areas. The QA Inspector then verified that Mr. Grayum had completed these activities and the completed welds appeared to be in compliance with AWS D1.1 and the contract requirements.

Fixed Stairs Section

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Raymundo Anaya and production fitter, Cesar Canales continuing to perform fitting activities for the fabrication of the Fixed Stairs Section Assembly. The QA Inspector observed Mr. Anaya and Mr. Canales cutting and Flux Core Arc Welding (FCAW) tack welding temporary pieces of angle iron material. The QA Inspector observed that the angle material was being utilized to stabilize and support the frames identified as A237 and B237.

Frame Assemblies

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 for the SAS-EB Traveler frames. The QA Inspector observed Mr. Lopez performing the FCAW on previously fit and tack welded Tube Steel (TS) and plate material, for the Frame Assembly identified as B240, per the shop drawings. The QA Inspector observed Mr. Lopez perform the FCAW in various positions and observed that Mr. Lopez was performing the FCAW, fillet and flare groove welds, plate to TS material throughout the shift.

See attached picture below.

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. The QA Inspector randomly observed that the applicable WPS's and copies of the shop drawings, were located near each work station, where the above mentioned FCAW and fitting activities were being performed. The QA Inspector randomly verified that the consumable material, utilized during the welding was in compliance to the applicable WPS and that the above mentioned welders were currently qualified for the applicable process and position of welding. The QA Inspector randomly observed QC Inspector Dominguez verifying the in-process welding parameters, including voltage, amperage, pre-heat and travel speed and the parameters appeared to be in compliance to the applicable WPS.

On this date, the QA Inspector observed Westmont Industries (WMI) production personnel Mr. Tim Hartnett, continuing to cut material which will be utilized, for the Traveler Frame Assemblies. The QA Inspector observed that Mr. Hartnett was continuing to utilize a Marvel® 15 A series horizontal band saw, to perform the cutting operations and observed that the material being cut, is identified as rectangular and square Tube Steel (TS). The QA Inspector spoke with Mr. Hartnett and he explained that WMI shop supervisor, Mr. George Grayum, had provided a list of TS material, with specific dimensions, per the shop drawing bill of materials. Mr. Harnett further explained that he was cutting the material to these specific lengths and marking the material with a white paint stick marker, to identify the individual cut pieces of material. After the material was cut and marked, the QA Inspector observed Mr. Hartnett utilize the overhead bay crane, chain and hook to lift and place the material into neatly stacked piles, nearby the cutting area. The QA Inspector noted that the Mill Test Reports (MTR's) had been previously provided and the QA Inspector had previously written "OK to Cut" on the material.

Summary of Conversations:

As noted above.

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