

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-017320**Date Inspected:** 07-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Westmont Industries**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:

Trolley Test Stand

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Jose Rodriguez (WID # 3031) continuing to perform Gas Metal Arc Welding (GMAW) activities, for the Trolley Test Stand. The QA Inspector observed that Mr. Rodriguez was performing the GMAW in the 1G (flat) position and the fit up preparation appeared to be a Complete Joint Penetration (CJP), 45 degree double bevel. The QA Inspector observed that the GMAW was being performed on the piece mark identified as Rail X web splice, per the shop drawing # WMI-TTC-4 and Mr. Rodriguez appeared to be depositing the fill passes. The QA Inspector then observed that Smith Emery QC Inspector Ruben Dominguez was nearby the work area and Mr. Dominguez explained that 100% Visual and Magnetic Particle Testing (VT/MT) had been performed on the root pass, per the approved MT procedure SE-MT-CT.D1.1-105, Rev. # 1.

Mr. Dominguez then explained that the testing had been previously performed after back gouging and no rejectable indications were found.

The QA Inspector observed WMI production welder, Mr. Larry Swanson and a helper performing fitting activities for the Trolley Test Stand. The QA Inspector observed that the activities were being performed on the piece mark, identified as Rail Y Flange splice. The QA Inspector observed that the weld joint had been previously prepped

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and appeared to be identified as a Complete Joint Penetration (CJP) AWS D1.1 B-U3-GF, Double V-Groove, Butt joint with a bevel preparation angle of approximately 45 degrees. The QA Inspector observed that the root face appeared to be approximately 3 mm and a root opening of 0 mm. The QA Inspector spoke with Mr. Swanson and Mr. Swanson explained that he will be performing the tack welding on this weld joint and once the joint is tack welded, WMI production welder Jose Rodriguez will probably be performing the Gas Metal Arc Welding (GMAW), at a later date.

SAS-EB Traveler

Elevated Truss Section

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Daniel Grayum (WID # 3049), continuing to perform Flux Core Arc Welding (FCAW) activities for the E2/E3-EB Traveler. The QA Inspector observed Mr. Grayum performing the FCAW in various positions and the FCAW was being performed on the previously tack welded frame assemblies identified as A214, A216, A235 and B235. The QA Inspector observed that the welds were identified as fillet and flare groove and these frame assemblies appeared to be for the fabrication of the Elevated Truss Section of the Traveler, per the approved Shop Drawings. The QA Inspector observed that the FCAW was being performed on Tube Steel and Wide Flange Beam (WFB) material and that Mr. Grayum continued the FCAW throughout the end of shift.

See attached picture below.

Frame Assemblies

On this date, the QA Inspector observed WMI production personnel, Mr. Cesar Canales and Raymundo Anaya performing layout activities, in preparation for fitting material for the E2/E3-Traveler Frame, identified as B240. The QA Inspector observed that the activities were being performed on previously cut to length Tube Steel (TS) and plate material. The QA Inspector observed that the material had been previously identified, per the shop drawing Bill of Material list and observed Mr. Canales and Anaya occasionally reference the shop drawings. After referencing the shop drawings, the QA Inspector observed that center line marks were being placed on the material with a soapstone marking device, in preparation for the fitting activities for the material.

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 E2/E3-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 B237, per the shop drawings. The QA Inspector randomly observed that Mr. Lopez continued the FCAW throughout the end of the shift.

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Juan Jimenez (WID # 3059), continuing to perform Flux Core Arc Welding (FCAW) activities for the E2/E3-EB Traveler frames. The QA Inspector observed Mr. Jimenez performing the FCAW on previously fit and tack welded Tube Steel (TS) and plate material, for the Frame Assembly identified as A237, per the shop drawings. The QA Inspector randomly observed that Mr. Jimenez continued the FCAW throughout the end of the shift.

See attached picture below.

The QA Inspector observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the above

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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. 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 appeared to be in compliance to the applicable WPS and the QA Inspector concurred with Mr. Dominguez.



Summary of Conversations:

On this date, the QA Inspector was requested by WMI QCM Rick Rodriguez to perform an inspection on Tube Steel (TS) material, which had been previously received at WMI, from Tubular Steel Inc.

Mr. Rodriguez explained that WMI personnel will be cutting and utilizing the material for the E2/E3-EB Travelers and Test Rack. Mr. Rodriguez then provided the QA Inspector with Mill Test Reports (MTR's) and explained that the material was located inside the WMI Bay # 3.

The QA Inspector then located the material and observed that Grade, Heat # and dimensions were clearly visible on the material and the material was banded together and stacked in piles. The QA Inspector observed that the material appeared to match the MTR' and then wrote "OK to Cut" on the material and the MTR's, which were provided.

The QA Inspector observed that WMI production personnel Mr. Tim Hartnett was nearby and Mr. Harnett explained that he will be cutting the material at a later date.

The QA Inspector observed that the above mentioned material appeared to be in compliance with the contract requirements and is listed as follows:

- 1 Each 6" x 4" x .25" x 288" A500 Gr. B Ht. # M1257 Rectangular Tube Steel
- 1 Each 8" x 4" x .25" x 240" A500 Gr. B Ht. # A23027 Rectangular Tube Steel
- 1 Each 5" x 3" x .25" x 240" A500 Gr. B Ht. # Y05637 Rectangular Tube Steel
- 1 Each 6" x 4" x .3125" x 240" A500 Gr. B Ht. # V02592 Rectangular Tube Steel
- 1 Each 6" x 4" x .3125" x 240" A500 Gr. B Ht. # V02592 Rectangular Tube Steel

On this date, the QA Inspector had general conversations with WMI QCM Rick Rodriguez and Smith Emery QC Inspector Ruben Dominguez, regarding the status of the Non Destructive Testing (NDT) on the Traveler frames and Testing Stand which has been complete, as of this date. The QA Inspector then updated the WMI Status and Tracking spreadsheet, to reflect these changes.

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