

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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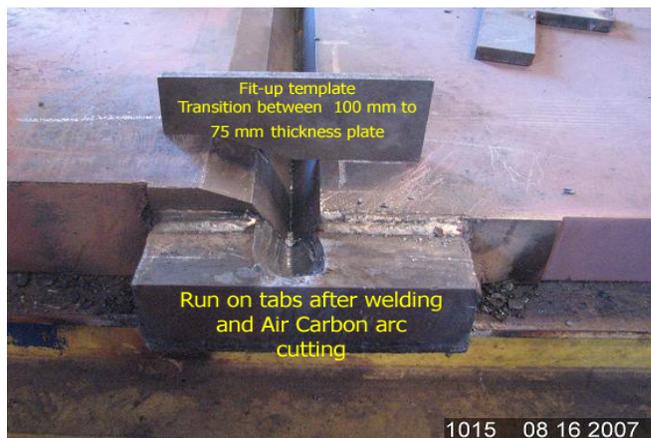
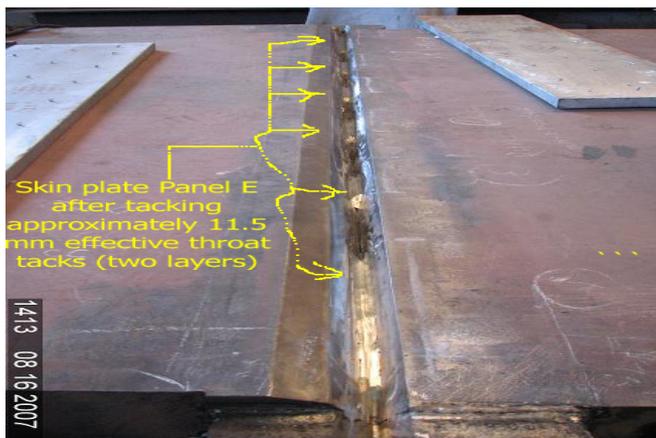
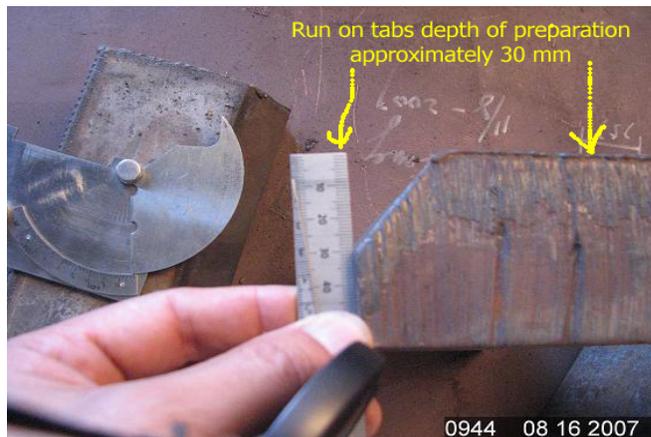
Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000431**Date Inspected:** 16-Aug-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Lefeng**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:** N/A**Summary of Items Observed:**

The CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication of the Mock-up 77 meters elevation scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge. ZPMC and ABF were still discussing about the installation of the run on tabs at the start of the shift. At approximately 0845 hours ABF QA inspector relayed to ZPMC that even though ABF did not recommend ZPMCs method of installing the run on tabs, ZPMC could proceed welding the run on tabs. ZPMC welded the run on tabs as shown in digital photograph below. ZPMC proceeded performing tack welding operations at the junction of the 100 mm plate mp15 with the 75 mm plate MA1-1. ZPMC, welder operator Li Dong was observed by the QA Inspector performing welding operations following the approved welding procedure specification WPS-B-T-2211-B-U3b. Base metal was designated as A-709 Grade 50. ZPMC was using the Shielded Metal arc welding (SMAW) process in the flat (1G) position with the 4.0 mm diameter electrode designated as E7018/AWS A5.1, brand name TL-508. The QA Inspector verified joint fit-up, amperages, preheat and heat interpass temperatures. The QA inspector found that the welding parameters reported by Xu Lefeng approved ZPMC Certified Welding Inspector appeared to be in accordance with the contract documents. ABF representative QA Inspector Dustin Brungardt was present during the testing. The QA inspector had a conversation with Mr. Brungardt. The QA inspector brought to the attention of Mr. Brungardt that ZPMC was welding a tack that is to be incorporated to the final weld and the effective throat of the tacks was approximately 10 mm. The photo below shows the location of the tacks. In addition, the QA inspector recommended that the root pass to be magnetic particle tested (MT) before welding with submerged arc welding (SAW) process. Mr. Brungardt had a phone conversation with ABF QA supervisor Nate Lindell. Mr. Brungardt relayed that ABF agreed that the tack welds needed to be MT and welded with the SAW process at the areas between tacks to complete the root pass. Mr. Brungardt relayed to the QA inspector that ZPMC disagreed at

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first but ZPMC technical department was having discussions about welding and MT examinations on the partial penetration joints.



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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Acuna, Alfredo

Quality Assurance Inspector

Reviewed By: Cuellar, Robert

QA Reviewer