

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

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-027183**Date Inspected:** 13-Feb-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** L&M Industrial Fabricators**Location:** Tangent, OR**CWI Name:** Thomas 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:** CCO 196 and 203**Summary of Items Observed:**

On this date, Quality Assurance Inspector (QAI) Kenneth Riley 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 on the fabrication of chimney parapet walls to the Tower Heads and Elevator brackets installed. The observations for the extra work being performed are under contract change orders CCO196 and CCO203 as stated below.

A). CCO196

This QA Inspector randomly observed L & M welding personnel Bradford Schroyer (Welder ID #16) welding under Welding Procedure Specification (WPS) L&M-FCAW-A5.20-F#1A using the Flux Cored Arc Welding (FCAW) process. The electrode being used was Hobart Excel Arc 71, E71T-1 in the horizontal position placing 4mm fillet welds. The welding parameters appeared to be within the specified WPS. This QAI observed QC inspector Tom Dreyer observing the work in process. These stiffeners are for tower head west chimney. The item welded were;

A11e-f to A11g

A12e-g to A12h

A15e-g to A15h

The welders were performing these functions at the beginning of the shift.

L&M personnel were also assembling the crane assembly for tower head west and noted the following issues;

1) The bolt holes for the crane assembly to attach to the top plate are miss-aligned holes preventing the bolts to penetrate the top plate and underside brackets. This QAI observed that the miss-alignment appeared to be

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

approximately 5mm.

2) During the observation on the interior where the top plate and bracket meet the faying surface is not in contact and it appears that since the bracket is already bolted at 2 points (4 bolts) the faying surface would not be able to come into contact as required by contract documents. The gap was measured by this QAI inspector as being 5mm to 8mm.

During random observations by this QAI it was noted that the fabricator had used a die grinder to remove material within the bolt hole of the brackets. The amount of material removed could be up to 5mm. The fabricator had bolted the crane assembly in place so an accurate reading for these locations is unattainable at this time. The Fabricator did state that this is a dry fit for the assembly and would be removed prior to paint. This QAI will take photos of the removal area and send them to the SMR at that time. This QAI also informed the shop foreman that organic zinc would need to be applied within the bolt hole as outlined within the contract documents. Also the gap at the inside bracket that has a 8mm gap to the top plate, the fabricator was informed by the contractor to place a machined plate washer machined done for a tight fit within these areas. Caltrans has not received this document at the time the work had begun. The fabricator is working without the Engineer's approval, and is proceeding at their own risk. The shop continued throughout the shift doing the trial fit of the crane for the west tower head.

Unless noted otherwise, all work observed on this date appeared to be in general compliance with the contract documents at the time of observations.



Summary of Conversations:

Basic conversation, fundamental to completion of the tasks at hand, occurred between this QAI and ABF QC personnel.

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: Riley, Ken

Quality Assurance Inspector

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Reviewed By: Levell,Bill

QA Reviewer