

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019785**Date Inspected:** 19-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**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:** OBG**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Kelly Leavitt, was present during the times noted above for observations relative to the work being performed.

This QA Inspector observed the following work in progress:

Bay 10

This QA Inspector observed the following work in progress for Bay 10.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Guo Tam Fei.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA Inspector.

Component; Bike Path

PCMK: BK004A1-027

Weld No: 030~042

Welder: 040533

WPS-B-T-2132-ESAB

Component; Bike Path

PCMK: BK004A1-027

Weld No: 005~008

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Welder: 053864

WPS-B-T-2132-ESAB

This QA Inspector observed the following work in progress for Bay 10.

ZPMC was using the Shielded Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Guo Tam Fei.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA Inspector.

Component; Bike Path

PCMK: BK004A2-031

Weld No: 016,018

Welders: 052930, 500363

WPS-B-T-2111

Heat straightening of PCMK, SSD1-FCSA6-1, NSD1-FCSA6-3 under approved Heat Straightening procedure, HSR1(T)-11643. The in process temperature was observed as 230°C. The ZPMC QC was identified as Guo Tam Fei. The approved HSR procedure stated that a maximum temperature of 650°C with 1~3 numbers of applications was allowed. The distortion that was previously measured and recorded on the HSR was Maximum 25mm.

Bay 11

This Caltrans QA Inspector observed at random intervals ZPMC Performing grinding of welds located on BK004A-023 and BK004A-024 at various locations due to contour grinding and visual indications as identified by ZPMC QC Inspectors.

This Caltrans QA Inspector observed at random intervals ZPMC Performing grinding for fit up of plate BKX8B for welds BK004A6-003-001, 002 and 007. This process appears to comply with ZPMC QC inspector Shi Lei and AASHTO/AWS D1.5 -3.2, "Preparation of Base Metals". ( see picture below )

Blast Bay 2

This Caltrans QA Inspector performed a pre-blast visual inspection of the interior surface and internal components, Lift 4, WSD1 tower subassembly, 116~131 meter mark to the bottom surface of the double diaphragm. Surface defects and base metal surface irregularities that required grinding were marked up with colored chalk, and weld defects that require welding were taped with gray masking tape for repair after the coating has been applied. ZPMC QC and ABF inspection personnel were present during the inspection and informed of QA findings.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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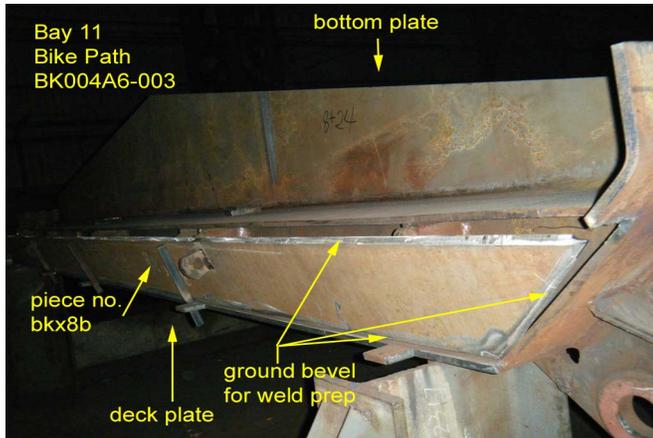
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# WELDING INSPECTION REPORT

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## Summary of Conversations:

No significant conversations

## 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 Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Leavitt, Kelly

Quality Assurance Inspector

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**Reviewed By:** Riley, Ken

QA Reviewer