

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-007162**Date Inspected:** 27-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Shi Lei**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 Segments**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Assembly

Bay 14

Segment 6CW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SSD10-PP44-223, 233. The welder is identified as #045246 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-4114-B-U2.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG031-047, 048, 045, 046. The welder is identified as #066361 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b.

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This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG031B-009, 010, 015, 016, 024, 026. The welder is identified as #047856 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b.

Segment 7BE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG036E-043. The welder is identified as #048047 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2213-TC-U4b-F.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a fillet weld joint. The Weld joint is designated as SEG036E-062, 063, 143, 144, 170, 171. The welder is identified as #054031 and was observed welding in the 4F (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-2114-FCM.

Segment 7CE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as CA040-008, 009. The welder is identified as #048038 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

This QA Inspector observed Shielded Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA040-008, 009. The welder is identified as #048038 and was observed welding in the 2G (horizontal) position using approved Welding Procedure Specification WPS-B-T-2232-TC-U4b-F.

Segment 10BE

This QA Inspector observed Submerged Arc Welding (SAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG062A-001. The welder is identified as #044755 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2221-B-L2C-S-2.

Segment 10AE

This QA Inspector observed Submerged Arc Welding (SAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG060A-003. The welder is identified as #044771 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2221-B-L2C-S-2.

Segment 9AW

This QA Inspector observed Submerged Arc Welding (SAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG049A-009. The welder is identified as #045265 and was observed

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welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2221-B-L2C-S-2.

Segment 10CE

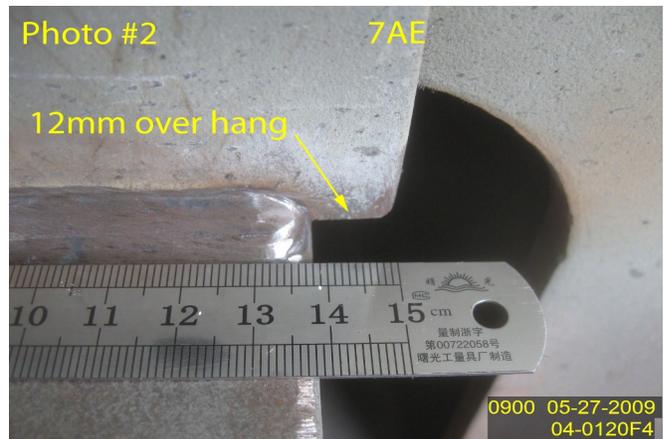
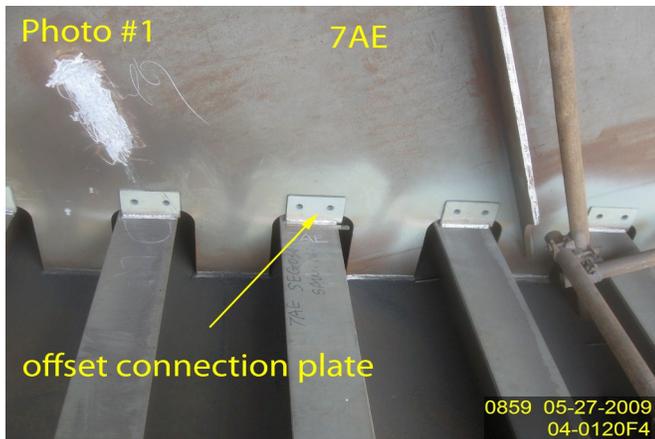
This QA Inspector observed Submerged Arc Welding (SAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG064A-001. The welder is identified as #044755 and was observed welding in the 1G (flat) position using approved Welding Procedure Specification WPS-B-T-2221-B-L2C-S-2.

ZPMC Quality Control (QC) Inspectors are identified as Liu Ru Dan, Li Jie and Guo Xing Hui. QA Inspector observed QC Inspectors verify welding parameters. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Segment 6CE and 7AE

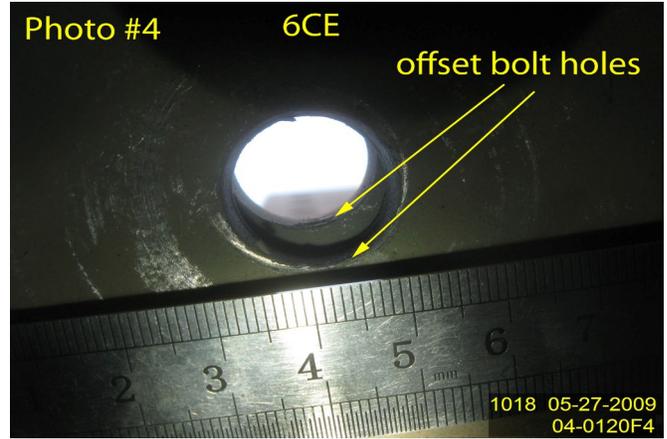
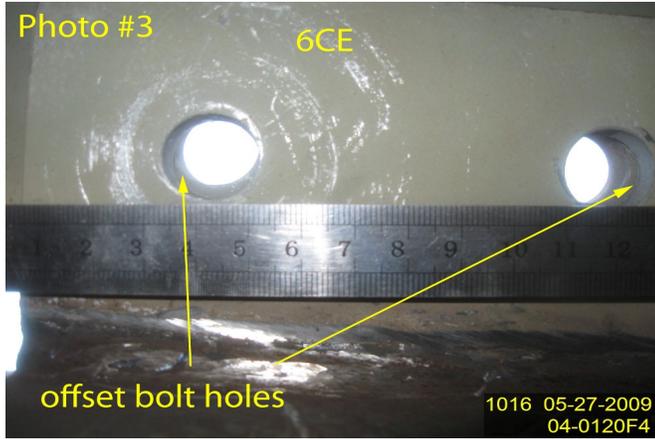
This QA Inspector observed the following Incidents: X3P connection plates at Floor beam to WT stiffener flange are misaligned at various locations throughout the segment. Connection plate overhangs on the flange approximately 5mm to 12mm (photo #2) and bolt holes are off set up to approximately 4mm (photo #4) at the various locations. Contract drawings show the plate to be centered with the web of the WT stiffener. Photos below show typical connection plate offsets on segments 6CE and 7AE.

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



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Summary of Conversations:

No relevant 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, 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By: Hernandez,Dan

Quality Assurance Inspector

Reviewed By: Carreon,Albert

QA Reviewer