

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 #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-025975**Date Inspected:** 01-Jul-2011**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) Chanxing Island**Location:** Shanghai, China

CWI Name:	N / A	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 Segment	

Summary of Items Observed:

On this date CALTRANS OSM Quality Assurance (QA) Inspector Santhosh Ramakrishna Pillai was present during the times noted above for observations relative to fabrication work of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China.

This QA inspector randomly observed the following work:

BLASTING INSPECTION**Segment 13CW**

This QA Inspector performed a preliminary random visual inspection on OBG Segment 13CW at counter weight side, after the grit blast of the external components of bottom plate, Side plate & floor beam of this segment. Areas of visual weld defects that will require welding were taped and will be repaired after the coating is applied. ABF QC personnel are aware of these areas and were present during the inspection. The defects were

1. I-rib stiffener (adjacent to weld jt no: Seg3015A-001) on BP3070A damaged in between PP124 and PP124.5, needs weld repair. G+W+MT.
2. Grinding after removal of temporary attachments is to be done on SP (SP3112A) and BP (BP3071A, BP3070A and BP3069A) between PP124.5 and the outer edge of BP.

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

AT PP122.5:

3. Seg3015K: Temporary attachments on Edge Beam to be removed (between PP122.5 and PP123).
4. Seg3015K: Porosity observed near cope hole of I-rib to I-rib splice weld (Section J on FB3220). G+W+MT.
5. Seg3015K: W+G+MT - X4429F to X4450F weld jt (west side of man hole on FB3220).

AT PP123:

6. Seg3015H: Runner tabs to be removed from RS stiffener (i-rib stiffener) on VP3015A to Floor Beam weld (East side of FB3224A).

AT PP123 to PP124.5:

7. Seg3015U: I-rib (RS3473F) to VP3015A welding to be done.
8. Seg3015U: Temporary attachments on VP3015A under RS3473F (between PP123.5 to PP124.5) to be removed.

AT PP124.5:

9. Seg3015B: Runner tabs to be removed from weld no: Seg3015B-116.
10. Seg3015B: Temporary attachments to be removed from FB3233A.
11. Seg3015M: Spatter to be removed. Grinding to be done on the FB I-ribs (at PP124.5) and on the LD3033 after removal of temporary attachments.

AT PP123.5 to PP124.5

12. Seg3015U: Temporary attachments on VP3015A under RS3473F (between PP123.5 to PP124.5) to be removed. Welding of RS3473F to VP3015A to be done (between).

Segment 14W

This QA Inspector performed a preliminary random visual inspection on OBG Segment 14W at cross beam side, anchorage plate, edge plate & floor beam, after the grit blast of the external components of this segment. Areas of visual weld defects that will require welding were taped and will be repaired after the coating is applied. ABF QC personnel are aware of these areas and were present during the inspection. The defects were

1. At PP 125.5, cope hole observed as sealed by welding on weld joint SEG3020T-329. See the attached picture.
2. At PP 125.5, cope hole needs to be corrected at weld joints FB3319-001-019/020. See the attached picture.
3. At PP 126, vertical I-rib on FB 3321A to top anchorage plate AP 3023A weld joints SEG3020R-264/265; cope hole needs to be corrected.
4. At PP 126, vertical I-rib on FB 3321A to top anchorage plate AP 3022A weld joints SEG3020R-262/263; cope hole needs to be corrected.
5. At PP 126, weld joint SEG3020R-020 observed as incomplete; need to do welding.
6. At PP 125.5, the base metal observed as gouged out near toe of the weld joint SEG3020T-095.
7. At PP 125.5, cluster porosity observed on weld joint SEG3020T-106
8. At PP 125.5, the weld joint SEG3020T-295 observed as incomplete at cope hole area of weld joint

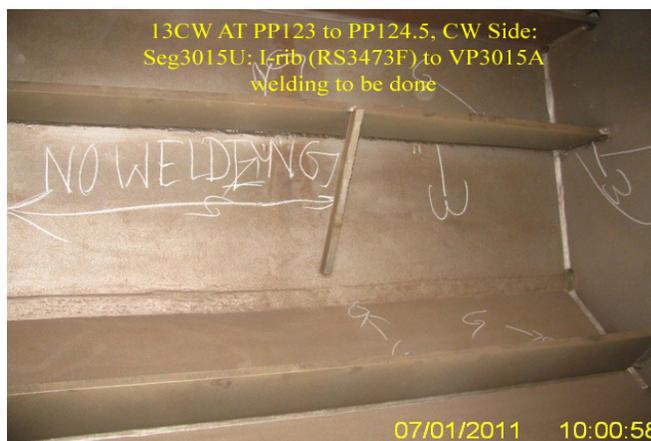
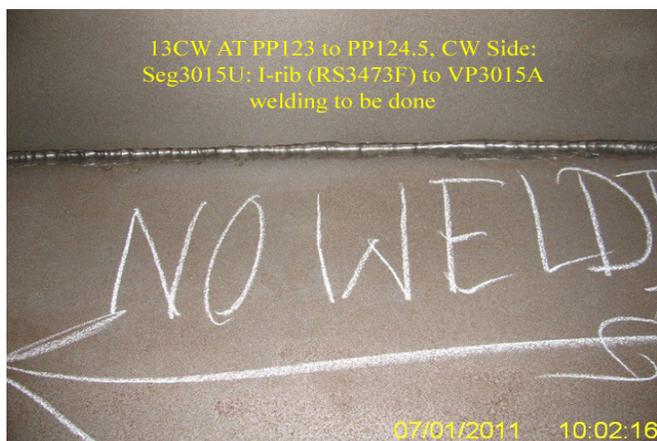
WELDING INSPECTION REPORT

(Continued Page 3 of 4)

SEG3020T-334/335.

9. At PP 125.5, incomplete welding observed at weld joint SEG3020Z-004.
10. Near PP 128.7, base metal observed as gouged out on LD3048A.
11. At PP 128.7, base metal observed as gouged out at two locations at cope hole sections of add on weld joints on I-rib X4853E on FB 3348A.
12. At PP 128.3 near W4 location, weld joint SEG3020E-015 observed as incomplete.
13. In between PP128 and PP128.3 cross beam side, incomplete welding on side plate (SP3140E) to edge plate (EP3030E) weld.
14. At PP128.3 (W) cross beam side, excess weld metal on deck panel longitudinal diaphragm (DP3175A) to Longitudinal diaphragm (LD3048A) weld.
15. At PP128.3 (W) cross beam side, cope hope profile need to be corrected on deck panel longitudinal diaphragm (DP3048A) to Floor Beam (FB3344A).
16. At PP126 (E) cross beam side, approximately 4mm deep grinding on floor beam (FB3321A) to RS stiffener (X4903G – section D).
17. At PP127 (E) cross beam side, incomplete welding on edge beam (EB3057A) to Floor Beam (FB3329A) weld.
18. At PP125 (W) cross beam side, scattered porosity observed on Edge Plate (EP3030A) to RS Stiffener (RS3497C) weld. Areas were taped prior to blast and paint.
19. At PP125 (W) cross beam side, two locations base metal gouge was visibly observed on the longitudinal diaphragm (LD3048).

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



WELDING INSPECTION REPORT

(Continued Page 4 of 4)



Summary of Conversations:

No relevant conversations were reported on this date.

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: Pillai,Santosh

Quality Assurance Inspector

Reviewed By: Miller,Mark

QA Reviewer