

**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 #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-003265**Date Inspected:** 07-May-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), Changxing Island **Location:** Changxing Dao, Shanghai**Quality Control Contact:** Don Walton**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:** Coatings Inspection**Bridge No:** 34-0006**Component:** Sub-Assemblies (OBG) and Sub-Assemblies**Bid Item:** 77,78,79**Lot No:****Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. Kenneth W. Cason Jr. arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections is to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

**Sub-Assemblies (OBG)**

Shim Plates (14 Each), NOI Number 6507: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Shim Plates (14 Each) for dry film thickness (DFT) compliance. ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection due to DFT readings out of specification requirements.

Suspender Brackets SB110W and SB110E, NOI Number 6509: In preparation for mist coat installation of Interfine 979 Polysiloxane, the Interzinc 22 undercoat on Suspender Brackets SB110W and SB110E was tested in accordance with SSPC-SP 1 (Surface Cleanliness), ASTM D4752 (MEK Resistance of Ethyl Silicate (Inorganic) Zinc-Rich Primers by Solvent Rub) was conducted with x 1 @ grade 4. Also tested in accordance with ISO 11127-6 and ISO 11127-7, x1 soluble salts x1 with readings recorded @ 10.4 (µs/cm). No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Maintenance Crane Brackets (18 Each) and Galvanized Traveler Rails (12 Each), NOI Number 6510: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the

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surface condition on Maintenance Crane Brackets (18 Each) and Galvanized Traveler Rails (12 Each) for dry film thickness (DFT) and final VT compliance. ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection prior to proceeding with process to the next check point due to defects found in the applied coating (pinholes).

Flumes (4 Each), Man Hole Cover Plates OBW12 (4 Each), Stiffeners OBW12 (4 Each), L-Splices OBW12 (4 Each), Shim Plates OBW12 (4 Each) and Facade Accessories WJSH-0 (2 Each), NOI Number 6511: In preparation for undercoat installation and in accordance with project specifications, this inspector along with ABF and ZPMC Quality Assurance/Control representatives observed the surface preparation on Flumes (4 Each), Man Hole Cover Plates OBW12 (4 Each), Stiffeners OBW12 (4 Each), L-Splices OBW12 (4 Each), Shim Plates OBW12 (4 Each) and Facade Accessories WJSH-0 (2 Each). Test results recorded x3 surface profile readings in the range of 64 to 76  $\mu\text{m}$ . No major discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Bike Path Panel BK8A-001 and Shim Plates (14 Each), NOI Number 6516: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Bike Path Panel BK8A-001 and Shim Plates (14 Each) for dry film thickness (DFT) and final VT compliance. ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit Bike Path Panel BK8A-001 for inspection prior to proceeding with process to the next check point. No other discrepancies noted on remaining item and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Bike Path Panels BK4A-062, BK4A-060 and BK5A-002, NOI Number 6518: In preparation for mist coat installation of Interfine 979 Polysiloxane, the Interzinc 22 undercoat on Bike Path Panels BK4A-062, BK4A-060 and BK5A-002 was tested in accordance with SSPC-SP 1 (Surface Cleanliness). ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection due to DFT readings out of specification requirements.

Maintenance Crane Brackets (18 Each), NOI Number 6519: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Maintenance Crane Brackets (18 Each) for dry film thickness (DFT) and final VT compliance. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Emergency Access Platform BK-EAP-7 and West Anchor Plates WAAD-011 (4 Each), NOI Number 6520: In preparation for mist coat installation of Interfine 979 Polysiloxane, the Interzinc 22 undercoat on Emergency Access Platform BK-EAP-7 and West Anchor Plates WAAD-011 (4 Each) was tested in accordance with SSPC-SP 1 (Surface Cleanliness). ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection due to DFT readings out of specification requirements. West Anchor Plates WAAD-011 (4 Each) has exceeded the required overcoat window and ABF Quality Assurance personnel instructed ZPMC to re-work (re-blast) and re-submit for inspection.

OBG to Tower Access Platforms (SA6525A and SA6525B), Emergency Access Platform BK-EAP-7 (6 pcs Component), Man Hole Cover Plates BK-EAP-2 and ESD1-A149, NOI Number 6521: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on OBG to Tower Access Platforms (SA6525A and SA6525B), Emergency Access Platform BK-EAP-7 (6 pcs

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Component), Man Hole Cover Plates BK-EAP-2 and ESD1-A149 for dry film thickness (DFT) and final VT compliance. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Man Hole Cover Plates X3003 (4 Each), L-Splices X3150J (4 Each), BK Bracket Cover Plates (2 Each) and Shim Plates (9 Each), NOI Number 6523: In accordance with project specifications, ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Man Hole Cover Plates X3003 (4 Each), L-Splices X3150J (4 Each), BK Bracket Cover Plates (2 Each) and Shim Plates (9 Each) in preparation for blasting operations. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Suspender Brackets SB106W and SB106E, NOI Number 6524: In accordance with project specifications, ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Suspender Brackets SB106W and SB106E in preparation for blasting operations. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Emergency Access Platform BK-EAP-7, Bike Path Panels BK5A-002, BK4A-062 and BK4A-060, NOI Number 6525: In preparation for mist coat installation of Interfine 979 Polysiloxane, the Interzinc 22 undercoat on Emergency Access Platform BK-EAP-7, Bike Path Panels BK5A-002, BK4A-062 and BK4A-060 were tested in accordance with SSPC-SP 1 (Surface Cleanliness). No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Galvanized Traveler Rails (12 Each), NOI Number 6526: In preparation for finish coat Interfine 979 Polysiloxane installation and in accordance with project specifications and SSPC-SP 1, this inspector along with ABF and ZPMC Quality Assurance/Control representatives observed the surface preparation on Galvanized Traveler Rails (12 Each). No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

### Sub-Assemblies (Tower)

Skin G Plates SSD1-FGSA6-7 and SSD1-FGSA6-6, NOI Number T2123: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Skin G Plates SSD1-FGSA6-7 and SSD1-FGSA6-6 for dry film thickness (DFT) and final VT compliance. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Tower Skirt Plate External WSD1-A801, NOI Number T2123: In preparation for undercoat installation and in accordance with project specifications, this inspector along with ABF and ZPMC Quality Assurance/Control representatives observed the surface preparation on Tower Skirt Plate External WSD1-A801. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Tower Head External Surfaces WSD1-TL6-4 and NSD1-TL6-3, NOI Number T2124: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Tower Head External Surfaces WSD1-TL6-4 and NSD1-TL6-3 for dry film thickness (DFT) and final VT

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compliance. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Tower Head External Surfaces ESD1-TL6-2 and SSD1-TL6-1, NOI Number T2125: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Tower Head External Surfaces ESD1-TL6-2 and SSD1-TL6-1 for dry film thickness (DFT) and final VT compliance. ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection prior to proceeding with process to the next check point due to out of range DFT readings.

Tower Head Curved Diaphragms Top DPSA6-5, NOI Number T2126: In preparation for mist coat installation of Interfine 979 Polysiloxane, the Interzinc 22 undercoat on Tower Head Curved Diaphragms Top DPSA6-5 was tested in accordance with SSPC-SP 1 (Surface Cleanliness). No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Miscellaneous Sub-Assembly Plates (105 Each), NOI Number T2128: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Miscellaneous Sub-Assembly Plates (105 Each) for dry film thickness (DFT) and final VT compliance. ABF Quality Assurance personnel instructed ZPMC to re-work and re-submit for inspection prior to proceeding with process to the next check point due to out of range DFT readings.

Miscellaneous Sub-Assembly Plates (105 Each), NOI Number T2130: In accordance with project specifications ABF and ZPMC Quality Assurance/Control representatives observed the surface condition on Miscellaneous Sub-Assembly Plates (105 Each) for dry film thickness (DFT) and final VT compliance. No discrepancies noted and ABF Quality Assurance personnel instructed ZPMC to proceed with process to the next check point.

Office

This Quality Assurance Inspector (QA) reviewed, recorded and entered data from notice of inspection requests for the purpose of tracking and compliance to contract documents.

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

### Summary of 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 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Cason,Kenneth	Quality Assurance Inspector
<b>Reviewed By:</b>	Miller,Mark	QA Reviewer

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