

**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 #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000231**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 20-Feb-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0206**Type of problem:**

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> Segment 3AW, 5AE and 3BW
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b> OBG Finish Coat Application	

**Reference Description:** Finish coat application out of compliance**Description of Non-Conformance:**

For segment 5AE, 3BW, and 3AW, the finish coat Polysiloxane (Interfine 979) has not been applied in compliance with the Special Provisions. The second application of the finish coat was not applied to a minimum of 125um after the first application (mist coat) had dried to a set to touch condition as determined by the procedure described in Section 7 of ASTM D 1640. As of February 20, 2009, the second application of Polysiloxane (Interfine 979) has not been applied by the Special Provisions to the required minimum dry film thickness.

Furthermore, the Interfine 979 batch numbers Part A - JG1864PV and Part B - JJ2949PV have not met the color retention per ASTM D2244. The delta E is not less than 1.0. The final lab results on the delta E was 2.98.

**Applicable reference:**

Project Special Provisions Section 10-1.69: Clean and Paint Structural Steel

“Finish coat shall be applied to areas passing the chloride tests within 48 hours.”

“The finish coat shall be applied in 2 applications. The first application shall consist of a spray applied mist application. The second application shall be applied after the mist application has dried to a set to touch condition as determined by the procedure described in Section 7 of ASTM Designation: D1640. The total dry film thickness of both applications of the finish coat shall be not less than 125 µm.”

"The color of the applied paint shall be within the following tolerances: delta E\* < 1.0"

**Who discovered the problem:** James Lumley**Name of individual from Contractor notified:** William Oak**Time and method of notification:** 02/04/09 – 13:00 hrs – verbal

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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**Name of Caltrans Engineer notified:** Stanley Ku, Construction Senior

**Time and method of notification:** 02/05/09 – 10:00 hrs – verbal

**QC Inspector's Name:** N/A

**Was QC Inspector aware of the problem:** Yes No

**Contractor's proposal to correct the problem:**

N/A

**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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Tsang, Eric	SMR
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<b>Reviewed By:</b>	Wahbeh, Mazen	SMR
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**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge**  
666 Feng Bin Road Room 708, Changxing Island  
Shanghai 201913 PR China  
Tel: 021-56856666 ext 207061 Fax:

## NON-CONFORMANCE REPORT TRANSMITTAL

**To:** AMERICAN BRIDGE/FLUOR, A JV  
375 BURMA ROAD  
OAKLAND CA 95607

**Date:** 04-Mar-2009

**Contract No:** 04-0120F4  
04-SF-80-13.2 / 13.9

**Dear:** Mr. Charles Kanapicki

**Job Name:** SAS Superstructure

**Attention:** Mr. Thomas Nilsson Project Manager - OBG

**Document No:** 05.03.06-000199

**Subject:** NCR No. ZPMC-0206

**Reference Description:** Finish coat application out of compliance

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

**Material Location:** OBG **Lift:**

### Remarks:

For segment 5AE, 3BW, and 3AW, the finish coat Polysiloxane (Interfine 979) has not been applied in compliance with the Special Provisions. The second application of the finish coat was not applied to a minimum of 125um after the first application (mist coat) had dried to a set to touch condition as determined by the procedure described in Section 7 of ASTM D 1640. As of February 20, 2009, the second application of Polysiloxane (Interfine 979) has not been applied by the Special Provisions to the required minimum dry film thickness.

### Action Required and/or Action Taken:

A response for the resolution of this issue is expected within 14 days.

**Transmitted by:** Stanley Ku Sr. Bridge Engineer

**Attachments:** ZPMC-0206

**cc:** Rick Morrow, Gary Pursell, Brian Boal, Jason Tom

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

**To:** CALTRANS - SAS Superstructure  
333 Burma Road  
Oakland CA 94607

**Dated:** 11-Mar-2009

**Contract No.:** 04-0120F4  
04-SF-80-13.2 / 13.9

**Attention:** Pursell, Gary  
Resident Engineer

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000205 Rev: 00

**Ref:** 05.03.06-000199

**Subject:** NCR No. ZPMC-0206

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### Contractor's Proposed Resolution:

**Reference Resolution:** 48 hours prior to applying the finish coat, the segments will be prepared for coating per manufactures instructions, water rinsed and pass a chloride test

The coating at the present time consists of a primer and mist coat. 48 hours prior to applying the finish coat, the segments will be prepared for coating per manufactures instructions, water rinsed and pass a chloride test. All segments will be prime and finished coated in this manner.

**Submitted by:**

**Attachment(s):** ABF-NPR-000205R00

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**Caltrans' comments:**

**Status:** CLO

**Date:** 18-Mar-2009

The proposed resolution is acceptable. The Department concurs that Non-Conformance ZPMC-0206 is closed.

**Submitted by:** Wright, Doug

**Date:** 18-Mar-2009

**Attachment(s):**

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Bay Area Branch  
690 Walnut Ave. St. 150  
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(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCS-000209**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 18-Mar-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0206**Type of problem:**

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b>
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Date the Non-Conformance Report was written:** 20-Feb-2009**Description of Non-Conformance:**

For segment 5AE, 3BW, and 3AW, the finish coat Polysiloxane (Interfine 979) has not been applied in compliance with the Special Provisions. The second application of the finish coat was not applied to a minimum of 125um after the first application (mist coat) had dried to a set to touch condition as determined by the procedure described in Section 7 of ASTM D 1640. As of February 20, 2009, the second application of Polysiloxane (Interfine 979) has not been applied by the Special Provisions to the required minimum dry film thickness.

Furthermore, the Interfine 979 batch numbers Part A - JG1864PV and Part B - JJ2949PV have not met the color retention per ASTM D2244. The delta E is not less than 1.0. The final lab results on the delta E was 2.98.

**Contractor's proposal to correct the problem:**

In reference to NPR205R00, the contractor will perform the following: "48 hours prior to applying the finish coat, the segments will be prepared for coating per manufactures instructions, water rinsed and pass a chloride test."

**Corrective action taken:**

The contractor reviewed and understood the contract requirement. Once the contractor completed the finish coat, the contractor will request Caltrans for inspection. The contractor stated that corrective actions will be taken by complying to the contract's finish coat requirement.

**Did corrective action require Engineer's approval?** Yes No**If so, name of Engineer providing approval:** **Date:****Is Engineer's approval attached?** Yes No**Comments:**

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# QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

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Office of Structural Materials for your project.

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**Inspected By:** Tsang, Eric

Quality Assurance Inspector

**Reviewed By:** Wahbeh, Mazen

QA Reviewer

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