FHWA REGION PROJECT STATE 5 OHIO

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THE URETHANE TOP COAT CHOSEN BY THE CONTRACTOR SHALL BE ONE OF THE FOLLOWING MATERIALS CONFORMING TO ITS LISTED PROPERTIES:

AMERCOAT 450 GL:

% SOLIDS BY VOLUME: 45% +/- 2%

20 HRS. • 77 DEGREES F POT LIFE:

DRYING TIME: 8 HRS. • 77 DEGREES F DRY-THROUGH

GLID-THANE ONE POLYURETHANE COATINGS NO. 6100 SERIES:

52-55%

% SOLIDS BY VOLUME:

38% +/- 2%

DRYING TIME:

8-12 HRS. ● 77 DEGREES F TO HANDLE

VISCOSITY: 100-250 CPS

% SOLIDS BY WEIGHT:

INTERTHANE PC SERIES FINISH

% SOLIDS BY VOLUME:

45% +/- 2%

POT LIFE:

6-8 HRS. • 77 DEGREES F

DRYING TIME: 2 HRS. TO TOUCH • 77 DEGREES F

VAL-CHEM URETHANE ENAMEL:

% SOLIDS BY VOLUME: 42.7% +/- 2%

POT LIFE:

8 HRS. • 77 DEGREES F 30-45 MINUTES TO TOUCH ● 75 DEGREES F

DRYING TIME: VISCOSITY:

70-80 KU • 75 DEGREES F

MARK-73 (ULTRA-KOTE): % SOLIDS BY VOLUME:

52.5% +/- 2%

POT LIFE: DRYING TIME: 8 HRS. • 75 DEGREES F

VISCOSITY:

4-5 HRS. • 75 DEGREES F TACK FREE 70-75 KU • 75 DEGREES F

% SOLIDS BY WEIGHT: 55% +/- 2%

AT LEAST 24 HOURS BUT NO MORE THAN THREE (3) DAYS SHALL ELAPSE AFTER THE APPLICATION OF THE EPOXY INTERMEDIATE COAT AND BEFORE THE APPLICATION OF THE URETHANE TOP COAT. SURFACES SHALL IN ALL CASES BY CLEAN BEFOR THE TOP COAT IS APPLIED.

FOR NEW SUPPORT SECTIONS, THIS TOP COAT SHOULD BE DONE AT THE MANUFACTURER OF THE SUPPORT SECTIONS. CERTIFICATION BY THE MANUFACTURER FOR THE TOP COAT PROCEDURE WILL BE REQUIRED. EXISTING WEATHERED. GALVANIZED SUPPORT SECTIONS WILL BE DONE AT THE FIELD LOCATION OR THE CONTRACTOR'S STORAGE YARD. CAREFUL HANDLING AND STORAGE WILL BE REQUIRED TO PREVENT ANY SCRAPING, MARRING OR OTHER SURFACE DAMAGE TO THE TOP COAT.

THE PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING COST, AND MATERIALS NECESSARY TO ACCOMPLISH THIS ITEM OF WORK. THIS TOP COAT SHALL BE MANUFACTURED BY THE SAME COMPANY SUPPLYING THE PRIME AND INTERNEDIATE COATS. A PROPERLY CALIBRATED, DRY FILM THICKNESS INSTRUMENT WILL BE USED TO CHECK THE COATING.

BASIS OF PAYMENT WILL BE AS FOLLOWS: SPECIAL COATING, URETHANE TOP COAT, SUPPORT SECTIONS AT CONTRACT BID PRICE PER FACH MAJOR SUPPORT SECTION.

#### PERFORMANCE REQUIREMENTS

THE COATING SYSTEM WHICH CONSISTS OF THE ALUMINUM PIGMENTED EPOXY PRIME COAT, THE EPOXY INTERMEDIATE COAT, AND THE URETHANE TOP COAT SHALL BE TESTED PRIOR TO USE. 00000779 ONE PANEL FOR EACH OF THE SPECIFIED TESTS SHALL BE PREPARED TO THE REQUIREMENTS OF ASTM D 609 EXCEPT THAT THE THICKNESS SHALL BE 1/8 INCH MINIMUM, THE SURFACE SHALL BE BLAST CLEANED TO EQUAL AS NEARLY AS IS PRACTICAL THE STANDARD SA 2-1/2 OF ASTM D 2200 (STEEL STRUCTURE PAINTING COUNCIL SSPC-SP10 MEETS THIS REQUIREMENT), AND THE SURFACE SHALL HAVE A NOMINAL HEIGHT OF PROFILE OF 1.5 MILS. THE PANELS SHALL BE COATED AND PERMITTED TO CURE IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTRUCTIONS. THE COATING THICKNESS IN THE SYSTEM TO BE TESTED SHALL BE AS FOLLOWS:

> EPOXY PRIMER: (1.5-2.0) +/- 0.25 MILS +/- 0.5 MILS EPOXY: 6.0 URETHANE: +/- 0.5 MILS

THE COATING SYSTEM SHALL PASS EACH OF THE FOLLOWING TESTS:

- A. FRESH WATER RESISTANCE. THE PANEL SHALL BE SCRIBED TO THE DEPTH OF THE BASE METAL IN THE FORM OF AN "X" HAVING AT LEAST 2-INCH LEGS AND THEN IMMERSED IN FRESH TAP WATER AT 75 5 DEGREES F. AFTER 30 DAYS OF IMMERSION, THE PANEL SHALL SHOW NO RUSTING NOR SHALL THE COATING SHOW ANY BLISTERING OR SOFTENING.
- B. SALT WATER RESISTANCE. THE PANEL SHALL BE SCRIBED AS SPECIFIED IN "A" ABOVE AND THEN IMMERSED IN A WATER SOLUTION OF 5 PERCENT SODIUM CHLORIDE AT 75 5 DEGREES F. THE PANELS SHALL SHOW NO RUSTING NOR SHALL THE COATING EXHIBIT ANY BLISTERING OR SOFTENING AFTER 7, 14, AND 30 DAYS. THE SODIUM CHLORIDE SOLUTION SHALL BE REPLACED WITH A FRESH SOLUTIONOOOOO805 AFTER THE EXAMINATION AT 7 AND 14 DAYS.
- C. WEATHERING RESISTANCE. THE PANEL SHALL BE TESTED IN ACCORDANCE WITH ASTM G - 23 TYPE D. THE PANEL SHALL BE PLACED ON TEST AT THE BEGINNING OF A WET CYCLE, AFTER 1000 HOURS00000809 CONTINUOUS EXPOSURE, THE COATING SHALL SHOW NO BLISTERING OR LOSS OF ADHESION, NOR SHALL THE PANEL SHOW ANY RUSTING.
- D. SALT FOG RESISTANCE. THE PANEL SHALL BE SCRIBED AS SPECIFIED IN "A" ABOVE, AND THEN TESTED IN ACCORDANCE WITH ASTM B 117. AFTER 1000 HOURS OF CONTINUOUS EXPOSURE THE COATING SHALL SHOW NO LOSS OF BOND NOR SHALL IT SHOW RUSTING OR BLISTERING BEYOND 1/16 INCH FROM THE CENTER OF THE SCRIBE MARK.

# PREQUALIFICATION

PRIOR TO USE, THE CONTRACTOR SHALL SUBMIT TO THE DIRECTOR COPIES OF THE MANUFACTURER'S CERTIFIED TEST DATA SHOWING THAT THE MATERIAL COMPLIES WITH THE QUALITATIVE, QUANTITATIVE AND PERFORMANCE REQUIREMENTS OF THIS SPECIFICATION. THE TEST DATA SHALL BE DEVELOPED BY AN INDEPENDENT APPROVED TESTING LABORATORY, AND SHALL INCLUDE THE BRAND NAME OF THE PAINT, NAME OF MANUFACTURER, NUMBER OF THE LOT TESTED AND DATE OF MANUFACTURE. WHEN THE PAINT HAS BEEN APPROVED BY THE DIRECTOR, FURTHER PERFORMANCE TESTING BY THE MANUFACTURER WILL NOT BE REQUIRED UNLESS THE FORMULATION OR MANUFACTURING PROCESS HAS BEEN CHANGED, IN WHICH CASE NEW CERTIFIED TEST RESULTS WILL BE REQUIRED.

#### ACCEPTANCE

THE MANUFACTURER SHALL SUBMIT CERTIFIED TEST DATA FROM AN INDEPENDENT APPROVED TESTING LABORATORY FOR EACH LOT SHOWING COMPLIANCE WITH THE MATERIAL REQUIREMENTS OF THIS SPECIFICATION. IN ADDITION, THE MANUFACTURER SHALL CERIFY THAT THE FORMULATION IS THE SAME AS THAT FOR WHICH PERFORMANCE DATA HAS BEEN SUBMITTED. THE STATE RESERVES THE RIGHT TO SAMPLE AND TEST DELIVERED LOTS FOR COMPLIANCE.

## TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS:

REFERENCE TO THE SUPPLEMENTAL SPECIFICATIONS 857, 858, 859, 957, 958, AND 959 ON THE TRAFFIC CONTROL STANDARD DRAWINGS IN THIS PLAN SHALL BE CONSIDERED TO READ AS RESPECTIVE REFERENCES TO ITEMS 630, 631, 632, 730, 731, AND 732.

## TRAFFIC SIGNAL LOOP DETECTORS

THIS WORK SHALL CONSIST OF REPLACING EXISTING TRAFFIC SIGNAL LOOP DE-TECTOR WIRE MAY BE DESTROYED ON VARIOUS RAMPS BY PAVEMENT REPAIR OPERA-TIONS. THE LOOP DETECTOR WIRE SHALL BE REPLACED TO THE PULL BOX UNDER ITEM 625 AND STANDARD CONSTRUCTION DRAWING T.C. 8210. THE FOLLOWING ESTIMATED QUANTITIES ARE INCLUDED IN THE GENERAL SUMMARY TO BE USED AS OUTLINED ABOVE.

> ITEM 632 - LOOP DETECTOR PAVEMENT CUTTING 250 L.F. ITEM 632 - LOOP DETECTOR WIRE 500 L.F.

## ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND STORAGE

PAYMENT FOR EACH OF GROUND MOUNTED SIGN REMOVAL WILL INCLUDE ALL SIGNS ATTACHED TO THE POST OR SET OF POSTS (I.E. BACK TO BACK SIGNS, ONE WAY SIGNS ETC.)

ALL SIGNS REMOVED SHALL BE STORED ON THE PROJECT AT A SITE APPROVED BY THE ENGINEER FOR PICKUP BY CITY FORCES.