



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

June 16, 2017

Addendum No. 1

Contract No.: DA00357

WBS Element: 2017CPT.01.26.10581.1 & 44828

Milling, Resurfacing, Concrete Work, Pavement Markings and Markers on US 64 Alt & NC 903 in Martin County

To Whom It May Concern:

Reference is made to the proposal and plans previously furnished for this project.

The following revisions have been made to the proposal:

Page No. 55 - 57, "**Patterned / Textured Pavement**" has been revised. Please void existing Page No. 55 - 57 and replace with revised Page No. 55 - 57.

Page No. 80 - 81, "**Bid Form**" has been revised to update the quantities and add a line item for 8" x 120 Mil White Thermoplastic Pavement Markings. Please void existing Page No. 80 - 81 and replace with revised Page No. 80 - 81.

Plan Sheet No. 5, "**Summary of Quantities**" has been revised to update the quantities and add a line item for 8" x 120 Mil White Thermoplastic Pavement Markings. Please void existing Plan Sheet No. 5 and replace with revised Plan Sheet No. 5.

If you choose the "Electronic Bid Preparation with Manual Delivery Method" or "Traditional Paper Bid Method," please acknowledge receipt of Addendum #1 in the space provided on the Addendum Acknowledgement Form.

If you choose the "Electronic Bid Preparation with Manual Delivery Method," place DA00357.001 in the same folder with DA00357.EBS, so that Expedite Bid will properly apply the addendum.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
DIVISION ONE
113 AIRPORT DRIVE, SUITE 100
EDENTON, NC 27932

Telephone: (252) 482-1850
Fax: (252) 482-8722
Customer Service: 1-877-368-4968

Location:
113 AIRPORT DRIVE, SUITE 100
EDENTON, NC 27932

Website: www.ncdot.gov

Sincerely,

DocuSigned by:



99A5A272ED6A447...

W. B. Hobbs, PE
Division Project Manager

WBH/ces
Attachment

Cc: C. W. Bridgers Jr., PE
C. S. Mebane, PE
D. S. Lee, PE

PATTERNED/TEXTURED PAVEMENT:**Description**

This work shall consist of furnishing and applying a patterned and or textured epoxy overlay system over the asphalt roadway in accordance with the contract documents or as directed by the Engineer.

Use the location, pattern/texture type (brick, stone, etc.), and coating color as specified in the plans and contract documents. The desired pattern is described as a Diagonal Herringbone Pattern with Soldier Course Border.

Materials

The two-part epoxy polymer overlay system shall be free of any fillers or volatile solvents and shall be formulated to provide a simple volumetric ratio of two components such as one to one or two to one by volume. The epoxy polymer overlay system shall be formulated to provide flexibility in the system without any sacrifice of the hardness, chemical resistance or strength of the system. Use of external/conventional flexibilizers will not be accepted. Flexibility shall be by interaction of elastomers to chemically link in the process of curing so that the flexibility of the molecule is least affected during the low temperature conditions that are confronted in actual use.

Physical Requirements of Epoxy Polymer Overlay: When components A and B are mixed in the appropriate ratio, the cured resin shall conform to the requirements for Epoxy, Type 2 and/or Type 3 in Article 1081-1 of the *Standard Specifications*.

Load Bearing Capabilities of the Overlay System: The cured epoxy polymer overlay system shall exhibit the following load bearing capacity. At approximately 20% strain, the polymer shall retain at least 85% of its original load bearing strength (tensile stress) as per ASTM D-638.

Aggregate

Aggregate used for all layers shall be non-friable, non-polishing, clean and free from surface moisture. The aggregate shall be 100% fractured, thoroughly washed and kiln dried to a maximum moisture content of 0.3% by weight, measured in accordance with ASTM C566.

Aggregate properties shall conform to the properties of Table 1 and Table 2:

TABLE 1		
AGGREGATE PROPERTIES		
Property	Value	Test Method
Moisture Content, max.	0.3% by weight	AASHTO T255
Mohs Hardness, min.	6.0-7.0	

Construction Methods

Surface Preparation

Epoxy overlay material shall not be placed on new asphalt surface until 14 days after asphalt surface placement. Remove all dust and other loose material. Prepare the roadway surface where epoxy overlay material is to be applied in accordance with manufacturer's recommendations.

Equipment

Equipment shall consist of no less than an automated mixing system and application squeegee approved by the Engineer. The distribution system or distributor shall accurately blend the epoxy resin and hardening agent, and shall uniformly and accurately apply the epoxy materials at the specified rate to the roadway surface in such a manner as to cover 100% of the work area.

Application

Handling and mixing of the epoxy resin and hardening agent shall be performed in a safe manner to achieve the desired result in accordance with the manufacturer's recommendations as approved and as directed by the Engineer. Epoxy concrete overlay materials shall not be placed when weather or surface conditions are such that the material cannot be properly handled, placed, spread and cured within the specified requirements of traffic control.

After the epoxy mixture has been prepared for the epoxy concrete overlay, it shall be immediately and uniformly applied to the surface of the roadway surface with a squeegee. The temperature of the roadway surface and all epoxy and aggregate components shall be 55°F or above at the time of application. Epoxy shall not be applied if the air temperature is expected to drop below 55°F within 8 hours after application, or when high temperatures would cause the gel time to be less than 10 minutes. The dry aggregate shall be applied in such a manner as to cover the epoxy mixture completely within 5 minutes and excess aggregate removed. Traffic or equipment shall not be permitted on the overlay surface during the curing period.

Provide certification that the patterned/textured pavement was installed in accordance with the manufacturer's requirements.

In the event the Contractor's operation damages or mars the epoxy overlay, the Contractor shall submit for approval by the Engineer a method to remove and/or repair the damaged areas at no additional cost to the Department.

Performance

The textured surface must maintain a depth of 50% of the original installed depth and width during the warranty period.

Wearing of the material coating shall not expose more than 15% of the underlying surface area during the warranty period.

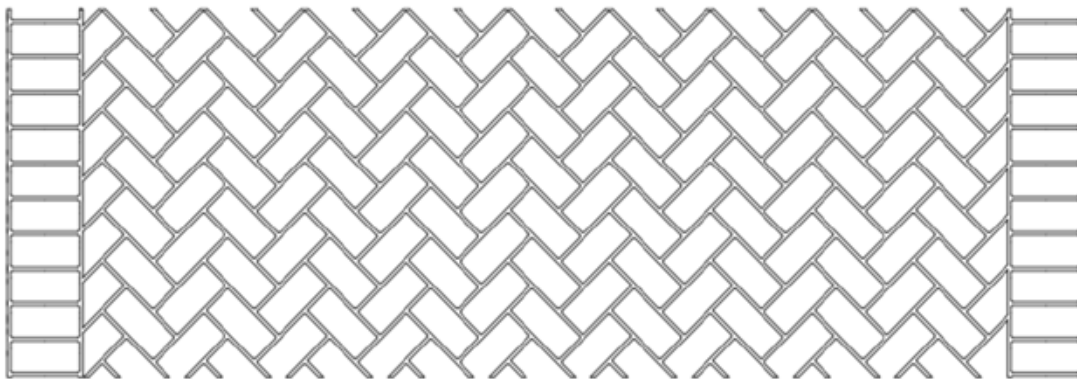
Measurement and Payment

Placement of Epoxy Patterned Overlay will be measured and paid for in square feet, which price shall be full compensation for surface preparation, pre-treatment, furnishing and placing the two coat overlay system, providing a 3 year guarantee, and all tools, labor, materials, maintenance and incidentals necessary to complete the work.

Payment will be made under:

Pay Item	Pay Unit
Placement of Epoxy Patterned Overlay	Square Foot

**Diagonal Herringbone with
Soldier Course Border**



Crosswalk Pattern shall be 6' wide between the 8" x 120 Mil White Thermoplastic Markings and shall be installed in accordance with Std. 1205.07 of 2012 *Standard Specifications*.

Color Choice: Brick Red (Color will need to be approved by the Engineer prior to installation).

County : Martin

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
ROADWAY ITEMS						
0001	0000100000-N	800	MOBILIZATION	Lump Sum	L.S.	
0002	0000950000-E	SP	GENERIC MISCELLANEOUS ITEM (EPOXY PATTERNED OVERLAY)	630 SF		
0003	1297000000-E	607	MILLING ASPHALT PAVEMENT, **** DEPTH (1.5")	71,050 SY		
0004	1519000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	5,986 TON		
0005	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	360 TON		
0006	2352000000-N	840	FRAME WITH GRATE, STD 840.**** (840.16)	3 EA		
0007	2473000000-N	SP	GENERIC DRAINAGE ITEM (REBUILD EXIST DRAINAGE STR)	3 EA		
0008	2549000000-E	846	2'-6" CONCRETE CURB & GUTTER	1,450 LF		
0009	2591000000-E	848	4" CONCRETE SIDEWALK	300 SY		
0010	2600000000-N	SP	RETROFIT EXISTING CURB RAMP	6 EA		
0011	2605000000-N	848	CONCRETE CURB RAMP	21 EA		
0012	2830000000-N	858	ADJUSTMENT OF MANHOLES	33 EA		
0013	2845000000-N	858	ADJUSTMENT OF METER BOXES OR VALVE BOXES	32 EA		
0014	4413000000-E	SP	WORK ZONE ADVANCE/GENERAL WARNING SIGNING	1,000 SF		
0015	4457000000-N	SP	TEMPORARY TRAFFIC CONTROL	Lump Sum	L.S.	
0016	4685000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)	6,200 LF		
0017	4686000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)	35,000 LF		
0018	4697000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (8", 120 MILS)	970 LF		

County : Martin

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0019	4705000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (16", 120 MILS)	100	LF	
0020	4710000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)	285	LF	
0021	4721000000-E	1205	THERMOPLASTIC PAVEMENT MARKING CHARACTER (120 MILS)	4	EA	
0022	4725000000-E	1205	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	54	EA	
0023	4810000000-E	1205	PAINT PAVEMENT MARKING LINES (4")	41,200	LF	
0024	4905000000-N	1253	SNOWPLOWABLE PAVEMENT MARKERS	400	EA	
0025	6012000000-E	1610	SEDIMENT CONTROL STONE	5	TON	
0026	6042000000-E	1632	1/4" HARDWARE CLOTH	50	LF	
0027	7300000000-E	1715	UNPAVED TRENCHING (*****) (1-1")	200	LF	
0028	7324000000-N	1716	JUNCTION BOX (STANDARD SIZE)	3	EA	
0029	7444000000-E	1725	INDUCTIVE LOOP SAWCUT	1,000	LF	
0030	7456000000-E	1726	LEAD-IN CABLE (*****) (14-2)	200	LF	

0813/Jun16/Q166547.0/D118329050000/E30

Total Amount Of Bid For Entire Project :

REVISED 6/16/17

PROJECT NO.	SHEET NO.
2017CPT.01.26.10581.1, 44828	5

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	MOBILIZATION LS	PLACEMENT OF EPOXY PATTERNED OVERLAY SF	1 1/2" MILLING SY	SURFACE COURSE, S9.5B TONS	ASPHALT BINDER FOR PLANT MIX TONS	FRAME WITH GRATE, STD 840.**** ^ EA	REBUILD EXISTING DRAINAGE STRUCTURE EA	2'-6" CURB & GUTTER LF	4" CONCRETE SIDEWALK SY	CONCRETE CURB RAMPS EA	RETROFIT EXISTING CURB RAMPS EA	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	SEDIMENT CONTROL STONE TON	1/4" HARDWARE CLOTH LF	WORK ZONE ADV/GEN WARN SIGN SF	TEMPORARY TRAFFIC CONTROL LS	UNPAVED TRENCHING (1 - 1") LF	JUNCTION BOX (STANDARD SIZE) EA	INDUCTIVE LOOP LF	LEAD-IN CABLE LF
2017CPT.01.26.10581.1	Martin	1	NC 903	SOUTH CITY LIMITS IN ROBERSONVILLE TO US 64 BYPASS	1	3	MU	NO	NO	1.72	38	1		40,250	3,393	204							22	23			500	1	200	3	1,000	200
2017CPT.01.26.10581.1	Martin	2	US 64 ALT	FROM WEST CITY LIMITS TO EAST CITY LIMITS IN ROBERSONVILLE	1	3	MU	NO	NO	1.35	37	*		30,800	2,593	156		250	100	15	6	11	9			500	*					
44828	Martin	3	NC 903	FROM NORTH RAILROAD TO SECOND STREET	2	2	MU	NO	NO	0.108	35	*	630				3.00	3	1,200	200	6				5	50		*				
GRAND TOTAL										3.178		1	630	71,050	5,986	360	3	3	1,450	300	21	6	33	32	5	50	1,000	1	200	3	1,000	200

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4" X 90 M WHITE THERMO LF	4" X 120 M YELLOW THERMO LF	8" X 120 M WHITE THERMO LF	8" X 120 M YELLOW THERMO LF	16" X 120 M WHITE THERMO LF	24" X 120 M WHITE THERMO LF	THERMO RXR 120 M EA	THERMO LT ARROW 90 M EA	THERMO RT ARROW 90 M EA	4" WHITE PAINT LF	4" YELLOW PAINT LF	SNOW PLOWABLE MARKERS EA
2017CPT.01.26.10581.1	Martin	1	NC 903	SOUTH CITY LIMITS IN ROBERSONVILLE TO US 64 BYPASS	1	3	MU	1.72	38	5,000	19,000		660	100	225	4	10	4	5,000	19,000	200
2017CPT.01.26.10581.1	Martin	2	US 64 ALT	FROM WEST CITY LIMITS TO EAST CITY LIMITS IN ROBERSONVILLE	1	3	MU	1.35	37	1,200	16,000		100		60		20	20	1,200	16,000	200
44828	Martin	3	NC 903	FROM NORTH RAILROAD TO SECOND STREET	2	2	MU	0.108	35			210									
GRAND TOTAL								3.178		6,200	35,000	210	760	100	285	4	30	24	6,200	35,000	400