

BEAUFORT COUNTY

RESURFACING CONTRACT:

DB00285 WBS: 2016CPT.02.45.10071.2

LOCATION:

MAP 1 - US-17-BUS FROM BEGIN C&G S. OF CHOCWINITY TO BEGIN BRIDGE NO. 25. MAP 2 - US-17-BUS FROM END BRIDGE NO. 25 TO US-264/5TH ST. IN WASHINGTON.

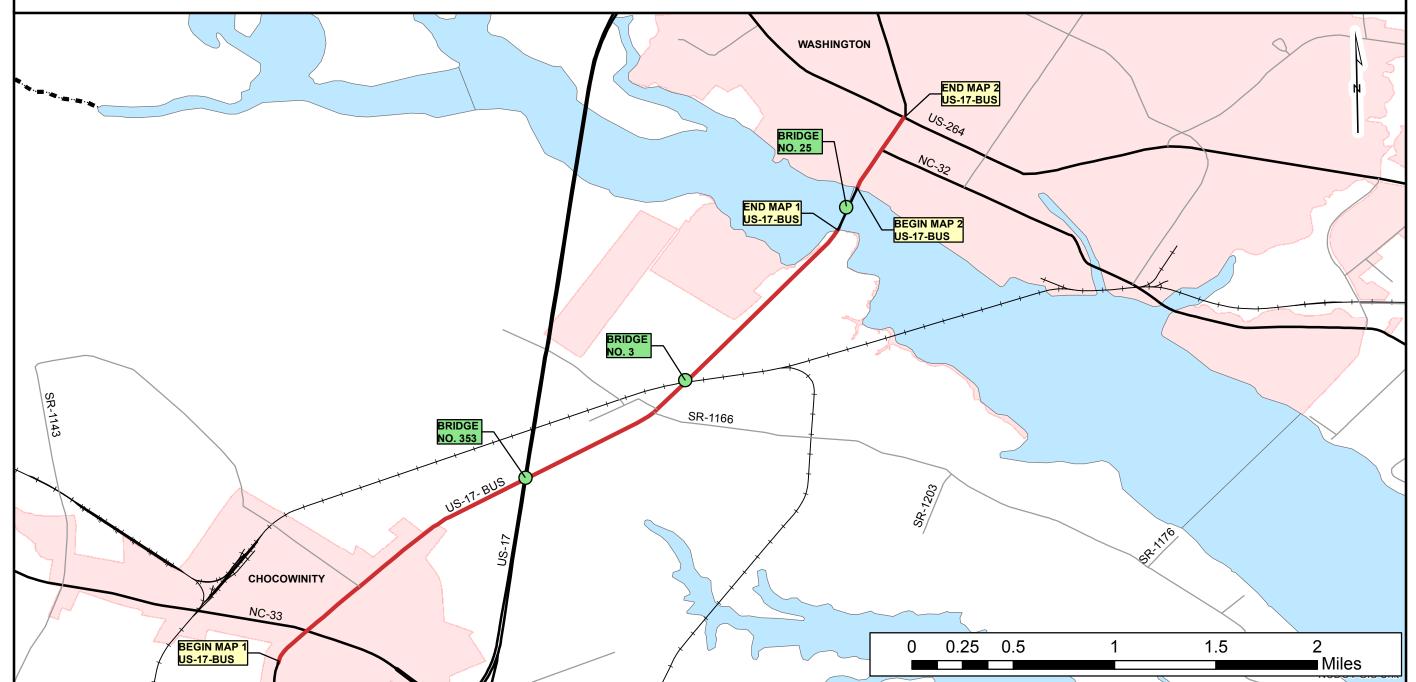
TYPE OF WORK: MILLING, RESURFACING & PAVEMENT MARKINGS.

 PROJECT REFERENCE NO.
 SHEET NO.

 2016CPT.02.45.10071.2
 1



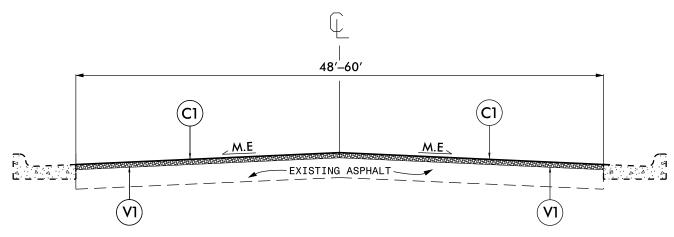
NCDOT DIVISION 2



PROJECT REFERENCE NO.	SHEET NO.
2016CPT.02.45.10071.2	2

TYPICAL SECTION NO. 1

MAP 1 – US-17 BUS 0+00 to 43+45+/-. MAP 1 – US-17 BUS 104+35+/- TO 112+80+/- (BEGIN BRIDGE NO. 3). MAP 1 – US-17 BUS 114+50+/- (END BRIDGE NO. 3) TO 124+70+/-.

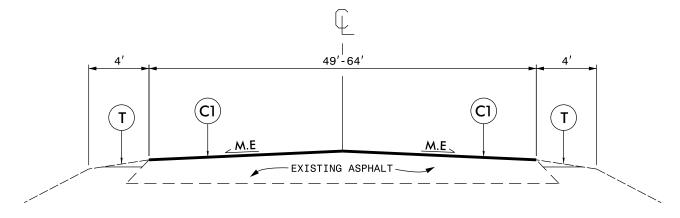


NOTE:

- 1. INCLUDED MILLING 134" FOR THE ENTIRE WIDTH OF THE ROADWAY, AS DIRECTED BY THE ENGINEER.
- 2. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
- 3. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE, Y-LINE AND BRIDGE APPROACHES OR AS DIRECTED BY THE ENGINEER. (SEE DETAIL 1 & 2, SHEET 5).
- 4. INCLUDES INSTALLATION OF CURB RAMPS W/ LANDING IN VARIOUS LOCATIONS, AS DIRECTED BY THE ENGINEER. SEE STD. DWG 848.05
- 5. INCLUDES RETROFITTING DETECTABLE WARNING DOMES ONTO EXISTING CURB RAMPS, AT VARIOUS LOCATIONS, AS DIRECTED BY THE ENGINEER

TYPICAL SECTION NO. 2

MAP 1 – US 17 BUS 43+45+/- TO 104+35+/-. MAP 1 – US 17 BUS 124+70+/- TO 158+69+/-.



NOTE:

- 1. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
- 2. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER. (SEE DETAIL 1, SHEET 5).

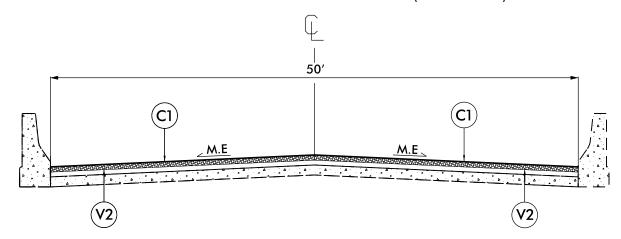
	PAVEMENT SCHEDULE											
C1	PROP. APPROX. 134" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 196 LBS. PER SQ. YD.											
Т	SHOULDER RECONSTRUCTION											
V1	MILLING DEPTH 134", FOR THE ENTIRE WIDTH OF THE ROADWAY.											
V4	INCIDENTAL MILLING, (SEE DETAIL 1, 2 & 3, SHEET 5).											
	DRAWINGS NOT TO SCALE											

NOTE: PAVEMENT EDGE SLOPES ARE I: IUNLESS SHOWN OTHERWISE.

PROJECT REFERENCE NO.	SHEET NO.
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TYPICAL SECTION NO. 3

MAP 1 - US-17 BUS 112 + 80 + / TO 114 + 50 + / (BRIDGE NO. 3).

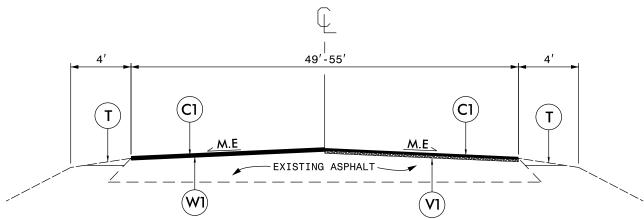


NOTE:

- 1. MILL 21/2" FOR THE ENTIRE WIDTH OF THE ROADWAY AT BRIDGE NO. 3, AS DIRECTED BY THE ENGINEER.
- 2. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
- 3. INCLUDES INCIDENTAL MILLING AT THE BRIDGE APPROACHES OR AS DIRECTED BY THE ENGINEER. (SEE DETAIL 3, SHEET 5).

TYPICAL SECTION NO. 4

MAP 1 – US 17 BUS 158+69+/- TO 164+65+/- (BEGIN BRIDGE NO. 25).



NOTE:

- 1. INLCUDES MILLING NBL OF EXISTING ASPHALT PAVEMENT, AS DIRECTED BY THE ENGINEER.
- 2. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
- 3. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE SECTIONS AND BRIDGE APPROACHES OR AS DIRECTED BY THE ENGINEER. (SEE DETAIL 1, 2 & 3, SHEET 5).
- 4. INCLUDES WEDGING COURSE ON SBL, AS DIRECTED BY THE ENGINEER.

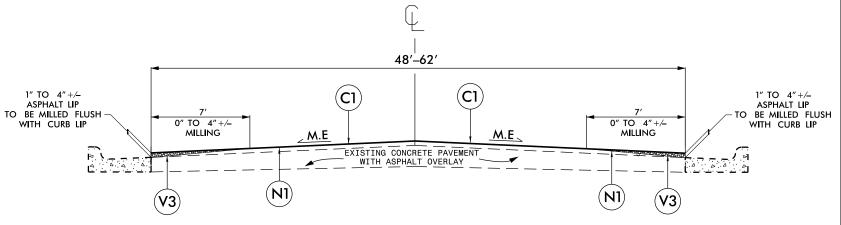
	PAVEMENT SCHEDULE
C1	PROP. APPROX. 134" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 196 LBS. PER SQ. YD.
Т	SHOULDER RECONSTRUCTION
V1	MILLING DEPTH 134", FOR THE ENTIRE WIDTH OF THE ROADWAY.
V2	MILLING DEPTH 2½", FOR THE ENTIRE WIDTH OF THE ROADWAY.
V4	INCIDENTAL MILLING (SEE DETAIL 1, 2 & 3, SHEET 5).
W1	VARIABLE DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS./SQ. YD./IN. (SEE WEDGING DETAIL, SHEET 5).
	DRAWINGS NOT TO SCALE

NOTE: PAVEMENT EDGE SLOPES ARE I: IUNLESS SHOWN OTHERWISE.

PROJECT REFERENCE NO.	SHEET NO.
2016CPT-02-45J0071.2	4

TYPICAL SECTION NO. 5

MAP 2 - US-17 BUS 0+00 +/- (END BRIDGE NO. 25) TO 20+05+/- (US-264/5TH ST).

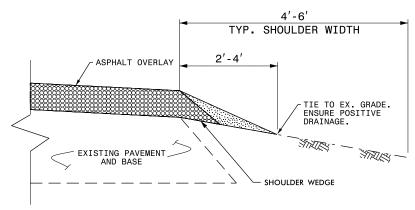


NOTE:

- 1. MILL 0" TO 4"+/- FOR 7' WIDE SECTION, TO OBTAIN A MINIMUM OF 134" MILLED DEPTH AT THE LIP OF CURB AND GUTTER, AS DIRECTED BY THE ENGINEER.
- 2. PLACE COMPOSITE PAVEMENT INTERLAYER MATTING FOR THE ENTIRE WIDTH OF THE ROADWAY.
- 3. PLACE ASPHALT SURFACE COURSE FOR THE ENTIRE WIDTH OF THE ROADWAY, AS DIRECTED BY THE ENGINEER.
- 4. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE, Y-LINE SECTIONS AND BRIDGE APPROACHES, AS DIRECTED BY THE ENGINEER. (SEE DETAIL 1 & 2, SHEET 5).
- 5. INCLUDES INSTALLATION OF CURB RAMPS W/ LANDING IN VARIOUS LOCATIONS, AS DIRECTED BY THE ENGINEER. SEE STD. DWG 848.05
- 6. INCLUDES RETROFITTING DETECTABLE WARNING DOMES ONTO EXISTING CURB RAMPS, AT VARIOUS LOCATIONS, AS DIRECTED BY THE ENGINEER. SEE STD. DWG 848.06.

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		PAVEMENT SCHEDULE
	C1	PROP. APPROX. 134" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 196 LBS. PER SQ. YD.
	N1	PROP. COMPOSITE PAVEMENT INTERLAYER. HIGH STRENGTH MATTING FOR THE ENTIRE WIDTH OF THE ROADWAY.
	V3	MILLING DEPTH O" TO 4"+/-, FOR A WIDTH AS SHOWN IN THE TYPICAL, FROM THE LIP OF THE CURB & GUTTER, OR AS DIRECTED BY THE ENGINEER.
	V4	INCIDENTAL MILLING (SEE DETAIL 1, 2 & 3, SHEET 5).
		DRAWINGS NOT TO SCALE

NOTE: PAVEMENT EDGE SLOPES ARE I: IUNLESS SHOWN OTHERWISE.

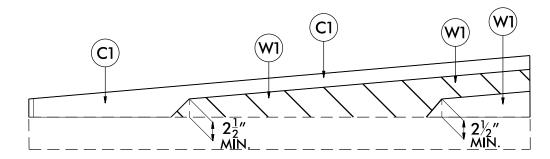


SHOULDER RECONSTRUCTION DETAIL

NOTE:

- 1. SHOULDERS SHALL BE RECONSTRUCTED AS SHOWN IN STD. DWG. NO. 560.01 & 560.02, WITH A MINIMUM SLOPE OF 1" PER FOOT TO ENSURE POSITIVE DRAINAGE AWAY FROM THE ROADWAY.
- 2. A VEGETATIVE BUFFER SHALL BE MAINTAINED BETWEEN THE DISTURBED AREA ALONG THE EDGE OF PAVEMENT AND THE DITCH SHOULDER POINT TO MINIMIZE EROSION. PULLING DITCHES OR CUTTING SHOULDERS TO GENERATE BORROW MATERIAL WILL NOT BE ALLOWED.

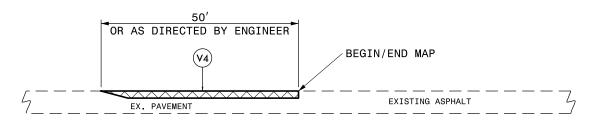
 3. REQUIRED BORROW MATERIAL MAY BE OBTAINED FROM NCDOT STOCKPILES.
- 3. REQUIRED BORROW MATERIAL MAY BE OBTAINED FROM NCDOT STOCKPILES. ANY EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR IN AN APPROVED DISPOSAL SITE.



Wedging Detail For Resurfacing

NOTE:

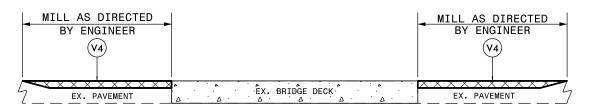
1. SEE TYPICAL SECTION NO. 4 FOR LOCATION OF WEDGING COURSE.



DETAIL 1 BEGIN/END MAP TIE-IN

NOTE:

MILLING SHALL BE PERFORMED AT MAIN LINE TIE-INS AND Y-LINE TIE-INS, AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.

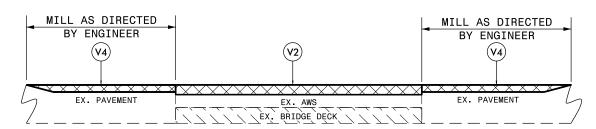


DETAIL 2

BRIDGE MILLING

NOTF:

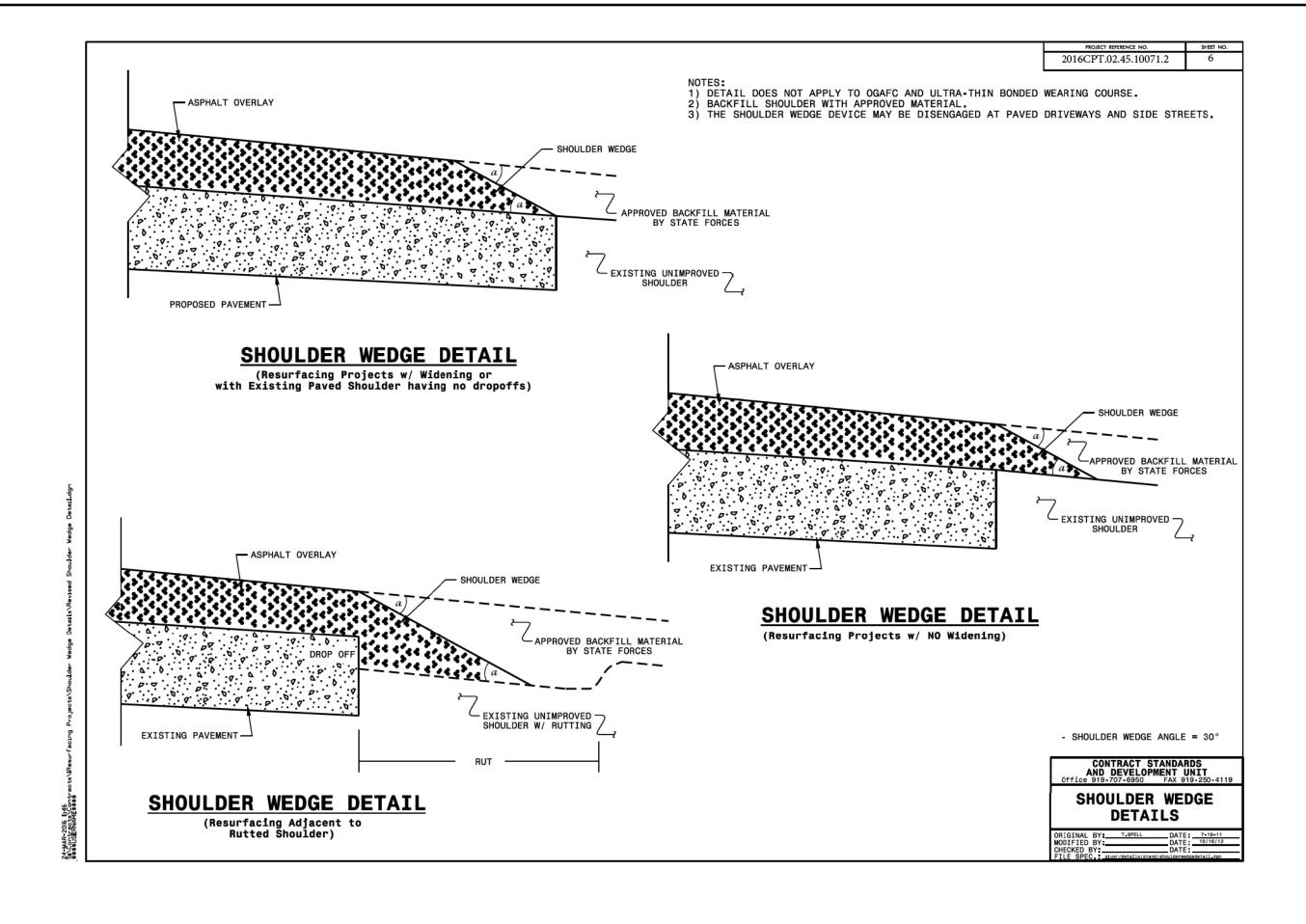
1. MILLING SHALL BE PERFORMED AT THE BRIDGE APPROACHS FOR BEAUFORT CO. BRIDGE NUMBER 25, AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.

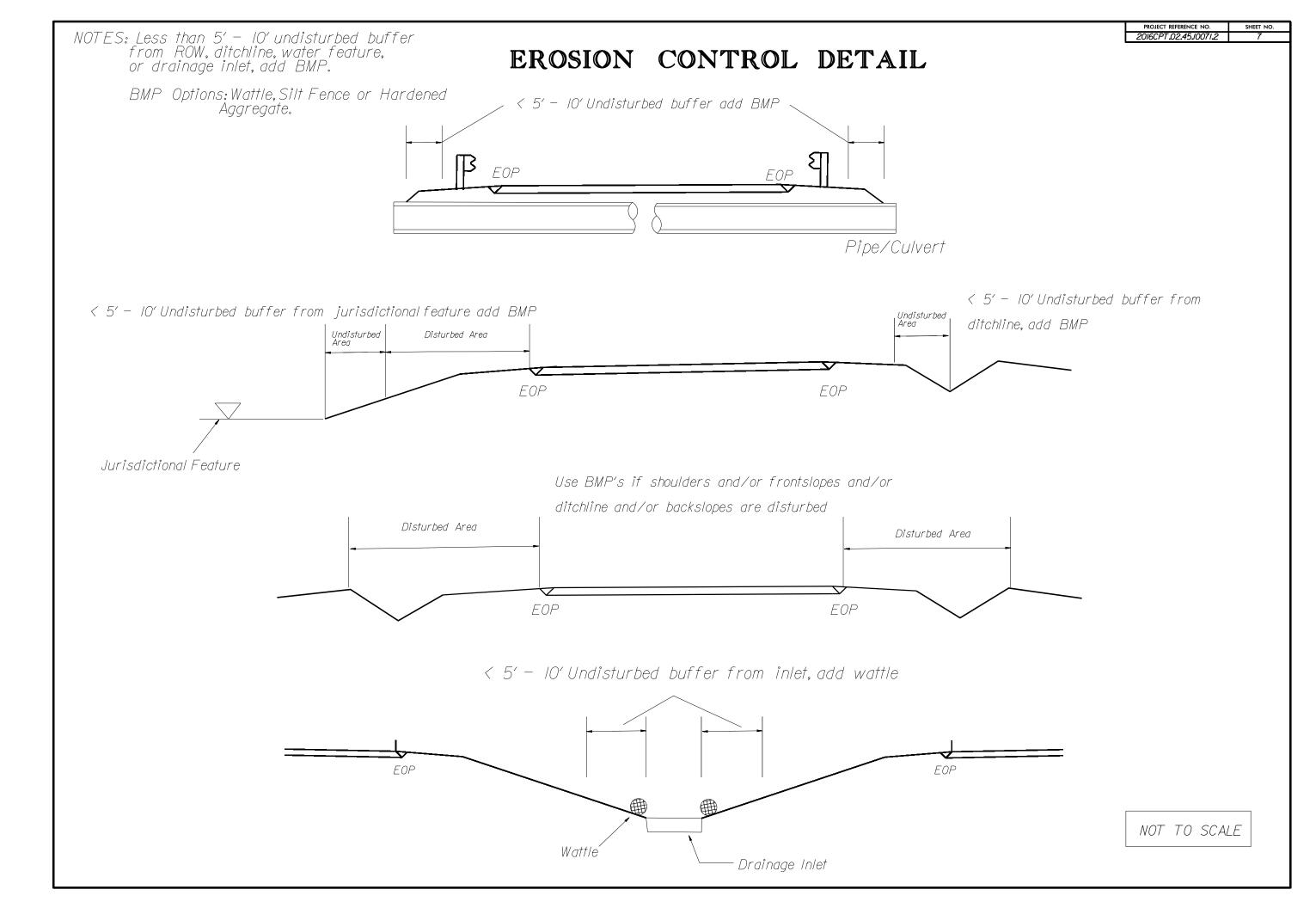


DETAIL 3 BRIDGE MILLING

NOTE:

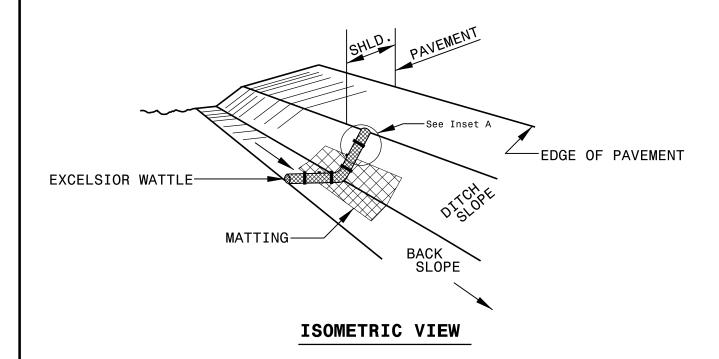
1. MILLING SHALL BE PERFORMED AT BEAUFORT CO. BRIDGE BRIDGE NUMBER 3, AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.

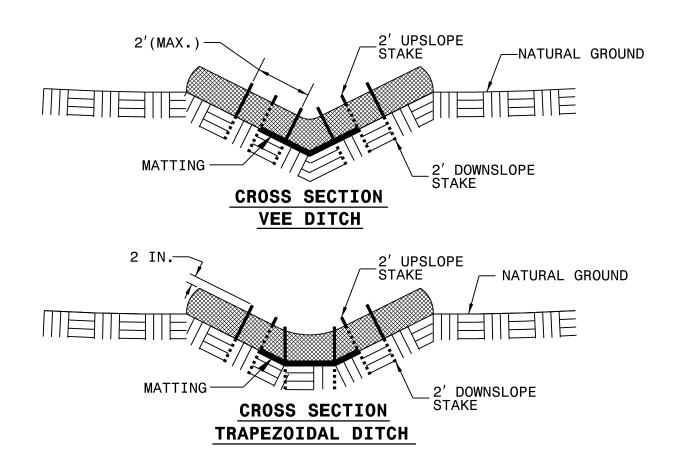




PROJECT REFERENCE NO. SHEET NO. 2016CPT 02.45,10071.2 8

WATTLE DETAIL





NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

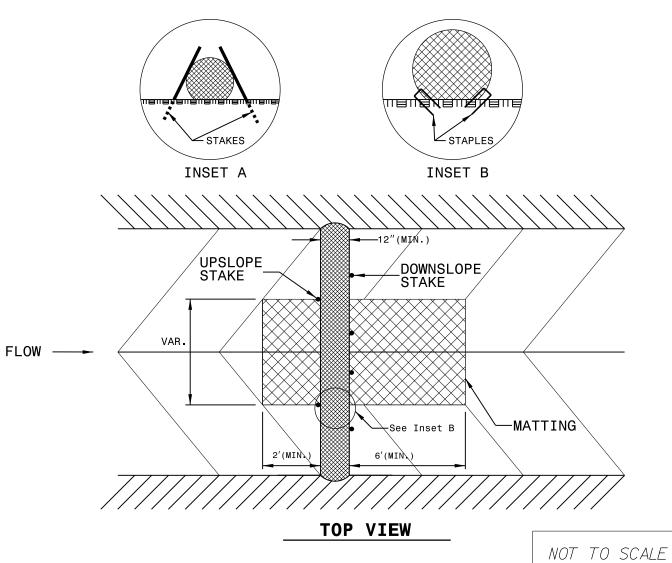
 $\underline{\text{ONLY}}$ INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



PROJECT REFERENCE NO.	SHEET NO.
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SUMMARY OF QUANTITIES

PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LANES	LANE	FINAL	WARM MIX	LENGTH	WIDTH	INCIDENTAL	SHOULDER	2.5"	1.75"	0"-4"	INCIDENTAL	INTERMEDIATE	SURFACE	ASPHALT BINDER	COMPOSITE PVMT
							TYPE	SURFACE	ASPHALT			STONE BASE	RECONSTRUCTION	MILLING	MILLING	MILLING	MILLING	COURSE,	COURSE,	FOR PLANT MIX	INTERLAYER -
								TESTING	REQUIRED									119.0B	9.5B		HIGH STRENGTH
								REQUIRED													
NO		NO			NO					MI	FT	TONS	SMI	SY	SY	SY	SY	TONS	TONS	TONS	SY
				FROM BEGIN C&G S. OF CHOCOWINITY																	
2016CPT.02.45.10071.2	Beaufort	1	US-17 BUS	TO US-264/5TH ST. IN WASHINGTON	1-4	4	MU	NO	NO	3.12	48-64	75	4	1,000	44,000		500	496	11,182	695	
TOTAL FOR MAP NO. 1										3.12		75	4	1,000	44,000		500	496	11,182	695	
				FROM END BRIDGE NO. 25																	
2016CPT.02.45.10071.2	Beaufort	2	US-17 BUS	TO US-264/5TH ST. IN WASHINGTON	5	4	MU	NO	NO	0.38	48-62					3,450	2,600		1,565	94	12,061
TOTAL FOR MAP NO. 2										0.38						3,450	2,600		1,565	94	12,061
TOTAL FOR PROJ NO. 201	6CPT.02.45	5.10071	.2							3.50		75	4	1,000	44,000	3,450	3,100	496	12,747	789	12,061
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GRAND TOTAL										3.50		75	4	1,000	44,000	3,450	3,100	496	12,747	789	12,061

PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LANES	LANE	FINAL	WARM MIX	LENGTH	WIDTH	CONCRETE	RETROFIT	CONC	REM &	ADJ. OF	ADJ. OF	TEMPORARY	WATTLE	SEED	RESPONSE FOR
							TYPE	SURFACE	ASPHALT			VALLEY	EXT CRB RMP	CURB	REPL	MANHOL	METER	SILT FENCE		&	EROSION CONTROL
								TESTING	REQUIRED			GUTTER		RAMP	2' 6" C&G	ES	OR VALVE			MULCHING	
								REQUIRED									вох				
NO		NO			NO					MI	FT	LF	EA	EA	LF	EA	EA	LF	LF	AC	EA
				FROM BEGIN C&G S. OF CHOCOWINITY																	
2016CPT.02.45.10071.2	Beaufort	1	US-17 BUS	TO US-264/5TH ST. IN WASHINGTON	1-4	4	MU	NO	NO	3.12	48-64							200.00	40.0	2.5	2
TOTAL FOR MAP NO. 1										3.12								200.00	40.0	2.5	2
				FROM END BRIDGE NO. 25																	
2016CPT.02.45.10071.2	Beaufort	2	US-17 BUS	TO US-264/5TH ST. IN WASHINGTON	5	4	MU	NO	NO	0.38	48-62	60.0	4	4	180.0	29	5				
TOTAL FOR MAP NO. 2										0.38		60.0	4	4	180.0	29	5				
TOTAL FOR PROJ NO. 201	6CPT.02.45	.10071	1.2							3.50		60.0	4	4	180.0	29	5	200.00	40.0	2.5	2
			•																•		
GRAND TOTAL										3.50		60.0	4	4	180.0	29	5	200.00	40.0	2.5	2

PROJECT REFERENCE NO.	SHEET NO.
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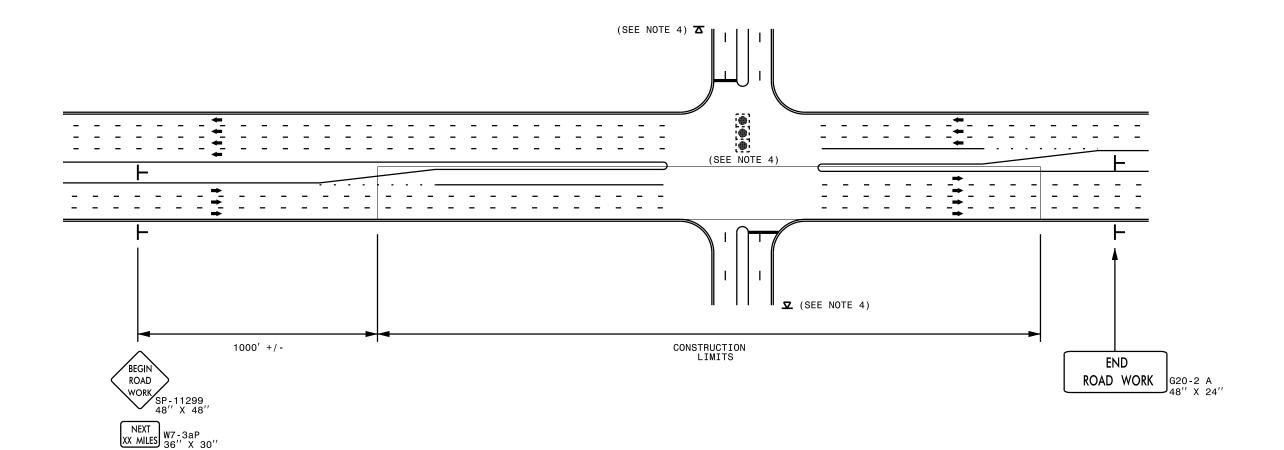
THERMOPLASTIC AND PAINT QUANTITIES

										4413000000-E	4457000000-N	4685000000-E	468600	00000-Е	469500	00000-E	4700000000-E	4702000000-E	4710000000-E	47210	00000-E		472500	0000-E	
PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LANES	LANE	LENGTH	WIDTH	WORK ZONE	TEMPORARY	4" X 90 M	4" X 120 M	4" X 120 M	8" X 90 M	8" X 90 M	12" X 90 M	12" X 120 M	24" X 120 M	THERMO MSG	THERMO MSG	THERMO LT	THERMO STR	THERMO RT	THERMO STR
		ΙI			1	l	TYPE			ADVANCE/GE	TRAFFIC	WHITE	YELLOW	WHITE	WHITE	YELLOW	WHITE	WHITE	WHITE	SCHOOL 120	ONLY 120 M	ARROW	ARROW	ARROW	& RT ARROW
		ΙI			1	l				NERAL	CONTROL	THERMO	THERMO	THERMO	THERMO	THERMO	THERMO	THERMO	THERMO	M		90 M	90 M	90 M	90 M
		ΙI			1	l				WARNING															
		ΙI			1	l				SIGNING															
NO		NO			NO	l			l	SF	LS	LF	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA
		П		FROM BEGIN C&G S. OF CHOCOWINITY																					
2016CPT.02.45.10071.2	Beaufort	1	US-17 BUS	TO US-264/5TH ST. IN WASHINGTON	1-4	4	MU	3.12	48-64	692	0.907	24,800	34,298	10,800	750	350	6,300	620	600	6	4	23	26	9	11
TOTAL FOR MAP NO. 1								3.12		692	0.907	24,800	34,298	10,800	750	350	6,300	620	600	6	4	23	26	9	11
				FROM END BRIDGE NO. 25																					
2016CPT.02.45.10071.2	Beaufort	2	US-17 BUS	TO US-264/5TH ST. IN WASHINGTON	5	4	MU	0.38	48-62	126	0.093		4,100	2,250	150			1,900	450			15	21		13
TOTAL FOR MAP NO. 2								0.38		126	0.093		4,100	2,250	150			1,900	450			15	21		13
TOTAL FOR PROJ NO. 20	16CPT.02.4	15.1007	1.2					3.50		818	1.000	24,800	38,398	13,050	900	350	6,300	2,520	1,050	6	4	38	47	9	24
													51,448		1,2	250				1	10		11	.8	
										_	_			_	_			_		_				_	
GRAND TOTAL								3.50		818	1.000	24,800	38,398	13,050	900	350	6,300	2,520	1,050	6	4	38	47	9	24
l											51,448		1,250					1	.0	_	11	.8			

										481000	00000-E	482000	0000-E	4825000000-E	4835000000-E	484000	0000-N		484500	00000-N		4905000000-N
PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LANES	LANE	LENGTH	WIDTH	4" WHITE	4" YELLOW	8" YELLOW	8" WHITE	12" WHITE	24" WHITE	PAINT MSG	PAINT MSG	PAINT LT	PAINT STR	PAINT RT	PAINT STR &	SNOW
		ll					TYPE			PAINT	PAINT	PAINT	PAINT	PAINT	PAINT	SCHOOL	ONLY	ARROW	ARROW	ARROW	RT ARROW	PLOWABLE
		ΙI																			1	MARKERS
NO		NO			NO					LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA
				FROM BEGIN C&G S. OF CHOCOWINITY																		
2016CPT.02.45.10071.2	Beaufort	1	US-17 BUS	TO US-264/5TH ST. IN WASHINGTON	1-4	4	MU	3.12	48-64	15,100	14,550	350	750	7,000	650	6	4	23	26	9	11	748
TOTAL FOR MAP NO. 1								3.12		15,100	14,550	350	750	7,000	650	6	4	23	26	9	11	748
				FROM END BRIDGE NO. 25																		
2016CPT.02.45.10071.2	Beaufort	2	US-17 BUS	TO US-264/5TH ST. IN WASHINGTON	5	4	MU	0.38	48-62					350	100				4		13	95
TOTAL FOR MAP NO. 2								0.38						350	100				4		13	95
TOTAL FOR PROJ NO. 201	6CPT.02.4	5.1007	1.2					3.50		15,100	14,550	350	750	7,350	750	6	4	23	30	9	24	843
										29,	650	1,1	100			1	.0	86				
GRAND TOTAL								3.50		15,100	14,550	350	750	7,350	750	6	4	23	30	9	24	843
										29,650		1,100					10		8			

2016CPT.02.45.10071.2 | |

URBAN / SUBURBAN WORKZONES



NOTES:

- 1) $48" \times 48"$ SIZED SIGNS (SP- 11299) MAY BE REDUCED TO $36" \times 36"$ ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
- 3) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
- 4) MAY USE LAW ENFORCEMENT TO CONTROL TRAFFIC AT SIGNALIZED INTERSECTIONS AS DIRECTED BY THE ENGINEER. PROVIDE PORTABLE "ROAD WORK AHEAD" (W20-1) SIGNS 500' IN ADVANCE ALONG BOTH APPROACHES FROM THE SIDE STREETS WHEN PAVING PROCEEDS THROUGH THE INTERSECTION.
- 5) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 2' AS MEASURED FROM THE EDGE OF PAVEMENT OR THE FACE OF THE CURB. WHEN UNABLE TO OBTAIN THE LATERAL CLEARANCE WITHIN THE MEDIAN AREA USE SHOULDER MOUNTS ONLY.
- 6) SIGN MOUNT LOCATIONS SHALL NOT BLOCK SIDEWALKS OR DRIVEWAYS.
- 7) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 8) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER WHERE LATERAL CLEARANCE CAN BE OBTAINED WITHIN THE MEDIAN AREAS.THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND ► STATIONARY SIGN → DIRECTION OF TRAFFIC FLOW



RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES