

LENOIR COUNTY

DB00517

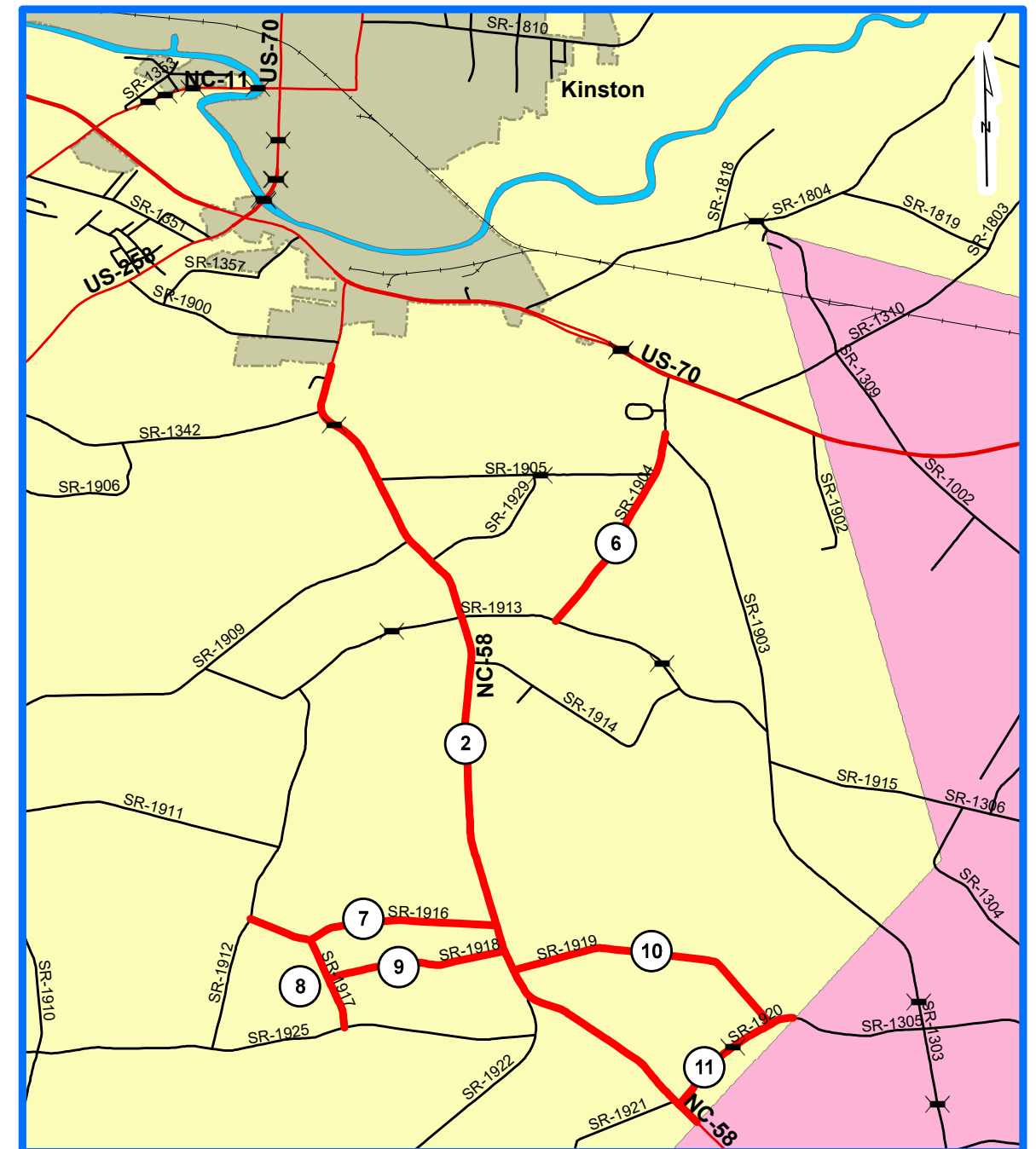
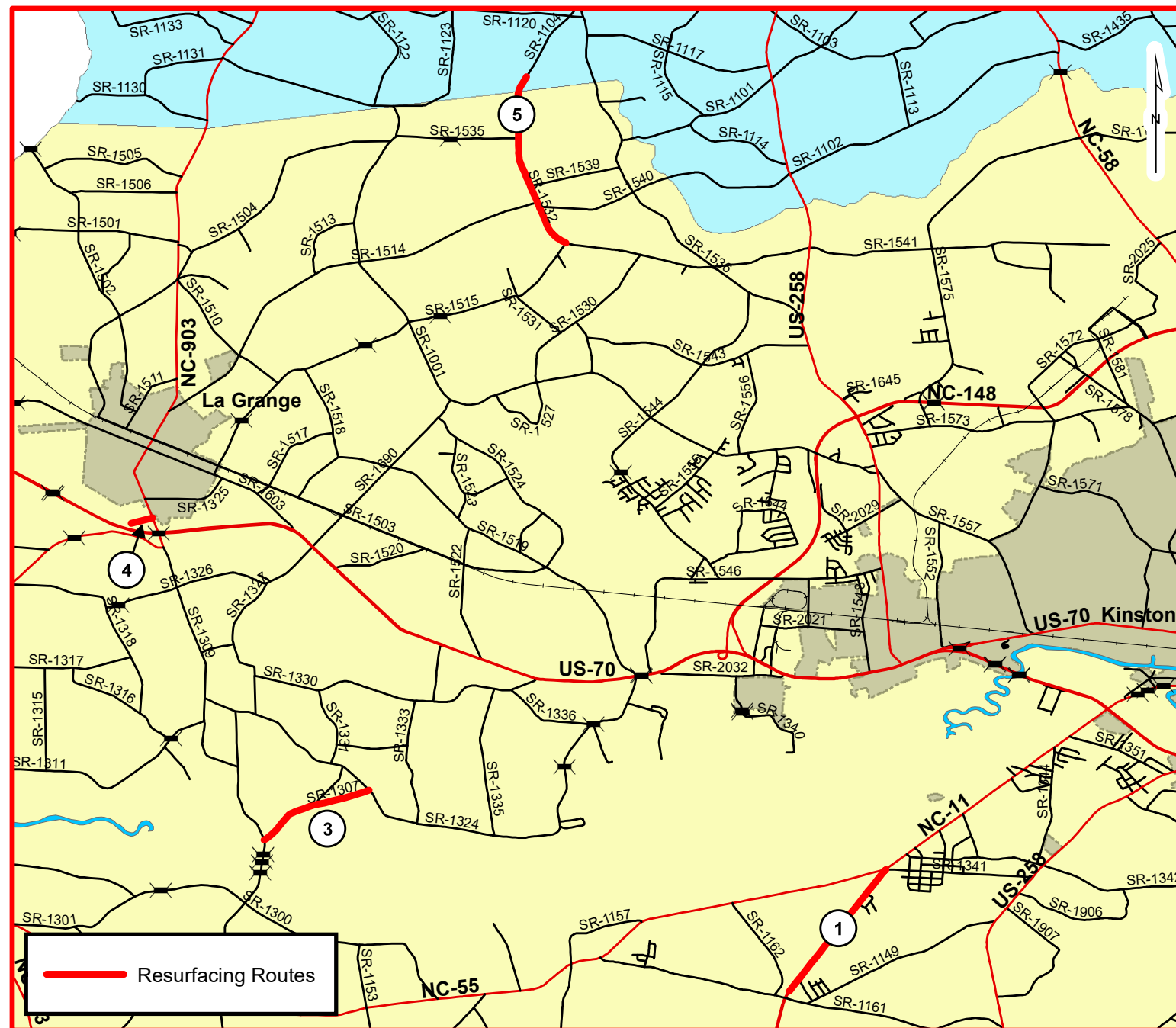
WBS# 2022CPT.02.16.10541
2022CPT.02.17.20541

TYPE OF WORK: MILLING, RESURFACING, STRENGTHENING, SHOULDER RECONSTRUCTION

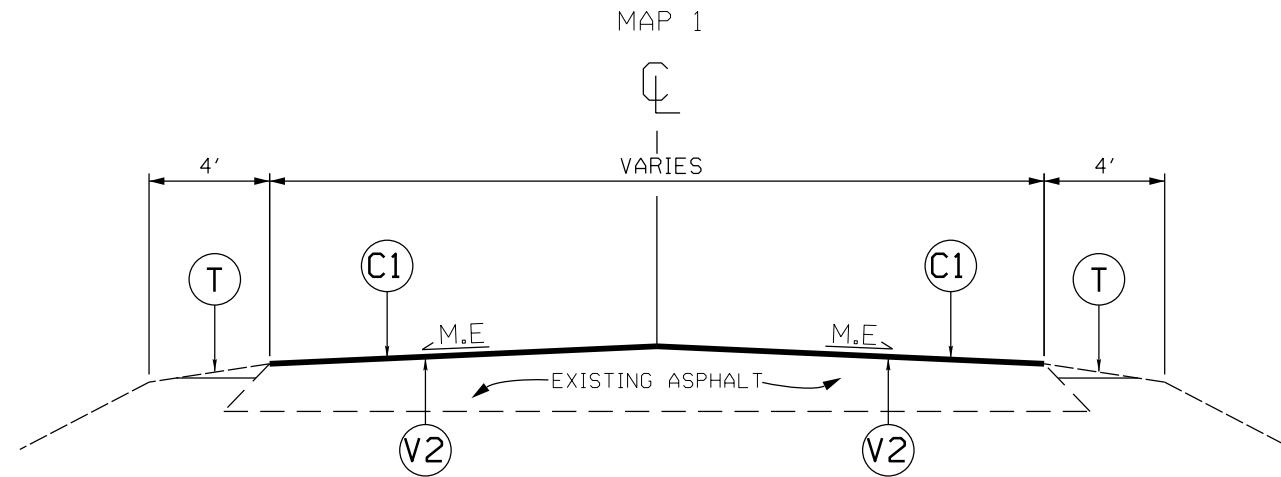
PROJECT REFERENCE NO. DB00517	SHEET NO. 1
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NCDOT
DIVISION 2



TYPICAL SECTION NO. 1



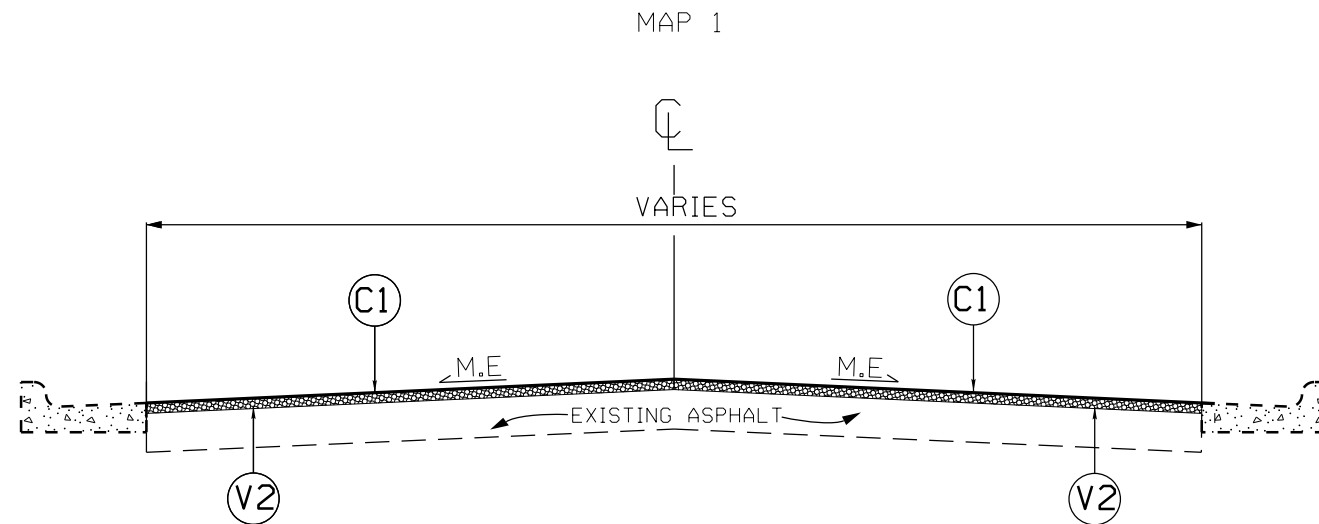
NOTE:

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.
3. PERFORM SHOULDER RECONSTRUCTION AFTER PAVING IS COMPLETED.

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C3	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 285.0 LBS. PER SQ. YD.
V1	INCIDENTAL MILLING
V2	MILLING DEPTH 1.5" FOR THE ENTIRE WIDTH OF ROADWAY
T	SHOULDER RECONSTRUCTION
DRAWINGS NOT TO SCALE	

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

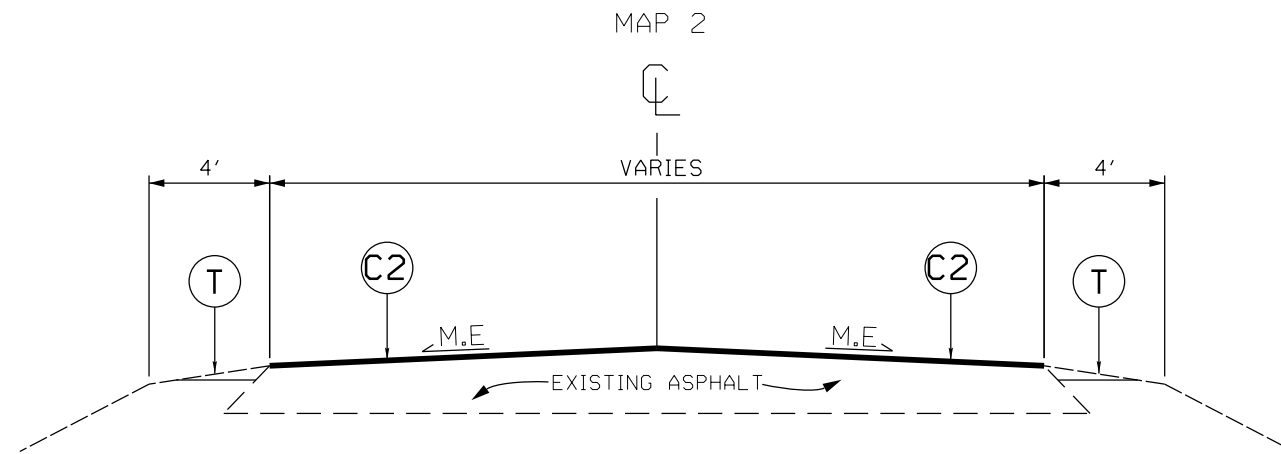
TYPICAL SECTION NO. 2



NOTE:

1. PERFORM 1.5" DEPTH MILLING FROM CURB AND GUTTER TO CURB AND GUTTER, FULL WIDTH.
2. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT, AS DIRECTED BY THE ENGINEER.
3. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER.

TYPICAL SECTION NO. 3



NOTE:

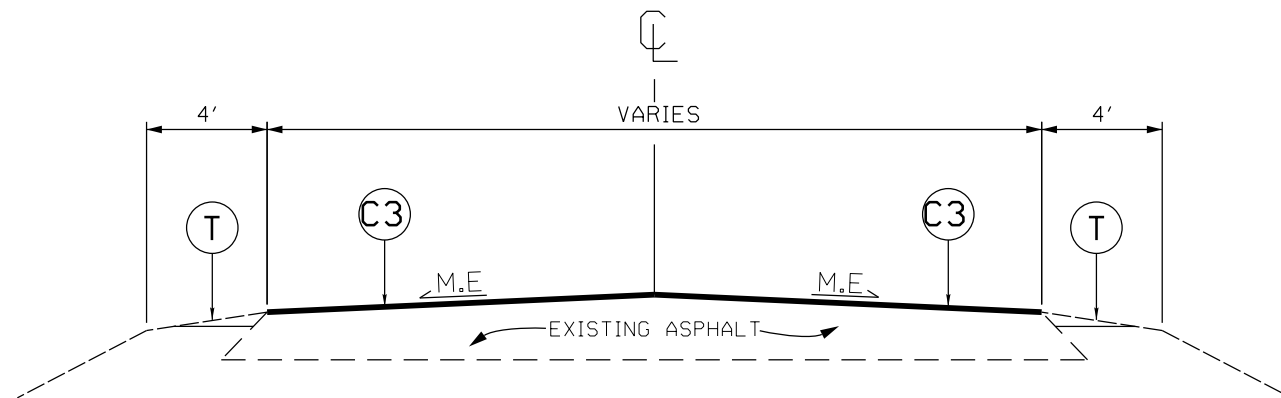
1. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
2. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER.
3. PERFORM SHOULD RECONSTRUCTION AFTER PAVING IS COMPLETED.

PAVEMENT SCHEDULE	
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C3	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 285.0 LBS. PER SQ. YD.
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T	SHOULDER RECONSTRUCTION
DRAWINGS NOT TO SCALE	

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

TYPICAL SECTION NO. 4

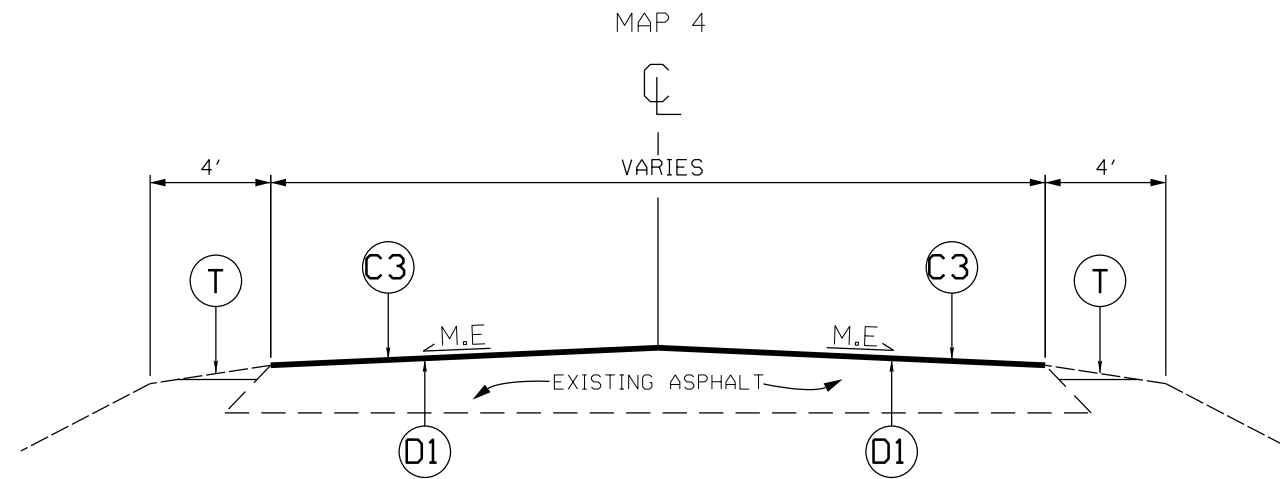
MAP 3,5,6,7,8,9,10,11



NOTE:

1. PERFORM 4" DEPTH MILL PATCHING AT LOCATIONS AND WIDTHS AS SHOWN ON SHEET 5. PLACE ASPHALT BASE COURSE B25.0C IN ONE LIFT TO BACKFILL.
2. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
3. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER.
4. PERFORM SHOULD RECONSTRUCTION AFTER PAVING IS COMPLETED.

TYPICAL SECTION NO. 5



NOTE:

1. PLACE ASPHALT INTERMEDIATE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
2. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
3. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER.
4. PERFORM SHOULDER RECONSTRUCTION AFTER PAVING IS COMPLETED.

PAVEMENT SCHEDULE

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D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 285.0 LBS. PER SQ. YD.
V1	INCIDENTAL MILLING
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T	SHOULDER RECONSTRUCTION
DRAWINGS NOT TO SCALE	

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

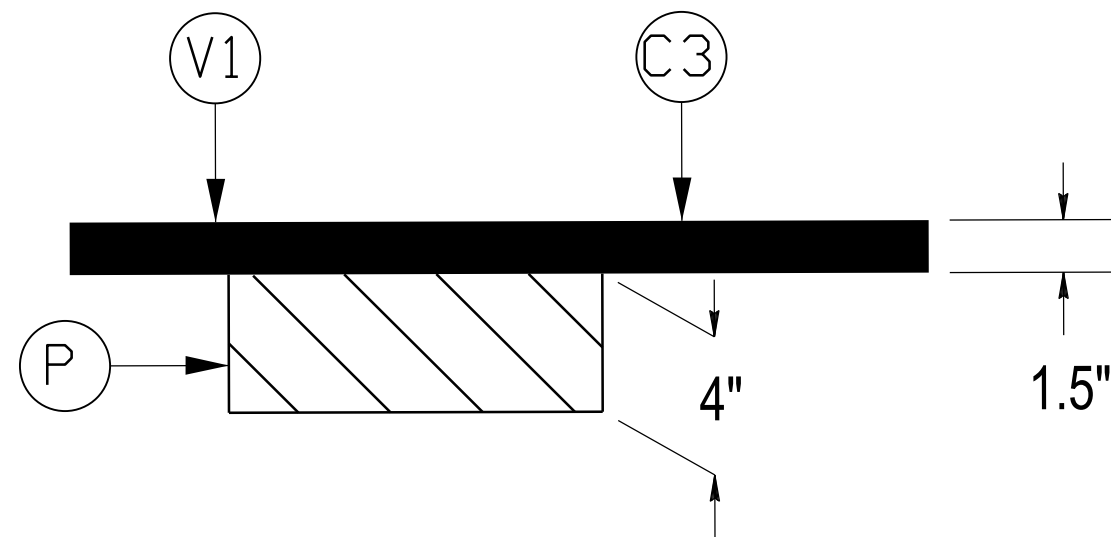
PROJECT NO. DB00517	SHEET NO. 5	TOTAL NO.
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SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	0262000000-N	1220000000-E	1245000000-E	1297000000-E	1330000000-E	1503000000-E	1519000000-E	1523000000-E	1575000000-E	1880000000-E	2845000000-N	6000000000-E	6071010000-E	6084000000-E	6117000000-N	4413000000-E	4457000000-N			
												HAULING NCDOT SUPPLIED SHOULDER MATERIAL	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	1 1/2" MILLING	INCIDENTAL MILLING	INTERMEDIATE COURSE, 119.0C	SURFACE COURSE, 59.5B	SURFACE COURSE, 59.5C	ASPHALT BINDER FOR PLANT MIX	4" DEPTH MILL PATCHING EXISTING PAVEMENT - B 25.0 C	ADJ. OF METER OR VALVE BOX	TEMPORARY SILT FENCE	WATTLE	SEED & MULCHING	RESPONSE FOR EROSION CONTROL	WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL			
												MI	FT	EA	TONS	SMI	SY	SY	TONS	TONS	TONS	TONS	TON	EA	LF	LF	AC	EA	SF	LS	
2022CPT.02.16.10541	Lenoir	1	NC 11	FROM 1045' NORTH OF SR 1161 (ALBRITTONS RD) TO NC 55	1 & 2	2	MU	NO	NO	1.88	65		94		85,000	500			7,200	432								250	0.10		
TOTAL FOR MAP NO. 1												1.88			94		85,000	500			7,200	432						250	0.10		
2022CPT.02.16.10541	Lenoir	2	NC 58	FROM JONES CO. LINE TO 400' SOUTH OF SR 1900	3	2	2WU	NO	NO	6.67	28	267	334	13.34		1,000			15,000	900			1,067	100	6.67	1	750	0.36			
TOTAL FOR MAP NO. 2												6.67		267	334	13.34		1,000			15,000	900		1,067	100	6.67	1	750	0.36		
TOTAL FOR PROJ NO. 2022CPT.02.16.10541												8.55		267	428	13.34	85,000	1,500			22,200	1,332		1,067	100	6.67	1	1,000	0.46		
2022CPT.02.17.20541	Lenoir	3	SR 1307 PINE BUSH RD	FROM SR 1389 TO SR 1324	4	2	2WU	NO	NO	1.36	20	54	68	2.72		500			1,400	94	1,000		218	100	1.36	1	200	0.07			
TOTAL FOR MAP NO. 3												1.36		54	68	2.72		500			1,400	94	1,000		218	100	1.36	1	200	0.07	
2022CPT.02.17.20541	Lenoir	4	SR 1378 PACKHOUSE RD	FROM END MAINT. TO NC 903	5	2	2WU	NO	NO	0.25	20	10	13	0.50		500	500		300	44			40		0.25		30	0.01			
TOTAL FOR MAP NO. 4												0.25		10	13	0.50		500	500		300	44		40		0.25		30	0.01		
2022CPT.02.17.20541	Lenoir	5	SR1532 - BRYAN HARDY RD	FROM SR 1541 TO GREENE CO. LINE	4	2	2WU	NO	NO	2.19	20	88	110	4.38		500			2,500	168	500			100	2.19	1	250	0.10			
TOTAL FOR MAP NO. 5												2.19		88	110	4.38		500			2,500	168	500			100	2.19	1	250	0.10	
2022CPT.02.17.20541	Lenoir	6	SR1904 WHALEY RD	FROM SR 1913 TO SR 1903	4	2	2WU	NO	NO	1.57	20	63	79	3.14		500			1,700	114			251	60	1.57		200	0.07			
TOTAL FOR MAP NO. 6												1.57		63	79	3.14		500			1,700	114		251	60	1.57		200	0.07		
2022CPT.02.17.20541	Lenoir	7	SR 1916 RUSTY LEE RD	FROM SR 1912 TO NC 58	4	2	2WU	NO	NO	1.61	20	64	81	3.22		500			1,700	114			258	60	1.61		200	0.07			
TOTAL FOR MAP NO. 7												1.61		64	81	3.22		500			1,700	114		258	60	1.61		200	0.07		
2022CPT.02.17.20541	Lenoir	8	SR 1917 BILLY BECTON RD	FROM SR 1925 TO SR 1916	4	2		NO	NO	0.70	20	28	35	1.40		500			800	54	150		112	40	0.70		100	0.03			
TOTAL FOR MAP NO. 8												0.70		28	35	1.40		500			800	54	150		112	40	0.70		100	0.03	
2022CPT.02.17.20541	Lenoir	9	SR 1918 DALLAS TURNER RD	FROM NC 58 TO SR 1917	4	2	2WU	NO	NO	1.15	20	46	57	2.30		500			1,300	87			184	40	1.15		150	0.05			
TOTAL FOR MAP NO. 9												1.15		46	57	2.30		500			1,300	87		184	40	1.15		150	0.05		
2022CPT.02.17.20541	Lenoir	10	SR 1919 JOE WILLIAMS RD	FROM SR 1920 TO NC 58	4	2	2WU	NO	NO	1.91	20	76	96	3.82		500			2,000	134			306	80	1.91		250	0.09			
TOTAL FOR MAP NO. 10												1.91		76	96	3.82		500			2,000	134		306	80	1.91		250	0.09		
2022CPT.02.17.20541	Lenoir	11	SR 1920 COPELAND FARM RD	FROM NC 58 TO JONES CO LINE	4	2	2WU	NO	NO	1.02	20	41	51	2.04		500	1,000		1,000	67	20			163	40	1.02		150	0.05		
TOTAL FOR MAP NO. 11												1.02		41	51	2.04		500	1,000		1,000	67	20		163	40	1.02		150	0.05	
TOTAL FOR PROJ NO. 2022CPT.02.17.20541												11.76		470	590	23.52		5,000	5,000		12,700	876	1,670	1	1,532	520	11.76	2	1,530	0.54	
GRAND TOTAL												20.31		737	1,018	36.86		85,000	6,500	500	12,700	22,200	2,208	1,670	1	2,599	620	18.43	3	2,530	1

4" MILL PATCH	STA.	STA.	WIDTH	MAP
	7+82	9+53	10' RT	3
	28+55	30+22	10' LT	3
	28+55	30+85	10' RT	3
	46+42	47+46	10' LT	3
	56+61	57+45	10' RT	3
	69+03	69+97	7' RT	3
	71+06	71+68	10' RT	3
	34+72	34+83	7' LT	5
	40+45	42+20	10' RT	5
	52+32	52+86	7' LT	5
	54+80	55+61	7' LT	5
	54+96	55+14	7' RT	5
	84+31	85+24	7' RT	5
	85+65	90+78	10' LT	5
	87+32	90+27	7' RT	5
	92+42	93+26	10' LT	5
	101+14	102+18	7' RT	5
	102+18	104+22	10' RT	5
	102+96	104+22	10' LT	5
	4+57	6+95	7' LT	8
	6+95	8+03	20'	8
	9+18	10+05	7' RT	11

4" DEPTH MILL PATCHING DETAIL MAP 3,5,8,11



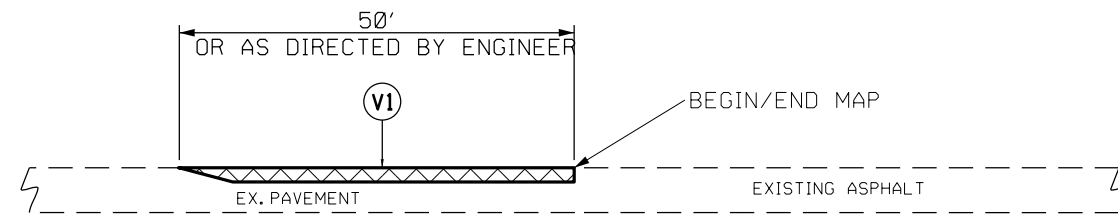
PAVEMENT SCHEDULE	
C3	PROP. APPROX. 1.5' ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
V1	INCIDENTAL MILLING.
P	4" DEPTH MILL PATCHING W/ B25.0C
DRAWINGS NOT TO SCALE	

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

NOTE:

1. THE CONTRACTOR SHALL PERFORM ANY UNIFORM OR INCIDENTAL MILLING AT TIE-INS BEFORE PERFORMING THE 4" DEPTH MILL PATCHING.
2. THE CONTRACTOR SHALL PERFORM THE MILL PATCHING REMOVAL AND REPLACEMENT IN THE SAME DAY.
3. 4" DEPTH MILL PATCHING SHALL BE PERFORMED AT LOCATIONS AS SHOWN ON SHEET 5, AND AS DIRECTED BY THE ENGINEER.

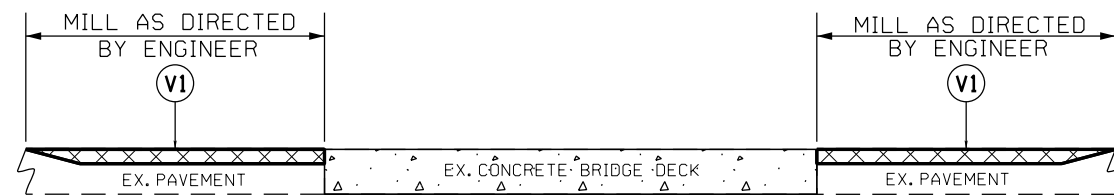
MILLING TYPICALS



DETAIL 1
BEGIN/END MAP TIE-IN

NOTE:

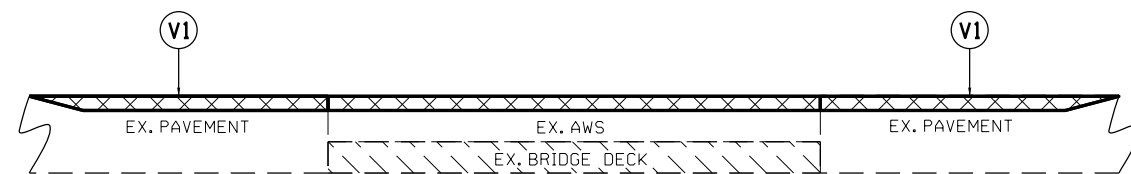
- MILLING SHALL BE PERFORMED AT MAIN LINE TIE-INS AND Y-LINE TIE-INS AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.



DETAIL 2
BRIDGE MILLING

NOTE:

- MILLING SHALL BE PERFORMED AT THE BRIDGE APPROACHES AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.

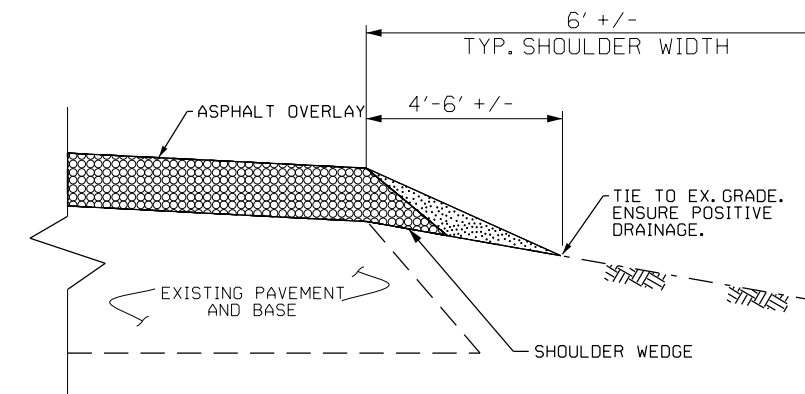


DETAIL 3
BRIDGE MILLING

NOTE:

- INCLUDES MILLING FOR THE ENTIRE WIDTH OF THE BRIDGE WEARING SURFACE, AS DIRECTED BY THE ENGINEER.

SHOULDER RECONSTRUCTION TYPICAL

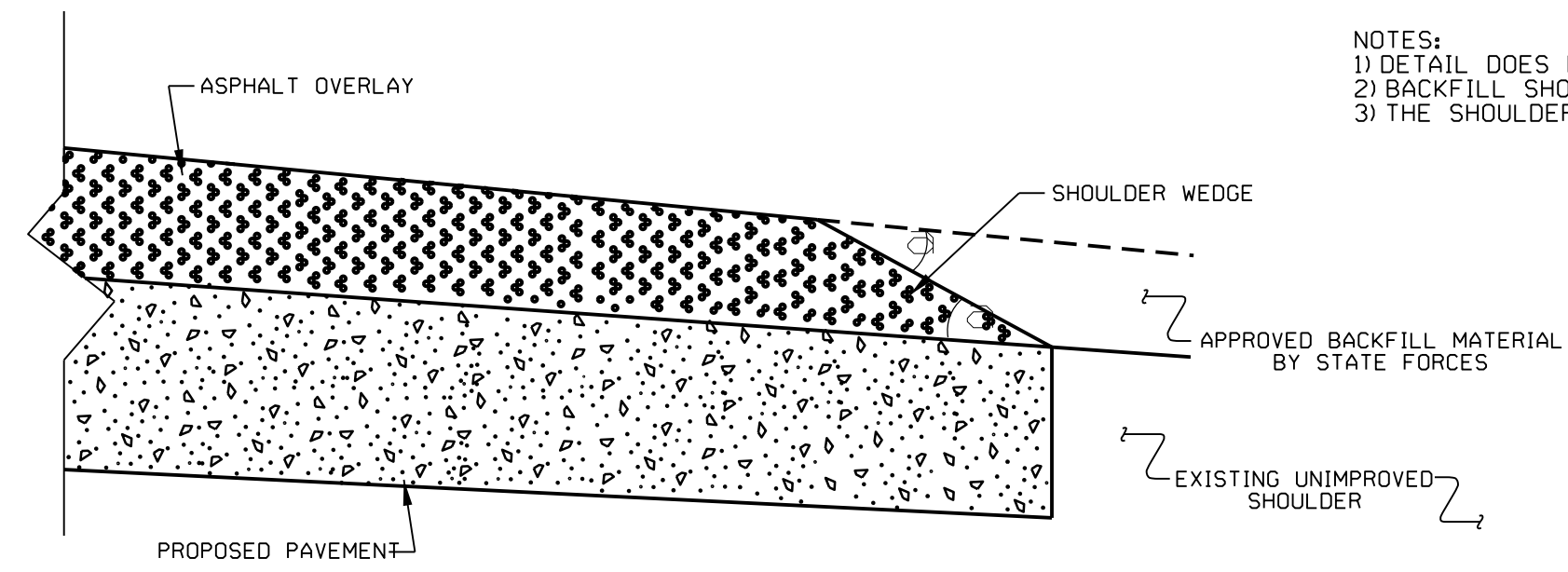


SHOULDER RECONSTRUCTION DETAIL

NOTE:

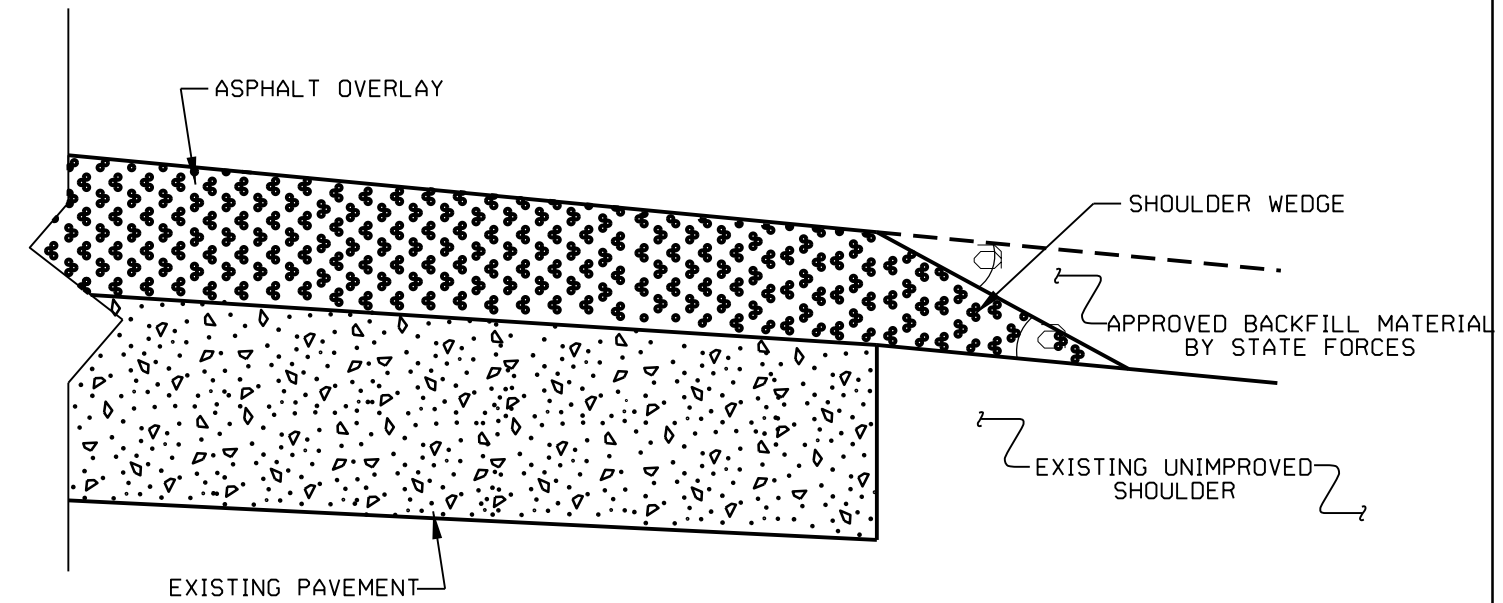
- SHOULDERS SHALL BE RECONSTRUCTED AS SHOWN IN STD. DWG. NO. 560.01 & 560.02, WITH A MINIMUM SLOPE OF 1" PER FOOT TO ENSURE POSITIVE DRAINAGE AWAY FROM THE ROADWAY.
- A VEGETATIVE BUFFER SHALL BE MAINTAINED BETWEEN THE DISTURBED AREA ALONG THE EDGE OF PAVEMENT AND THE DITCH SHOULDER POINT TO MINIMIZE EROSION. PULLING DITCHES OR CUTTING SHOULDERS TO GENERATE BORROW MATERIAL WILL NOT BE ALLOWED.
- REQUIRED BORROW MATERIAL MAY BE OBTAINED FROM NCDOT STOCKPILES. ANY EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR IN AN APPROVED DISPOSAL SITE.

NOTES:
 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



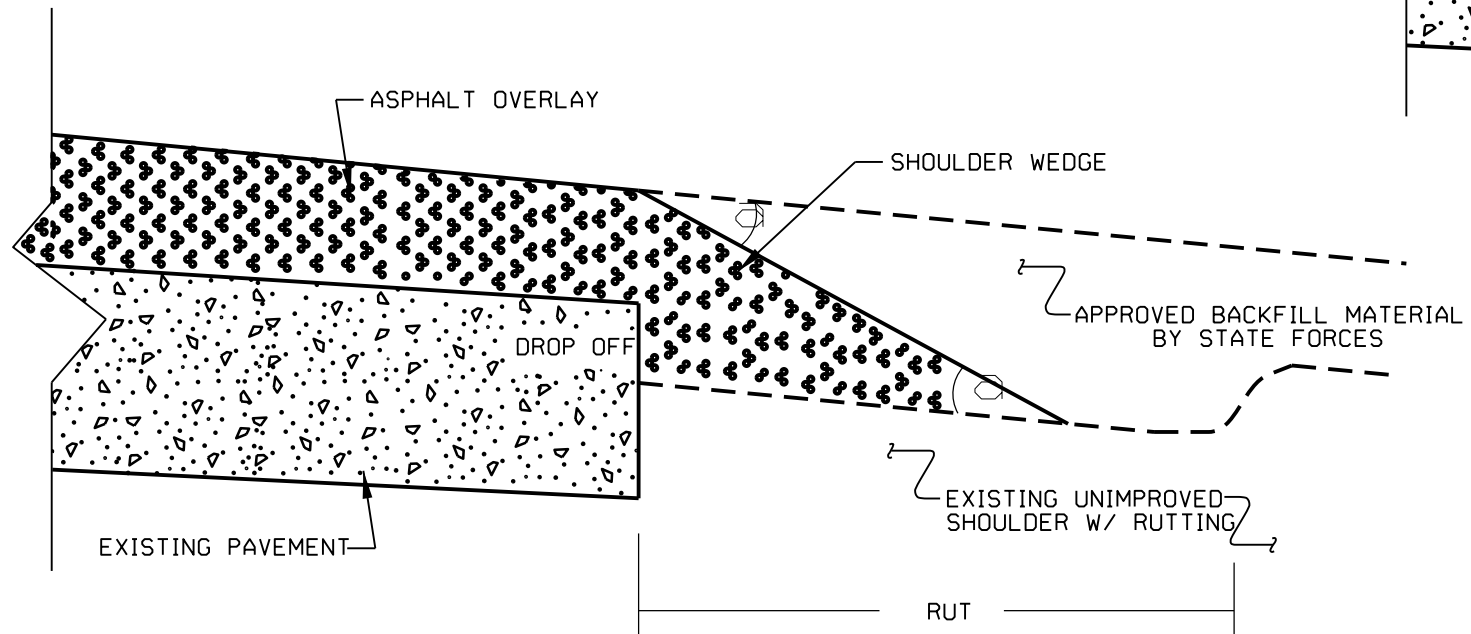
SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ Widening or with Existing Paved Shoulder having no dropoffs)



SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ NO Widening)



SHOULDER WEDGE DETAIL

(Resurfacing Adjacent to Rutted Shoulder)

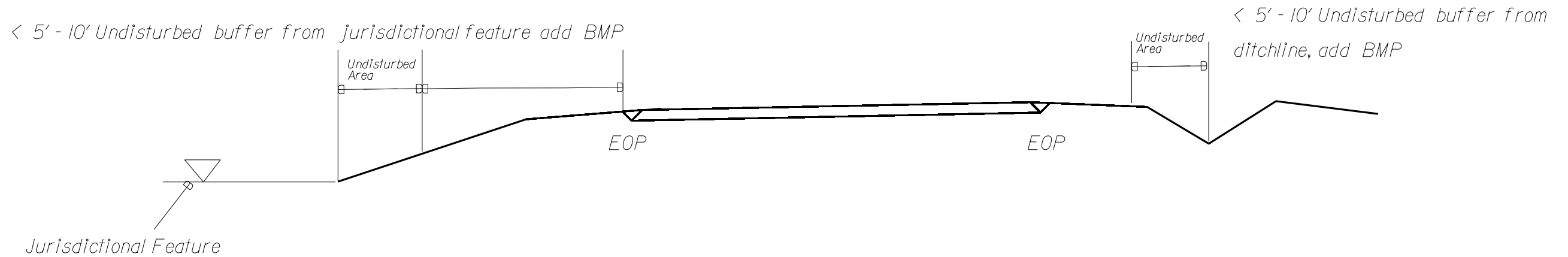
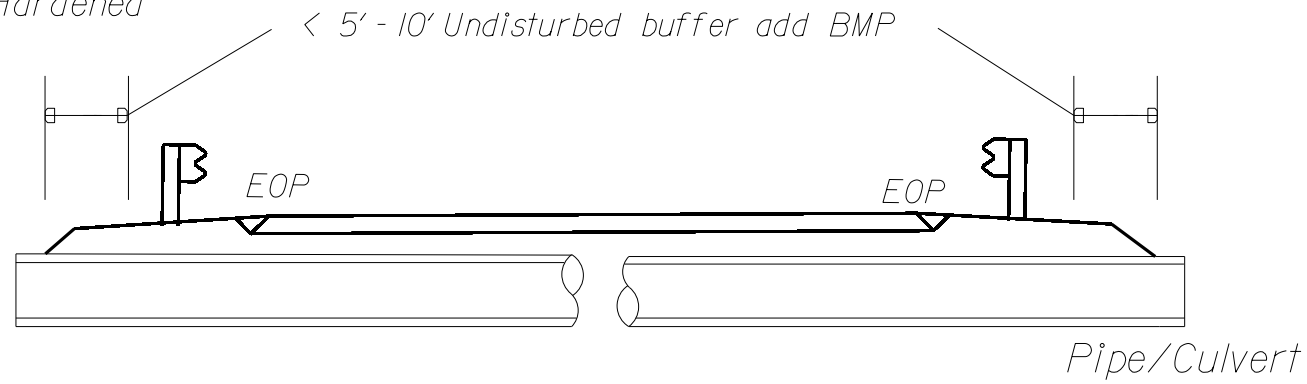
- SHOULDER WEDGE ANGLE = 30°

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
SHOULDER WEDGE DETAILS	
ORIGINAL BY: T.SPELL	DATE: 7-19-11
MODIFIED BY:	DATE: 10/16/12
CHECKED BY:	DATE:
FILE SPEC: swwr/details/stand/shoulder-wedgedetail.dgn	

NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle, Silt Fence or Hardened Aggregate.

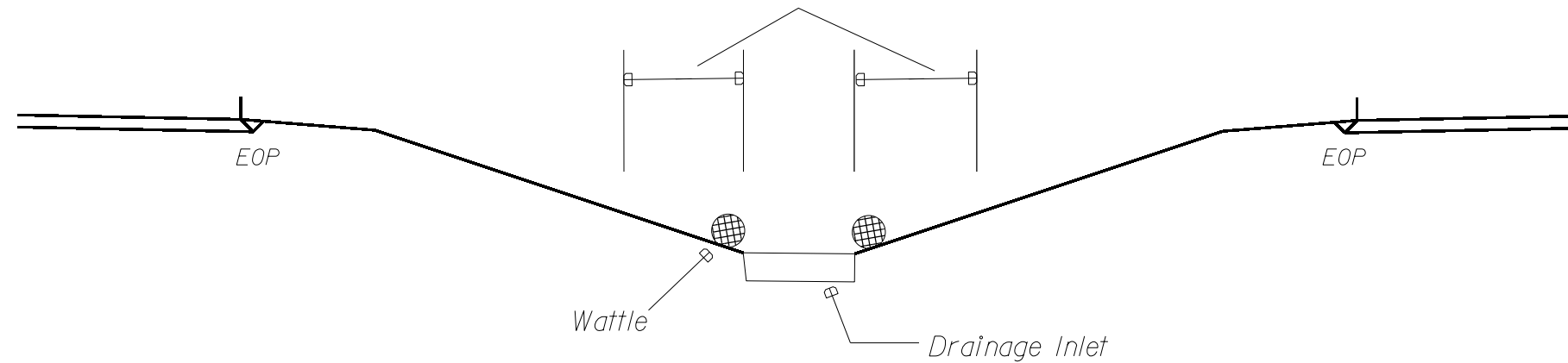
EROSION CONTROL DETAIL



Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed

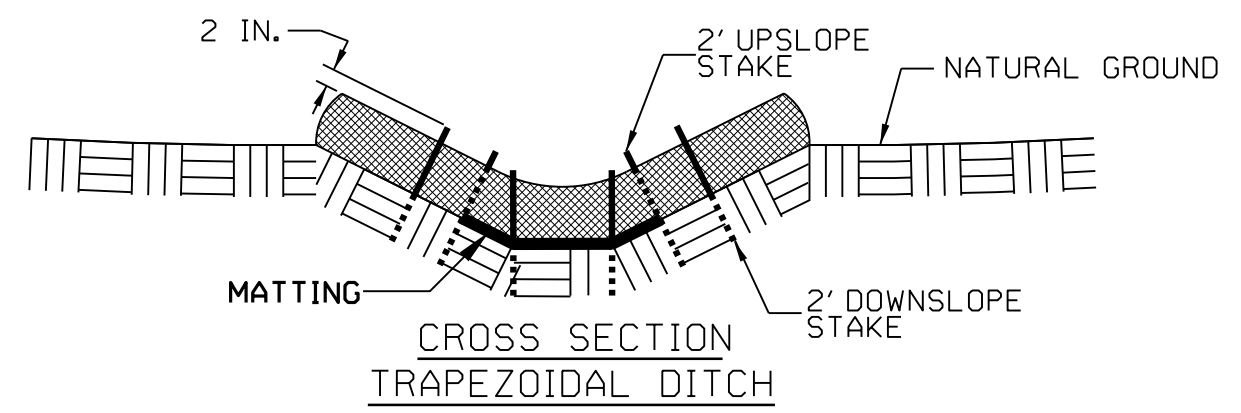
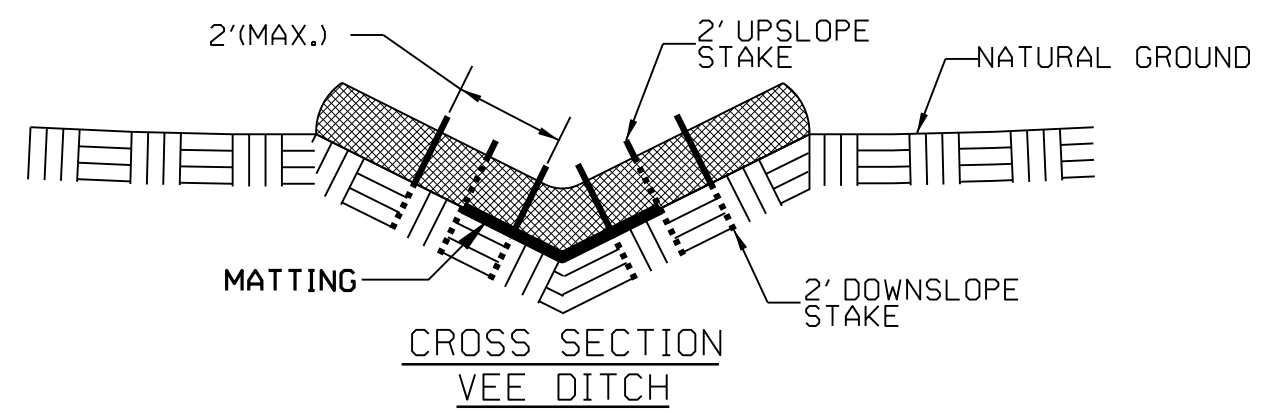
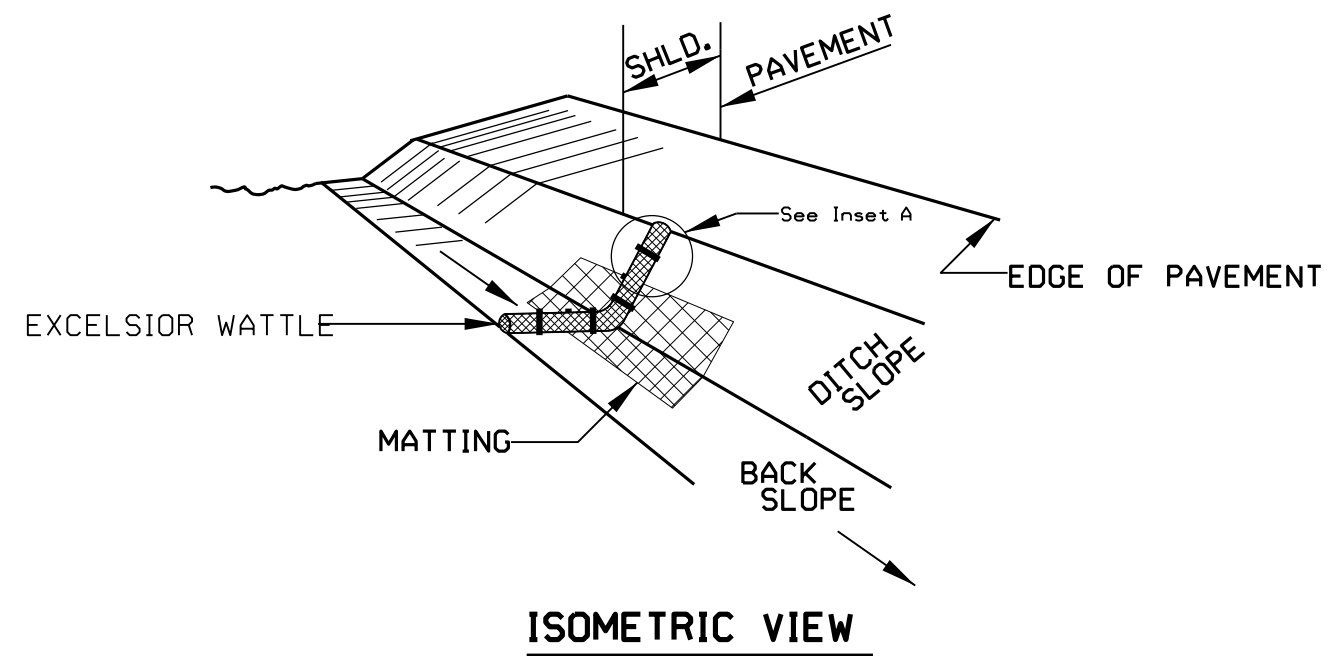


< 5' - 10' Undisturbed buffer from inlet, add wattle



NOT TO SCALE

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.

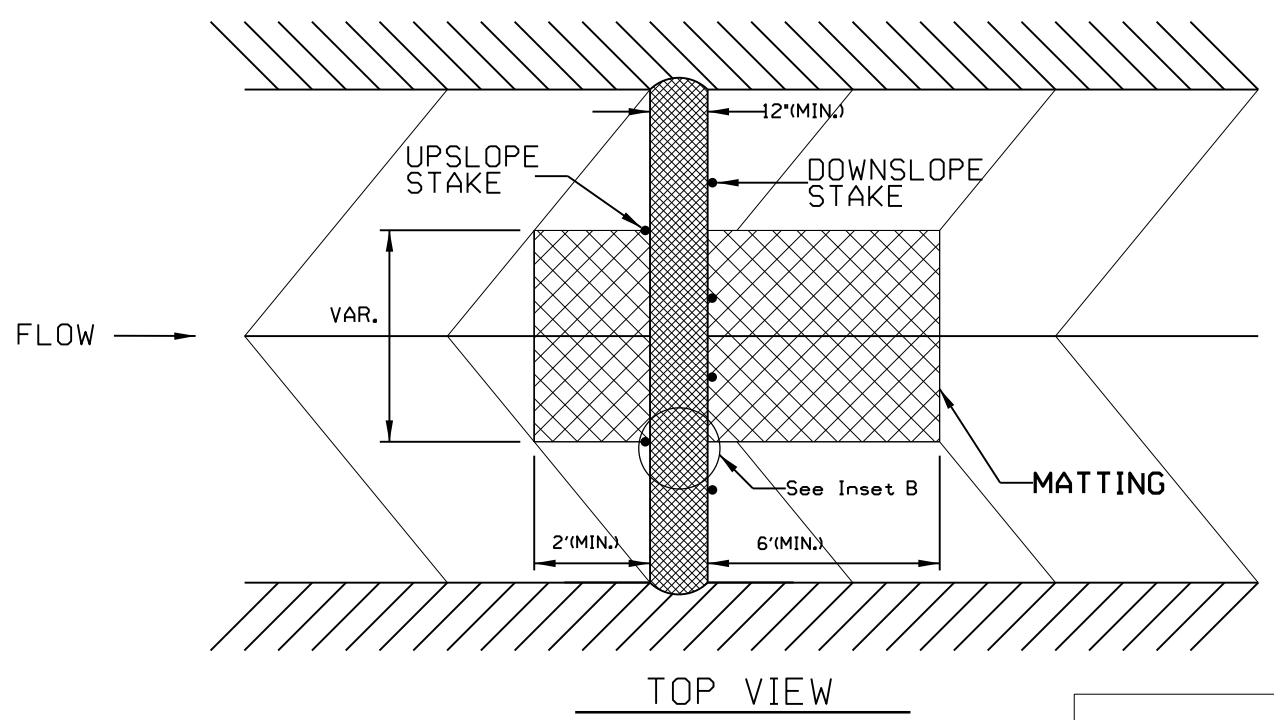
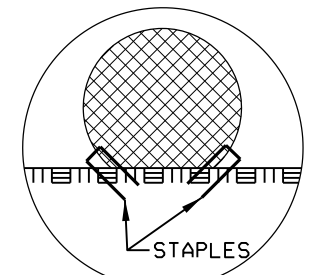
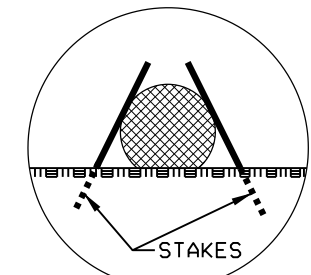
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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.

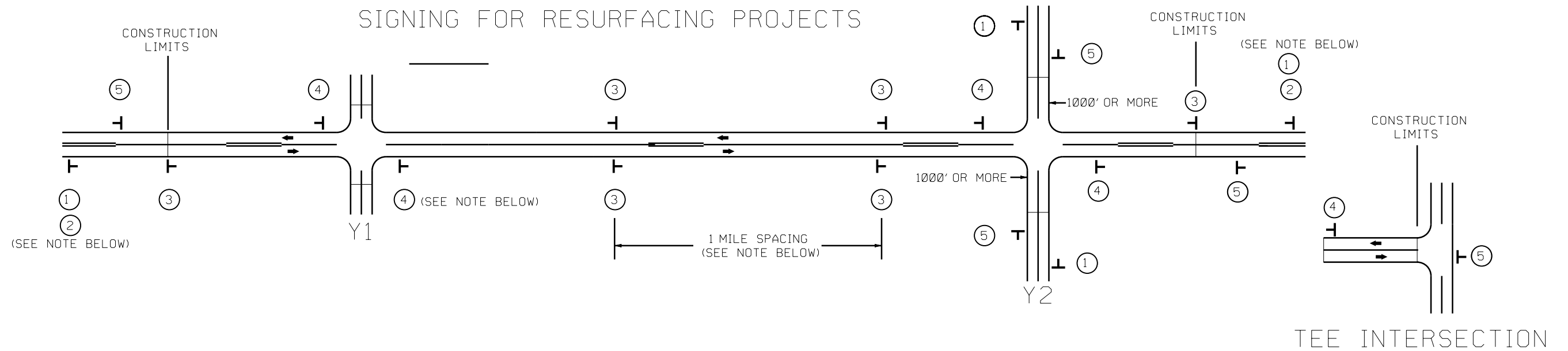
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

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



NOT TO SCALE

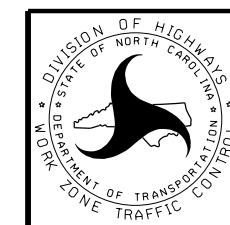
SIGNING FOR RESURFACING PROJECTS



MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	<p>1</p> <p>2</p> <p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>*2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)</p>	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS <p>WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</p> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
	<p>3</p> <p>- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.</p> <p>- AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.</p>	
	<p>4</p> <p>- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS.</p> <p>- DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.</p> <p>- INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE.</p> <p>- FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH.</p> <p>- A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.</p> <p>- FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.</p>	
	<p>5</p> <p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.</p>	



RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS