

# BEAUFORT COUNTY

DB00366  
WBS# 2017CPT.02.63.10071.3

PROJECT REFERENCE NO.	SHEET NO.
DB00366	1

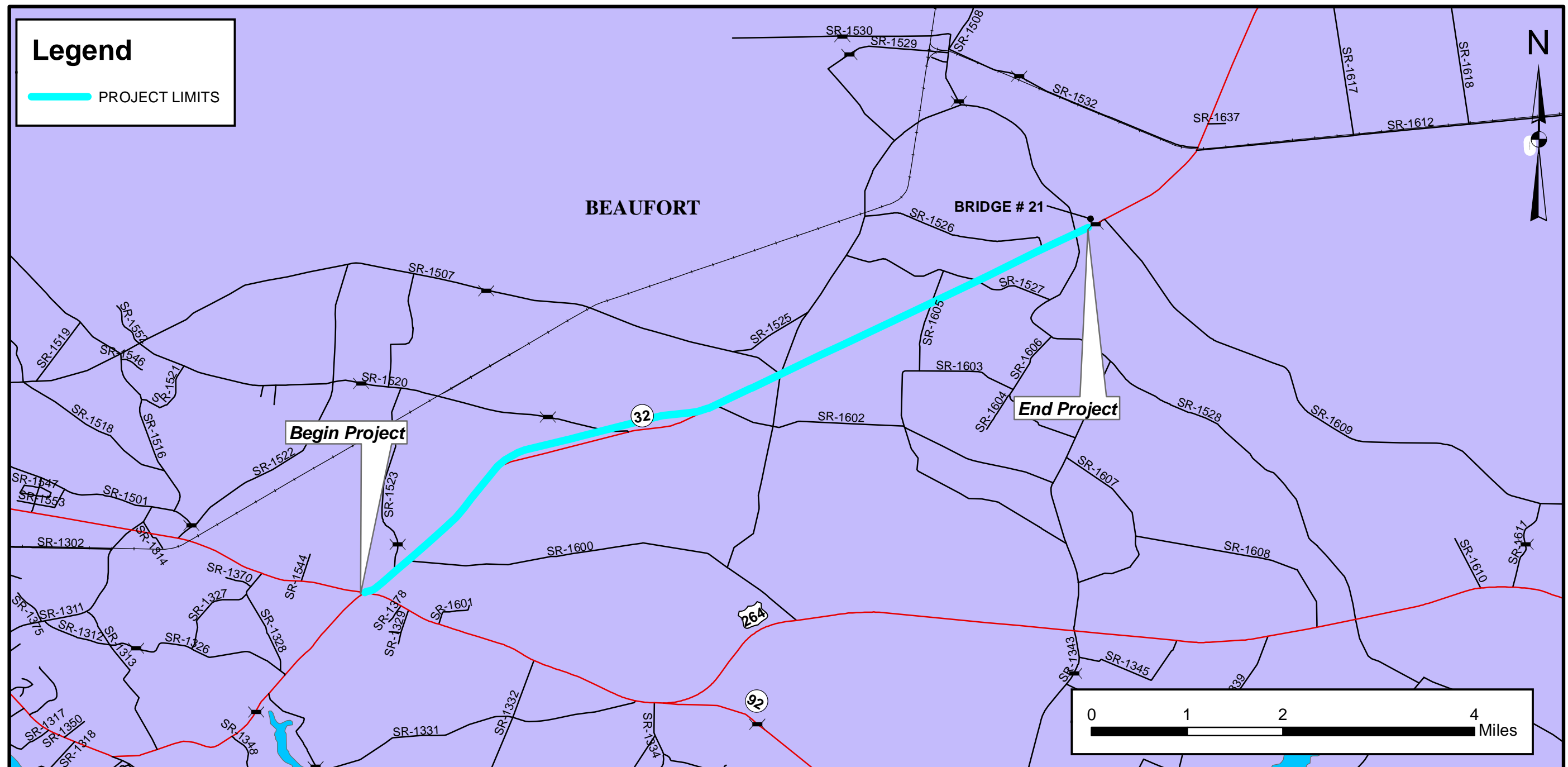
**LOCATION:**

MAP 1 - NC 32 FROM US 264 TO BRIDGE #21

**TYPE OF WORK: PATCHING, STRENGTHENING, RESURFACING, PAVEMENT MARKINGS & PAVEMENT MARKERS**

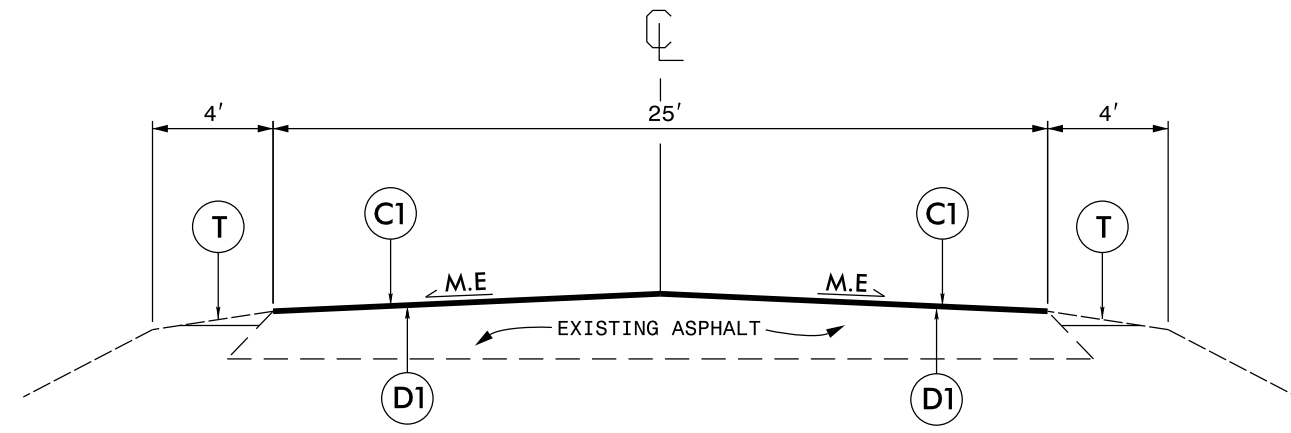


**NCDOT**  
DIVISION 2



## TYPICAL SECTION NO. 1

MAP NUMBER 01  
US 264 TO BRIDGE #24



**NOTE:**

1. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT, AS DIRECTED BY THE ENGINEER.
2. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE, RR CROSSING, BRIDGE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER.
3. PLACE ASPHALT INTERMEDIATE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT, AS DIRECTED BY THE ENGINEER.
4. PERFORM SHOULDER RECONSTRUCTION AFTER PAVING IS COMPLETED.
5. FOR FULL DEPTH PATCH LOCATIONS, SEE SUMMARY OF QUANTITY SHEET.

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S 9.5B, AT AN AVERAGE RATE OF 165.0 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.
T	SHOULDER RECONSTRUCTION
V1	INCIDENTAL MILLING.
<b>DRAWINGS NOT TO SCALE</b>	

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

PROJECT NO.	SHEET NO.
DB00366	3

## SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	0262000000-N		1220000000-E	1245000000-E	1330000000-E	1503000000-E	1519000000-E	1575000000-E	1704000000-E	6000000000-E	6071010000-E	6084000000-E	6117000000-N	
										LENGTH	WIDTH	HAULING NCDOT SUPPLIED SHOULDER MATERIAL	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	INCIDENTAL MILLING	INTERMEDIATE COURSE, I19.0C	SURFACE COURSE, S9.5B	ASPHALT BINDER FOR PLANT MIX	FULL DEPTH MILL PATCHING EXISTING PAVEMENT - B 25.0C	TEMPORARY SILT FENCE	WATTLE	SEED & MULCHING	RESPONSE FOR EROSION CONTROL
										MI	FT	EA	TONS	SMI	SY	TONS	TONS	TONS	TON	LF	LF	AC	EA
2017CPT.02.63.10071.3	Beaufort	1	NC 32	US 264 TO BRIDGE #21	1	2	2WD	NO	NO	7.45	26	596	373	14.90	1,600	17,139	10,071	1,427	20	750	250	9.31	1
<b>TOTAL FOR MAP NO. 1</b>										<b>7.45</b>		<b>596</b>	<b>373</b>	<b>14.90</b>	<b>1,600</b>	<b>17,139</b>	<b>10,071</b>	<b>1,427</b>	<b>20</b>	<b>750</b>	<b>250</b>	<b>9.31</b>	<b>1</b>
<b>TOTAL FOR PROJ NO. 2017CPT.02.63.10071.3</b>										<b>7.45</b>		<b>596</b>	<b>373</b>	<b>14.90</b>	<b>1,600</b>	<b>17,139</b>	<b>10,071</b>	<b>1,427</b>	<b>20</b>	<b>750</b>	<b>250</b>	<b>9.31</b>	<b>1</b>
<b>GRAND TOTAL</b>										<b>7.45</b>		<b>596</b>	<b>373</b>	<b>14.90</b>	<b>1,600</b>	<b>17,139</b>	<b>10,071</b>	<b>1,427</b>	<b>20</b>	<b>750</b>	<b>250</b>	<b>9.31</b>	<b>1</b>

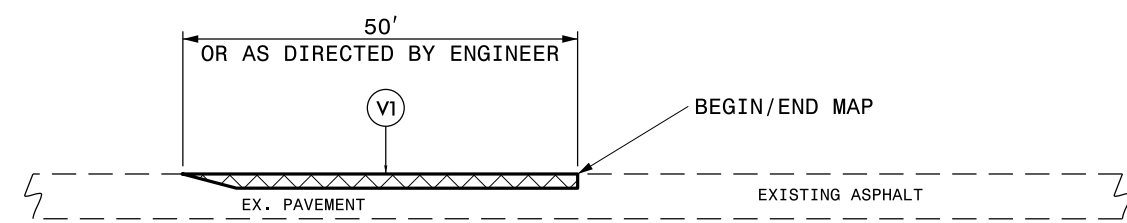
Full Depth Mill Patching Existing Asphalt, B 25.0C  
 STA 290+50 to STA 291+46      20 TONS

PROJECT NO.	SHEET NO.
DB00366	4

# THERMOPLASTIC AND PAINT QUANTITIES

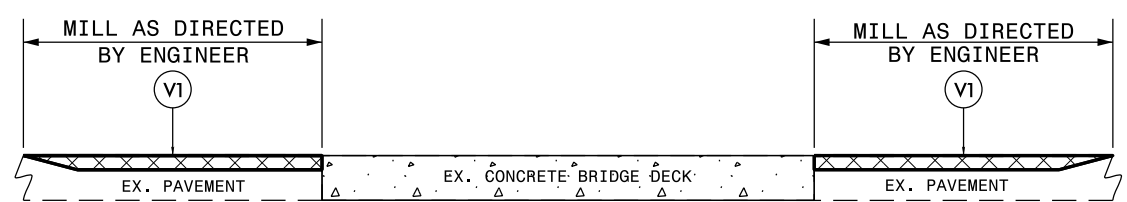
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	4413000000-E	4457000000-N	4688000000-E	4690000000-E	4710000000-E	4905000000-N		
								WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	6" X 90 M WHITE THERMO	6" X 120 M YELLOW THERMO	24" X 120 M WHITE THERMO	SNOW PLOWABLE MARKERS		
								MI	FT	SF	LS	LF	LF	LF	EA
2017CPT.02.63.10071.3	Beaufort	1	NC 32	US 264 TO BRIDGE #21	1	2	2WD	7.45	26	1,000	1.0	78,672	51,405	300	495
<b>TOTAL FOR MAP NO. 1</b>								<b>7.45</b>		<b>1,000</b>	<b>1.0</b>	<b>78,672</b>	<b>51,405</b>	<b>300</b>	<b>495</b>
<b>TOTAL FOR PROJ NO. 2017CPT.02.63.10071.3</b>								<b>7.45</b>		<b>1,000</b>	<b>1.0</b>	<b>78,672</b>	<b>51,405</b>	<b>300</b>	<b>495</b>
<b>GRAND TOTAL</b>								<b>7.45</b>		<b>1,000</b>	<b>1.0</b>	<b>78,672</b>	<b>51,405</b>	<b>300</b>	<b>495</b>

# MILLING TYPICALS



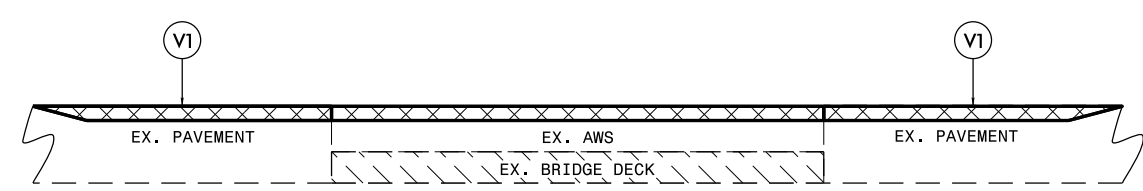
**DETAIL 1**  
BEGIN/END MAP TIE-IN

**NOTE:**  
1. 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

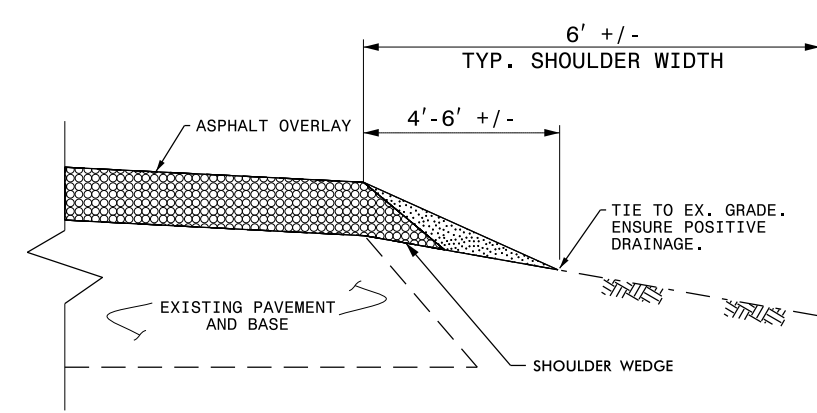
**NOTE:**  
1. MILLING SHALL BE PERFORMED AT THE BRIDGE APPROACHES AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.



**DETAIL 3**  
BRIDGE MILLING

**NOTE:**  
1. INCLUDES MILLING FOR THE ENTIRE WIDTH OF THE BRIDGE WEARING SURFACE, AS DIRECTED BY THE ENGINEER.

# SHOULDER RECONSTRUCTION TYPICAL

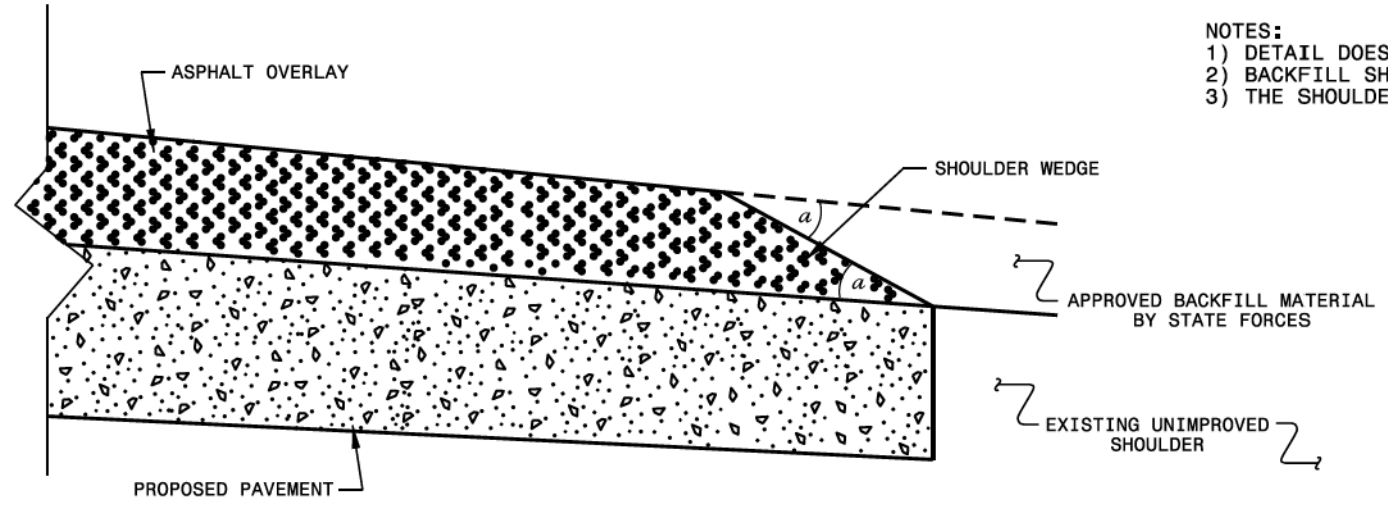


**SHOULDER RECONSTRUCTION DETAIL**

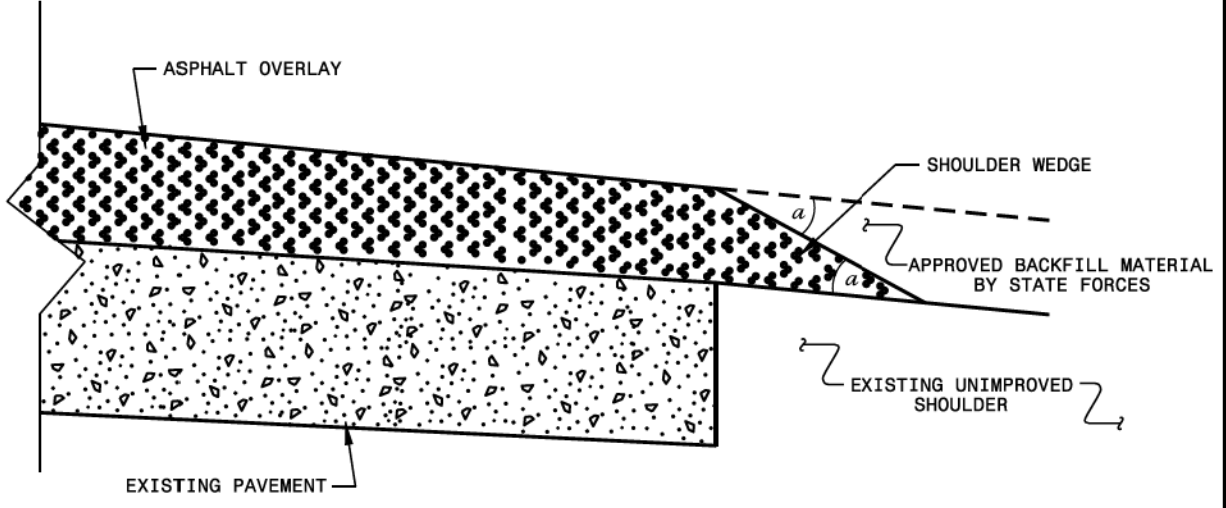
**NOTE:**

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. ANY EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR IN AN APPROVED DISPOSAL SITE.

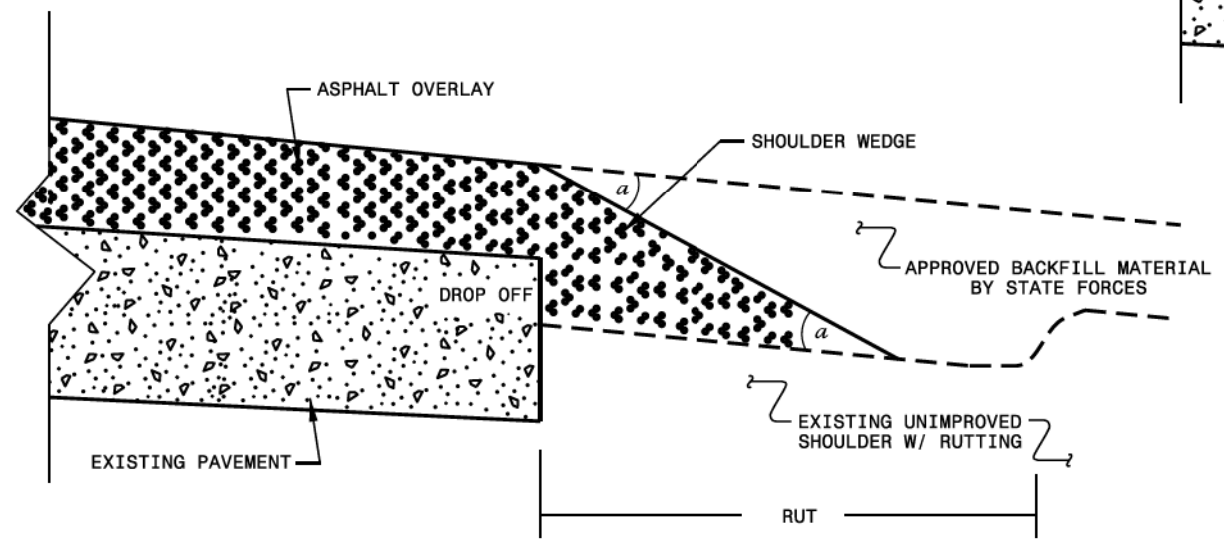
- NOTES:**
- 1) DETAIL DOES NOT APPLY TO OGAFC AND ULTRA-THIN BONDED WEARING COURSE.
  - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
  - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**SHOULDER WEDGE DETAIL**  
(Resurfacing Projects w/ Widening or with Existing Paved Shoulder having no dropoffs)



**SHOULDER WEDGE DETAIL**  
(Resurfacing Projects w/ NO Widening)



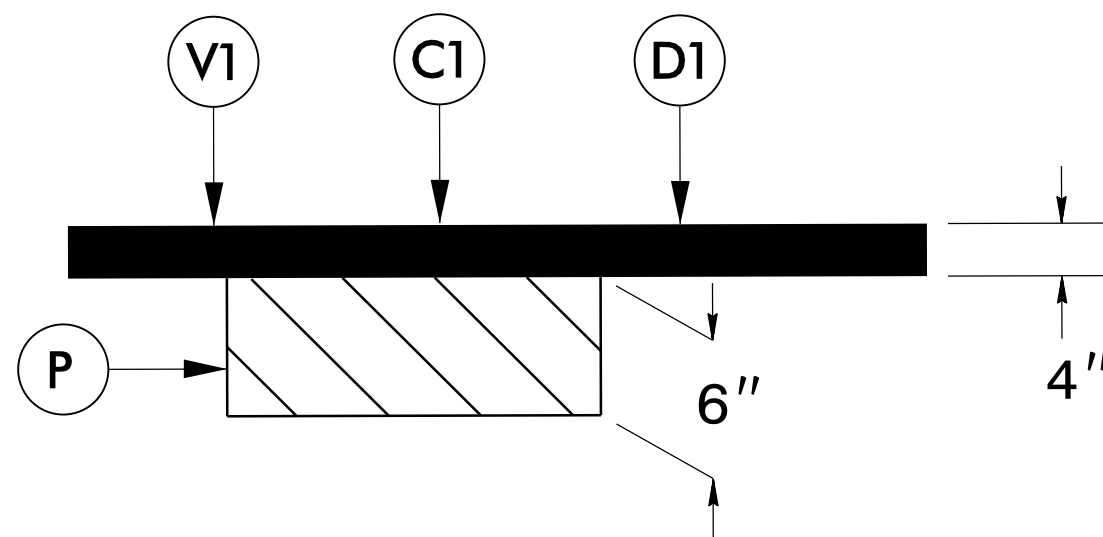
**SHOULDER WEDGE DETAIL**  
(Resurfacing Adjacent to Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950	FAX 919-250-4119
<b>SHOULDER WEDGE DETAILS</b>	
ORIGINAL BY: T.SPELL	DATE: 7-18-11
MODIFIED BY:	DATE: 10/13/12
CHECKED BY:	DATE:
FILE SPEC: s:\usr\details\stand\shou\resurf\shou11.dwg	

24-MAR-2016 14:46  
 S:\CONTRACTS\CONTRACTS\Resurfacing Projects\Shoulder Wedge Details\Revised Shoulder Wedge Detail.dgn  
 \*\*\*USER:HW\*\*\*

## 6" DEPTH MILL PATCHING DETAIL



PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165.0 LBS. PER SQ. YD.
D1	PROP. APPROX. 2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285.0 LBS. PER SQ. YD.
V1	INCIDENTAL MILLING
P	6" DEPTH MILL PATCHING W/ B 25.0C
DRAWINGS NOT TO SCALE	

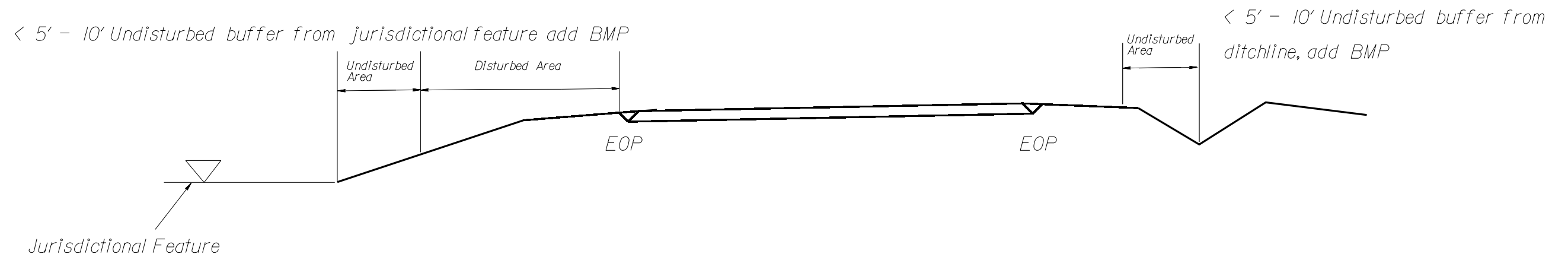
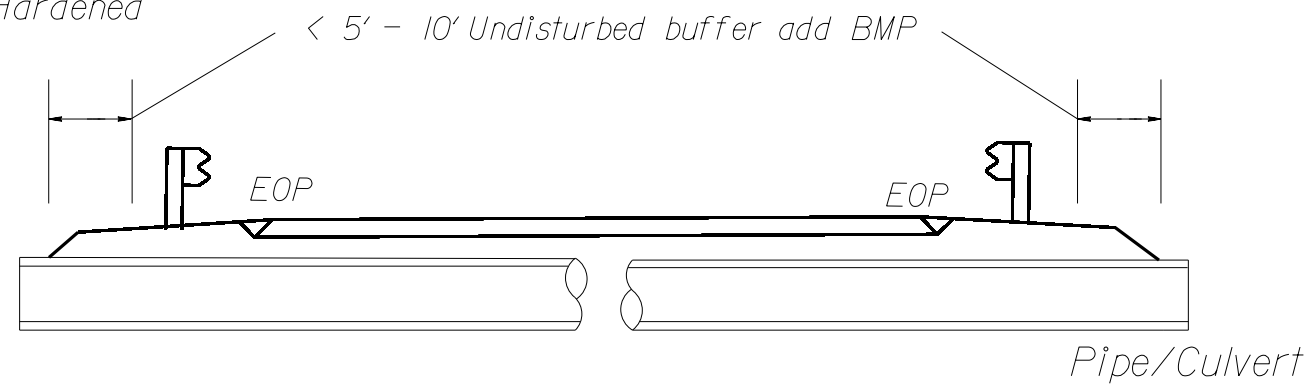
**NOTE:**

1. THE CONTRACTOR SHALL PERFORM ANY UNIFORM OR INCIDENTAL MILLING AT TIE-INS BEFORE PERFORMING THE 6" DEPTH MILL PATCHING.
2. THE CONTRACTOR SHALL PERFORM THE 6" DEPTH MILL PATCHING REMOVAL AND REPLACEMENT IN THE SAME DAY.
3. 6" DEPTH MILL PATCHING SHALL BE PERFORMED AT LOCATIONS AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.

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.

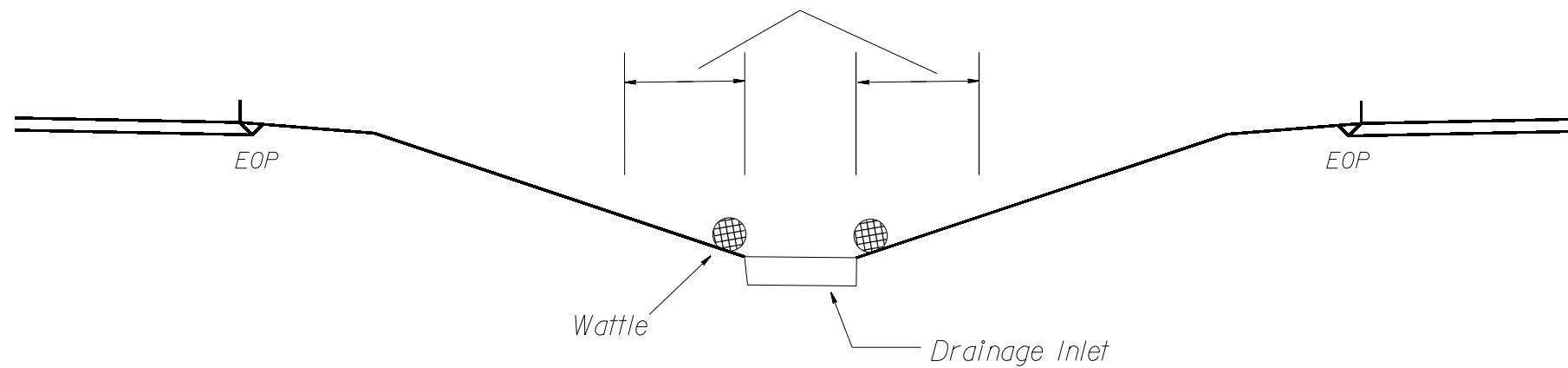
# EROSION CONTROL DETAIL



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



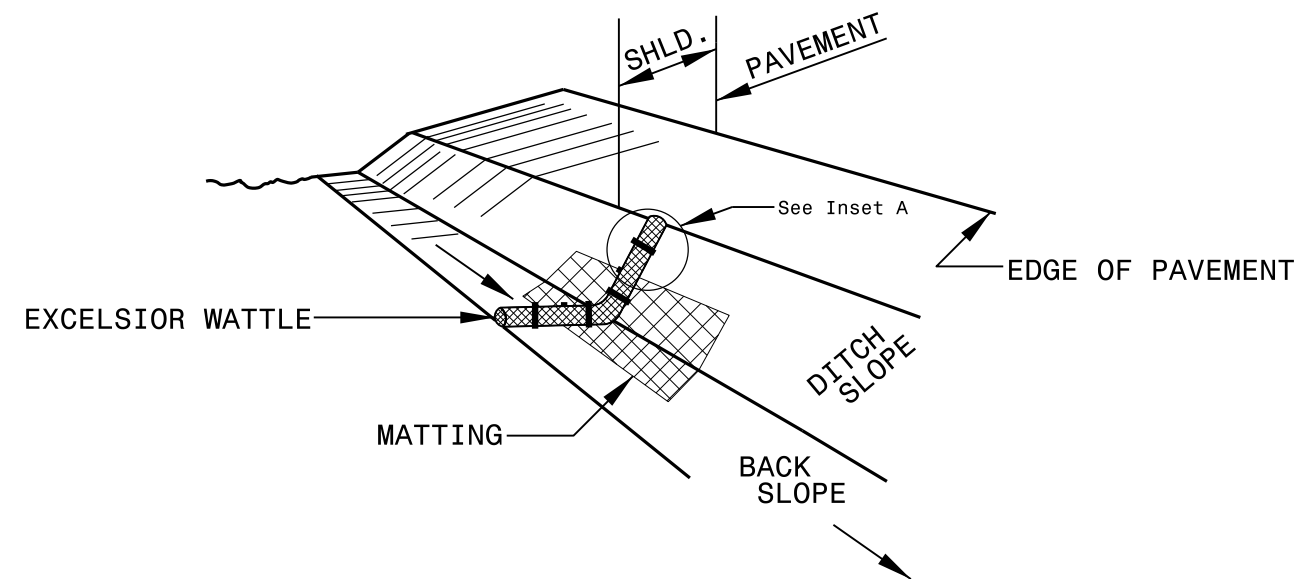
< 5' - 10' Undisturbed buffer from inlet, add wattle



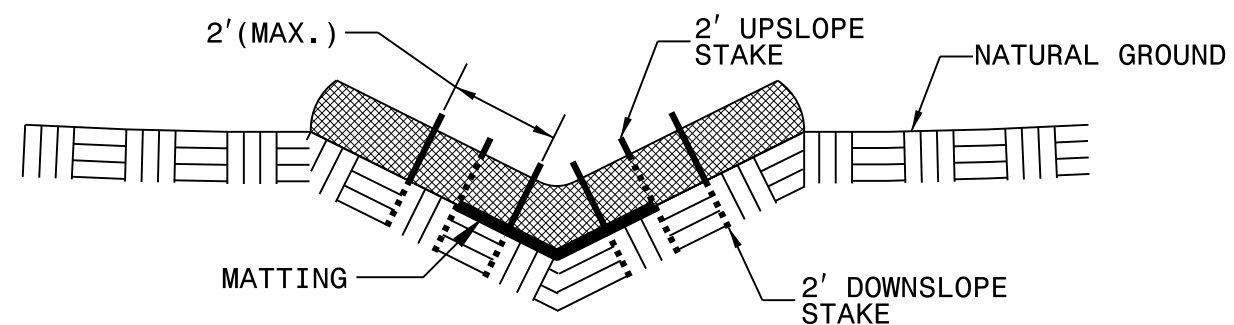
NOT TO SCALE



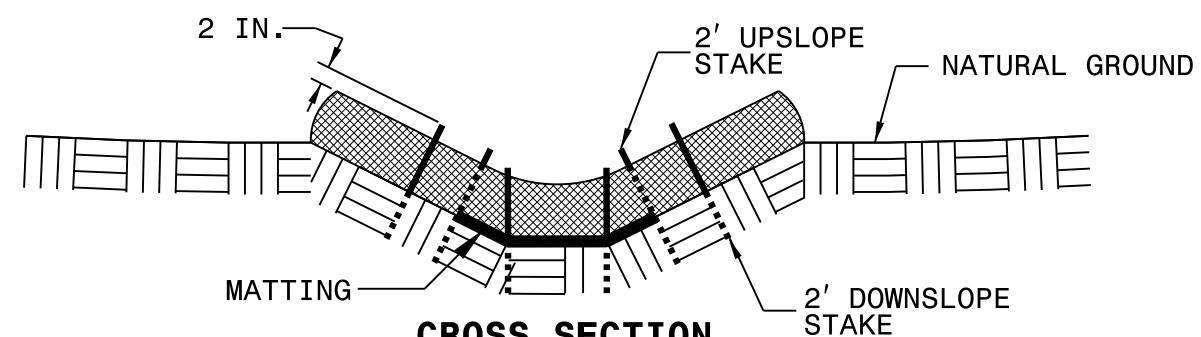
# WATTLE DETAIL



**ISOMETRIC VIEW**



**CROSS SECTION  
VEE DITCH**



**CROSS SECTION  
TRAPEZOIDAL DITCH**

**NOTES:**

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

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

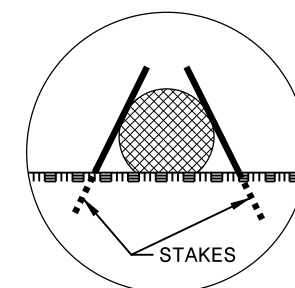
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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

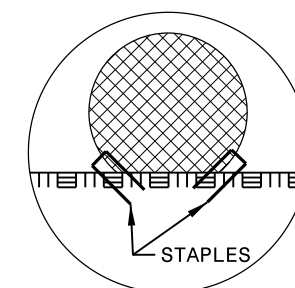
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

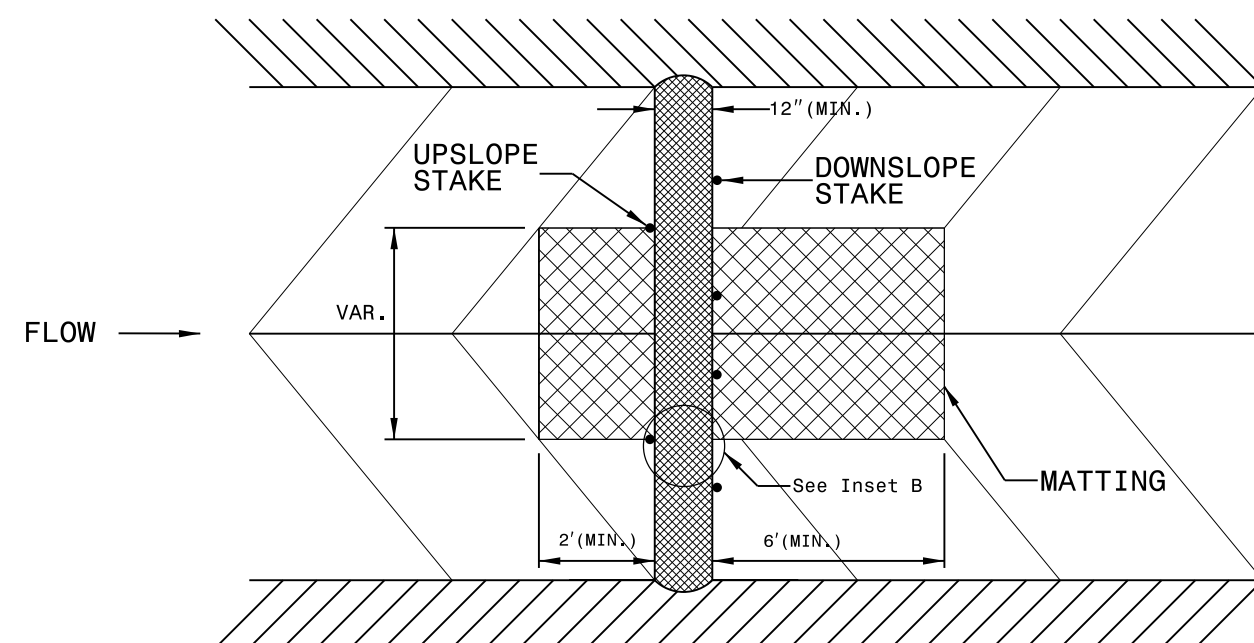
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



**INSET A**



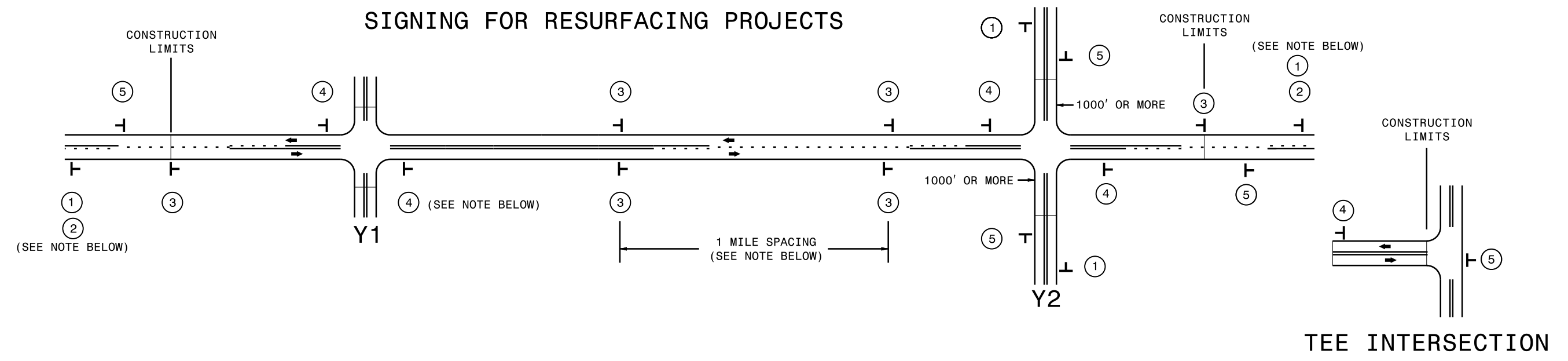
**INSET B**



**TOP VIEW**

NOT TO SCALE

## SIGNING FOR RESURFACING PROJECTS



LEGEND	
T	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

### MAINLINE (-L-) SIGNING

### -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION		<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 style="text-align: center;">NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <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> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>PLACED 500' IN ADVANCE OF FLAGGER.</p> </div> <div style="text-align: center;"> <p>PLACED 250' IN ADVANCE OF FLAGGER.</p> </div> </div>
		<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>- 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>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.</p>	