

# GREENE COUNTY

## DB00430

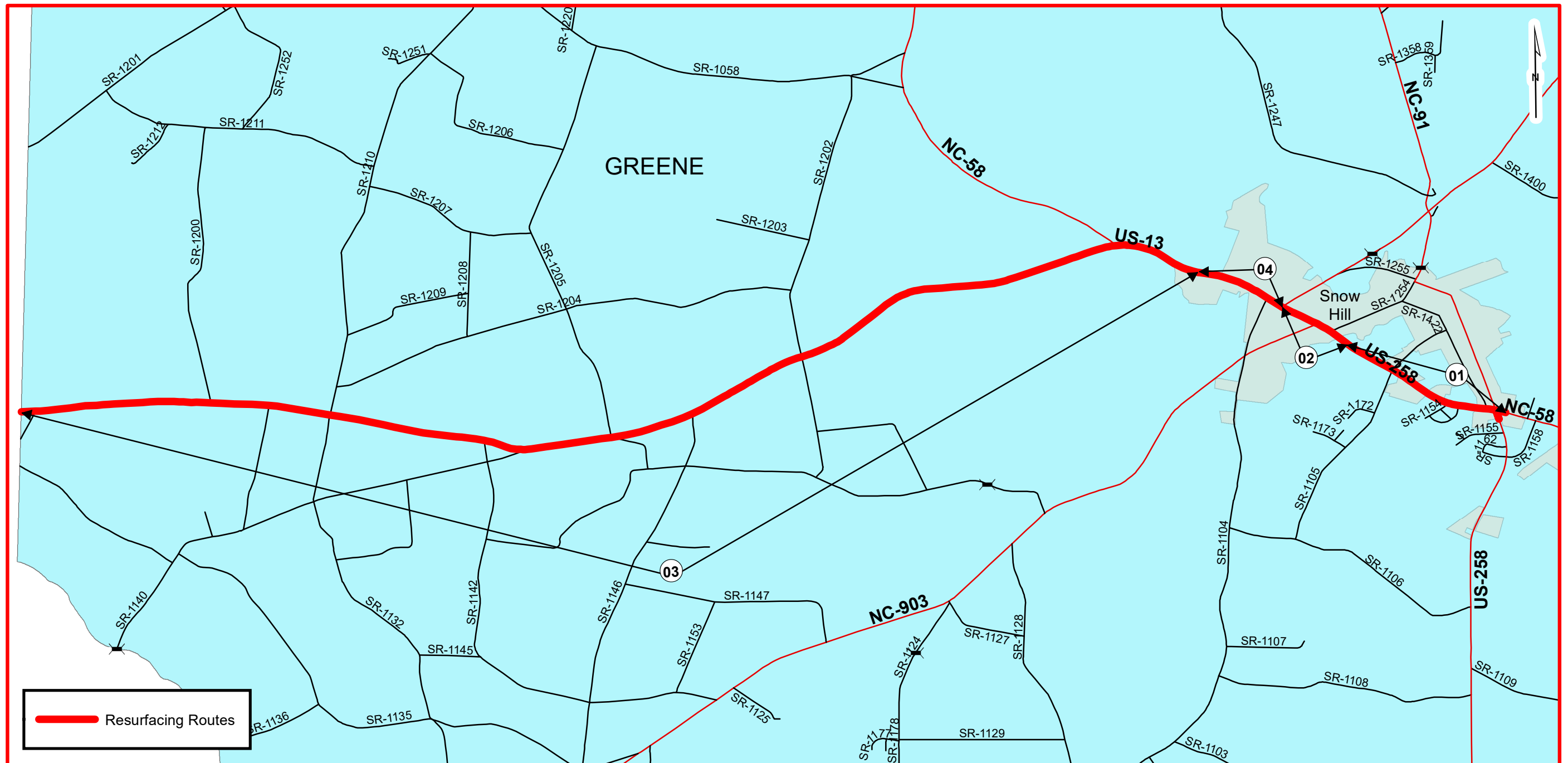
### WBS# 2021CPT.02.02.10401

PROJECT REFERENCE NO.	SHEET NO.
DB00430	1

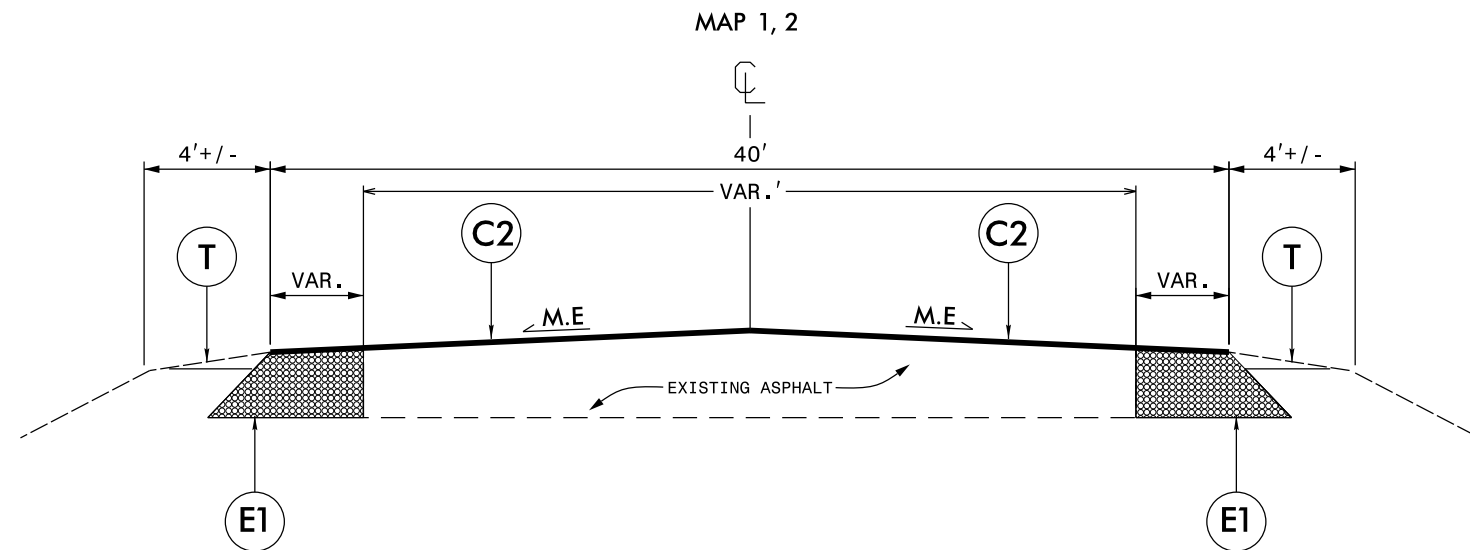


**TYPE OF WORK: MILLING, STRENGTHENING, RESURFACING, WIDENING, SHOULDER RECONSTRUCTION**

**NCDOT**  
DIVISION 2



## TYPICAL SECTION NO. 1



**NOTE:**

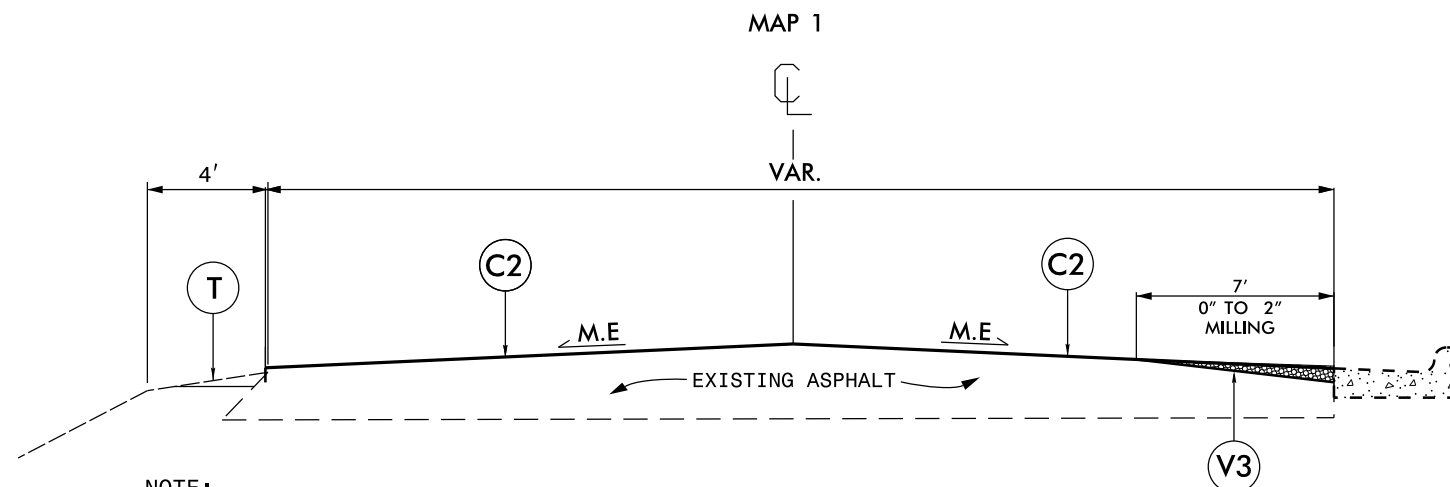
1. PLACE ASYMMETRICAL WIDENING, AS DIRECTED BY THE ENGINEER. MAKE FLUSH WITH THE EXISTING ASPHALT.
2. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER.
3. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH, INCLUDING NEW WIDENING.
4. PERFORM SHOULDER RECONSTRUCTION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

PAVEMENT SCHEDULE	
B1	PROP. APPROX. 3/4" OPEN-GRADED ASPHALT FRICTION COURSE, TYPE FC-1 AT AN AVERAGE RATE OF 90 LBS. PER SQ. YD.
C1	PROP. APPROX. 1 1/2" 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.
D1	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
E1	PROP. APPROX. 6" ACBC, TYPE B25.0C AT AN AVERAGE RATE OF 684 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
V1	INCIDENTAL MILLING.
V2	MILLING DEPTH 2" FOR THE ENTIRE WIDTH OF ROADWAY.
V3	MILLING DEPTH 0-2"

**DRAWINGS NOT TO SCALE**

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

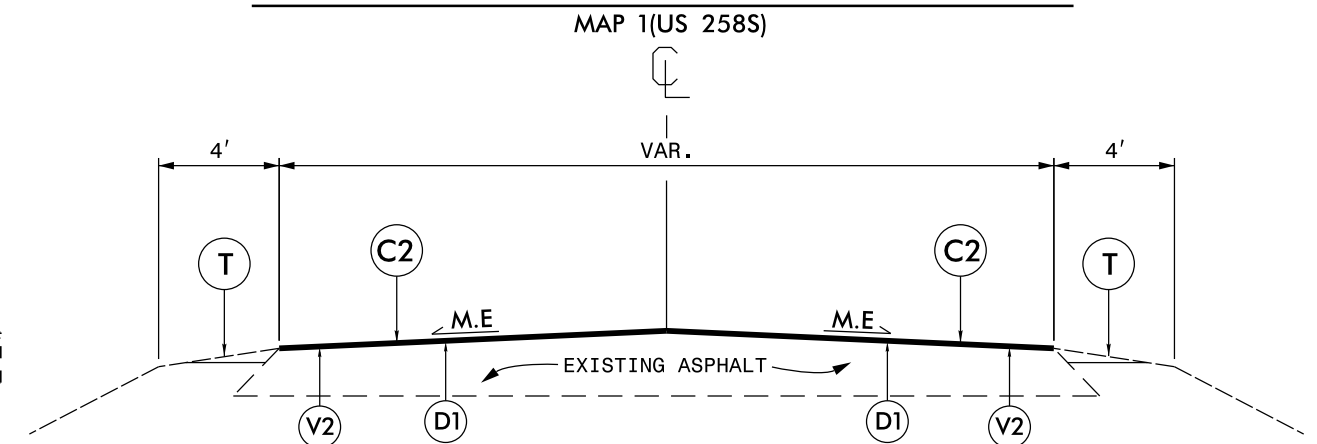
## TYPICAL SECTION NO. 2



**NOTE:**

1. MILL 0" TO 2" FOR 7' WIDE SECTION, TO OBTAIN A MILLED DEPTH OF 2" AT THE LIP OF CURB AND GUTTER, OR AS DIRECTED BY THE ENGINEER.
2. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT, OR AS DIRECTED BY THE ENGINEER.
3. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 1.
4. PERFORM SHOULDER RECONSTRUCTION AFTER PAVING IS COMPLETED

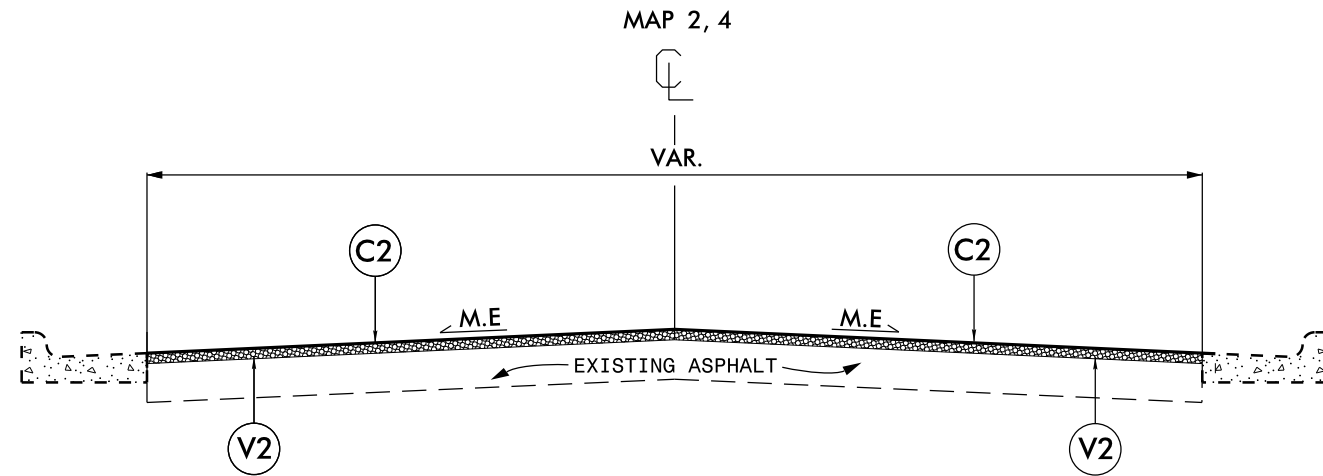
## TYPICAL SECTION NO. 3



**NOTE:**

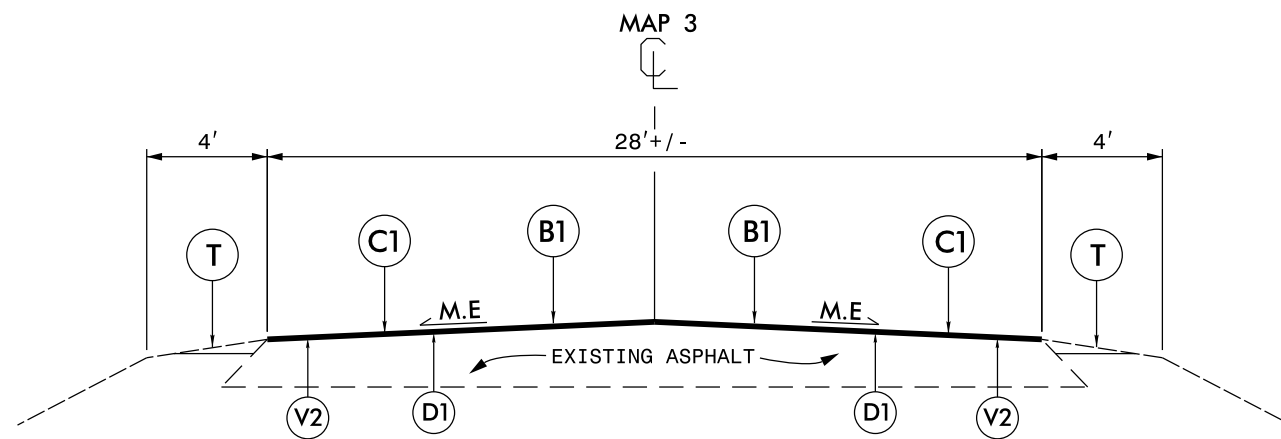
1. INCLUDED 2" MILLING FOR THE ENTIRE WIDTH OF THE ROADWAY, AS DIRECTED BY THE ENGINEER.
2. PLACE ASPHALT INTERMEDIATE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
3. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
4. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE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

### TYPICAL SECTION NO. 4



- NOTE:**
1. INCLUDED MILLING 2" FOR THE ENTIRE WIDTH OF THE ROADWAY, AS DIRECTED BY THE ENGINEER.
  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, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 1.

### TYPICAL SECTION NO. 5



- NOTE:**
1. INCLUDED MILLING 2" FOR THE ENTIRE WIDTH OF THE ROADWAY, AS DIRECTED BY THE ENGINEER.
  2. PLACE ASPHALT INTERMEDIATE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
  3. PLACE ASPHALT SURFACE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT.
  4. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE AND Y-LINE SECTIONS, AS DIRECTED BY THE ENGINEER.
  5. PLACE OPEN-GRADED ASPHALT FRICTION COURSE AT FULL WIDTH FROM STA. 200+66-220+54.
  6. PERFORM SHOULDER RECONSTRUCTION AFTER PAVING IS COMPLETED.

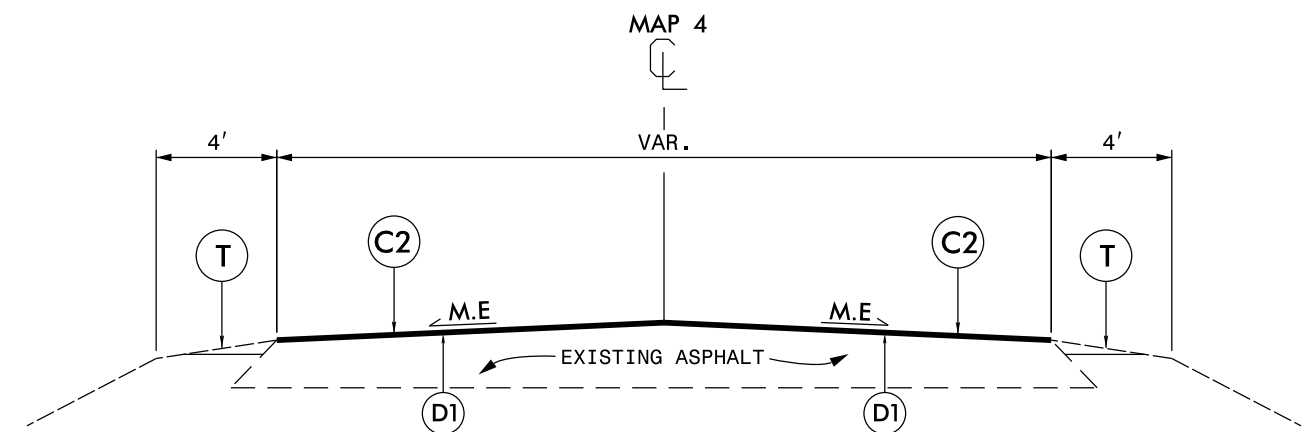
### PAVEMENT SCHEDULE

B1	PROP. APPROX. 3/4" OPEN-GRADED ASPHALT FRICTION COURSE, TYPE FC-1 AT AN AVERAGE RATE OF 90 LBS. PER SQ. YD.
C1	PROP. APPROX. 1 1/2" 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.
D1	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
E1	PROP. APPROX. 6" ACBC, TYPE B25.0C AT AN AVERAGE RATE OF 684 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
V1	INCIDENTAL MILLING.
V2	MILLING DEPTH 2" FOR THE ENTIRE WIDTH OF ROADWAY.
V3	MILLING DEPTH 0-2"

**DRAWINGS NOT TO SCALE**

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

### TYPICAL SECTION NO. 6



- NOTE:**
1. PLACE ASPHALT INTERMEDIATE COURSE AT FULL WIDTH OF EXISTING ASPHALT PAVEMENT, FROM STA. 0+00-2+36.
  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.

PROJECT NO. DB00430	SHEET NO. 4	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	000930000-E	026200000-N	122000000-E	124500000-E	129700000-E	130800000-E	133000000-E	149100000-E	150300000-E	152300000-E	157500000-E	157700000-E	166200000-E	280000000-N	281500000-N	283000000-N	284500000-N	600000000-E	6071010000-E	608400000-E	611700000-N												
												2"6" CURB & GUTTER - REMOVE/REPLACE	HAULING NCDOT SUPPLIED SHOULDER MATERIAL	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	2" MILLING	0" TO 2" MILLING	INCIDENTAL MILLING	BASE COURSE, B25.0C	INTERMEDIATE COURSE, I19.0C	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	POLYMER MODIFIED ASPHALT BINDER FOR PLANT MIX	OGAFC, TYPE FC-1 MOD	ADJ. OF CATCH BASIN	ADJ. OF DROP INLET	ADJ. OF MANHOLES	ADJ. OF METER OR VALVE BOX	TEMPORARY SILT FENCE	WATTLE	SEED & MULCHING	RESPONSE FOR EROSION CONTROL												
												MI	FT	LF	EA	TONS	SMI	SY	SY	SY	TONS	TONS	TONS	TONS	EA	EA	EA	EA	LF	LF	AC	EA												
2021CPT.02.02.10401	Greene	1	US 258 TRUCK ROUTE	FROM 600' E SR 1254 TO 410' E US 258	1,2,3	2	2WU	NO	NO	1.19	44	5	48	119	2.38	2,800	575	700	1,900	425	4,500	376																						
<b>TOTAL FOR MAP NO. 1</b>												<b>1.19</b>		<b>5</b>	<b>48</b>	<b>119</b>	<b>2.38</b>	<b>2,800</b>	<b>575</b>	<b>700</b>	<b>1,900</b>	<b>425</b>	<b>4,500</b>	<b>376</b>																				
2021CPT.02.02.10401	Greene	2	US 258 TRUCK ROUTE	FROM US 13 TO 600' E SR 1254	1,4	2	2WU	NO	NO	0.50	40		8	25	0.20	13,300			30		1,900	115			1	1																		
<b>TOTAL FOR MAP NO. 2</b>												<b>0.50</b>			<b>8</b>	<b>25</b>	<b>0.20</b>	<b>13,300</b>			<b>30</b>		<b>1,900</b>	<b>115</b>		<b>1</b>	<b>1</b>																	
2021CPT.02.02.10401	Greene	3	US 13	FROM WAYNE CO TO 400' W SNOW HILL C&G	5	2	2WU	YES	NO	8.03	28		321	401	16.06	140,000			1,625		22,000	12,500	1,806	18																				
<b>TOTAL FOR MAP NO. 3</b>												<b>8.03</b>			<b>321</b>	<b>401</b>	<b>16.06</b>	<b>140,000</b>			<b>1,625</b>		<b>22,000</b>	<b>12,500</b>	<b>1,806</b>	<b>18</b>																		
2021CPT.02.02.10401	Greene	4	US 13	FROM 400' W SNOW HILL C&G TO US 13 MLK JR PARKWAY	4,6	2	2WU	NO	NO	0.52	40	115	6		0.15	14,000			180		1,700	111																						
<b>TOTAL FOR MAP NO. 4</b>												<b>0.52</b>			<b>115</b>	<b>6</b>	<b>0.15</b>	<b>14,000</b>			<b>180</b>		<b>1,700</b>	<b>111</b>																				
<b>TOTAL FOR PROJ NO. 2021CPT.02.02.10401</b>												<b>10.24</b>			<b>120</b>	<b>383</b>	<b>545</b>	<b>18.79</b>	<b>170,100</b>	<b>575</b>	<b>2,325</b>	<b>1,930</b>	<b>22,605</b>	<b>20,600</b>	<b>2,408</b>	<b>18</b>	<b>300</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>14</b>	<b>2,037</b>	<b>640</b>	<b>12.16</b>	<b>1</b>									
<b>GRAND TOTAL</b>												<b>10.24</b>			<b>120</b>	<b>383</b>	<b>545</b>	<b>18.79</b>	<b>170,100</b>	<b>575</b>	<b>2,325</b>	<b>1,930</b>	<b>22,605</b>	<b>20,600</b>	<b>2,408</b>	<b>18</b>	<b>300</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>14</b>	<b>2,037</b>	<b>640</b>	<b>12.16</b>	<b>1</b>									

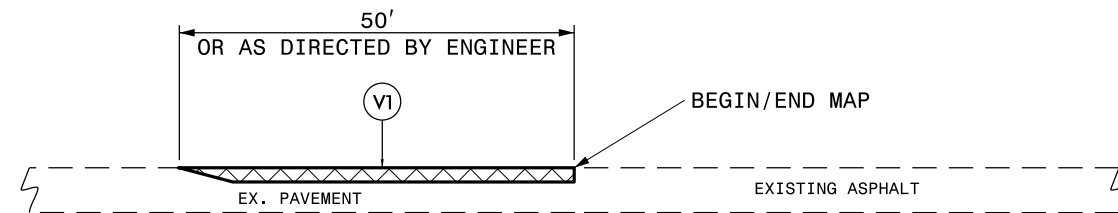
MAP NO						STATION	STATION	LT	RT	
										CURB & GUTTER REPAIR
1						53+26	53+31		5'	
4						8+39	8+49		10'	
4						10+00	10+10		10'	
4						13+66	13+96		30'	
4						15+56	15+86		30'	
4						16+27	16+42	15'		
4						18+76	18+96		20'	
										2" MILLING
1						0+00	3+88			US 258 S
2						0+00	22+20			
3						0+00	423+86			
4						3+00	27+55			
										0-2" MILLING
1						50+62	56+62		60'	
1						0+00	0+65	65'		SE THIRD ST RAD.
1						0+00	0+65	65'		SE THIRD ST RAD.
										STRENGTHENING - I19.0C - 2.5"
1						0+00	3+88			US 258 S
3						1+00	423+86			
4						0+00	2+36			
										OPEN-GRADED ASPHALT FRICTION COURSE, FC-1
3						200+66	220+54			
										WIDENING - B25.0C - 6"
1						0+00	51+00			0-12' VARIABLE WIDTH WIDENING TO ACHIEVE A
2						23+94	26+46			WIDTH OF 40'

PROJECT NO.	SHEET NO.	TOTAL NO.
DB00430	5	

## THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N
								MI	FT	WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL
										SF	LS
2021CPT.02.02.10401	Greene	1	US 258 TRUCK ROUTE	FROM 600' E SR 1254 TO 410' E US 258	1,2,3	2	2WU	1.19	44	140	0.12
<b>TOTAL FOR MAP NO. 1</b>								<b>1.19</b>		<b>140</b>	<b>0.12</b>
2021CPT.02.02.10401	Greene	2	US 258 TRUCK ROUTE	FROM US 13 TO 600' E SR 1254	1,4	2	2WU	0.50	40	60	0.05
<b>TOTAL FOR MAP NO. 2</b>								<b>0.50</b>		<b>60</b>	<b>0.05</b>
2021CPT.02.02.10401	Greene	3	US 13	FROM WAYNE CO TO 400' W SNOW HILL C&G	5	2	2WU	8.03	28	900	0.78
<b>TOTAL FOR MAP NO. 3</b>								<b>8.03</b>		<b>900</b>	<b>0.78</b>
2021CPT.02.02.10401	Greene	4	US 13	FROM 400' W SNOW HILL C&G TO US 13 MLK JR PARKWAY	4,6	2	2WU	0.52	40	60	0.05
<b>TOTAL FOR MAP NO. 4</b>								<b>0.52</b>		<b>60</b>	<b>0</b>
<b>TOTAL FOR PROJ NO. 2021CPT.02.02.10401</b>								<b>10.24</b>		<b>1,160</b>	<b>1</b>
<b>GRAND TOTAL</b>								<b>10.24</b>		<b>1,160</b>	<b>1</b>

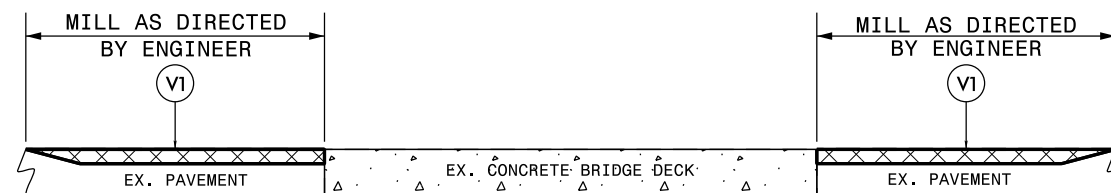
# MILLING TYPICALS



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

**NOTE:**

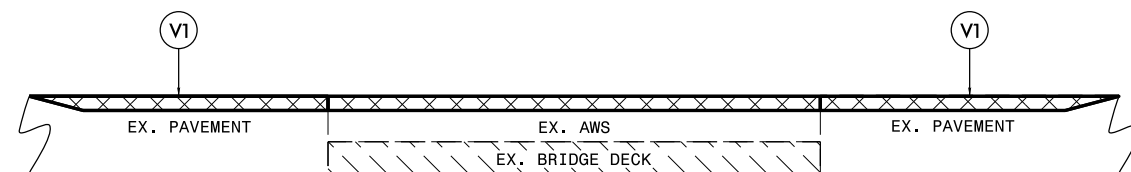
- MILLING SHALL BE PERFORMED AT MAIN LINE TIE-INS AND Y-LINE TIE-INS AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.



**DETAIL 2**  
BRIDGE MILLING

**NOTE:**

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

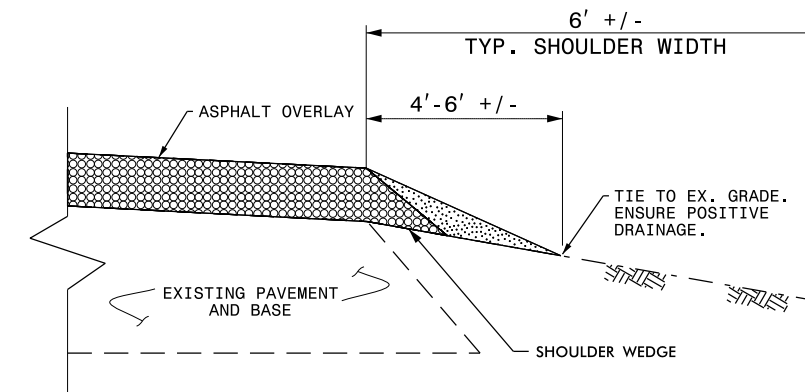


**DETAIL 3**  
BRIDGE MILLING

**NOTE:**

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

# SHOULDER RECONSTRUCTION TYPICAL

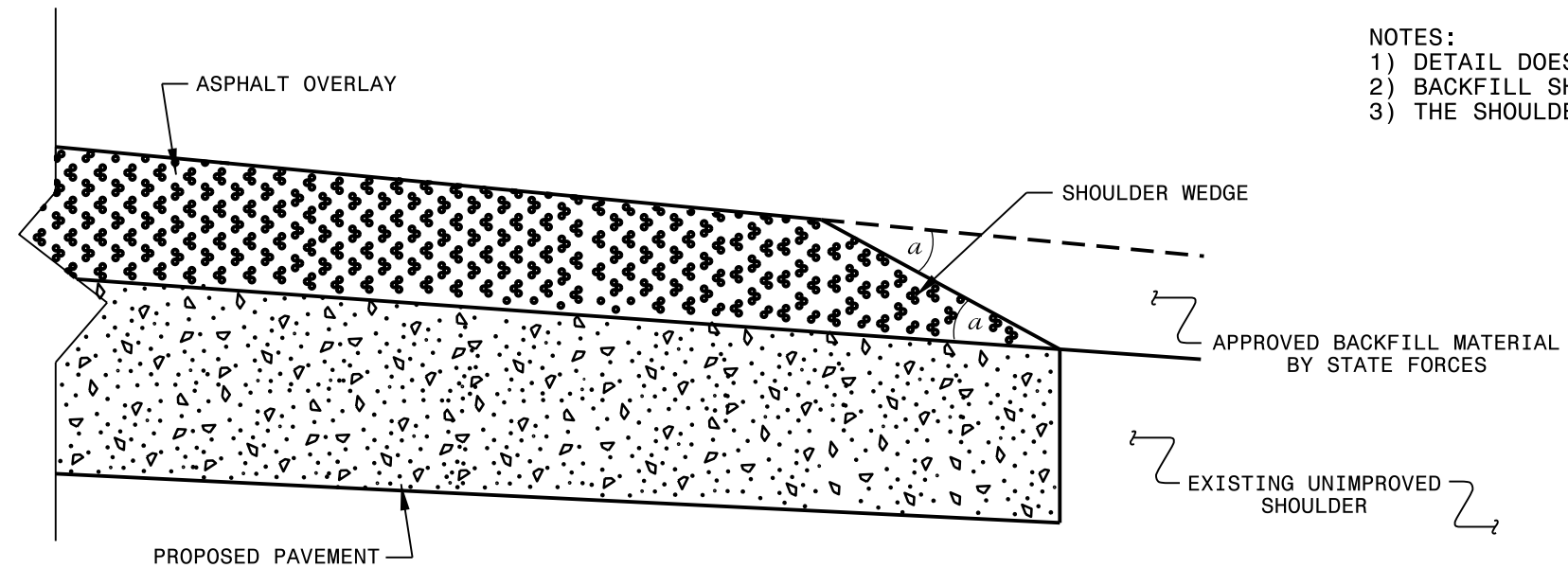


**SHOULDER RECONSTRUCTION DETAIL**

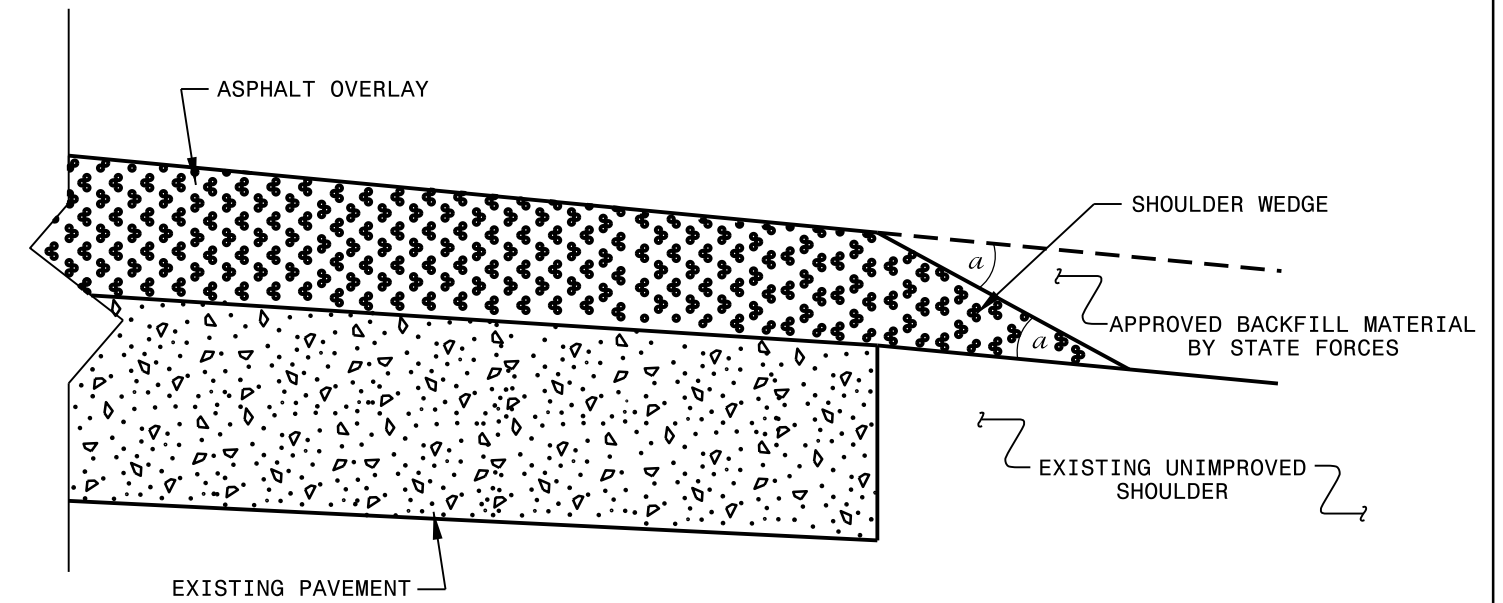
**NOTE:**

- 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.

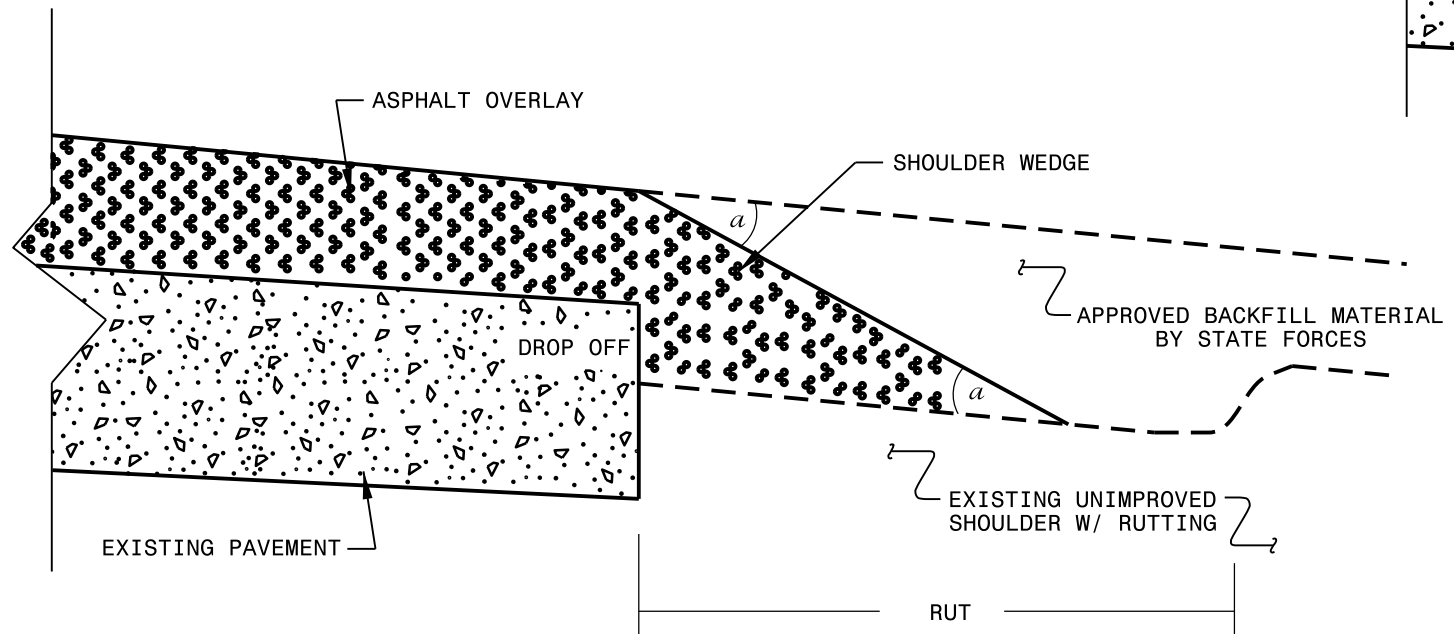
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
  - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
  - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**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)

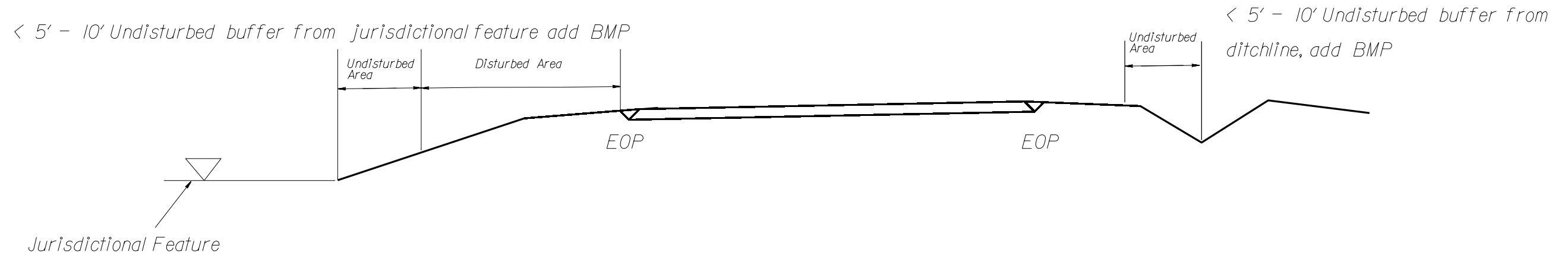
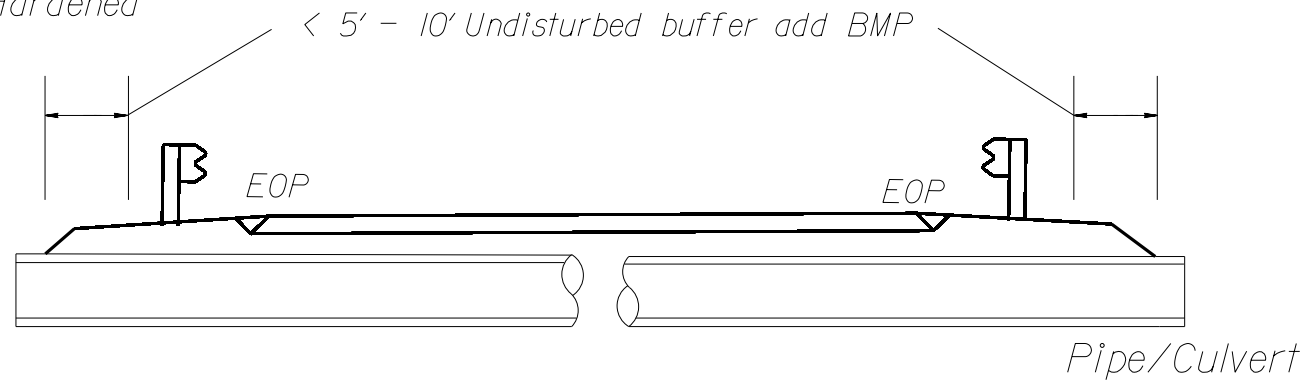
- SHOULDER WEDGE ANGLE = 30°

<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: 7-19-11
MODIFIED BY:	DATE: 10/16/12
CHECKED BY:	DATE:
FILE SPEC.: s:\usr\details\stand\shoulderwedgedetail.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.

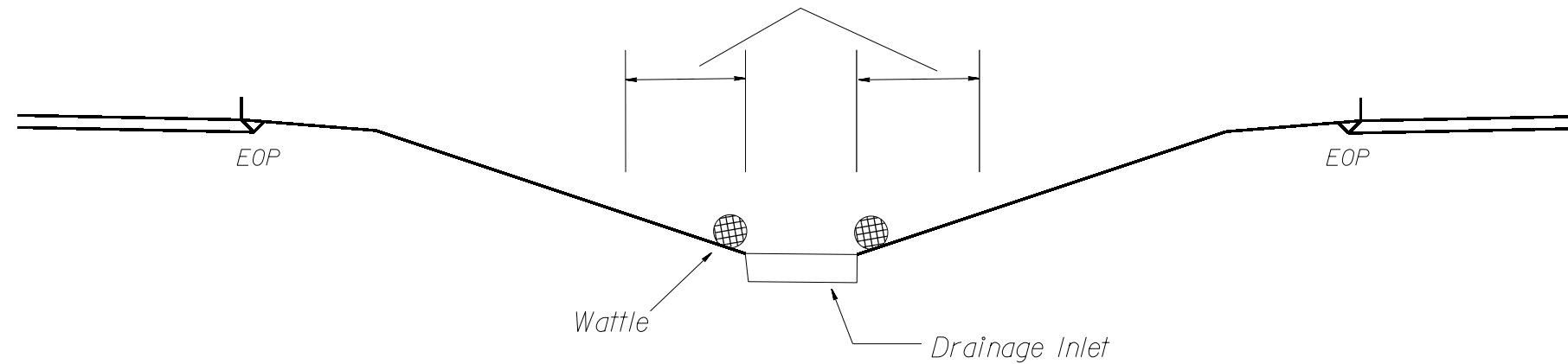
# EROSION CONTROL DETAIL



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



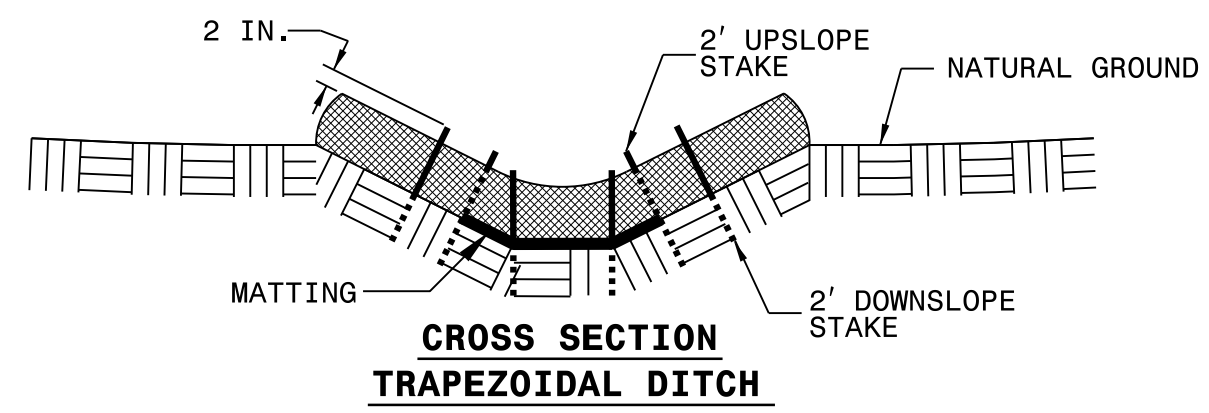
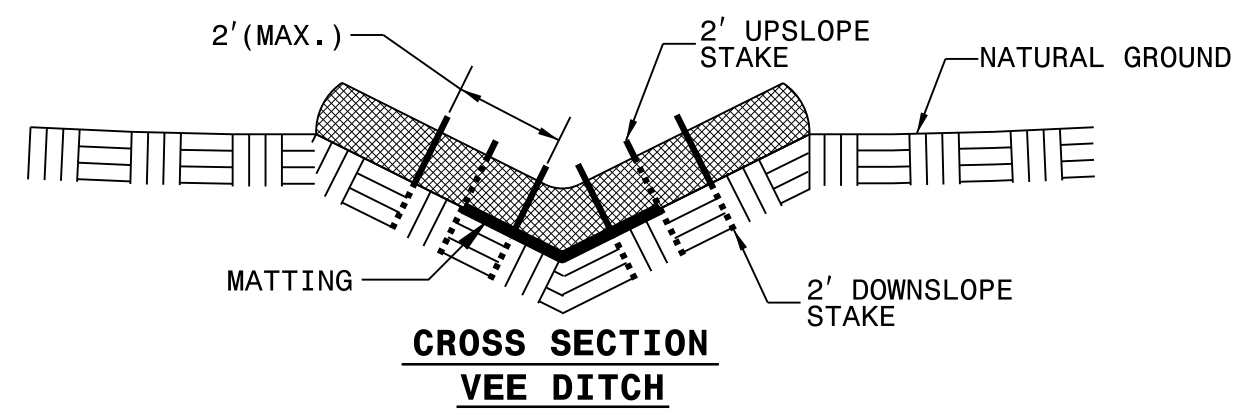
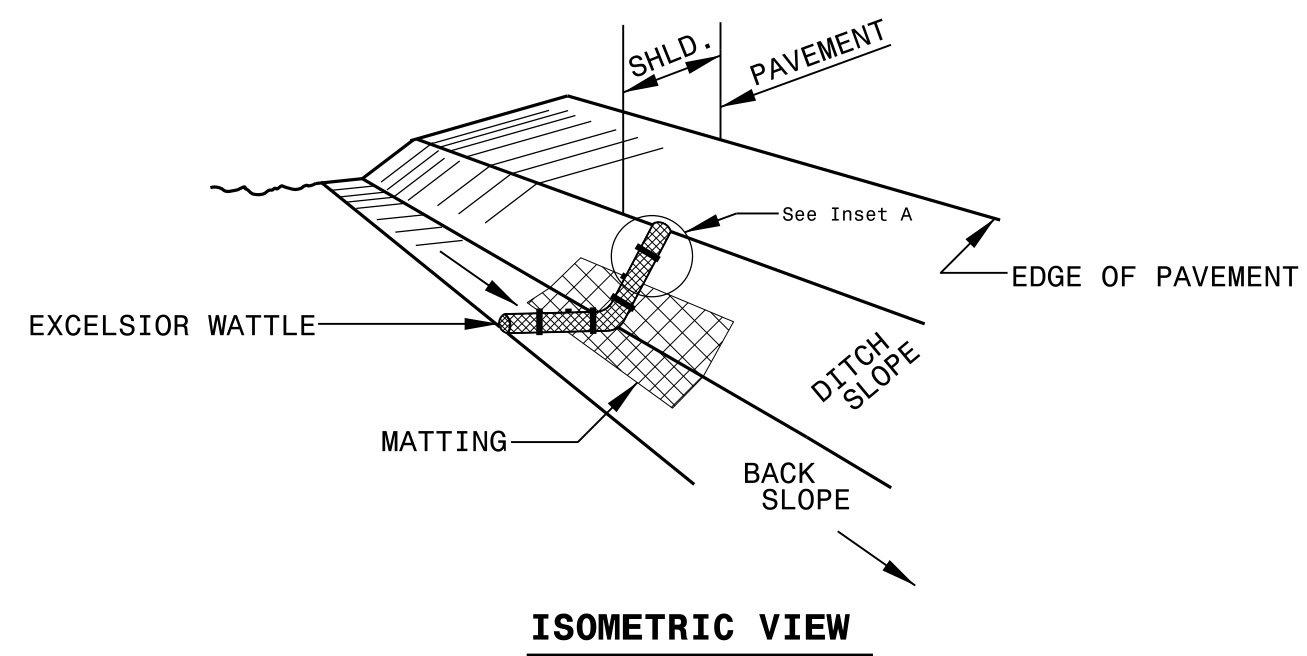
< 5' - 10' Undisturbed buffer from inlet, add wattle



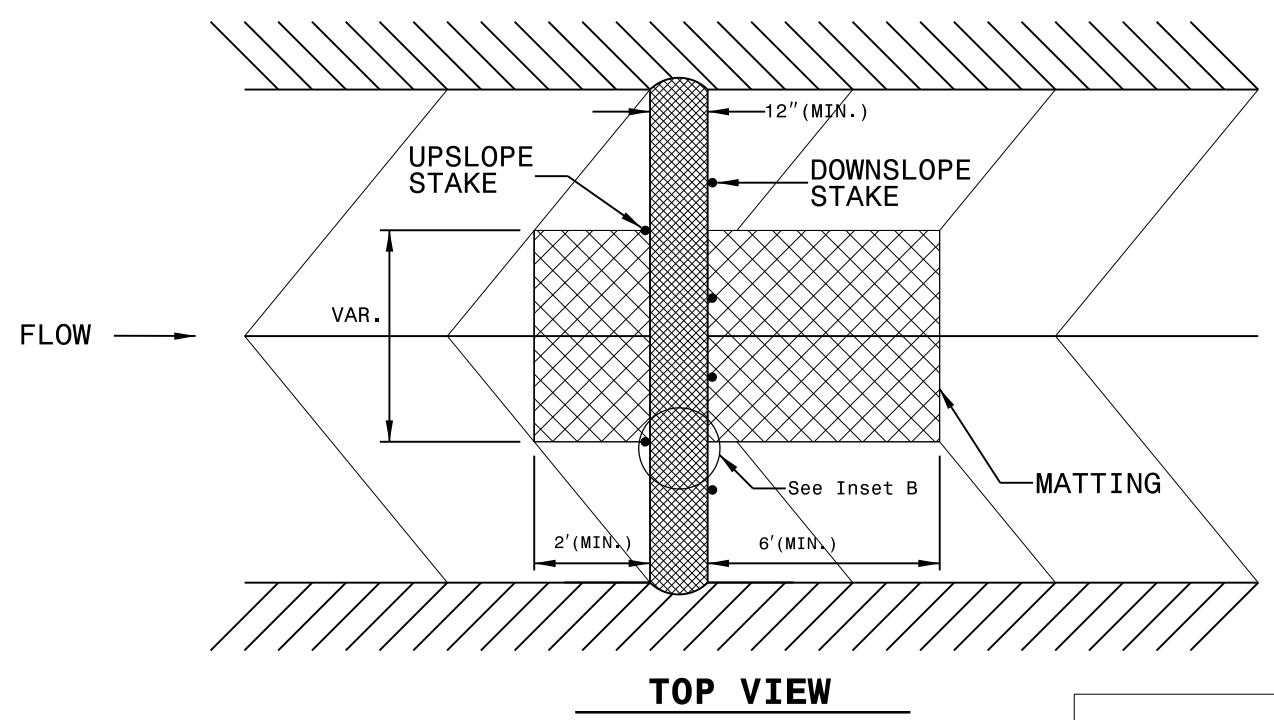
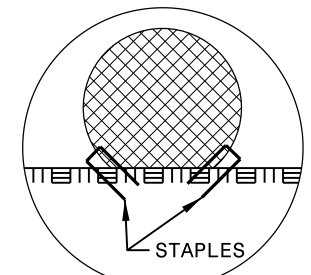
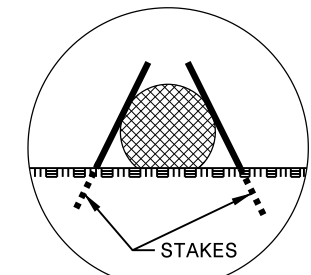
NOT TO SCALE



# WATTLE DETAIL

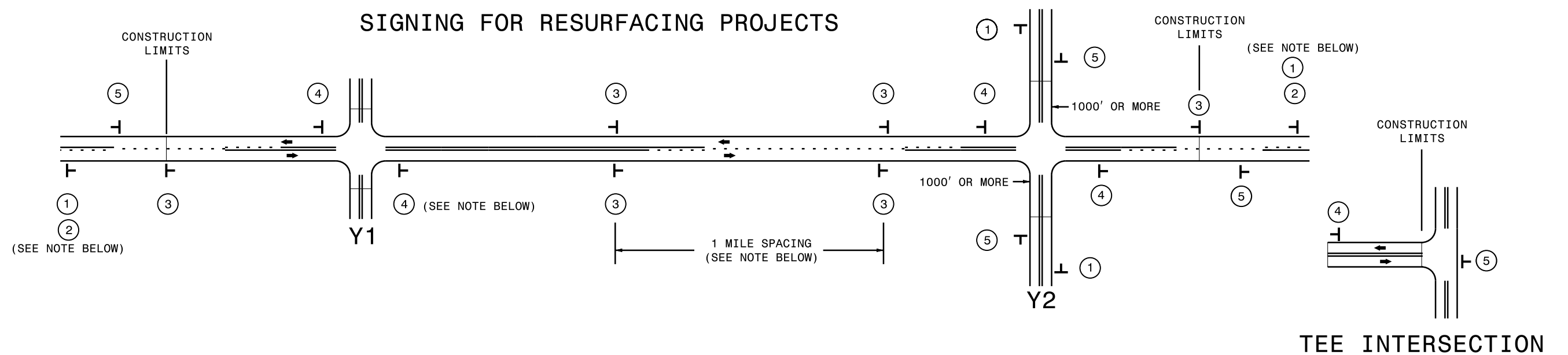


- NOTES:**
- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
  - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
  - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
  - INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 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



LEGEND	
	STATIONARY SIGN
	DIRECTION OF TRAFFIC FLOW

## MAINLINE (-L-) SIGNING

## -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1	2	3	4	5	
						<p>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;"> <div> <p>W20-1 48" X 48"</p> </div> <div> <p>W20-7 A 48" X 48"</p> </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</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>- 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>			