

09/08/19

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.
N.C.	2023CPT.01.08.20211.1, ETC	1
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
2023CPT.01.08.20211.1		PE, CONST
2023CPT.01.08.20212.1		PE, CONST

CHOWAN COUNTY

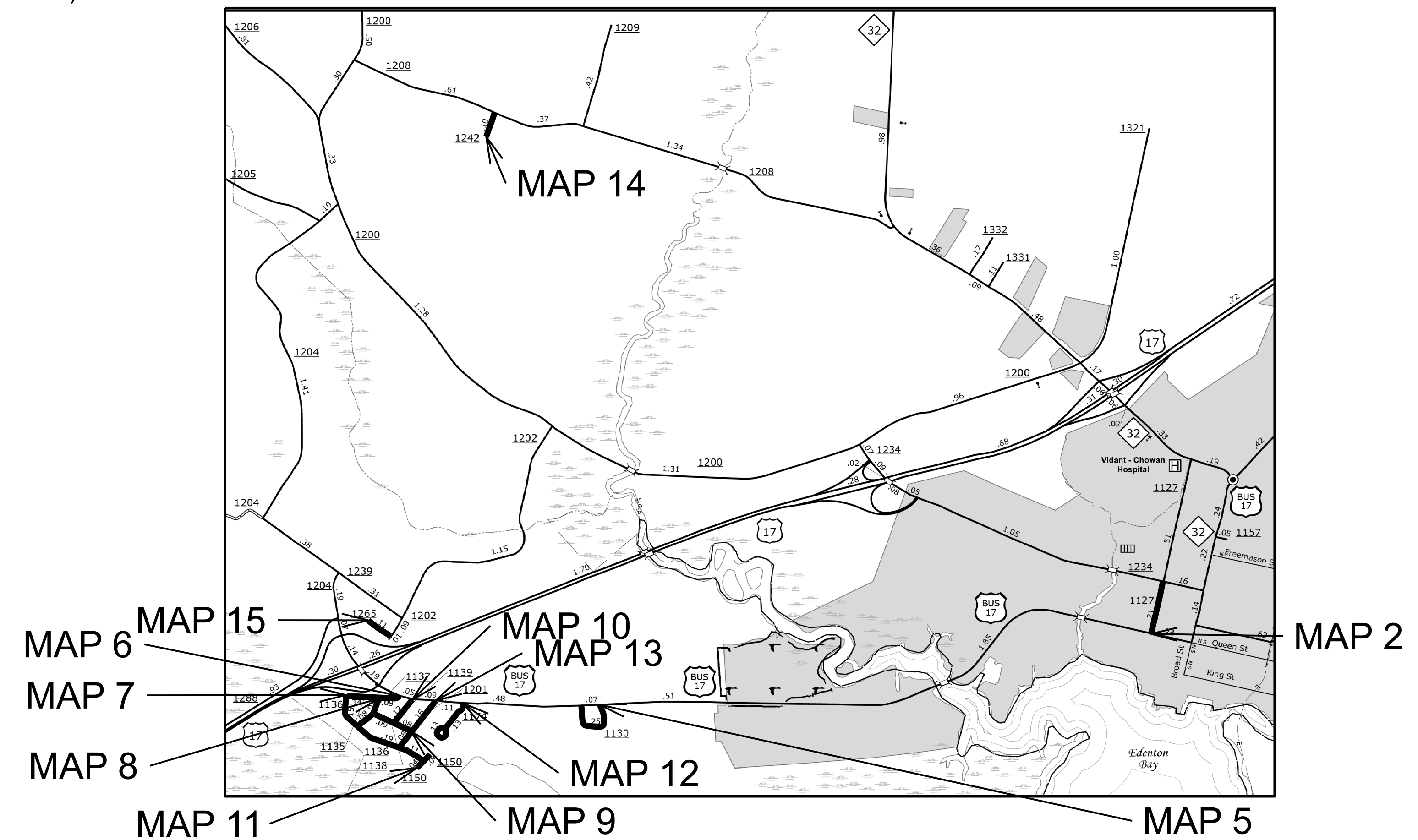
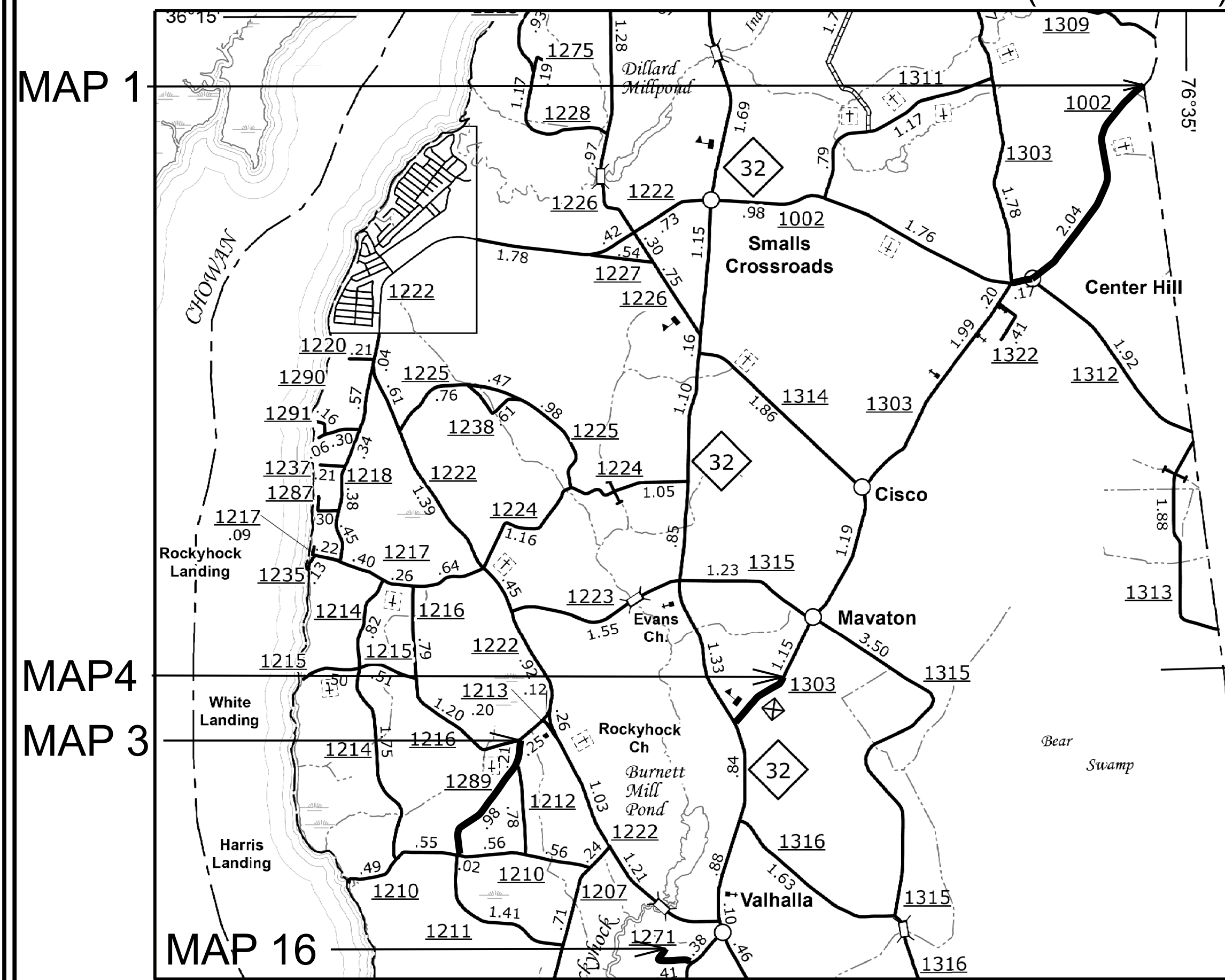
CONTRACT: DA00540 WBS NO.: 2023CPT.01.08.20211.1, ETC.

LOCATION:

- MAP 1 - SR 1002 (CENTER HILL / COUNTY LINE RD) FROM SR1303 TO PERQUIMANS CO LINE
- MAP 2 - SR 1127 (GRANVILLE ST) FROM QUEEN ST TO WEST CARTERET
- MAP 3 - SR 1289 (BEECHFORK RD) FROM SR 1210 TO SR 1216
- MAP 4 - SR 1303 (SANDY RIDGE RD) FROM NC 32 TO END 3 LANE
- MAP 5 - SR 1130 (ROBERTS DR) FROM US 17 BUS TO US 17 BUS
- MAP 6 - SR 1135 (BELL DR) FROM SR 1136 TO US 17 BUS
- MAP 7 - SR 1136 (OAK RIDGE DR) FROM SR 1150 TO SR 1135
- MAP 8 - SR 1137 CRESTWOOD LN) FROM SR 1135 TO SR 1138

- MAP 9 - SR 1138 (LYNN DR) FROM SR 1136 TO SR 1201
- MAP 10 - SR 1139 (MANOR RD) FROM SR 1138 TO US 17 BUS
- MAP 11 - SR 1150 (OAK RIDGE DR) FROM CUL-DE-SAC TO CUL-DE-SAC
- MAP 12 - SR 1174 (COUTRYSIDE DR) FROM US 17 (INCLUDES LOOP)
- MAP 13 - SR 1201 (HOBBS ACRE DR) FROM SR 1136 TO US 17 BUS
- MAP 14 - SR 1242 (HICKORY LN) FROM CUL-DE-SAC TO SR 1208
- MAP 15 - SR 1265 (DONNA DR) FROM DEAD END TO SR 1202
- MAP 16 - SR 1271 (MORRIS LN) FROM DEAD END TO SR 1206

TYPE OF WORK: AST (MAT COAT), MILLING, RESURFACING AND SHOULDER RECONSTRUCTION



GRAPHIC SCALES

NTS

MAP LENGTH

MAP 1 = 2.21 MILES	MAP 9 = 0.17 MILES
MAP 2 = 0.29 MILES	MAP 10 = 0.12 MILES
MAP 3 = 1.19 MILES	MAP 11 = 0.07 MILES
MAP 4 = 0.45 MILES	MAP 12 = 0.13 MILES
MAP 5 = 0.25 MILES	MAP 13 = 0.24 MILES
MAP 6 = 0.23 MILES	MAP 14 = 0.10 MILES
MAP 7 = 0.44 MILES	MAP 15 = 0.11 MILES
MAP 8 = 0.07 MILES	MAP 16 = 0.41 MILES

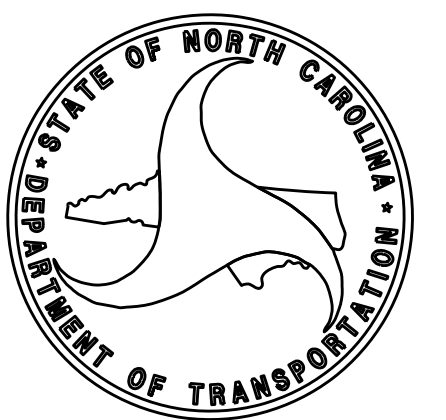
Prepared in the Office of:  
**DIVISION 1**  
**DIVISION OF HIGHWAYS**  
113 AIRPORT DR., EDENTON NC, 27932

2018 STANDARD SPECIFICATIONS

**W. B. HOBBS, PE**  
DIVISION PROJECT DEVELOPMENT ENGINEER

**CHRIS SLACHTA**  
DIVISION CONTRACT ENGINEER

**S. P. FENWICK, PLS**  
DIVISION DESIGN ENGINEER



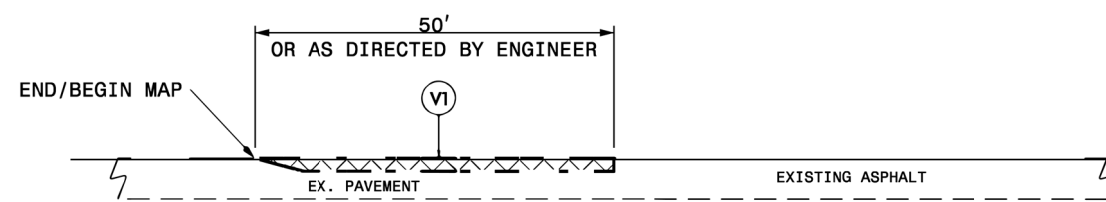
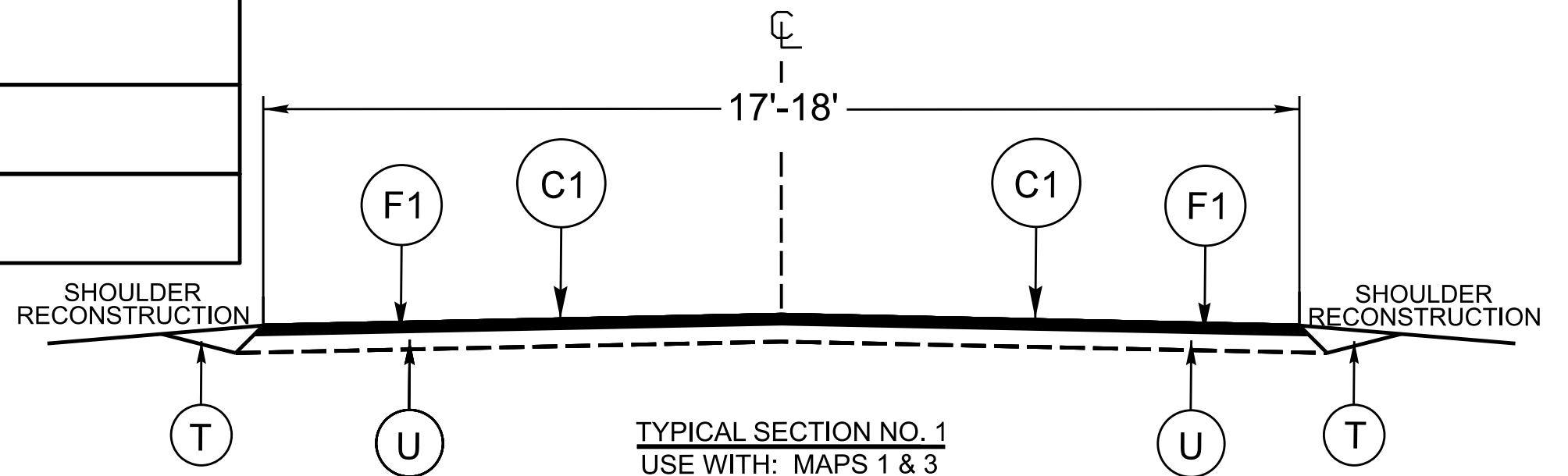
\$\$\$\$\$ SYSTEM TIME \$\$\$  
\$\$\$\$\$ DONOR \$\$\$  
\$\$\$\$\$ USERNAME \$\$\$

# PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S4.75A, AT AN AVERAGE RATE OF 100 LBS. PER SQ. YD.
F1	ASPHALT SURFACE TREATMENT, MAT COAT, #67 STONE
R1	1'-6" CURB AND GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT.
V1	INCIDENTAL MILLING
V2	MILLING ASPHALT PAVEMENT 1.5".

**NOTES:**

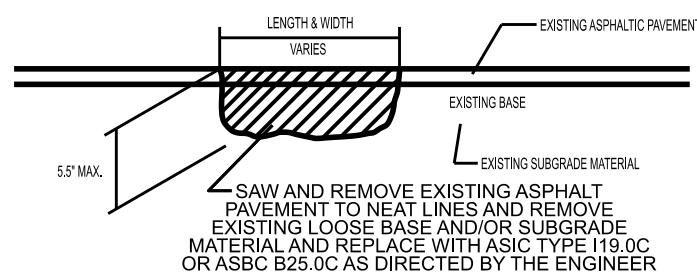
- \* ALL INTERSECTING ROADS ARE TO BE RESURFACED TO THE ENDS OF THEIR RADII, THE MAIN LINE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER. THIS SHALL INCLUDE ANY TAPERS AND TURN LANES LOCATED BOTH ON THE MAIN LINE OR INTERSECTING PAVED ROADWAY.
- \* EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE SUMMARY OF QUANTITIES.
- \* ASPHALT SURFACE TREATMENT (MAT COAT) CONSISTS OF: ONE LAYER OF EMULSIFIED ASPHALT GRADE CRS-2L AT A RATE OF 0.38± GAL/SY AND ONE LAYER OF #67 STONE AT A RATE OF 20-25± LBS/SY.
- \* CONSTRUCT THE MAT COAT IN ACCORDANCE WITH SUBARTICLE 660-8(D) OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. AFTER THE MAT COAT HAS BEEN SATISFACTORILY APPLIED AND ROLLED, THE APPLICATION OF THE PLANT MIX OVERLAY SHALL BE COMPLETED WITHIN THE SAME DAY.
- \* ASPHALT SURFACE TREATMENT, MAT COAT, #67 STONE SHALL ONLY BE APPLIED TO THE MAINLINE AND NOT TO THE RADIUS OF ANY SIDE ROAD OR DRIVEWAY.
- \* THE CONTRACTOR MUST PROVIDE A SPREADER THAT IS AT LEAST 12' WIDE FOR IRREGULAR AREAS ALONG THE MAPS.



**DETAIL 1**

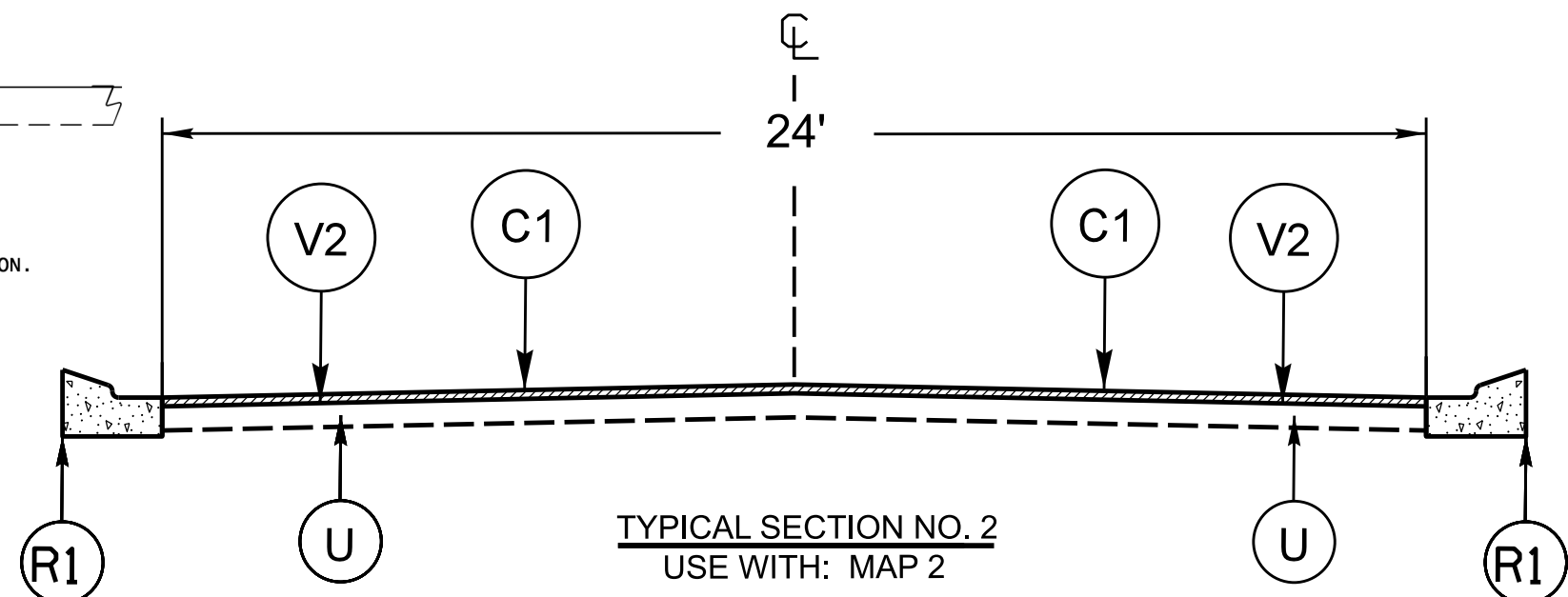
**NOTE:**

1. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE SECTIONS, OR AS DIRECTED BY THE ENGINEER.
2. PAVE TO THE END OF THE MILLED SURFACE TO CREATE A SMOOTH TRANSITION.



\*NOTE: EDGES OF PATCHED AREA ARE TO BE CLEANED OF ALL DEBRIS AND COATED WITH AN APPROVED TACK MATERIAL BEFORE PLACING ASPHALT.

**PATCHING EXISTING PAVEMENT (FULL DEPTH)**

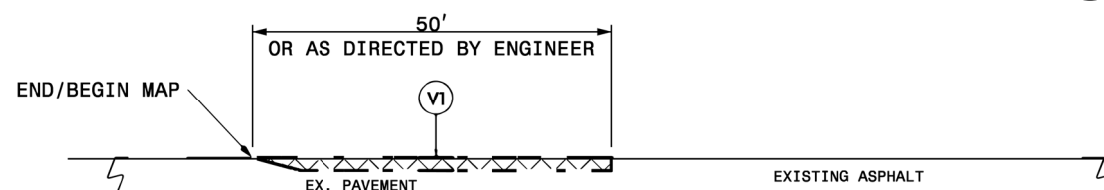
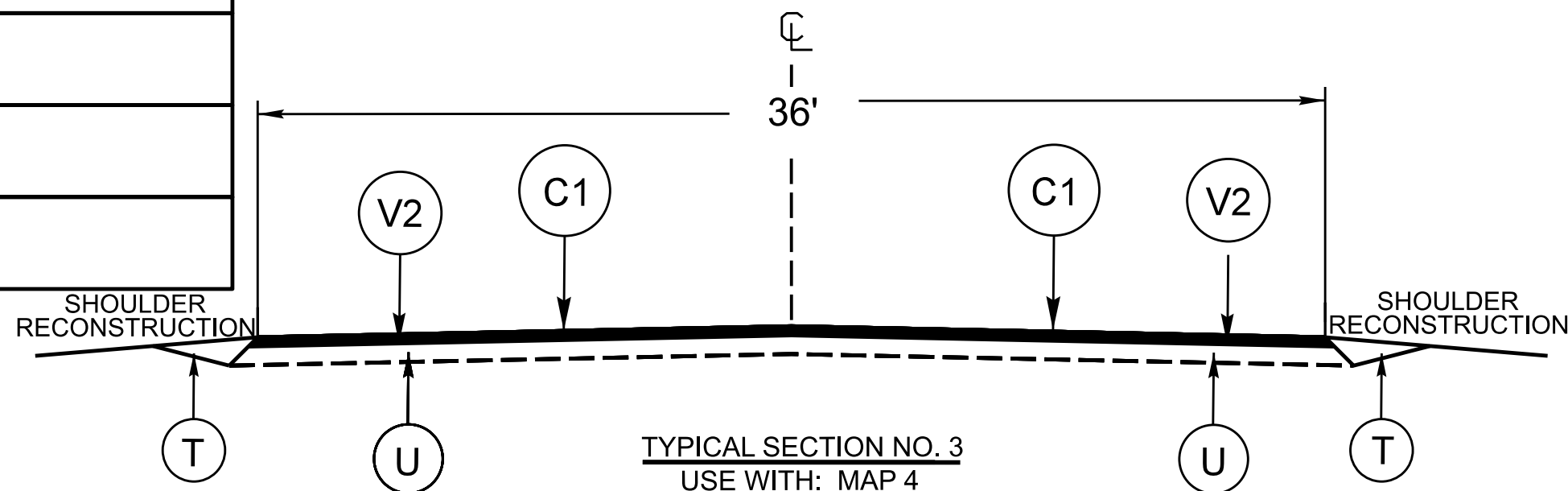


# PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
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F1	ASPHALT SURFACE TREATMENT, MAT COAT, #67 STONE
R1	1'-6" CURB AND GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT.
V1	INCIDENTAL MILLING
V2	MILLING ASPHALT PAVEMENT 1.5".

**NOTES:**

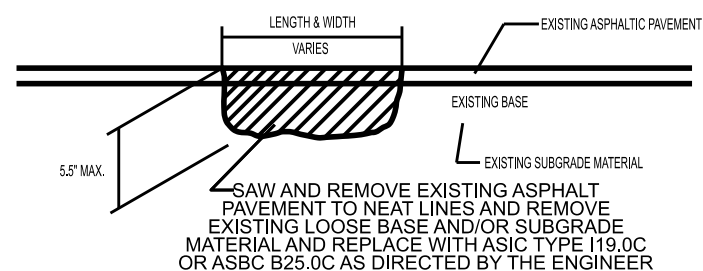
- \* ALL INTERSECTING ROADS ARE TO BE RESURFACED TO THE ENDS OF THEIR RADII, THE MAIN LINE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER. THIS SHALL INCLUDE ANY TAPERS AND TURN LANES LOCATED BOTH ON THE MAIN LINE OR INTERSECTING PAVED ROADWAY.
- \* EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE SUMMARY OF QUANTITIES.
- \* ASPHALT SURFACE TREATMENT (MAT COAT) CONSISTS OF: ONE LAYER OF EMULSIFIED ASPHALT GRADE CRS-2L AT A RATE OF 0.38± GAL/SY AND ONE LAYER OF #67 STONE AT A RATE OF 20-25± LBS/SY.
- \* CONSTRUCT THE MAT COAT IN ACCORDANCE WITH SUBARTICLE 660-8(D) OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. AFTER THE MAT COAT HAS BEEN SATISFACTORILY APPLIED AND ROLLED, THE APPLICATION OF THE PLANT MIX OVERLAY SHALL BE COMPLETED WITHIN THE SAME DAY.
- \* ASPHALT SURFACE TREATMENT, MAT COAT, #67 STONE SHALL ONLY BE APPLIED TO THE MAINLINE AND NOT TO THE RADIUS OF ANY SIDE ROAD OR DRIVEWAY.
- \* THE CONTRACTOR MUST PROVIDE A SPREADER THAT IS AT LEAST 12' WIDE FOR IRREGULAR AREAS ALONG THE MAPS.



**DETAIL 1**

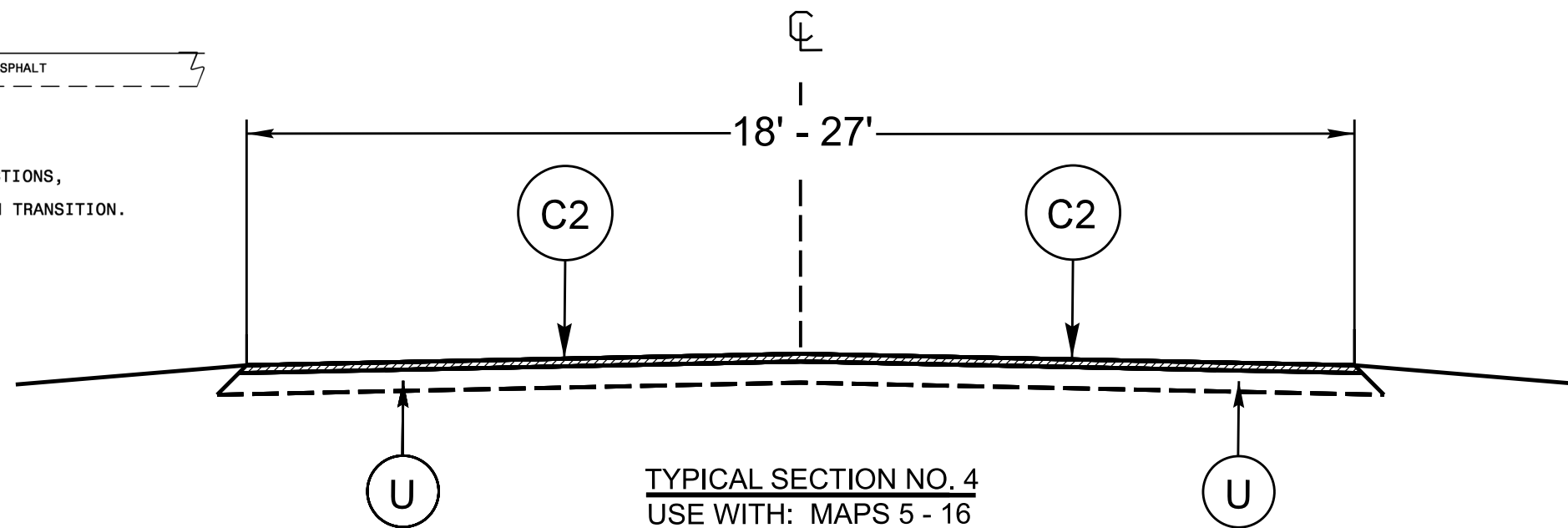
**MAIN LINE MILLING**

- NOTE:**
1. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE SECTIONS, OR AS DIRECTED BY THE ENGINEER.
  2. PAVE TO THE END OF THE MILLED SURFACE TO CREATE A SMOOTH TRANSITION.



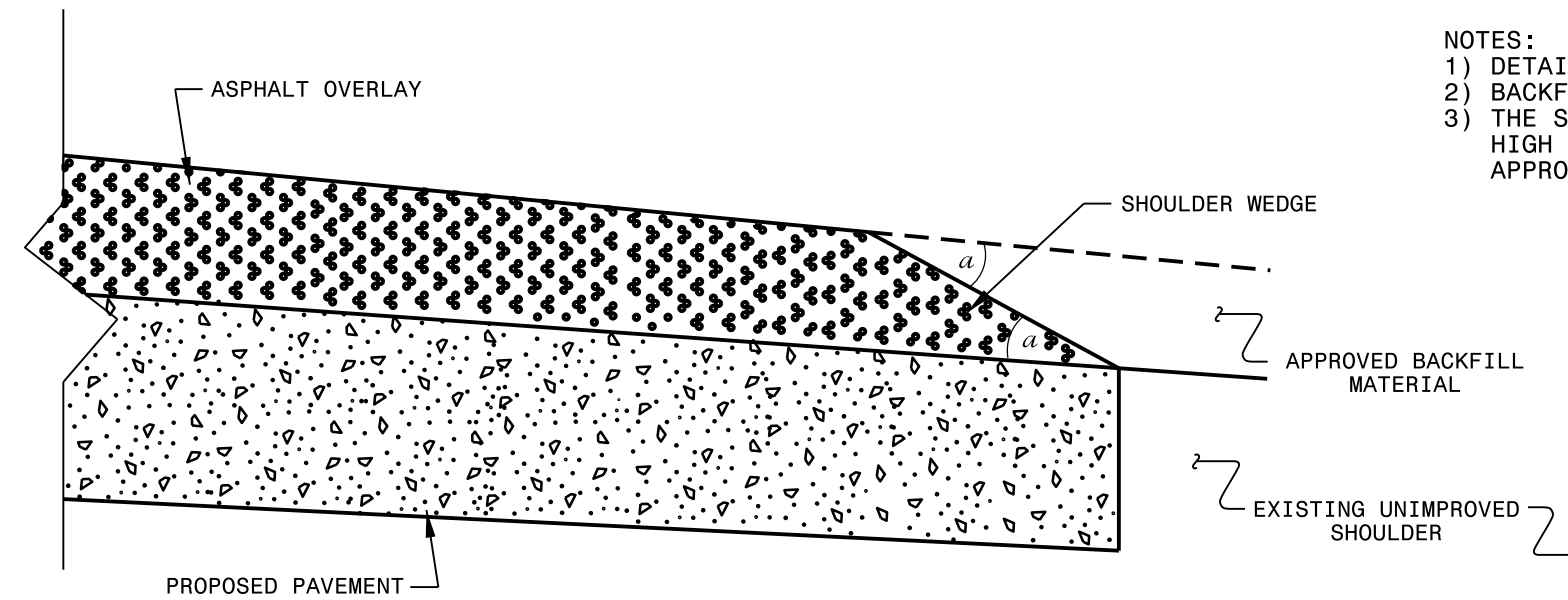
\*NOTE: EDGES OF PATCHED AREA ARE TO BE CLEANED OF ALL DEBRIS AND COATED WITH AN APPROVED TACK MATERIAL BEFORE PLACING ASPHALT.

**PATCHING EXISTING PAVEMENT (FULL DEPTH)**

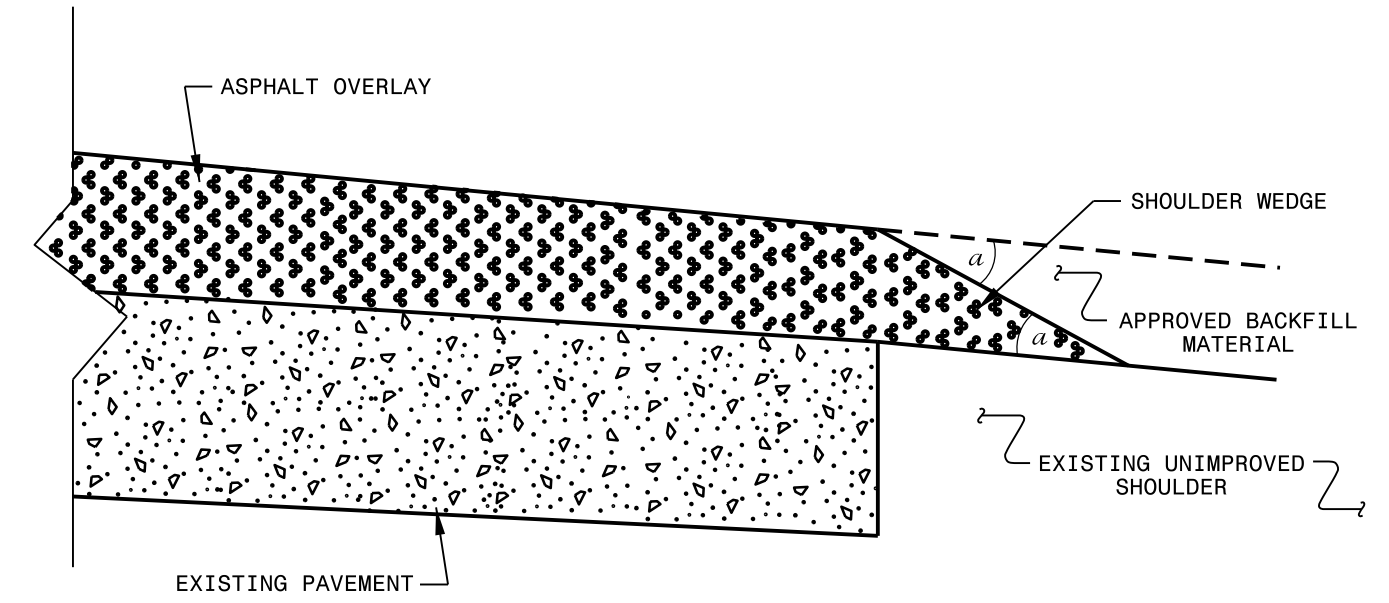


2023CPT.01.08.20211.1, ETC. SHEET NO. 3

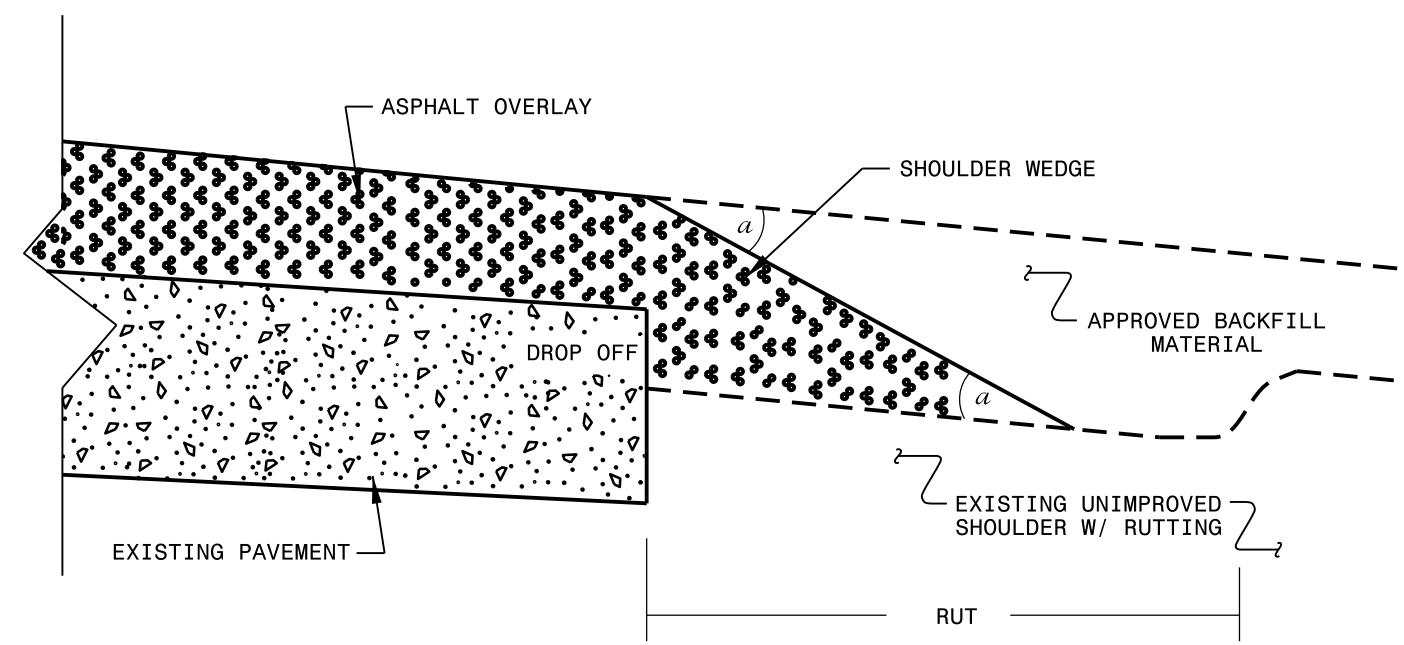
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
  - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
  - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



**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: 2/2/16
CHECKED BY:	DATE:
FILE SPEC.:	s:\usr\detatl1s\stand\shoulderwedgedetatl1.dgn

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

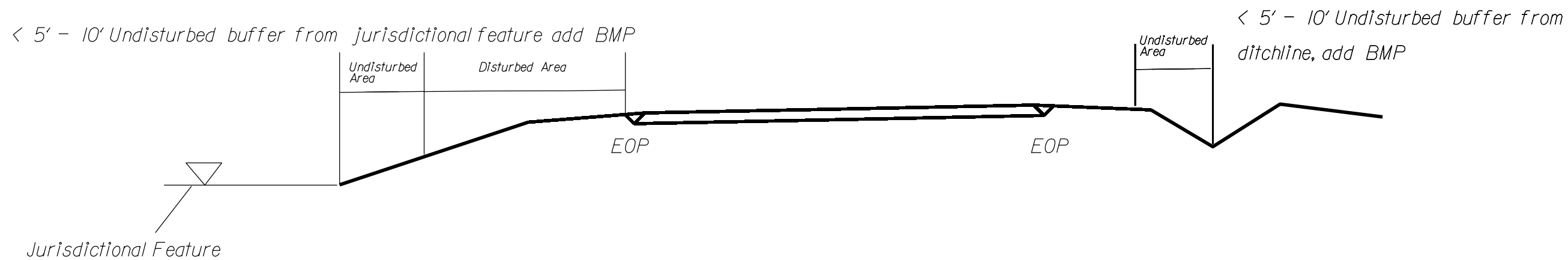
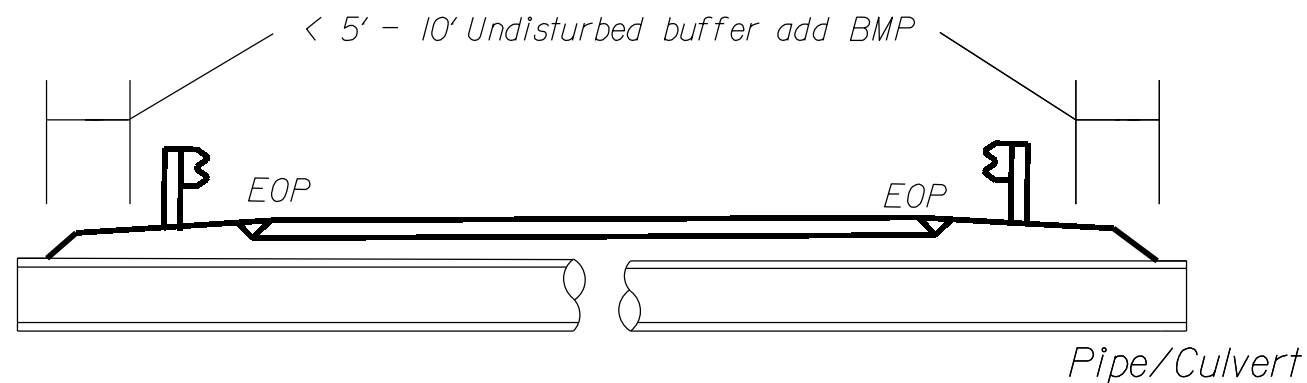
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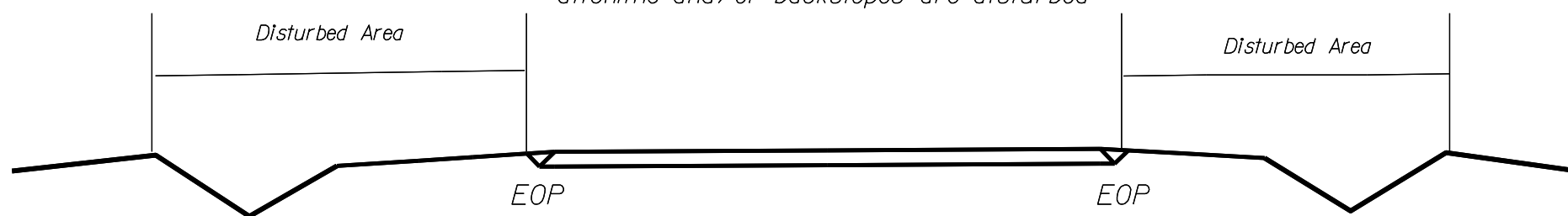
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle or Silt Fence

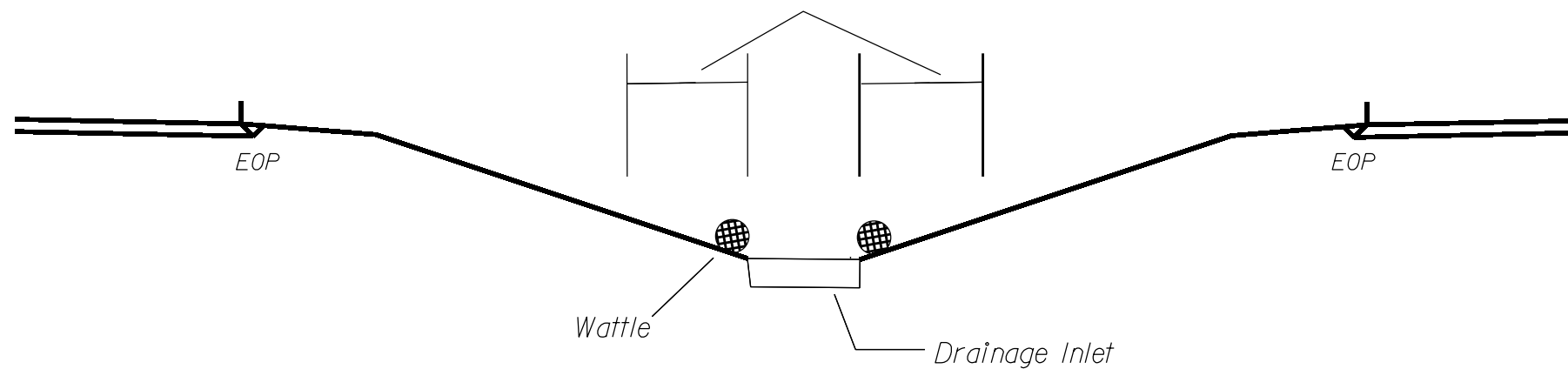
# EROSION CONTROL DETAIL



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

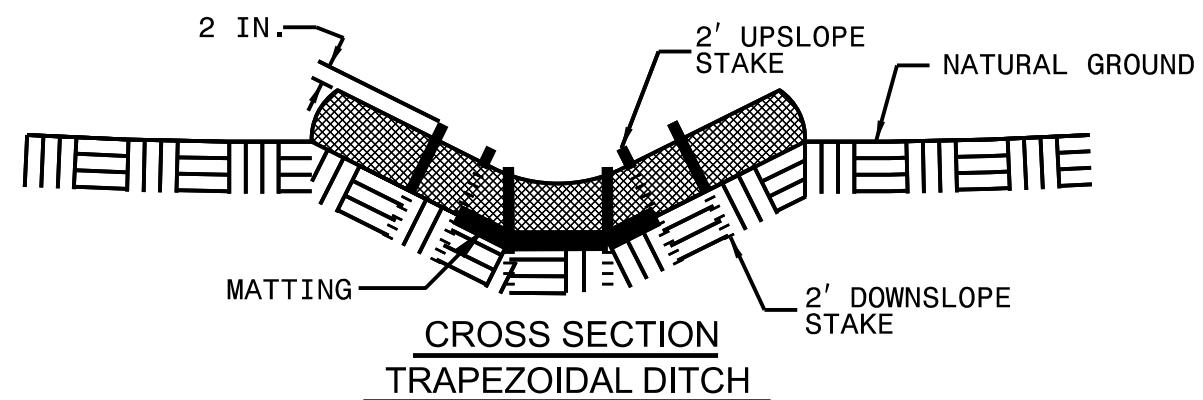
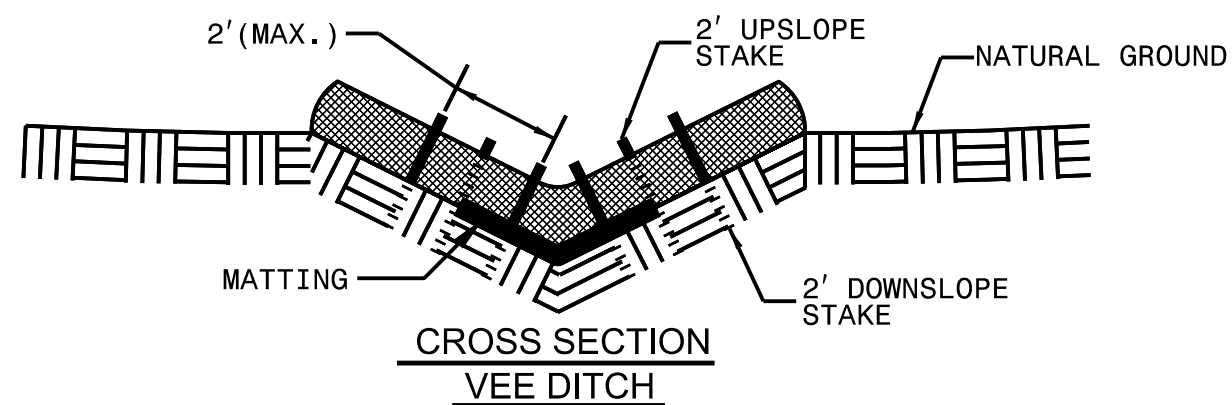
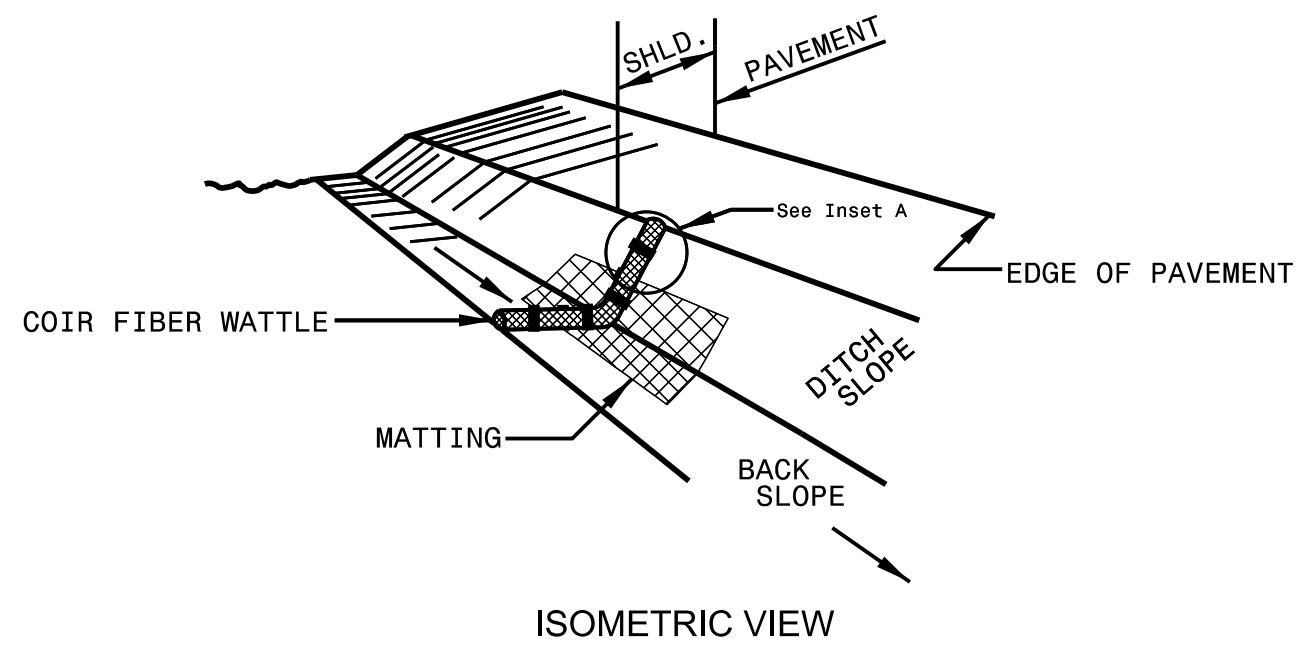


< 5' - 10' Undisturbed buffer from inlet, add wattle

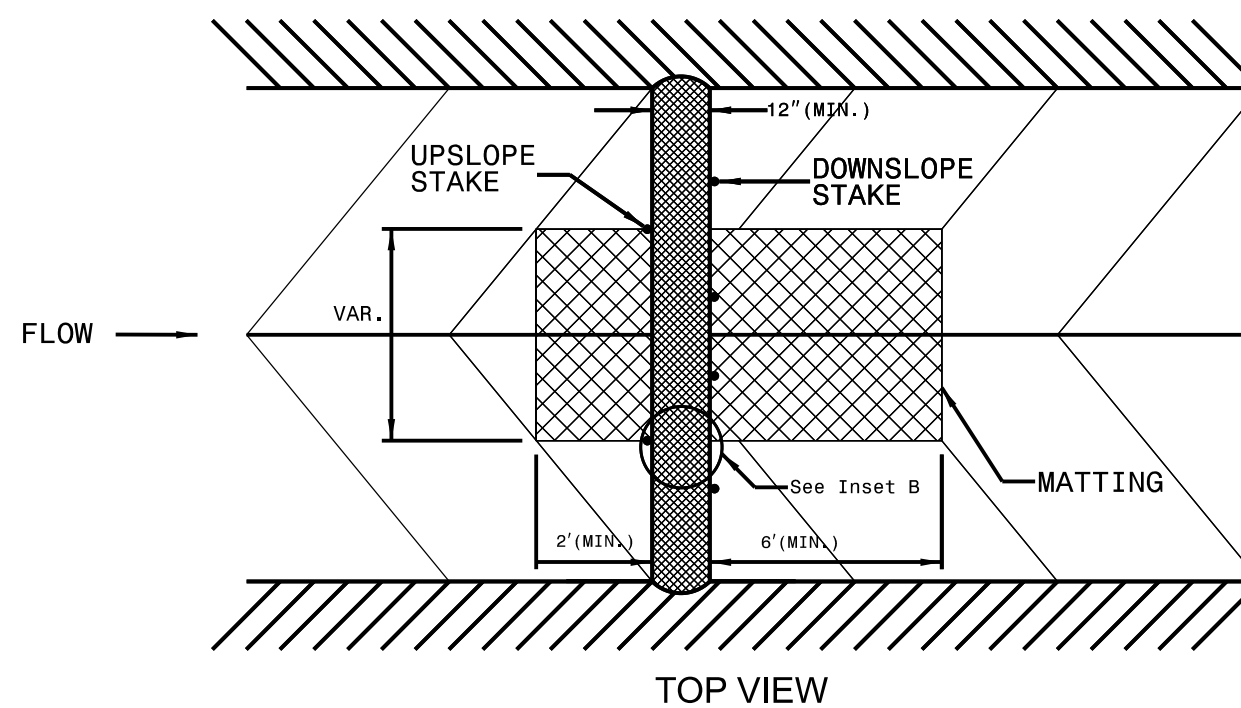
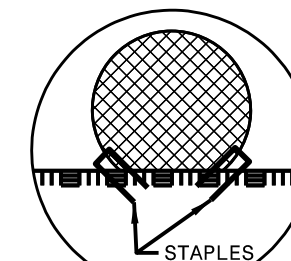
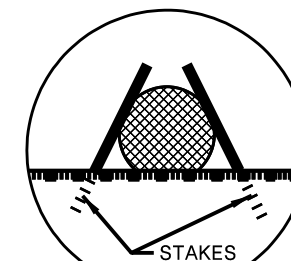


NOT TO SCALE

# COIR FIBER WATTLE DETAIL



- NOTES:
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) 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.



**DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA**

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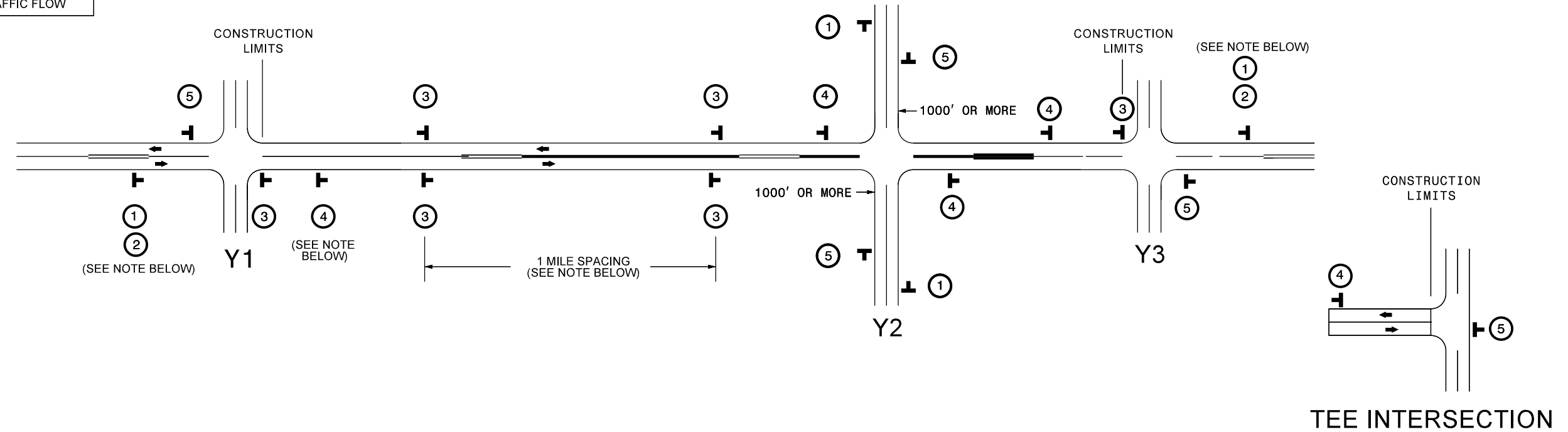
# SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.











# SIGNING FOR RESURFACING PROJECTS

**LEGEND**  
 STATIONARY SIGN  
 DIRECTION OF TRAFFIC FLOW

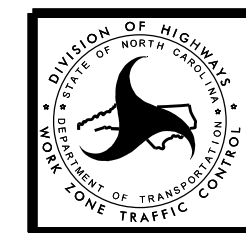


## MAINLINE (-L-) SIGNING

## -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1	 W20-1 48" X 48"	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p><b>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</b></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, PORTABLE ADVANCE WARNING 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 style="text-align: center;">  W20-1 48" X 48"         </div> <div style="text-align: center;">  W20-7 A 48" X 48"         </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER.</p>
	2	 W7-3aP 24" X 18"	#2 SIGN ONLY USED WHEN CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)	
	3	 SP 13107 48" X 48"	<p>- ALTERNATE THE FOLLOWING TWO SIGNS:</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>	
		 SP 48" X 48"		
	4	 SP 13106 48" X 48"	<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>	
5	 G20-2 A 48" X 24"	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.		
<p>THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.</p>				
<p>FOR RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, NO STATIONARY SIGNS ARE REQUIRED. USE PORTABLE "ROAD UNDER CONSTRUCTION" OR "ROAD WORK AHEAD" SIGNS IN LIEU OF STATIONARY ADVANCE WARNINGS SIGNS.</p>				

MAPS LESS THAN 2 MILES






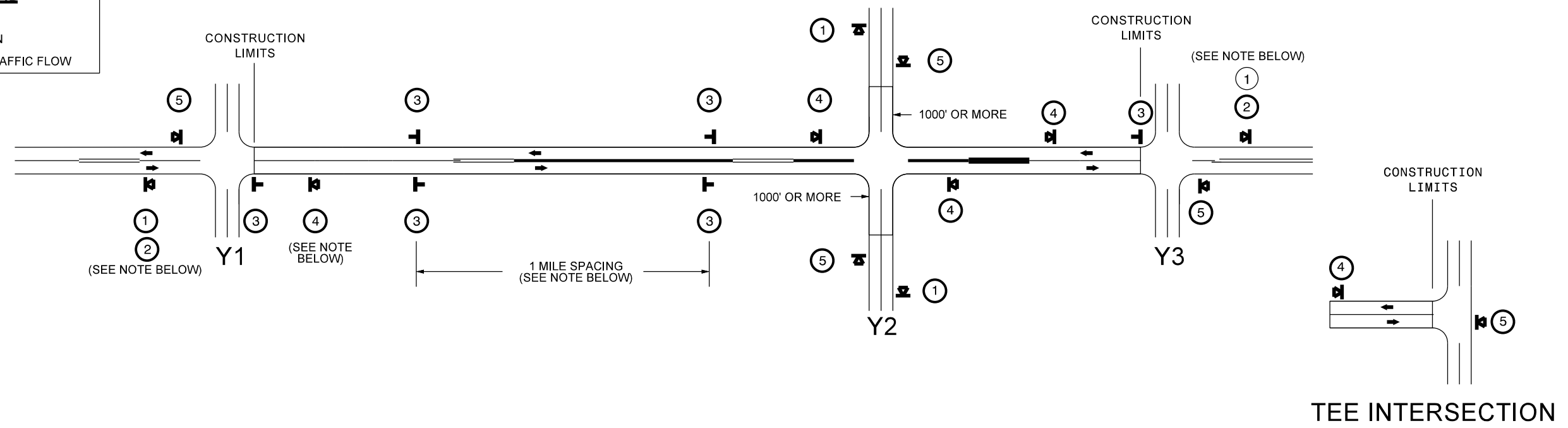
ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

\*\*\*\*\*SYSTEMS\*\*\*\*\*  
 \*\*\*\*\*DON\*\*\*\*\*  
 \*\*\*\*\*\*\*\*\*\*

# SIGNING FOR ASPHALT SURFACE TREATMENT








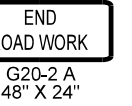
**LEGEND**

-  PORTABLE SIGN
-  STATIONARY SIGN
-  DIRECTION OF TRAFFIC FLOW



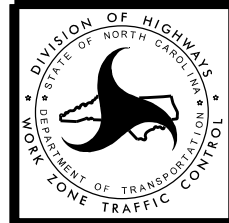
## MAINLINE (-L-) SIGNING

## -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>- SIGN #2 ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO THE NEAREST WHOLE NUMBER. DO NOT USE FRACTIONAL OR DECIMAL NUMBERS.</p>	<p>STATIONARY SIGNING NOT REQUIRED 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, PORTABLE ADVANCE WARNING 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 style="text-align: center;">               W20-1 48" X 48" PLACED 500' IN ADVANCE OF FLAGGER.         </div> <div style="text-align: center;">               W20-7 A 48" X 48" PLACED 250' IN ADVANCE OF FLAGGER.         </div> </div>
	 	<p>- ALTERNATE THE FOLLOWING TWO SIGNS:</p> <p>- STARTING WITH "LOOSE GRAVEL" (W8-7) FOLLOWED BY "UNMARKED PAVEMENT".</p> <p>- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER.</p> <p>- AT TEE INTERSECTIONS INSTALL INITIALLY 0.5 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.</p>	
		<p>- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. 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>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.</p>	
	<p>THE ABOVE SIGNS ARE ALL THAT ARE REQUIRED FOR A CONTRACTOR TO BEGIN A RESURFACING CONTRACT. ANY ADDITIONAL SIGNS REQUESTED BY NCDOT DIVISIONS SHALL BE INSTALLED WITHIN 7 BUSINESS DAYS OF THE START OF CONTRACT WORK.</p>		

MAPS LESS THAN 2 MILES

FOR AST RESURFACING MAPS WITH CONSTRUCTION LIMITS LESS THAN 2 MILES IN LENGTH, USE A STATIONARY "LOOSE GRAVEL" SIGN AT THE BEGINNING CONSTRUCTION LIMIT FOLLOWED BY AN "UNMARKED PAVEMENT" SIGN MIDWAY THROUGH AND AN "END ROAD WORK" SIGN AT THE END CONSTRUCTION LIMIT.



ADVANCE WARNING SIGNS FOR 2-LANE ROADWAY ASPHALT SURFACE TREATMENT

\$\$\$\$\$ SYSTEM\$\$\$\$\$  
\$\$\$\$\$ DRAWING\$\$\$\$\$  
\$\$\$\$\$ DRAWING\$\$\$\$\$  
\$\$\$\$\$ DRAWING\$\$\$\$\$