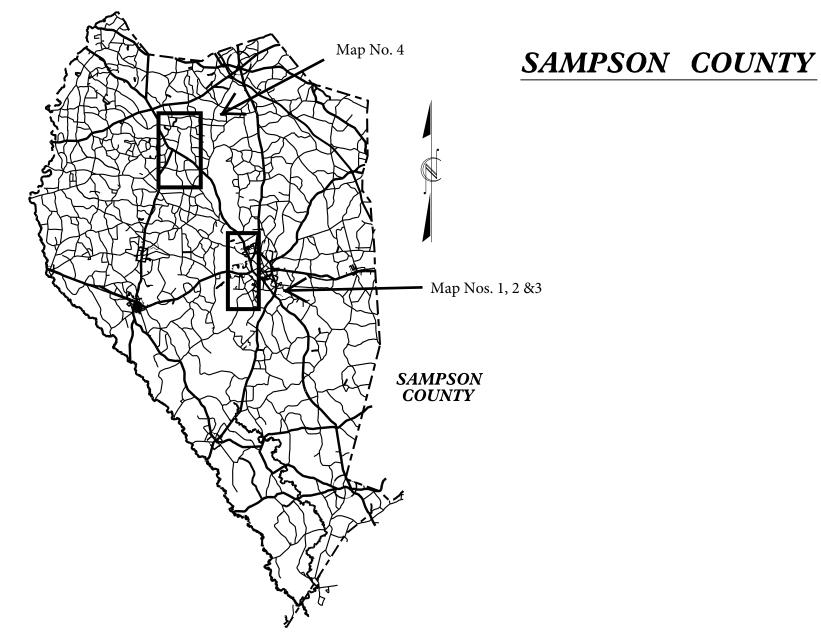
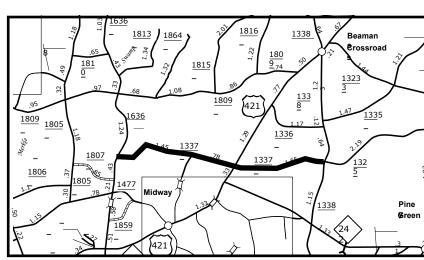
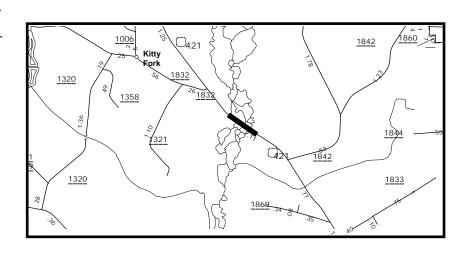
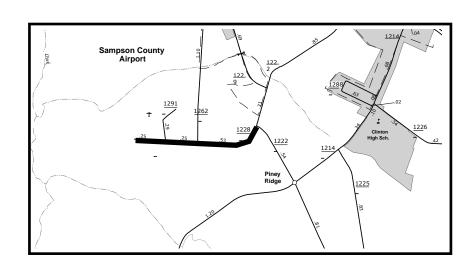
PROJECT REFERENCE NO. SHEET NO. 3B.108211, 2019CPT.03.12.20821 1 019CPT.03.12.20311



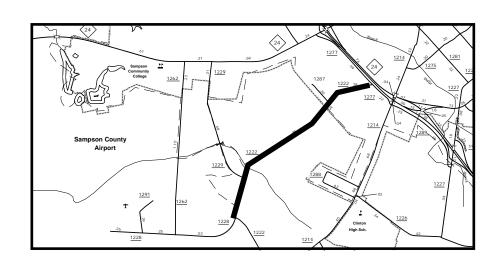




Map No. 1

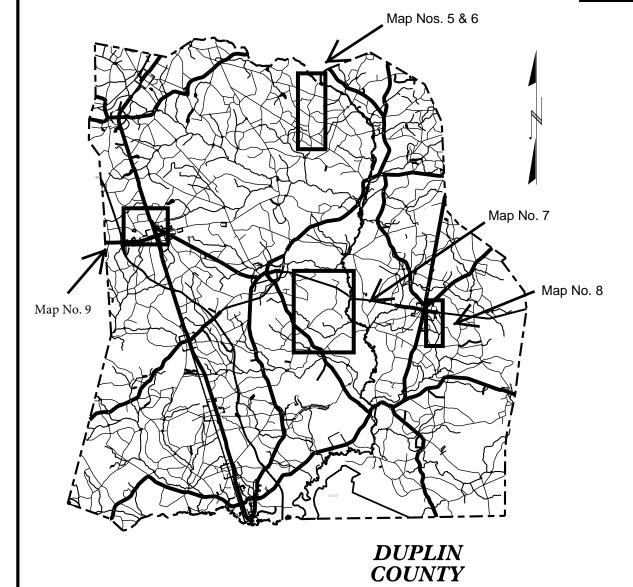


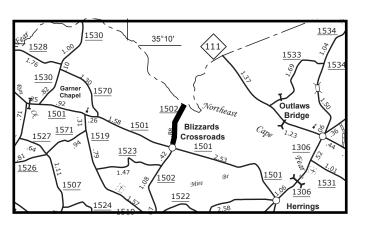
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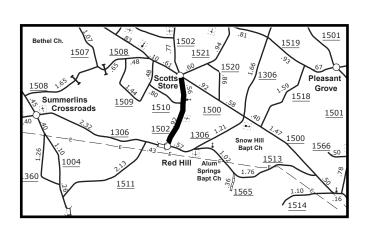
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DUPLIN COUNTY

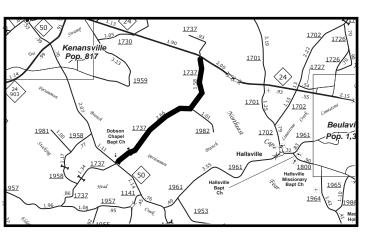




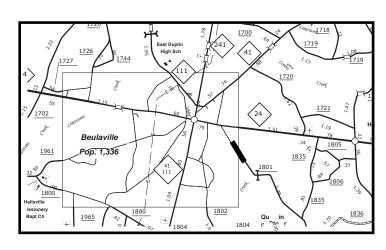
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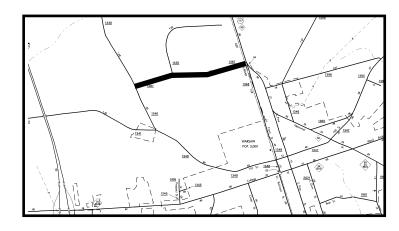
Map No. 6



Map No. 7



Map No. 8



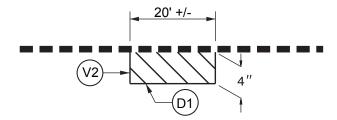
Map No. 9

OC00233 Sampson & Duplin County

TYPICAL SECTION NO. 1

MAP NO. 1 US 421 MP 29.74 - 29.97

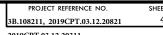
PATCHING EXISTING PAVEMENT DETAIL MAP 1

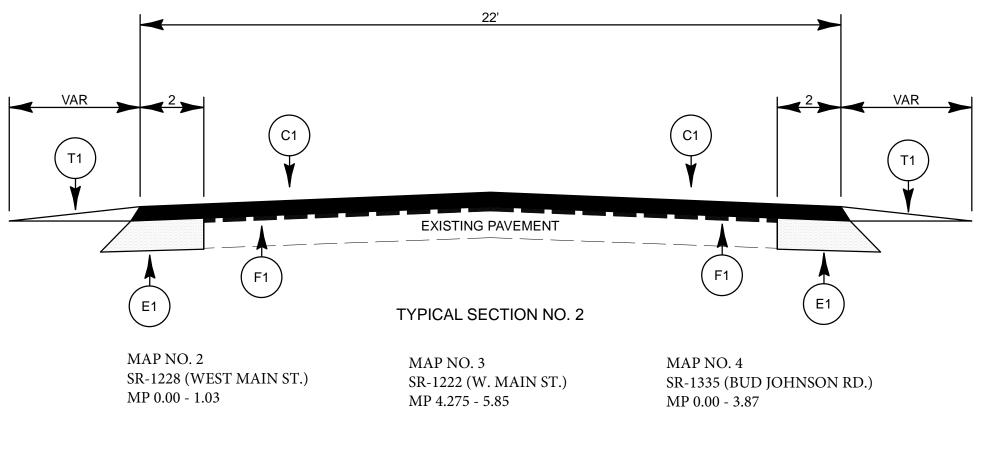


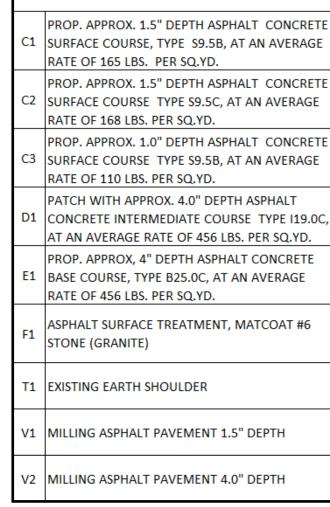
MILL EXISTING ASPHALT PAVEMENT 4" DEPTH AND FILL WITH INTERMEDIATE COURSE I19.0C AT LOCATIONS MARKED BY THE ENGINEER (BRIDGE APPROACHES)

PAVEMENT SCHEDULE			
C1	PROP. APPROX. 1.5" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ.YD.		
C2	PROP. APPROX. 1.5" DEPTH ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.		
C3	PROP. APPROX. 1.0" DEPTH ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ.YD.		
D1	PATCH WITH APPROX. 4.0" DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.		
F1	ASPHALT SURFACE TREATMENT, MATCOAT #6 STONE (GRANITE)		
T1	EXISTING EARTH SHOULDER		
V1	MILLING ASPHALT PAVEMENT 1.5" DEPTH		
V2	MILLING ASPHALT PAVEMENT 4.0" DEPTH		

NOTE: ALL MAPS
SHOULDER WORK TO BE
DONE BY STATE FORCES



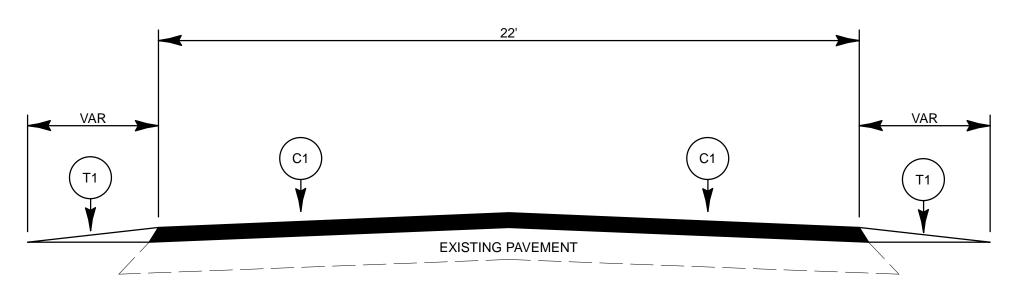




PAVEMENT SCHEDULE

NOTE: ALL MAPS
SHOULDER WORK TO BE
DONE BY STATE FORCES

NOTE: 1.5" SURFACE LIFT TO BE PLACED ON SR-1387 AFTER 1" SURFACE LIFT IS PLACED FROM US-117 TO CROSSLINE



TYPICAL SECTION NO. 3

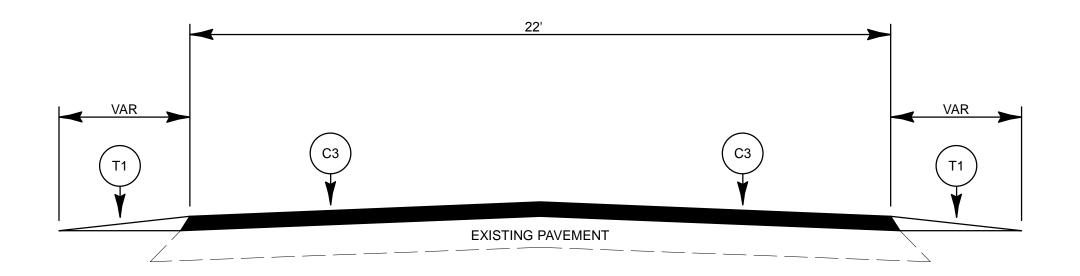
MAP NO. 5 SR-1502 (BENNETTS BRIDGE RD.) MP 0.00 - 0.88

MAP NO. 8 SR-1801 (LYMAN RD.) MP 8.09 - 8.50 MAP NO. 9 SR-1387 (BRUCE COSTIN RD.) MP 0.00 - 1.19 (SEE TYPICAL 5)

TYPICAL SECTION NO. 4

MAP NO. 6 SR-1502 (BENNETTS BRIDGE RD.) MP 3.92 - 5.40

MAP NO. 7 SR-1737 (DOBSON CHAPEL RD.) MP 2.20 - 6.42



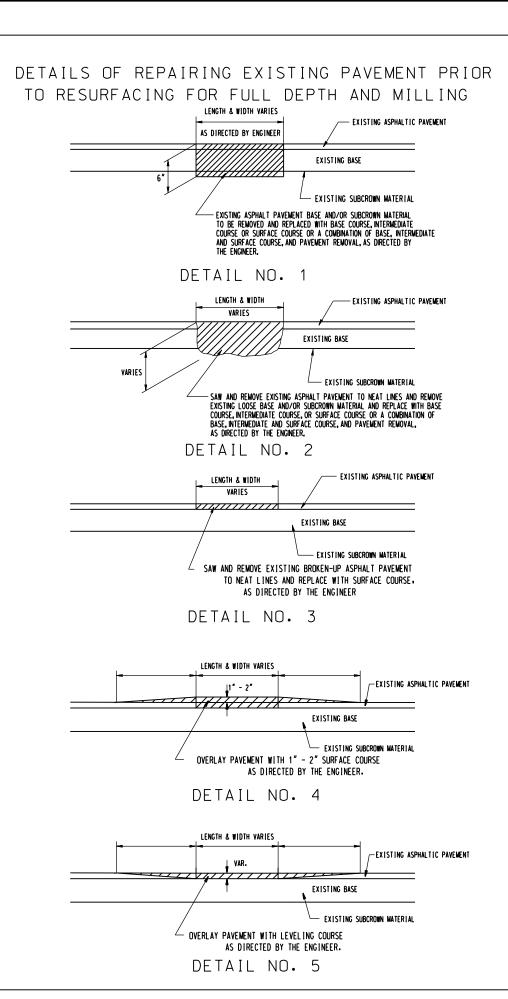
TYPICAL SECTION NO. 5

MAP NO. 9 SR-1387 (BRUCE COSTIN RD.) MP 0.00 - 0.80 FROM CROSSLINE TO US-117 (SEE TYPICAL 3)

PAVEMENT SCHEDULE PROP. APPROX. 1.5" DEPTH ASPHALT CONCRETE C1 SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ.YD. PROP. APPROX. 1.5" DEPTH ASPHALT CONCRETE C2 SURFACE COURSE TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD. PROP. APPROX. 1.0" DEPTH ASPHALT CONCRETE C3 SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ.YD. PATCH WITH APPROX. 4.0" DEPTH ASPHALT D1 | CONCRETE INTERMEDIATE COURSE TYPE 119.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD. ASPHALT SURFACE TREATMENT, MATCOAT #6 STONE (GRANITE) T1 EXISTING EARTH SHOULDER V1 | MILLING ASPHALT PAVEMENT 1.5" DEPTH V2 MILLING ASPHALT PAVEMENT 4.0" DEPTH

NOTE: ALL MAPS SHOULDER WORK TO BE **DONE BY STATE FORCES**

NOTE: 1.5" SURFACE LIFT TO BE PLACED ON SR-1387 AFTER 1" SURFACE LIFT IS PLACED FROM US-117 TO CROSSLINE



PROJECT REFERENCE NO. SHEET NO.
3B.108211, 2019CPT.03.12.20821

6

2019CPT.03.12.20311

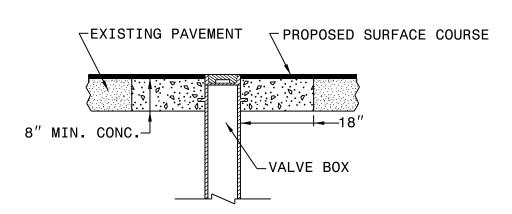
MAIN LINE IS BEING RESURFACED NOTE: NON-SYSTEM (CITY STREET, PRIVATE DRIVE, SCHOOL BUS DRIVE) RESURFACE AREA TO END OF RADII OR R/W LINE (MINIMUM 4' FROM EDGE OF TRAVELWAY OF MAINLINE) MINIMUM 50' TO END OF RADII, OR OTHER APPROPRIATE POINT (WHICHEVER IS GREATER) MAIN LINE IS NOT BEING RESURFACED MAPS ENDING IN A TEE INTERSECTION RESURFACE AREA CONCRETE ISLAND

BUTT JOINTS TO BE MILLED AT ALL MAINLINE & -Y- LINE TIE-INS

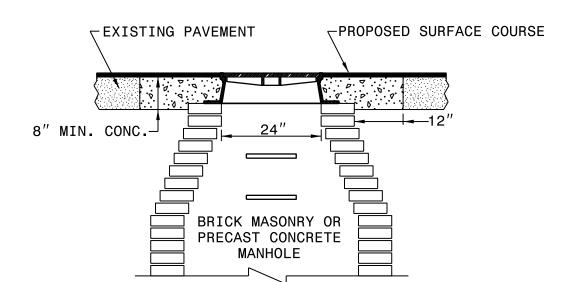
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

GENERAL NOTES:

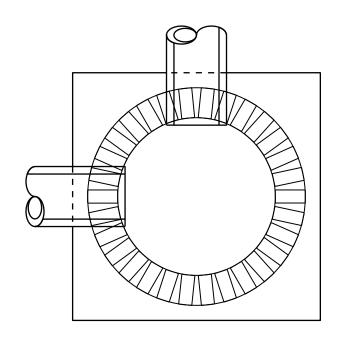
- 1. USE RAPID SET GROUT, MORTAR, OR CONCRETE THAT WILL TAKE FULL SET AND BECOME LOAD BEARING WITHIN SIXTY MINUTES OF PLACEMENT WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI.
- 2. REMOVE ALL FAULTY EXISTING BRICKWORK AND REPLACE WITH NEW BRICK MASONRY.
- 3. SHEER CUT EXCAVATION FOR THE ADJUSTMENT ON ALL SIDES.
- 4. FILL AREA BELOW 8" DEPTH WITH 78M OR NO. 57 CLEAN STONE.
- 5. MIX MORTAR TO NCDOT SPECIFICATIONS.
- 6. MORTAR JOINTS $\frac{1}{2}$ " +/- $\frac{1}{8}$ '
- 7. CONSTRUCT AN ASPHALT RAMP IN ACCORDANCE WITH SECTION 858-3 OF THE 2012 STANDARD SPECIFICATIONS.



VALVE BOX CONCRETE ENCASEMENT



MANHOLE CONCRETE ENCASEMENT



ELEVATION VIEW

PLACE BRICK ACCORDING TO ELEVATION VIEW

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ADJUSTMENTS BOX VALVE AND MANHOLE

DRAWING FOR

ENGLISH DETAIL

SHEET 1 OF 1 840D55

MANHOLE AND VALVE BOX

ENGLISH

DETAIL

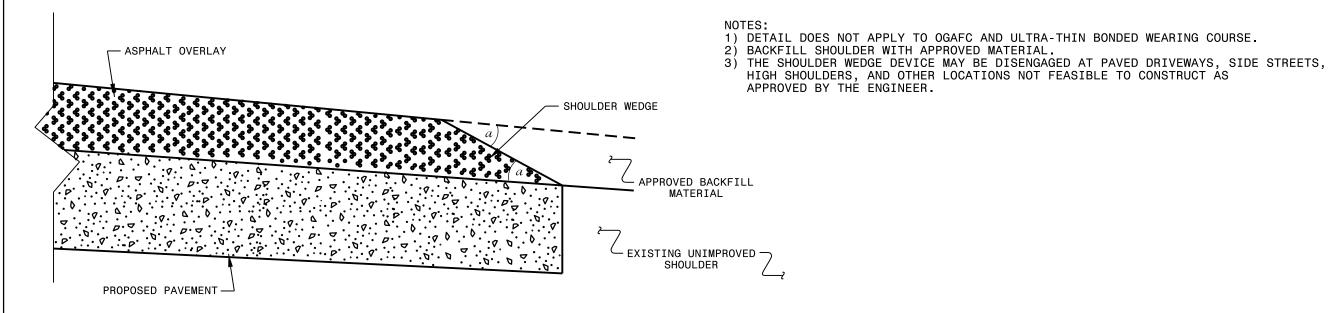
DRAWING

FOR

ADJUSTMENTS

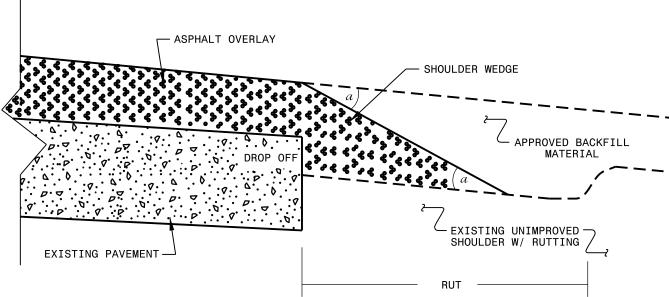
840D55

SHEET 1 OF 1



SHOULDER WEDGE DETAIL

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



ASPHALT OVERLAY SHOULDER WEDGE APPROVED BACKFILL MATERIAL EXISTING UNIMPROVED SHOULDER SHOULDER SHOULDER EXISTING UNIMPROVED SHOULDER

SHOULDER WEDGE DETAIL

(Resurfacing Projects w/ NO Widening)

- SHOULDER WEDGE ANGLE = 30°

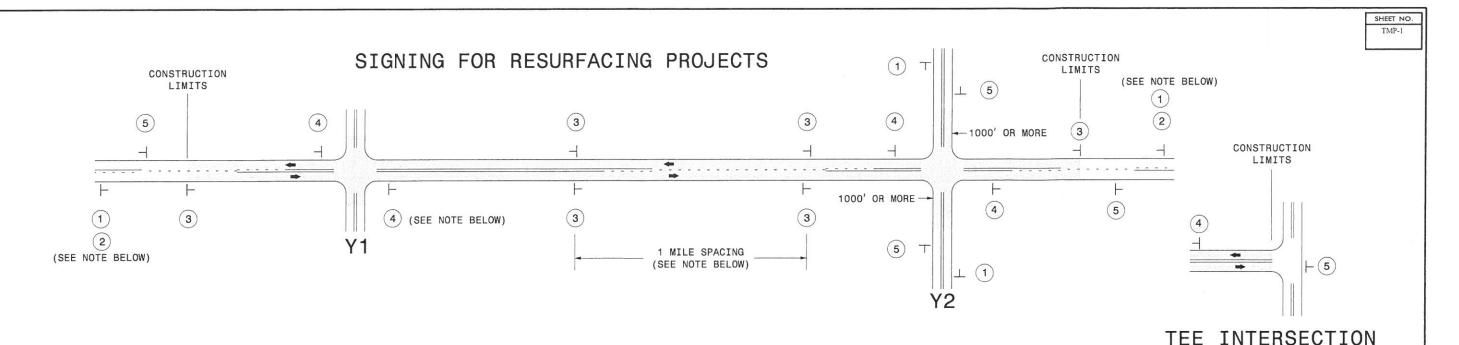
CONTRACT STANDARDS AND DEVELOPMENT UNIT Office 919-707-6950 FAX 919-250-4119

SHOULDER WEDGE DETAILS

ORIGINAL BY:	T. SPELL DATE:	7-19-11
MODIFIED BY:	DATE:	2/2/16
CHECKED BY:_	DATE:	
	s:usr/details/stand/shoulderwedg	edetail.dgn

SHOULDER WEDGE DETAIL

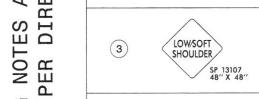
(Resurfacing Adjacent to Rutted Shoulder)



LEGEND - STATIONARY SIGN - DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ROAD ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE. WORK DIRECTION 1 AHEAD W20-1 48" X 48" #2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. (2) AND ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS) XX MILES



SIGNING

ACEMENT

- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART
- AT TEE INTERSECTIONS INSTALL INITIALLY 0.5 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.
- ROAD (4) UNDER

CONST

- THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. - DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS.
- INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. - 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. - A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.
- FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION ALONG -L- LINE.

END (5) ROAD WORK G20-2 A

PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.

-Y- LINE SIGNING

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

- 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE
- 2) SUBDIVISION ROADS
- 3) DEAD END ROADS

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.



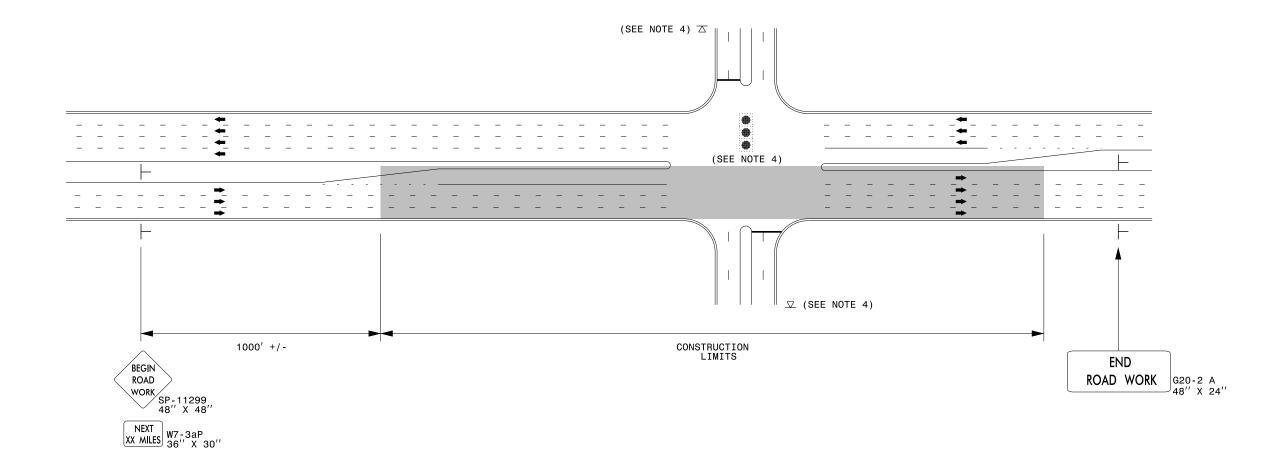


PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.



RESURFACING ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2 LANE ROADWAYS

URBAN / SUBURBAN WORKZONES



NOTES:

- 1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 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

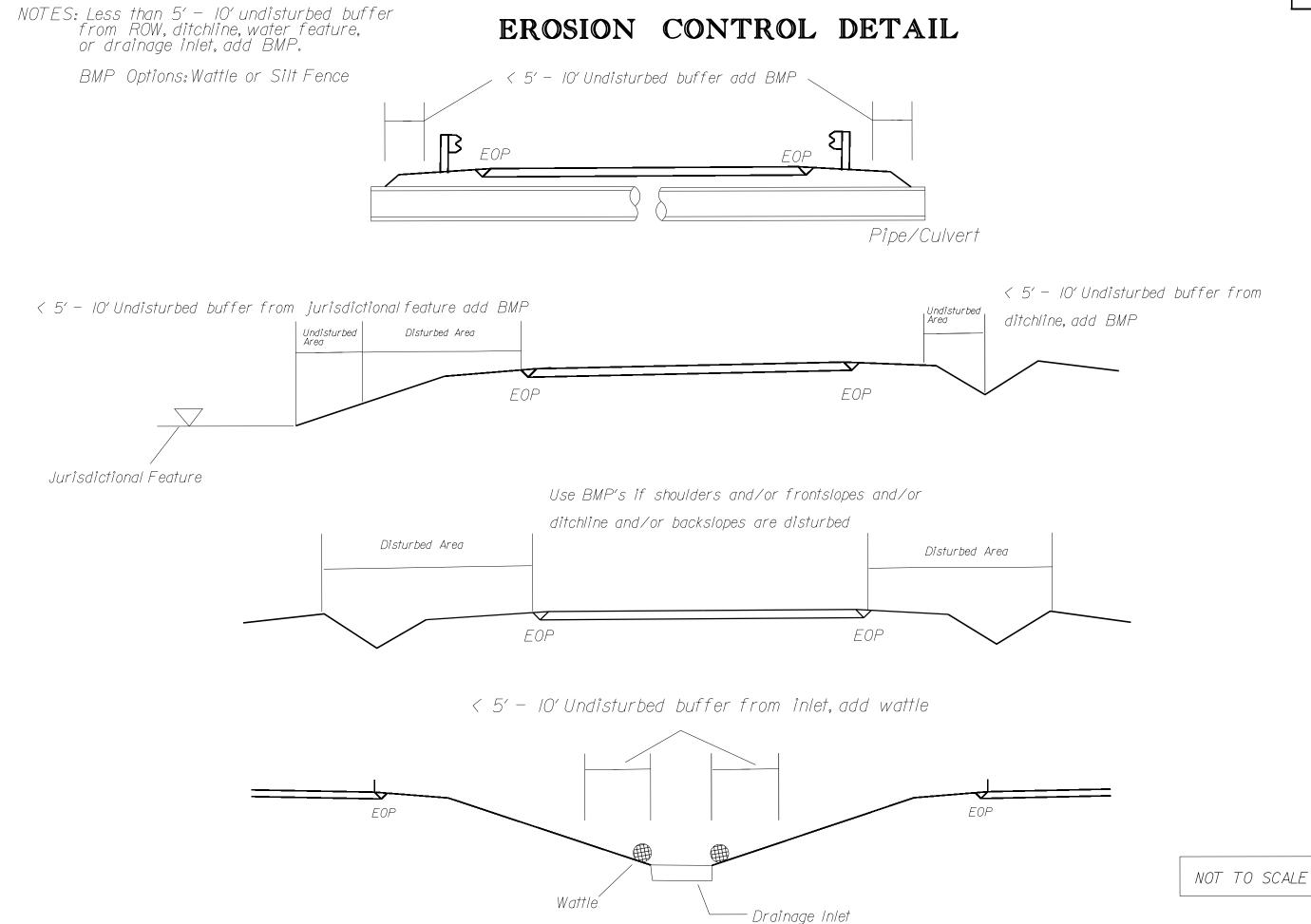
SHEET NO.

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

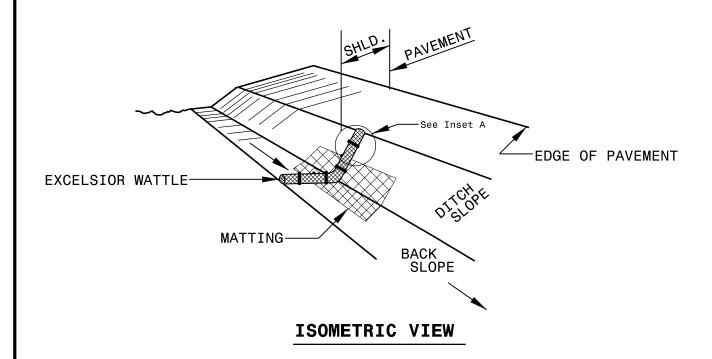
SOIL STABILIZATION TIMEFRAMES

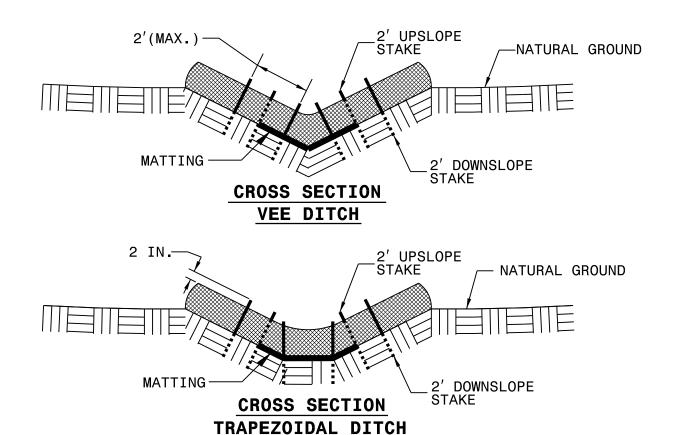
SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10'OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	I4 DAYS	7 DAYS FOR SLOPES GREATER THAN 50'IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	I4 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES.





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.

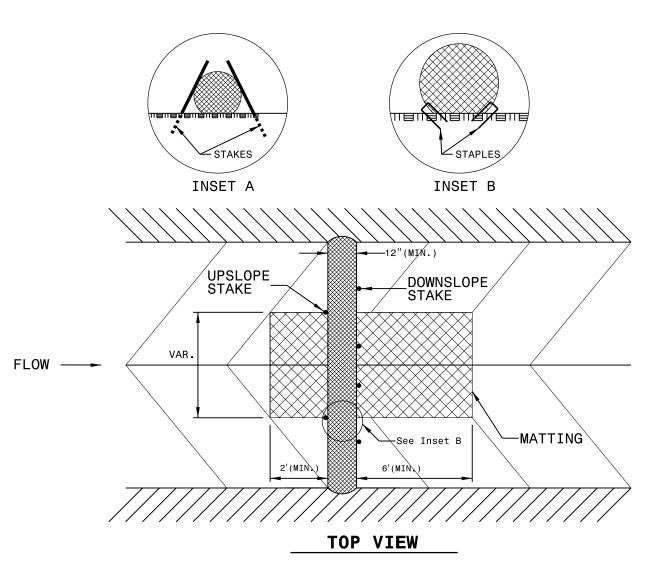
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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.



sta\2015 Resurfacing\Pender County\Plan Sheets\3CR.20711.173_ EC RESU

I-FEB-2015 II:41 D:\Resurfacing Data\20