

05/08/99

CONTRACT: C203619 WBS NO.: W-5203K, W-5203P, ETC.

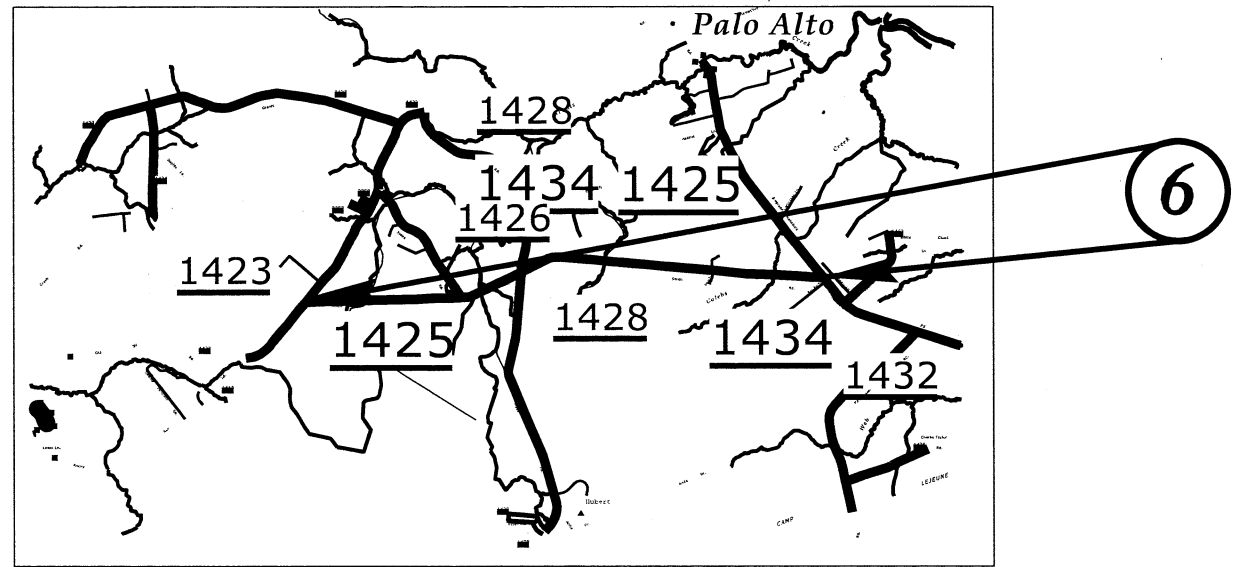
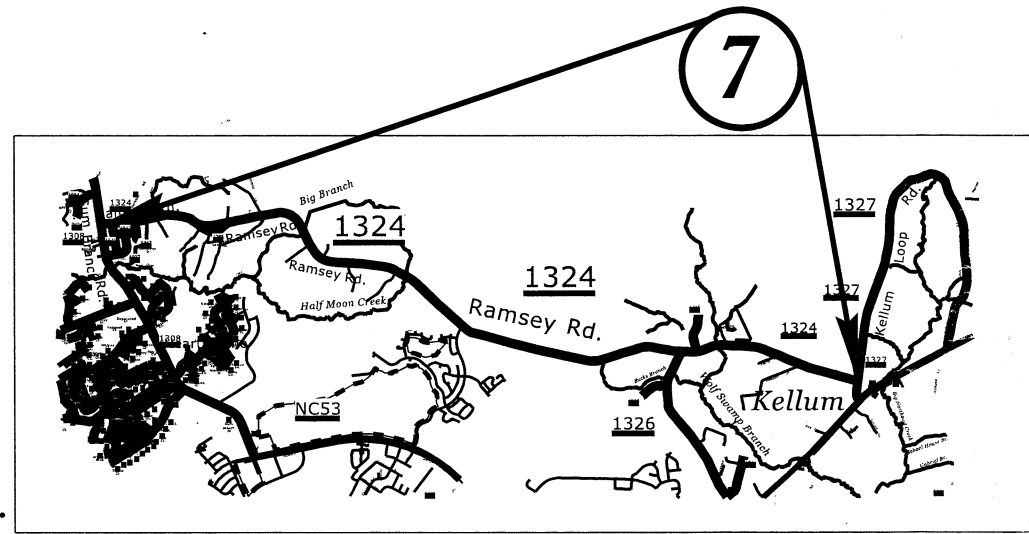
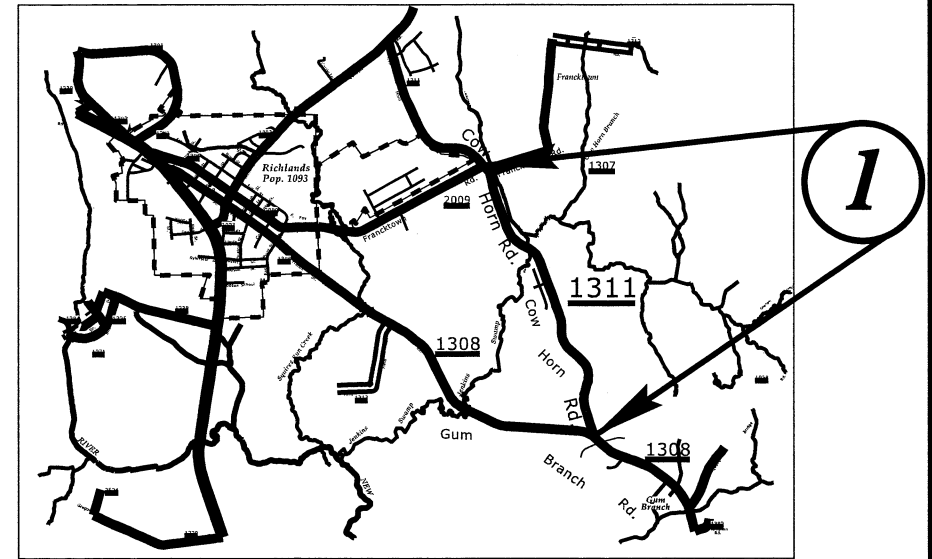
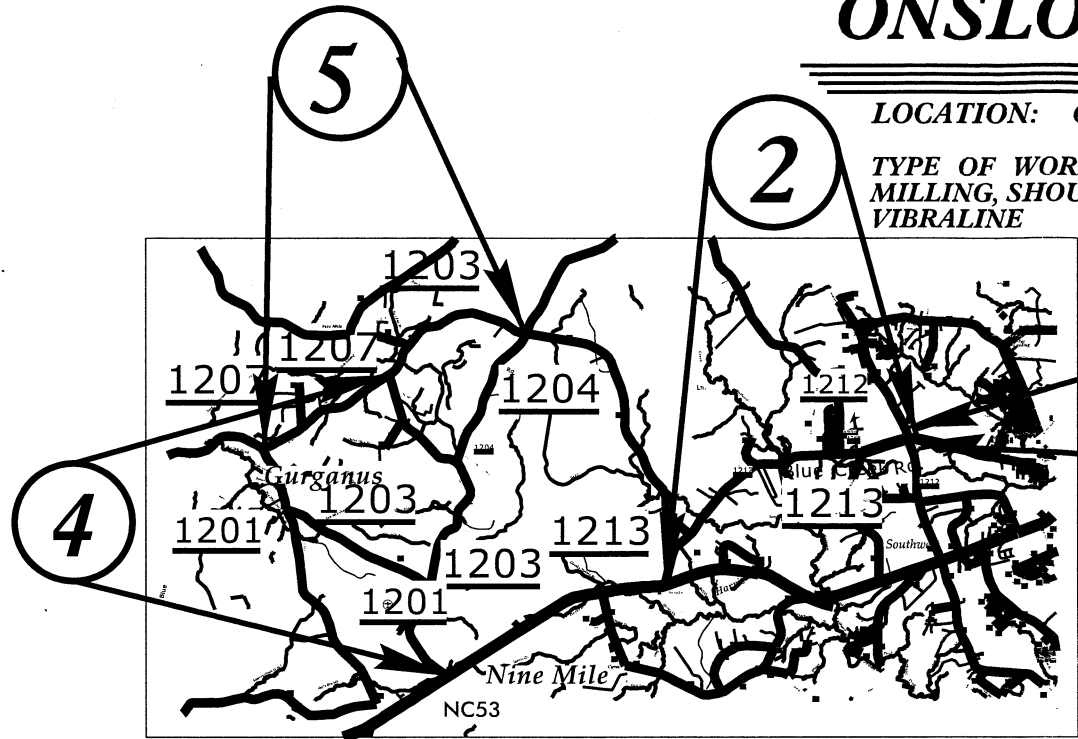
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ONSLOW COUNTY

LOCATION: ONSLOW COUNTY SECONDARY

TYPE OF WORK: WIDENING, RESURFACING,
MILLING, SHOULDER RECONSTRUCTION, AND
VIBRALINE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5203K, W-5203P, ETC.	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
W-5203K	45333.3.FD11	HRRR-1311(11)	CONST.
W-5203P	45333.3.FD16	HSIP-1213(36)	CONST.
W-5203R	45333.3.FD18	HSIP-1203(3)	CONST.
W-5203S	45333.3.FD19	HSIP-1207(9)	CONST.
W-5203Z	45333.3.FD26	HSIP-1425(6)	CONST.
SS-4903AY	43770.3.2		CONST.



N.T.S.

PROJECT LENGTH

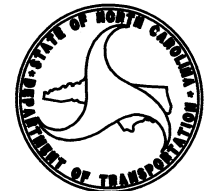
ONSLOW COUNTY	
W-5203K, W-5201P, W-5203R, W-5203S, W-5203S & SS-4903AY	
W-5203K, MAP NO. 1 = 1.94 MI.	W-5203P, MAPS NO. 2 & 3 = 4.139 MI.
W-5203R, MAP NO. 4 = 4.69 MI.	W-5203S, MAP NO. 5 = 4.036 MI.
W-5203MAP NO. 6 = 3.75 MI.	SS-4903AYMAP NO. 7 = 6.44 MI.

TOTAL = 24.964 MI.

Prepared in the Office of:
DIVISION OF HIGHWAYS
295A WILMINGTON HIGHWAY, JACKSONVILLE, NC 28540

2012 STANDARD SPECIFICATIONS

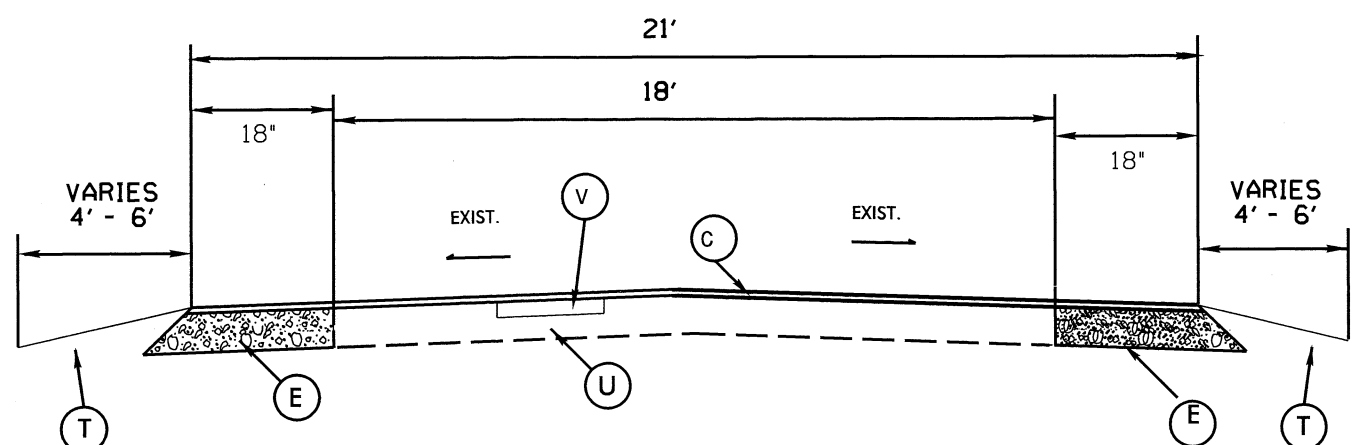
LETTING DATE:
JANUARY 20, 2015



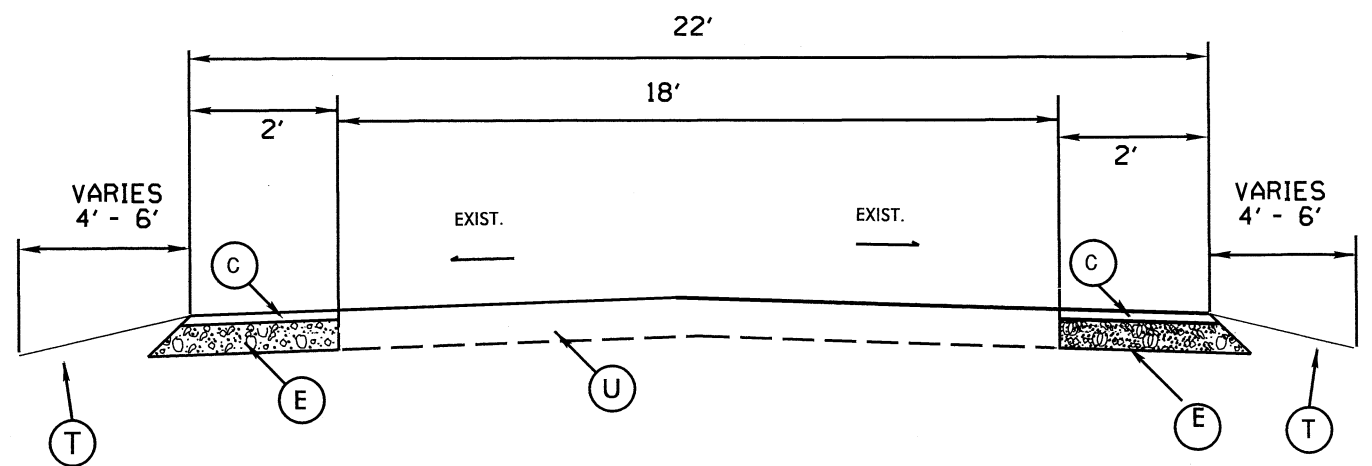
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PAVEMENT SCHEDULE

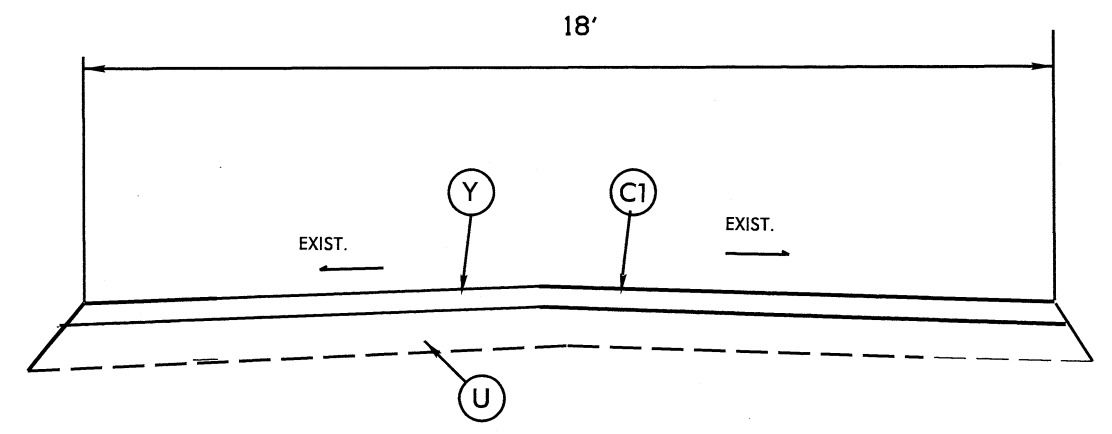
C	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 225 LBS. PER SQ. YD.
D	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 287 LBS. PER SQ. YD.
E	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B AT AN AVERAGE RATE OF 457 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V	PATCHING EXISTING PAVEMENT WITH 2.5" I19.0B
Y	MILLING EXISTING PAVEMENT 2"
Y1	INCIDENTAL MILLING AS NEEDED



TYPICAL SECTION 2
MAPS 2 & 5

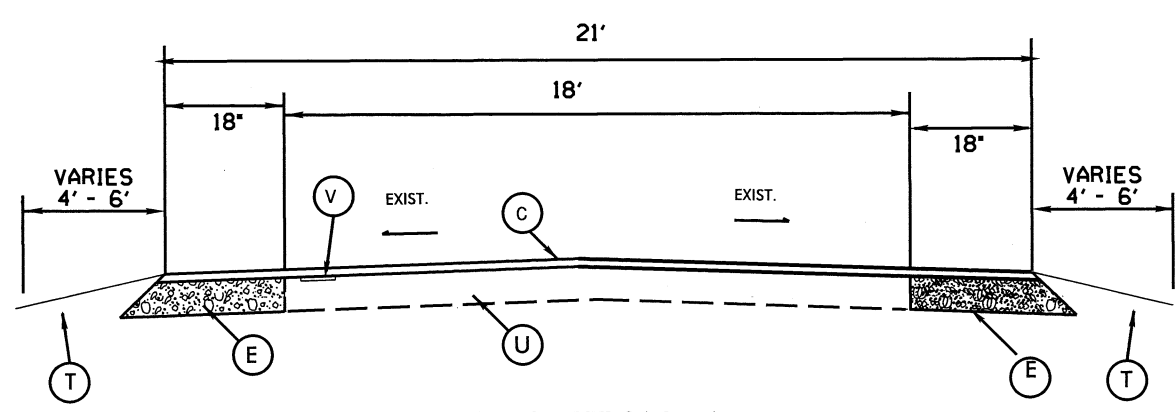


TYPICAL SECTION 1
MAP 1

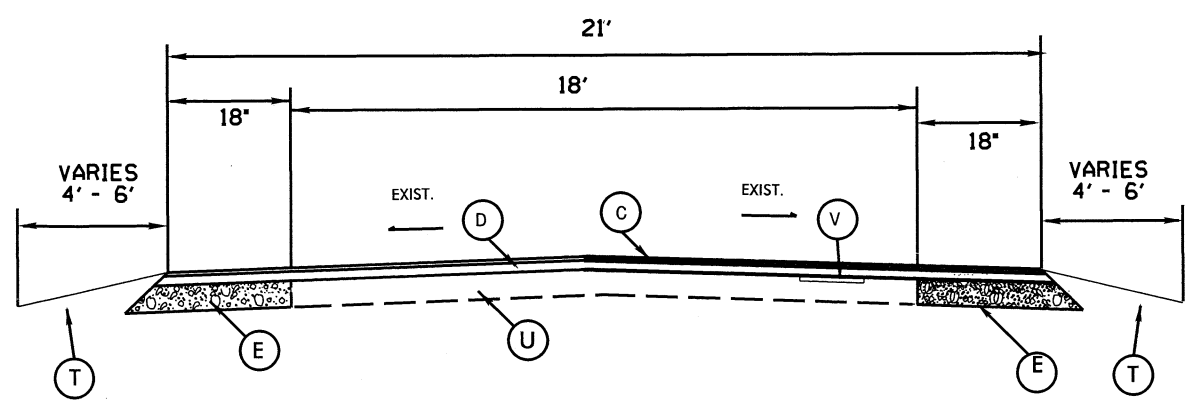


TYPICAL SECTION NO. 3
MAP 3, ALSO INCLUDES 500' 2" MILLING EAST OF THE INTERSECTION ON MAP 2

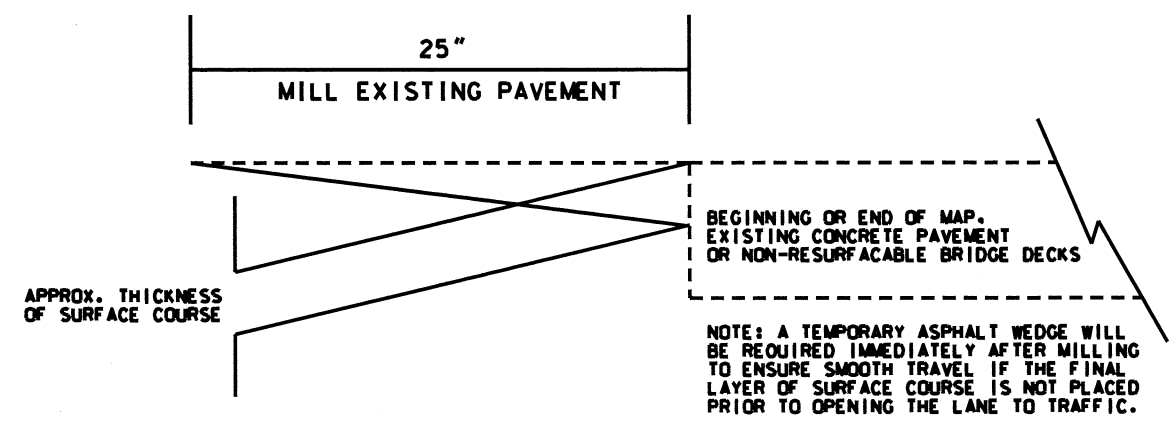
6/2/95
 S:\PROJECTS\W-5203K\DRAWINGS\PAVEMENT\PAVEMENT SCHEDULE.DWG



TYPICAL SECTION 4
MAP 4



TYPICAL SECTION 5
MAP 6



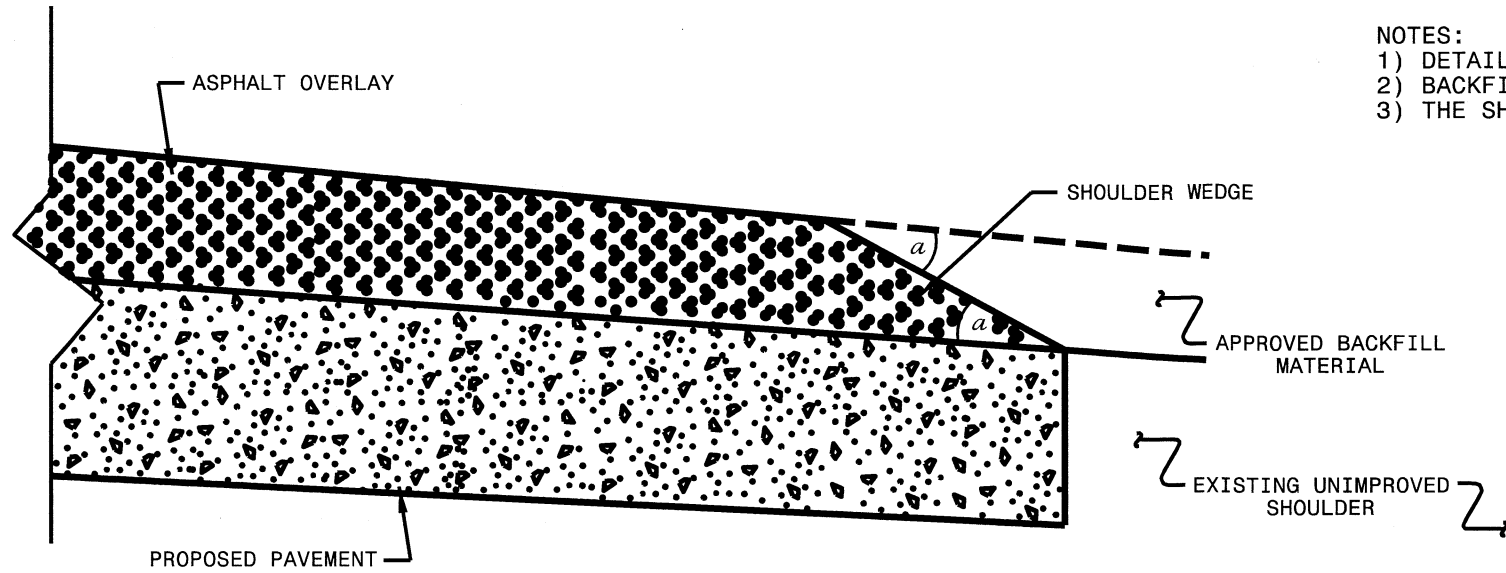
INCIDENTAL MILLING DETAIL

PAVEMENT SCHEDULE

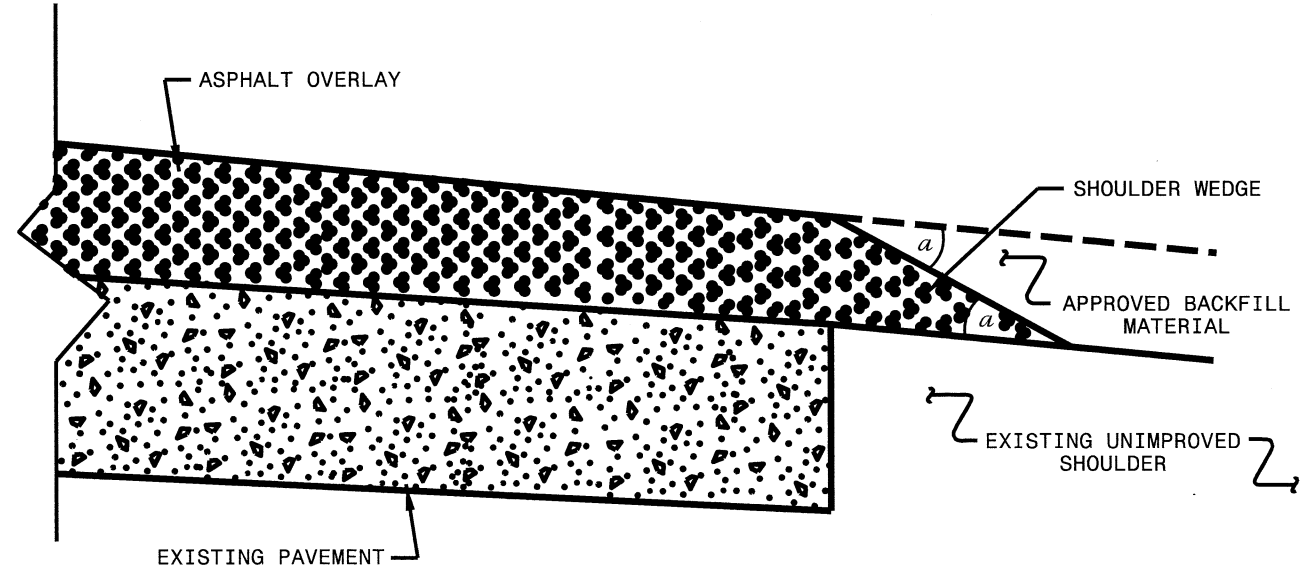
C	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
D	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I 19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
E	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V	PATCHING EXISTING PAVEMENT WITH 2.5" I 19.0 B
Y	MILLING EXISTING PAVEMENT 2"
Y1	INCIDENTAL MILLING AS NEEDED

NOTES:

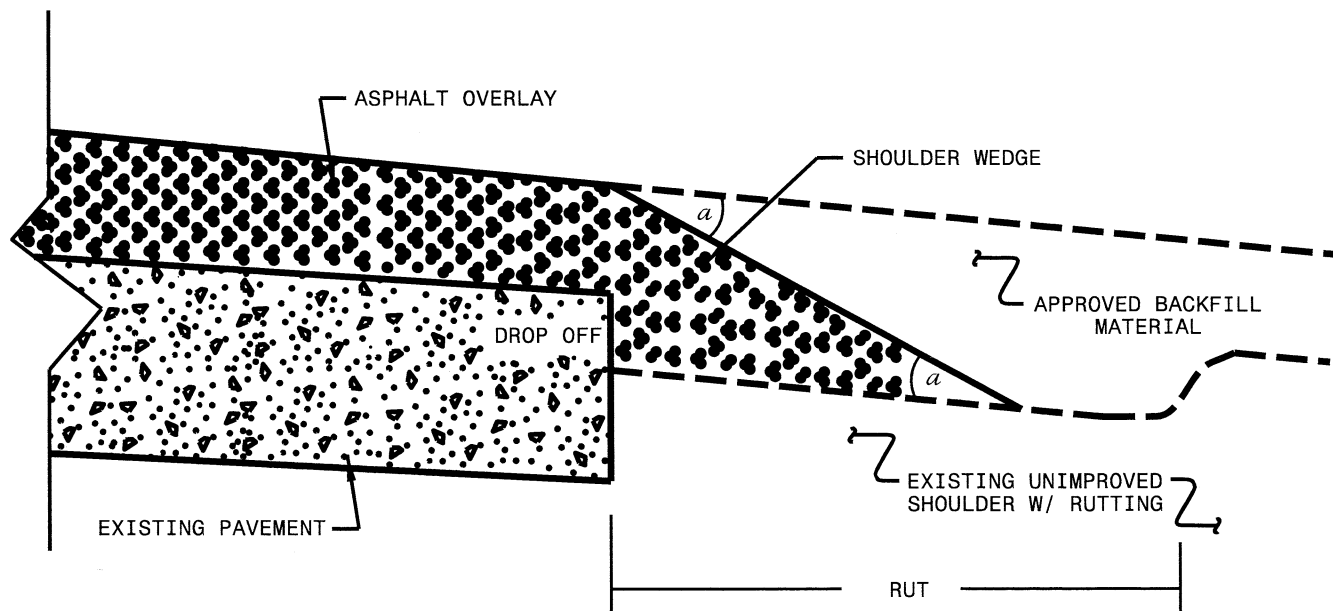
- 1) DETAIL DOES NOT APPLY TO OGAFG AND ULTRA-THIN BONDED WEARING COURSE.
- 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
- 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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: s:\usr\details\stand\shoulderwedge\detail.dgn	

USER NAME

W-52034, etc. SAT. 5

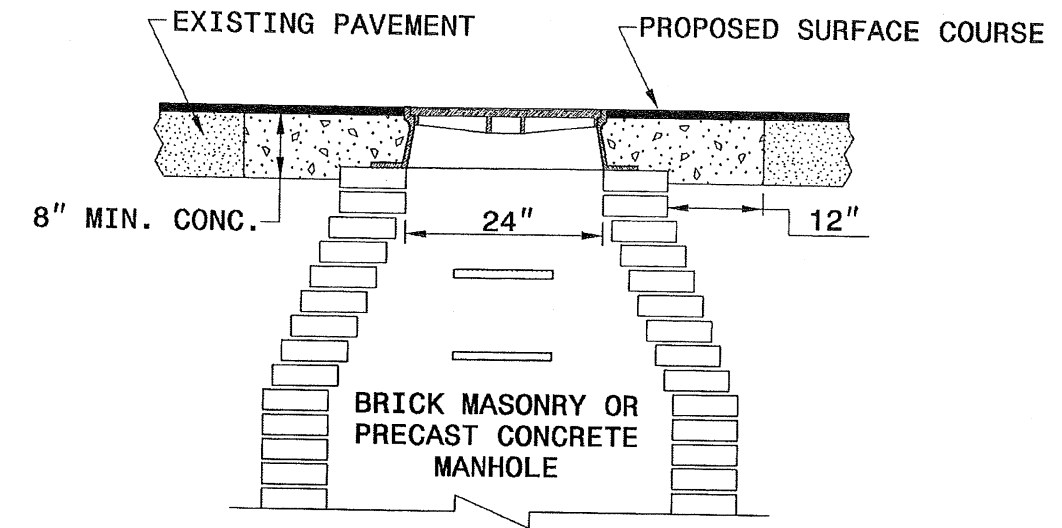
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
MANHOLE AND VALVE BOX ADJUSTMENTS

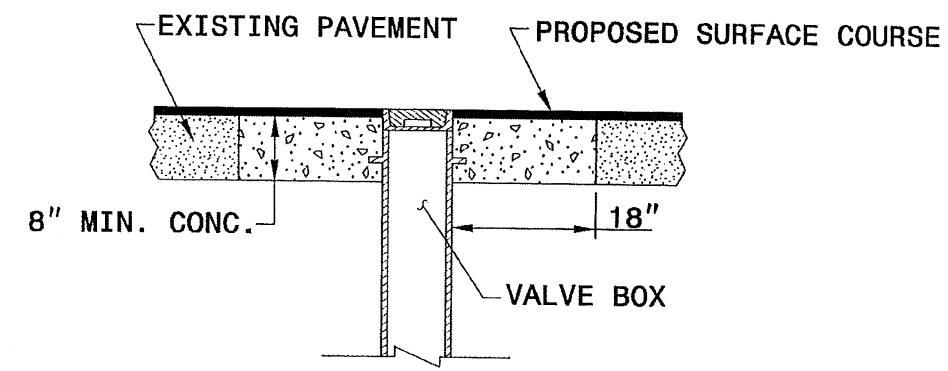
SHEET 1 OF 1
840D55

GENERAL NOTES:

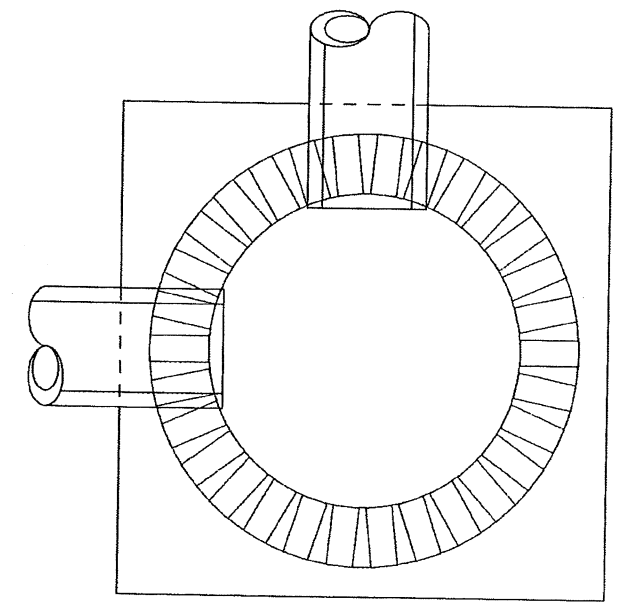
1. USE RAPID SET GROUT, MORTAR, OR CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI.
2. REMOVE ALL FAULTY EXISTING BRICKWORK AND REPLACE WITH NEW BRICK MASONRY.
3. SHEER CUT EXCAVATION FOR THE ADJUSTMENT ON ALL SIDES.
4. FILL AREA BELOW 8" DEPTH WITH 78M OR NO. 57 CLEAN STONE.
5. MIX MORTAR TO NCDOT SPECIFICATIONS.
6. MORTAR JOINTS $\frac{1}{2}$ " \pm $\frac{1}{8}$ "



MANHOLE CONCRETE ENCASEMENT



VALVE BOX CONCRETE ENCASEMENT



ELEVATION VIEW

PLACE BRICK ACCORDING TO ELEVATION VIEW

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

ENGLISH DETAIL DRAWING FOR
MANHOLE AND VALVE BOX ADJUSTMENTS

SHEET 1 OF 1
840D55

PROJECT SERVICES UNIT
STANDARDS AND SPECIAL DE
Office 919-250-4128 FAX 919-25

SEE PLATE FOR T1

ORIGINAL BY: _____ DATE: _____
 MODIFIED BY: E.E. WARD DATE: _____
 CHECKED BY: _____ DATE: _____
 FILE SPEC.: /usr/details/stand/840d55.dgn

27-DEC-2005 14:25
S:\concord\std\stand\840d55.dgn
Standard At 15:22:23

PROJECT NO.	SHEET NO.	TOTAL NO.
W-5203K, W-5203P, W-5203R, W-5203S, W-5203Z, SS-4903AY	6	

SUMMARY OF QUANTITIES

USE STD. DRAWINGS 840.27, 840, 1605.01 AND 1606.01.

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	FOUNDATION CONDITIONING MATERIAL, MINOR STRS TON	18" RCP CULVERTS, CL. III LF	INCIDENTAL STONE BASE TONS	BORROW EXCAVATION CY	SHOULDER RECONSTRUCTION SMI	2" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0B TONS	INTERMEDIATE COURSE I19.0B TONS	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, TYPE S 4.75 A (LEVELING) TON	ASPHALT BINDER COURSE TON	PATCHING EXISTING PAVEMENT(MILL) TON	
W-5203K	Onslow	1	SR 1311	FROM SR 1308 TO SR 2009	1	2	2WU	NO	NO	1.94	22	13.00	70	50	200	3.88		50	1,124		394		73		
TOTAL FOR MAP NO. 1										1.94		13.00	70	50	200	3.88		50	1,124		394		73		
TOTAL FOR PROJ W-5203K										1.94		13.00	70	50	200	3.88		50	1,124		394		73		
W-5203P	Onslow	2	SR 1213	500' EAST OF THE INTERSECTION OF SR 1213 & SR 1212 TO NC 53	2	2	2WU	YES	NO	3.95	21			100	100	7.90		50	1,761		4,237		332	72	
TOTAL FOR MAP NO. 2										3.95				100	100	7.90		50	1,761		4,237		332	72	
W-5203P	Onslow	3	SR1212	FROM 500' NORTH OF THE INTERSECTION OF SR 1213 & SR 1212 TO 500' SOUTH OF THE INTERSECTION	3	2	2WU	NO	NO	0.189	18						3,329	50			250		15		
TOTAL FOR MAP NO. 3										0.189							3,329	50			250		15		
TOTAL FOR PROJ W-5203P										4.139				100	100	7.9		3,329	100		4,487		347	72	
W-5203R	Onslow	4	SR 1203	NC 53 TO SR 1207/SR 1203	4	2	2WU	YES	NO	4.68	21			100	100	9.36		50	2,087		4,872	2,162	530	25	
TOTAL FOR MAP NO. 4										4.68				100	100	9.36		50	2,087		4,872	2,162	530	25	
TOTAL FOR PROJ W-5203R										4.68				100	100	9.36		50	2,087		4,872	2,162	530	25	
W-5203S	Onslow	5	SR 1207/SR 1203	SR 1201 TO SR 1204	2	2	2WU	YES	NO	4.035	21			150	100	8.07		50	1,799		4,201		331	40	
TOTAL FOR MAP NO. 5										4.035				150	100	8.07		50	1,799		4,201		331	40	
TOTAL FOR PROJ W-5203S										4.035				150	100	8.07		50	1,799		4,201		331	40	
W-5203Z	Onslow	6	SR 1425	SR 1243 TO SR 1434	5	2	2WU	YES	NO	3.74	21			100	100	7.48		2,500	1,668	6,631	3,893		625	200	
TOTAL FOR MAP NO. 6										3.74				100	100	7.48		2,500	1,668	6,631	3,893		625	200	
TOTAL FOR PROJ W-5203Z										3.74				100	100	7.48		2,500	1,668	6,631	3,893		625	200	
SS-4903AY	Onslow	7	SR 1324	SR 1308 TO SR 1327		2	2WU	NO	NO	6.43	24														
TOTAL FOR MAP NO. 7										6.43															
TOTAL FOR PROJ SS-4903AY										6.43															
GRAND TOTAL										24.964		13	70	500	600	36.69	3329	2750	8439	6631	17847	2162	1906	337	

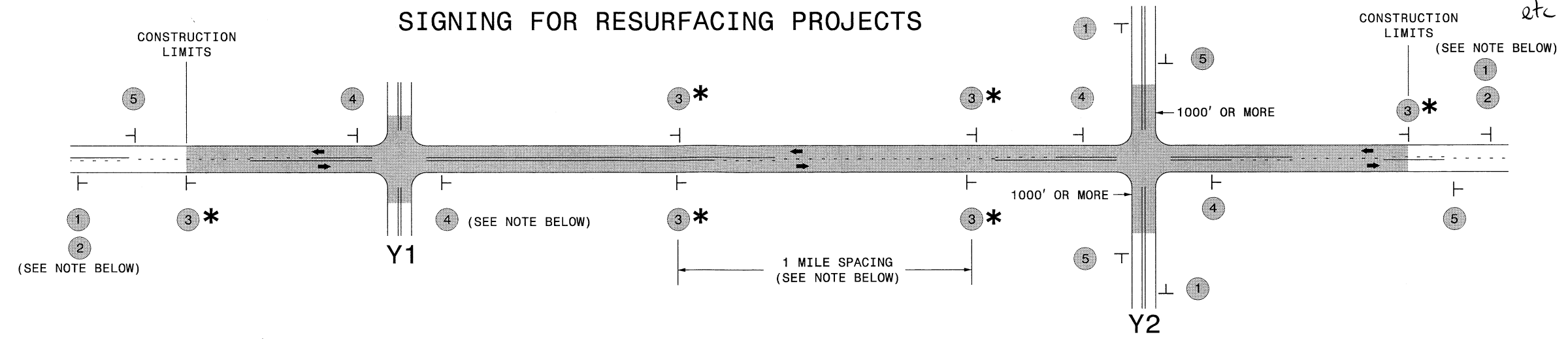
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	PIPE COLLARS CY	MASONRY DRAINAGE STRUCTURES EA	FRAME WITH TWO GRATES, STD 840.24 EA	6" DRIVEWAYS SY	ADJUSTMENT OF METER OR VALVE BOX EA	TEMPORARY SILT FENCE LF	STONE FOR EC CLASS B TON	SEDIMENT CONTROL STONE TON	1/4" HARDWARE CLOTH LF	WATTLE LF	POLYACRYLAMIDE (PAM) LB	COIR FIBER BAFFLE LF	SEED & MULCHING AC	
W-5203K	Onslow	1	SR 1311	FROM SR 1308 TO SR 2009	1	2	2WU	NO	NO	1.94	22	0.64	1.00	1.00	84		150	25	20	40			40	1.9	
TOTAL FOR MAP NO. 1										1.94		0.64	1.00	1.00	84		150	25	20	40			40	1.9	
TOTAL FOR PROJ W-5203K										1.94		0.64	1.00	1.00	84		150	25	20	40			40	1.9	
W-5203P	Onslow	2	SR 1213	500' EAST OF THE INTERSECTION OF SR 1213 & SR 1212 TO NC 53	2	2	2WU	YES	NO	3.95	21						100	25	20					4.1	
TOTAL FOR MAP NO. 2										3.95							100	25	20					4.1	
W-5203P	Onslow	3	SR1212	FROM 500' NORTH OF THE INTERSECTION OF SR 1213 & SR 1212 TO 500' SOUTH OF THE INTERSECTION	3	2	2WU	NO	NO	0.19	18														
TOTAL FOR MAP NO. 3										0.19															
TOTAL FOR PROJ W-5203P										4.14							100	25	20					4.1	
W-5203R	Onslow	4	SR 1203	NC 53 TO SR 1207/SR 1203	4	2	2WU	YES	NO	4.68	21						100	25	20					3.4	
TOTAL FOR MAP NO. 4										4.68							100	25	20					3.4	
TOTAL FOR PROJ W-5203R										4.68							100	25	20					3.4	
W-5203S	Onslow	5	SR 1207/SR 1203	SR 1201 TO SR 1204	2	2	2WU	YES	NO	4.035	21						100	25	20					3.9	
TOTAL FOR MAP NO. 5										4.035							100	25	20					3.9	
TOTAL FOR PROJ W-5203S										4.035							100	25	20					3.9	
W-5203Z	Onslow	6	SR 1425	SR 1243 TO SR 1434	5	2	2WU	YES	NO	3.74	21					7	500	50	40			200	1	3.6	
TOTAL FOR MAP NO. 6										3.74						7	500	50	40			200	1	3.6	
TOTAL FOR PROJ W-5203Z										3.74						7	500	50	40			200	1	3.6	
SS-4903AY	Onslow	7	SR 1324	SR 1308 TO SR 1327		2	2WU	NO	NO	6.43	24														
TOTAL FOR MAP NO. 7										6.43															
TOTAL FOR PROJ SS-4903AY										6.43															
GRAND TOTAL										24.965		0.64	1	1	84	7	950	150	120	40	300	1	40	16.9	

PROJECT NO.	SHEET NO.	TOTAL NO.
W-5203K, W-5203P, W-5203R, W-5203S, W-5203Z, SS-4903AY	7	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4686000000-E		4890000000-E	4710000000-E	4721000000-E			4725000000-E			4810000000-E		4900000000-N	4905000000-N					
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING SF	TEMPORARY TRAFFIC CONTROL LS	4" X 120 M YELLOW THERMO LF	4" X 120 M WHITE THERMO LF	THERMOPLASTIC PROFILED PAVEMENT MARKING LINES LF	24" X 120 M WHITE THERMO LF	THERMO MSG AHEAD 120 M EA	THERMO MSG STOP 120 M EA	THERMO MSG SCHOOL 120 M EA	THERMO LT ARROW 90 M EA	THERMO STR ARROW 90 M EA	THERMO RT ARROW 90 M EA	4" WHITE PAINT LF	4" YELLOW PAINT LF	YELLOW & YELLOW MARKERS EA	SNOW PLOWABLE MARKERS (Y/Y) EA					
W-5203K	Onslow	1	SR 1311	FROM SR 1308 TO SR 2009	1	2	2WU	1.94	22	775	1	25,608	41,749												128					
TOTAL FOR PROJ NO. W-5203K							1.94			775	1	25,608	41,749												128					
													67,357																	
W-5203P	Onslow	2	SR 1213	500' EAST OF THE INTERSECTION OF SR 1213 & SR 1212 TO NC 53	2	2	2WU	3.95	21	1,162	*	41,712		41,712	30	5	4		1			2				261				
TOTAL FOR MAP NO. 2							3.95			1,162	*	41,712		41,712	30	5	4		1			2			261					
													41,712		30		9			3										
W-5203P	Onslow	3	SR1212	FROM 500' NORTH OF THE INTERSECTION OF SR 1213 & SR 1212 TO 500' SOUTH OF THE INTERSECTION	3	2	2WU	0.189	20	32	*													2,050	2,000	13				
TOTAL FOR MAP NO. 3							0.189			32	*													2,050	2,000	13	261			
TOTAL FOR PROJ W-5203P										1,194			41,712	41,712	30		9							4,050						
W-5203R	Onslow	4	SR 1203	NC 53 TO SR 1207/SR 1203	4	2	2WU	4.68	21	764	*	49,420		49,420												309				
TOTAL FOR PROJ W-5203R							4.68			764		49,420	49,420													309				
													49,420																	
W-5203S	Onslow	5	SR 1207/SR 1203	SR 1201 TO SR 1204	2	2	2WU	4.035	21	852	*	42,610		42,610												266				
TOTAL FOR PROJ W-5203S							4.035			852		42,610	42,610													266				
													42,610																	
W-5203Z	Onslow	6	SR 1425	SR 1243 TO SR 1434	5	2	2WU	3.74	21	980	*	39,495		39,495	284											247				
TOTAL FOR PROJ W-5203Z							3.74			980		39,495	39,495	284												247				
													39,495		12															
SS-4903AY	Onslow	7	SR 1324	SR 1308 TO SR 1327		2	2WU	6.43	24	1,360	*	67,900	3,000		520				12	3	8	3								
TOTAL FOR PROJ SS-4903AY							6.43			1,360		67,900	3,000		520				12	3	8	3								
													70,900		12			14												
GRAND TOTAL							24.775			5,925	1	266,745	44,749	173,237	834	5	4	24	4	8	5	2,050	2,000	141	1,083					
													311,494		33			17			4,050									

SIGNING FOR RESURFACING PROJECTS



LEGEND
 ┆ STATIONARY SIGN
 ← DIRECTION OF TRAFFIC FLOW

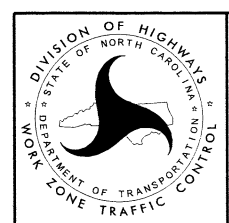
MAINLINE (-L-) SIGNING

-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>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> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>W20-1 48" X 48"</p> </div> <div style="text-align: center;"> <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 INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.</p>	
		<p>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.</p>	
		<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>	

* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

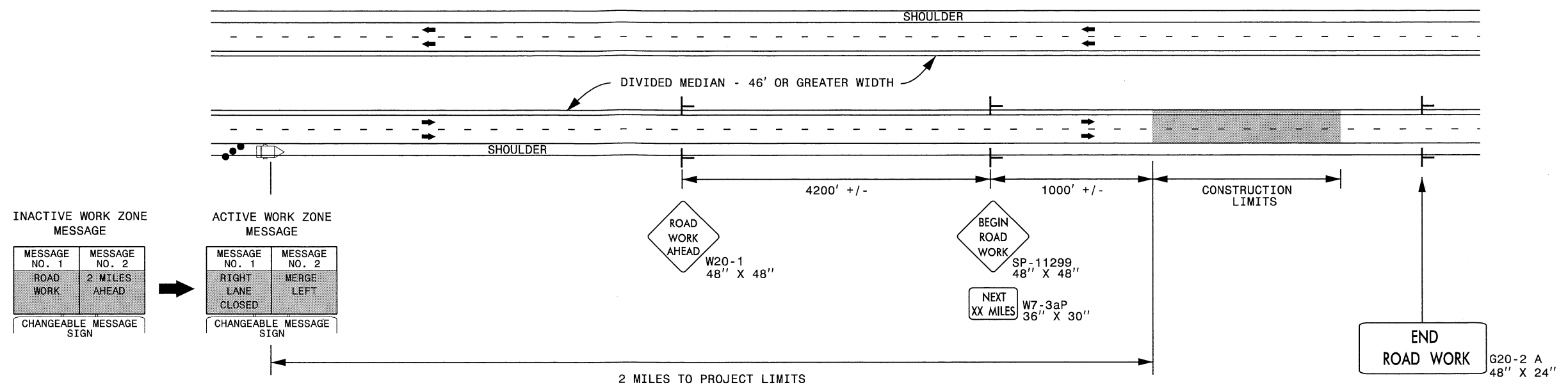
SUBSTITUTE LOW/SOFT SHOULDER SIGNS BY ALTERNATING THE FOLLOWING TWO SIGNS: STARTING WITH "UNMARKED PAVEMENT AHEAD" (SP 06026) FOLLOWED BY "LOOSE GRAVEL" (W8-7).



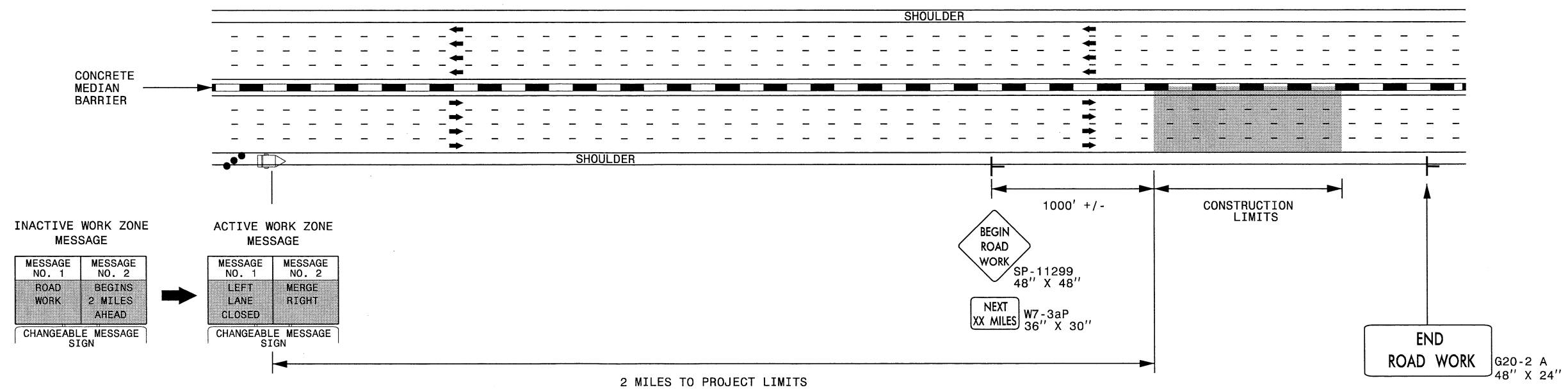
RESURFACING
 ADVANCE WARNING SIGNS
 FOR
 RURAL AND SUBURBAN
 2 LANE ROADWAYS

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DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER



DIVIDED MEDIANS WITH WIDTHS LESS THAN 46' OR WITH PERMANENT MEDIAN BARRIER

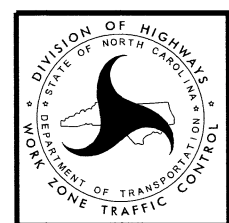


NOTES:

- 1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6' AS MEASURED FROM THE EDGE OF PAVEMENT.
- 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) FOR MEDIAN WIDTHS LESS THAN 46' (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
- 4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 5) INSTALL "ROAD WORK AHEAD" (W20-1) ALONG ENTRANCE RAMP 500' PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMP WITHIN THE WORK ZONE.
- 6) 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 AND WITH DIVIDED MEDIANS OF 46' OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND

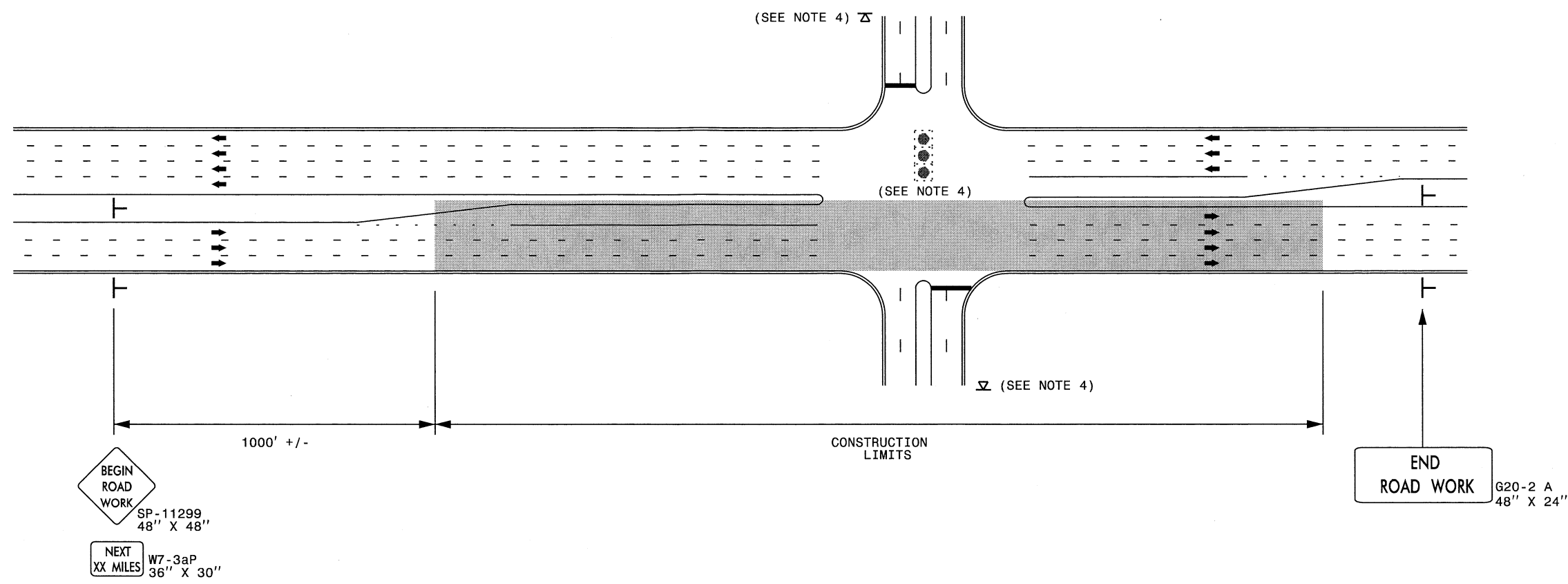
- CHANGEABLE MESSAGE SIGN (CMS)
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW
- TRAFFIC DRUM



RESURFACING ADVANCE WARNING SIGNS FOR HIGH SPEED FACILITIES ≥ 60 MPH

10/31/2013 S:\TMD\WZTC\Resurfacing\2013\Documents\New_Procedures_05_09_2013\Resurfacing_AdvWarn_H5pd.dgn User:rmgdrf

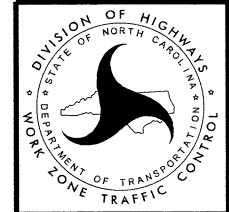
URBAN / SUBURBAN WORKZONES



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 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

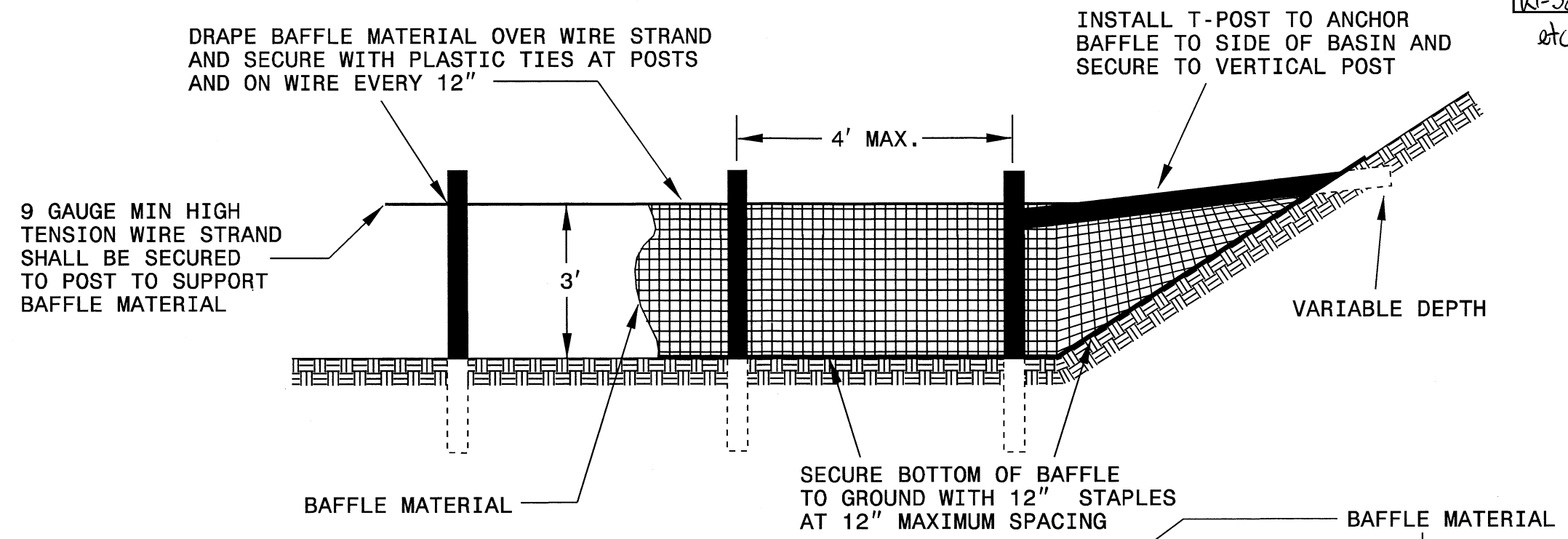


**RESURFACING ADVANCE
WARNING SIGNS FOR
URBAN / SUBURBAN
FACILITIES**

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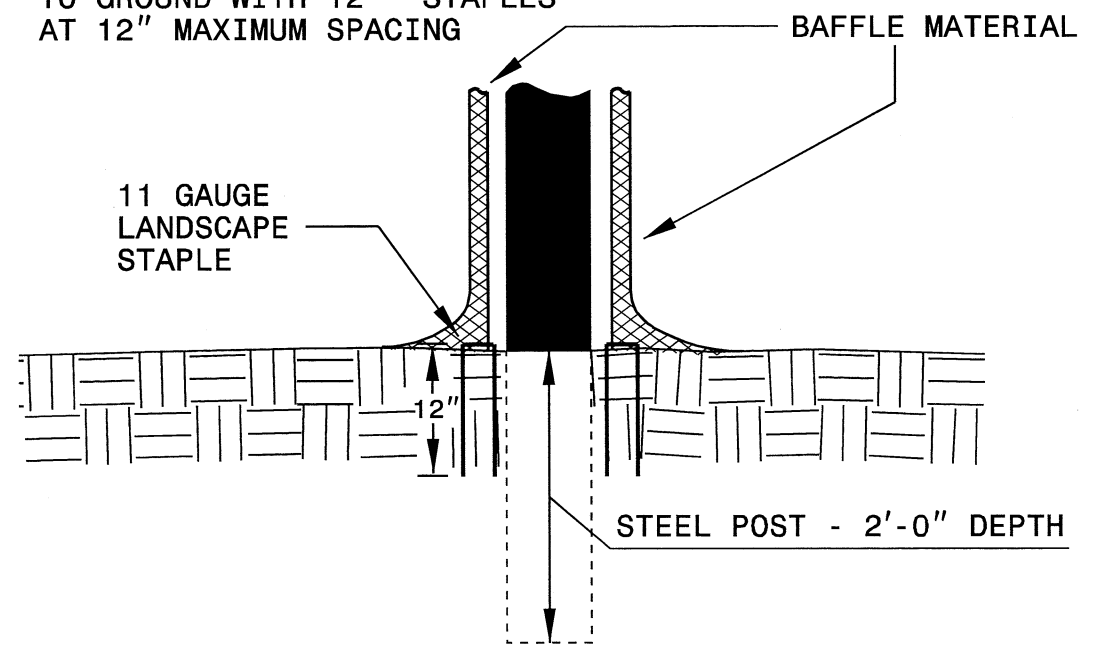
PROJECT REFERENCE NO.	SHEET NO.
RW SHEET NO.	
W-52034 EC-1	

COIR FIBER BAFFLE DETAIL



NOTES:

1. INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF $\frac{1}{4}$ THE BASIN LENGTH.
2. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF $\frac{1}{3}$ THE BASIN LENGTH.
3. TOP HEIGHT OF COIR FIBER BAFFLES SHALL NOT BE BELOW BASE OF EMERGENCY SPILLWAY ELEVATION.



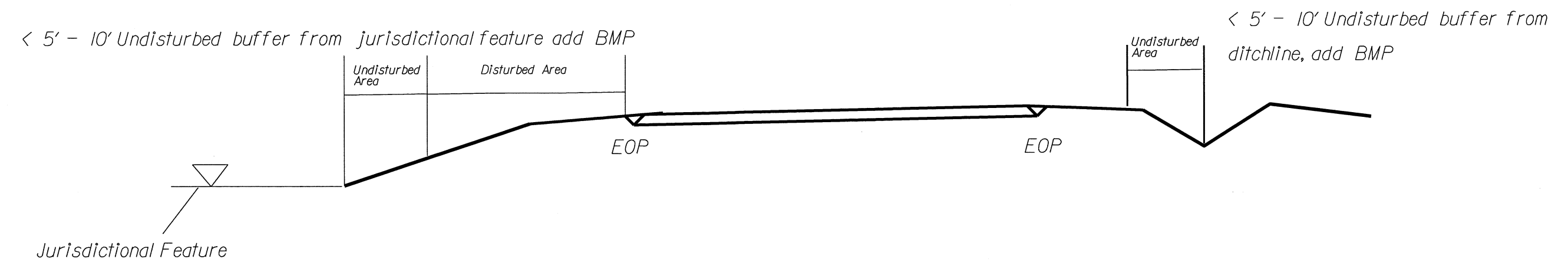
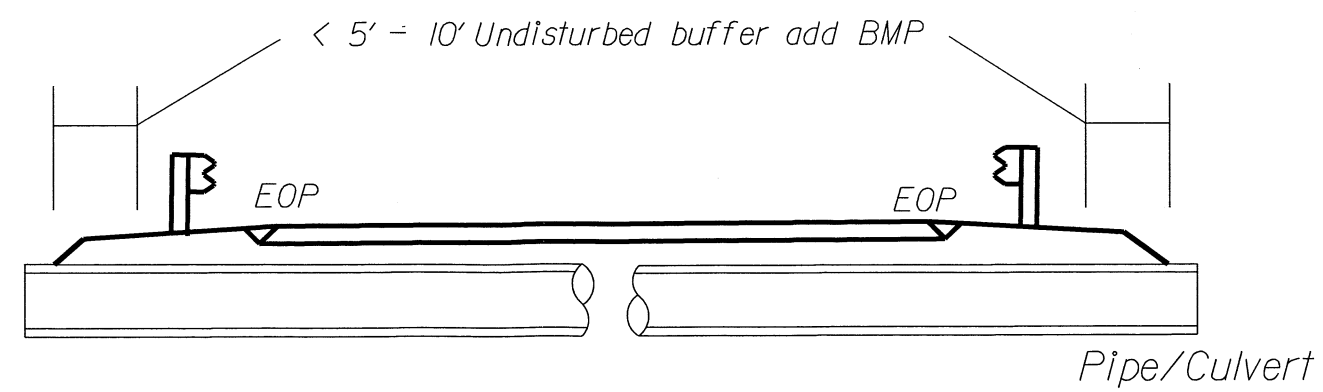
BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPE STAPLES

etc.

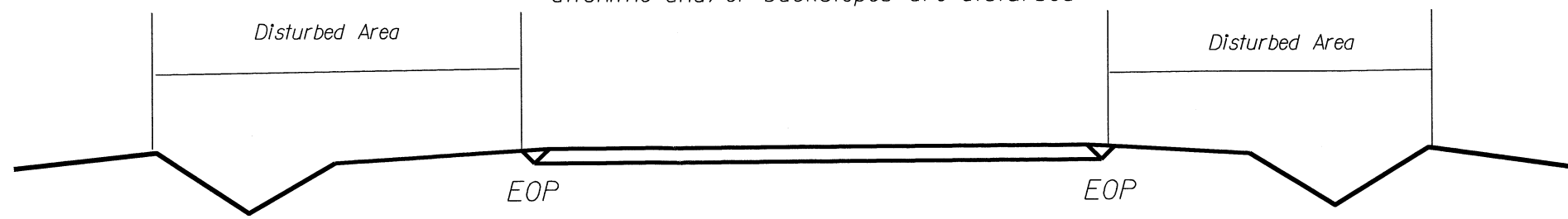
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle or Silt Fence

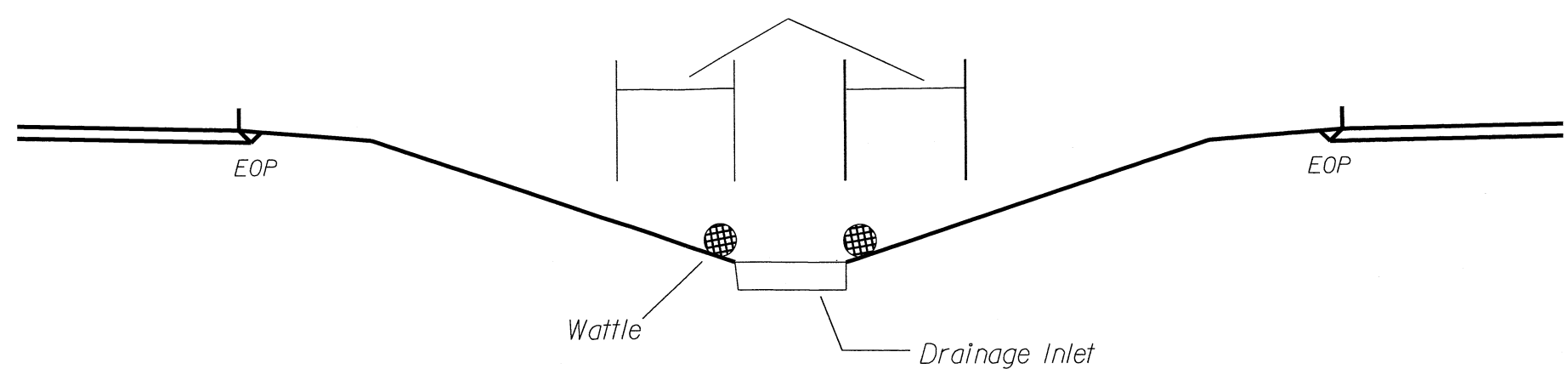
EROSION CONTROL DETAIL



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

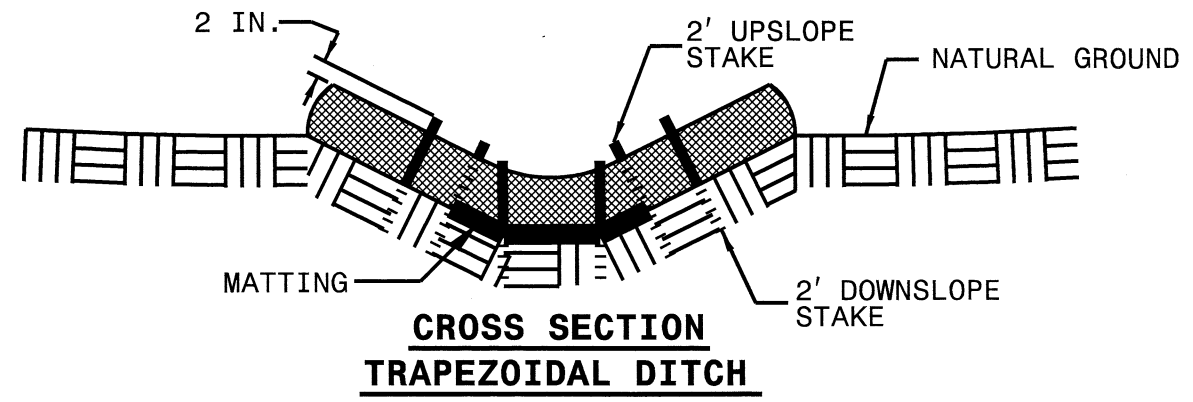
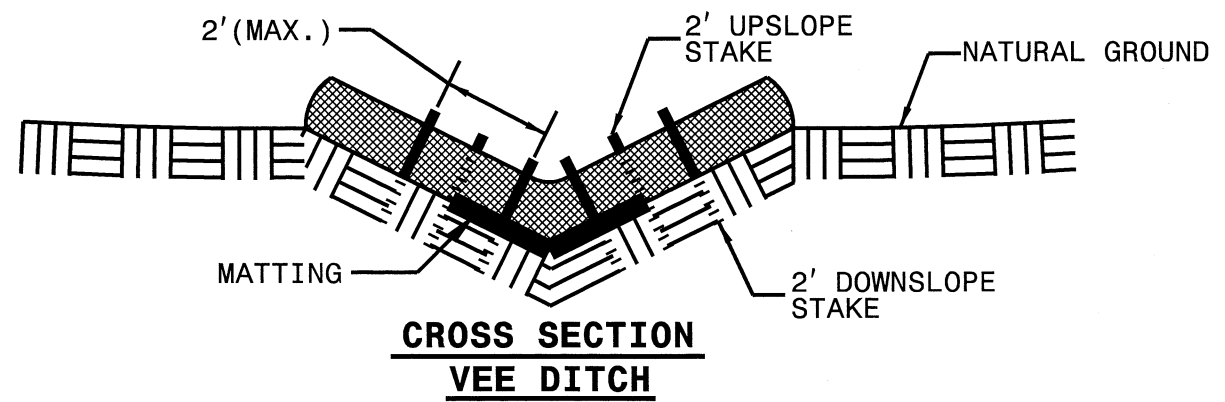
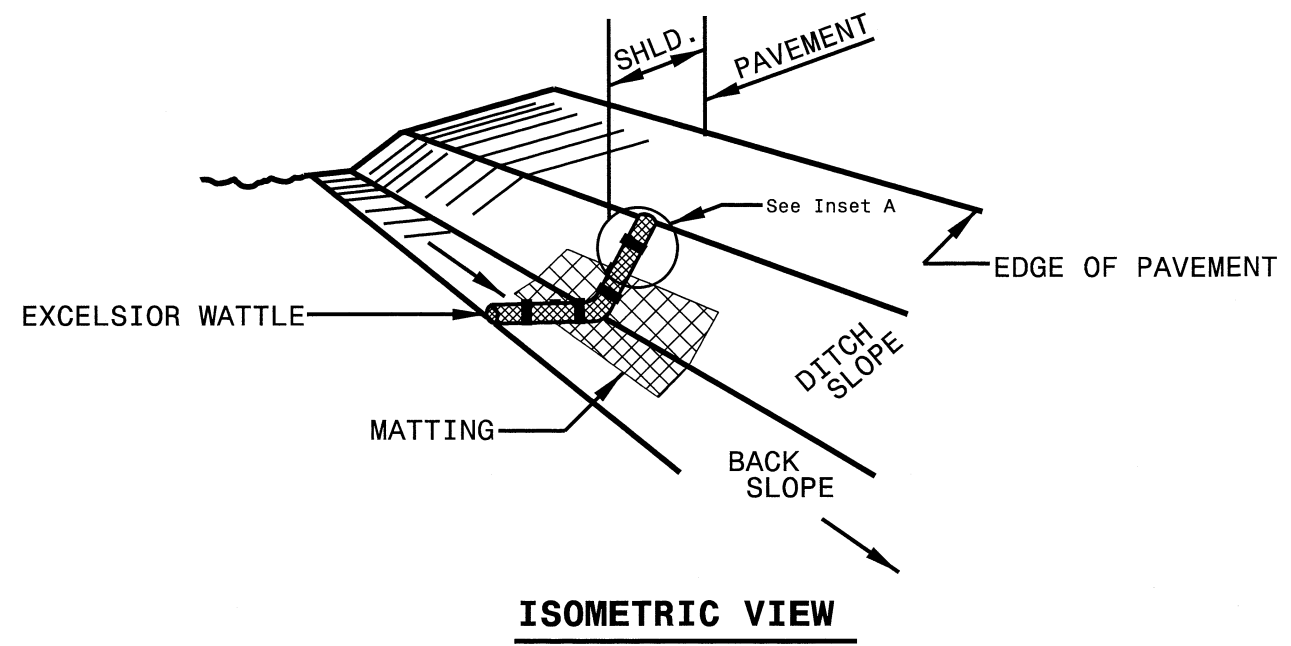


< 5' - 10' Undisturbed buffer from inlet, add wattle



NOT TO SCALE

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.

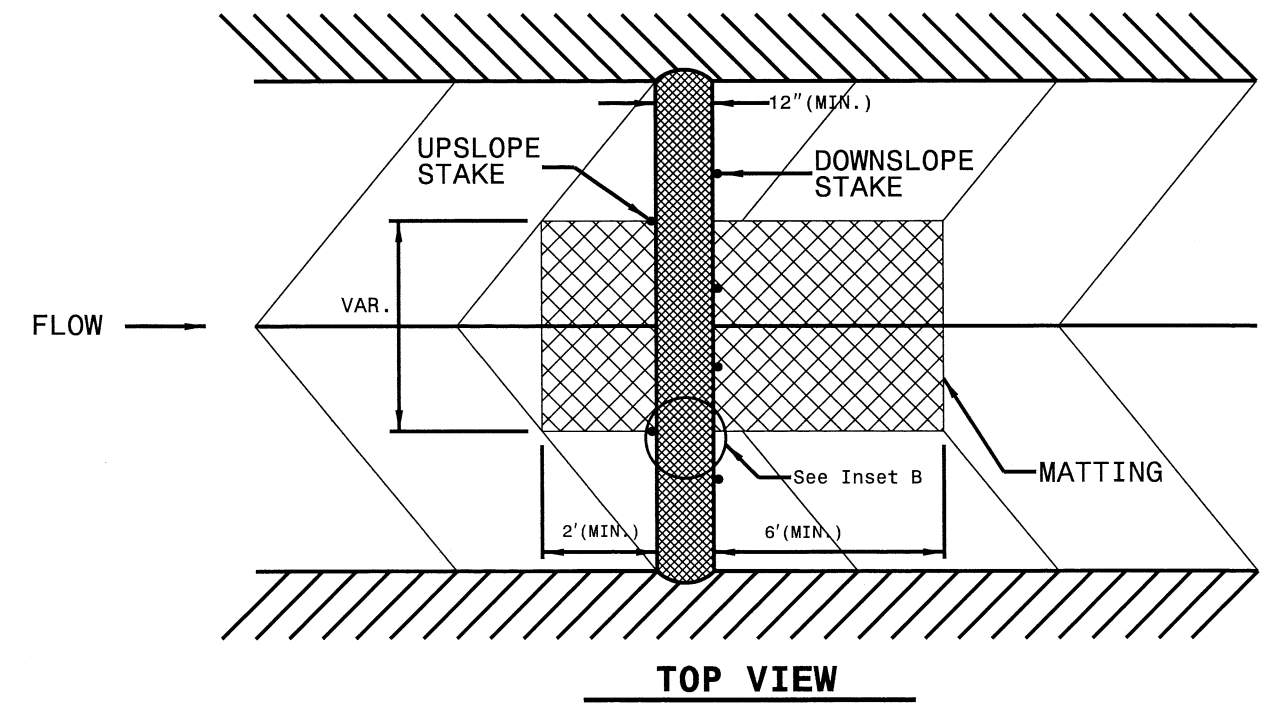
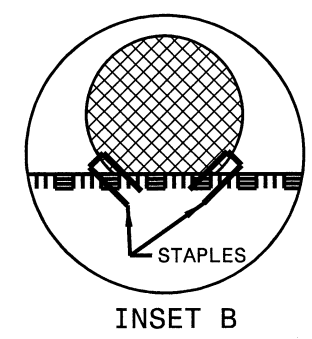
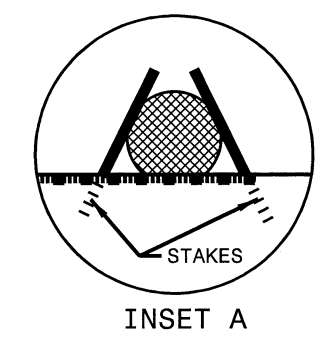
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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

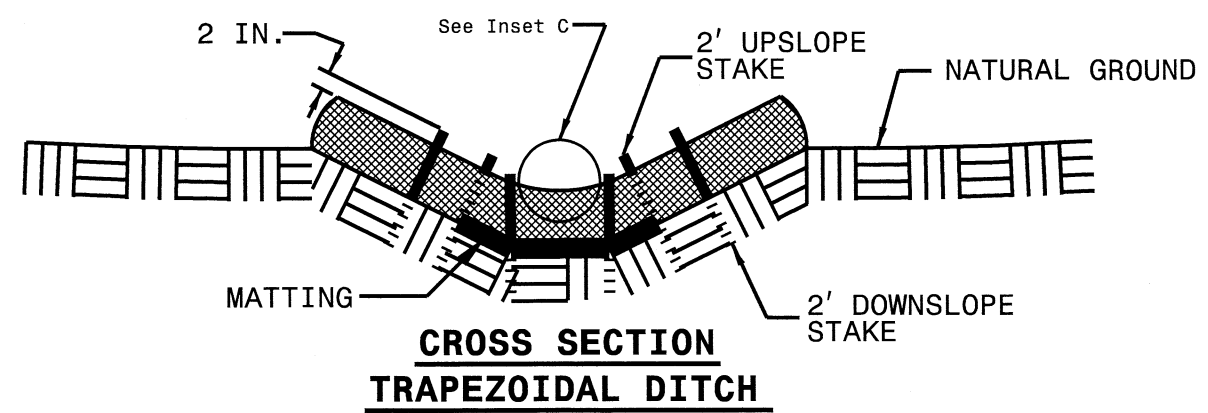
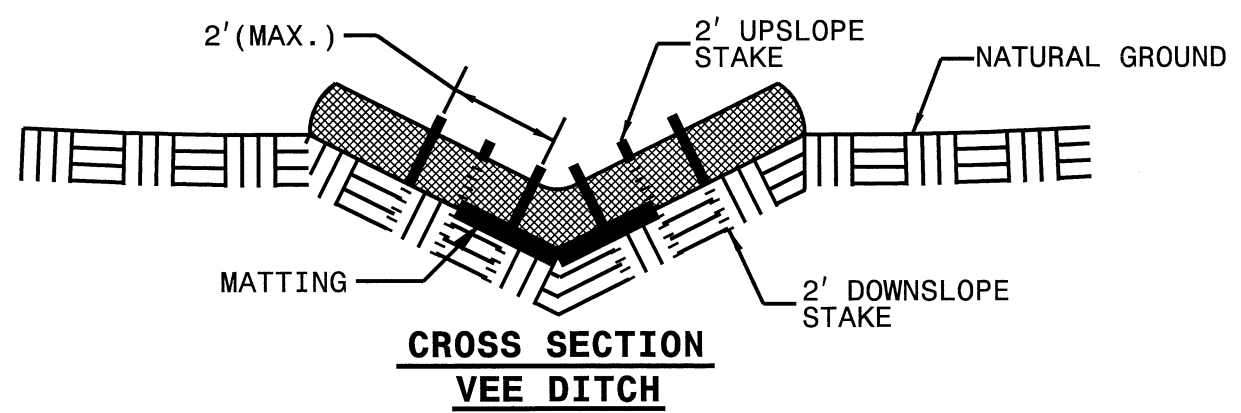
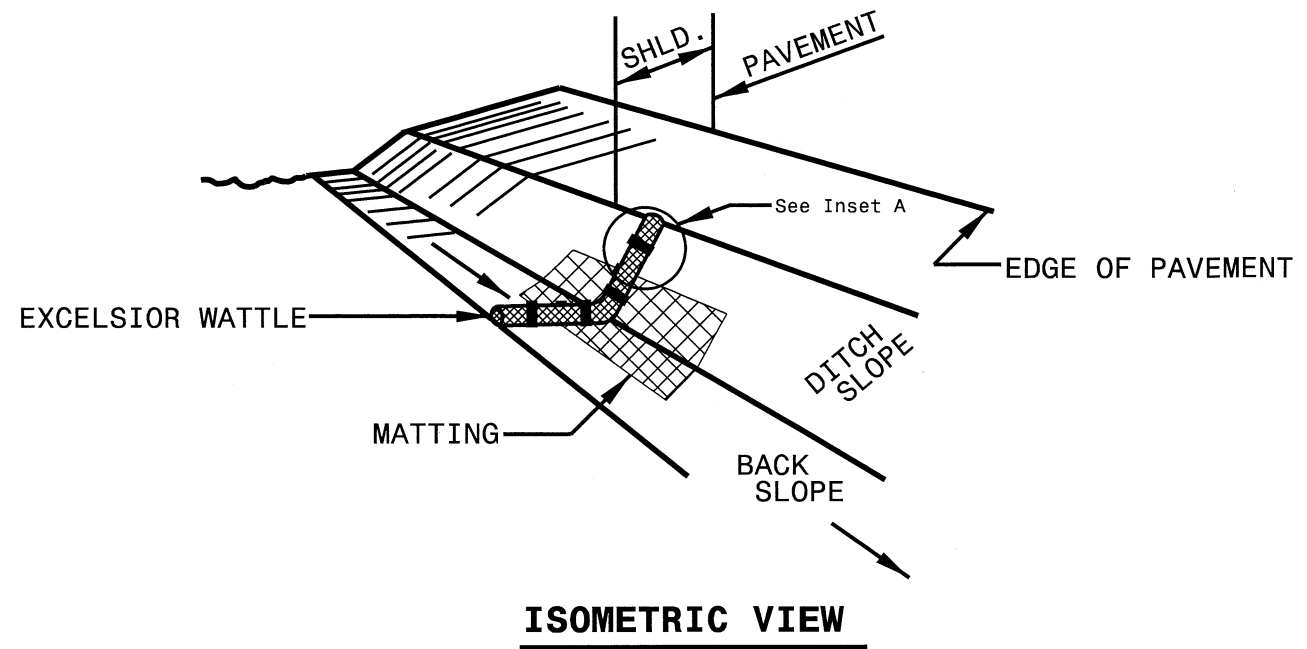
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.



WATTLE WITH POLYACRYLAMIDE (PAM) 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.
- PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.
- INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

