

8/17/99

REVISIONS

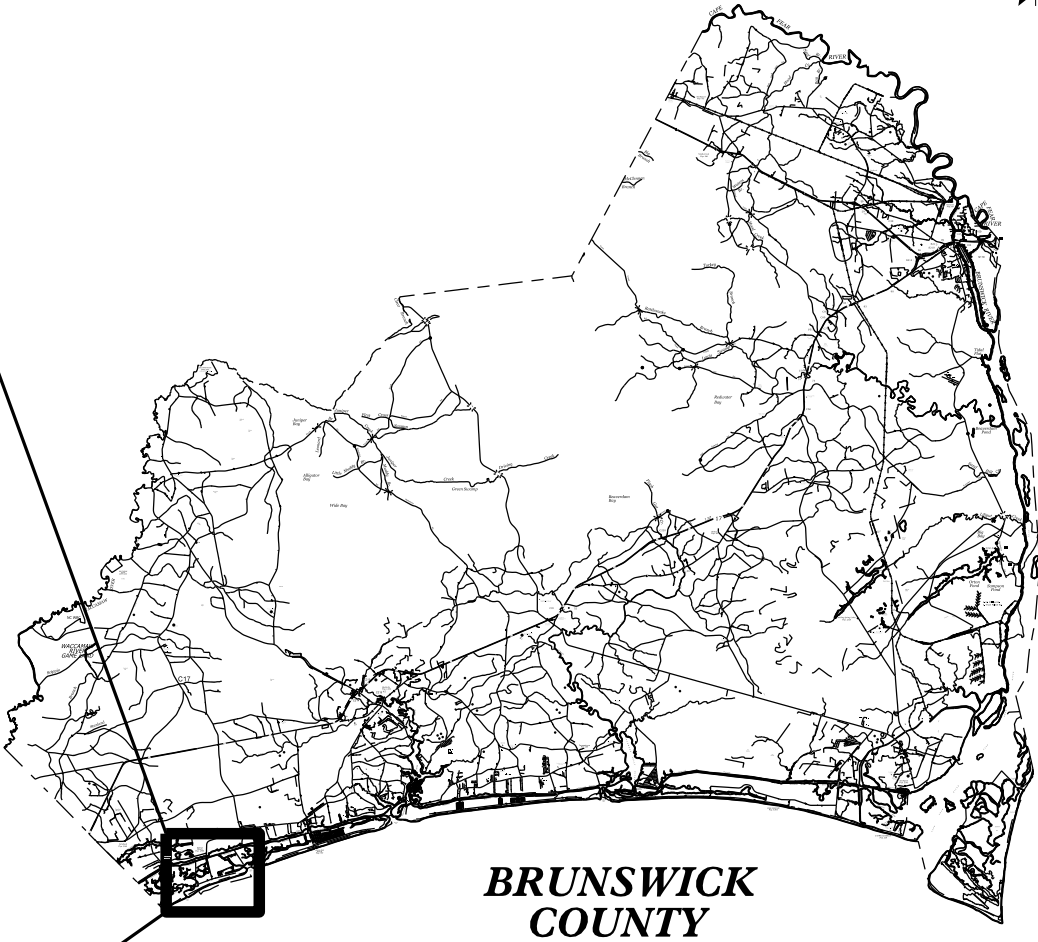
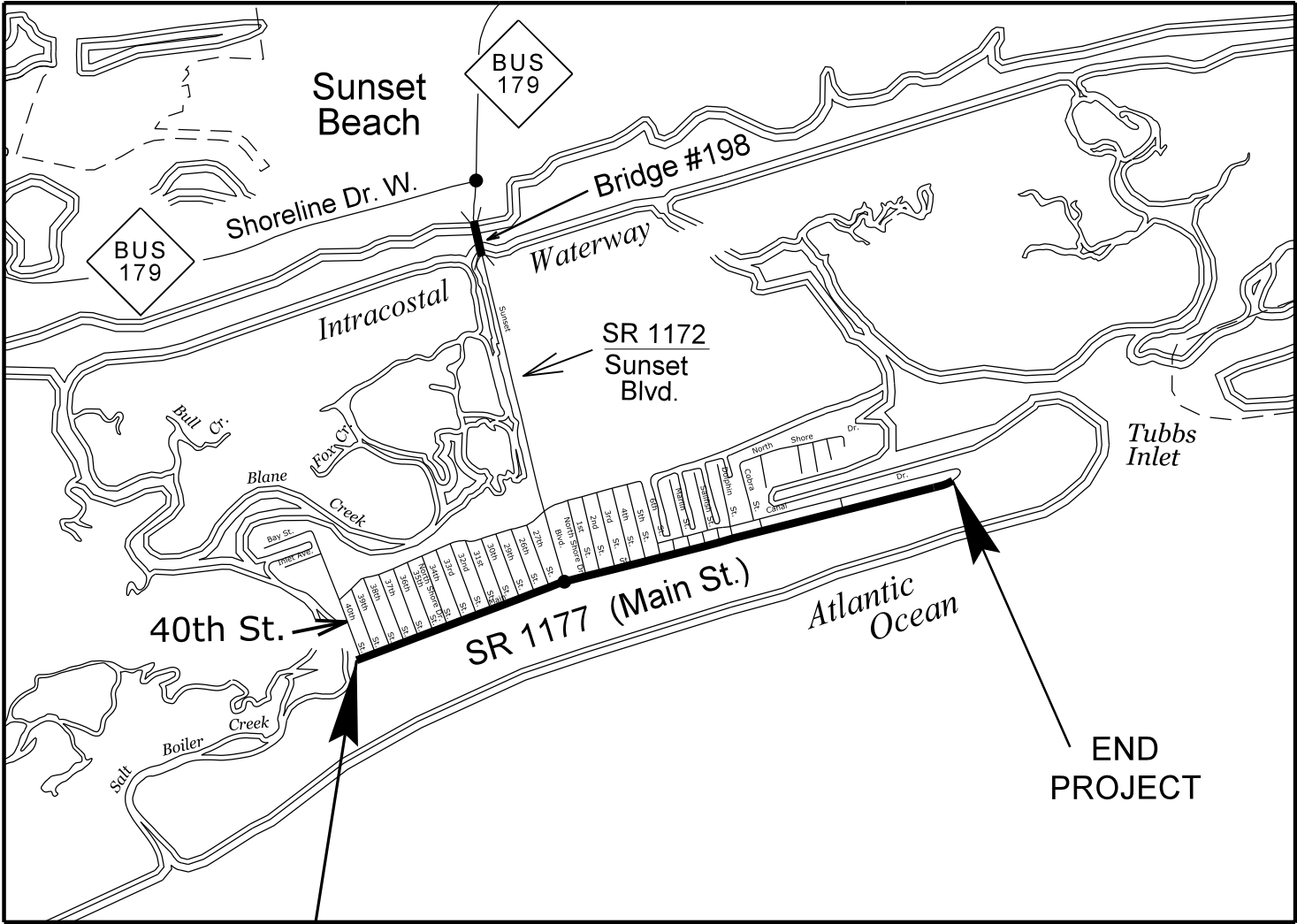
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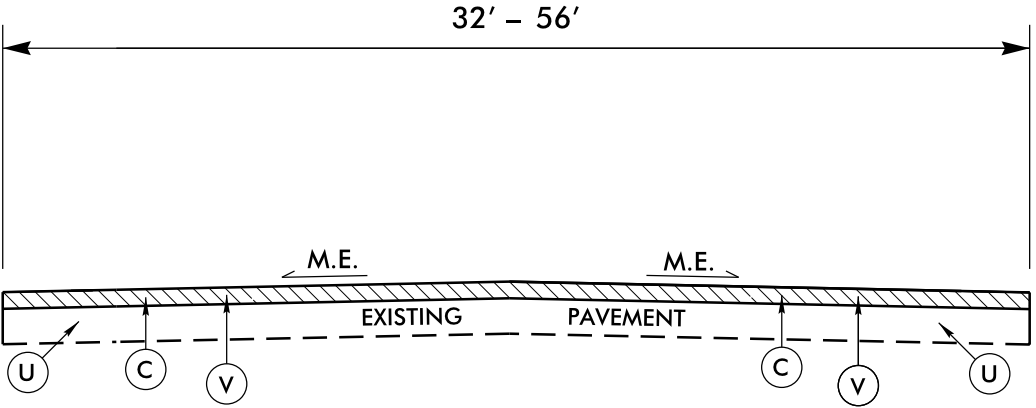
INDEX OF SHEETS	
SHEET NO.	SHEET
1	INDEX OF SHEETS & TITLE SHEET
2 - 14	PAVEMENT SCHEDULE, TYPICAL SECTIONS & DETAIL SHEETS
15 - 18	SUMMARY OF QUANTITIES
19	TRAFFIC CONTROL DETAIL

BRUNSWICK COUNTY

LOCATION: SR 1177 (MAIN STREET) FROM THE WESTERN END OF MAINTENANCE TO THE EASTERN END OF MAINTENANCE

TYPE OF WORK: MILLING, WIDENING, RESURFACING AND PAVEMENT MARKINGS, ETC.

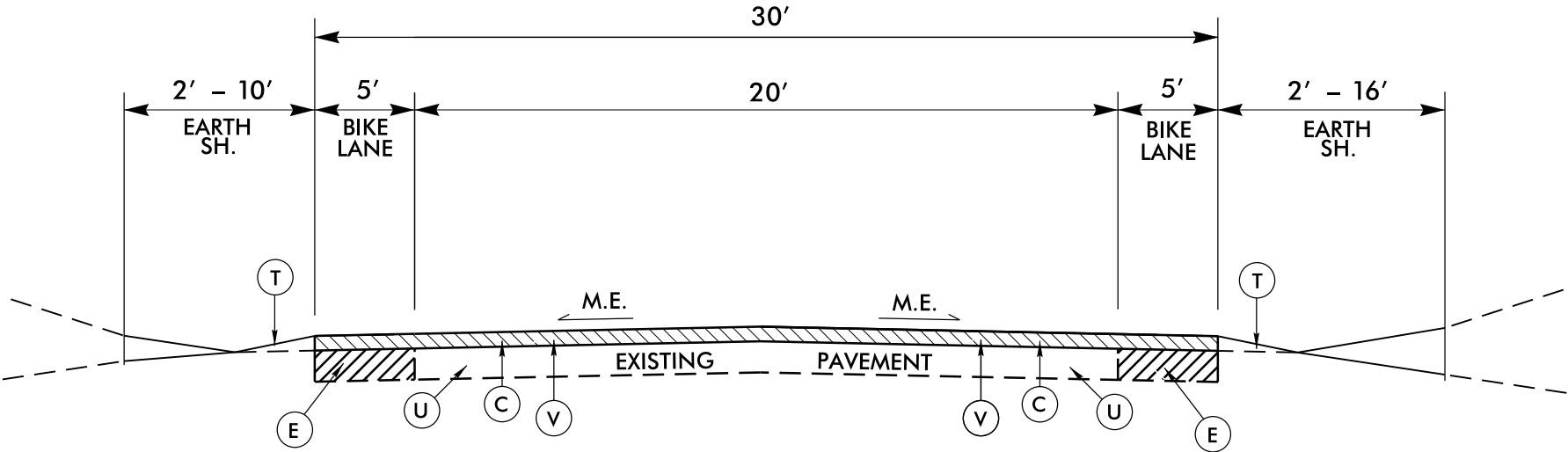




TYPICAL SECTION NO. 1

SR 1177 (MAIN STREET)

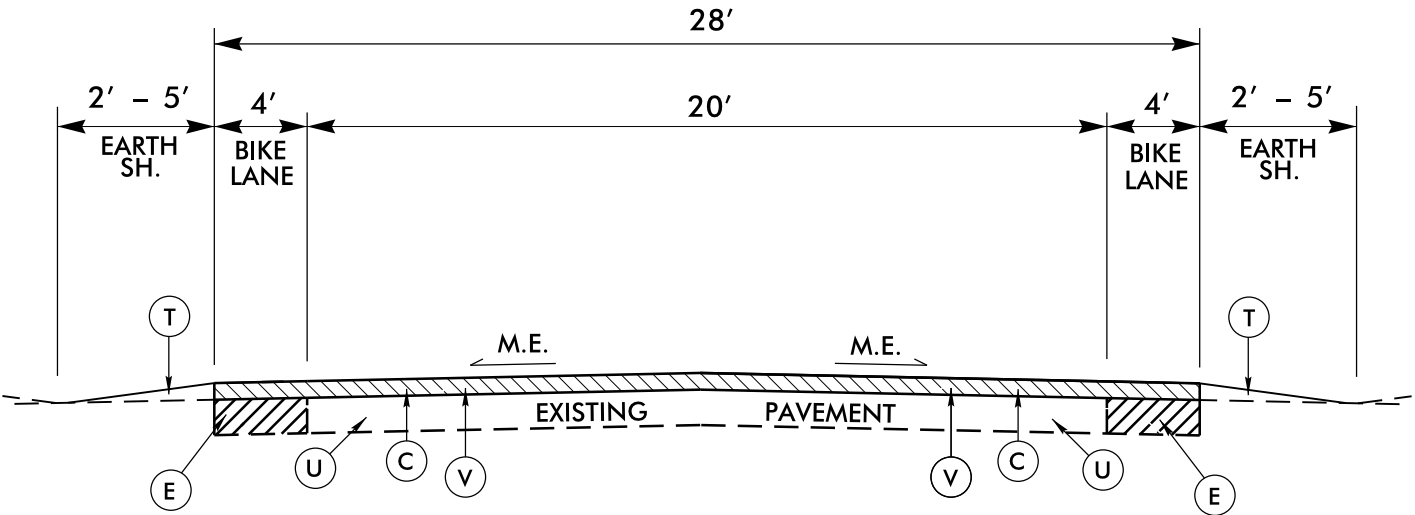
MP 0.00 - MP 0.032



TYPICAL SECTION NO. 2

SR 1177 (MAIN STREET)

MP 0.032 - MP 1.085



TYPICAL SECTION NO. 3

SR 1177 (MAIN STREET)

MP 1.085 - MP 1.660

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1½" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
E	PROP. APPROX. 5" DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ.YD.
T	EARTH MATERIAL (SHOULDER RECONSTRUCTION)
U	EXISTING PAVEMENT
V	MILLING BITUMINOUS PAVEMENT 1½" DEPTH.

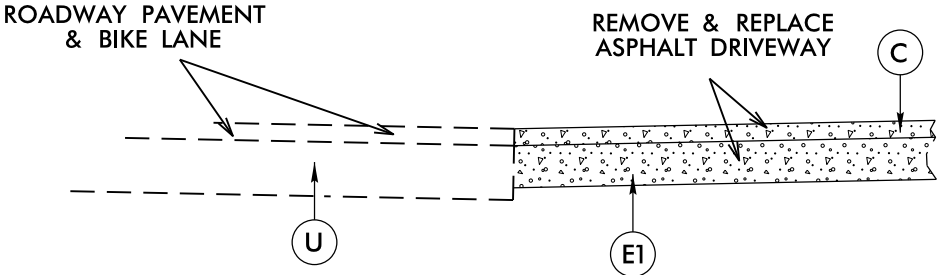
REVISIONS

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REVISIONS

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\$\$\$\$\$SUBMITTABLE\$\$\$\$\$

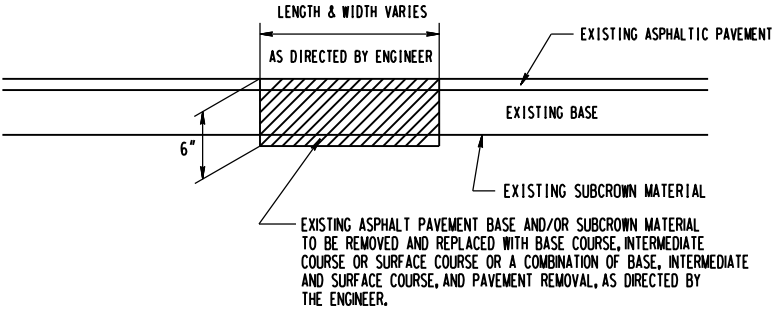
ASPHALT DRIVEWAY DETAIL



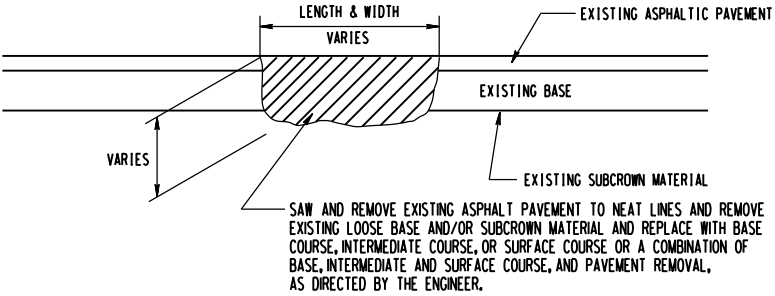
PAVEMENT SCHEDULE

C	PROP. APPROX. 1½" DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
E1	PROP. APPROX. 4" DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ.YD.
U	EXISTING PAVEMENT

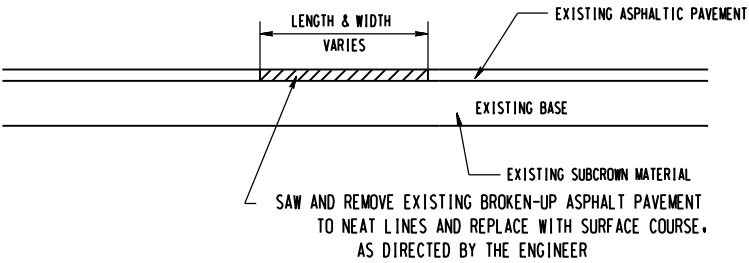
DETAILS OF REPAIRING EXISTING PAVEMENT PRIOR TO RESURFACING FOR FULL DEPTH AND MILLING



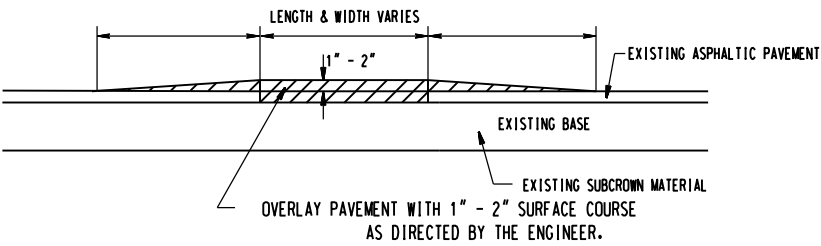
DETAIL NO. 1



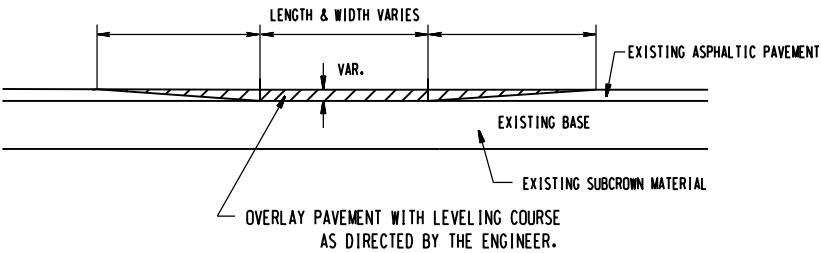
DETAIL NO. 2



DETAIL NO. 3



DETAIL NO. 4



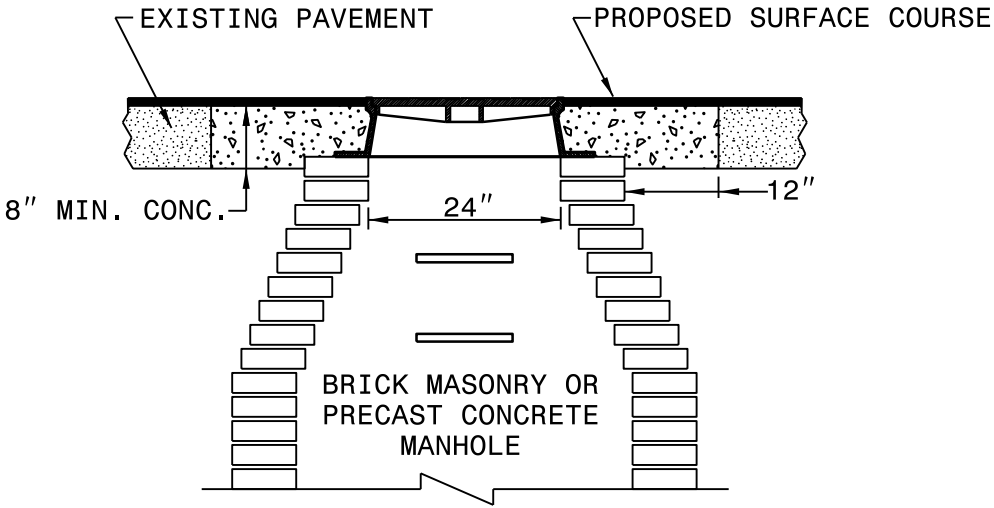
DETAIL NO. 5

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

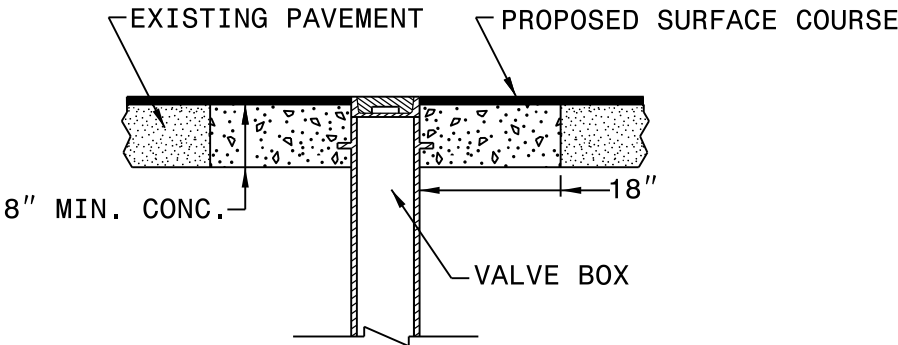
ENGLISH DETAIL DRAWING FOR
MANHOLE AND VALVE BOX ADJUSTMENTS

SHEET 1 OF 1
840D55

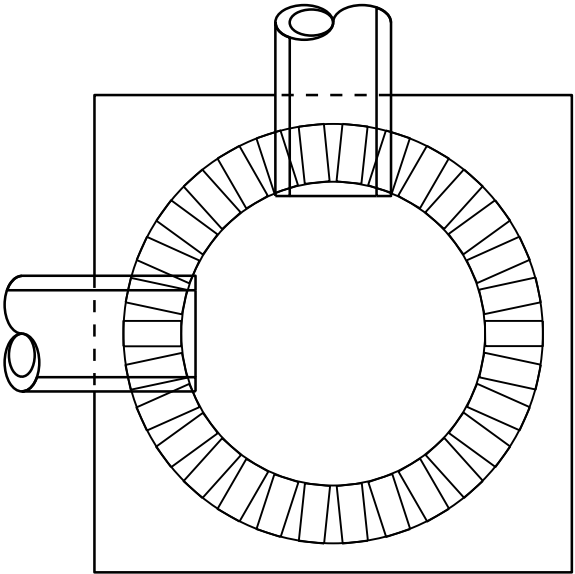
- GENERAL NOTES:
1. USE RAPID SET GROUT, MORTAR, OR CONCRETE THAT WILL TAKE FULL SET AND BECOME LOAD BEARING WITHIN SIXTY MINUTES OF PLACEMENT WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI.
 2. REMOVE ALL FAULTY EXISTING BRICKWORK AND REPLACE WITH NEW BRICK MASONRY.
 3. SHEER CUT EXCAVATION FOR THE 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.



MANHOLE CONCRETE ENCASEMENT



VALVE BOX CONCRETE ENCASEMENT



ELEVATION VIEW

PLACE BRICK ACCORDING TO ELEVATION VIEW

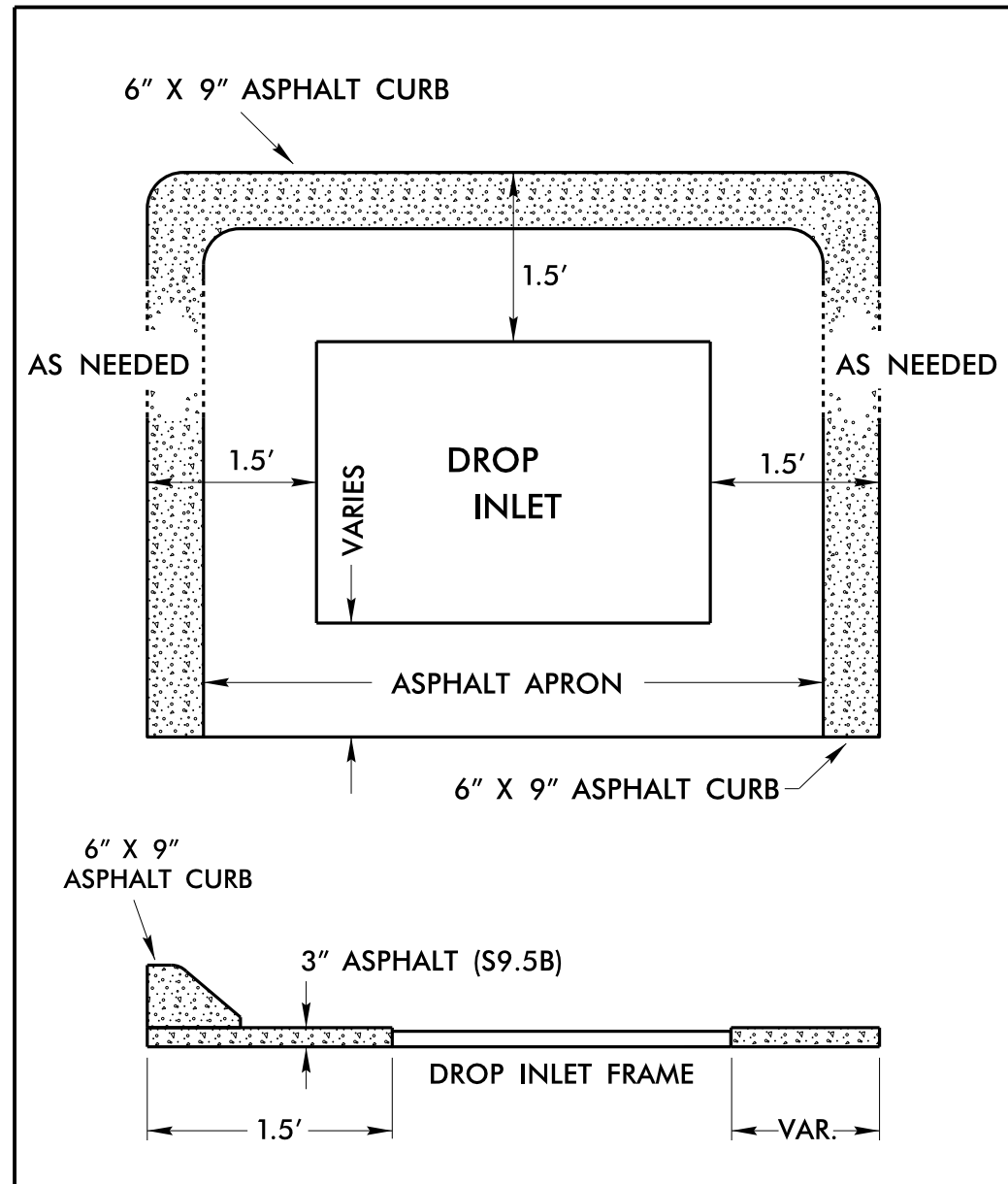
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
MANHOLE AND VALVE BOX ADJUSTMENTS

SHEET 1 OF 1
840D55

REVISIONS

DROP INLET DETAILS



NOT TO SCALE

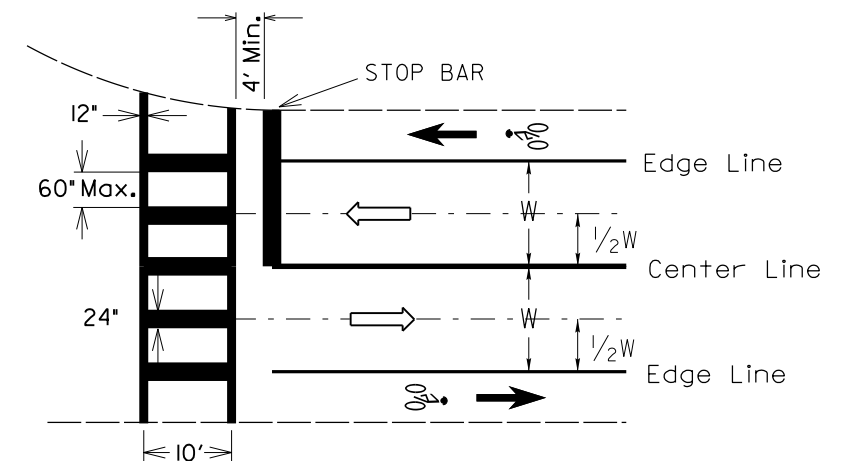
ACCESS PARKING SPACE SYMBOL



HEATED-IN-PLACE THERMOPLASTIC
PAVEMENT MARKING FHWA /ADA APPROVED
SYMBOL & BORDER: WHITE /BACKGROUND: BLUE

HI-VISIBILITY CROSSWALK DETAIL

SPECIAL EMPHASIS HI-VISIBILITY CROSSWALK MARKING DETAIL WITH BIKE LANES



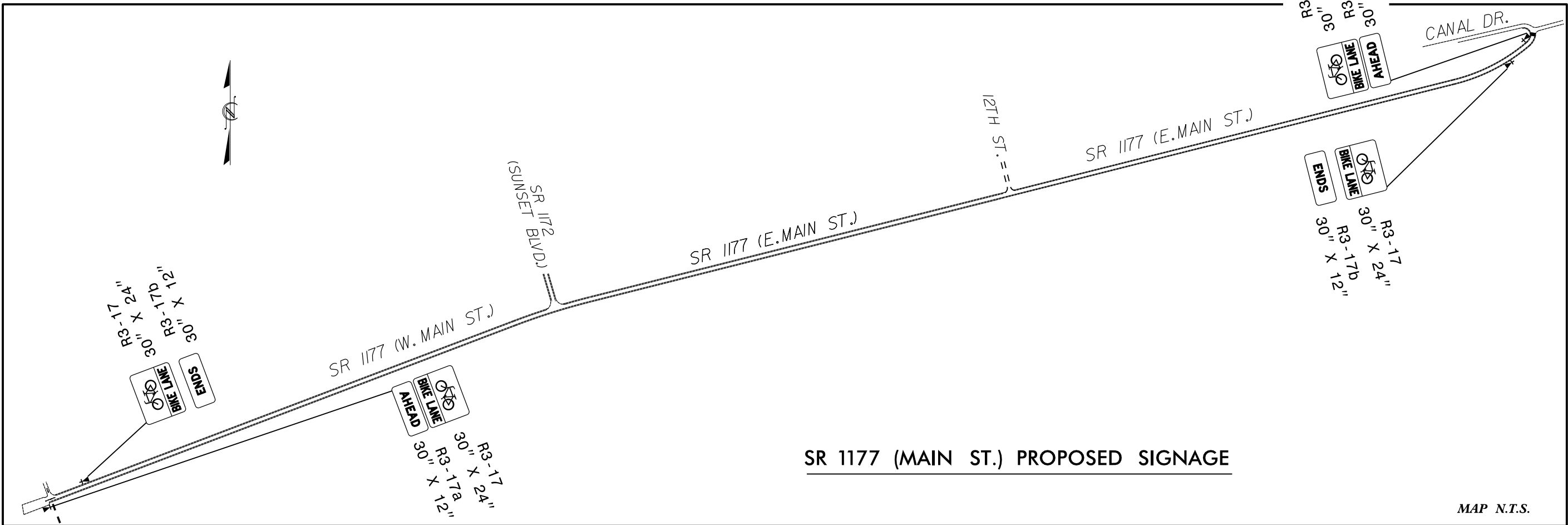
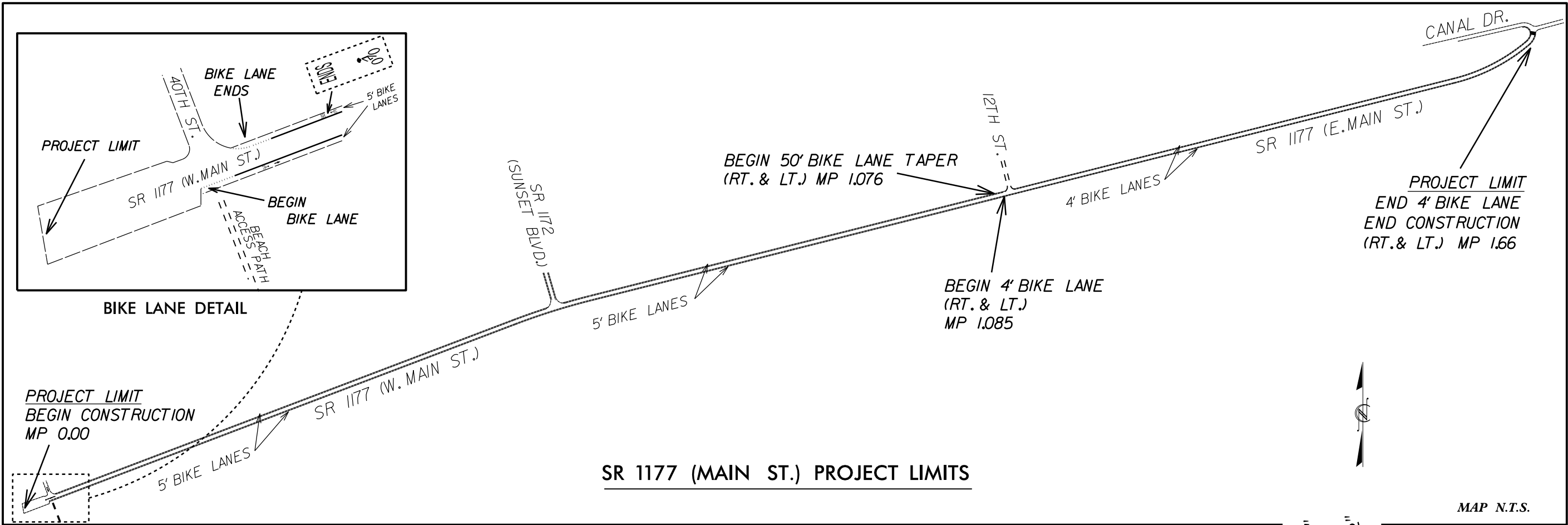
NOTES: SPACING OF CROSSWALK LINES POSITIONED
TO AVOID WHEELPATHS

8/17/99

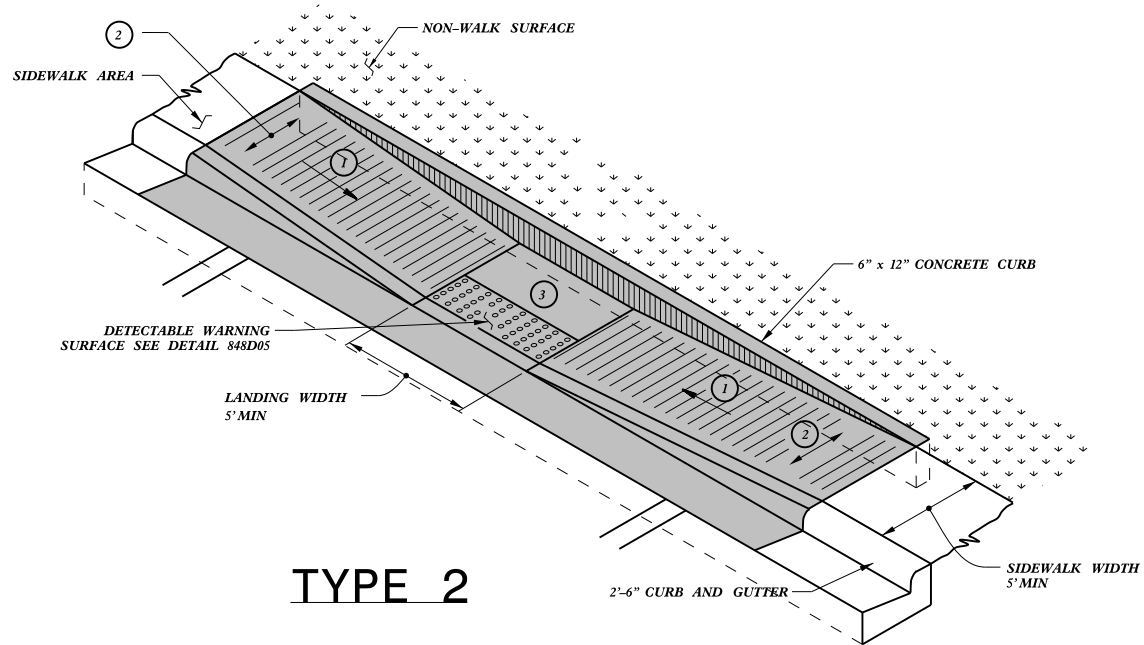
REVISIONS

Resurfacing Brunswick County Sunset Beach Bike Lanes Sunset Beach Rd Typ & Detail.dgn

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\$\$\$SUBMITNAME\$\$\$



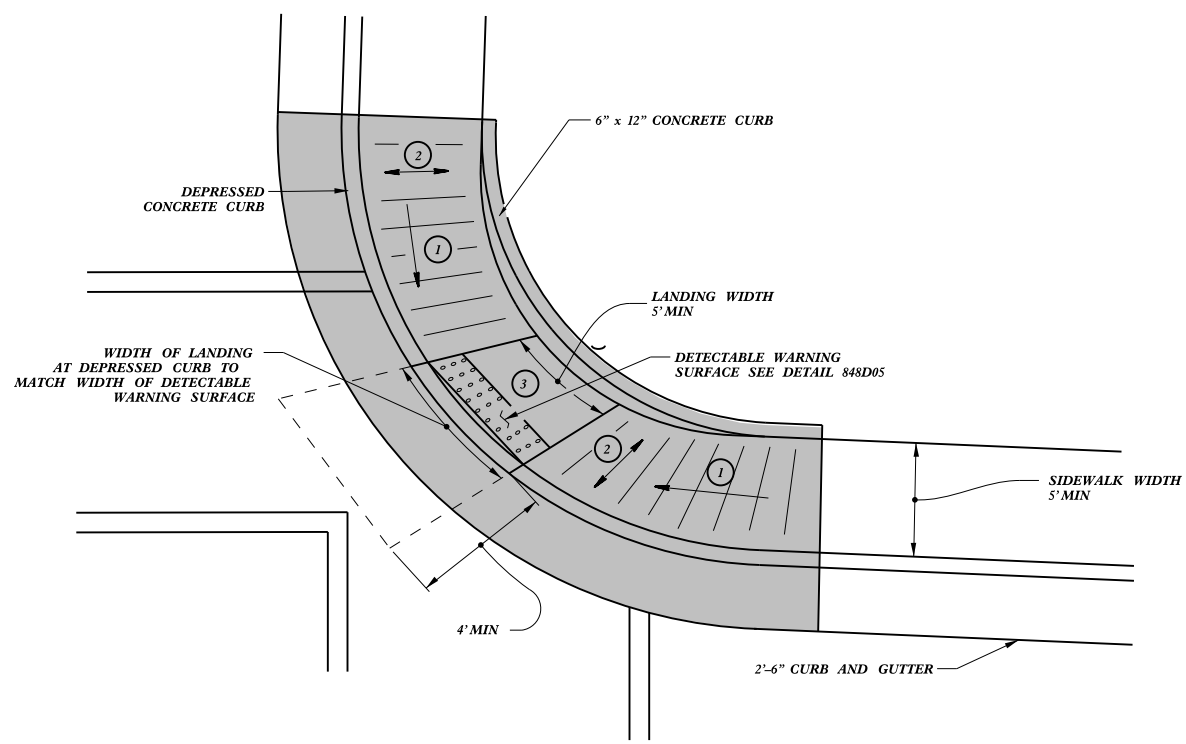
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J.Howerton
5/14/99



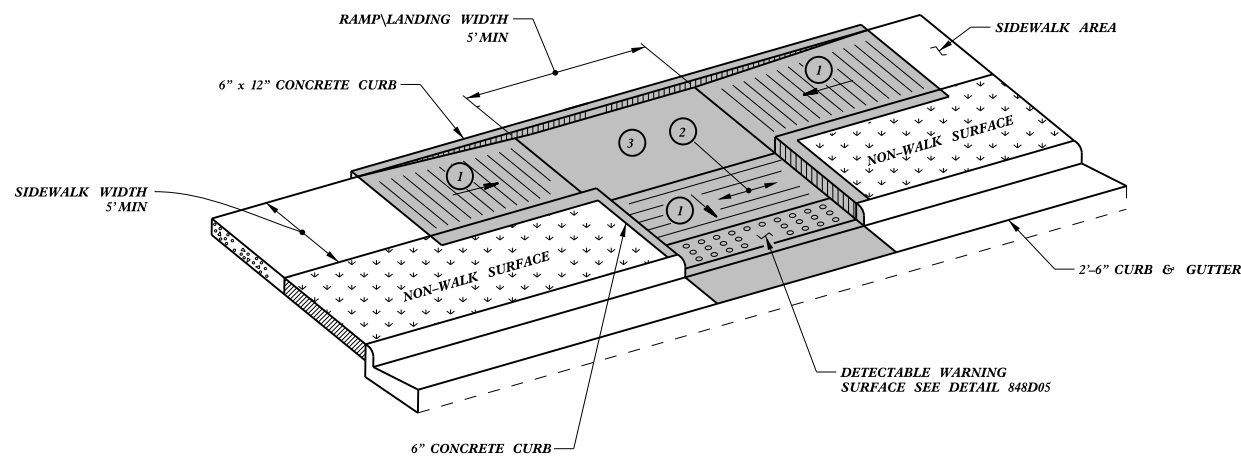
TYPE 2

PAY LIMITS FOR CURB RAMP

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



TYPE 2A

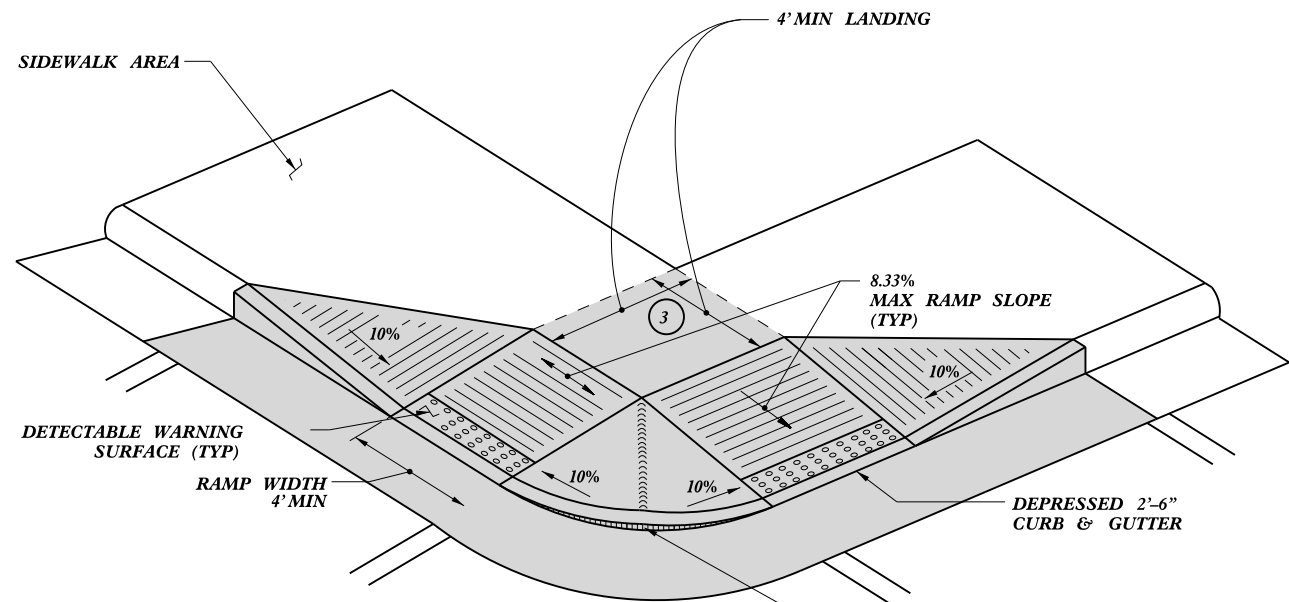


TYPE 3

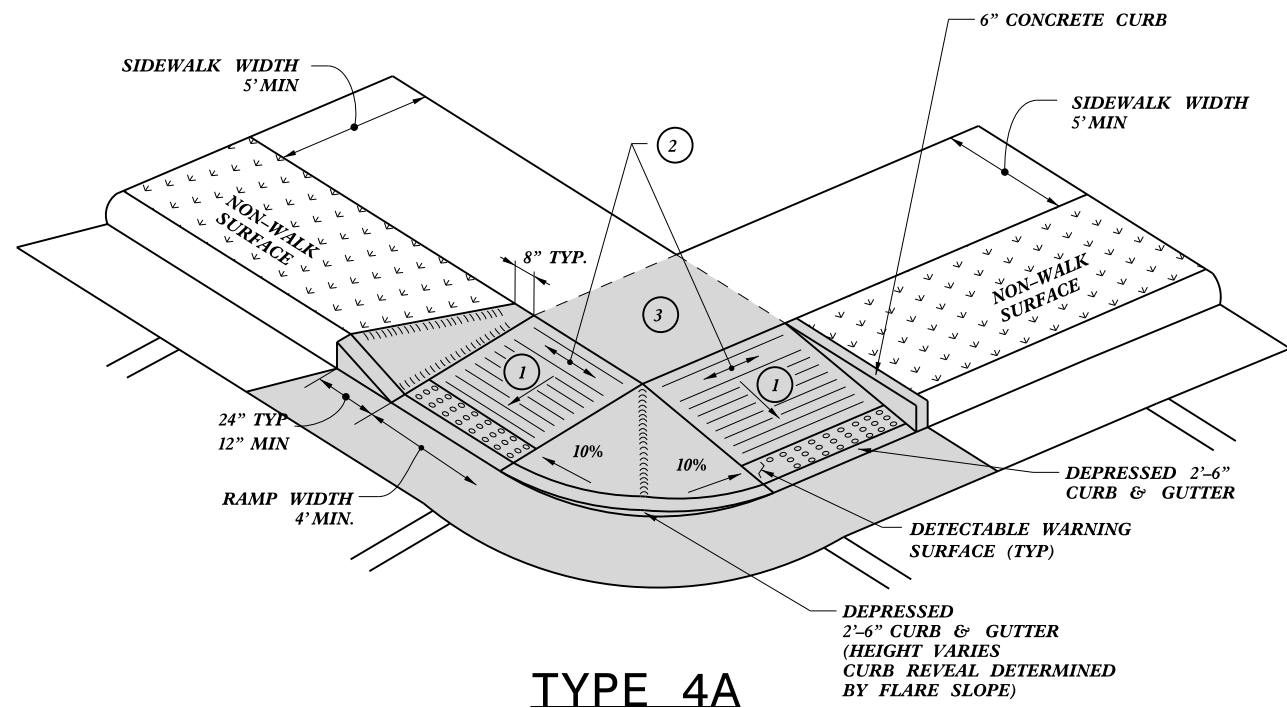
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
Parallel Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn	

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J.Howerton
5/14/99

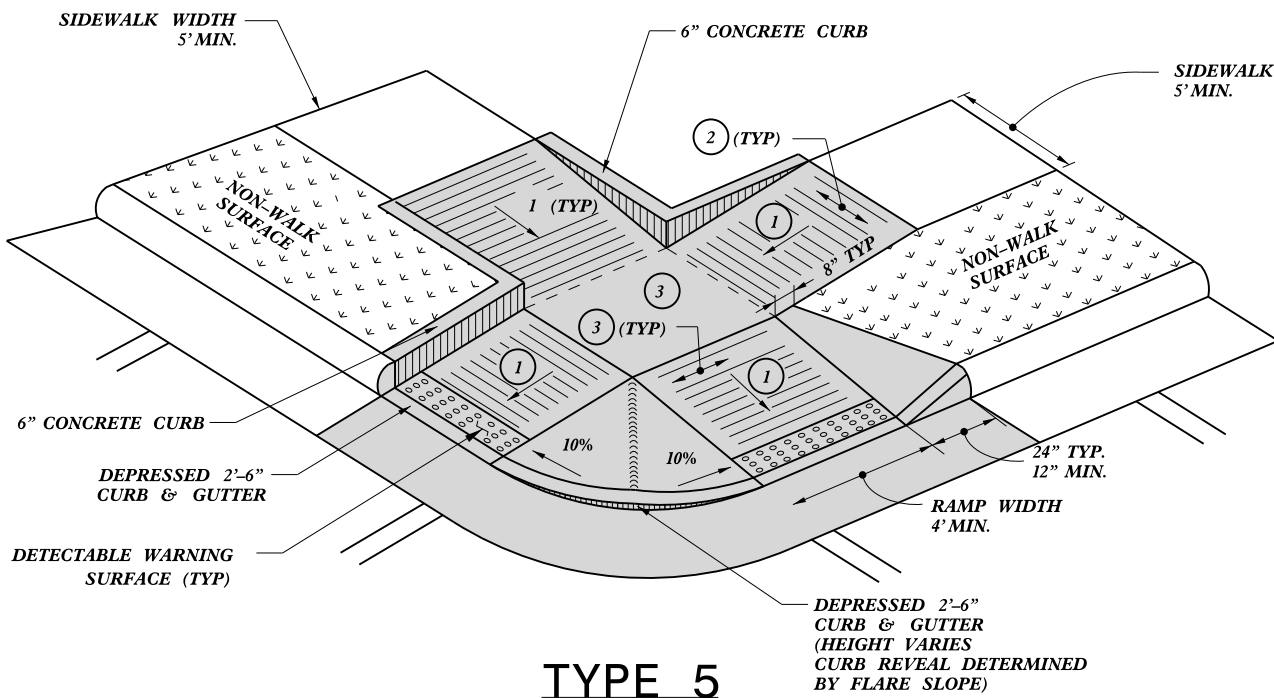


TYPE 4



TYPE 4A

PAY LIMITS FOR CURB RAMP



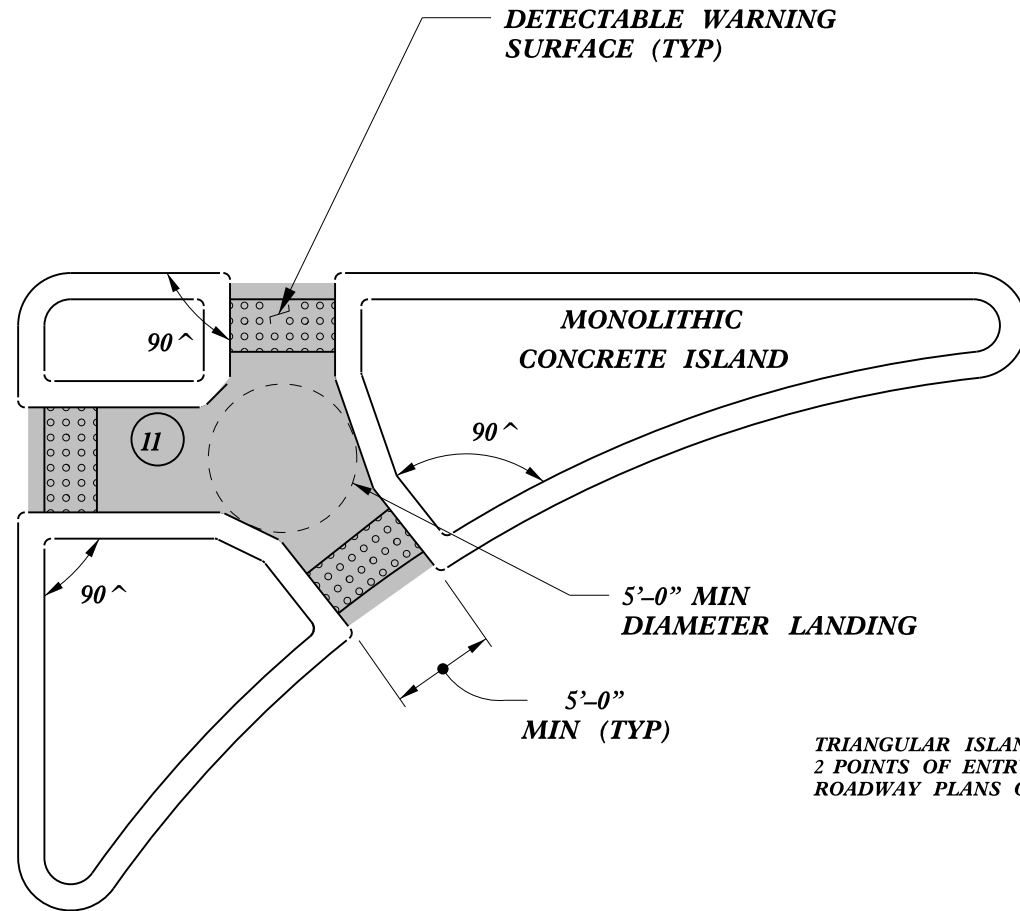
TYPE 5

- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
Shared Landing	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn	

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

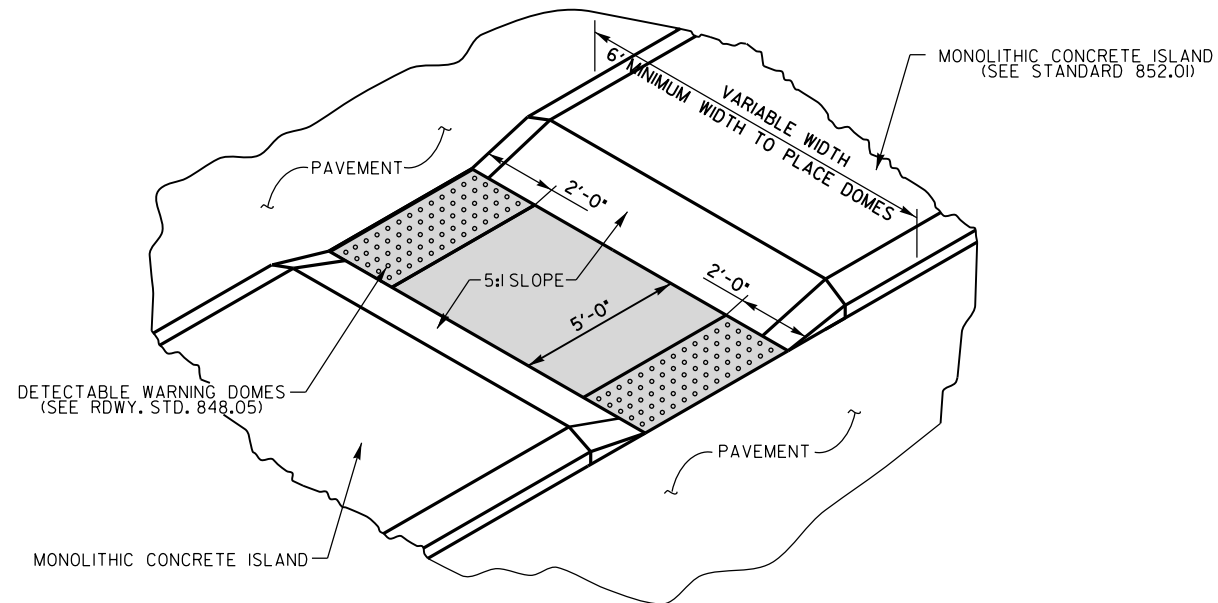
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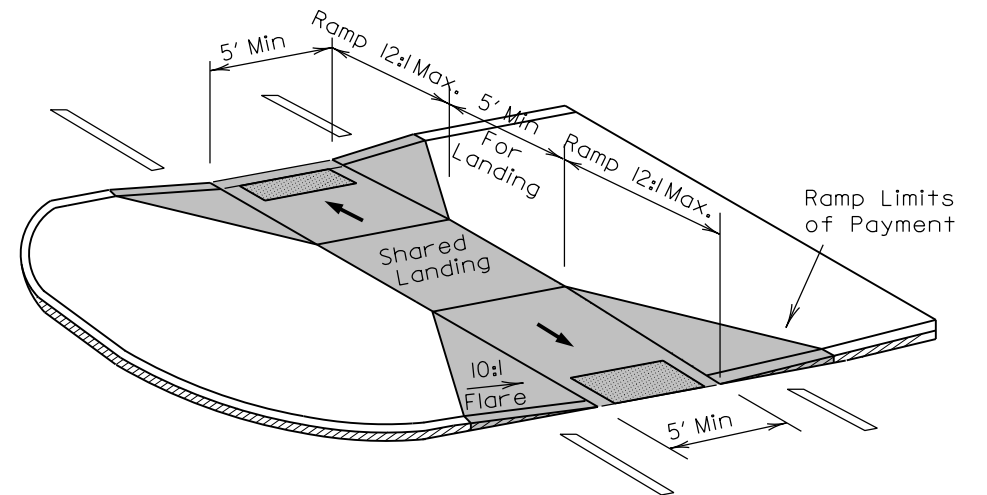
PAY LIMITS FOR 1 CURB RAMP

TRIANGULAR ISLANDS MAY BE CONSTRUCTED WITH ONLY 2 POINTS OF ENTRY AND EXIT AS SHOWN IN THE ROADWAY PLANS OR AS DIRECTED BY THE ENGINEER.

TRIANGULAR ISLAND WITH CUT THROUGH



MEDIAN ISLAND WITH CUT THROUGH



MEDIAN ISLAND CURB RAMPS

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
CURB RAMPS	
Median or Turn Lane Islands	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

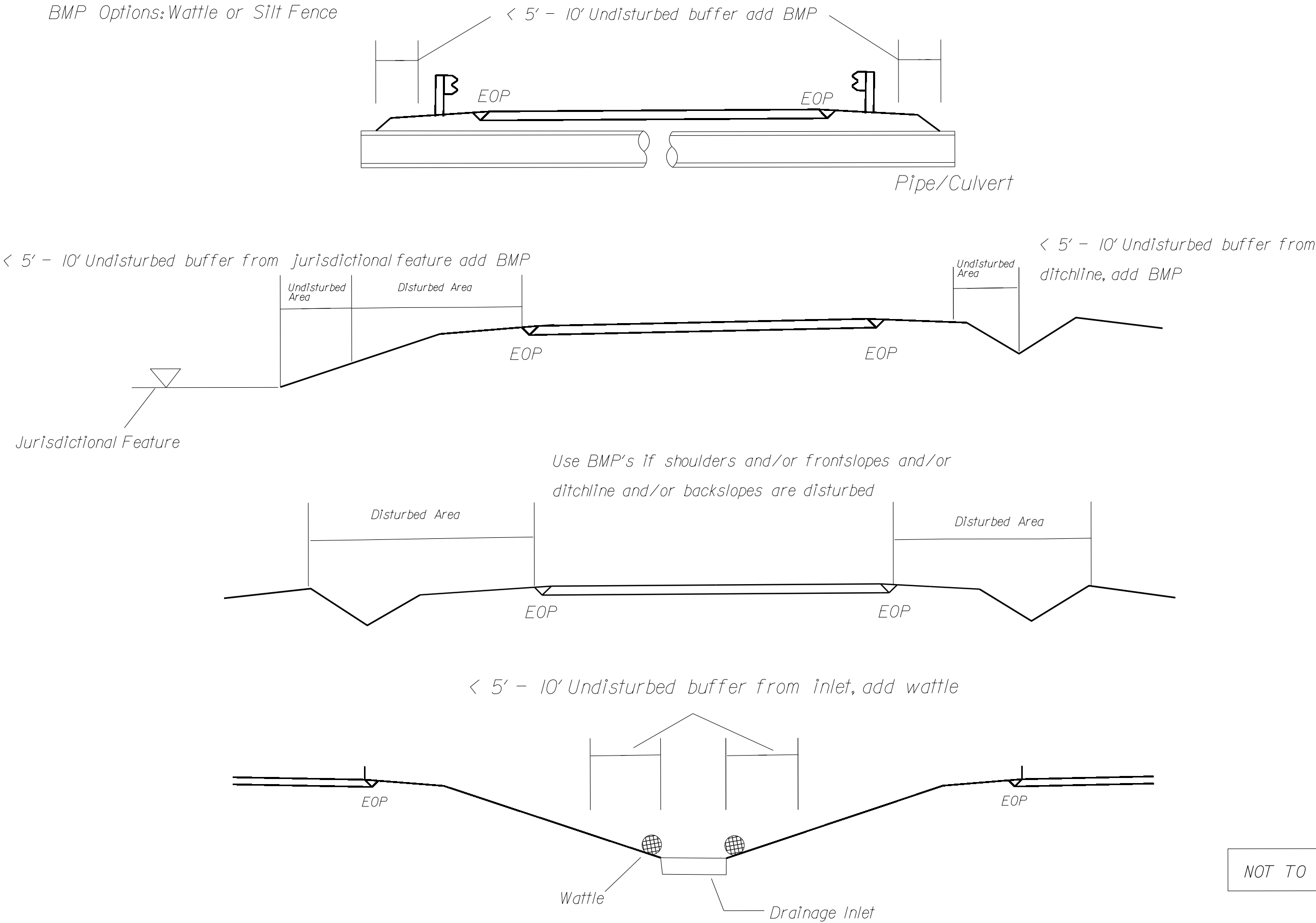
SOIL STABILIZATION TIMEFRAMES

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	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.

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

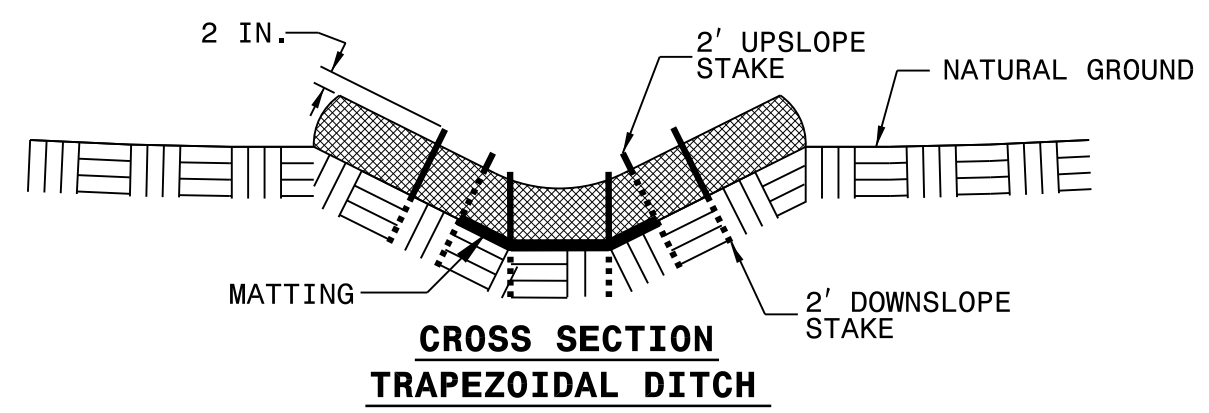
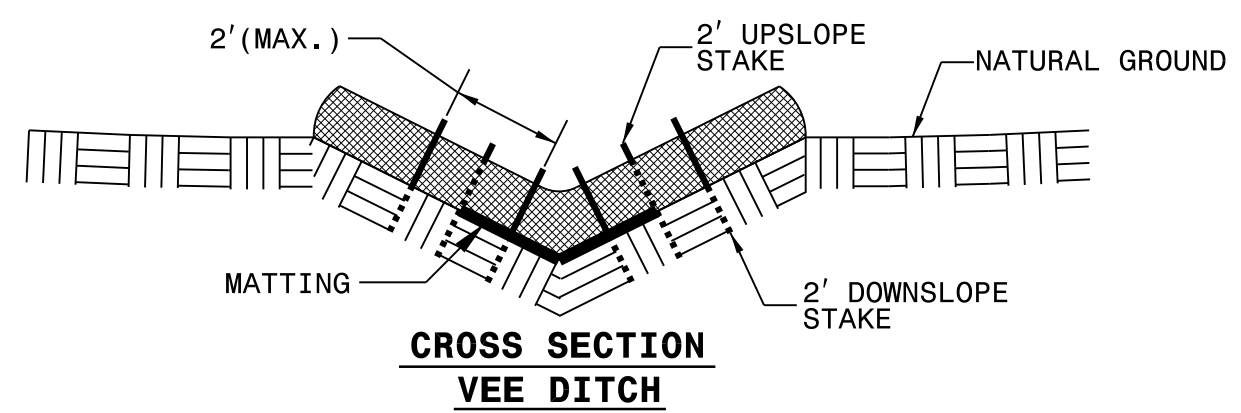
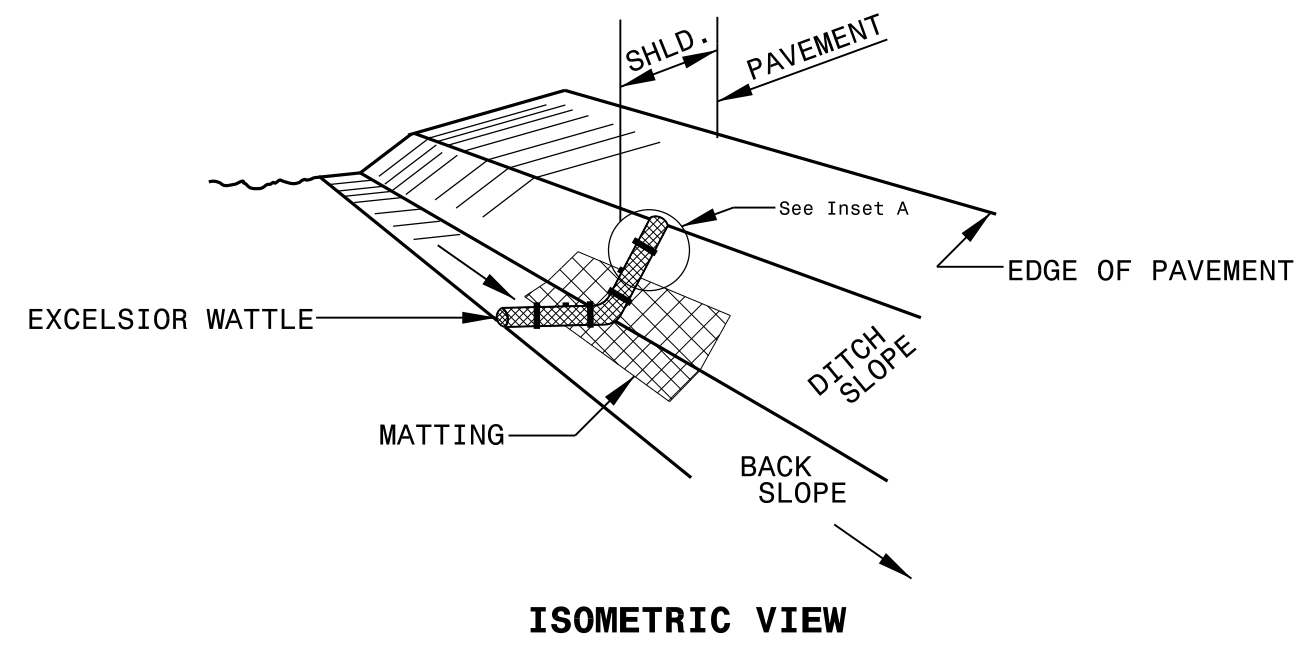
BMP Options: Wattle or Silt Fence

EROSION CONTROL DETAIL



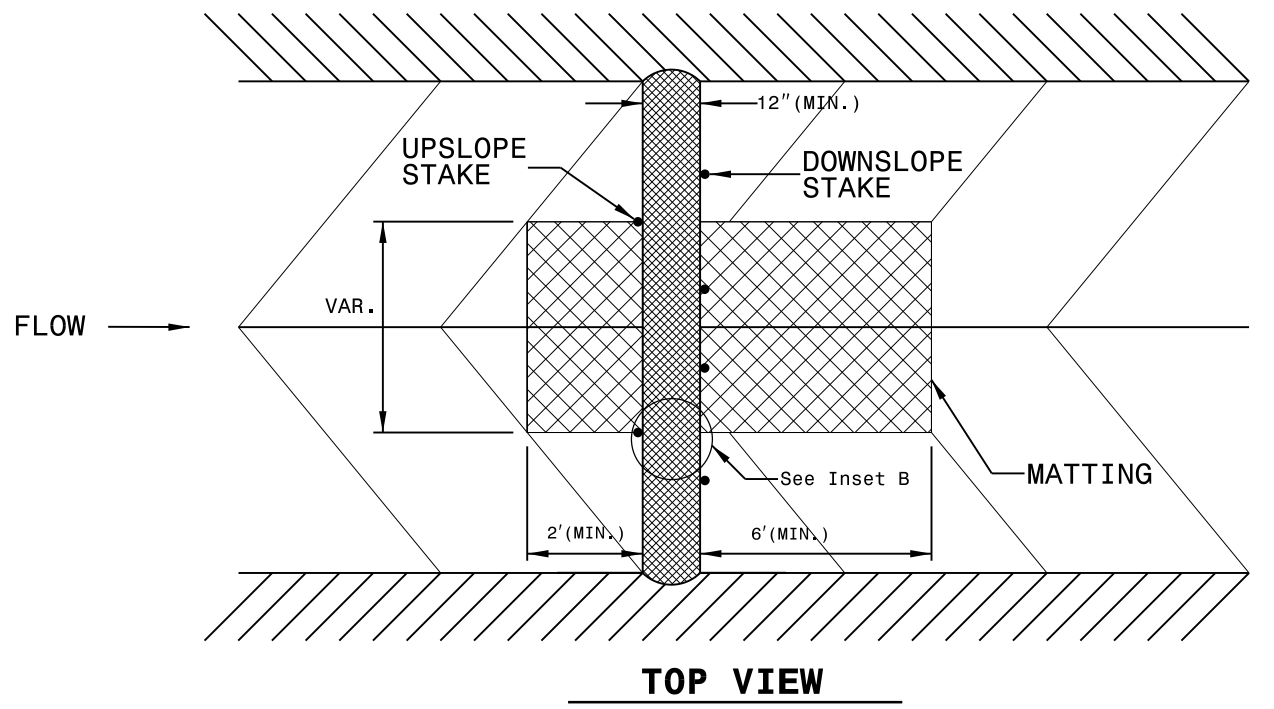
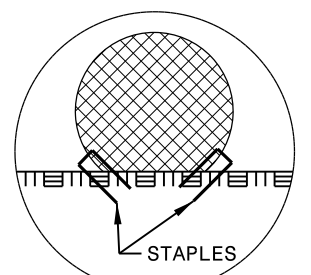
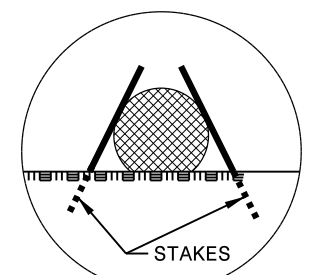
NOT TO SCALE

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.



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User: jay
Sheet: 14

PROJECT NO.	SHEET NO.
2016CPT.03.11.20101	15

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	GRADING LS	BORROW EXC. CY	INC. STONE BASE TONS	1 1/2" MILLING SY	BASE COURSE, B25.0B TONS	SURFACE COURSE, S9.5B TONS	ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT (MILL) GENERIC TON	REMOVE & REPLACE ASPHALT DRIVEWAY (GENERIC) TON	6" X 9" ASPHALT CURB (GENERIC) LF	BICYCLE SAFE STEEL GRATE AND FRAME EA	REMOVE & REPLACE 6" CONCRETE SIDEWALK (GENERIC) SY	REMOVE & REPLACE 4" CONCRETE SIDEWALK (GENERIC) SY	REMOVE & REPLACE 6" CONCRETE DRIVEWAY (GENERIC) SY	REMOVE & REPLACE CURB RAMP (GENERIC) EA	ADJ. OF DROP INLET EA
2016CPT.03.11.20101	Brunswick	1	SR 1177 (MAIN ST.)	FROM WESTERN END OF MAINTENANCE TO EASTERN END OF MAINTENANCE (MP 0.00 TO MP 1.66)	1 & 2	2	2WU	NO	NO	1.66	30	1	352	272	19,952	2,616	2,695	277	100	3.70	385.00	7	100	25	103	3	13
TOTAL FOR MAP NO. 1										1.66		1	352	272	19,952	2,616	2,695	277	100	3.70	385.00	7	100	25	103	3	13
TOTAL FOR PROJ NO. 2016 CPT.03.11.20101										1.66		1	352	272	19,952	2,616	2,695	277	100	3.70	385.00	7	100	25	103	3	13
GRAND TOTAL										1.66		1	352	272	19,952	2,616	2,695	277	100	3.70	385.00	7	100	25	103	3	13

PROJECT NO.	SHEET NO.
2016CPT.03.11.20101	16

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	TEMP. SILT FENCE LF	STONE FOR EC CLASS B TON	SEDIMENT CONTROL STONE TON	TEMP. MULCHING ACR	SEED FOR TEMP. SEEDING LBS	FERTILIZER FOR TEMP. SEEDING TON	MATTING FOR EROSION CONTROL SY	1/4" HARDWARE CLOTH LF	WATTLE LF	SEED & MULCHING AC	SEED FOR REPAIR SEEDING LB	FERTILIZER FOR REPAIR SEEDING TON
2016CPT.03.11.20101	Brunswick	1	SR 1177 (MAIN ST.)	FROM WESTERN END OF MAINTENANCE TO EASTERN END OF MAINTENANCE (MP 0.00 TO MP 1.66)	1 & 2	2	2WU	NO	1	16	161	40	40	1.61	160	0.40	20	81	30	1.95	81	0.40
TOTAL FOR MAP NO. 1									1	16	161	40	40	1.61	160	0.40	20	81	30	1.95	81	0.40
TOTAL FOR PROJ NO. 2016 CPT.03.11.20101									1	16	161	40	40	1.61	160	0.40	20	81	30	1.95	81	0.40
GRAND TOTAL									1	16	161	40	40	1.61	160	0.40	20	81	30	1.95	81	0.40

PROJECT NO.	SHEET NO.
2016CPT.03.11.20101	17

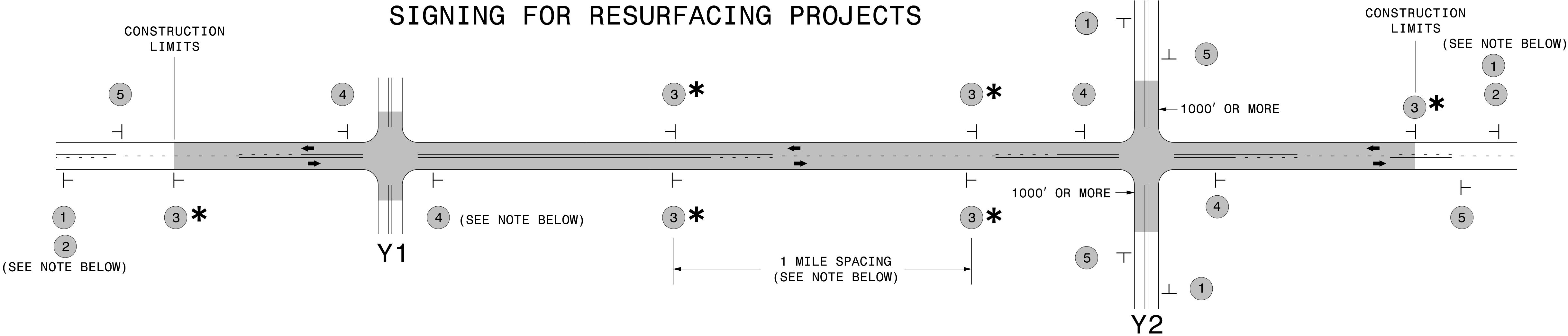
THERMOPLASTIC AND PAINT QUANTITIES

PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4025000000-E	4072000000-E	4102000000-N	4413000000-E	4457000000-N	4510000000-N	4685000000-E	4686000000-E			4690000000-E	4702000000-E	4710000000-E	4726100000-E	4726110000-E		4810000000-E	
										CONTRACTOR FURNISHED, TYPE E SIGN	SUPPORTS, 3-LB STEEL U-CHANNEL	SIGN ERECTION, TYPE E	WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	LAW ENFORCEMENT	4" X 90 M WHITE THERMO	4" X 120 M YELLOW THERMO	4" X 120 M WHITE THERMO	6" X 120 M WHITE THERMO	12" X 120 M WHITE THERMO	24" X 120 M WHITE THERMO	BICYCLE CHAR.,HEATED-IN- PLACE (120 MIL)	BICYCLE SYMBOL, HEATED IN PLACE (90 MIL)	BICYCLE STRAIGHT ARROW, HEATED IN PLACE (90 MIL)	4" YELLOW PAINT	4" WHITE PAINT	
NO		NO			NO					SF	LF	EA	SF	LS	HR	LF	LF	LF	LF	LF	LF	EA	EA	EA	LF	LF	
2016CPT.03.11.20101	Brunswick	1	SR 1177 (MAIN ST.)	FROM WESTERN END OF MAINTENANCE TO EASTERN END OF MAINTENANCE (MP 0.00 TO MP 1.66)	1 & 2	2	2WU	1.66	30	30	100	8	192	1	8.00	17,108	13,686	150	50	448	445	8	19	16	13,686	150	
TOTAL FOR MAP NO. 1								1.66		30	100	8	192	1	8	17,108	13,686	150	50	448	445	8	19	16	13,686	150	
TOTAL FOR PROJ NO. 2016 CPT.03.11.20101								1.66		30	100	8	192	1	8	17,108	13,686	150	50	448	445	8	19	16	13,686	150	
																	13,836						35			13,836	
GRAND TOTAL								1.66		30	100	8	192	1	8	17,108	13,686	150	50	448	445	8	19	16	13,686	150	
																	13,836						35			13,836	

PROJECT NO.	SHEET NO.
2016CPT.03.11.20101	18

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LANES	4815000000-E	4825000000-E	4835000000-E	4900000000-N
							6" WHITE PAINT	12" WHITE PAINT	24" WHITE PAINT	YELLOW & YELLOW MARKERS
NO		NO			NO		LF	LF	LF	EA
2016CPT.03.11.20101	Brunswick	1	SR 1177 (MAIN ST.)	FROM WESTERN END OF MAINTENANCE TO EASTERN END OF MAINTENANCE (MP 0.00 TO MP 1.66)	1 & 2	2	50	448	445	107
TOTAL FOR MAP NO. 1							50	448	445	107
TOTAL FOR PROJ NO. 2016 CPT.03.11.20101							50	448	445	107
GRAND TOTAL							50	448	445	107



LEGEND

—|—

STATIONARY SIGN

→

DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1 2 ROAD WORK AHEAD W20-1 48" X 48" NEXT XX MILES W7-3aP 24" X 18" PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE. #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)	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. ROAD WORK AHEAD W20-1 48" X 48" ROAD WORK AHEAD W20-7 A 48" X 48" PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.
	3 * LOW/SOFT SHOULDER SP 13107 48" X 48" PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET ½ MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.	
	4 ROAD UNDER CONST SP 13106 48" X 48" 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.	
	5 END ROAD WORK G20-2 A 48" X 24" PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.	

* 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).

DIVISION OF HIGHWAYS

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

WORK ZONE TRAFFIC CONTROL

RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS