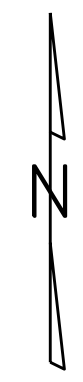


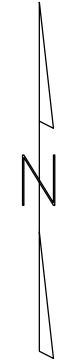
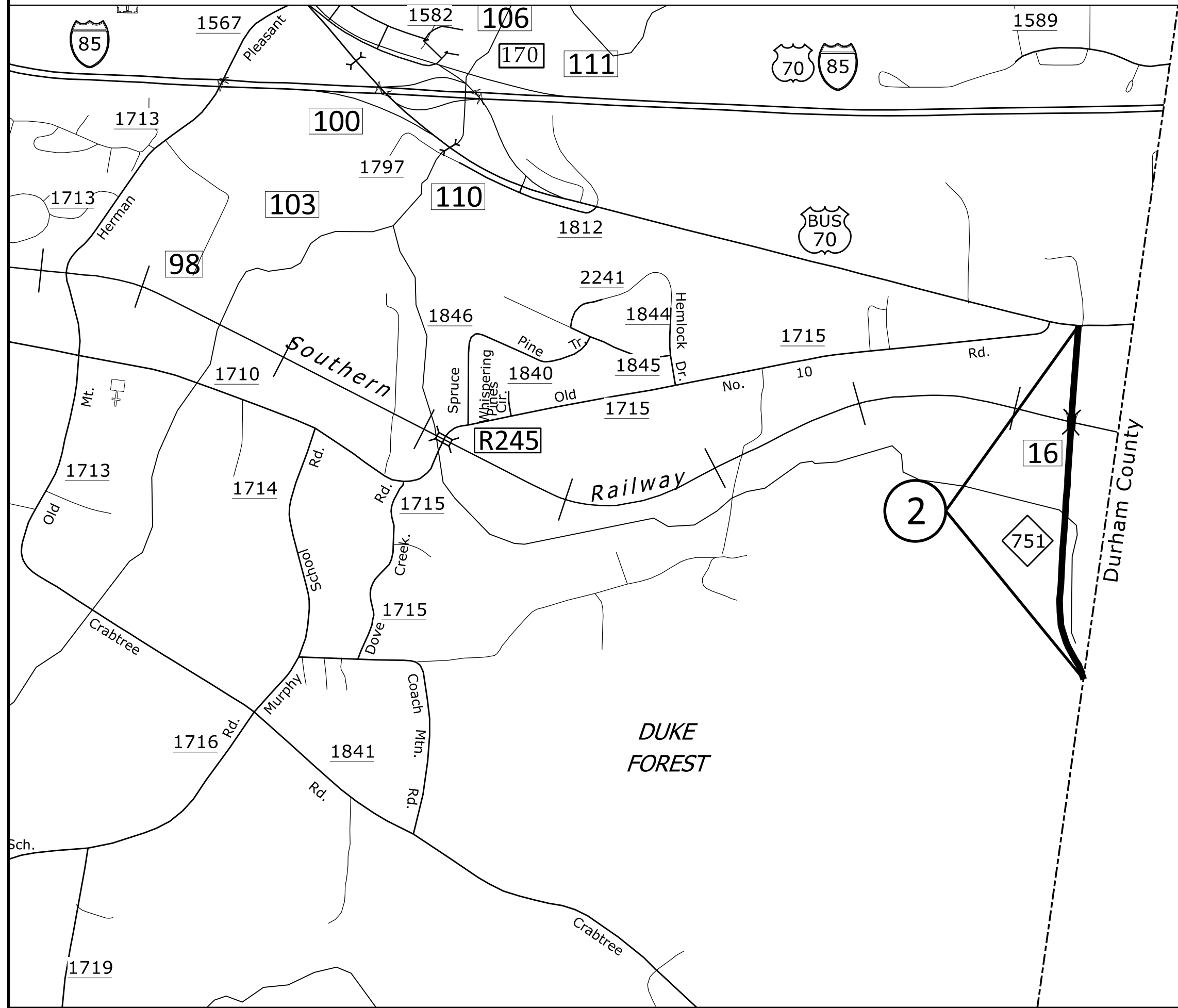
- Map 1
NC 86/MLK Jr Blvd
Mill 1½" Pave back 1½" S9.5 B
- Map 3
NC 54 / US 15-501 Northbound
Mill 1½" Pave back 1½" S9.5 C
Bridge# 281, DO NOT PAVE.
See Sht No. 2 for Ramp Limits
at NC 54 - Raleigh Rd
- Map 4
NC 54 / US 15-501 Southbound
Mill 1½" Pave back 1½" S9.5 C
Bridge # 45, DO NOT PAVE.
See Sht No. 2 for Ramp Limits
at NC 54 - Raleigh Rd

ORANGE COUNTY
NORTH CAROLINA

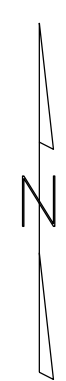
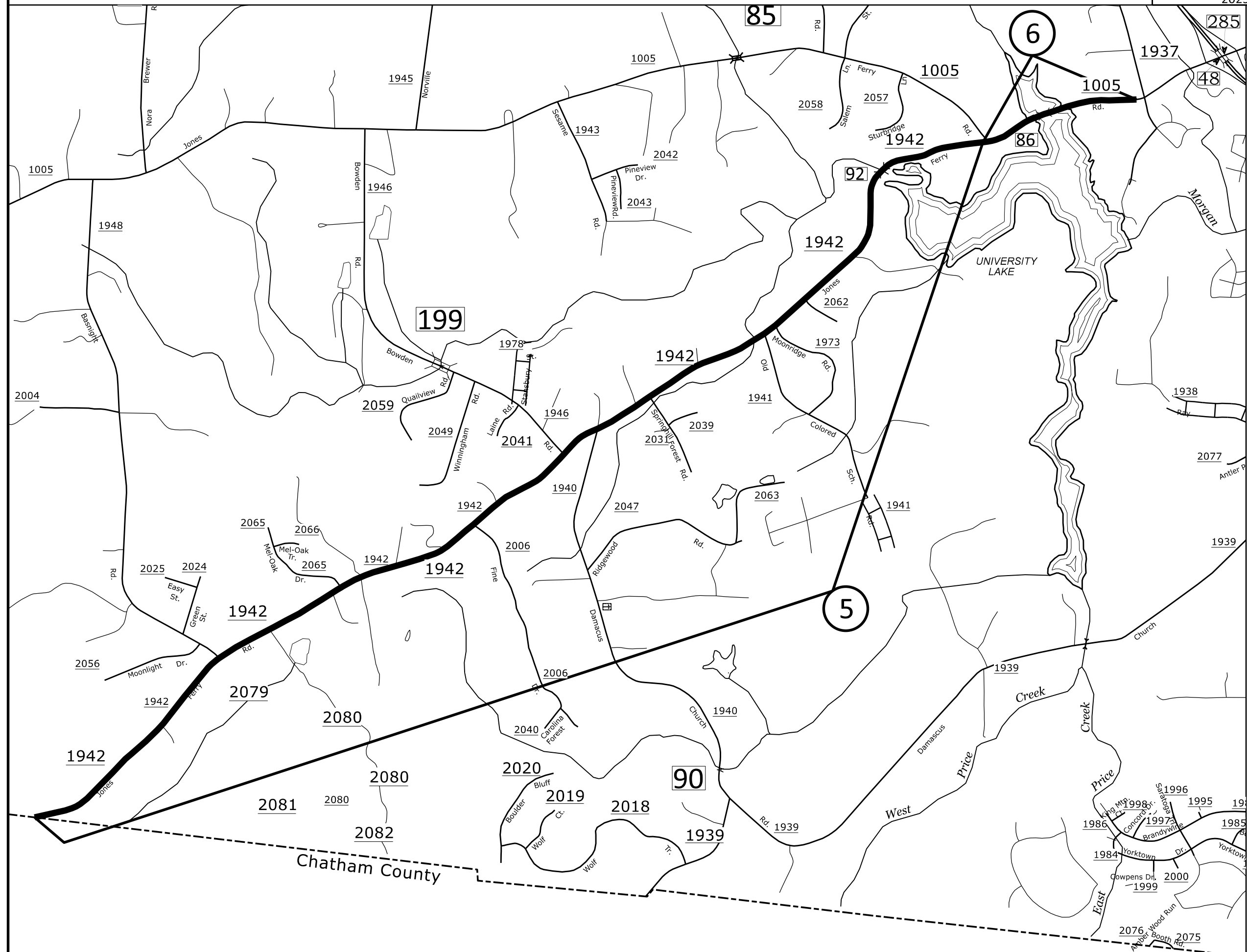


Map 3
 NC 54 / US 15-501 Northbound RAMPS
 at NC 54 - Raleigh Road
 Mill 1½" Pave back 1½" S9.5 C
 Bridge# 281, DO NOT PAVE.

Map 4
 NC 54 / US 15-501 Southbound RAMPS
 at NC 54 - Raleigh Road
 Mill 1½" Pave back 1½" S9.5 C
 Bridge # 45, DO NOT PAVE.

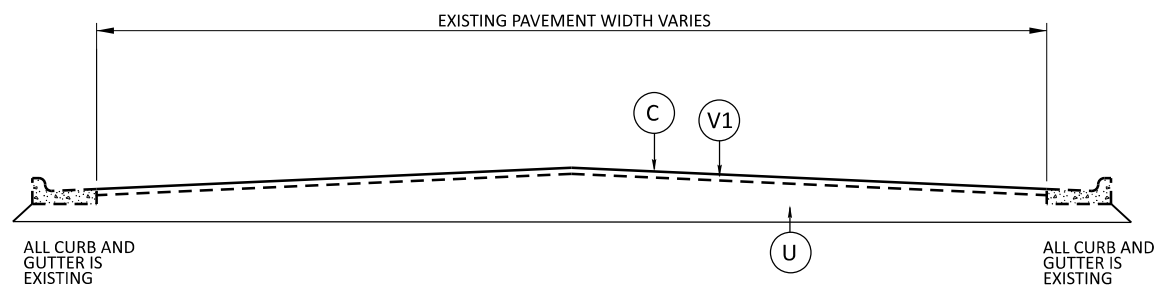


Map 2 NC 751
#67 Mat Seal, 1½" S9.5 B
Bridge #16, Resurface

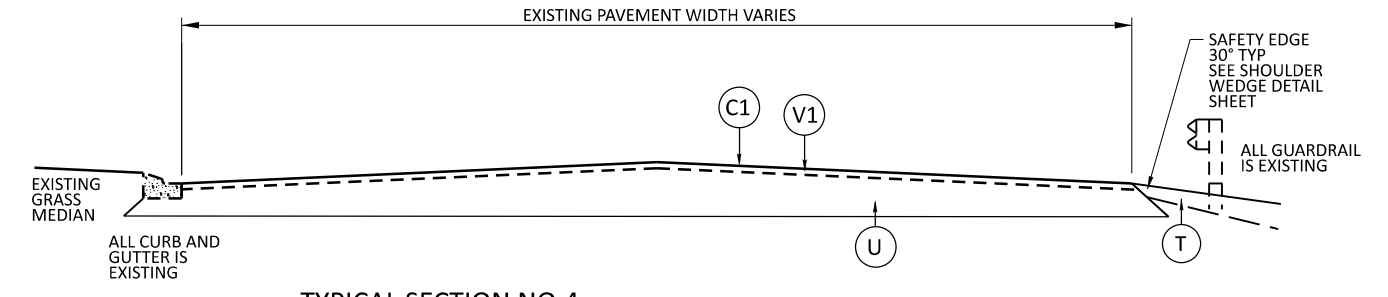


Map 5
 SR 1942 Jones Ferry Rd.
 #78 Mat Seal, 1½" S9.5B
 Bridge #92, Resurface

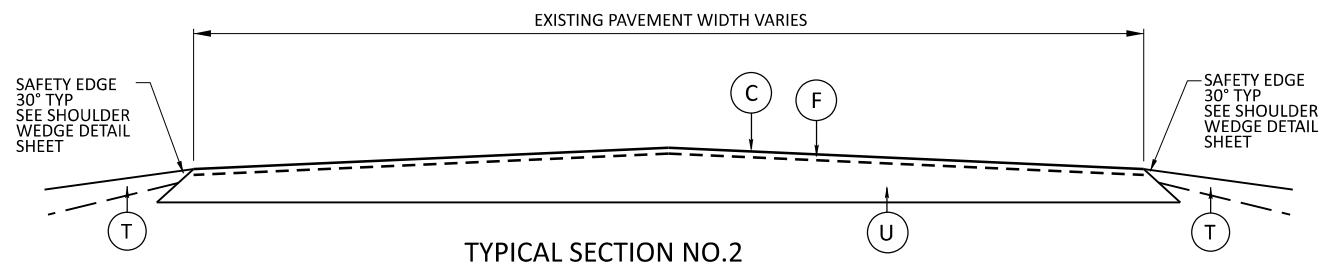
Map 6
 SR 1005 Jones Ferry Rd.
 #78 Mat Seal, 1½" S9.5B
 Bridge #86, DO NOT PAVE
 Contractor must abide by Posting



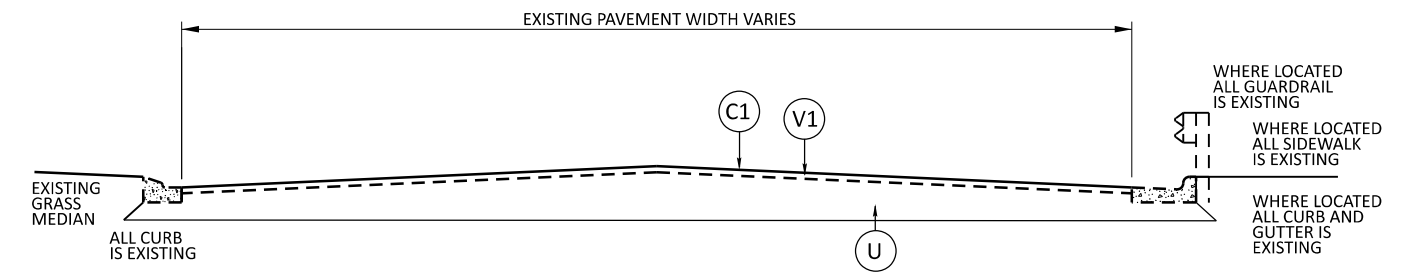
TYPICAL SECTION NO.1
Map 1 NC 86 MLK Jr Blvd.



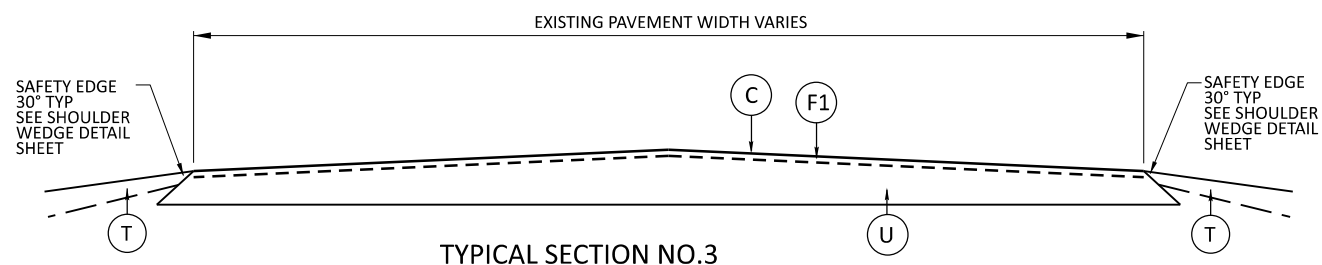
TYPICAL SECTION NO.4
Map 3 NC 54 US 15/501 NORTH BOUND Bridge #281, DO NOT PAVE.
Map 4 NC 54 US 15/501 SOUTH BOUND Bridge #45, DO NOT PAVE.



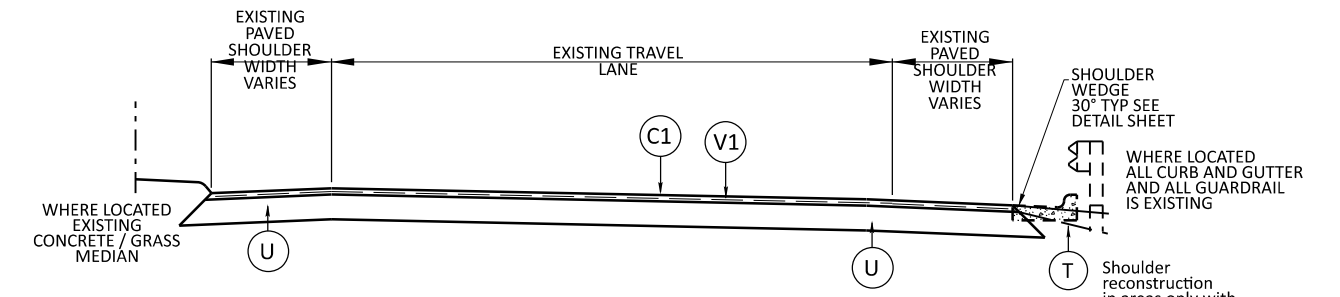
TYPICAL SECTION NO.2
Map 2 NC 751 Bridge #16, Resurface



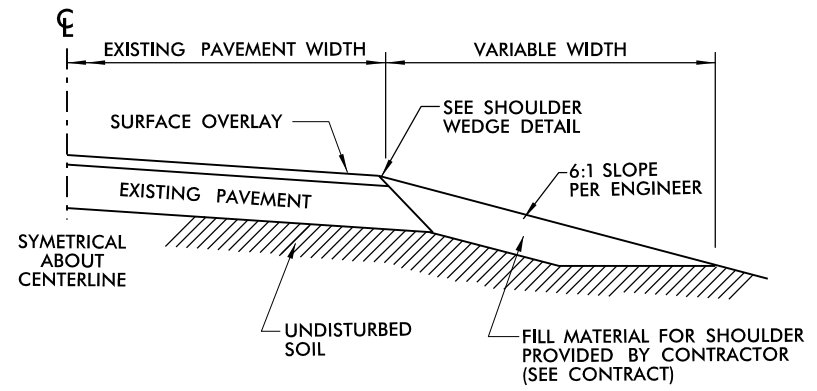
TYPICAL SECTION NO.5
Map 3 NC 54 US 15/501 NORTH BOUND Bridge #281, DO NOT PAVE.
Map 4 NC 54 US 15/501 SOUTH BOUND Bridge #45, DO NOT PAVE.



TYPICAL SECTION NO.3
Map 5 SR 1942 Jones Ferry Rd Bridge #92, Resurface
Map 6 SR 1005 Jones Ferry Rd Bridge #86, DO NOT PAVE
Contractor to abide by Posting

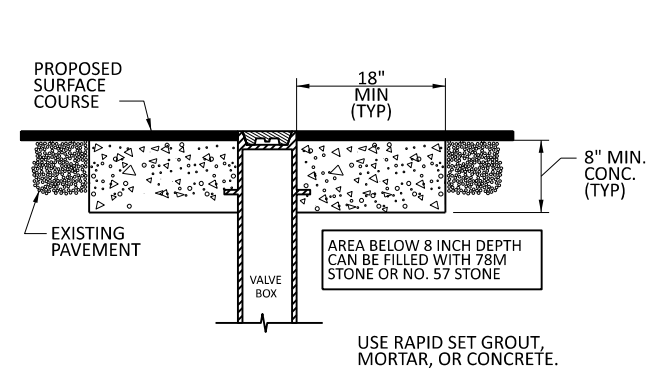


TYPICAL SECTION NO.6
Map 3 NC 54 US 15/501 NORTH BOUND Bridge #281, DO NOT PAVE.
Map 4 NC 54 US 15/501 SOUTH BOUND Bridge #45, DO NOT PAVE.

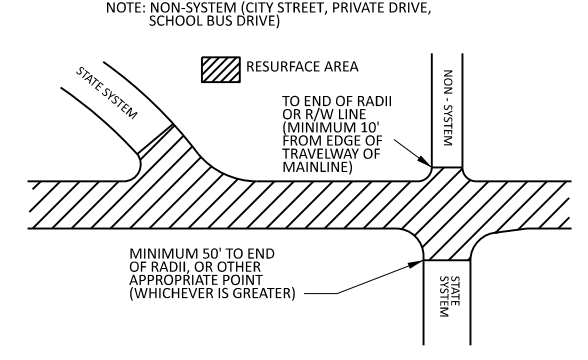


SHOULDER RECONSTRUCTION
* PLACE ASB OR BORROW AS DIRECTED BY ENGINEER

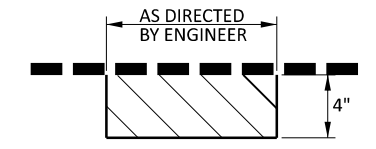
PAVEMENT SCHEDULE	
C	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5.B, TO BE APPLIED AT AN AVERAGE RATE OF 165 LBS PER SQ YD.
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5.C, TO BE APPLIED AT AN AVERAGE RATE OF 168 LBS PER SQ YD.
F	AST MAT COAT, #67
F1	AST MAT COAT, #78M
U	EXISTING PAVEMENT
V1	MILL ASPHALT PAVEMENT, 1½" DEPTH
T	SHOULDER RECONSTRUCTION



STANDARD CONCRETE ENCASEMENT FOR VALVE CASTINGS IN PAVEMENT

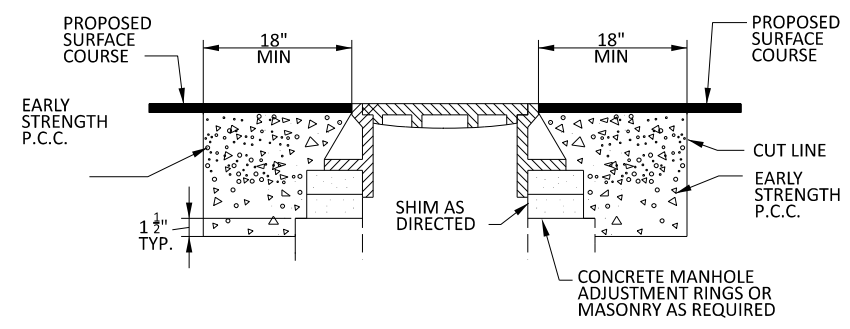


**PAVING DETAIL 1
MAIN LINE IS BEING RESURFACED**



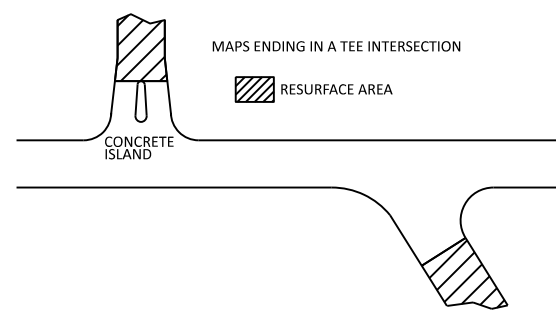
MILL FILL WITH ACBC, ACIC, ACSC, AS DIRECTED BY THE ENGINEER.

PATCHING EXISTING PAVEMENT DETAIL

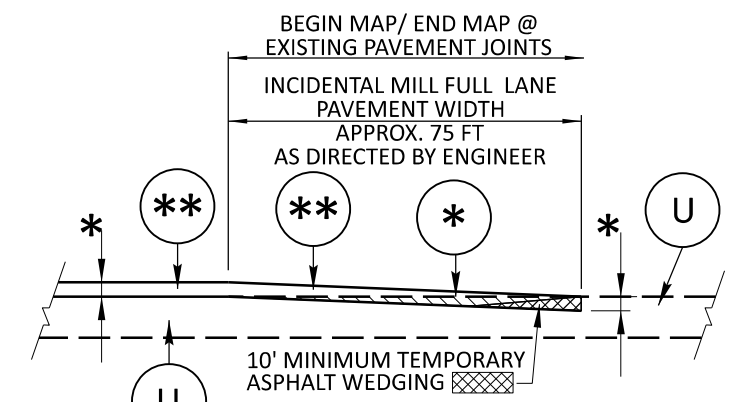


- NOTES:
- MORTAR SHALL BE MIXED TO NCDOT SPECIFICATIONS.
 - ALL FAULTY EXISTING BRICKWORK TO BE REMOVED AND REPLACED WITH NEW BRICK MASONRY.
 - EXCAVATION FOR THE ADJUSTMENT SHALL BE SHEER CUT ON ALL SIDES.
 - RAPID SET GROUT, MORTAR, OR CONCRETE SHALL BE USED CLASS B CONCRETE MAY BE USED WHEN ADJUSTMENTS ARE NOT IN THE TRAVEL LANE.

STANDARD CONCRETE ENCASEMENT FOR MANHOLE CASTINGS IN PAVEMENT

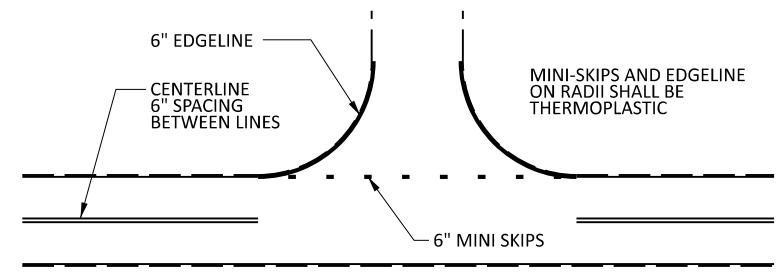


**PAVING DETAIL 2
MAIN LINE NOT BEING RESURFACED**

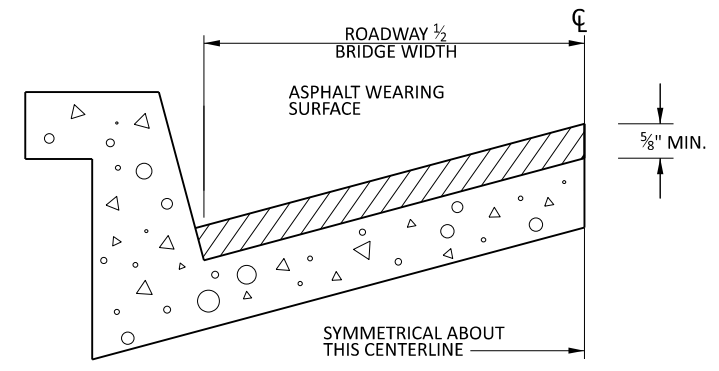


- * MILL DEPTHS WILL BE EQUAL TO OVERLAY THICKNESS OF MAPS SEE TYPICALS
- ** SEE TYPICALS FOR MIX TYPE

INCIDENTAL MILLING AT TIE-IN DETAIL



TO BE USED AT ALL NON-SIGNALIZED INTERSECTIONS (NOT TO SCALE)



BRIDGE HALF TYPICAL SECTION

FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN. THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. A THICKNESS OF NOT LESS THAN 5/8" SHALL BE PROVIDED. THE MAXIMUM THICKNESS SHALL PREFERABLY BE 1-1/2" UNLESS IT IS IMPRACTICAL TO PROVIDE A SMOOTH RIDING SURFACE OTHERWISE.

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5.B, TO BE APPLIED AT AN AVERAGE RATE OF 165 LBS PER SQ YD.
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5.C, TO BE APPLIED AT AN AVERAGE RATE OF 168 LBS PER SQ YD.
F	AST MAT COAT, #67
F1	AST MAT COAT, #78M
U	EXISTING PAVEMENT
V1	MILL ASPHALT PAVEMENT, 1 1/2" DEPTH
T	SHOULDER RECONSTRUCTION

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

ENGLISH STANDARD DRAWING FOR
DEEP-CUT INDUCTIVE DETECTION LOOPS
(FOR INSTALLATION PRIOR TO MILLING)

NOTES

- OVERLAP SAW CUTS AT CORNERS AND INTERSECTION POINTS TO ENSURE UNIFORM SAW SLOT DEPTH.
- MAINTAIN 12" SPACING BETWEEN LOOP WIRE TAIL SECTIONS.
- WIRE LOOPS CONNECTED TO THE SAME DETECTOR IN SERIES.
- LOCATE LOOPS IN CENTER OF LANES UNLESS OTHERWISE SHOWN ON PLANS.
- USE A SERIES OF ONE INCH PIECES OF BACKER ROD SPACED ONE FOOT APART ALONG THE ENTIRE LENGTH OF THE FEEDER SLOT AND LOOP SAW SLOT.
- CONSULT LOOP SEALANT MANUFACTURER TO DETERMINE CURING TIME REQUIRED PRIOR TO MILLING.
- REFER TO STANDARD DRAWING 1725.01 SHEETS 2 AND 3 FOR ADDITIONAL REQUIREMENTS.

SAW SLOT DEPTH CHART
ASSUMING 2" MILLING DEPTH

DEPTH (IN)	MAX NO. OF WIRE LAYERS				
	2	3	4	5	6
SAW SLOT DEPTH	4.0	4.5	5.0	5.0	5.0
MINIMUM TOTAL ASPHALT DEPTH REQUIRED	5.0	5.5	6.0	6.0	6.0

LOOP WIRE TWISTING METHOD

INCORRECT WAY TO TWIST WIRE

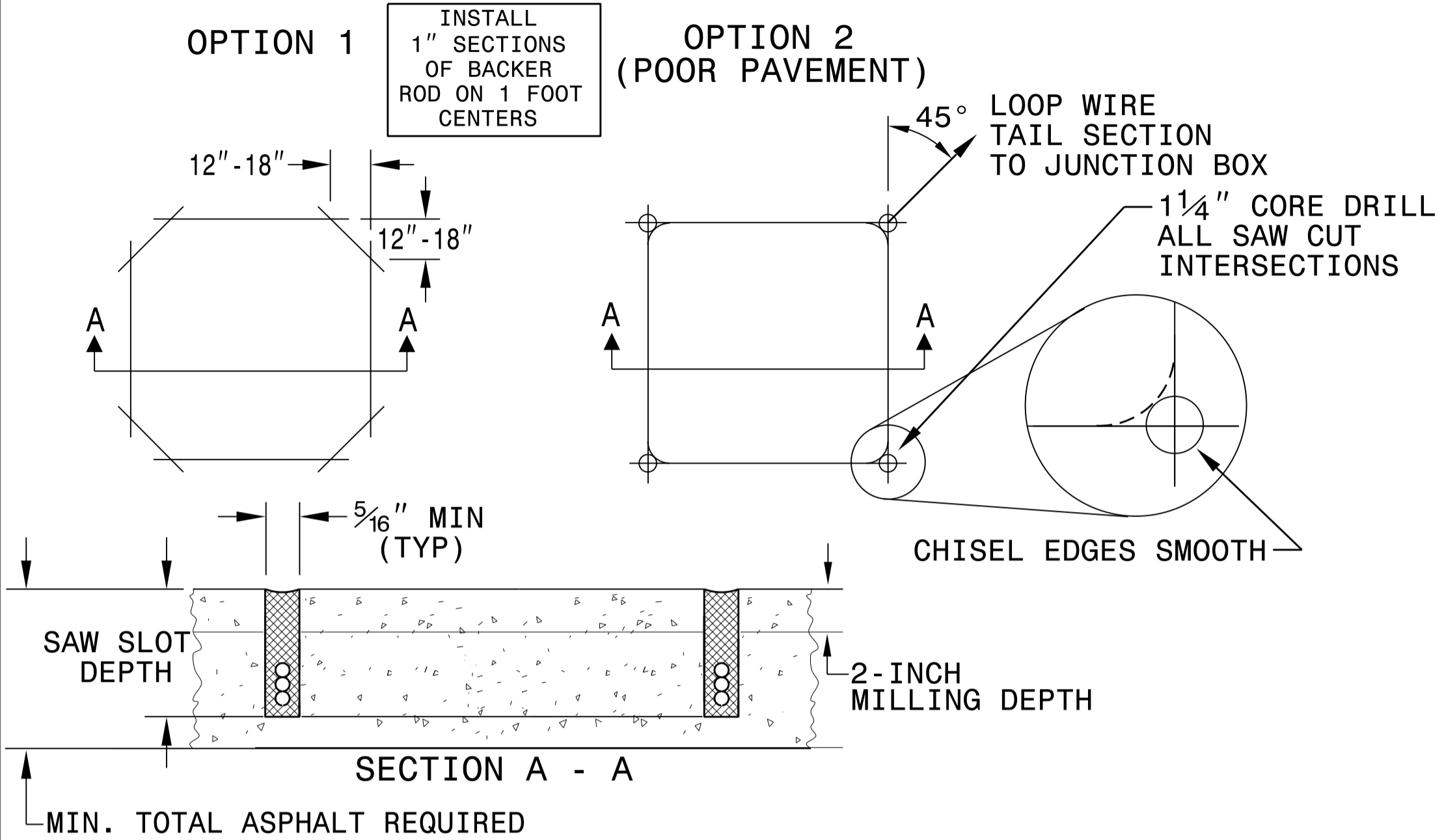


CORRECT WAY TO TWIST WIRE

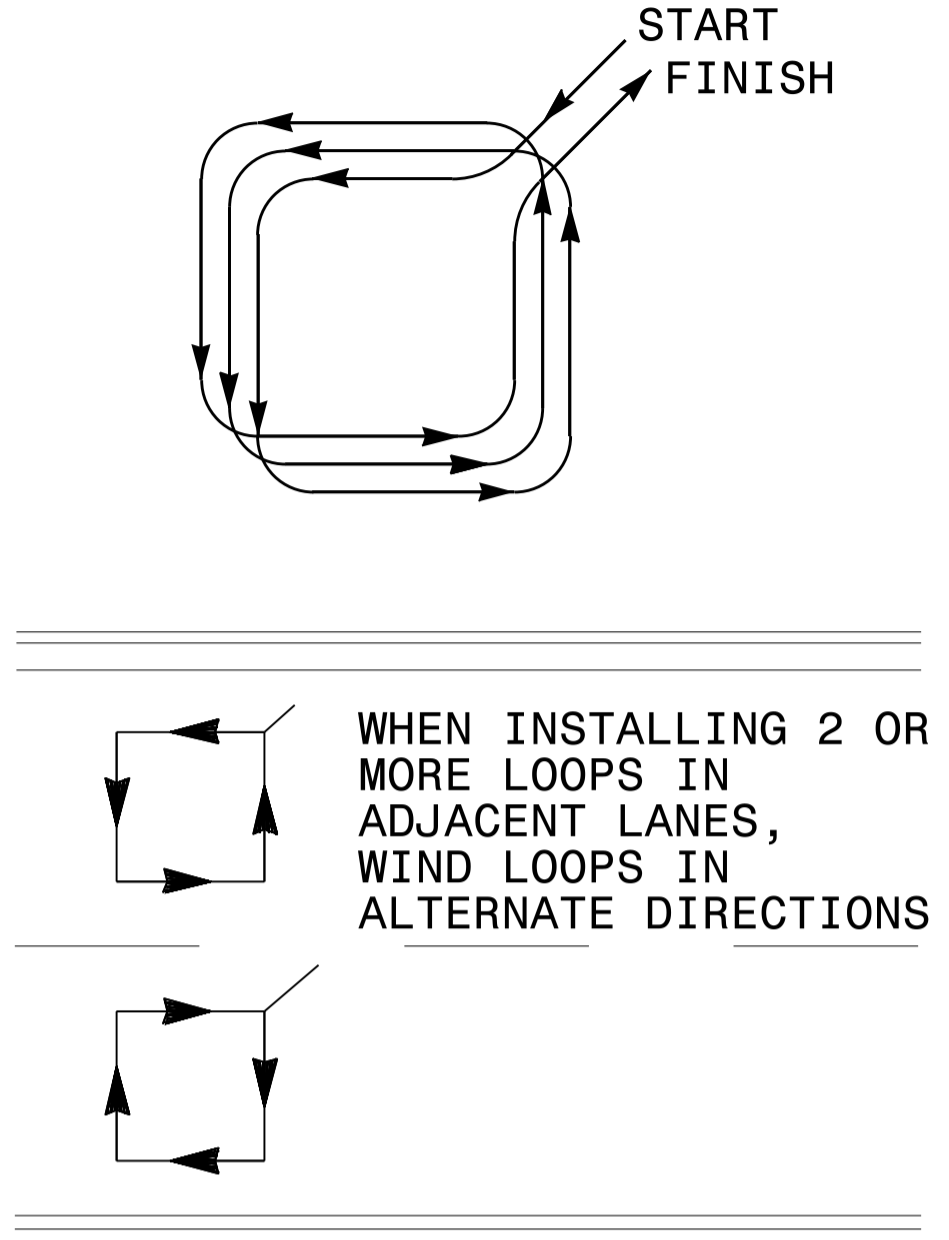


CONVENTIONAL 4-SIDED LOOP

SAW CUT OPTIONS

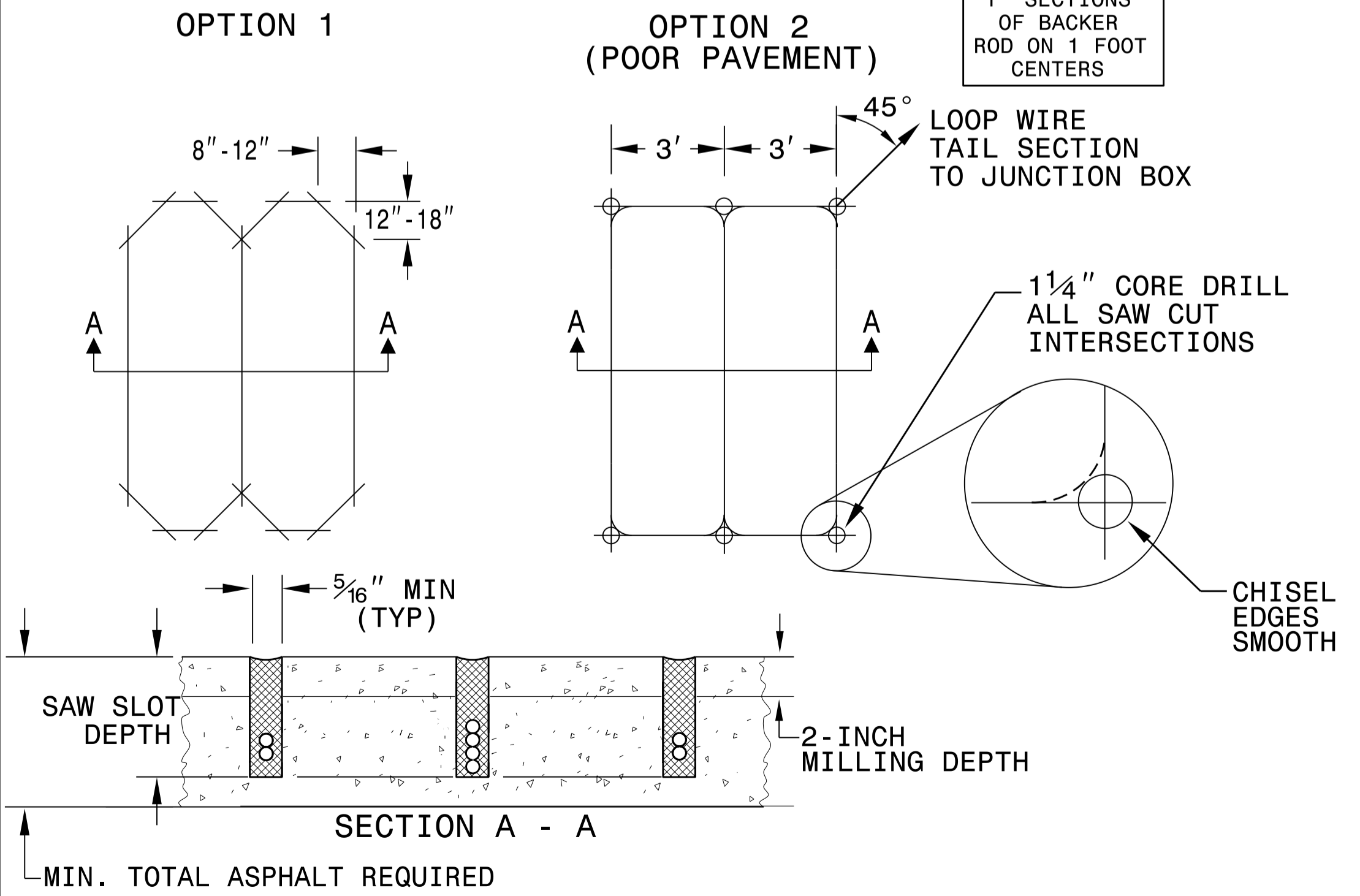


LOOP WINDING METHOD

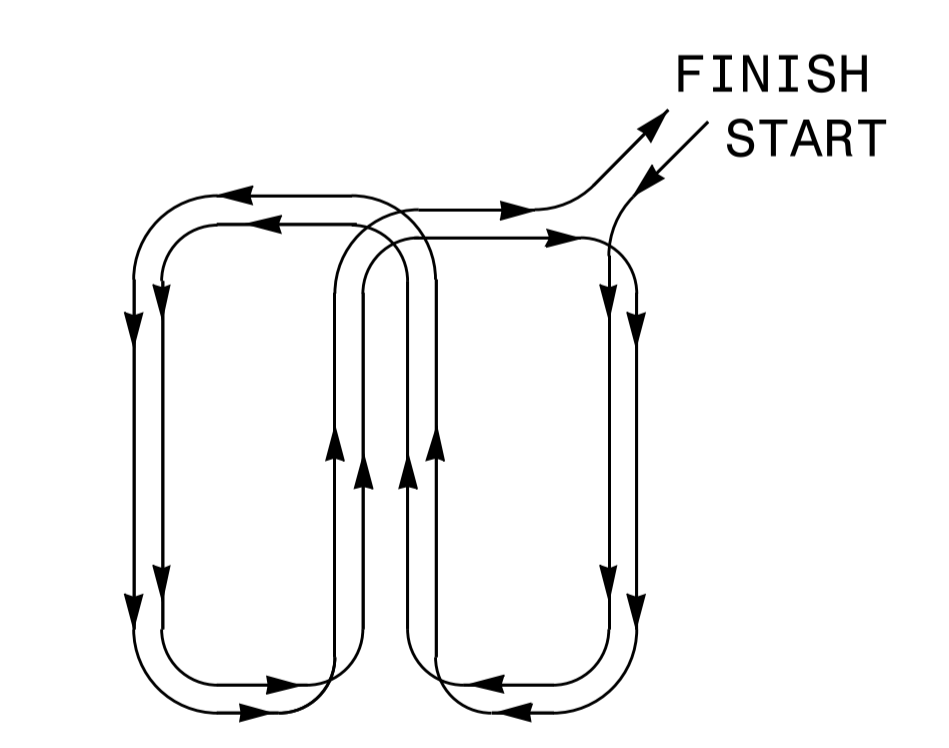


QUADRUPOLE LOOP

SAW CUT OPTIONS

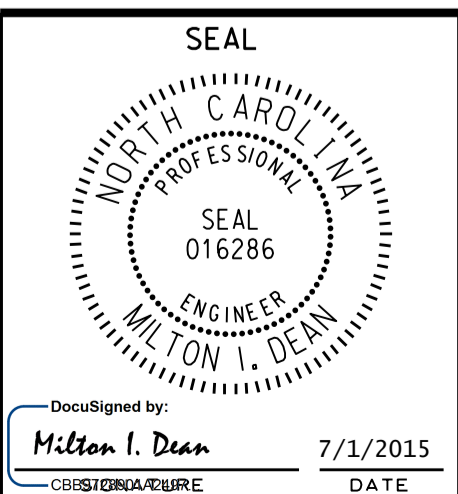
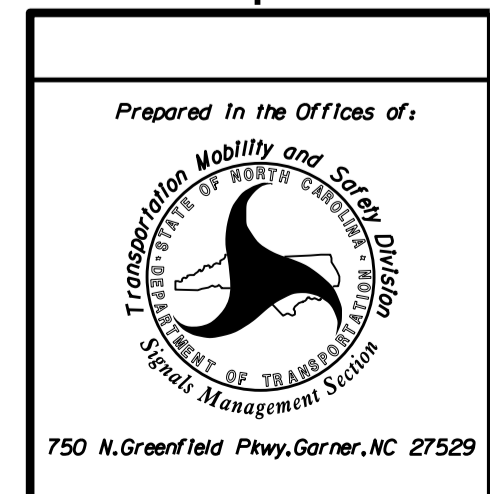


LOOP WINDING METHOD



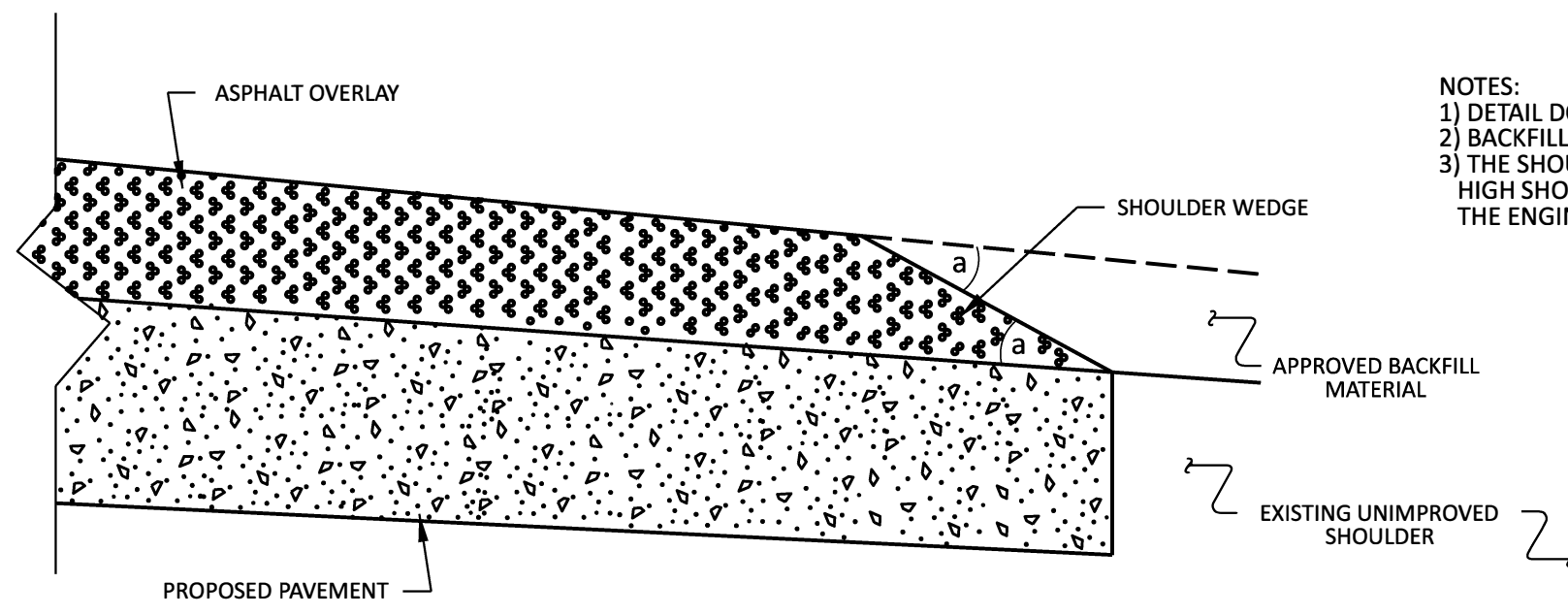
REVISIONS

1. REMOVED TWISTING NOTES FROM TAIL SECT. TO JUNCTION BOX. 2/26/08 MWH
2. REVISED SECTION A - A DETAILS. 6/29/15 JTP



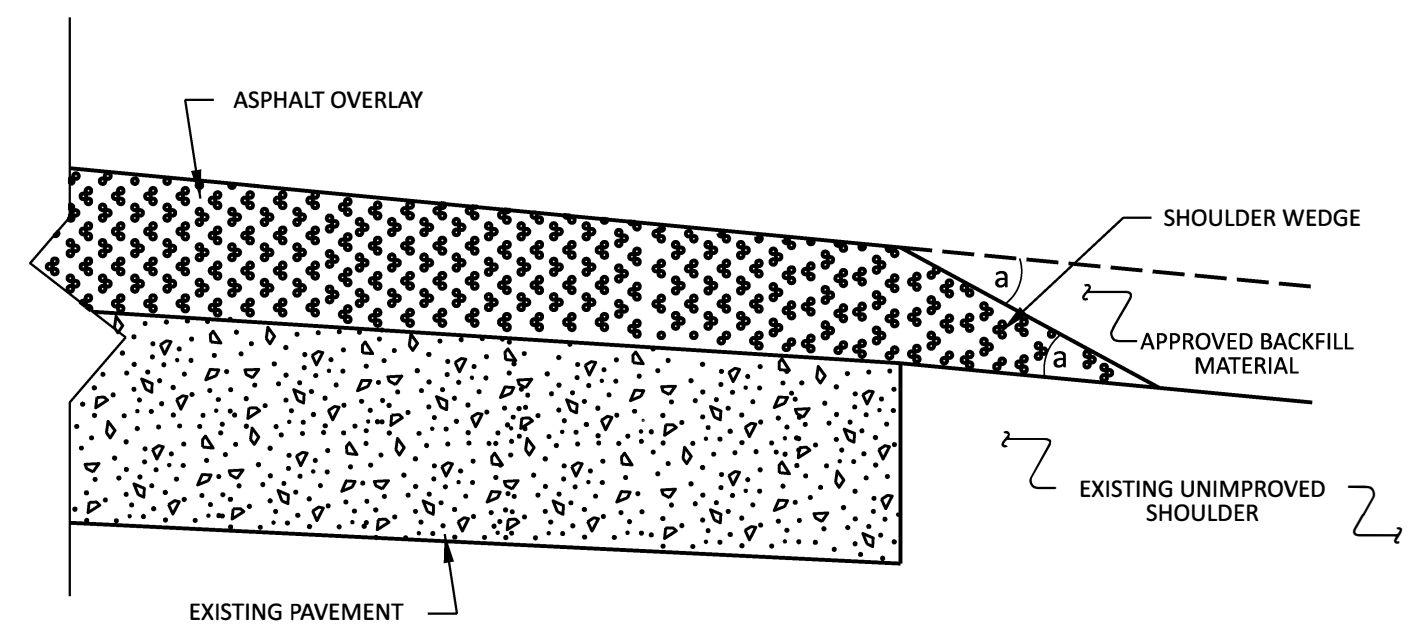
ENGLISH STANDARD DRAWING FOR
DEEP-CUT INDUCTIVE DETECTION LOOPS
(FOR INSTALLATION PRIOR TO MILLING)

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

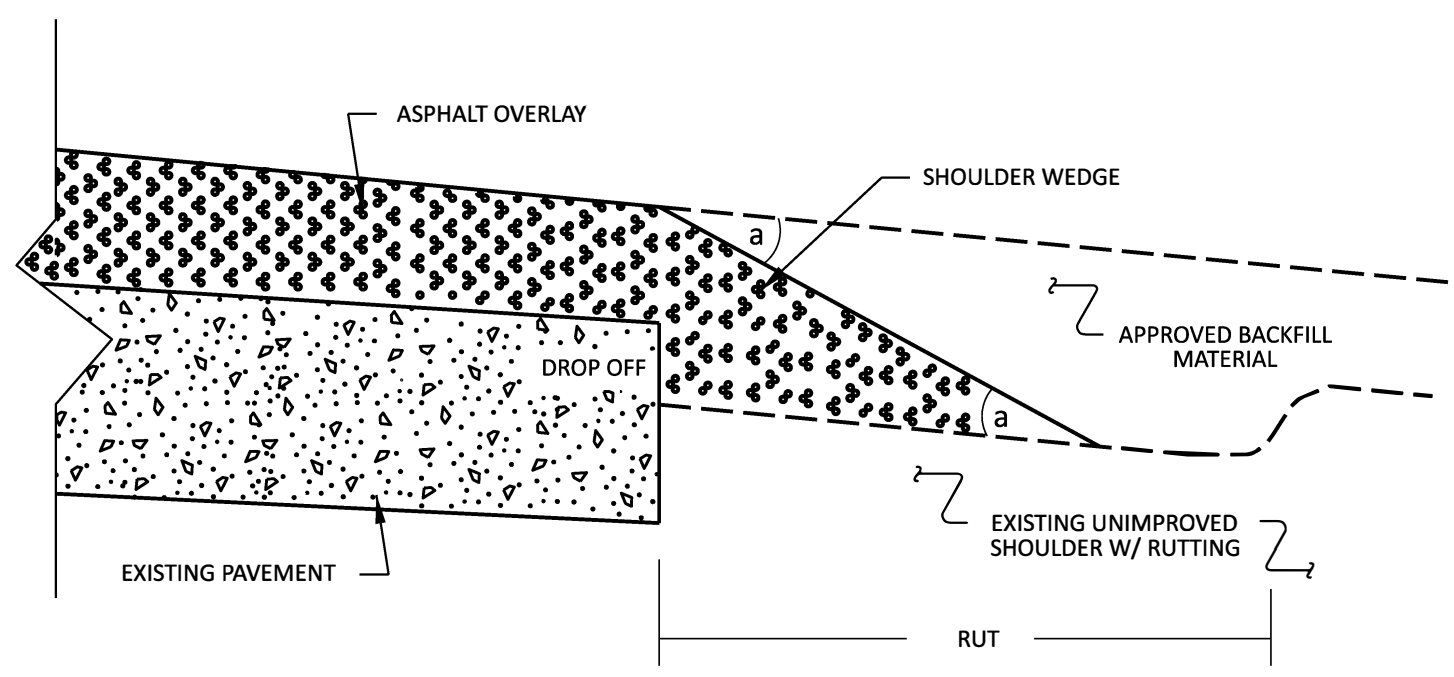


NOTES:
 1) DETAIL DOES NOT APPLY TO OGAFCC AND ULTRA-THIN BONDED WEARING COURSE.
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS DIRECTED BY THE ENGINEER.

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)

a - SHOULDER WEDGE ANGLE = 30°

CONTRACT STANDARDS AND DEVELOPMENT UNIT Office 919-707-6950 FAX 919-250-4119	
SHOULDER WEDGE DETAILS	
ORIGINAL BY: T_SPE_JL	DATE: 7-19-11
MODIFIED BY:	DATE: 10/16/12
CHECKED BY:	DATE:
FILE SPEC.: s:\usr\details\stand\shoulderwedgedetail.dgn	

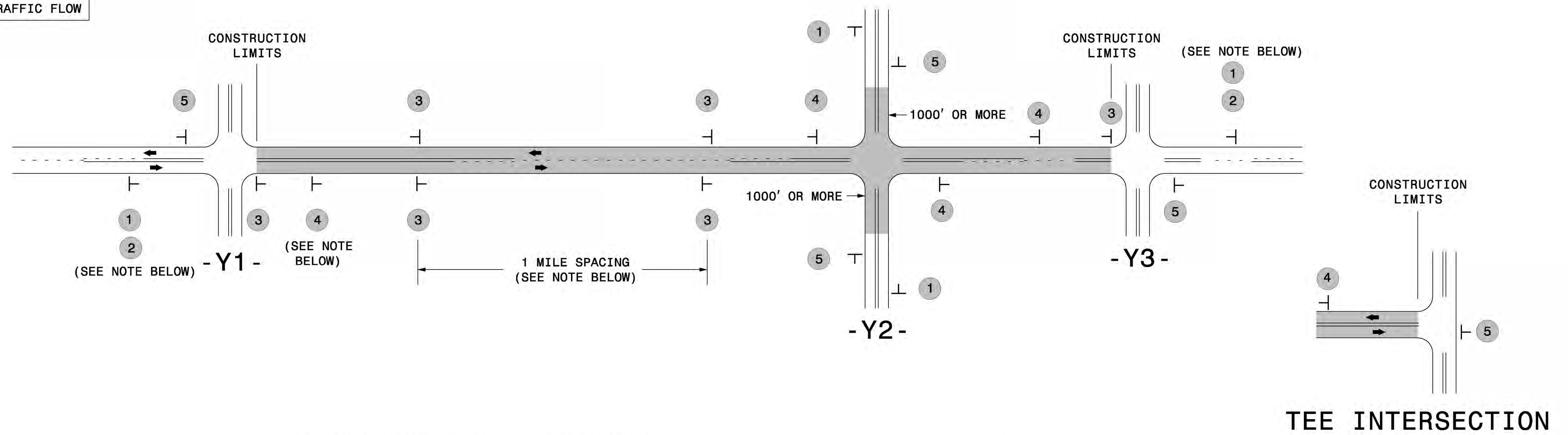
PROJECT NO.	SHEET NO.	TOTAL NO.
2025CPT.07.01.10681,	10	
2025CPT.07.01.20681		

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LENGTH	WIDTH	0106000000-E	1220000000-E	1245000000-E	1260000000-E	1297000000-E	1330000000-E	1519000000-E	1523000000-E	1575000000-E	1704000000-E	1775000000-E	1775000000-E	1838000000-E	2830000000-N	2845000000-N	5255000000-N	6084000000-E	7990000000-E
								BORROW EXCAVATION	INCIDENTAL STONE	SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	MILLING ASPHALT PAVEMENT, ***DEPTH (1 1/2")	INCIDENTAL MILLING	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	ASPHALT SURFACE TREATMENT, MAT COAT, #78M STONE	ASPHALT SURFACE TREATMENT, MAT COAT, #67 STONE	EMULSION FOR ASPHALT SURFACE TREATMENT	ADJ. OF MANHOLES	ADJUSTMENT OF METER BOXES OR VALVE BOXES	PORTABLE LIGHTING	SEED AND MULCH	INDUCTIVE LOOP SAW CUT (DEEP CUT)
						MI	FT	CY	TONS	SMI	TON	SY	SY	TONS	TONS	TON	TONS	SY	SY	GAL	EA	EA	LS	AC	LF
2025CPT.07.01.10681	Orange	1	NC-86 MLK JR BLVD	FROM SR 1780 - ESTES DR TO SR 1010 - E FRANKLIN ST	1	1.53	varies 62-70					57,227	3,134	5,478		356					35	85			8,500
TOTAL FOR MAP NO. 1						1.53						57,227	3,134	5,478		356				35	85			8,500	
2025CPT.07.01.10681	Orange	2	NC-751	FROM US 70 TO DURHAM COUNTY LINE	2	0.66	varies 18-24	13	30	1.00	37		575	801		57	103		8,830	3,355				0.05	400
TOTAL FOR MAP NO. 2						0.66		13	30	1.00	37		575	801		57	103		8,830	3,355				0.05	400
2025CPT.07.01.10681	Orange	3	NC 54/US 15-501 NORTHBOUND	FROM JOINT NEAR MORGAN CREEK RD TO SR 1742 - EPHEBUS CHURCH RD	4,5,6	3.58	varies 25-78	71		7.00	200	69,988	11,842		7,561	446					7	36		0.26	5,000
TOTAL FOR MAP NO. 3						3.58		71		7.00	200	69,988	11,842		7,561	446					7	36		0.26	5,000
2025CPT.07.01.10681	Orange	4	NC 54/US 15-501 SOUTHBOUND	FROM SR 1742 - EPHEBUS CHURCH RD TO JOINT NEAR MORGAN CREEK RD	4,5,6	3.59	varies 29-59	71		7.00	201	68,403	13,828		7,598	448					1	6		0.26	5,000
TOTAL FOR MAP NO. 4						3.59		71		7.00	201	68,403	13,828		7,598	448					1	6		0.26	5,000
TOTAL FOR PROJ NO. 2025CPT.07.01.10681						9.36		155	30	15.00	438	195,618	29,379	6,279	15,159	1,307	103		8,830	3,355	43	127	1	0.57	18,900
2025CPT.07.01.20681	Orange	5	SR-1942 / JONES FERRY RD	FROM SR 1005 OLD GREENSBORO RD TO CHATHAM COUNTY	3	4.172	25	83	165	8.00	237		213	6,195		410	159	64,645		21,333		2		0.30	100
TOTAL FOR MAP NO. 5						4.172		83	165	8.00	237		213	6,195		410	159	64,645		21,333		2		0.30	100
2025CPT.07.01.20681	Orange	6	SR-1005 / JONES FERRY RD	FROM END OF LEFT TURN TAPER SW OF SR 1937 OLD FAYETTEVILLE RD TO RADIUS OF SR 1942 JONES FERRY RD WEST OF SR 1005 OLD GREENSBORO RD	3	0.52	26	11		1.00	30		646	798		58	137	7,792		2,571				0.04	100
TOTAL FOR MAP NO. 6						0.52		11		1.00	30		646	798		58	137	7,792		2,571				0.04	100
TOTAL FOR PROJ NO. 2025CPT.07.01.20681						4.692		94	165	9.00	267		859	6,993		468	296	72,437		23,904		2		0.34	200
GRAND TOTAL						14.052		249	195	24.00	705	195,618	30,238	13,272	15,159	1,775	399	72,437	8,830	27,259	43	129	1	0.91	19,100

SIGNING FOR RESURFACING PROJECTS

LEGEND
 ┆ STATIONARY SIGN
 ← DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

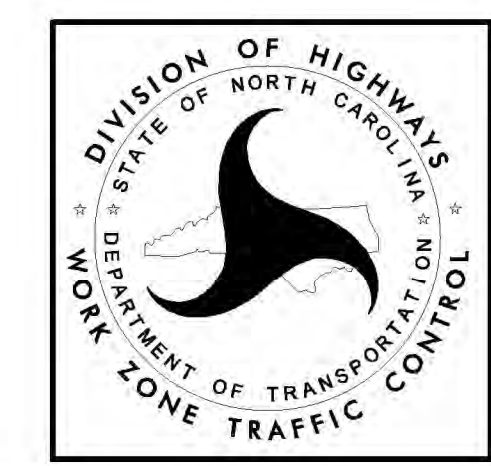
-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1		PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<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, 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>
	2		#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		- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 1/2 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.	
	4		- 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.	
	5		PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.	

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.

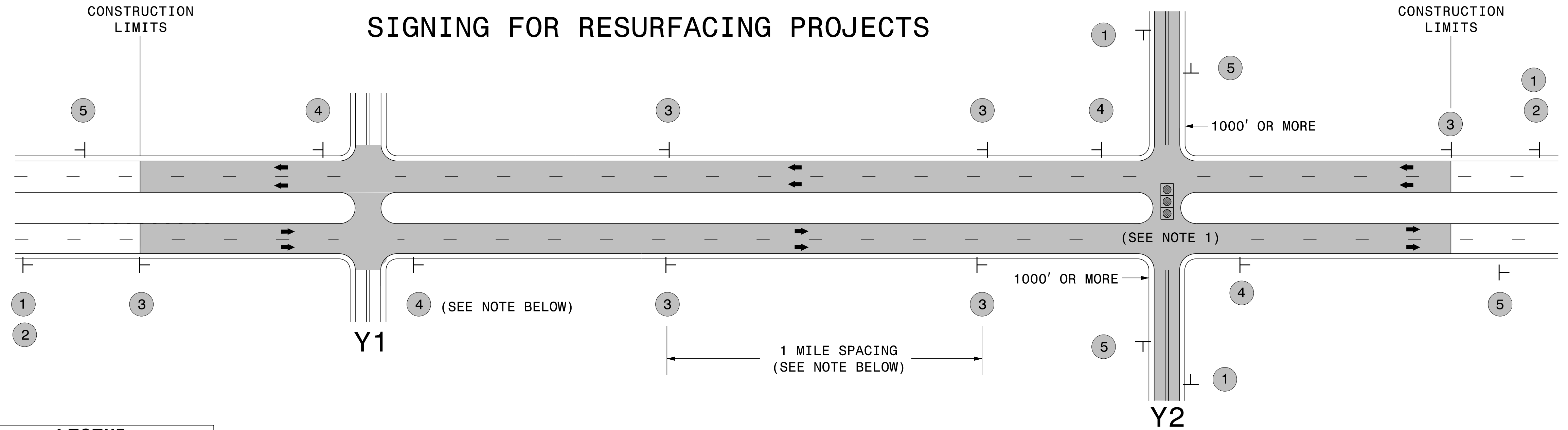
MAPS LESS THAN 2 MILES

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.



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

5/15/2017 5:11:10 PM \\NCDOT\resurfacing\212W & AST Resurfacing Details\Resurfacing_AdvWarn_212W.dgn User:keads



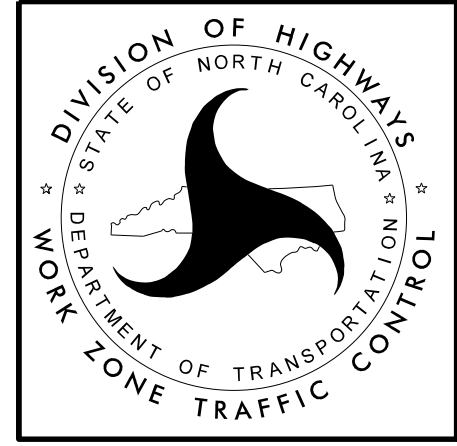
LEGEND
 ┆ STATIONARY SIGN
 ← DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

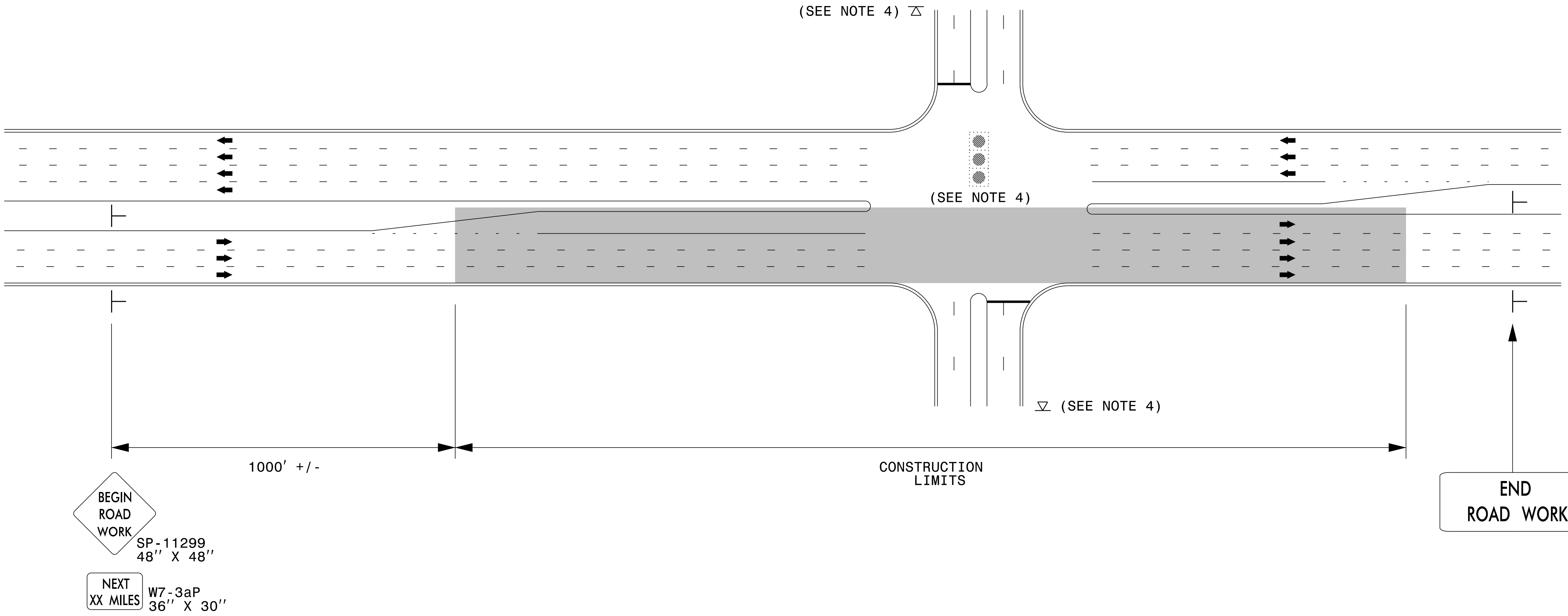
SIGNING NOTES AND PLACEMENT PER DIRECTION	 	<p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL 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;"> <small>W20-1 48" X 48"</small> </div> <div style="text-align: center;"> <small>W20-7 A 48" X 48"</small> </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p> <p>NOTES:</p> <ol style="list-style-type: none"> 1) 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.
		<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>	

3/23/2015
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**RESURFACING
 ADVANCE WARNING SIGNS
 FOR RURAL AND SUBURBAN
 MULTI-LANE ROADWAYS
 W/ SHOULDER SECTIONS**

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**

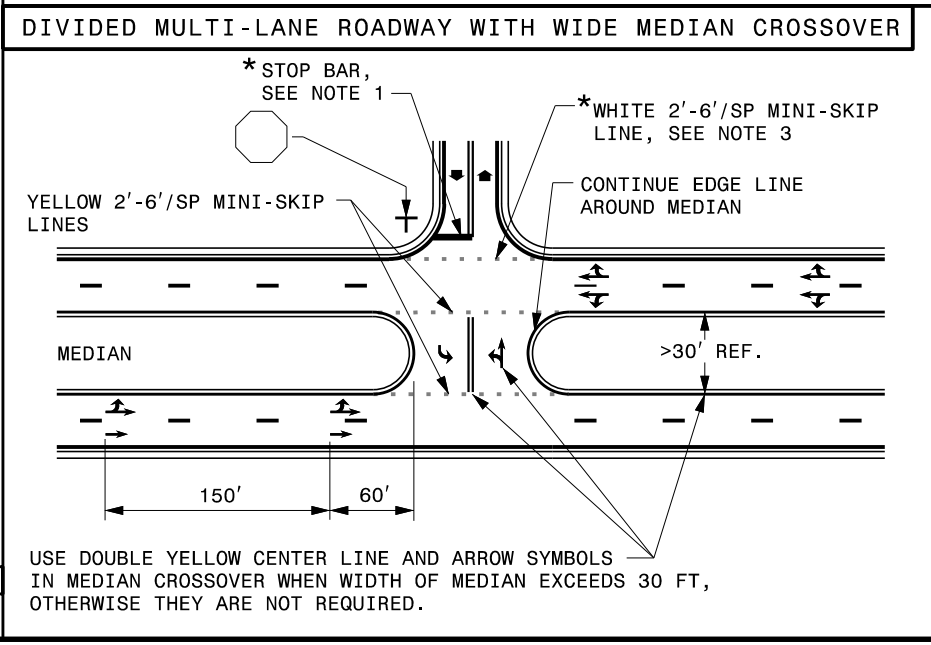
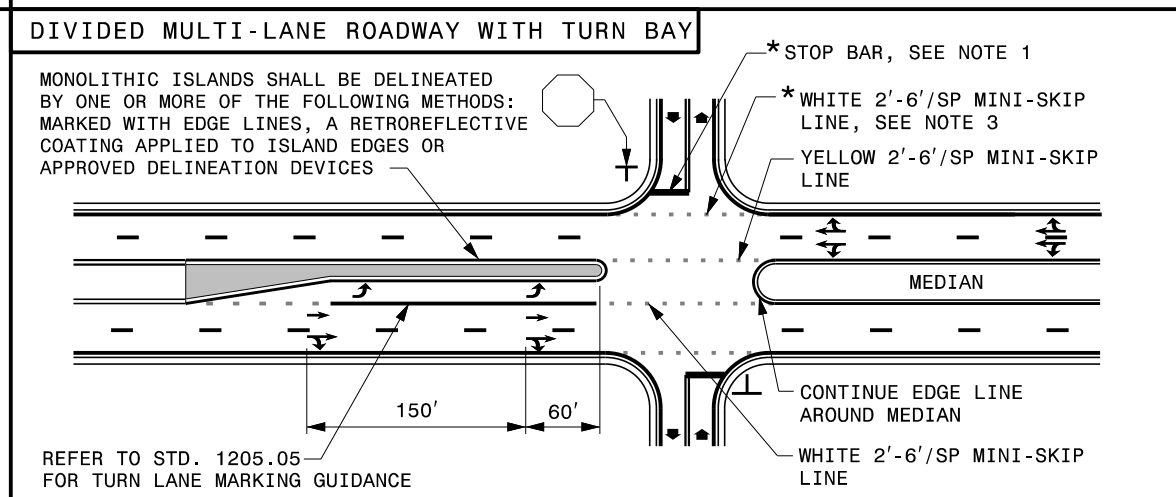
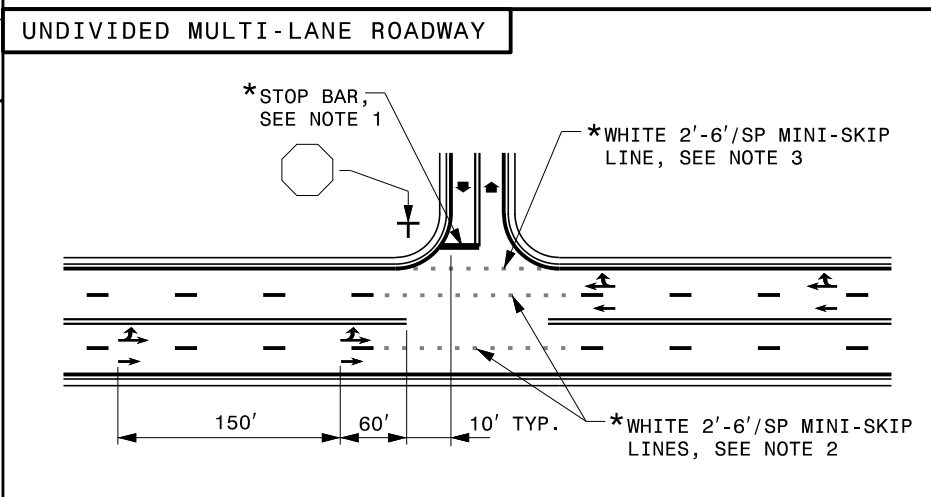
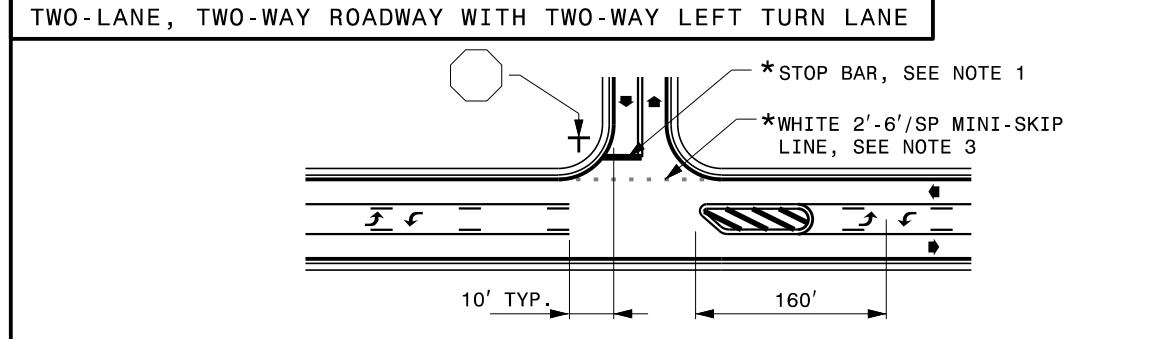
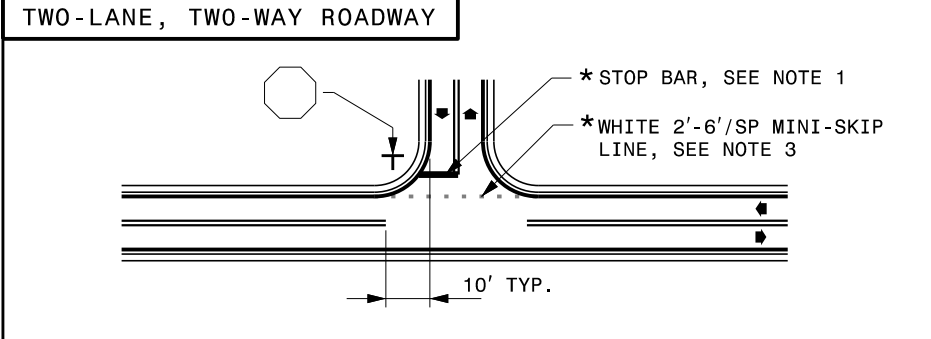
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APPROVED:	8/13/2019
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STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.





ENGLISH DETAIL DRAWING FOR
PAVEMENT MARKINGS
 INTERSECTIONS

SHEET 2 OF 2
1205D04



GENERAL NOTES:

- 1- PLACEMENT OF STOP BARS AT NON-SIGNALIZED INTERSECTIONS IS OPTIONAL AND USED WHERE IT IS IMPORTANT TO INDICATE THE POINT WHICH VEHICLES ARE REQUIRED TO STOP. PLACE STOP BARS NO LESS THAN 4 FEET AND NO MORE THAN 30 FEET FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY. USE 10 FEET AS THE TYPICAL SETBACK DISTANCE OR AS DIRECTED BY THE ENGINEER.
- 2- MINI-SKIP LANE LINE EXTENSIONS SHOULD BE USED AT INTERSECTIONS THAT HAVE REDUCED VISIBILITY CONDITIONS SUCH AS OFFSET, SKEWED, OR CURVED ROADWAYS.
- 3- MINI-SKIP EDGE LINE EXTENSIONS MAY BE PLACED THROUGH INTERSECTIONS AND MAJOR DRIVEWAYS.
- 4- REFER TO ROADWAY STANDARD DRAWINGS 1205.01, 1205.02, 1205.05, 1205.08 AND 1205.09 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

LEGEND	
	STOP SIGN
	STATIONARY SIGN
	DIRECTION OF TRAFFIC FLOW
	PAVEMENT MARKING SYMBOLS
*	OPTIONAL

SHEET 2 OF 2
1205D04

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

ENGLISH DETAIL DRAWING FOR
PAVEMENT MARKINGS
 INTERSECTIONS

SHEET 2 OF 2
1205D04

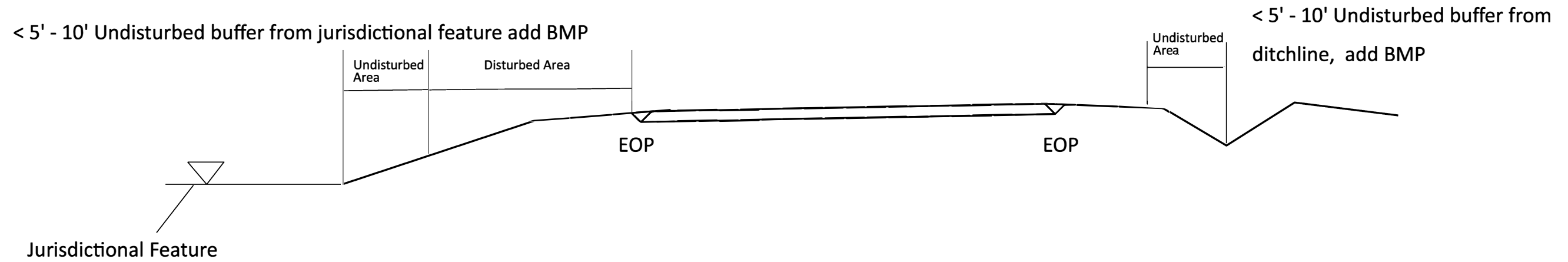
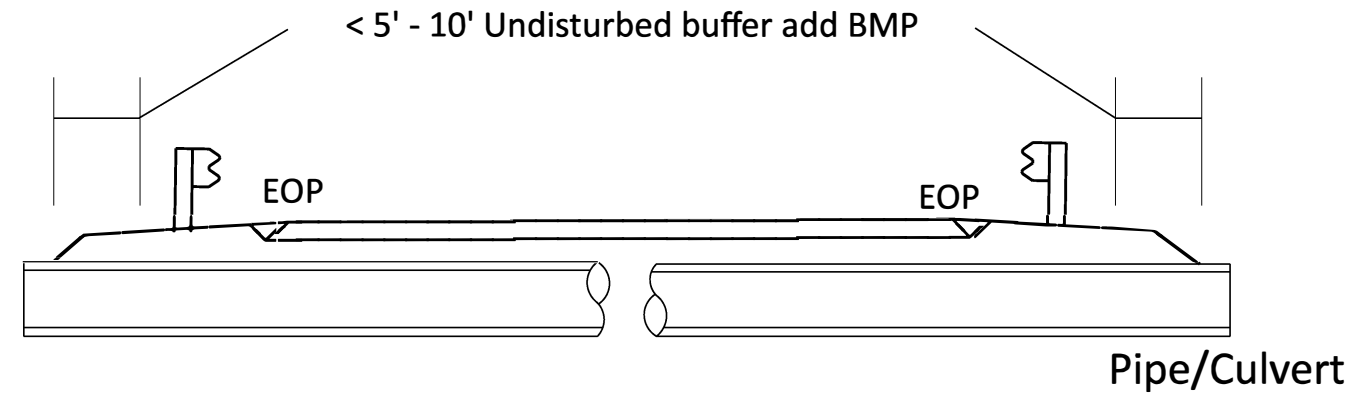
**REVISED PAVEMENT MARKING
ROADWAY STANDARD DRAWING**

EROSION CONTROL DETAIL

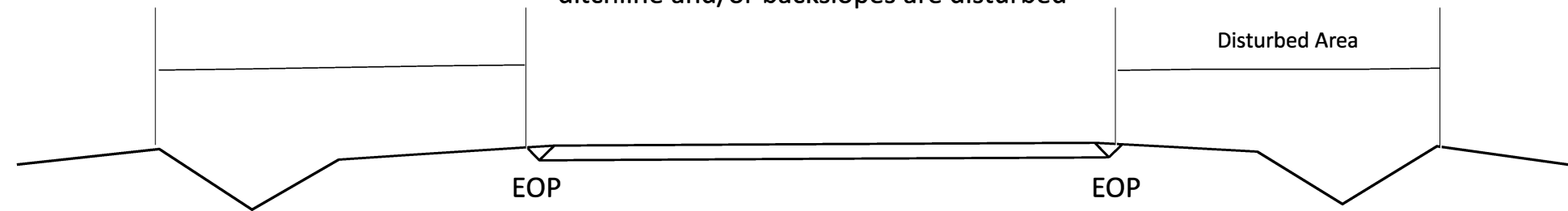
PROJECT REFERENCE NO.	SHEET NO.
2025CPT.07.01.10681, 2025CPT. 07.01.20681	EC-1

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

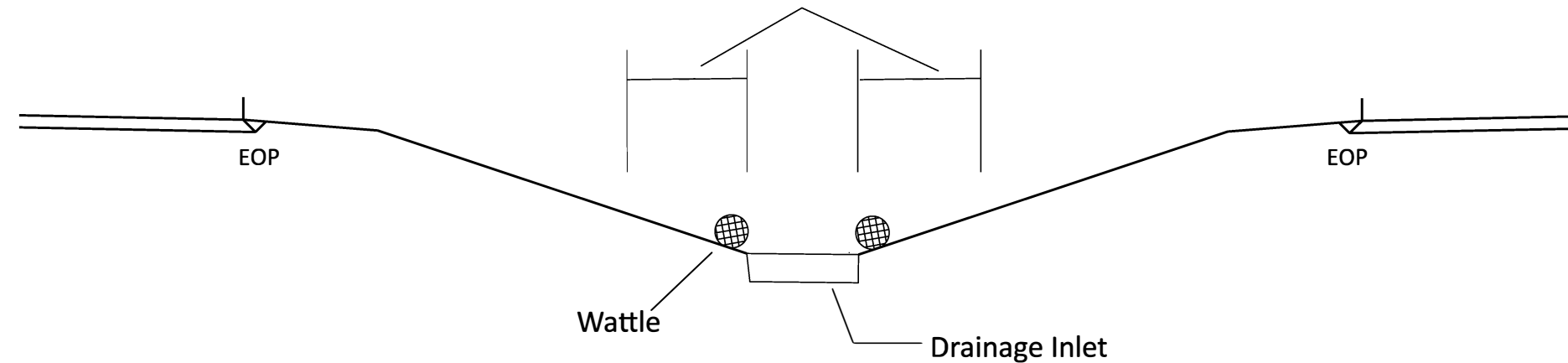
BMP Options: Wattle or Silt Fence



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

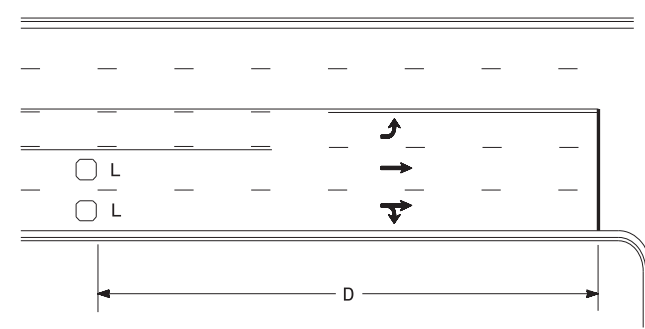


< 5' - 10' Undisturbed buffer from inlet, add wattle



NOT TO SCALE

High Speed Detection (≥40 mph)

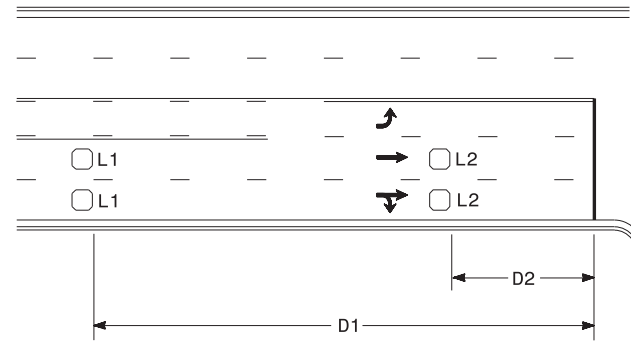


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR



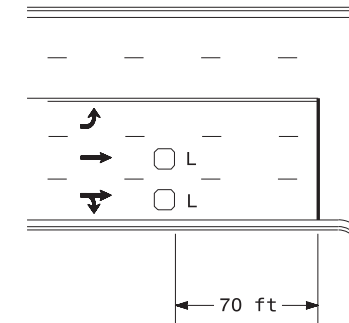
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

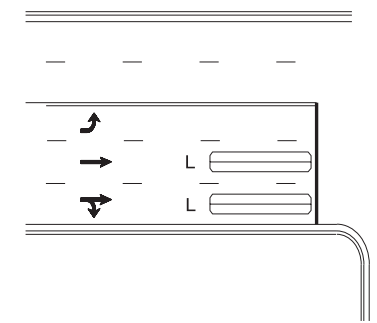
"Stretch" Operation

Low Speed Detection (≤35 mph)



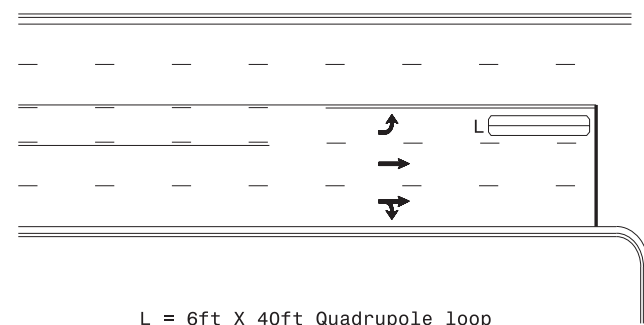
L = 6ft X 6ft
Wired in series

OR



L = 6ft X 40ft
Quadrupole loop, wired separately

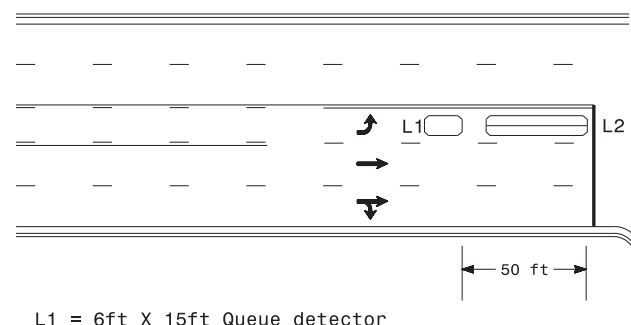
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

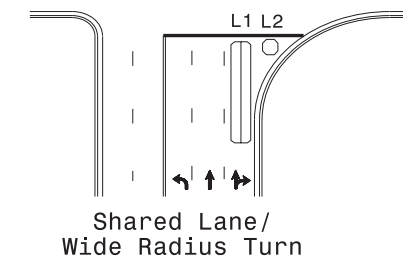
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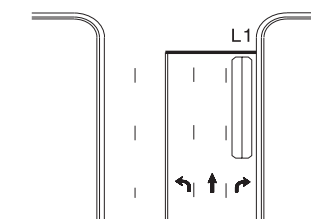
L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

Queue Loop Detection

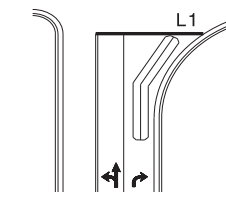
Right Turn Lane Detection



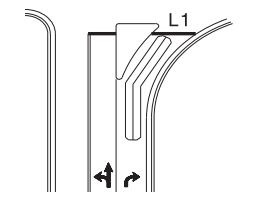
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

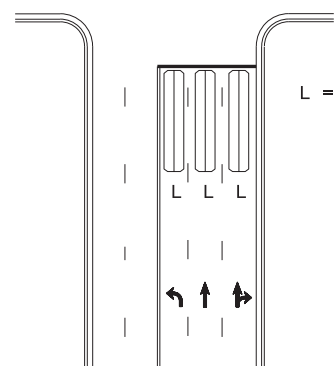


Wide Radius Turn



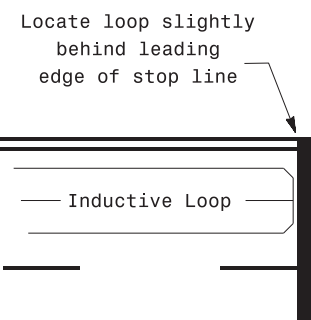
Channelized Turn

Side Street Detection



L = 6ft X 40ft
Quadrupole loop
Wired to separate
detectors/channels

Presence Loop Placement at Stop Lines



Note:
Loop may be located in advance of stop line under any of the following conditions:
1) stop line is greater than 15' from edge of intersecting roadway
2) loop detects a permissive or protected/permissive left turn
3) for an exclusive right turn lane

Recommended Number of Turns

Single 6' X 6' loop
(when wired separately):

Length of Lead-in ft	Number of Turns
< 250	3
250-375	4
375-525	5
> 525	6

Quadrupole loops: Use 2-4-2 turns

6' X 15' Loops:
Lead-in < 150', use 2 turns
Lead-in > 150', use 3 turns

	Typical Signal Loop Locations		
	PLAN DATE: September 2020 PREPARED BY: PLA	REVIEWED BY: JPG REVIEWED BY:	
REVISIONS		INIT. DATE	DATE: 9/8/2020 SIG. INVENTORY NO.