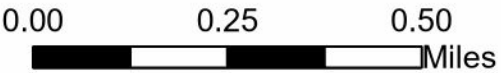


2027 Vance	
PROJECT REFERENCE NO.	SHEET NO.
2026CPT.05.12.10911.1, 2026CPT.05.12.20911.1, 2026CPT.05.12.20912.1	2

Map 2: SR 1513 (South Cokesbury Rd)
From: SR 1513 (Tower Rd)
To: SR 1510 (N Cokesbury Rd)

Map 3: SR 1515 (S Cokesbury Rd)
From: SR 1513 (Tower Rd)
To: SR 1533 (Vicksboro Rd)

▲ NCDOT Bridges





2027 Vance	
PROJECT REFERENCE NO.	SHEET NO.
2026CPT.05.12.10911.1, 2026CPT.05.12.20911.1, 2026CPT.05.12.20912.1	3

Map 4: SR 1100 (Egypt Mountain Road)
From: US 1
To: SR 1101 (Charlie Grissom Rd)

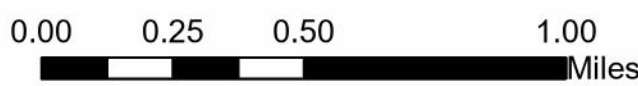
▲ NCDOT Bridges



2027 Vance	
PROJECT REFERENCE NO.	SHEET NO.
2026CPT.05.12.10911.1, 2026CPT.05.12.20911.1, 2026CPT.05.12.20912.1	4

Map 5: SR 1107 (Community House Rd/ Briggs Rd/ S Lake Lodge Rd)
From: US 1 BUS
To: SR 1110 (Old Watkins Rd)

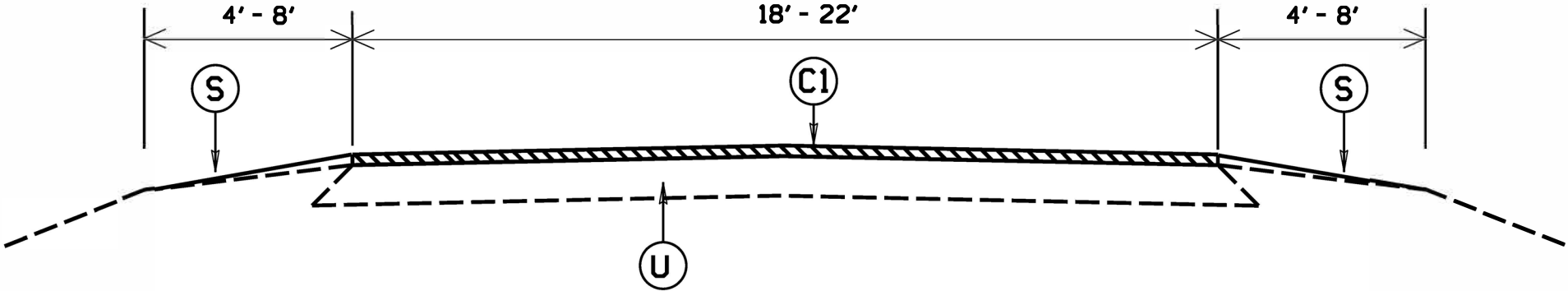
▲ NCDOT Bridges



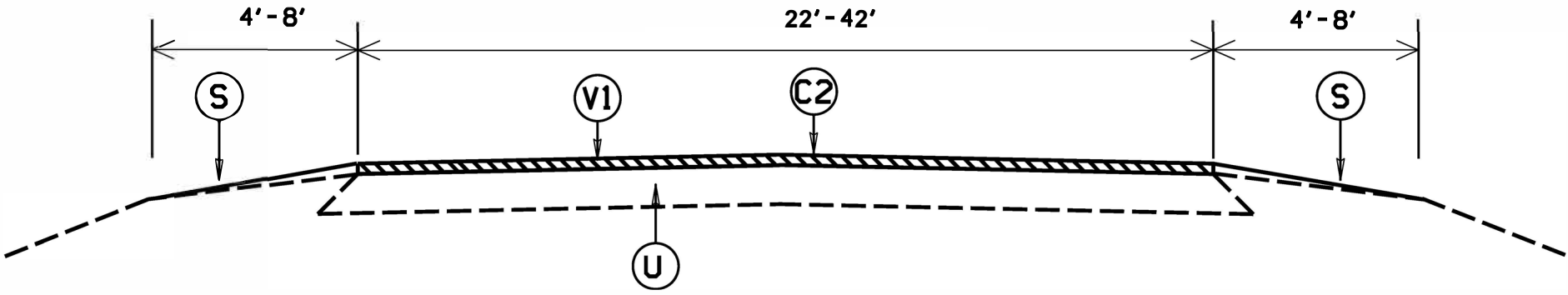
PAVEMENT SCHEDULE	
C1	1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C2	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
V1	MILL ASPHALT PAVEMENT, 1 1/2" DEPTH
S	SHOULDER GRADING, ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)
U	EXISTING PAVEMENT

PROJECT REFERENCE NO.
2026CPT.05.12.10911.1, ETC.

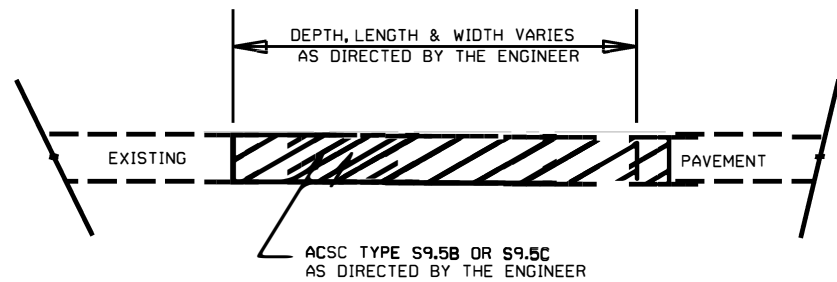
SHEET NO.
5



TYPICAL SECTION NUMBER 1
 FULL DEPTH PATCHING AND 1.25" S9.5B OVERLAY
 MAP NUMBERS 2,3,4&5



TYPICAL SECTION NUMBER 2
 FULL DEPTH PATCHING AND MILL 1.5" AND 1.5" S9.5C
 MAP NUMBER 1

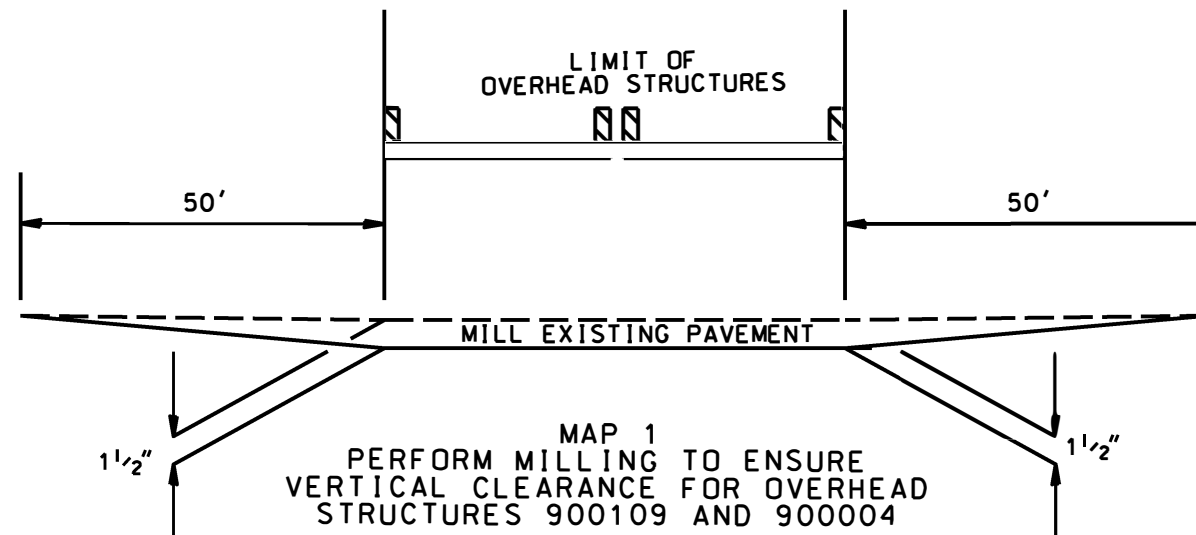
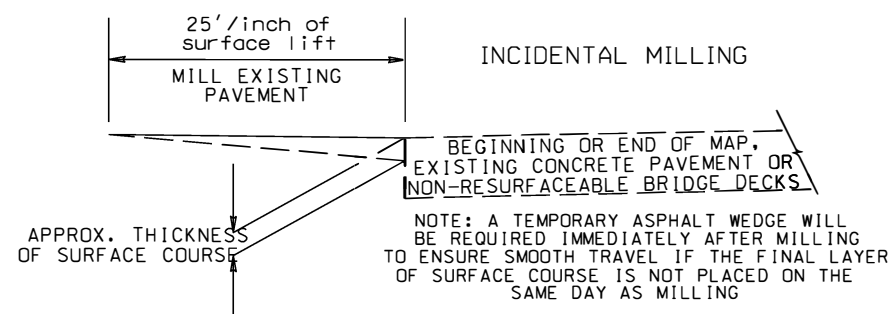


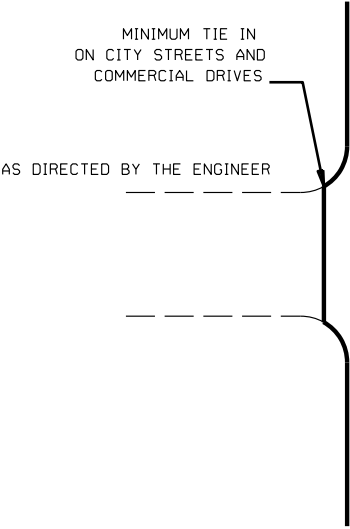
PATCHING EXISTING PAVEMENT
MILLING TO BE PERFORMED PRIOR TO PATCHING

NOTES

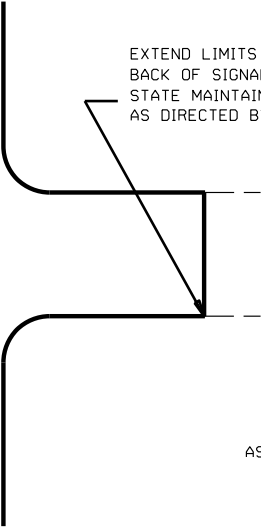
ALL UNPAVED S.R. ROADS TO BE RESURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT
ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADI1, OR AS DIRECTED BY THE ENGINEER.
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

▪ INCIDENTAL MILLING ON MAP 4 BRIDGE *900010 AS DIRECTED BY THE ENGINEER TO RESURFACE AND NOT ADD ANY ADDITIONAL WEIGHT ON THE BRIDGE.



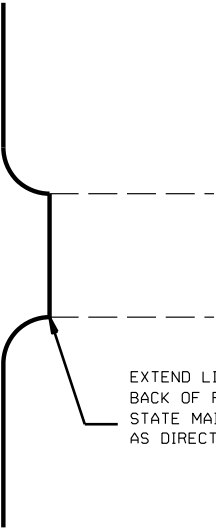


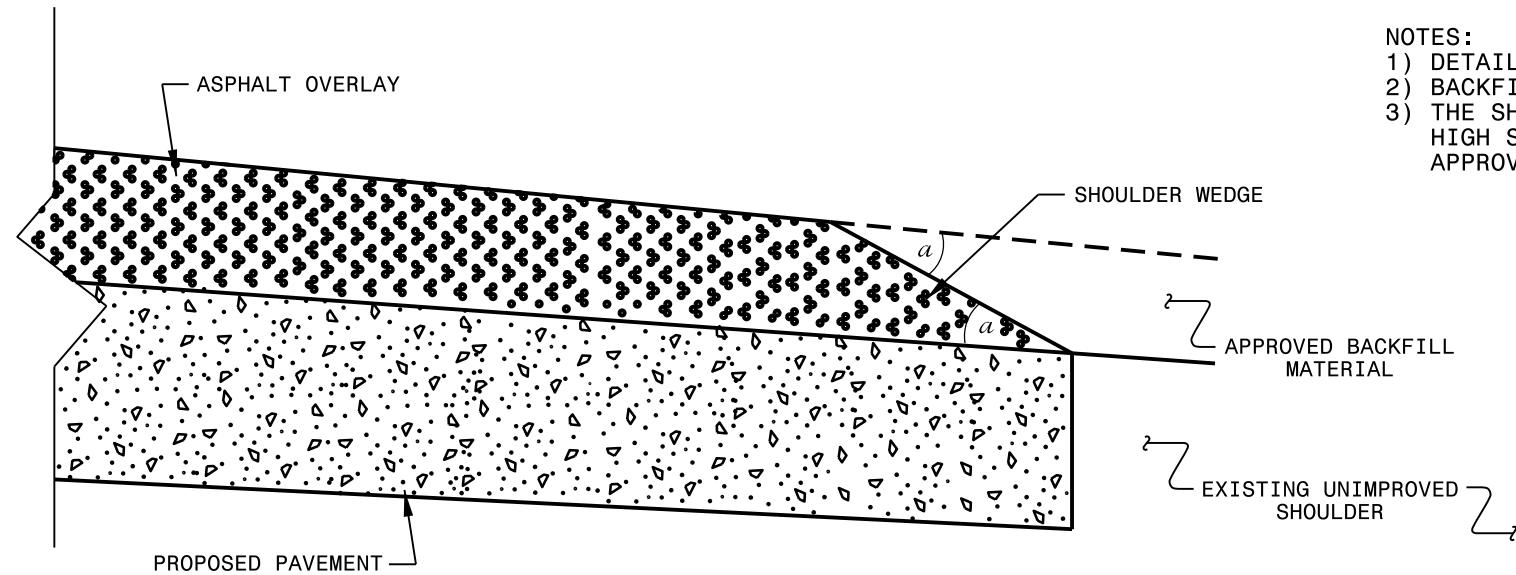
DETAIL OF PROJECT LIMITS AT
SIGNALIZED Y LINES



MINIMUM TIE IN
ON CITY STREETS AND
COMMERCIAL DRIVES
AS DIRECTED BY THE ENGINEER

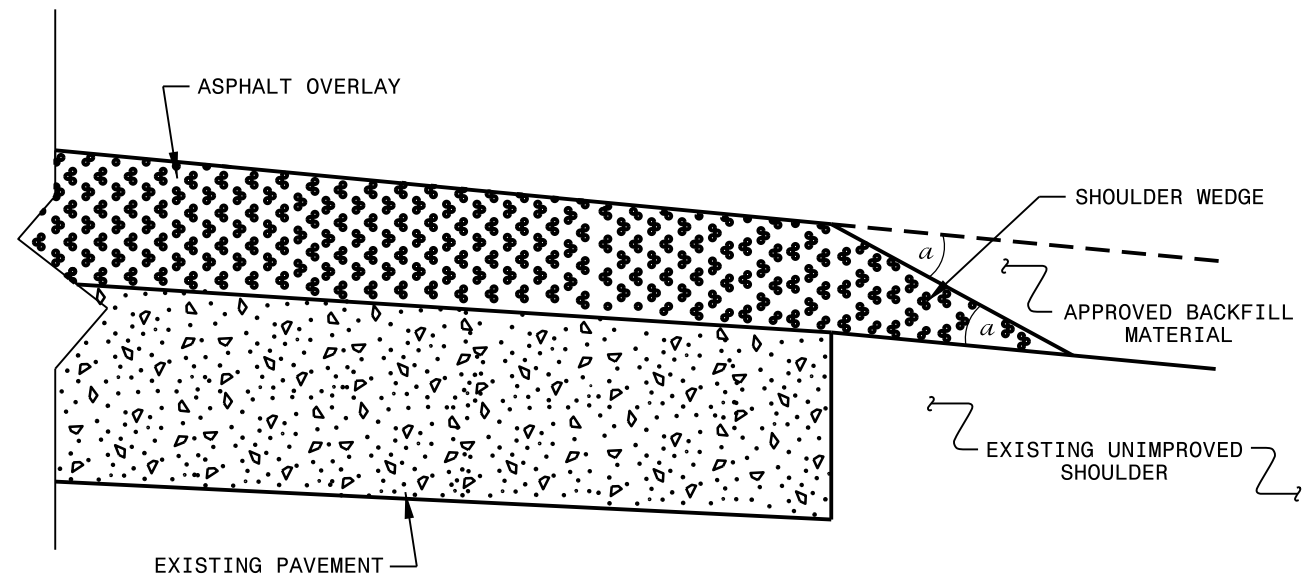
DETAIL OF PROJECT LIMITS AT
UNSIGNALIZED Y LINES



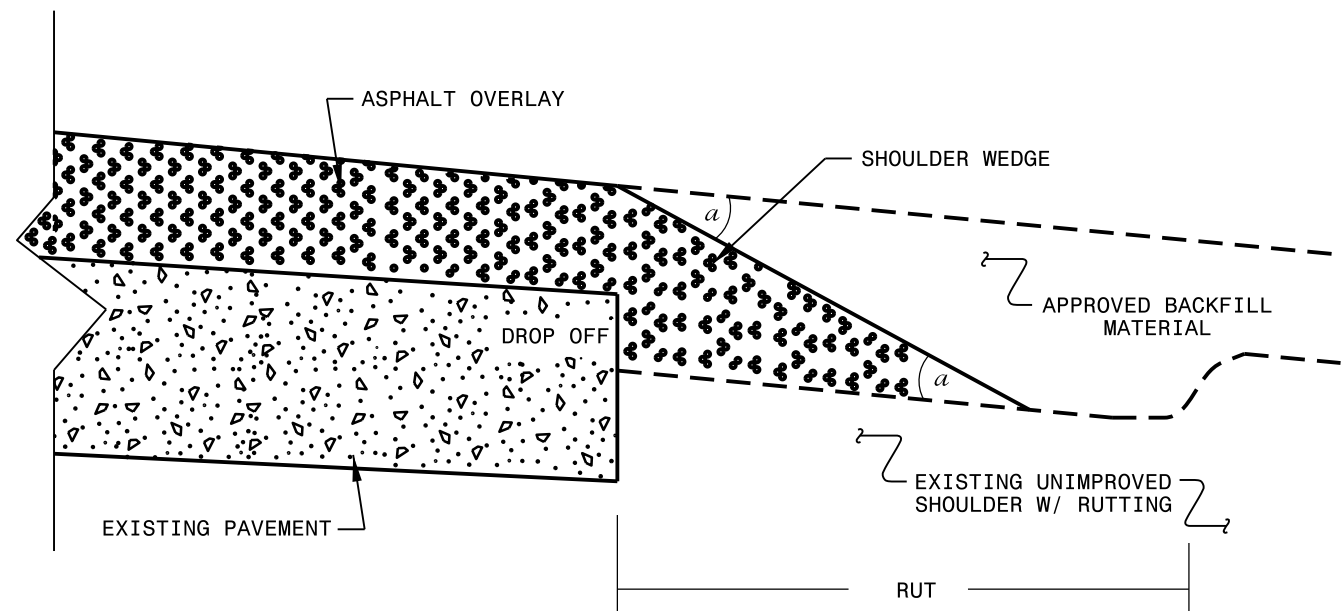


- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFS AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.

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



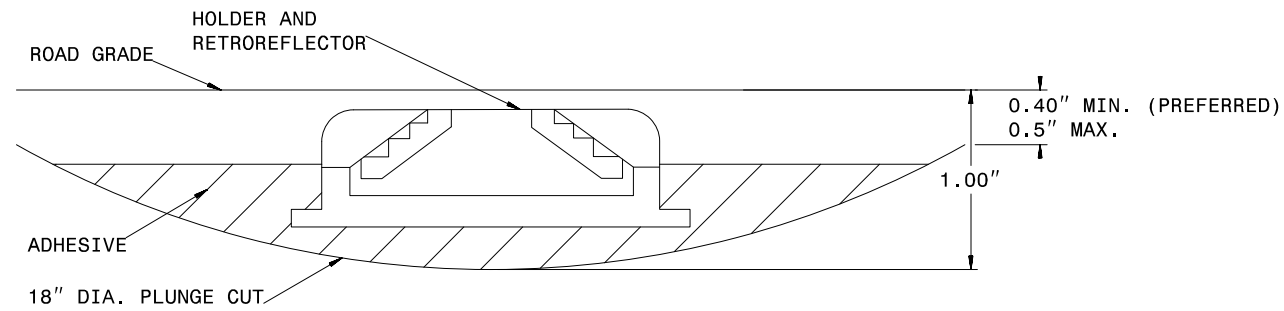
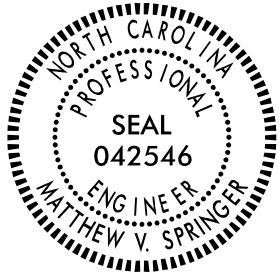
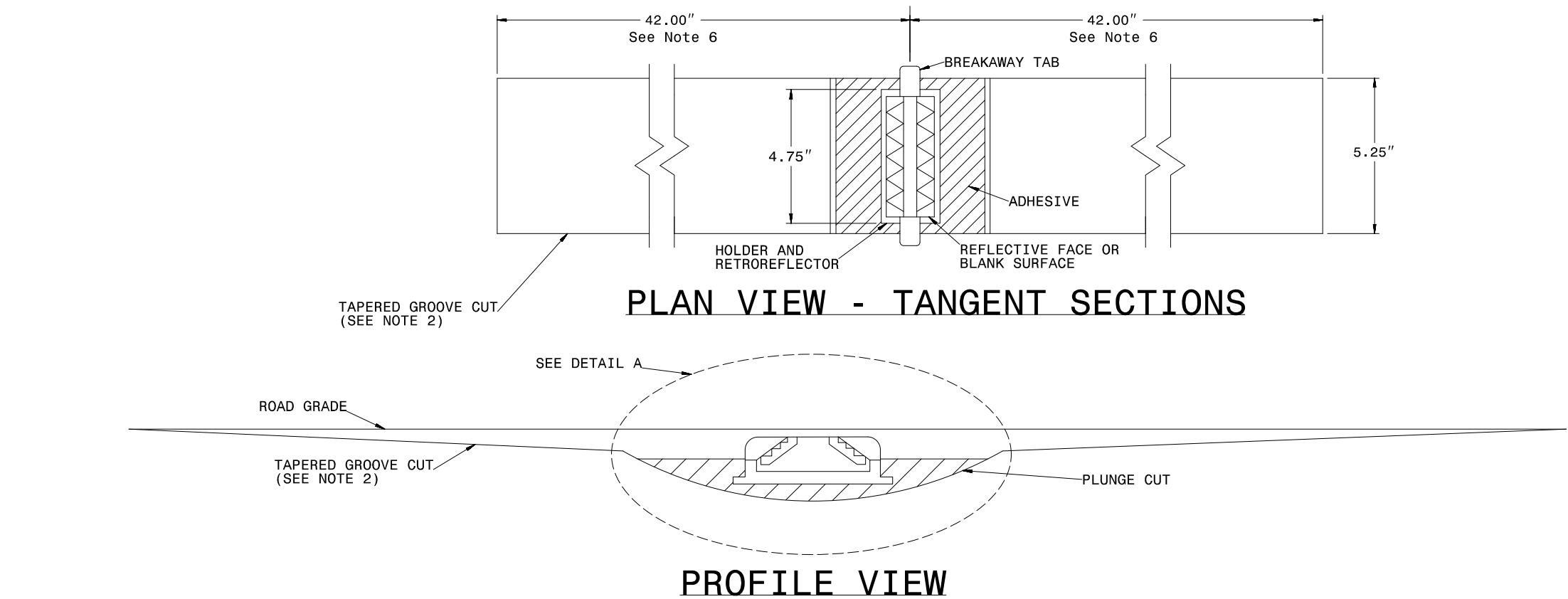
SHOULDER WEDGE DETAIL
(Resurfacing Projects w/ NO Widening)



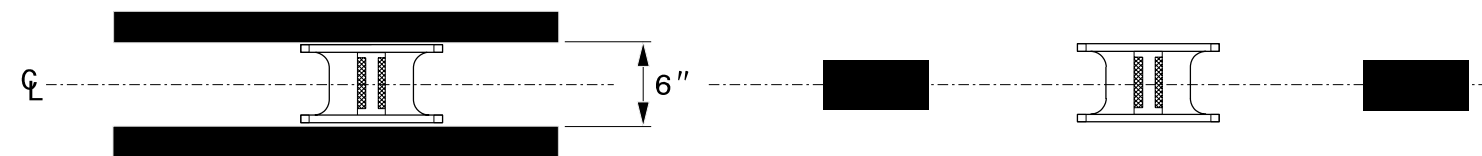
SHOULDER WEDGE DETAIL
(Resurfacing Adjacent to
Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

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:	
FILE SPEC.:	s:\usr\details\stand\shoulderwedgedetail.dgn		



DETAIL A



MARKER SPACING

NOTES:

1. ALL GROOVE EDGES SHALL BE AT LEAST 2 INCHES FROM ANY SEAM OR PAVEMENT JOINT
2. GROOVE CUTS MAY BE TAPERED OR BEVELED. TAPERED CUTS SHALL START AT ROAD LEVEL ON EACH END AND TAPER AT A FIXED RATE AS SHOWN ON THE PROFILE VIEW. BEVELED GROOVE CUTS SHALL BE 0.5" MAXIMUM DEPTH (0.4" PREFERRED), AND SHALL BE 0.4" MINIMUM DEPTH AT BOTH ENDS OF THE PLUNGE CUT.
3. GROOVE AND PLUNGE CUT SHALL BE CLEAN AND DRY PRIOR TO PLACEMENT OF ADHESIVE.
4. THE EPOXY ADHESIVE SHALL BE THOROUGHLY MIXED UNTIL IT IS UNIFORM IN COLOR, AND APPLIED IN COLOR, AND APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. MARKER SHALL BE INSTALLED AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS WITH THE BREAKWAY TABS RESTING ON THE PAVEMENT SURFACE. THE EPOXY SHALL BE FILLED TO THE LEVEL OF THE TOP OF THE MARKER HOLDER. EPOXY SHALL NOT TOUCH THE RETROREFELCTOR.
6. TOTAL GROOVE LENGTH MAY BE SHORTENED TO 54" ON SHARP CURVES IF APPROVED BY THE ENGINEER. GROOVES SHALL NOT OVERLAP WITH LOOP DETECTOR WIRES.

SUMMARY OF QUANTITIES

PROJECT NO.	SHEET NO.	TOTAL NO.
2026CPT.05.12.10911.1 2026CPT.05.12.20911.1 2026CPT.05.12.20912.1	10	

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEG N	END MP	1220000000-E	1245000000-E	1260000000-E	1297000000-E	1330000000-E	1519000000-E	1523000000-E	1575000000-E	1704000000-E	7444000000-E
												INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	1½" MILLING	INCIDENTAL MILLING	SURFACE COURSE, S9.5B	SURFACE COURSE, S9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	INDUCTIVE LOOP SAWCUT
								MI	FT			TONS	SMI	TON	SY	SY	TONS	TONS	TON	TONS	LF
2026CPT.05.12.10911.1	Vance	1	US-1 BUS	FROM US 1 TO PAVEMENT JOINT	2	2	2WU	4.437	24	0.000	4.437	184	7.36	680	58,589	5,444		5,539	332	100	450
TOTAL FOR PROJ NO. 2026CPT.05.12.10911.1								4.437				184	7.36	680	58,589	5,444		5,539	332	100	450
2026CPT.05.12.20911.1	Vance	2	SR-1513 / S COKESBURY RD	FROM TOWER RD TO SR 1510	1	2	2WU	0.628	18	1.007	1.635	26	1.02	95		1,504	481		32	25	
2026CPT.05.12.20911.1	Vance	3	SR-1515 / S COKESBURY RD	FROM TOWER RD TO SR 1533	1	2	2WU	2.172	18	0.000	2.172	98	3.94	364		896	1,665		111	50	
TOTAL FOR PROJ NO. 2026CPT.05.12.20911.1								2.800				124	4.96	459		2,400	2,146		143	75	
2026CPT.05.12.20912.1	Vance	4	SR-1100 / EGYPT MOUNTAIN RD	FROM US 1 TO SR 1101	1	2	2WU	4.485	20	0.000	4.485	212	8.47	783		1,678	3,819		249	11	
2026CPT.05.12.20912.1	Vance	5	SR-1107 / S LAKE LODGE RD EXT/S LAKE LODGE RD/BRIGGS RD/COMMUNITY HOUSE RD	FROM US 1 BUS TO SR 1110	1	2	2WU	5.106	20	0.000	5.106	236	9.44	873		3,220	4,347		284	20	
TOTAL FOR PROJ NO. 2026CPT.05.12.20912.1								9.591				448	17.91	1,656		4,898	8,166		533	31	
GRAND TOTAL								16.828				756	30.23	2,795	58,589	12,742	10,312	5,539	1,008	206	450

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO.	SHEET NO.	TOTAL NO.
2026CPT.05.12.10911.1 2026CPT.05.12.20911.1 2026CPT.05.12.20912.1	11	

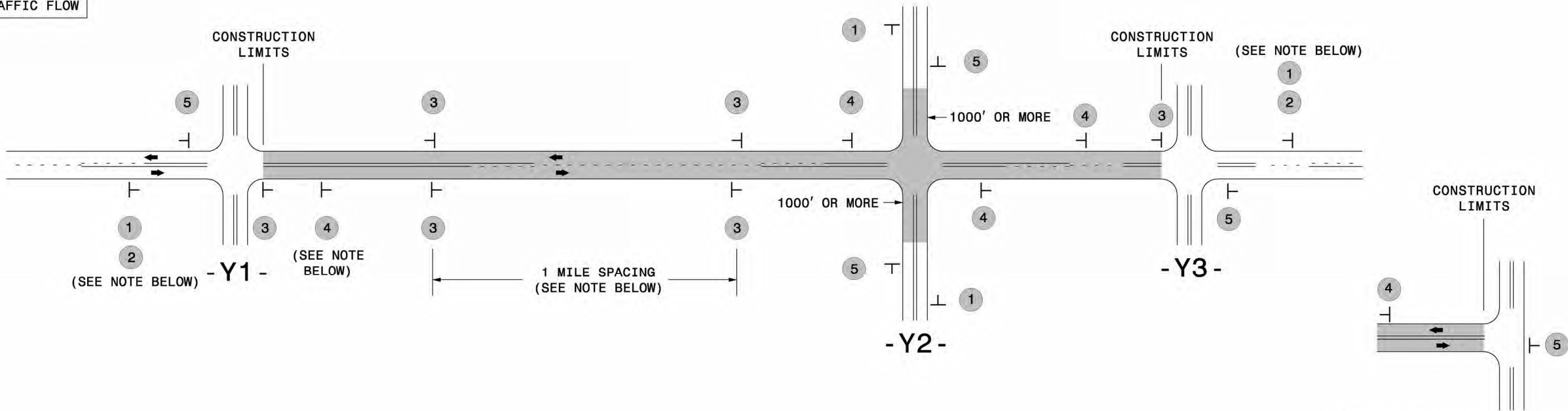
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	4413000000-E	4457000000-N	4510000000-N	4685000000-E	4688000000-E	4695000000-E	4709000000-E	4720000000-E	4725000000-E			4770000000-E		4894900000-E			
								WORK ZONE ADVANCE/GENE RAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL			LAW ENFORCEMENT	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	6" X 90 M WHITE THERMO	6" X 90 M YELLOW THERMO	8" X 90 M YELLOW THERMO	24" X 90 M WHITE THERMO	THERMO MSG SCHOOL 90 M	THERMO LT ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR & RT ARROW 90 M	4" WHITE COLD APPLIED PLASTIC, TYPE III	4" YELLOW COLD APPLIED PLASTIC, TYPE III	POLYCARBONATE H- SHAPED MARKERS			
								MI	FT				SF	LS	HR	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	LF	EA	
2026CPT.05.12.10911.1	Vance	1	US-1 BUS	FROM US 1 TO PAVEMENT JOINT	2	2	2WU	4.437	24	0	4.437	497	0.26	40	LF			47,852	46,486	368	380	12	14	2	2	LF	LF	293
TOTAL FOR PROJ NO. 2026CPT.05.12.10911.1								4.437				497	0.26	40				47,852	46,486	368	380	12	14	2	2			293
																	94,338					18						
2026CPT.05.12.20911.1	Vance	2	SR-1513 / S COKESBURY RD	FROM TOWER RD TO SR 1510	1	2	2WU	0.628	18	1.007	1.635	70	0.04		6,632	6,258												
2026CPT.05.12.20911.1	Vance	3	SR-1515 / S COKESBURY RD	FROM TOWER RD TO SR 1533	1	2	2WU	2.172	18	0	2.172	243	0.13		22,936	20,747												
TOTAL FOR PROJ NO. 2026CPT.05.12.20911.1								2.8				313	0.17		29,568	27,005												
															56,573													
2026CPT.05.12.20912.1	Vance	4	SR-1100 / EGYPT MOUNTAIN RD	FROM US 1 TO SR 1101	1	2	2WU	4.485	20	0	4.485	502	0.27		47,362	47,006				32								
2026CPT.05.12.20912.1	Vance	5	SR-1107 / S LAKE LODGE RD EXT/S LAKE LODGE RD/BRIGGS RD/COMMUNITY HOUSE RD	FROM US 1 BUS TO SR 1110	1	2	2WU	5.106	20	0	5.106	572	0.30		53,479	52,232				55						440	440	
TOTAL FOR PROJ NO. 2026CPT.05.12.20912.1								9.591				1,074	0.570		100,841	99,238				87					440	440		
															200,079										880			
GRAND TOTAL								16.828				1,884	1.000	40	130,409	126,243	47,852	46,486	368	467	12	14	2	2	440	440	293	
												256,652					94,338				18				880			

SIGNING FOR RESURFACING PROJECTS

LEGEND

STATIONARY SIGN

DIRECTION OF TRAFFIC FLOW



TEE INTERSECTION

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	<div>1</div> <div>2</div> <div><div><div>ROAD WORK AHEAD</div><div>W20-1 48" X 48"</div></div><div><div>NEXT XX MILES</div><div>W7-3aP 24" X 18"</div></div></div> <div>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</div> <div>#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)</div>	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, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.
	<div>3</div> <div><div><div>LOW/SOFT SHOULDER</div><div>SP 13107 48" X 48"</div></div></div> <div>- 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.</div>	
	<div>4</div> <div><div><div>ROAD UNDER CONST</div><div>SP 13106 48" X 48"</div></div></div> <div>- 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.</div>	
	<div>5</div> <div><div>END ROAD WORK</div><div>G20-2 A 48" X 24"</div></div> <div>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.</div>	
	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.	
LESS 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.	

ROAD
WORK
AHEAD

W20-1
48" X 48"


PLACED 500' IN ADVANCE
OF FLAGGER.

ROAD
WORK
AHEAD

W20-7 A
48" X 48"

PLACED 250' IN ADVANCE
OF FLAGGER.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE
TRAFFIC CONTROL

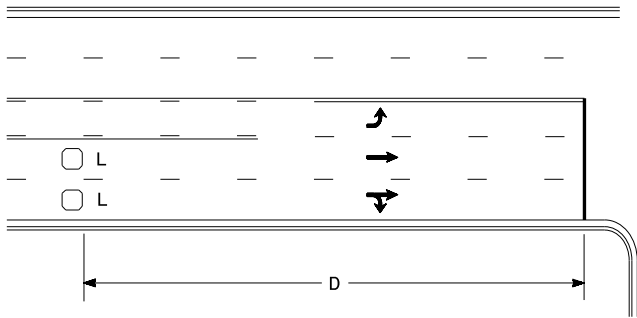


AD



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

High Speed Detection
(≥35 mph)

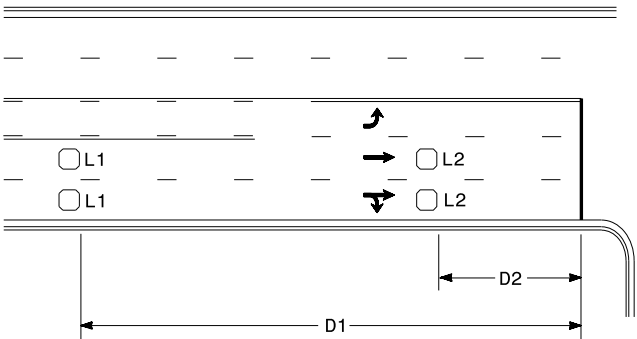


Speed Limit mph	D ft
35	200
40	250
45	300
50	355
55	420
60	475
65	550

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR



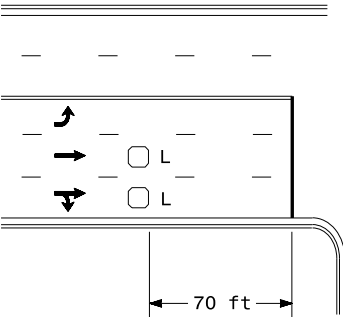
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110
60	475	120
65	550	130

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

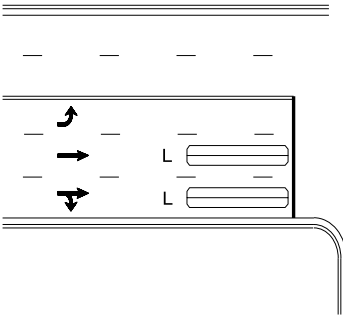
"Stretch" Operation

Low Speed Detection
(≤35 mph)



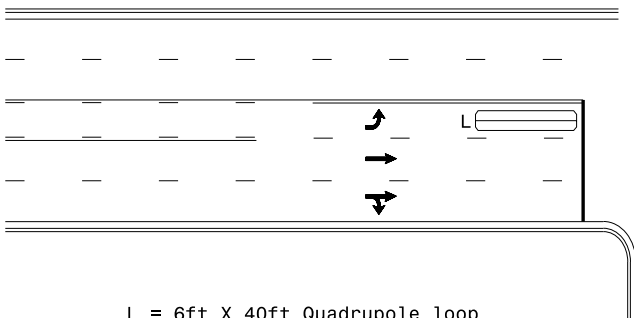
L = 6ft X 6ft
Wired in series

OR



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

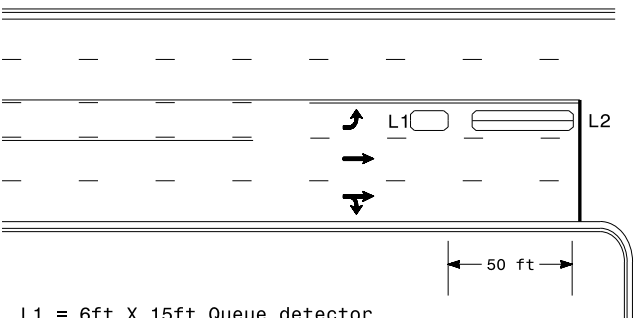
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

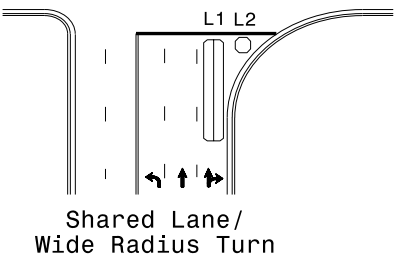
OR



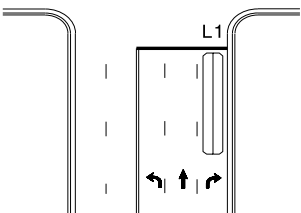
L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

Queue Loop Detection

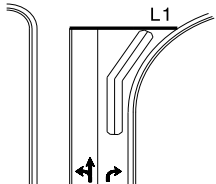
Right Turn Lane Detection



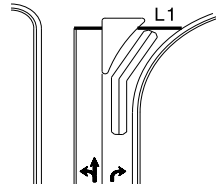
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

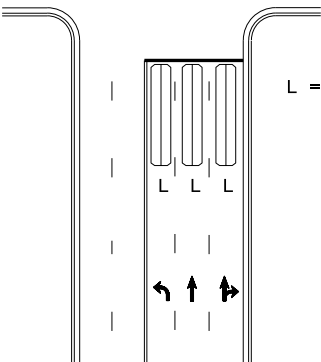


Wide Radius Turn



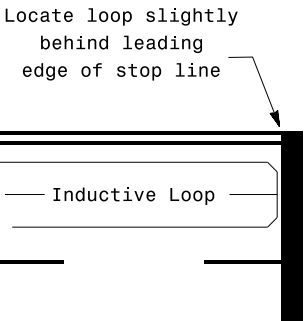
Channelized Turn

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

Prepared in the Offices of:



750 N. Greenfield Pkwy, Garner, NC 27529

PLAN DATE: September 2025

REVIEWED BY:

PREPARED BY: J.A. Lohr

REVIEWED BY:

SCALE: N/A

REVISIONS:

INIT.

DATE

Typical Signal Loop Locations

PLAN DATE: September 2025

REVIEWED BY:

PREPARED BY: J.A. Lohr

REVIEWED BY:

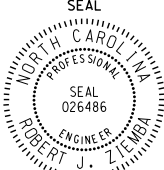
SCALE: N/A

REVISIONS:

INIT.

DATE

SEAL



ROBERT J. ZIEMER

11/25/2025

DATE

SIG. INVENTORY NO.