STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION 6

PLANS

Letting Date: October 2, 2024

CONTRACT ID: DF00494

TIP NO.: -----

FEDERAL AID NO.: STATE FUNDED

WBS ELEMENT NO.: 2025CPT.06.06.10781.1

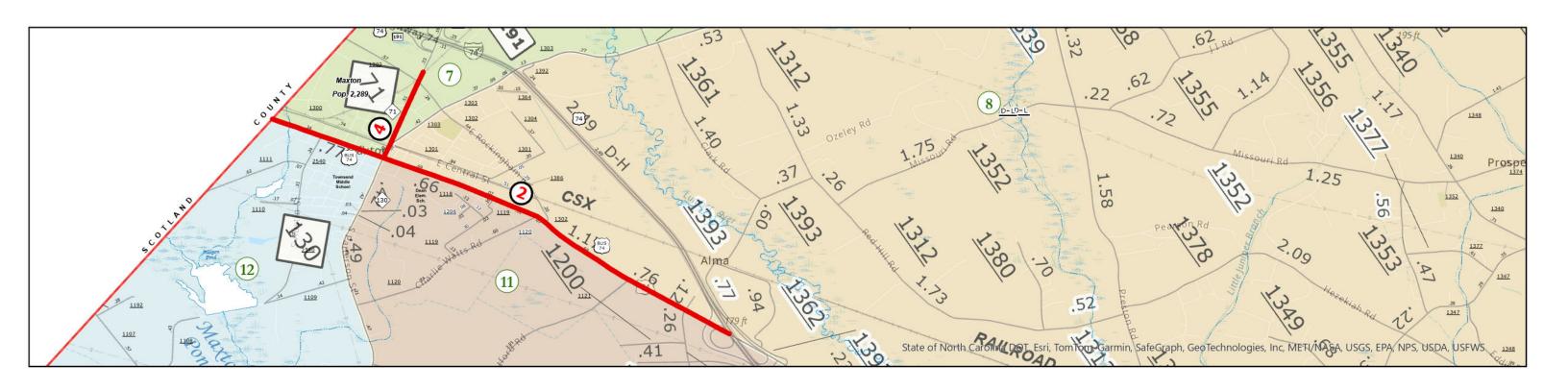
ROUTE NO.: VARIES

LOCATION: VARIES

COUNTY: ROBESON

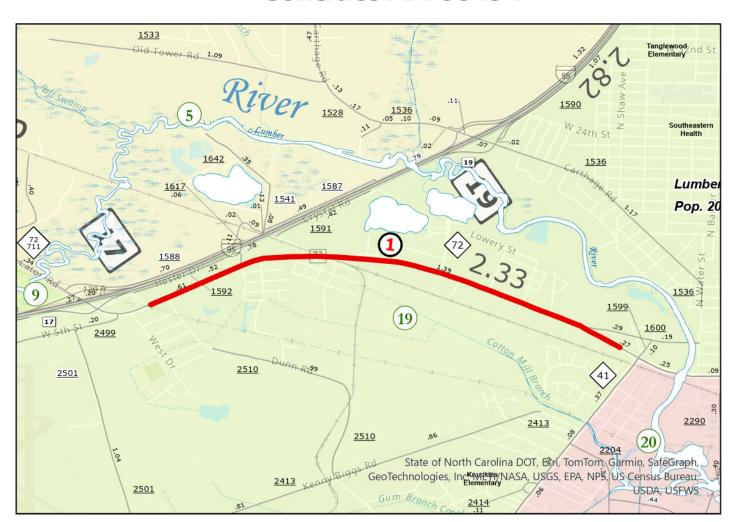
LENGTH OF PROJECT: 15.0 MILES

TYPE OF WORK: RESURFACING, MILLING & PAVEMENT MARKINGS

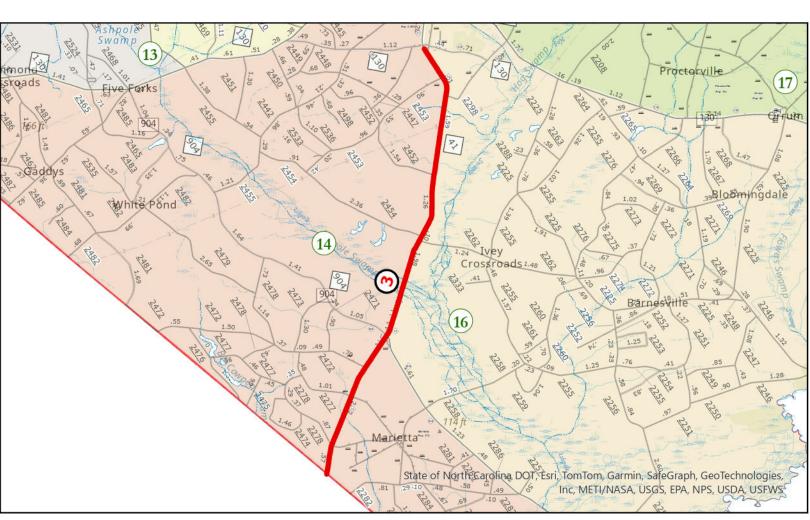


Robeson County Resurfacing, 2024

Contract: DF00494

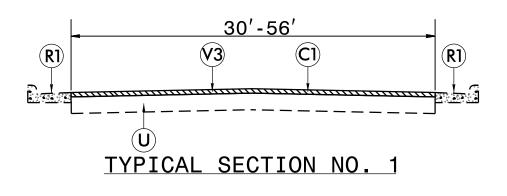


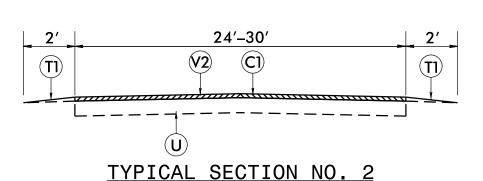


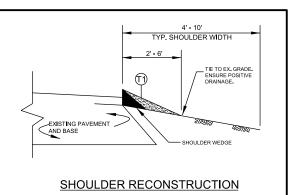


PROJECT REFERENCE NO.

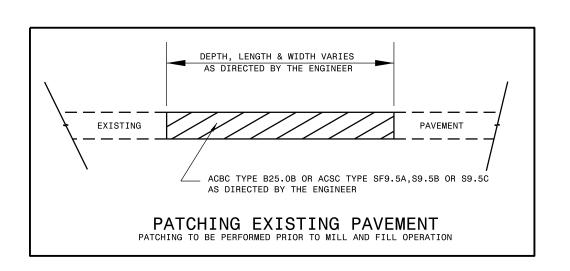
	PAVEMENT SCHEDULE
C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
R1	EXISTING CURB AND GUTTER
T1	SHOULDER RECONSTRUCTION WITH AGGREGATE SHOULDER BORROW
U	EXISTING PAVEMENT
V1	0" - 1½" MILLING
V2	34" MILLING
٧3	1½″ MILLING

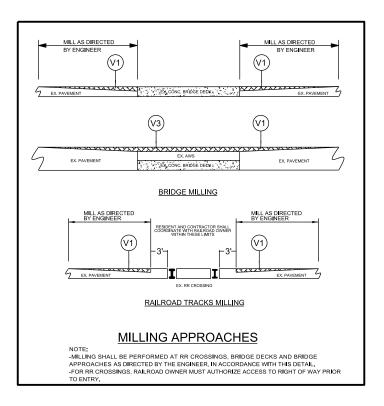






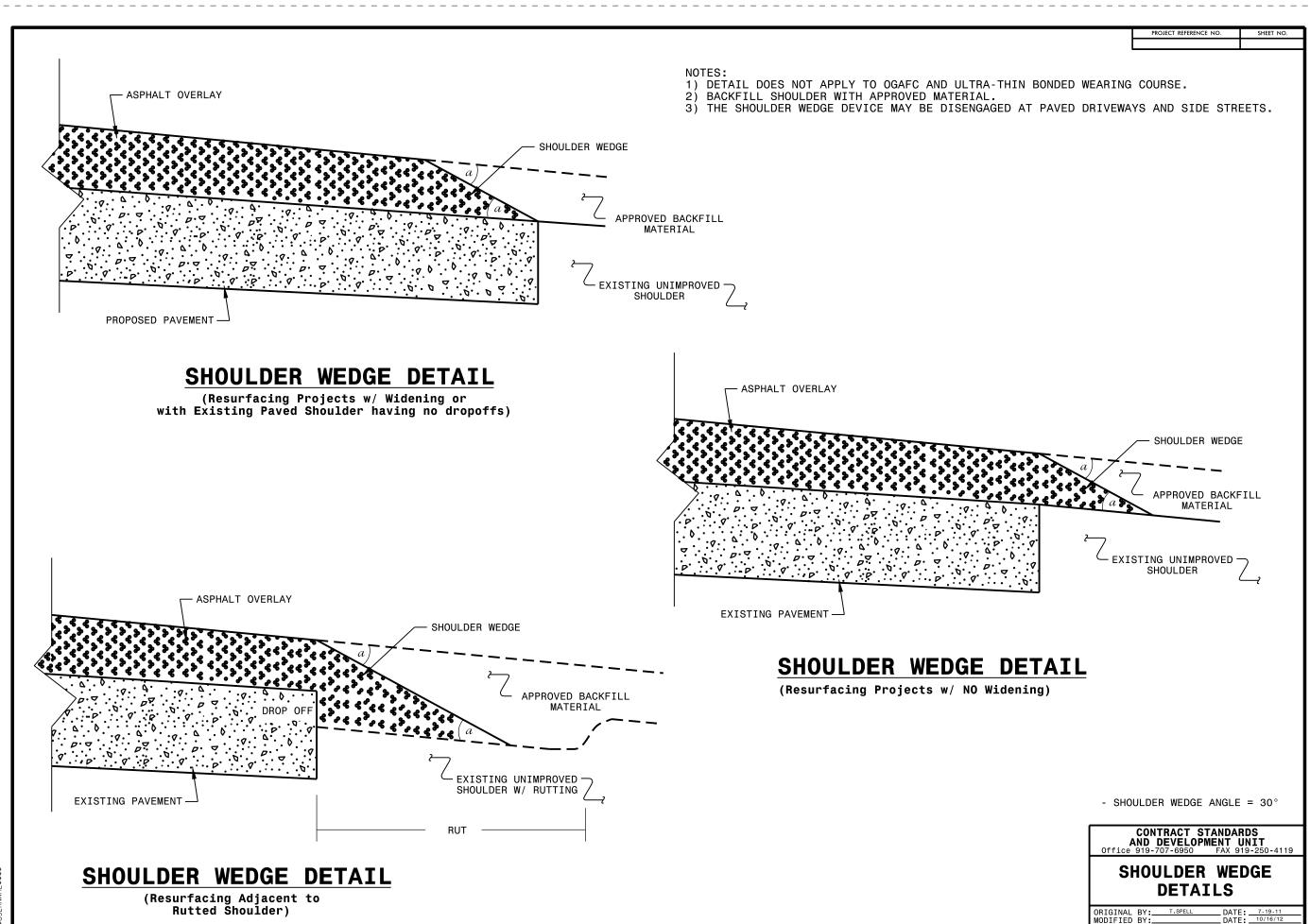
- 560,02, WITH A MINIMUM SLOPE OF 1" PER FOOT TO ENSURE POSITIVE DRAINAGE AWA FROM ROADWAY.
- WIDENING MACHINE OR SIMILAR DEVICE.
 3. A VEGETATIVE BUFFER SHALL BE MAINTAINED BETWEEN THE DISTURBED AREA
- ALONG THE EDGE OF PAVEMENT AND THE DITCH SHOULDER POINT TO MINIMIZE EROSION. PULLING DITCHES OR CUTTING SHOULDERS TO GENERATE BORROW MATERIAL WILL NOT BE ALLOWED.
 4. REQUIRED BORROW MATERIAL MAY BE OBTAINED BY THE CONTRACTOR FROM
- WIDENING OPERATIONS WITHIN THE PROJECT LIMITS, FROM NCDOT APPROVED BORROW PITS OR FROM NCDOT STOCKPILES. ANY EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR IN AN APPROVED DISPOSAL SITE.





FOR SURFACE MIXES OVER 1" IN THICKNESS, MILL THE EXISTING PAVEMENT IN ACCORDANCE WITH THE FOLLOWING SKETCH AS DIRECTED BY THE ENGINEER. LOCATIONS SHALL INCLUDE TIES INTO EXISTING CONCRETE PAVEMENT, AT BRIDGE APPROACHES WHERE THE BRIDGE WILL NOT BE RESURFACED, AND AT THE BEGINNING AND ENDING POINT OF EACH RESURFACING MAP. PERFORM THE WORK IN ACCORDANCE WITH SECTION 607 OF THE JANUARY 2024 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES. RESURFACING WILL BE ACCOMPLISHED AT THE SAME TIME AS THE MILLING OPERATION. MILL EXISTING PAVEMENT BEGINNING OR ENDING OF MAP, A EXISTING CONCRETE PAVEMENT OR NON-RESURFACEABLE BRIDGE DECKS APPROX. THICKNESS OF SURFACE COURSE

MILLING AT PAVEMENT TIE-INS DETAIL

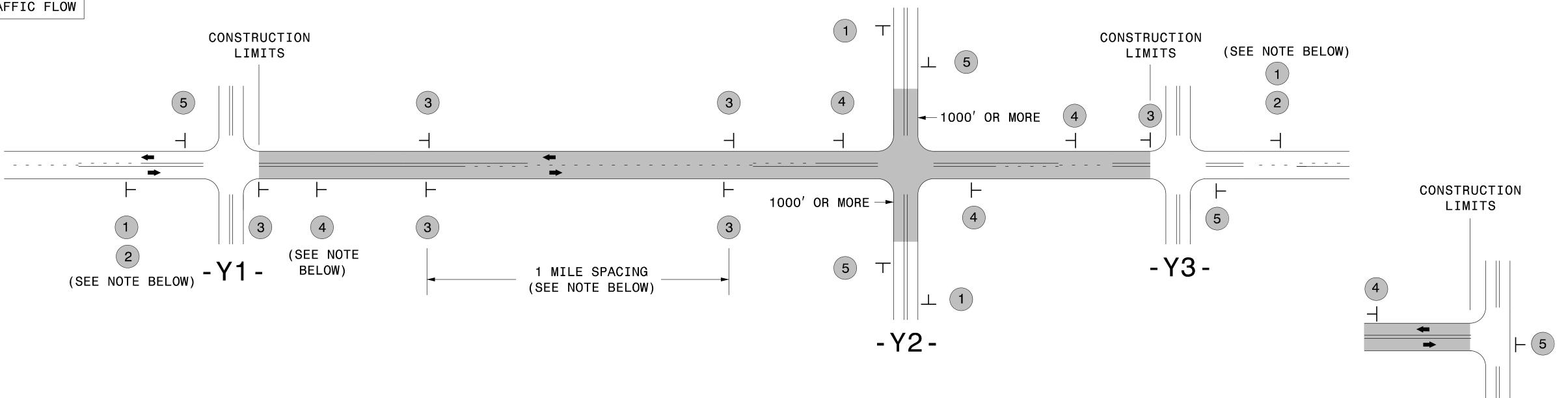


PROJ. REFERENCE NO. SHEET NO.

SIGNING FOR RESURFACING PROJECTS



← DIRECTION OF TRAFFIC FLOW

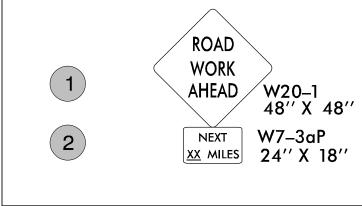


MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

IGNING NOTES AND EMENT PER DIRECTION

SO



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 CONSTRUCTION LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER.(NO FRACTIONAL OR DECIMAL NUMBERS)



- PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACE 1 MILE APART THEREAFTER.
- AT TEE INTERSECTIONS INSTALL INITIALLY ½ MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.
- 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.
 FOR TEE INTERSECTIONS, INSTALL WITHIN 500' +/- OF THE INTERSECTION
- END ROAD WORK G20-2 A 48" X 24"

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.

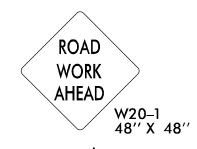
ALONG -L- LINE.

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.

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

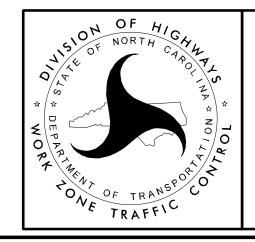
WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.



PLACED 500' IN ADVANCE OF FLAGGER.



PLACED 250' IN ADVANCE
OF FLAGGER.

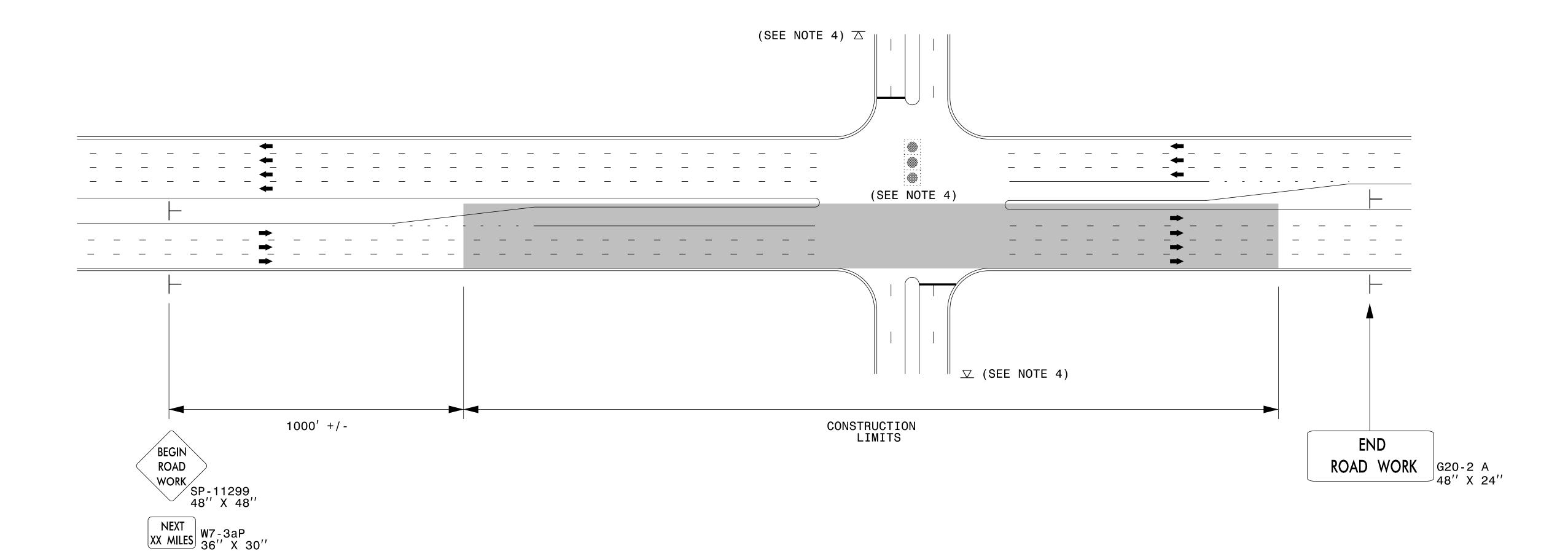


ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2-LANE ROADWAY
RESURFACING

TEE INTERSECTION

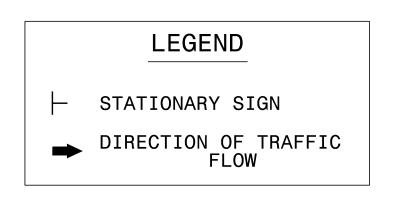
PROJ. REFERENCE NO. SHEET NO.

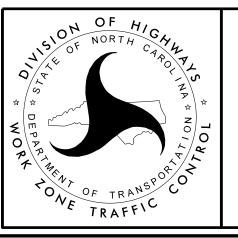
URBAN / SUBURBAN WORKZONES



NOTES:

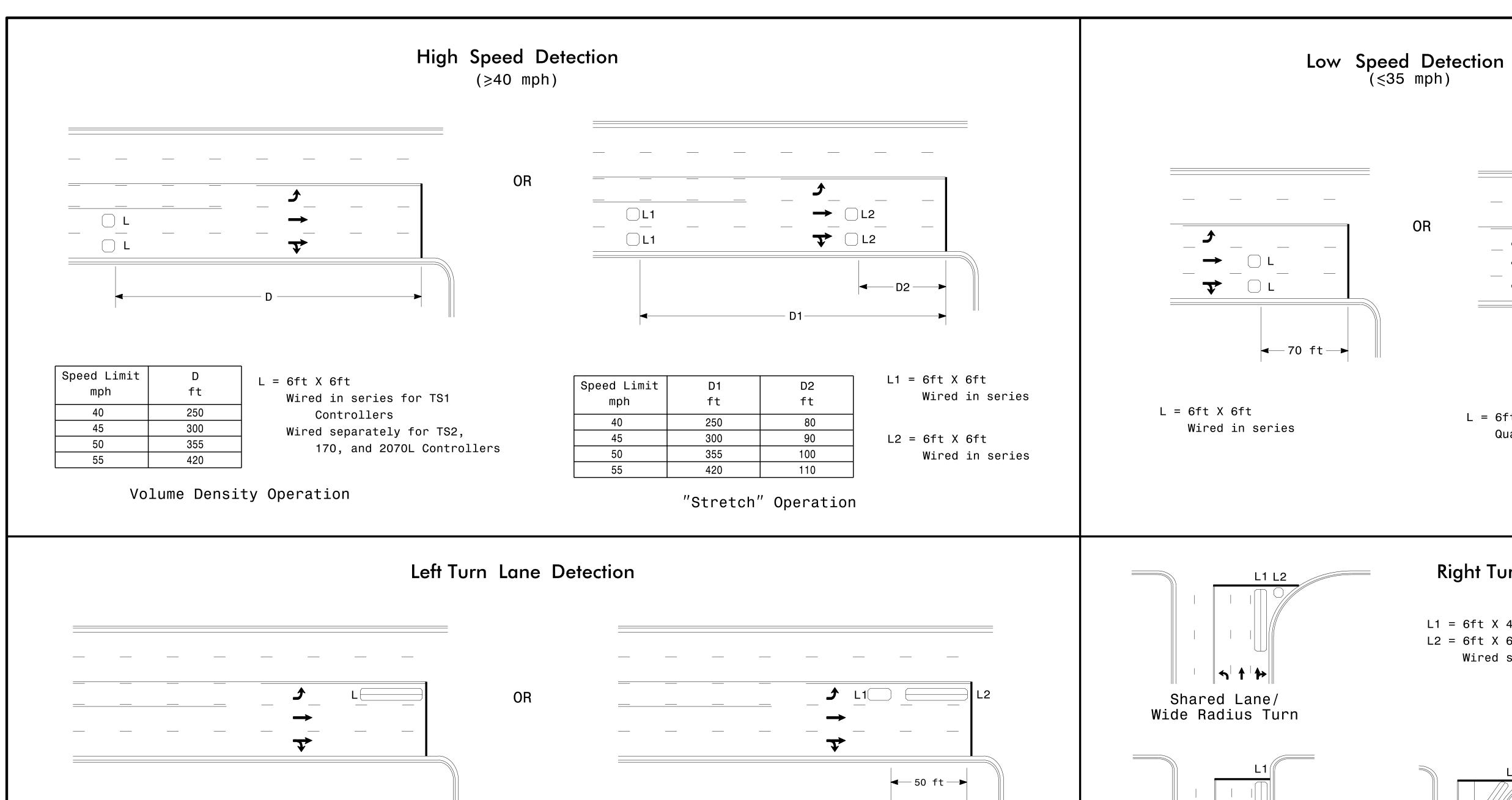
- 1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. 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.

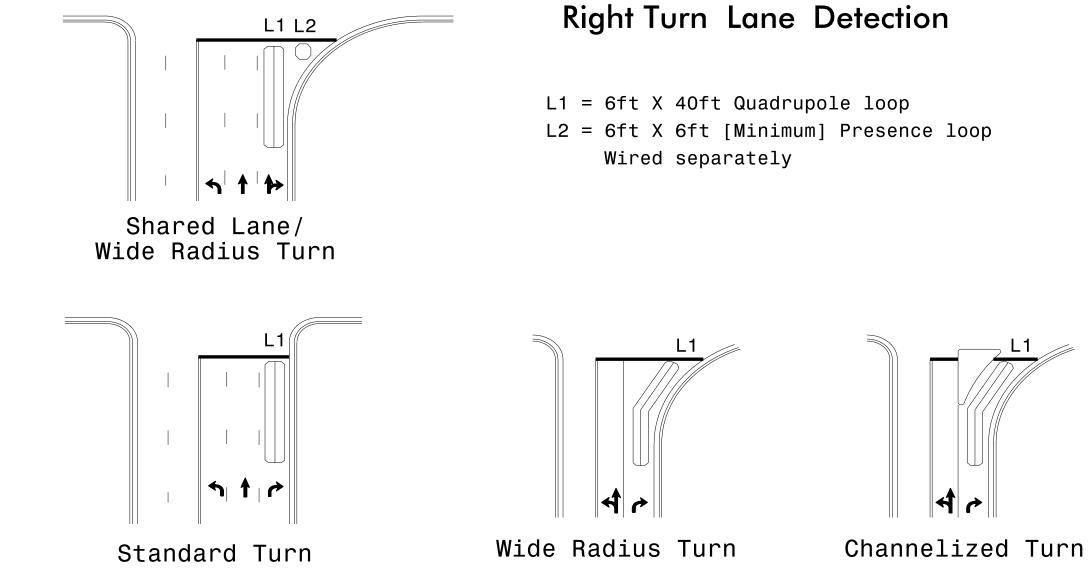




RESURFACING ADVANCE
WARNING SIGNS FOR
URBAN / SUBURBAN
FACILITIES

SALIMBATT GITADOMINOAGSANGATTACHIGIBAAYWALITOTSA (Z).dgil ngarrett

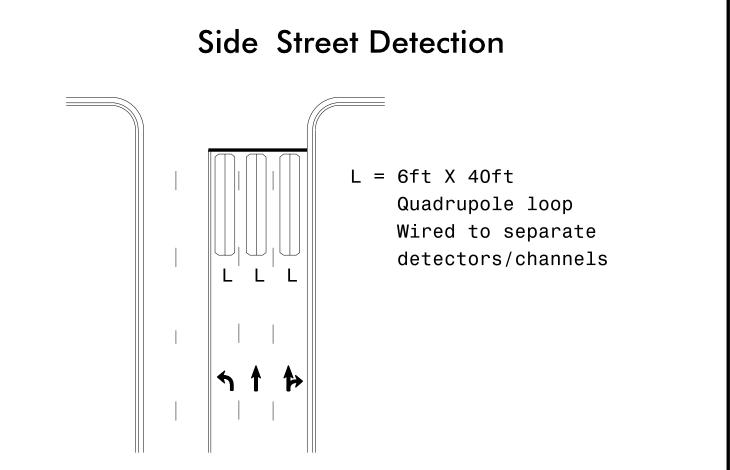




OR

L = 6ft X 40ft

Quadrupole loop, wired separately



L = 6ft X 40ft Quadrupole loop

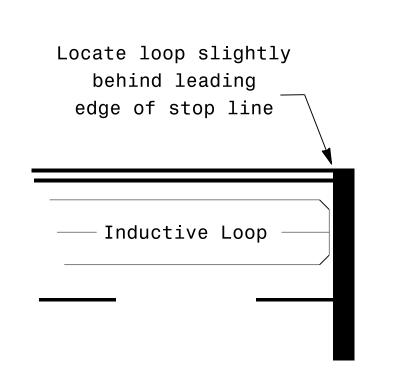
Presence Loop Detection



L1 = 6ft X 15ft Queue detector

L2 = 6ft X 40ft Quadrupole loop

Queue Loop Detection



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

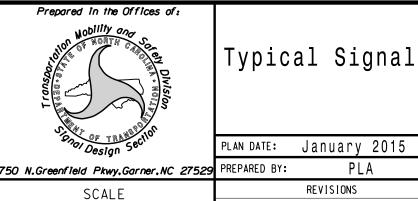
N/A

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

Ten wined ee	paracory, i
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: January 2015 REVIEWED BY: REVIEWED BY: REVISIONS INIT. DATE

PL Alexander

PROJECT REFERENCE NO.

GUIDELINES FOR LANE WIDTHS ON RESURFACING PROJECTS

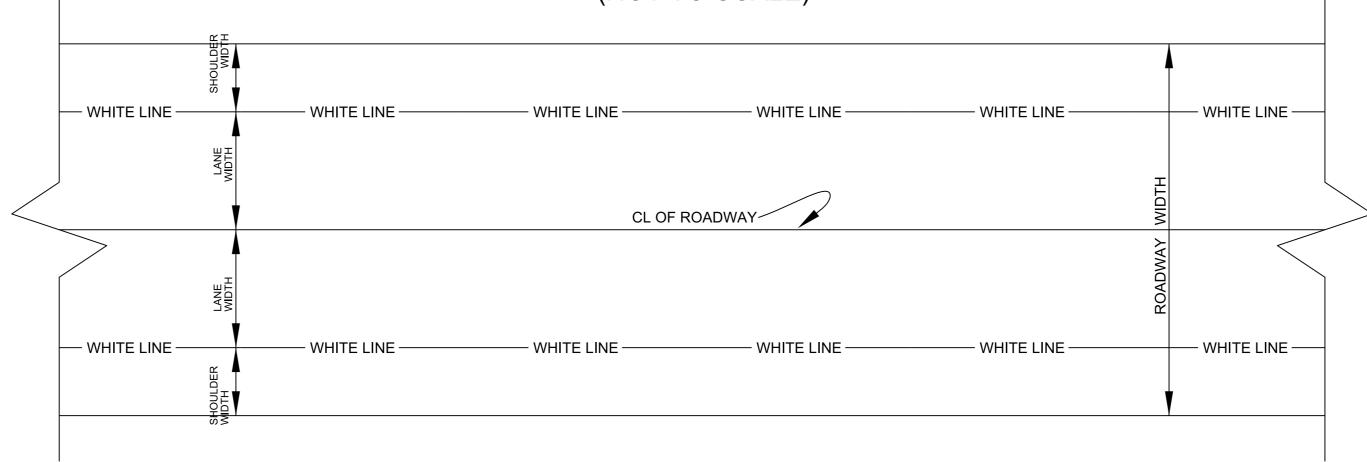
Contractor shall place the new pavement markings in accordance with this table and detail unless otherwise directed by the Engineer.

TWO LANE - TWO WAY ROADWAY - 55 MPH													
ROADWAY WIDTH	LANE WIDTH	SHOULDER WIDTH											
18'	9' *	0'											
20'	10' *	0'											
22'	10'	1'											
24'	10'	2'											
26'	11'	2'											
28'	12'	2'											
32'	12'	4'											

TWO LANE - TWO WAY ROADWAY 50 MPH OR LESS														
ROADWAY WIDTH	LANE WIDTH	SHOULDER WIDTH												
18'	9' *	0'												
20'	10' *	0'												
22'	10'	1'												
24'	10'	2'												
26'	11'	2'												
28'	11'	3'												
32'	11'	5'												
* May vary due to pavemer	nt width													

SCHEMATIC OF ROADWAY

(NOT TO SCALE)



PROJECT NO.	SHEET NO.	TOTAL NO.
2025CPT.06.06.10781.1		

SUMMARY OF QUANTITIES

												1220000000-E	1245000000-E	1260000000-E	129700	0000-E	1330000000-E	1523000000-E	1575000000-E	1704000000-E	2830000000-N	2845000000-N	7324000000-N	7444000000-E
PROJECT NO COUNT	MAP	ROUTE	DESCRIPTION	TYP	LANES LAN	FINAL	WARM	LENGT	WIDT	BEGIN ME	END ME	INCIDENTAL	SHOULDER	AGGREGATE	11/2"	0.75"	INCIDENTAL	SURFACE	ASPHALT	PATCHING	ADJ. OF	ADJ. OF METER	JUNCTION BOX	INDUCTIVE
Y	NO			NO	E	SURFACE	MIX	н	Н			STONE BASE	RECONSTRUCT	SHOULDER	MILLING	MILLING	MILLING	COURSE,	BINDER FOR	EXISTING	MANHOLES	OR VALVE BOX	(STANDARD	LOOP SAWCUT
					TYPE	TESTING A	SPHALT						ION	BORROW				S9.5C	PLANT MIX	PAVEMENT			SIZE)	
						REQUIRE R	EQUIRE																	
						D	D	MI	FT			TONS	SMI	TON	SY	SY	SY	TONS	TONS	TONS	EA	EA	EA	LF
			FROM PVMT JT W OF NC 41 TO I-95																					
2025CPT.06.06.10781.1 Robeson	1	NC-72	PROJECT LIMITS/I-6064	1	4 MU	NO	NO	1.97	44	13.99	15.96				54,982		556	4,665	281	5	18	56	2.00	550.00
TOTAL FOR MAP N	0.1							1.97							54,982		556	4,665	281	5	18	56	2.00	550.00
2025CPT.06.06.10781.1 Robeson	2	US-74 BUS	FROM SCOTLAND CL TO 174 W	1, 2	2 2WU	NO	NO	3.36	30	0	3.36	50	4.52	734	20,390	39,432	1,944	5,201	314	5	56	30	3.00	1,055.00
TOTAL FOR MAP NO. 2								3.36				50	4.52	734	20,390	39,432	1,944	5,201	314	5	56	30	3.00	1,055.00
			FROM SC LINE TO NC130 BYP PVMT																					
2025CPT.06.06.10781.1 Robeson	3	NC-41	JT	2	2 2WU	NO	NO	8.97	24	0	8.97	83	17.94	2,901	903	127,096	5,438	11,040	664	5	2	2		
TOTAL FOR MAP N	0.3							8.97				83	17.94	2,901	903	127,096	5,438	11,040	664	5	2	2		
2025CPT.06.06.10781.1 Robeson	4	NC-71	FROM US 74 TO PVMT JT N OF R/R	1, 2	2 2WU	NO	NO	0.7	30	0	0.7	2	0.18	29	13,411	1,478	1,389	1,378	84	5	26	12	3.00	1,055.00
TOTAL FOR MAP N	0.4							0.7				2	0.18	29	13,411	1,478	1,389	1,378	84	5	26	12	3.00	1,055.00
TOTAL FOR PROLING 2025CD	. 06 06 3	10701 1						15				135	22.64	3,664	89,686	168,006	9,327	22,284	1,343	20	102	100	8.00	2,660.00
TOTAL FOR PROJ NO. 2025CPT.06.06.10781.1															257,	692								
						•		•				•		•			•			•	•			
GRAND TOTAL								15				135	22.64	3,664	89,686	168,006	9,327	22,284	1,343	20	102	100	8.00	2,660.00
GRAND TOTAL														257,	692				•					
·			•									•		•			•			•	•			

PROJECT NO.	SHEET NO.	TOTAL NO.
2025CPT.06.06.10781.1		

THERMOPLASTIC AND PAINT QUANTITIES

													_	_			•		_									
												4413000000-E	4457000000-N	46850	00000-E	46880	00000-E	46950	00000-E	4709000000-E	4720000000-E			4725000000-E			48100	0000-E
PROJECT NO	COUNT	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LAN	LENGTH	WIDTH	BEGIN MP	END MP	WORK ZONE	TEMPORARY	4" X 90 M	4" X 90 M	6" X 90 M	6" X 90 M	8" X 90 M	8" X 90 M	24" X 90 M	THERMO MSG	THERMO LT	THERMO RT	THERMO STR	THERMO STR	THERMO STR	4" WHITE	4" YELLOW
	Υ						E					ADVANCE/GE	TRAFFIC	WHITE	YELLOW	YELLOW	WHITE	WHITE	YELLOW	WHITE	ONLY 90 M	ARROW 90	ARROW 90 M	ARROW 90 M	& LT ARROW	& RT ARROW	PAINT	PAINT
							TYPE					NERAL	CONTROL	THERMO		м			90 M	90 M								
												WARNING																
												SIGNING																
								MI	FT			SF	LS	LF	EA	EA	EA	EA	EA	EA	LF	LF						
	1			FROM PVMT JT W OF NC 41 TO I-95	1																							
2025CPT.06.06.10781.1	1 Robeson	1	NC-72	PROJECT LIMITS/I-6064	1	4	MU	1.97	44	13.99	15.96	126	1.00	4,300	25,700	400	100	530	150	375	12	16	11	23	2	5	4,300	25,700
TOTAL F	FOR MAP I	NO. 1						1.97				126	1	4,300	25,700	400	100	530	150	375	12	16	11	23	2	5	4,300	25,700
2025CPT.06.06.10781.1	1 Robesor	1 2	US-74 BUS	FROM SCOTLAND CL TO 174 W	1, 2	2	2WU	3.36	30	0	3.36	379		21,800	27,000			70				2	2	2			21,800	27,000
TOTAL F	FOR MAP I	NO. 2						3.36				379		21,800	27,000			70				2	2	2			21,800	27,000
														,	,												,	,
2025CPT.06.06.10781.1	1 Robeson	n 3	NC-41	FROM SC LINE TO NC130 BYP PVMT JT	Г 2	2	2WU	8.97	24	0	8.97	1,005		96,000	72,000			350		135		1	1	1			96,000	72,000
	FOR MAP I							8.97				1,005		96,000	72,000			350		135		1	1	1			96,000	72,000
2025CPT.06.06.10781.1	1 Robeson	1 4	NC-71	FROM US 74 TO PVMT JT N OF R/R	1, 2	2	2WU	0.7	30	0	0.7	136		1,250	7,500	200	150			250		1				1	1,250	7,500
	FOR MAP I							0.7				136		1,250	7,500	200	150			250		1				1	1,250	7,500
								15				1,646	1.000	123,350	132,200	600	250	950	150	760	12	20	14	26	2	6	123,350	132,200
TOTAL FOR PROJ NO. 2025CPT.06.06.10781.1								<u> </u>			,,,,,	, , , ,		5,550		350		100					68				,550	
				1	1		1	1	1	1	1		1		,					1		1						,
CD	AND TOTA							15				1,646	1.000	123,350	132,200	600	250	950	150	760	12	20	14	26	2	6	123,350	132,200
GRAND TOTAL														255	,550	8	350	1,	100					68		•	255	,550

											481500	0000-E	482000	0000-E	4830000000-E	4835000000-E	484000	0000-N			4845000000-N			4891000000-E	4892000000-N	O-N 490000000-N	
PROJECT NO	COUNT MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LAN L	ENGTH W	IDTH BEG	SIN MP E	ND MP	6" YELLOW	6" WHITE	8" WHITE	8" YELLOW	16" WHITE	24" WHITE	PAINT MSG	PAINT MSG	PAINT STR	PAINT LT	PAINT RT	PAINT STR &	PAINT STR &	GENERIC	GENERIC	CRYSTAL &	YELLOW &
	Υ					E					PAINT	PAINT	PAINT	PAINT	PAINT	PAINT	RXR	ONLY	ARROW	ARROW	ARROW	RT ARROW	LT ARROW	MARKING, 16"	MARKING,	RED MARKERS	YELLOW
					ŀ	TYPE																		X 90 M WHITE	THERMO RXR		MARKERS
																								THERMO(RXR	90 M		
																								CROSSBUCK)			
							MI	FT			LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	LF	EA	EA	EA
			FROM PVMT JT W OF NC 41 TO I-95																								
2025CPT.06.06.10781.1	Robeson 1	NC-72	PROJECT LIMITS/I-6064	1	4	MU	1.97	44 1	3.99	15.96	400	100	530	150	200	375	4	12	23	16	11	5	2	200	8	350	375
TOTAL F	OR MAP NO. 1						1.97				400	100	530	150	200	375	4	12	23	16	11	5	2	200	8	350	375
2025CPT.06.06.10781.1	Robeson 2	US-74 BUS	FROM SCOTLAND CL TO 174 W	1, 2	2	2WU	3.36	30	0	3.36			70						2	2	2					50	350
TOTAL F	OR MAP NO. 2						3.36						70						2	2	2					50	350
2025CPT.06.06.10781.1	Robeson 3	NC-41	FROM SC LINE TO NC130 BYP PVMT JT	2	2	2WU	8.97	24	0	8.97			350			135			1	1	1					50	900
TOTAL F	OR MAP NO. 3						8.97						350			135			1	1	1					50	900
2025CPT.06.06.10781.1	Robeson 4	NC-71	FROM US 74 TO PVMT JT N OF R/R	1, 2	2	2WU	0.7	30	0	0.7	200	150			150	250	6			1		1		150	6	10	100
TOTAL F	OR MAP NO. 4						0.7				200	150			150	250	6			1		1		150	6	10	100
TOTAL FOR PROLING	2 000FORT 00 00 4	0704.4					15				600	250	950	150	350	760	10	12	26	20	14	6	2	350	14	460	1,725
TOTAL FOR PROJ NO. 2025CPT.06.06.10781.1											85	50	1,1	100			2	2	•		68	•				2,1	85
					<u> </u>											•								•			
GRAND TOTAL 15									600	250.000	950	150	350	760	10	12	26	20	14	6	2	350	14	460	1,725		
GKA	AND IOIAL										85	50	1,1	100		22		2	68						2,185		