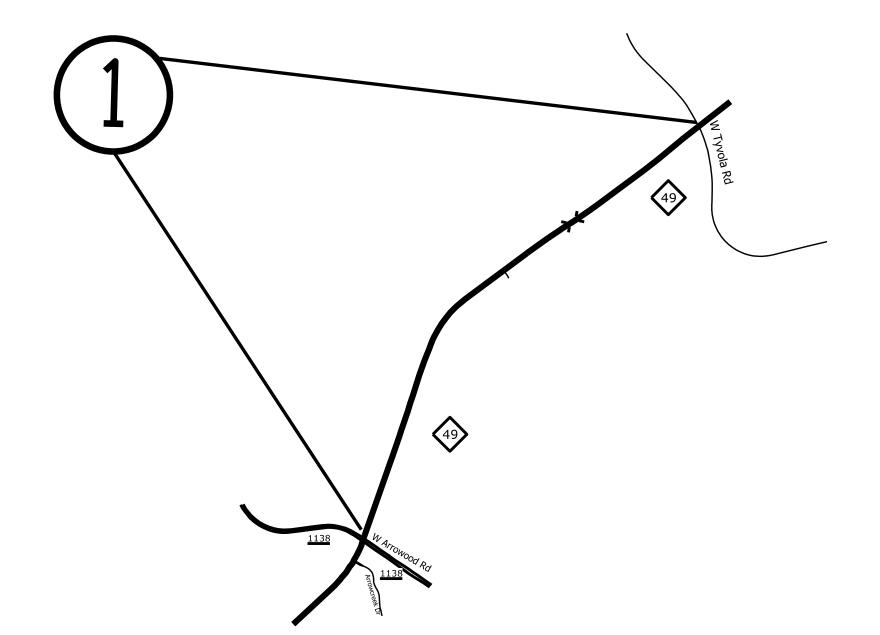
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.23.10601		
	F.A. PROJECT NO.		





ENLARGED MUNICIPAL AND SUBURBAN AREAS

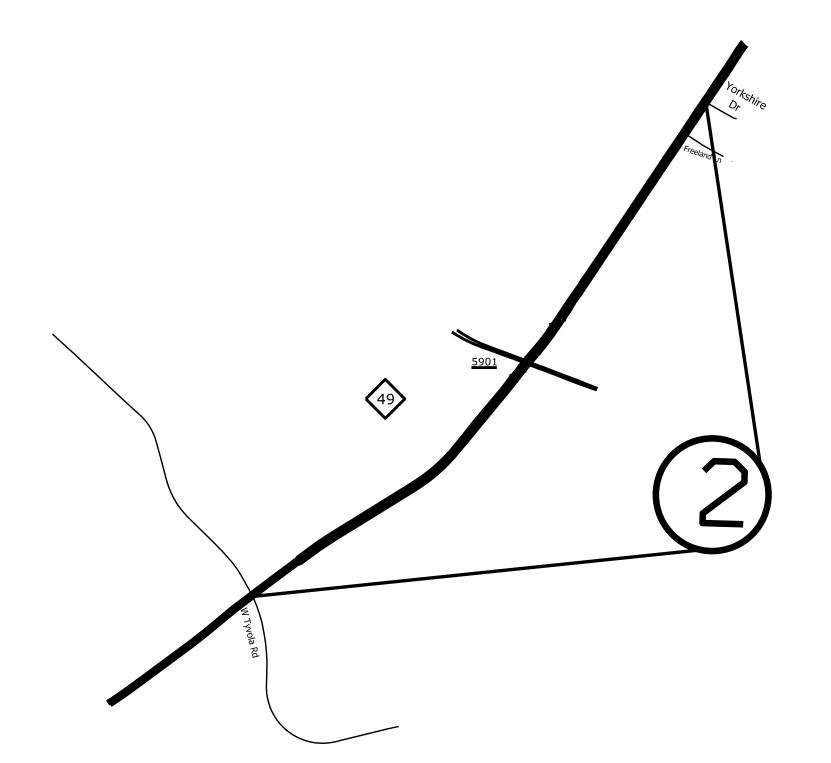
# MECKLENBURG COUNTY

NORTH CAROLINA

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS - DIVISION 10

MAP # 1 NC 49 S 2.08 MILES FROM SR 1138 W. ARROWOOD ROAD (MP 8.3) TO W. TYVOLA BLVD (MP 10.38)

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.23.10601		
-	F.A. PROJECT NO.		





ENLARGED MUNICIPAL AND SUBURBAN AREAS

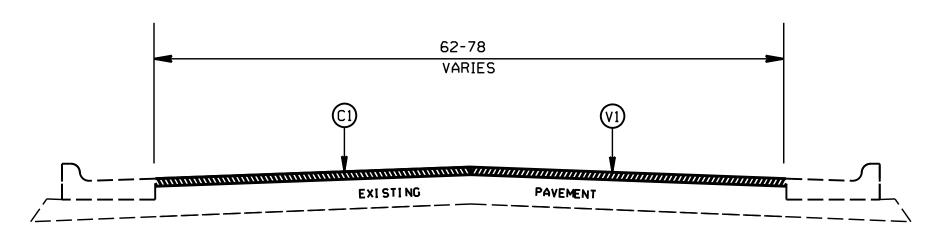
# MECKLENBURG COUNTY

NORTH CAROLINA

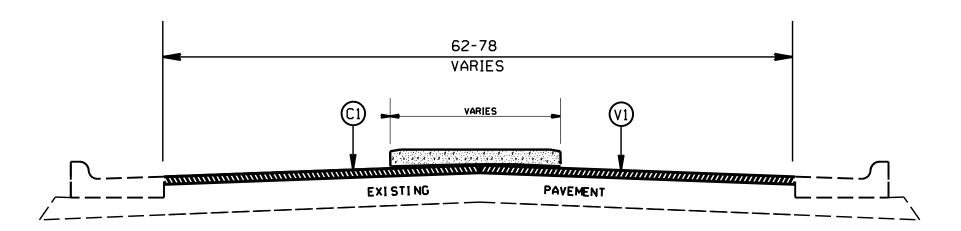
PREPAREO BOYTHEHE

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - DIVISION 10

MAP # 2 NC 49 S (NORTH BOUND LANES) 2.19 MILES FROM TYVOLA BLVD (MP 10.38) GOING NORTH TO YORKSHIRE DRIVE (MP 12.57)



TYPICAL SECTION NO. 1
MAP 1 NC 49S



TYPICAL SECTION NO. 2

MAP 1 NC 49S

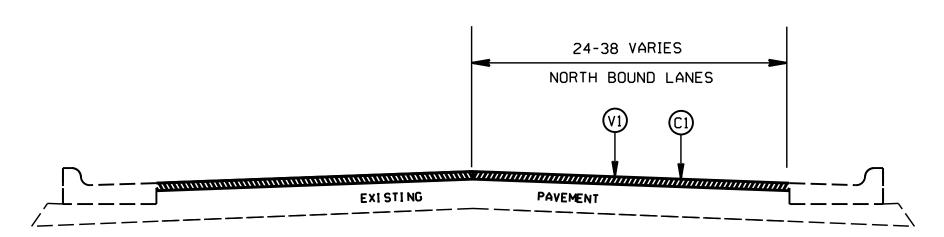
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS							
N.C.	2025CPT.10.23.10601									
F.A. PROJECT NO.										

	PAVEMENT SCHEDULE
C1	PROP. APPROX. 1.50° ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D. AT AN AVERAGE RATE OF 168 LBS. PER SO. YDS.
V1	MILLING OF EXISTING PAVEMENT, 1.50

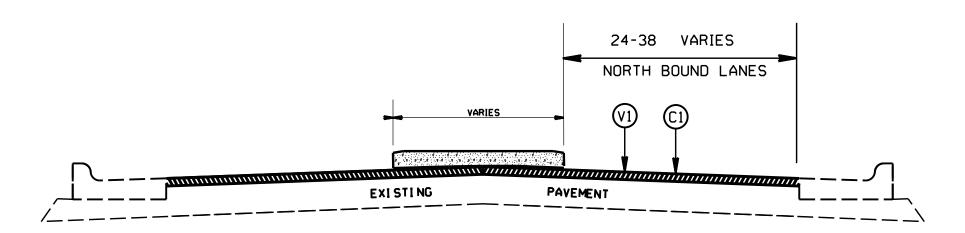
MECKLENBURG COUNTY RESURFACING 2025

SCALE
DATE
DWG. BY RBS
DESIGN BY
APPROVED





TYPICAL SECTION NO. 3 MAP 2 NC 495 NB



TYPICAL SECTION NO. 4

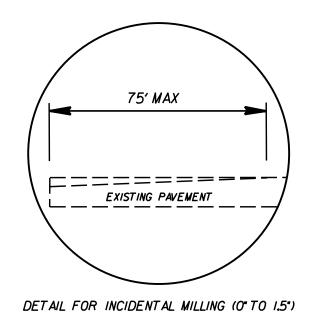
MAP 2 NC 49S NB

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS							
N.C.	2025CPT.10.23.10601									
F.A. PROJECT NO.										

	PAVEMENT SCHEDULE
C1	PROP. APPROX. 1.50° ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D. AT AN AVERAGE RATE OF 168 LBS. PER SO. YDS.
V1	MILLING OF EXISTING PAVEMENT, 1.50

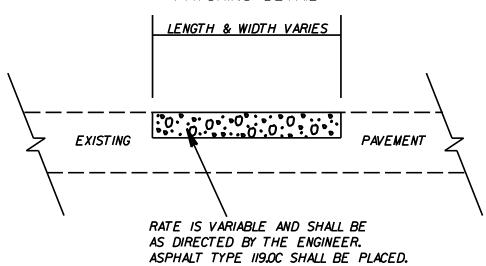
MECKLENBURG COUNTY RESURFACING 2025





TIE-IN





STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.23.10601		
ſ	F.A. PROJECT NO.		

PATCHING AND MILLING DETAILS

SCALE
DATE
DWG. BY RBS
DESIGN BY
APPROVED



REVISIONS

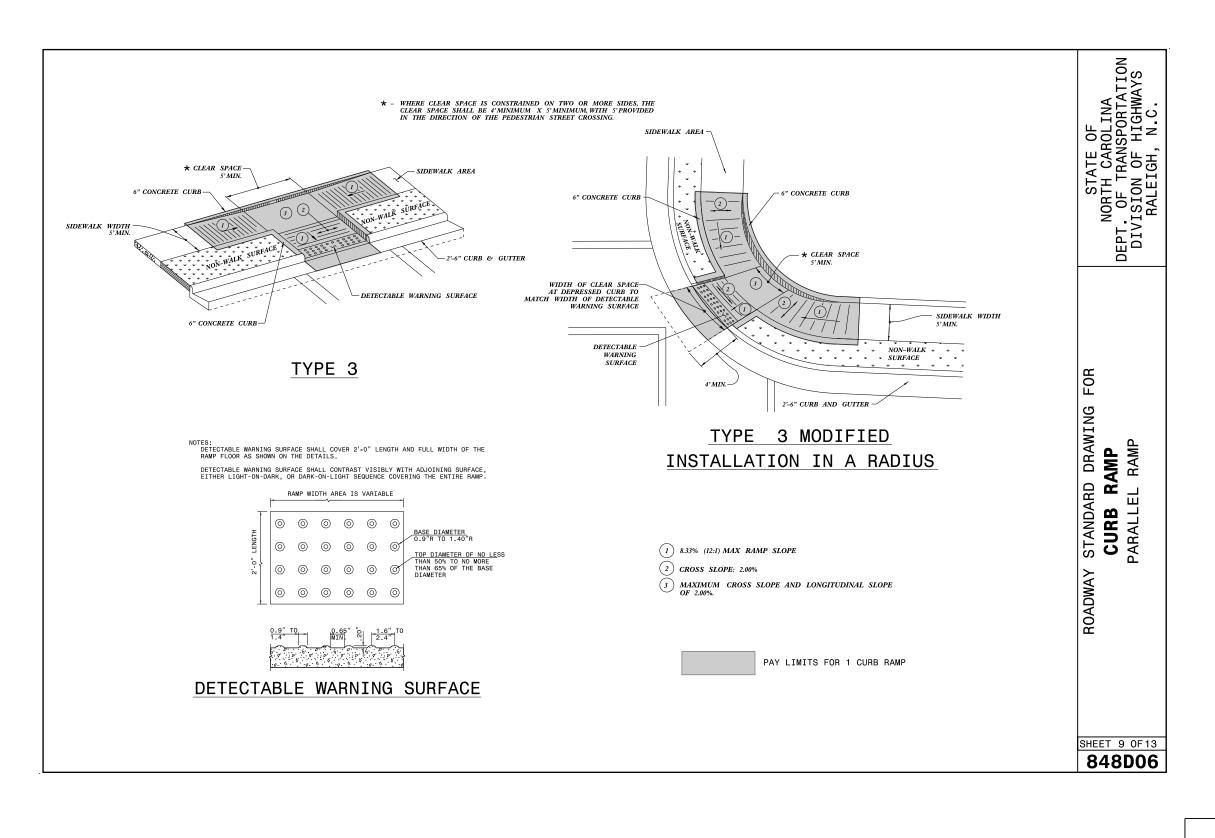
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	2025CPT.10.23.10601		
	F.A. PROJECT NO.		

## **PROJECT NOTES:**

- 1. ON MAP 1, SKIP THE BRIDGE OVER SUGAR CREEK THAT IS 959 FEET NORTH OF SR 1155 SHOPTON ROAD, REMOVE AND REPLACE TAPE AS DIRECTED BY THE ENGINEER.
  - 2. ON MAP 2, SKIP THE BRIDGE OVER THE RAILROAD THAT IS 130 FEET BEFORE THE SR 1291 W. WOODLAWN ROAD INTERSECTON.
    REMOVE AND REPLACE TAPE AS DIRECTED BY THE ENGINEER.
    - 3. ON MAP 2, SKIP THE BRIDGE OVER THE RAILROAD THAT IS 657 FEET AFTER THE SR 1291 W. WOODLAWN ROAD INTERSECTON.

      REMOVE AND REPLACE TAPE AS DIRECTED BY THE ENGINEER.
- 4. ON MAP 2, SKIP THE NEW ASPHALT SECTION AND NEW TURN LANE THAT IS 342 FEET AFTER THE CITY STREET JEREMIAH AVENUE. RESURFACE THE LEFT LANE AND SKIP NEW ASPHALT AS DIRECTED BY THE ENGINEER.
- 5. ON MAP 2, SKIP THE NEW ASPHALT SECTION AND NEW TURN LANE THAT IS LEADING TO AND ENDING AT THE CITY STREET YORKSHIRE DRIVE.RESURFACE THE RIGHT LANE AND SKIP NEW ASPHALT AS DIRECTED BY THE ENGINEER.

PROJECT REFERENCE NO. SHEET NO.





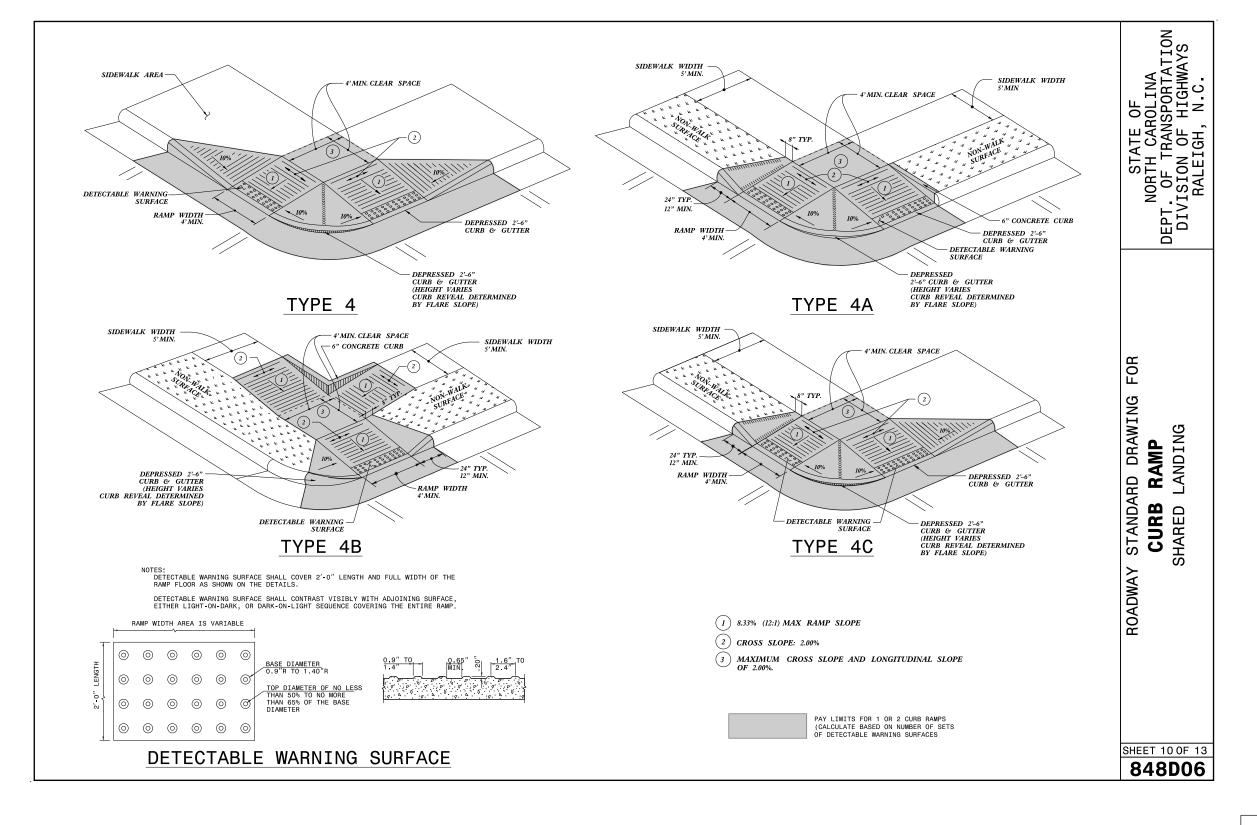
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACTS STANDARDS AND DEVELOPMENT UNIT Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: S.CALH	OUN DATE: 12-22-2023
MODIFIED BY:	DATE :
CHECKED BY:	DATE :
FILE SPEC special	details\nmhackler\D0609.dgn

PROJECT REFERENCE NO. SHEET NO.





DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

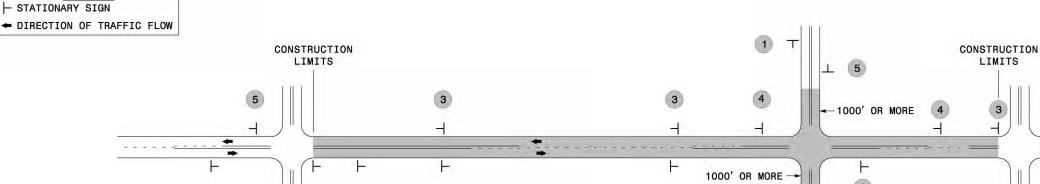
CONTRACTS STANDARDS AND DEVELOPMENT UNIT Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN DATE: 12-22-2023
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC:: special\_details\nmhackler\848D0610.dgn

PROJ. REFERENCE NO. SHEET NO.

#### SIGNING FOR RESURFACING PROJECTS



1 MILE SPACING

(SEE NOTE BELOW)

TEE INTERSECTION

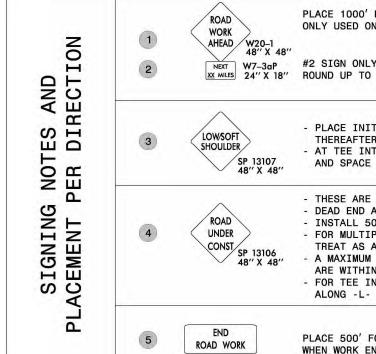
CONSTRUCTION

LIMITS

## MAINLINE (-L-) SIGNING

(SEE NOTE BELOW)

## -Y- LINE SIGNING



(SEE NOTE BELOW)

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  $1\!\!\!/_2$  MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.
- 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.

PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.

G20-2 A
48" X 24"

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

LEGEND

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.



(SEE NOTE BELOW)

-----

PLACED 250' IN ADVANCE OF FLAGGER.

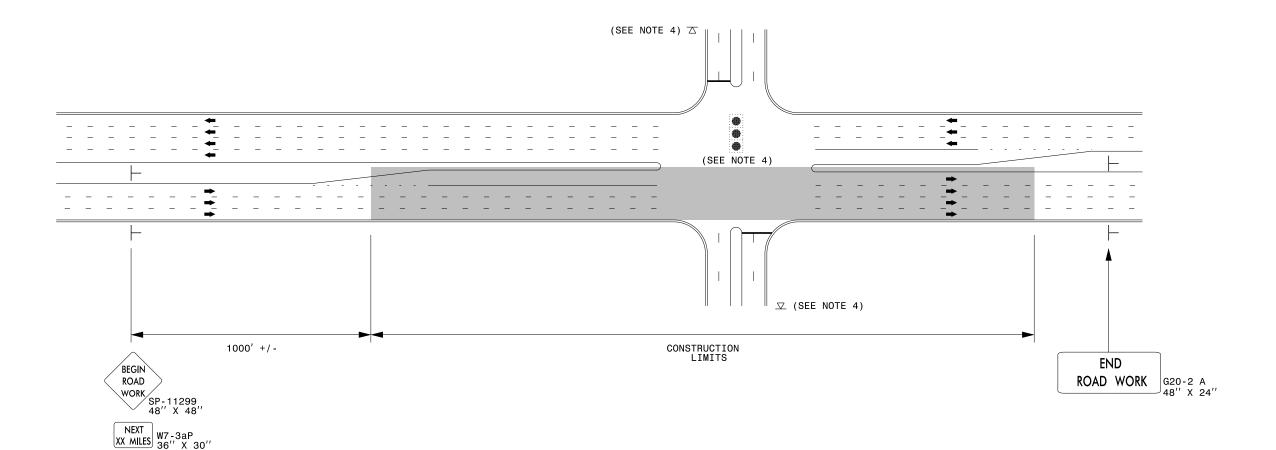


ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

.ZW & ASI KESULTACING DETAIIS\KESULTACING\_AAVWAI

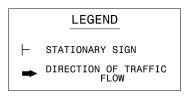
PROJ. REFERENCE NO. SHEET NO.

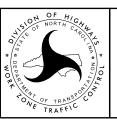
#### URBAN / SUBURBAN WORKZONES



#### NOTES:

- 1)  $48" \times 48"$  SIZED SIGNS (SP- 11299) MAY BE REDUCED TO  $36" \times 36"$  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.



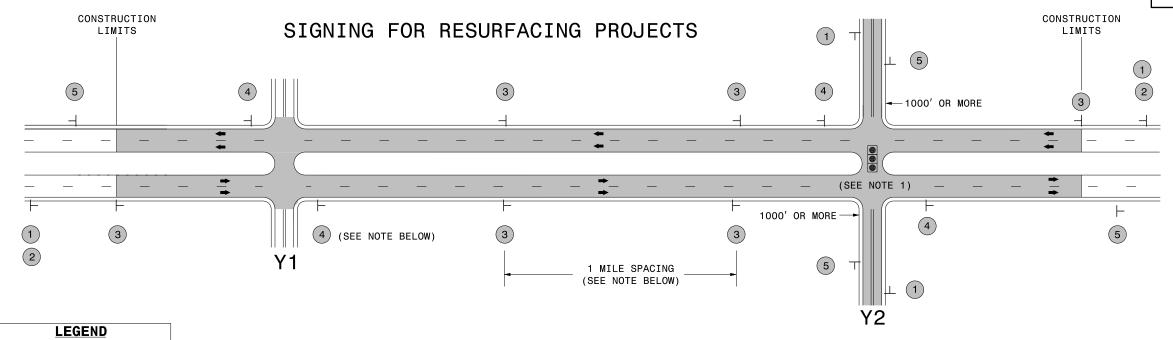


RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES

ski mgari ett koomimodaskresai taamig-kavmantijalsa kokagit ngarrett

C:\Users\rmgarrett\Download

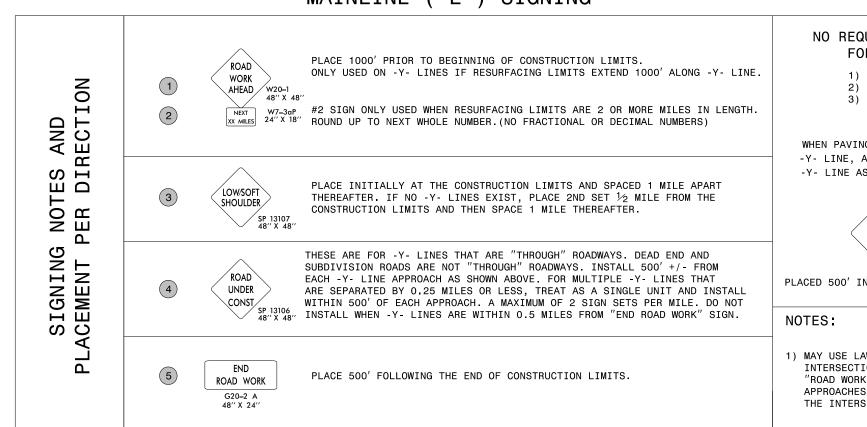
PROJ. REFERENCE NO. SHEET NO.



- STATIONARY SIGN ← DIRECTION OF TRAFFIC FLOW

## MAINLINE (-L-) SIGNING

#### -Y- LINE SIGNING



#### 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.



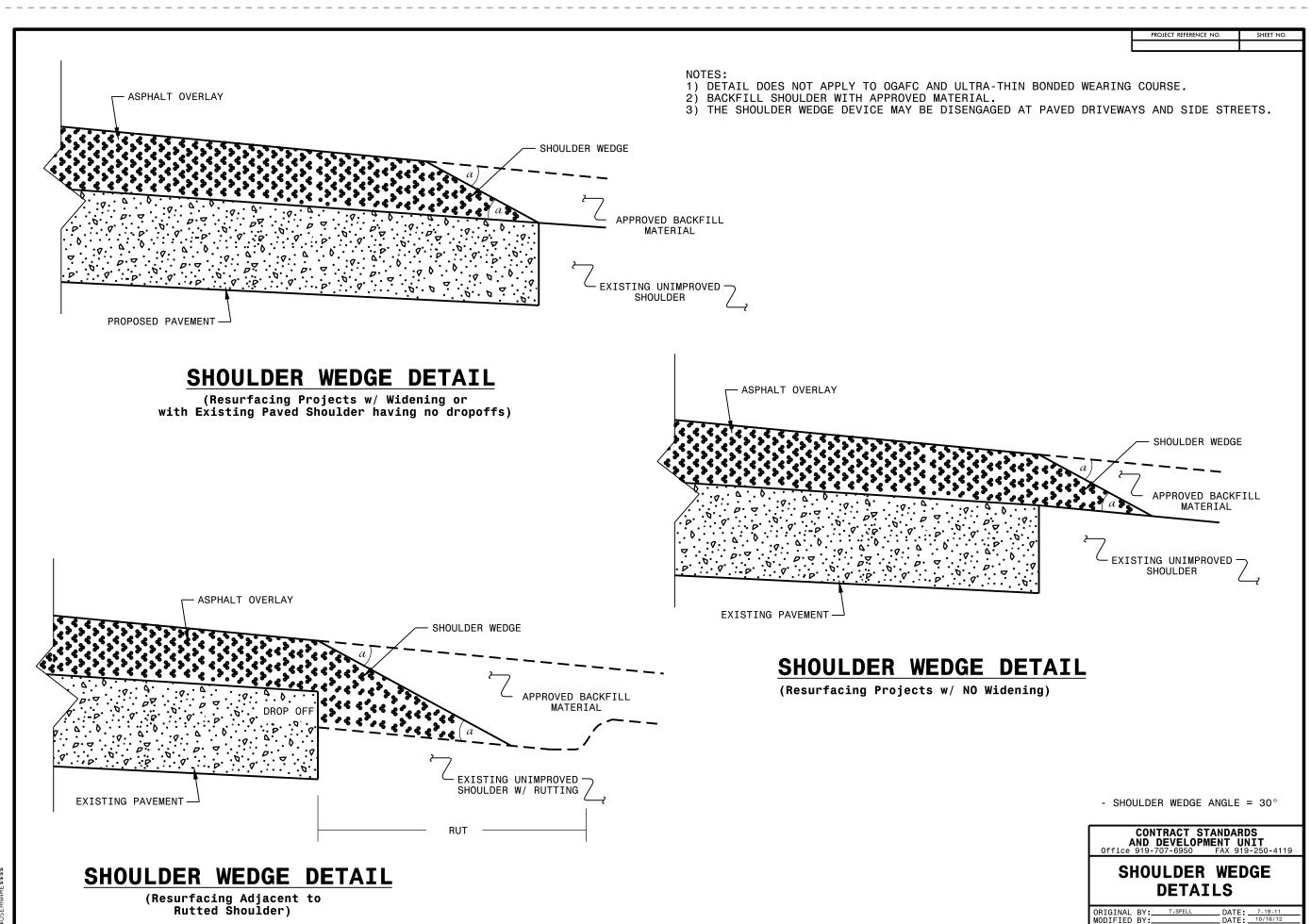


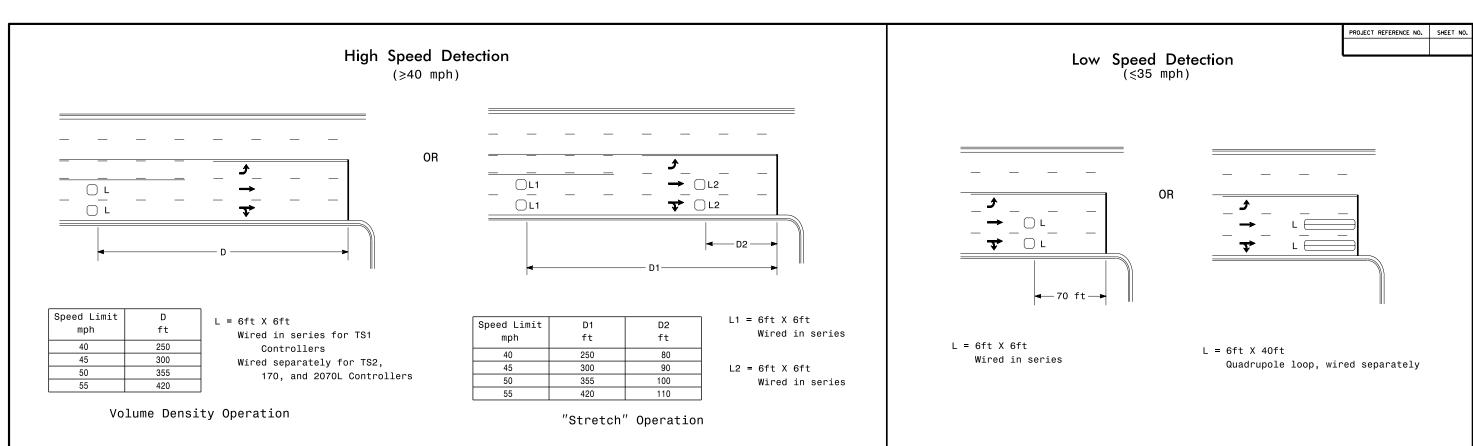
PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.

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.

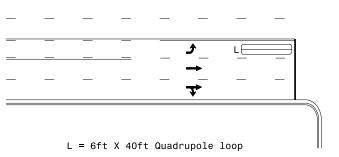


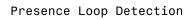
RESURFACING ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS W/ SHOULDER SECTIONS

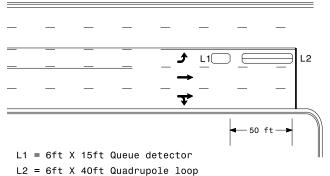




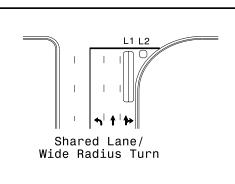








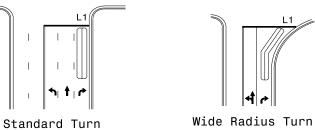
Queue Loop Detection

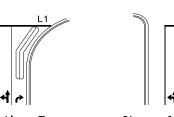


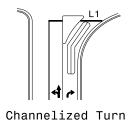
L1 = 6ft X 40ft Quadrupole loop

Right Turn Lane Detection

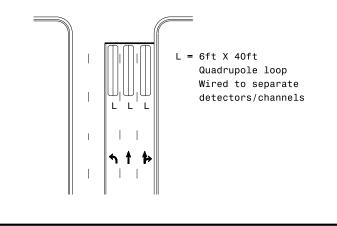
L2 = 6ft X 6ft [Minimum] Presence loop Wired separately



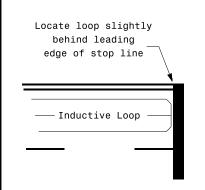




#### Side Street Detection



#### Presence Loop Placement at Stop Lines



OR

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

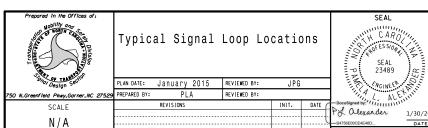
#### Recommended Number of Turns

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



lane

PROJECT NO.	SHEET NO.	TOTAL NO.
2025CPT.10.23.10601		

## SUMMARY OF QUANTITIES

												1297000000-E	133000000-E	1524200000-E	1575000000-E	1577000000-E	1704000000-E	2612300000-N	2830000000-N	2845000000-N	5255000000-N	7444000000-E
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE	LENGTH	WIDTH	BEGIN	END	1½" MILLING	INCIDENTAL	SURFACE	ASPHALT	POLYMER	PATCHING	RETROFIT	ADJ. OF	ADJ. OF METER	PORTABLE	INDUCTIVE
							TYPE			MP	MP		MILLING	COURSE, S9.5D	BINDER FOR	MODIFIED	EXISTING	EXISTING	MANHOLES	OR VALVE BOX	LIGHTING	LOOP SAWCUT
															PLANT MIX	ASPHALT	PAVEMENT	CONCRETE CURB				
																BINDER FOR		RAMPS				
																PLANT MIX						
																I LANTINA						
								MI	FT			SY	SY	TON	TONS	TONS	TONS	EA	EA	EA	LS	LF
				FROM SR 1138 W. ARROWOOD ROAD																		
2025CPT.10.23.10601	Mecklenburg	1	NC-49 S 30000049060	TO TYVOLA BLVD		4	2WD	2.08	62	8.3	10.38	61,953	12,320	6,863	14	398	289	21.00	13	7	0.50	5,782
	TOTAL FOR M	AP NO. 1						2.08				61,953	12,320	6,863	14	398	289	21.00	13	7	0.50	5,782
				FROM TYVOLA BLVD GOING NORTH									•	·								
2025CPT.10.23.10601	Mecklenburg	2	NC-49 S 30000049060	TO YORKSHIRE DRIVE		2	MD	2.19	24	10.38	12.57	31,098	1,787	3,039	7	176	153	1.00	6	2	0.50	3,186
TOTAL FOR MAP NO. 2					<del></del>	1.15	2.19		20.00	12.07	31.098	1,787	3.039	7	176	153	1.00	6	2	0.50	3,186	
TOTAL FO	OR PROJ NO. 20		22 10601		1			4.27				93.051	14,107	9,902	21	574	442	22.00	19	0	1.00	8,968
IOIALI	NO. NO. 20	250: 1.10.2	20.10001		1		$\vdash$	7.27				33,031	14,107	3,302		5/4	742	22.00	19	3	1.00	0,500
	ODANO						$\vdash$	4.07				00.054	44.407	0.000	04	574	440	20.00	40	_	1.00	0.000
	GRAND T	UIAL						4.27				93,051	14,107	9,902	21	574	442	22.00	19	9	1.00	8,968

PROJECT NO.	SHEET NO.	TOTAL NO.
2025CPT.10.23.10601		

## THERMOPLASTIC AND PAINT QUANTITIES

												-E 4457000000-	N 4510000000	46850	00000-E	4695000000-E		4709000000-	<b>:</b>	4725000000-E			48100	00000-E	48200	00000-E	4835000000-E	4855000000-	4890000000-E	4905100000-N
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES LA	ANE LENG	TH WID	TH BEGIN M	1P END MP	WORK ZONE	TEMPORARY	LAW	4" X 90 M	4" X 90 M	8" X 90 M	8" X 90 M	24" X 90 M	THERMO LT	THERMO F	RT THERMO STE	R THERMO STR	4" WHITE	4" YELLOW	8" WHITE	8" YELLOW	24" WHITE	REMOVAL OF	GENERIC	NON-CAST
						TY	YPE				ADVANCE/GE	TRAFFIC	ENFORCEMEN	WHITE	YELLOW	WHITE	YELLOW	WHITE	ARROW 90	ARROW 90	M ARROW 90 M	1 & RT ARROW	PAINT	PAINT	PAINT	PAINT	PAINT	PAVEMENT	PAVEMENT	IRON
											NERAL	CONTROL	т	THERMO	THERMO	THERMO	THERMO	THERMO	м			90 M						MARKING	MARKING	SNOWPLOWA
											WARNING																	LINES (6")	ITEM	BLE MARKER
											SIGNING																	'	CONTRAST	
																													COLD APPLIED	
																													PLASTIC	
																													PAVEMENT	
																													MARKING	
																													LINES, TYPE II	
																													(6")	1
																													( ,	
							М	FT			SF	LS	HR	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	LF	LF	LF	LF	LF	LF	EA
				FROM SR 1138 W. ARROWOOD ROAD																										
2025CPT.10.23.10601	Mecklenburg	1	NC-49 S 30000049060	TO TYVOLA BLVD		4 2	WD 2.0	8 62	8.3	10.38	126.0	0.50	200	10,130	17,162	1,917	256	524	106	6	2		10,130	17,162	1,917	256	524	358.00	358	372
TOTAL FOR MAP NO. 1							2.0	8			126.0	0.50	200	10,130	17,162	1,917	256	524	106	6	2		10,130	17,162	1,917	256	524	358.00	358	372
				FROM TYVOLA BLVD GOING NORTH																										
2025CPT.10.23.10601	Mecklenburg	2	NC-49 S 30000049060	TO YORKSHIRE DRIVE		2 N	MD 2.1	9 24	10.38	12.57	206.0	0.50	160	4,469	9,677	380	60	76	5	3	7	2	4,469	9,677	380	60	76	615.00	615	165
TOTAL FOR MAP NO. 2					2.1	9			206.0	0.500	160	4,469	9,677	380	60	76	5	3	7	2	4,469	9,677	380	60	76	615.00	615	165		
TOTAL F	OB BBOLNO 20	02ECDT 10	22 10601				4.2	7			332.0	1.000	360	14,599	26,839	2,297	316	600	111	9	9	2	14,599	26,839	2,297	316	600	973.00	973	537
TOTAL FOR PROJ NO. 2025CPT.10.23.10601												41,438		2,	2,613			131		41,438 2,613			613							
	GRAND T	IATOI		· ·			4.2	7			332.0	1.000	360	14,599	26,839	2,297	316	600	111	9	9	2	14,599	26,839	2,297	316	600	973.00	973	537
SHARD IOTAL												41,438		2	2,613		131			41,438 2,613		613								