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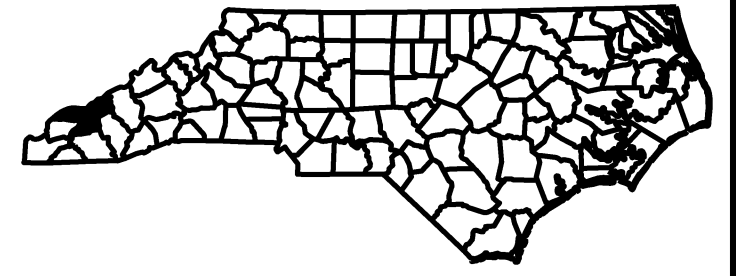
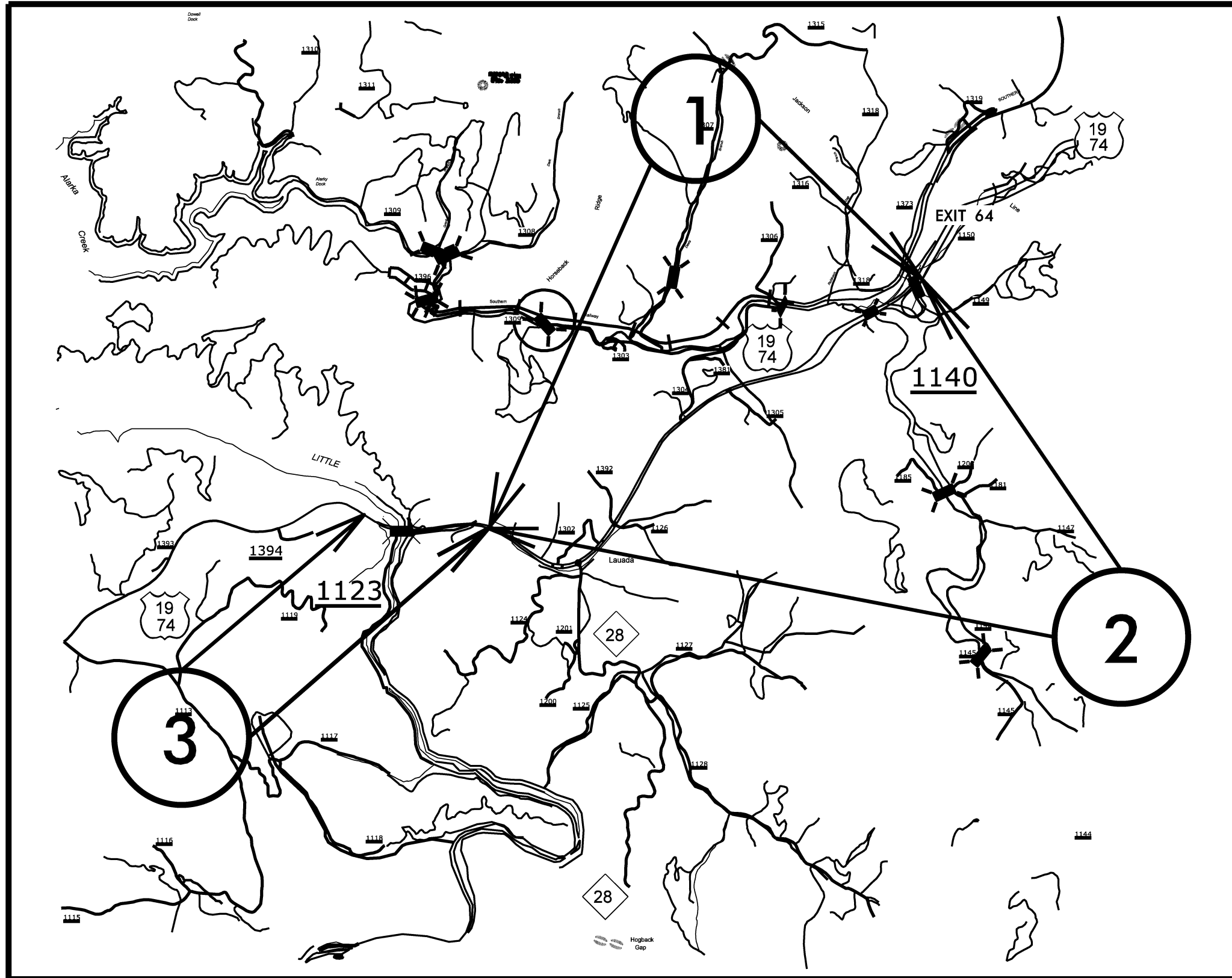
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SWAIN COUNTY

PROJECT REFERENCE NO.		SHEET NO.	
2016CPT.14.02.10871.1		1	
STATE PROJECT	F.A. PROJECT NO.	DESCRIPTION	
2016CPT.14.02.10871.1			

TIP PROJECT: N/A

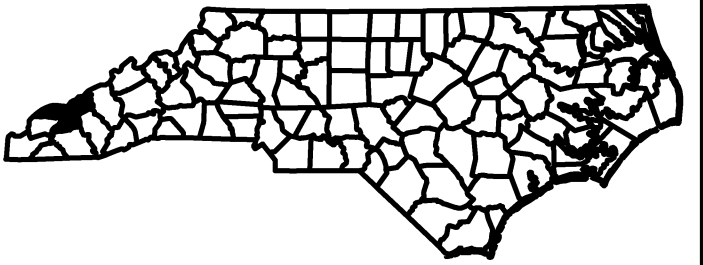
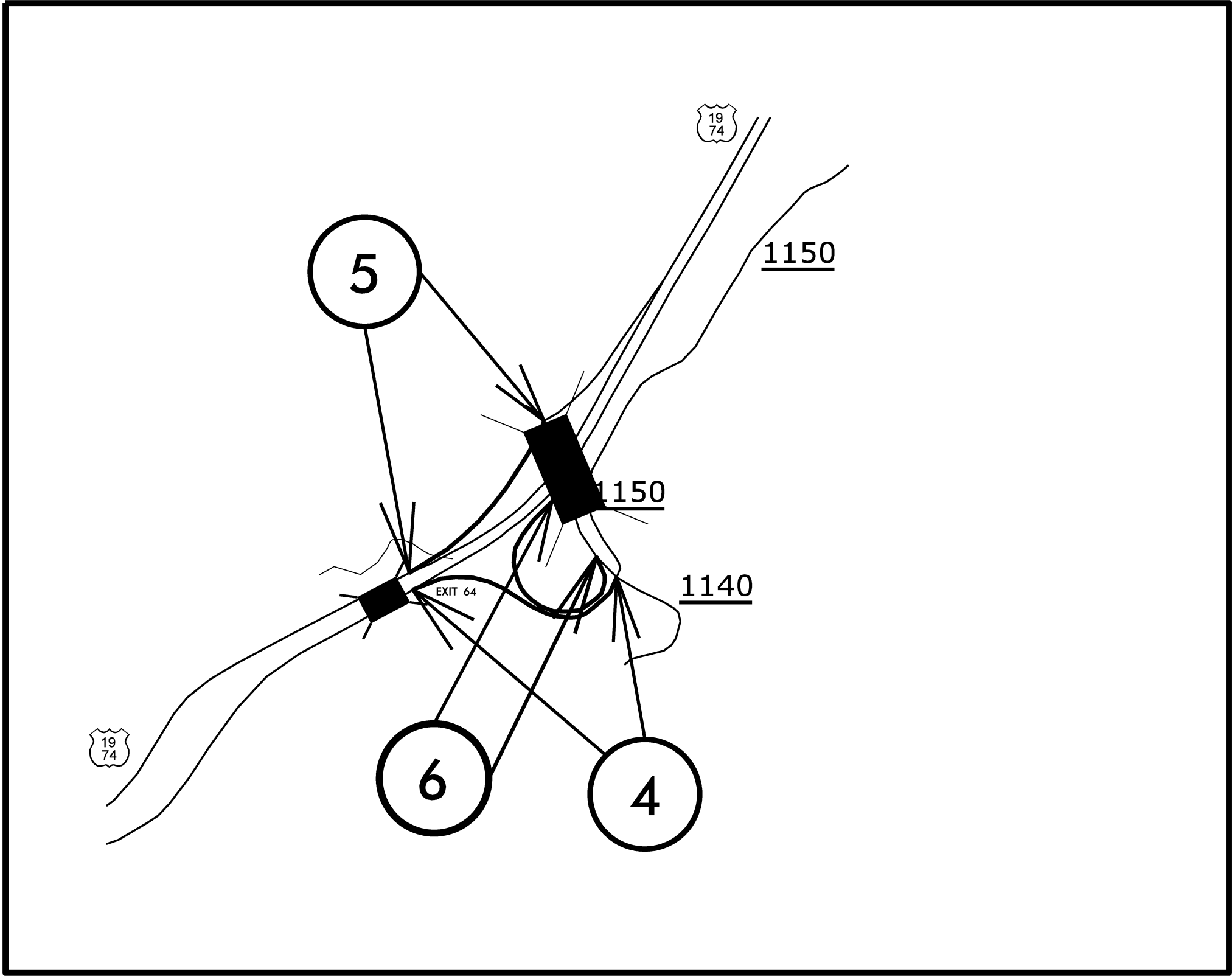
CONTRACT: C203812



TIP PROJECT: N/A

CONTRACT: C203812

PROJECT REFERENCE NO.		SHEET NO.	
2016CPT.14.02.10871.1		2	
STATE PROJECT	F.A. PROJECT NO.	DESCRIPTION	
2016CPT.14.02.10871.1			

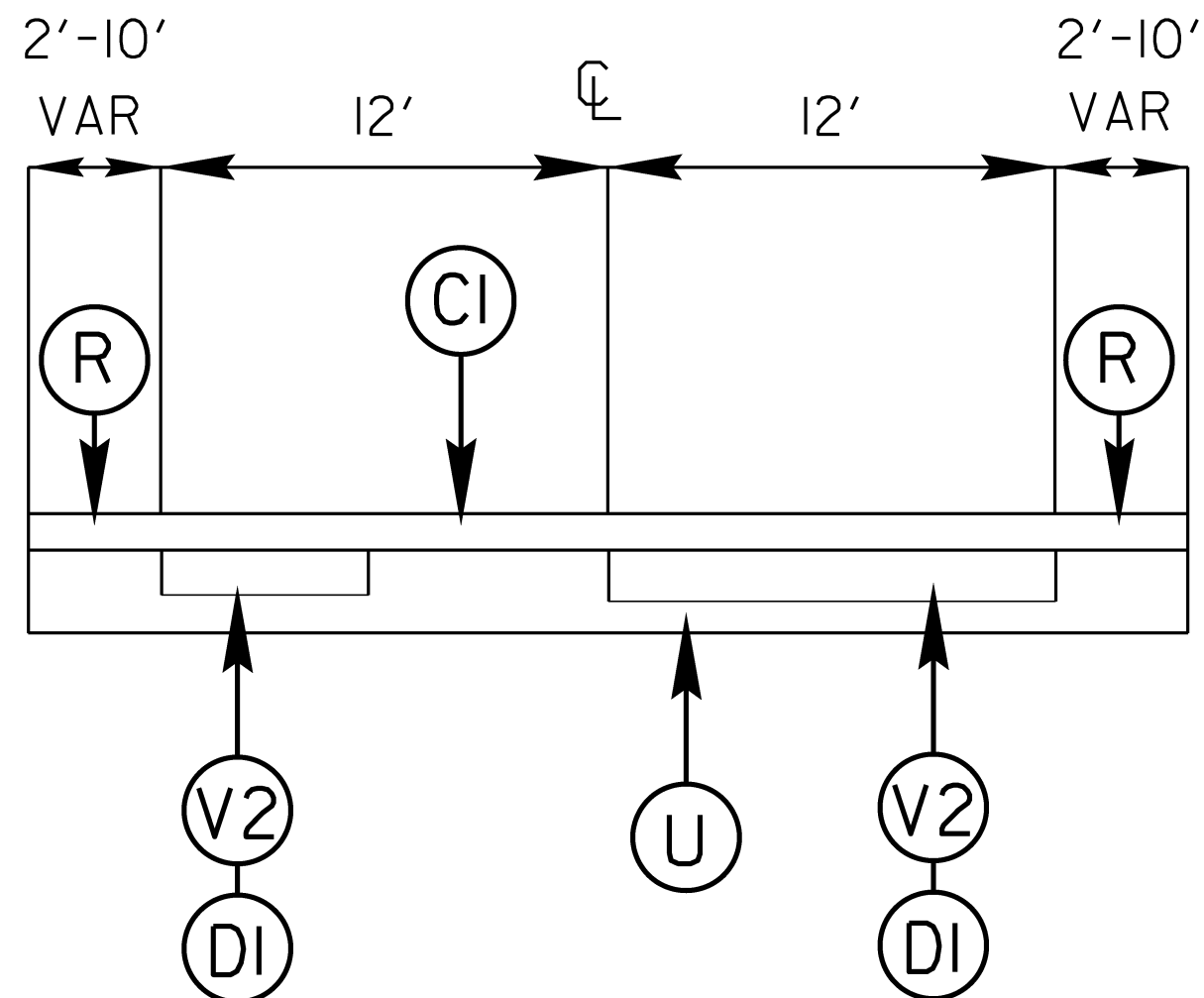


PROJECT REFERENCE NO.		SHEET NO.
14CPT.14.02.10871.1		3
STATE PROJECT	F.A. PROJECT NO.	DESCRIPTION
14CPT.14.02.10871.1		

SURFACING SCHEDULE

ITEM NO	DESCRIPTION
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT A AVERAGE RATE OF 342 LBS PER SQ. YD.
R	MILLED RUMBLE STRIPS
U	EXISTING ASPHALT
V1	MILLED ASPHALT PAVEMENT 1 1/2 " IN DEPTH AT LOCATIONS AS DIRECTED BY PROJECT ENGINEER
V2	MILLED ASPHALT PAVEMENT 3" IN DEPTH AT LOCATIONS AS DIRECTED BY PROJECT ENGINEER

TYPICAL 1



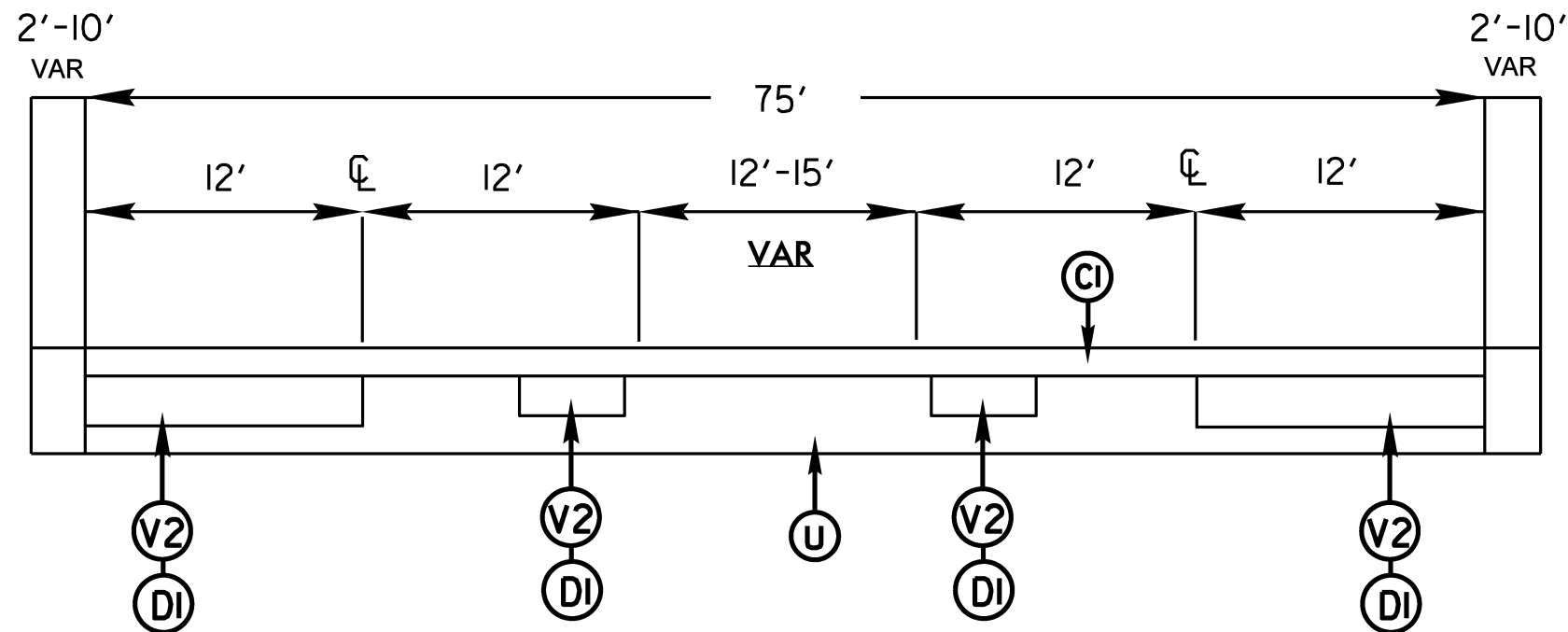
*** SPECIAL PROJECT NOTE ***

THE TAPER ENTRANCES TO WEST ALARKA SCHOOL WILL BE OVERLAID TO RW
 THE TAPER AT FONTANA LAKE ESTATE SUB-DIVISION WILL BE OVERLAID TO EXTRA WIDTH OF 10'
 THE MILLING ON TYPICAL 1 AND 2, INSIDE LANE, IS AT LOCATION OF DISTRESS AND
 AND IS VARIABLE LENGTH AND WIDTH:
 TYPICAL 3 IS MILLING AT LOCATIONS OF DISTRESS, VARIABLE WIDTH AND LENGTH:

PROJECT REFERENCE NO.		SHEET NO.
14CPT.14.02.10871.1		4
STATE PROJECT	F.A. PROJECT NO.	DESCRIPTION
14CPT.14.02.10871.1		

SURFACING SCHEDULE

TYPICAL 2



ITEM NO	DESCRIPTION
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D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.OB, AT A AVERAGE RATE OF 342 LBS PER SQ. YD.
R	MILLED RUMBLE STRIPS
U	EXISTING ASPHALT
V1	MILLED ASPHALT PAVEMENT 1 1/2 " IN DEPTH AT LOCATIONS AS DIRECTED BY PROJECT ENGINEER
V2	MILLED ASPHALT PAVEMENT 3" IN DEPTH AT LOCATIONS AS DIRECTED BY PROJECT ENGINEER

*** SPECIAL PROJECT NOTE ***

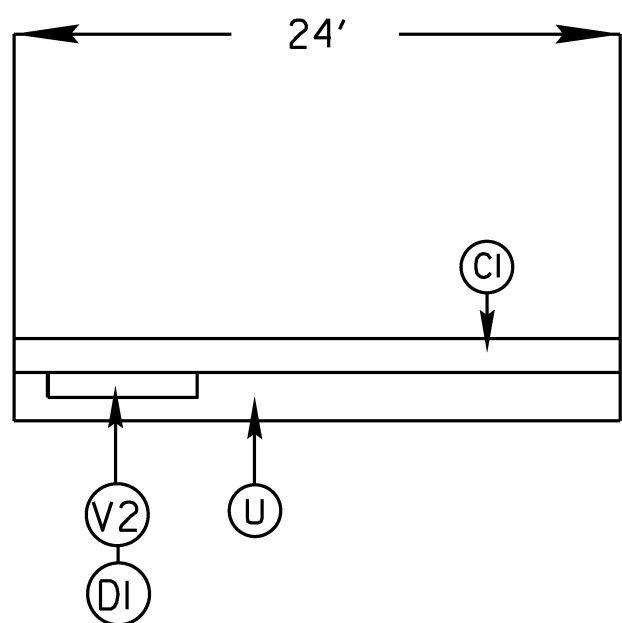
THE TAPER ENTRANCES TO WEST ALARKA SCHOOL WILL BE OVERLAID TO R/W
 THE TAPER AT FONTANA LAKE ESTATE SUB-DIVISION WILL BE OVERLAID TO EXTRA WIDTH OF 10'

THE MILLING ON TYPICAL 1 AND 2, INSIDE LANE, IS AT LOCATION OF DISTRESS AND AND IS VARIABLE LENGTH AND WIDTH:

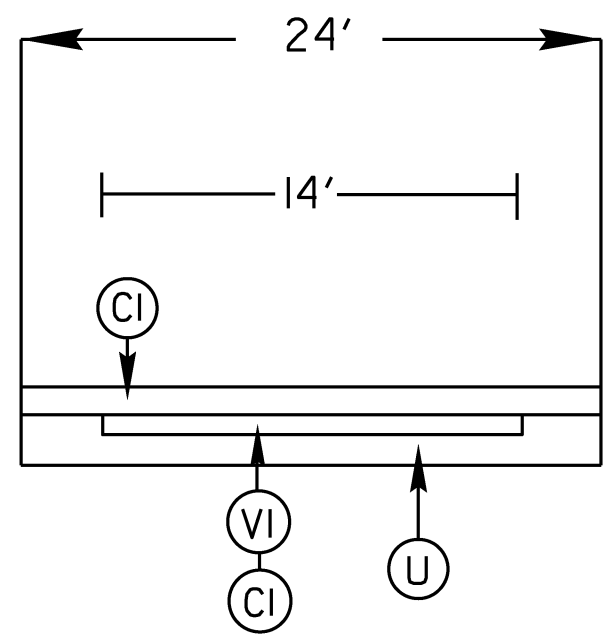
TYPICAL 3 IS MILLING AT LOCATIONS OF DISTRESS, VARIABLE WIDTH AND LENGTH:

PROJECT REFERENCE NO.		SHEET NO.
14CPT.14.02.10871.1		5
STATE PROJECT	F.A. PROJECT NO.	DESCRIPTION
14CPT.14.02.10871.1		

TYPICAL 3



TYPICAL 4

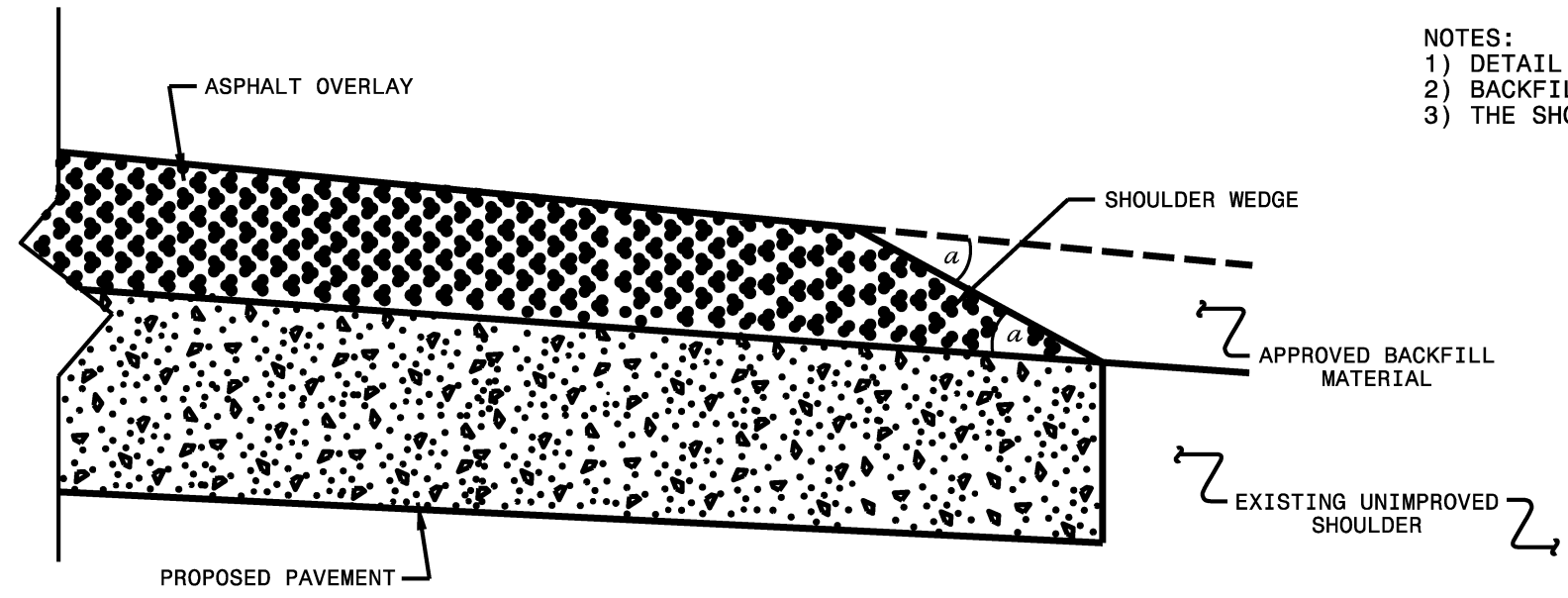


SURFACING SCHEDULE

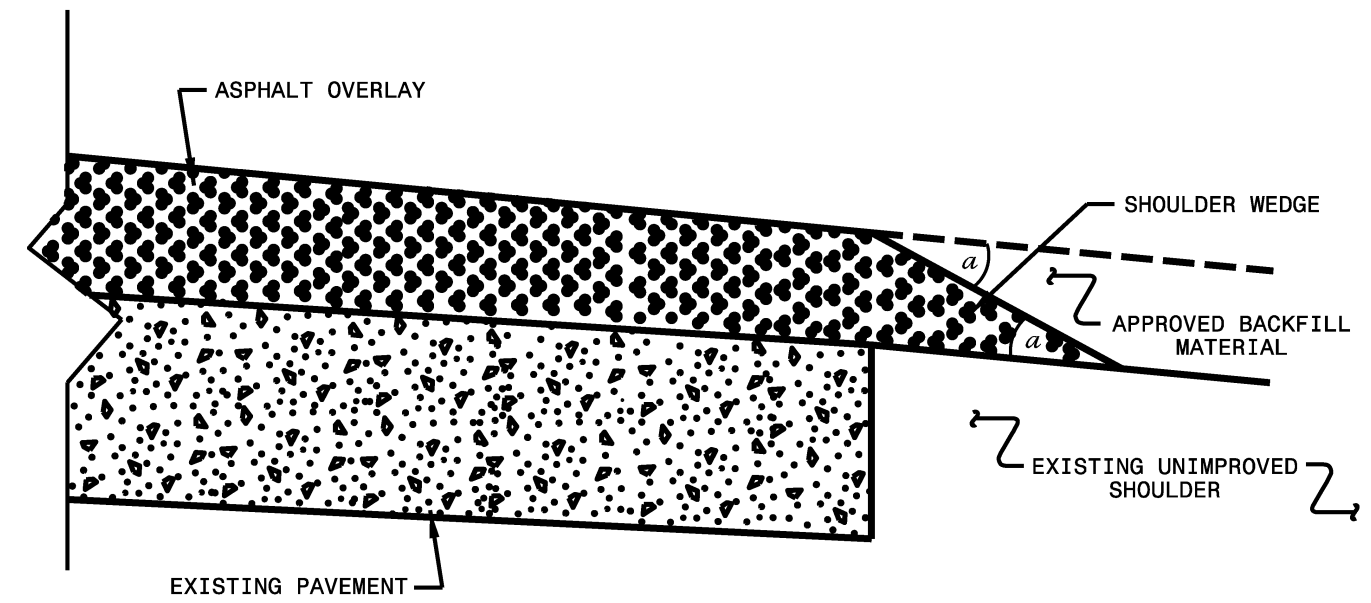
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*** SPECIAL PROJECT NOTE ***
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 THE TAPER AT FONTANA LAKE ESTATE SUB-DIVISION WILL BE OVERLAID TO EXTRA WIDTH OF 10'
 THE MILLING ON TYPICAL 1 AND 2, INSIDE LANE, IS AT LOCATION OF DISTRESS AND
 AND IS VARIABLE LENGTH AND WIDTH:
 TYPICAL 3 IS MILLING AT LOCATIONS OF DISTRESS, VARIABLE WIDTH AND LENGTH:

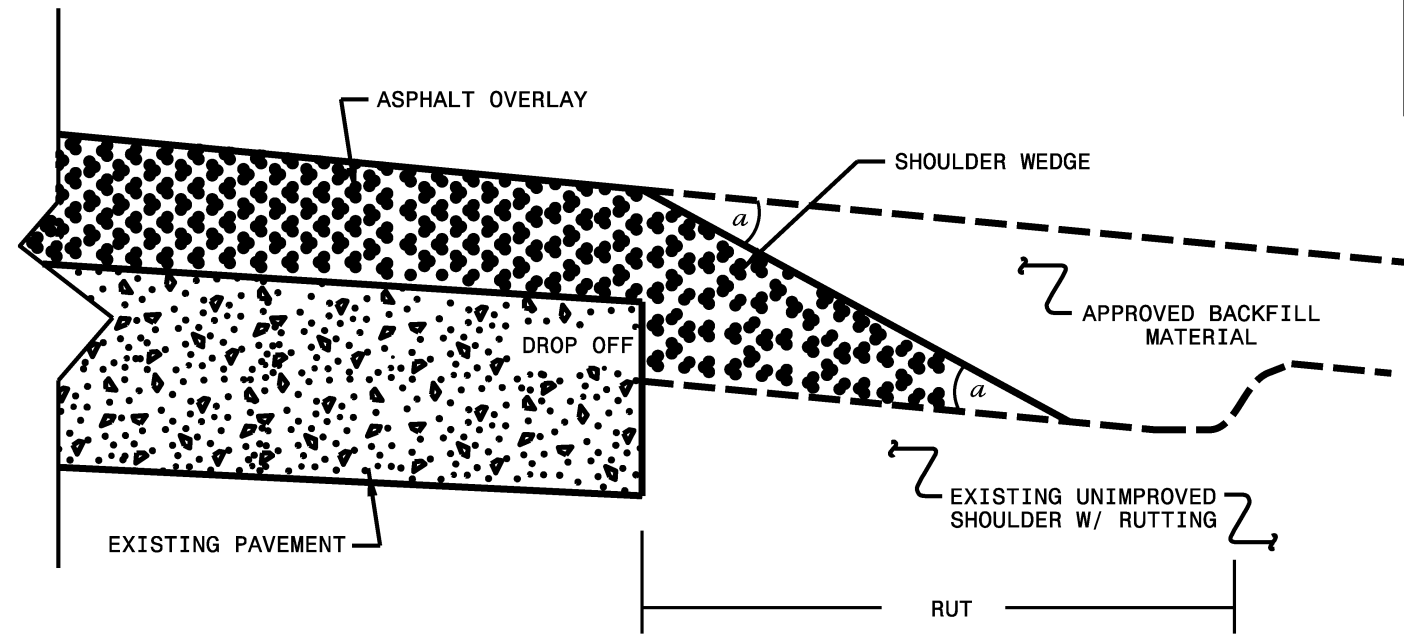
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFC AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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: 10/16/12
CHECKED BY:	DATE:
FILE SPEC: s:\usr\details\stand\shoulderwedgedetail.dwg	

 SYSTEMS
 #####

PROJECT NO.	SHEET NO.	TOTAL NO.
2016CPT.14.02.10871.1	7	

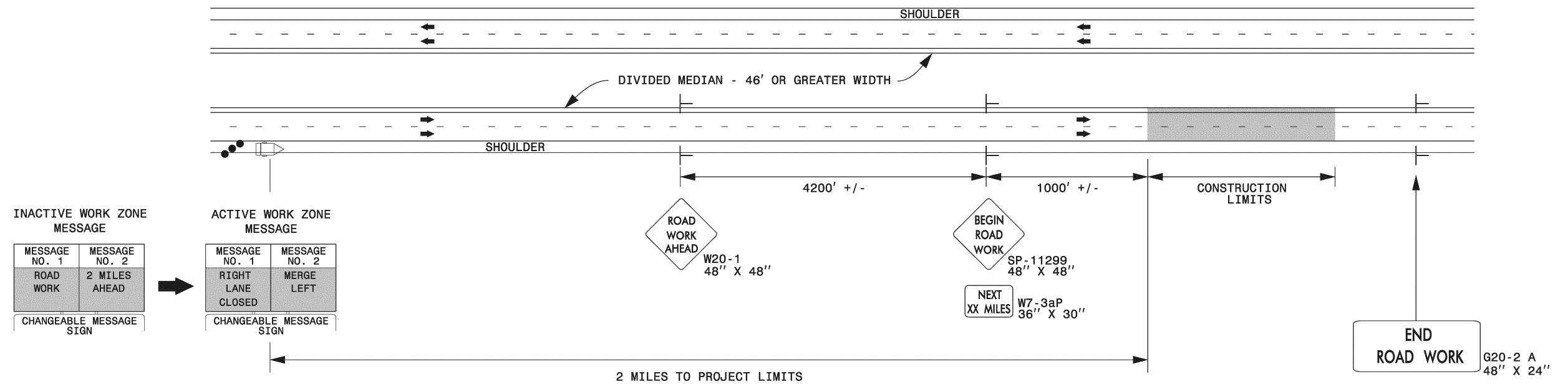
SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	3" MILLING SY	1½" MILLING SY	INCIDENTAL MILLING SY	INTERMEDIATE COURSE, I19.0B TONS	SURFACE COURSE, S9.5B TONS	ASPHALT BINDER FOR PLANT MIX TONS	MILLED RUMBLE STRIPS (ASPHALT CEMENT CONCRETE) LF	ADJ. OF DROP INLET EA
2016CPT.14.02.10871.1	Swain	1	US 74 WEST	FROM BRIDGE #10 TO END DIV HWY	1	2	MD	NO	NO	2.57	28	31,294		100	5,886	4,208	535	27,139	
TOTAL FOR MAP NO. 1										2.57		31,294		100	5,886	4,208	535	27,139	
2016CPT.14.02.10871.1	Swain	2	US 74 EAST	FROM BRIDGE #10 TO END DIV HWY	1	2	MD	NO	NO	2.57	28	30,758		100	5,786	4,156	527	27,139	
TOTAL FOR MAP NO. 2										2.57		30,758		100	5,786	4,156	527	27,139	
2016CPT.14.02.10871.1	Swain	3	US 74	FROM BEGIN DIV HWY TO PVT CHG .01 MILES WEST OF SR-1123	2	5	MU	NO	NO	0.6	75	10,988		500	2,067	2,774	266		11
TOTAL FOR MAP NO. 3										0.6		10,988		500	2,067	2,774	266		11
2016CPT.14.02.10871.1	Swain	4	EXIT 64 RAMP	FROM US 19/74 EAST TO US 19	3	1		NO	NO	0.37	24	1,310			280	484	42		
TOTAL FOR MAP NO. 4										0.37		1,310			280	484	42		
2016CPT.14.02.10871.1	Swain	5	ACCESS RAMP WEST	FROM US 19 TO US 19/74 WEST	3	1		NO	NO	0.43	24	1,815			342	552	50		
TOTAL FOR MAP NO. 5										0.43		1,815			342	552	50		
2016CPT.14.02.10871.1	Swain	6	ACCESS RAMP EAST	FROM US 19 TO US 74 EAST	4	1		NO	NO	0.27	24		2,534			897	54		
TOTAL FOR MAP NO. 6										0.27			2,534			897	54		
TOTAL FOR PROJ NO. 2016CPT.14.02.10871.1										6.81		76,165	2,534	700	14,361	13,071	1,474	54,278	11
GRAND TOTAL										6.81		76,165	2,534	700	14,361	13,071	1,474	54,278	11

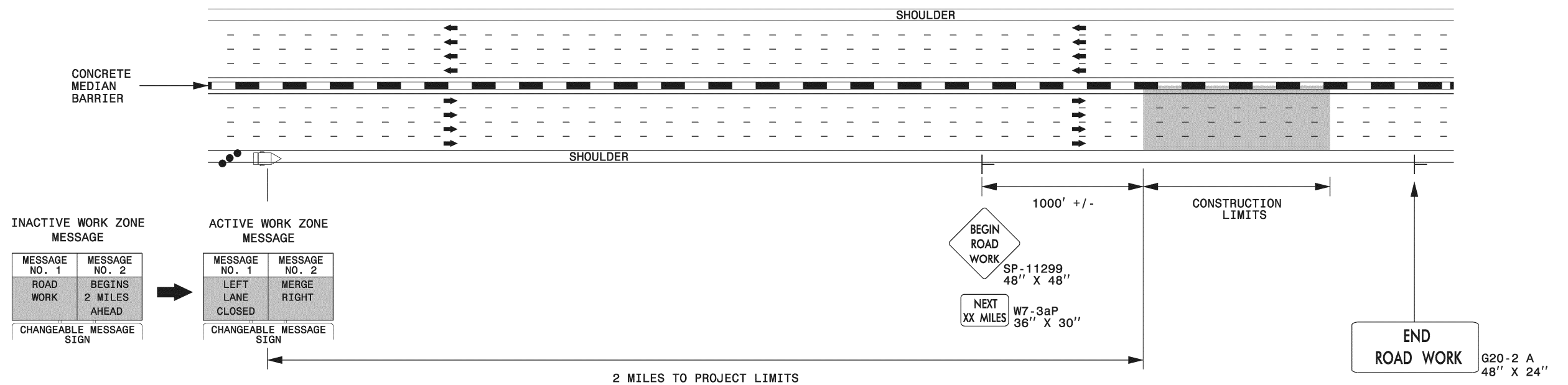
THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4697000000-E	4710000000-E	4721000000-E	4725000000-E		4810000000-E	4891000000-E		4905000000-N
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING SF	TEMPORARY TRAFFIC CONTROL LS	8" X 120 M WHITE THERMO LF	24" X 120 M WHITE THERMO LF	THERMO MSG SCHOOL 120 M EA	THERMO LT ARROW 90 M EA	THERMO RT ARROW 90 M EA	4" WHITE PAINT LF	GENERIC PAVEMENT MARKING ITEM (50 MIL 4" YELLOW THERMOPLASTIC) LF	GENERIC PAVEMENT MARKING ITEM (50 MIL 4" WHITE THERMOPLASTIC) LF	SNOW PLOWABLE MARKERS EA
2016CPT.14.02.10871.1	Swain	1	US 74 WEST	FROM BRIDGE #10 TO END DIV HWY	1	2	MD	2.57	28	292.0	1	1,028	250	6	13	6	6,785	14,084	20,568	245
TOTAL FOR MAP NO. 1										2.57	1	1,028	250	6	13	6	6,785	14,084	20,568	245
2016CPT.14.02.10871.1	Swain	2	US 74 EAST	FROM BRIDGE #10 TO END DIV HWY	1	2	MD	2.57	28	292.0		1,028	250	6	15	2	6,785	14,084	20,568	245
TOTAL FOR MAP NO. 2										2.57		1,028	250	6	15	2	6,785	14,084	20,568	245
2016CPT.14.02.10871.1	Swain	3	US 74	FROM BEGIN DIV HWY TO PVT CHG .01 MILES WEST OF SR-1123	2	5	MU	0.6	75	67.0			80		2		3,168	7,920	8,160	94
TOTAL FOR MAP NO. 3										0.6			80		2		3,168	7,920	8,160	94
2016CPT.14.02.10871.1	Swain	4	EXIT 64 RAMP	FROM US 19/74 EAST TO US 19	3	1		0.37	24									2,442	3,981	
TOTAL FOR MAP NO. 4										0.37								2,442	3,981	
2016CPT.14.02.10871.1	Swain	5	ACCESS RAMP WEST	FROM US 19 TO US 19/74 WEST	3	1		0.43	24	24.0								2,838	4,627	40
TOTAL FOR MAP NO. 5										0.43								2,838	4,627	40
2016CPT.14.02.10871.1	Swain	6	ACCESS RAMP EAST	FROM US 19 TO US 74 EAST	4	1		0.27	24	24.0								1,785	2,905	40
TOTAL FOR MAP NO. 6										0.27								1,785	2,905	40
TOTAL FOR PROJ NO. 2016CPT.14.02.10871.1										6.81	1	2,056	580	12	30	8	16,738	43,153	60,809	664
GRAND TOTAL										6.81	1	2,056	580	12	30	8	16,738	43,153	60,809	664
															38			103,962		

DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER



DIVIDED MEDIANS WITH WIDTHS LESS THAN 46' OR WITH PERMANENT MEDIAN BARRIER

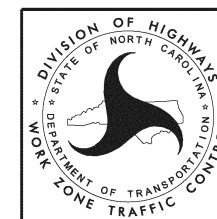


NOTES:

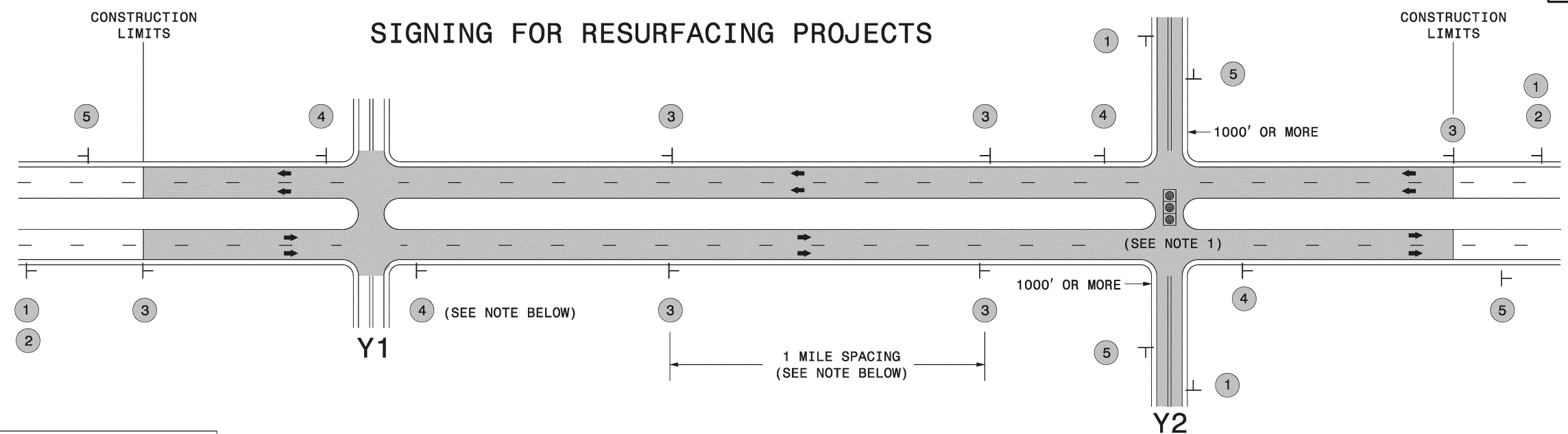
- 1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6' AS MEASURED FROM THE EDGE OF PAVEMENT.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
- 3) FOR MEDIAN WIDTHS LESS THAN 46' (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
- 4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
- 5) INSTALL "ROAD WORK AHEAD" (W20-1) ALONG ENTRANCE RAMP 500' PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMP WITHIN THE WORK ZONE.
- 6) 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 AND WITH DIVIDED MEDIANS OF 46' OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND

- CHANGEABLE MESSAGE SIGN (CMS)
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW
- TRAFFIC DRUM



**RESURFACING ADVANCE
WARNING SIGNS FOR
HIGH SPEED FACILITIES
≥ 60 MPH**



LEGEND
 ┆ STATIONARY SIGN
 ← DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1	 W20-1 48" X 48"	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.
	2	 W7-3aP 24" X 18"	#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)
	3	 SP 13107 48" X 48"	PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.
	4	 SP 13106 48" X 48"	THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.
	5	 G20-2 A 48" X 24"	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.

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.

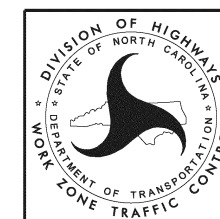
W20-1
 48" X 48"

W20-7 A
 48" X 48"

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

NOTES:

- 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**