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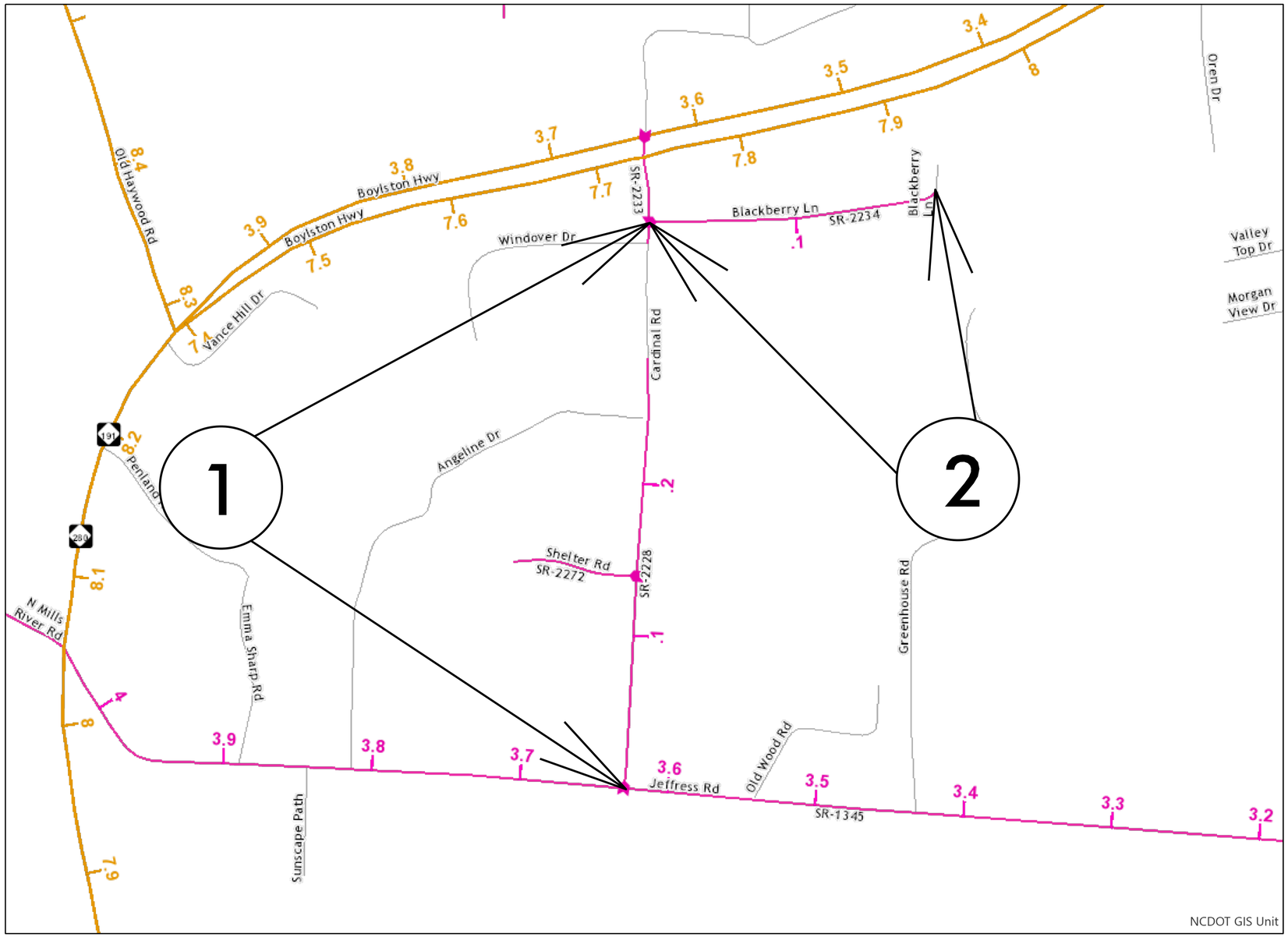
09/08/99

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	2023CPT.14.08.20451	1	12

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

HENDERSON COUNTY



MAP 1

BEG END

MAP 2

BEG END

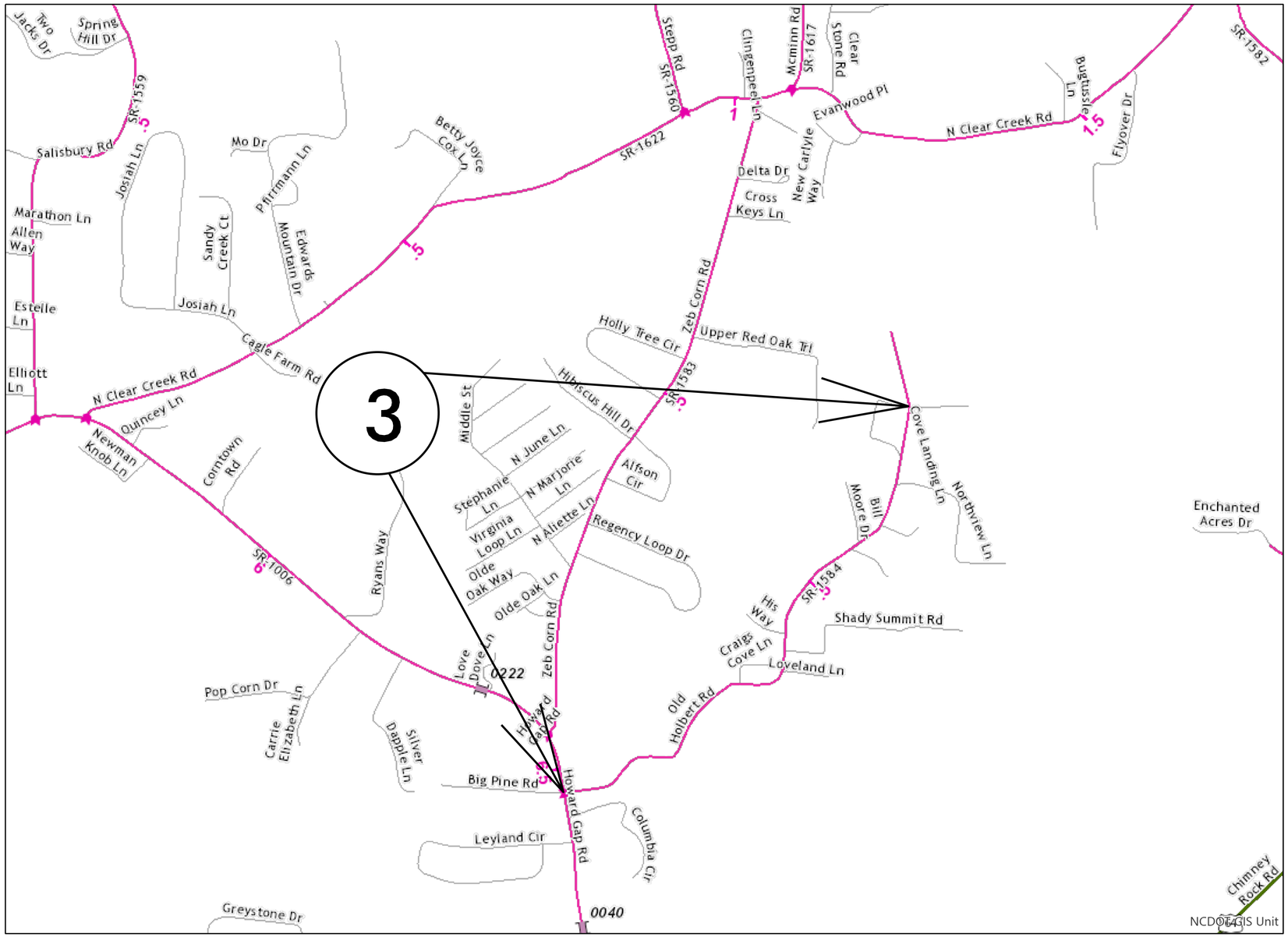
CONTRACT: DN01015

09/08/99

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	2023CPT.14.08.20451	2	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

HENDERSON COUNTY



MAP 3

BEG END

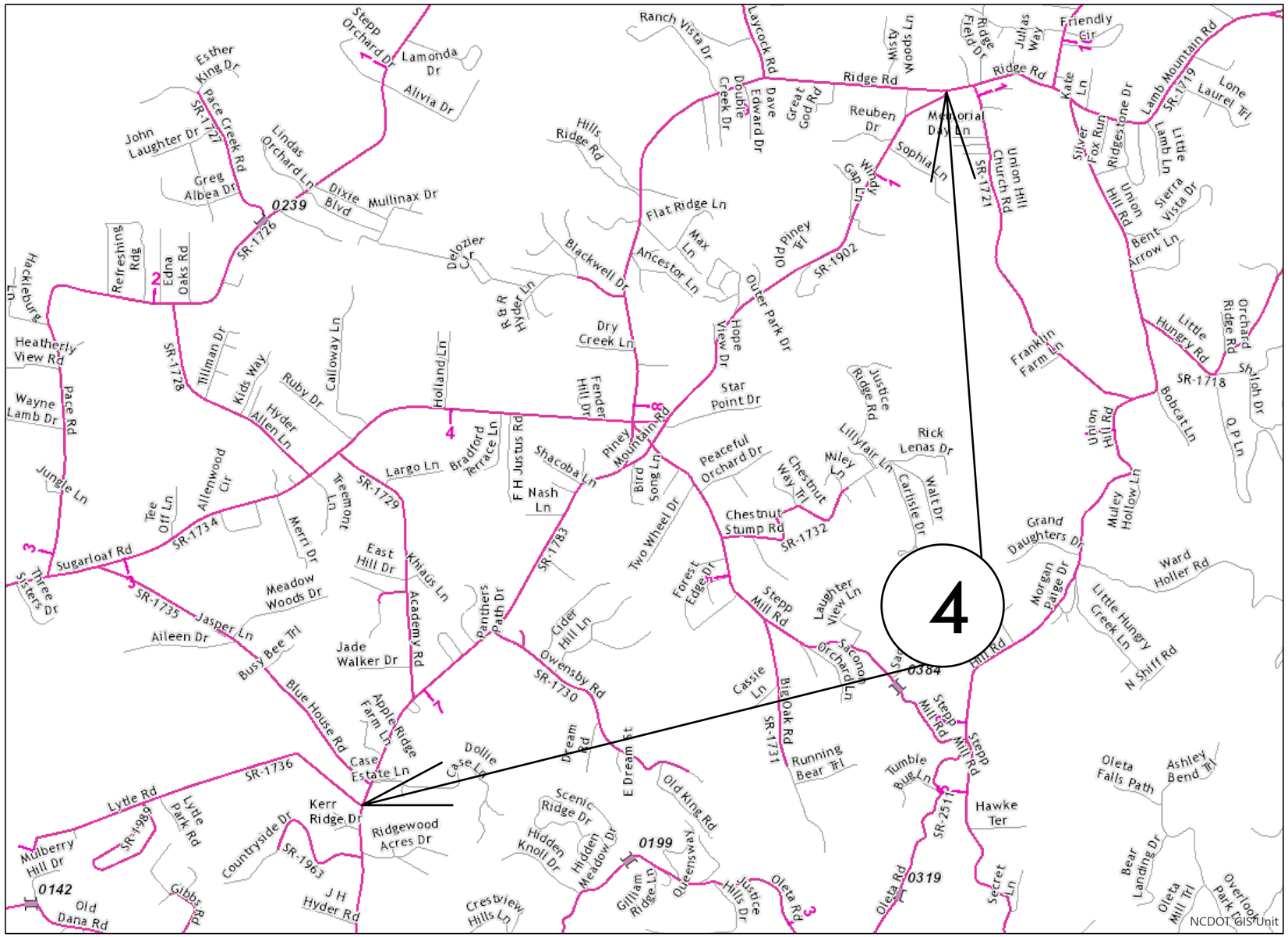
CONTRACT: DN01015

09/08/99

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	2023CPT.14.08.20451	3	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

HENDERSON COUNTY



MAP 4

BEG

END

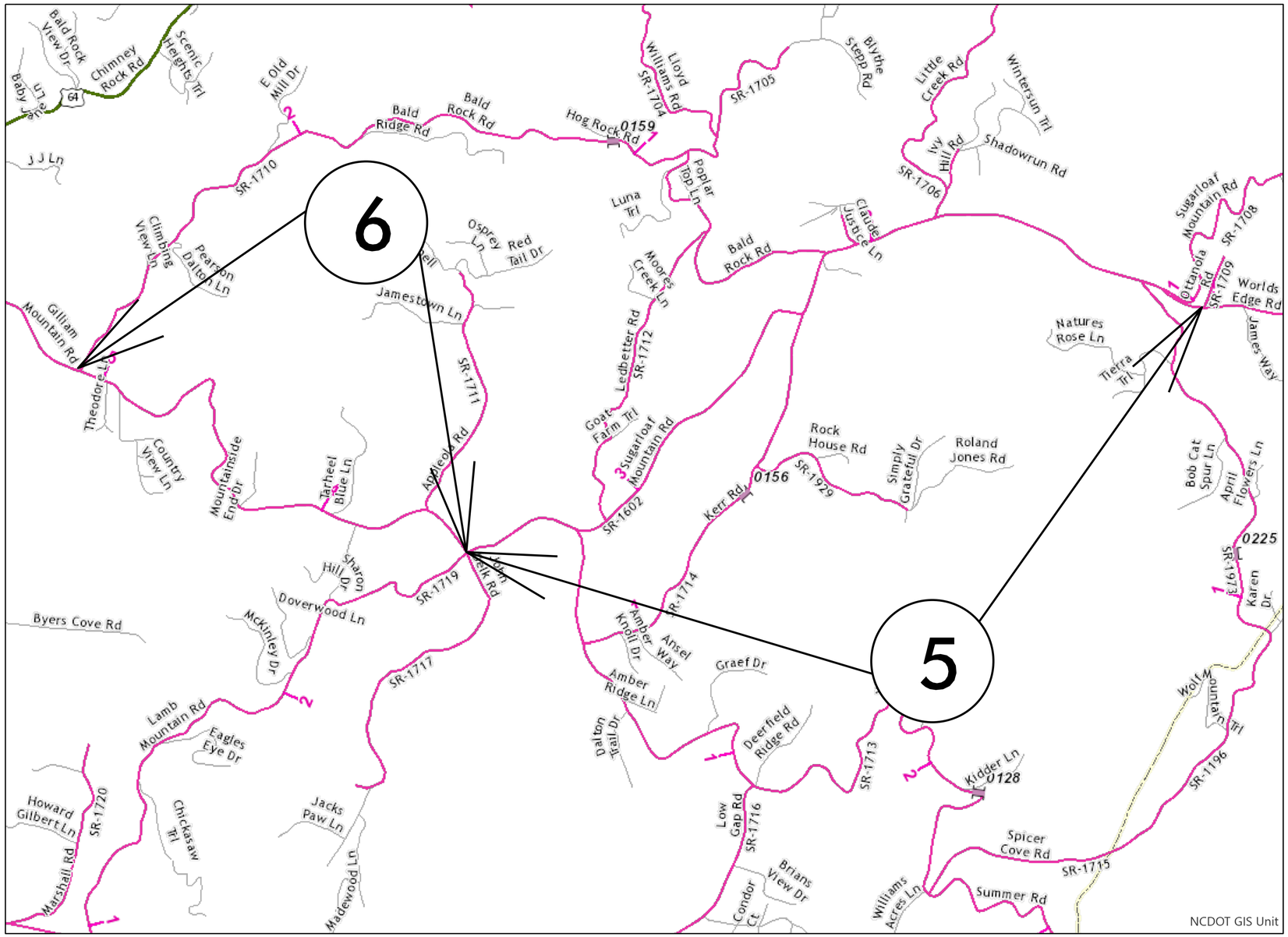
CONTRACT: DN01015

09/08/99

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	2023CPT.14.08.20451	4	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

HENDERSON COUNTY



MAP 5

BEG END

MAP 6

BEG END

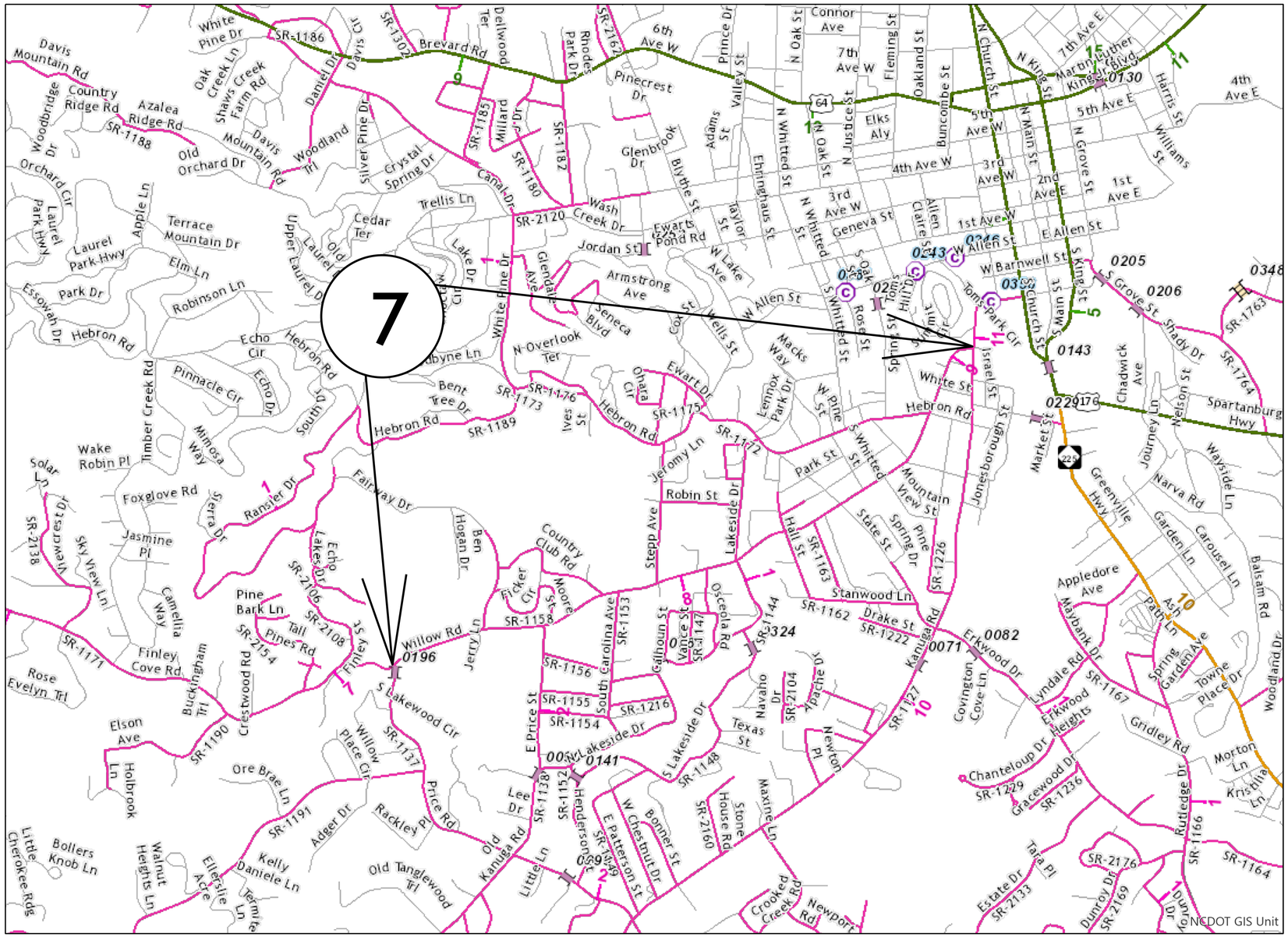
CONTRACT: DN01015

09/08/99

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	2023CPT.14.08.20451	5	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

HENDERSON COUNTY



MAP 7

BEG END

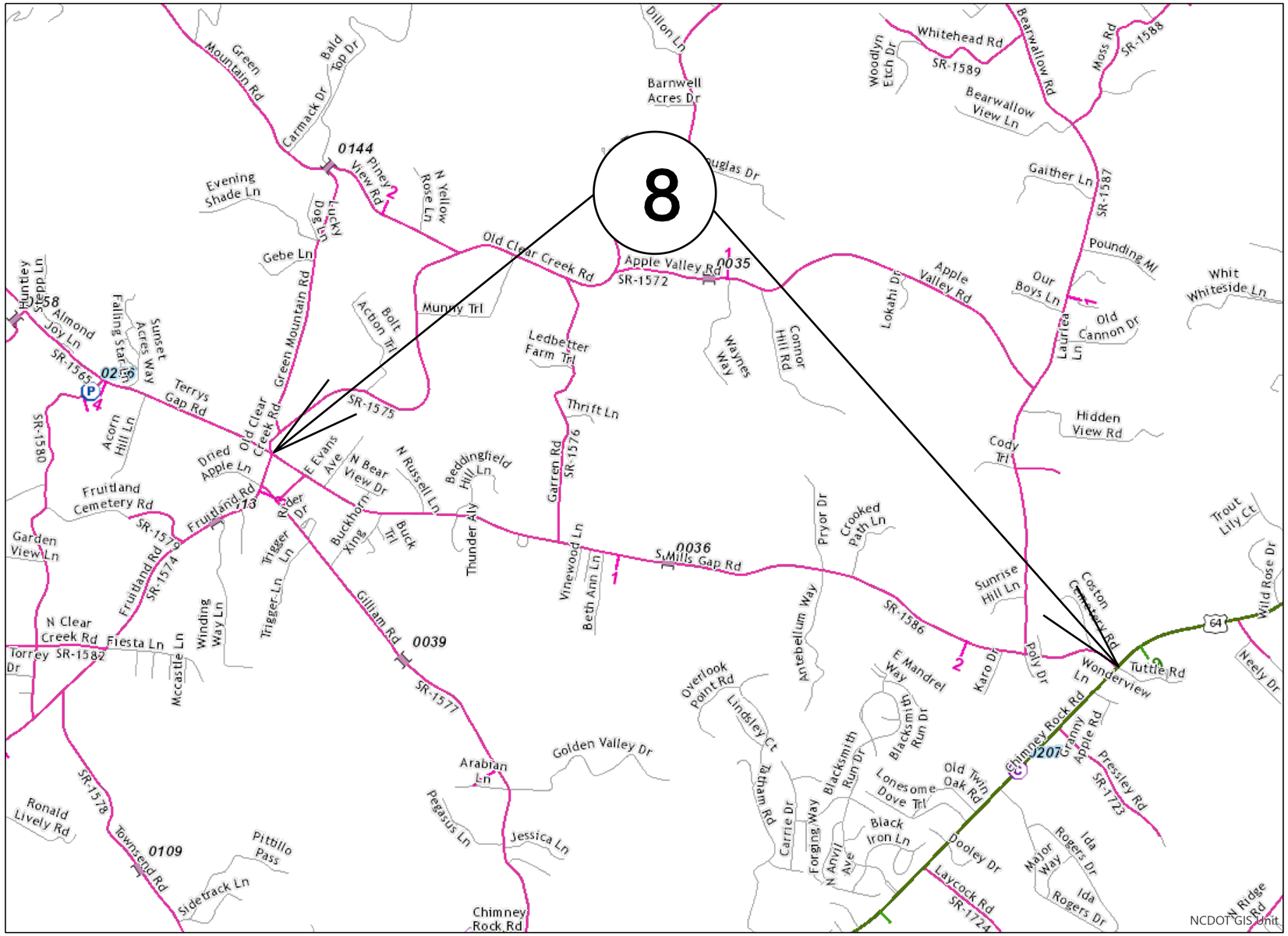
CONTRACT: DN01015

09/08/99

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	2023CPT.14.08.20451	6	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

HENDERSON COUNTY



MAP 8

BEG

END

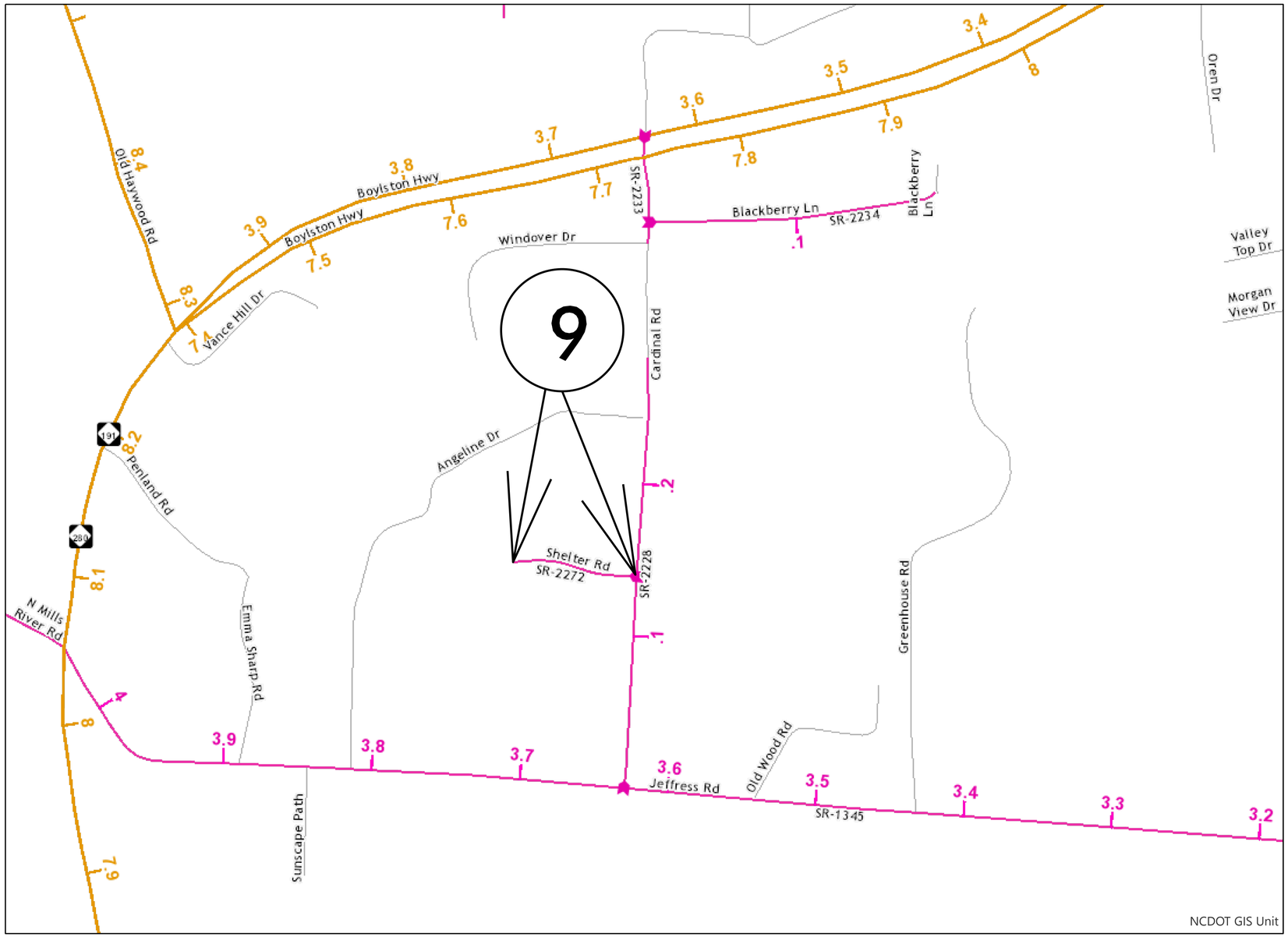
CONTRACT: DN01015

09/08/99

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	2023CPT.14.08.20451	7	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

HENDERSON COUNTY



MAP 9

BEG

END

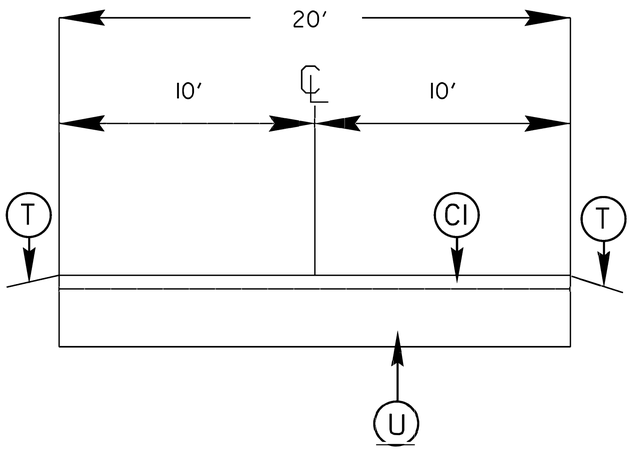
CONTRACT: DN01015

09/08/99

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	2023CPT.14.08.20451	8	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

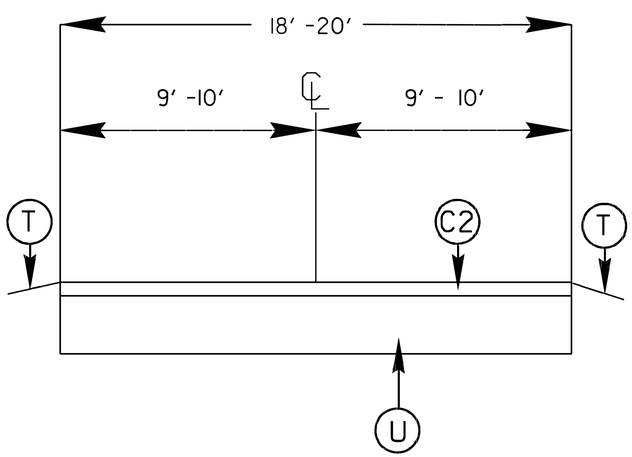
TYPICAL 1



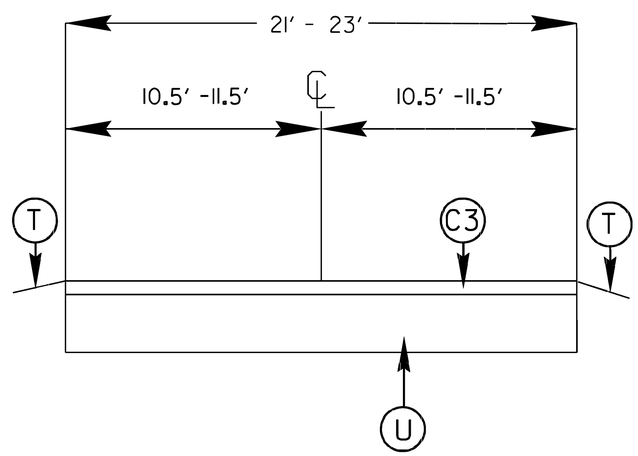
SURFACING SCHEDULE

C1	PROP. APPROX. 1 1/4″ ASPHALT CONCRETE SURFACE COURSE, (LEVELING) TYPE S9.5B, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C2	PROP. APPROX. 1″ ASPHALT CONCRETE SURFACE COURSE, (LEVELING) TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. IN EACH OF TWO
C3	PROP. APPROX. 1 1/4″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 140 LBS. PER SQ. YD.
C4	PROP. APPROX. 1 1/2″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLED ASPHALT PAVEMENT 1 1/2″ IN DEPTH IN DISTRESSED AREAS AS DIRECTED BY PROJECT ENGINEER

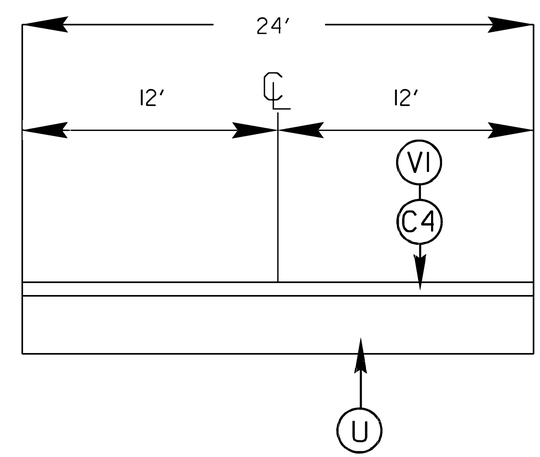
TYPICAL 2



TYPICAL 3



TYPICAL 4



CONTRACT: DN01015

PROJECT NO.	SHEET NO.	TOTAL NO.
2023CPT.14.08.20451	9	

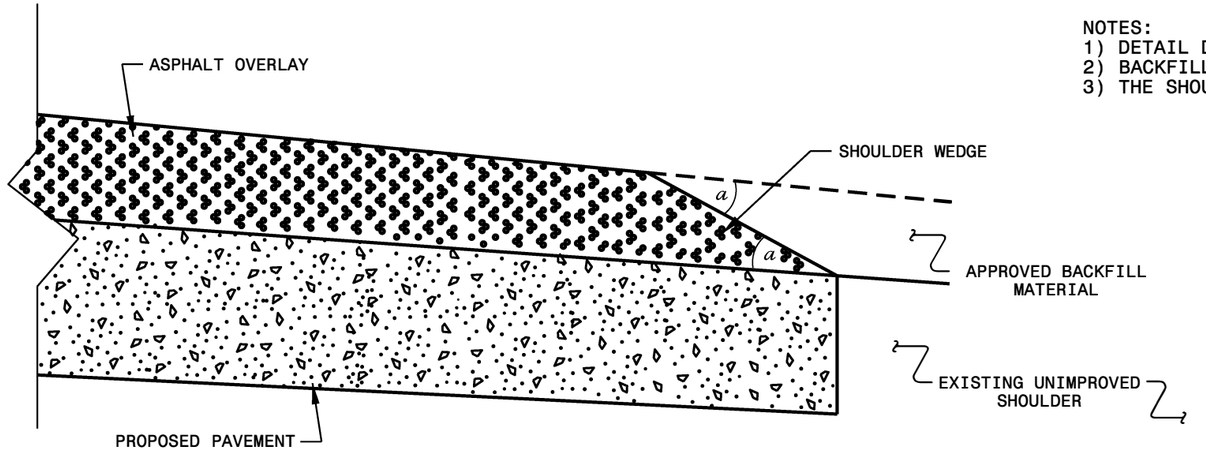
Bridge Table

Map #	Route No.	Road Name	Structure No.	Posted SV (Tons)	Posted TTST (Tons)	Bridge Milling	Bridge Approach Milling	Pave Across Bridge
*8	SR 1586	S. MILLS GAP	36	21	28	No	No	Yes

* Repairs and Shoring Will Be Completed By State Forces. Notify Project Engineer 14 days prior to beginning Work

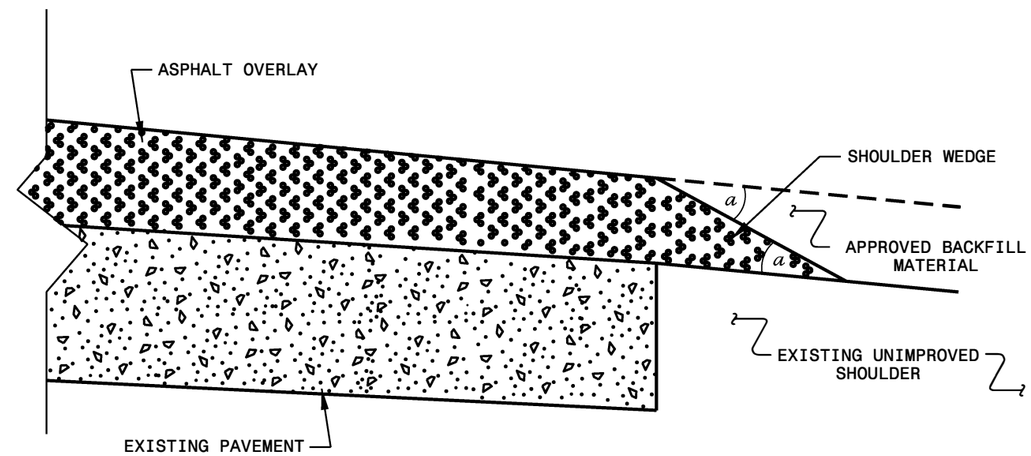
PROJECT REFERENCE NO.	SHEET NO.
2023CPT.14.08.20451	10

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.



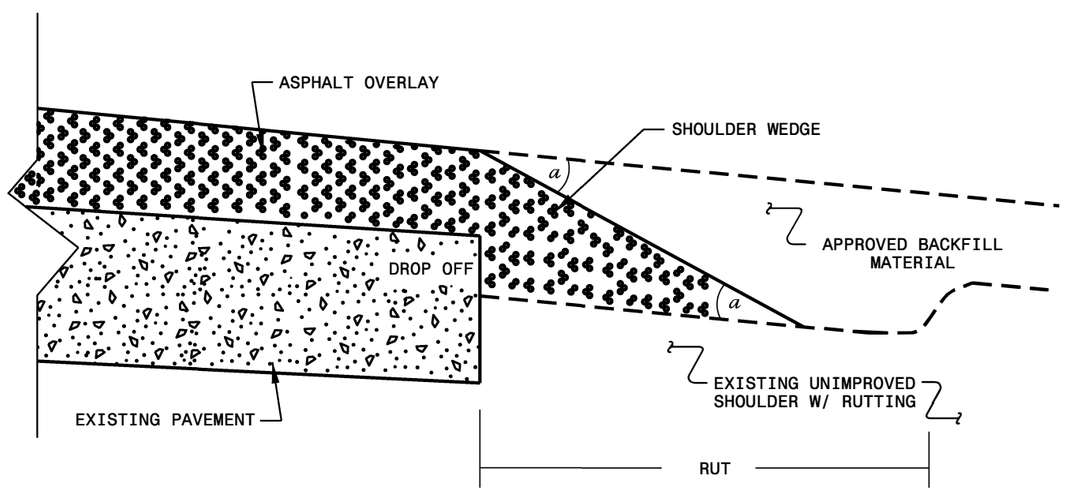
SHOULDER WEDGE DETAIL

(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/det_ails/stand/shoulderwed_edetail.dgn		

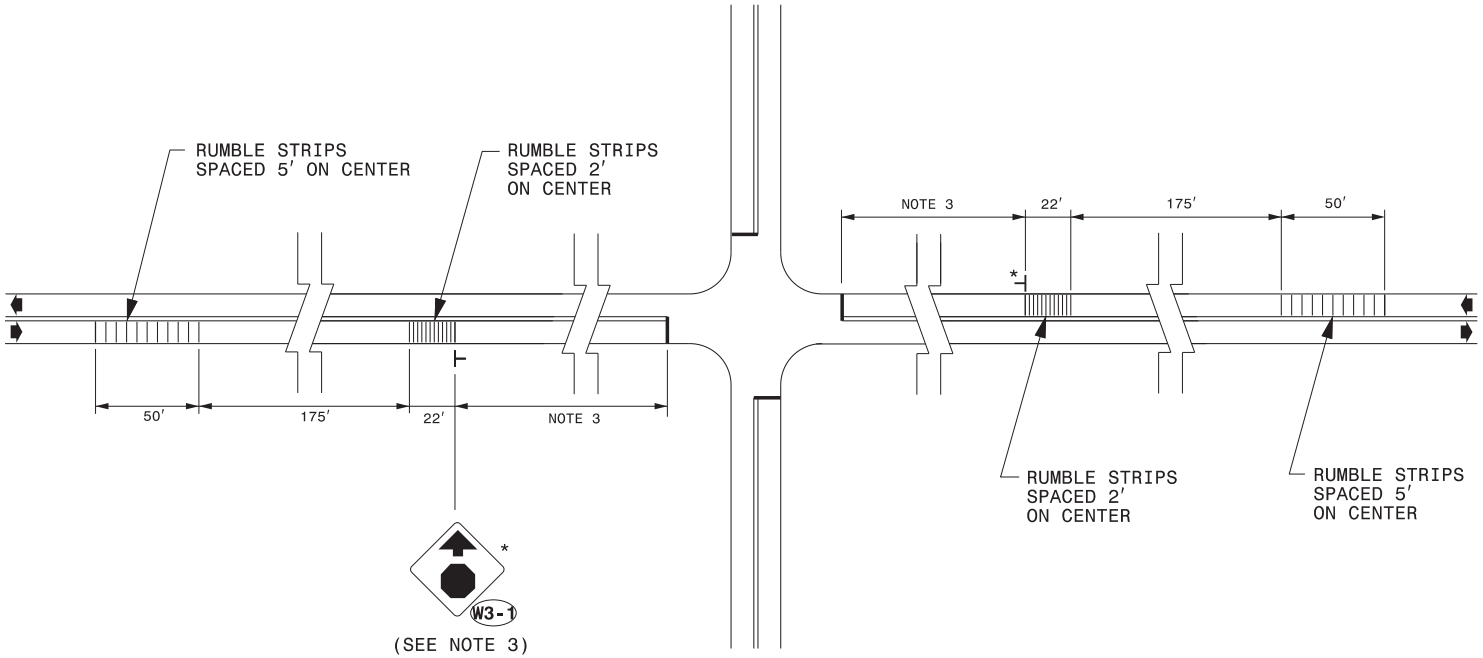
$$$$$$SYSTIME$$$$$$
$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

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

11-13

ENGLISH DETAIL DRAWING FOR

TWO-LANE, TWO-WAY THERMOPLASTIC
RUMBLE STRIPS WITH EXISTING SIGNING



GENERAL NOTES:

1- ALL RUMBLE STRIPS SHALL BE CENTERED IN THE LANE AND SHALL BE 2 FEET LESS THAN THE WIDTH OF THE TRAVEL LANE

2- RUMBLE STRIPS SHALL BE PLACED USING 4″ x 240 MIL WHITE THERMOPLASTIC PAVEMENT MARKING MATERIAL.

3- PLACEMENT OF FIRST SET OF RUMBLE STRIPS CLOSEST TO THE STOP BAR SHALL BE LOCATED IN CONJUNCTION WITH EXISTING STOP-AHEAD (W3-1) SIGN. FOR SECOND SET, FOLLOW DISTANCE AS SHOWN ABOVE.

SHEET 1 OF 1

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

11-13

ENGLISH DETAIL DRAWING FOR

TWO-LANE, TWO-WAY THERMOPLASTIC
RUMBLE STRIPS WITH EXISTING SIGNING

SHEET 1 OF 1

NOVEMBER 21, 2013

PROJECT NO.	SHEET NO.	TOTAL NO.
2023CPT.14.08.20451	10	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	0264000000-E SHOULDER RECONSTRUCTION	1297000000-E 1½" MILLING	1330000000-E INCIDENTAL MILLING	1520000000-E LEVELING COURSE, S9.5B	1523000000-E SURFACE COURSE, S9.5C	1575000000-E ASPHALT BINDER FOR PLANT MIX	1704000000-E PATCHING EXISTING PAVEMENT	2815000000-N ADJ. OF DROP INLET	2830000000-N ADJ. OF MANHOLES	2845000000-N ADJ. OF METER OR VALVE BOX	7456000000-E LEAD-IN CABLE (14-2)
										MI	FT	SMI	SY	SY	TONS	TONS	TONS	TONS	EA	EA	EA	LF
2023CPT.14.08.20451	Henderson	1	SR-2228 / CARDINAL RD	CARDINAL RD	1	2	2WU	NO	NO	0.4	20	0.80			428		55	552				
TOTAL FOR MAP NO. 1										**0.4**		**0.80**			**428**		**55**	**552**				
2023CPT.14.08.20451	Henderson	2	SR-2234 / BLACKBERRY LN	FROM SR 2233 TO EOM	2	2	2WU	NO	NO	0.21	18	0.42			166		20	189				
TOTAL FOR MAP NO. 2										**0.21**		**0.42**			**166**		**20**	**189**				
2023CPT.14.08.20451	Henderson	3	SR-1584 / OLD HOLBERT RD	FROM SR 1006 TO EOM	2	2	2WU	NO	NO	0.79	20	1.58			669		75	623				
TOTAL FOR MAP NO. 3										**0.79**		**1.58**			**669**		**75**	**623**				
2023CPT.14.08.20451	Henderson	4	SR-1783 / RIDGE RD	FROM SR 1736 TO SR 1902	3	2	2WU	NO	NO	2.92	23	2.92		240		3,215	203	220				
TOTAL FOR MAP NO. 4										**2.92**		**2.92**		**240**		**3,215**	**203**	**220**				
2023CPT.14.08.20451	Henderson	5	SR-1602 /SUGAR LOAF	SR 1709 TO SR 1717	3	2	2WU	NO	NO	2.51	21	0.25		625		1,778	112	113				
TOTAL FOR MAP NO. 5										**2.51**		**0.25**		**625**		**1,778**	**112**	**113**				
2023CPT.14.08.20451	Henderson	6	SR-1602 / GILLIAM MTN RD	FROM SR 1717 TO SR 1710	3	2	2WU	NO	NO	1.53	22	0.25		125		1,637	110	239				
TOTAL FOR MAP NO. 6										**1.53**		**0.25**		**125**		**1,637**	**110**	**239**				
2023CPT.14.08.20451	Henderson	7	SR-1171 / WILLOW RD	FROM SR 1137 TO SR 1127	4	2	2WU	NO	NO	1.86	24		26,190			2,488	154	101	10	23	23	250
TOTAL FOR MAP NO. 7										**1.86**			**26,190**			**2,488**	**154**	**101**	**10**	**23**	**23**	**250**
2023CPT.14.08.20451	Henderson	8	SR-1586 / S MILLS GAP RD	FROM SR 1574 TO US 64	2	2	2WU	NO	NO	2.43	20	4.86			2,116		145	72				
TOTAL FOR MAP NO. 8										**2.43**		**4.86**			**2,116**		**145**	**72**				
2023CPT.14.08.20451	Henderson	9	SR-2272 / SHELTER RD	FROM SR 2278 TO EOM	2	2	2WU	NO	NO	0.08	18				71		5					
TOTAL FOR MAP NO. 9										**0.08**					**71**		**5**					
TOTAL FOR PROJ NO. 2023CPT.14.08.20451										**12.73**		**11.08**	**26,190**	**990**	**3,450**	**9,118**	**879**	**2,109**	**10**	**23**	**23**	**250**
GRAND TOTAL										**12.73**		**11.08**	**26,190**	**990**	**3,450**	**9,118**	**879**	**2,109**	**10**	**23**	**23**	**250**

PROJECT NO.	SHEET NO.	TOTAL NO.
2023CPT.14.08.20451	12	

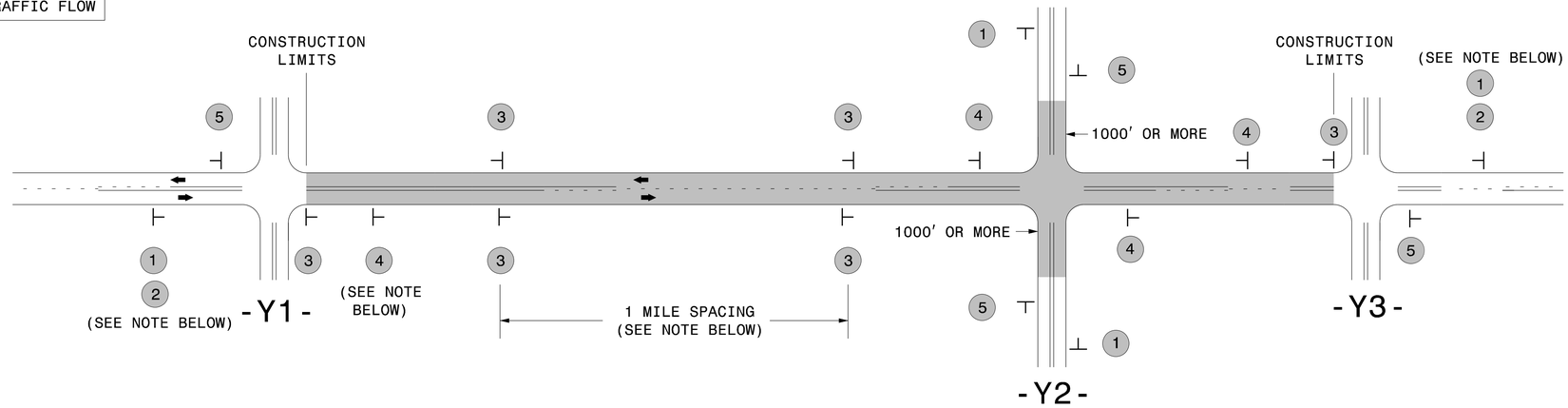
THERMOPLASTIC AND PAINT QUANTITIES

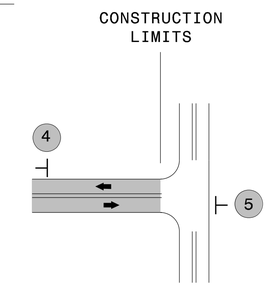
										4413000000-E	4457000000-N	4685000000-E		4687000000-E	4709000000-E	4720000000-E	4810000000-E		4850000000-E	4905100000-N
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	THERMOPLASTIC PAVEMENT MARKING LINES (4", 240 MILS)	THERMOPLASTIC PAVEMENT MARKING LINES (24", 90 MILS)	THERMOPLASTIC PAVEMENT MARKING CHARACTER (90 MILS)	4" WHITE PAINT	4" YELLOW PAINT	4" LINE REMOVAL	NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKER
								MI	FT	SF	LS	LF	LF	LF	LF	EA	LF	LF	LF	EA
2023CPT.14.08.20451	Henderson	1	SR-2228 / CARDINAL RD	CARDINAL RD	1	2	2WU	0.4	20	45	1						16,880	16,880		
TOTAL FOR MAP NO. 1								**0.4**		**45**	**1**						**16,880**	**16,880**		
2023CPT.14.08.20451	Henderson	2	SR-2234 / BLACKBERRY LN	FROM SR 2233 TO EOM	2	2	2WU	0.21	18	24							4,436	4,436		
TOTAL FOR MAP NO. 2								**0.21**		**24**							**4,436**	**4,436**		
2023CPT.14.08.20451	Henderson	3	SR-1584 / OLD HOLBERT RD	FROM SR 1006 TO EOM	2	2	2WU	0.79	20	88							16,688	16,688		
TOTAL FOR MAP NO. 3								**0.79**		**88**							**16,688**	**16,688**		
2023CPT.14.08.20451	Henderson	4	SR-1783 / RIDGE RD	FROM SR 1736 TO SR 1902	3	2	2WU	2.92	23			31,436	30,836	460.00	80	12			460	
TOTAL FOR MAP NO. 4								**2.92**				**31,436**	**30,836**	**460**	**80**	**12**			**460**	
2023CPT.14.08.20451	Henderson	5	SR-1602 /SUGAR LOAF	SR 1709 TO SR 1717	3	2	2WU	2.51	21	282							55,040	55,040		
TOTAL FOR MAP NO. 5								**2.51**		**282**							**55,040**	**55,040**		
2023CPT.14.08.20451	Henderson	6	SR-1602 / GILLIAM MTN RD	FROM SR 1717 TO SR 1710	3	2	2WU	1.53	22	172		16,160	16,160							
TOTAL FOR MAP NO. 6								**1.53**		**172**		**16,160**	**16,160**							
2023CPT.14.08.20451	Henderson	7	SR-1171 / WILLOW RD	FROM SR 1137 TO SR 1127	4	2	2WU	1.86	24	208		19,642	19,642							123
TOTAL FOR MAP NO. 7								**1.86**		**208**		**19,642**	**19,642**							**123**
2023CPT.14.08.20451	Henderson	8	SR-1586 / S MILLS GAP RD	FROM SR 1574 TO US 64	2	2	2WU	2.43	20	274		19,642	19,642		55					
TOTAL FOR MAP NO. 8								**2.43**		**274**		**19,642**	**19,642**		**55**					
2023CPT.14.08.20451	Henderson	9	SR-2272 / SHELTER RD	FROM SR 2278 TO EOM	2	2	2WU	0.08	18											
TOTAL FOR MAP NO. 9								**0.08**												
TOTAL FOR PROJ NO. 2023CPT.14.08.20451								**12.73**		**1,093**	**1**	**86,880**	**86,280**	**460**	**135**	**12**	**93,044**	**93,044**	**460**	**123**
												173,160					**186,088**			
GRAND TOTAL								**12.73**		**1,093**	**1**	**86,880**	**86,280**	**460**	**135**	**12**	**93,044**	**93,044**	**460**	**123**
												173,160					**186,088**			

PROJ. REFERENCE NO.	SHEET NO.
2023CPT.14.08.20451	13

SIGNING FOR RESURFACING PROJECTS

LEGEND
- ⊢ STATIONARY SIGN
- ← DIRECTION OF TRAFFIC FLOW





TEE INTERSECTION

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1	ROAD WORK AHEAD — 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	NEXT XX MILES — W7-3aP 24″ X 18″	#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	LOW/SOFT SHOULDER — SP 13107 48″ X 48″	- 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.
4	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 ALONG -L- LINE.
5	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.

-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, PORTABLE ADVANCE WARNING SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.

ROAD WORK AHEAD — W20-1 48″ X 48″
PLACED 500′ IN ADVANCE OF FLAGGER.

W20-7 A 48″ X 48″
PLACED 250′ IN ADVANCE OF FLAGGER.

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.

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

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

5/15/2017
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