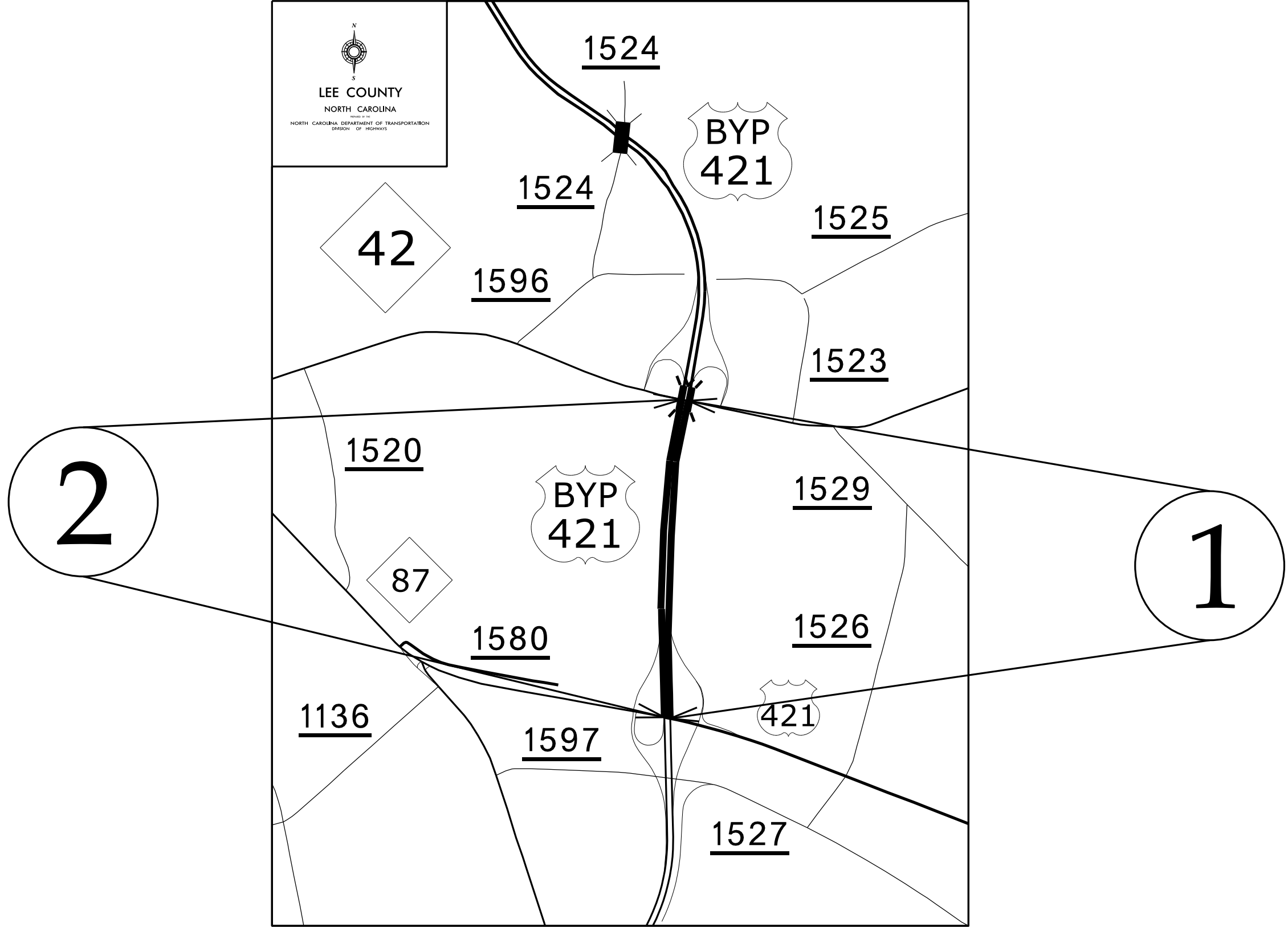


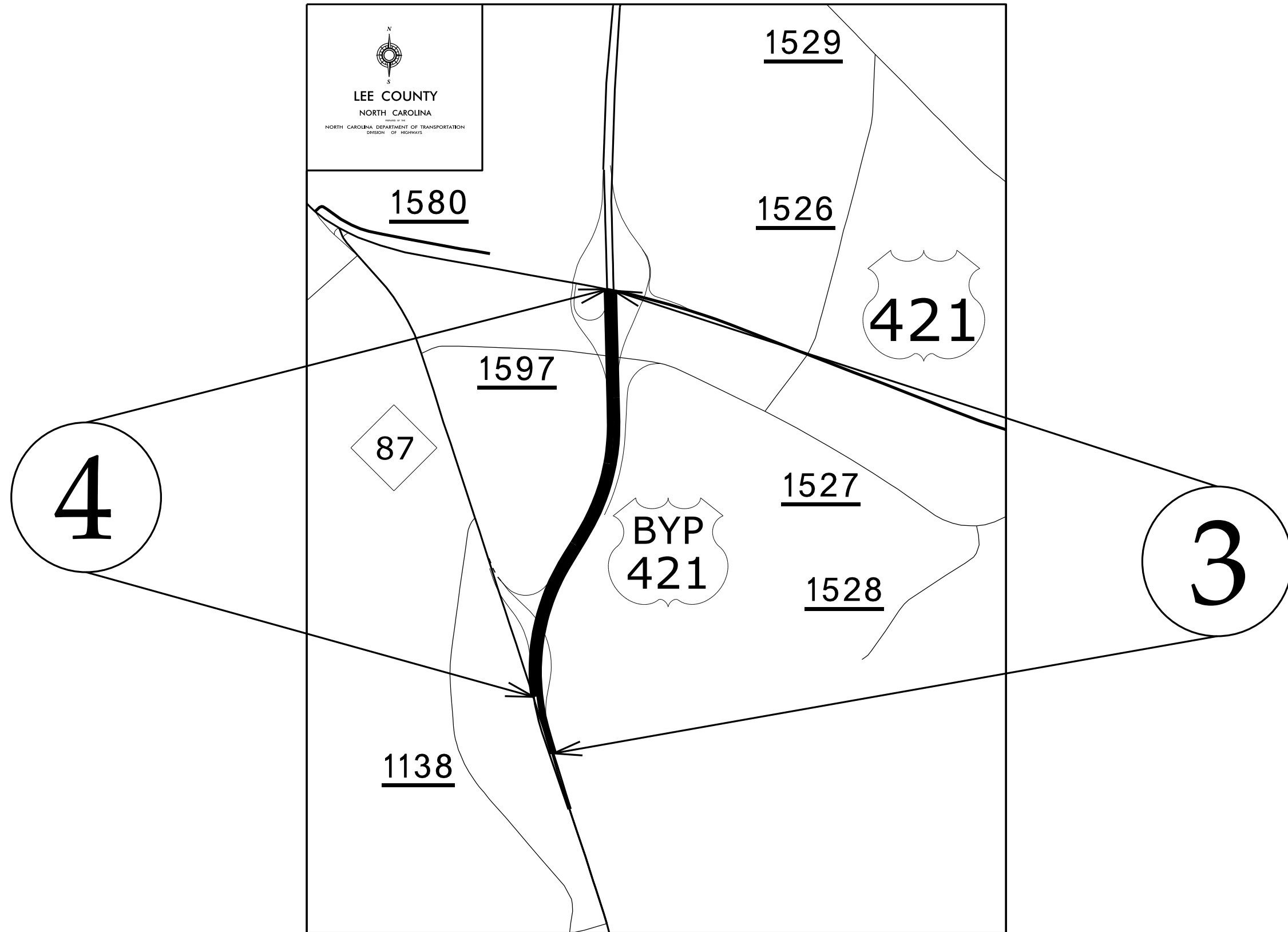
LEE COUNTY RESURFACING

Maps 1 and 2

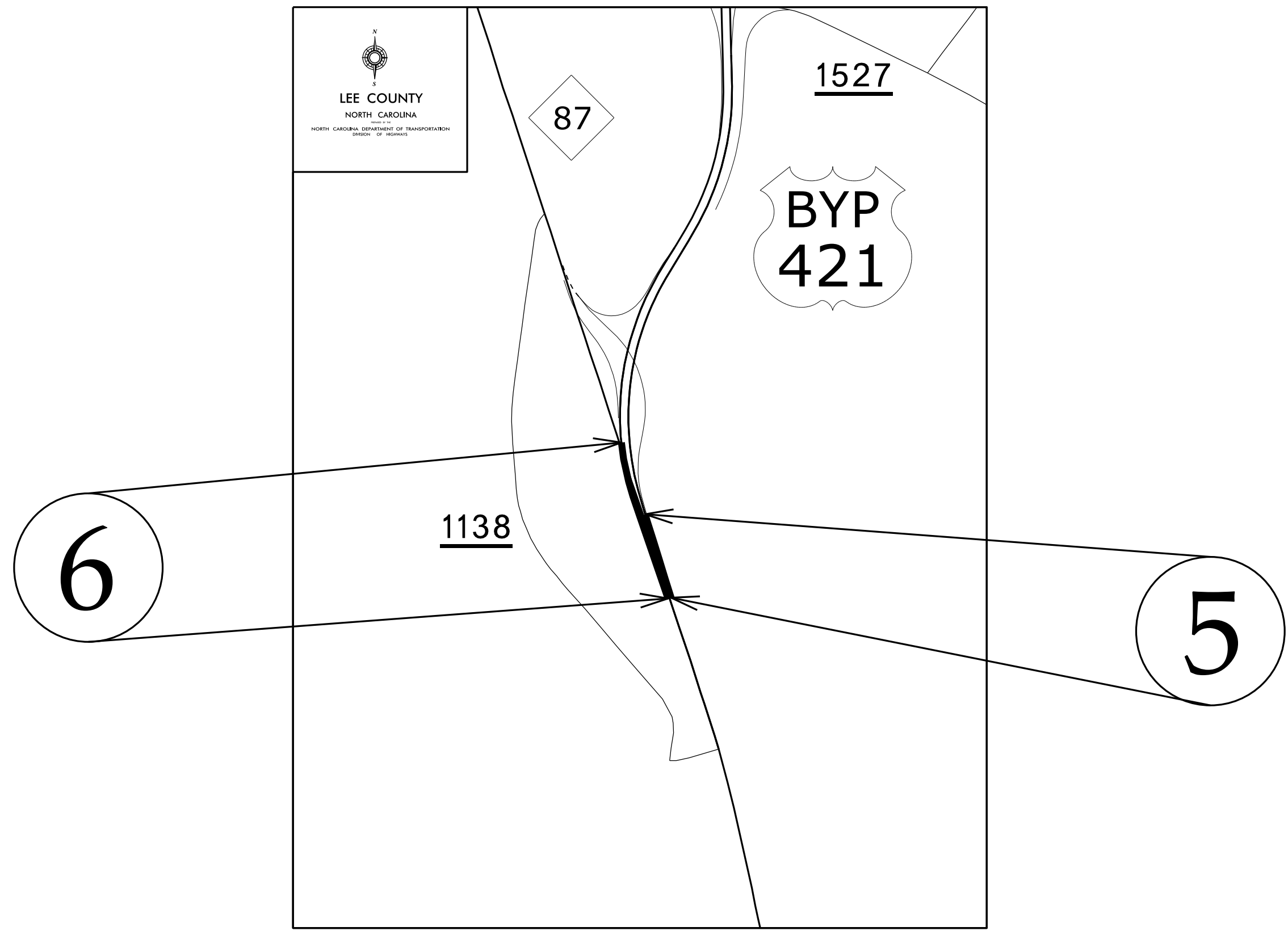


24-SEP-2023 14:23
24 Resur...
24 Resur...
24 Resur...

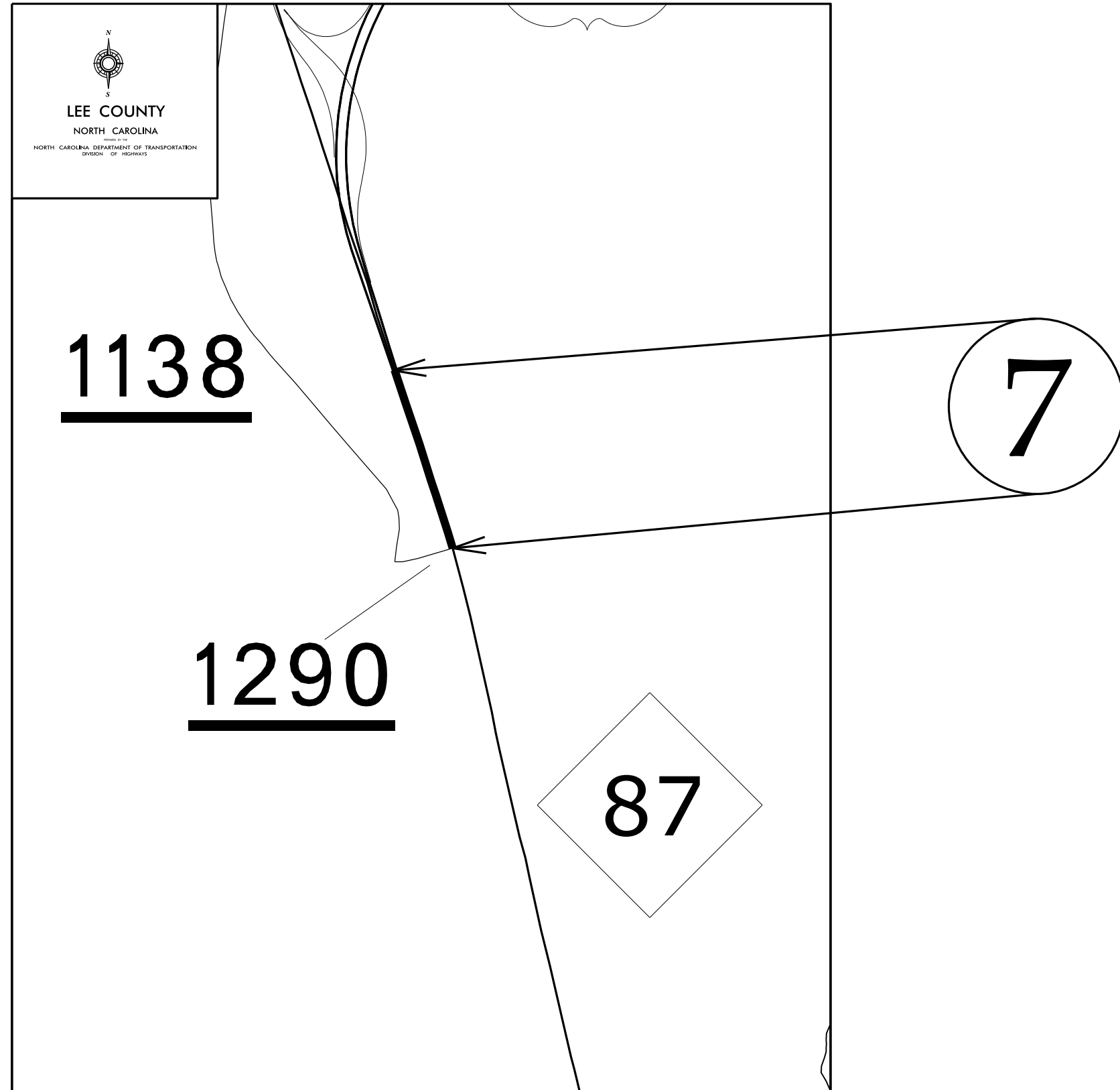
Maps 3 and 4



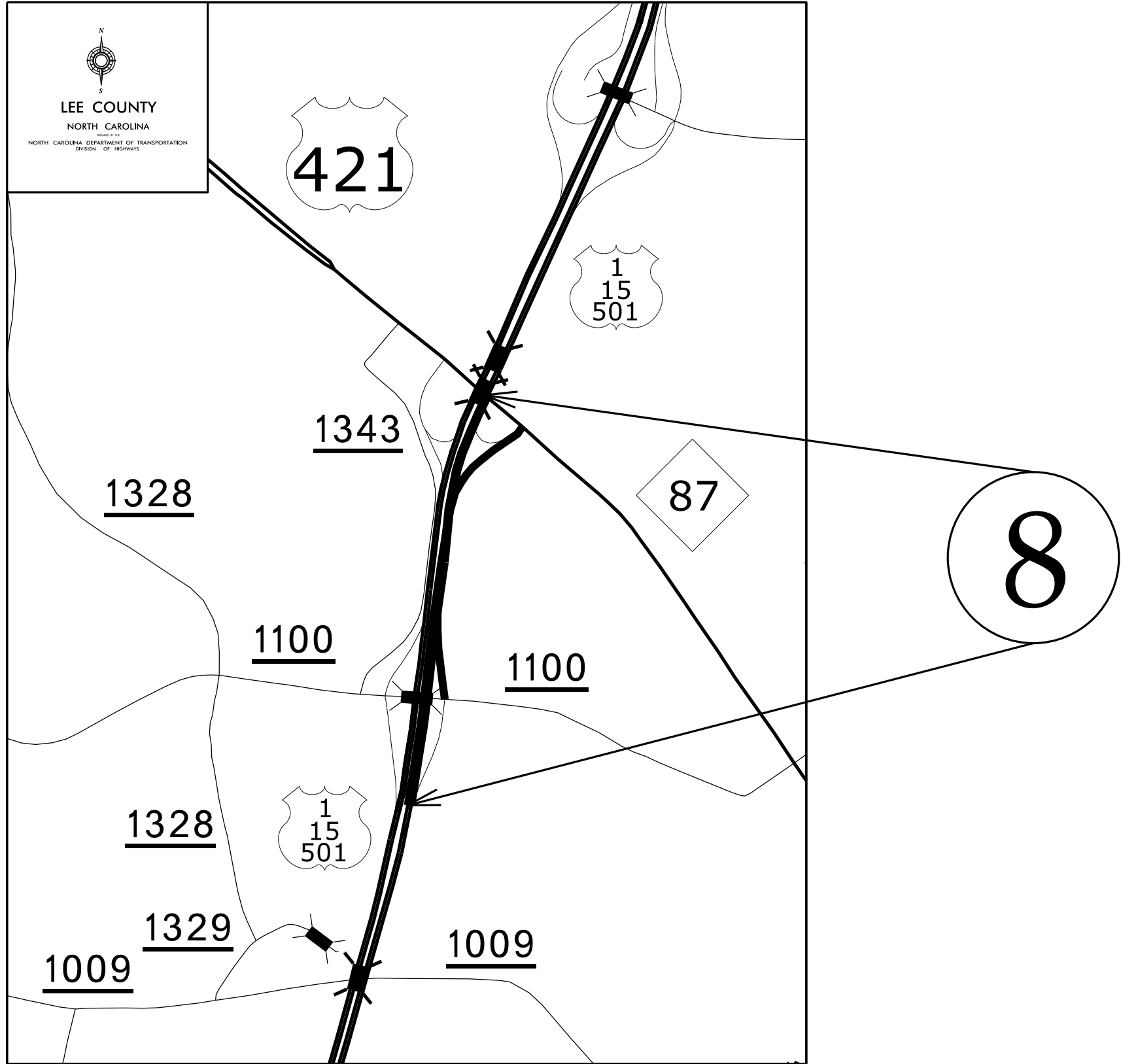
Maps 5 and 6



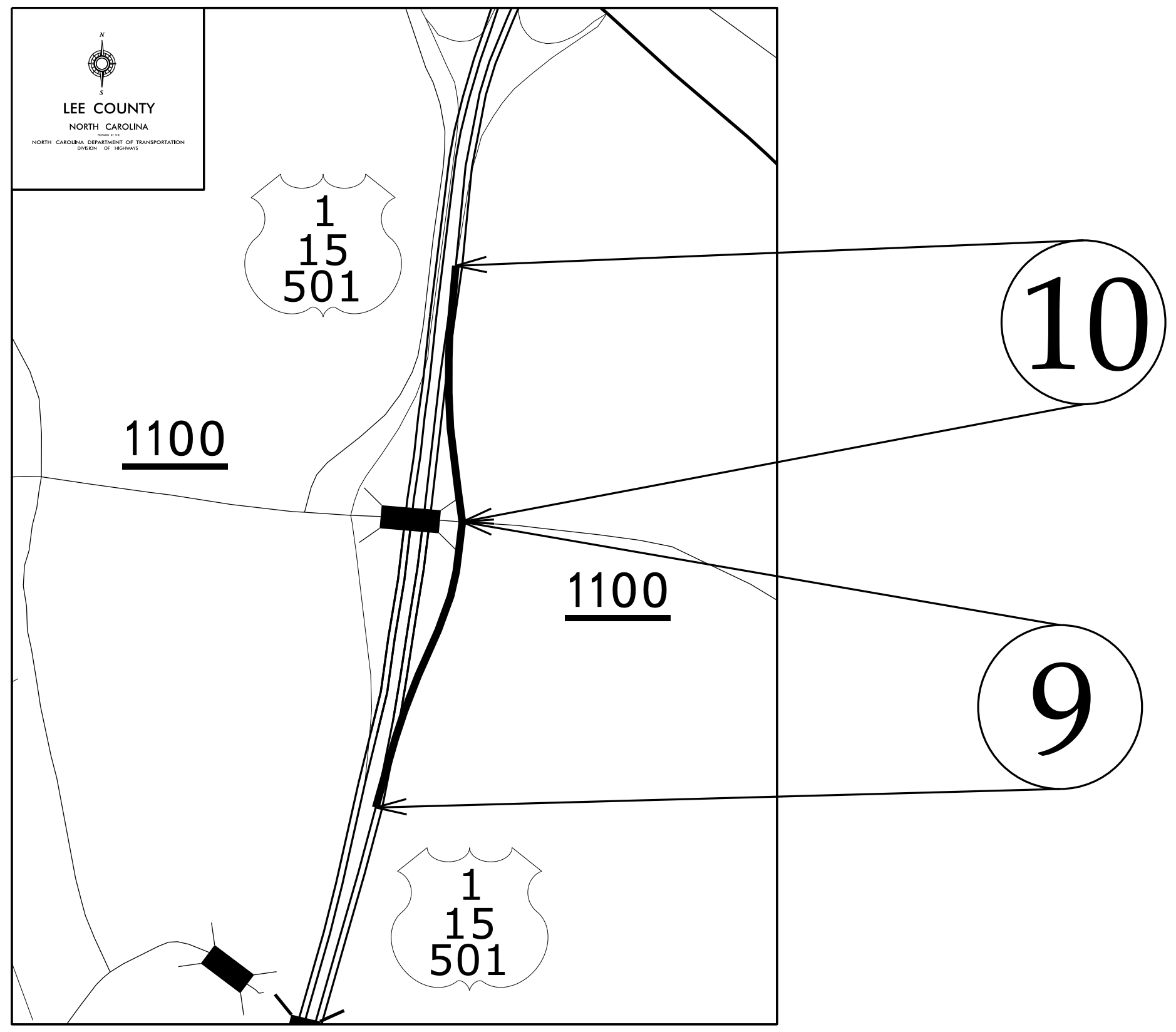
Map 7



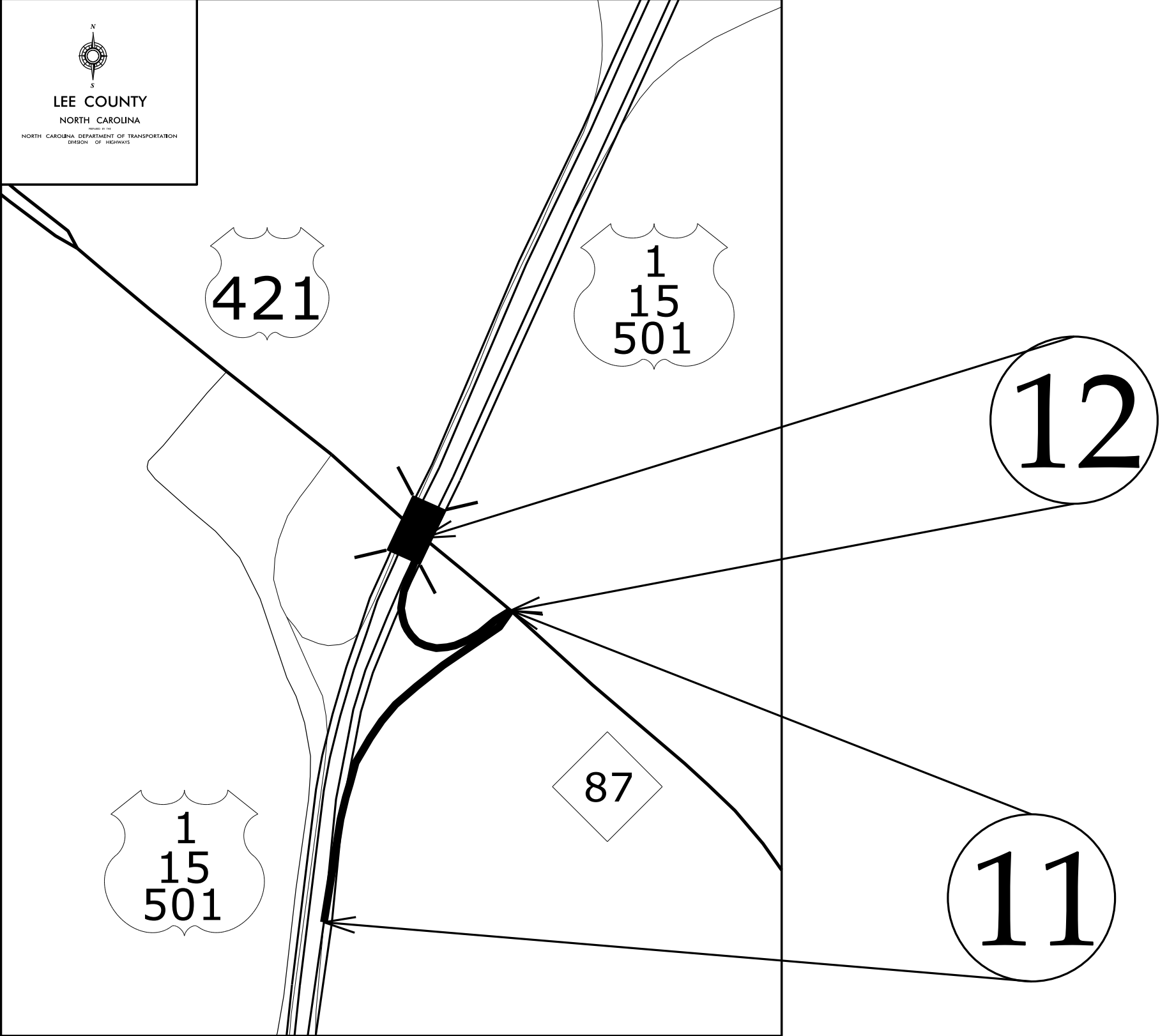
Map 8



Maps 9 and 10

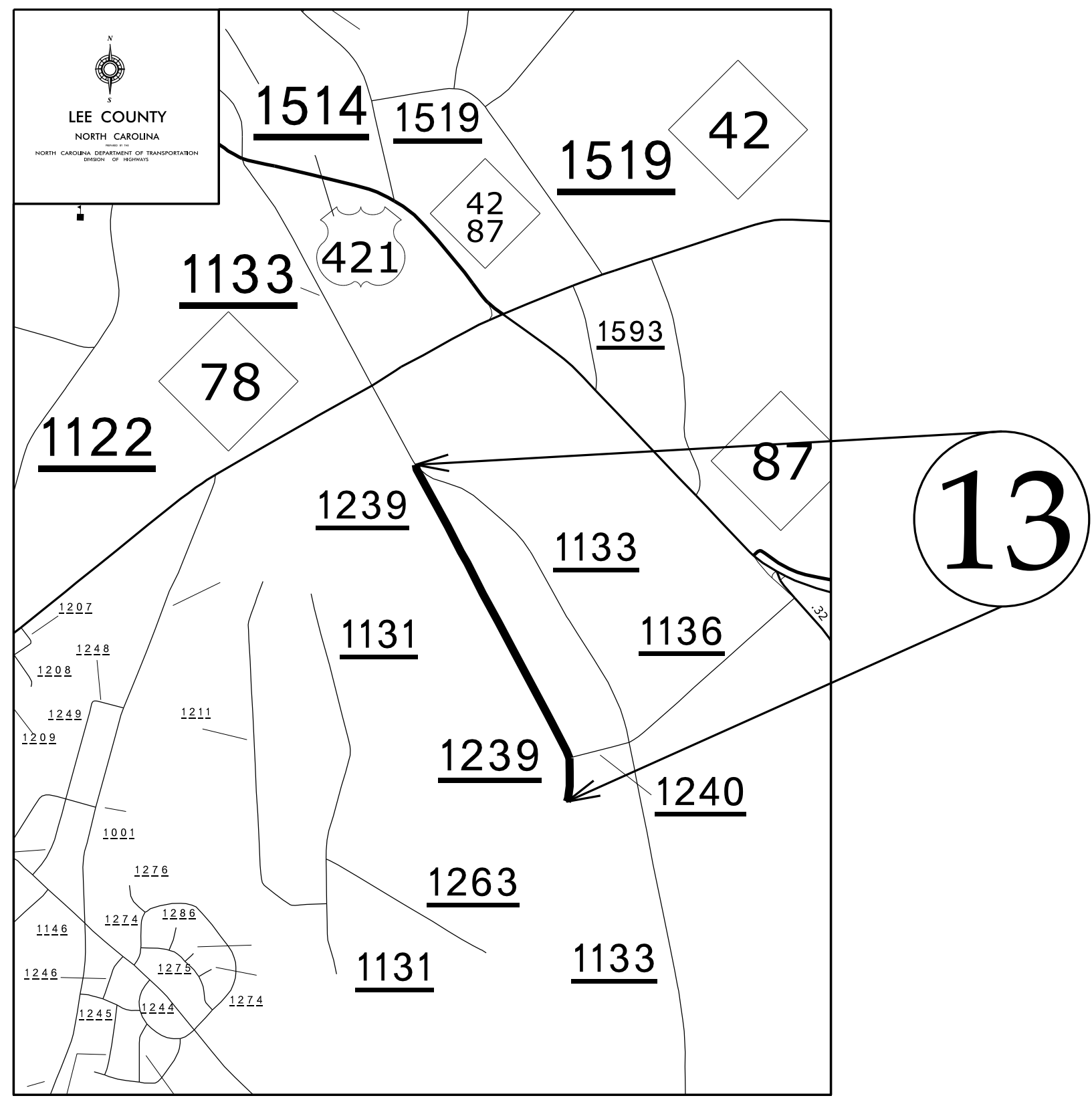


Maps 11 and 12

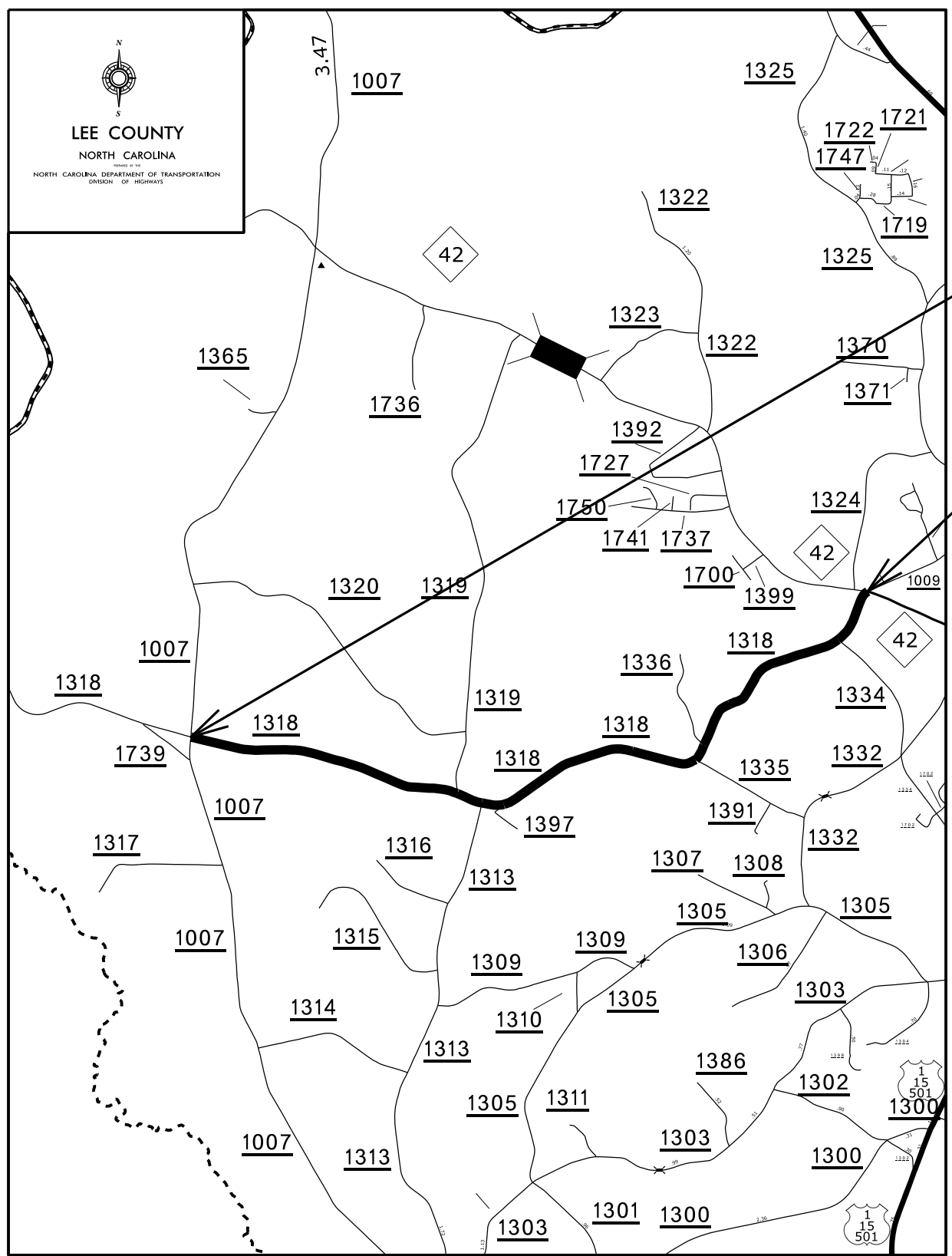


26-SEP-2023 14:23
24 Resurfacing Plans
2023-09-26 10:08:42
2023-09-26 10:08:42
2023-09-26 10:08:42

Map 13

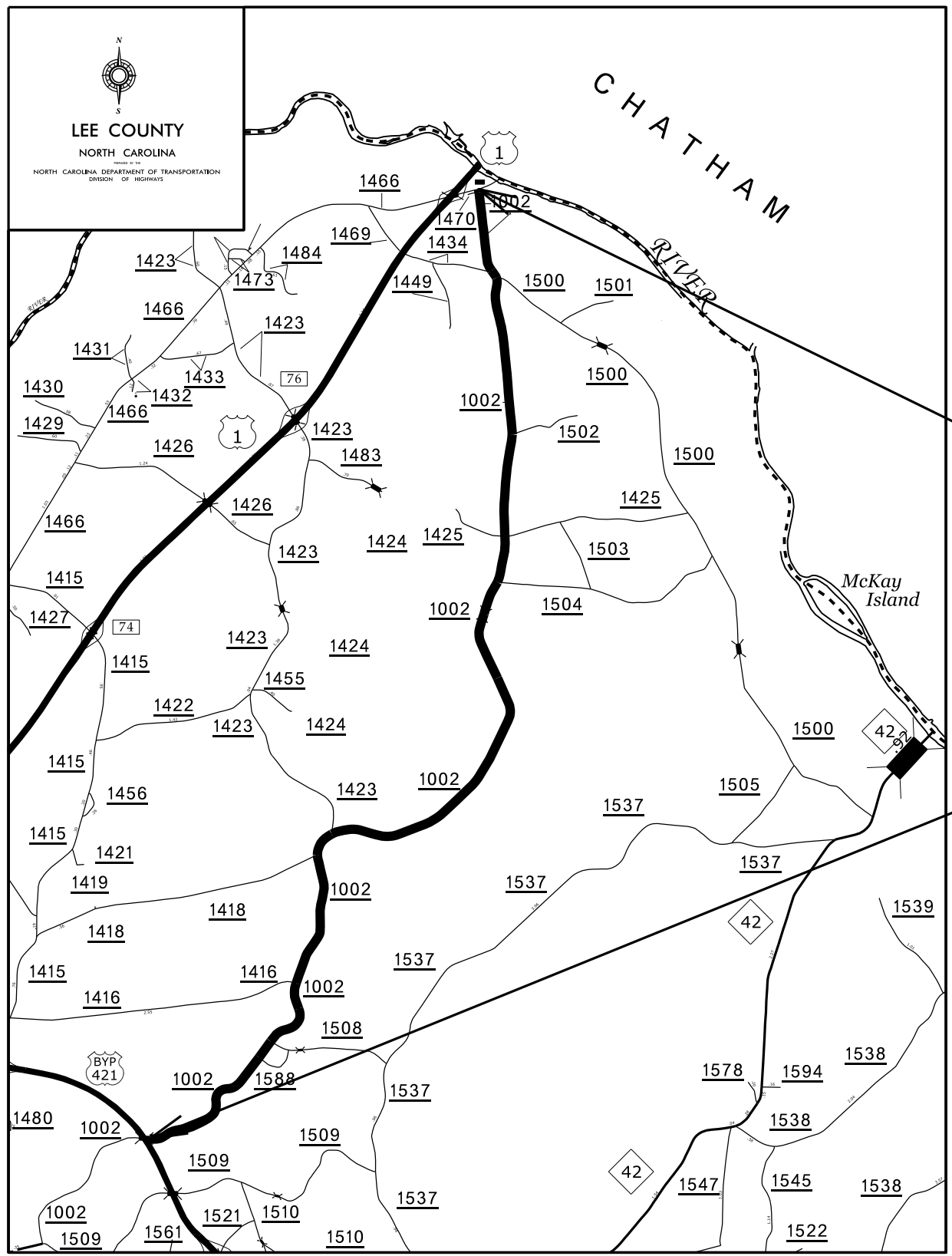


Map 14



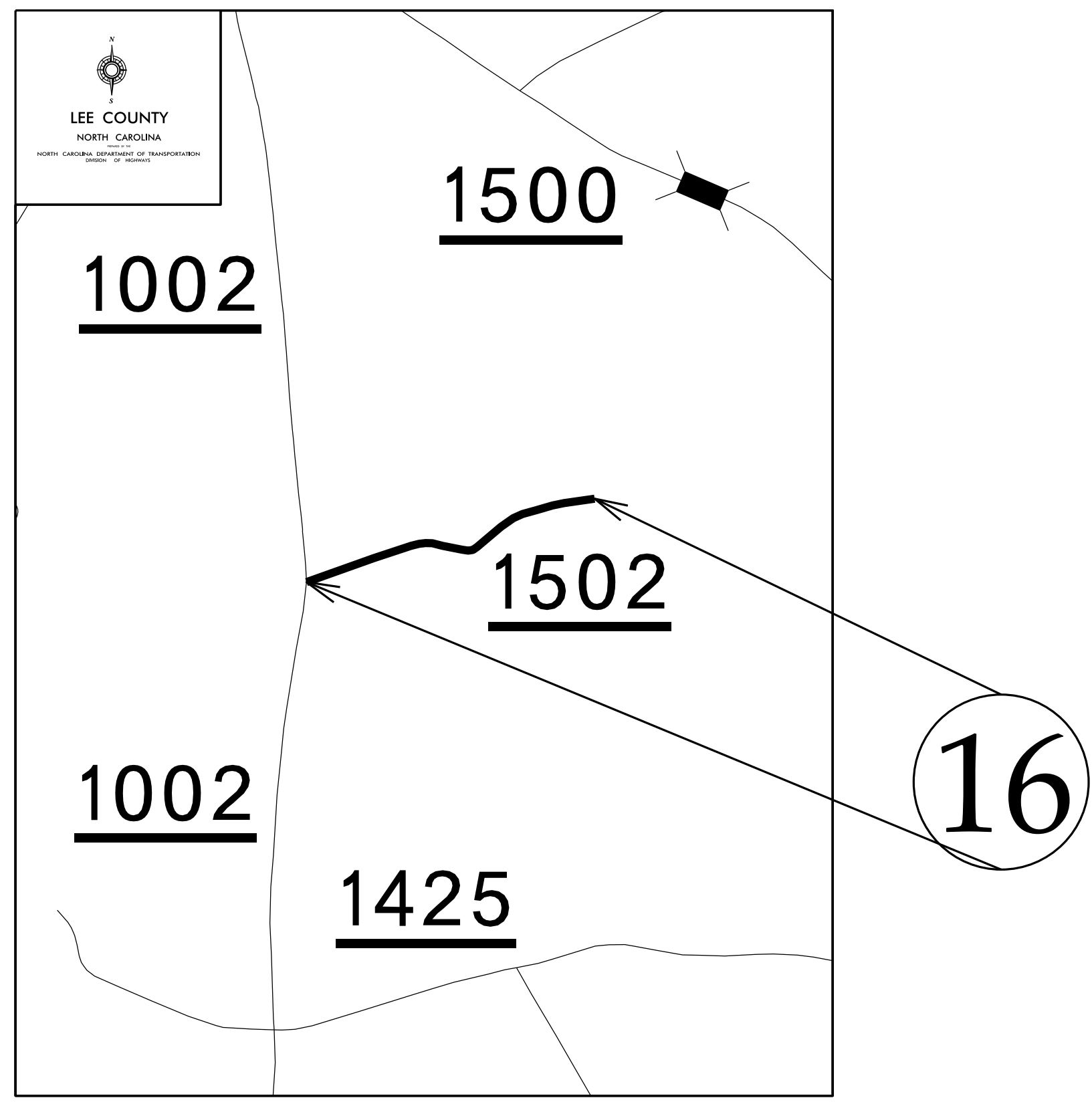
14

Map 15

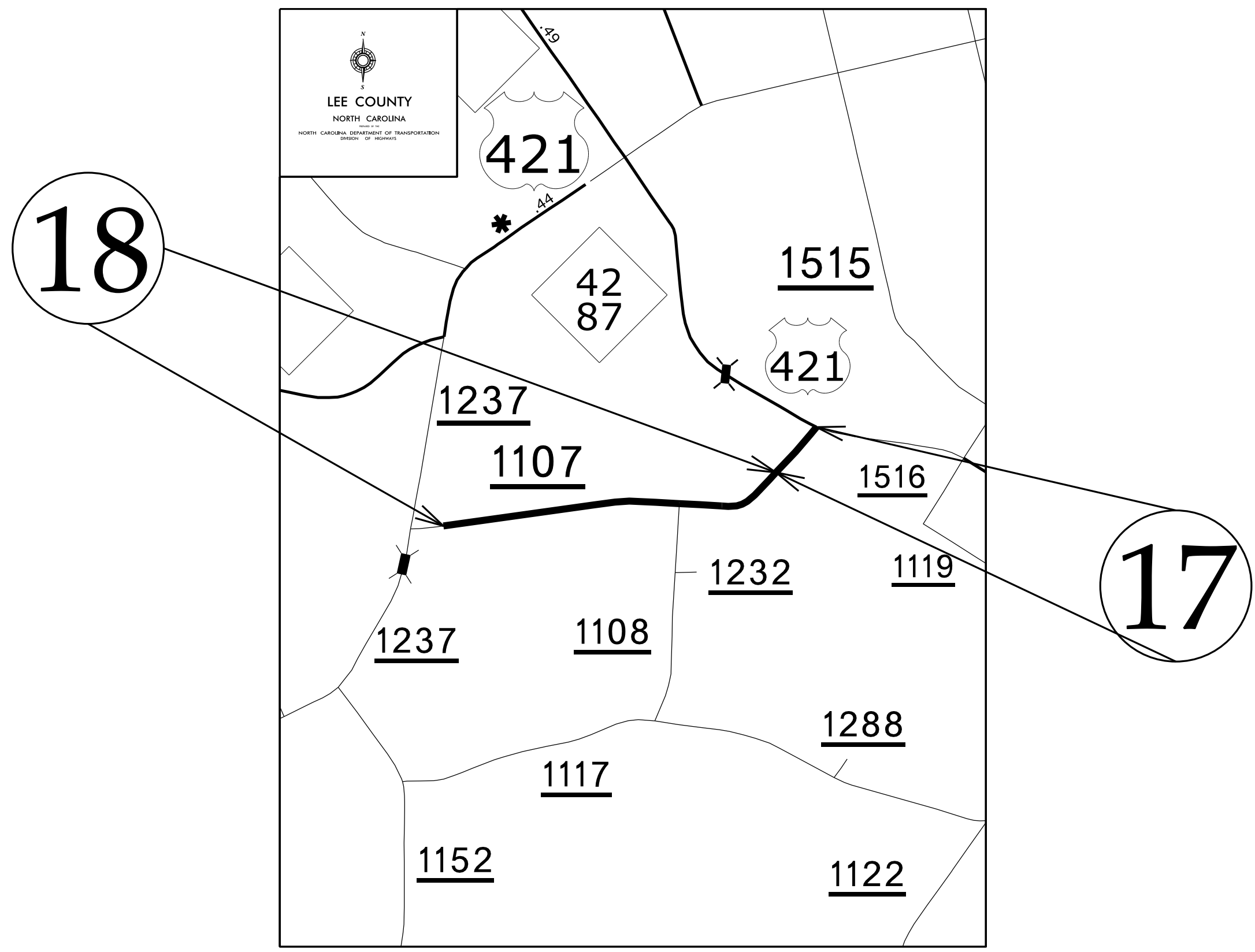


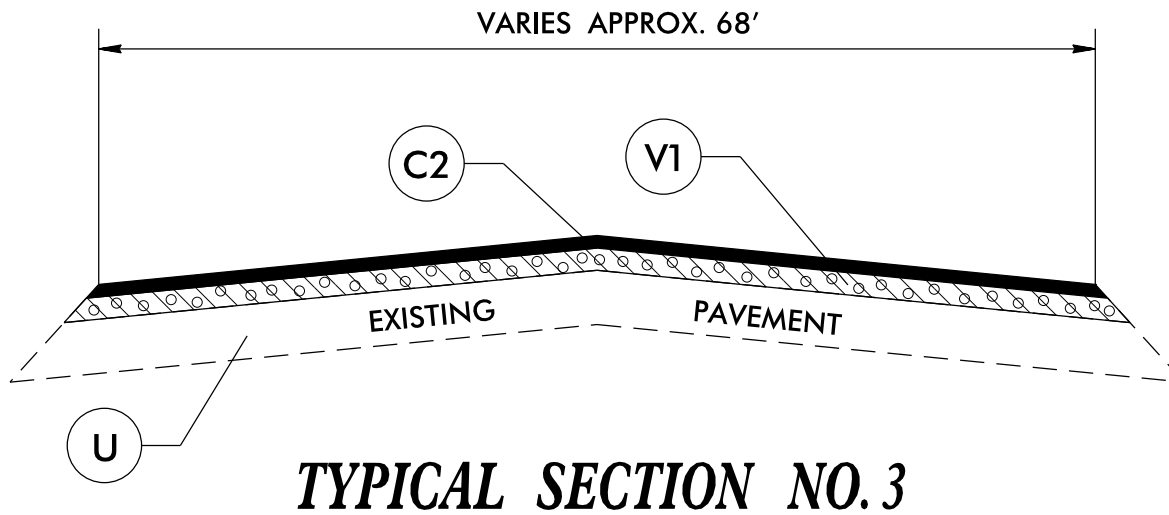
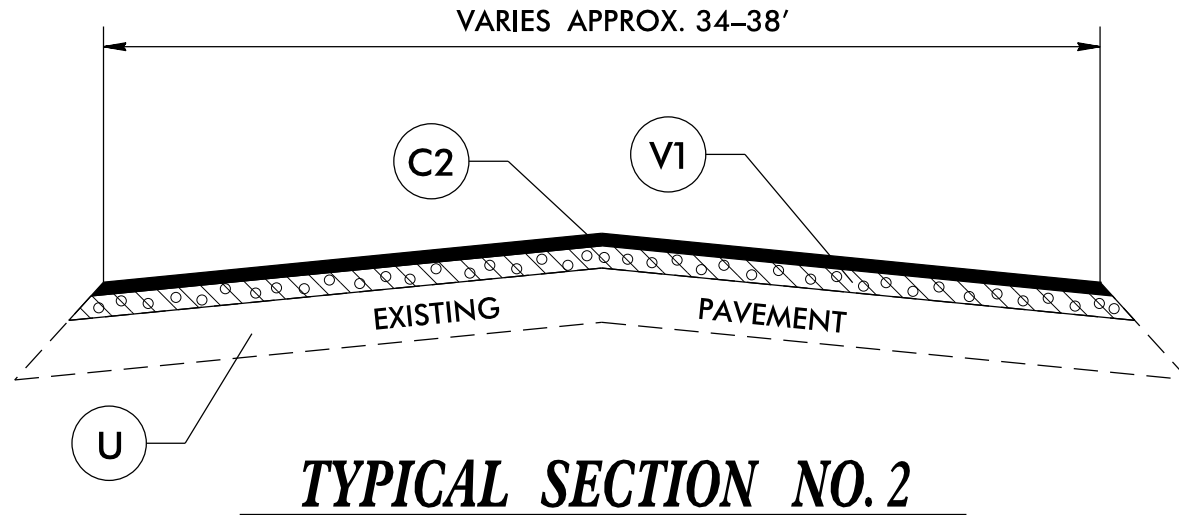
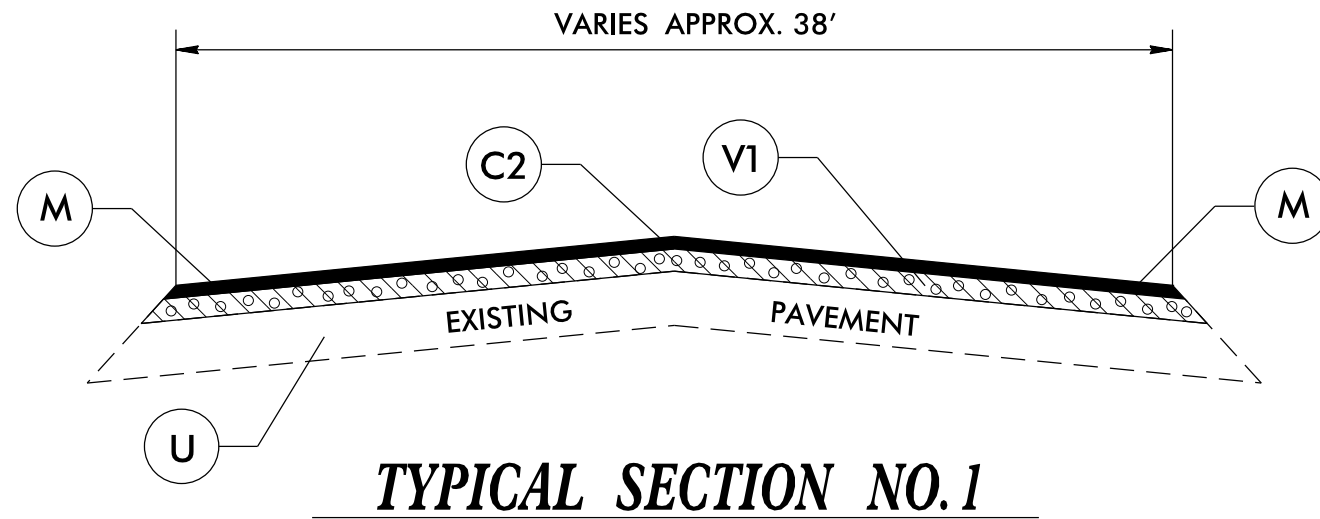
15

Map 16



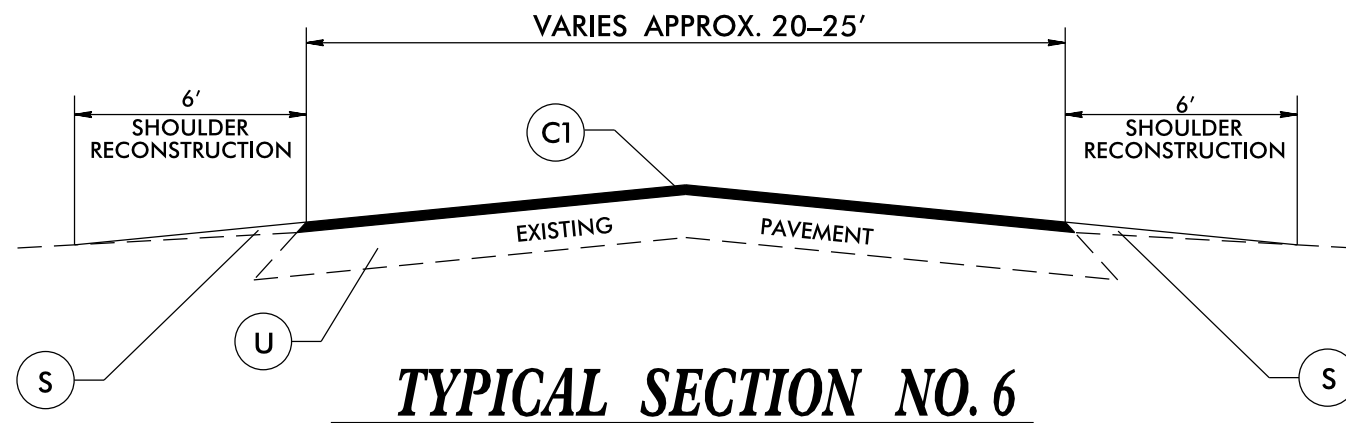
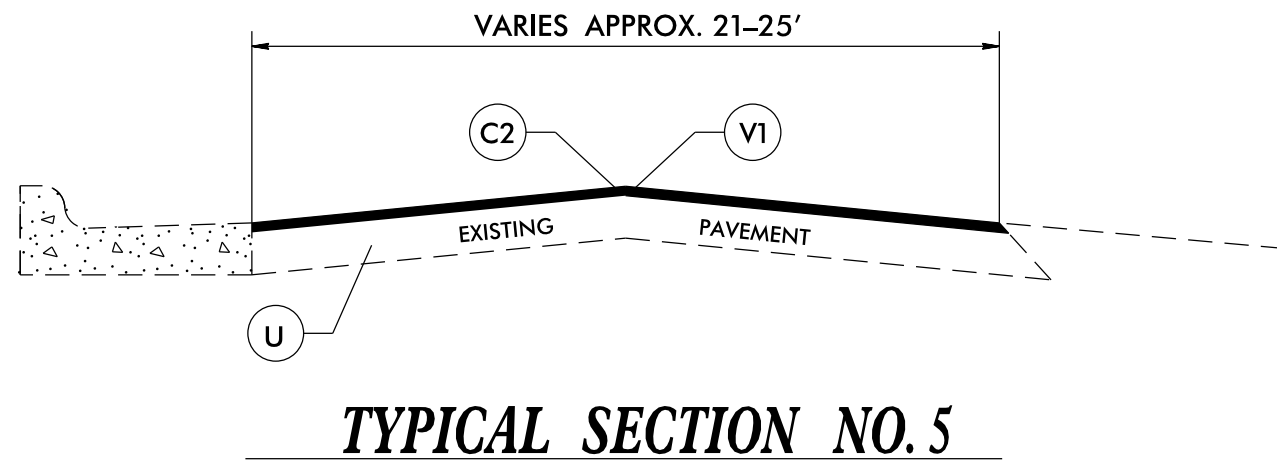
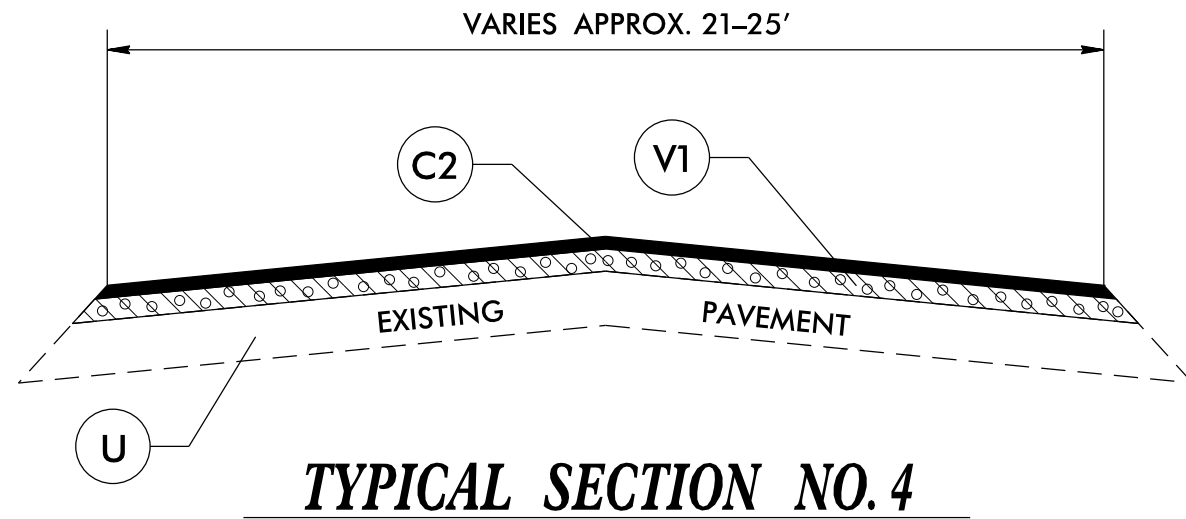
Maps 17 and 18



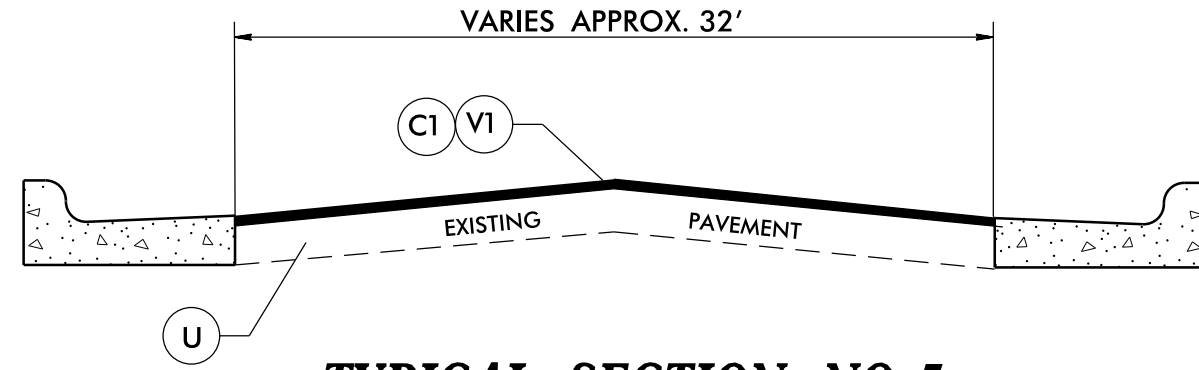


PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
F1	PROP. LATEX MODIFIED MICROSURFACING, TYPE II, AT A RATE OF 18 TO 22 LBS. PER SQ. YD.
M	MILLED RUMBLE STRIPS
S	AGGREGATE SHOULDER BORROW
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V1	MILLING 1.5" IN DEPTH

28-SEP-2023 15:55
 24 Resurfacing 2023-Submittal\Lee, November 2023.Maps_Typ.dgn
 2023-Submittal\Lee, November 2023.Maps_Typ.dgn
 2023-Submittal\Lee, November 2023.Maps_Typ.dgn

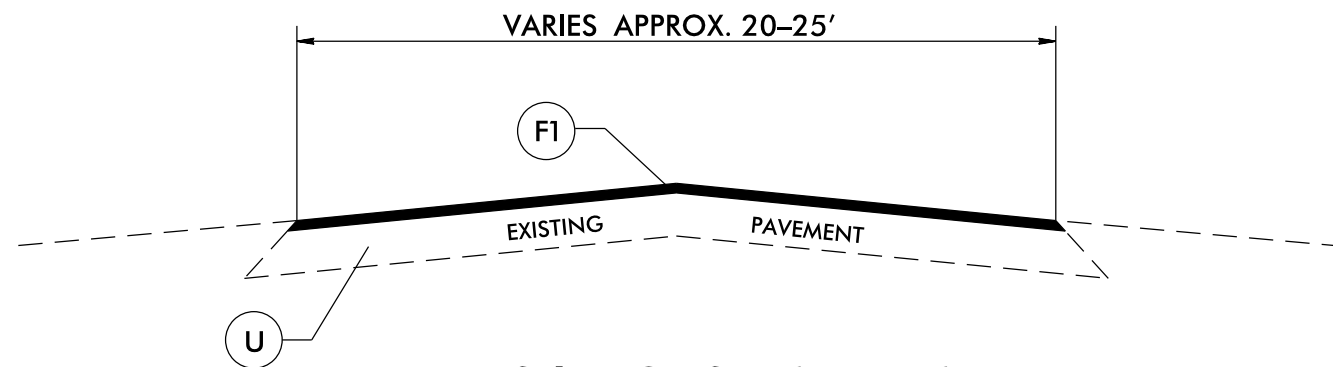


PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
F1	PROP. LATEX MODIFIED MICROSURFACING, TYPE II, AT A RATE OF 18 TO 22 LBS. PER SQ. YD.
M	MILLED RUMBLE STRIPS
S	AGGREGATE SHOULDER BORROW
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V1	MILLING 1.5" IN DEPTH

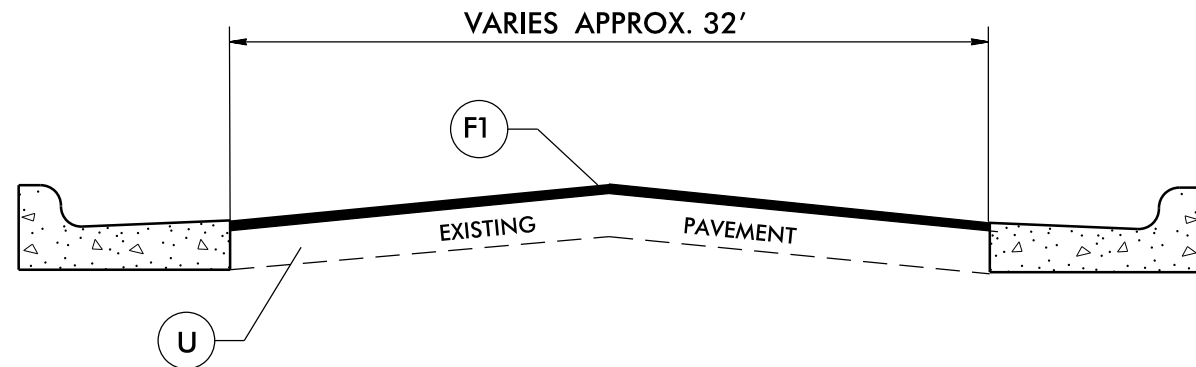


TYPICAL SECTION NO. 7

USE FOR MAP 13
 AND SECTIONS OF
 MAPS 15 & 17 WITH
 C+G



TYPICAL SECTION NO. 8

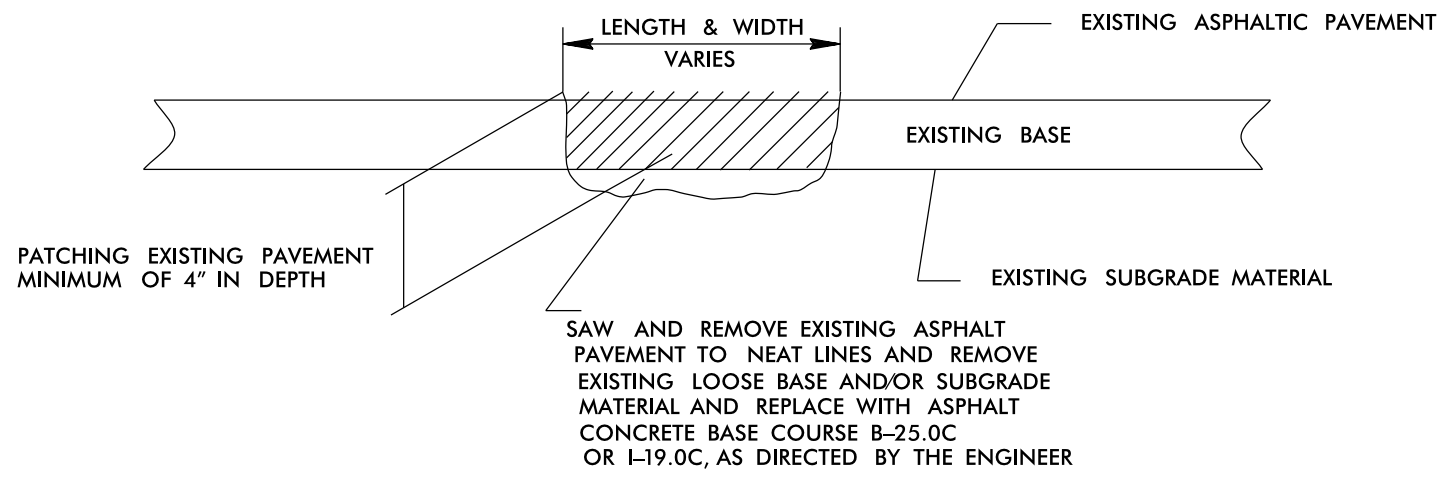


TYPICAL SECTION NO. 9

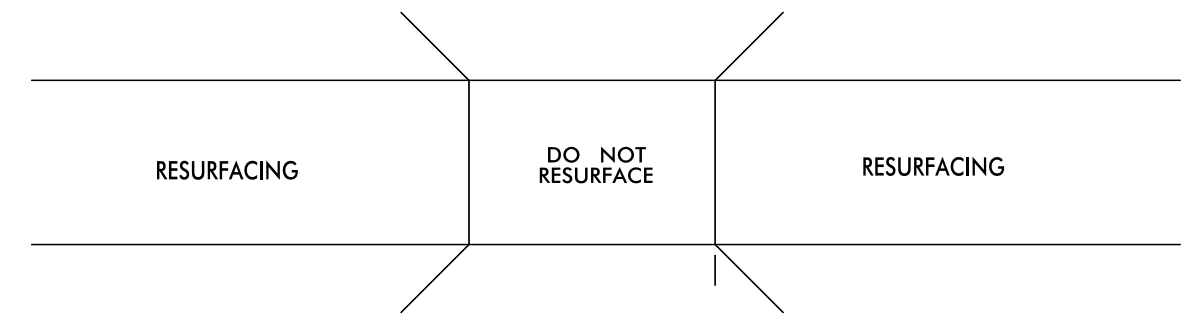
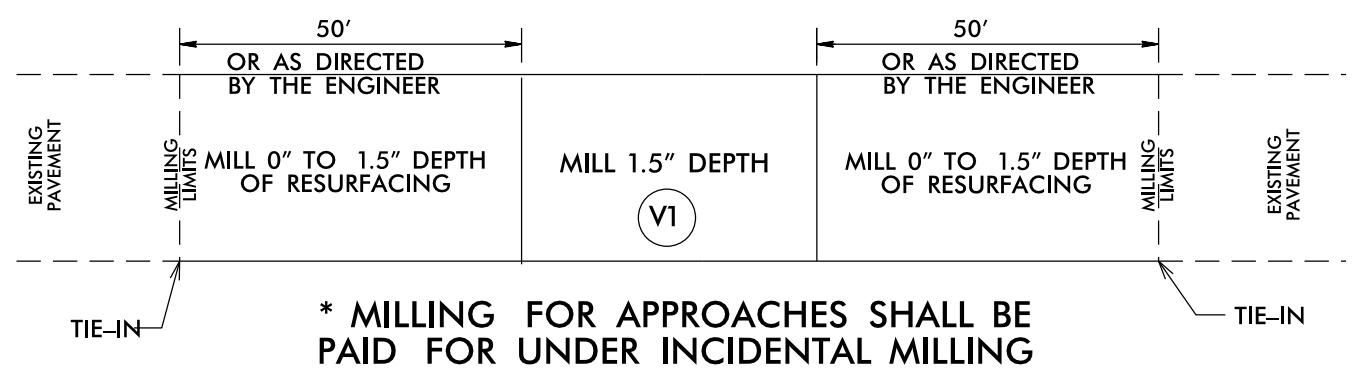
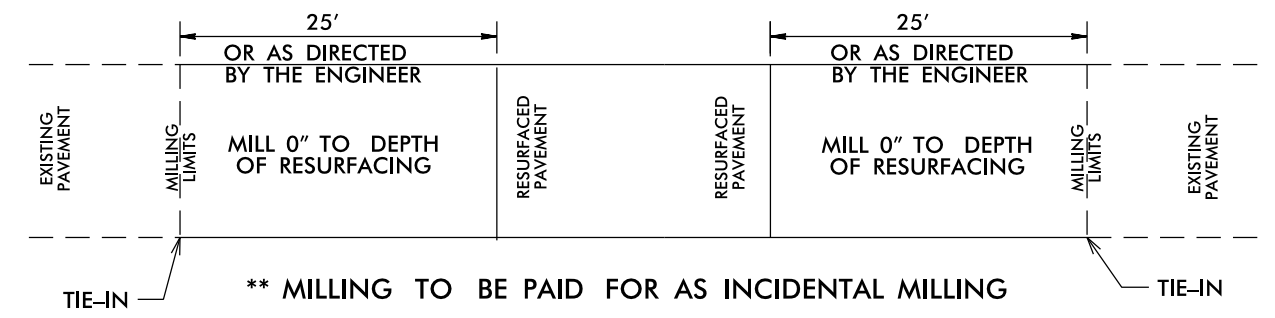
PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
F1	PROP. LATEX MODIFIED MICROSURFACING, TYPE II, AT A RATE OF 18 TO 22 LBS. PER SQ. YD.
M	MILLED RUMBLE STRIPS
S	AGGREGATE SHOULDER BORROW
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V1	MILLING 1.5" IN DEPTH

DETAILS OF PATCHING EXISTING PAVEMENT PRIOR TO RESURFACING



PAVEMENT TIE-IN DETAIL



**BRIDGE DRAWING FOR
MAP #15 LOWER MONCURE RD BRIDGES #12 & #14**

**BRIDGE DRAWING FOR
MAPS #3 AND #4 NC 87 BYP
(BRIDGES NO 135 and 136)**

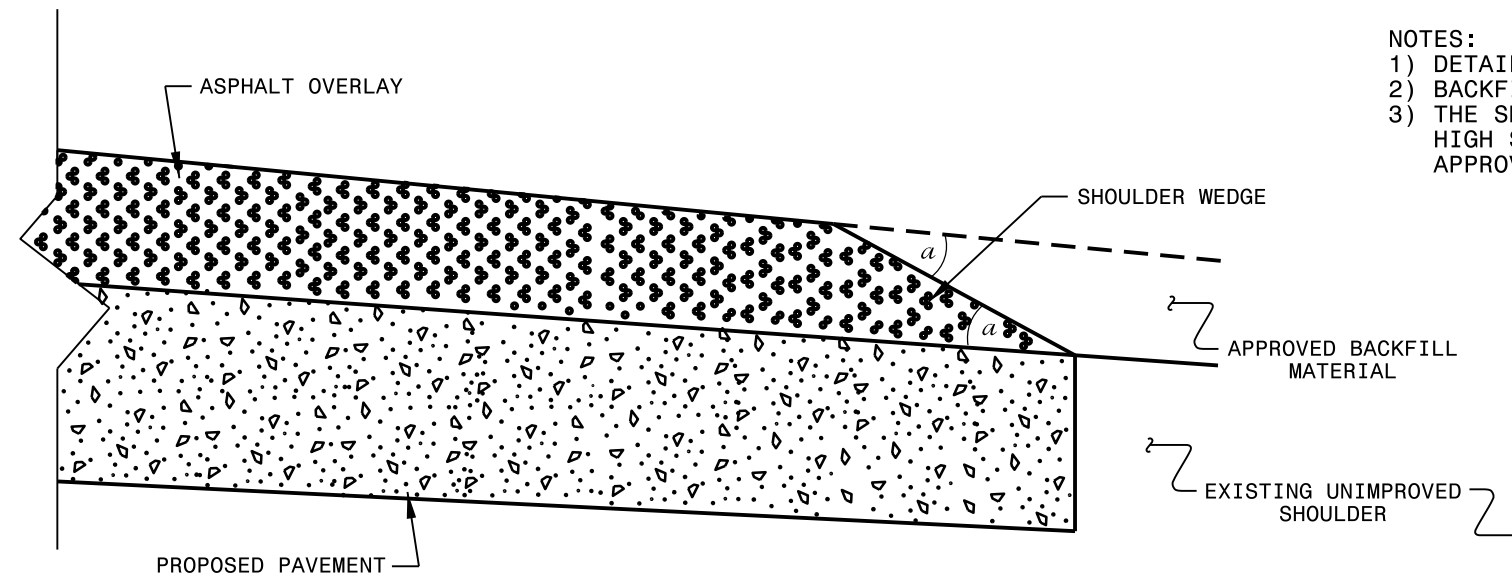
PROJECT NOTES

- PAINT MARKINGS INCLUDED FOR MILLING ON MAPS 1-12.
- ONE COAT OF PAINT MARKINGS TO BE APPLIED ON MAPS 13-15. PERMANENT MARKINGS TO BE HANDLED ON A LATER PROJECT.
- PAINT AND LINE REMOVAL INCLUDED FOR BRIDGES ON MAPS 3 AND 4.

26-SEP-2023 14:24
 24 Resurfacing
 2023-Submittal\Lee, November 2023.Maps_Typ.dgn

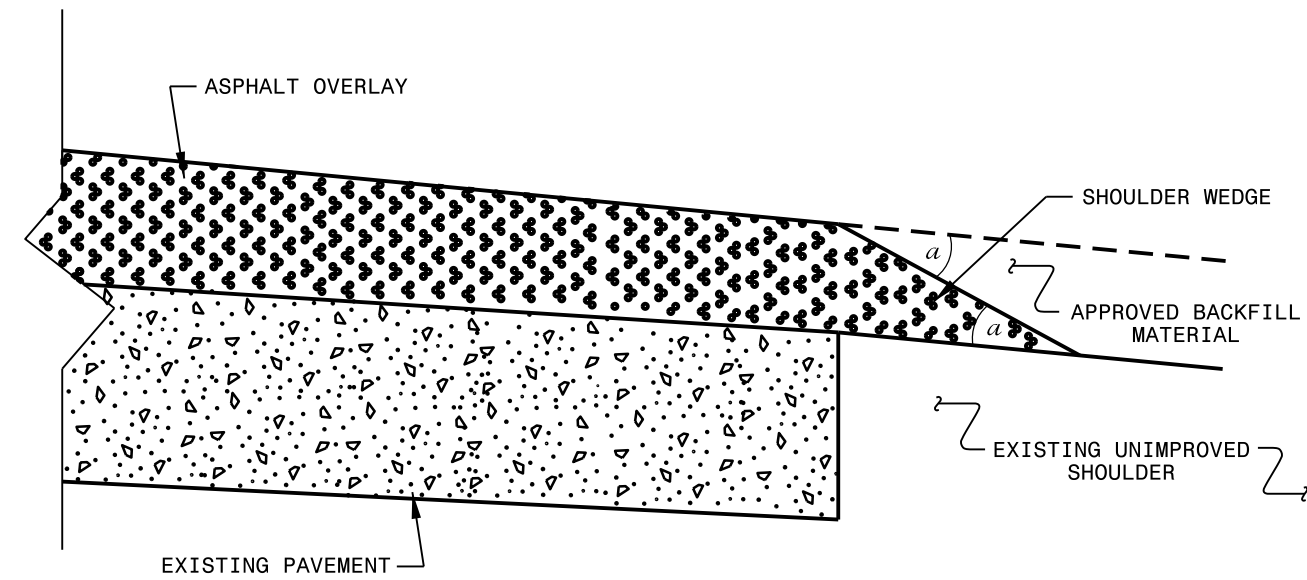
NOTES:

- 1) DETAIL DOES NOT APPLY TO OGAFB 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.



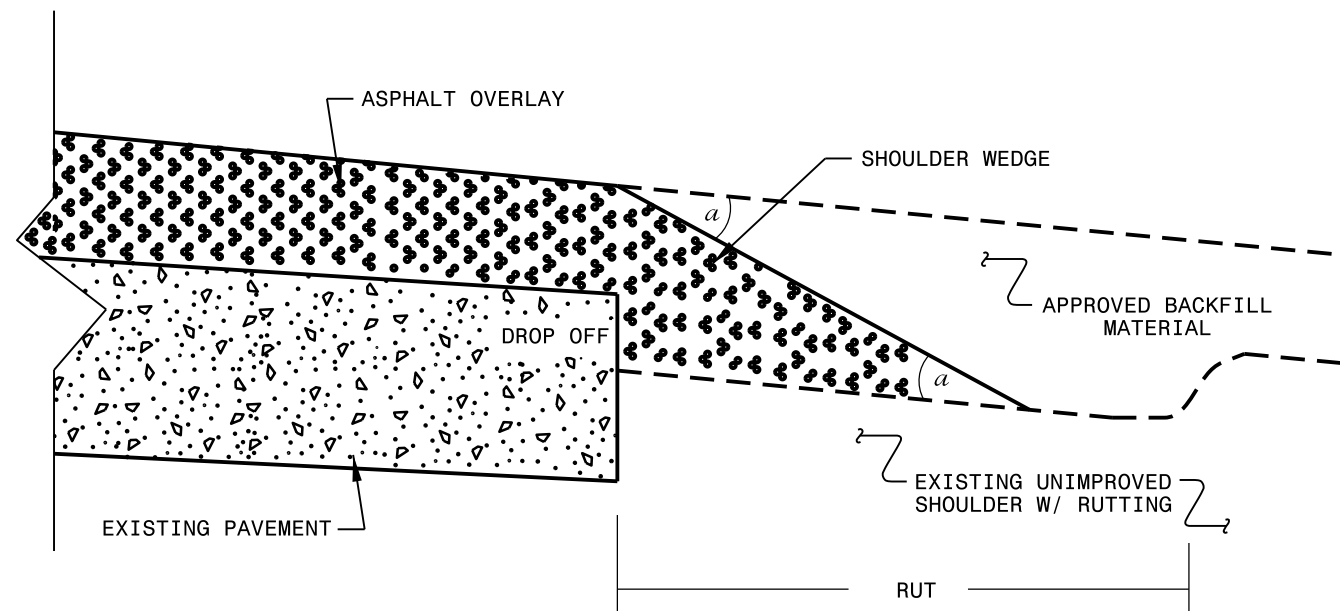
SHOULDER WEDGE DETAIL

(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.: szusr/details/stand/shoulderwedgedetail.dgn	

PROJECT NO. 2024CPT.08.04.10531, 2024CPT.08.04.20531	SHEET NO. 19	TOTAL NO.
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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	BEGIN MP	END MP	1245000000-E	1260000000-E	1297000000-E	1330000000-E	1519000000-E	1523000000-E	1575000000-E	1704000000-E	1840000000-E	1891000000-E	2830000000-N	2845000000-N	7444000000-E	7456000000-E								
														SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	1.5" MILLING	INCIDENTAL MILLING	SURFACE COURSE, \$9.5B	SURFACE COURSE, \$9.5C	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	MILLED RUMBLE STRIPS	GENERIC PAVING ITEM - LATEX MODIFIED MICROSURFACING TYPE II	ADJUST MANHOLES	ADJUST METER OR VALVE BOX	INDUCTIVE LOOP SAWCUT	LEAD-IN CABLE (14-2)								
														SMI	TON	SY	SY	TONS	TONS	TONS	TONS	LF	SY	EA	EA	LF	LF								
2024CPT.08.04.10531	Lee	1	US-421 N	FROM BRIDGE OVER US 421/421 BUS TO BRIDGE OVER NC 42	1	2	MD	NO	NO	1	38	3.8	4.8			23,448	275		1,970	120	25	10,560													
TOTAL FOR MAP NO. 1										1						23,448	275		1,970	120	25	10,560													
2024CPT.08.04.10531	Lee	2	US-421 S	FROM BRIDGE OVER NC 42 TO BRIDGE OVER US 421/421 BUS	1	2	MD	NO	NO	1	38	10.17	11.17			25,261	570		2,122	130	25	10,560													
TOTAL FOR MAP NO. 2										1						25,261	570		2,122	130	25	10,560													
2024CPT.08.04.10531	Lee	3	NC-87 BYP N	FROM NC 87 TO BRIDGE OVER US 421/421 BUS	1	2	MD	NO	NO	1.36	38	0	1.36			34,184	665		2,871	175	35	14,362													
TOTAL FOR MAP NO. 3										1.36						34,184	665		2,871	175	35	14,362													
2024CPT.08.04.10531	Lee	4	NC-87 BYP S	FROM BRIDGE OVER US 421/421 BUS TO NC 87	1	2	MD	NO	NO	1.07	38	6.75	7.82			28,690	972		2,410	145	27	11,299													
TOTAL FOR MAP NO. 4										1.07						28,690	972		2,410	145	27	11,299													
2024CPT.08.04.10531	Lee	5	NC-87 N	FROM PVMT JT 210' SOUTH OF MEDIAN END TO NC 87 BYP	2	2	MD	NO	NO	0.17	38	3.12	3.29			4,380			368	25	10														
TOTAL FOR MAP NO. 5										0.17						4,380			368	25	10														
2024CPT.08.04.10531	Lee	6	NC-87 S	FROM NC 87 BYP TO PVMT JNT 210' SOUTH OF MEDIAN END	2	2	MD	NO	NO	0.45	38	12.21	12.66			11,283			948	60	10														
TOTAL FOR MAP NO. 6										0.45						11,283			948	60	10														
2024CPT.08.04.10531	Lee	7	NC-87	FROM PVMT JT 210' SOUTH OF MEDIAN END TO COMMERCE AVENUE	3	2	MU	NO	NO	0.24	68	2.88	3.12			10,396	985		956	60	10					72	100								
TOTAL FOR MAP NO. 7										0.24						10,396	985		956	60	10				72	100									
2024CPT.08.04.10531	Lee	8	US-1 N	FROM SPRING LANE OFF RAMP TO US 421 BUS (HORNER BLVD)	2	2	MD	NO	NO	0.89	34	10.7	11.59			24,048			2,020	125	20	9,398													
TOTAL FOR MAP NO. 8										0.89						24,048			2,020	125	20	9,398													
2024CPT.08.04.10531	Lee	9	RMP-868 OI	US 1 EXIT 68 NB OFF RAMP	4	2		NO	NO	0.305	25	0	0.305			4,473			376	25															
TOTAL FOR MAP NO. 9										0.305						4,473			376	25															
2024CPT.08.04.10531	Lee	10	RMP-869 OI	US 1 EXIT 68 NB ON RAMP	4	2		NO	NO	0.222	24	0	0.222			3,126			263	20															
TOTAL FOR MAP NO. 10										0.222						3,126			263	20															
2024CPT.08.04.10531	Lee	11	RMP-864 OI	US 1 EXIT 69A NB OFF RAMP	4	2		NO	NO	0.251	25	0	0.251			3,681			309	20															
TOTAL FOR MAP NO. 11										0.251						3,681			309	20															
2024CPT.08.04.10531	Lee	12	RMP-865 OI	US 1 EXIT 69 NB ON RAMP	5	2		NO	NO	0.15	21	0	0.15			1,848			155	10															
TOTAL FOR MAP NO. 12										0.15						1,848			155	10															
TOTAL FOR PROJ NO. 2024CPT.08.04.10531																174,818	3,467		14,768	915	162	56,179				72	100								
2024CPT.08.04.20531	Lee	13	SR-1239 / INDUSTRIAL DR	FROM SR 1133 (LEE AVENUE) TO THE END OF STATE MAINT.	6,7	2	2WU	NO	NO	1.01	20	0	1.01	1.01	300.00	1,853	1,200	1,082		75	33			2											
TOTAL FOR MAP NO. 13										1.01						1.01	300.00	1,853	1,200	1,082		75	33			2									
2024CPT.08.04.20531	Lee	14	SR-1318 / STEEL BRIDGE RD	FROM NC 42 TO SR 1007 (S.PLANK RD)	8	2	2WU	NO	NO	5.48	20	0	5.48								800														
TOTAL FOR MAP NO. 14										5.48											800					70,729									
2024CPT.08.04.20531	Lee	15	SR-1002 / LOWER MONCURE RD	FROM N. JOINT OF BRIDGE APPROACH AT US 421 BYPASS TO SR 1466 (DEEP RIVER RD)	6,7	2	2WU	NO	NO	10.21	22	2.47	12.68	20.42	3,200.00	1,770	1,460	12,027		800	354														
TOTAL FOR MAP NO. 15										10.21						20.42	3,200.00	1,770	1,460	12,027		800	354												
2024CPT.08.04.20531	Lee	16	SR-1502 / RAGAN RD	FROM SR 1002 (LOWER MONCURE RD) TO END OF STATE MAINT.	6	2	2WU	NO	NO	0.65	18	0	0.65	1.30	220.00			627		55	195														
TOTAL FOR MAP NO. 16										0.65						1.30	220.00		627		55	195													
2024CPT.08.04.20531	Lee	17	SR-1107 / FIELDS DR	FROM 600' WEST OF US 421 BUS (S. HORNER BLVD) TO US 421 BUS (S. HORNER BLVD)	7	2	2WU	NO	NO	0.115	30	0.875	0.99			2,024		168		15				1	1	720	100								
TOTAL FOR MAP NO. 17										0.115						2,024		168		15				1	1	720	100								
2024CPT.08.04.20531	Lee	18	SR-1107 / FIELDS DR	FROM APPROX. 300' EAST OF SR 1237 (CARTHAGE STREET) TO 600' WEST OF US 421 BUS (S. HORNER BLVD)	8,9	2	2WU	NO	NO	0.815	22	0.06	0.875							5	20														
TOTAL FOR MAP NO. 18										0.815										5	20			8,196											
TOTAL FOR PROJ NO. 2024CPT.08.04.20531																22.73	3,720.00	5,647	2,660	13,904		950	1,402		78,925	3	1	720	100						
GRAND TOTAL																25.388						22.73	3,720.00	180,465	6,127	13,904	14,768	1,865	1,564	56,179	78,925	3	1	792	200

PROJECT NO.	SHEET NO.	TOTAL NO.
2024CPT.08.04.10531, 2024CPT.08.04.20531	20	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	WORK ZONE ADVANCE/ GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	4413000000-E 4457000000-N 4510000000-N 4685000000-E 4688000000-E 4700000000-E 4704000000-E 4709000000-E 4720000000-E 4725000000-E																				
														LAW ENFORCEMENT	4" X 90 M WHITE THERMO	4" X 90 M YELLOW THERMO	6" X 90 M YELLOW THERMO	6" X 90 M WHITE THERMO	12" X 90 M WHITE THERMO	12" X 90 M YELLOW THERMO	16" X 90 M WHITE THERMO	24" X 90 M WHITE THERMO	THERMO RXR 90 M	THERMO MERGE ARROW 90M	THERMO LT ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR ARROW 90 M	THERMO STR & RT ARROW 90 M						
														LS	HR	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA							
							MI	FT				SF																						
2024CPT.08.04.10531	Lee	1	US-421 N	FROM BRIDGE OVER US 421/421 BUS TO BRIDGE OVER NC 42	1	2	MD	1	38	3.8	4.8	270		30			5,280	6,403	705							3								
TOTAL FOR MAP NO. 1							1					270		30			5,280	6,403	705							3								
2024CPT.08.04.10531	Lee	2	US-421 S	FROM BRIDGE OVER NC 42 TO BRIDGE OVER US 421/421 BUS	1	2	MD	1	38	10.17	11.17	270		30			5,280	6,539	905							3								
TOTAL FOR MAP NO. 2							1					270		30			5,280	6,539	905							3								
2024CPT.08.04.10531	Lee	3	NC-87 BYP N	FROM NC 87 TO BRIDGE OVER US 421/421 BUS	1	2	MD	1.36	38	0	1.36	270		30			7,181	9,014	1,184															
TOTAL FOR MAP NO. 3							1.36					270		30			7,181	9,014	1,184															
2024CPT.08.04.10531	Lee	4	NC-87 BYP S	FROM BRIDGE OVER US 421/421 BUS TO NC 87	1	2	MD	1.07	38	6.75	7.82	270		30			5,650	7,106	1,882							3								
TOTAL FOR MAP NO. 4							1.07					270		30			5,650	7,106	1,882							3								
2024CPT.08.04.10531	Lee	5	NC-87 N	FROM PVMT JT 210' SOUTH OF MEDIAN END TO NC 87 BYP	2	2	MD	0.17	38	3.12	3.29	126				1,056	1,273		57								2							
TOTAL FOR MAP NO. 5							0.17					126				1,056	1,273		57								2							
2024CPT.08.04.10531	Lee	6	NC-87 S	FROM NC 87 BYP TO PVMT JNT 210' SOUTH OF MEDIAN END	2	2	MD	0.45	38	12.21	12.66	126	*			2,433	3,250									3								
TOTAL FOR MAP NO. 6							0.45					126	*			2,433	3,250									3								
2024CPT.08.04.10531	Lee	7	NC-87	FROM PVMT JT 210' SOUTH OF MEDIAN END TO COMMERCE AVENUE	3	2	MU	0.24	68	2.88	3.12	126		30			4,046	3,562		385			52				4	3	2					
TOTAL FOR MAP NO. 7							0.24					126		30			4,046	3,562		385			52				4	3	2					
2024CPT.08.04.10531	Lee	8	US-1 N	FROM SPRING LANE OFF RAMP TO US 421 BUS (HORNER BLVD)	2	2	MD	0.89	34	10.7	11.59	191		30			4,699	5,881	1,984															
TOTAL FOR MAP NO. 8							0.89					191		30			4,699	5,881	1,984															
2024CPT.08.04.10531	Lee	9	RMP-868 OI	US 1 EXIT 68 NB OFF RAMP	4	2		0.305	25	0	0.305	8				1,610	1,610																	
TOTAL FOR MAP NO. 9							0.305					8				1,610	1,610																	
2024CPT.08.04.10531	Lee	10	RMP-869 OI	US 1 EXIT 68 NB ON RAMP	4	2		0.222	24	0	0.222	32				1,172	1,172																	
TOTAL FOR MAP NO. 10							0.222					32				1,172	1,172																	
2024CPT.08.04.10531	Lee	11	RMP-864 OI	US 1 EXIT 69A NB OFF RAMP	4	2		0.251	25	0	0.251	8				1,326	1,326																	
TOTAL FOR MAP NO. 11							0.251					8				1,326	1,326																	
2024CPT.08.04.10531	Lee	12	RMP-865 OI	US 1 EXIT 69 NB ON RAMP	5	2		0.15	21	0	0.15	32				792	792																	
TOTAL FOR MAP NO. 12							0.15					32				792	792																	
TOTAL FOR PROJ NO. 2024CPT.08.04.10531							7.108					1,729	1.0000	180			40,525	47,928	6,660	442		52			12	6	3	2						
														88,453				7,102																
2024CPT.08.04.20531	Lee	13	SR-1239 / INDUSTRIAL DR	FROM SR 1133 (LEE AVENUE) TO THE END OF STATE MAINT.	6,7	2	2WU	1.01	20	0	1.01	115																						
TOTAL FOR MAP NO. 13							1.01					115																						
2024CPT.08.04.20531	Lee	14	SR-1318 / STEEL BRIDGE RD	FROM NC 42 TO SR 1007 (S.PLANK RD)	8	2	2WU	5.48	20	0	5.48	615																						
TOTAL FOR MAP NO. 14							5.48					615																						
2024CPT.08.04.20531	Lee	15	SR-1002 / LOWER MONCURE RD	FROM N. JOINT OF BRIDGE APPROACH AT US 421 BYPASS TO SR 1466 (DEEP RIVER RD)	6,7	2	2WU	10.21	22	2.47	12.68	1,150																						
TOTAL FOR MAP NO. 15							10.21					1,150																						
2024CPT.08.04.20531	Lee	16	SR-1502 / RAGAN RD	FROM SR 1002 (LOWER MONCURE RD) TO END OF STATE MAINT.	6	2	2WU	0.65	18	0	0.65	73																						
TOTAL FOR MAP NO. 16							0.65					73																						
2024CPT.08.04.20531	Lee	17	SR-1107 / FIELDS DR	FROM 600' WEST OF US 421 BUS (S. HORNER BLVD) TO US 421 BUS (S. HORNER BLVD)	7	2	2WU	0.115	30	0.875	0.99	13				1,238	1,238				30					1					1			
TOTAL FOR MAP NO. 17							0.115					13				1,238	1,238				30					1					1			
2024CPT.08.04.20531	Lee	18	SR-1107 / FIELDS DR	FROM APPROX. 300' EAST OF SR 1237 (CARTHAGE STREET) TO 600' WEST OF US 421 BUS (S. HORNER BLVD)	8,9	2	2WU	0.815	22	0.06	0.875	72				6,833	6,833			100	50	4												
TOTAL FOR MAP NO. 18							0.815					72				6,833	6,833			100	50	4												
TOTAL FOR PROJ NO. 2024CPT.08.04.20531							18.28					2,038	1.000			8,071	8,071			100	80	4				1						1		
														16,142																				
GRAND TOTAL								25.388				3,767	1.000	180	8,071	8,071	40,525	47,928	6,660	442	100	132	4	12	7	3	2	1						
														88,453				7,102																

PROJECT NO. 2024CPT.08.04.10531, 2024CPT.08.04.20531	SHEET NO. 21	TOTAL NO.
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THERMOPLASTIC AND PAINT QUANTITIES

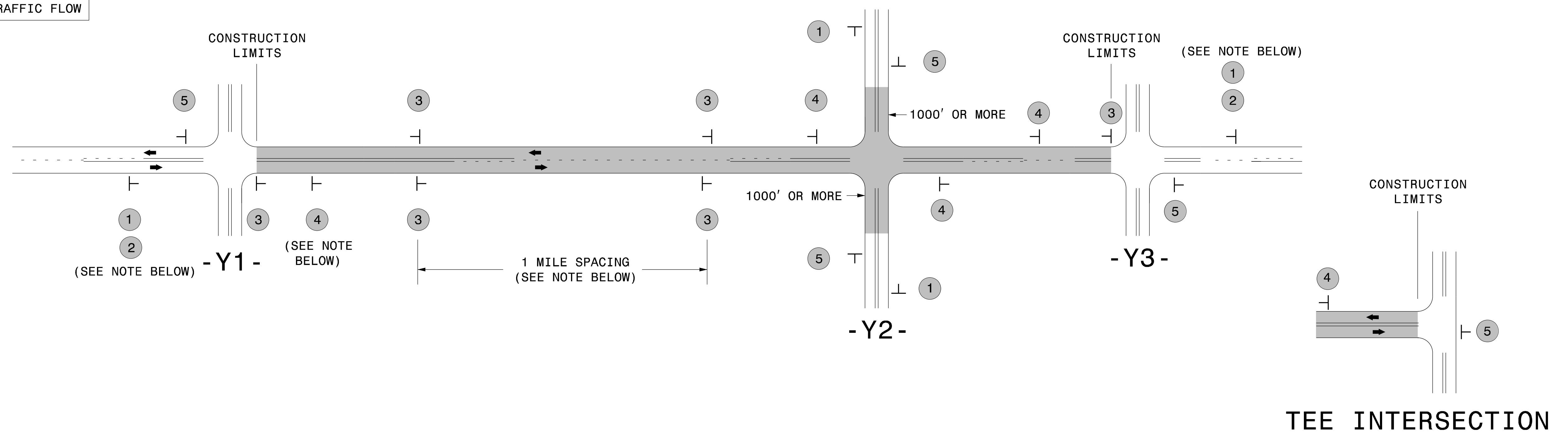
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	481000000-E		481500000-E		482500000-E		483000000-E	483500000-E	484500000-N					485000000-E	485500000-E	487000000-E	487500000-N	489100000-E	490510000-N				
												4" WHITE PAINT	4" YELLOW PAINT	6" YELLOW PAINT	6" WHITE PAINT	12" WHITE PAINT	12" YELLOW PAINT	16" WHITE PAINT	24" WHITE PAINT	PAINT MSG RXR	PAINT MERGE ARROW	PAINT LT ARROW	PAINT RT ARROW	PAINT STR ARROW	PAINT STR & RT ARROW	4" LINE REMOVAL	6" LINE REMOVAL	24" LINE REMOVAL	REMOVAL OF PAVEMENT MARKING SYMBOLS & CHARACTERS	GENERIC PAVEMENT MARKING ITEM - 16" LINE REMOVAL	NON-CAST IRON SNOWPLOW-ABLE PAVEMENT MARKER C&R	NON-CAST IRON SNOWPLOW-ABLE PAVEMENT MARKER Y&Y		
								MI	FT			LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA				
2024CPT.08.04.10531	Lee	1	US-421 N	FROM BRIDGE OVER US 421/421 BUS TO BRIDGE OVER NC 42	1	2	MD	1	38	3.8	4.8			5,280	6,403	705					3									66				
TOTAL FOR MAP NO. 1								1				5,280	6,403	705					3										66					
2024CPT.08.04.10531	Lee	2	US-421 S	FROM BRIDGE OVER NC 42 TO BRIDGE OVER US 421/421 BUS	1	2	MD	1	38	10.17	11.17			5,280	6,539	905					3								66					
TOTAL FOR MAP NO. 2								1				5,280	6,539	905					3										66					
2024CPT.08.04.10531	Lee	3	NC-87 BYP N	FROM NC 87 TO BRIDGE OVER US 421/421 BUS	1	2	MD	1.36	38	0	1.36			7,671	9,626	1,184												551	90					
TOTAL FOR MAP NO. 3								1.36				7,671	9,626	1,184															551	90				
2024CPT.08.04.10531	Lee	4	NC-87 BYP S	FROM BRIDGE OVER US 421/421 BUS TO NC 87	1	2	MD	1.07	38	6.75	7.82			6,140	7,841	1,882					3							613	71					
TOTAL FOR MAP NO. 4								1.07				6,140	7,841	1,882							3								613	71				
2024CPT.08.04.10531	Lee	5	NC-87 N	FROM PVMT JT 210' SOUTH OF MEDIAN END TO NC 87 BYP	2	2	MD	0.17	38	3.12	3.29			1,056	1,273														11					
TOTAL FOR MAP NO. 5								0.17				1,056	1,273																	11				
2024CPT.08.04.10531	Lee	6	NC-87 S	FROM NC 87 BYP TO PVMT JNT 210' SOUTH OF MEDIAN END	2	2	MD	0.45	38	12.21	12.66			2,433	3,250						3								30					
TOTAL FOR MAP NO. 6								0.45				2,433	3,250								3									30				
2024CPT.08.04.10531	Lee	7	NC-87	FROM PVMT JT 210' SOUTH OF MEDIAN END TO COMMERCE AVENUE	3	2	MU	0.24	68	2.88	3.12			4,046	3,562		385		52			4	3	2					16					
TOTAL FOR MAP NO. 7								0.24				4,046	3,562		385		52				4	3	2							16				
2024CPT.08.04.10531	Lee	8	US-1 N	FROM SPRING LANE OFF RAMP TO US 421 BUS (HORNER BLVD)	2	2	MD	0.89	34	10.7	11.59			4,699	5,881	1,984													59					
TOTAL FOR MAP NO. 8								0.89				4,699	5,881	1,984																	59			
2024CPT.08.04.10531	Lee	9	RMP-868 OI	US 1 EXIT 68 NB OFF RAMP	4	2		0.305	25	0	0.305			1,610	1,610																			
TOTAL FOR MAP NO. 9								0.305				1,610	1,610																					
2024CPT.08.04.10531	Lee	10	RMP-869 OI	US 1 EXIT 68 NB ON RAMP	4	2		0.222	24	0	0.222			1,172	1,172																			
TOTAL FOR MAP NO. 10								0.222				1,172	1,172																					
2024CPT.08.04.10531	Lee	11	RMP-864 OI	US 1 EXIT 69A NB OFF RAMP	4	2		0.251	25	0	0.251			1,326	1,326																			
TOTAL FOR MAP NO. 11								0.251				1,326	1,326																					
2024CPT.08.04.10531	Lee	12	RMP-865 OI	US 1 EXIT 69 NB ON RAMP	5	2		0.15	21	0	0.15			792	792																			
TOTAL FOR MAP NO. 12								0.15				792	792																					
TOTAL FOR PROJ NO. 2024CPT.08.04.10531								7.108				41,505	49,275	6,660	442			52				12	6	3	2					1,164		409		
												90,780		7,102							23								409					
2024CPT.08.04.20531	Lee	13	SR-1239 / INDUSTRIAL DR	FROM SR 1133 (LEE AVENUE) TO THE END OF STATE MAINT.	6,7	2	2WU	1.01	20	0	1.01			10,868	10,868																			
TOTAL FOR MAP NO. 13								1.01				10,868	10,868																					
2024CPT.08.04.20531	Lee	14	SR-1318 / STEEL BRIDGE RD	FROM NC 42 TO SR 1007 (S. PLANK RD)	8	2	2WU	5.48	20	0	5.48			58,965	36,168													95,133						
TOTAL FOR MAP NO. 14								5.48				58,965	36,168															95,133						
2024CPT.08.04.20531	Lee	15	SR-1002 / LOWER MONCURE RD	FROM N. JOINT OF BRIDGE APPROACH AT US 421 BYPASS TO SR 1466 (DEEP RIVER RD)	6,7	2	2WU	10.21	22	2.47	12.68			109,860	67,386			200	100	8														
TOTAL FOR MAP NO. 15								10.21				109,860	67,386			200	100	8																
2024CPT.08.04.20531	Lee	16	SR-1502 / RAGAN RD	FROM SR 1002 (LOWER MONCURE RD) TO END OF STATE MAINT.	6	2	2WU	0.65	18	0	0.65																							
TOTAL FOR MAP NO. 16								0.65																										
2024CPT.08.04.20531	Lee	17	SR-1107 / FIELDS DR	FROM 600' WEST OF US 421 BUS (S. HORNER BLVD) TO US 421 BUS (S. HORNER BLVD)	7	2	2WU	0.115	30	0.875	0.99			1,238	1,238				30											8				
TOTAL FOR MAP NO. 17								0.115				1,238	1,238			30				1					1							8		
2024CPT.08.04.20531	Lee	18	SR-1107 / FIELDS DR	FROM APPROX. 300' EAST OF SR 1237 (CARTHAGE STREET) TO 600' WEST OF US 421 BUS (S. HORNER BLVD)	8,9	2	2WU	0.815	22	0.06	0.875																			54				
TOTAL FOR MAP NO. 18								0.815																						13,666	50	4	100	54
TOTAL FOR PROJ NO. 2024CPT.08.04.20531								18.28				180,931	115,660			200	130	8				1			1				108,799	50	4	100	62	
												296,591									2									62				
GRAND TOTAL								25.388				180,931	115,660	41,505	49,275	6,660	442	200	182	8	12	7	3	2	1	108,799	1,164	50	4	100	409	62		
												296,591		90,780		7,102					25							471						

SIGNING FOR RESURFACING PROJECTS

LEGEND

┆ STATIONARY SIGN

← DIRECTION OF TRAFFIC FLOW



MAINLINE (-L-) SIGNING

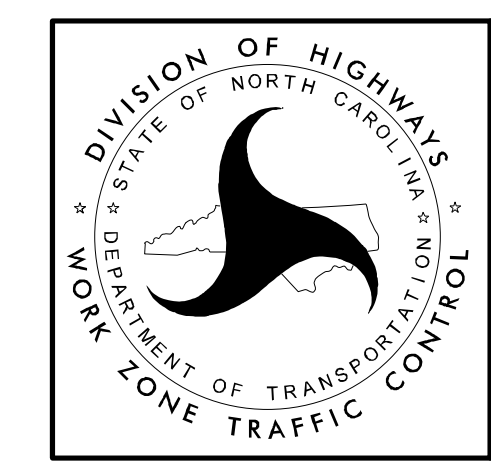
-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1		PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> LESS THAN 1000' OF RESURFACING ALONG -Y- LINE SUBDIVISION ROADS DEAD END ROADS <p>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.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> W20-1 48" X 48" PLACED 500' IN ADVANCE OF FLAGGER. </div> <div style="text-align: center;"> W20-7 A 48" X 48" PLACED 250' IN ADVANCE OF FLAGGER. </div> </div>
	2		#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		- 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.	
	4		- 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		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.

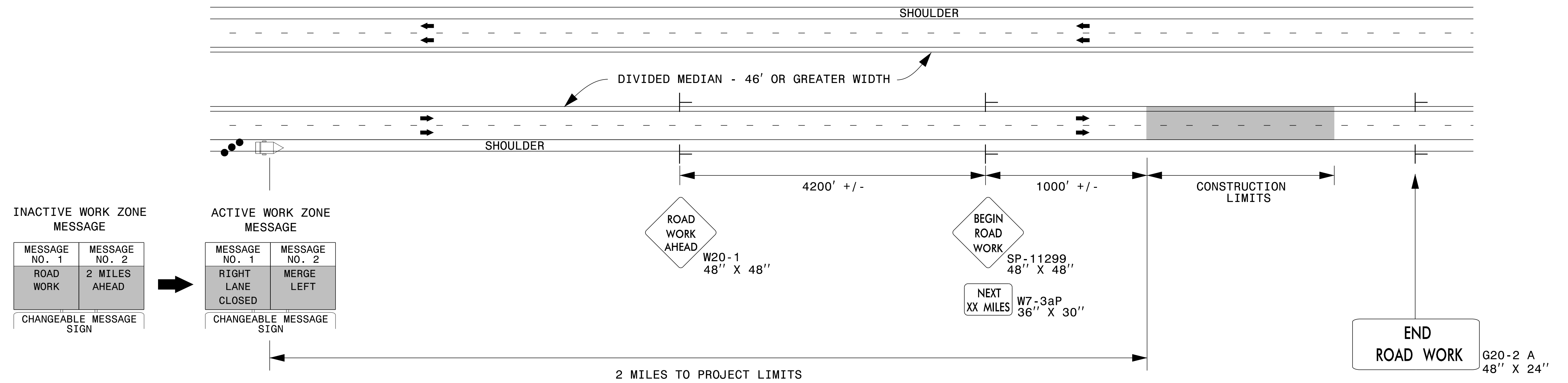
MAPS LESS THAN 2 MILES

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.

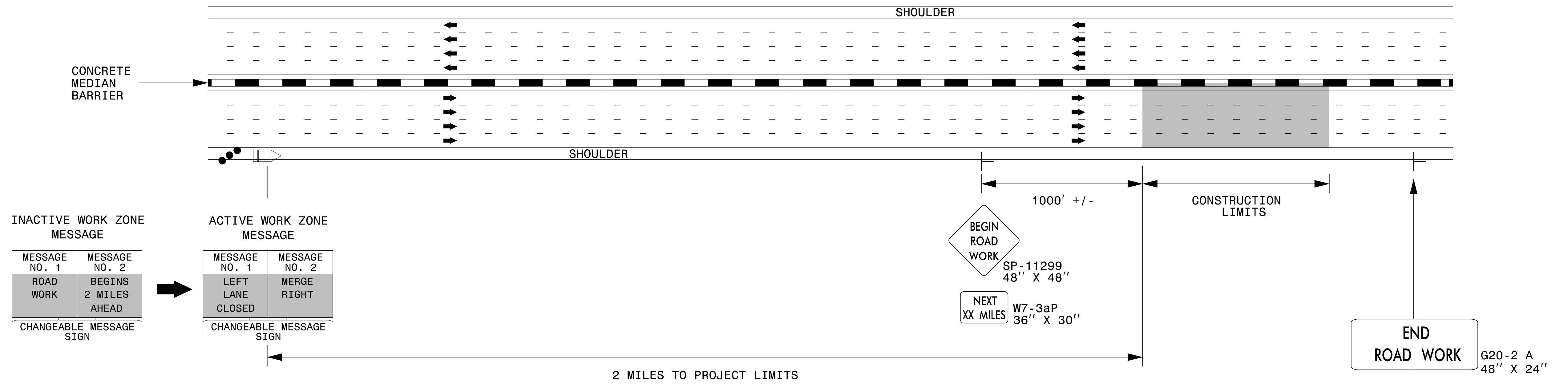


ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2-LANE ROADWAY RESURFACING

DIVIDED MEDIANS WITH WIDTHS 46' OR GREATER



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

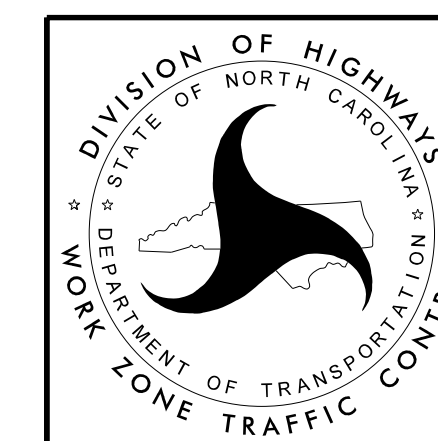


NOTES:

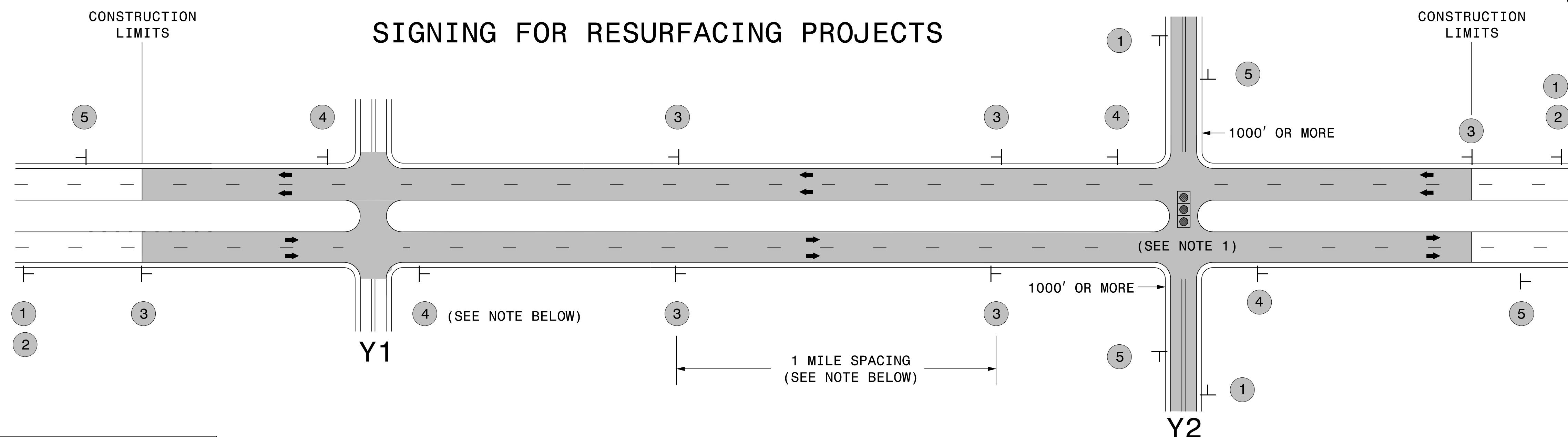
- 1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6' AS MEASURED FROM THE EDGE OF PAVEMENT.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S 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

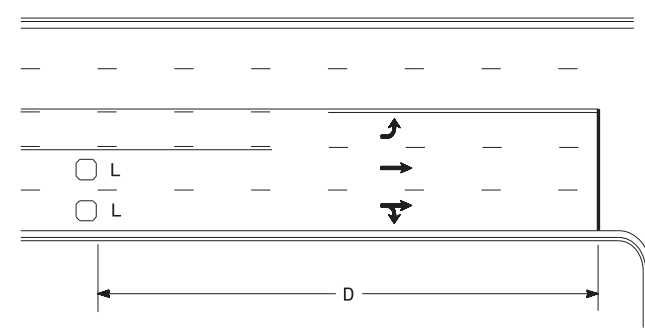
-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	 	<p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#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)</p>	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS <p>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.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <small>W20-1 48" X 48"</small> </div> <div style="text-align: center;"> <small>W20-7 A 48" X 48"</small> </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p> <p>NOTES:</p> <ol style="list-style-type: none"> 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.
		<p>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.</p>	
		<p>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.</p>	
		<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>	

3/23/2015
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User:rmgarrrett

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

High Speed Detection (≥40 mph)

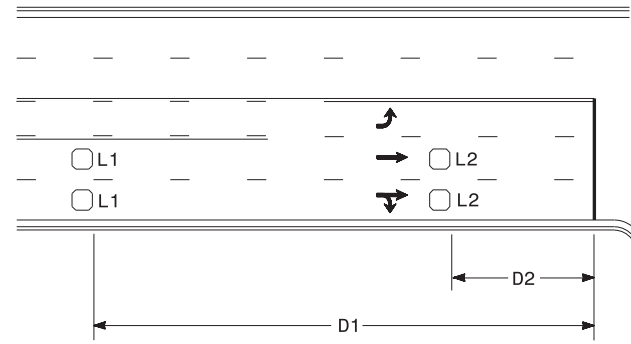


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR

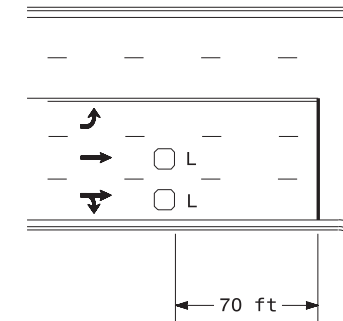


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series
L2 = 6ft X 6ft
Wired in series

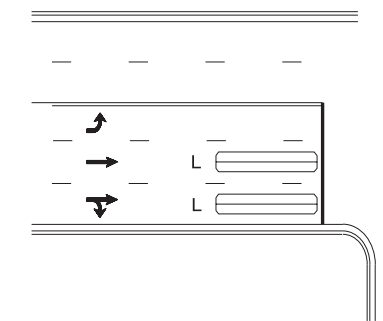
"Stretch" Operation

Low Speed Detection (≤35 mph)



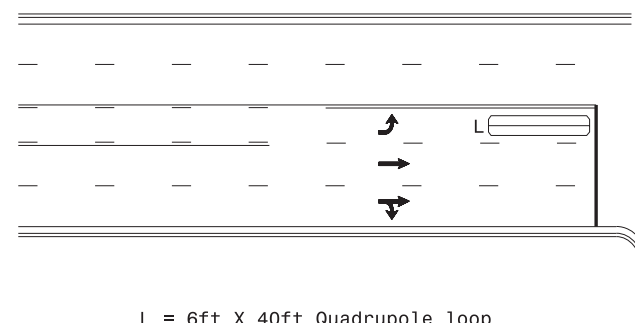
L = 6ft X 6ft
Wired in series

OR



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

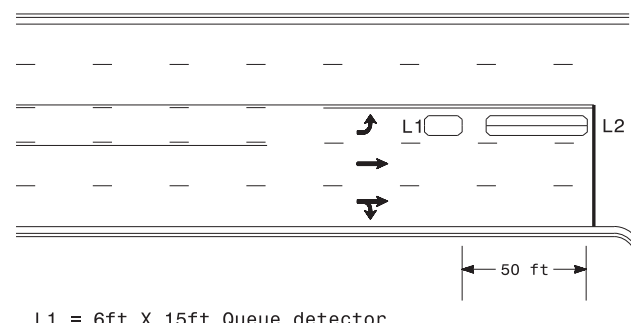
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

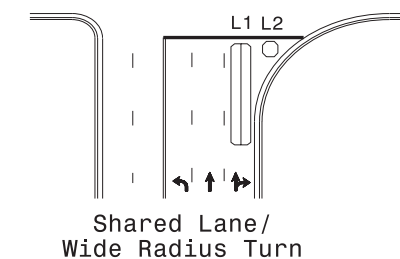
OR



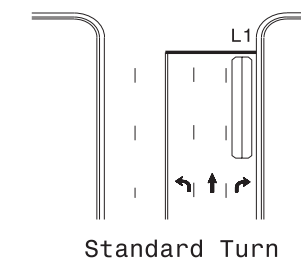
L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

Queue Loop Detection

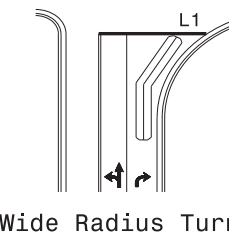
Right Turn Lane Detection



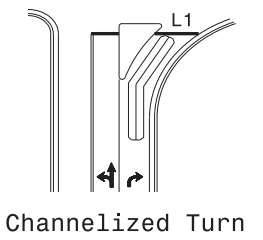
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

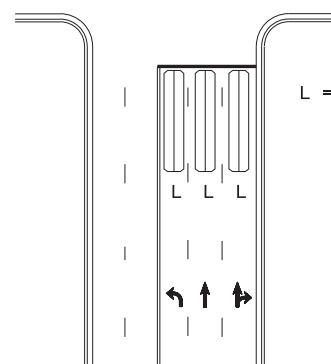


Wide Radius Turn



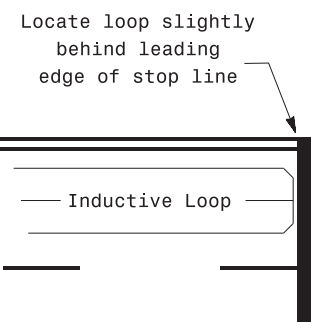
Channelized Turn

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

750 N. Greenfield Pkwy, Garner, NC 27529

Prepared in the Offices of:

Typical Signal Loop Locations	
PLAN DATE: September 2020	REVIEWED BY: JPG
PREPARED BY: PLA	REVIEWED BY:
SCALE: N/A	REVISIONS: INIT. DATE

9/8/2020
DATE

SIG. INVENTORY NO.