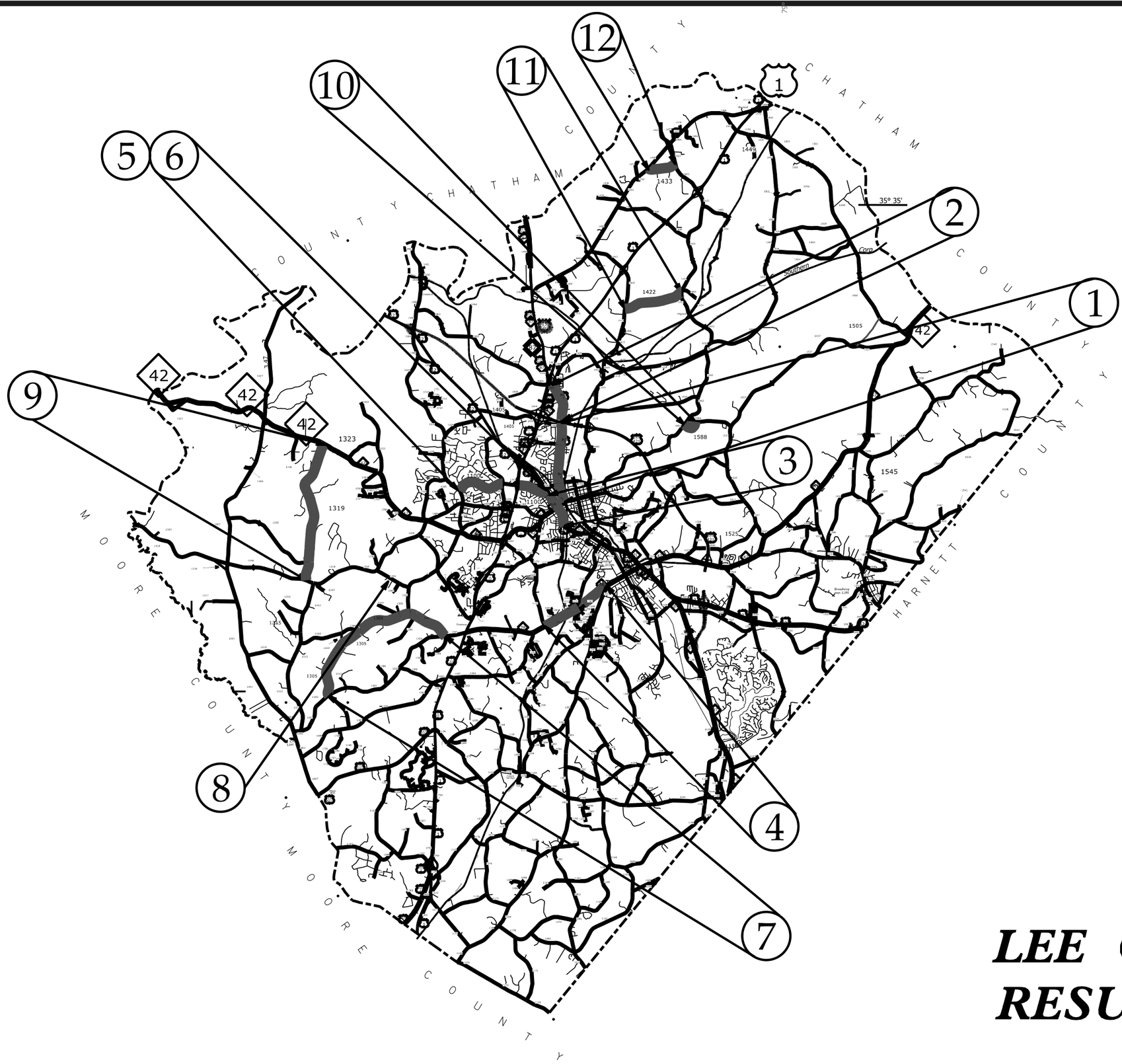
WBS ELEMENT	SHEET NO.
2027CPT.08.02.10531 2027CPT.08.02.20531	1



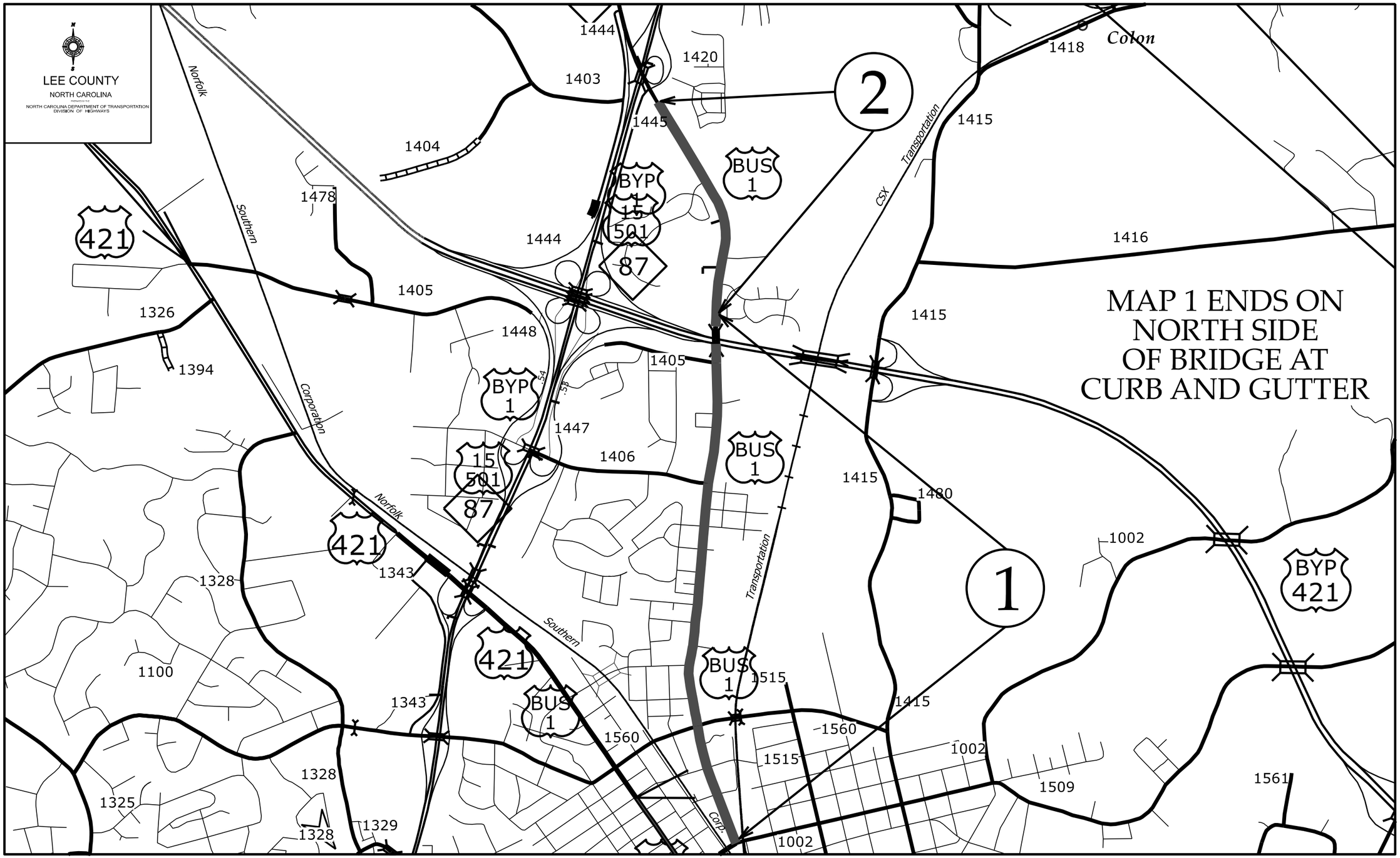
N

S

LEE COUNTY RESURFACING

WBS ELEMENT	SHEET NO.
2027CPT.08.02.10531 2027CPT.08.02.20531	2

Maps 1&2



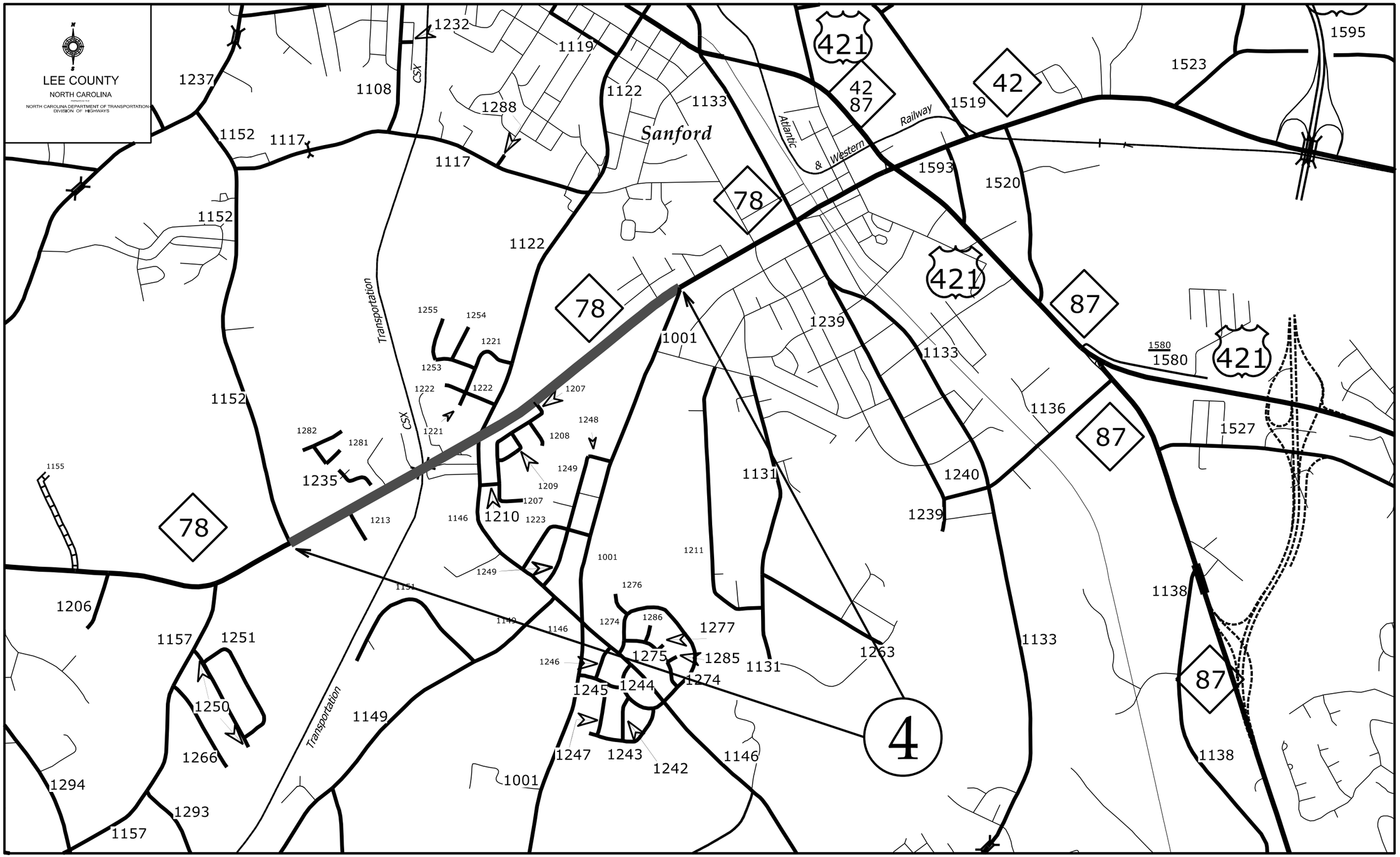
WBS ELEMENT	SHEET NO.
2027CPT.08.02.10531 2027CPT.08.02.20531	3

Map 3



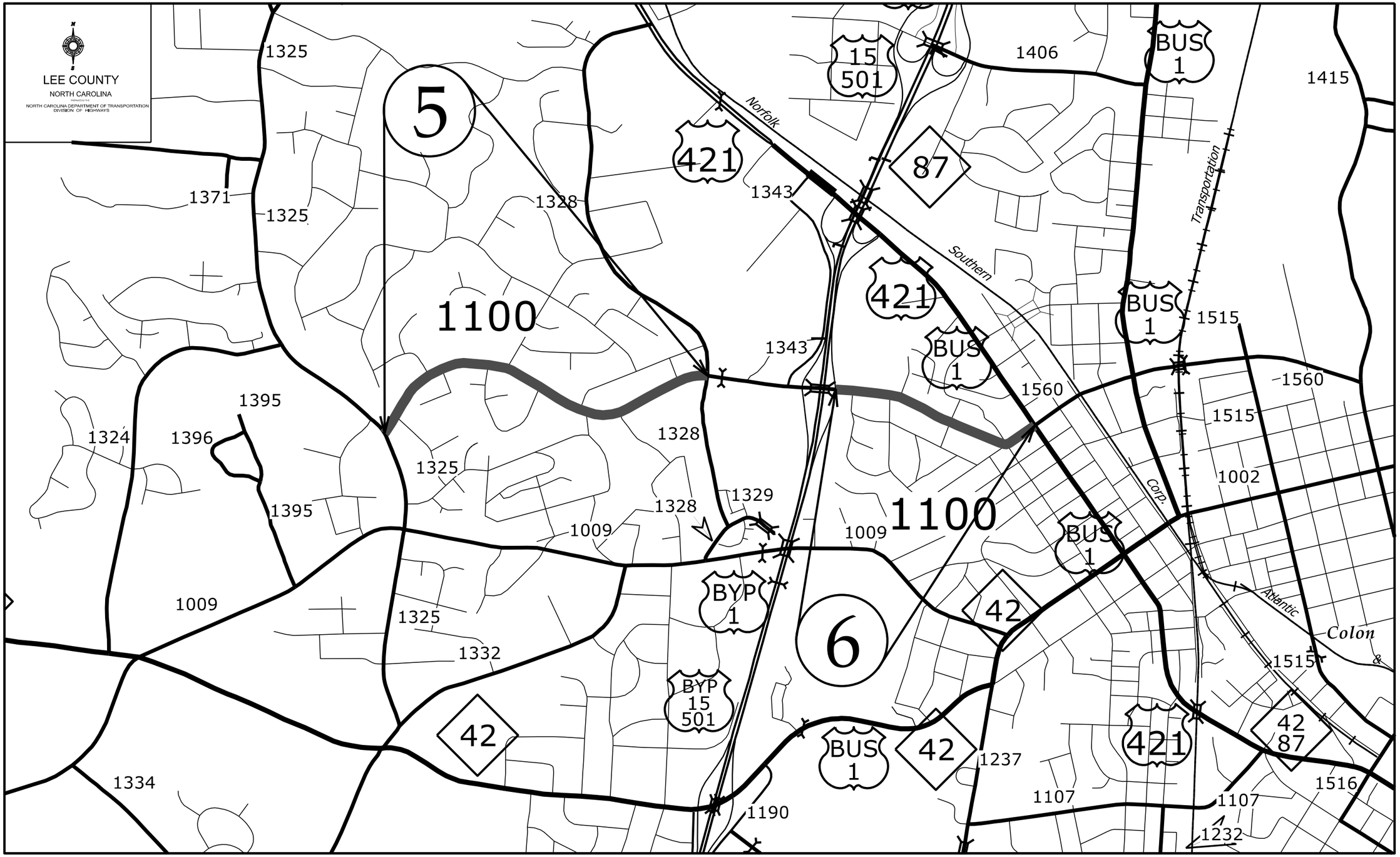
WBS ELEMENT	SHEET NO.
2027CPT.08.02.10531 2027CPT.08.02.20531	4

Map 4



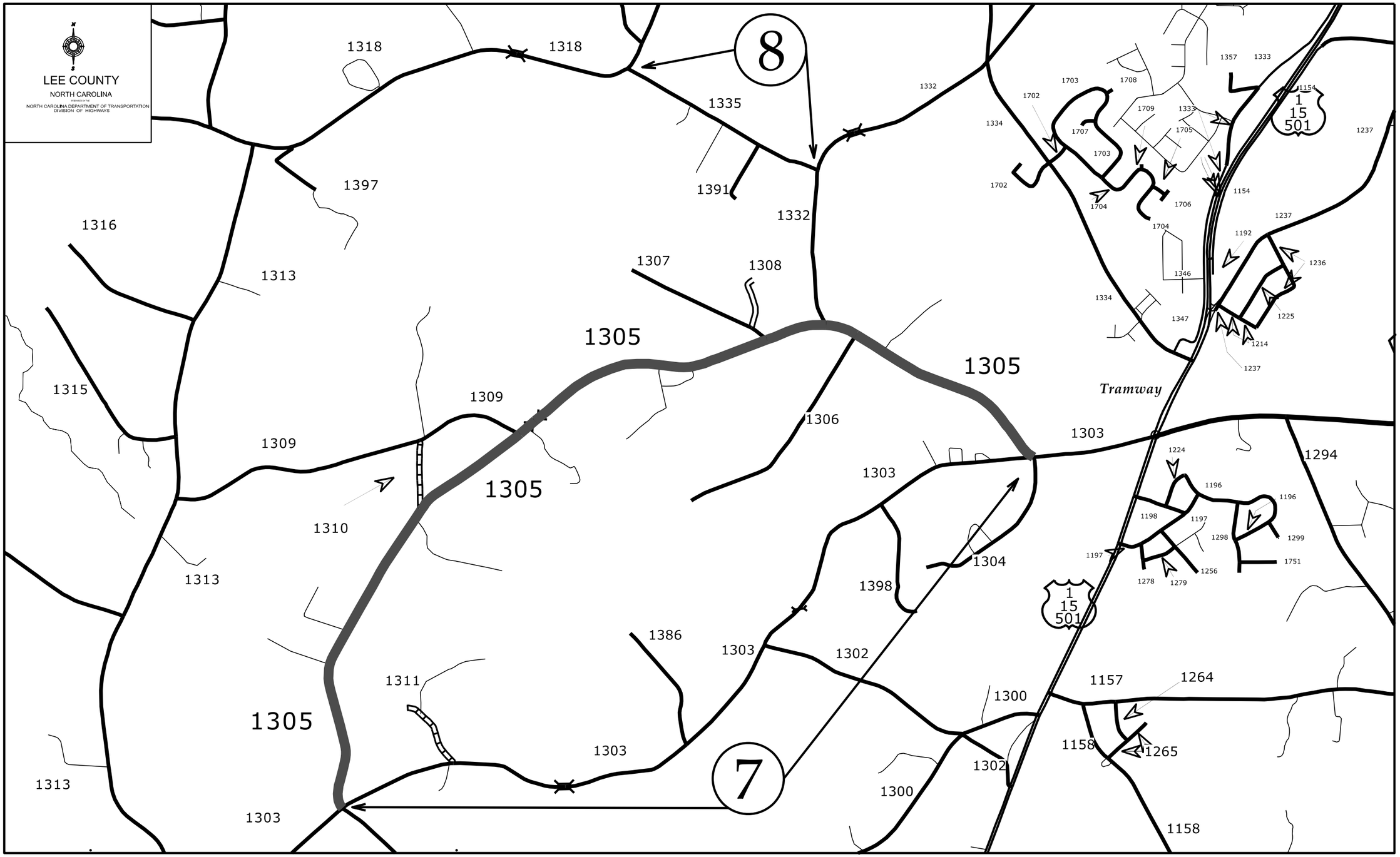
WBS ELEMENT	SHEET NO.
2027CPT.08.02.10531 2027CPT.08.02.20531	5

Maps 5 & 6



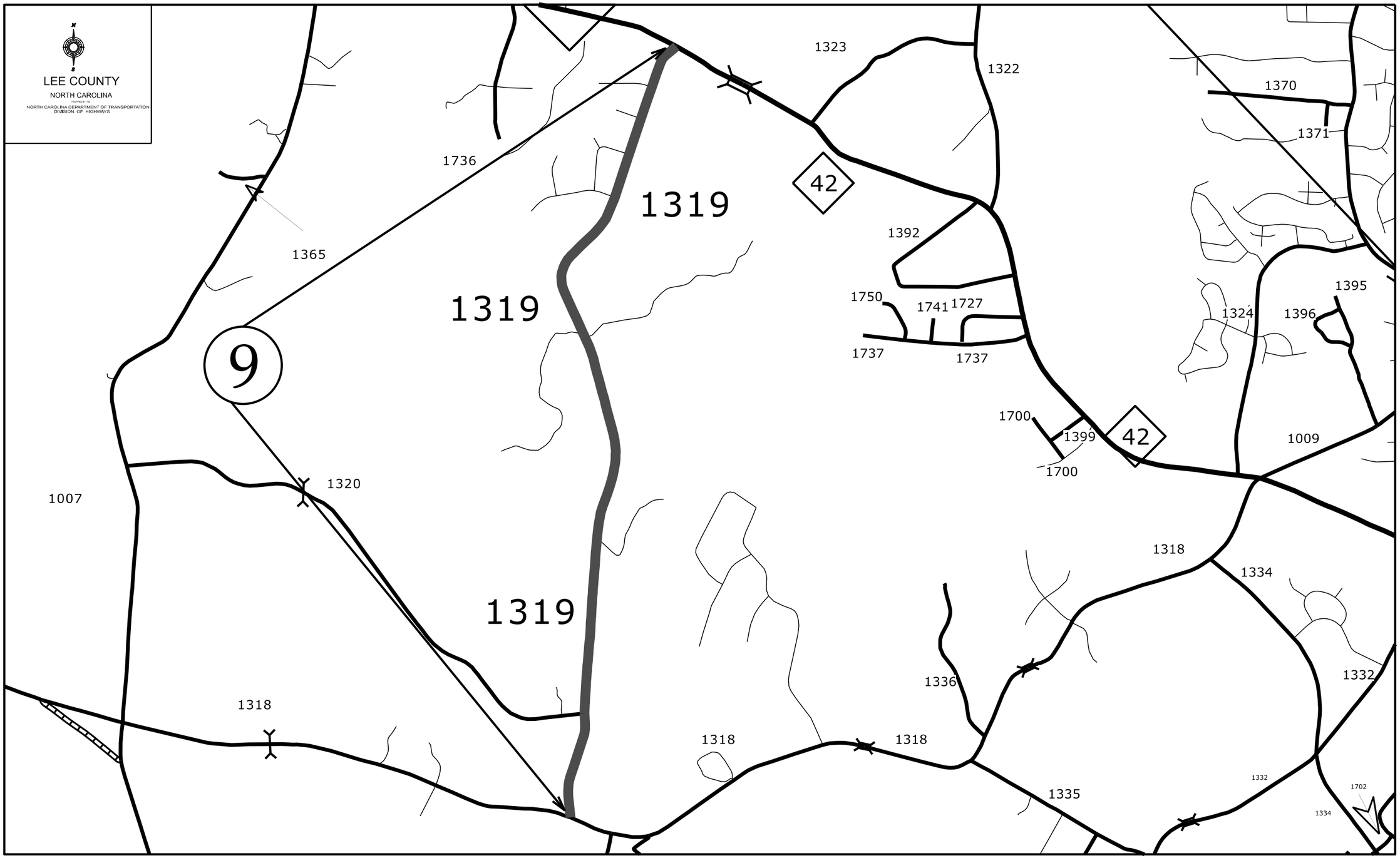
WBS ELEMENT	SHEET NO.
2027CPT.08.02.10531 2027CPT.08.02.20531	6

Map 7 & 8



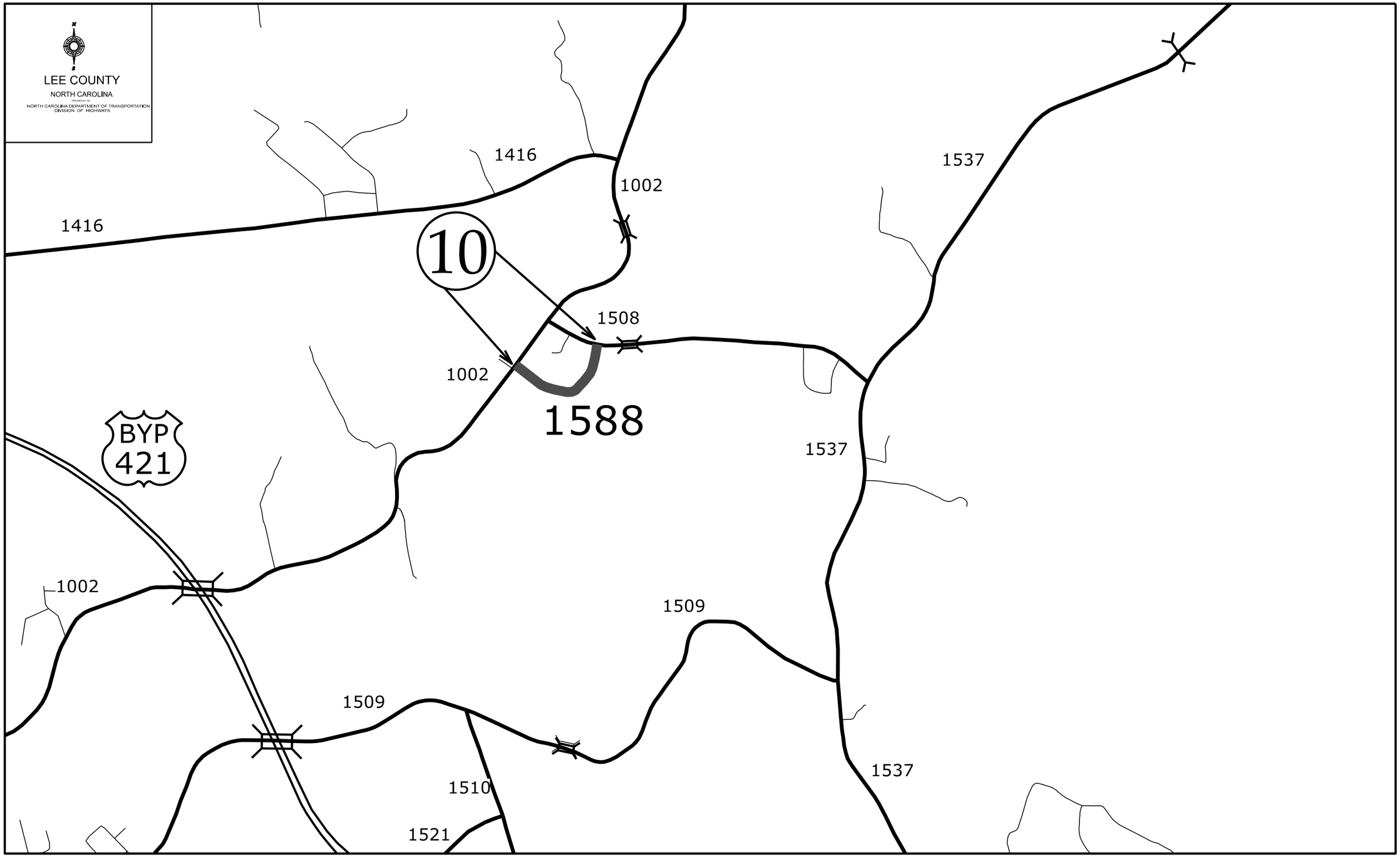
WBS ELEMENT	SHEET NO.
2027CPT.08.02.10531 2027CPT.08.02.20531	7

Map 9



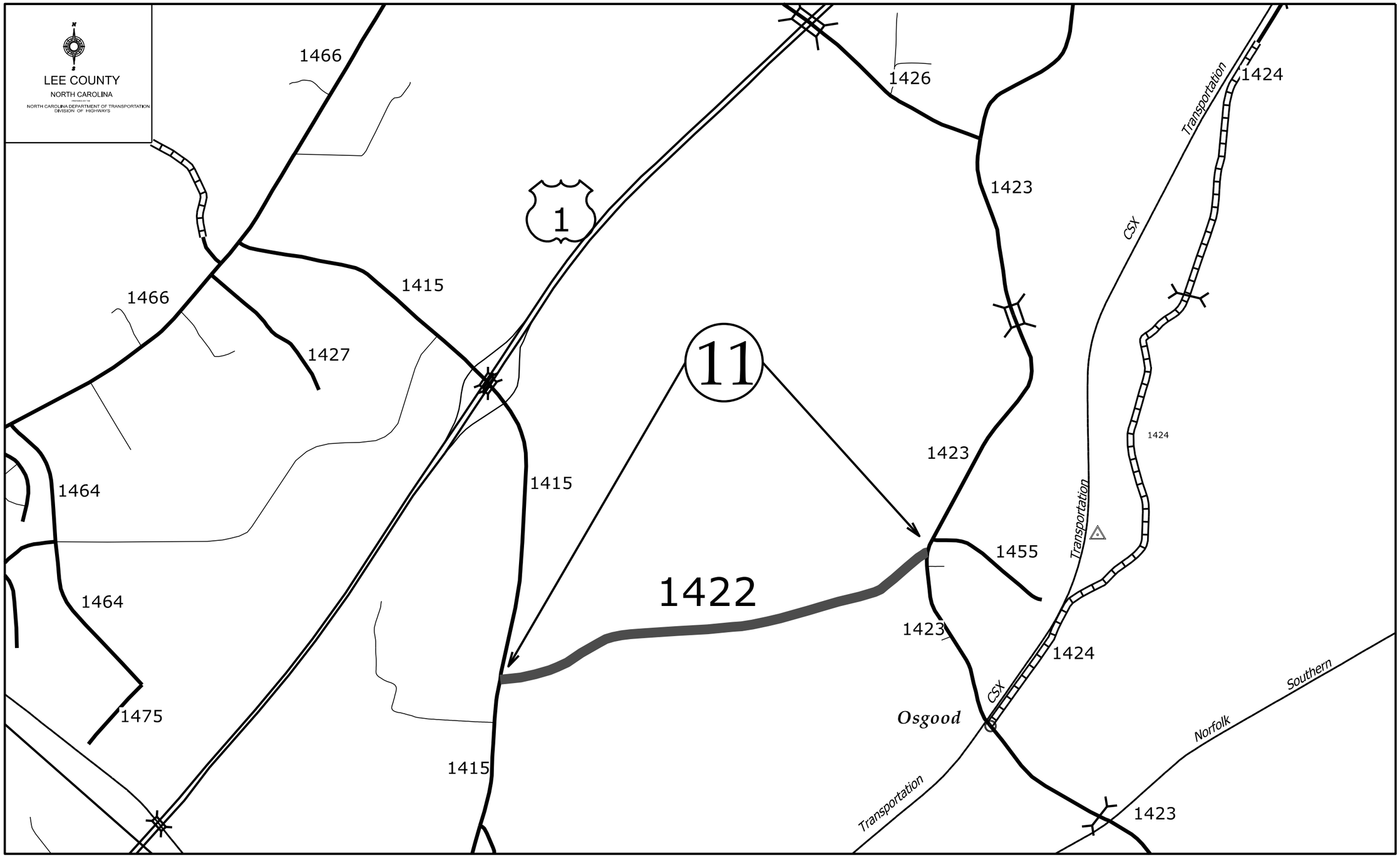
WBS ELEMENT	SHEET NO.
2027CPT.08.02.10531 2027CPT.08.02.20531	8

Map 10



WBS ELEMENT	SHEET NO.
2027CPT.08.02.10531 2027CPT.08.02.20531	9

Maps 11



WBS ELEMENT	SHEET NO.
2027CPT.08.02.10531 2027CPT.08.02.20531	10

Map 12

LEE COUNTY
NORTH CAROLINA
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CHATHAM COUNTY

CHATHAM COUNTY

Blacknel

Blacknel

1

1466

1466

1470

1002

1474

1469

1423

1472

1473

1434

1484

1466

1434

1500

12

1423

1449

1466

1002

1

1431

1500

Transportation

1433

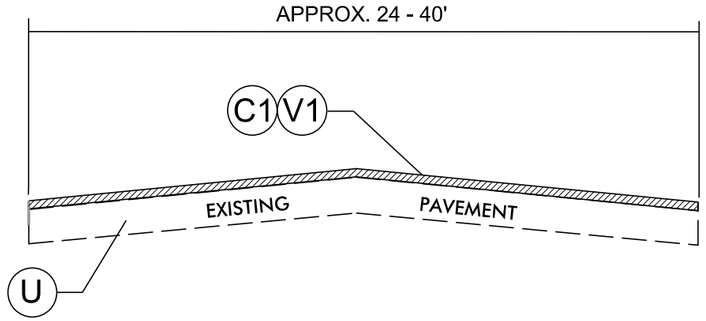
1423

1432

1466

1502

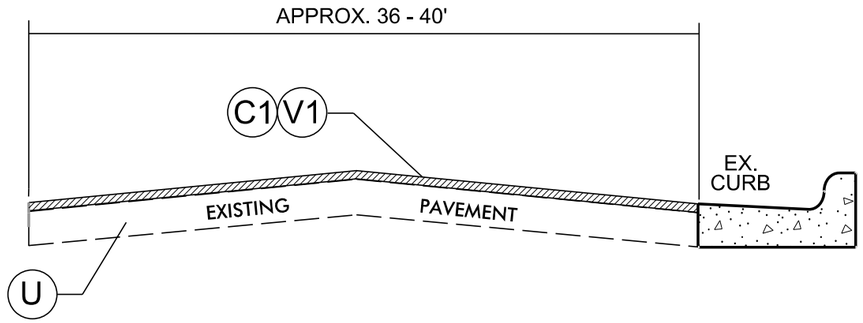
WBS ELEMENT	SHEET NO.
2027CPT.08.02.10531 2027CPT.08.02.20531	11



TYPICAL SECTION NO. 1

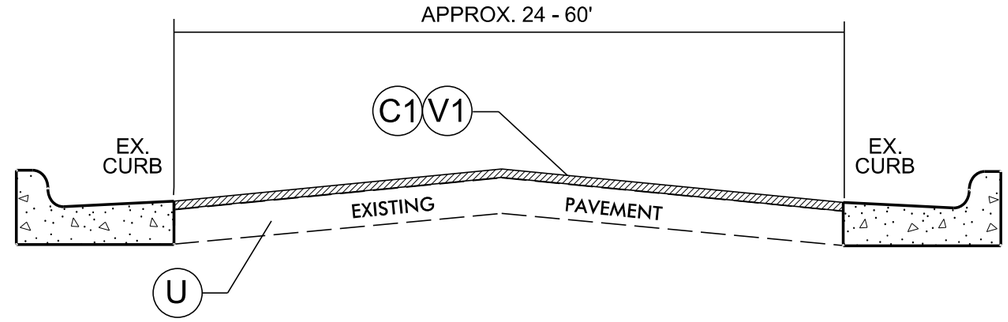
USE FOR MAP 1,4

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
E	PROP. APPROX. 5.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD. (TRENCHING FOR WIDENING IS INCIDENTAL TO BASE, SEE S.P)
F1	PROP. ASPHALT SURFACE TREATMENT, MAT COAT #67 STONE
F2	PROP. ASPHALT SURFACE TREATMENT, SCRUB SEAL #78 STONE
S	AGGREGATE SHOULDER BORROW
U	EXISTING PAVEMENT
V1	MILLING 1.5" IN DEPTH



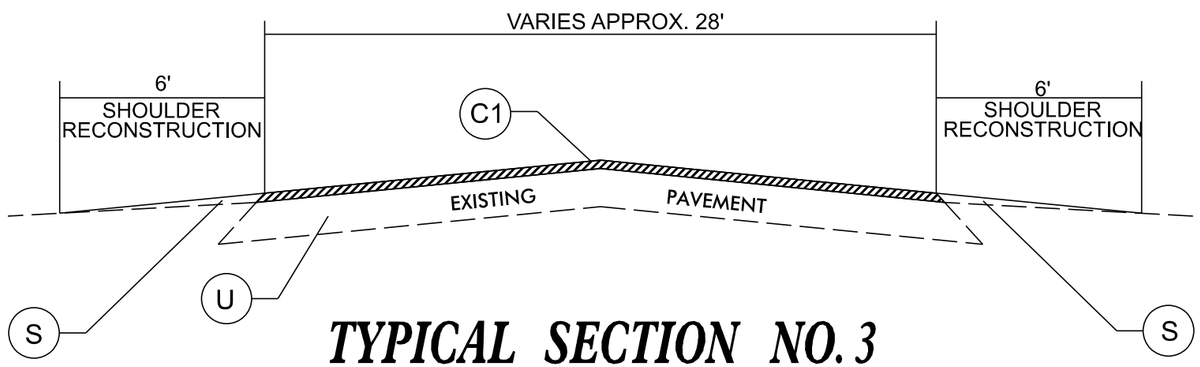
TYPICAL SECTION NO. 2

USE FOR MAP 1 C&G SECTION



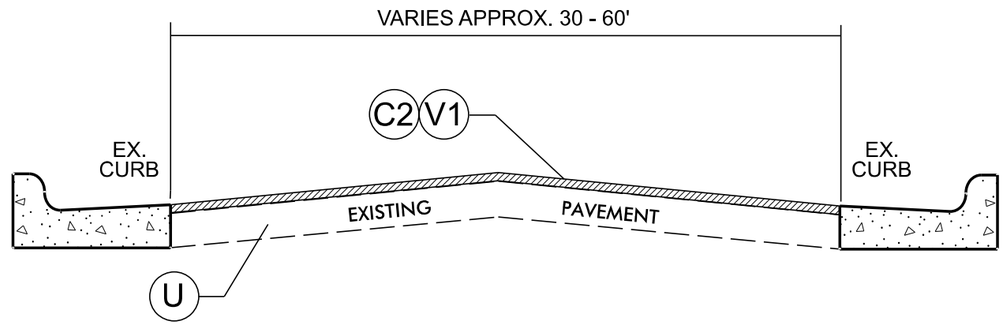
TYPICAL SECTION NO. 4

USE FOR MAP 3,4



TYPICAL SECTION NO. 3

USE FOR MAP 2

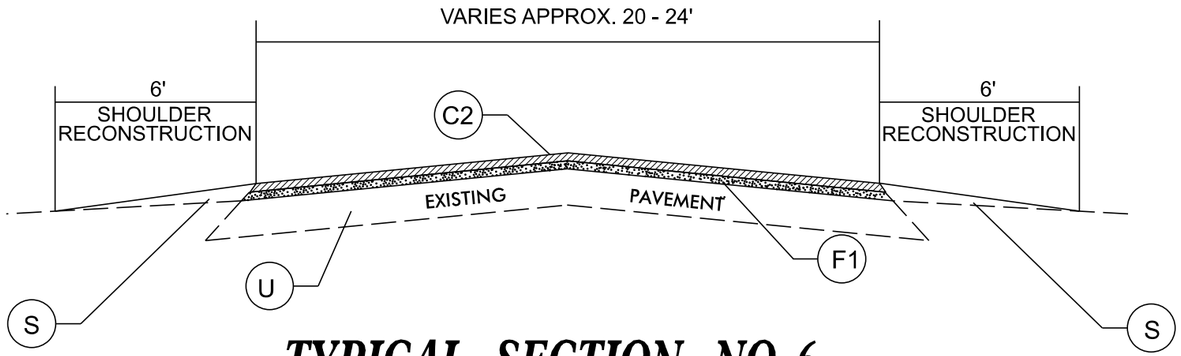


TYPICAL SECTION NO. 5

USE FOR MAP 6

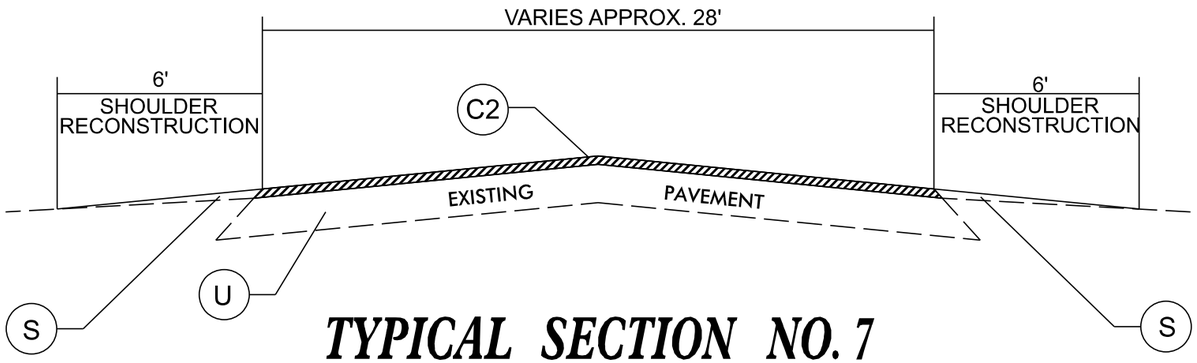
\\S1TIME\#####\DGN\#####.dgn

WBS ELEMENT	SHEET NO.
2027CPT.08.02.10531 2027CPT.08.02.20531	12



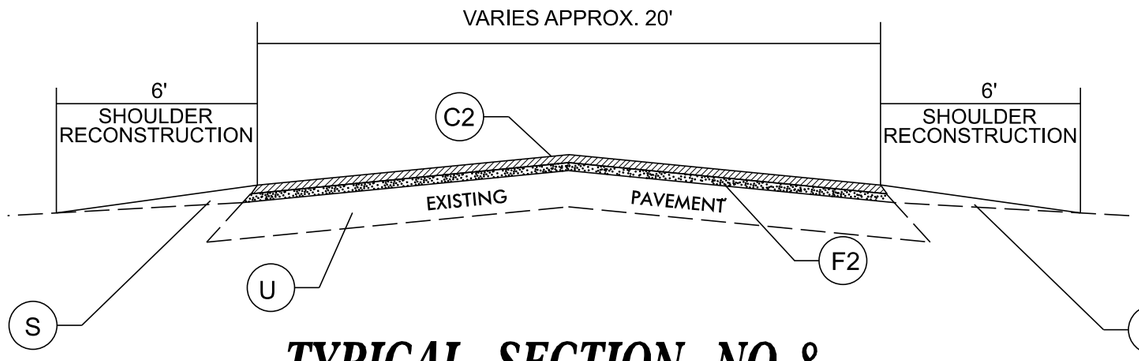
TYPICAL SECTION NO. 6

USE FOR MAP 5,10,12



TYPICAL SECTION NO. 7

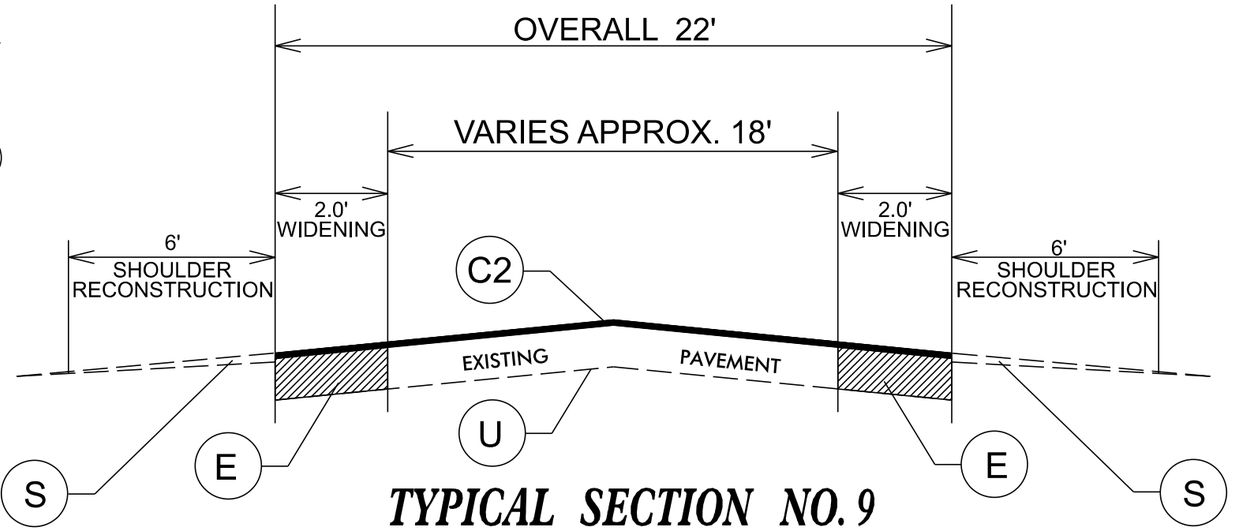
USE FOR MAP 7,11



TYPICAL SECTION NO. 8

USE FOR MAP 8

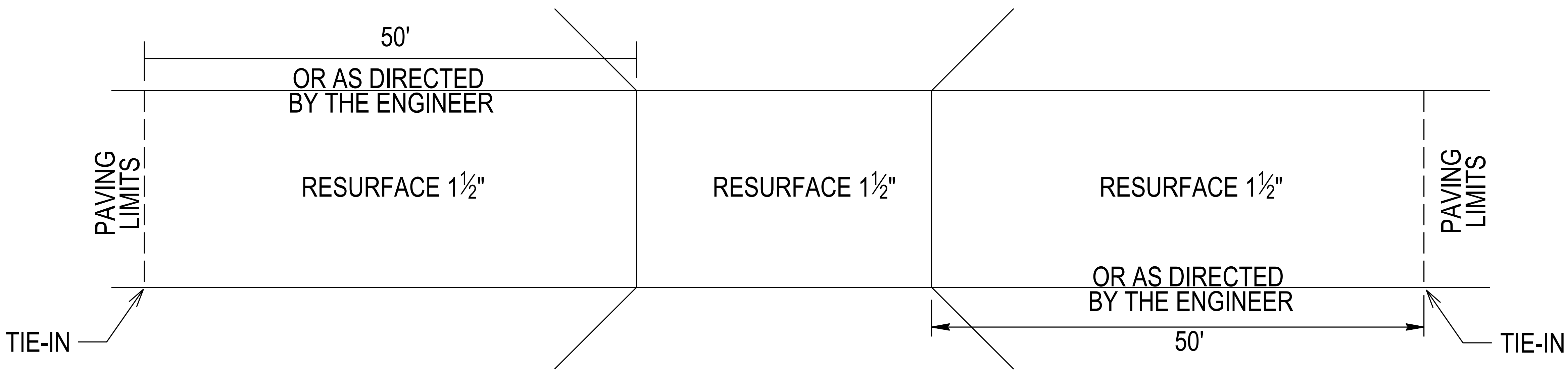
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
E	PROP. APPROX. 5.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD. (TRENCHING FOR WIDENING IS INCIDENTAL TO BASE, SEE S.P)
F1	PROP. ASPHALT SURFACE TREATMENT, MAT COAT #67 STONE
F2	PROP. ASPHALT SURFACE TREATMENT, SCRUB SEAL #78 STONE
S	AGGREGATE SHOULDER BORROW
U	EXISTING PAVEMENT
V1	MILLING 1.5" IN DEPTH



TYPICAL SECTION NO. 9

USE FOR MAP 9

BRIDGE DETAILS



BRIDGE DRAWING FOR
MAP # 7 SR 1305 HENLEY ROAD

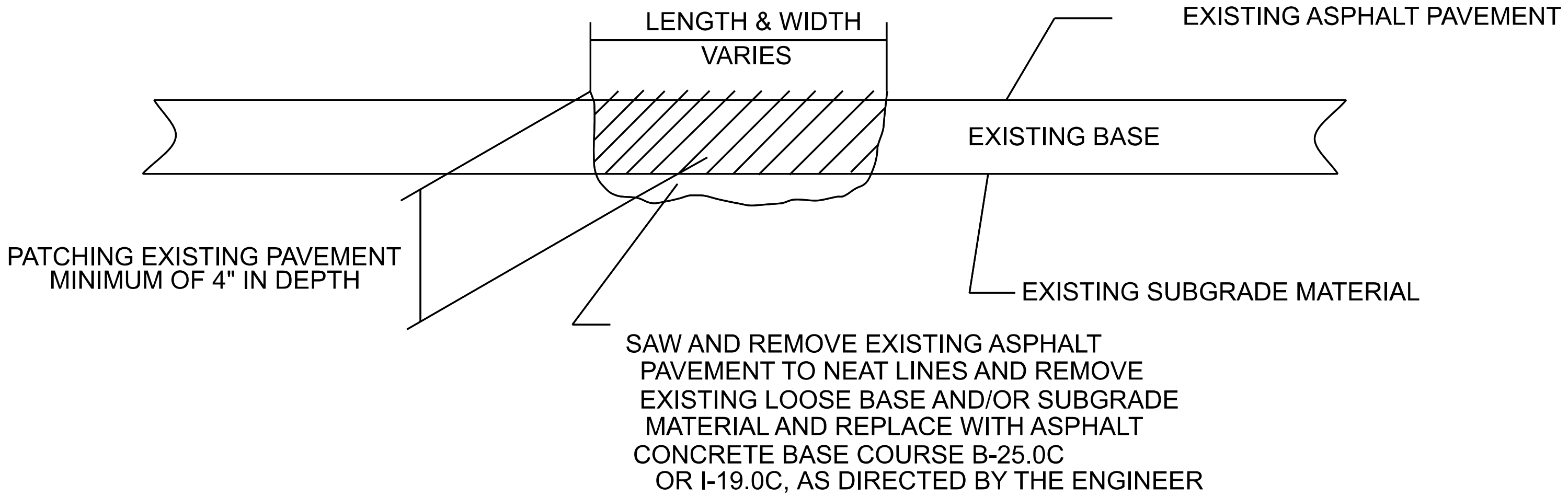
BRIDGE NOTES:

DO NOT FILL IN DRAIN HOLES
WHEN RESURFACING.

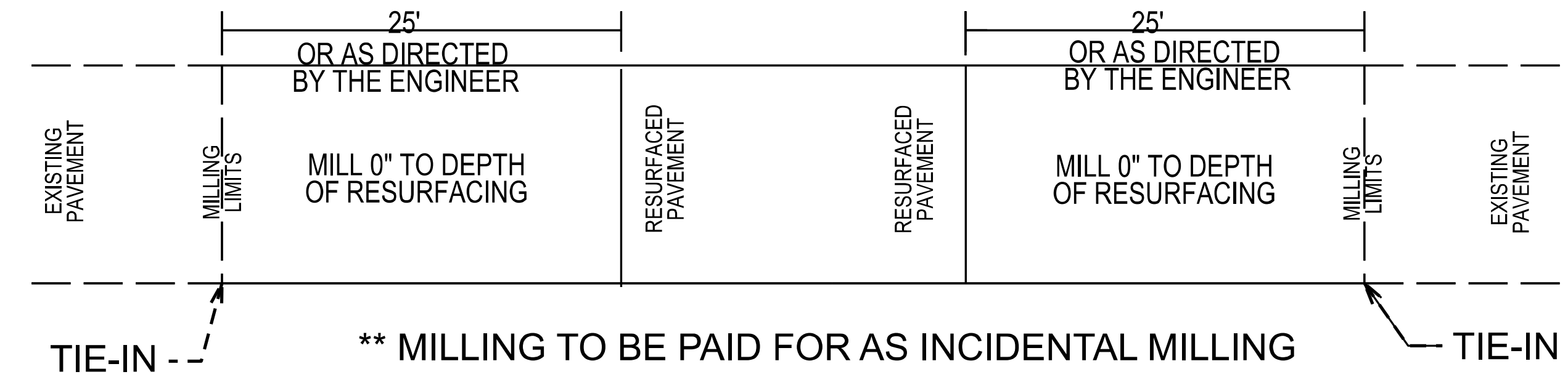
$$$$$SYSTIME$$$$
$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

DETAILS

DETAILS OF PATCHING EXISTING PAVEMENT PRIOR TO RESURFACING



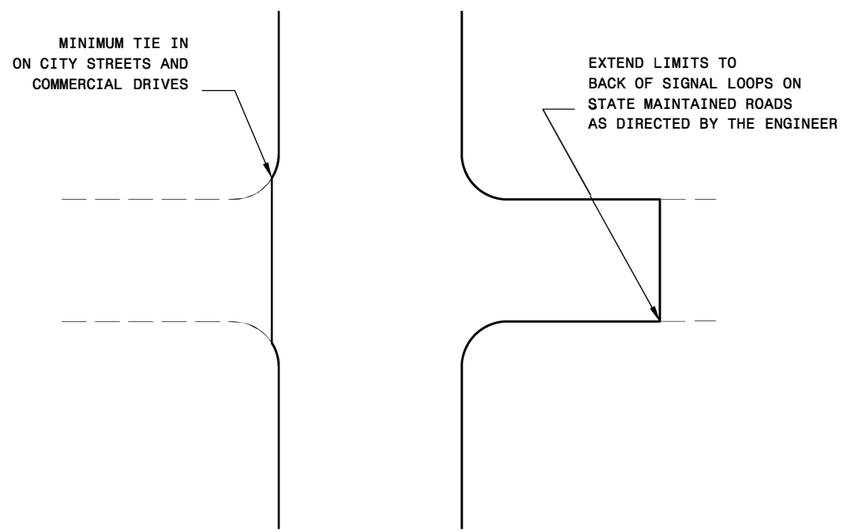
PAVEMENT TIE-IN DETAIL



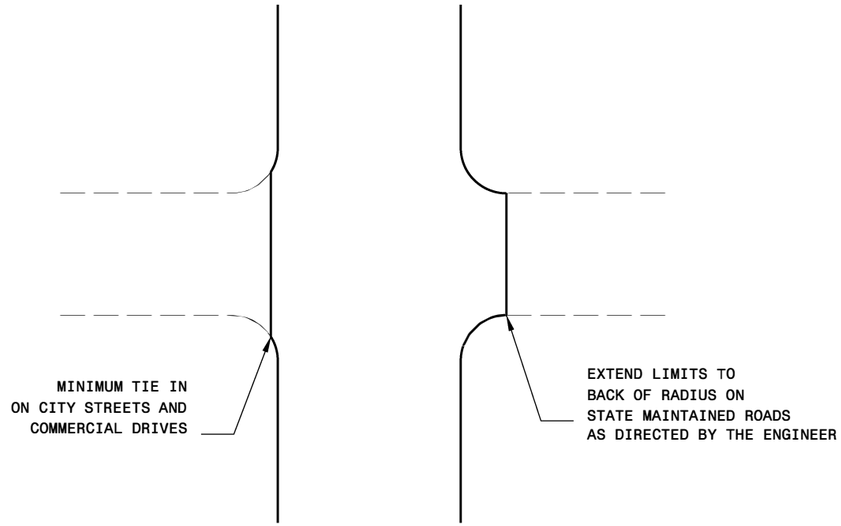
** MILLING TO BE PAID FOR AS INCIDENTAL MILLING

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

PROJECT REFERENCE NO.	SHEET NO.
2027CPT.08.02.10531, etc	15



TYPICAL DETAIL OF PROJECT LIMITS AT
SIGNALIZED Y LINES



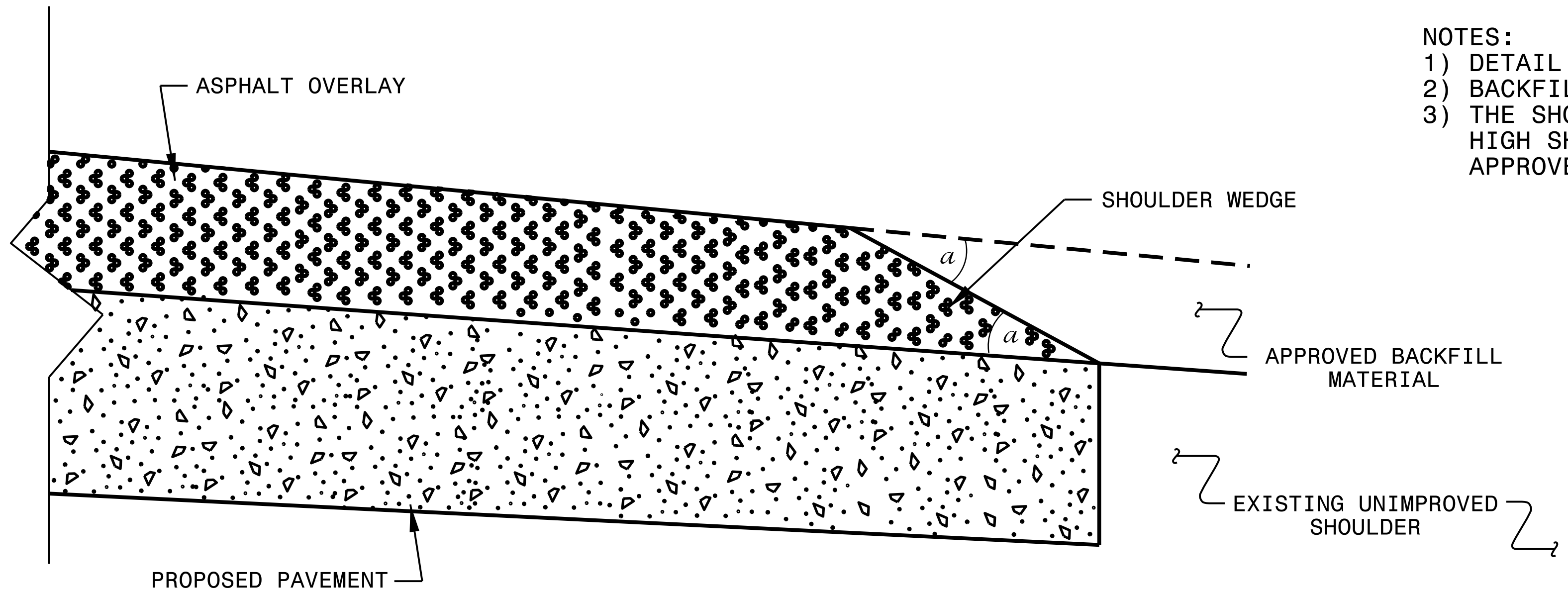
TYPICAL DETAIL OF PROJECT LIMITS AT
UNSIGNALIZED Y LINES

ADDITIONAL INTERSECTIONS (NON-TYPICAL)

Extend paving limits to back of radius
or loop on the following intersections:

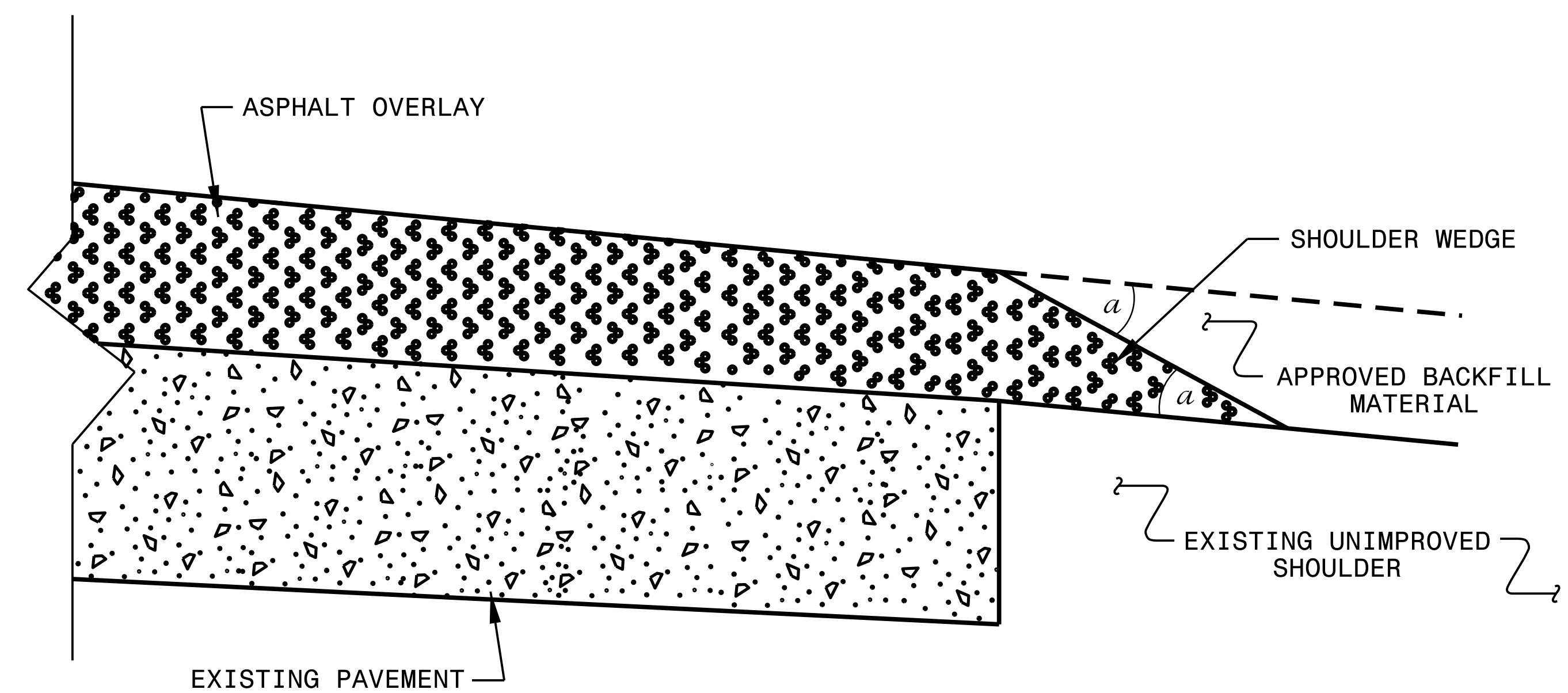
MAP#	STREET NAME	COMMENTS
Map #3	Wall Street	For Signal Loops
Map #3	Wicker Street	For Signal Loops

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, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



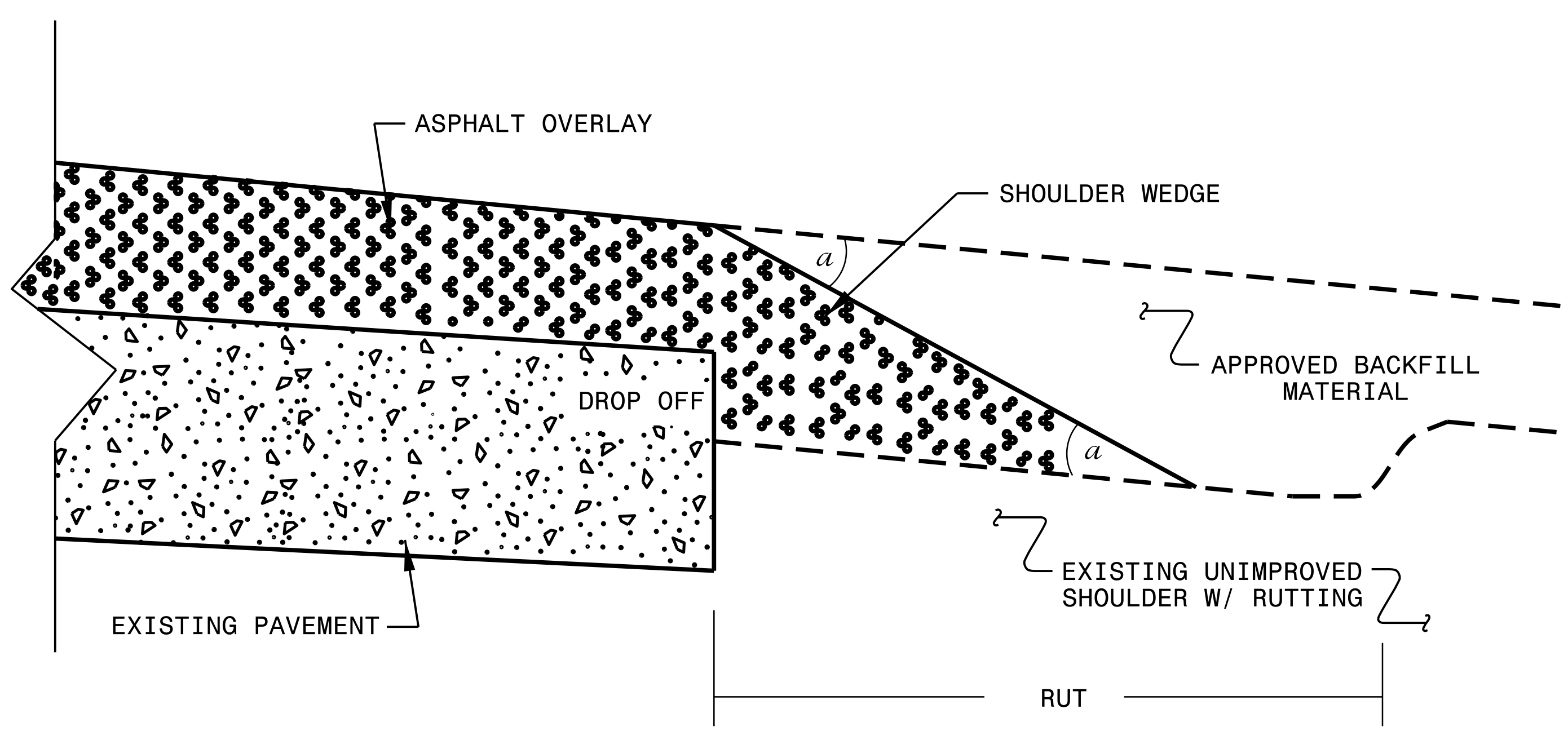
SHOULDER WEDGE DETAIL

(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°

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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.: s:usr/details/stand/shoulderwedgedetail.dgn

PROJECT NO.	SHEET NO.	TOTAL NO.
2027CPT.08.02.10531, 2027CPT.08.02.20531	17	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	LENGTH	WIDTH	BEGIN MP	END MP	1220000000-E INCIDENTAL STONE BASE	1245000000-E SHOULDER RECONSTRUCTION	1260000000-E AGGREGATE SHOULDER BORROW	1297000000-E 1.5" MILLING	1330000000-E INCIDENTAL MILLING	1491000000-E BASE COURSE, B25.0C	1519000000-E SURFACE COURSE, S9.5B	1523000000-E SURFACE COURSE, S9.5C	1575000000-E ASPHALT BINDER FOR PLANT MIX	1704000000-E PATCHING EXISTING PAVEMENT	1775500000-E ASPHALT SURFACE TREATMENT, MATCOAT, 67 STONE	1838000000-E EMULSION FOR ASPHALT SURFACE TREATMENT	1838500000-N VACUUM TRUCK	1891000000-E GENERIC PAVING ITEM - (SCRUB SEAL)	2143000000-E BLOTTING SAND	2830000000-N ADJUST MANHOLES	2845000000-N ADJUST METER OR VALVE BOX	5255000000-N PORTABLE LIGHTING	7444000000-E INDUCTIVE LOOP SAWCUT
									MI	FT			TONS	SMI	TON	SY	SY	TONS	TONS	TONS	TONS	TONS	SY	GAL	WK	SY	TON	EA	EA	LS	LF
2027CPT.08.02.10531	Lee	1	US-1 BUS	FROM SR 1002 (CHARLOTTE AVE) TO SR 1488 +0.55 MILES	1,2	2	2WU	NO	1.967	34	12.113	14.080				41,196	550			3,506	232	527						30	42		552
TOTAL FOR MAP NO. 1									**1.967**							**41,196**	**550**			**3,506**	**232**	**527**						**30**	**42**		**552**
2027CPT.08.02.10531	Lee	2	US-1 BUS	FROM C&G AT US 421 BYP TO SR 1420 (AMOS BRIDGES RD)	3	2	2WU	NO	0.896	28	14.080	14.976		1.79	250.88		356			1,341	80	15							4		
TOTAL FOR MAP NO. 2									**0.896**					**1.79**	**250.88**		**356**			**1,341**	**80**	**15**							**4**		
2027CPT.08.02.10531	Lee	3	US-421 BUS	FROM WASHINGTON AVE. TO PAVEMENT JOINT SOUTH OF W CHRISHOLM ST.	4	2		NO	0.830	48	3.970	4.800				24,500	2,720			2,300	136	15						40	24		4,000
TOTAL FOR MAP NO. 3									**0.830**							**24,500**	**2,720**			**2,300**	**136**	**15**						**40**	**24**	*	**4,000**
2027CPT.08.02.10531	Lee	4	NC-78	FROM SR 1152 + 0..08 MI (FIRETOWER RD PAVEMENT JOINT) TO SR 1001 (LEMON SPRINGS RD))	1,4	2		NO	1.740	38	1.910	3.650				40,730	2,900			3,665	216							4	16		750
TOTAL FOR MAP NO. 4									**1.740**							**40,730**	**2,900**			**3,665**	**216**							**4**	**16**		**750**
TOTAL FOR PROJ NO. 2027CPT.08.02.10531									**5.433**					**1.79**	**250.88**	**106,426**	**6,526**			**10,812**	**664**	**557**						**74**	**86**	**1**	**5,302**
2027CPT.08.02.20531	Lee	5	SR-1100 / SPRING LN	FROM SR 1325 (COOL SPRINGS RD) TO 0.02 MI EAST OF SR 1328 (WILKINS DR)	6	2	2WU	NO	1.190	24	0.000	1.190		2.30	322.20		400		1,590		104	15	16,893.30	6,757	1.00		20		2		864
TOTAL FOR MAP NO. 5									**1.190**					**2.30**	**322.20**		**400**		**1,590**		**104**	**15**	**16,893.30**	**6,757**	**1.00**		**20**		**2**		**864**
2027CPT.08.02.20531	Lee	6	SR-1100 / SPRING LN/W. WEATHERSPOON ST	FROM BRIDGE AT US 1 TO US 421 BUS	5	2	2WU	NO	0.723	36	1.520	2.243				15,270	2,038		1,480		110	290						12	40		2,508
TOTAL FOR MAP NO. 6									**0.723**							**15,270**	**2,038**		**1,480**		**110**	**290**						**12**	**40**		**2,508**
2027CPT.08.02.20531	Lee	7	SR-1305 / HENLEY RD	FROM SR 1303 (CENTER CHURCH RD) TO SR 1303 (CENTER CHURCH RD)	7	2	2WU	NO	4.148	23	0.000	4.148	40	8.30	1,162.00		350		5,031		354	565									
TOTAL FOR MAP NO. 7									**4.148**				**40**	**8.30**	**1,162.00**		**350**		**5,031**		**354**	**565**									
2027CPT.08.02.20531	Lee	8	SR-1335 / BRIDGES RD	FROM SR 1318 (STEEL BRIDGE ROAD) TO SR 1332 (S FRANKLIN DR)	8	2	2WU	NO	0.860	18.5	0.000	0.860	20	1.72	245.00		150		800		53	20		2,940		9,800.00	15				
TOTAL FOR MAP NO. 8									**0.860**				**20**	**1.72**	**245.00**		**150**		**800**		**53**	**20**		**2,940**		**9,800.00**	**15**				
2027CPT.08.02.20531	Lee	9	SR-1319 / PICKARD RD	SR 1318 (STEEL BRIDGE ROAD) TO NC 42	9	2	2WU	NO	3.386	22	0.000	3.386	40	6.73	942.20		280	2,251	3,982		381	433									
TOTAL FOR MAP NO. 9									**3.386**				**40**	**6.73**	**942.20**		**280**	**2,251**	**3,982**		**381**	**433**									
2027CPT.08.02.20531	Lee	10	SR-1588 / VALLEY VIEW DR	SR 1002 (LOWER MONCURE RD) TO SR 1508 (LICK CREEK RD)	6	2	2WU	NO	0.380	20	0.000	0.380	10	0.76	106.40		230		405		34	150	4,680.00	1,872			10				
TOTAL FOR MAP NO. 10									**0.380**				**10**	**0.76**	**106.40**		**230**		**405**		**34**	**150**	**4,680.00**	**1,872**			**10**				
2027CPT.08.02.20531	Lee	11	SR-1422 / OSGOOD RD	FROM SR 1423 (FARRELL ROAD) TO SR 1415 (COLON RD)	7	2	2WU	NO	1.413	18.5	0.000	1.413	20	2.83	395.64		110		1,382		107	368									
TOTAL FOR MAP NO. 11									**1.413**				**20**	**2.83**	**395.64**		**110**		**1,382**		**107**	**368**									
2027CPT.08.02.20531	Lee	12	SR-1433 / WOMBLE RD	FROM SR 1423 (FARRELL RD) TO SR 1466 (DEEP RIVER RD)	6	2	2WU	NO	0.670	20	0.000	0.670	10	1.34	187.60		140		713		51	100	8,000.00	3,200			15				
TOTAL FOR MAP NO. 12									**0.670**				**10**	**1.34**	**187.60**		**140**		**713**		**51**	**100**	**8,000.00**	**3,200**			**15**				
TOTAL FOR PROJ NO. 2027CPT.08.02.20531									**12.770**				**140**	**23.98**	**3,361.04**	**15,270**	**3,698**	**2,251**	**15,383**		**1,194**	**1,941**	**29,573.30**	**14,769**	**1.00**	**9,800.00**	**60**	**12**	**42**		**3,372**
GRAND TOTAL									**18.203**				**140**	**25.77**	**3,611.92**	**121,696**	**10,224**	**2,251**	**15,383**	**10,812**	**1,858**	**2,498**	**29,573.30**	**14,769**	**1.00**	**9,800.00**	**60**	**86**	**128**	**1**	**8,674**

PROJECT NO.	SHEET NO.	TOTAL NO.
2027CPT.08.02.10531, 2027CPT.08.02.20531	18	

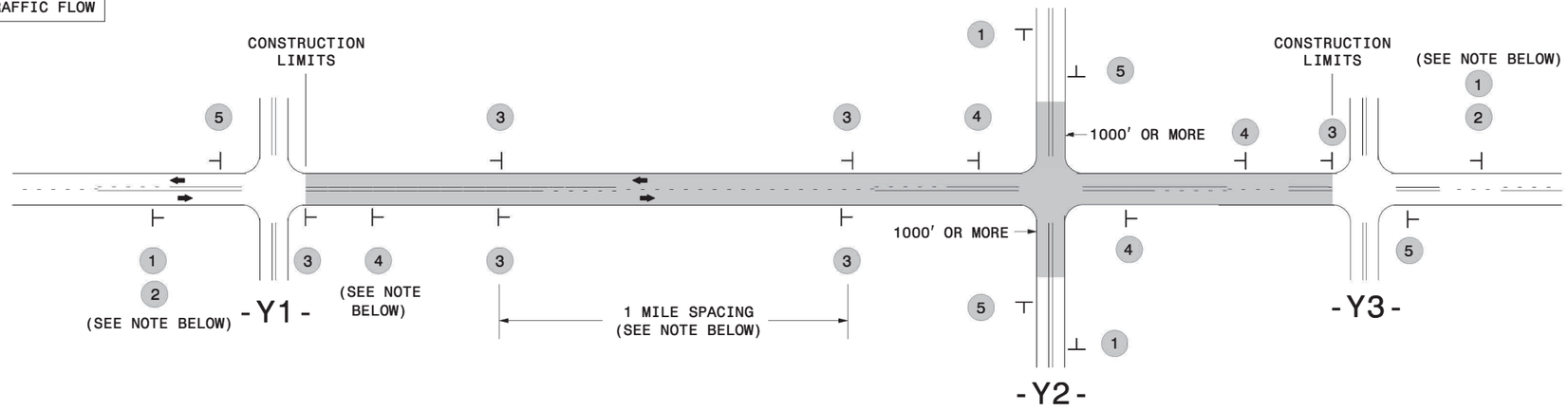
THERMOPLASTIC AND PAINT QUANTITIES

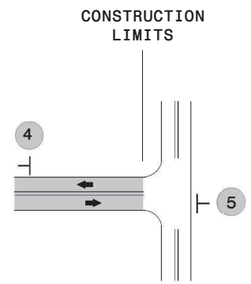
												4413000000-E	4457000000-N	4510000000-N	4688000000-E		4695000000-E	4700000000-E		4709000000-E	4720000000-E			4725000000-E						4815000000-E		4820000000-E	4825000000-E		4835000000-E	4840000000-N	4845000000-N						4890000000-E	4890000000-E	4895000000-N		4900000000-N	
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	BEGIN MP	END MP	WORK ZONE ADVANCE/ GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	LAW ENFORCEMENT	6" X 90 M WHITE THERMO	6" X 90 M YELLOW THERMO	8" X 90 M WHITE THERMO	12" X 90 M YELLOW THERMO	12" X 90 M WHITE THERMO	24" X 90 M WHITE THERMO	THERMO MSG SCHOOL 90 M	THERMO MSG STOP 90 M	THERMO MSG AHEAD 90 M	THERMO LT ARROW 90 M	THERMO RT ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO STR ARROW 90 M	THERMO LT STR RT ARROW 90 M	THERMO STR & LT ARROW 90 M	6" WHITE PAINT	6" YELLOW PAINT	8" WHITE PAINT	12" YELLOW PAINT	12" WHITE PAINT	24" WHITE PAINT	PAINT MSG SCHOOL	PAINT LT ARROW	PAINT RT ARROW	PAINT STR & RT ARROW	PAINT STR ARROW	PAINT LT STR RT ARROW	PAINT STR & LT ARROW	GENERIC PAVEMENT MARKING ITEM - 24" YIELD LINE PAINT	GENERIC PAVEMENT MARKING ITEM - 24" YIELD LINE THERMO 90 MILS	GENERIC PAVEMENT MARKING ITEM POLYCARBONATE H-SHAPED MARKERS C&R	GENERIC PAVEMENT MARKING ITEM POLYCARBONATE H-SHAPED MARKERS Y&Y	PERMANENT RAISED MARKERS (YELLOW & YELLOW)	PERMANENT RAISED PAVEMENT MARKERS (CRYSTAL & RED)
								MI	FT			SF	LS	HR	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	LF	LF	EA	EA	EA	EA
2027CPT.08.02.10531	Lee	1	US-1 BUS	FROM SR 1002 (CHARLOTTE AVE) TO SR 1488 +0.55 MILES	1,2	2	2WU	1.967	34	12.113	14.08	220		80	12,415	19,856		209		140				29	1	5	2			12,995	20,436		209		140		29	1	5	2					38	202		
TOTAL FOR MAP NO. 1								1.967				220		80	12,415	19,856		209		140				29	1	5	2			12,995	20,436		209		140		29	1	5	2					38	202		
2027CPT.08.02.10531	Lee	2	US-1 BUS	FROM C&G AT US 421 BYP TO SR 1420 (AMOS BRIDGES RD)	3	2	2WU	0.896	28	14.08	14.976	100			8,284	9,918		178						7																					20	88		
TOTAL FOR MAP NO. 2								0.896				100			8,284	9,918		178						7																					20	88		
2027CPT.08.02.10531	Lee	3	US-421 BUS	FROM WASHINGTON AVE. TO PAVEMENT JOINT SOUTH OF W CHRISHOLM ST.	4	2		0.83	48	3.97	4.8	90	*		2,475	9,400		60		375				12		16	10	2	4	2,475	9,400		60		375		12		16	10	2	4			212	115		
TOTAL FOR MAP NO. 3								0.83				90			2,475	9,400		60		375				12		16	10	2	4	2,475	9,400		60		375		12		16	10	2	4			212	115		
2027CPT.08.02.10531	Lee	4	NC-78	FROM SR 1152 + 0..08 MI (FIRETOWER RD PAVEMENT JOINT) TO SR 1001 (LEMON SPRINGS RD))	1,4	2		1.74	38	1.91	3.65	200		80	19,300	23,500	160	255	175	90	6			46	3	8	3			19,300	23,500	160	255	175	140	6	46	3		3			20	20	115	355		
TOTAL FOR MAP NO. 4								1.74				200		80	19,300	23,500	160	255	175	90	6			46	3	8	3			19,300	23,500	160	255	175	140	6	46	3		3			20	20	115	355		
TOTAL FOR PROJ NO. 2027CPT.08.02.10531								5.433				610	*	160	42,474	62,674	160	702	175	605	6			94	4	29	15	2	4	34,770	53,336	160	524	175	655	6	87	4	21	15	2	4	20	20	385	760		
															105,148			877				6				148				88,106			699				133								1,145			
2027CPT.08.02.20531	Lee	5	SR-1100 / SPRING LN	FROM SR 1325 (COOL SPRINGS RD) TO 0.02 MI EAST OF SR 1328 (WILKINS DR)	6	2	2WU	1.19	24	0	1.19	135		40	12,280	9,690				34										12,280	9,690				34												86	
TOTAL FOR MAP NO. 5								1.19				135		40	12,280	9,690				34										12,280	9,690				34												86	
2027CPT.08.02.20531	Lee	6	SR-1100 / SPRING LN/W. WEATHERSPOON ST	FROM BRIDGE AT US 1 TO US 421 BUS	5	2	2WU	0.723	36	1.52	2.243	255		80	4,978	7,326	130	133		138				7	2	5			1	6,508	9,678	130	169		138		9	2	5	2		1	50	50			81	45
TOTAL FOR MAP NO. 6								0.723				255		80	4,978	7,326	130	133		138				7	2	5			1	6,508	9,678	130	169		138		9	2	5	2		1	50	50			81	45
2027CPT.08.02.20531	Lee	7	SR-1305 / HENLEY RD	FROM SR 1303 (CENTER CHURCH RD) TO SR 1303 (CENTER CHURCH RD)	7	2	2WU	4.148	23	0	4.148	495			43,802	42,142						4	5							43,802	42,142																	
TOTAL FOR MAP NO. 7								4.148				495			43,802	42,142						4	5							43,802	42,142																	
2027CPT.08.02.20531	Lee	8	SR-1335 / BRIDGES RD	FROM SR 1318 (STEEL BRIDGE ROAD) TO SR 1332 (S FRANKLIN	8	2	2WU	0.86	18.5	0	0.86	100	*		9,254	7,750														9,254	7,750																	
TOTAL FOR MAP NO. 8								0.86				100			9,254	7,750														9,254	7,750																	
2027CPT.08.02.20531	Lee	9	SR-1319 / PICKARD RD	SR 1318 (STEEL BRIDGE ROAD) TO NC 42	9	2	2WU	3.386	22	0	3.386	380			35,534	30,306														35,534	30,306																	
TOTAL FOR MAP NO. 9								3.386				380			35,534	30,306														35,534	30,306																	
2027CPT.08.02.20531	Lee	10	SR-1588 / VALLEY VIEW DR	SR 1002 (LOWER MONCURE RD) TO SR 1508 (LICK CREEK RD)	6	2	2WU	0.38	20	0	0.38	43			4,000	4,000														4,000	4,000																	
TOTAL FOR MAP NO. 10								0.38				43			4,000	4,000														4,000	4,000																	
2027CPT.08.02.20531	Lee	11	SR-1422 / OSGOOD RD	FROM SR 1423 (FARRELL ROAD) TO SR 1415 (COLON RD)	7	2	2WU	1.413	18.5	0	1.413	160			14,604	12,534														14,604	12,534																	
TOTAL FOR MAP NO. 11								1.413				160			14,604	12,534														14,604	12,534																	
2027CPT.08.02.20531	Lee	12	SR-1433 / WOMBLE RD	FROM SR 1423 (FARRELL RD) TO SR 1466 (DEEP RIVER RD)	6	2	2WU	0.67	20	0	0.67	75			6,758	4,448														6,758	4,448																	
TOTAL FOR MAP NO. 12								0.67				75			6,758	4,448														6,758	4,448																	
TOTAL FOR PROJ NO. 2027CPT.08.02.20531								12.77				1,643	*	120	131,210	118,196	130	133		172		4	5	7	2	5			1	132,740	120,548	130	169		172		9	2	5	2		1	50	50			167	45
															249,406			133				9				15				253,288			169				19										212	
GRAND TOTAL								18.203				2,253	1.000	280	173,684	180,870	290	835	175	777	6	4	5	101	6	34	15	2	5	167,510	173,884	290	693	175	827	6	96	6	26	17	2	5	70	70	385	760	167	45
															354,554			1,010				15				163				341,394			868				152								1,145		212	

PROJ. REFERENCE NO.	SHEET NO.
2027CPT.08.02.1053 1 , etc	TMP-1

SIGNING FOR RESURFACING PROJECTS

LEGEND
- ⊢ STATIONARY SIGN
- ⬅ DIRECTION OF TRAFFIC FLOW





TEE INTERSECTION

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1 2	ROAD WORK AHEAD W20-1 48″ X 48″ NEXT XX MILES W7-3aP 24″ X 18″	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)
3	LOWSOFT 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.

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.

-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.

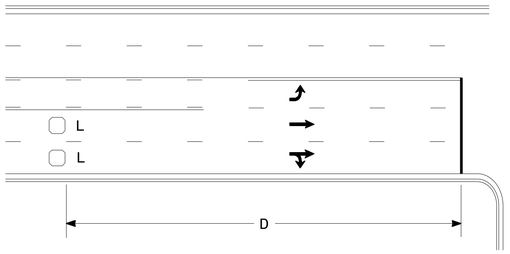
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

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

5/15/2017
S:\TMW\WZTC\Resurfacing\2L2W & AST Resurfacing Details\Resurfacing_AdvWarn_2Ln.dgn
User:keddis

PROJECT REFERENCE NO.	SHEET NO.
2027CPT.08.02.10531, 2027CPT.08.02.20531	SIG-1

High Speed Detection
(≥35 mph)

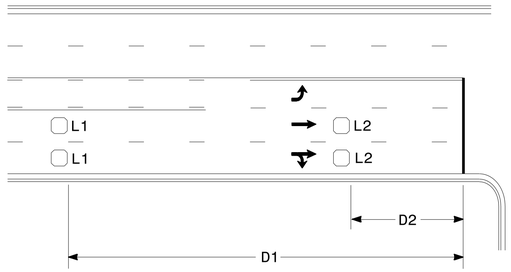


Speed Limit mph	D ft
35	200
40	250
45	300
50	355
55	420
60	475
65	550

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR



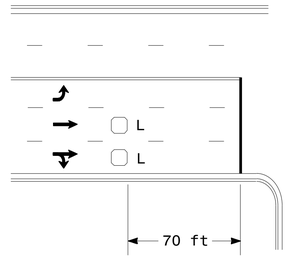
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110
60	475	120
65	550	130

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

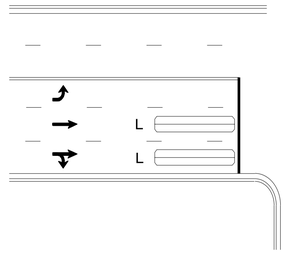
"Stretch" Operation

Low Speed Detection
(≤35 mph)



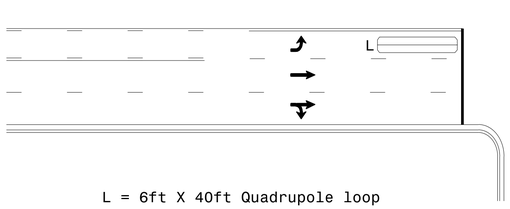
L = 6ft X 6ft
Wired in series

OR



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

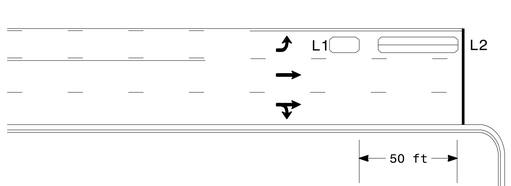
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

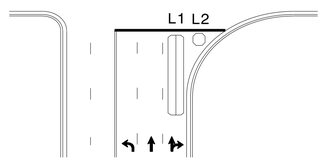
OR



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

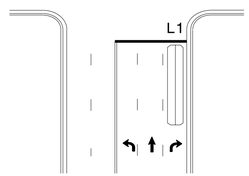
Queue Loop Detection

Right Turn Lane Detection

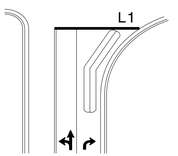


Shared Lane/
Wide Radius Turn

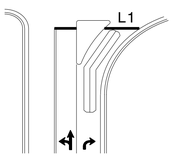
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

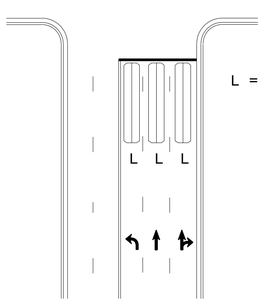


Wide Radius Turn



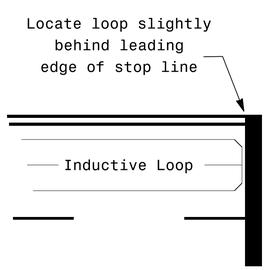
Channelized Turn

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

Prepared In the Offices of:
Transportation Mobility and Safety Division
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

Typical Signal Loop Locations

PLAN DATE: September 2025 | REVIEWED BY:
PREPARED BY: J.A. Lohr | REVIEWED BY:

SCALE
N/A

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL 026486
ENGINEER
ROBERT J. ZIEMBA
DocuSigned by:
11/25/2025
DATE

SIG. INVENTORY NO.

17-NOV-2025 07:35
S:\TSG\Traffic Signals\Signal Design Section\Eastern Region\Loop Typical\Loop_Typical_2025.dgn
jalohr