

PROJECT NO.	SHEET NO.	TOTAL NO.
2021CPT.11.05.10141	1	2
2021CPT.11.05.10951		

SUMMARY OF QUANTITIES

Project No.	County	Map No.	Route	Route Name	From Description	To Description	Mile Post From	Mile Post To	TYP NO	LANES	LANE TYPE	LENGTH		WIDTH	0106000000-E	1220000000-E	1245000000-E	1297000000-E	1308000000-E	1330000000-E	1519000000-E	1575000000-E	1704000000-E	2815000000-N	2830000000-N	2845000000-N	7288000000-E	7300000000-E	7324000000-N	7444000000-E	7456000000-E	6084000000-E
												MI	FT		BORROW	INCIDENTAL STONE BASE	SHOULDER RECONSTRUCTION	1.5" MILLING	0-1.5" MILLING	INCIDENTAL MILLING	SURFACE COURSE, S9.5B	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING ASPHALT	ADJ. OF DROP INLET	ADJ. OF MANHOLES	ADJ. OF METER OR VALVE BOX	PAVED TRENCHING	UNPAVED TRENCHING	STANDARD JUNCTION BOX	INDUCTIVE LOOP SAWCUT	LEAD-IN CABLE	SEED & MULCHING
															CY	TON	SMI	SY	SY	SY	TON	TON	TON	EA	EA	EA	LF	LF	EA	LF	LF	AC
2021CPT.11.05.10141	Caldwell	1	US 321	US 321	.6 mi South of SR 1370	SR 1370	23.67	24.27	1	5	MD	0.60	70		120	12	1.20		550	500	2,236	150	447								0.44	
2021CPT.11.05.10141	Caldwell	2	US 321	US 321	SR 1370	MP 28.15, 1.14 mi South of SR 1421	24.27	28.15	2	4	MD	3.88	60		776	78	7.76		10,500	500	12,604	844	2521	2							2.82	
TOTAL FOR PROJECT NO. 2021CPT.11.05.10141												4.48			896	90	8.96	0	11,050	1,000	14,840	994	2,968	2	0	0	0	0	0	0	3.26	

2021CPT.11.05.10951	Watauga	3	US 221	US 321	.1 mi North Of SR 1632 / R-2237C Project Limits	Begin Median	9.04	9.38	3	4	MU	0.34	48				10,532			869	58		2	2	2							
2021CPT.11.05.10951	Watauga	4	US 221	US 321 NB	Begin Median	End Median/SR 1680	9.38	9.81	4	2	M2	0.43	24				6,660			549	37					100	100	1	1,000	100		
2021CPT.11.05.10951	Watauga	5	US 221	US 321 SB	Begin Median / SR 1680	End Median	16.89	17.27	4	2	M2	0.38	24				5,885			486	33					100	100	1	1,000	100		
2021CPT.11.05.10951	Watauga	5A	RMP 2787		BRPRKY	US 321 SB	0.00	0.17	5	2	2WU	0.17	24		10		2,400			217	15							1	100			
2021CPT.11.05.10951	Watauga	5B	RMP 2788		BRPRKY	RMP 2787	0.00	0.03	6	1		0.03	20		10		350			32	2											
2021CPT.11.05.10951	Watauga	5C	RMP 2789			US 321 SB	0.00	0.05	6	1		0.05	20		10		600			53	4											
2021CPT.11.05.10951	Watauga	6	US 221	US 321	End Median/SR 1680	SR 1602	9.81	13.80	3	4	MD	3.99	52				133,894			11,046	740					100	100	1	1,000	100		
TOTAL FOR PROJECT NO. 2021CPT.11.05.10951												5.39			0	30	0.00	160,321	0	0	13,253	888	0	2	2	2	300	300	4	3,100	300	0

GRAND TOTAL												9.87			896	120	8.96	160,321	11,050	1,000	28,093	1,882	2,968	4	2	2	300	300	4	3,100	300	3.26
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PROJECT NO.	SHEET NO.	TOTAL NO.
2021CPT.11.05.10141	2	2
2021CPT.11.05.10951		

THERMOPLASTIC AND PAINT QUANTITIES

Project No.	County	Map No.	Route	Route Name	From Description	To Description	Mile Post From	Mile Post To	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4810000000-E	4820000000-E	4835000000-E	4845000000-N					1840000000-E	4905000000-N	
														WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	4" WHITE PAINT	4" YELLOW PAINT	8" YELLOW PAINT	24" WHITE PAINT	PAINT LEFT ARROW	PAINT RIGHT ARROW	PAINT STRAIGHT/RIGHT ARROW	PAINT STRAIGHT/LEFT ARROW	PAINT STRAIGHT ARROW	MILLED RUMBLE STRIPS	SNOW PLOWABLE MARKERS
							MI	FT				SF	LS	LF	LF	LF		EA		EA		EA	LF	EA		
2021CPT.11.05.10141	Caldwell	1	US 321	US 321	.6 mi South of SR 1370	SR 1370	23.67	24.27	1	5	MU	0.60	70	78	1	15,840	25,344			40					6,336	158
2021CPT.11.05.10141	Caldwell	2	US 321	US 321	SR 1370	MP 28.15, 1.14 mi South of SR 1421	24.27	28.15	2	4	MD	3.88	60	504		102,432	163,891	400	85	4				16	61,459	1,024
TOTAL FOR PROJECT NO. 2021CPT.11.05.10141												4.48		582	1	118,272	189,235	400	85	44	0	0	0	16	67,795	1,183
															307,507				60							

2021CPT.11.05.10951	Watauga	3	US 221	US 321	.1 mi North Of SR 1632 / R-2237C Project Limits	Begin Median	9.04	9.38	3	4	MU	0.34	48	44		8,976	7,181	100		4						67
2021CPT.11.05.10951	Watauga	4	US 221	US 321 NB	Begin Median	End Median/SR 1680	9.38	9.81	4	2	M2	0.43	24	56		6,811	4,541		225	4	8	2	2	6		28
2021CPT.11.05.10951	Watauga	5	US 221	US 321 SB	Begin Median/SR 1680	End Median	16.89	17.27	4	2	M2	0.38	24	49		6,019	4,013				2					25
2021CPT.11.05.10951	Watauga	5A	RMP 2787		BRPRKY	US 321 SB	0.00	0.17	5	2	2WU	0.17	24	22		3,590	3,590									
2021CPT.11.05.10951	Watauga	5B	RMP 2788		BRPRKY	RMP 2787	0.00	0.03	6	1		0.03	20	4		634										
2021CPT.11.05.10951	Watauga	5C	RMP 2789		US 321 SB	RMP 2787	0.00	0.05	6	1		0.05	20	7		1,056										
2021CPT.11.05.10951	Watauga	6	US 221	US 321	End Median/SR 1680	SR 1602	9.81	13.80	3	4	MD	3.99	52	519		105,336	168,538	4,500	240	8	4	8		8		1,053
TOTAL FOR PROJECT NO. 2021CPT.11.05.10951												5.39		701	0	132,422	187,862	4,600	465	16	14	10	2	14	0	1,174
																320,285				56						

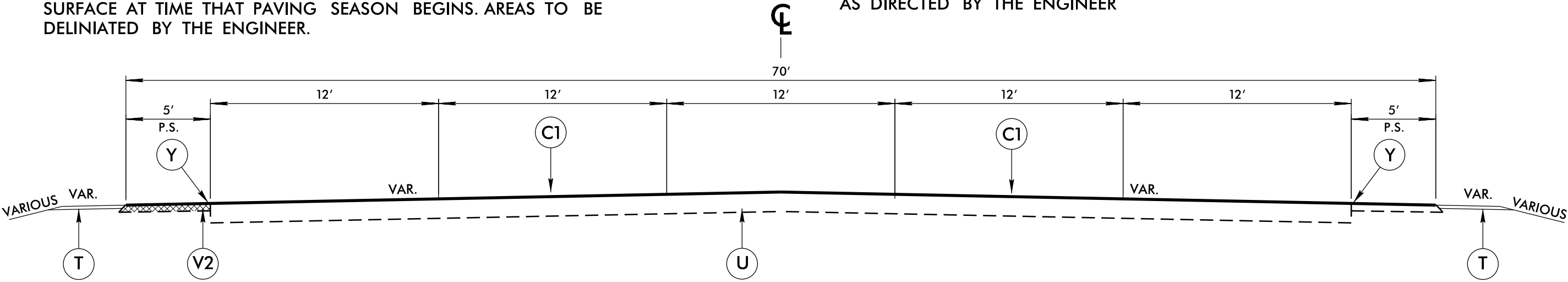
GRAND TOTAL												9.87			1,283	1	250,694	377,098	5,000	550	60	14	10	2	30	67,795	2,357
																	627,792				116						

8/17/99

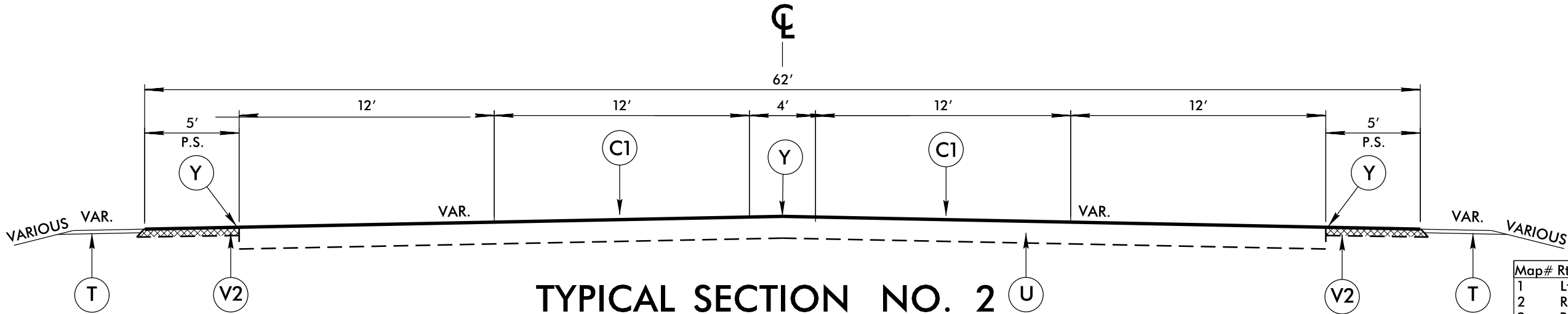
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\* "PATCHING EXISTING PAVEMENT" HAS BEEN INCLUDED AS A PAY ITEM ON MAPS. PATCHING MAY OR MAY NOT BE NEEDED DEPENDING ON CONDITION OF MAP SURFACE AT TIME THAT PAVING SEASON BEGINS. AREAS TO BE DELINIATED BY THE ENGINEER.

\* INCIDENTAL MILLING AT LOCATIONS AS DIRECTED BY THE ENGINEER



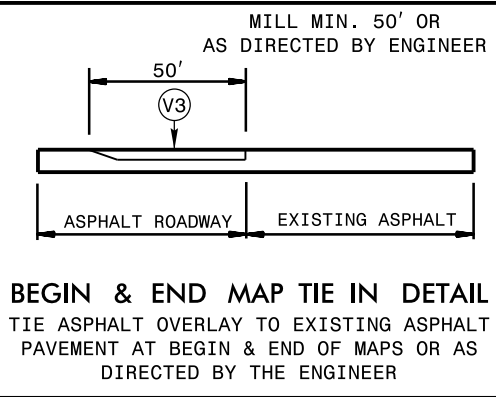
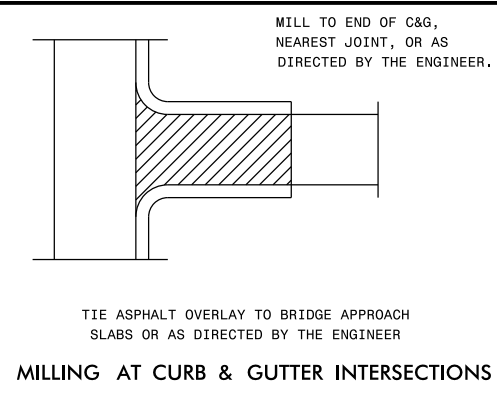
**TYPICAL SECTION NO. 1**  
MAP 1 – US 321 FROM MP 23.67 TO SR 1370



**TYPICAL SECTION NO. 2**  
MAP 2 – US 321 FROM SR 1370 TO MP 28.15

Map#	Rt/Lt	BeginMP	Sta	EndMP	Sta
1	Lt	MP 24.11		MP 24.24	
2	Rt	MP 24.44		MP 25.00	
2	Rt	MP 25.26		MP 25.47	
2	Rt	MP 26.22		MP 26.30	
2	Lt	MP 24.82		MP 25.15	
2	Lt	MP 25.29		MP 25.34	
2	Lt	MP 25.50		MP 25.57	
2	Lt	MP 25.61		MP 25.67	
2	Lt	MP 25.80		MP 25.98	
2	Lt	MP 26.08		MP 26.58	
2	Lt	MP 26.71		MP 26.86	
2	Lt	MP 27.05		MP 27.19	
2	Lt	MP 27.69		MP 27.80	
2	Lt	MP 27.98		MP 28.06	

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V2	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 0-1½" (SEE CHART FOR MAP AND LOCATION)
V3	INCIDENTAL MILLING (See Tie in Detail)
Y	MILLED RUMBLE STRIPS



**CALDWELL & WATAUGA COUNTY**  
**PRIMARY ROADS ASPHALT**  
**RESURFACING**

REVISIONS	INIT.	DATE

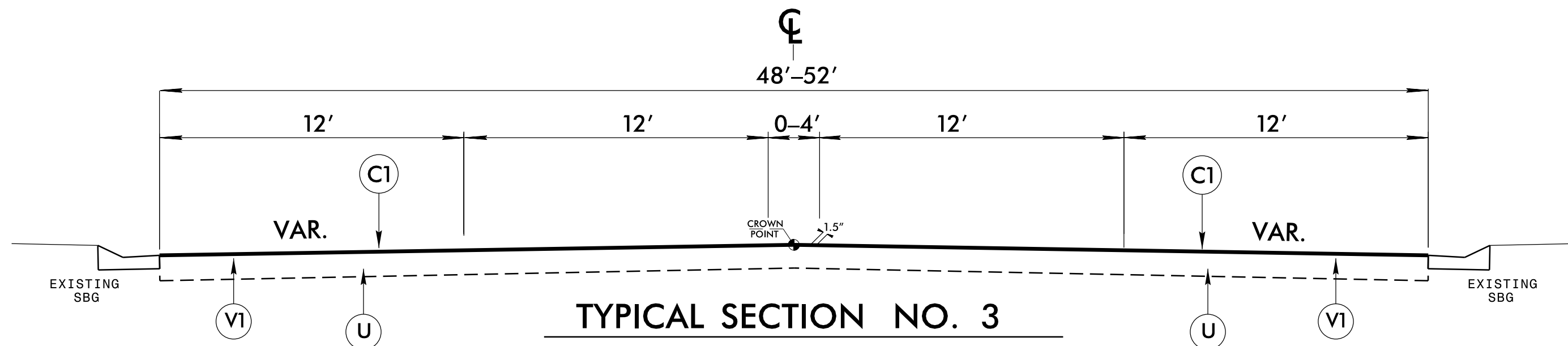
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PREPARED BY: GK  
REVIEWED BY:   
REVIEWED BY:

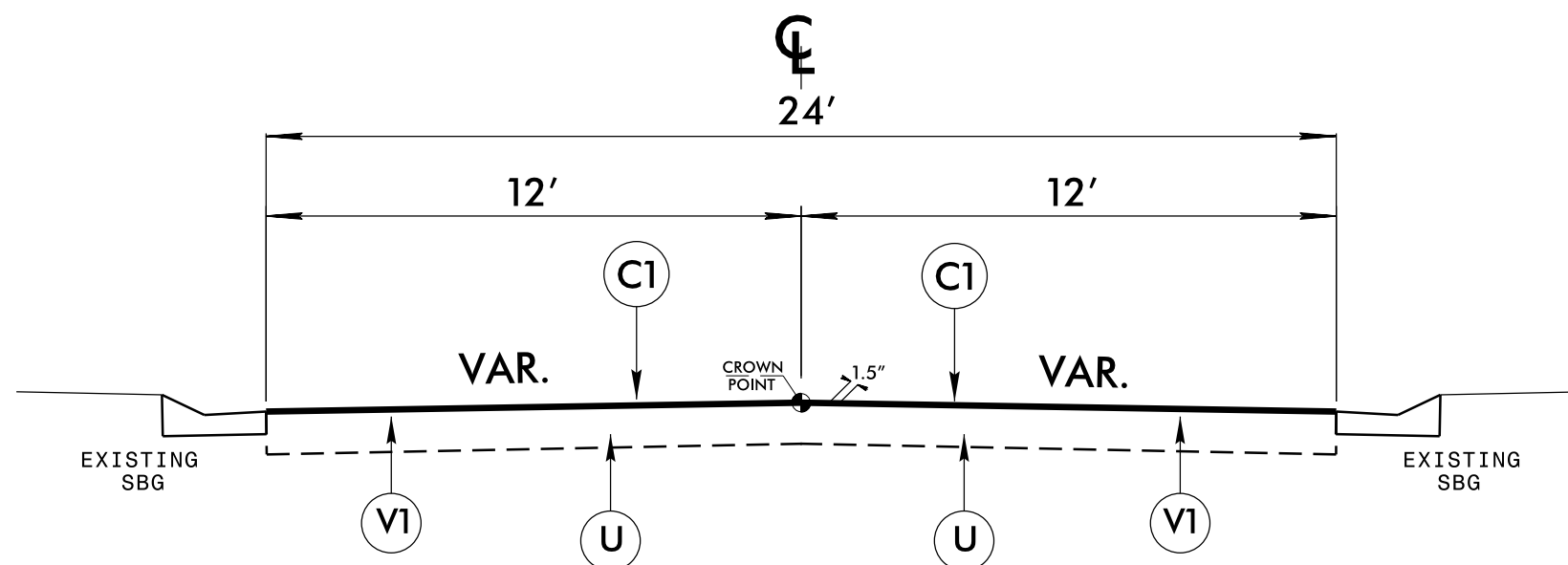
N.C. DEPARTMENT of TRANSPORTATION  
DIVISION of HIGHWAYS  
DIVISION ELEVEN

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

\* INCIDENTAL MILLING AT LOCATIONS AS DIRECTED BY THE ENGINEER

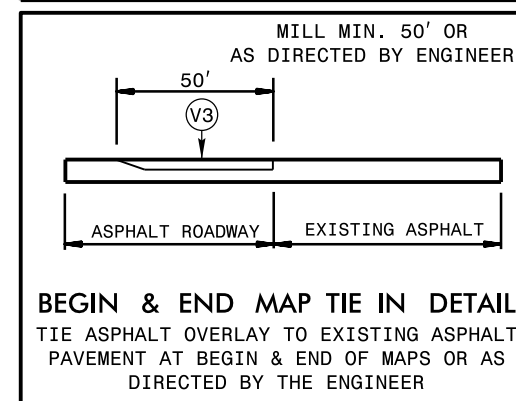
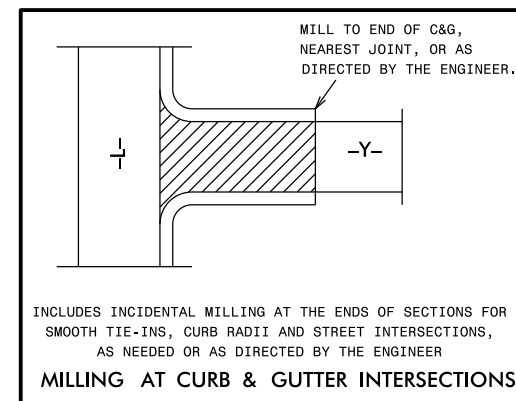


MAP 3 – US 321 FROM MP 9.04 TO BEGIN MEDIAN  
MAP 6 – US 321 FROM MP 9.81 TO SR 1602



## TYPICAL SECTION NO. 4

MAP 4	–	US 321 NB FROM BEGIN MEDIAN TO MP 9.81
MAP 5	–	US 321 SB FROM BEGIN MEDIAN /SR 1680 TO END MEDIAN

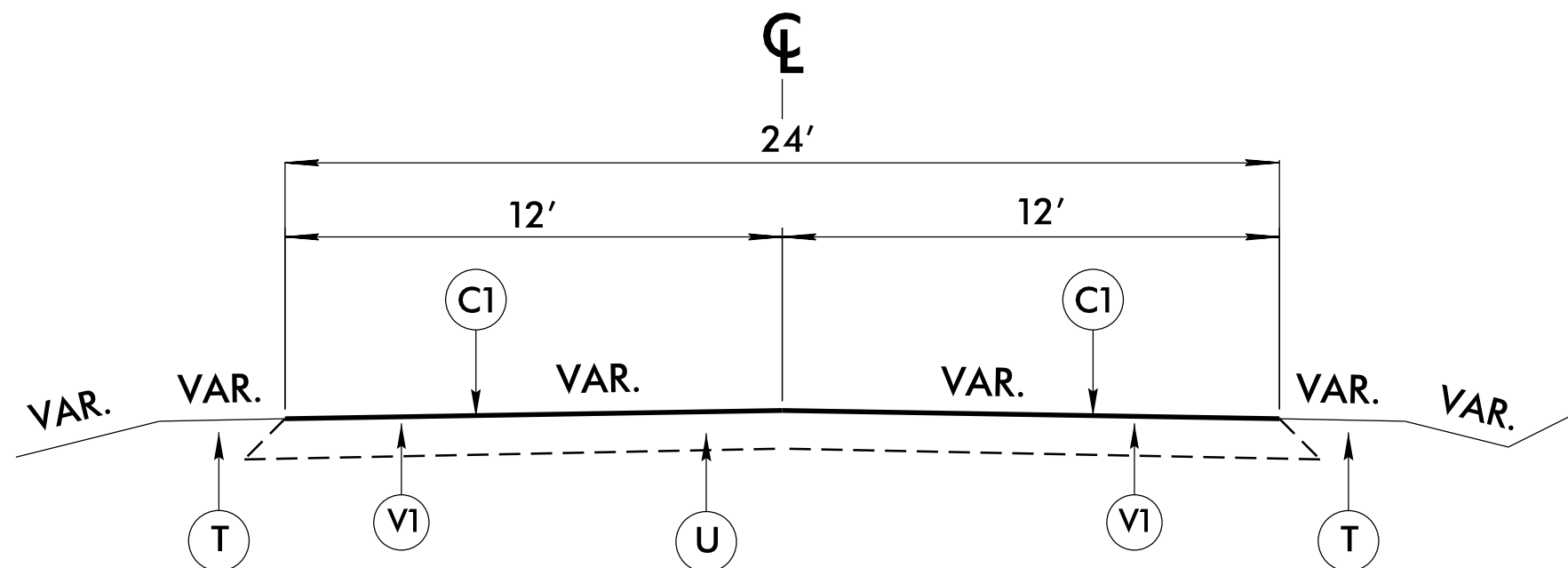
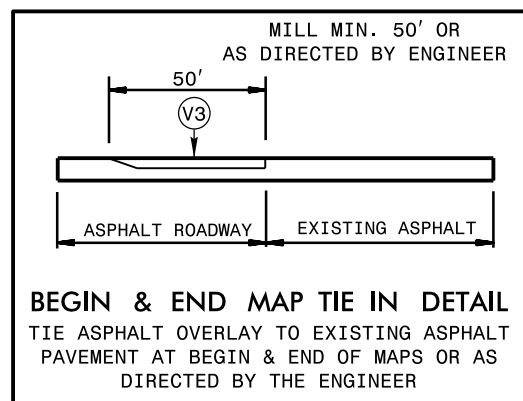
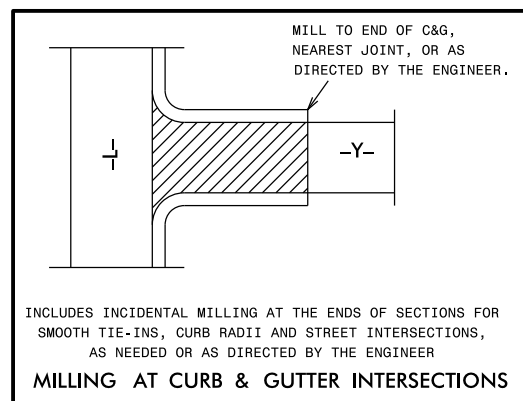


PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V3	INCIDENTAL MILLING (See Tie in Detail)

<p><b>CALDWELL &amp; WATAUGA COUNTY</b></p> <p><b>PRIMARY ROADS ASPHALT</b></p> <p><b>RESURFACING</b></p>			
REVISIONS	INIT.	DATE	
<p><b>N.C. DEPARTMENT of TRANSPORTATION</b></p> <p><b>DIVISION of HIGHWAYS</b></p> <p><b>DIVISION ELEVEN</b></p>			<p>SCALE: N/A      DATE: 5/10/2021</p> <p>PREPARED BY: GKirby</p> <p>REVIEWED BY:</p> <p>REVIEWED BY:</p>

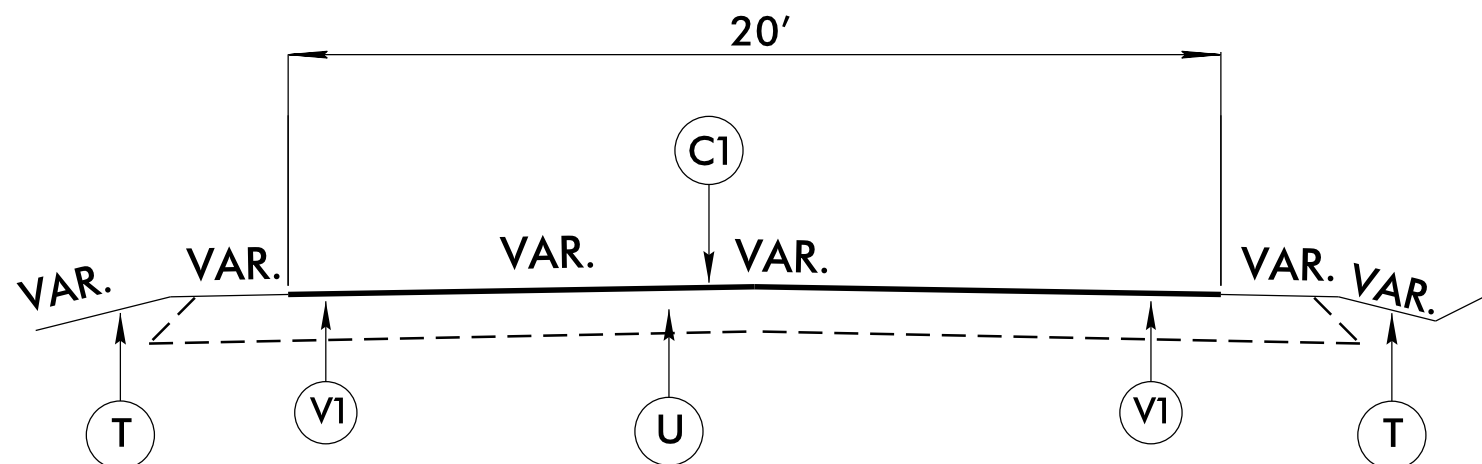


\* INCIDENTAL MILLING AT LOCATIONS AS DIRECTED BY THE ENGINEER



## TYPICAL SECTION NO. 5

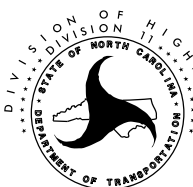
MAP 5A - RMP 2787 FROM BLUE RIDGE PWY TO US 321 SB



## TYPICAL SECTION NO. 6

MAP 5B – RMP 2788 FROM BLUE RIDGE PWY TO RMP 2787  
MAP 5C – RMP 2788 FROM US 321 SB TO RMP 2787

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"
V3	INCIDENTAL MILLING (See Tie in Detail)

<h1 style="margin: 0;">Caldwell &amp; Watauga County Primary Roads Asphalt Resurfacing</h1>						
<b>REVISIONS</b>	<b>INIT.</b>	<b>DATE</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%; padding: 5px;"> <b>SCALE:</b> N/A         </td> <td style="width: 60%; padding: 5px;"> <b>DATE:</b> 5/10/2021         </td> </tr> </table>		<b>SCALE:</b> N/A	<b>DATE:</b> 5/10/2021
<b>SCALE:</b> N/A	<b>DATE:</b> 5/10/2021					
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<b>PREPARED BY:</b>	GKirby					
			<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%; padding: 5px;"> <b>REVIEWED BY:</b> </td> <td style="width: 60%; padding: 5px;"> </td> </tr> </table>		<b>REVIEWED BY:</b>	
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**N.C. DEPARTMENT of TRANSPORTATION**

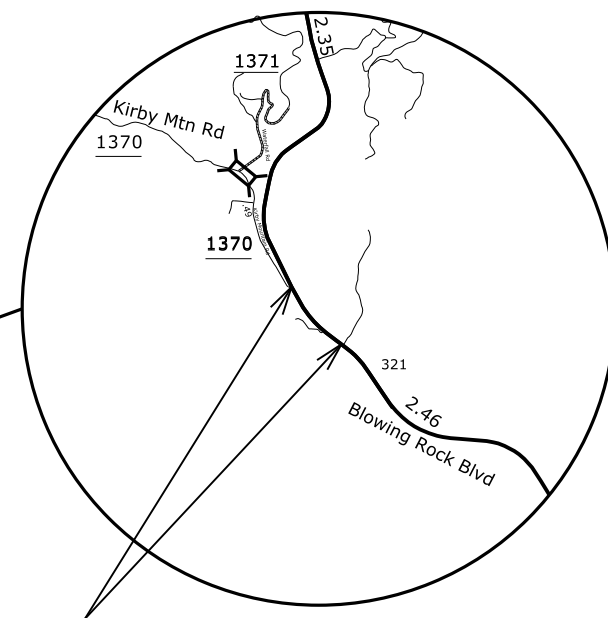
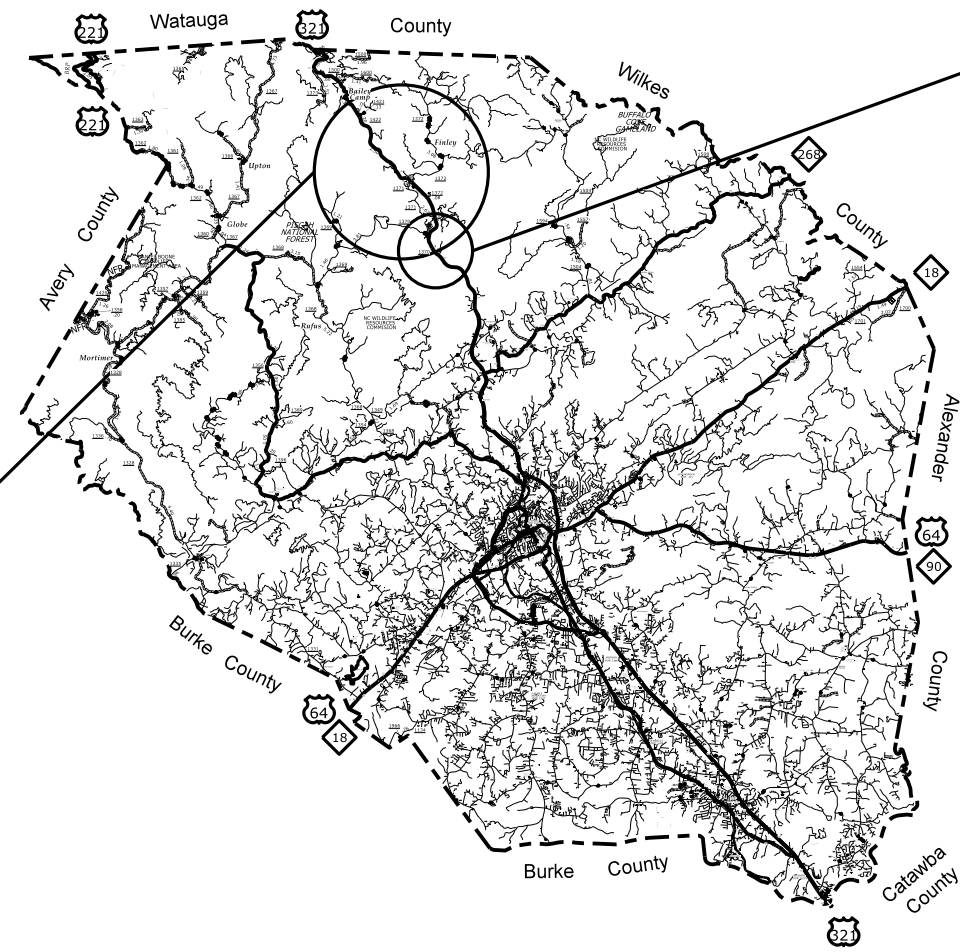
**DIVISION of HIGHWAYS**

**DIVISION ELEVEN**

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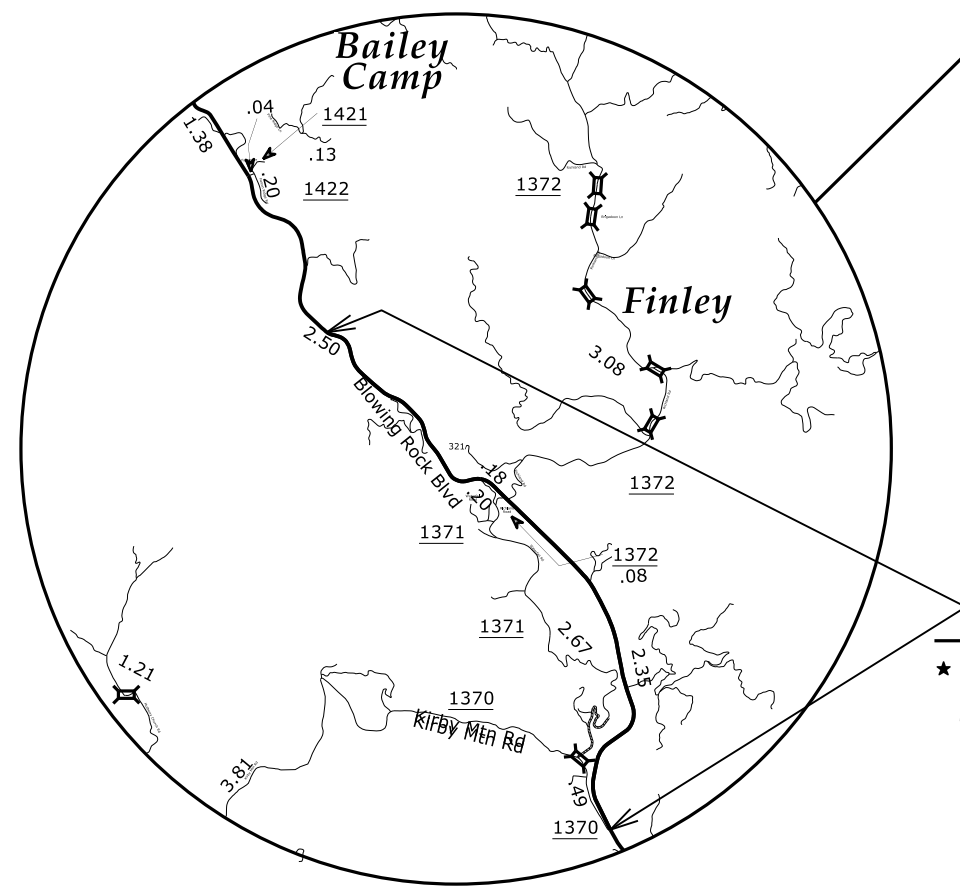
# CALDWELL COUNTY

2021 RESURFACING  
MAP # 1 AND # 2



MAP #1

★ **US 321 BLOWING ROCK BLVD. (0.60mi.)**  
**(FROM MP 23.67 TO SR 1370)**



MAP #2

★ **US 321 BLOWING ROCK BLVD. (3.88mi.)**  
**(FROM SR 1370 TO MP 28.15)**

# WATAUGA COUNTY

2021 RESURFACING  
MAP #3, # 4, #5, #5A - #5C & # 6



MAP #5A

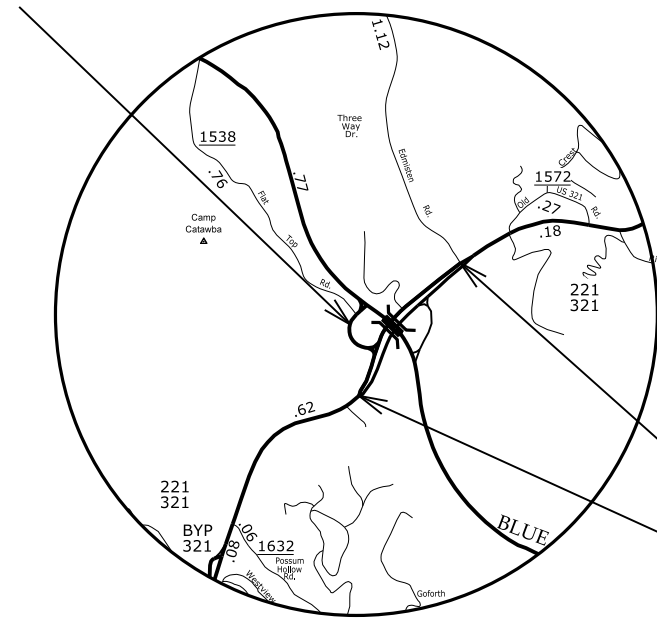
★ RAMP 2787 - (0.17mi.)  
(FROM BLUE RIDGE PKWY TO US 321 SB)

MAP #5B

★ RAMP 2788 - (0.03mi.)  
(FROM BLUE RIDGE PKWY TO RAMP 2787)

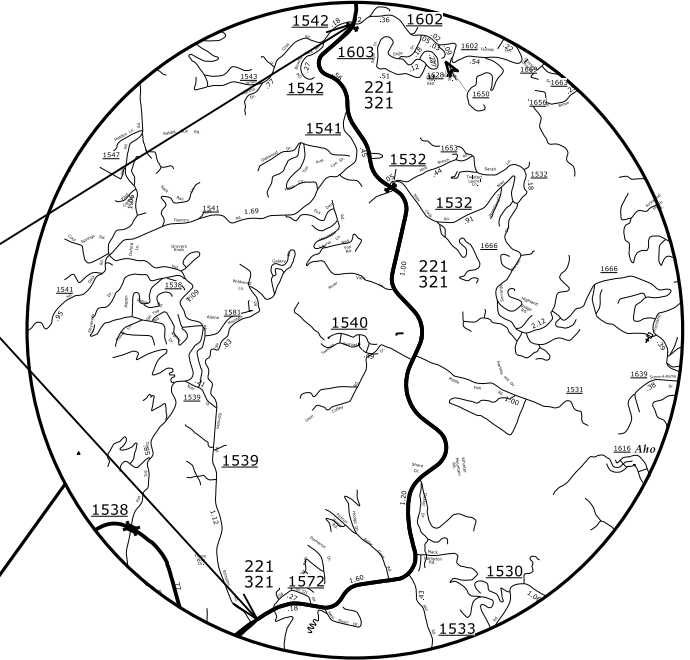
MAP #5C

★ RAMP 2789 - (0.05mi.)  
(FROM US 321 SB TO RAMP 2787)



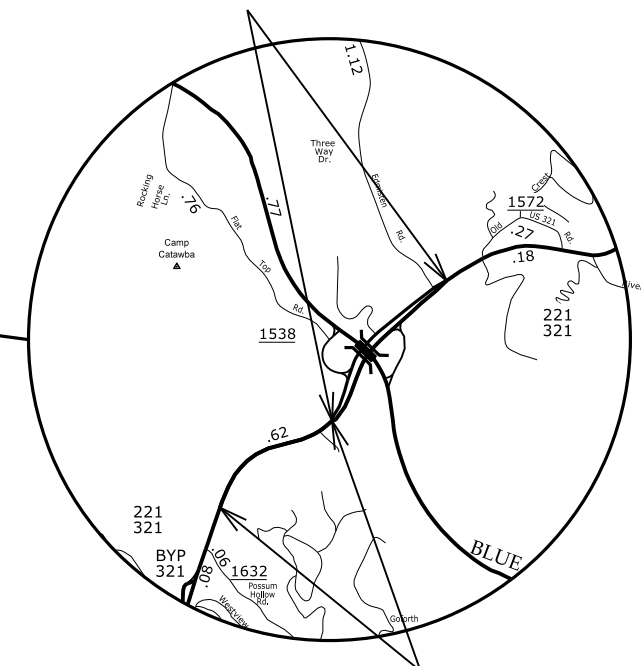
MAP #6

★ US 321 - (3.99mi.)  
(FROM MP 9.81 TO SR 1602)



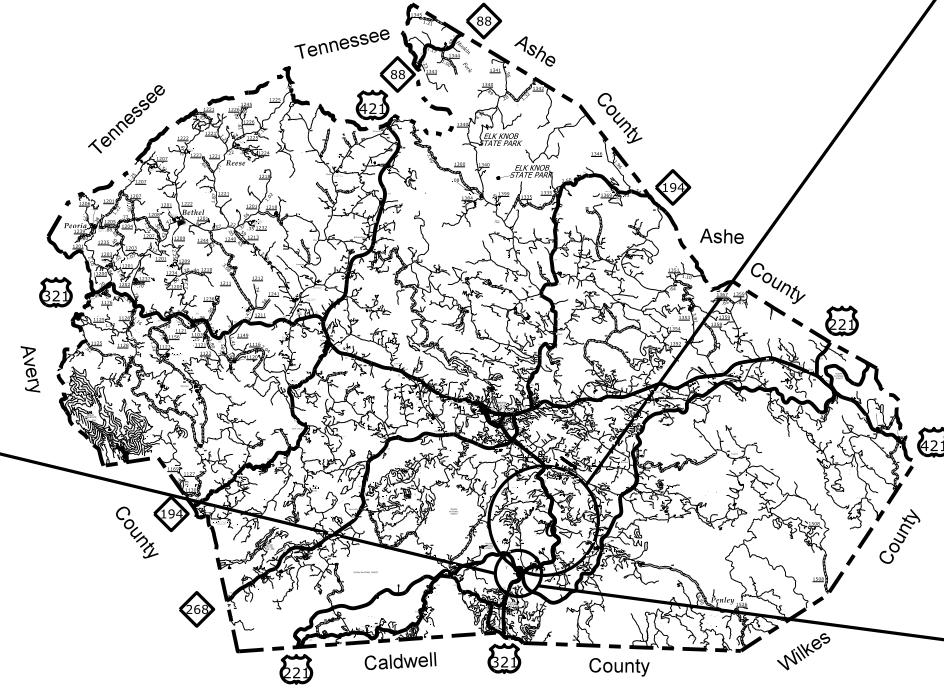
MAP #4

★ US 321 NB - (0.43mi.)  
(FROM BEGIN MEDIAN TO MP 9.81)



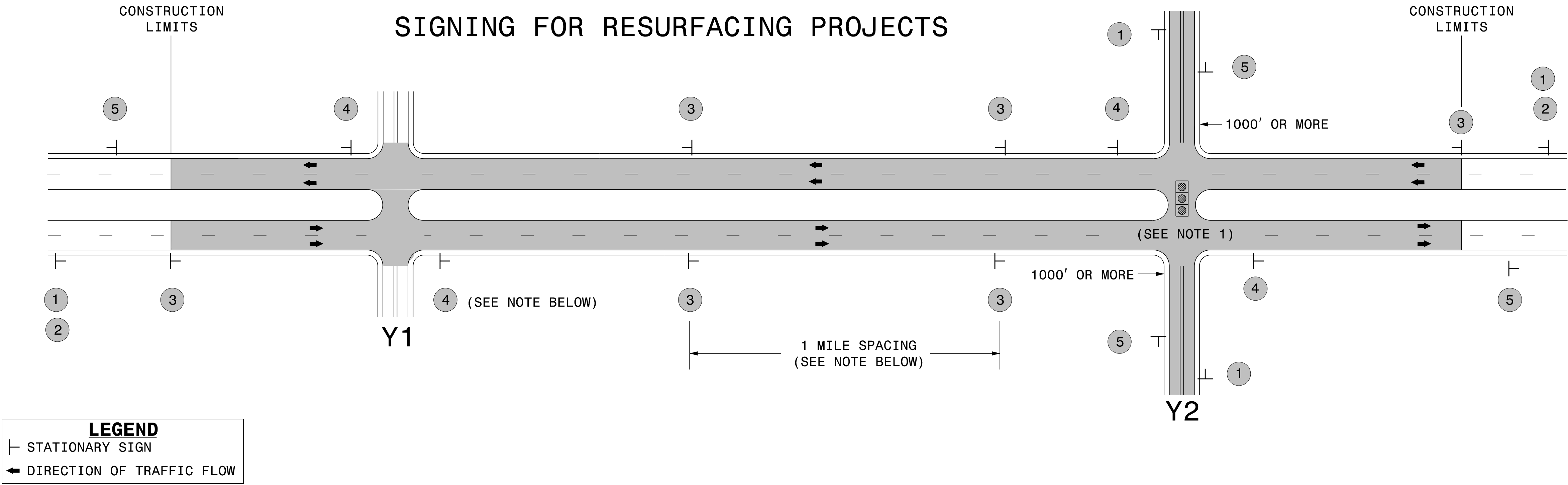
MAP #5

★ US 321 SB - (0.38mi.)  
(FROM SR 1680 TO END MEDIAN)



MAP #3

★ US 321 - (0.34mi.)  
(FROM MP 9.04 TO BEGIN MEDIAN)

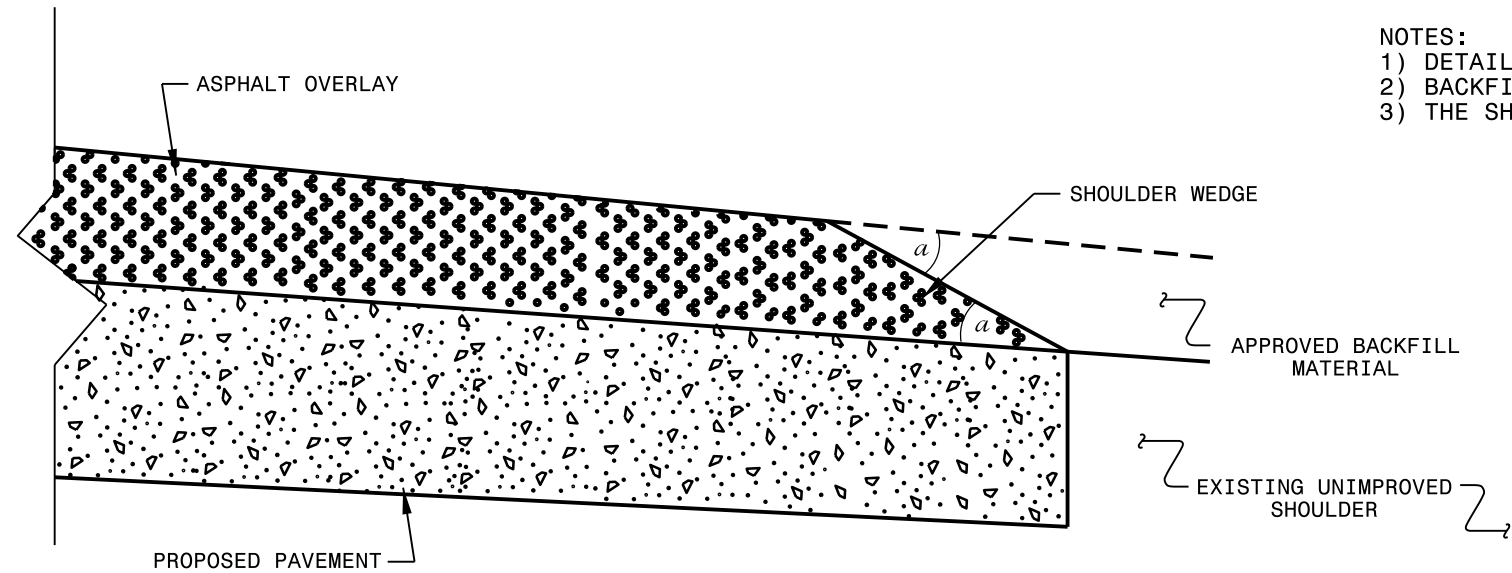


MAINLINE (-L-) SIGNING

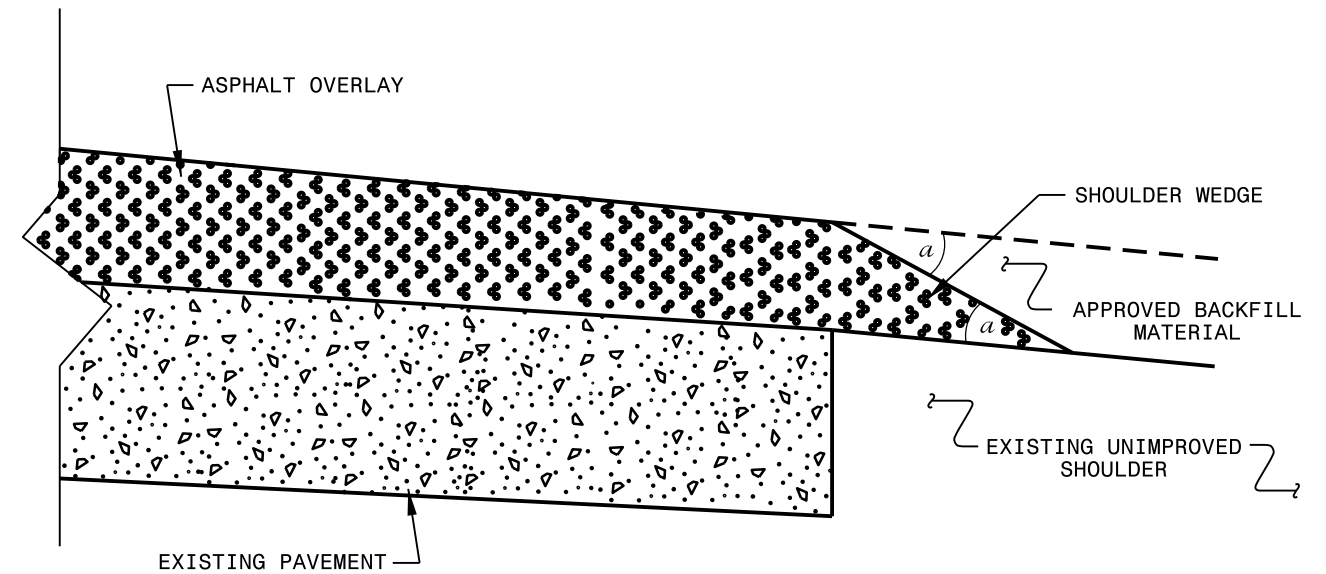
-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	<div>1</div> <div>2</div> <div><div>ROAD WORK AHEAD</div><div>W20-1 48" X 48"</div><div>NEXT XX MILES</div><div>W7-36P 24" X 18"</div></div> <div>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</div> <div>#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)</div>	<div>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</div> <div>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</div> <div>2) SUBDIVISION ROADS</div> <div>3) DEAD END ROADS</div> <div>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.</div> <div><div>ROAD WORK AHEAD</div><div>W20-1 48" X 48"</div><div>PLACED 500' IN ADVANCE OF FLAGGER.</div></div> <div><div><div>ROAD WORK AHEAD</div><div>W20-7 A 48" X 48"</div><div>PLACED 250' IN ADVANCE OF FLAGGER.</div></div></div> <div>NOTES:</div> <div>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.</div>
	<div>3</div> <div><div>LOW/SOFT SHOULDER</div><div>SP 13107 48" X 48"</div></div> <div>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.</div>	
	<div>4</div> <div><div>ROAD UNDER CONST</div><div>SP 13106 48" X 48"</div></div> <div>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.</div>	
	<div>5</div> <div><div>END ROAD WORK</div><div>G20-2 A 48" X 24"</div></div> <div>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</div>	

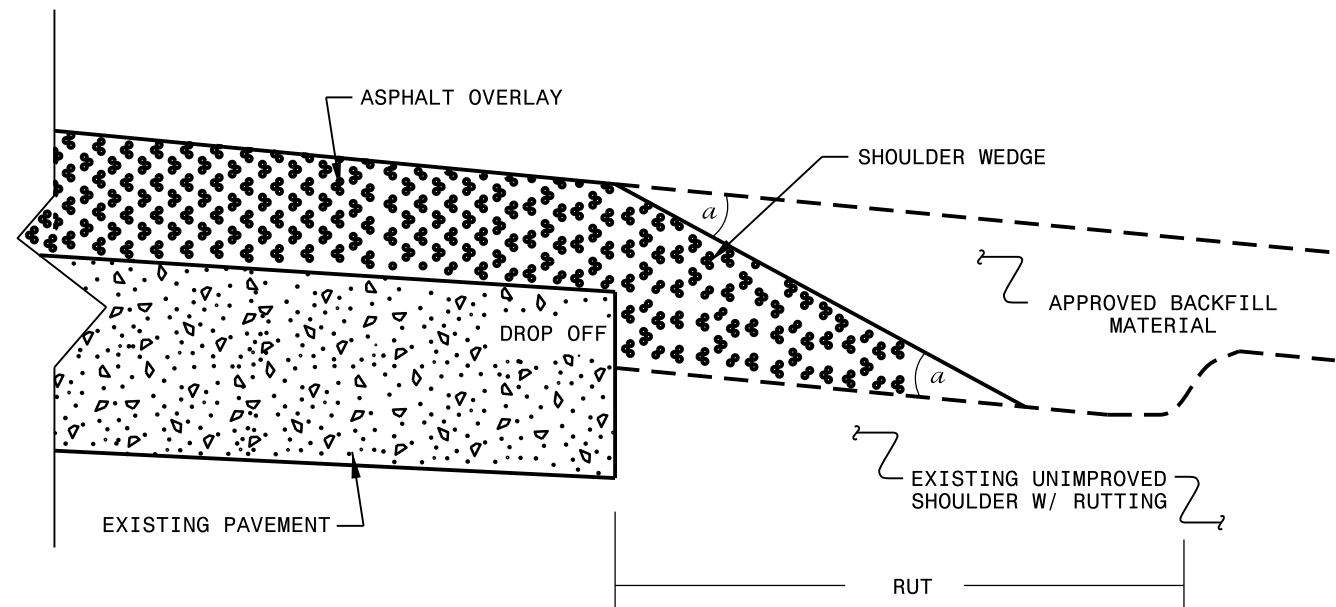
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
  - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
  - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**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°

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>			
Office 919-707-6950		FAX 919-250-4119	
<b>SHOULDER WEDGE DETAILS</b>			
ORIGINAL BY: _____	T.SPELL	DATE: _____	7-19-11
MODIFIED BY: _____	_____	DATE: _____	10/16/12
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