

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
HIGHWAY DIVISION 6

# PLANS

**Letting Date: April 18, 2018**

**CONTRACT ID: DF00210**

**TIP NO.: -----**

**FEDERAL AID NO.: STATE FUNDED**

**WBS ELEMENT NO.: 2019CPT.06.10.20261.1, 47737, 47738 & 47739**

**ROUTE NO.: VARIOUS SR**

**LOCATION: VARIOUS**

**COUNTY: CUMBERLAND**

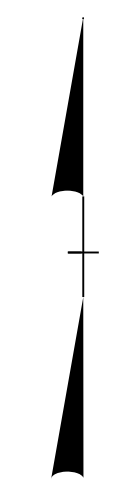
**LENGTH OF PROJECT: 29.69 MILES**

**TYPE OF WORK: RESURFACING, WIDENING, CURVE WIDENING & PVT. MKGS.**

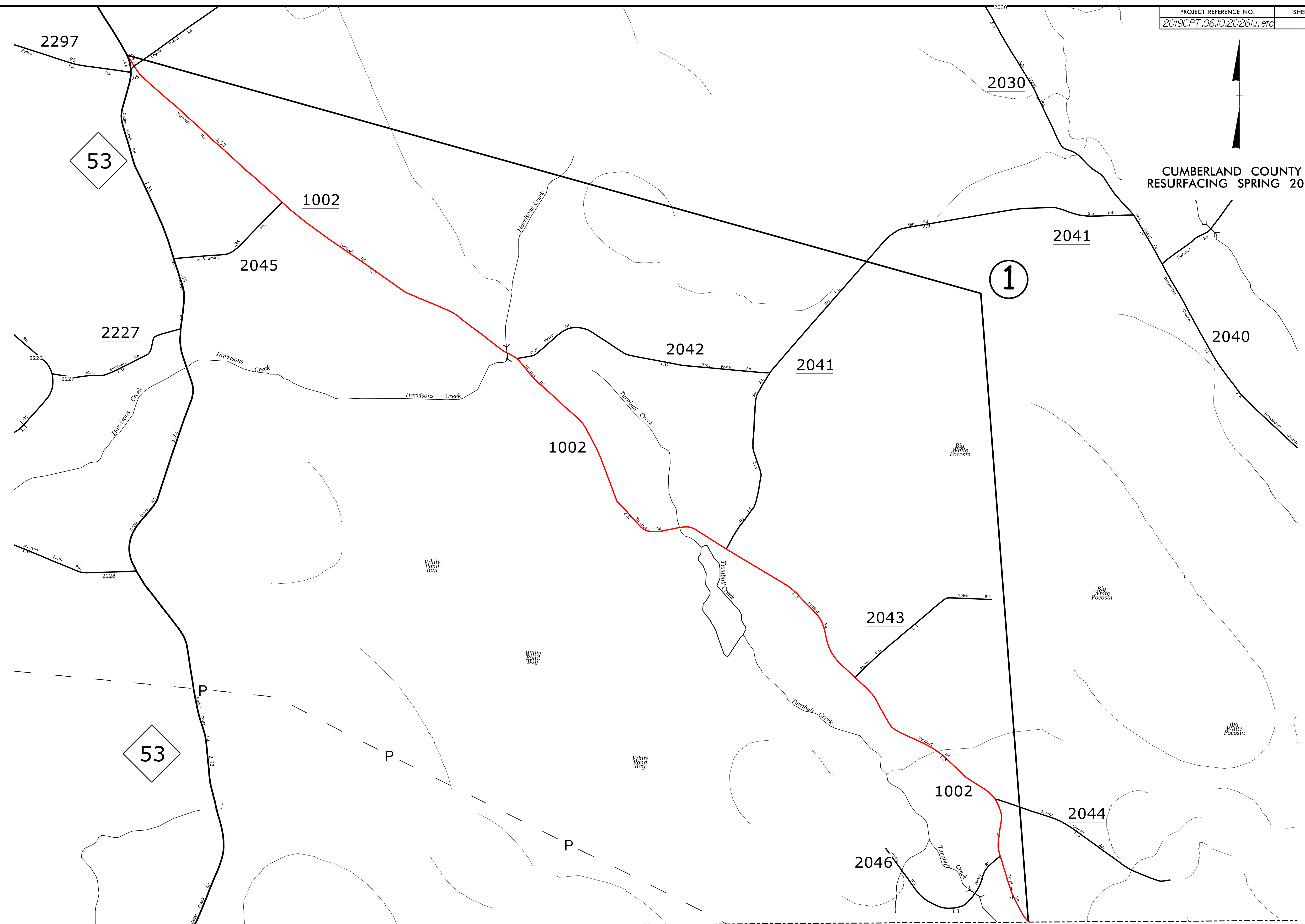
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CUMBERLAND COUNTY  
RESURFACING SPRING 2018

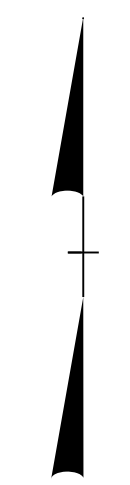


**BLADEN COUNTY**

REVISIONS

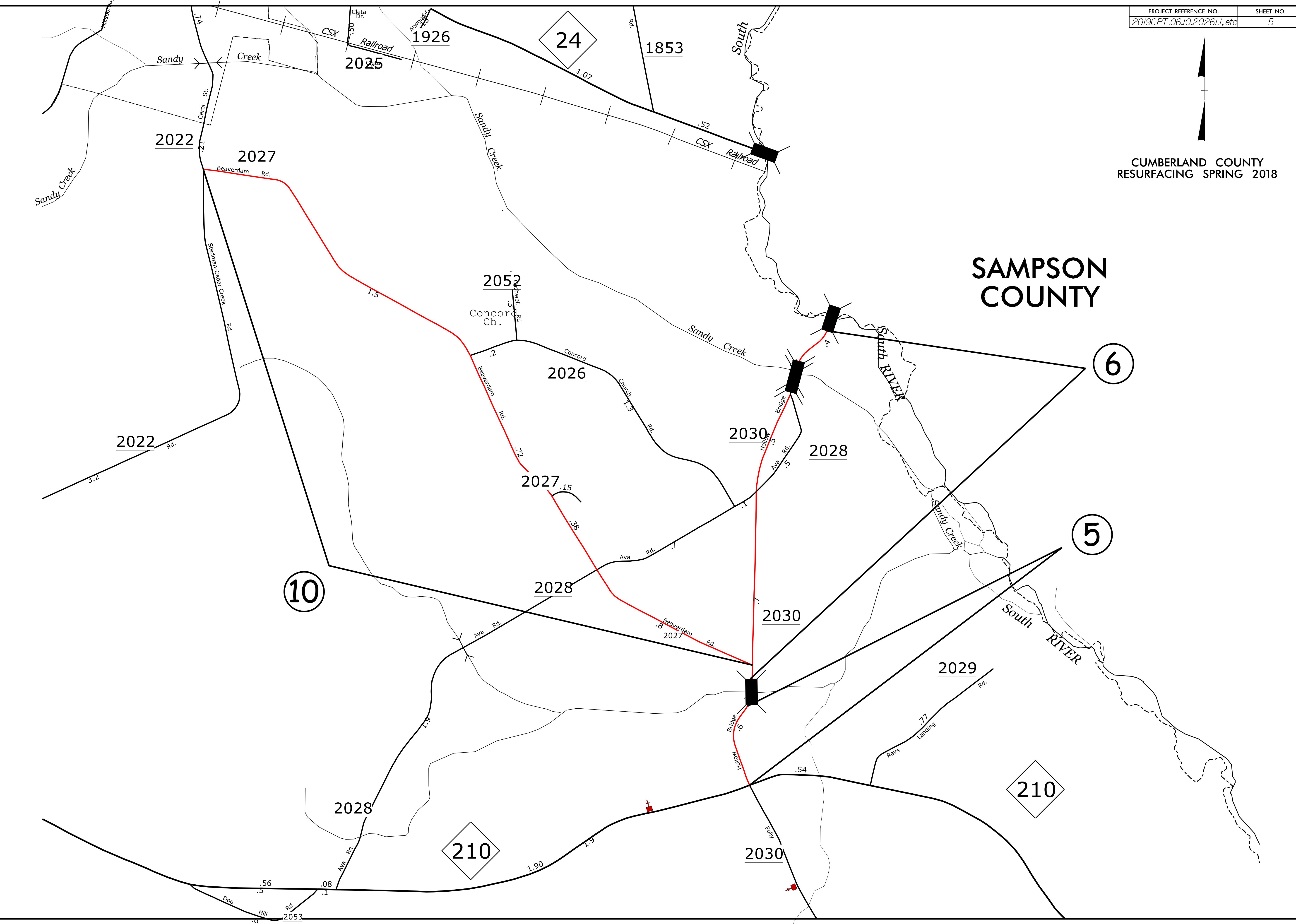
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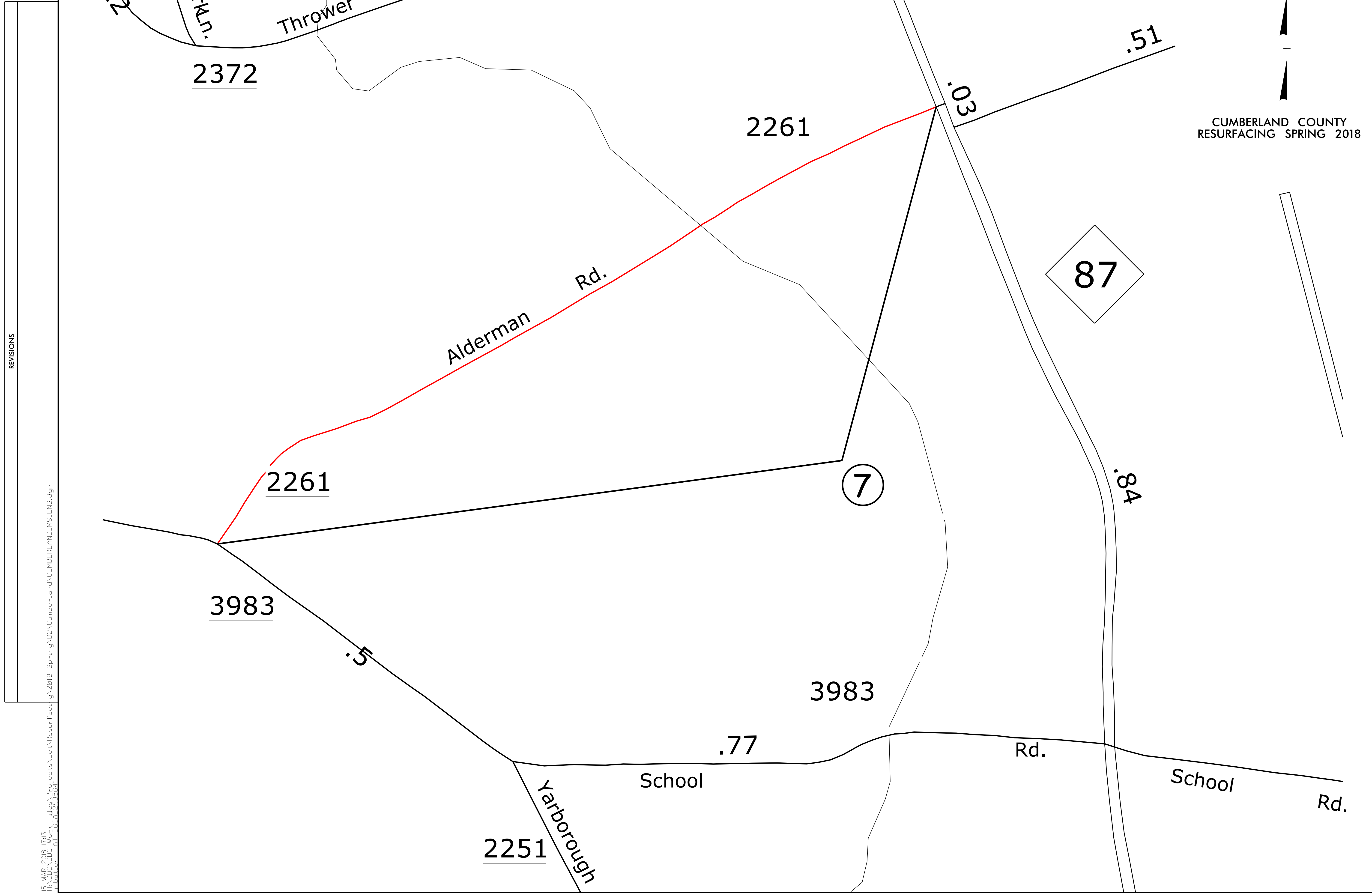
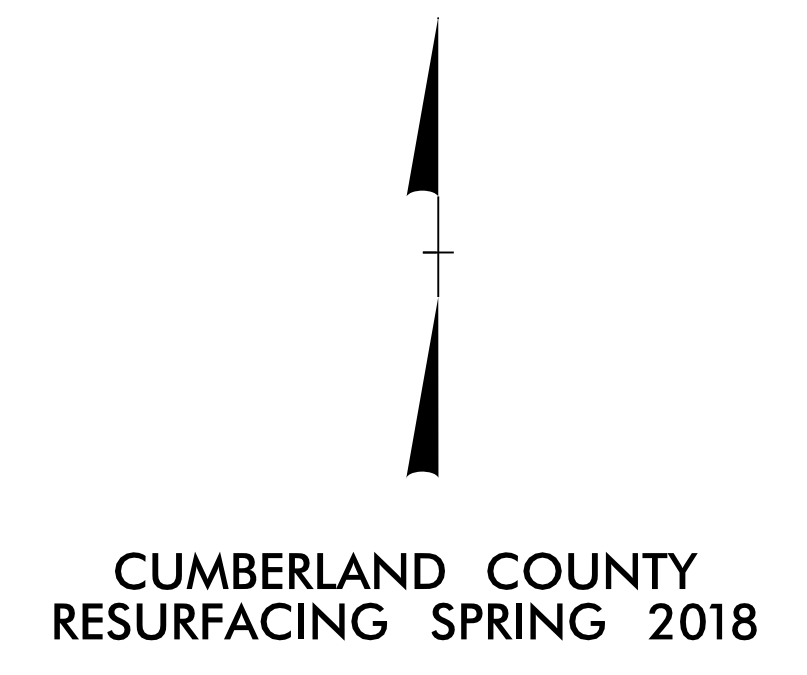
CUMBERLAND COUNTY  
RESURFACING SPRING 2018

SAMPSON COUNTY



REVISIONS

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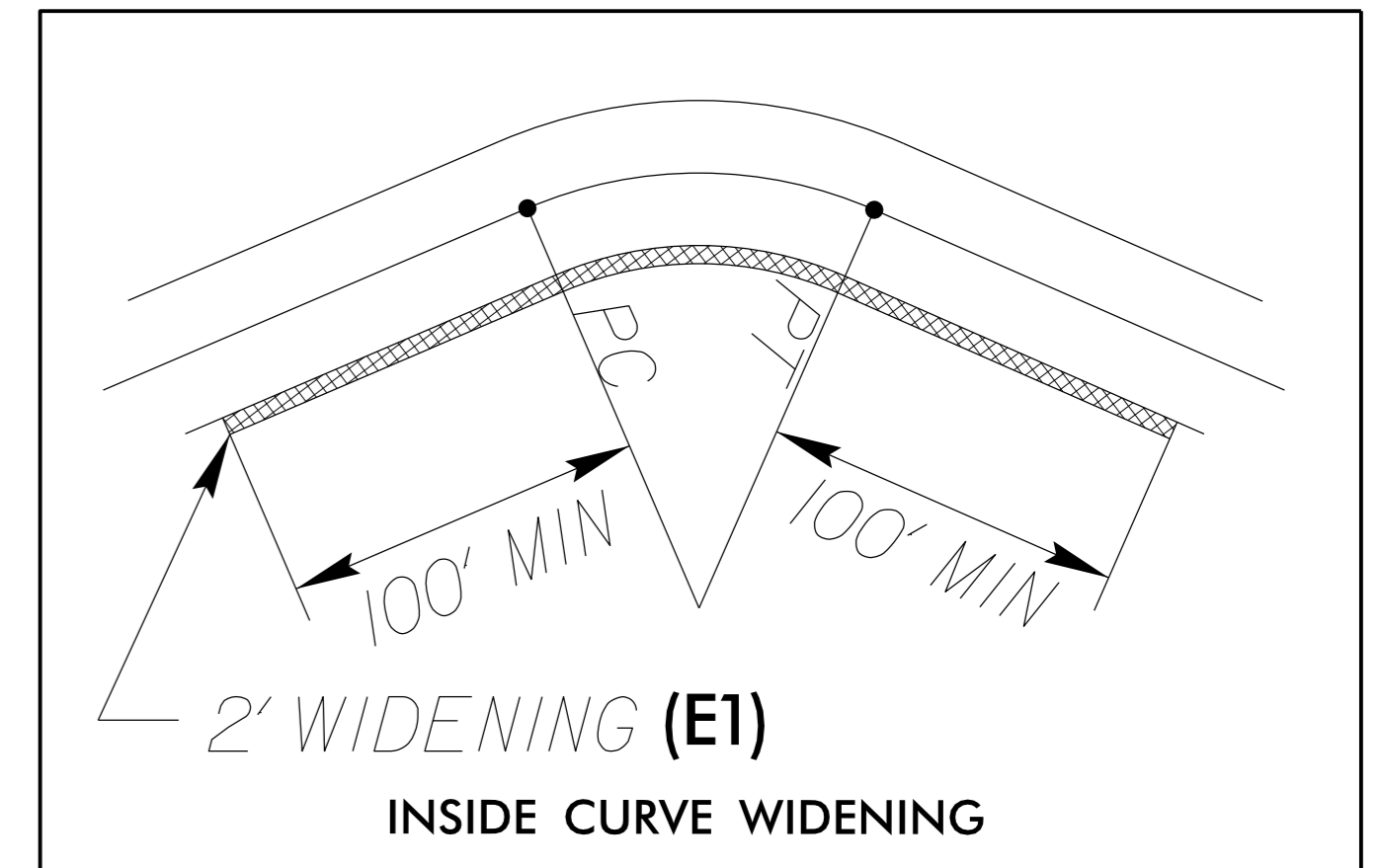
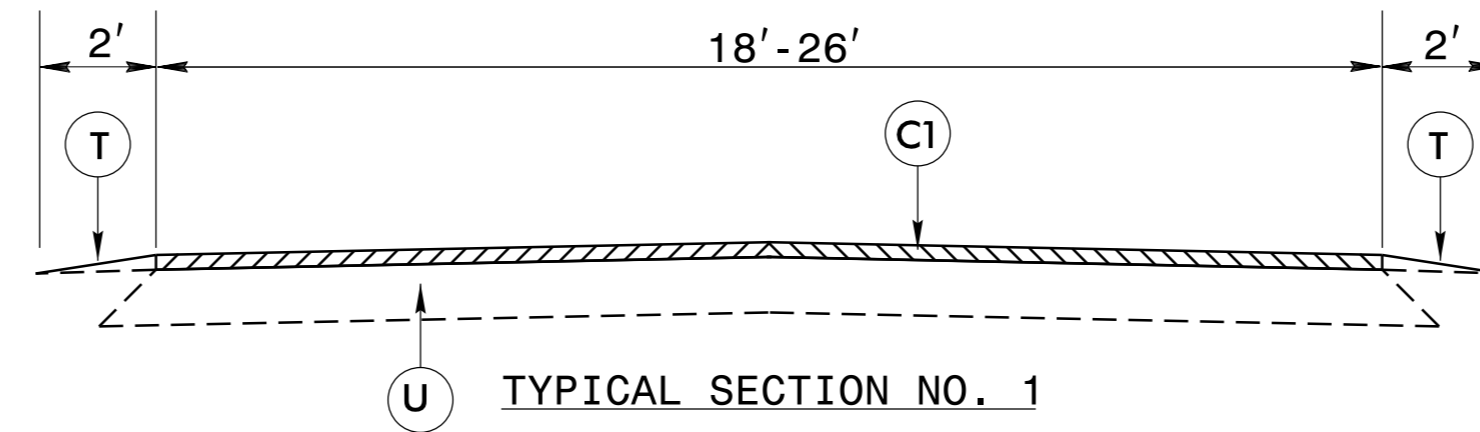
REVISIONS

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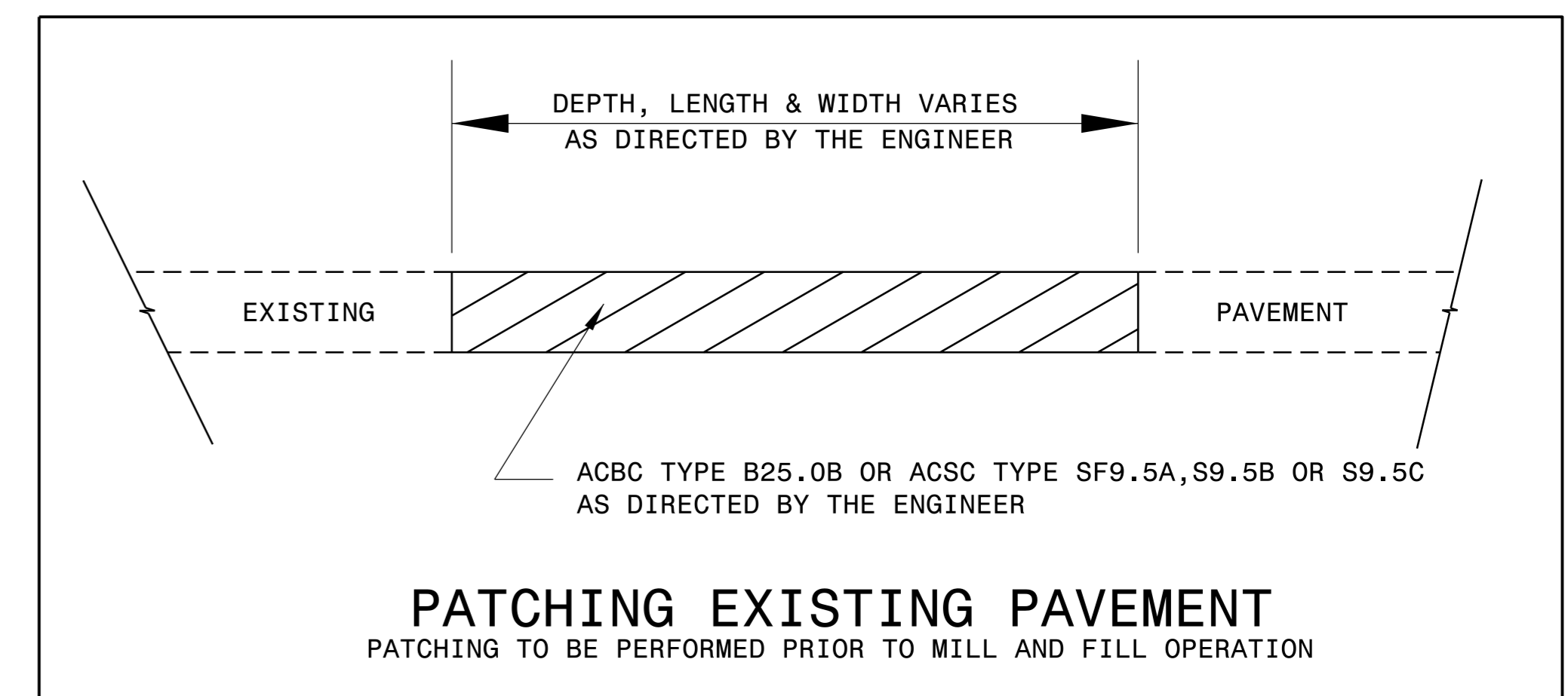
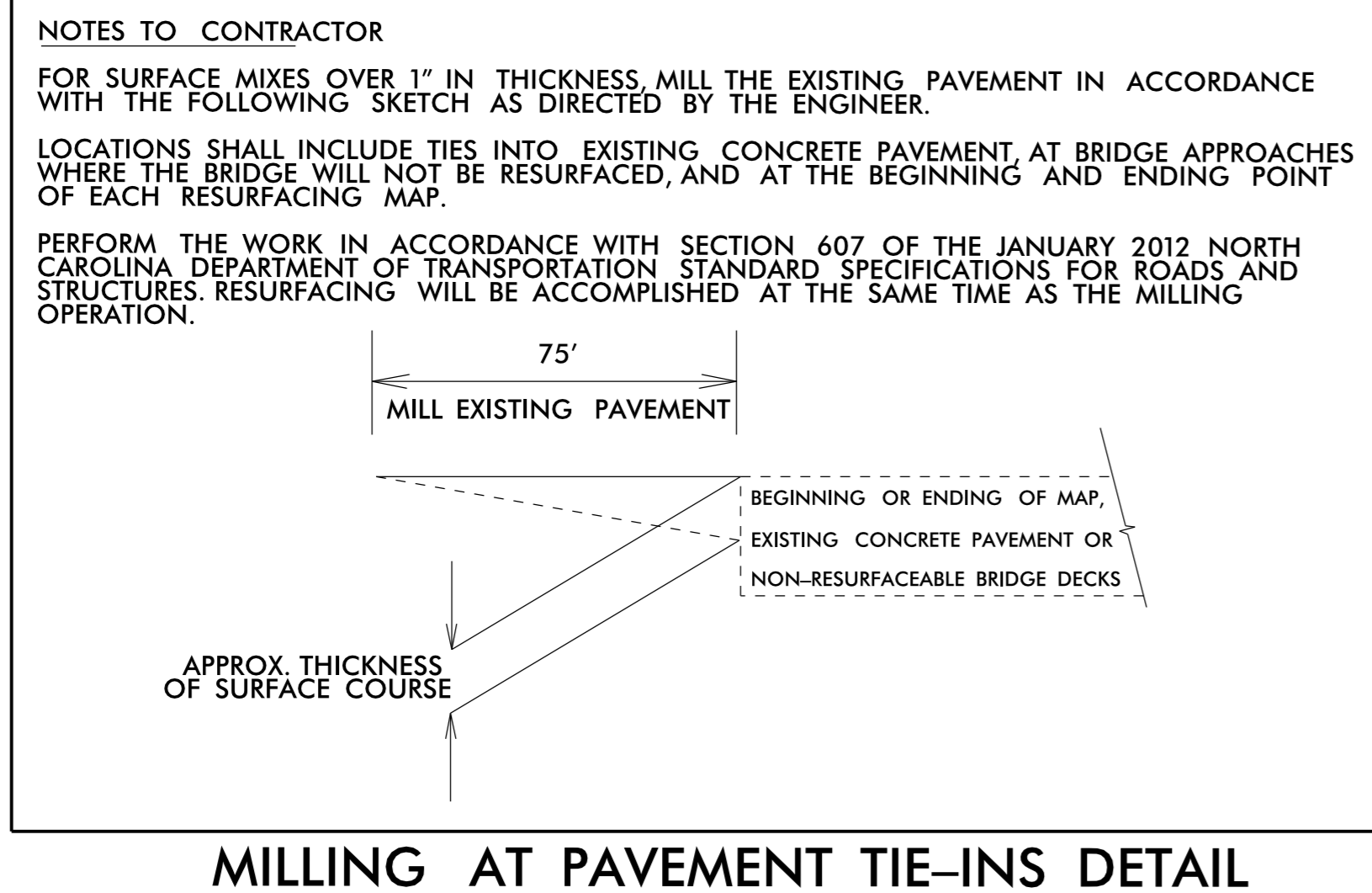
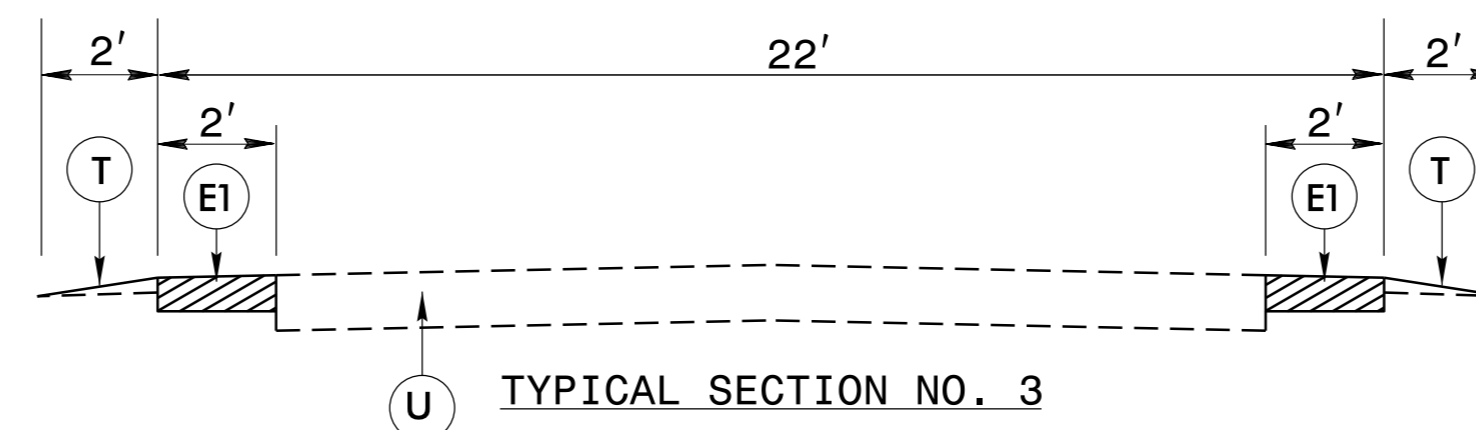
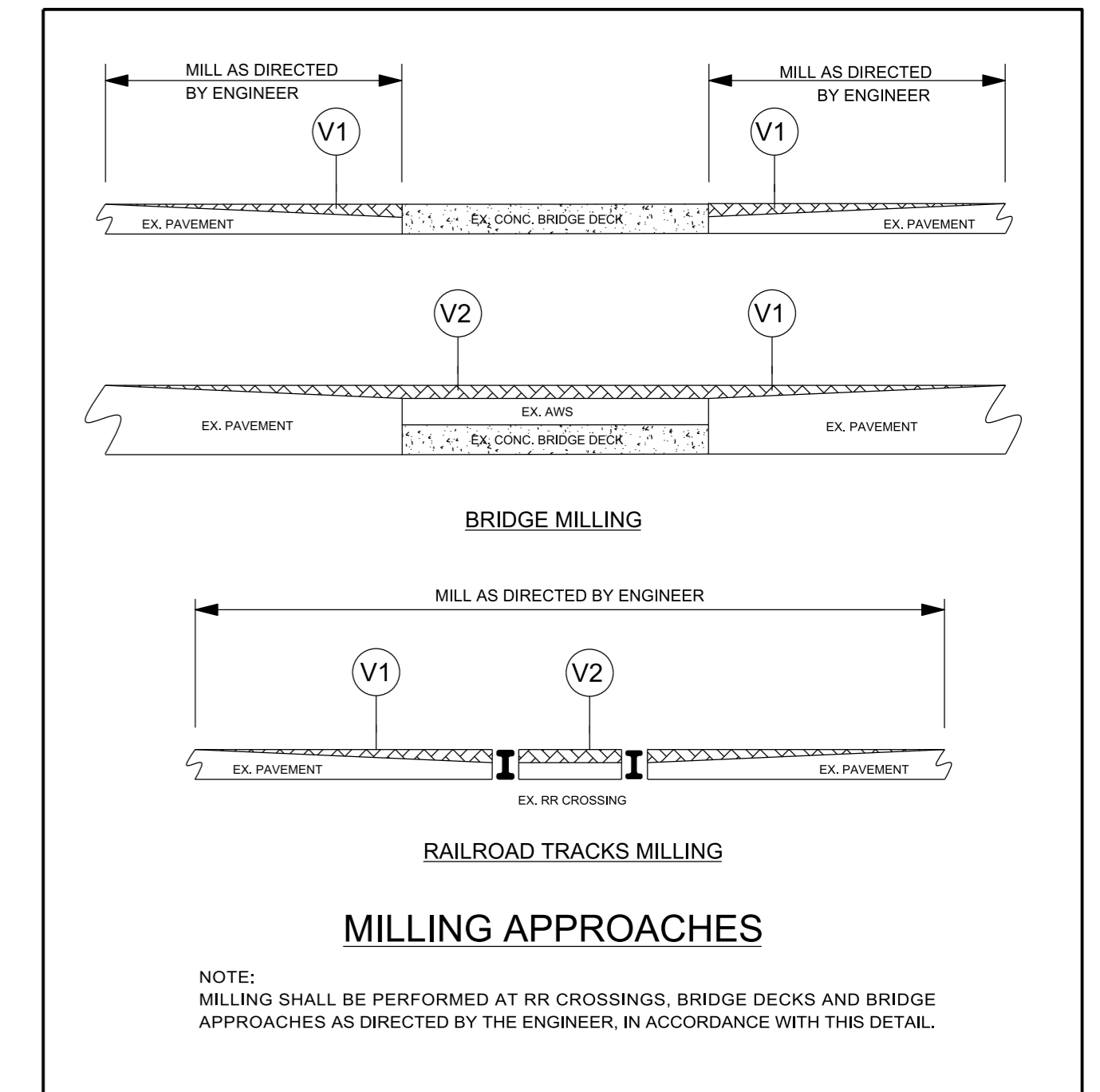
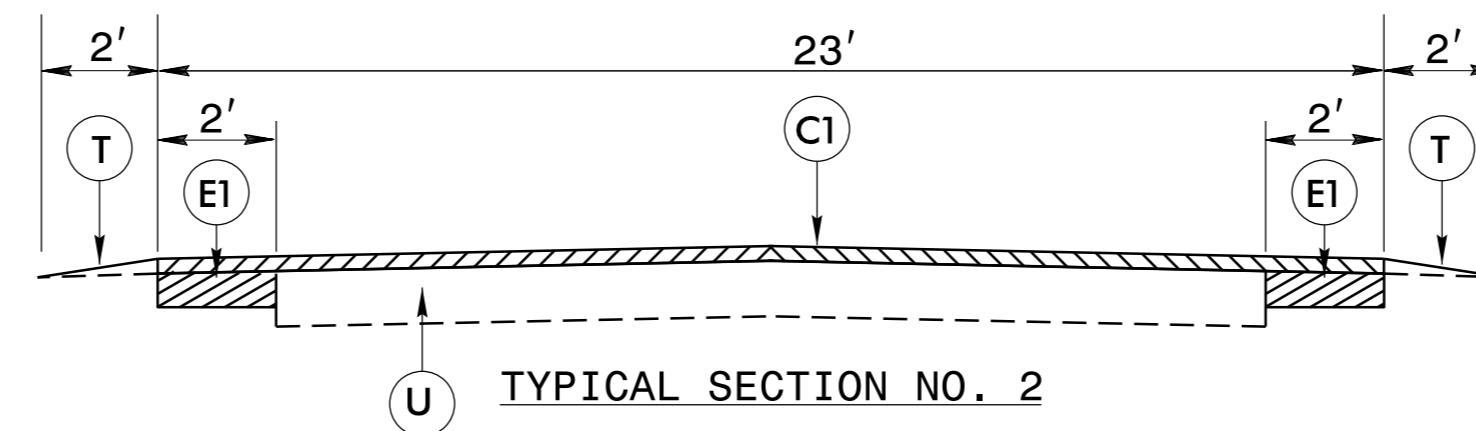
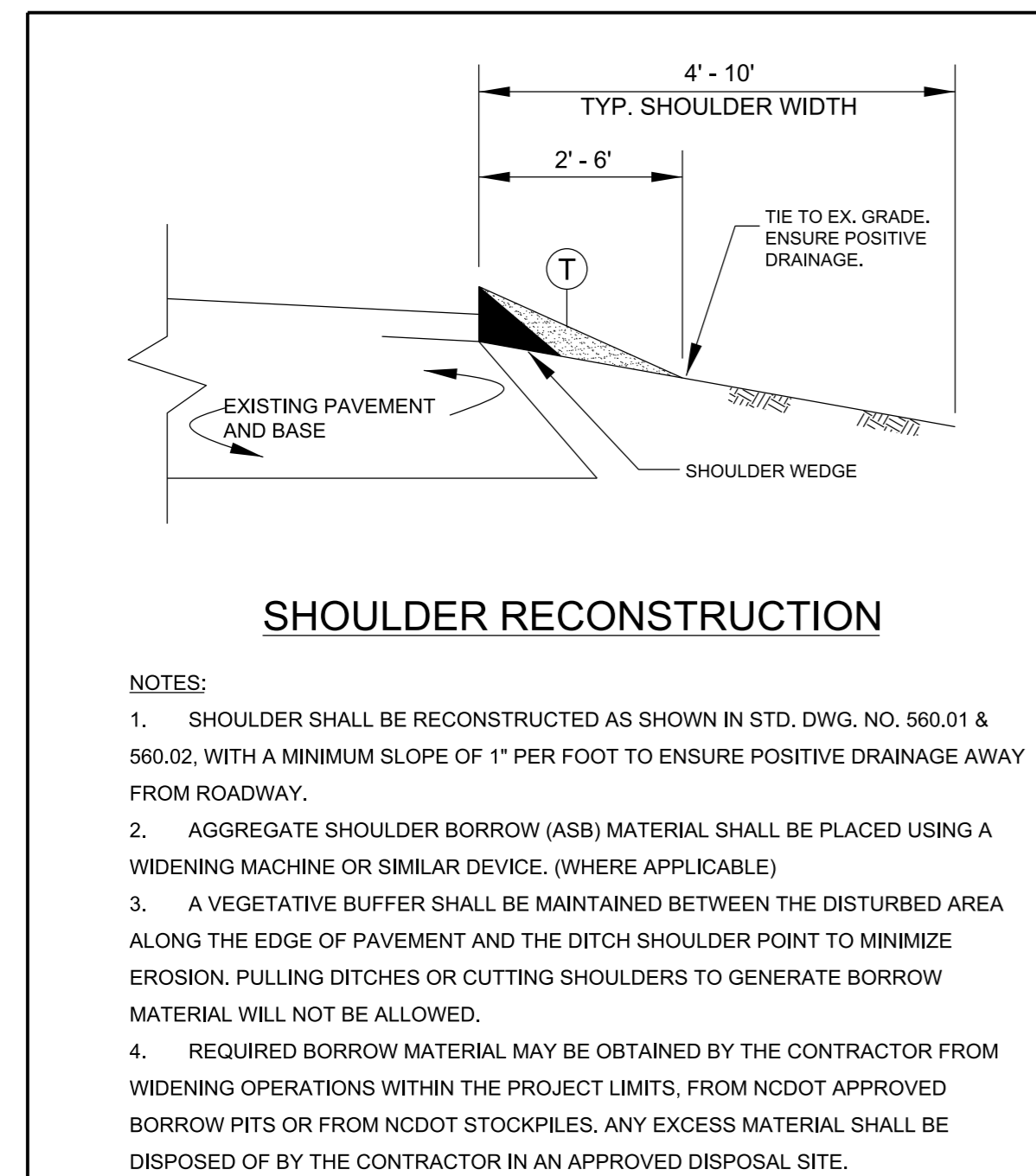


# PAVEMENT SCHEDULE

C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
E1	5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION WITH AGGREGATE SHOULDER BORROW
U	EXISTING PAVEMENT
V1	0" - 1½" MILLING
V2	1½" MILLING



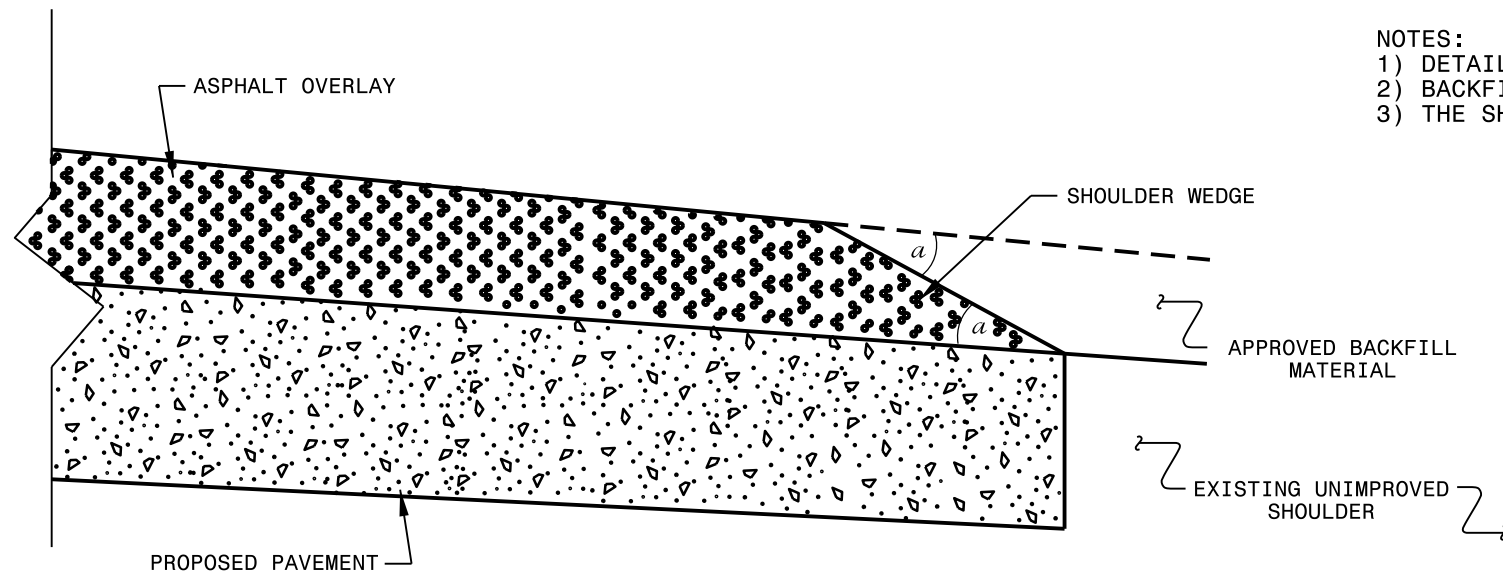
\*ALL MAPS WILL INCLUDE INSIDE CURVE WIDENING IN ADDITION TO WIDENING SHOWN ON TYPICALS



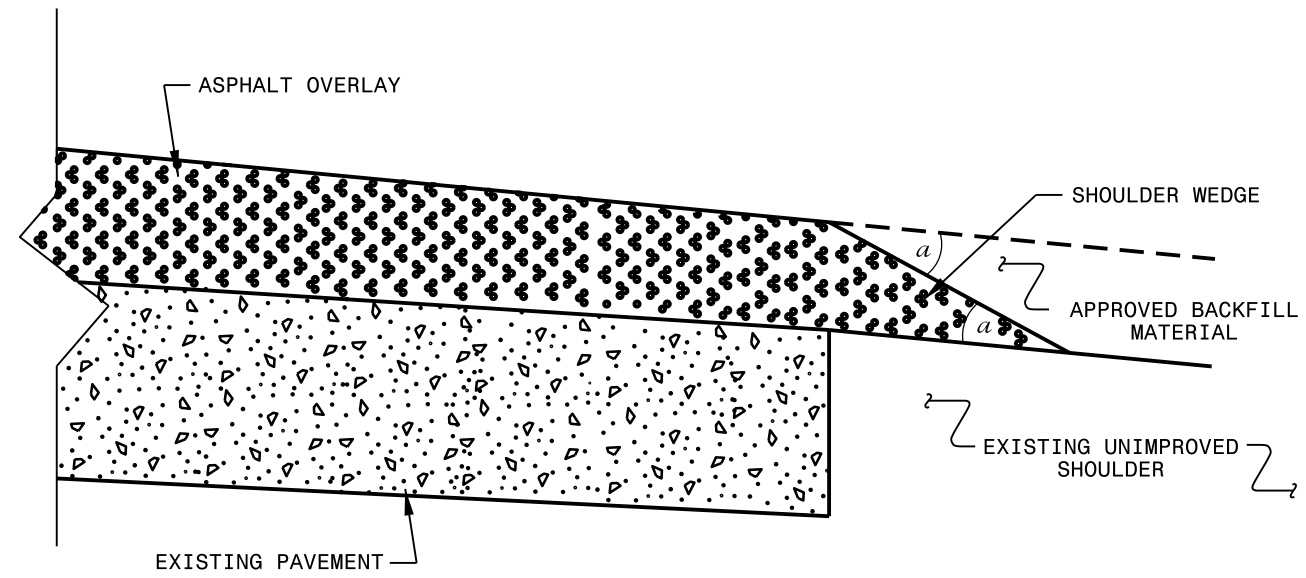
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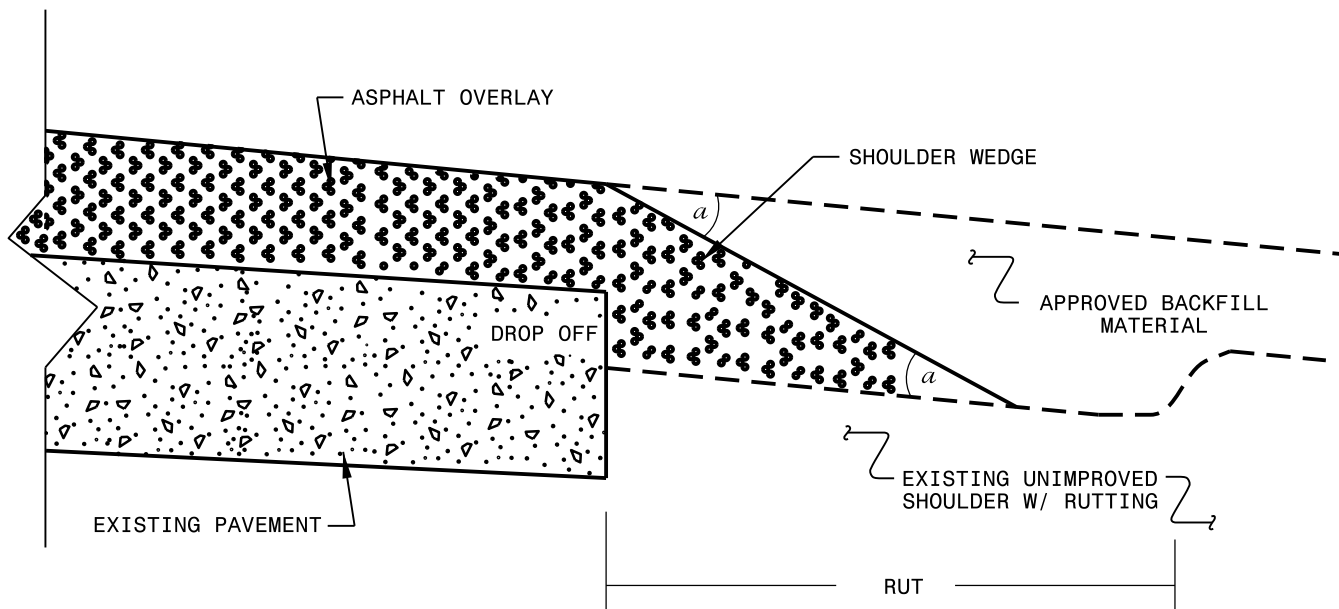
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFc AND ULTRA-THIN BONDED WEARING COURSE.
  - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
  - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**SHOULDER WEDGE DETAIL**  
(Resurfacing Projects w/ Widening or  
with Existing Paved Shoulder having no dropoffs)



**SHOULDER WEDGE DETAIL**  
(Resurfacing Projects w/ NO Widening)



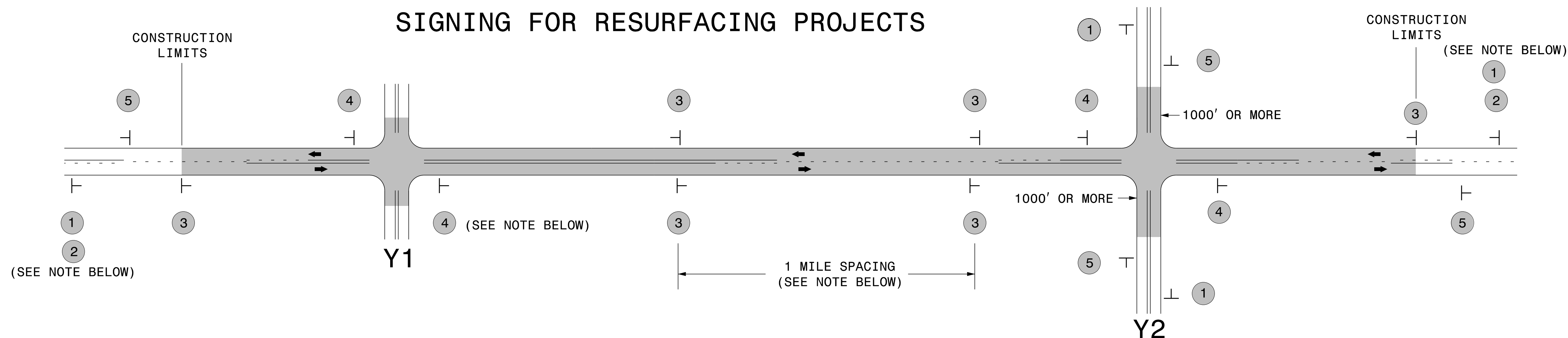
**SHOULDER WEDGE DETAIL**  
(Resurfacing Adjacent to  
Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

<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
CHECKED BY:	DATE:
FILE SPEC.: susr/details/stand/shoulderwedgedetail.dgn	

SYSTEM: 06/10/2019 10:26:11 AM  
USER: T.SPELL

# SIGNING FOR RESURFACING PROJECTS



LEGEND	
┆	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

## MAINLINE (-L-) SIGNING

## -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	MAINLINE (-L-) SIGNING		-Y- LINE SIGNING	
	1	 W20-1 48" X 48"	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <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;"> <div style="text-align: center;"> <p>W20-1 48" X 48"</p> </div> <div style="text-align: center;"> <p>W20-7 A 48" X 48"</p> </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
	2	 W7-3aP 24" X 18"	#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)	
	3	 SP 13107 48" X 48"	PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.	
	4	 SP 13106 48" X 48"	THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.	
5	 G20-2 A 48" X 24"	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.		

**RESURFACING  
ADVANCE WARNING SIGNS  
FOR  
RURAL AND SUBURBAN  
2 LANE ROADWAYS**

3/19/2015  
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**GUIDELINES FOR LANE WIDTHS ON RESURFACING PROJECTS**

Contractor shall place the new pavement markings in accordance with this table and detail unless otherwise directed by the Engineer.

<b>TWO LANE - TWO WAY ROADWAY - 55 MPH</b>		
ROADWAY WIDTH	LANE WIDTH	SHOULDER WIDTH
18'	9' *	0'
20'	10' *	0'
22'	10'	1'
24'	10'	2'
26'	11'	2'
28'	12'	2'
32'	12'	4'

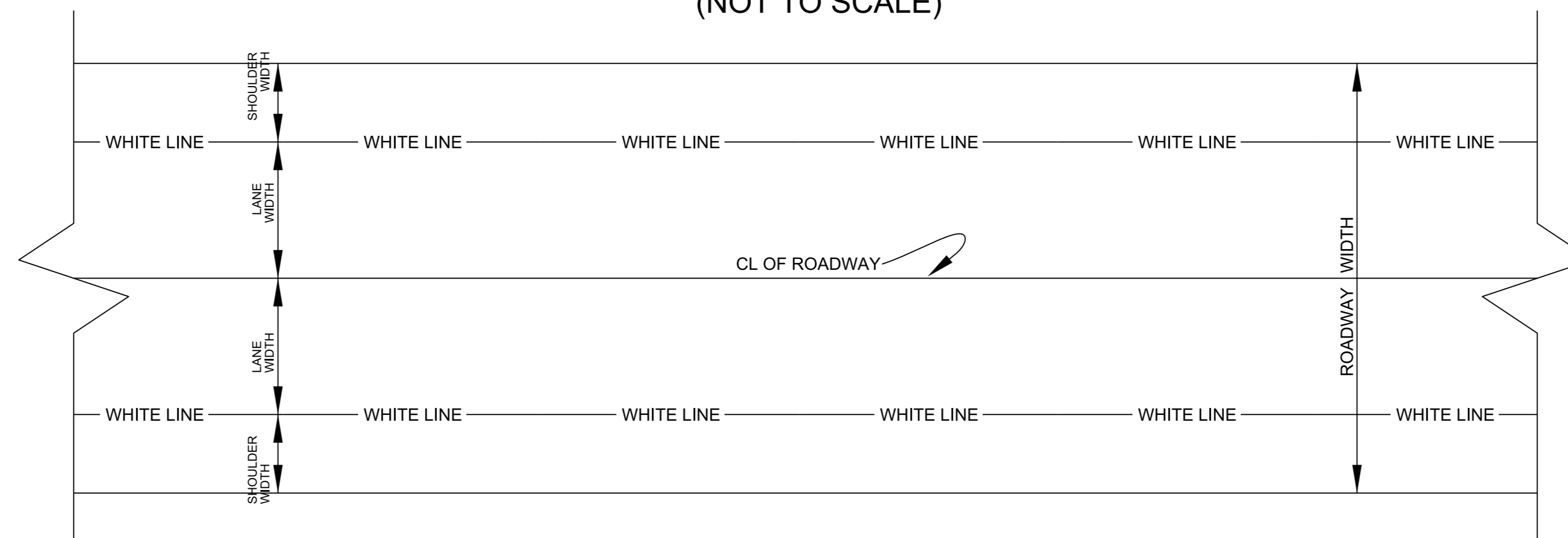
\* May vary due to pavement width

<b>TWO LANE - TWO WAY ROADWAY</b>		<b>50</b>
<b>MPH OR LESS</b>		
ROADWAY WIDTH	LANE WIDTH	SHOULDER WIDTH
18'	9' *	0'
20'	10' *	0'
22'	10'	1'
24'	10'	2'
26'	11'	2'
28'	11'	3'
32'	11'	5'

\* May vary due to pavement width

**SCHEMATIC OF ROADWAY**

(NOT TO SCALE)



PROJECT NO.	SHEET NO.
2019CPT.06.10.20261.1, 47739 47738, ETC.	12

## 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	1245000000-E	1260000000-E	1297000000-E	1330000000-E	1491000000-E	1519000000-E	1575000000-E	1704000000-E		
												SHOULDER RECONSTRUCTION	AGGREGATE SHOULDER BORROW	1½" MILLING	INCIDENTAL MILLING	BASE COURSE, B25.0C	SURFACE COURSE, S9.5B	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT		
												MI	FT	SMI	TON	SY	SY	TONS	TONS	TONS	TONS
2019CPT.06.10.20261.1	Cumberland	1	SR 1002	FROM NC HWY 53 MP 0.00 TO BLADEN CO LINE MP 8.68	1	2	2WU	NO	NO	8.68	20	17.40	2,807		444	639	8,694	611	260		
<b>TOTAL FOR MAP NO. 1</b>										<b>8.68</b>		<b>17.40</b>	<b>2,807</b>		<b>444</b>	<b>639</b>	<b>8,694</b>	<b>611</b>	<b>260</b>		
2019CPT.06.10.20261.1	Cumberland	2	SR 1609	FROM SR 1700 MP 4.24 TO SR 1707 MP 7.48	1	2	2WU	NO	NO	3.24	18	6.50	1,048		1,469	155	3,070	213	97		
<b>TOTAL FOR MAP NO. 2</b>										<b>3.24</b>		<b>6.50</b>	<b>1,048</b>		<b>1,469</b>	<b>155</b>	<b>3,070</b>	<b>213</b>	<b>97</b>		
2019CPT.06.10.20261.1	Cumberland	3	SR 1700	FROM SR 1710 MP 0.00 TO SR 1707 MP 4.30	1	2	2WU	NO	NO	4.3	22	8.60	1,391		178	158	4,670	320	129		
<b>TOTAL FOR MAP NO. 3</b>										<b>4.3</b>		<b>8.60</b>	<b>1,391</b>		<b>178</b>	<b>158</b>	<b>4,670</b>	<b>320</b>	<b>129</b>		
2019CPT.06.10.20261.1	Cumberland	4	SR 1710	FROM SR 1700 MP 4.45 TO SR 1711 MP 5.74	1	2	2WU	NO	NO	1.29	22	2.60	417		133	47	1,549	105	39		
<b>TOTAL FOR MAP NO. 4</b>										<b>1.29</b>		<b>2.60</b>	<b>417</b>		<b>133</b>	<b>47</b>	<b>1,549</b>	<b>105</b>	<b>39</b>		
2019CPT.06.10.20261.1	Cumberland	5	SR 2030A	FROM NC HWY 210 MP 3.28 TO BEGIN TIP PROJECT B-5712 MP 3.67	2	2	2WU	NO	NO	0.39	23	0.80	126		44	342	536	51	12		
<b>TOTAL FOR MAP NO. 5</b>										<b>0.39</b>		<b>0.80</b>	<b>126</b>		<b>44</b>	<b>342</b>	<b>536</b>	<b>51</b>	<b>12</b>		
2019CPT.06.10.20261.1	Cumberland	6	SR 2030B	FROM END TIP PROJECT B-5712 MP 3.77 TO BEGIN TIP PROJECT B-5700 MP 3.35	2	2	2WU	NO	NO	1.58	23	3.20	511	223	1,270	1,220	2,092	195	47		
<b>TOTAL FOR MAP NO. 6</b>										<b>1.58</b>		<b>3.20</b>	<b>511</b>	<b>223</b>	<b>1,270</b>	<b>1,220</b>	<b>2,092</b>	<b>195</b>	<b>47</b>		
2019CPT.06.10.20261.1	Cumberland	7	SR 2261	FROM SR 3983 MP 0.00 TO NC HWY 87 MP 1.09	1	2	2WU	NO	NO	1.09	22	2.20	353		324	40	1,196	82	33		
<b>TOTAL FOR MAP NO. 7</b>										<b>1.09</b>		<b>2.20</b>	<b>353</b>		<b>324</b>	<b>40</b>	<b>1,196</b>	<b>82</b>	<b>33</b>		
<b>TOTAL FOR PROJ NO. 2019CPT.06.10.20261.1</b>										<b>20.57</b>		<b>41.30</b>	<b>6,653</b>	<b>223</b>	<b>3,862</b>	<b>2,601</b>	<b>21,807</b>	<b>1,577</b>	<b>617</b>		
47739	Cumberland	8	SR 1609	FROM HARNETT CO LINE MP 0.00 TO US HWY 401 MP 1.27	3	2	2WU	NO	NO	1.27	22	2.50	411			981		44			
<b>TOTAL FOR MAP NO. 8</b>										<b>1.27</b>		<b>2.50</b>	<b>411</b>			<b>981</b>		<b>44</b>			
<b>TOTAL FOR PROJ NO. 47739</b>										<b>1.27</b>		<b>2.50</b>	<b>411</b>			<b>981</b>		<b>44</b>			
47738	Cumberland	9	SR 1710	FROM SR 1609 MP 0.00 TO SR 1700 MP 4.45	2	2	2WU	NO	NO	4.45	22	8.90	1,439		1,162	3,601	5,686	543	134		
<b>TOTAL FOR MAP NO. 9</b>										<b>4.45</b>		<b>8.90</b>	<b>1,439</b>		<b>1,162</b>	<b>3,601</b>	<b>5,686</b>	<b>543</b>	<b>134</b>		
<b>TOTAL FOR PROJ NO. 47738</b>										<b>4.45</b>		<b>8.90</b>	<b>1,439</b>		<b>1,162</b>	<b>3,601</b>	<b>5,686</b>	<b>543</b>	<b>134</b>		
47737	Cumberland	10	SR 2027	FROM SR 2022 MP 0.00 TO SR 2030 MP 3.40	2	2	2WU	NO	NO	3.4	22	6.80	1,100		267	2,776	4,425	421	102		
<b>TOTAL FOR MAP NO. 10</b>										<b>3.4</b>		<b>6.80</b>	<b>1,100</b>		<b>267</b>	<b>2,776</b>	<b>4,425</b>	<b>421</b>	<b>102</b>		
<b>TOTAL FOR PROJ NO. 47737</b>										<b>3.4</b>		<b>6.80</b>	<b>1,100</b>		<b>267</b>	<b>2,776</b>	<b>4,425</b>	<b>421</b>	<b>102</b>		
<b>GRAND TOTAL</b>										<b>29.69</b>		<b>59.50</b>	<b>9,603</b>	<b>223</b>	<b>5,291</b>	<b>9,959</b>	<b>31,918</b>	<b>2,585</b>	<b>853</b>		

PROJECT NO.	SHEET NO.
2019CPT.06.10.20261.1, 47739	13
47738, ETC.	

## THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4685000000-E	4686000000-E	4810000000-E		4830000000-E	4835000000-E	4840000000-N	4900000000-N	
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	4" X 90 M WHITE THERMO	4" X 120 M YELLOW THERMO	4" WHITE PAINT	4" YELLOW PAINT	16" WHITE PAINT	24" WHITE PAINT	PAINT MSG RXR	YELLOW & YELLOW MARKERS	
									MI	FT	SF	LS	LF	LF	LF	LF	LF	EA	EA	
2019CPT.06.10.20261.1	Cumberland	1	SR 1002	FROM NC HWY 53 MP 0.00 TO BLADEN CO LINE MP 8.68	1	2	2WU	8.68	20	972	1.00	91,661	77,911						695	
<b>TOTAL FOR MAP NO. 1</b>									<b>8.68</b>		<b>972</b>	<b>1</b>	<b>91,661</b>	<b>77,911</b>					<b>695</b>	
2019CPT.06.10.20261.1	Cumberland	2	SR 1609	FROM SR 1700 MP 4.24 TO SR 1707 MP 7.48	1	2	2WU	3.24	18	363				34,216	29,084	100	50	4		
<b>TOTAL FOR MAP NO. 2</b>									<b>3.24</b>		<b>363</b>			<b>34,216</b>	<b>29,084</b>	<b>100</b>	<b>50</b>	<b>4</b>		
2019CPT.06.10.20261.1	Cumberland	3	SR 1700	FROM SR 1710 MP 0.00 TO SR 1707 MP 4.30	1	2	2WU	4.3	22	482				45,408	38,597					
<b>TOTAL FOR MAP NO. 3</b>									<b>4.3</b>		<b>482</b>			<b>45,408</b>	<b>38,597</b>					
2019CPT.06.10.20261.1	Cumberland	4	SR 1710	FROM SR 1700 MP 4.45 TO SR 1711 MP 5.74	1	2	2WU	1.29	22	144				13,728	13,728					
<b>TOTAL FOR MAP NO. 4</b>									<b>1.29</b>		<b>144</b>			<b>13,728</b>	<b>13,728</b>					
2019CPT.06.10.20261.1	Cumberland	5	SR 2030A	FROM NC HWY 210 MP 3.28 TO BEGIN TIP PROJECT B-5712 MP 3.67	2	2	2WU	0.39	23	44				4,118	3,501					
<b>TOTAL FOR MAP NO. 5</b>									<b>0.39</b>		<b>44</b>			<b>4,118</b>	<b>3,501</b>					
2019CPT.06.10.20261.1	Cumberland	6	SR 2030B	FROM END TIP PROJECT B-5712 MP 3.77 TO BEGIN TIP PROJECT B-5700 MP 3.35	2	2	2WU	1.58	23	177				16,685	14,182					
<b>TOTAL FOR MAP NO. 6</b>									<b>1.58</b>		<b>177</b>			<b>16,685</b>	<b>14,182</b>					
2019CPT.06.10.20261.1	Cumberland	7	SR 2261	FROM SR 3983 MP 0.00 TO NC HWY 87 MP 1.09	1	2	2WU	1.09	22	122				11,511	9,784					
<b>TOTAL FOR MAP NO. 7</b>									<b>1.09</b>		<b>122</b>			<b>11,511</b>	<b>9,784</b>					
<b>TOTAL FOR PROJ NO. 2019CPT.06.10.20261.1</b>									<b>20.57</b>		<b>2,304</b>	<b>1</b>	<b>91,661</b>	<b>77,911</b>	<b>125,666</b>	<b>108,876</b>	<b>100</b>	<b>50</b>	<b>4</b>	<b>695</b>
														<b>234,542</b>						
47739	Cumberland	8	SR 1609	FROM HARNETT CO LINE MP 0.00 TO US HWY 401 MP 1.27	3	2	2WU	1.27	22	142										
<b>TOTAL FOR MAP NO. 8</b>									<b>1.27</b>		<b>142</b>									
<b>TOTAL FOR PROJ NO. 47739</b>									<b>1.27</b>		<b>142</b>									
47738	Cumberland	9	SR 1710	FROM SR 1609 MP 0.00 TO SR 1700 MP 4.45	2	2	2WU	4.45	22	498				46,992	46,992	100	50	4		
<b>TOTAL FOR MAP NO. 9</b>									<b>4.45</b>		<b>498</b>			<b>46,992</b>	<b>46,992</b>	<b>100</b>	<b>50</b>	<b>4</b>		
<b>TOTAL FOR PROJ NO. 47738</b>									<b>4.45</b>		<b>498</b>			<b>46,992</b>	<b>46,992</b>	<b>100</b>	<b>50</b>	<b>4</b>		
														<b>93,984</b>						
47737	Cumberland	10	SR 2027	FROM SR 2022 MP 0.00 TO SR 2030 MP 3.40	2	2	2WU	3.4	22	381				35,904	30,518					
<b>TOTAL FOR MAP NO. 10</b>									<b>3.4</b>		<b>381</b>			<b>35,904</b>	<b>30,518</b>					
<b>TOTAL FOR PROJ NO. 47737</b>									<b>3.4</b>		<b>381</b>			<b>35,904</b>	<b>30,518</b>					
														<b>66,422</b>						
<b>GRAND TOTAL</b>									<b>29.69</b>		<b>3,325</b>	<b>1</b>	<b>91,661</b>	<b>77,911</b>	<b>208,562</b>	<b>186,386</b>	<b>200</b>	<b>100</b>	<b>8</b>	<b>695</b>
														<b>394,948</b>						