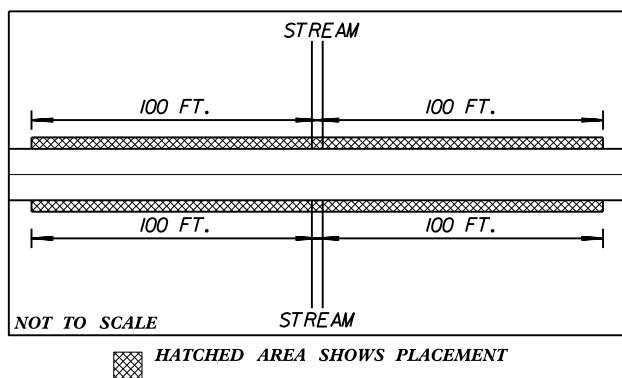


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**AVERY COUNTY**

PRIMARY ASPHALT RESURFACING

**\*DETAIL FOR AGGREGATE SHOULDER BORROW AT STREAM CROSSING**



ASB TO BE PLACED AT LIVE STREAMS;  
\* SEE DETAIL  
APPROX. STATION 19+50-20+50

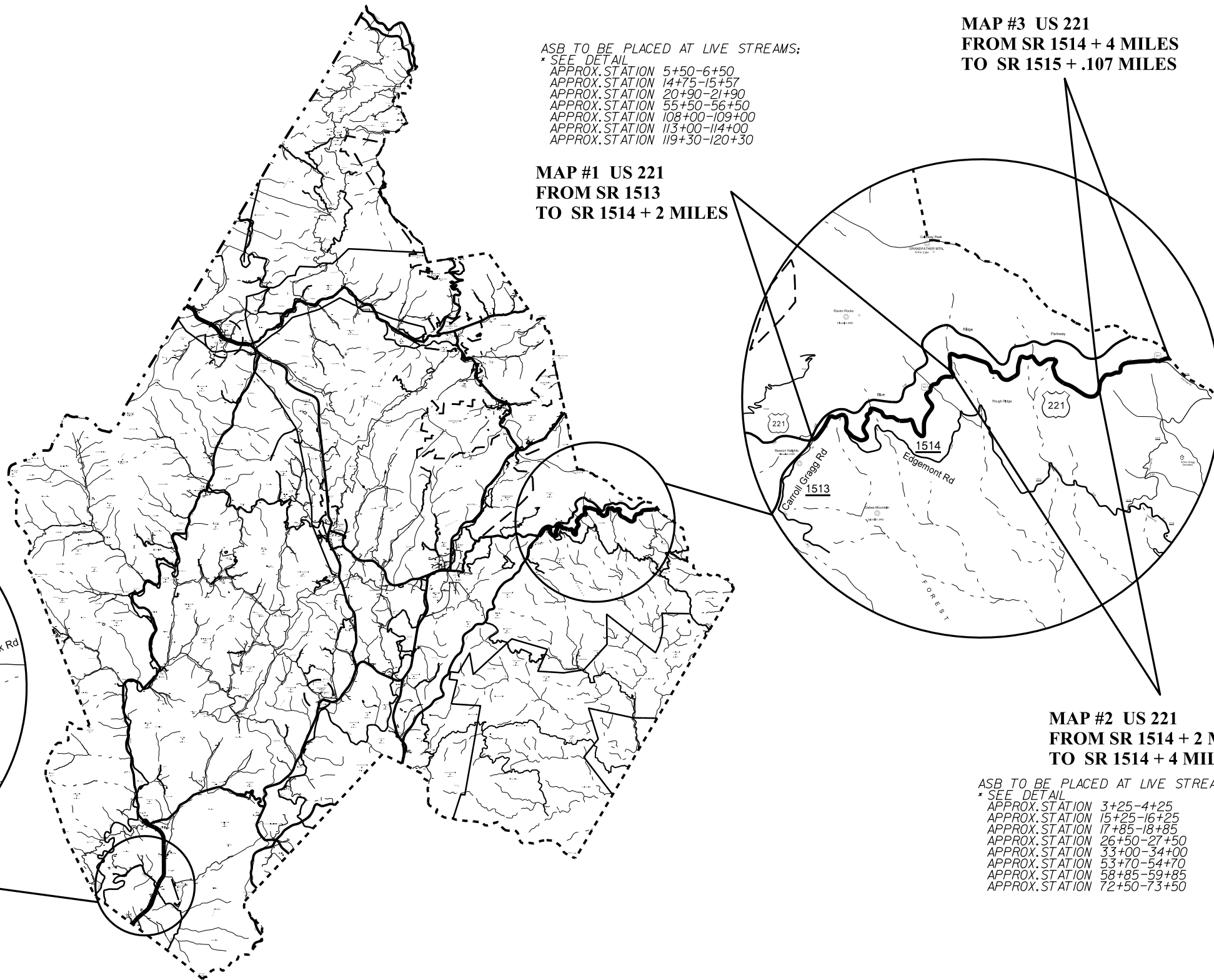
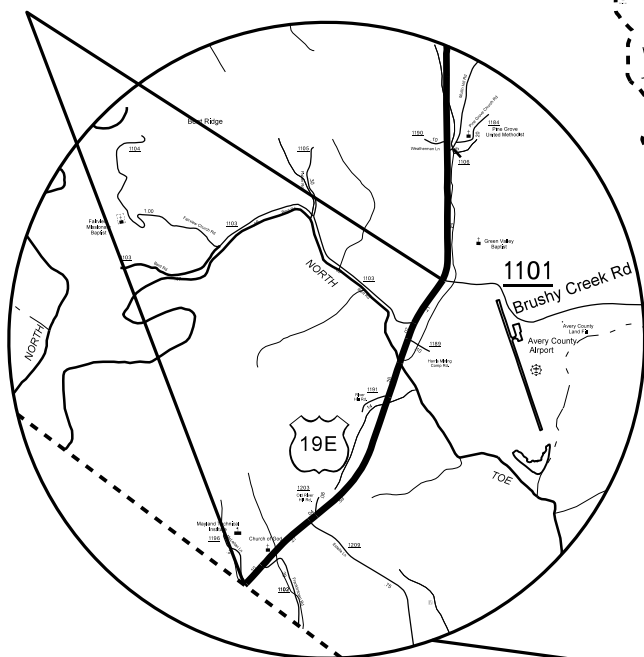
**MAP #3 US 221**  
**FROM SR 1514 + 4 MILES**  
**TO SR 1515 + .107 MILES**

ASB TO BE PLACED AT LIVE STREAMS;  
\* SEE DETAIL  
APPROX. STATION 5+50-6+50  
APPROX. STATION 14+75-15+57  
APPROX. STATION 20+90-21+90  
APPROX. STATION 55+50-56+50  
APPROX. STATION 108+00-109+00  
APPROX. STATION 113+00-114+00  
APPROX. STATION 119+30-120+30

**MAP #1 US 221**  
**FROM SR 1513**  
**TO SR 1514 + 2 MILES**

ASB TO BE PLACED AT LIVE STREAMS;  
\* SEE DETAIL  
APPROX. STATION 59+50-60+00  
APPROX. STATION 62+50-63+00

**MAP #4 US 19E**  
**FROM MITCHELL CO LINE**  
**TO SR 1101**



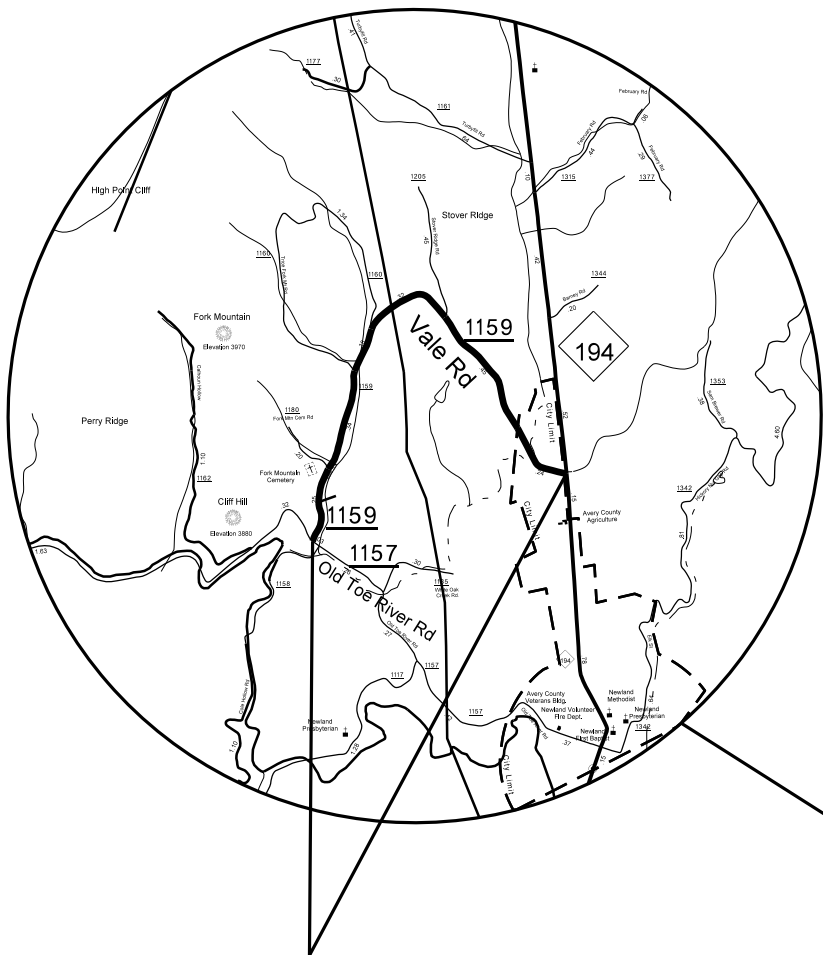
**MAP #2 US 221**  
**FROM SR 1514 + 2 MILES**  
**TO SR 1514 + 4 MILES**

ASB TO BE PLACED AT LIVE STREAMS;  
\* SEE DETAIL  
APPROX. STATION 3+25-4+25  
APPROX. STATION 15+25-16+25  
APPROX. STATION 17+85-18+85  
APPROX. STATION 26+50-27+50  
APPROX. STATION 33+00-34+00  
APPROX. STATION 53+70-54+70  
APPROX. STATION 58+85-59+85  
APPROX. STATION 72+50-73+50

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**AVERY COUNTY**

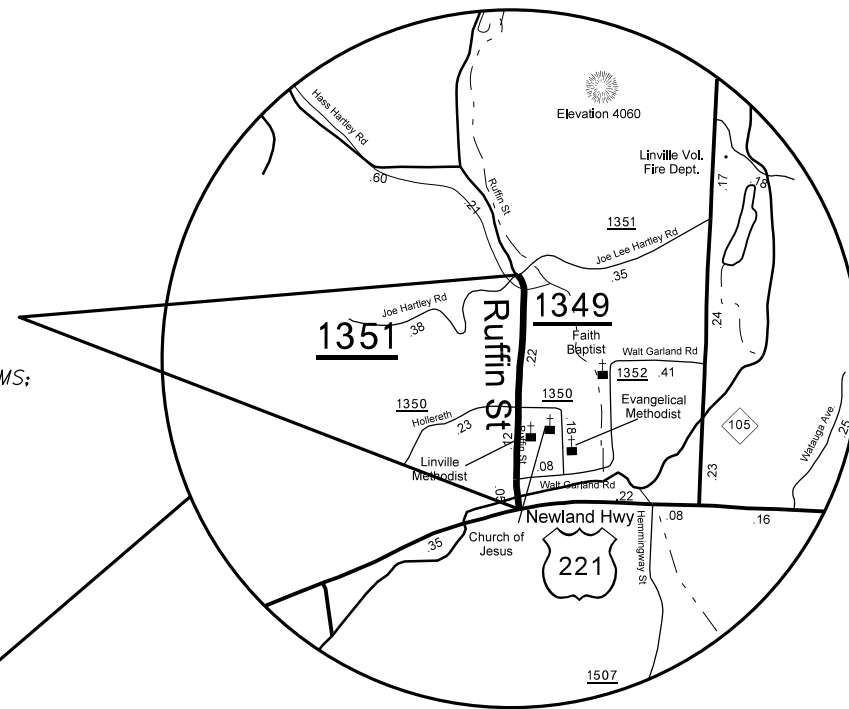
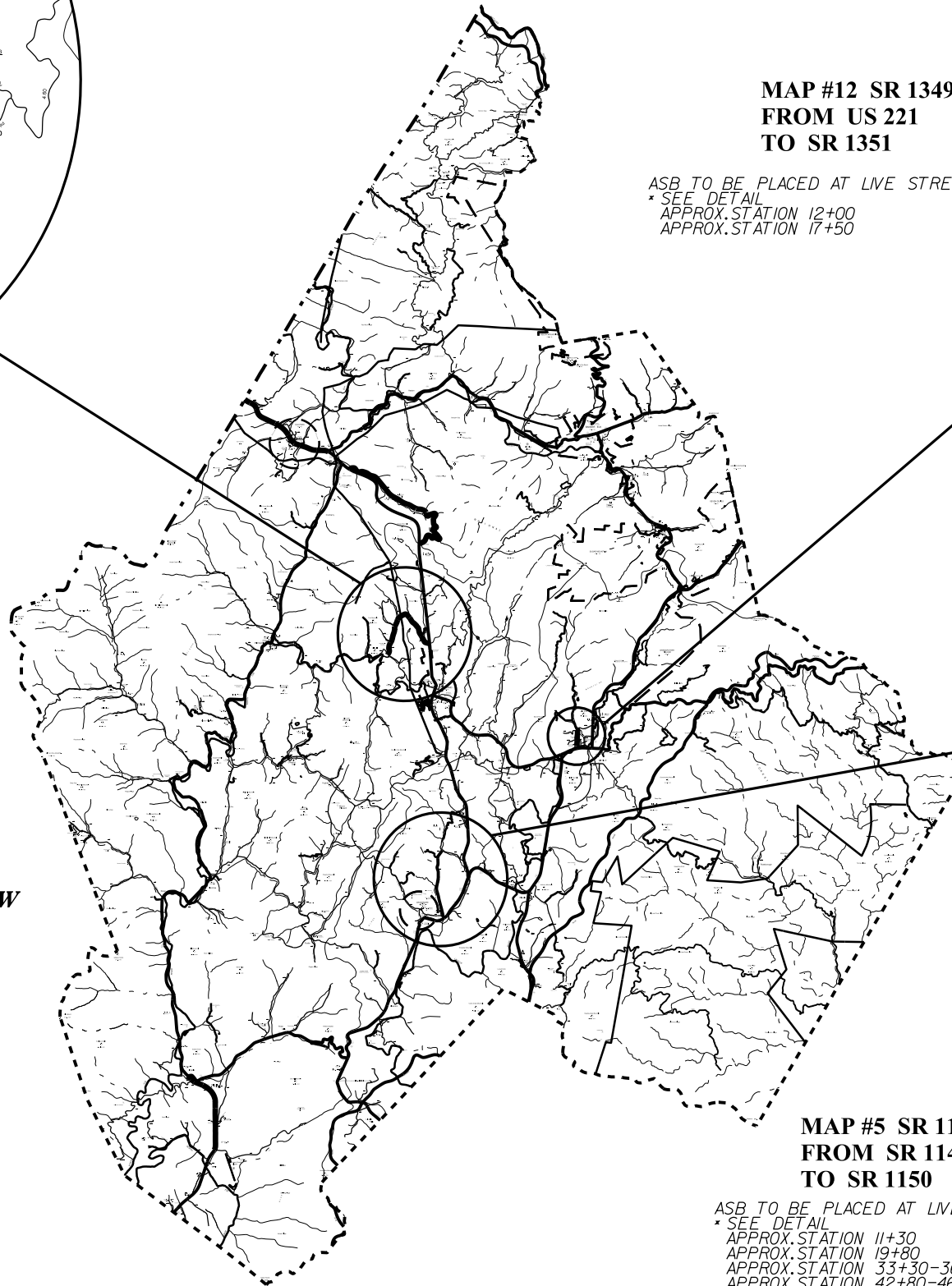
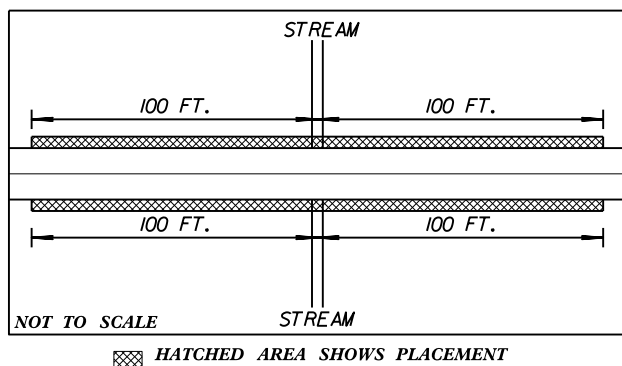
SECONDARY ASPHALT RESURFACING



**MAP #6 SR 1159  
FROM SR 1157  
TO NC 194**

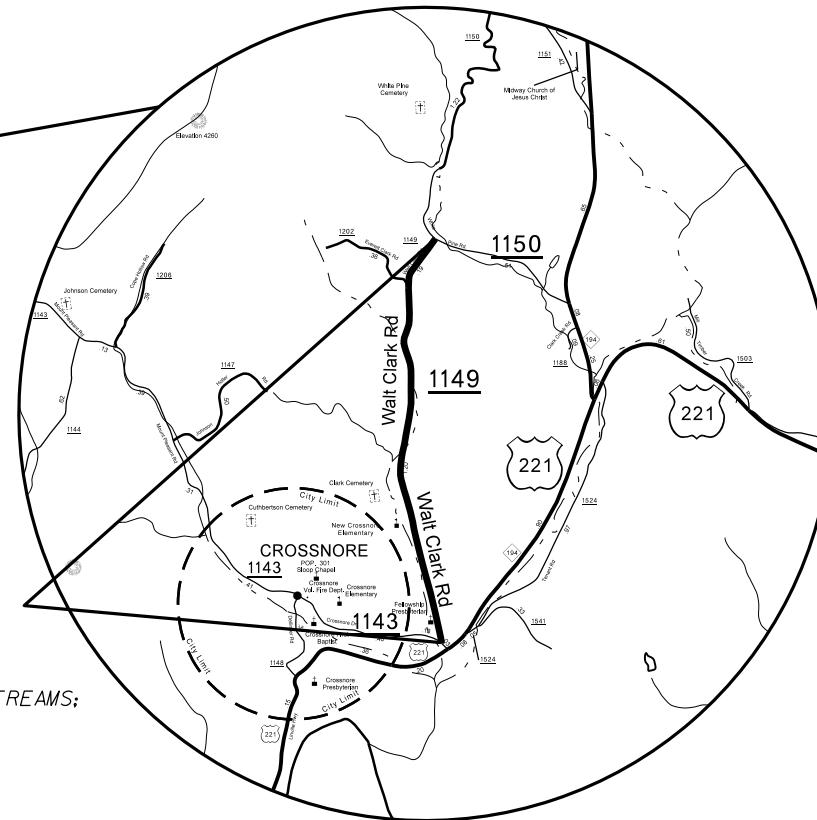
ASB TO BE PLACED AT LIVE STREAMS;  
\* SEE DETAIL  
APPROX. STATION 5+40-12+40  
APPROX. STATION 29+40-37+40  
APPROX. STATION 76+90  
APPROX. STATION 84+40-92+40

**\*DETAIL FOR AGGREGATE SHOULDER BORROW  
AT STREAM CROSSING**



**MAP #12 SR 1349  
FROM US 221  
TO SR 1351**

ASB TO BE PLACED AT LIVE STREAMS;  
\* SEE DETAIL  
APPROX. STATION 12+00  
APPROX. STATION 17+50



**MAP #5 SR 1149  
FROM SR 1143  
TO SR 1150**

ASB TO BE PLACED AT LIVE STREAMS;  
\* SEE DETAIL  
APPROX. STATION 11+30  
APPROX. STATION 19+80  
APPROX. STATION 33+30-36+00  
APPROX. STATION 42+80-46+00  
APPROX. STATION 53+50  
APPROX. STATION 73+00-73+92

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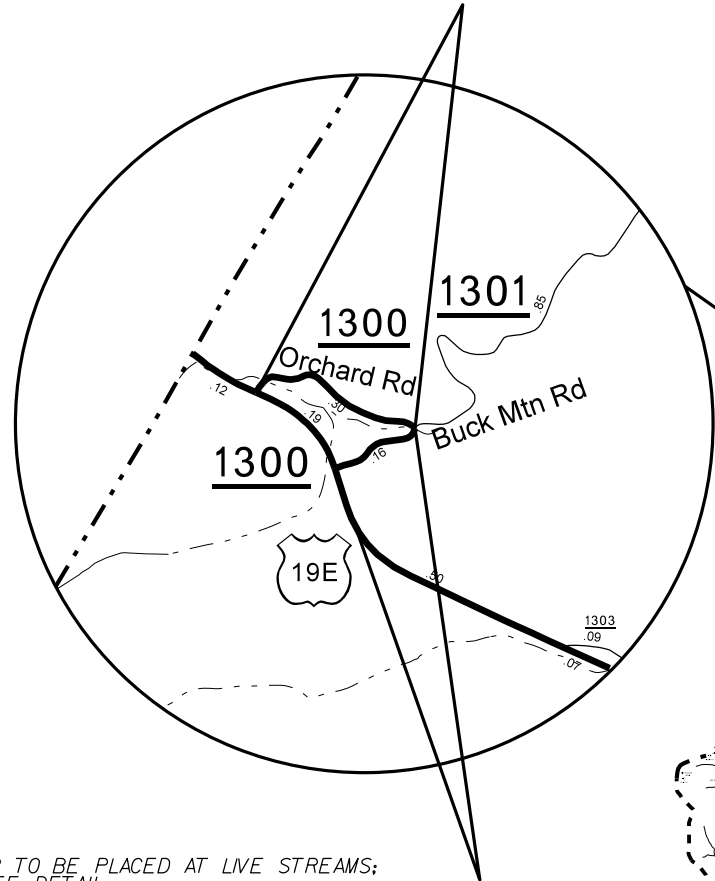
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**AVERY COUNTY**

SECONDARY ASPHALT RESURFACING

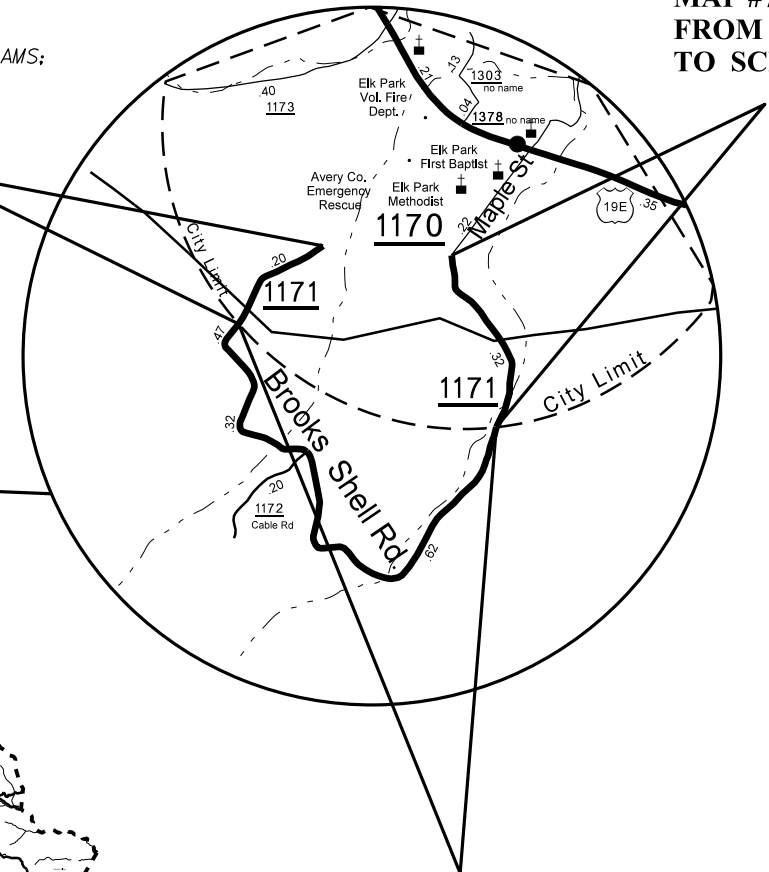
ASB TO BE PLACED AT LIVE STREAMS;  
\* SEE DETAIL  
APPROX. STATION 0+00-1+00  
APPROX. STATION 15+90-16+40

**MAP #10 SR 1300  
FROM E US 19E  
TO SR 1301**



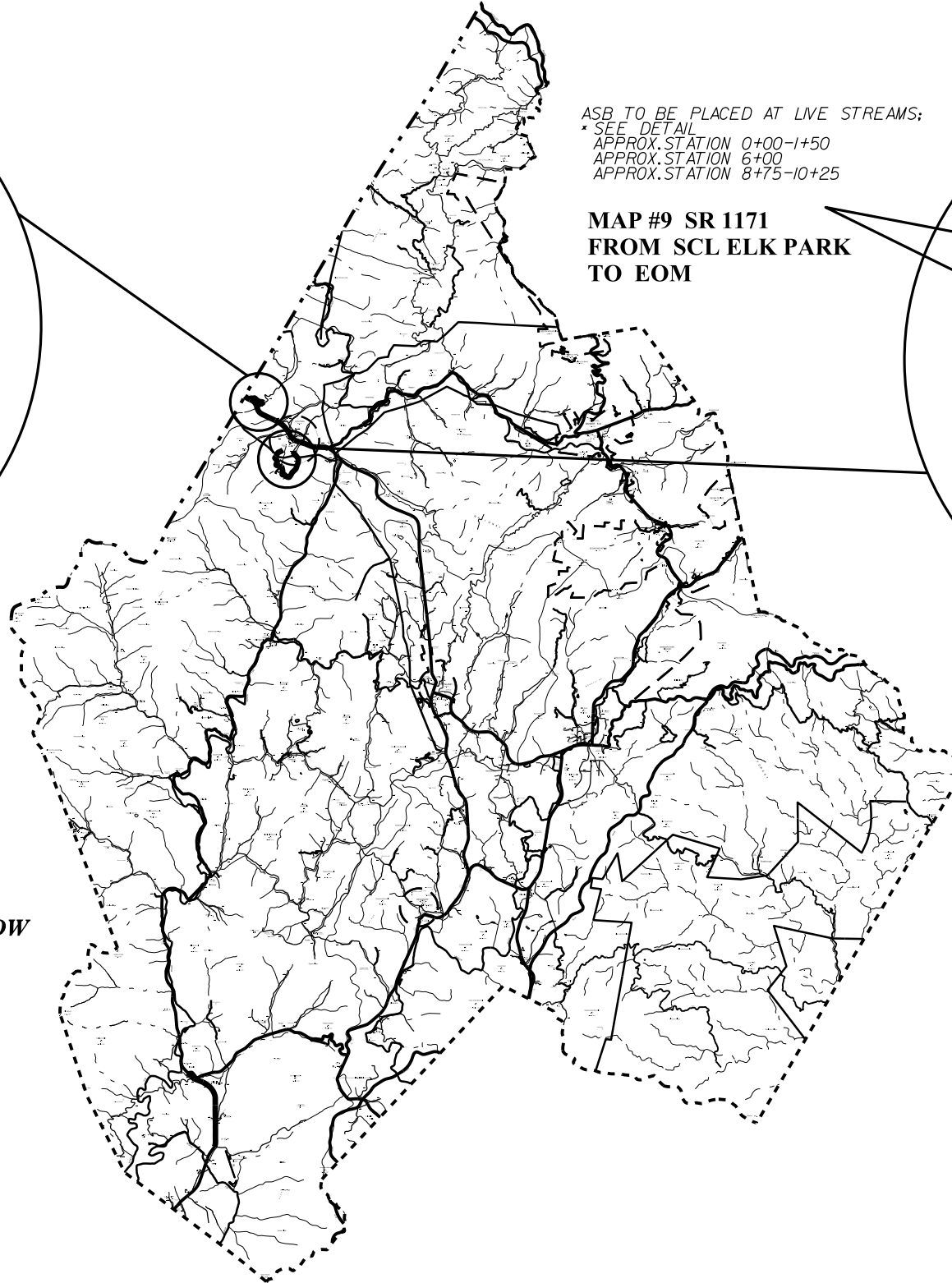
ASB TO BE PLACED AT LIVE STREAMS;  
\* SEE DETAIL  
APPROX. STATION 0+75-1+75  
APPROX. STATION 6+50-7+50  
APPROX. STATION 11+85-13+40

**MAP #7 SR 1171  
FROM SR 1170  
TO SCL ELK PARK**



ASB TO BE PLACED AT LIVE STREAMS;  
\* SEE DETAIL  
APPROX. STATION 0+00-1+50  
APPROX. STATION 6+00  
APPROX. STATION 8+75-10+25

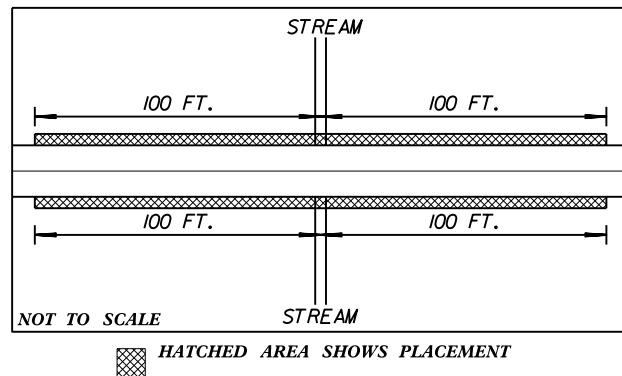
**MAP #9 SR 1171  
FROM SCL ELK PARK  
TO EOM**



ASB TO BE PLACED AT LIVE STREAMS;  
\* SEE DETAIL  
APPROX. STATION 0+00-0+50  
APPROX. STATION 7+45-8+45

**MAP #11 SR 1300  
FROM SR 1301  
TO W US 19E**

**\*DETAIL FOR AGGREGATE SHOULDER BORROW  
AT STREAM CROSSING**

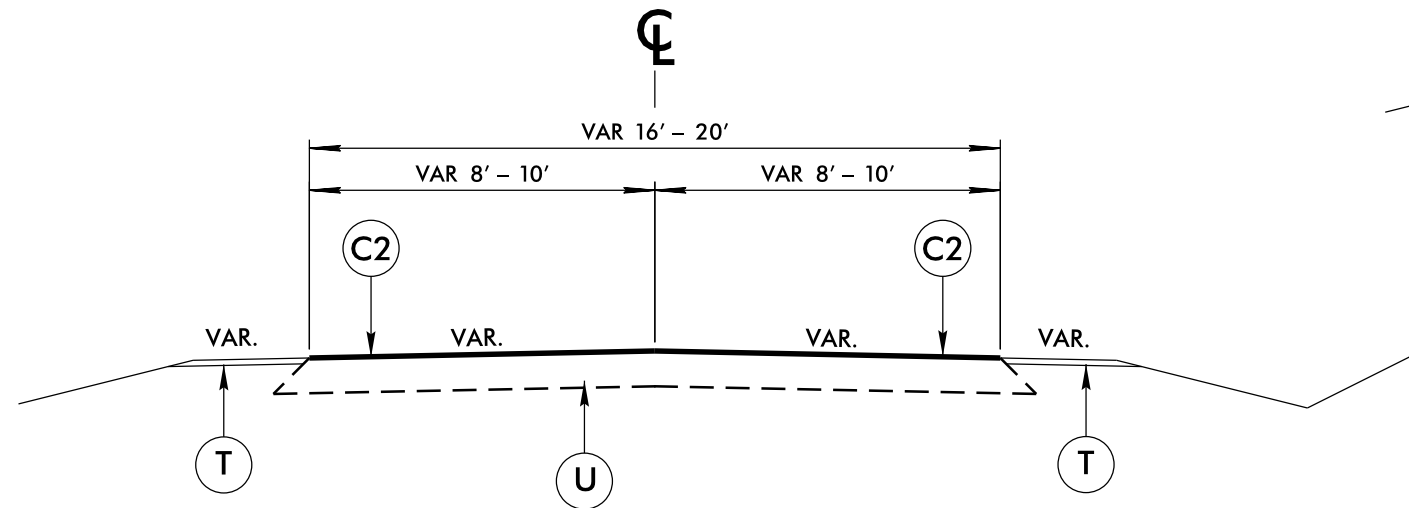


**MAP #8 SR 1171  
FROM SCL ELK PARK  
TO SCL ELK PARK**

ASB TO BE PLACED AT LIVE STREAMS;  
\* SEE DETAIL  
APPROX. STATION 0+00-4+50  
APPROX. STATION 17+00  
APPROX. STATION 28+25  
APPROX. STATION 35+50  
APPROX. STATION 36+70-41+25  
APPROX. STATION 43+70-44+90

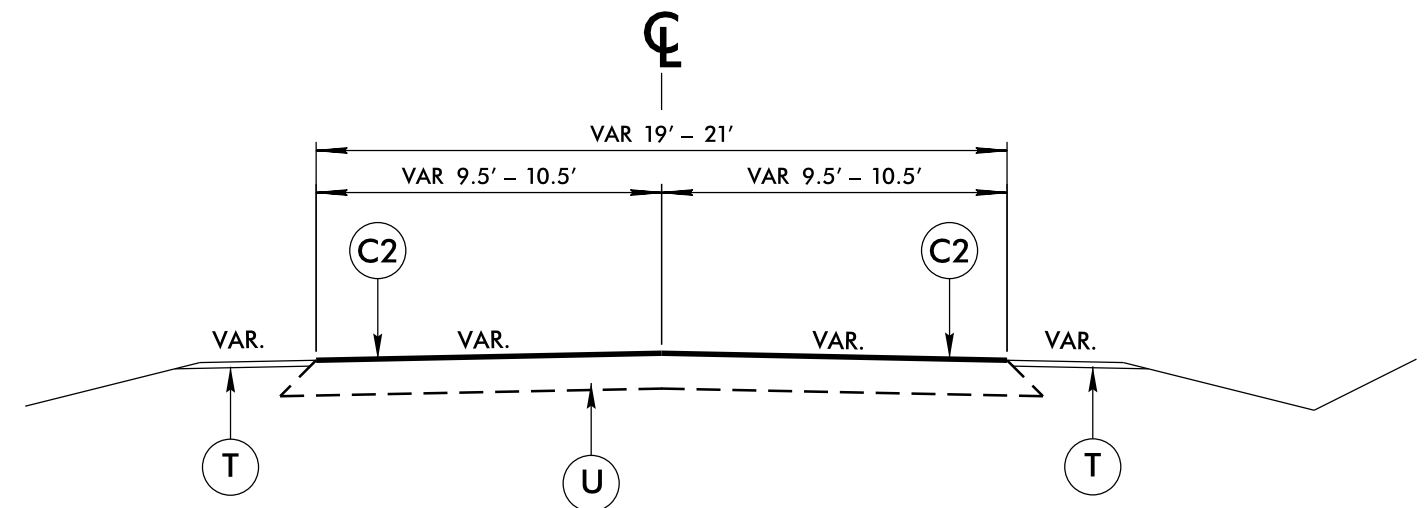
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I:\Users\j\Documents\Projects\Avery Resurfacing\2017 Avery Resurfacing Maps.dgn

\* PATCHING AT LOCATIONS AS DIRECTIONS BY ENGINEER



**TYPICAL SECTION NO. 3**

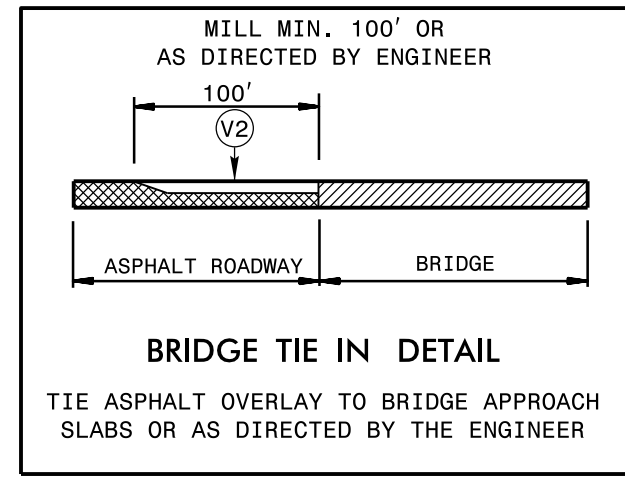
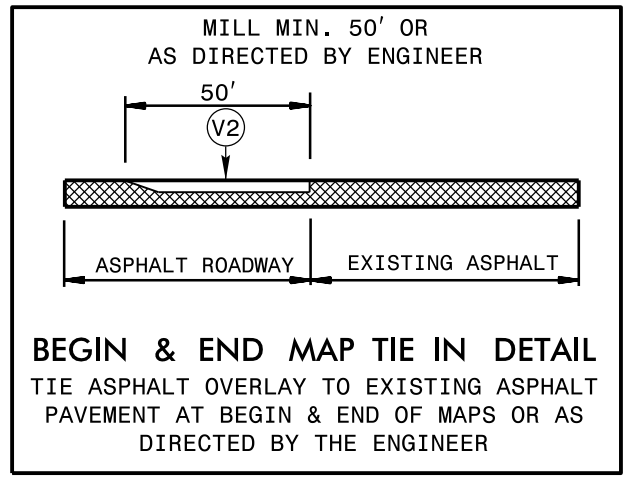
- MAP 5 - SR 1149 FROM SR 1143 TO SR 1150
- MAP 7 - SR 1171 FROM SR 1170 TO ELK PARK SCL
- MAP 8 - SR 1171 FROM ELK PARK SCL TO ELK PARK SCL
- MAP 9 - SR 1171 FROM ELK PARK SCL TO EOM
- MAP 10 - SR 1300 FROM E US 19E TO SR 1301
- MAP 11 - SR 1300 FROM SR 1301 TO W US 19E
- MAP 12 - SR 1349 FROM US 221 TO SR 1351



**TYPICAL SECTION NO. 1**

- MAP 1 - US 221 FROM SR 1513 TO SR 1514 + 2 MILES
- MAP 2 - US 221 FROM SR 1514 + 2 MILES TO SR 1514 + 4 MILES
- MAP 3 - US 221 FROM SR 1514 + 4 MILES TO SR 1515 + .107 MILES
- MAP 6 - SR 1159 FROM SR 1157 TO NC 194

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 0-3"
V2	INCIDENTAL MILLING



**AVERY COUNTY**  
PRIMARY AND SECONDARY RESURFACING

DIVISION II

REVISIONS	INT.	DATE

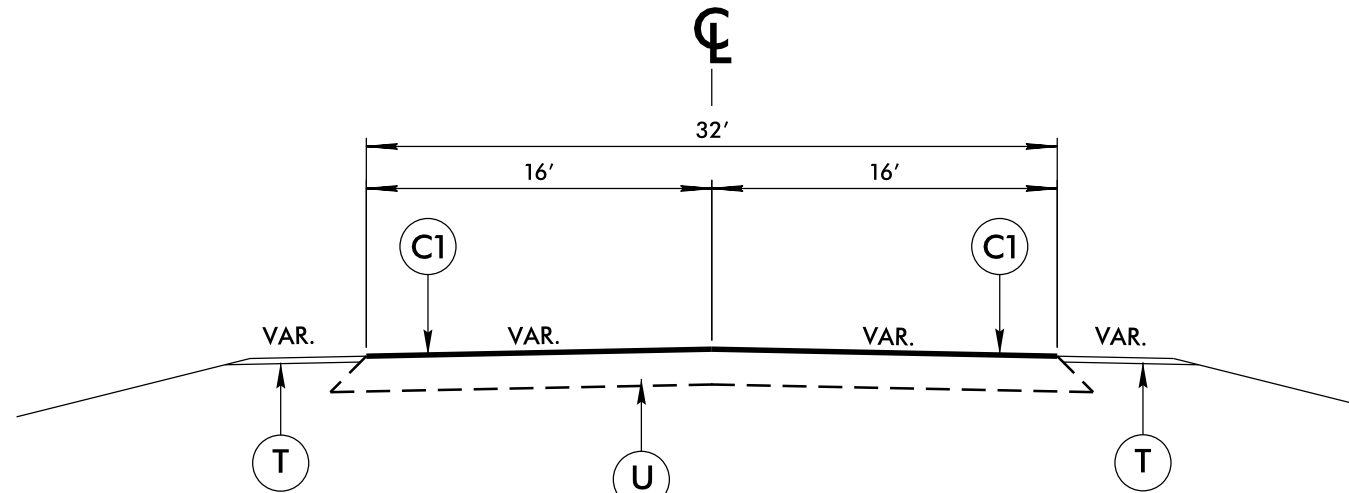
N.C. DEPARTMENT of TRANSPORTATION  
DIVISION of HIGHWAYS  
DIVISION ELEVEN

SCALE: N/A    DATE: 12/2015  
PREPARED BY: J. L. LAWS  
REVIEWED BY:  
REVIEWED BY:

8/17/99

8/17/99

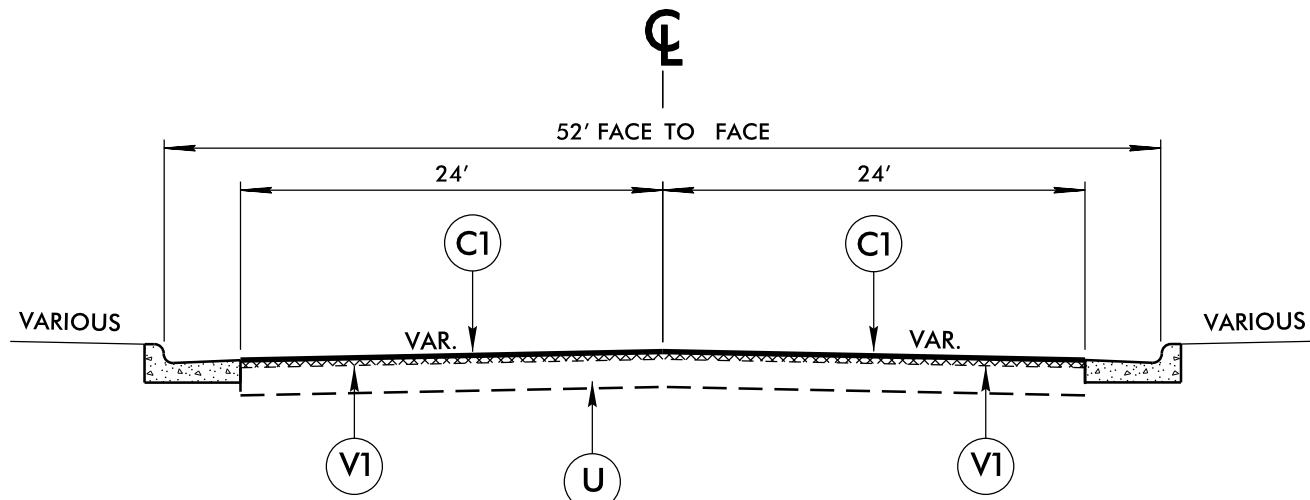
\* PATCHING AT LOCATIONS AS DIRECTIONS BY ENGINEER



**TYPICAL SECTION NO. 2A**

MAP 4 - US 19E FROM MITCHELL COUNTY LINE TO SR 1101

\* MILL AND REPLACE AT LOCATIONS AS DIRECTED BY ENGINEER



**TYPICAL SECTION NO. 2B**

MAP - 4 (CURB AND GUTTER SECTION ONLY)

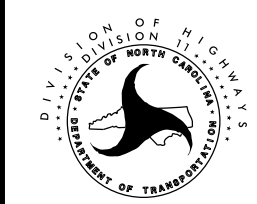
PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
T	SHOULDER RECONSTRUCTION
U	EXISTING PAVEMENT
V1	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 0-3"
V2	INCIDENTAL MILLING

**AVERY COUNTY**  
PRIMARY AND SECONDARY RESURFACING

DIVISION II

REVISIONS	INT.	DATE

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



SCALE: N/A    DATE: 12/2015  
 PREPARED BY: J. L. LAWS  
 REVIEWED BY:  
 REVIEWED BY:

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.11.01.10061, 2017CPT.11.01.20061		

**SUMMARY OF QUANTITIES**

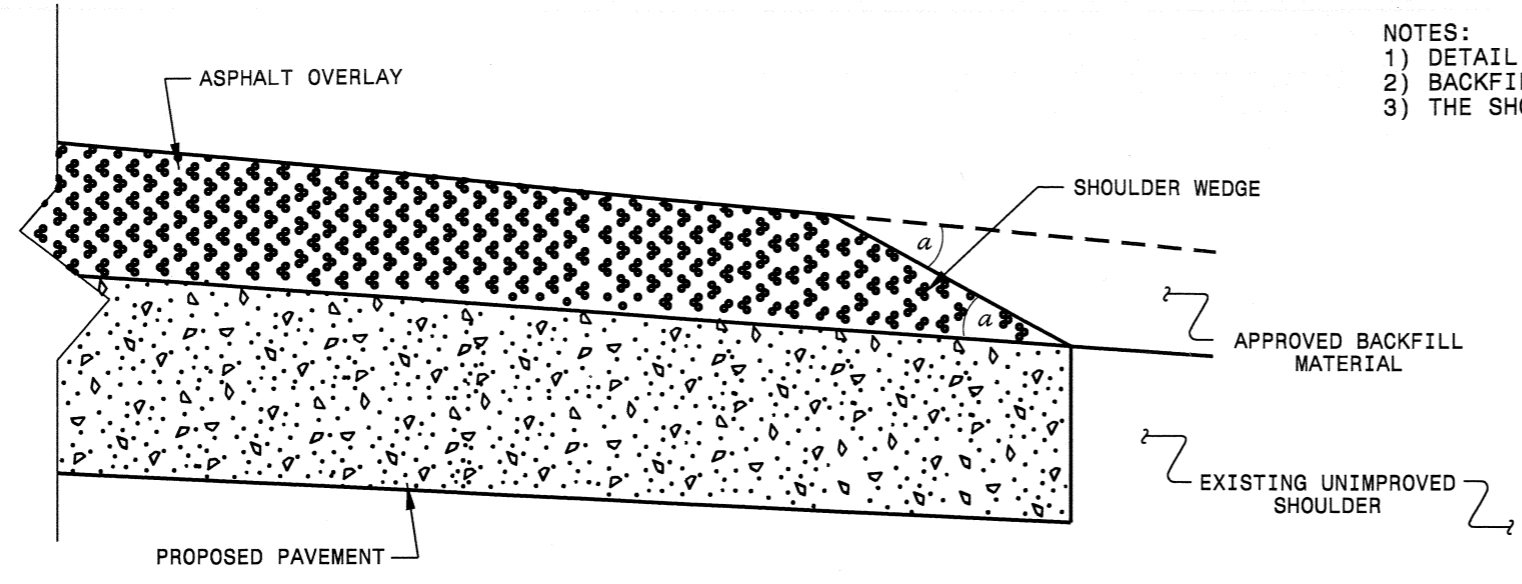
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARMMX ASPHALT REQUIRED	LENGTH M	WIDTH FT	BORROW EXCAVATION CY	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SM	0" TO 3.0" MILLING SY	INCIDENTAL MILLING SY	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, SF9.5A TONS	ASPHALT BINDER FOR PLANT MX TONS	PATCHING EXISTING PAVEMENT TONS	ADI. OF DROP INLET EA	ADI. OF METER OR VALVE BOX EA	SEED & MULCHING AC
2017CPT.11.01.10061	Avery	1	US 221	FROM SR 1513 TO SR 1514 +2 MILES	1	2	2WU	NO	NO	2.41	21	482	200	4.82		200		2,765	185	500			1.75
2017CPT.11.01.10061	Avery	2	US 221	FROM SR 1514 +2 MILES TO SR1514 +4 MILES	1	2	2WU	NO	NO	2	21	400	100	4.00		400		2,245	150	250			1.50
2017CPT.11.01.10061	Avery	3	US 221	FROM SR 1514 +4 MILES TO SR 1515 +.107 MILES	1	2	2WU	NO	NO	0.83	21	166	75	1.66		200		1,050	70	200			0.60
2017CPT.11.01.10061	Avery	4	US 19E	FROM MITCHELL COUNTY LINE TO SR 1101	2	2	2WU	NO	NO	1.54	32	260	100	2.60	6,400	1,000	2,638		158	100	2		0.95
<b>TOTAL FOR PROJ NO. 2017CPT.11.01.10061</b>										<b>6.78</b>		<b>1,308</b>	<b>475</b>	<b>13.08</b>	<b>6,400</b>	<b>1,800</b>	<b>2,638</b>	<b>6,060</b>	<b>563</b>	<b>1,050</b>	<b>2</b>		<b>4.80</b>
2017CPT.11.01.20061	Avery	5	SR 1149	FROM SR 1143 TO SR 1150	3	2	2WU	NO	NO	1.4	20	280	100	2.80		100		1,465	98				1.00
2017CPT.11.01.20061	Avery	6	SR 1159	FROM SR 1157 TO NC 194	1	2	2WU	NO	NO	1.75	19	350	100	3.50		100		2,120	142	150			1.25
2017CPT.11.01.20061	Avery	7	SR 1171	FROM SR 1170 TO ELK PARK SCL	3	2	2WU	NO	NO	0.25	16	50	25	0.50		88		200	13			1	
2017CPT.11.01.20061	Avery	8	SR 1171	FROM ELK PARK SCL TO ELK PARK SCL	3	2	2WU	NO	NO	0.85	16	170	50	1.70		88		710	48				
2017CPT.11.01.20061	Avery	9	SR 1171	FROM ELK PARK SCL TO EOM	3	2	2WU	NO	NO	0.46	16	92	25	0.92		88		410	27				
2017CPT.11.01.20061	Avery	10	SR 1300	FROM E US 19E TO SR 1301	3	2	2WU	NO	NO	0.31	16	62	25	0.62		178		290	19	50			
2017CPT.11.01.20061	Avery	11	SR 1300	FROM SR 1301 TO W US 19E	3	2	2WU	NO	NO	0.16	20	32	10	0.32		112		180	12				
2017CPT.11.01.20061	Avery	12	SR 1349	FROM US 221 TO SR 1351	3	2	2WU	NO	NO	0.39	16	78	20	0.78		178		350	23				
<b>TOTAL FOR PROJ NO. 2017CPT.11.01.20061</b>										<b>5.57</b>		<b>1,114</b>	<b>355</b>	<b>11.14</b>		<b>932</b>		<b>5,725</b>	<b>382</b>	<b>200</b>		<b>1</b>	<b>2.25</b>
<b>GRAND TOTAL</b>										<b>12.35</b>		<b>2,422</b>	<b>830</b>	<b>24.22</b>	<b>6,400</b>	<b>2,732</b>	<b>2,638</b>	<b>11,785</b>	<b>945</b>	<b>1,250</b>	<b>2</b>	<b>1</b>	<b>7.05</b>

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.11.01.10061, 2017CPT.11.01.20061		

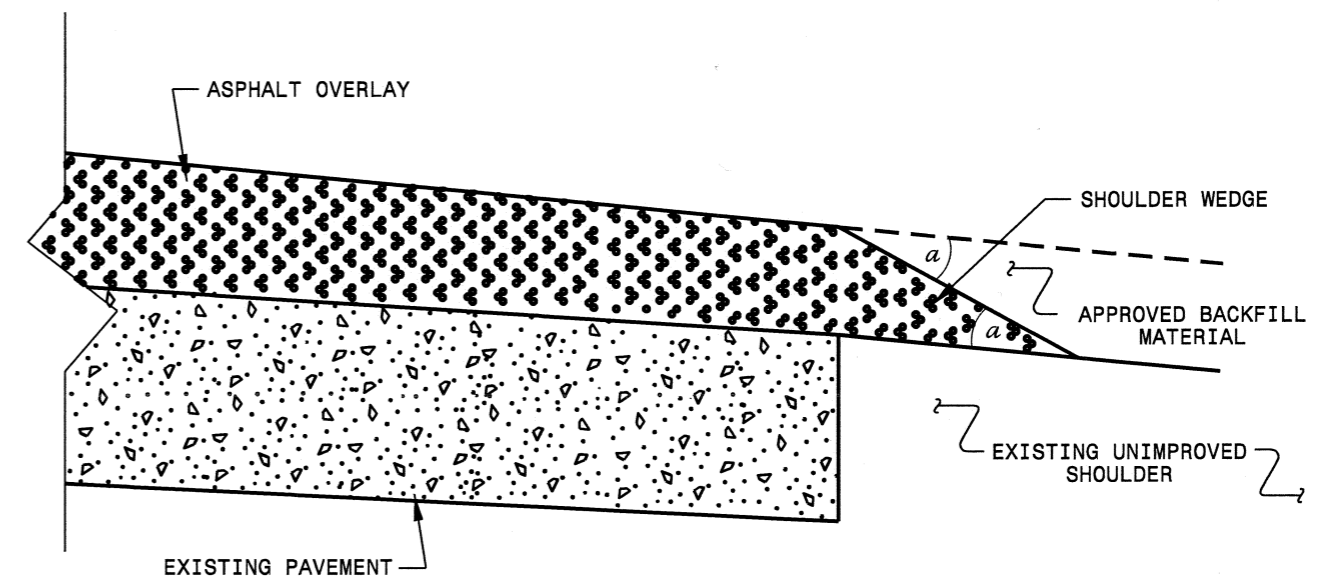
## THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4810000000-E		4820000000-E	4835000000-E	4840000000-N	4845000000-N	4905000000-N	
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING SF	TEMPORARY TRAFFIC CONTROL LS	4" WHITE PAINT LF	4" YELLOW PAINT LF	8" YELLOW PAINT LF	24" WHITE PAINT LF	PAINT MSG SCHOOL EA	PAINT RT ARROW EA	SNOW PLOWABLE MARKERS EA	
2017CPT.11.01.10061	Avery	1	US 221	FROM SR 1513 TO SR 1514 +2 MILES	1	2	2WU	2.41	21	192	1.00	50,900	50,900					318	
2017CPT.11.01.10061	Avery	2	US 221	FROM SR 1514 +2 MILES TO SR 1514 +4 MILES	1	2	2WU	2	21	132	*	42,240	42,240					264	
2017CPT.11.01.10061	Avery	3	US 221	FROM SR 1514 +4 MILES TO SR 1515 +.107 MILES	1	2	2WU	0.83	21	84	*	17,528	17,528					110	
2017CPT.11.01.10061	Avery	4	US 19E	FROM MITCHELL COUNTY LINE TO SR 1101	2	2	2WU	1.54	32	254	*	32,540	35,000	50			6	135	
<b>TOTAL FOR PROJ NO. 2017CPT.11.01.10061</b>								<b>6.78</b>		<b>662</b>		<b>143,208</b>	<b>145,668</b>	<b>50</b>			<b>6</b>	<b>827</b>	
												<b>288,876</b>							
2017CPT.11.01.20061	Avery	5	SR 1149	FROM SR 1143 TO SR 1150	3	2	2WU	1.4	20	80	*	29,568	29,568		180	12			
2017CPT.11.01.20061	Avery	6	SR 1159	FROM SR 1157 TO NC 194	1	2	2WU	1.75	19	96	*	37,000	37,000						
2017CPT.11.01.20061	Avery	7	SR 1171	FROM SR 1170 TO ELK PARK SCL	3	2	2WU	0.25	16	32	*	5,280	5,280						
2017CPT.11.01.20061	Avery	8	SR 1171	FROM ELK PARK SCL TO ELK PARK SCL	3	2	2WU	0.85	16	84	*	17,960	17,960						
2017CPT.11.01.20061	Avery	9	SR 1171	FROM ELK PARK SCL TO EOM	3	2	2WU	0.46	16	72	*	9,700	9,700						
2017CPT.11.01.20061	Avery	10	SR 1300	FROM E US 19E TO SR 1301	3	2	2WU	0.31	16	56	*								
2017CPT.11.01.20061	Avery	11	SR 1300	FROM SR 1301 TO W US 19E	3	2	2WU	0.16	20	42	*	3,380	3,380						
2017CPT.11.01.20061	Avery	12	SR 1349	FROM US 221 TO SR 1351	3	2	2WU	0.39	16	52	*	8,000	8,000						
<b>TOTAL FOR PROJ NO. 2017CPT.11.01.20061</b>								<b>5.57</b>		<b>514</b>		<b>110,888</b>	<b>110,888</b>		<b>180</b>	<b>12</b>			
												<b>221,776</b>							
<b>GRAND TOTAL</b>								<b>12.35</b>		<b>1,176</b>	<b>1</b>	<b>254,096</b>	<b>256,556</b>	<b>50</b>	<b>180</b>	<b>12</b>	<b>6</b>	<b>827</b>	
												<b>510,652</b>							

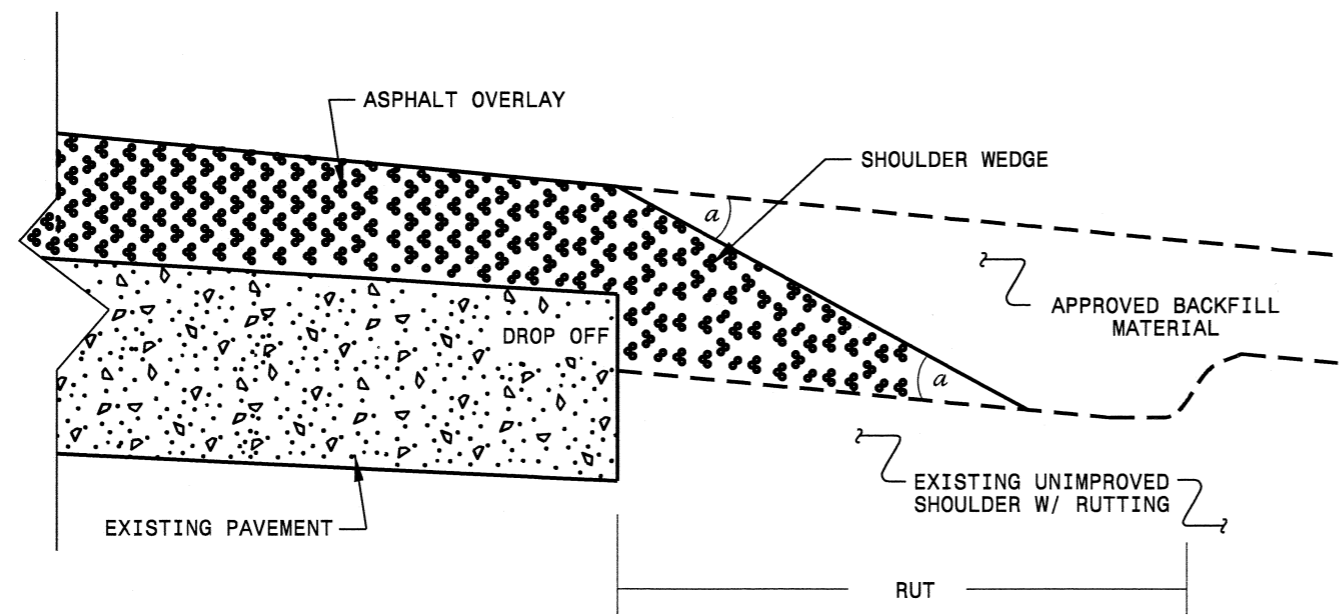
- NOTES:  
 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.  
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.  
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**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°

CONTRACT STANDARDS  
 AND DEVELOPMENT UNIT  
 Office 919-707-6950 FAX 919-250-4119

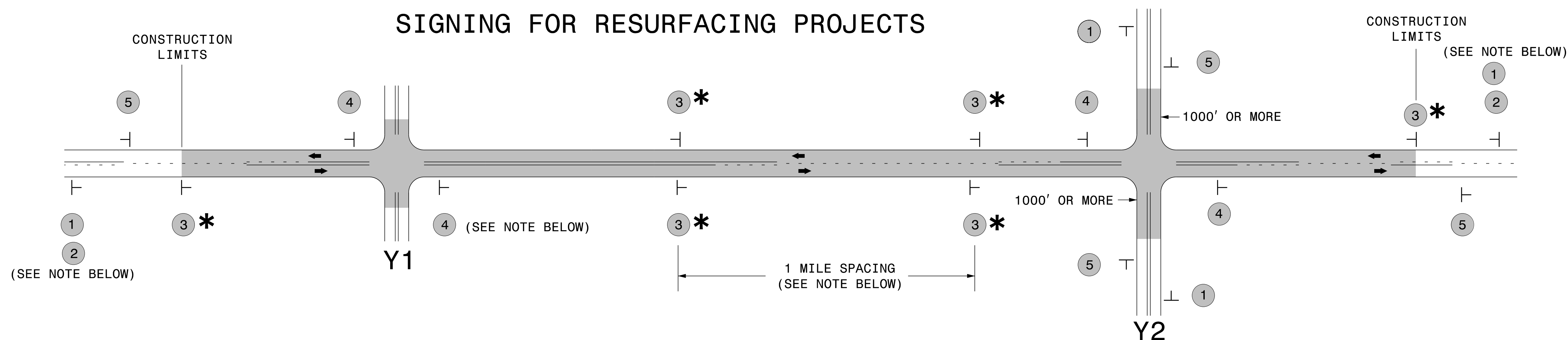
**SHOULDER WEDGE  
 DETAILS**

ORIGINAL BY: T.SPELL DATE: 7-19-11  
 MODIFIED BY: DATE: 10/18/12  
 CHECKED BY: DATE:  
 FILE SPEC.: s:\user\details\stand\shoulderwedgedetail.dgn

SYSTEMS CONSULTANTS  
 CONSULTANTS



# SIGNING FOR RESURFACING PROJECTS



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"> <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;">   <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>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>	

### \* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

SUBSTITUTE LOW/SOFT SHOULDER SIGNS BY ALTERNATING THE FOLLOWING TWO SIGNS: STARTING WITH "UNMARKED PAVEMENT AHEAD" (SP 06026) FOLLOWED BY "LOOSE GRAVEL" (W8-7).



RESURFACING  
ADVANCE WARNING SIGNS  
FOR  
RURAL AND SUBURBAN  
2 LANE ROADWAYS