

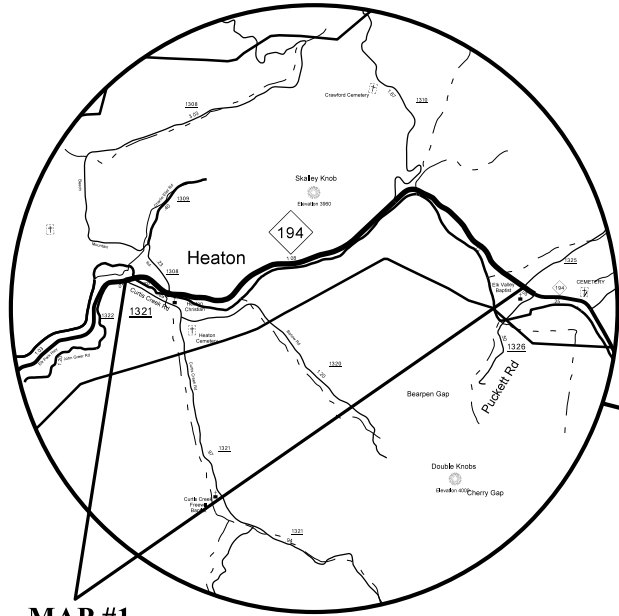
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

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# AVERY COUNTY

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## PRIMARY ASPHALT RESURFACING

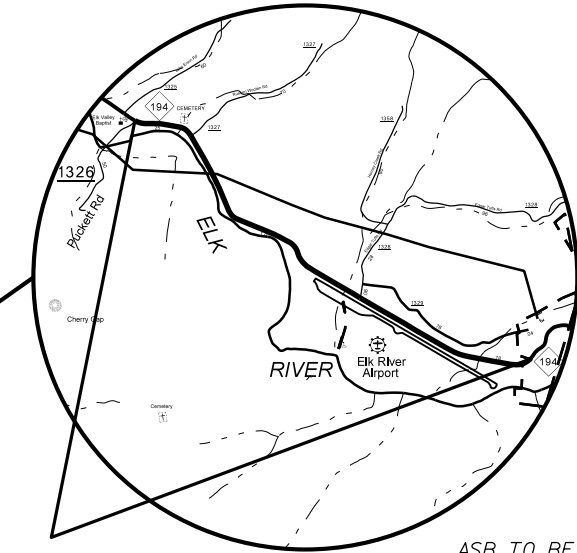
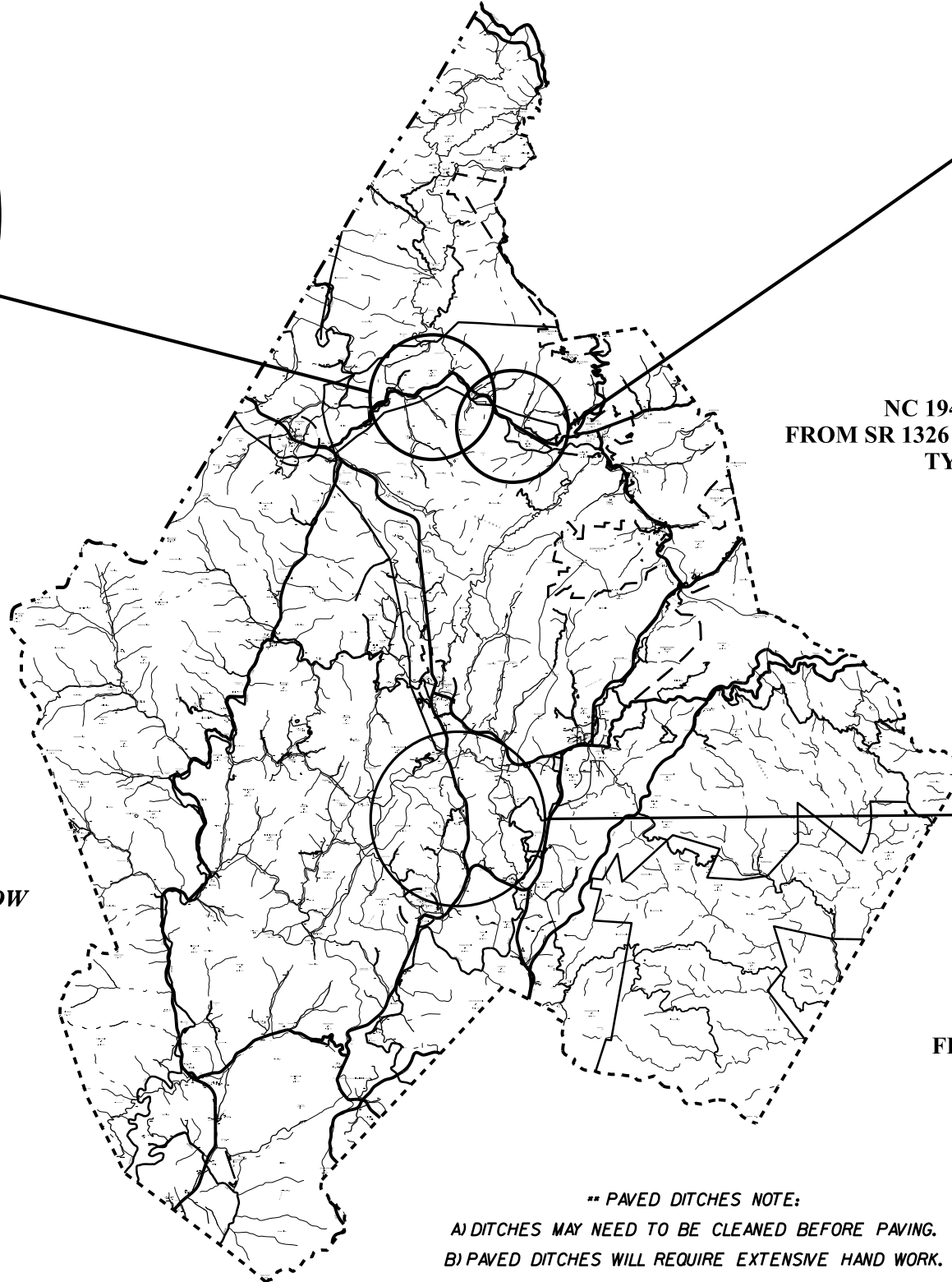
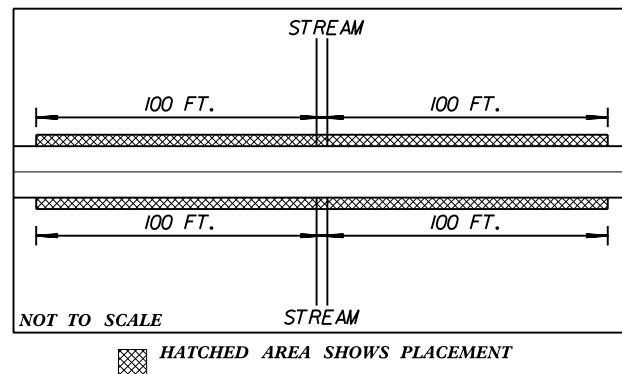


**MAP #1**  
**NC 194 (2.07 MILES)**  
**FROM SR 1321 TO 1326**  
**TYPE: S 9.5B**

AGGREGATE SHOULDER BORROW TO BE PLACED:  
\* APPROX. STATION 66+50 TO 67+50 RIGHT AND LEFT  
APPROX. STATION 71+50 TO 72+50 RIGHT AND LEFT

MAP #1 PAVED DITCHES:  
\*\*APPROX. STATION 8+00 TO 23+00 LEFT  
APPROX. STATION 25+00 TO 65+00 LEFT  
APPROX. STATION 72+00 TO 90+00 LEFT

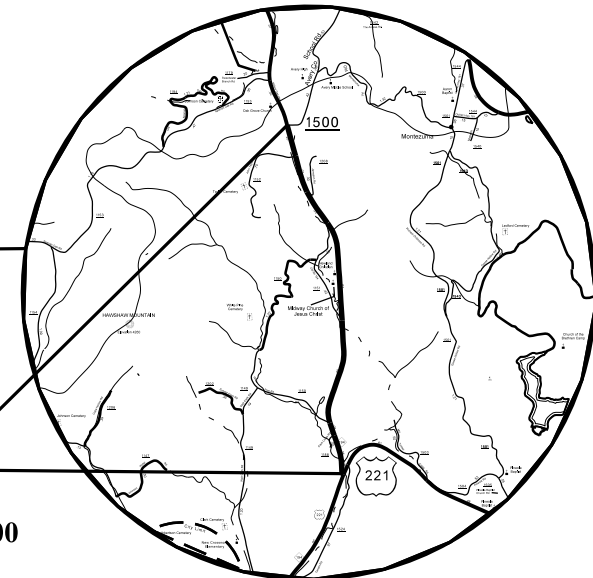
**\*DETAIL FOR AGGREGATE SHOULDER BORROW  
AT STREAM CROSSING**



**MAP #2**  
**NC 194 (2.05 MILES)**  
**FROM SR 1326 TO BANNER ELK SCL**  
**TYPE: S 9.5B**

ASB TO BE PLACED:  
\* LIVE STREAMS SEE DETAIL  
APPROX. STATION 1+00  
APPROX. STATION 28+50  
APPROX. STATION 64+50  
APPROX. STATION 96+75

MAP #2 PAVED DITCHES:  
\*\*APPROX. STATION 0+00 TO 3+00 LEFT  
APPROX. STATION 9+50 TO 11+25 LEFT  
APPROX. STATION 17+50 TO 43+00 LEFT  
APPROX. STATION 53+00 TO 65+00 LEFT



**MAP #3**  
**NC 194 (2.25 MILES)**  
**FROM US 221 TO SR 1500**  
**TYPE: S 9.5B**

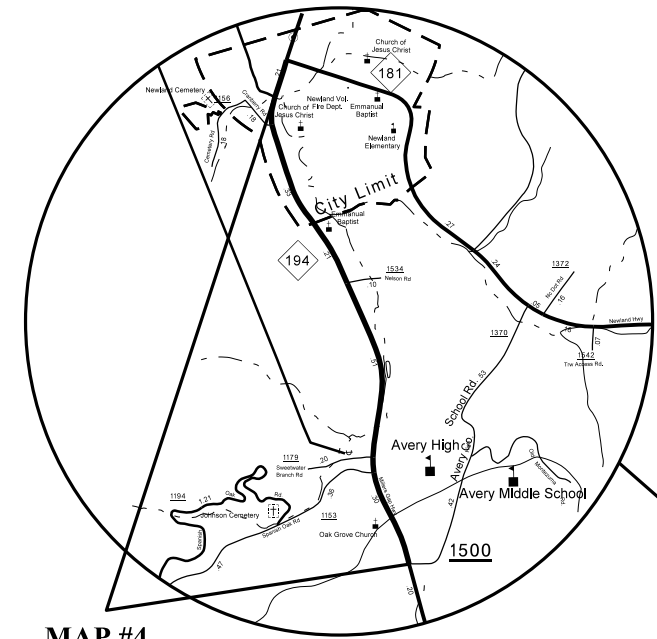
ASB TO BE PLACED:  
\* APPROX. STATION 13+50 TO 14+50 RIGHT AND LEFT  
APPROX. STATION 46+50 TO 47+50 RIGHT AND LEFT  
APPROX. STATION 67+00 TO 69+50 RIGHT AND LEFT  
\* LIVE STREAMS SEE DETAIL  
APPROX. STATION 78+00 TO 83+50 LEFT

**\*\* PAVED DITCHES NOTE:**  
A) DITCHES MAY NEED TO BE CLEANED BEFORE PAVING.  
B) PAVED DITCHES WILL REQUIRE EXTENSIVE HAND WORK.

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**AVERY COUNTY**

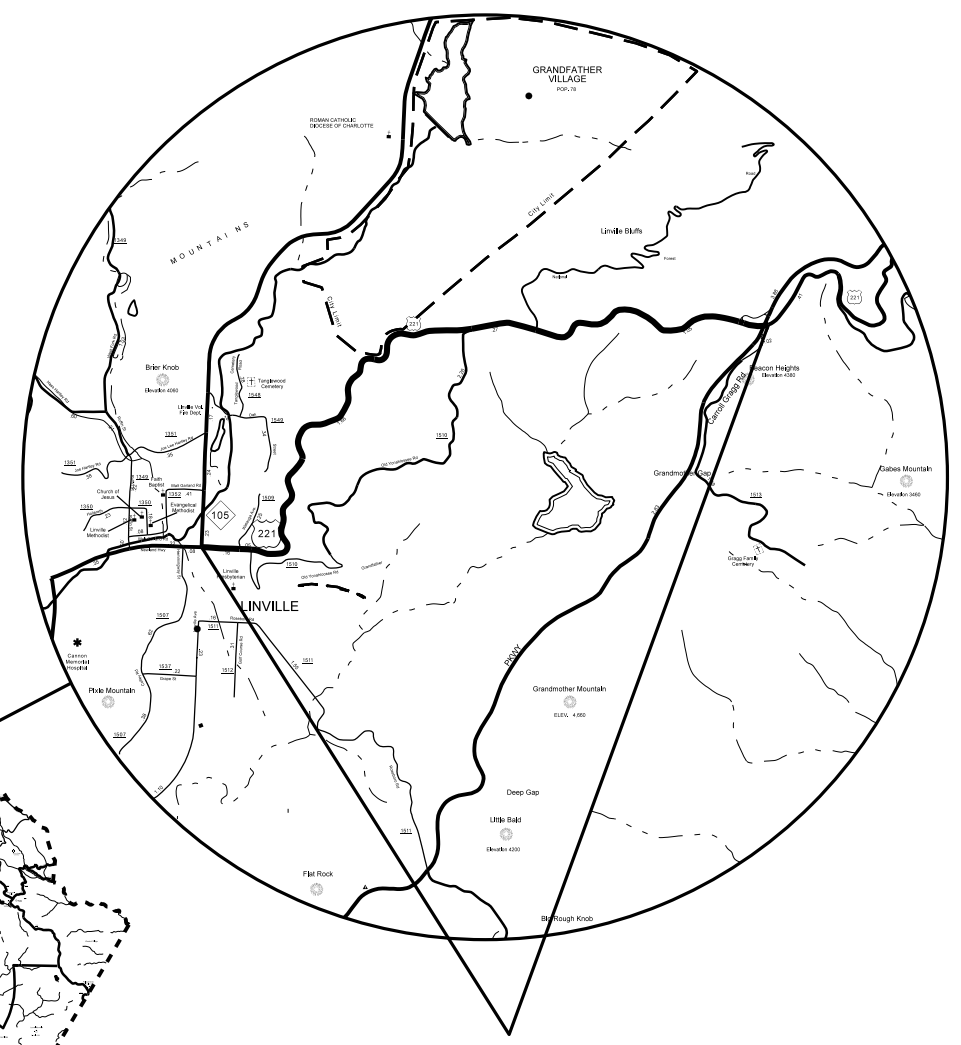
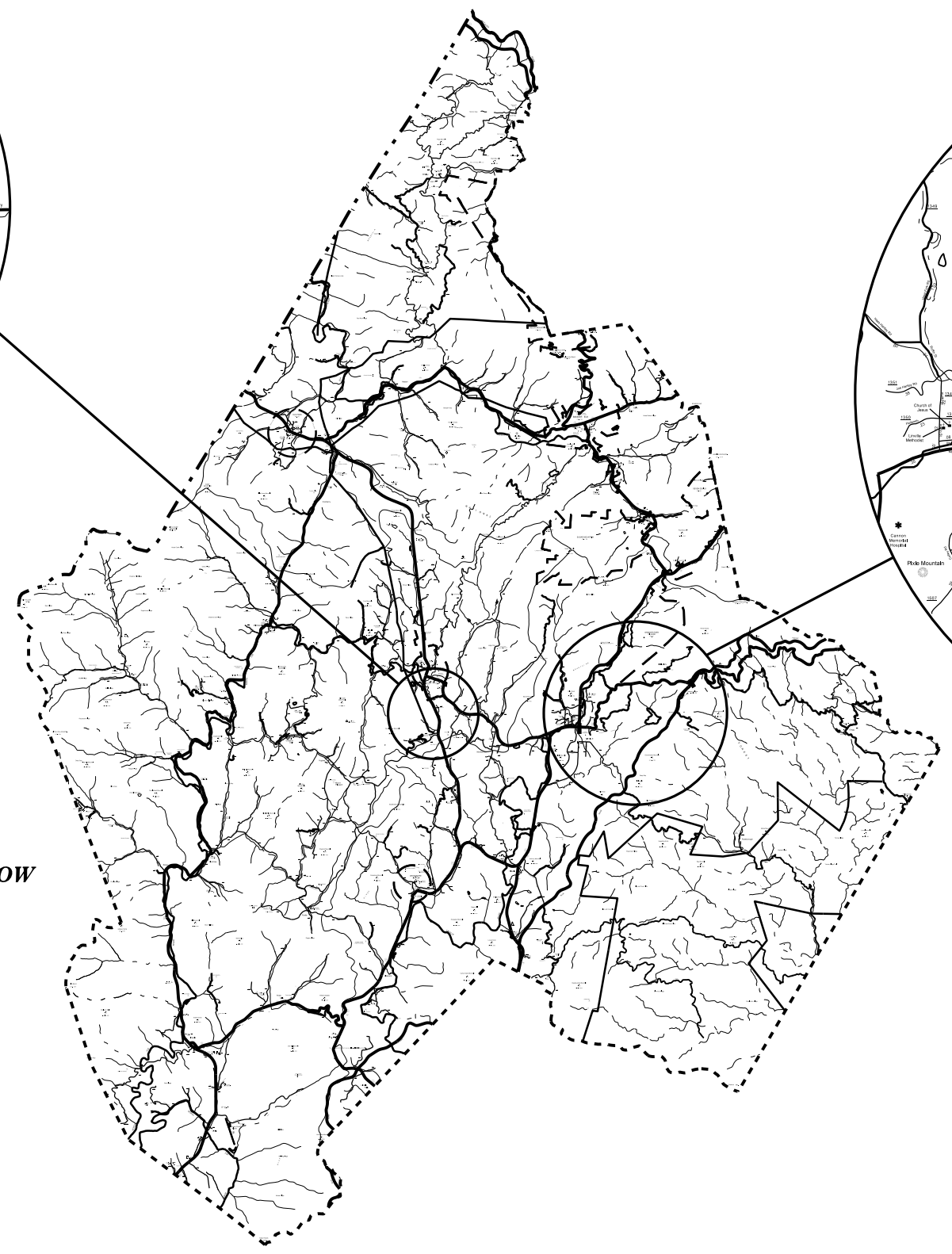
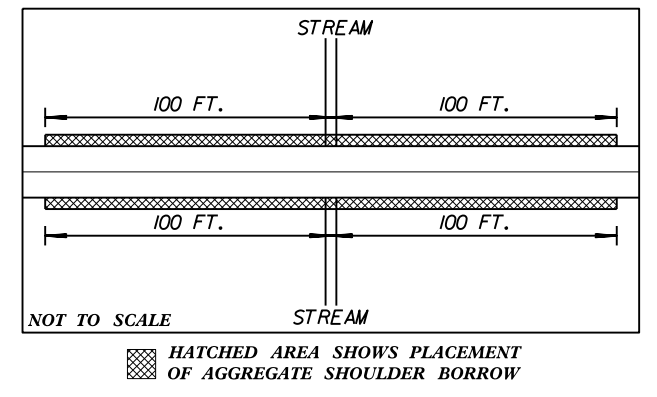
PRIMARY ASPHALT RESURFACING



**MAP #4**  
**NC 194 (1.70 MILES)**  
**FROM SR 1500 TO NC 181**  
**TYPE: S 9.5B**

AGGREGATE SHOULDER BORROW TO BE PLACED:  
 \* APPROX. STATION 26+00 TO 27+50 RIGHT AND LEFT  
 \* LIVE STREAMS SEE DETAIL  
 \* APPROX. STATION 32+00  
 \* APPROX. STATION 86+00

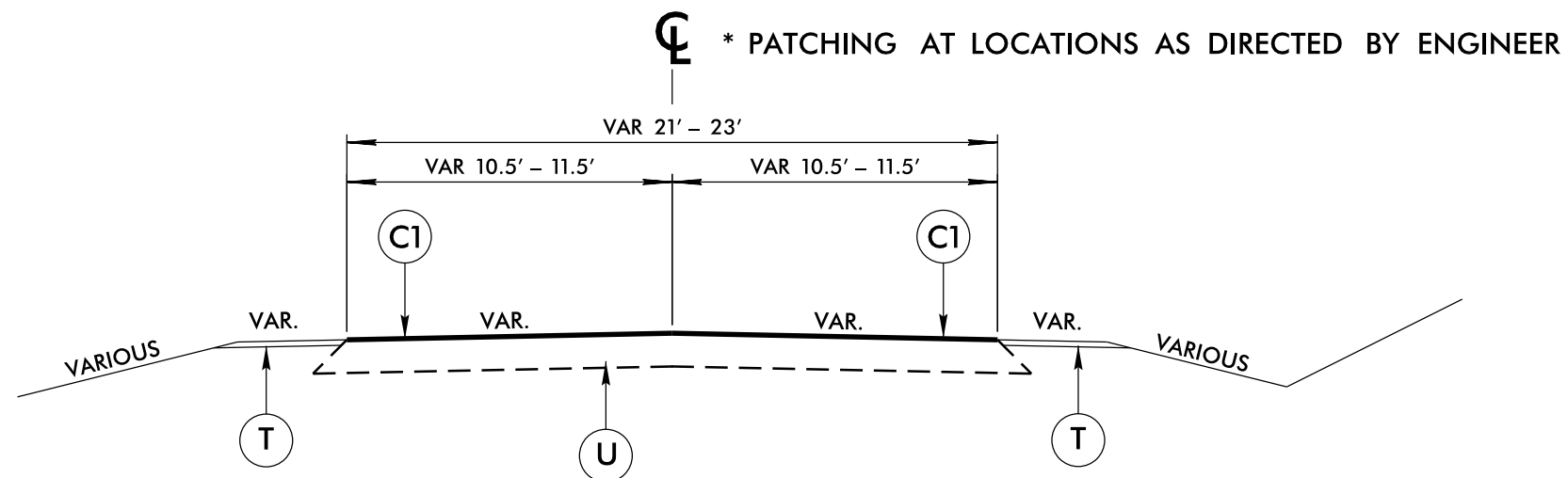
**\*DETAIL FOR AGGREGATE SHOULDER BORROW  
AT STREAM CROSSING**



**MAP #5**  
**US 221 (3.22 MILES)**  
**FROM NC 105 TO SR 1513**  
**TYPE: SF 9.5A**  
**(MILL UNDER BLUE RIDGE PKWY BRIDGE - 1/2")**

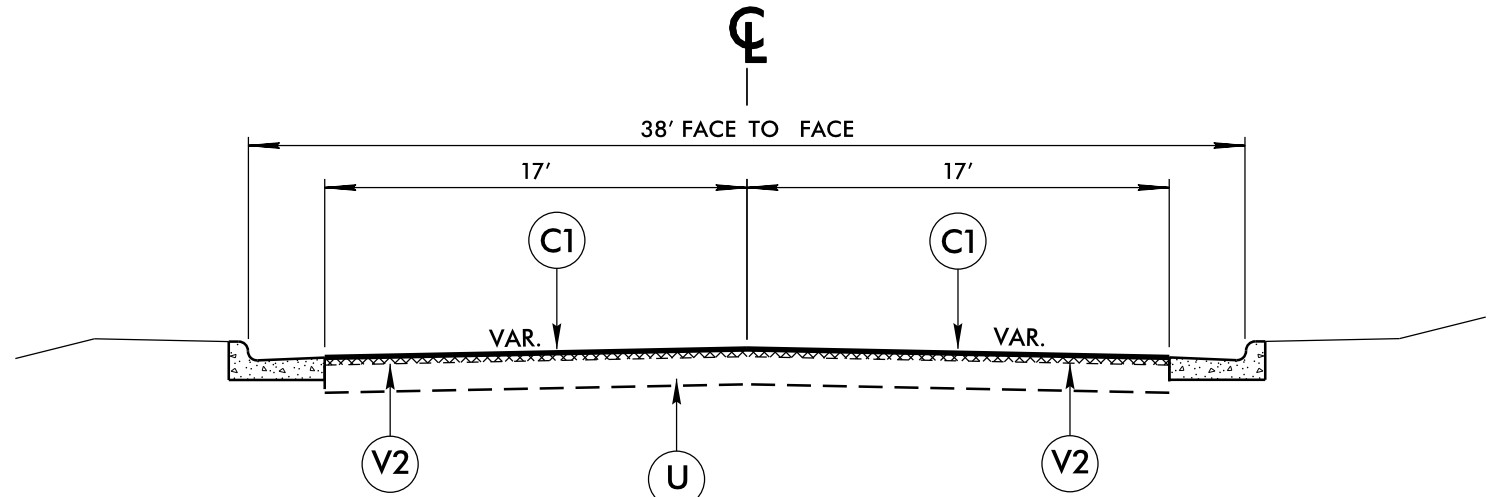
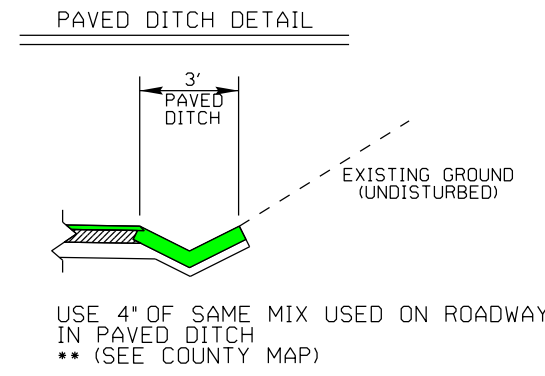
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 C:\Users\jlaw\Documents\Projects\Avery Primary Resurfacing\2015 Avery Primary Resurfacing Maps.dgn  
 8/17/19

8/17/99



**TYPICAL SECTION NO. 1**

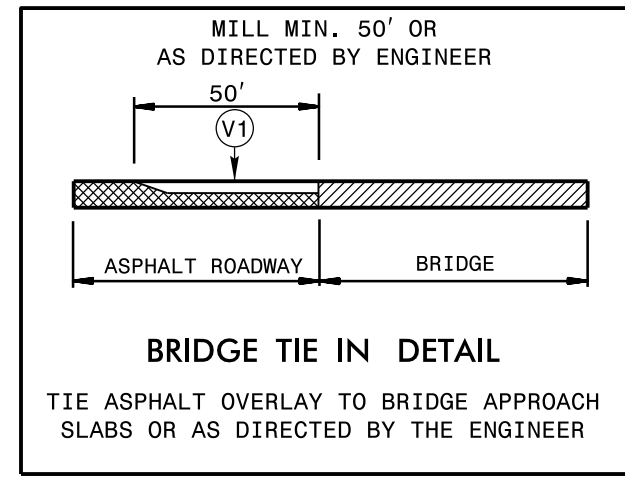
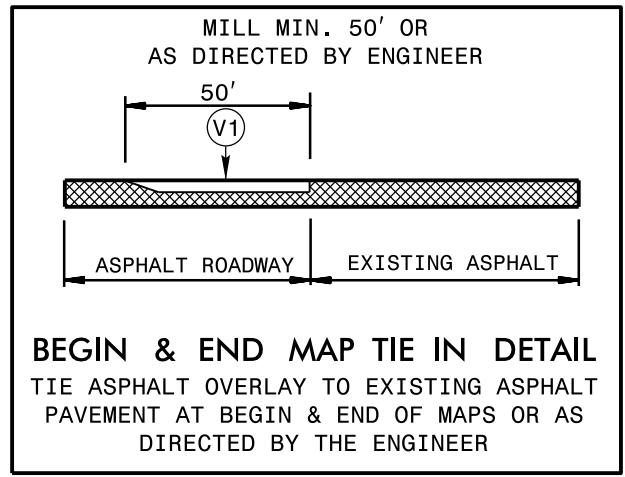
- \* MAP 1 - NC 194 FROM SR 1321 TO SR 1326
- \* MAP 2 - NC 194 FROM SR 1326 TO BANNER ELK SCL
- \* MAP 4 - NC 194 FROM SR 1500 TO NC 181



**TYPICAL SECTION NO. 1A**

- \* MAP - 4A (CURB AND GUTTER SECTION ONLY)
- APPROX 500' AT END OF MAP 4

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5B, AT AN AVERAGE RATE OF 165 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	INCIDENTAL MILLING
V2	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"



**AVERY COUNTY**  
PRIMARY RESURFACING

DIVISION II			
REVISIONS	INT.		

SCALE: N/A

DATE: 07/2014

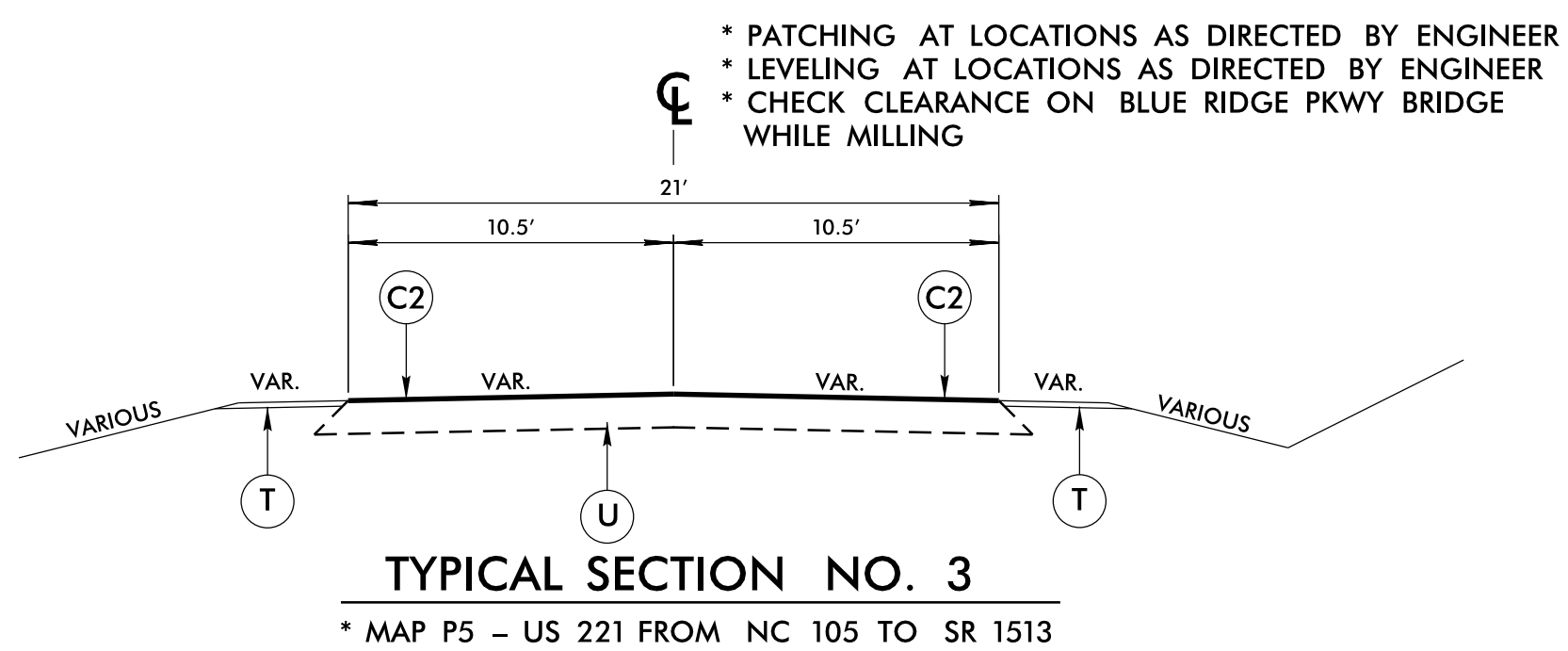
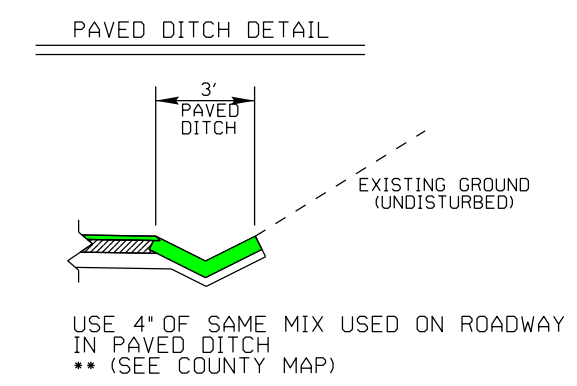
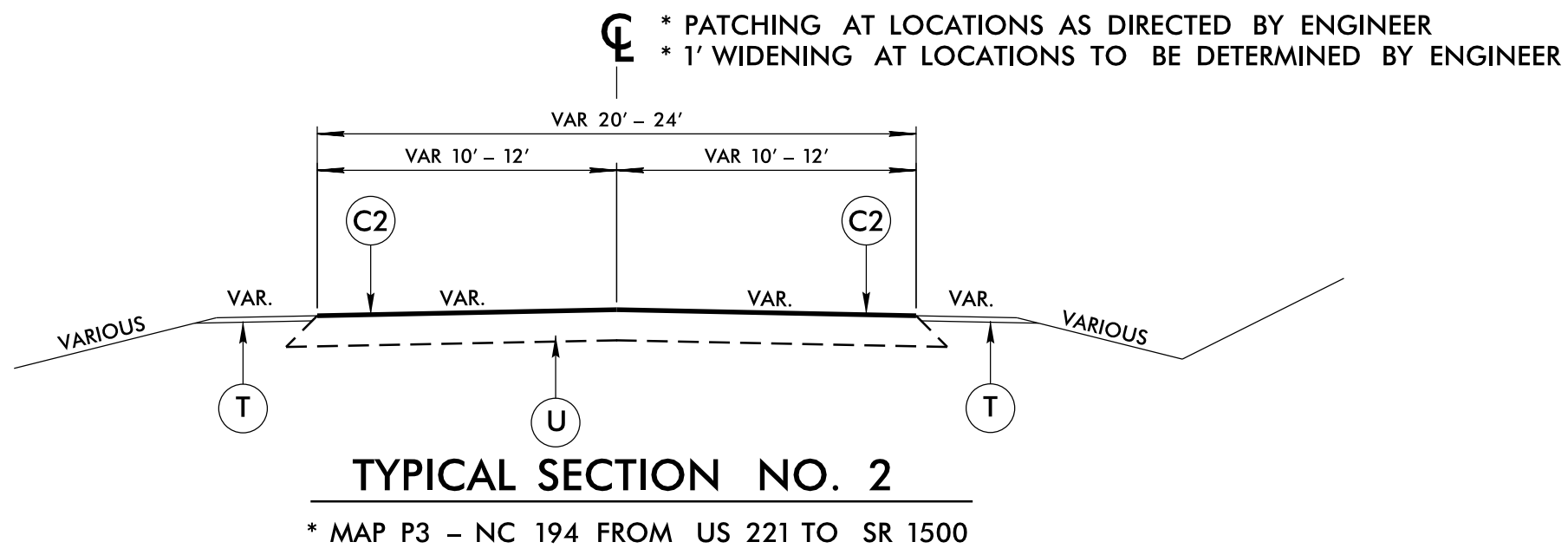
N.C. DEPARTMENT of TRANSPORTATION  
DIVISION of HIGHWAYS  
DIVISION ELEVEN

PREPARED BY: CHAD SHEETS

REVIEWED BY:

REVIEWED BY:

8/17/99



PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5B, AT AN AVERAGE RATE OF 165 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	INCIDENTAL MILLING
V2	MILLING OF EXISTING ASPHALT PAVEMENT AT DEPTH OF 1½"

**AVERY COUNTY  
PRIMARY RESURFACING**

DIVISION II

REVISIONS	INT.	DATE

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

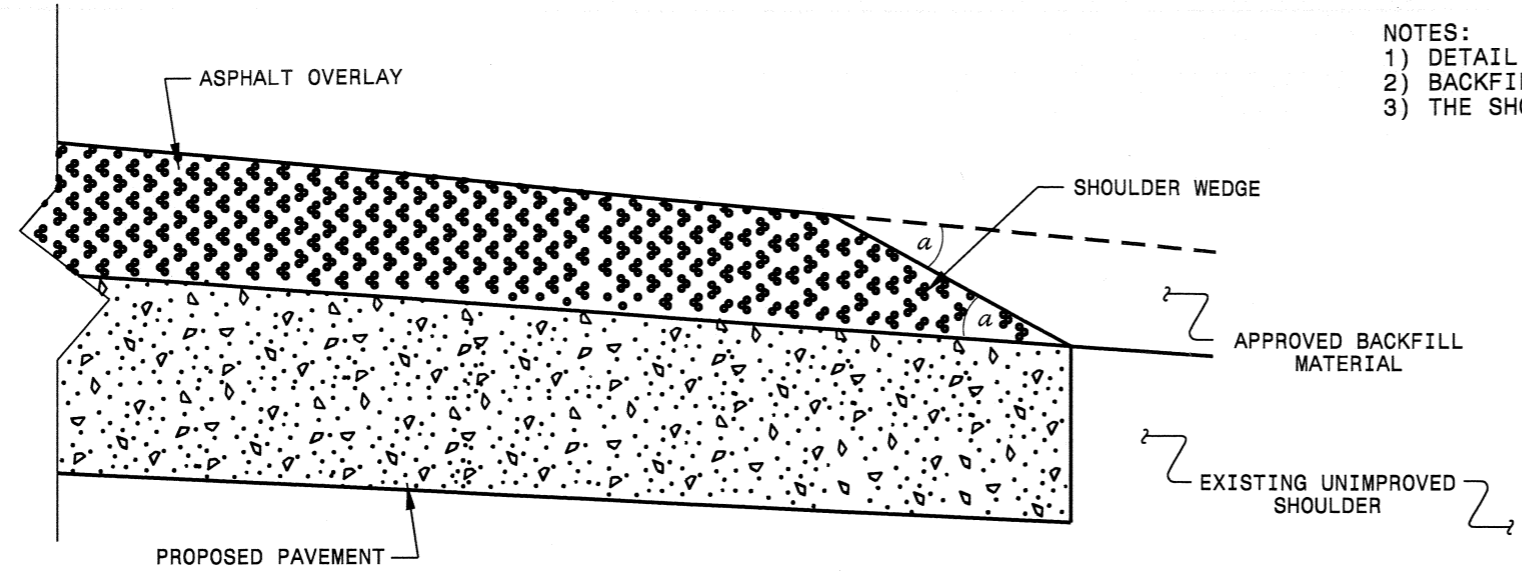
SCALE: N/A DATE: 07/2014

PREPARED BY: CHAD SHEETS

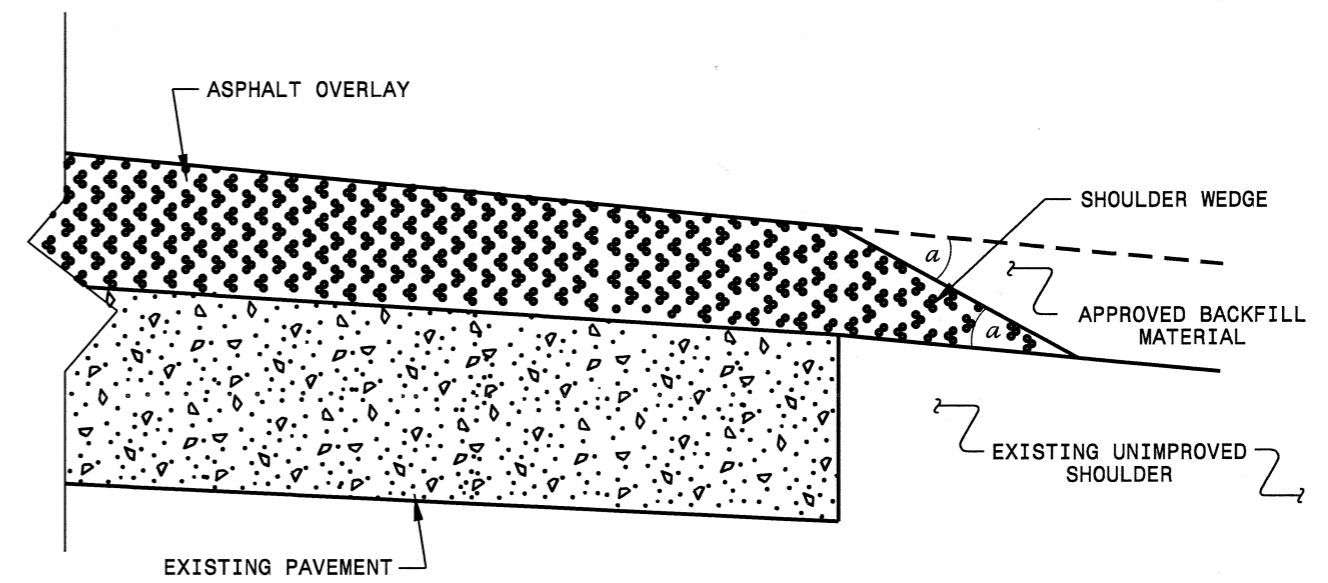
REVIEWED BY:

REVIEWED BY:

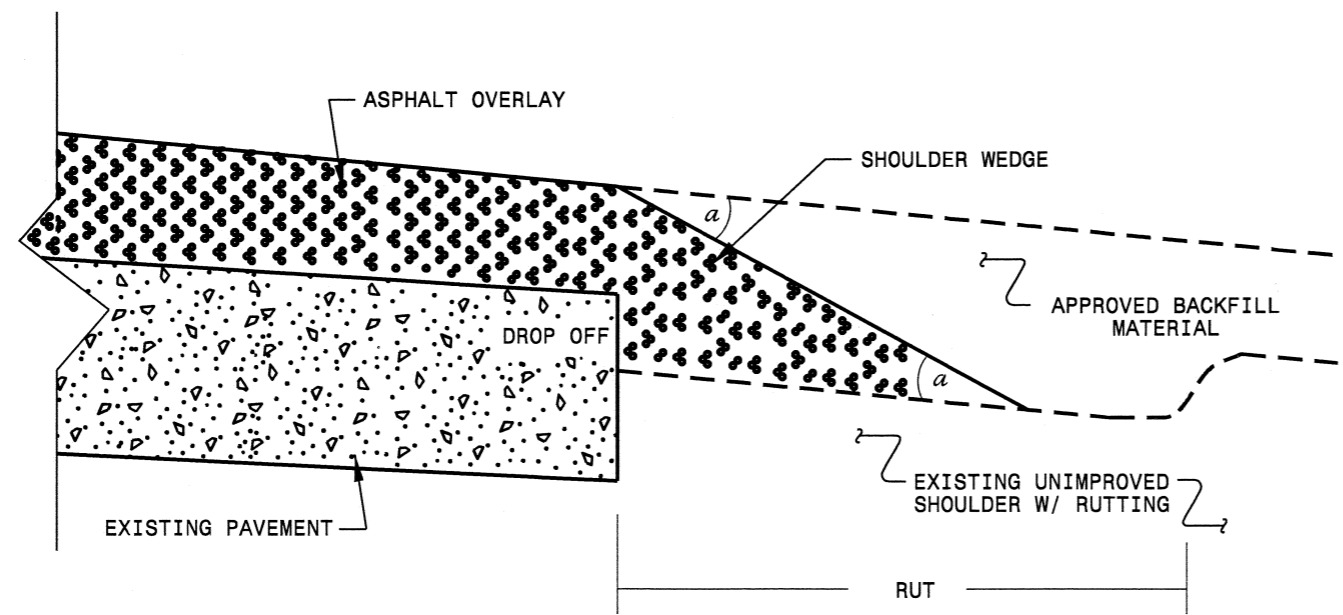
- NOTES:  
 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.  
 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.  
 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



**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  
 \*\*\*\*\*

PROJECT NO.	SHEET NO.	TOTAL NO.
11CR.10061.22		

### SUMMARY OF QUANTITIES

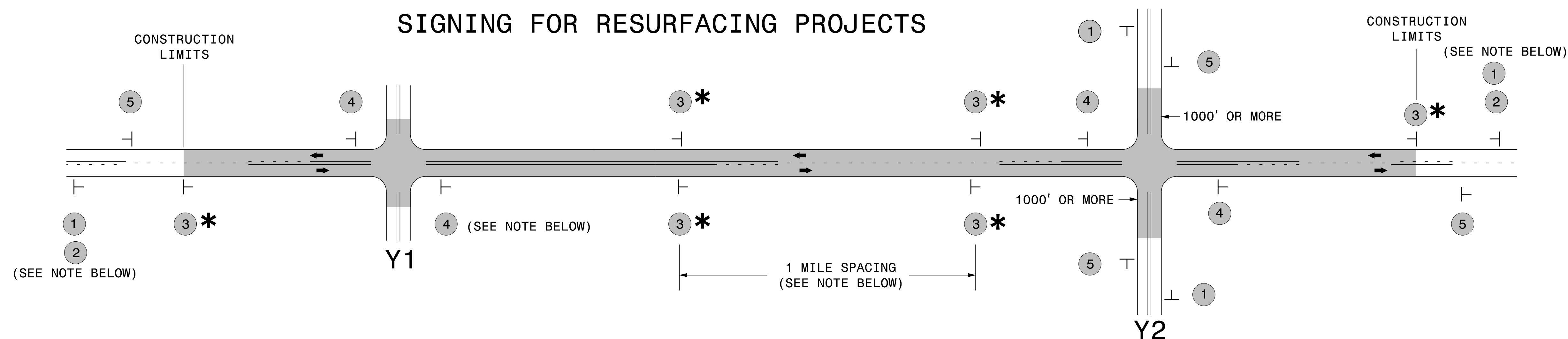
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH M	WIDTH FT	BORROW EXCAVATION CY	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SM	1 1/2" MILLING SY	INCIDENTAL MILLING SY	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, SF9.5A TONS	LEVELING COURSE, SF9.5A TONS	ASPHALT BINDER FOR PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	ADI. OF MANHOLES EA	ADI. OF METER OR VALVE BOX EA	SEED & MULCHING AC	PAVED TRENCHING (2, 2") LF	UNPAVED TRENCHING (2, 2") LF	JUNCTION BOX (STANDARD SIZE) EA	INDUCTIVE LOOP LF	LEAD-IN CABLE LF
11CR.10061.22	Avery	1	NC 194	FROM SR 1321 TO SR 1326	1	2	2WU	NO	NO	2.07	21	414	50	4.14		120	2,255			135	75			1.50					
11CR.10061.22	Avery	2	NC 194	FROM SR 1326 TO BANNER ELK SCL	1	2	2WU	NO	NO	2.05	21	410	50	4.10		120	2,300			138	150	1		1.50					
11CR.10061.22	Avery	3	NC 194	FROM US 221 TO SR 1500	2	2	2WU	NO	NO	2.25	24	450	50	4.50		135	2,875			173	500			1.60					
11CR.10061.22	Avery	4	NC 194	FROM SR 1500 TO NC 181	1	2	2WU	NO	NO	1.7	23	340	50	3.40	1,944	130	2,280			137	130		3	1.20	100	100	2	300	100
11CR.10061.22	Avery	5	US 221	FROM NC 105 TO SR 1513	3	2	2WU	NO	NO	3.22	21	644	75	6.44		1,050		3,775	550	286	250			2.30	100	100	1	232	100
<b>TOTAL FOR PROJ NO. 11CR.10061.22</b>										<b>11.29</b>		<b>2,258</b>	<b>275</b>	<b>22.58</b>	<b>1,944</b>	<b>1,555</b>	<b>9,710</b>	<b>3,775</b>	<b>550</b>	<b>869</b>	<b>1,105</b>	<b>1</b>	<b>3</b>	<b>8.10</b>	<b>200</b>	<b>200</b>	<b>3</b>	<b>532</b>	<b>200</b>
<b>GRANDTOTAL</b>										<b>11.29</b>		<b>2,258</b>	<b>275</b>	<b>22.58</b>	<b>1,944</b>	<b>1,555</b>	<b>9,710</b>	<b>3,775</b>	<b>550</b>	<b>869</b>	<b>1,105</b>	<b>1</b>	<b>3</b>	<b>8.10</b>	<b>200</b>	<b>200</b>	<b>3</b>	<b>532</b>	<b>200</b>

PROJECT NO.	SHEET NO.	TOTAL NO.
11CR.10061.22		

### 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	4845000000-N			4905000000-N		
										WORK ZONE ADVANCE/GENERAL WARNING SIGNS	TEMPORARY TRAFFIC CONTROL	4" WHITE PAINT	4" YELLOW PAINT	8" YELLOW PAINT	24" WHITE PAINT	PAINT LT ARROW	PAINT STR ARROW	PAINT RT ARROW	PAINT STR & RT ARROW	PAINT STR & LT ARROW	SNOW PLOWABLE MARKERS
										SF	LS	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA
11CR.10061.22	Avery	1	NC 194	FROM SR 1321 TO SR 1326	1	2	2WU	2.07	21	182	1	43,718	43,718								136
11CR.10061.22	Avery	2	NC 194	FROM SR 1326 TO BANNER ELK SCL	1	2	2WU	2.05	21	182		43,296	43,296	1,025		2					150
11CR.10061.22	Avery	3	NC 194	FROM US 221 TO SR 1500	2	2	2WU	2.25	24	182		47,520	47,520								150
11CR.10061.22	Avery	4	NC 194	FROM SR 1500 TO NC 181	1	2	2WU	1.7	23	246		36,000	40,500	820	140	8	10	6	2	4	165
11CR.10061.22	Avery	5	US 221	FROM NC 105 TO SR 1513	3	2	2WU	3.22	21	300		69,000	72,600	380		12	6		2		435
<b>TOTAL FOR PROJ NO. 11CR.10061.22</b>								<b>11.29</b>		<b>1,092</b>	<b>1</b>	<b>239,534</b>	<b>247,634</b>	<b>2,225</b>	<b>140</b>	<b>22</b>	<b>16</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>1,036</b>
												<b>487,168</b>		<b>52</b>							

## SIGNING FOR RESURFACING PROJECTS



LEGEND	
	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

### MAINLINE (-L-) SIGNING

### -Y- LINE SIGNING

<b>SIGNING NOTES AND PLACEMENT PER DIRECTION</b>	1	 <small>W20-1 48" X 48"</small>	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.		
	2	 <small>W7-3aP 24" X 18"</small>	#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 *	 <small>SP 13107 48" X 48"</small>	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	 <small>SP 13106 48" X 48"</small>	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	 <small>G20-2 A 48" X 24"</small>	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.	<p style="text-align: center;"><b>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</b></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 style="text-align: center;">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 style="text-align: center;">PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</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**