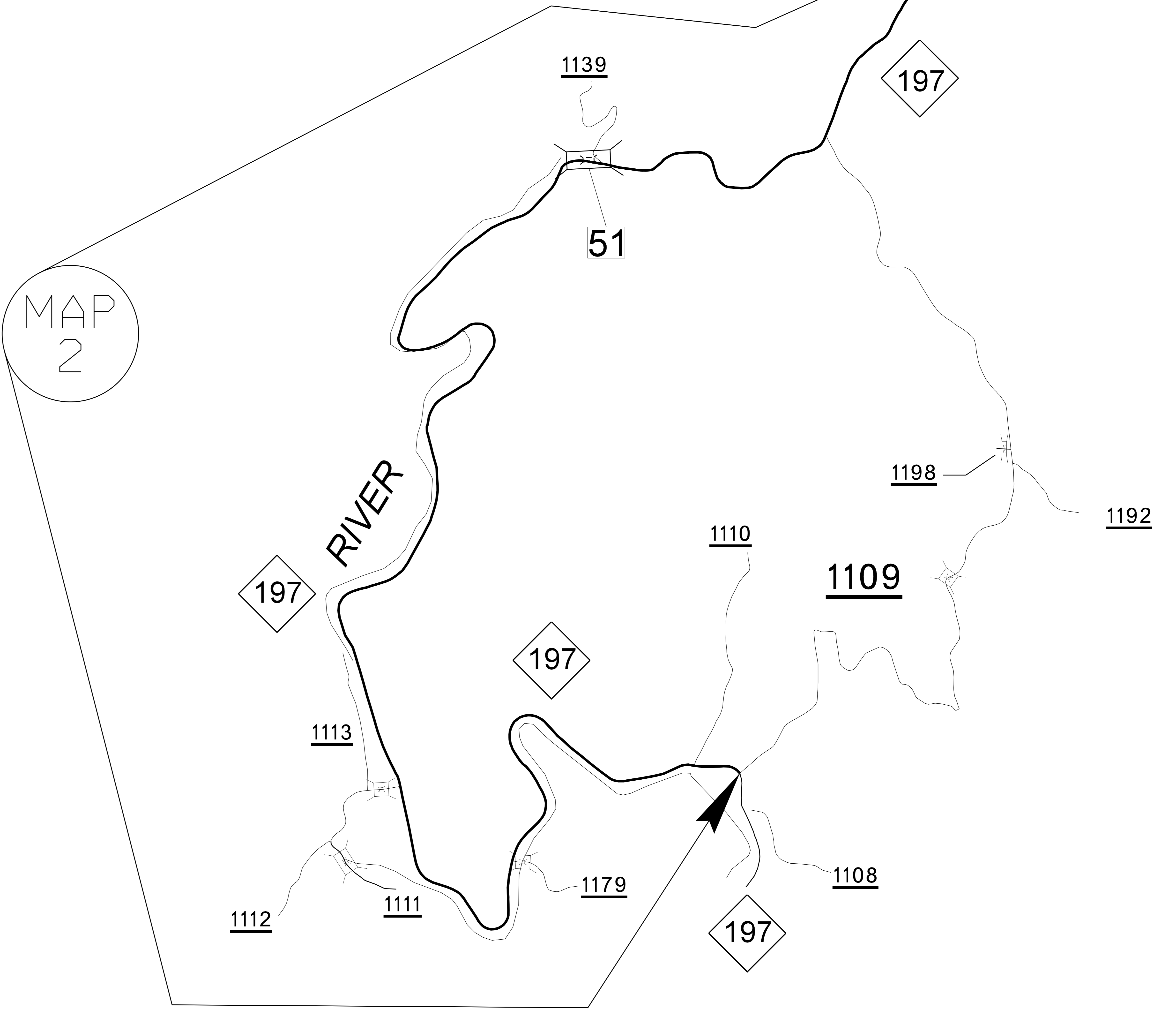
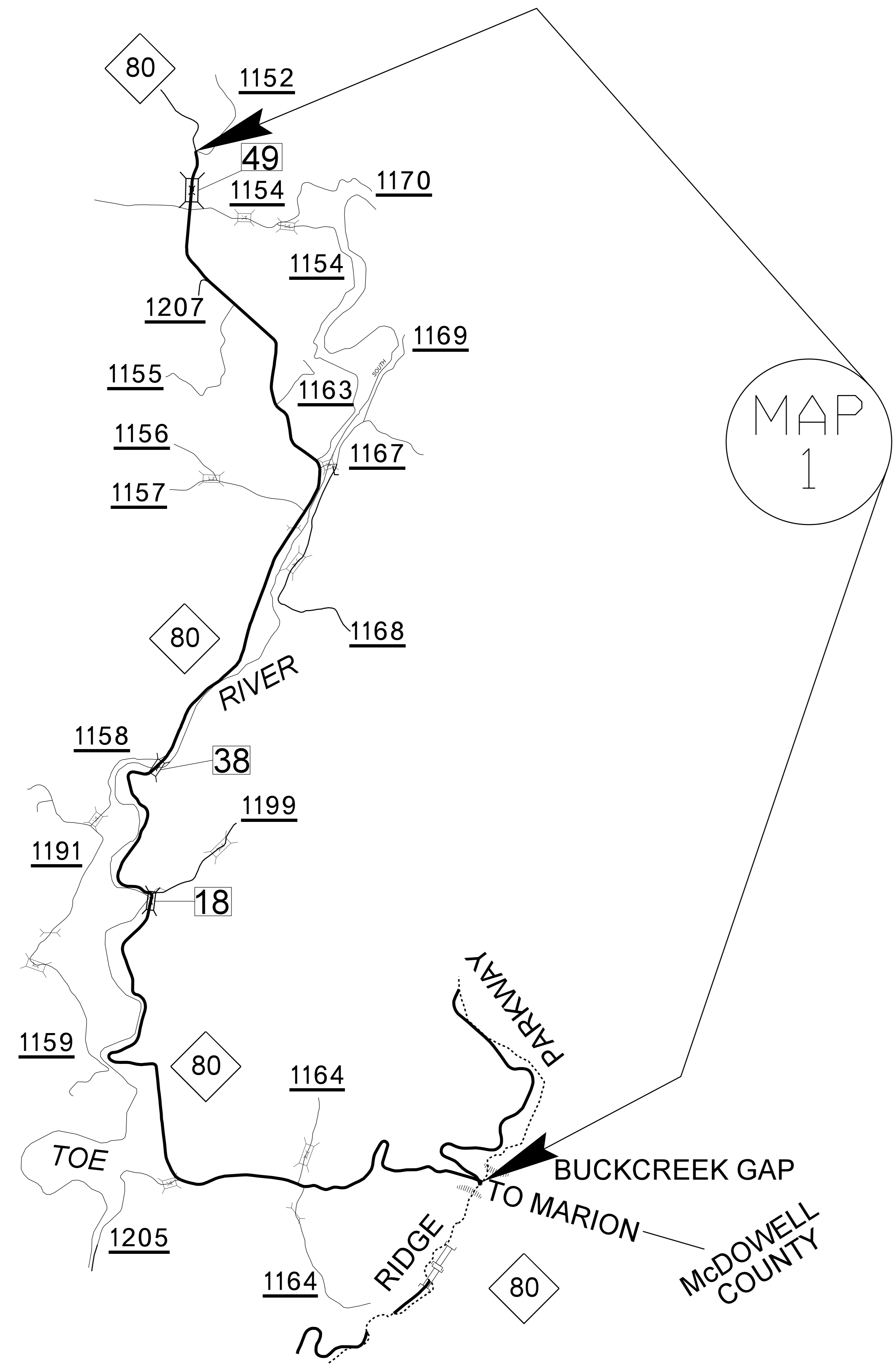
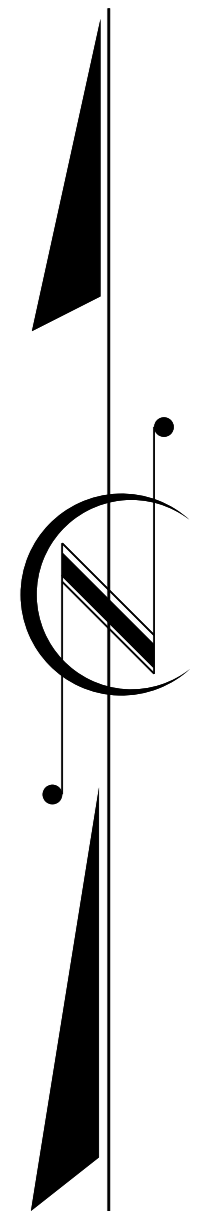
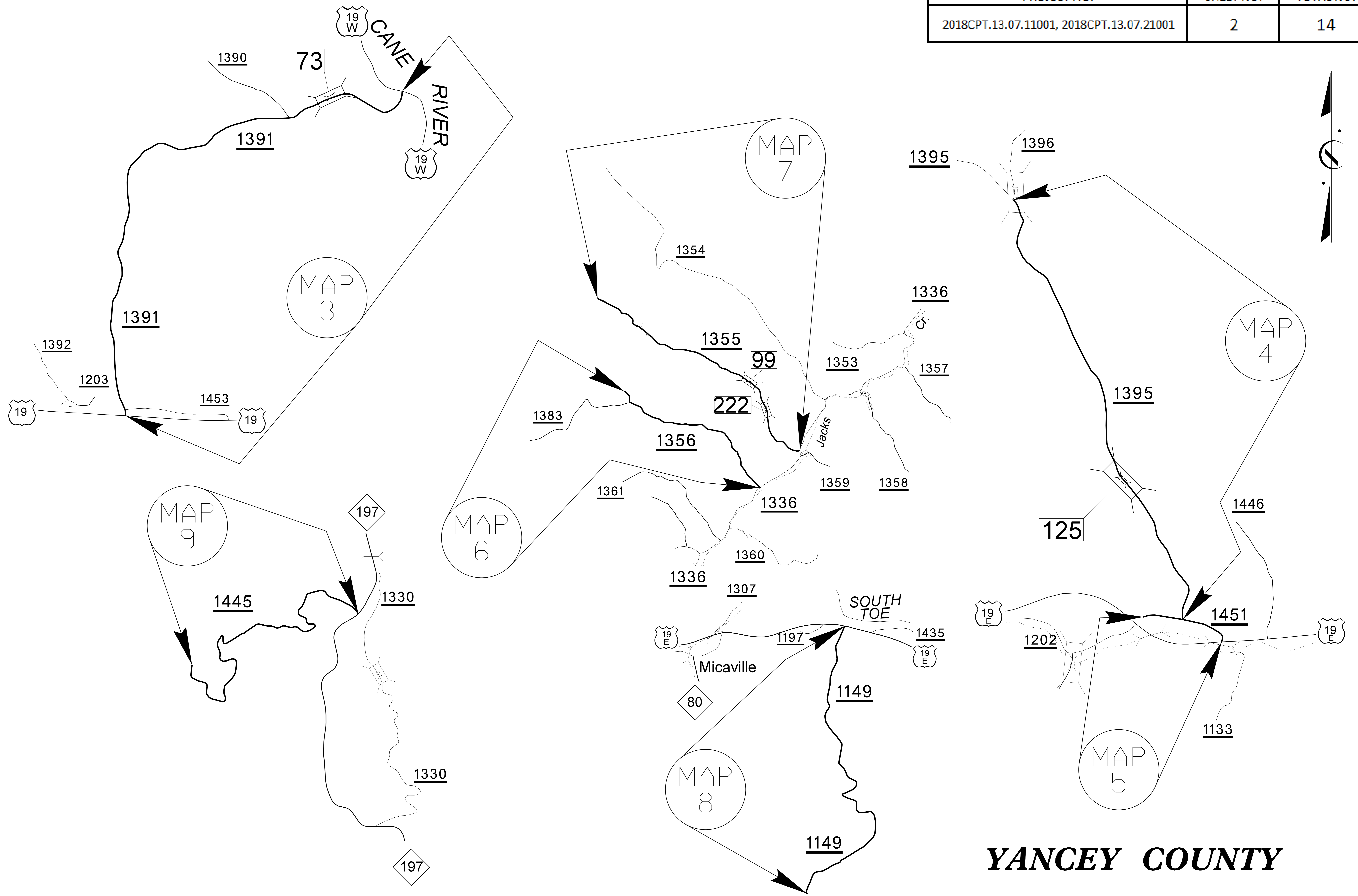
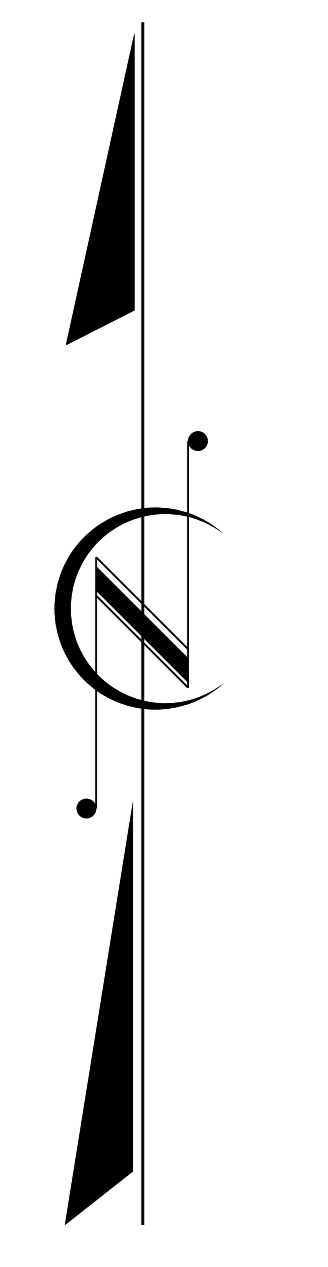


PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.13.07.11001, 2018CPT.13.07.21001	1	14



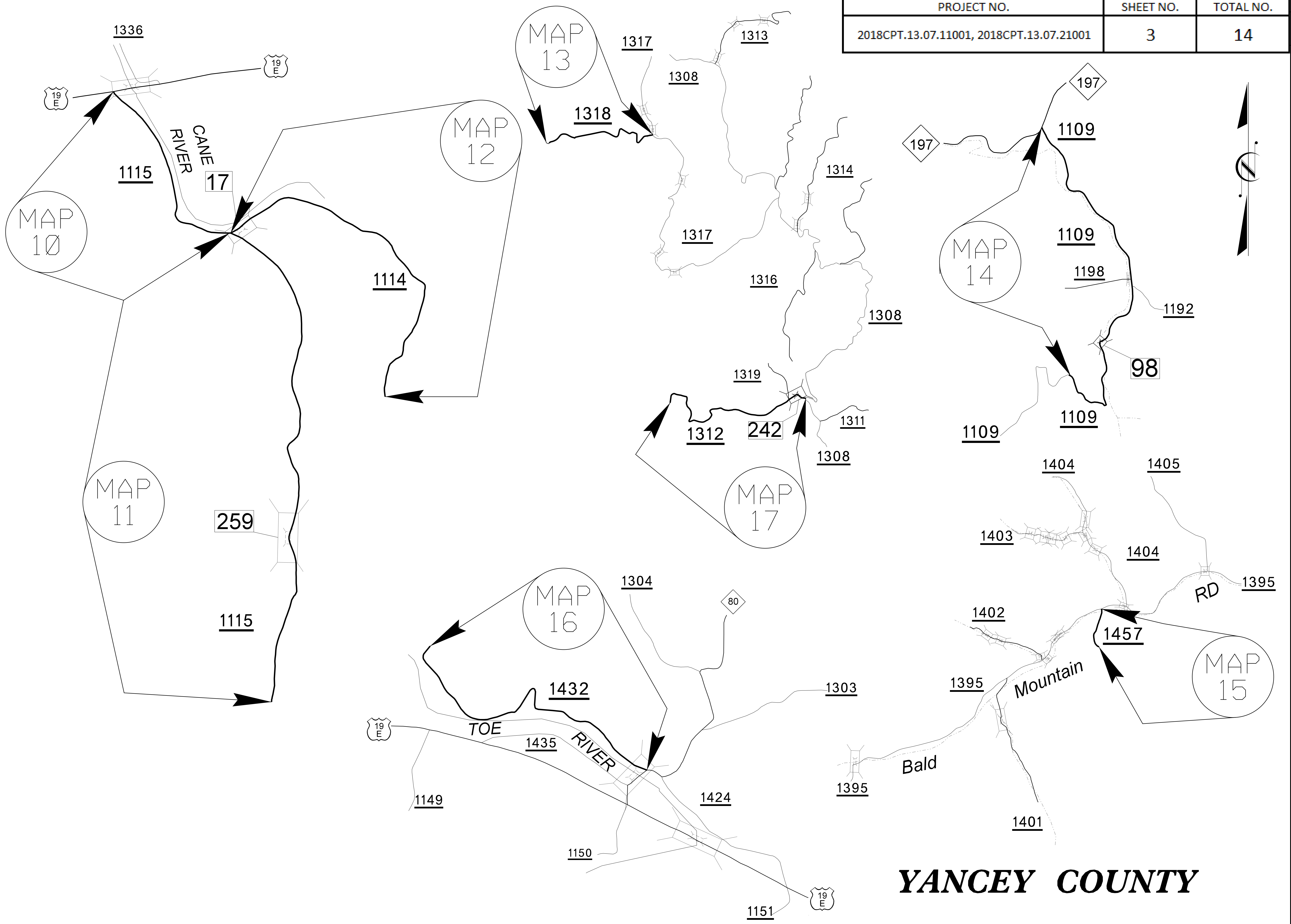
YANCEY COUNTY

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.13.07.11001, 2018CPT.13.07.21001	2	14



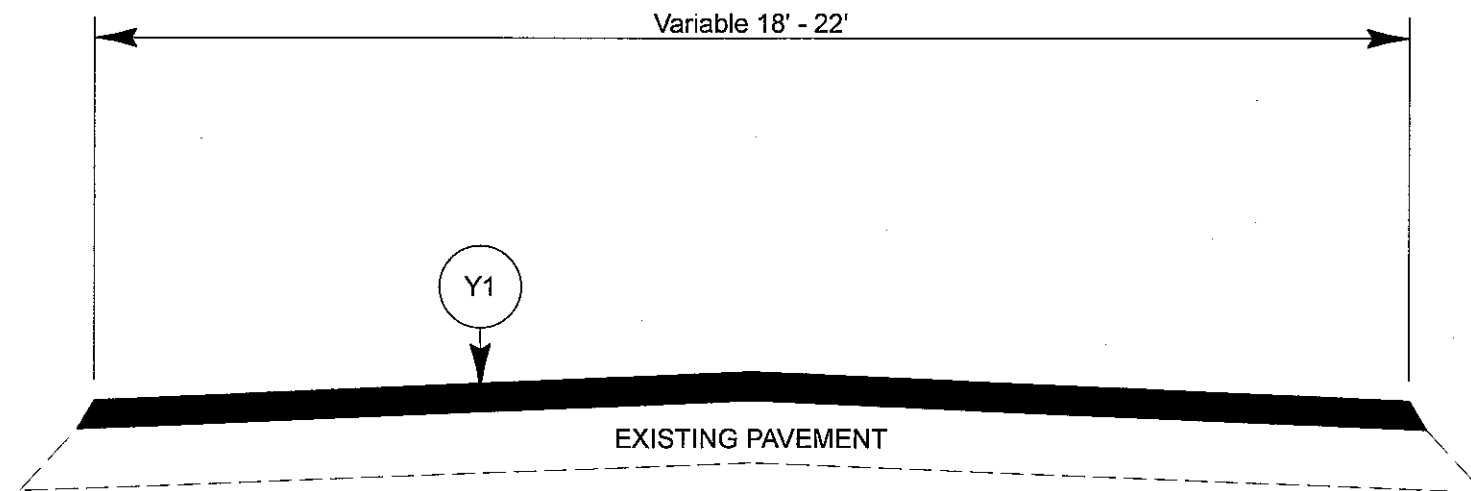
YANCEY COUNTY

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.13.07.11001, 2018CPT.13.07.21001	3	14

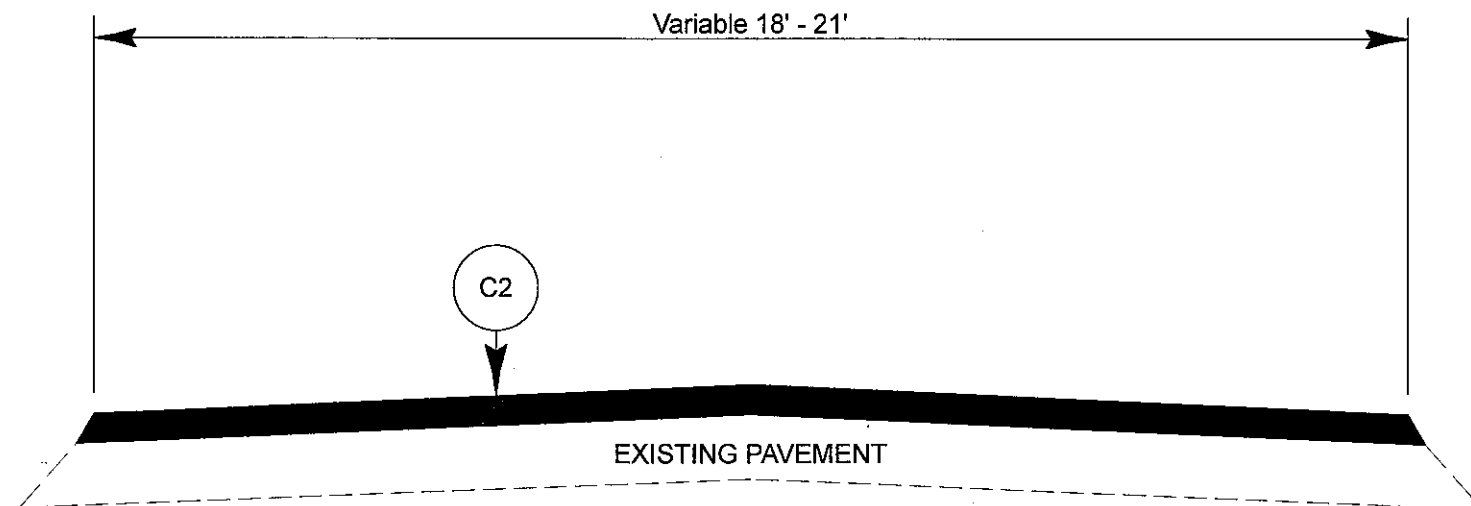
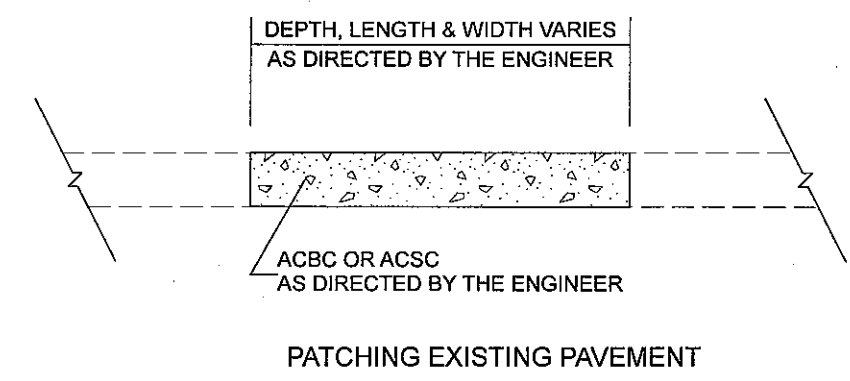


YANCEY COUNTY

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.13.07.11001, 2018CPT.13.07.21001	4	14



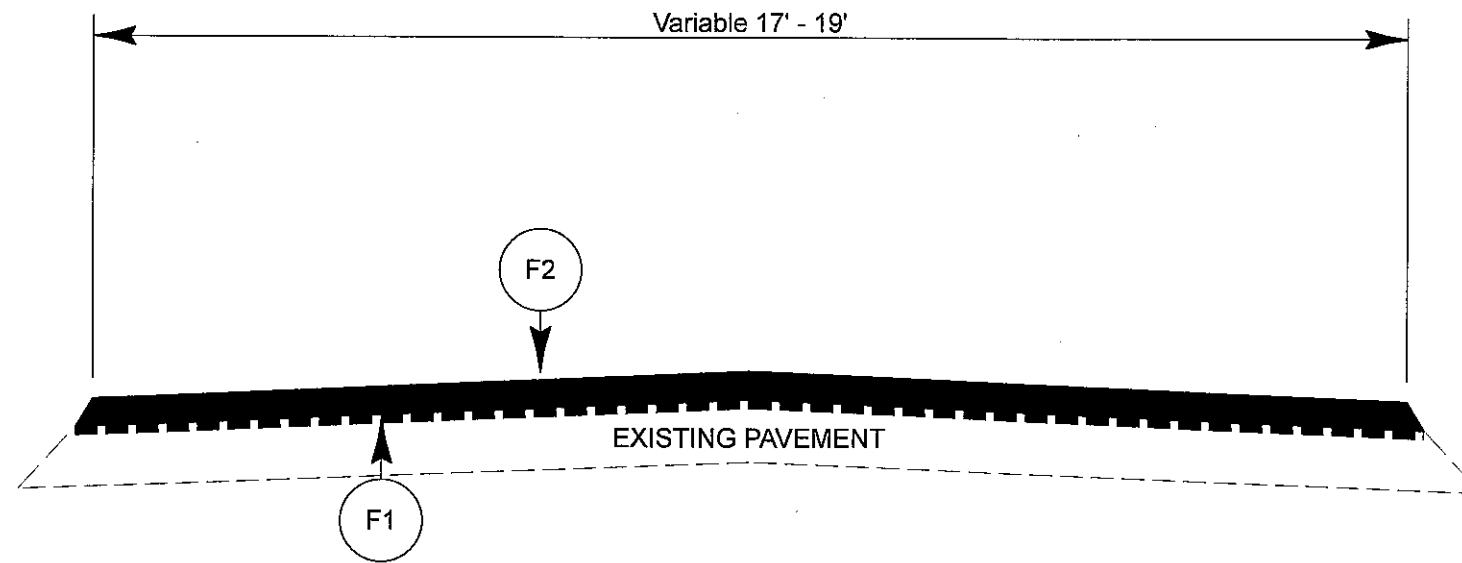
TYPICAL SECTION NO. 1



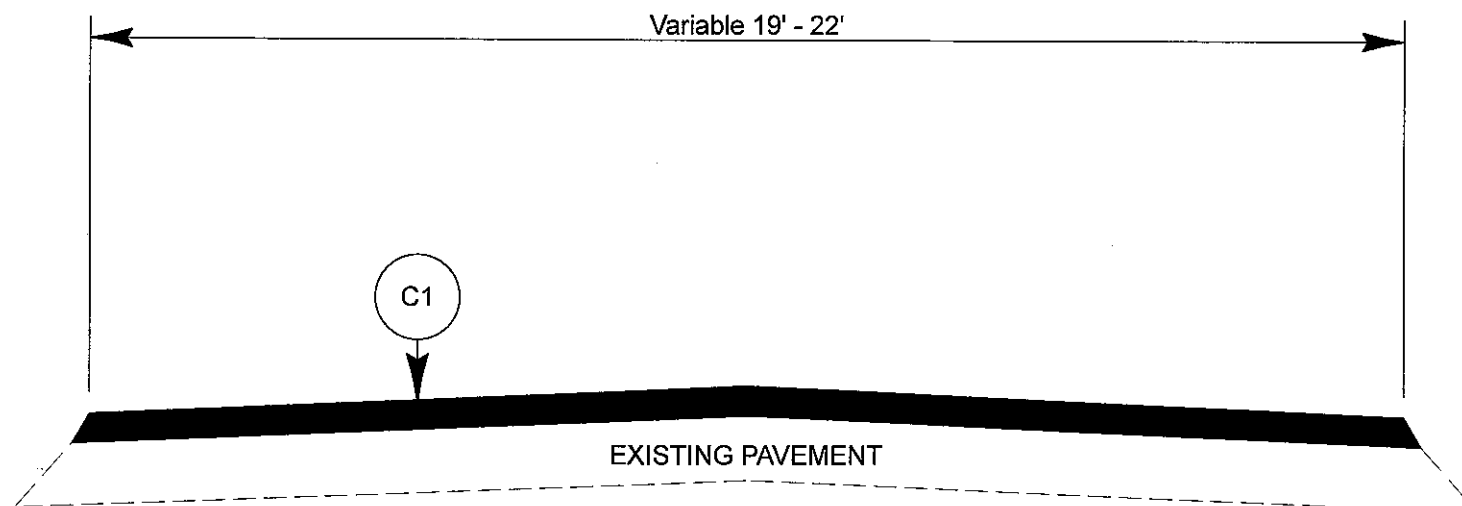
TYPICAL SECTION NO. 2

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD
C2	PROP. APPROX. 1-1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YARD
F1	ASPHALT SURFACE TREATMENT, DOUBLE SEAL
F2	ASPHALT SURFACE TREATMENT, FOG SEAL
V1	MILLING ASPHALT PAVEMENT, 1-1/2" DEPTH
V2	INCIDENTAL MILLING
Y1	LATEX MODIFIED MICRO-SURFACING, TYPE III

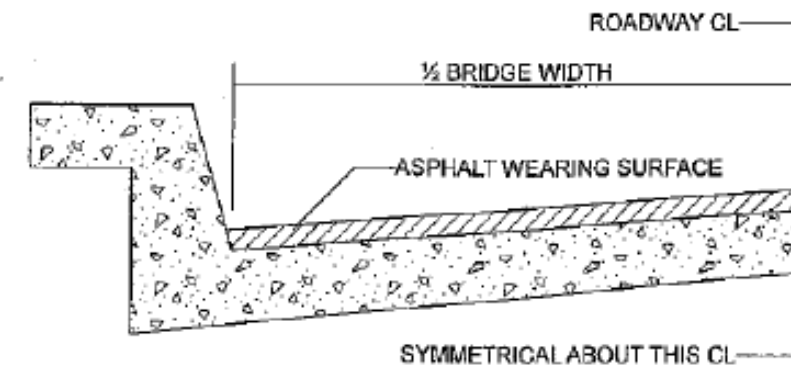
PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.13.07.11001, 2018CPT.13.07.21001	5	14



TYPICAL SECTION NO. 3



TYPICAL SECTION NO. 4



BRIDGE HALF TYPICAL SECTION

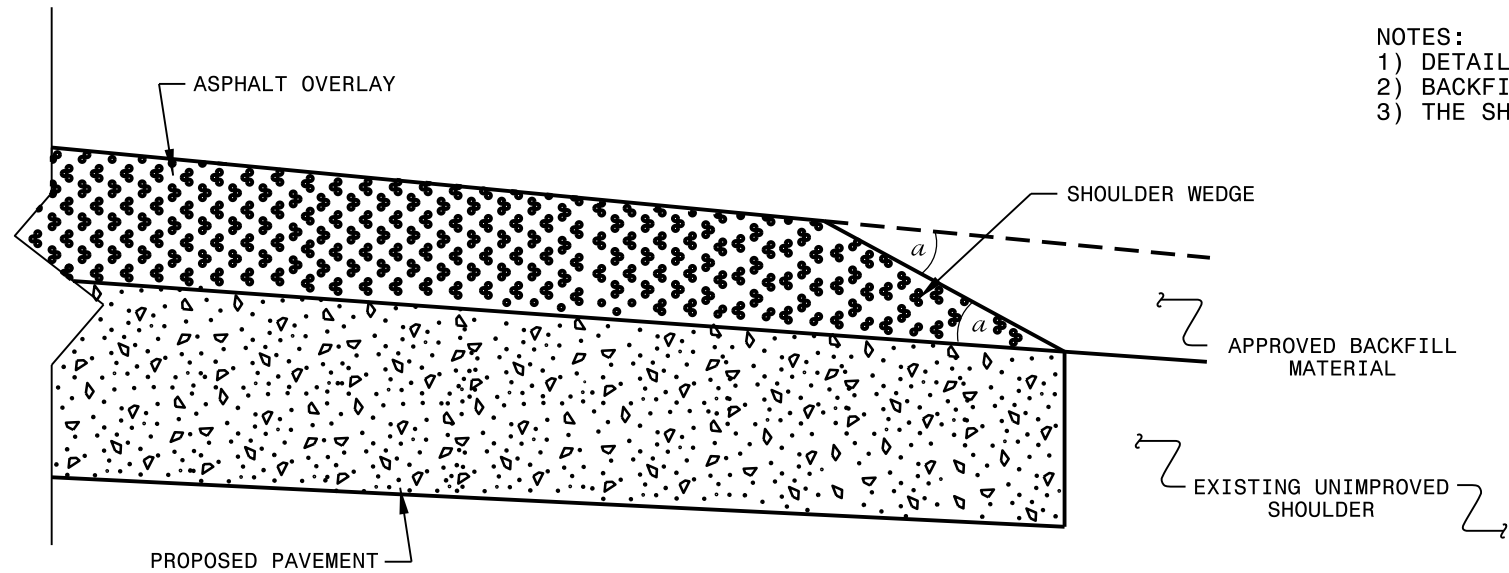
FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. THE MINIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 3/4", SP9.5A 1.0", S9.5X 1.5", S12.5X 2.0", ULTRATHIN HOT MIX ASPHALT-TYPE A 3/4", ULTRATHIN HOT MIX ASPHALT-TYPE B 5/8", ULTRATHIN HOT MIX ASPHALT-TYPE C 1/2". THE MAXIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1.0", SP9.5A 1.5", S9.5X 2.0", S12.5X 2.0", ULTRATHIN HOT MIX ASPHALT-TYPE A 3/4", ULTRATHIN HOT MIX ASPHALT-TYPE B 5/8", ULTRATHIN HOT MIX ASPHALT-TYPE C 1/2".

NOTES

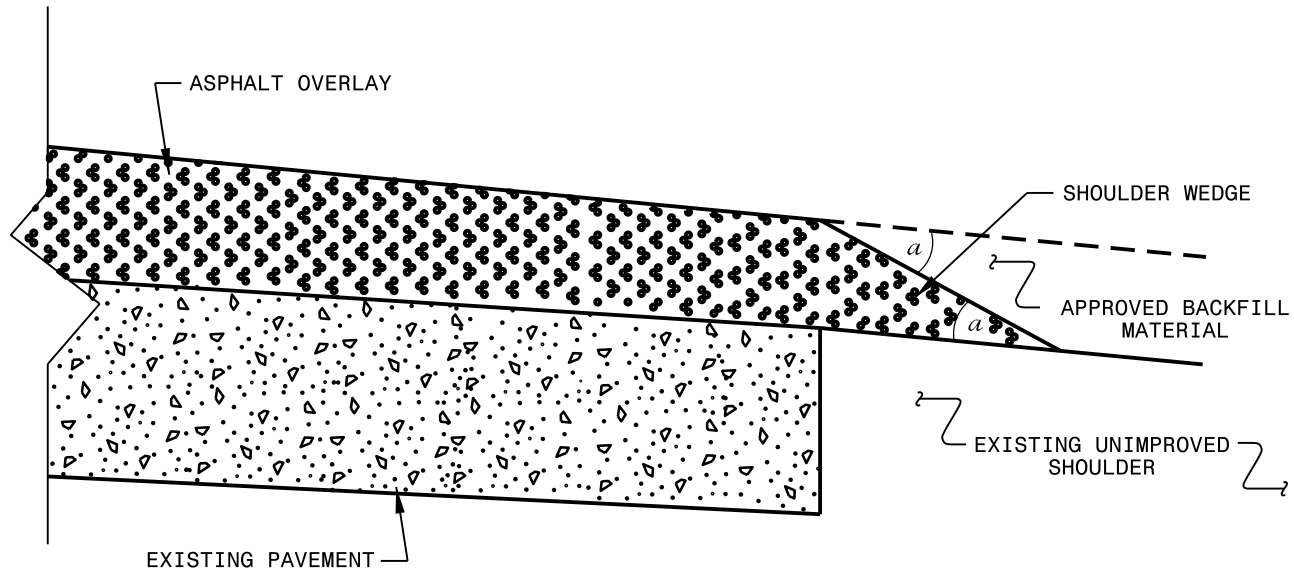
ALL UNPAVED ROADS TO BE RESURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT.
 ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE ROAD, OR AS DIRECTED BY THE ENGINEER.
 EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
 SHOULDERS AND DITCHES ARE TO BE CONSTRUCTED BY OTHERS UNLESS OTHERWISE INDICATED.
 BRIDGES ARE TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.13.07.11001, 2018CPT.13.07.21001	6	14

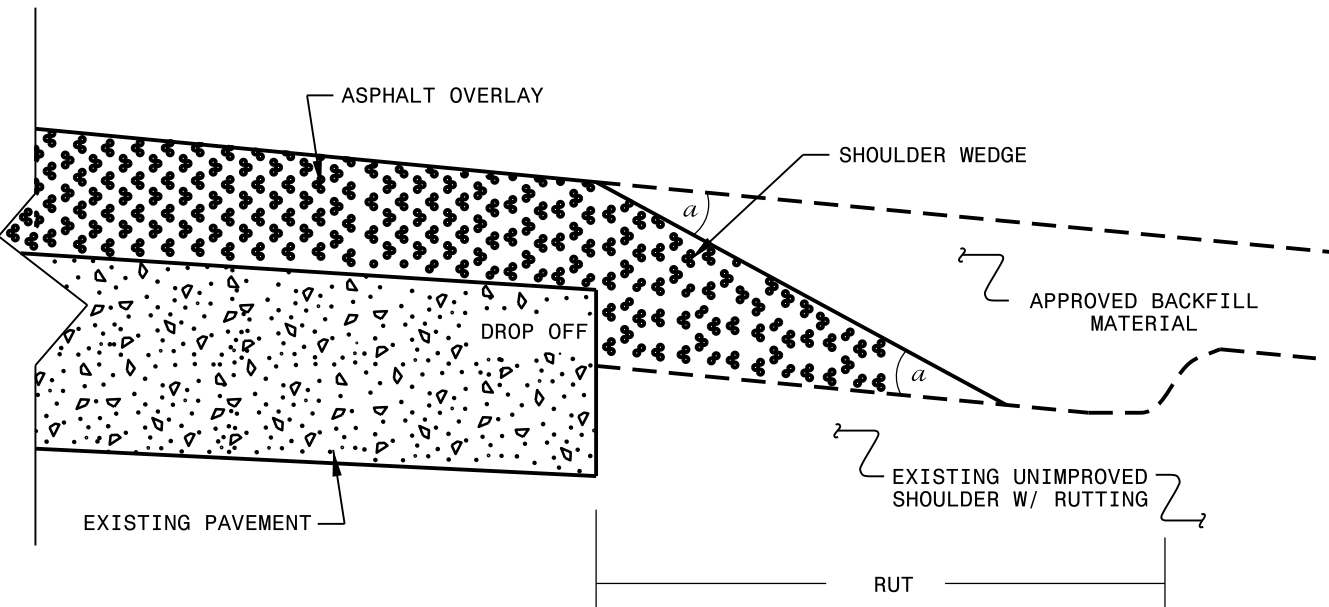
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFD AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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



SHOULDER WEDGE DETAIL
 (Resurfacing Projects w/ NO Widening)



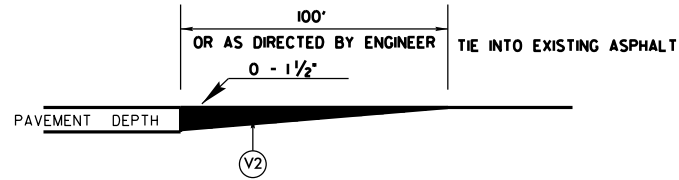
SHOULDER WEDGE DETAIL
 (Resurfacing Adjacent to
 Rutted Shoulder)

- 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: 10/16/12
CHECKED BY:	DATE:
FILE SPEC.: susr/details/stand/shoulderwedgedetail.dgn	

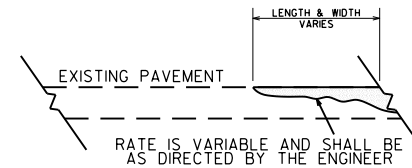
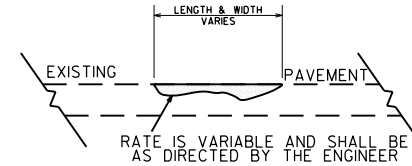
SYSTEMS DESIGN
 USER NAME

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.13.07.11001, 2018CPT.13.07.21001	7	14

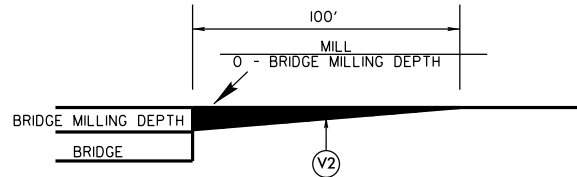


DETAIL TO TIE INTO EXIST PAVEMENT

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT HE WILL BE REQUIRED TO MILL THE EXISTING ASPHALT PAVEMENT TO ENSURE A PROPER TIE-IN WITH THE EXISTING SURFACE AT THE BEGINNING, END AND Y LINES OF EACH MAP TO BE RESURFACED WITH ASPHALT CONC SURFACE COURSE, TYPE S9.5B. THIS WILL BE PAID FOR AS INCIDENTAL MILLING.

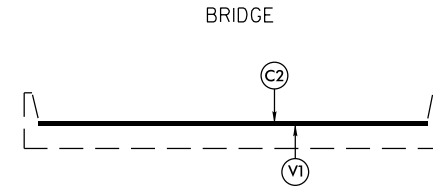


DETAIL SHOWING METHOD OF WEDGING



MILLING DETAIL AT BRIDGE APPROACHES

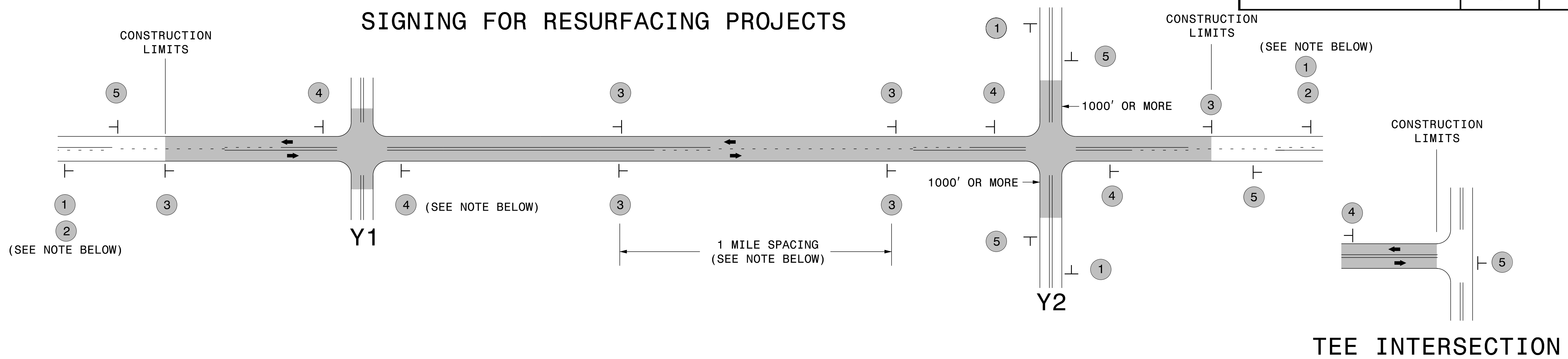
WHERE BRIDGES WILL BE MILLED THEN RESURFACED. THIS WILL BE PAID FOR AS INCIDENTAL MILLING. USE AT BRIDGE NUMBERS: 73, MAP 3 AND 125, MAP 4.



BRIDGE DETAIL

**BRIDGE NUMBER 73, MAP 3,
BRIDGE NUMBER 125, MAP 4,
MILL 1-1/2" OFF EXISTING PAVEMENT
SEE MAPS FOR BRIDGE LOCATION**

SIGNING FOR RESURFACING PROJECTS



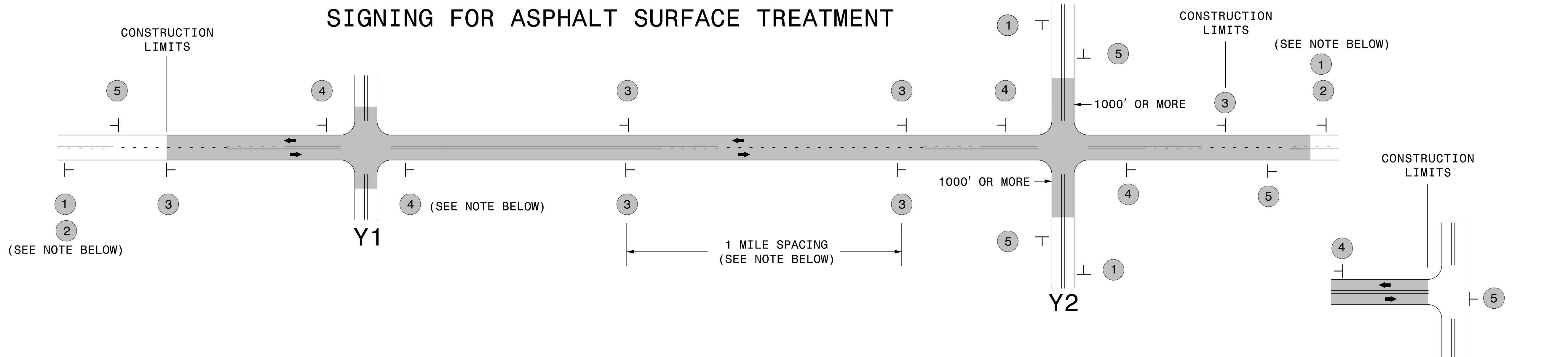
LEGEND	
┆	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1	2	3	4	5		
						<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"> 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE 2) SUBDIVISION ROADS 3) DEAD END ROADS <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> <p></p> <p></p> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>

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



LEGEND

┆ STATIONARY SIGN

← DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1		PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.
	2		#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	 	- ALTERNATE THE FOLLOWING TWO SIGNS: - STARTING WITH "LOOSE GRAVEL" (W8-7) FOLLOWED BY "UNMARKED PAVEMENT". - PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. - AT TEE INTERSECTIONS INSTALL INITIALLY 0.5 MILE FROM INTERSECTION AND SPACE 1 MILE APART THEREAFTER.
	4		- 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		PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS OR AS SHOWN WHEN WORK ENDS AT A 3-WAY TEE INTERSECTION.

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, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.

W20-1
48" X 48"

W20-7 A
48" X 48"

PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.

ADVANCE WARNING SIGNS FOR ASPHALT SURFACE TREATMENTS 2 LANE ROADWAYS

SIGN NUMBER: SP13106
 TYPE: STATIONARY
 QUANTITY: SEE PLANS

BACKG COLOR: Fluorescent Orange
 COPY COLOR: Black

DESIGN BY: B. RASHID
 PROJECT ID:

CHECKED BY: AIA
 DIV:

DATE: Apr 26, 2013

SYMBOL	X	Y	WID	HT

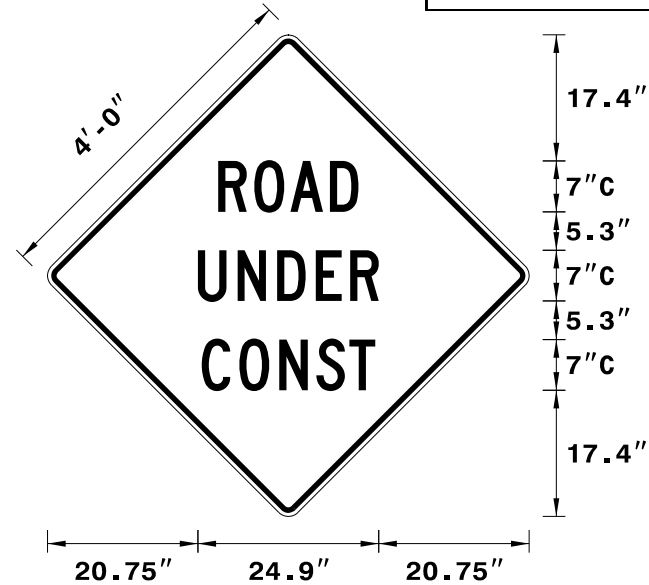
SIGN WIDTH: 4'-0"
 HEIGHT: 4'-0"
 TOTAL AREA: 16.00 Sq.Ft.

BORDER TYPE: INSET
 RECESS: 0.75"
 WIDTH: 1.25"
 RADII: 3"

MAT'L: 0.080" (2.0 mm) ALUMINUM

NO. Z BARS:
 LENGTH:

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.13.07.11001, 2018CPT.13.07.21001	11	14



Spacing Factor is 1 unless specified otherwise

USE NOTES: 1,2

- Legend and border shall be direct applied black non-reflective sheeting.
- Background shall be NC GRADE B fluorescent orange retroreflective sheeting.

LETTER POSITIONS

Letter spacings are to start of next letter

Letter spacings are to start of next letter																	Series/Size Text Length	
		R	O	A	D													C 2000
	23.5	5	5	5.5	3.9	23.5												19.3
		U	N	D	E	R												C 2000
	20.7	5.5	5.5	5.3	4.8	3.9	20.7											24.9
		C	O	N	S	T												C 2000
	21.2	5.2	5.5	5.1	4.6	3.6	21.2											23.9

SIGN NUMBER: 11299

BACKG COLOR: Fluorescent Orange

DESIGN BY: WJ

CHECKED BY:

DATE: Jun 22, 2011

TYPE: B

COPY COLOR: Black

PROJECT ID: ALL

DIV: ALL

QUANTITY: SEE PLANS

SYMBOL	X	Y	WID	HT

SIGN WIDTH: 5'-6"

HEIGHT: 5'-6"

SP 11299

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.13.07.11001, 2018CPT.13.07.21001	12	14

TOTAL AREA: 30.5 Sq.Ft.

BORDER TYPE: INSET

RECESS: 0.59"

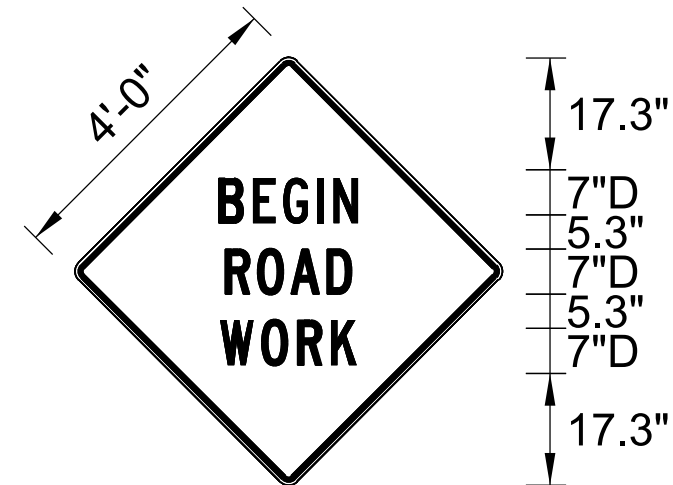
WIDTH: 0.75"

RADII: 1.38"

NO. Z BARS: N/A

LENGTH: N/A

MAT'L: 0.125" (3.2 mm) ALUMINUM



BORDER
R=1.38"
TH=0.75"
IN=0.59"

Spacing Factor is 1 unless specified otherwise

USE NOTES: 1,2

- Legend and border shall be direct applied black non-reflective sheeting.
- Background shall be Type VII, VIII, or IX (prismatic) fluorescent orange retroreflective sheeting.

LETTER POSITIONS

Letter spacings are to start of next letter

Series/Size
Text Length

Letter spacings are to start of next letter																	Series/Size Text Length	
		B	E	G	I	N												D 2000
	20.5	6	5.4	6.3	2.8	4.8	20.5											25.2
		R	O	A	D													D 2000
	21.4	5.8	5.9	7	4.8	21.4												23.5
		W	O	R	K													D 2000
	20.9	7.1	6.5	5.9	4.9	20.9												24.5

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.13.07.11001, 2018CPT.13.07.21001	13	14

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	INCIDENTAL STONE BASE TON	MILLING ASPHALT PAVEMENT, 1-1/2" DEPTH SY	INCIDENTAL MILLING SY	ASPHALT CONC SURFACE COURSE, TYPE 59.5B TON	ASPHALT CONC SURFACE COURSE, TYPE 59.5A TON	ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT TON	ASPHALT SURFACE TREATMENT, DOUBLE SEAL SY	ASPHALT SURFACE TREATMENT, FOG SEAL SY	EMULSION FOR ASPHALT SURFACE TREATMENT GAL	LATEX MODIFIED MICRO-SURFACING, TYPE III SY	VACUUM TRUCK WK		
2018CPT.13.07.11001	Yancey	1	NC 80 S	FROM MCDOWELL COUNTY LINE TO SR 1152 (MP 0.00 - MP 10.00)	1	2	2WU	NO	NO	10	22							600				129,067			
		2	NC 197 S	FROM US 19E TO SR 1109 (MP 8.6 - MP 15.84)	1	2	2WU	NO	NO	7.24	21								400				89,197		
TOTAL FOR PROJ NO. 2018CPT.13.07.11001										17.24								1,000				218,264			
2018CPT.13.07.21001	Yancey	3	SR 1391	US 19 TO US 19W (MP 0.00 - MP 2.48)	2	2	2WU	NO	NO	2.48	18	124	45	400		2,393	160	600							
		4	SR 1395	FROM SR 1451 TO SR 1396 (MP 9.33 - MP 10.81)	2	2	2WU	NO	NO	1.47	19	74	56	430		1,497	100	150							
		5	SR 1451	FROM US 19 TO EOP (MP 0.00 - MP 0.26)	2	2	2WU	NO	NO	0.26	21	13				292	20	45							
		6	SR 1356	FROM SR 1336 TO EOP (MP 0.00 - MP 1.70)	3	2	2WU	NO	NO	1.7	18									17,952	17,952	9,875			
		7	SR 1355	FROM SR 1336 TO EOP (MP 0.00 - MP 1.92)	3	2	2WU	NO	NO	1.92	19									21,402	21,402	11,775			
		8	SR 1149	FROM US 19E TO EOP (MP 0.00 - MP 1.76)	3	2	2WU	NO	NO	1.76	18									18,586	18,586	10,225			
		9	SR 1495	FROM NC 197N TO EOP (MP 0.00 - MP 0.90)	1	2	2WU	NO	NO	0.9	20								175				10,560		
		10	SR 1115	FROM US 19E TO SR 1114 (MP 0.00 - MP 0.69)	4	2	2WU	NO	NO	0.69	22	35			500		828	50	250						1
		11	SR 1115	FROM SR 1114 TO EOP (MP 0.69 - MP 2.40)	1	2	2WU	NO	NO	1.71	20	86								300				20,064	
		12	SR 1114	FROM SR 1115 TO EOP (MP 0.00 - MP 1.21)	1	2	2WU	NO	NO	1.21	18	62								185				12,778	
		13	SR 1318	FROM SR 1317 TO EOP (MP 0.00 - MP 0.85)	3	2	2WU	NO	NO	0.85	18										8,976	8,976	4,940		
		14	SR 1109	FROM NC 197S TO PVMT JOINT (TOP OF MTN) (MP 0.00 - MP 2.6)	4	2	2WU	NO	NO	2.6	19	130			500		2,695	162	300						
		15	SR 1457	FROM SR 1395 TO EOP (MP 0.00 - MP 0.24)	3	2	2WU	NO	NO	0.24	17										2,394	2,394	1,320		
		16	SR 1432	FROM NC 80N TO EOP (MP 0.00 - MP 0.31)	3	2	2WU	NO	NO	0.31	18	16									3,274	3,274	1,805		
		17	SR 1312	FROM SR 1308 TO EOP (MP 0.00 - MP 1.4)	3	2	2WU	NO	NO	1.4	18	70											8,135		
		TOTAL FOR PROJ NO. 2018CPT.13.07.21001										19.5		610	101	1,830	3,523	4,182	492	2,005	14,784	14,784	48,075	43,402	1
		GRAND TOTAL										36.74		610	101	1,830	3,523	4,182	492	3,005	87,368	87,368	48,075	261,666	1

PROJECT NO.	SHEET NO.	TOTAL NO.
2018CPT.13.07.11001, 2018CPT.13.07.21001	14	14

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4810000000-E		4847000000-E		4850000000-E				
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	PAINT PAVEMENT MARKING LINES (4") WHITE	PAINT PAVEMENT MARKING LINES (4") YELLOW	POLYUREA PAVEMENT MARKING LINES (4") WHITE (HIGHLY REFLECTIVE ELEMENTS)	POLYUREA PAVEMENT MARKING LINES (4") YELLOW (HIGHLY REFLECTIVE ELEMENTS)	REMOVAL OF PAVEMENT MARKING LINES (4")				
										SF	LS	LF	LF	LF	LF	LF				
2018CPT.13.07.11001	Yancey	1	NC 80 S	FROM MCDOWELL COUNTY LINE TO SR 1152 (MP0.00-10.00)	1	2	2WU	10	22	1,931	*			105,600	105,600	211,200				
		2	NC 197 S	FROM US 19E TO SR 1109 (MP 8.6 - MP 15.84)	1	2	2WU	7.24	21					76,454	76,454	152,909				
TOTAL FOR PROJ NO. 2018CPT.13.07.11001							17.24			1,931				182,054	182,054	364,109				
													364,108							
2018CPT.13.07.21001	Yancey	3	SR 1391	US 19 TO US 19W (MP 0.00 - MP 2.48)	2	2	2WU	2.48	18	2,080	*	52,378	52,378							
		4	SR 1395	FROM SR 1451 TO SR 1396 (MP 9.33 - MP 10.81)	2	2	2WU	1.47	19			31,046	31,046							
		5	SR 1451	FROM US 19 TO EOP (MP 0.00 - MP 0.26)	2	2	2WU	0.26	21			5,491	5,491							
		6	SR 1356	FROM SR 1336 TO EOP (MP 0.00 - MP 1.70)	3	2	2WU	1.7	18			35,904	35,904							
		7	SR 1355	FROM SR1336 TO EOP (MP 0.00 - MP 1.92)	3	2	2WU	1.92	19			40,550	40,550							
		8	SR 1149	FROM US 19E TO EOP (MP 0.00 - MP 1.76)	3	2	2WU	1.76	18			37,171	37,171							
		9	SR 1495	FROM NC 197N TO EOP (MP0.00 - MP0.90)	1	2	2WU	0.9	20											
		10	SR 1115	FROM US 19E TO SR 1114 (MP 0.00 - MP 0.69)	4	2	2WU	0.69	22			14,573	14,573							
		11	SR 1115	FROM SR 1114 TO EOP (MP 0.69 - MP 2.40)	1	2	2WU	1.71	20			36,115	36,115			36,115				
		12	SR 1114	FROM SR 1115 TO EOP (MP 0.00 - MP 1.21)	1	2	2WU	1.21	18			25,555	25,555			25,555				
		13	SR 1318	FROM SR 1317 TO EOP (MP 0.00 - MP 0.85)	3	2	2WU	0.85	18											
		14	SR 1109	FROM NC 197S TO PVMT JOINT (TOP OF MTN) (MP 0.00 - MP 2.6)	4	2	2WU	2.6	19			54,912	54,912							
		15	SR 1457	FROM SR 1395 TO EOP (MP 0.00 - MP 0.24)	3	2	2WU	0.24	17											
		16	SR 1432	FROM NC 80N TO EOP (MP 0.00 - MP 0.31)	3	2	2WU	0.31	18											
		17	SR 1312	FROM SR 1308 TO EOP (MP 0.00 - MP 1.4)	3	2	2WU	1.4	18			29,568	29,568							
		TOTAL FOR PROJ NO. 2018CPT.13.07.21001							19.5					2,080		363,263	363,263			61,670
															726,526					
GRAND TOTAL							36.74			4,011	1	363,263	363,263	182,054	182,054	425,779				
													726,526			364,108				