PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.12.10591, 2016CPT.13.12.20591 2016CPT.13.12.20592	1	

McDOWELL COUNTY

MAP 1
226
64
64
226
TO SHELBY
64
RUTHERFORDTON CO.

MAP 2
LAKE
1588
1536
1536

MAP 3
70
221
B
226
1505
1206
1208
226
70
221
B

MAP 4
1747
1760
1821
1831
90
1759
40
40
1750
1760

MAP 5
1808
1580
70
70
1810
1813
1817

MAP 6

MAP 7
1798
1800
10
226
1798
1798
226

MAP 8
1147
1337
221
1351
1149
1785
1147
41
221
1150
1148
1147
1147
1147

MAP 9
1163
1163
1001
1001
42
1351
1145

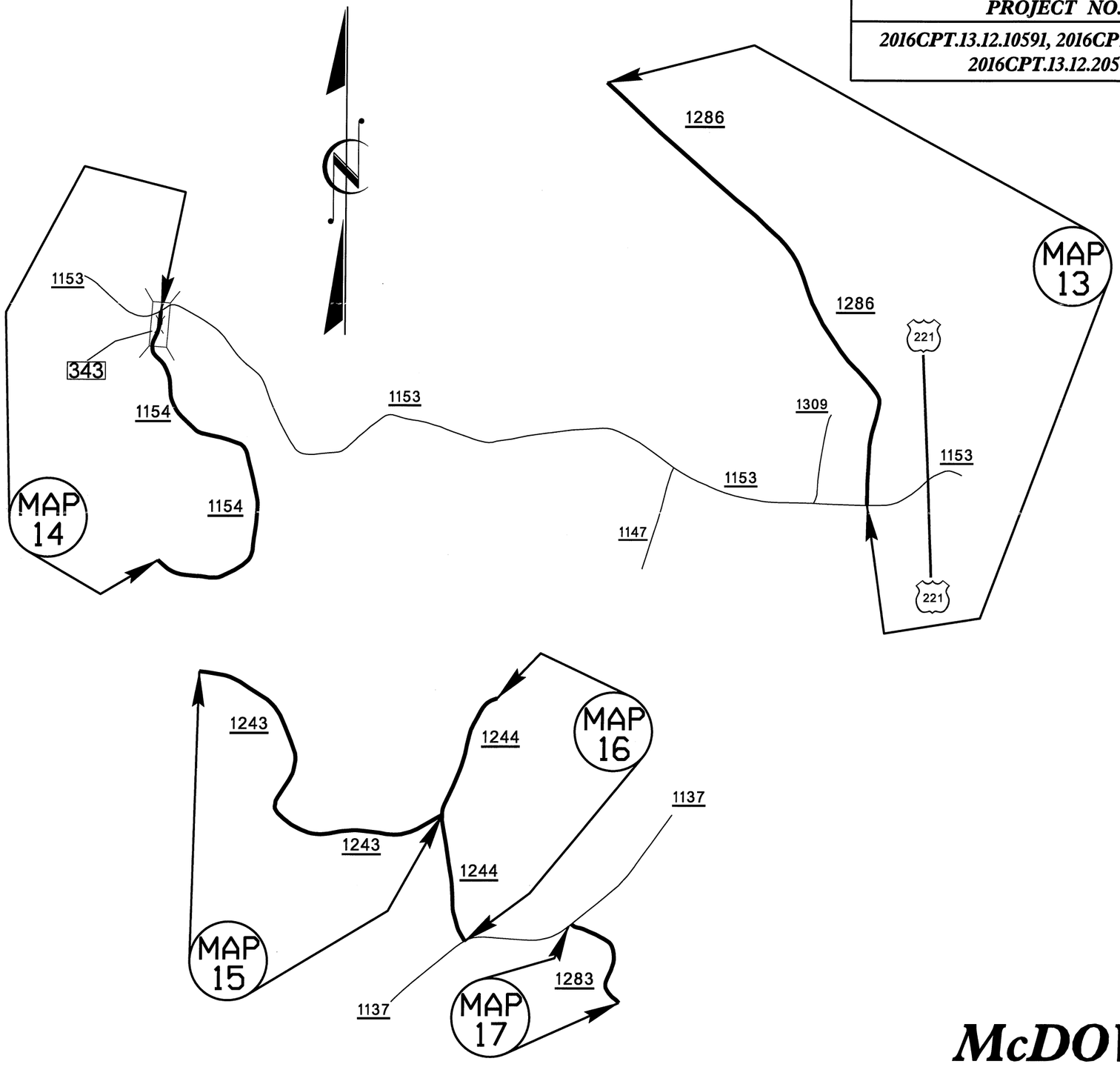
MAP 10
1536
1536
1536
1610
1593
SOUTHERN R.R
70
70

MAP 11
1548
1536
1544
126
1543
1540
1536
1585
126

MAP 12

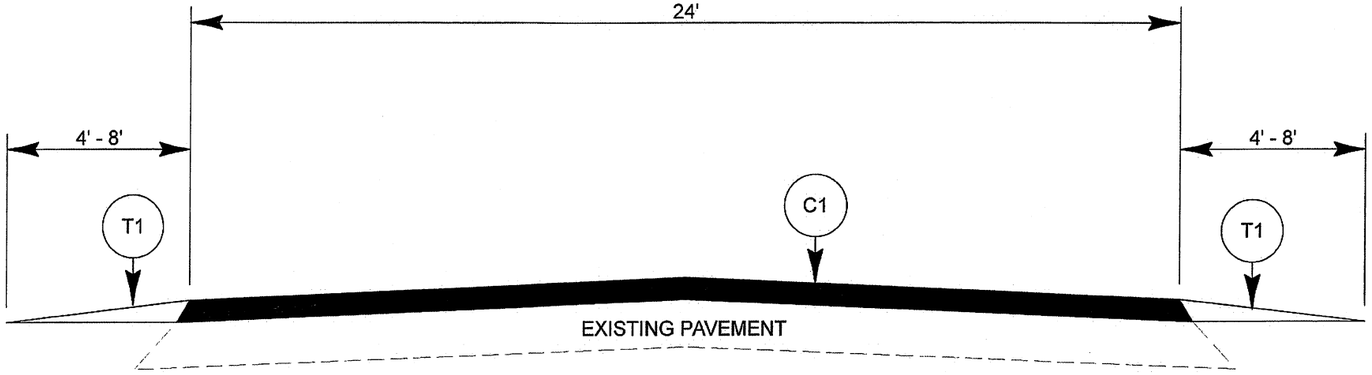
MAP 18
1292
1351
1146
1145

PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.12.10591, 2016CPT.13.12.20591, 2016CPT.13.12.20592	2	

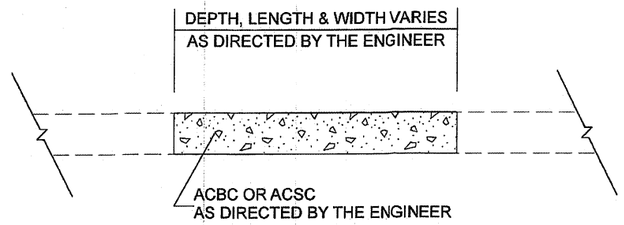


McDOWELL COUNTY

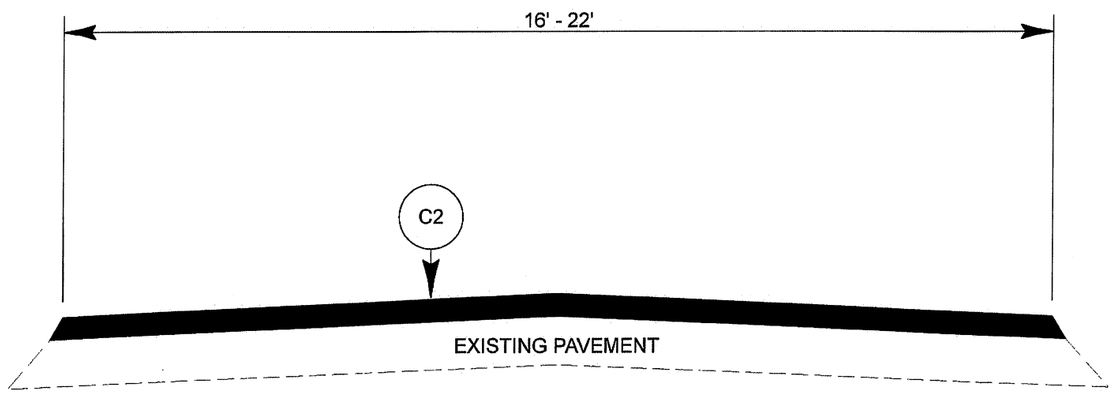
PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.12.10591, 2016CPT.13.12.20591, 2016CPT.13.12.20592,	3	



TYPICAL SECTION NO. 1



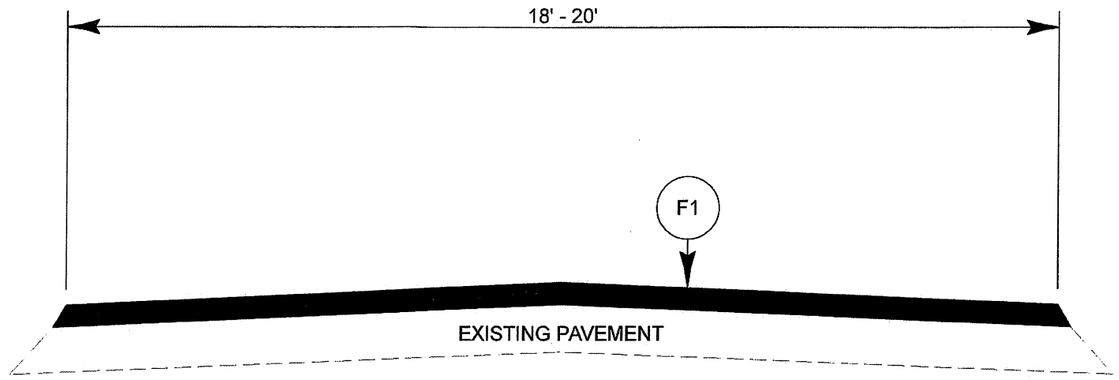
PATCHING EXISTING PAVEMENT



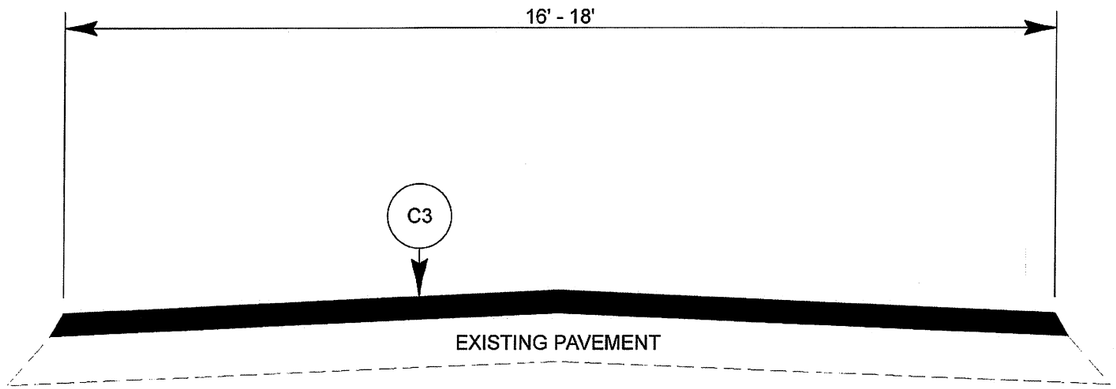
TYPICAL SECTION NO. 2

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" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YARD
C3	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE S4.75A, AT AN AVERAGE RATE OF 100 LBS. PER SQ. YARD
F1	ASPHALT SURFACE TREATMENT, DOUBLE SEAL (LIGHTWEIGHT AGGREGATE)
T1	SHOULDER RECONSTRUCTION
V1	INCIDENTAL MILLING

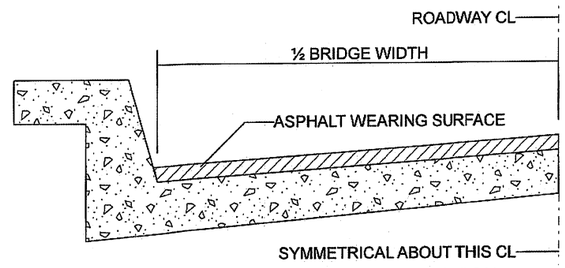
PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.12.10591, 2016CPT.13.12.20591, 2016CPT.13.12.20592,	4	



TYPICAL SECTION NO. 3



TYPICAL SECTION NO. 4



BRIDGE HALF TYPICAL SECTION

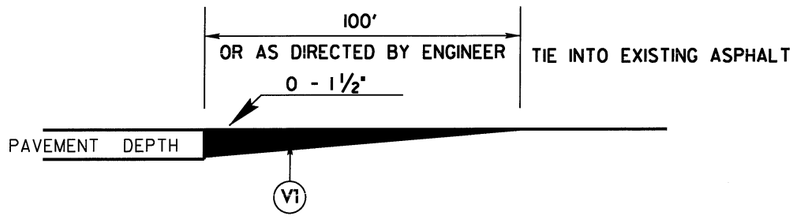
FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN

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 ½", SF9.5A 1.0", S9.5X 1.5", S12.5X 2.0", ULTRATHIN HOT MIX ASPHALT-TYPE A ¾", ULTRATHIN HOT MIX ASPHALT-TYPE B 5/8", ULTRATHIN HOT MIX ASPHALT-TYPE C ½".THE MAXIMUM THICKNESS SHOULD DEPEND ON PAVEMENT TYPE AS FOLLOWS: S4.75A 1.0", SF9.5A 1.5",S9.5X 2.0", S12.5X 2.0", ULTRATHIN HOT MIX ASPHALT-TYPE A ¾", ULTRATHIN HOT MIX ASPHALT-TYPE B 5/8", ULTRATHIN HOT MIX ASPHALT-TYPE C ½".

NOTES

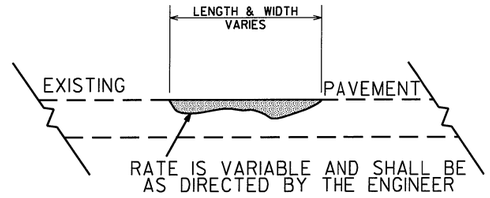
ALL UNPAVED ROADS TO BE RESURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT.
ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII, OR AS DIRECTED BY THE ENGINEER.
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
SHOULDERS AND DITCHES ARE TO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

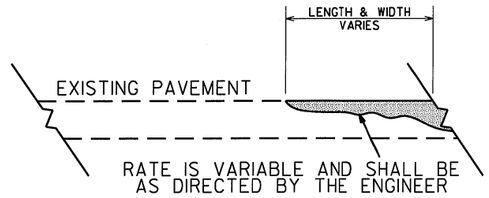
PROJECT NO.	SHEET NO.	TOTAL SHEETS
2016CPT.13.12.10591, 2016CPT.13.12.20591, 2016CPT.13.12.20592	5	



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.

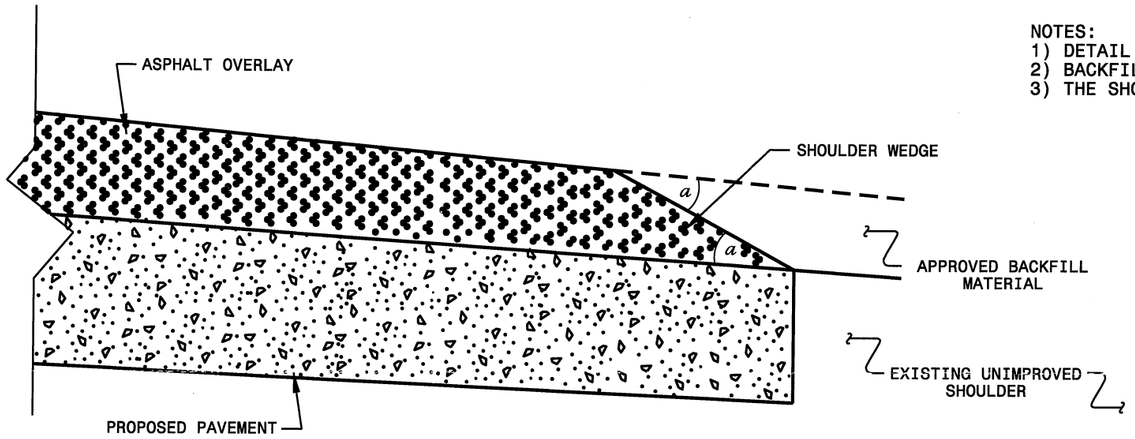




DETAIL SHOWING METHOD OF WEDGING

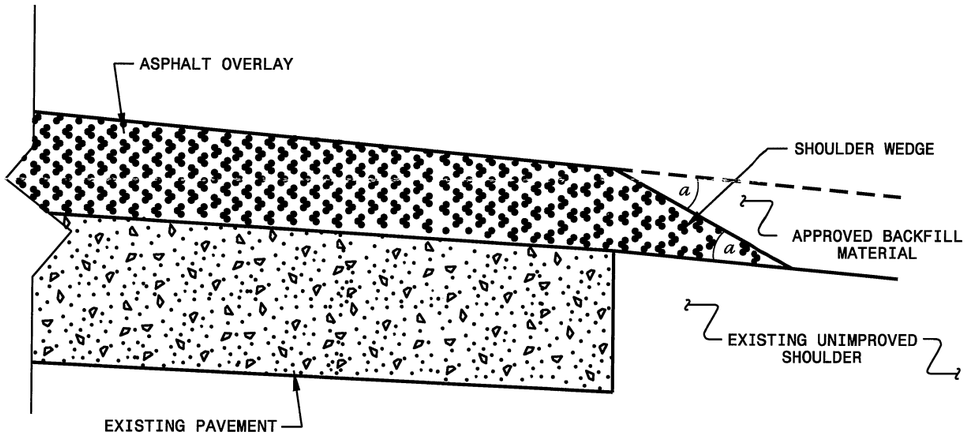
PROJECT	SHEET NO.	TOTAL SHEETS
2016CPT.13.12.10591, 2016CPT.13.12.20591	6	
2016CPT.13.12.20592		

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.



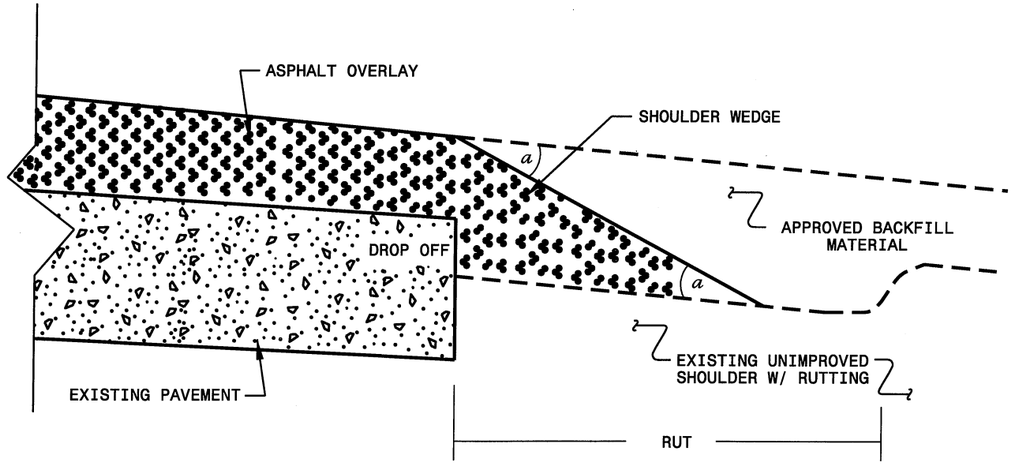
SHOULDER WEDGE DETAIL

(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°

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

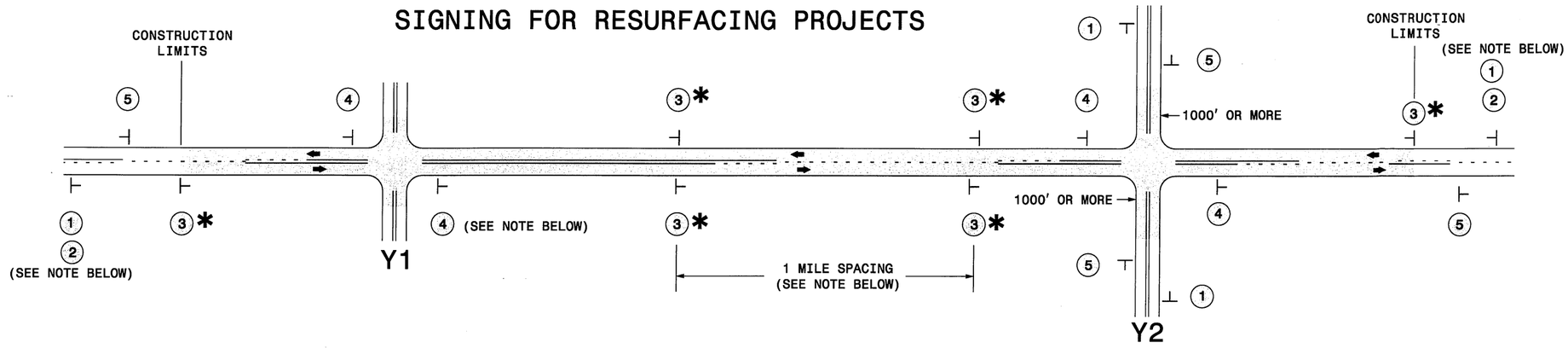
SHOULDER WEDGE DETAILS

ORIGINAL BY: T.SPELL DATE: 7-19-11
MODIFIED BY: DATE: 10/16/12
CHECKED BY: DATE:
FILE SPEC.: s:usr/details/stand/shoulderwedgedetail.dgn

$$$$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$$$$$USERNAME$$$$$$

PROJECT	SHEET NO.	TOTAL SHEETS
2016CPT.13.12.10591, 2016CPT.13.12.20591 2016CPT.13.12.20592	7	

SIGNING FOR RESURFACING PROJECTS



LEGEND
- ⊢ STATIONARY SIGN
- ⬅ DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

① ②	ROAD WORK AHEAD W20-1 48" X 48" NEXT XX MILES W7-3aP 24" X 18"	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE. #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*	LOW/SOFT SHOULDER 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 ½ MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.
④	ROAD UNDER CONST 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	END ROAD WORK G20-2 A 48" X 24"	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.

-Y- LINE SIGNING

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.

ROAD WORK AHEAD W20-1 48" X 48" — PLACED 500' IN ADVANCE OF FLAGGER.

W20-7 A 48" X 48" — PLACED 250' IN ADVANCE OF FLAGGER.

* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

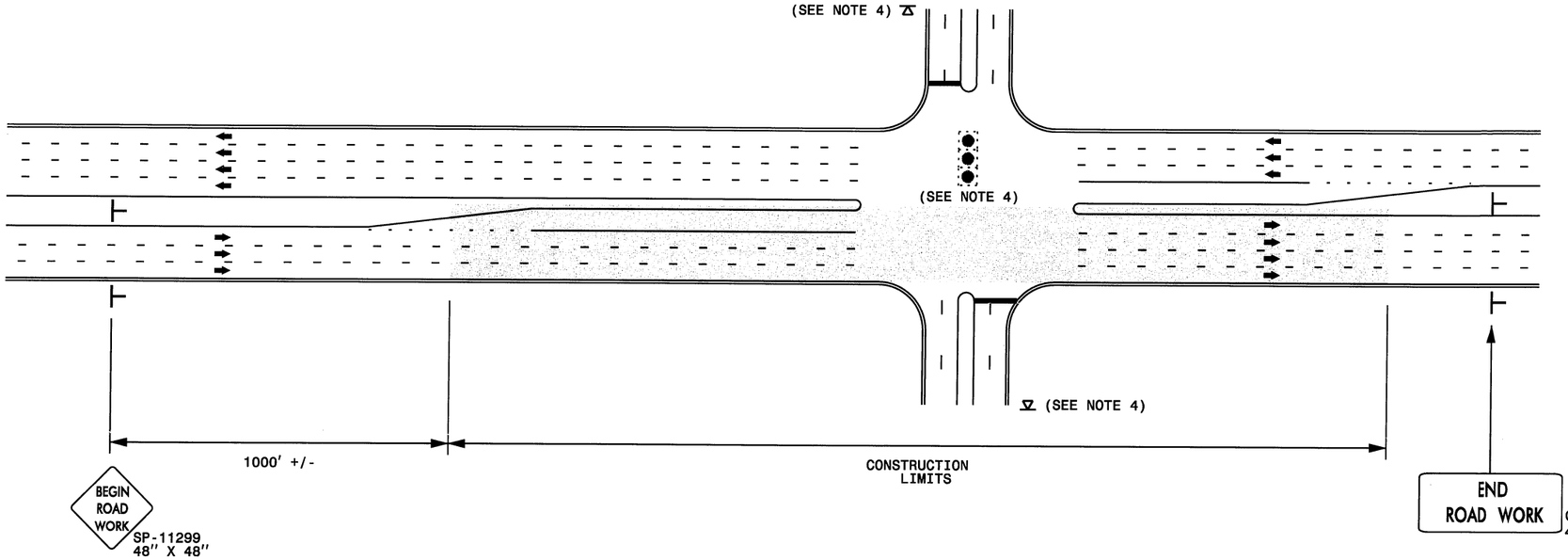
SUBSTITUTE LOW/SOFT SHOULDER SIGNS BY ALTERNATING THE FOLLOWING TWO SIGNS:
STARTING WITH "UNMARKED PAVEMENT AHEAD" (SP 06026) FOLLOWED BY "LOOSE GRAVEL" (W8-7).

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN 2 LANE ROADWAYS

PROJECT	SHEET NO.	TOTAL SHEETS
2016CPT.13.12.10591, 2016CPT.13.12.20591 2016CPT.13.12.20592	8	

URBAN / SUBURBAN WORKZONES



NOTES:

1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
3) ADVANCE WARNING SIGNS NOT REQUIRED ON NON-SIGNALIZED SIDE STREETS.
4) 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.
5) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 2' AS MEASURED FROM THE EDGE OF PAVEMENT OR THE FACE OF THE CURB. WHEN UNABLE TO OBTAIN THE LATERAL CLEARANCE WITHIN THE MEDIAN AREA USE SHOULDER MOUNTS ONLY.
6) SIGN MOUNT LOCATIONS SHALL NOT BLOCK SIDEWALKS OR DRIVEWAYS.
7) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
8) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER WHERE LATERAL CLEARANCE CAN BE OBTAINED WITHIN THE MEDIAN AREAS.THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

LEGEND

⊢ STATIONARY SIGN

➡ DIRECTION OF TRAFFIC FLOW

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

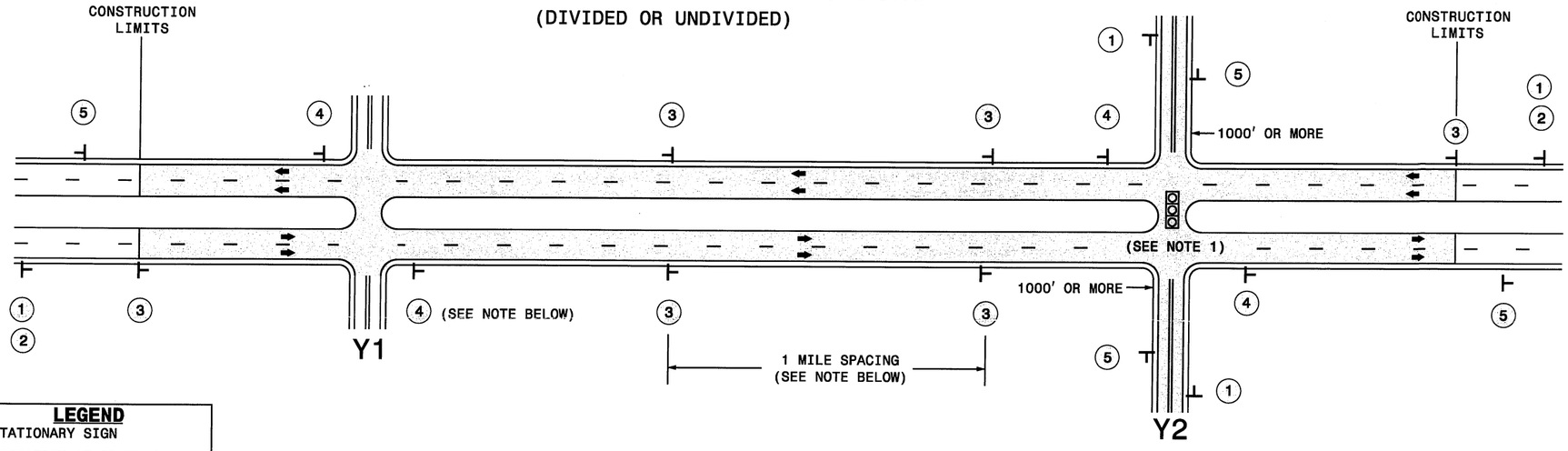
RESURFACING ADVANCE WARNING SIGNS FOR URBAN / SUBURBAN FACILITIES

2/24/2014
S:\TMU\WZTC\Resurfacing\2013Resurfacing\2013Documents\New_Procedures_05_09_2013\Resurfacing_AdvWarn_UrSu.dgn

PROJECT	SHEET NO.	TOTAL SHEETS
2016CPT.13.12.10591, 2016CPT.13.12.20591 2016CPT.13.12.20592	9	

SIGNING FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS WITH SHOULDER SECTIONS

(DIVIDED OR UNDIVIDED)



LEGEND

⊢ STATIONARY SIGN

⬅ DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

1 2	ROAD WORK AHEAD W20-1 48" X 48" NEXT XX MILES W7-3aP 24" X 18"	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE. #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	LOW/SOFT SHOULDER 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 ½ MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.
4	ROAD UNDER CONST 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	END ROAD WORK G20-2 A 48" X 24"	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.

-Y- LINE SIGNING

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.

ROAD WORK AHEAD W20-1 48" X 48" — PLACED 500' IN ADVANCE OF FLAGGER.

W20-7 A 48" X 48" — PLACED 250' IN ADVANCE OF FLAGGER.

NOTES:

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.

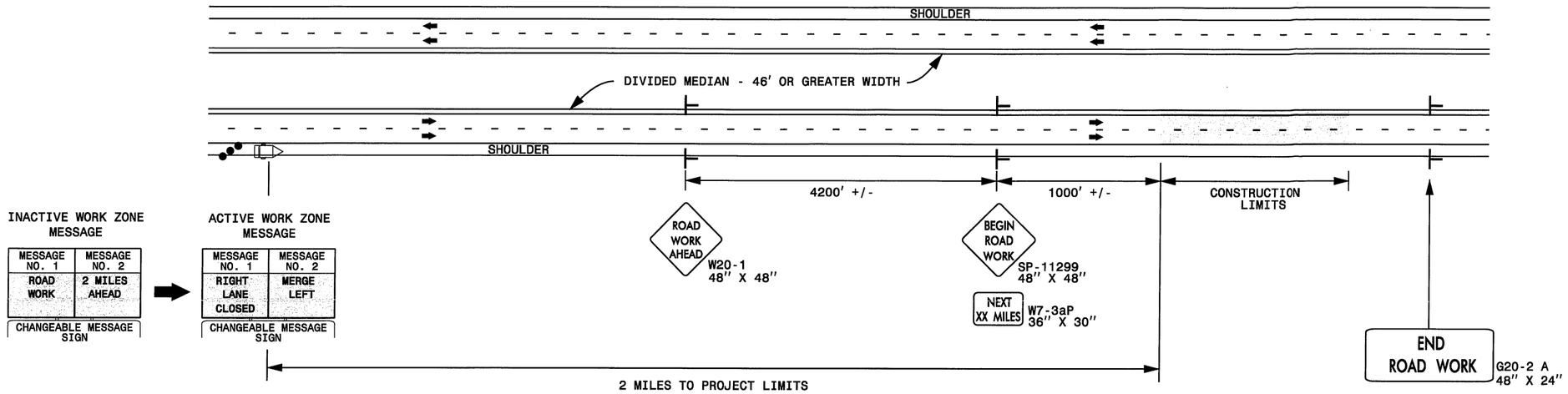
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING ADVANCE WARNING SIGNS FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS W/ SHOULDER SECTIONS (DIVIDED OR UNDIVIDED)

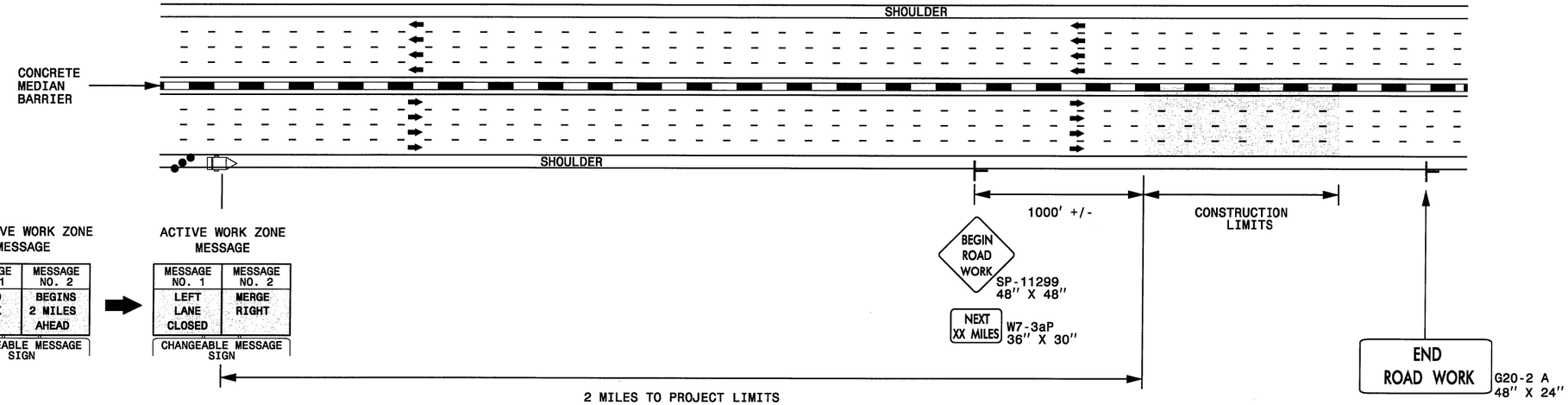
2/24/2014
S:\TMU\WZTC\Resurfacing\2013Resurfacing\2013Documents\New_Procedures_05_09_2013\Resurfacing_AdvWarn_UrSu_Shldr.dgn
User:rmgorrett

PROJECT	SHEET NO.	TOTAL SHEETS
2016CPT.13.12.10591, 2016CPT.13.12.20591 2016CPT.13.12.20592	10	

DIVIDED MEDIANS WITH WIDTHS 46′ OR GREATER



DIVIDED MEDIANS WITH WIDTHS LESS THAN 46′ OR WITH PERMANENT MEDIAN BARRIER



LEGEND

- CHANGEABLE MESSAGE SIGN (CMS)
- STATIONARY SIGN
- DIRECTION OF TRAFFIC FLOW
- TRAFFIC DRUM

NOTES:

1) LATERAL CLEARANCE AT ALL SIGN LOCATIONS SHALL BE 6′ AS MEASURED FROM THE EDGE OF PAVEMENT.
2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. FOLLOW MANUFACTURER'S RECOMMENDATIONS. THESE SYSTEMS SHALL BE NCHRP 350 COMPLIANT AND NCDOT APPROVED.
3) FOR MEDIAN WIDTHS LESS THAN 46′ (MEASURED EDGELINE TO EDGELINE) USE THE BOTTOM DRAWING.
4) IF STATIONARY GENERAL WARNING SIGNS ARE USED, THEY WILL BE PAID FOR PER SECTION 104 OF THE NCDOT STANDARD SPECIFICATIONS AS EXTRA WORK.
5) INSTALL "ROAD WORK AHEAD"(W20-1) ALONG ENTRANCE RAMPS 500′ PRIOR TO RAMP TERMINAL, AND "END ROAD WORK" (G20-2a) AT THE END OF EXIT RAMPS WITHIN THE WORK ZONE.
6) IF MILLED AREAS ARE NOT PAVED BACK BY THE END OF THE WORK DAY, PORTABLE SIGNS SHALL BE USED TO WARN DRIVERS OF THE PRESENT CONDITIONS. THESE ARE TO INCLUDE, BUT NOT LIMITED TO "ROUGH ROAD" W8-8, "UNEVEN LANES" W8-11, "GROOVED PAVEMENT" W8-15 w/MOTORCYCLE PLAQUE MOUNTED BELOW. THESE ARE TO BE DOUBLE INDICATED ON MULTI-LANE ROADWAYS WITH SPEED LIMITS 45 MPH AND GREATER AND WITH DIVIDED MEDIANS OF 46′ OR GREATER. THESE PORTABLE SIGNS ARE INCIDENTAL TO THE OTHER ITEMS OF WORK INCLUDED IN THE TEMPORARY TRAFFIC CONTROL (LUMP SUM) PAY ITEM.

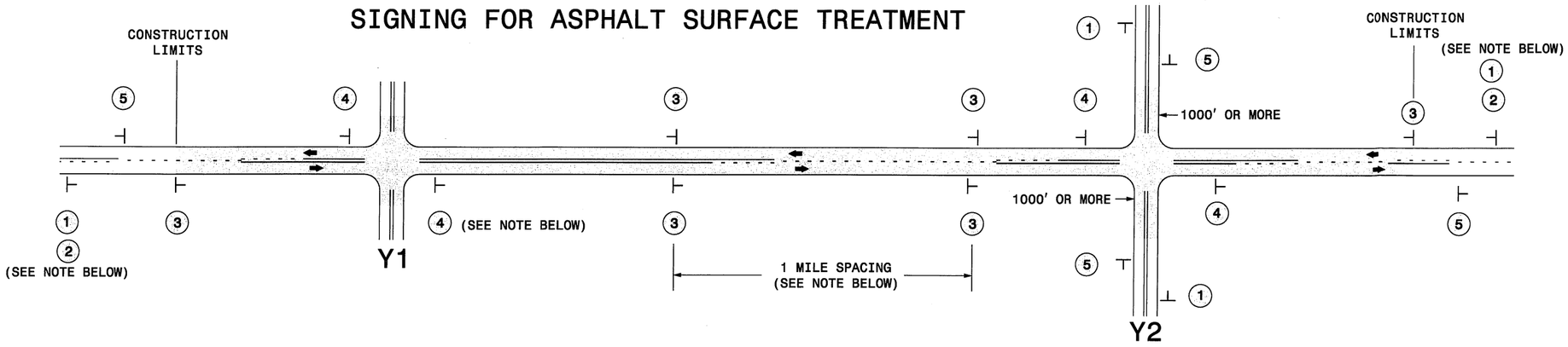
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

RESURFACING ADVANCE WARNING SIGNS FOR HIGH SPEED FACILITIES ≥ 60 MPH

10/3/2013
S:\TMU\WZTC\Resurfacing\2013Resurfacing\2013Documents\New_Procedures_05_09_2013\Resurfacing_AdvWarn_HSpd.dgn
User:rmgarrett

PROJECT	SHEET NO.	TOTAL SHEETS
2016CPT.13.12.10591, 2016CPT.13.12.20591 2016CPT.13.12.20592	11	

SIGNING FOR ASPHALT SURFACE TREATMENT



LEGEND
- ⊢ STATIONARY SIGN
- ⬅ DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION

(1) (2) — ROAD WORK AHEAD W20-1 48" X 48" / NEXT XX MILES W7-3aP 24" X 18"

PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS.
ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.

#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) — LOOSE GRAVEL W8-7 48" X 48" / UNMARKED PAVEMENT SP 48" X 48"

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. IF NO -Y- LINES EXIST, PLACE 2ND SET ½ MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.

(4) — ROAD UNDER CONST 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) — END ROAD WORK G20-2 A 48" X 24"

PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.

-Y- LINE SIGNING

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.

ROAD WORK AHEAD W20-1 48" X 48" — PLACED 500' IN ADVANCE OF FLAGGER.

W20-7 A 48" X 48" — PLACED 250' IN ADVANCE OF FLAGGER.

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

ADVANCE WARNING SIGNS FOR ASPHALT SURFACE TREATMENTS 2 LANE ROADWAYS

12/22/2014
SX:\TMJ\WZTC\Apps\WorkZoneGeneral\ExternalWebPage\DesRes\Documents\Resurfacing\Resurfacing-AdvWarn_2Ln - AST.dgn
User:rmgarrett

SIGN NUMBER: 11299
TYPE: B
QUANTITY: SEE PLANS

SIGN WIDTH: 5′-6″
HEIGHT: 5′-6″
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

BACKG COLOR: Fluorescent Orange
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT'L: 0.125″ (3.2 mm) ALUMINUM

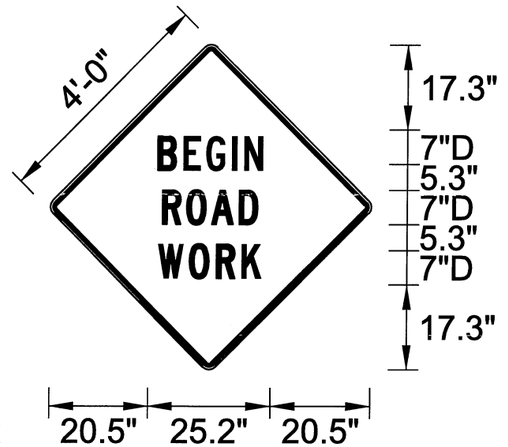
USE NOTES: 1,2

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

DESIGN BY: WJ
PROJECT ID: ALL
CHECKED BY:
DIV: ALL
DATE: Jun 22, 2011

SP 11299

PROJECT	SHEET NO.	TOTAL SHEETS
2016CPT.13.12.10591, 2016CPT.13.12.20591 2016CPT.13.12.20592	12	



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

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

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

FILENAME: SP11299.PDF

NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: SP13106
TYPE: STATIONARY
QUANTITY: SEE PLANS

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

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

NO. Z BARS:
LENGTH:

BACKG COLOR: Fluorescent Orange
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT'L: 0.080" (2.0 mm) ALUMINUM

USE NOTES: 1,2

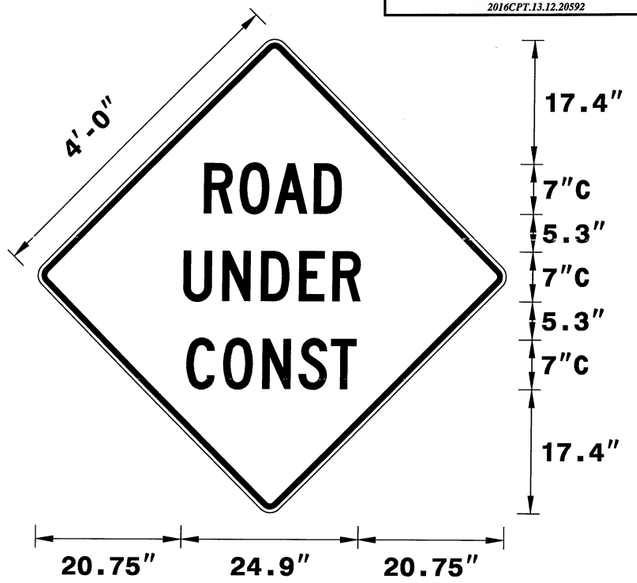
1. Legend and border shall be direct applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluoresent orange retroreflective sheeting.

DESIGN BY: B. RASHID
PROJECT ID:

CHECKED BY: AIA
DIV:

DATE: Apr 26, 2013

PROJECT	SHEET NO.	TOTAL SHEETS
2016CPT.13.12.10591, 2016CPT.13.12.20591 2016CPT.13.12.20592	13	



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

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

FILENAME: SP13OXX_Sgn_SGN_special

NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: SP13107
TYPE: STATIONARY
QUANTITY: SEE PLANS

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

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

NO. Z BARS:
LENGTH:

BACKG COLOR: Fluorescent Orange
COPY COLOR: Black

SYMBOL	X	Y	WID	HT

MAT'L: 0.080" (2.0 mm) ALUMINUM

USE NOTES: 1,2

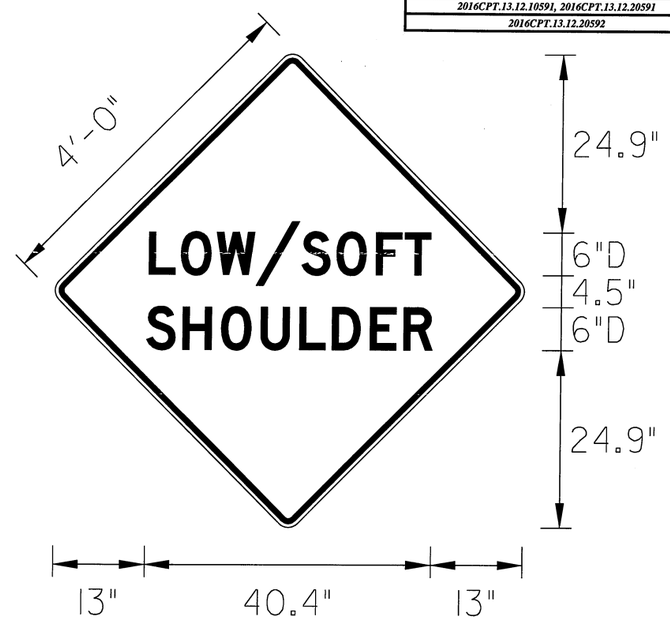
1. Legend and border shall be direct applied black non-reflective sheeting.
2. Background shall be NC GRADE B fluoresent orange retroreflective sheeting.

DESIGN BY: B. RASHID
PROJECT ID:

CHECKED BY: AIA
DIV:

DATE: Apr 26, 2013

PROJECT	SHEET NO.	TOTAL SHEETS
2016CPT.13.12.10591, 2016CPT.13.12.20591 2016CPT.13.12.20592	14	



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

																											Series/Size Text Length
		L	O	W	/	S	O	F	T																		D 2000
	13.2	4.5	5	5.5	6.5	5	5.6	4.1	3.7	13.2																	39.9
		S	H	O	U	L	D	E	R																		D 2000
	13	5.1	5.4	5.6	5.5	4.6	5.4	4.7	4.1	13																	40.4

FILENAME: SP13OXX_Sgn_SGN_special

NORTH CAROLINA D.O.T. SIGN DETAIL

PROJECT NO.	SHEET NO.	TOTAL NO.
2016CPT.13.12.10591, 2016CPT.13.12.20591, 2016CPT.13.12.20592	15	

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	SHOULDER RECONSTRUCTION SMI	INCIDENTAL MILLING SY	ASPHALT CONC SURFACE COURSE, TYPE S9.5B TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A TON	ASPHALT CONC SURFACE COURSE, TYPE S4.75A TON	ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT TON	ASPHALT SURFACE TREATMENT, DOUBLE SEAL SY	EMULSION FOR ASPHALT SURFACE TREATMENT GAL
2016CPT.13.12.10591	McDowell	1	US 64	FROM RUTHERFORD/MCDOWELL COUNTY LINE FOR 1.75 MILES (MP 0.00 - MP 1.75)	1	2	2WU	NO	NO	1.75	24	88	3.50	535	2,344			141	140		
TOTAL FOR PROJ NO. 2016CPT.13.12.10591										**1.75**		**88**	**3.50**	**535**	**2,344**			**141**	**140**		
2016CPT.13.12.20591	McDowell	2	SR 1588	FROM SR 1536 TO DEAD END (MP 0.00 - MP 1.17)	2	2	2WU	NO	NO	1.17	18					751		50	185		
		3	SR 1505	FROM US 70 TO EOM (MP 0.00 - MP 0.16)	2	2	2WU	NO	NO	0.16	22					125		8	125		
		4	SR 1821	FROM SR 1747 TO DEAD END (MP 0.00 - MP 0.21)	2	2	2WU	NO	NO	0.21	18					135		9	115		
		5	SR 1808	FROM US 70 TO DEAD END (MP 0.00 - MP 0.10)	2	2	2WU	NO	NO	0.1	16					57		4	15		
		6	SR 1580	FROM US 70 TO DEAD END (MP 0.00 - MP 0.15)	2	2	2WU	NO	NO	0.15	20					107		7	25		
		7	SR 1798	FROM SR 1800 TO NC 226 (MP 1.60 - MP 3.86)	3	2	2WU	NO	NO	2.26	20								325	26,517	14,585
		8	SR 1147	FROM SR 1351 TO DEAD END (MP 1.89 - MP 5.21)	3	2	2WU	NO	NO	3.32	18								480	35,059	19,285
		9	SR 1163	FROM SR 1145 TO SR 1001 (MP 0.00 - MP 1.36)	3	2	2WU	NO	NO	1.36	20								250	15,957	8,780
TOTAL FOR PROJ NO. 2016CPT.13.12.20591										**8.73**						**1,175**		**78**	**1,520**	**77,533**	**42,650**
2016CPT.13.12.20592	McDowell	10	SR 1610	FROM SR 1593 TO SPRINGDALE DRIVE (MP 0.00 - MP 0.11)	4	2	2WU	NO	NO	0.11	16						57	4	20		
		11	SR 1585	FROM SR 1544 TO DEAD END (MP 0.00 - MP 0.16)	4	2	2WU	NO	NO	0.16	18						93	7	10		
		12	SR 1544	FROM NC 126 TO SR 1536 (MP 0.00 - MP 0.84)	4	2	2WU	NO	NO	0.84	18						490	34	130		
		13	SR 1286	FROM SR 1153 TO DEAD END (MP 0.00 - MP 0.98)	4	2	2WU	NO	NO	0.98	18						572	40	40		
		14	SR 1154	FROM SR 1153 TO DEAD END (MP 0.00 - MP 1.13)	3	2	2WU	NO	NO	1.13	18								100	11,933	6,565
		15	SR 1243	FROM SR 1244 TO DEAD END (MP 0.00 - MP 0.86)	3	2	2WU	NO	NO	0.86	18									9,082	4,995
		16	SR 1244	FROM SR 1137 TO EOM (MP 0.00 - MP 0.60)	3	2	2WU	NO	NO	0.6	18									6,336	3,485
		17	SR 1283	FROM SR 1137 TO EOM (MP 0.00 - MP 0.25)	3	2	2WU	NO	NO	0.25	18									2,640	1,455
		18	SR 1292	FROM SR 1351 TO EOM (MP 0.00 - MP 0.35)	3	2	2WU	NO	NO	0.35	18								30	3,696	2,035
		19	SR 1795	FROM SR 1786 TO EOM (MP 0.00 - MP 0.31)	3	2	2WU	NO	NO	0.31	18								40	3,274	1,805
TOTAL FOR PROJ NO. 2016CPT.13.12.20592										**5.59**							**1,212**	**85**	**370**	**36,961**	**20,340**
GRAND TOTAL										**16.07**		**88**	**3.50**	**535**	**2,344**	**1,175**	**1,212**	**304**	**2,030**	**114,494**	**62,990**

PROJECT NO.	SHEET NO.	TOTAL NO.
2016CPT.13.12.10591, 2016CPT.13.12.20591 2016CPT.13.12.20592	16	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E WORK ZONE ADVANCE/GENERAL WARNING SIGNING SF	4457000000-N TEMPORARY TRAFFIC CONTROL LS	4810000000-E PAINT PAVEMENT MARKING LINES (4") YELLOW LF	4810000000-E PAINT PAVEMENT MARKING LINES (4") WHITE LF	4847000000-E POLYUREA PAVEMENT MARKING LINES (4") WHITE (HIGHLY REFLECTIVE ELEMENTS) LF	4847000000-E POLYUREA PAVEMENT MARKING LINES (4") YELLOW (HIGHLY REFLECTIVE ELEMENTS) LF	4905000000-N SNOWPLOWABLE PAVEMENT MARKERS EA
2016CPT.13.12.10591	McDowell	1	US 64	FROM RUTHERFORD/MCDOWELL COUNTY LINE FOR 1.75 MILES (MP 0.00 - MP 1.75)	1	2	2WU	1.75	24	196	*			18,480	18,480	132
TOTAL FOR PROJ NO. 2016CPT.13.12.10591								**1.75**		**196**	**1**			**18,480**	**18,480**	**132**
														36,960		
2016CPT.13.12.20591	McDowell	2	SR 1588	FROM SR 1536 TO DEAD END (MP 0.00 - MP 1.17)	2	2	2WU	1.17	18	982	*			12,355	12,355	
		3	SR 1505	FROM US 70 TO EOM (MP 0.00 - MP 0.16)	2	2	2WU	0.16	22						1,690	
		4	SR 1821	FROM SR 1747 TO DEAD END (MP 0.00 - MP 0.21)	2	2	2WU	0.21	18							
		5	SR 1808	FROM US 70 TO DEAD END (MP 0.00 - MP 0.10)	2	2	2WU	0.1	16							
		6	SR 1580	FROM US 70 TO DEAD END (MP 0.00 - MP 0.15)	2	2	2WU	0.15	20							
		7	SR 1798	FROM SR 1800 TO NC 226 (MP 1.60 - MP 3.86)	3	2	2WU	2.26	20			47,731	47,731			
		8	SR 1147	FROM SR 1351 TO DEAD END (MP 1.89 - MP 5.21)	3	2	2WU	3.32	18			70,118	70,118			
		9	SR 1163	FROM SR 1145 TO SR 1001 (MP 0.00 - MP 1.36)	3	2	2WU	1.36	20			28,723	28,723			
TOTAL FOR PROJ NO. 2016CPT.13.12.20591								**8.73**		**982**	**1**	**146,572**	**146,572**	**12,355**	**14,045**	
												293,144		**26,400**		
2016CPT.13.12.20592	McDowell	10	SR 1610	FROM SR 1593 TO SPRINGDALE DRIVE (MP 0.00 - MP 0.11)	4	2	2WU	0.11	16	628	*					
		11	SR 1585	FROM SR 1544 TO DEAD END (MP 0.00 - MP 0.16)	4	2	2WU	0.16	18							
		12	SR 1544	FROM NC 126 TO SR 1536 (MP 0.00 - MP 0.84)	4	2	2WU	0.84	18					8,870	8,870	
		13	SR 1286	FROM SR 1153 TO DEAD END (MP 0.00 - MP 0.98)	4	2	2WU	0.98	18					10,349	10,349	
		14	SR 1154	FROM SR 1153 TO DEAD END (MP 0.00 - MP 1.13)	3	2	2WU	1.13	18			23,866	23,866			
		15	SR 1243	FROM SR 1244 TO DEAD END (MP 0.00 - MP 0.86)	3	2	2WU	0.86	18							
		16	SR 1244	FROM SR 1137 TO EOM (MP 0.00 - MP 0.60)	3	2	2WU	0.6	18							
		17	SR 1283	FROM SR 1137 TO EOM (MP 0.00 - MP 0.25)	3	2	2WU	0.25	18							
		18	SR 1292	FROM SR 1351 TO EOM (MP 0.00 - MP 0.35)	3	2	2WU	0.35	18							
		19	SR 1795	FROM SR 1786 TO EOM (MP 0.00 - MP 0.31)	3	2	2WU	0.31	18							
TOTAL FOR PROJ NO. 2016CPT.13.12.20592								**5.59**		**628**	**1**	**23,866**	**23,866**	**19,219**	**19,219**	
												47,732		**38,438**		
GRAND TOTAL								**16.07**		**1,806**	**1**	**170,438**	**170,438**	**50,054**	**51,744**	**132**
												340,876		**101,798**		