

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION 6

PLANS
May 17, 2017

CONTRACT ID: DF00162

WBS ELEMENT NO.: 2017CPT.06.13.10241.1 & 2017CPT.06.13.20241.1

FEDERAL AID NO.: STATE FUNDED

COUNTY: COLUMBUS

TIP NO.: -----

LENGTH OF PROJECT: 12.50 MILES

ROUTE NO.: NC 11 & VARIOUS SR

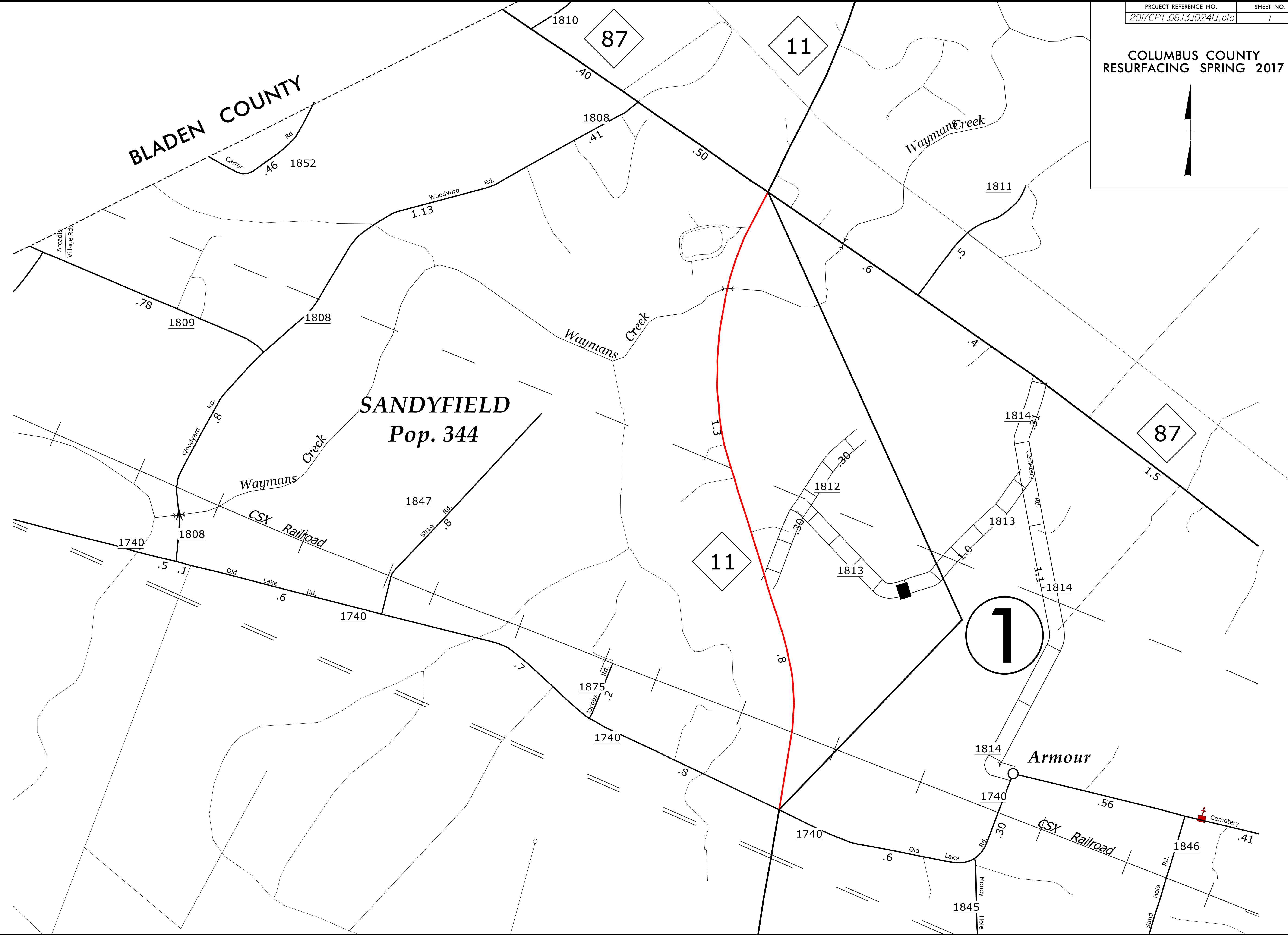
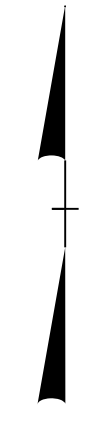
TYPE OF WORK: RESURFACING, MILL & FILL, PROFILE MILLING & PVT. MKGS.

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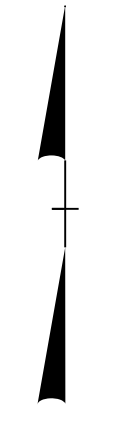
**COLUMBUS COUNTY
RESURFACING SPRING 2017**



REVISIONS

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 Author: A11613131562

**COLUMBUS COUNTY
RESURFACING SPRING 2017**

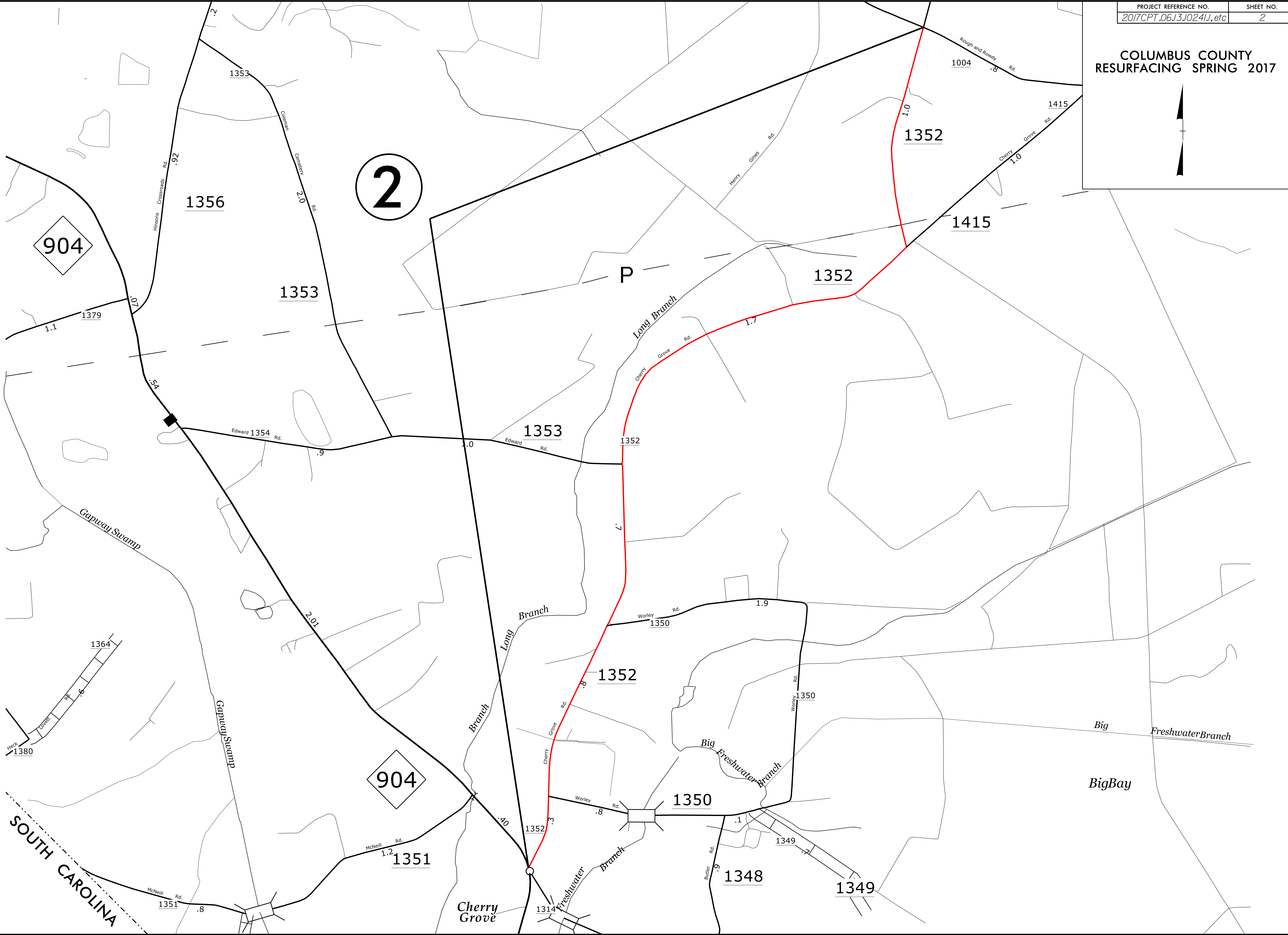


2

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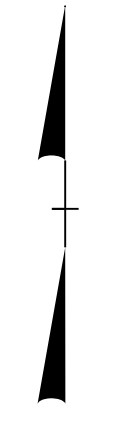
SOUTH CAROLINA



REVISIONS

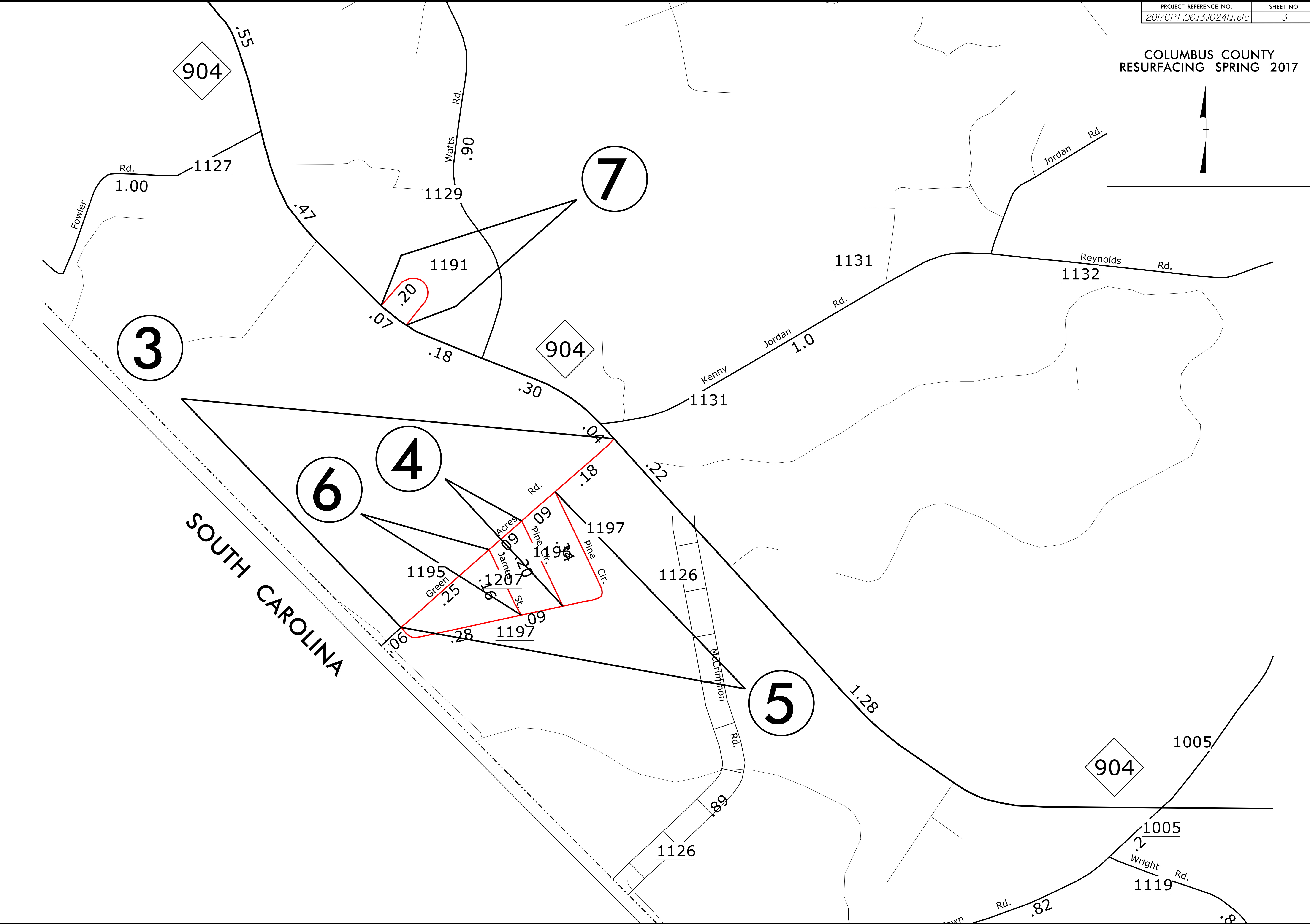
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COLUMBUS COUNTY
RESURFACING SPRING 2017

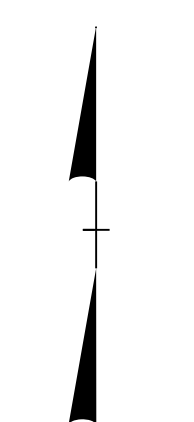


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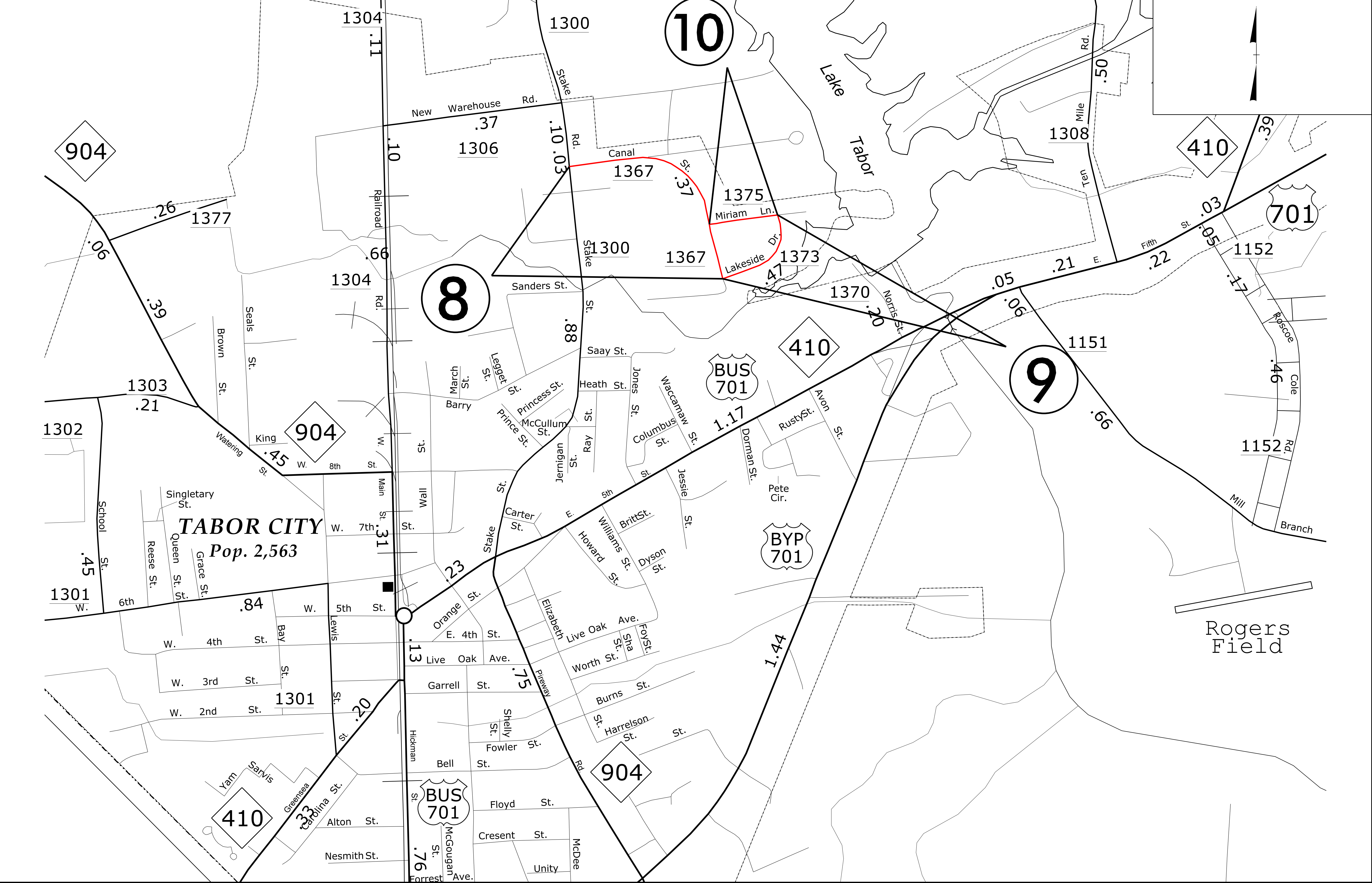
COLUMBUS COUNTY RESURFACING SPRING 2017



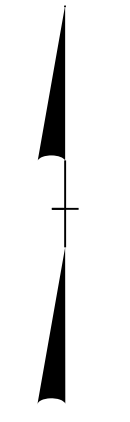
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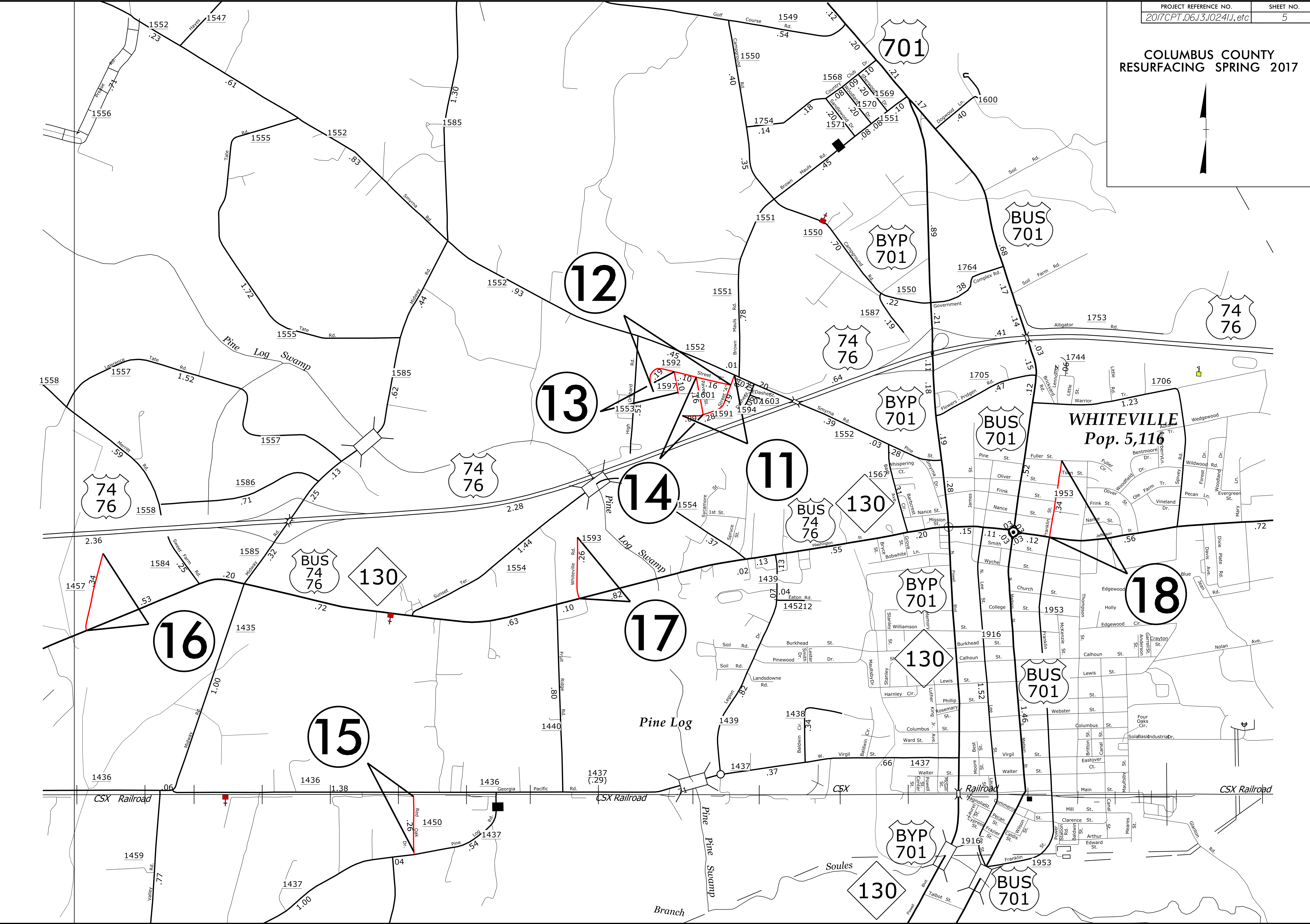


COLUMBUS COUNTY RESURFACING SPRING 2017



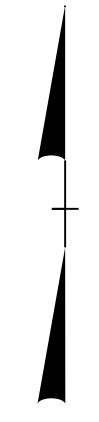
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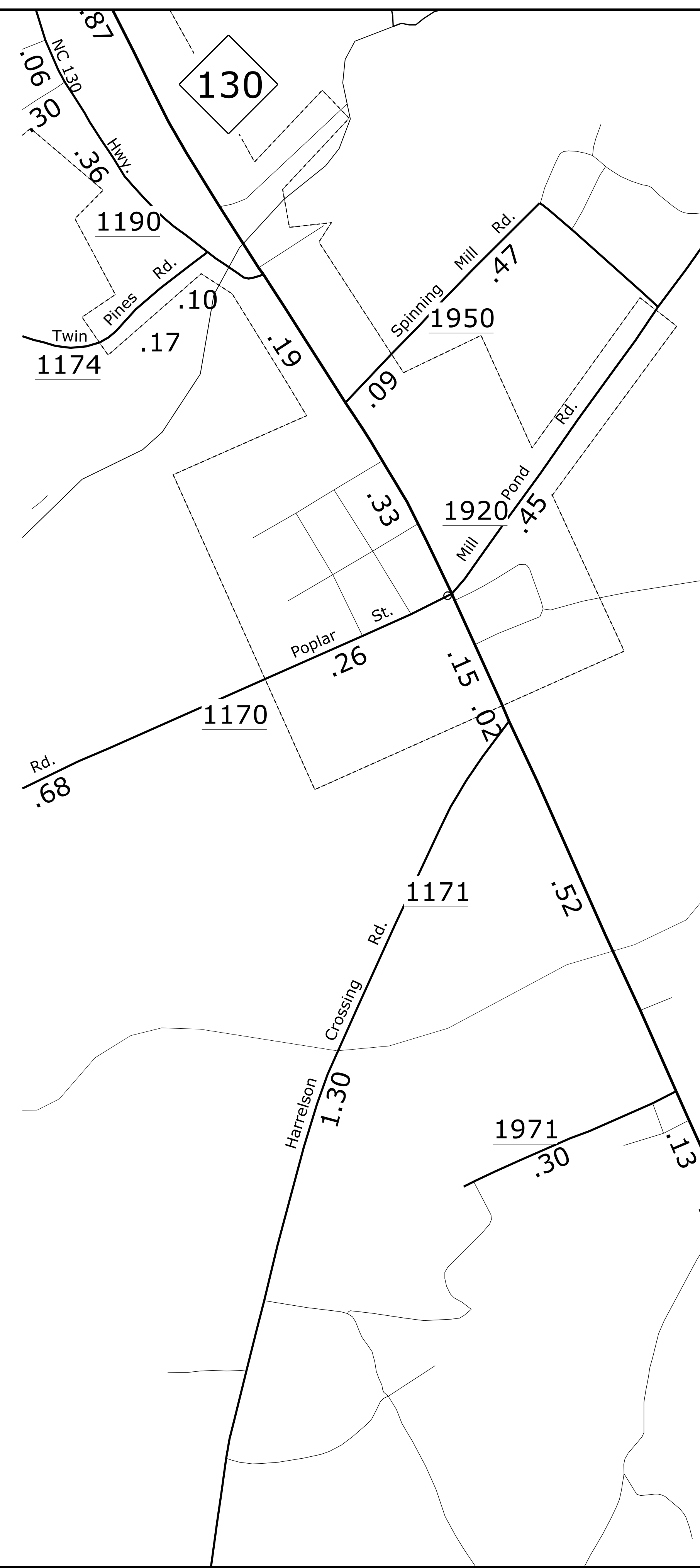
Map labels include road names (e.g., Tate Rd, Smyrna Rd, Pine Log Swamp, Pine Log Branch, CSX Railroad), mileposts (e.g., 1552, 1555, 1585, 1551, 1552, 1553, 1554, 1436, 1437, 1450, 1437), and various road shields (74 76, BUS 74 76, BYP 701, BUS 701, 130, 11, 12, 13, 14, 15, 16, 17, 18). Landmarks include Whiteville (Pop. 5,116) and Pine Log. Specific project areas are highlighted with red lines and circled numbers 11 through 18.

COLUMBUS COUNTY
RESURFACING SPRING 2017



BRUNSWICK
Pop. 1,057

White Marsh



20

19

130

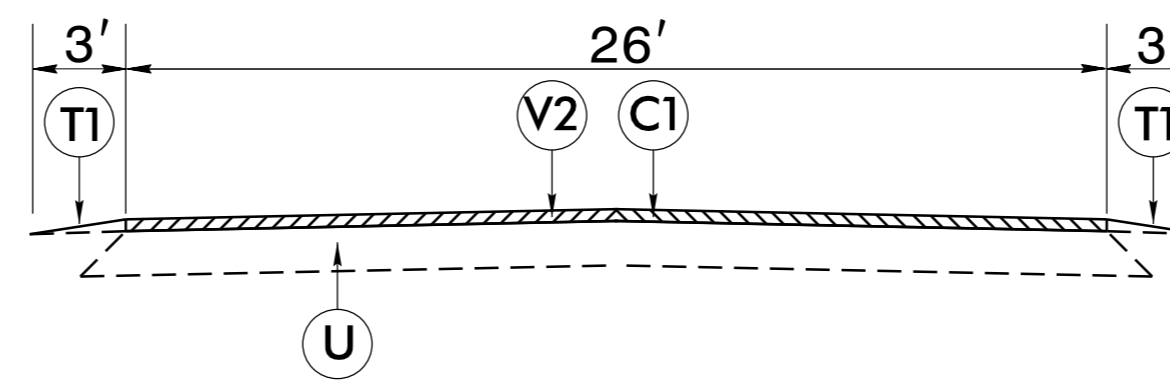
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REVISIONS

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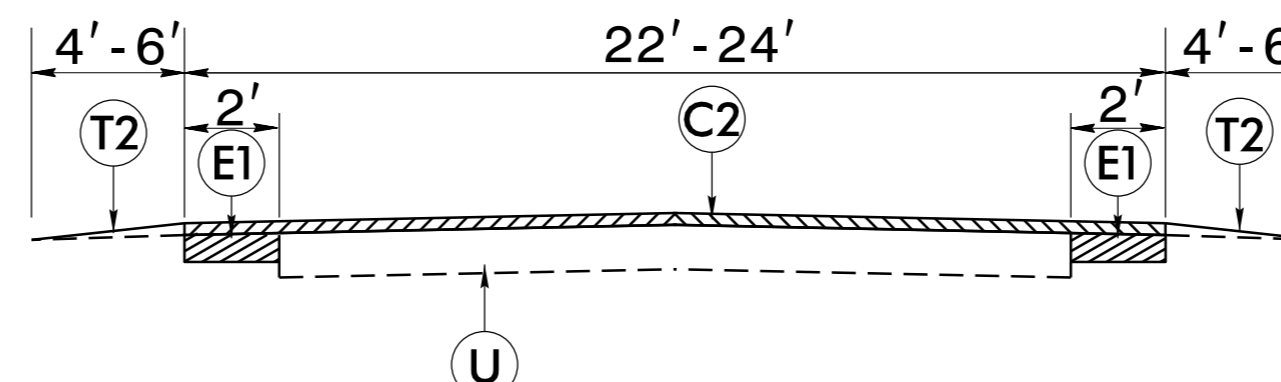
PAVEMENT SCHEDULE

C1	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C3	1" ASPHALT CONCRETE SURFACE COURSE, TYPE SA-1, AT AN AVERAGE RATE OF 100 LBS. PER SQ. YD.
D1	2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
E1	5½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
R1	EXISTING CURB AND GUTTER
T1	SHOULDER RECONSTRUCTION WITH AGGREGATE SHOULDER BORROW
T2	SHOULDER RECONSTRUCTION WITH SEEDING AND MULCHING
U	EXISTING PAVEMENT
V1	0" - 1½" MILLING
V2	¾" MILLING (PROFILE MILLING)
V3	1½" MILLING
V4	2½" MILLING



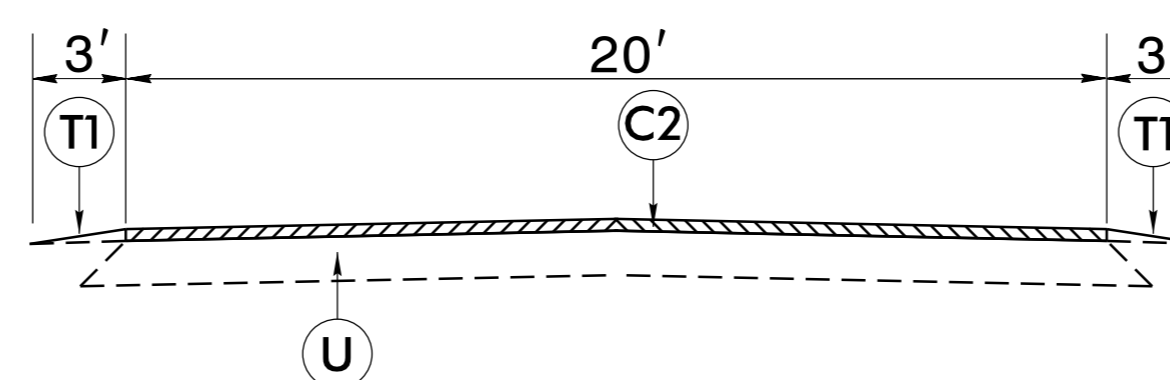
TYPICAL SECTION NO. 1

*PLUS MILL AND FILL REPAIR (SEE DETAIL)

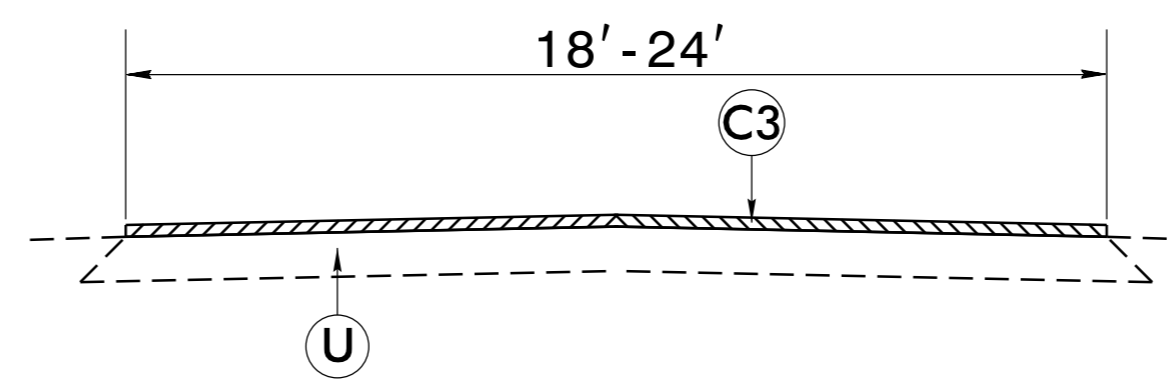


TYPICAL SECTION NO. 2

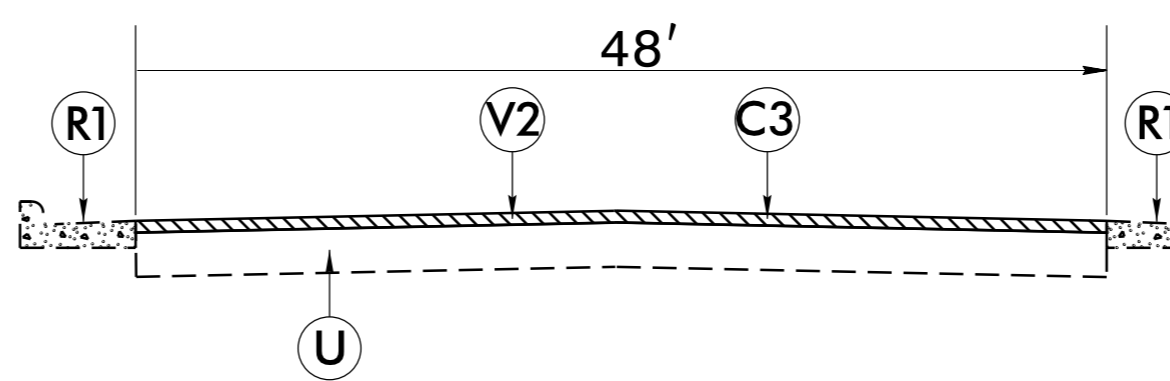
*PLUS ADDITIONAL 2' INSIDE CURVE WIDENING (SEE DETAIL)



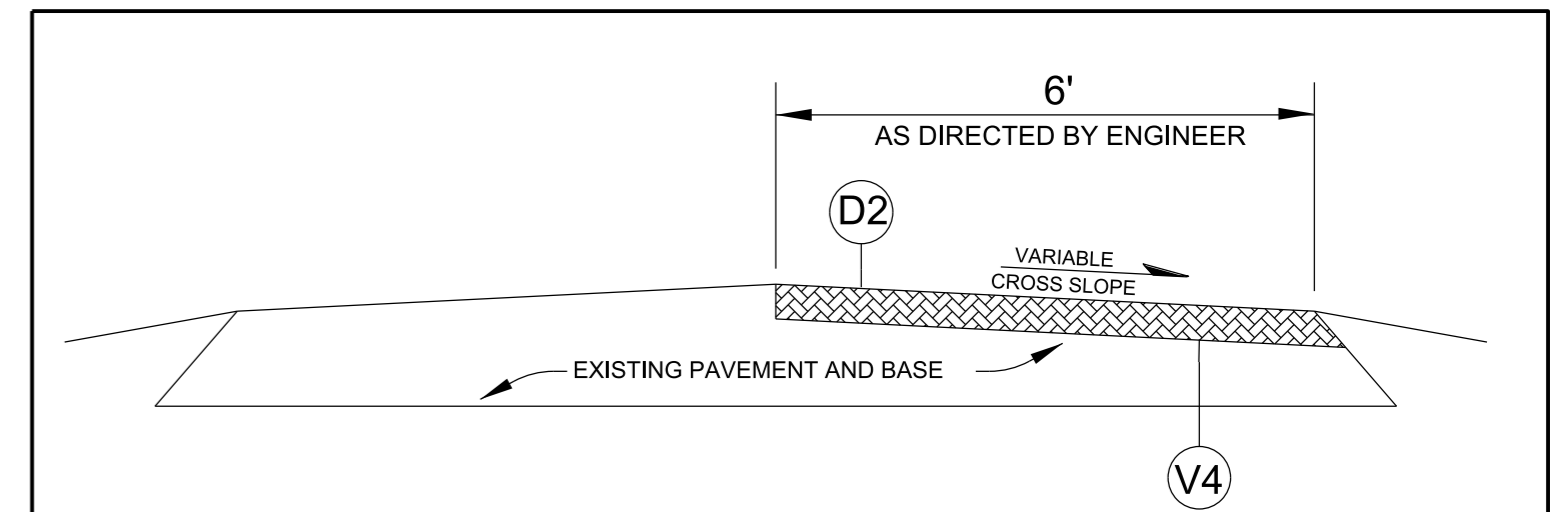
TYPICAL SECTION NO. 3



TYPICAL SECTION NO. 4

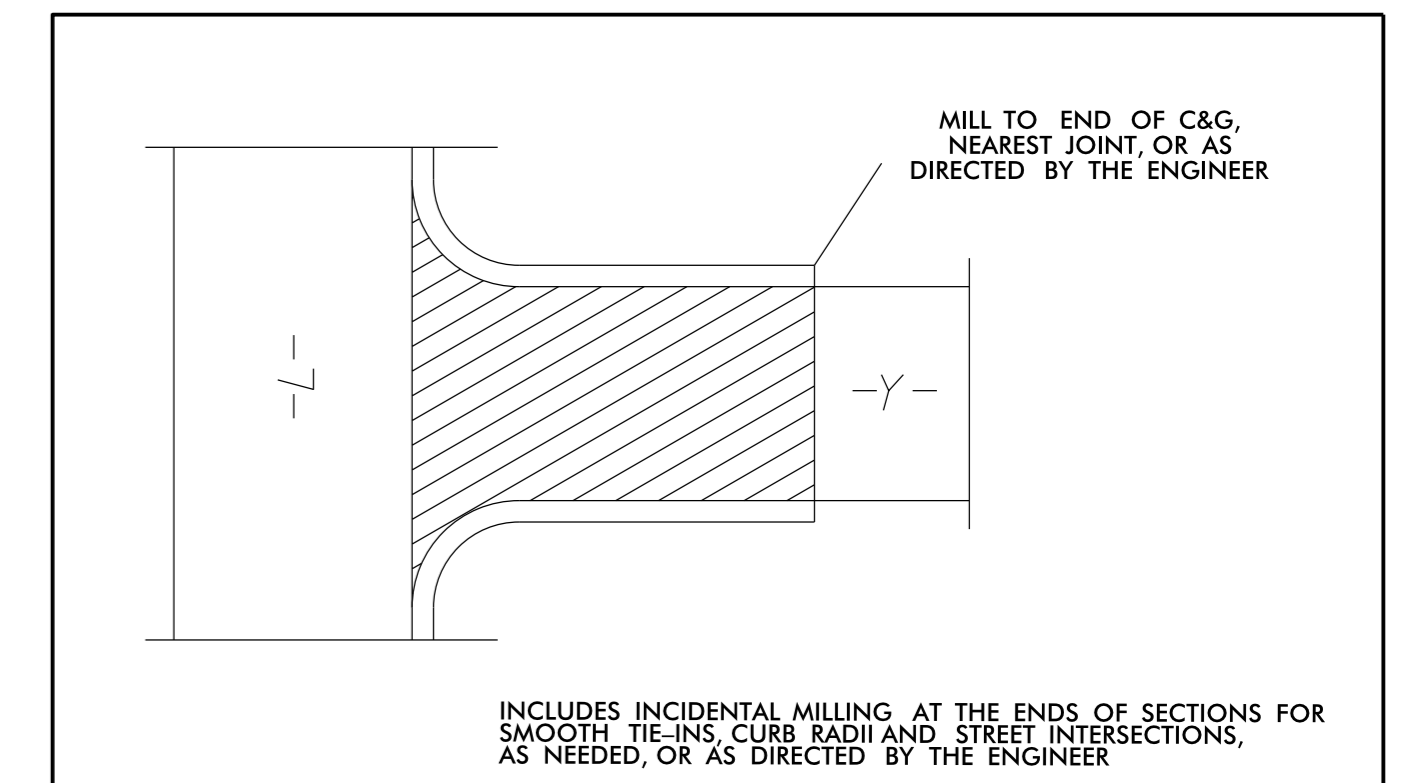


TYPICAL SECTION NO. 5



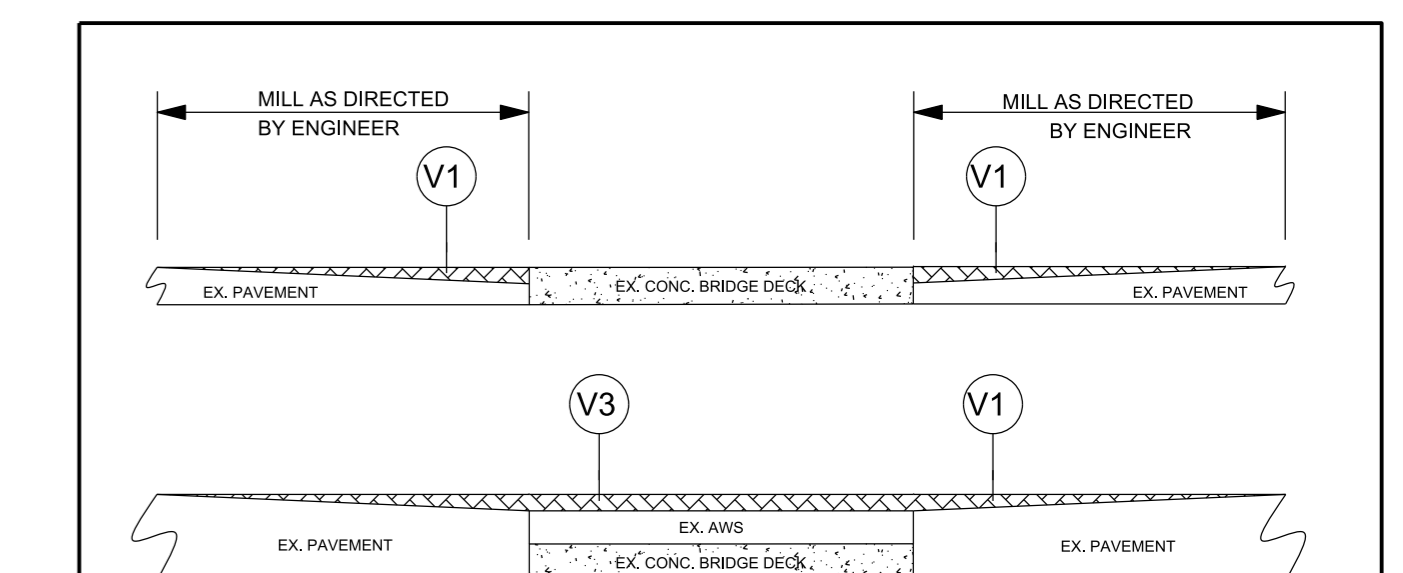
MILL & FILL PAVEMENT REPAIR

- NOTES:
1. DISTRESSED AREAS TO BE REPAIRED BY MILL & FILL SHALL BE DESIGNATED BY THE ENGINEER.
 2. FILL MILLED AREAS WITH ASPHALT INTERMEDIATE COURSE BACK FLUSH WITH THE EXISTING ASPHALT LEFT IN PLACE, PRIOR TO PLACEMENT OF PROPOSED ASPHALT SURFACE COURSE.

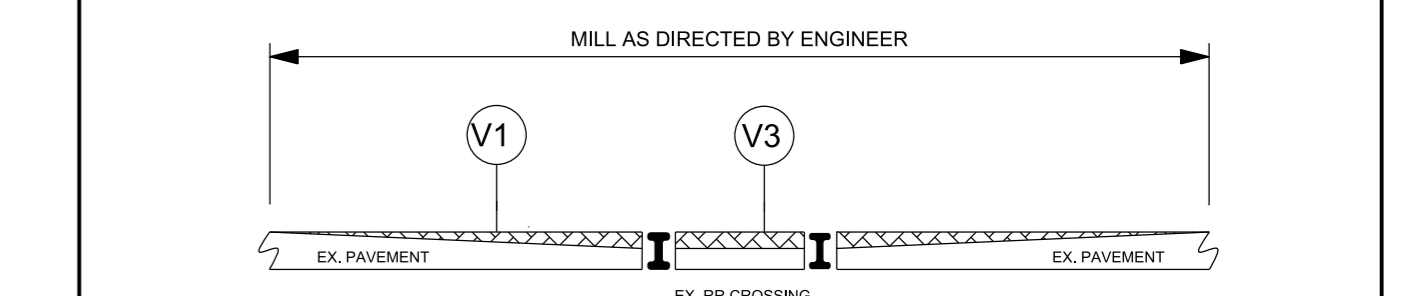


MILLING AT CURB AND GUTTER INTERSECTIONS

INCLUDES INCIDENTAL MILLING AT THE ENDS OF SECTIONS FOR SMOOTH TIE-INS, CURB RADII AND STREET INTERSECTIONS, AS NEEDED, OR AS DIRECTED BY THE ENGINEER



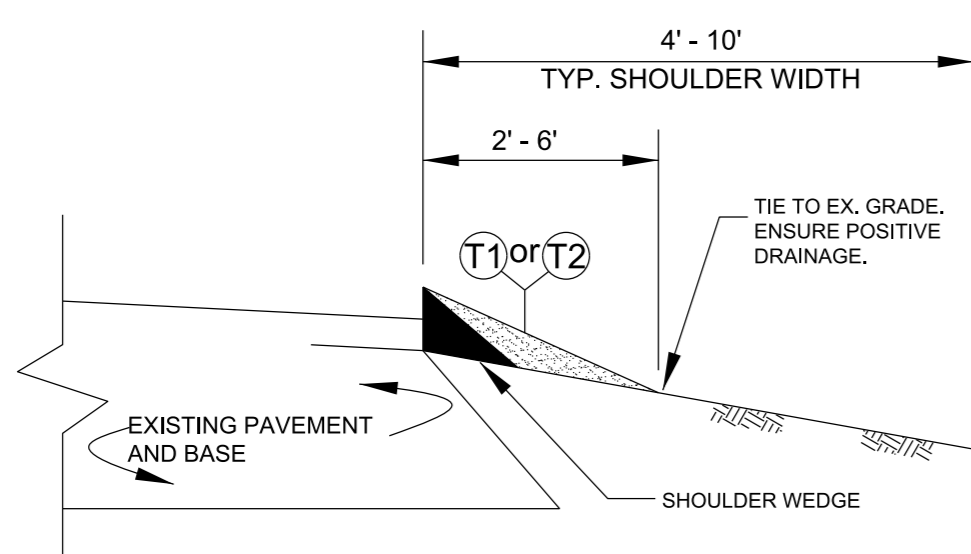
BRIDGE MILLING



RAILROAD TRACKS MILLING

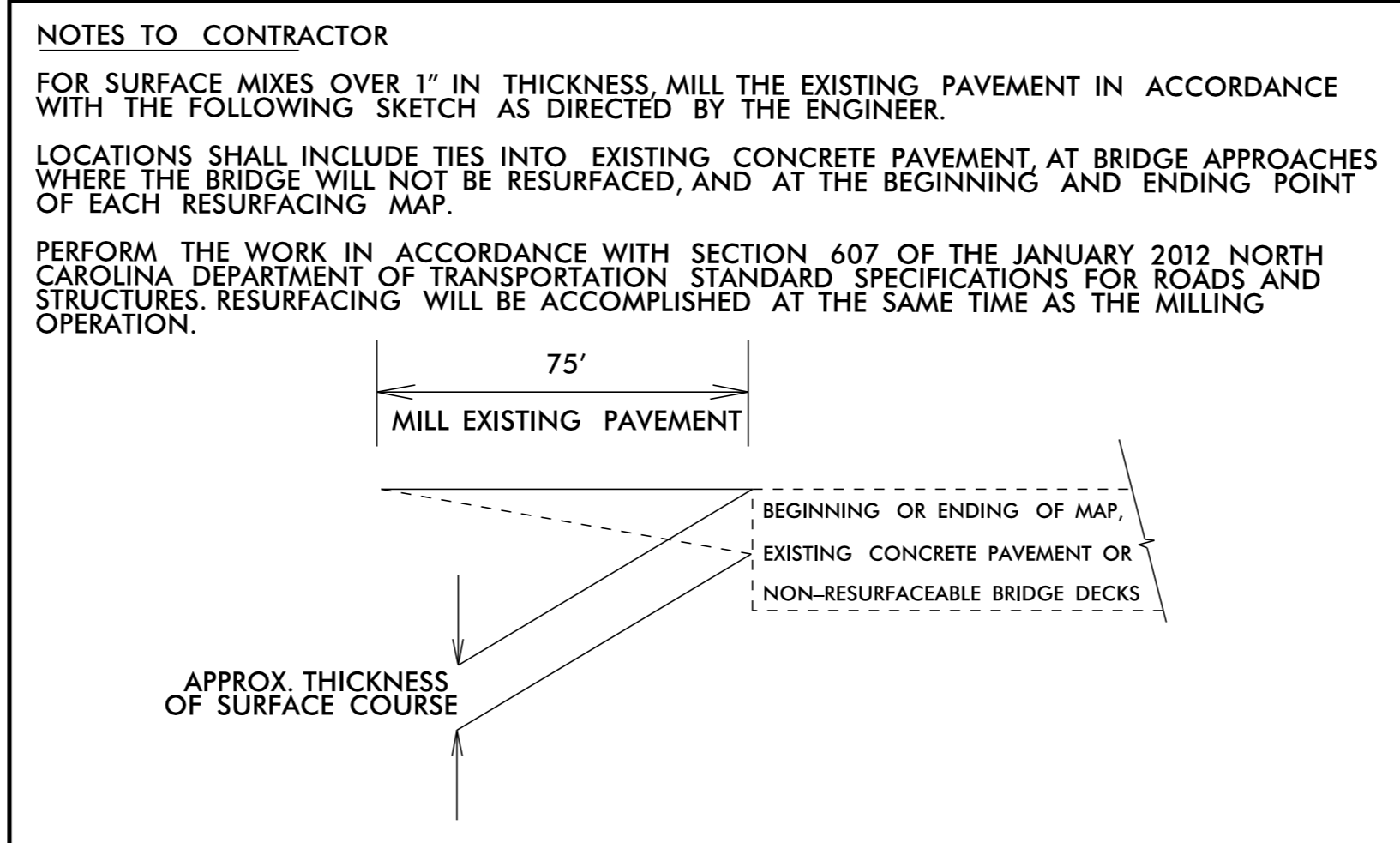
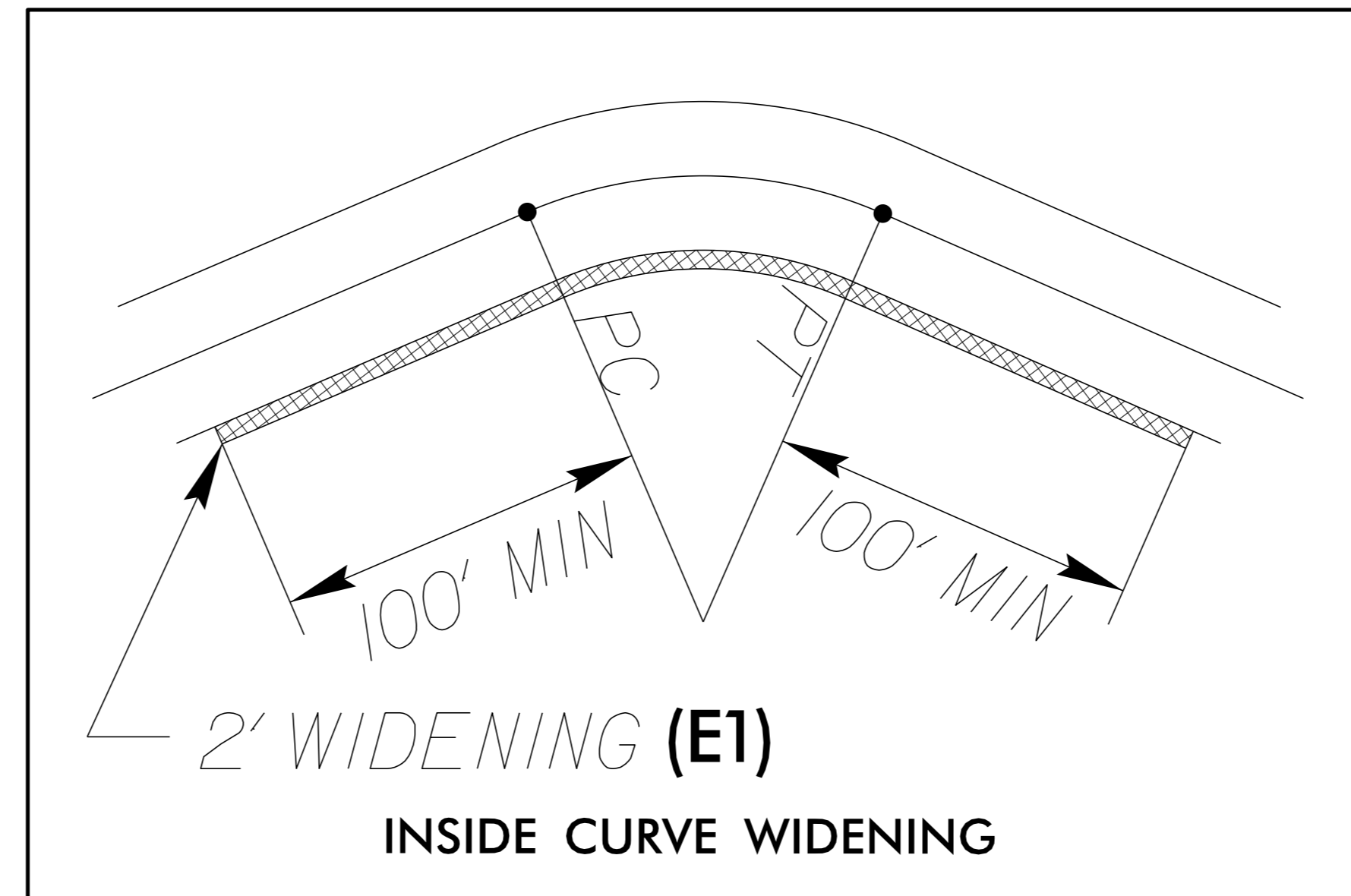
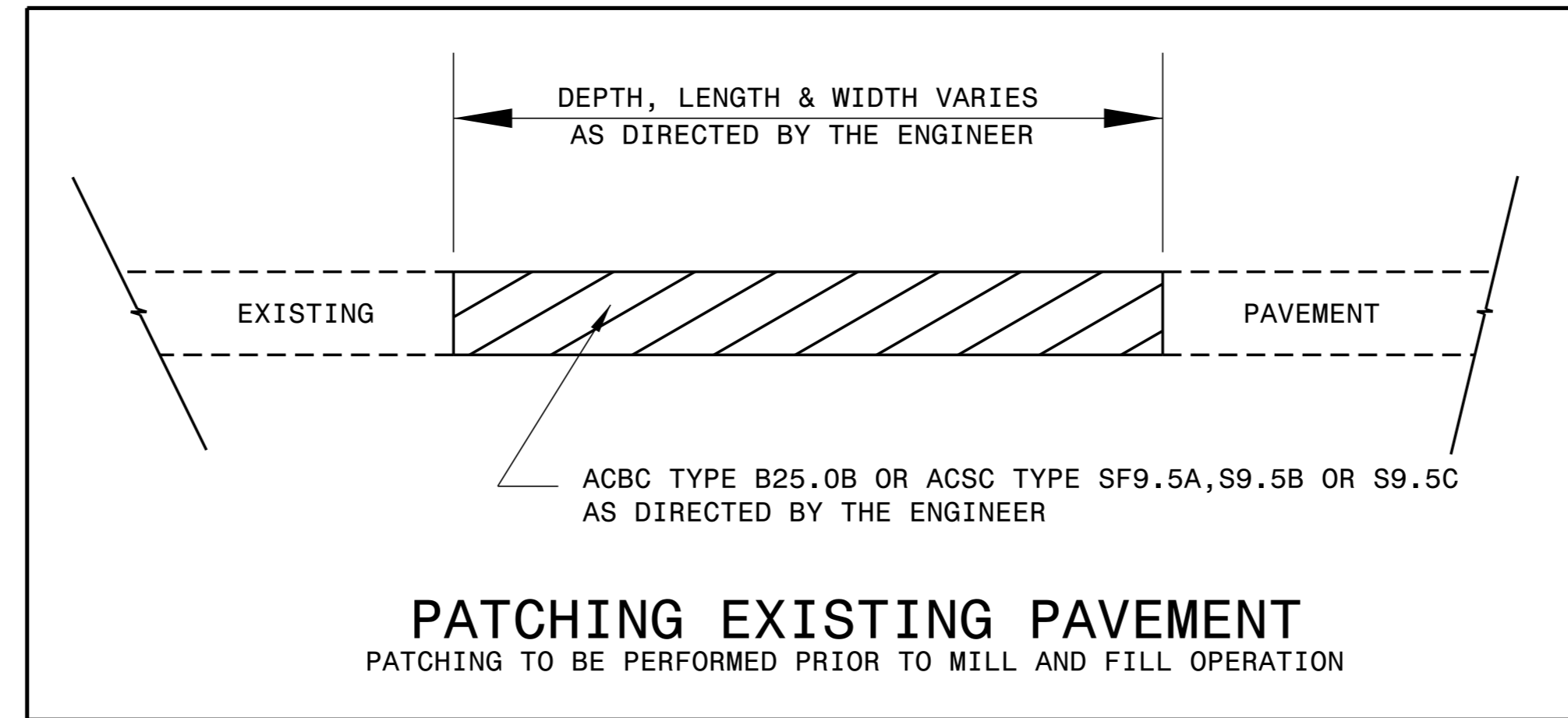
MILLING APPROACHES

NOTE: MILLING SHALL BE PERFORMED AT RR CROSSINGS, BRIDGE DECKS AND BRIDGE APPROACHES AS DIRECTED BY THE ENGINEER, IN ACCORDANCE WITH THIS DETAIL.



SHOULDER RECONSTRUCTION

- NOTES:
1. SHOULDER SHALL BE RECONSTRUCTED AS SHOWN IN STD. DWG. NO. 560.01 & 560.02, WITH A MINIMUM SLOPE OF 1" PER FOOT TO ENSURE POSITIVE DRAINAGE AWAY FROM ROADWAY.
 2. AGGREGATE SHOULDER BORROW (ASB) MATERIAL SHALL BE PLACED USING A WIDENING MACHINE OR SIMILAR DEVICE. (WHERE APPLICABLE)
 3. A VEGETATIVE BUFFER SHALL BE MAINTAINED BETWEEN THE DISTURBED AREA ALONG THE EDGE OF PAVEMENT AND THE DITCH SHOULDER POINT TO MINIMIZE EROSION. PULLING DITCHES OR CUTTING SHOULDERS TO GENERATE BORROW MATERIAL WILL NOT BE ALLOWED.
 4. REQUIRED BORROW MATERIAL MAY BE OBTAINED BY THE CONTRACTOR FROM WIDENING OPERATIONS WITHIN THE PROJECT LIMITS, FROM NCDOT APPROVED BORROW PITS OR FROM NCDOT STOCKPILES. ANY EXCESS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR IN AN APPROVED DISPOSAL SITE.

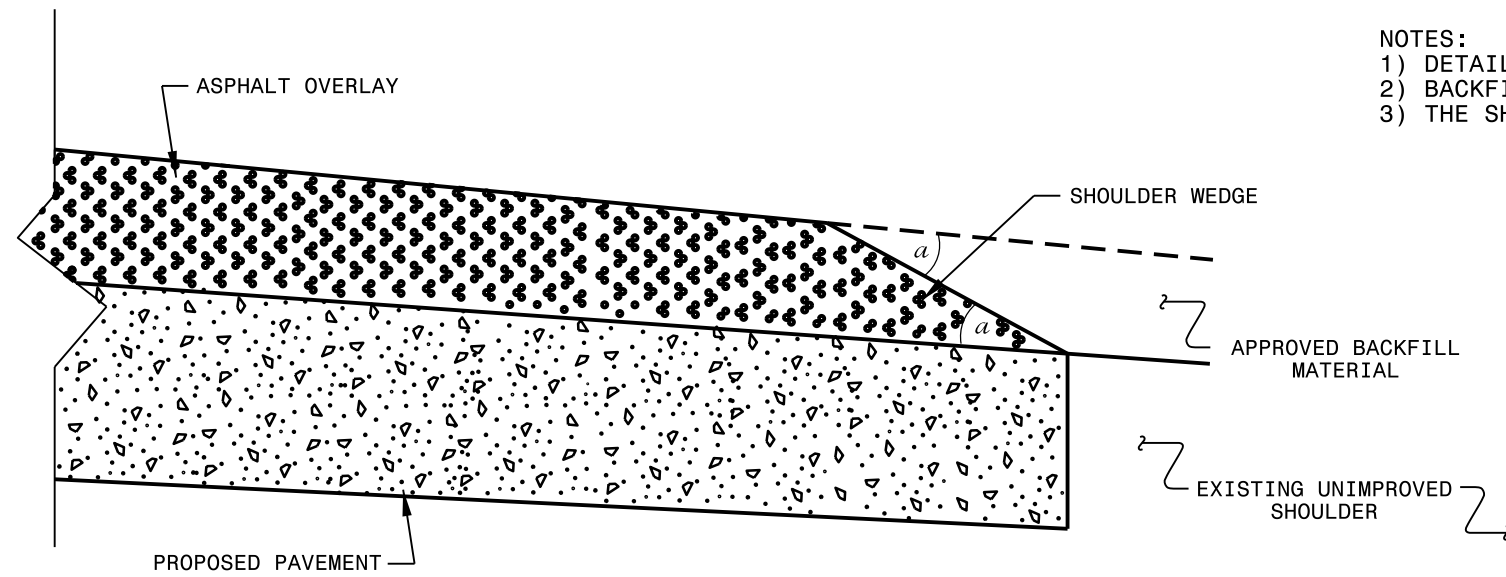


MILLING AT PAVEMENT TIE-INS DETAIL

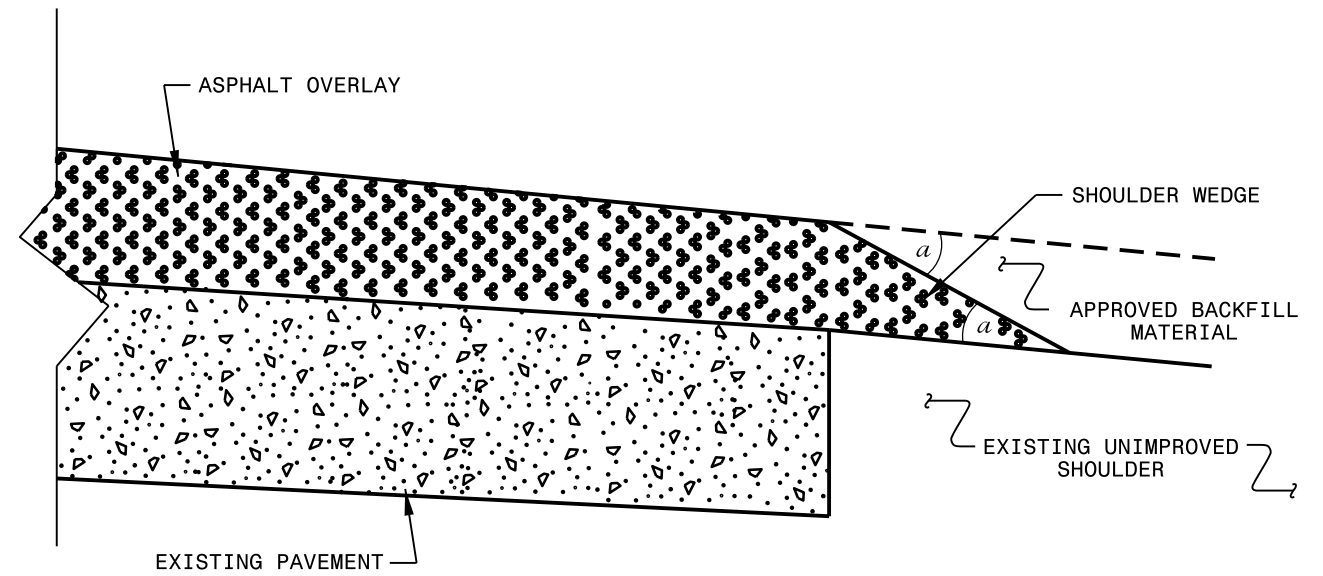
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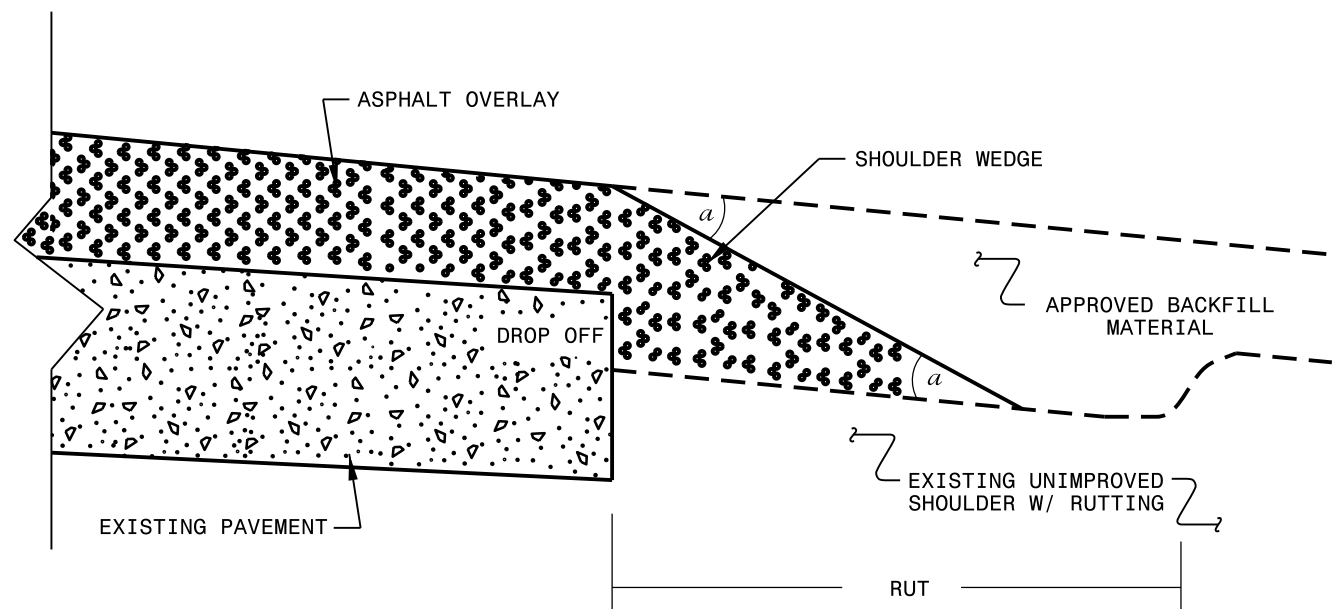
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.



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



SHOULDER WEDGE DETAIL
(Resurfacing Projects w/ NO Widening)

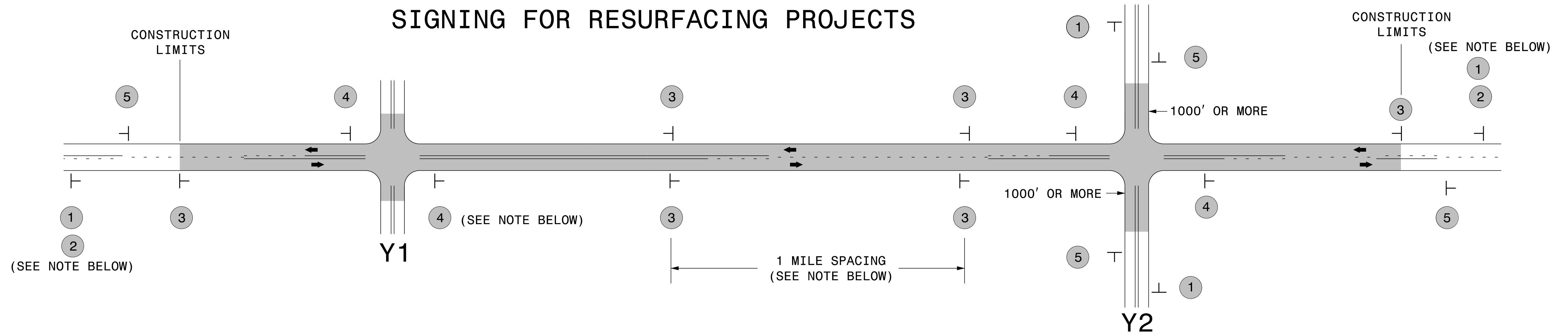


SHOULDER WEDGE DETAIL
(Resurfacing Adjacent to
Rutted Shoulder)

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

SIGNING FOR RESURFACING PROJECTS

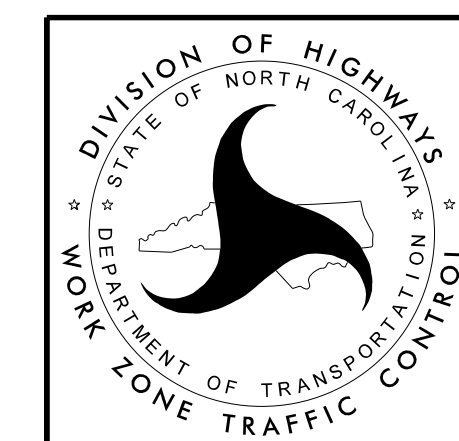


LEGEND	
⊥	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

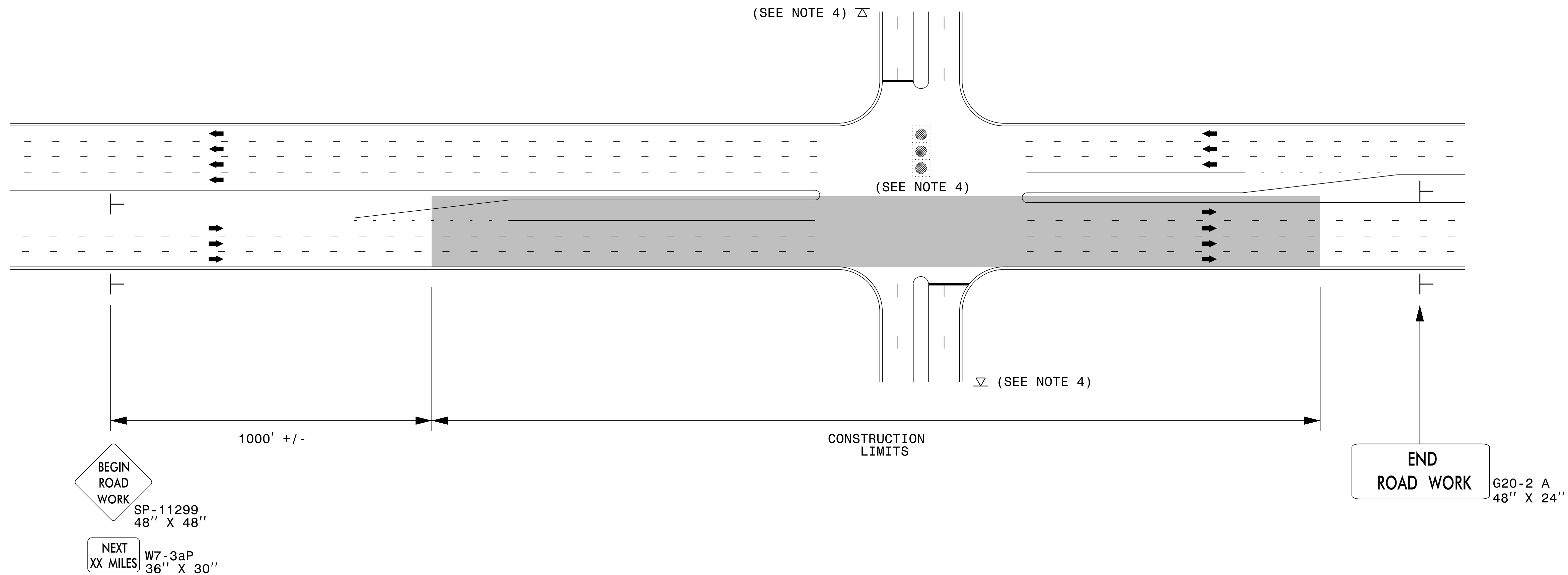
MAINLINE (-L-) SIGNING

-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"> 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> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> W20-1 48" X 48" </div> <div style="text-align: center;"> W20-7 A 48" X 48" </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.		



URBAN / SUBURBAN WORKZONES

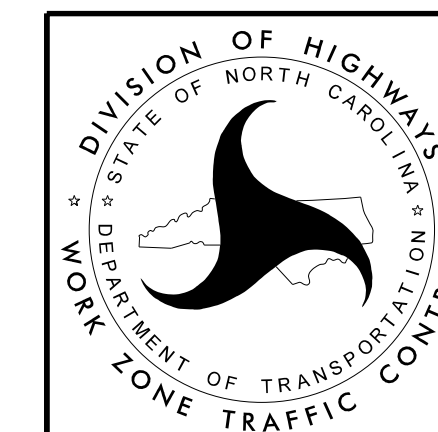


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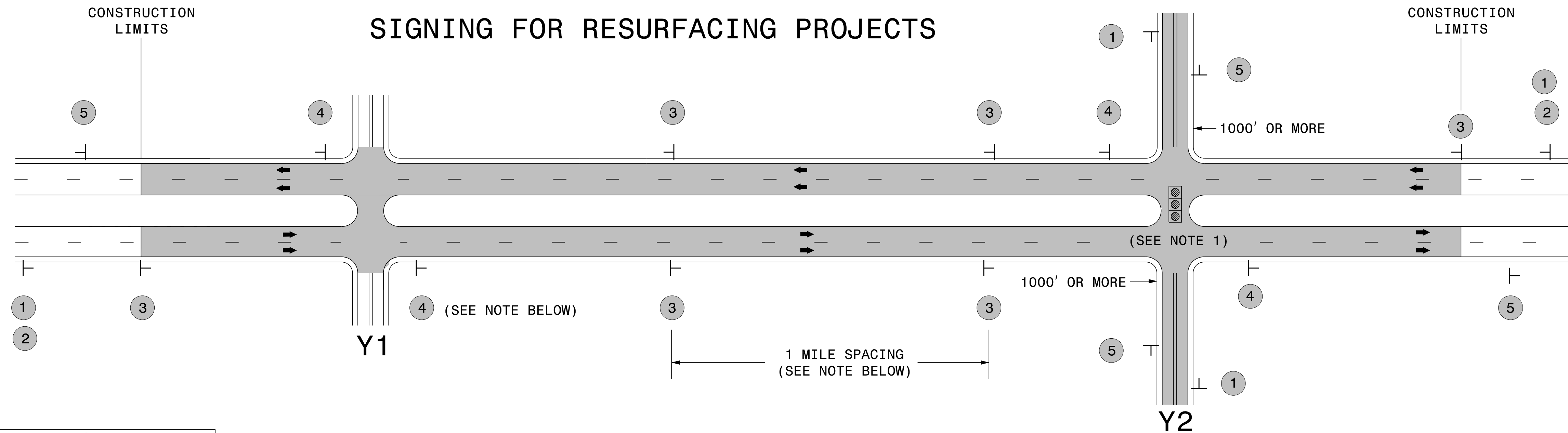
- 1) 48" x 48" SIZED SIGNS (SP- 11299) MAY BE REDUCED TO 36" X 36" ON ROADWAYS WITH SPEED LIMITS OF 40 MPH OR LESS.
- 2) MOUNT SIGNS THAT ARE LARGER THAN 10 SQUARE FEET IN AREA ON TWO OR MORE WOOD OR U-CHANNEL SUPPORTS. PERFORATED SQUARE TUBING SUPPORT SYSTEMS MAY SUPPORT LARGER AREAS ON A SINGLE SUPPORT. 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



**RESURFACING ADVANCE
WARNING SIGNS FOR
URBAN / SUBURBAN
FACILITIES**

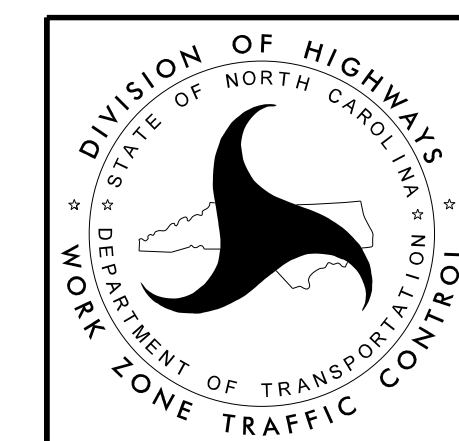


LEGEND	
┆	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

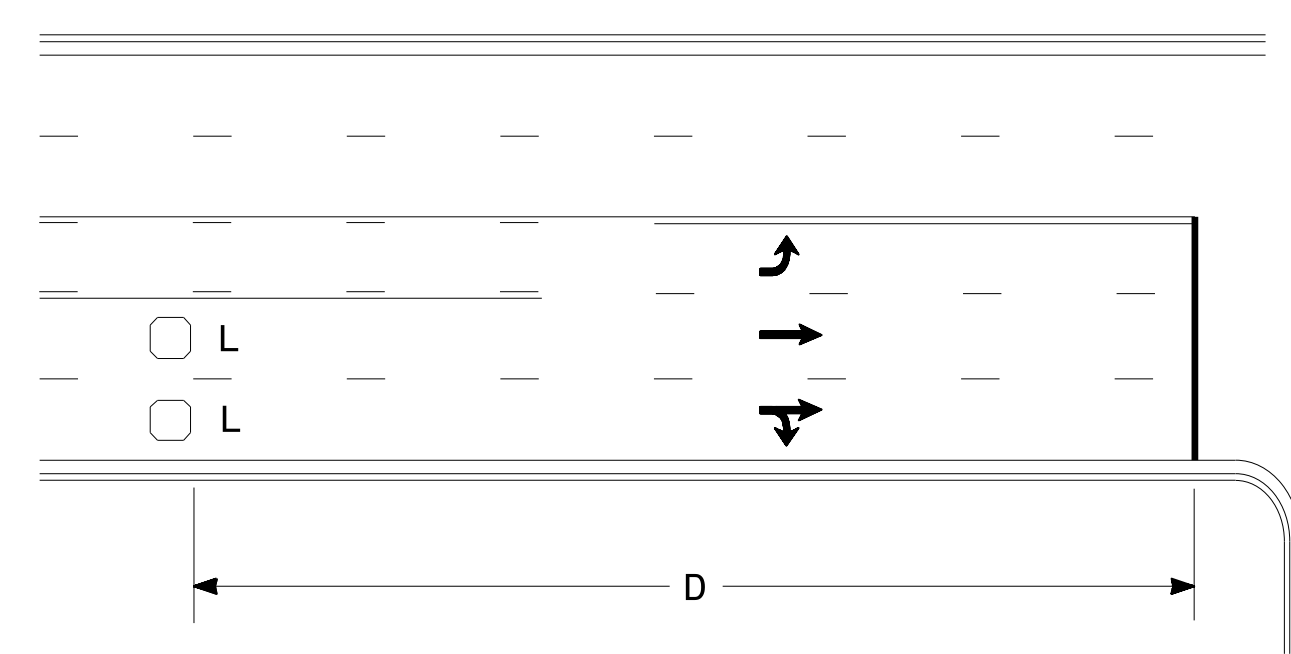
-Y- LINE SIGNING

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"> 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> <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>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p> <p>NOTES:</p> <ol style="list-style-type: none"> 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.
		<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>	



**RESURFACING
ADVANCE WARNING SIGNS
FOR RURAL AND SUBURBAN
MULTI-LANE ROADWAYS
W/ SHOULDER SECTIONS**

High Speed Detection (≥40 mph)

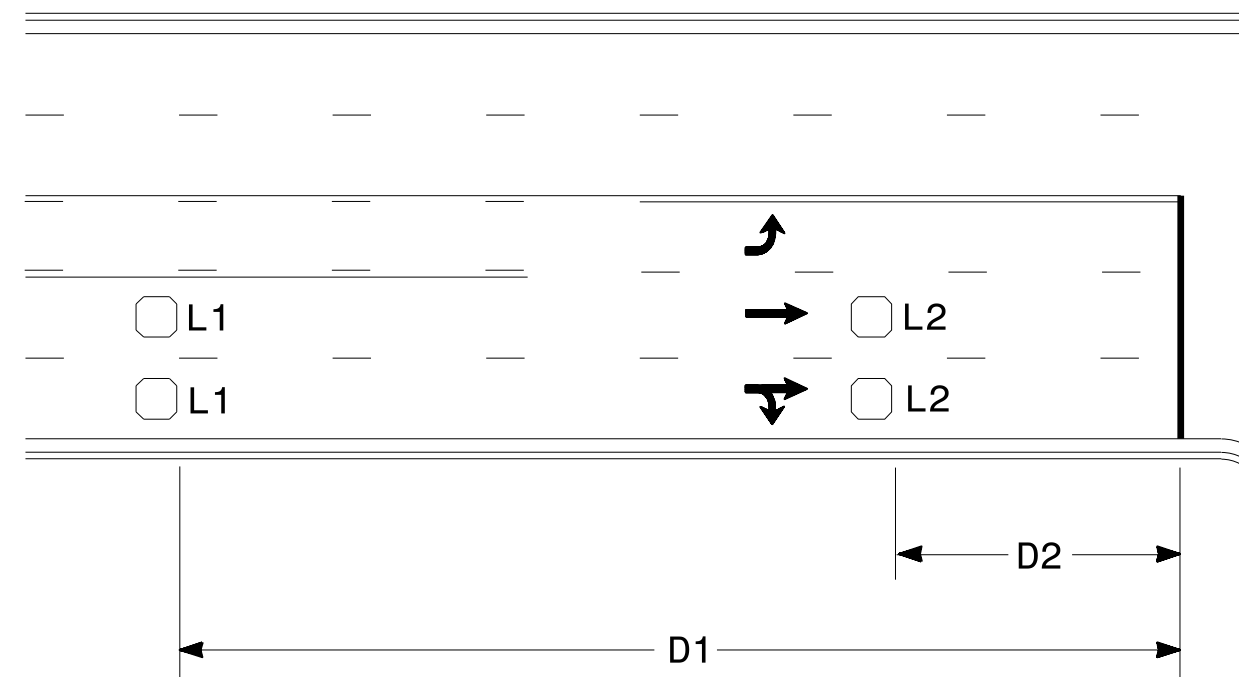


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired in series for TS1
Controllers
Wired separately for TS2,
170, and 2070L Controllers

Volume Density Operation

OR

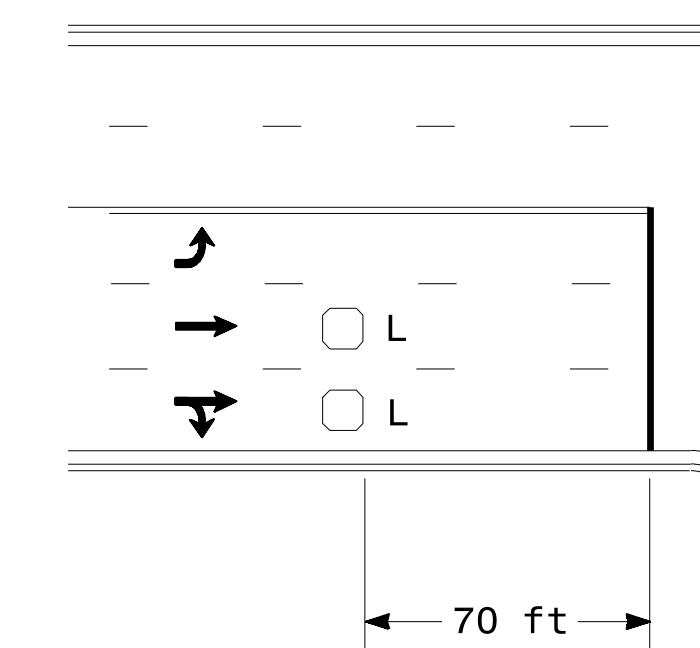


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series
L2 = 6ft X 6ft
Wired in series

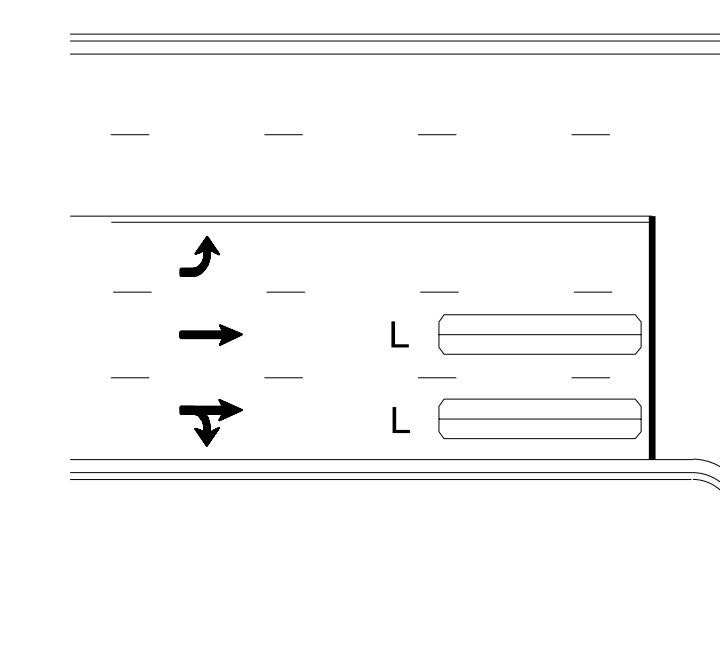
"Stretch" Operation

Low Speed Detection (≤35 mph)



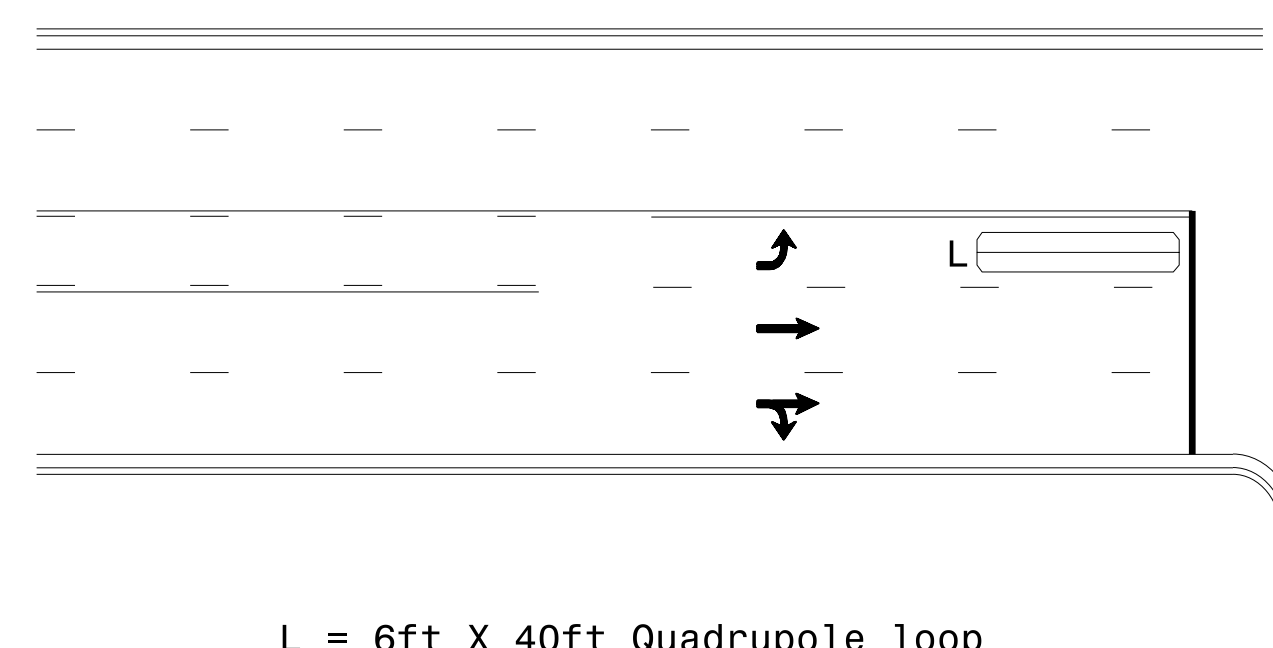
L = 6ft X 6ft
Wired in series

OR



L = 6ft X 40ft
Quadrupole loop, wired separately

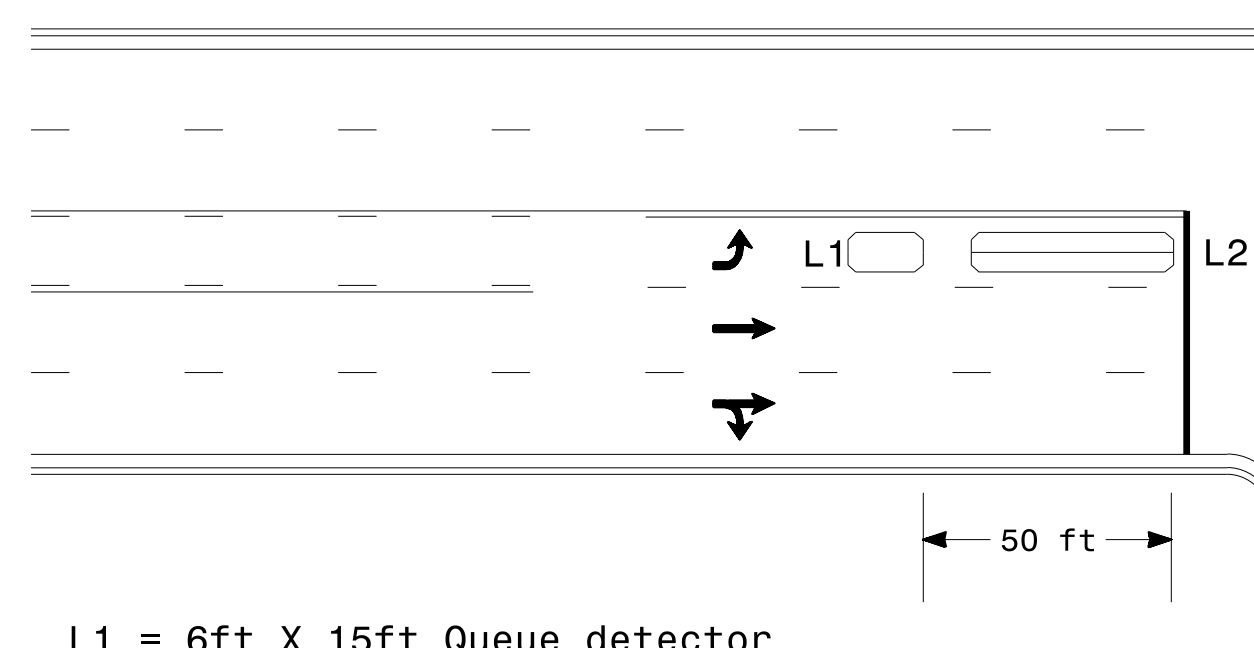
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

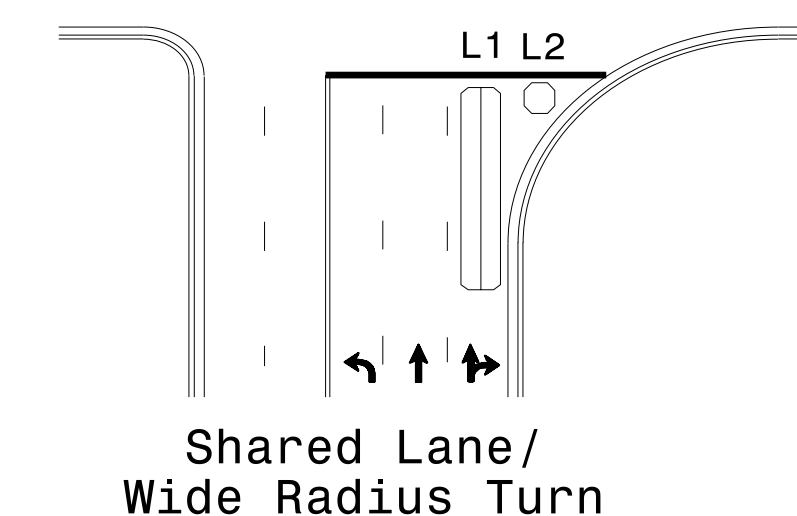
OR



L1 = 6ft X 15ft Queue detector
L2 = 6ft X 40ft Quadrupole loop

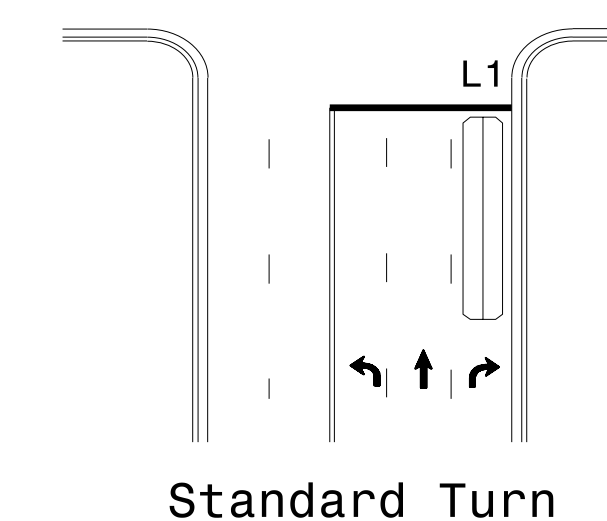
Queue Loop Detection

Right Turn Lane Detection

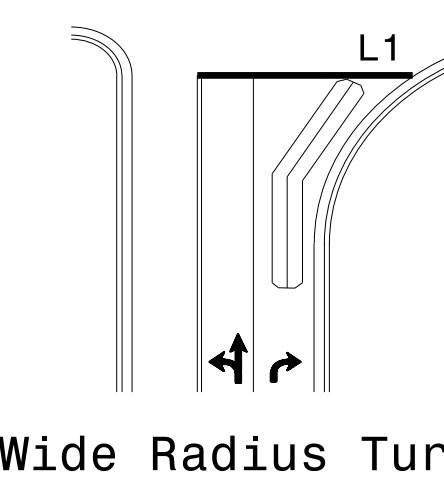


Shared Lane/
Wide Radius Turn

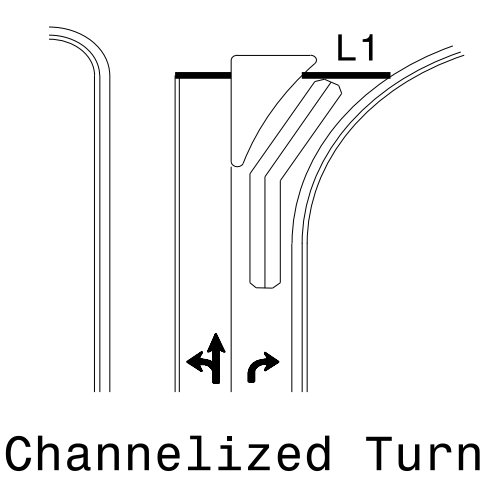
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

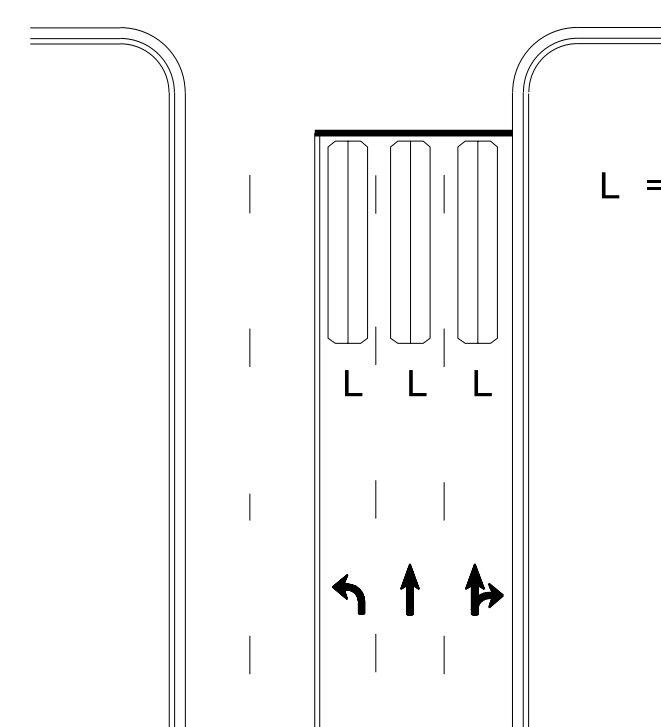


Wide Radius Turn



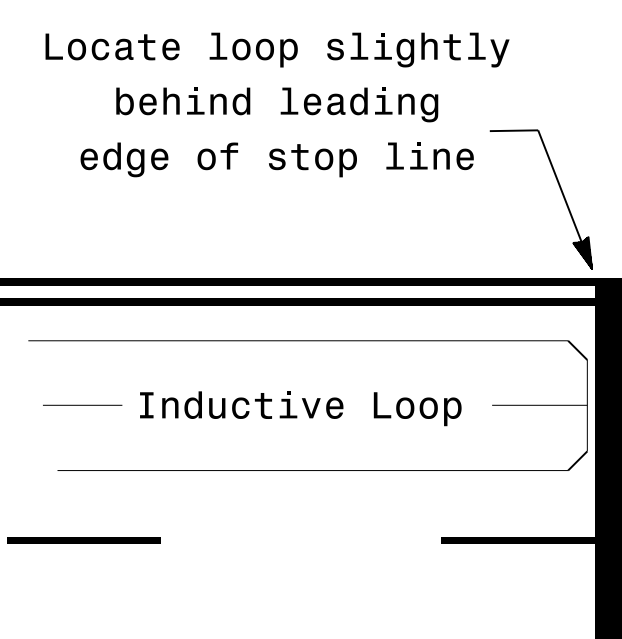
Channelized Turn

Side Street Detection



L = 6ft X 40ft
Quadrupole loop
Wired to separate
detectors/channels

Presence Loop Placement at Stop Lines



Locate loop slightly
behind leading
edge of stop line

Note:

- Loop may be located in advance of stop line under any of the following conditions:
- 1) stop line is greater than 15' from edge of intersecting roadway
 - 2) loop detects a permissive or protected/permissive left turn
 - 3) for an exclusive right turn lane

Recommended Number of Turns

Single 6' X 6' loop
(when wired separately):

Length of Lead-in ft	Number of Turns
< 250	3
250-375	4
375-525	5
> 525	6

Quadrupole loops: Use 2-4-2 turns

6' X 15' Loops:

- Lead-in < 150', use 2 turns
Lead-in > 150', use 3 turns

	<p>Prepared In the Offices of:</p> <p>TRANSPORTATION MOBILITY AND SAFETY DIVISION STATE OF NORTH CAROLINA SIGNAL DESIGN SECTION</p> <p>750 N. Greenfield Pkwy, Garner, NC 27529</p>		<p>SEAL</p> <p>NORTH CAROLINA</p> <p>PROFESSIONAL ENGINEER</p> <p>SEAL 23489</p> <p>PAMELA L. ALEXANDER</p>
	<p>Typical Signal Loop Locations</p> <p>PLAN DATE: January 2015 REVIEWED BY: JPG</p> <p>PREPARED BY: PLA REVIEWED BY:</p>		
<p>SCALE</p> <p>N/A</p>	<p>REVISIONS</p> <p>INIT. DATE</p>	<p>DocuSigned by:</p> <p>P. Alexander</p> <p>1/30/2015</p>	<p>SIG. INVENTORY NO.</p>

GUIDELINES FOR LANE WIDTHS ON RESURFACING PROJECTS

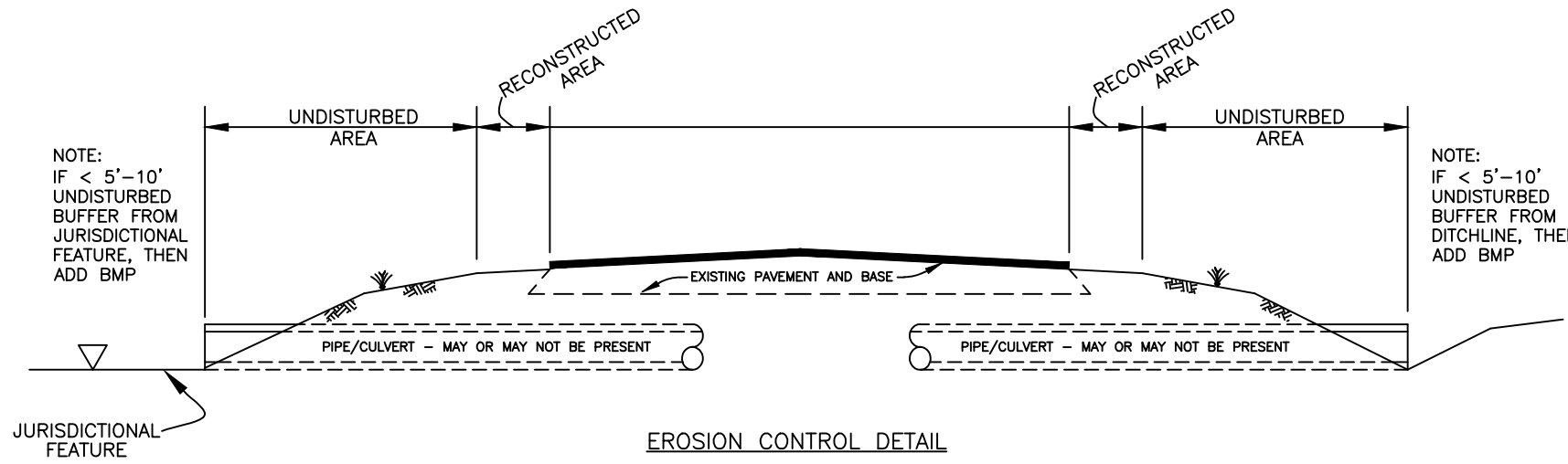
Contractor shall place the new pavement markings in accordance with this table and detail unless otherwise directed by the Engineer.

TWO LANE - TWO WAY ROADWAY - 55 MPH		
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

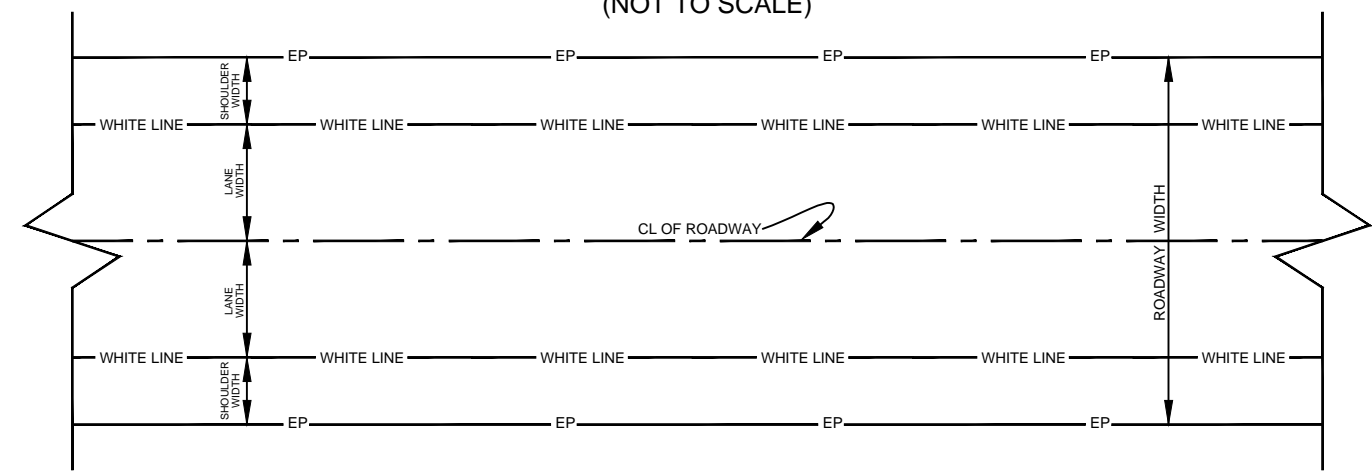
TWO LANE - TWO WAY ROADWAY 50 MPH OR LESS		
ROADWAY WIDTH	LANE WIDTH	SHOULDER WIDTH
18'	9' *	0'
20'	10' *	0'
22'	10'	1'
24'	10'	2'
26'	11'	2'
28'	11'	3'
32'	11'	5'

* May vary due to pavement width



- NOTES:**
- IF A 5'-10' VEGETATED, UNDISTURBED BUFFER FROM ROW, DITCHLINE, WATER FEATURE OR DRAINAGE INLET CAN BE MAINTAINED, THEN NO BMP'S NEEDED.
 - IF < 5'-10' UNDISTURBED BUFFER FROM ROW, DITCHLINE, WATER FEATURE OR DRAINAGE INLET, THEN ADD BMP'S.
 - BMP OPTIONS:
 - MATTING MAY BE APPLIED AS SHOWN IN NCDOT STD. DWG. 1631.01 TO ESTABLISH BUFFER.
 - IF MATTING IS NOT PRACTICAL, OR THERE IS NOT ENOUGH SHOULDER WIDTH, THEN INSTALL TEMPORARY SILT FENCE AS SHOWN IN NCDOT STD. DWG. 1605.01, AND WATTLES WITH POLYACRYLAMIDE (PAM).

SCHEMATIC OF ROADWAY (NOT TO SCALE)



SUMMARY OF QUANTITIES

PROJECT NO.
2017CPT.06.13.10241.1, 2017CPT.06.13.20241.1

SHEET NO.

TOTAL NO.

PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	BORROW	GENERIC GRADING ITEM AGGREGATE SHOULDER BORROW	SHOULDER RECONSTRUCTION	0.75" MILLING	2.5" MILLING	INCIDENTAL MILLING	BASE COURSE, B25.0B	INTERMEDIATE COURSE, I19.0B	SURFACE COURSE, S9.5B	LEVELING COURSE, S9.5B	SURFACE COURSE, SF9.5A	
NO		NO			NO					MI	FT	CY	TON	SMI	SY	SY	SY	TONS	TONS	TONS	TONS	TONS	
2017CPT.06.13.10241.1	Columbus	1	NC 11	FROM SR 1740 TO NC 87	1	2	2WU	NO	NO	2.04	26		667	4.00	30,507	1,478	1,333		211	2,600	26		
TOTAL FOR MAP NO. 1										2.04			667	4.00	30,507	1,478	1,333		211	2,600	26		
TOTAL FOR PROJ NO. 2017CPT.06.13.10241.1										2.04			667	4.00	30,507	1,478	1,333		211	2,600	26		
2017CPT.06.13.20241.1	Columbus	2	SR 1352	FROM SR 1004 TO NC 904	2	2	2WU	NO	NO	4.44	22	890	44	8.90			722	3,671				5,003	
TOTAL FOR MAP NO. 2										4.44		890	44	8.90			722	3,671				5,003	
2017CPT.06.13.20241.1	Columbus	3	SR 1195	FROM 904 TO SOUTH CAROLINA STATE LINE	3	2	2WU	NO	NO	0.67	20		224	1.34			678					698	
TOTAL FOR MAP NO. 3										0.67			224	1.34			678					698	
2017CPT.06.13.20241.1	Columbus	4	SR 1196	FROM SR 1195 TO SR 1197	4	2	2WU	NO	NO	0.20	20												
TOTAL FOR MAP NO. 4										0.20													
2017CPT.06.13.20241.1	Columbus	5	SR 1197	FROM SR 1195 TOSR 1195	4	2	2WU	NO	NO	0.69	20												
TOTAL FOR MAP NO. 5										0.69													
2017CPT.06.13.20241.1	Columbus	6	SR 1207	FROM 1195 TO SR 1197	4	2	2WU	NO	NO	0.16	20												
TOTAL FOR MAP NO. 6										0.16													
2017CPT.06.13.20241.1	Columbus	7	SR 1191	FROM 904 TO NC 904	4	2	2WU	NO	NO	0.22	20												
TOTAL FOR MAP NO. 7										0.22													
2017CPT.06.13.20241.1	Columbus	8	SR 1367	FROM SR 1300 TO SR 1375	4	2	2WU	NO	NO	0.49	20												
TOTAL FOR MAP NO. 8										0.49													
2017CPT.06.13.20241.1	Columbus	9	SR 1373	FROM 1367 TO SR 1375	4	2	2WU	NO	NO	0.20	20												
TOTAL FOR MAP NO. 9										0.20													
2017CPT.06.13.20241.1	Columbus	10	SR 1375	FROM 1375 TO SR 1367	4	2	2WU	NO	NO	0.14	20						178						
TOTAL FOR MAP NO. 10										0.14							178						
2017CPT.06.13.20241.1	Columbus	11	SR 1591	FROM 1552 TO CUL-DE-SAC	4	2	2WU	NO	NO	0.43	20						250						
TOTAL FOR MAP NO. 11										0.43							250						
2017CPT.06.13.20241.1	Columbus	12	SR 1592	SR 1591 TO CUL-DE SAC	4	2	2WU	NO	NO	0.44	20												
TOTAL FOR MAP NO. 12										0.44													
2017CPT.06.13.20241.1	Columbus	13	SR 1597	SR 1592 TO END MAINTENANCE	4	2	2WU	NO	NO	0.10	20						44						
TOTAL FOR MAP NO. 13										0.10							44						
2017CPT.06.13.20241.1	Columbus	14	SR 1601	SR 1592 TO SR 1591	4	2	2WU	NO	NO	0.16	20												
TOTAL FOR MAP NO. 14										0.16													
2017CPT.06.13.20241.1	Columbus	15	SR 1450	SR 1437 TO DEAD END	4	2	2WU	NO	NO	0.26	22						250						
TOTAL FOR MAP NO. 15										0.26							250						
2017CPT.06.13.20241.1	Columbus	16	SR 1457	FROM NC 130 TO DEAD END	4	2	2WU	NO	NO	0.32	20						250						
TOTAL FOR MAP NO. 16										0.32							250						
2017CPT.06.13.20241.1	Columbus	17	SR 1953	FROM NC 130 TO DEAD END	4	2	2WU	NO	NO	0.27	20						250						
TOTAL FOR MAP NO. 17										0.27							250						
2017CPT.06.13.20241.1	Columbus	18	SR 1953	US 74 BUSINESS TO FULLER STREET	4,5	2	2WU	NO	NO	0.33	24				6,477		633						
TOTAL FOR MAP NO. 18										0.33					6,477		633						
2017CPT.06.13.20241.1	Columbus	19	SR 1958	FROM NC 130 TO SR 1958	4	2	2WU	NO	NO	0.66	20						250						
TOTAL FOR MAP NO. 19										0.66							250						
2017CPT.06.13.20241.1	Columbus	20	SR 1966	FROM NC 130 TO SR 1958	4	2	2WU	NO	NO	0.28	20						250						
TOTAL FOR MAP NO. 20										0.28							250						
TOTAL FOR PROJ NO. 2017CPT.06.13.20241.1										10.46		890	268	10.24	6,477		3,755	3,671		211	2,600	26	5,701
GRAND TOTAL										12.50		890	935	14.24	36,984	1,478	5,088	3,671		211	2,600	26	5,701

PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	LEVELING COURSE, SF9.5A	SURFACE COURSE, SA-1	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT	ADJ. OF MANHOLES	ADJ. OF METER OR VALVE BOX	MATTING FOR EROSION CONTROL	COIR FIBER MAT	WATTLE	SEED & MULCHING	
NO		NO			NO					MI	FT	TONS	TON	TONS	TONS	EA	EA	SY	SY	LF	AC	
2017CPT.06.13.10241.1	Columbus	1	NC 11	FROM SR 1740 TO NC 87	1	2	2WU	NO	NO	2.04	26			168	60							
TOTAL FOR MAP NO. 1										2.04				168	60							
TOTAL FOR PROJ NO. 2017CPT.06.13.10241.1										2.04				168	60							
2017CPT.06.13.20241.1	Columbus	2	SR 1352	FROM SR 1004 TO NC 904	2	2	2WU	NO	NO	4.44	22	47		500	133			600	100	1,400	4.30	
TOTAL FOR MAP NO. 2										4.44		47		500	133			600	100	1,400	4.30	
2017CPT.06.13.20241.1	Columbus	3	SR 1195	FROM 904 TO SOUTH CAROLINA STATE LINE	3	2	2WU	NO	NO	0.67	20	7		47	20							
TOTAL FOR MAP NO. 3										0.67		7		47	20							
2017CPT.06.13.20241.1	Columbus	4	SR 1196	FROM SR 1195 TO SR 1197	4	2	2WU	NO	NO	0.20	20	2	117	8	6							
TOTAL FOR MAP NO. 4										0.20		2	117	8	6							
2017CPT.06.13.20241.1	Columbus	5	SR 1197	FROM SR 1195 TOSR 1195	4	2	2WU	NO	NO	0.69	20		405	26	21							
TOTAL FOR MAP NO. 5										0.69			405	26	21							
2017CPT.06.13.20241.1	Columbus	6	SR 1207	FROM 1195 TO SR 1197	4	2	2WU	NO	NO	0.16	20	1	94	6	5							
TOTAL FOR MAP NO. 6										0.16		1	94	6	5							
2017CPT.06.13.20241.1	Columbus	7	SR 1191	FROM 904 TO NC 904	4	2	2WU	NO	NO	0.22	20	2	129	9	7							
TOTAL FOR MAP NO. 7										0.22		2	129	9	7							
2017CPT.06.13.20241.1	Columbus	8	SR 1367	FROM SR 1300 TO SR 1375	4	2	2WU	NO	NO	0.49	20	4	287	19	15							
TOTAL FOR MAP NO. 8										0.49		4	287	19	15							
2017CPT.06.13.20241.1	Columbus	9	SR 1373	FROM 1367 TO SR 1375	4	2	2WU	NO	NO	0.20	20	2	117	8	6							
TOTAL FOR MAP NO. 9										0.20		2	117	8	6							
2017CPT.06.13.20241.1	Columbus	10	SR 1375	FROM 1375 TO SR 1367	4	2	2WU	NO	NO	0.14	20	1	112	7	4							
TOTAL FOR MAP NO. 10										0.14		1	112	7	4							
2017CPT.06.13.20241.1	Columbus	11	SR 1591	FROM 1552 TO CUL-DE-SAC	4	2	2WU	NO	NO	0.43	20	4	252	17	13							
TOTAL FOR MAP NO. 11										0.43		4	252	17	13							
2017CPT.06.13.20241.1	Columbus	12	SR 1592	SR 1591 TO CUL-DE SAC	4	2	2WU	NO	NO	0.44	20	4	258	17	13							
TOTAL FOR MAP NO. 12										0.44		4	258	17	13							
2017CPT.06.13.20241.1	Columbus	13	SR 1597	SR 1592 TO END MAINTENANCE	4	2	2WU	NO	NO	0.10	20	1	66	4	3							
TOTAL FOR MAP NO. 13										0.10		1	66	4	3							
2017CPT.06.13.20241.1	Columbus	14	SR 1601	SR 1592 TO SR 1591	4	2	2WU	NO	NO	0.16	20	1	94	6	5							
TOTAL FOR MAP NO. 14										0.16		1	94	6	5							
2017CPT.06.13.20241.1	Columbus	15	SR 1450	SR 1437 TO DEAD END	4	2	2WU	NO	NO	0.26	22	3	168	11	8							
TOTAL FOR MAP NO. 15										0.26		3	168	11	8							
2017CPT.06.13.20241.1	Columbus	16	SR 1457	FROM NC 130 TO DEAD END	4	2	2WU	NO	NO	0.32	20	3	188	12	10							
TOTAL FOR MAP NO. 16										0.32		3	188	12	10							
2017CPT.06.13.20241.1	Columbus	17	SR 1953	FROM NC 130 TO DEAD END	4	2	2WU	NO	NO	0.27	20	2	158	10	8							
TOTAL FOR MAP NO. 17										0.27		2	158	10	8							
2017CPT.06.13.20241.1	Columbus	18	SR 1953	US 74 BUSINESS TO FULLER STREET	4,5	2	2WU	NO	NO	0.33	24	3	70	5	3	4	4					
TOTAL FOR MAP NO. 18										0.33		3	70	5	3	4	4					
2017CPT.06.13.20241.1	Columbus	19	SR 1958	FROM NC 130 TO SR 1958	4	2	2WU	NO	NO	0.66	20	6	387	26	20							
TOTAL FOR MAP NO. 19										0.66		6	387	26	20							
2017CPT.06.13.20241.1	Columbus	20	SR 1966	FROM NC 130 TO SR 1958	4	2	2WU	NO	NO	0.28	20	2	164	11	8							
TOTAL FOR MAP NO. 20										0.28		2	164	11	8							
TOTAL FOR PROJ NO. 2017CPT.06.13.20241.1										10.46		95	3,066	749	308	4	4	600	100	1,400	4.30	
GRAND TOTAL										12.50		95	3,066	917	368	4	4	600	100	1,400	4.30	

THERMOPLASTIC AND PAINT QUANTITIES

										PROJECT NO.		SHEET NO.		TOTAL NO.				
										2017CPT.06.13.10241.1, 2017CPT.06.13.20241.1								
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4685000000-E	4686000000-E	4705000000-E	4710000000-E	4721000000-E		
										WORK ZONE ADVANCE/GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	4" X 90 M WHITE THERMO	4" X 120 M YELLOW THERMO	16" X 120 M WHITE THERMO	24" X 120 M WHITE THERMO	THERMO RXR 120 M	THERMO MSG STOP 120 M	THERMO MSG AHEAD 120 M
										SF	LS	LF	LF	LF	LF	EA	EA	EA
2017CPT.06.13.10241.1	Columbus	1	NC 11	FROM SR 1740 TO NC 87	1	2	2WU	2.04	26	224	1	21,614	18,371	190	72	4	4	5
TOTAL FOR MAP NO. 1									2.04	1	21,614	18,371	190	72	4	4	5	
TOTAL FOR PROJ NO. 2017CPT.06.13.10241.1									2.04	1	21,614	18,371	190	72	4	4	5	
2017CPT.06.13.20241.1	Columbus	2	SR 1352	FROM SR 1004 TO NC 904	2	2	2WU	4.44	22	497								
TOTAL FOR MAP NO. 2									4.44	497								
2017CPT.06.13.20241.1	Columbus	3	SR 1195	FROM 904 TO SOUTH CAROLINA STATE LINE	3	2	2WU	0.67	20	75								
TOTAL FOR MAP NO. 3									0.67	75								
2017CPT.06.13.20241.1	Columbus	4	SR 1196	FROM SR 1195 TO SR 1197	4	2	2WU	0.20	20	22								
TOTAL FOR MAP NO. 4									0.20	22								
2017CPT.06.13.20241.1	Columbus	5	SR 1197	FROM SR 1195 TO SR 1195	4	2	2WU	0.69	20	77								
TOTAL FOR MAP NO. 5									0.69	77								
2017CPT.06.13.20241.1	Columbus	6	SR 1207	FROM 1195 TO SR 1197	4	2	2WU	0.16	20	18								
TOTAL FOR MAP NO. 6									0.16	18								
2017CPT.06.13.20241.1	Columbus	7	SR 1191	FROM 904 TO NC 904	4	2	2WU	0.22	20	25								
TOTAL FOR MAP NO. 7									0.22	25								
2017CPT.06.13.20241.1	Columbus	8	SR 1367	FROM SR 1300 TO SR 1375	4	2	2WU	0.49	20	55								
TOTAL FOR MAP NO. 8									0.49	55								
2017CPT.06.13.20241.1	Columbus	9	SR 1373	FROM 1367 TO SR 1375	4	2	2WU	0.20	20	22								
TOTAL FOR MAP NO. 9									0.20	22								
2017CPT.06.13.20241.1	Columbus	10	SR 1375	FROM 1375 TO SR 1367	4	2	2WU	0.14	20	16								
TOTAL FOR MAP NO. 10									0.14	16								
2017CPT.06.13.20241.1	Columbus	11	SR 1591	FROM 1552 TO CUL-DE-SAC	4	2	2WU	0.43	20	48								
TOTAL FOR MAP NO. 11									0.43	48								
2017CPT.06.13.20241.1	Columbus	12	SR 1592	SR 1591 TO CUL-DE-SAC	4	2	2WU	0.44	20	49								
TOTAL FOR MAP NO. 12									0.44	49								
2017CPT.06.13.20241.1	Columbus	13	SR 1597	SR 1592 TO END MAINTENANCE	4	2	2WU	0.10	20	11								
TOTAL FOR MAP NO. 13									0.10	11								
2017CPT.06.13.20241.1	Columbus	14	SR 1601	SR 1592 TO SR 1591	4	2	2WU	0.16	20	18								
TOTAL FOR MAP NO. 14									0.16	18								
2017CPT.06.13.20241.1	Columbus	15	SR 1450	SR 1437 TO DEAD END	4	2	2WU	0.26	22	29								
TOTAL FOR MAP NO. 15									0.26	29								
2017CPT.06.13.20241.1	Columbus	16	SR 1457	FROM NC 130 TO DEAD END	4	2	2WU	0.32	20	36								
TOTAL FOR MAP NO. 16									0.32	36								
2017CPT.06.13.20241.1	Columbus	17	SR 1953	FROM NC 130 TO DEAD END	4	2	2WU	0.27	20	30								
TOTAL FOR MAP NO. 17									0.27	30								
2017CPT.06.13.20241.1	Columbus	18	SR 1953	US 74 BUSINESS TO FULLER STREET	4,5	2	2WU	0.33	24	37								
TOTAL FOR MAP NO. 18									0.33	37								
2017CPT.06.13.20241.1	Columbus	19	SR 1958	FROM NC 130 TO SR 1958	4	2	2WU	0.66	20	74								
TOTAL FOR MAP NO. 19									0.66	74								
2017CPT.06.13.20241.1	Columbus	20	SR 1966	FROM NC 130 TO SR 1958	4	2	2WU	0.28	20	31								
TOTAL FOR MAP NO. 20									0.28	31								
TOTAL FOR PROJ NO. 2017CPT.06.13.20241.1									10.46	1,170								
GRAND TOTAL									12.50	1,394	1	21,614	18,371	190	72	4	4	5
																	13	

