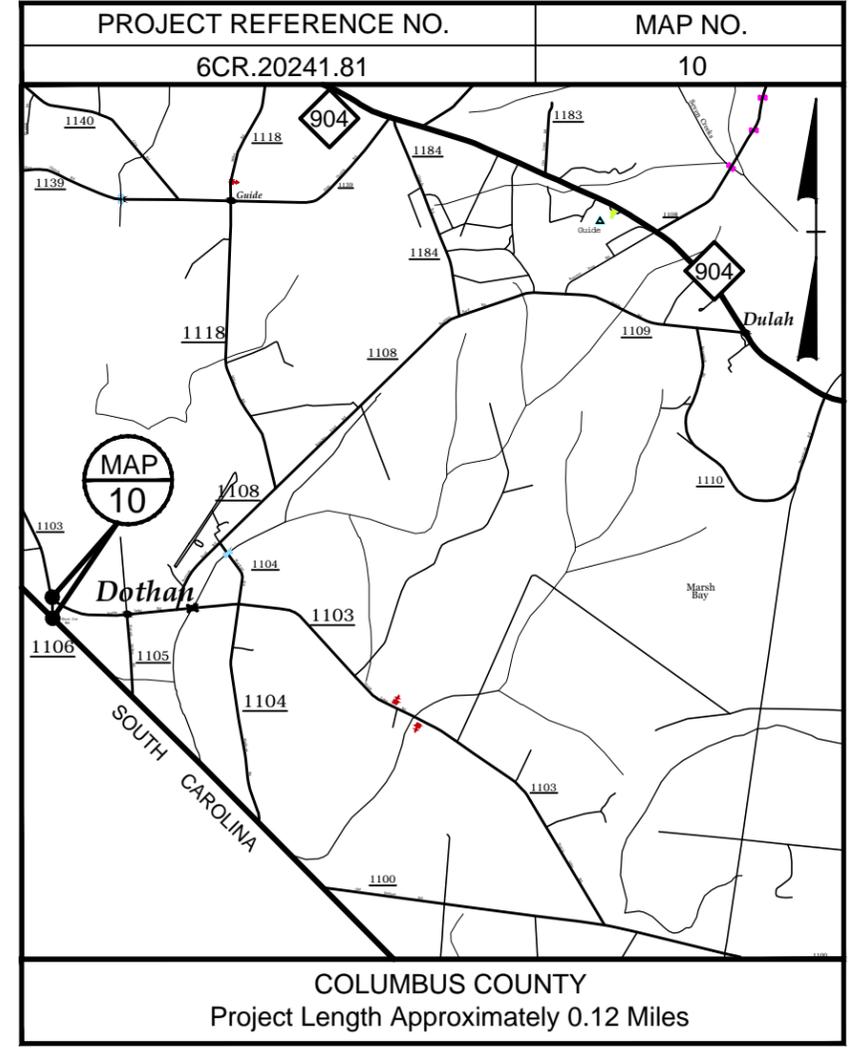
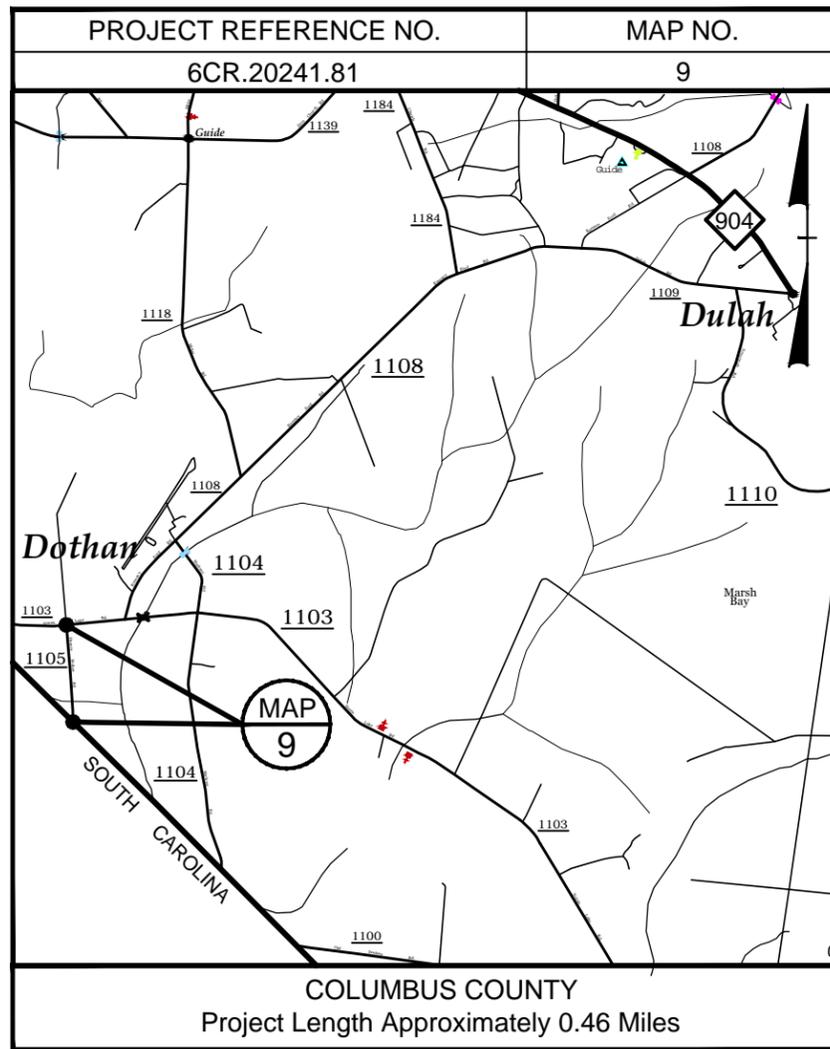
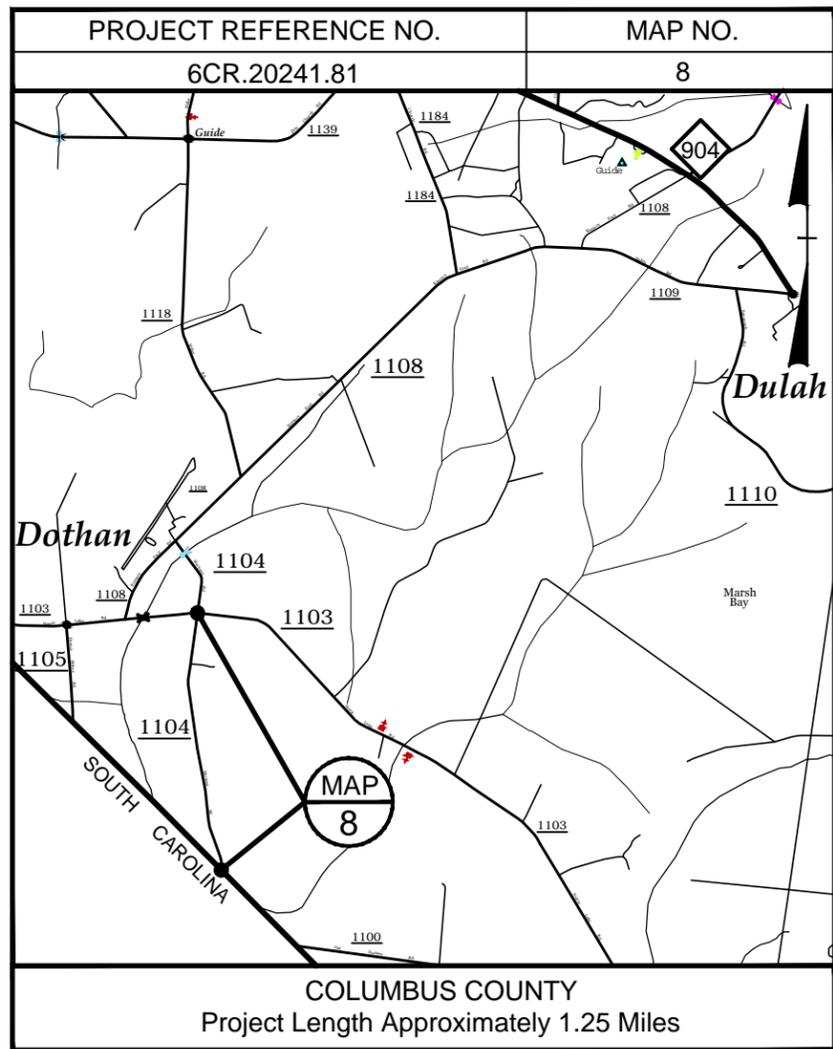
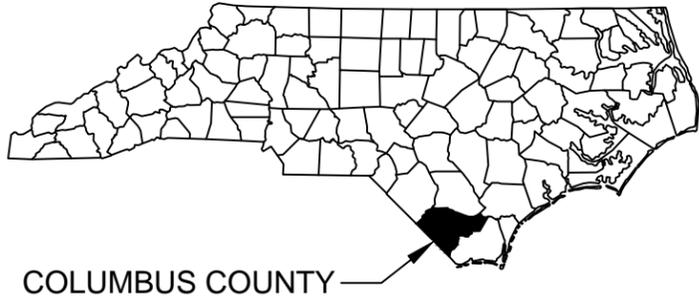


RESURFACING MAPS - COLUMBUS COUNTY

NOTES:

1. THE CONTRACTOR SHALL BE ADVISED THAT MANY EXISTING BRIDGES IN THE PROJECT AREA ARE EITHER CURRENTLY UNDER CONSTRUCTION, OR HAVE BEEN LET FOR CONSTRUCTION IN THE NEAR FUTURE.
2. RESURFACING CONTRACTOR SHALL COORDINATE WITH BRIDGE CONTRACTORS AND NCDOT AS NEEDED.
3. THE AVAILABILITY OF SOME MAPS MAY BE DELAYED, AND ALTERNATE TRUCKING ROUTES MAY BE REQUIRED.
4. SPECIFIC KNOWN BRIDGE REPLACEMENTS WITHIN RESURFACING MAPS ARE SHOWN.

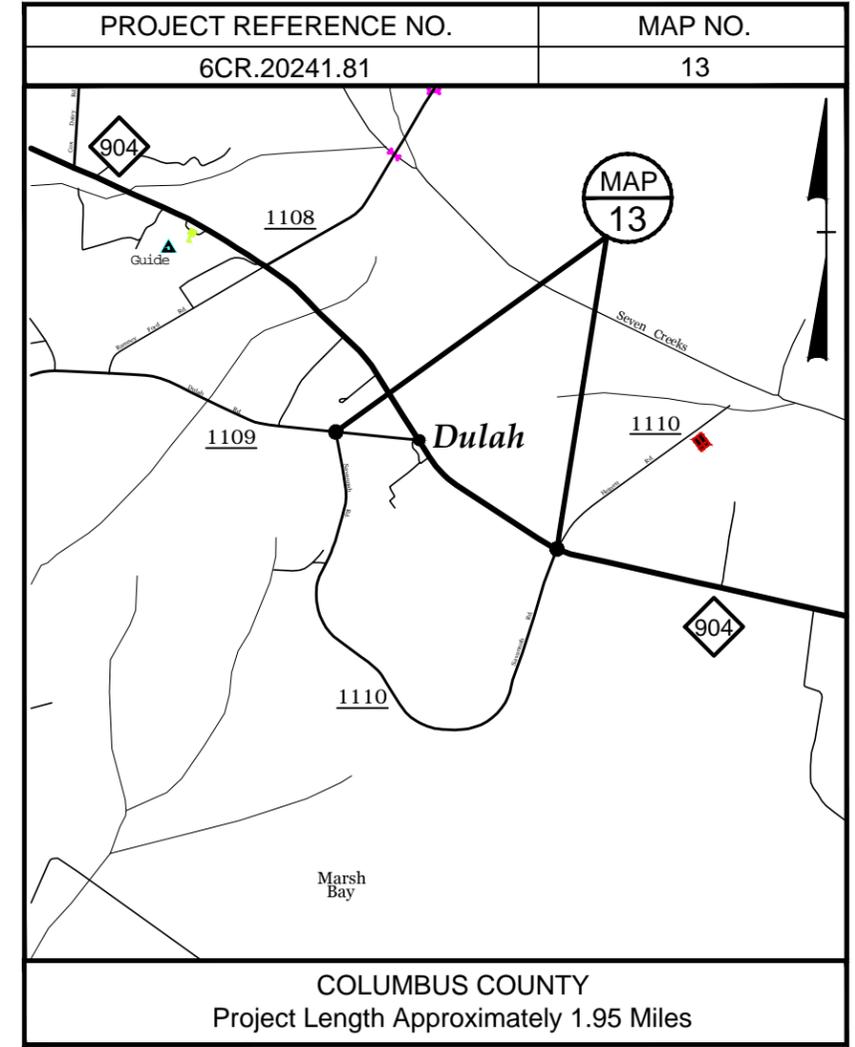
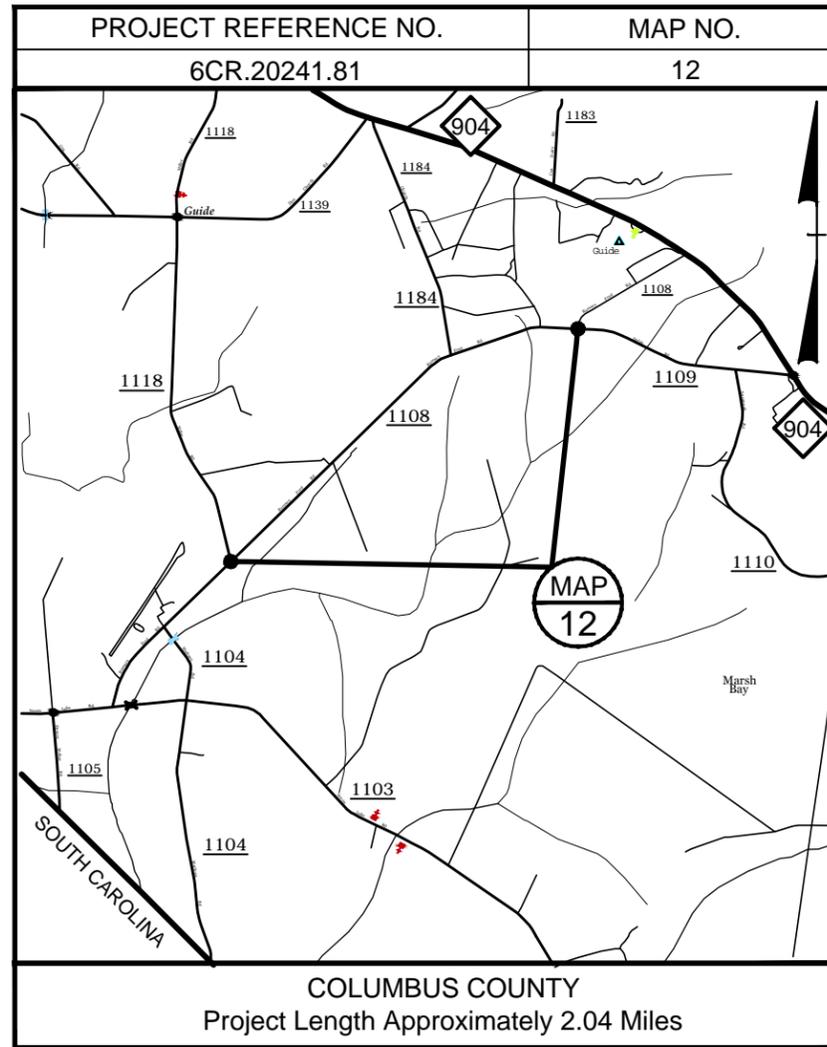
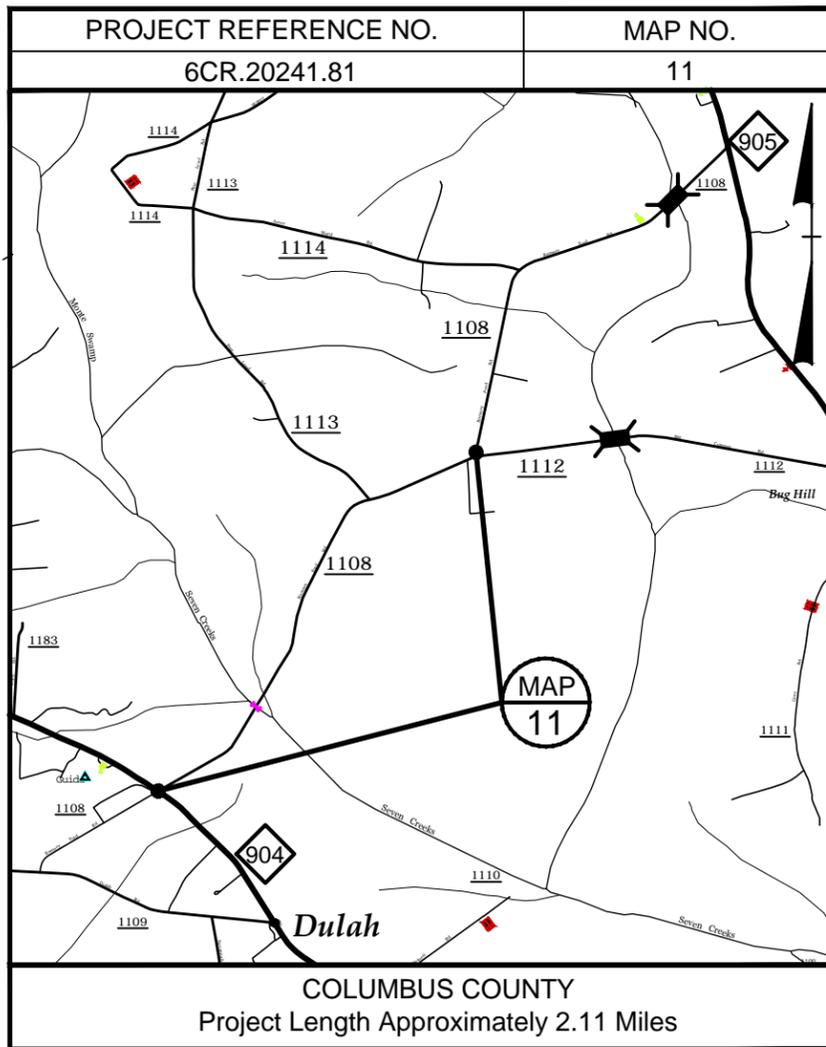




RESURFACING MAPS - COLUMBUS COUNTY

NOTES:

1. THE CONTRACTOR SHALL BE ADVISED THAT MANY EXISTING BRIDGES IN THE PROJECT AREA ARE EITHER CURRENTLY UNDER CONSTRUCTION, OR HAVE BEEN LET FOR CONSTRUCTION IN THE NEAR FUTURE.
2. RESURFACING CONTRACTOR SHALL COORDINATE WITH BRIDGE CONTRACTORS AND NCDOT AS NEEDED.
3. THE AVAILABILITY OF SOME MAPS MAY BE DELAYED, AND ALTERNATE TRUCKING ROUTES MAY BE REQUIRED.
4. SPECIFIC KNOWN BRIDGE REPLACEMENTS WITHIN RESURFACING MAPS ARE SHOWN.

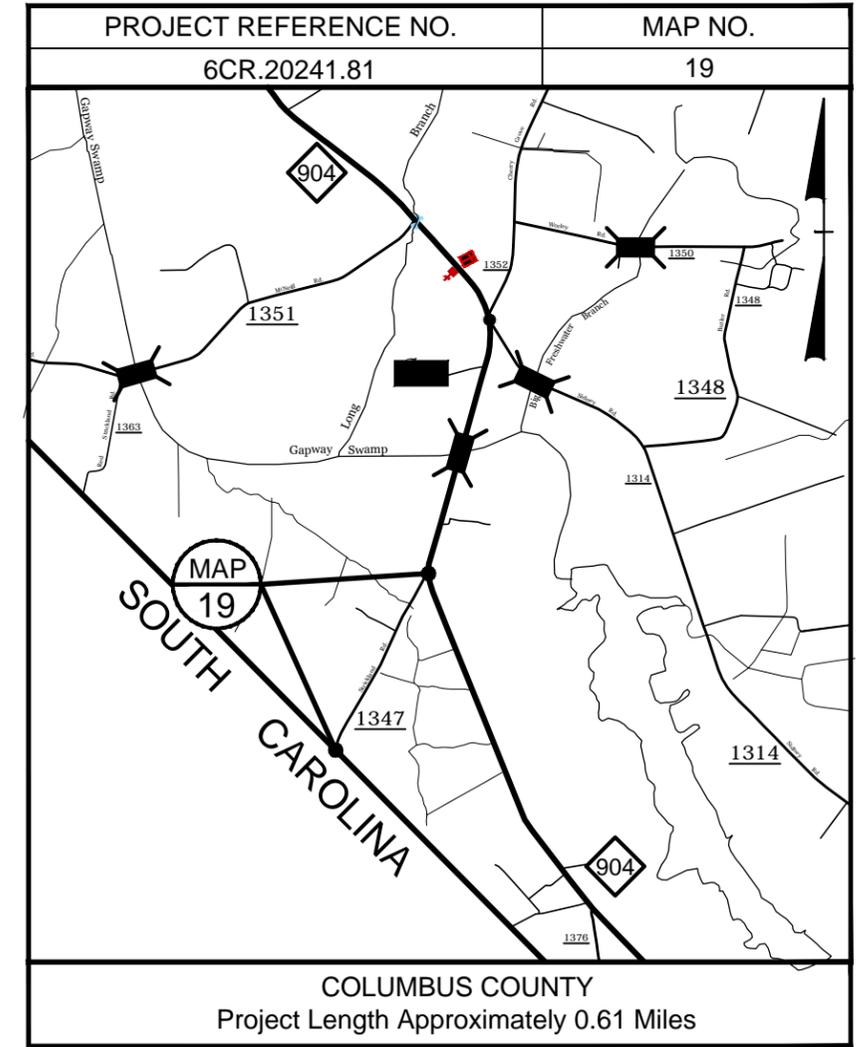
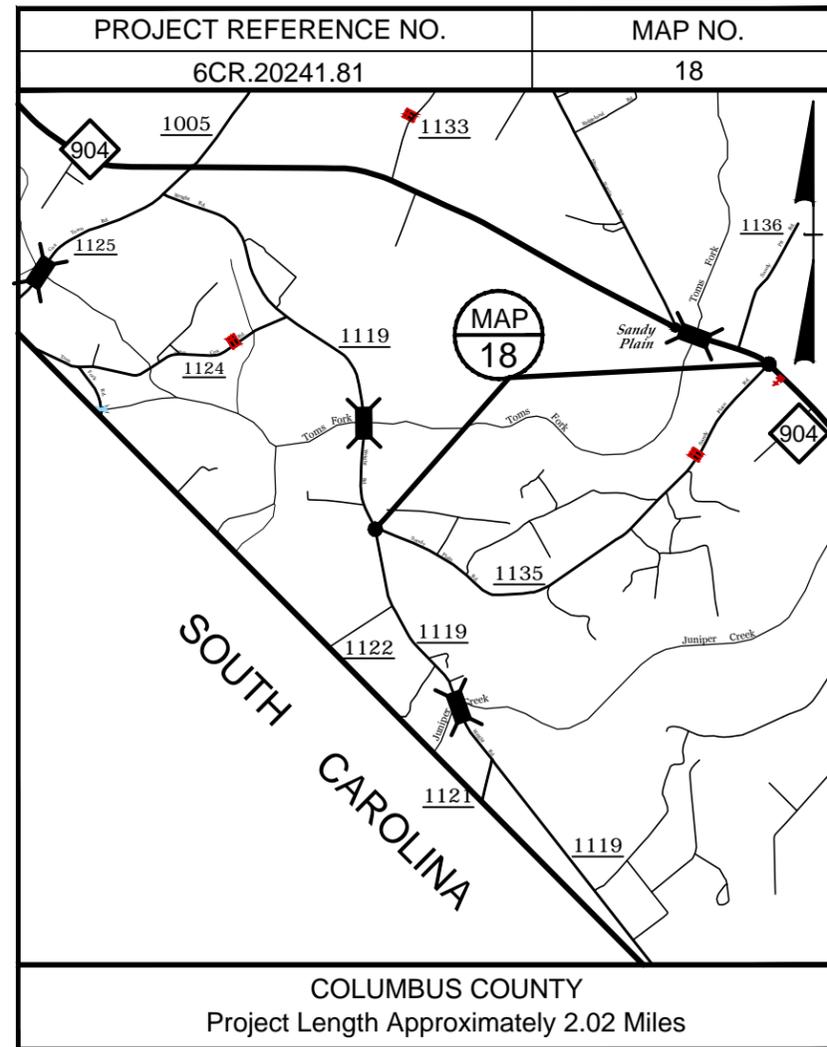
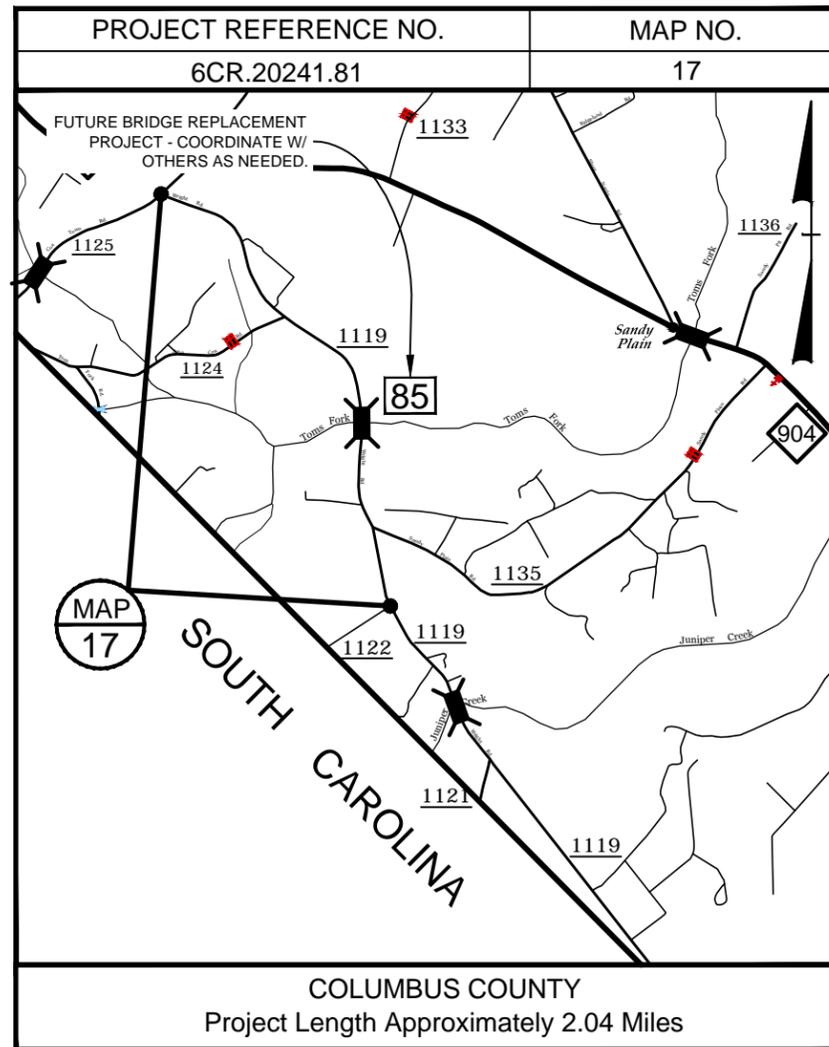




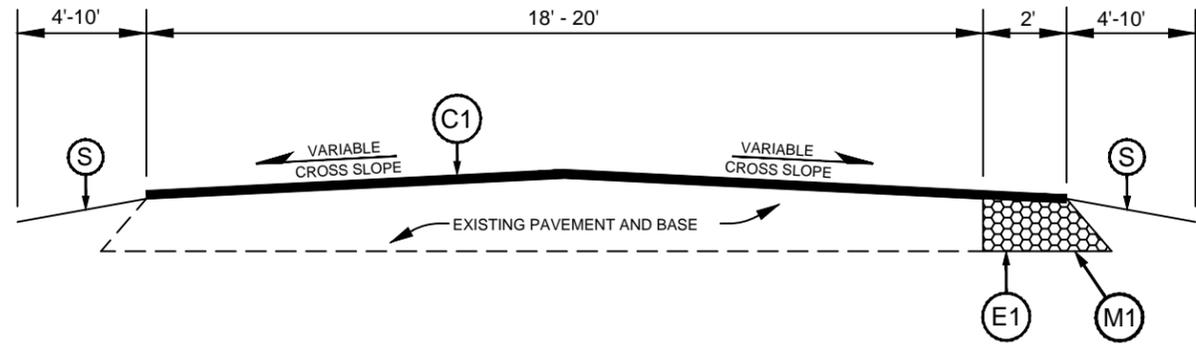
RESURFACING MAPS - COLUMBUS COUNTY

NOTES:

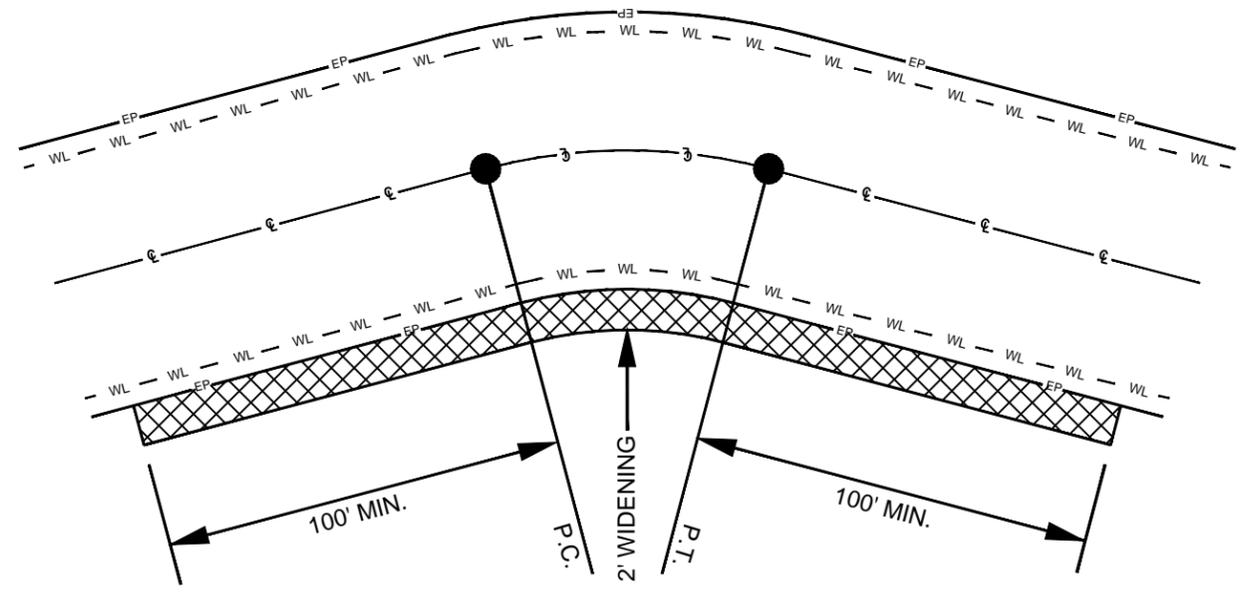
1. THE CONTRACTOR SHALL BE ADVISED THAT MANY EXISTING BRIDGES IN THE PROJECT AREA ARE EITHER CURRENTLY UNDER CONSTRUCTION, OR HAVE BEEN LET FOR CONSTRUCTION IN THE NEAR FUTURE.
2. RESURFACING CONTRACTOR SHALL COORDINATE WITH BRIDGE CONTRACTORS AND NCDOT AS NEEDED.
3. THE AVAILABILITY OF SOME MAPS MAY BE DELAYED, AND ALTERNATE TRUCKING ROUTES MAY BE REQUIRED.
4. SPECIFIC KNOWN BRIDGE REPLACEMENTS WITHIN RESURFACING MAPS ARE SHOWN.



TYPICAL SECTION NO. 7

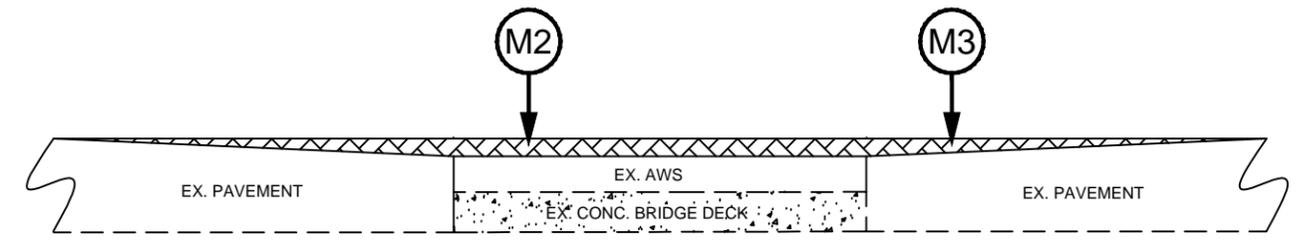


- NOTES:**
1. INCLUDES 2' WIDENING ON THE INSIDE RADIUS OF ALL CURVES, PROVIDED ADEQUATE SHOULDER WIDTH EXISTS. ENGINEER WILL IDENTIFY CURVES TO BE WIDENED IN THE FIELD. SEE DETAIL 1.
 2. INCLUDES MILLING ON ASPHALT BRIDGE DECKS & BRIDGE APPROACHES, AS NEEDED, OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 2.
 3. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE SECTIONS, CURB RADII, AND ALL PUBLIC ROADWAY INTERSECTIONS (NCDOT & MUNICIPALITY), OR AS DIRECTED BY THE ENGINEER. SEE DETAIL 3.



**DETAIL 1
2' INSIDE CURVE WIDENING**

- NOTES:**
1. CONSTRUCT CURVE WIDENING ON ALL CURVES, PROVIDED ADEQUATE SHOULDER EXISTS, OR AS DIRECTED BY ENGINEER.
 2. MAINTAIN LANE WIDTHS AND WHITE EDGE LINE PLACEMENT AS SHOWN. CURVE WIDENING SHOULD ACT AS A PAVED SHOULDER, NOT ADDITIONAL LANE WIDTH.



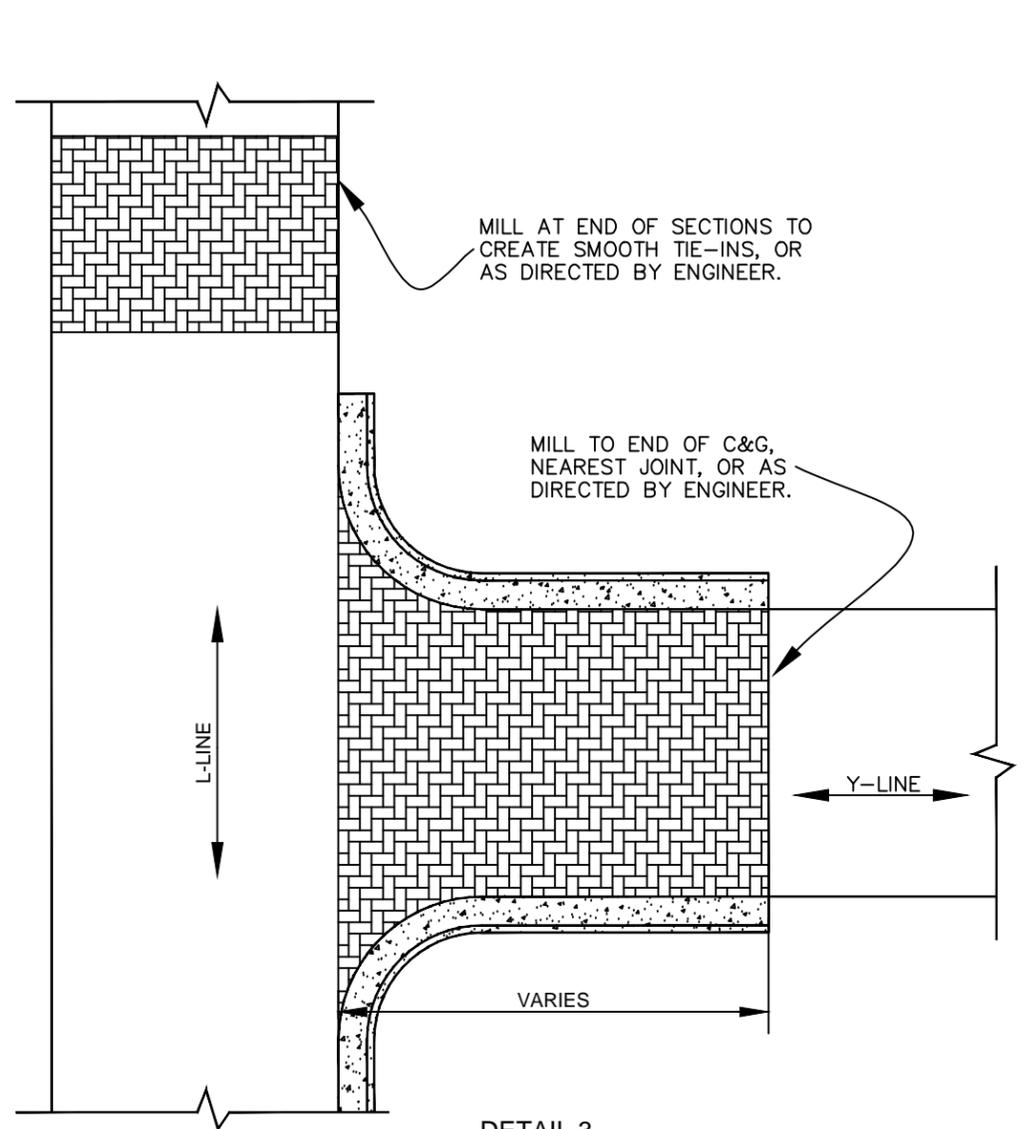
BRIDGE MILLING

**DETAIL 2
MILLING APPROACHES**

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

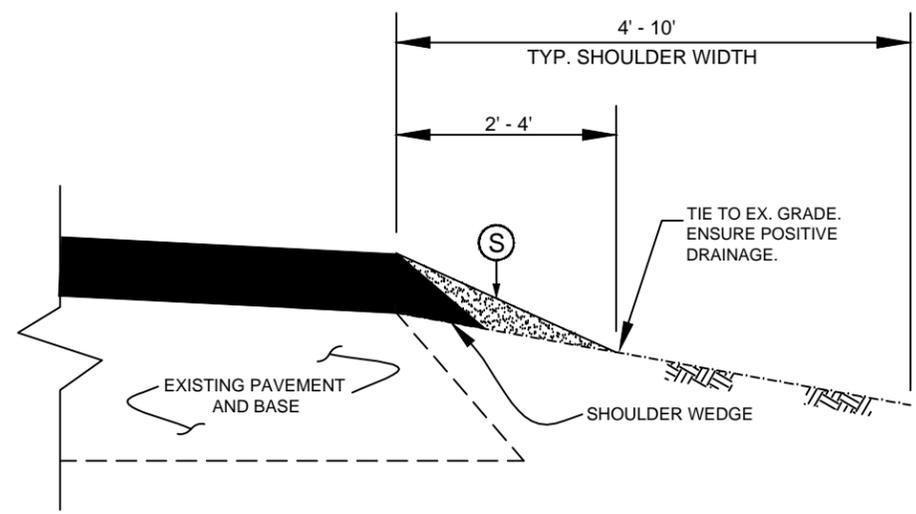
PAVEMENT SCHEDULE	
C1	Proposed approximately 1½" of Asphalt Concrete Surface Course, Type SF-9.5-A, at an average rate of 165 pounds per square yard.
E1	Proposed approximately 5½" of Asphalt Concrete Base Course, Type B-25.0-B, at an average rate of 627 pounds per square yard for 2' widening at inside curve radii, as Directed by the Engineer.
M1	Milling existing soil shoulder, to a depth of 5½", with a width of 2' where indicated by Typical, for inside curve widening.
M2	Milling Depth 1½" for the entire width of the roadway.
M3	Milling Depth 0" - 1½" at all Bridge Approaches, for the entire width of the roadway, or as Directed by the Engineer.
S	Shoulder Reconstruction as directed by the Engineer.

DRAWINGS NOT TO SCALE



DETAIL 3
Y-LINE / BUTT JOINT MILLING

- NOTES:**
1. INCLUDES INCIDENTAL MILLING AT THE ENDS OF MAIN LINE SECTIONS, CURB RADII, AND ALL PUBLIC ROADWAY INTERSECTIONS (NCDOT & MUNICIPALITY), OR AS DIRECTED BY THE ENGINEER.
 2. PAVE TO THE END OF THE MILLED SURFACE TO CREATE A SMOOTH TRANSITION.

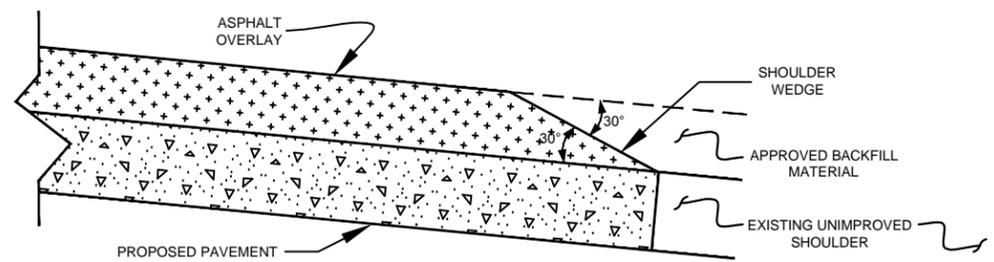


DETAIL 4
SHOULDER RECONSTRUCTION

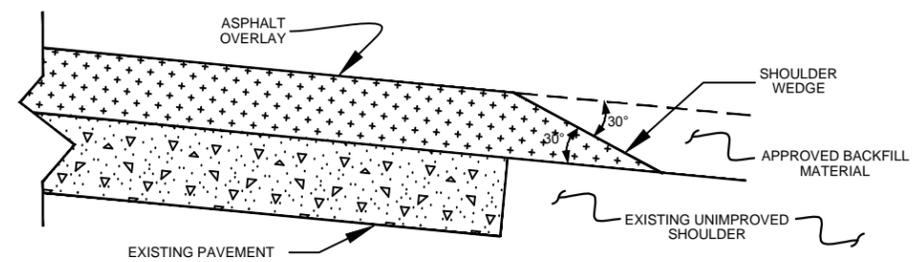
- NOTES:**
1. SHOULDER SHALL BE RECONSTRUCTED AS SHOWN IN STD. DWG. NO. 560.01 & 560.02, WITH A MINIMUM SLOPE OF 1" PER FOOT TO ENSURE POSITIVE DRAINAGE AWAY FROM ROADWAY.
 2. AGGREGATE SHOULDER BORROW (ASB) MATERIAL SHALL BE PLACED USING A WIDENING MACHINE OR SIMILAR DEVICE.
 3. A VEGETATIVE BUFFER 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.

PAVEMENT SCHEDULE	
C1	Proposed approximately 1½" of Asphalt Concrete Surface Course, Type SF-9.5-A, at an average rate of 165 pounds per square yard.
E1	Proposed approximately 5½" of Asphalt Concrete Base Course, Type B-25.0-B, at an average rate of 627 pounds per square yard for 2' widening at inside curve radii, as Directed by the Engineer.
M1	Milling existing soil shoulder, to a depth of 5½", with a width of 2' where indicated by Typical, for inside curve widening.
M2	Milling Depth 1½" for the entire width of the roadway.
M3	Milling Depth 0" - 1½" at all Bridge Approaches, for the entire width of the roadway, or as Directed by the Engineer.
S	Shoulder Reconstruction as directed by the Engineer.

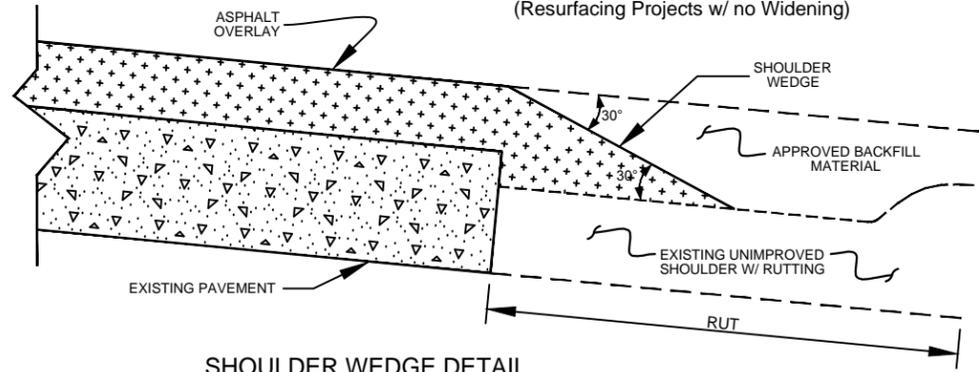
DRAWINGS NOT TO SCALE



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)

DETAIL 5
SHOULDER WEDGE DETAILS

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.

DETAIL 6
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.

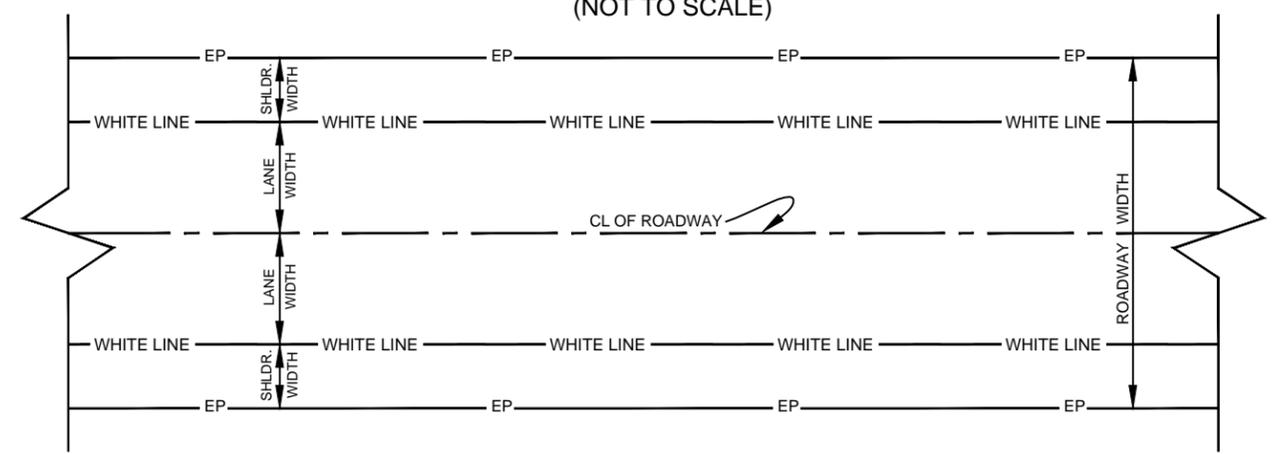
TWO LANE - TWO WAY ROADWAY - 55 MPH		
ROADWAY WIDTH	LANE WIDTH	SHOULDER WIDTH
18'	9' *	0'
20'	10' *	0'
22'	10'	1'
24'	10'	2'
26'	11'	2'
28'	12'	2'
32'	12'	4'

* May vary due to pavement width

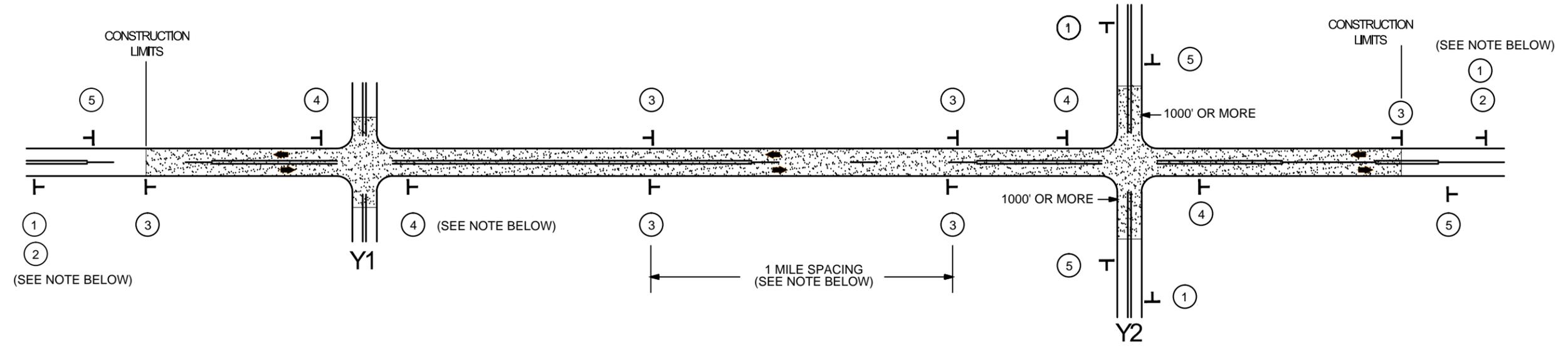
TWO LANE - TWO WAY ROADWAY 50 MPH OR LESS		
ROADWAY WIDTH	LANE WIDTH	SHOULDER WIDTH
18'	9' *	0'
20'	10' *	0'
22'	10'	1'
24'	10'	2'
26'	11'	2'
28'	11'	3'
32'	11'	5'

* May vary due to pavement width

SCHEMATIC OF ROADWAY
(NOT TO SCALE)



SIGNING FOR RESURFACING PROJECTS

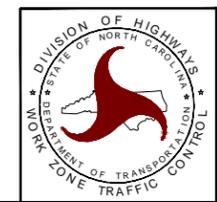


LEGEND	
T	STATIONARY SIGN
→	DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	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>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> LESS THAN 1000' OF RESURFACING ALONG -Y- LINE SUBDIVISION ROADS 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> PLACED 500' IN ADVANCE OF FLAGGER. </div> <div style="text-align: center;"> <small>W20-7 A 48" X 48"</small> PLACED 250' IN ADVANCE OF FLAGGER. </div> </div>		



RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS

SUMMARY OF QUANTITIES

											PROJECT NO.		SHEET NO.	TOTAL NO.	
											6CR.20241.81		1	2	
PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	GENERIC GRADING ITEM AGGREGATE SHOULDER BORROW	SHOULDER RECONSTRUCTION	INCIDENTAL MILLING	BASE COURSE, B25.0B
NO		NO			NO					MI	FT	TON	SMI	SY	TONS
6CR.20241.81	Columbus	8	SR 1104	FROM SR 1103 TO SC LINE	7	2	2WU	NO	NO	1.25	20	417	2.50	89	114
TOTAL FOR MAP NO. 8										1.25		417	2.50	89	114
6CR.20241.81	Columbus	9	SR 1105	FROM SC LINE TO SR 1103	7	2	2WU	NO	NO	0.46	18	154	0.90	89	44
TOTAL FOR MAP NO. 9										0.46		154	0.90	89	44
6CR.20241.81	Columbus	10	SR 1106	FROM SC LINE TO SR 1103	7	2	2WU	NO	NO	0.12	20	40	0.20	89	11
TOTAL FOR MAP NO. 10										0.12		40	0.20	89	11
6CR.20241.81	Columbus	11	SR 1108-A	FROM SR 1112 TO NC 904	7	2	2WU	NO	NO	2.11	18	703	4.20	133	195
TOTAL FOR MAP NO. 11										2.11		703	4.20	133	195
6CR.20241.81	Columbus	12	SR 1108-B	FROM SR 1109 TO SR 1118	7	2	2WU	NO	NO	2.04	20	680	4.10	133	187
TOTAL FOR MAP NO. 12										2.04		680	4.10	133	187
6CR.20241.81	Columbus	13	SR 1110	FROM SR 1109 TO NC 904	7	2	2WU	NO	NO	1.95	20	651	3.90	89	180
TOTAL FOR MAP NO. 13										1.95		651	3.90	89	180
6CR.20241.81	Columbus	14	SR 1112	FROM SR 1108 TO NC 905	7	2	2WU	NO	NO	1.64	20	546	3.30	533	151
TOTAL FOR MAP NO. 14										1.64		546	3.30	533	151
6CR.20241.81	Columbus	15	SR 1115	FROM SR 1113 TO NC 905	7	2	2WU	NO	NO	2.10	20	700	4.20	89	195
TOTAL FOR MAP NO. 15										2.10		700	4.20	89	195
6CR.20241.81	Columbus	16	SR 1118	FROM NC 904 TO SR 1139	7	2	2WU	NO	NO	0.82	18	273	1.60	89	77
TOTAL FOR MAP NO. 16										0.82		273	1.60	89	77
6CR.20241.81	Columbus	17	SR 1119	FROM SR 1125 TO SR 1122	7	2	2WU	NO	NO	2.04	18	680	4.10	578	187
TOTAL FOR MAP NO. 17										2.04		680	4.10	578	187
6CR.20241.81	Columbus	18	SR 1135	FROM NC 904 TO SR 1119	7	2	2WU	NO	NO	2.02	20	673	4.00	89	187
TOTAL FOR MAP NO. 18										2.02		673	4.00	89	187
6CR.20241.81	Columbus	19	SR 1347	FROM NC 904 TO SC LINE	7	2	2WU	NO	NO	0.61	20	203	1.20	89	55
TOTAL FOR MAP NO. 19										0.61		203	1.20	89	55
TOTAL FOR PROJ NO. 6CR.20241.81										17.16		5,720	34.20	2,089	1,583
GRAND TOTAL															

PROJECT	COUNTY	MAP	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	SURFACE COURSE, SF9.5A	LEVELING COURSE, SF9.5A	ASPHALT BINDER FOR PLANT MIX	PATCHING EXISTING PAVEMENT
NO		NO			NO					MI	FT	TONS	TON	TONS	TONS
6CR.20241.81	Columbus	8	SR 1104	FROM SR 1103 TO SC LINE	7	2	2WU	NO	NO	1.25	20	1,265	12	90	19
TOTAL FOR MAP NO. 8										1.25		1,265	12	90	19
6CR.20241.81	Columbus	9	SR 1105	FROM SC LINE TO SR 1103	7	2	2WU	NO	NO	0.46	18	437	6	32	9
TOTAL FOR MAP NO. 9										0.46		437	6	32	9
6CR.20241.81	Columbus	10	SR 1106	FROM SC LINE TO SR 1103	7	2	2WU	NO	NO	0.12	20	144		10	60
TOTAL FOR MAP NO. 10										0.12		144		10	60
6CR.20241.81	Columbus	11	SR 1108-A	FROM SR 1112 TO NC 904	7	2	2WU	NO	NO	2.11	18	1,927	18	139	21
TOTAL FOR MAP NO. 11										2.11		1,927	18	139	21
6CR.20241.81	Columbus	12	SR 1108-B	FROM SR 1109 TO SR 1118	7	2	2WU	NO	NO	2.04	20	2,061	30	148	51
TOTAL FOR MAP NO. 12										2.04		2,061	30	148	51
6CR.20241.81	Columbus	13	SR 1110	FROM SR 1109 TO NC 904	7	2	2WU	NO	NO	1.95	20	1,960	283	156	10
TOTAL FOR MAP NO. 13										1.95		1,960	283	156	10
6CR.20241.81	Columbus	14	SR 1112	FROM SR 1108 TO NC 905	7	2	2WU	NO	NO	1.64	20	1,652	24	119	300
TOTAL FOR MAP NO. 14										1.64		1,652	24	119	300
6CR.20241.81	Columbus	15	SR 1115	FROM SR 1113 TO NC 905	7	2	2WU	NO	NO	2.10	20	2,109	203	162	10
TOTAL FOR MAP NO. 15										2.10		2,109	203	162	10
6CR.20241.81	Columbus	16	SR 1118	FROM NC 904 TO SR 1139	7	2	2WU	NO	NO	0.82	18	759	11	55	16
TOTAL FOR MAP NO. 16										0.82		759	11	55	16
6CR.20241.81	Columbus	17	SR 1119	FROM SR 1125 TO SR 1122	7	2	2WU	NO	NO	2.04	18	1,876	27	136	51
TOTAL FOR MAP NO. 17										2.04		1,876	27	136	51
6CR.20241.81	Columbus	18	SR 1135	FROM NC 904 TO SR 1119	7	2	2WU	NO	NO	2.02	20	2,030	20	145	20
TOTAL FOR MAP NO. 18										2.02		2,030	20	145	20
6CR.20241.81	Columbus	19	SR 1347	FROM NC 904 TO SC LINE	7	2	2WU	NO	NO	0.61	20	630	24	46	45
TOTAL FOR MAP NO. 19										0.61		630	24	46	45
TOTAL FOR PROJ NO. 6CR.20241.81										17.16		16,850	658	1,238	612
GRAND TOTAL															

THERMOPLASTIC & PAINT QUANTITIES

										PROJECT NO.	SHEET NO.	TOTAL NO.	
										6CR.20241.81	2	2	
										441300000-E	481000000-E	490000000-N	
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	WORK ZONE ADVANCE/GENERAL WARNING SIGNING SF	4" WHITE PAINT LF	4" YELLOW PAINT LF	YELLOW & YELLOW MARKERS EA
6CR.20241.81	Columbus	8	SR 1104	FROM SR 1103 TO SC LINE	7	2	2WU	1.25	20	140	28,000	22,400	
TOTAL FOR MAP NO. 8										140	28,000	22,400	
6CR.20241.81	Columbus	9	SR 1105	FROM SC LINE TO SR 1103	7	2	2WU	0.46	18	52	11,440	9,152	
TOTAL FOR MAP NO. 9										52	11,440	9,152	
6CR.20241.81	Columbus	10	SR 1106	FROM SC LINE TO SR 1103	7	2	2WU	0.12	20	13	3,000	3,000	
TOTAL FOR MAP NO. 10										13	3,000	3,000	
6CR.20241.81	Columbus	11	SR 1108-A	FROM SR 1112 TO NC 904	7	2	2WU	2.11	18	236	45,200	36,160	140
TOTAL FOR MAP NO. 11										236	45,200	36,160	140
6CR.20241.81	Columbus	12	SR 1108-B	FROM SR 1109 TO SR 1118	7	2	2WU	2.04	20	228	43,600	34,880	
TOTAL FOR MAP NO. 12										228	43,600	34,880	
6CR.20241.81	Columbus	13	SR 1110	FROM SR 1109 TO NC 904	7	2	2WU	1.95	20	218	41,200	37,080	
TOTAL FOR MAP NO. 13										218	41,200	37,080	
6CR.20241.81	Columbus	14	SR 1112	FROM SR 1108 TO NC 905	7	2	2WU	1.64	20	184	33,300	26,640	
TOTAL FOR MAP NO. 14										184	33,300	26,640	
6CR.20241.81	Columbus	15	SR 1115	FROM SR 1113 TO NC 905	7	2	2WU	2.1	20	235	44,800	35,840	
TOTAL FOR MAP NO. 15										235	44,800	35,840	
6CR.20241.81	Columbus	16	SR 1118	FROM NC 904 TO SR 1139	7	2	2WU	0.82	18	92	17,600	14,080	
TOTAL FOR MAP NO. 16										92	17,600	14,080	
6CR.20241.81	Columbus	17	SR 1119	FROM SR 1125 TO SR 1122	7	2	2WU	2.04	18	228	44,000	37,400	
TOTAL FOR MAP NO. 17										228	44,000	37,400	
6CR.20241.81	Columbus	18	SR 1135	FROM NC 904 TO SR 1119	7	2	2WU	2.02	20	226	43,200	34,560	
TOTAL FOR MAP NO. 18										226	43,200	34,560	
6CR.20241.81	Columbus	19	SR 1347	FROM NC 904 TO SC LINE	7	2	2WU	0.61	20	68	15,200	12,240	45
TOTAL FOR MAP NO. 19										68	15,200	12,240	45
TOTAL FOR PROJ NO. 6CR.20241.81										1,920	370,540	303,432	185
GRAND TOTAL										1,920	370,540	303,432	185
										673,972			