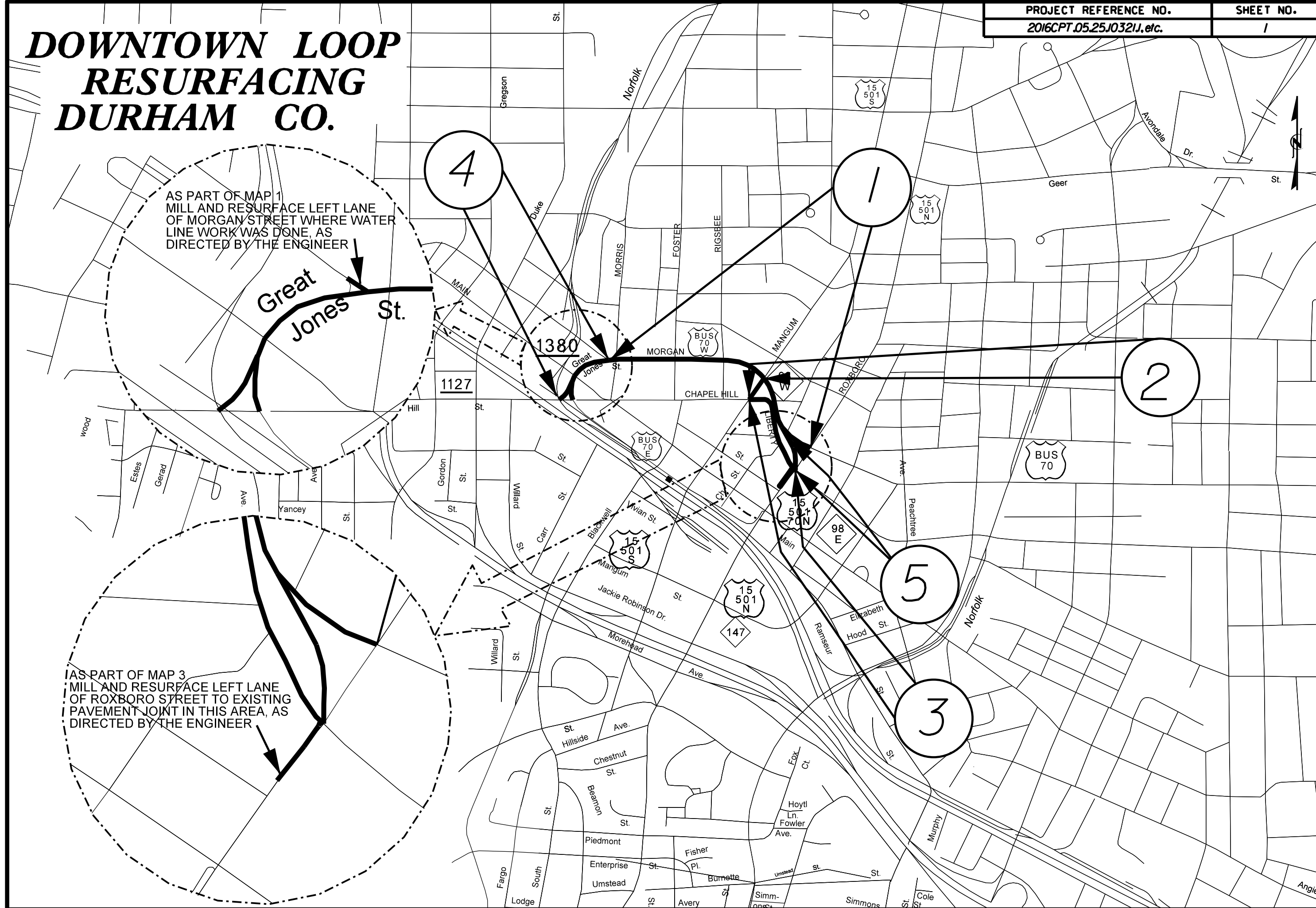


# DOWNTOWN LOOP RESURFACING DURHAM CO.

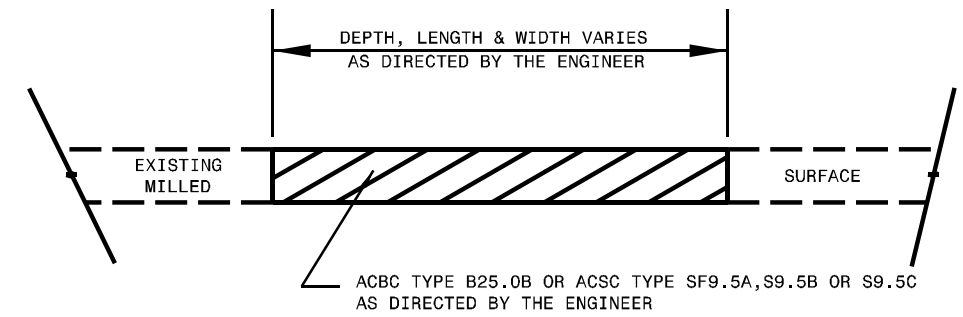
AS PART OF MAP 1  
MILL AND RESURFACE LEFT LANE  
OF MORGAN STREET WHERE WATER  
LINE WORK WAS DONE, AS  
DIRECTED BY THE ENGINEER

AS PART OF MAP 3  
MILL AND RESURFACE LEFT LANE  
OF ROXBORO STREET TO EXISTING  
PAVEMENT JOINT IN THIS AREA, AS  
DIRECTED BY THE ENGINEER

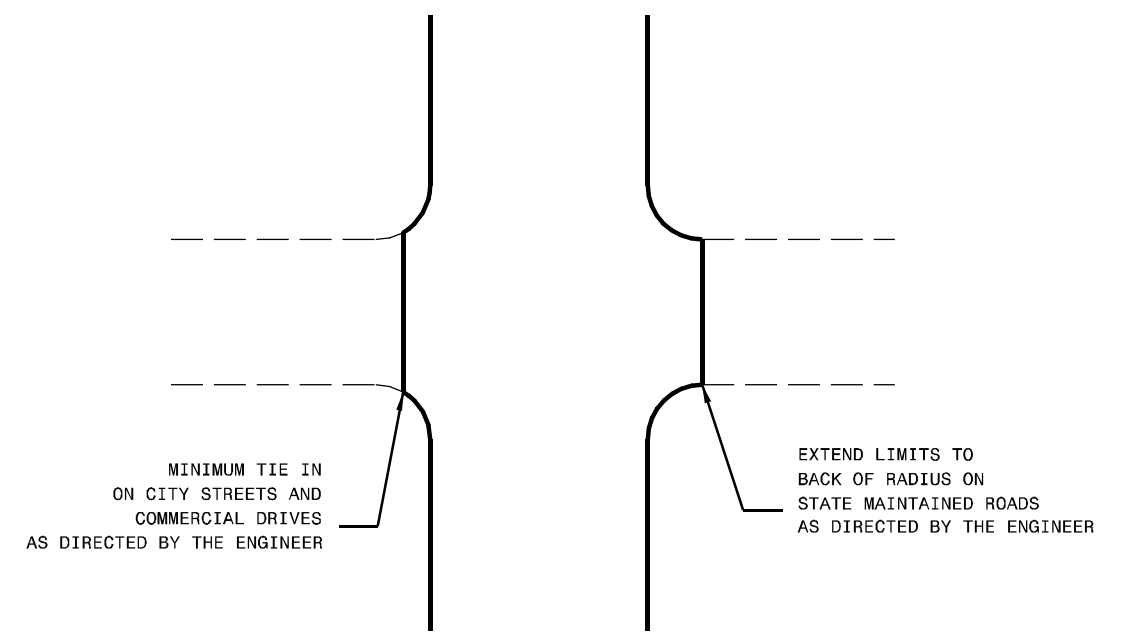


# PAVEMENT SCHEDULE

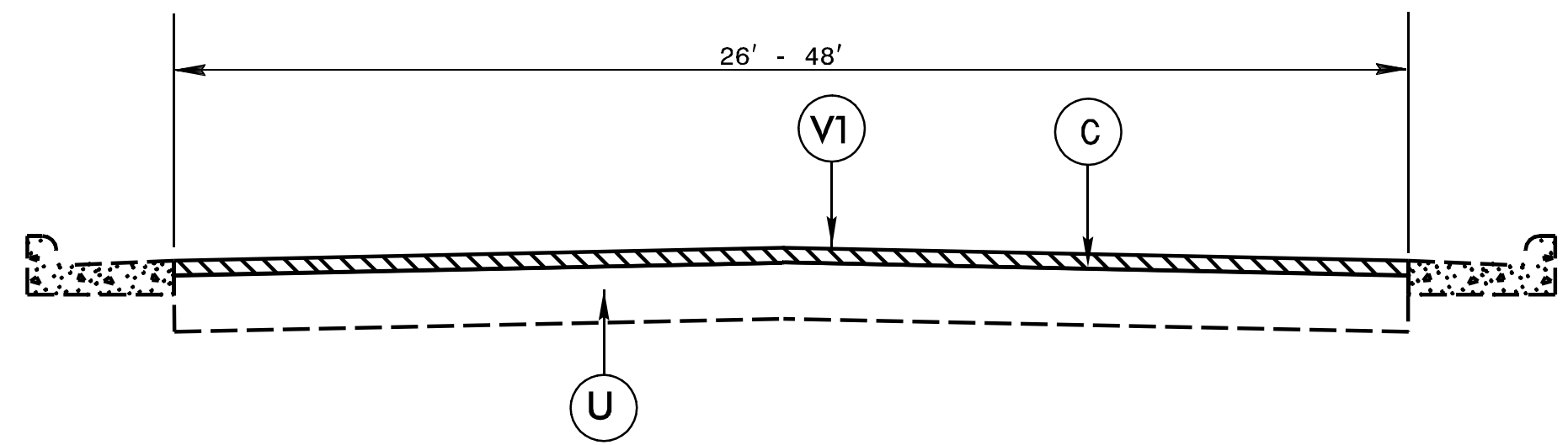
C	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D	2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
U	EXISTING PAVEMENT AND SUBGRADE
V1	1½" MILLING
V2	4" MILLING



PATCHING EXISTING PAVEMENT



DETAIL OF PROJECT LIMITS AT Y LINES



TYPICAL SECTION NO. 1

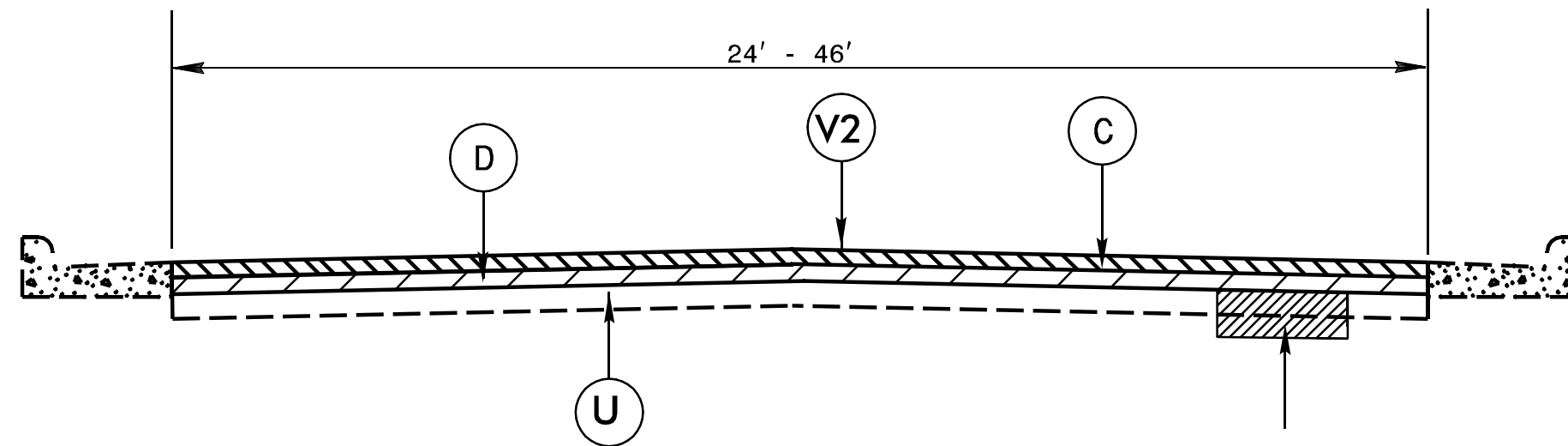
# PAVEMENT SCHEDULE

<b>PROJECT REFERENCE NO.</b>	<b>SHEET NO.</b>
2016CPT.05.25.10321.1, etc.	1-2

<b>C</b>	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
<b>D</b>	2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
<b>U</b>	EXISTING PAVEMENT AND SUBGRADE
<b>V1</b>	1½" MILLING
<b>V2</b>	4" MILLING

NOTES

ALL UNPAVED S.R. 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.  
 BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.



TYPICAL SECTION NO. 2

SHALLOW UNDERCUT AND FILL WITH CLASS IV SUBGRADE & GEOTEXTILE AS DIRECTED BY THE ENGINEER

\*USE ON MAP 1 FROM ROXBORO TO CLEVELAND  
 AND FROM MANGUM TO RIGSBEE

PROJECT NO.	SHEET NO.	TOTAL NO.
2016CPT.05.25.10321.1,		
2016CPT.05.25.20321.1		

### SUMMARY OF QUANTITIES

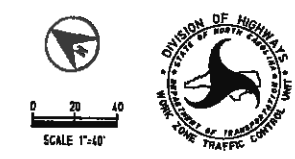
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	GEOTEXTILE FOR SOIL STABILIZATION SY	SHALLOW UNDERCUT CY	CLASS IV SUBGRADE STABILIZATION TON	4" MILLING SY	1 1/2" MILLING SY	INTER MEDIATE COURSE, I19.0B TONS	SURFACE COURSE, S9.5B TONS	ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT TONS	ADJUST MANHOLES EA	ADJUST METER OR VALVE BOX EA		
2016CPT.05.25.10321.1	Durham	1	US70BUS WB (MORGAN)	ROXBORO TO GREAT JONES ST	1,2	2	NO	NO	0.53	44	295	66	132	2,952	10,745	421	1,268	96	100	12	10		
<b>TOTAL FOR MAP NO. 1</b>									<b>0.53</b>		<b>295</b>	<b>66</b>	<b>132</b>	<b>2,952</b>	<b>10,745</b>	<b>421</b>	<b>1,268</b>	<b>96</b>	<b>100</b>	<b>12</b>	<b>10</b>		
2016CPT.05.25.10321.1	Durham	2	US15/501BUS SB (MANGUM)	US70BUS WB TO NC 98EB	1	2	NO	NO	0.046	36					972		90	5	5				
<b>TOTAL FOR MAP NO. 2</b>									<b>0.046</b>						<b>972</b>		<b>90</b>	<b>5</b>	<b>5</b>				
2016CPT.05.25.10321.1	Durham	3	NC98 EB (CHAPEL HILL ST/LIBERTY EB)	MANGUM TO ROXBORO	1	2	NO	NO	0.179	30					3,647		338	20	18				
<b>TOTAL FOR MAP NO. 3</b>									<b>0.179</b>						<b>3,647</b>		<b>338</b>	<b>20</b>	<b>18</b>				
<b>TOTAL FOR PROJ NO. 2016CPT.05.25.10321.1</b>									<b>0.755</b>		<b>295</b>	<b>66</b>	<b>132</b>	<b>2,952</b>	<b>15,364</b>	<b>421</b>	<b>1,696</b>	<b>121</b>	<b>123</b>	<b>12</b>	<b>10</b>		
2016CPT.05.25.20321.1	Durham	4	SR 1380 (GREAT JONES)	US70BUS WB TO US70BUS EB	1	2	NO	NO	0.148	48					4,168		515	31	15				
<b>TOTAL FOR MAP NO. 4</b>									<b>0.148</b>						<b>4,168</b>		<b>515</b>	<b>31</b>	<b>15</b>				
2016CPT.05.25.20321.1	Durham	5	SR 1750 (LIBERTY)	15/501BUS NB TO US70BUS WB	1	2	NO	NO	0.072	26					1,098		102	6	7				
<b>TOTAL FOR MAP NO. 5</b>									<b>0.072</b>						<b>1,098</b>		<b>102</b>	<b>6</b>	<b>7</b>				
<b>TOTAL FOR PROJ NO. 2016CPT.05.25.20321.1</b>									<b>0.22</b>						<b>5,266</b>		<b>617</b>	<b>37</b>	<b>22</b>				
<b>GRAND TOTAL</b>									<b>0.975</b>		<b>295</b>	<b>66</b>	<b>132</b>	<b>2,952</b>	<b>20,630</b>	<b>421</b>	<b>2,313</b>	<b>158</b>	<b>145</b>	<b>12</b>	<b>10</b>		

### THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LENGTH	WIDTH	4457000000-N	4413000000-E	4685000000-E		4686000000-E	4695000000-E		4697000000-E	4710000000-E	4721000000-E	4725000000-E				
									TEMPORARY TRAFFIC CONTROL LS	WORK ZONE ADVANCE/ GENERAL WARNING SIGNING SF	4" X 90 M WHITE THERMO LF	4" X 90 M YELLOW THERMO LF	4" X 120 M WHITE THERMO LF	8" X 90 M WHITE THERMO LF	8" X 90 M YELLOW THERMO LF	8" X 120 M WHITE THERMO LF	24" X 120 M WHITE THERMO LF	THERMO MSG ONLY 120 M EA	THERMO STR ARROW 90 M EA	THERMO RT ARROW 90 M EA	THERMO STR & RT ARROW 90 M EA	THERMO LT ARROW 90 M EA	THERMO STR & LT ARROW 90 M EA
2016CPT.05.25.10321.1	Durham	1	US70BUS WB (MORGAN)	ROXBORO TO GREAT JONES ST	1,2	2	0.53	44	0.67	126	1,825		1,090	465		1,410	582	8	8	2	3	3	
<b>TOTAL FOR MAP NO. 1</b>									<b>0.53</b>	<b>126</b>	<b>1,825</b>		<b>1,090</b>	<b>465</b>		<b>1,410</b>	<b>582</b>	<b>8</b>	<b>8</b>	<b>2</b>	<b>3</b>	<b>3</b>	
2016CPT.05.25.10321.1	Durham	2	US15/501BUS SB (MANGUM)	US70BUS WB TO NC 98EB	1	2	0.046	36	0.03	126	135		50	80		95	45	2	2			2	
<b>TOTAL FOR MAP NO. 2</b>									<b>0.046</b>	<b>126</b>	<b>135</b>		<b>50</b>	<b>80</b>		<b>95</b>	<b>45</b>	<b>2</b>	<b>2</b>			<b>2</b>	
2016CPT.05.25.10321.1	Durham	3	NC98 EB (CHAPEL HILL ST/LIBERTY EB)	MANGUM TO ROXBORO	1	2	0.179	30	0.09	126	100	70	435	25	22	150	171	6				2	
<b>TOTAL FOR MAP NO. 3</b>									<b>0.179</b>	<b>126</b>	<b>100</b>	<b>70</b>	<b>435</b>	<b>25</b>	<b>22</b>	<b>150</b>	<b>171</b>	<b>6</b>				<b>2</b>	
<b>TOTAL FOR PROJ NO. 2016CPT.05.25.10321.1</b>									<b>0.755</b>	<b>378</b>	<b>2,060</b>	<b>70</b>	<b>1,575</b>	<b>570</b>	<b>22</b>	<b>1,655</b>	<b>798</b>	<b>8</b>	<b>16</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>2</b>
											<b>2,130</b>		<b>592</b>								<b>28</b>		
2016CPT.05.25.20321.1	Durham	4	SR 1380 (GREAT JONES)	US70BUS WB TO US70BUS EB	1	2	0.148	48	0.18	126	315		312	415		445	138	4	2			1	
<b>TOTAL FOR MAP NO. 4</b>									<b>0.148</b>	<b>126</b>	<b>315</b>		<b>312</b>	<b>415</b>		<b>445</b>	<b>138</b>	<b>4</b>	<b>2</b>			<b>1</b>	
2016CPT.05.25.20321.1	Durham	5	SR 1750 (LIBERTY)	15/501BUS NB TO US70BUS WB	1	2	0.072	26	0.03	126			100										
<b>TOTAL FOR MAP NO. 5</b>									<b>0.072</b>	<b>126</b>			<b>100</b>										
<b>TOTAL FOR PROJ NO. 2016CPT.05.25.20321.1</b>									<b>0.22</b>	<b>252</b>	<b>315</b>		<b>412</b>	<b>415</b>		<b>445</b>	<b>138</b>	<b>4</b>	<b>2</b>			<b>1</b>	
<b>GRAND TOTAL</b>									<b>0.975</b>	<b>1.00</b>	<b>630</b>	<b>70</b>	<b>1,987</b>	<b>985</b>	<b>22</b>	<b>2,100</b>	<b>936</b>	<b>8</b>	<b>20</b>	<b>4</b>	<b>3</b>	<b>6</b>	<b>2</b>
											<b>2,445</b>		<b>1,007</b>								<b>35</b>		

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LENGTH	WIDTH	4810000000-E		4820000000-E		4835000000-E	4840000000-N	4845000000-N					4900000000-N				
									4" WHITE PAINT LF	4" YELLOW PAINT LF	8" WHITE PAINT LF	8" YELLOW PAINT LF	24" WHITE PAINT LF	PAINT MSG ONLY EA	PAINT STR ARROW EA	PAINT RT ARROW EA	PAINT STR & RT ARROW EA	PAINT LT ARROW EA	PAINT STR & LT ARROW EA	CRYSTAL & RED MARKERS EA	YELLOW & YELLOW MARKERS EA			
2016CPT.05.25.10321.1	Durham	1	US70BUS WB (MORGAN)	ROXBORO TO GREAT JONES ST	1,2	2	0.53	44	2,915				582	8	8	2	3	3				70		
<b>TOTAL FOR MAP NO. 1</b>									<b>2,915</b>				<b>582</b>	<b>8</b>	<b>8</b>	<b>2</b>	<b>3</b>	<b>3</b>				<b>70</b>		
2016CPT.05.25.10321.1	Durham	2	US15/501BUS SB (MANGUM)	US70BUS WB TO NC 98EB	1	2	0.046	36	185				45	2								5		
<b>TOTAL FOR MAP NO. 2</b>									<b>185</b>				<b>45</b>	<b>2</b>								<b>5</b>		
2016CPT.05.25.10321.1	Durham	3	NC98 EB (CHAPEL HILL ST/LIBERTY EB)	MANGUM TO ROXBORO	1	2	0.179	30	535	70	175	22	171	6								18	4	
<b>TOTAL FOR MAP NO. 3</b>									<b>535</b>	<b>70</b>	<b>175</b>	<b>22</b>	<b>171</b>	<b>6</b>								<b>18</b>	<b>4</b>	
<b>TOTAL FOR PROJ NO. 2016CPT.05.25.10321.1</b>									<b>3,635</b>	<b>70</b>	<b>2,130</b>	<b>22</b>	<b>798</b>	<b>8</b>	<b>16</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>2</b>	<b>93</b>	<b>4</b>			
											<b>3,705</b>		<b>2,152</b>										<b>97</b>	
2016CPT.05.25.20321.1	Durham	4	SR 1380 (GREAT JONES)	US70BUS WB TO US70BUS EB	1	2	0.148	48	627				138	4								30		
<b>TOTAL FOR MAP NO. 4</b>									<b>627</b>				<b>138</b>	<b>4</b>									<b>30</b>	
2016CPT.05.25.20321.1	Durham	5	SR 1750 (LIBERTY)	15/501BUS NB TO US70BUS WB	1	2	0.072	26	100													5		
<b>TOTAL FOR MAP NO. 5</b>									<b>100</b>													<b>5</b>		
<b>TOTAL FOR PROJ NO. 2016CPT.05.25.20321.1</b>									<b>727</b>				<b>860</b>	<b>4</b>									<b>35</b>	
<b>GRAND TOTAL</b>									<b>4,362</b>	<b>70</b>	<b>2,990</b>	<b>22</b>	<b>936</b>	<b>8</b>	<b>20</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>2</b>	<b>128</b>	<b>4</b>			
											<b>4,432</b>		<b>3,012</b>				<b>32</b>				<b>132</b>			

**ADDENDUM 1 FIGURE 1**



TIP NO. X-XXXXX	SHEET NO. PMP-1
APPROVED: _____	
DATE: _____	
SEAL	

**PAVEMENT MARKING LINES AND SYMBOLS**

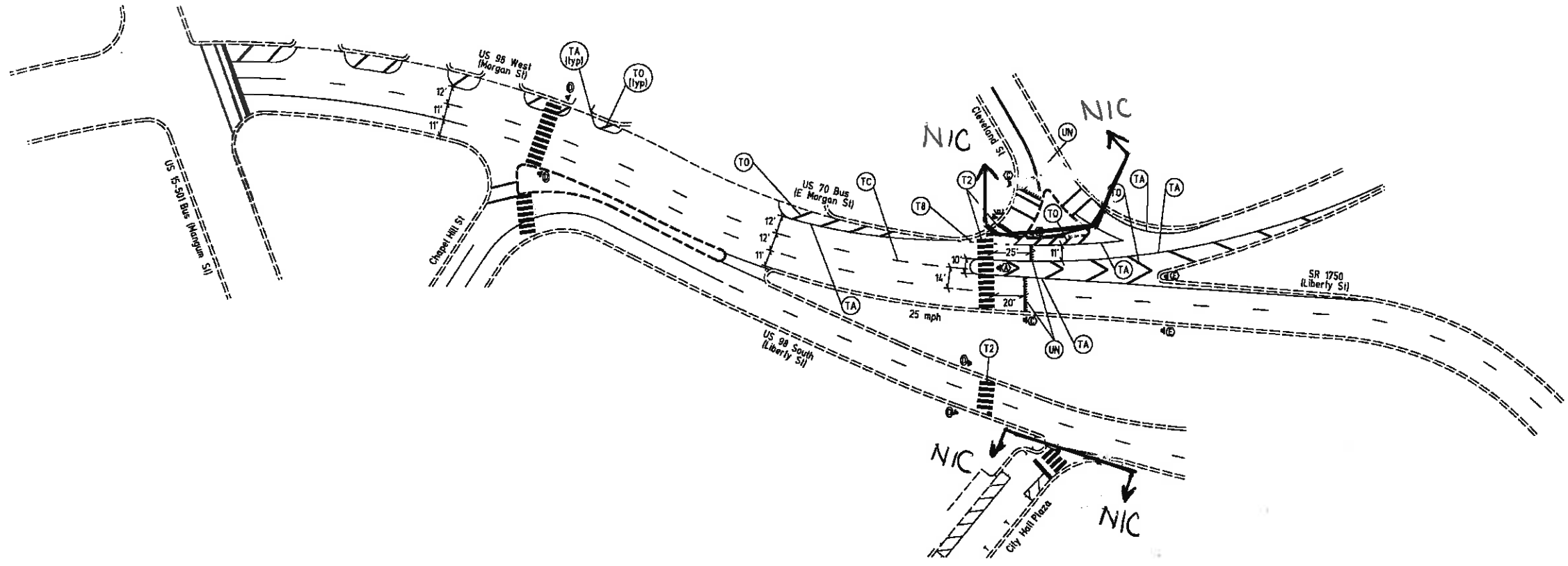
- T2 THERMO WHITE STOPBAR (24", 120 mils)
- T8 THERMO 2'-6"/SP WHITE MINI-SKIP (4", 120 mils)
- TA THERMO WHITE EDGELINE (4", 90 mils)
- TC THERMO 10' WHITE SKIP (4", 120 mils)
- TO THERMO WHITE DIAGONAL (8", 90 mils)
- UN 24" YIELD LINE TRIANGLE (90 mils)

**NOTES**

- THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.
- 1) REFER TO "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - NC DEPARTMENT OF TRANSPORTATION - RALEIGH, NC, DATED JANUARY 2012. THESE STANDARDS ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS.
  - 2) PLACE TWO APPLICATIONS OF PAINT PAVEMENT MARKINGS ON THE FINAL WEARING SURFACE. PLACE THE SECOND APPLICATION OF PAINT UPON SUFFICIENT DRYING TIME OF THE FIRST.
  - 3) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
  - 4) STOP BAR LOCATION AT NON-SIGNALIZED INTERSECTIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
  - 5) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOPBARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.
  - 6) CROSSWALKS HAVE 8 FEET OF SEPARATION BETWEEN LINES. ALL STOPBARS SHALL BE LOCATED 4 FEET BEHIND AND PARALLEL TO CROSSWALKS.

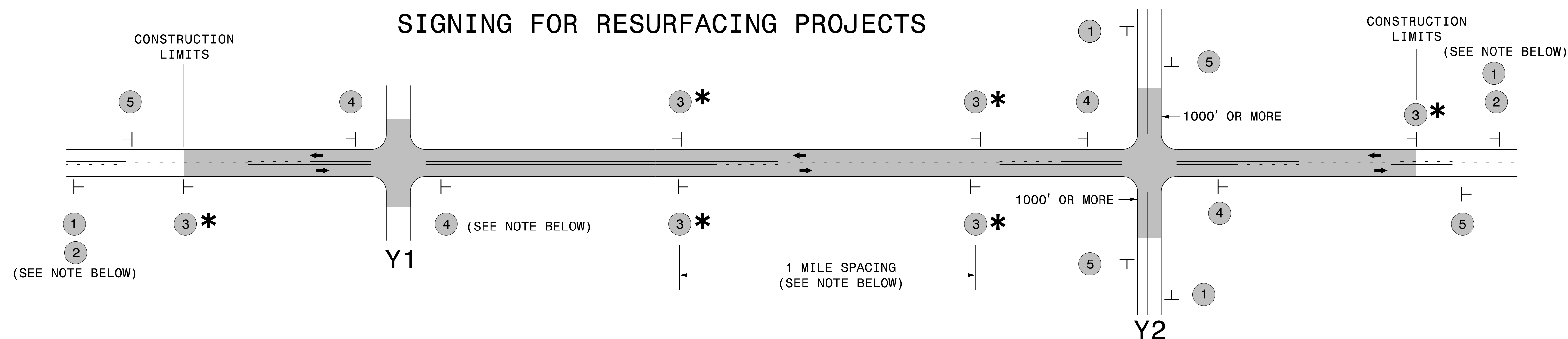
**SIGN LEGEND**

PROPOSED		EXISTING
ⓐ	In-Street Pedestrian Sign (R1-6)	ⓐ
ⓑ	"STOP" Sign (R1-1)	ⓑ
ⓒ	"YIELD HERE TO" Pedestrians Sign (R1-5)	ⓒ
ⓓ	Pedestrian Crossing Sign (W11-2) with Supplemental Arrow Plaque (W16-7P)	ⓓ
ⓔ	Pedestrian Crossing Sign (W11-2) with "AHEAD" Plaque (W16-9P)	ⓔ



**NEW PAVEMENT MARKING  
PAVEMENT MARKING DETAIL  
US 98 West (Morgan Street)**

## SIGNING FOR RESURFACING PROJECTS



LEGEND	
	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

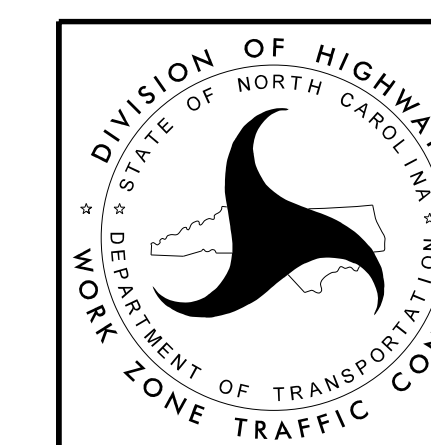
### MAINLINE (-L-) SIGNING

### -Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION		
1 2		<p style="text-align: center;"><b>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</b></p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <p style="text-align: center;">WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>W20-1 48" X 48"</p> </div> <div style="text-align: center;"> <p>W20-7 A 48" X 48"</p> </div> </div> <p style="text-align: center;">PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
3 *		
4		
5		

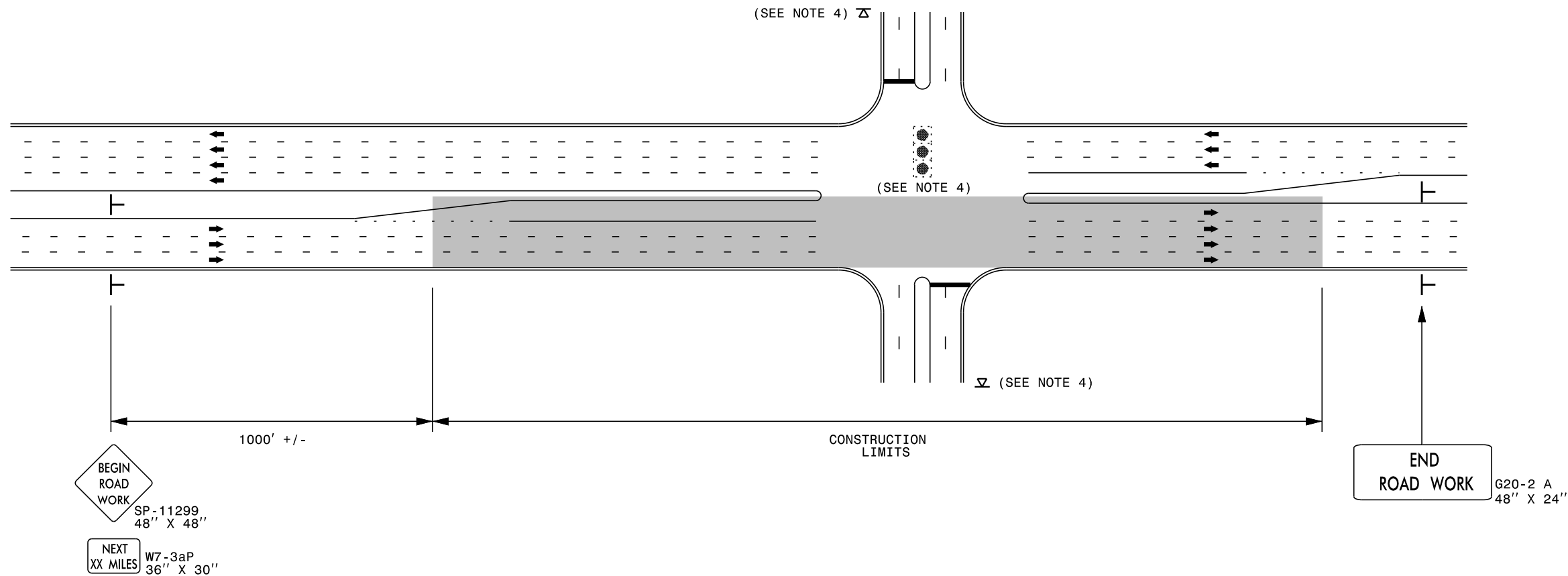
### \* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

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



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

## URBAN / SUBURBAN WORKZONES

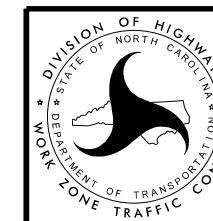


### NOTES:

- 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



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