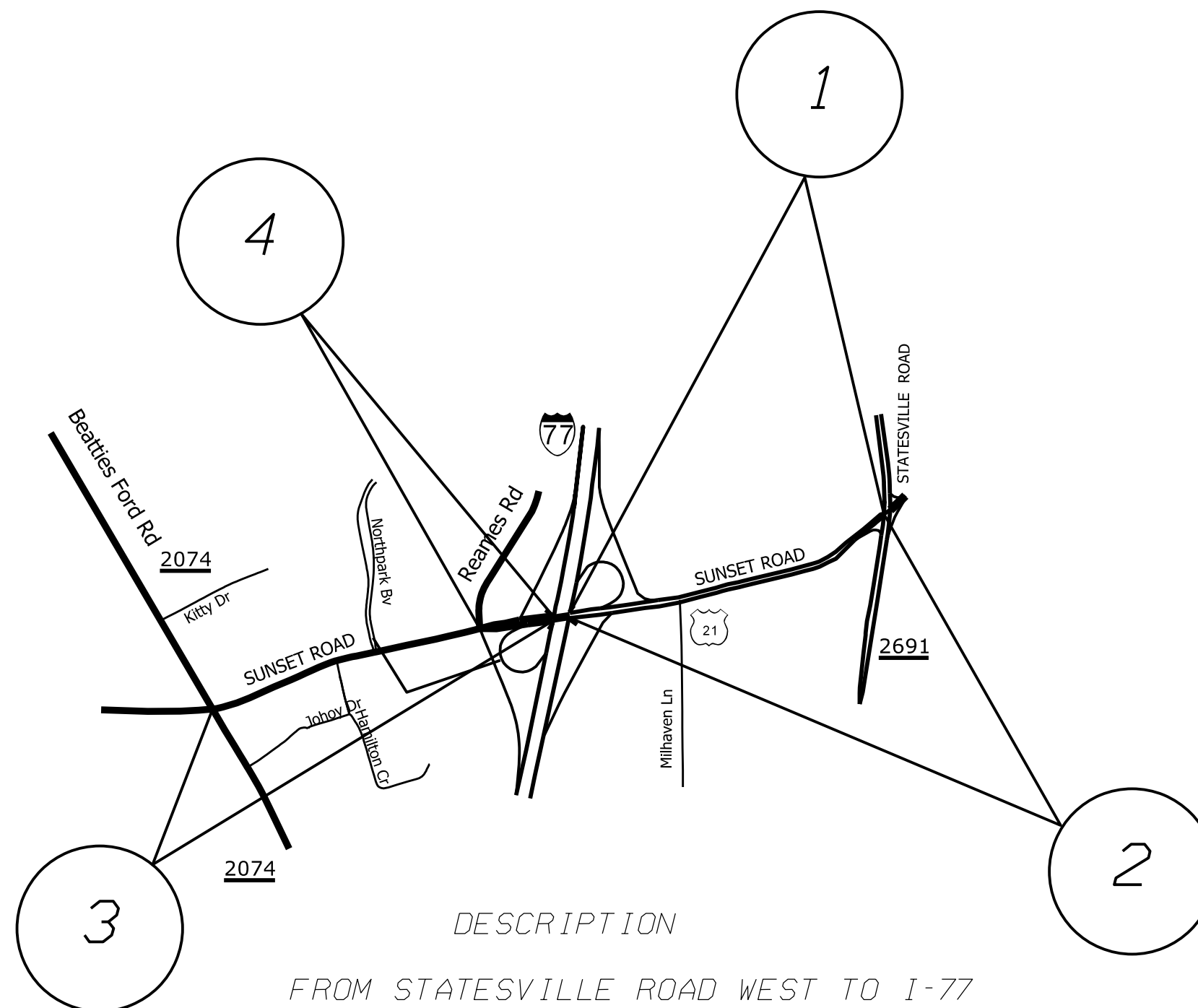


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numbers appear on each page, on the dates appearing  
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shall not be considered a certified document.**

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		1	15
WBS NO. 2017CPT.10.05.10601.1, ETC.			




MAP

DESCRIPTION

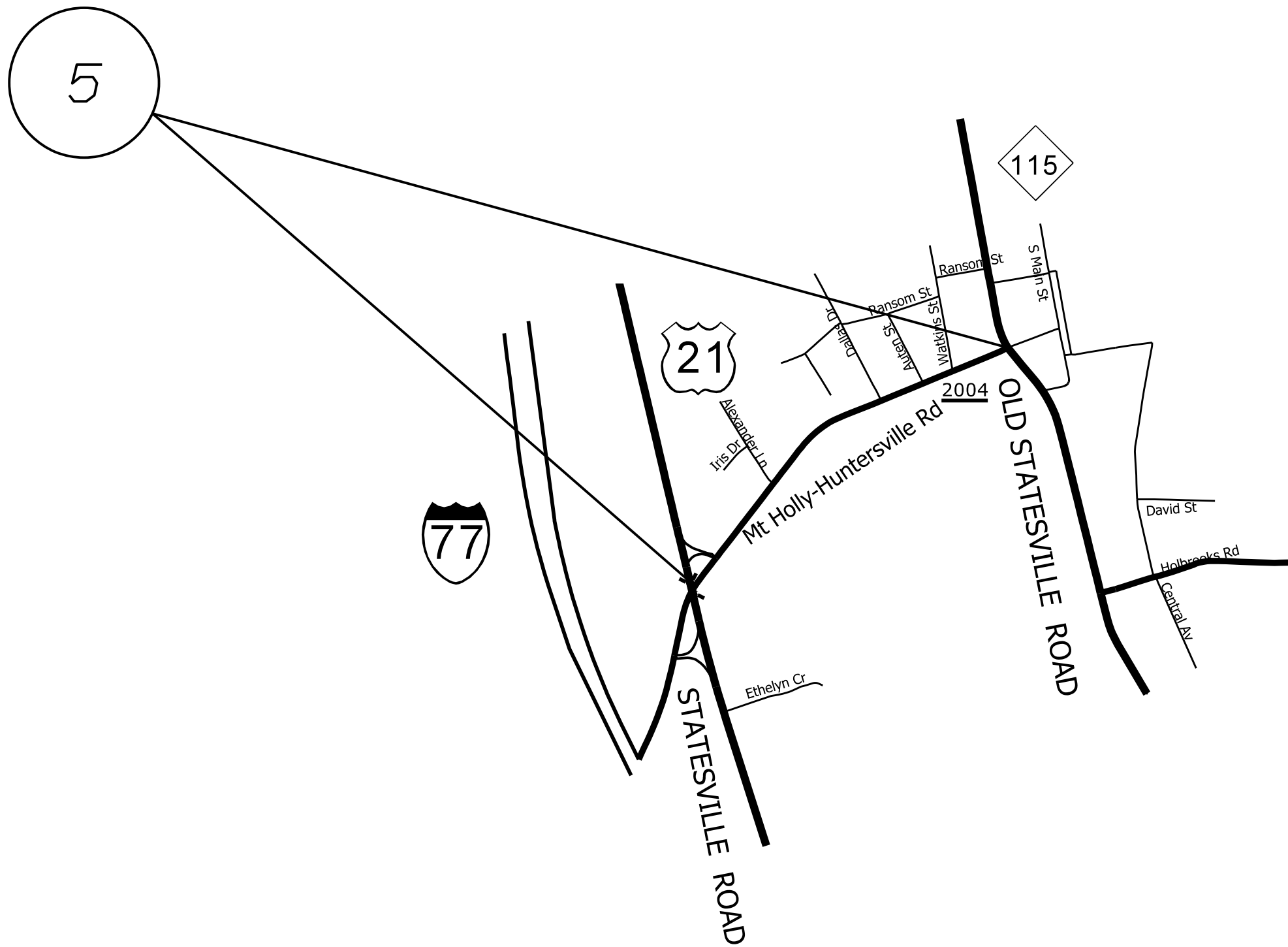
- # 1 US 21 (SUNSET ROAD (WB))
- # 2 NC 21 (SUNSET ROAD (EB))
- # 3 SR 2108 SUNSET ROAD (EB)
- # 4 SR 2108 SUNSET ROAD (WB)

- FROM STATESVILLE ROAD WEST TO I-77 BRIDGE DECK
- FROM I-77 BRIDGE DECK EAST TO STATESVILLE ROAD
- FROM BEATTIES FORD ROAD EAST TO I-77 BRIDGE DECK
- FROM I-77 BRIDGE DECK WEST TO REAMES ROAD



2017/2018 MECKLENBURG COUNTY RESURFACING		
SCALE	-NA-	
DATE	3/17	
DWG. BY	JHE	
DESIGN BY	JHE	
APPROVED	TJP	REVISIONS

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		2	15
WBS NO.	2017CPT.10.05.20601.2		



MAP

DESCRIPTION

#5 SR 2004 MT. HOLLY-HUNTERSVILLE RD. FROM NC 115 TO US 21 / I-77 OVERPASS



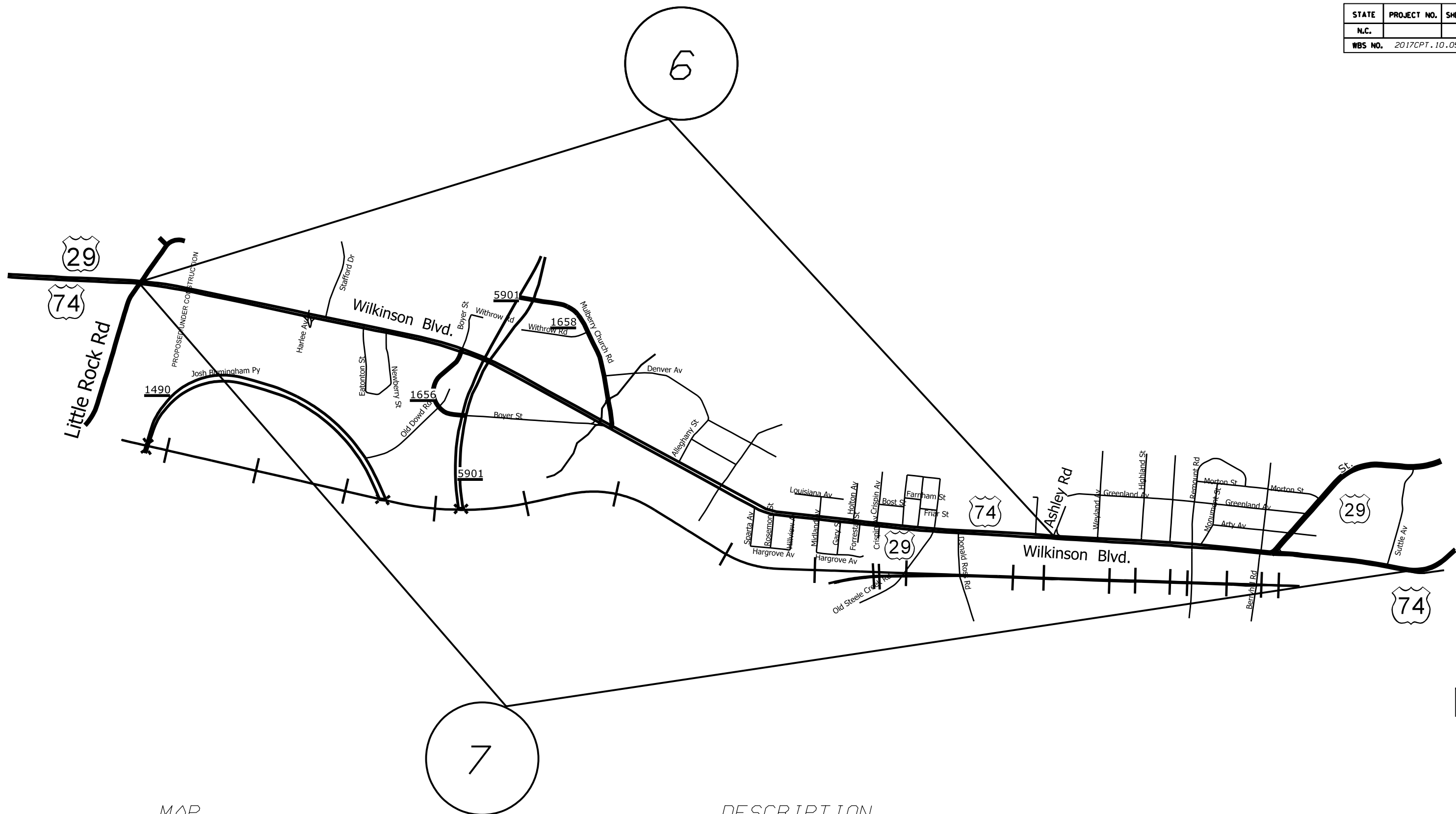
2015/2016 MECKLENBURG COUNTY  
RESURFACING

SCALE	-NA-
DATE	3/17
DWG. BY	JHE
DESIGN BY	JHE
APPROVED	TJP



REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		3	15
WBS NO.	2017CPT.10.05.10601.2		



MAP

DESCRIPTION

#6 US 74 (WILKINSON BLVD (WB))

FROM ASHLEY ROAD WEST BOUND TO SR 1641 LITTLE ROCK ROAD INTERSECTION

#7 US 74 (WILKINSON BLVD (EB))

FROM SR 1641 LITTLE ROCK ROAD EAST BOUND TO CONCRETE PAVEMENT JOINT PRIOR TO I-277

2017/2018 MECKLENBURG COUNTY RESURFACING

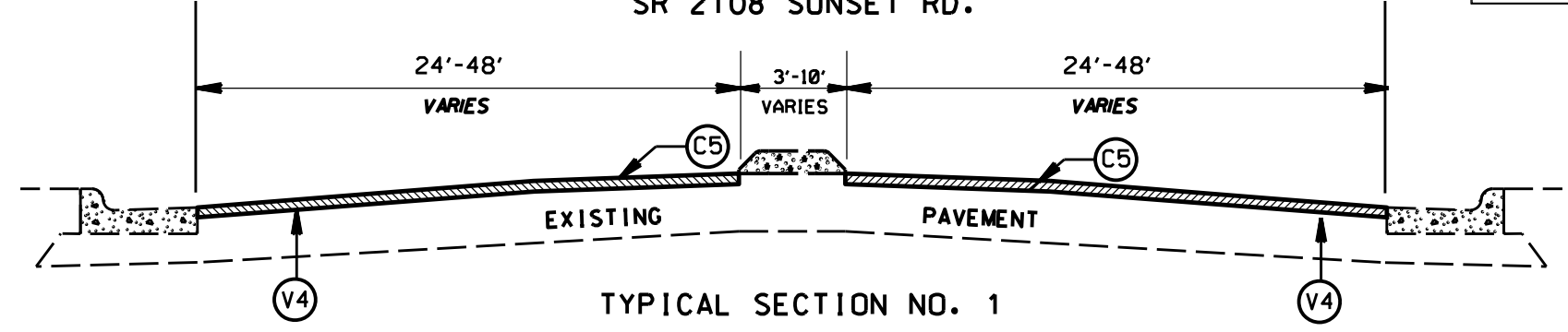
SCALE	-1A-
DATE	3/17
DWG. BY	JHE
DESIGN BY	JHE
APPROVED	TJP



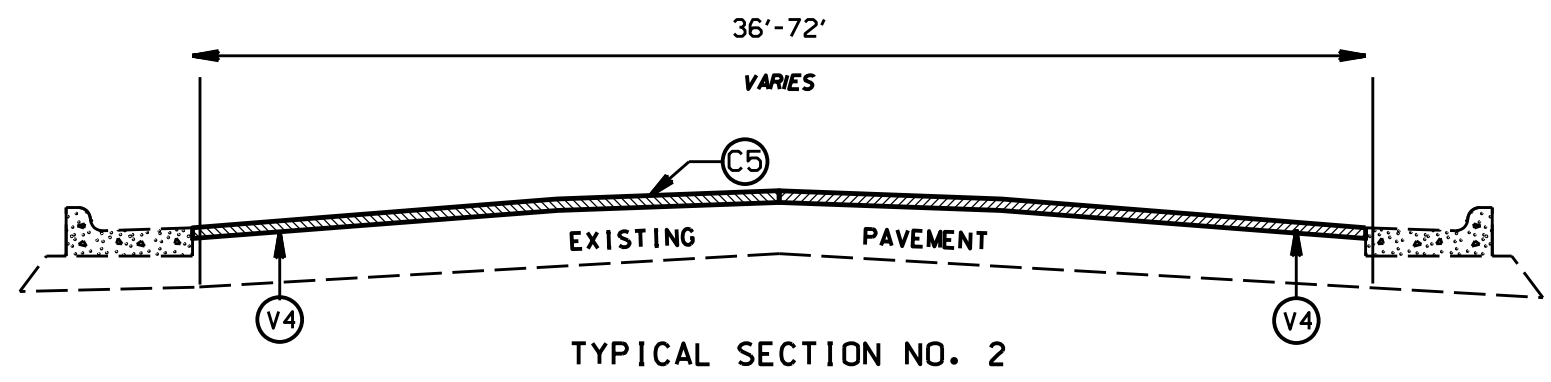
REVISIONS	

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		4	15
WBS NO. 2017CPT.J0.05.10601, ETC.			

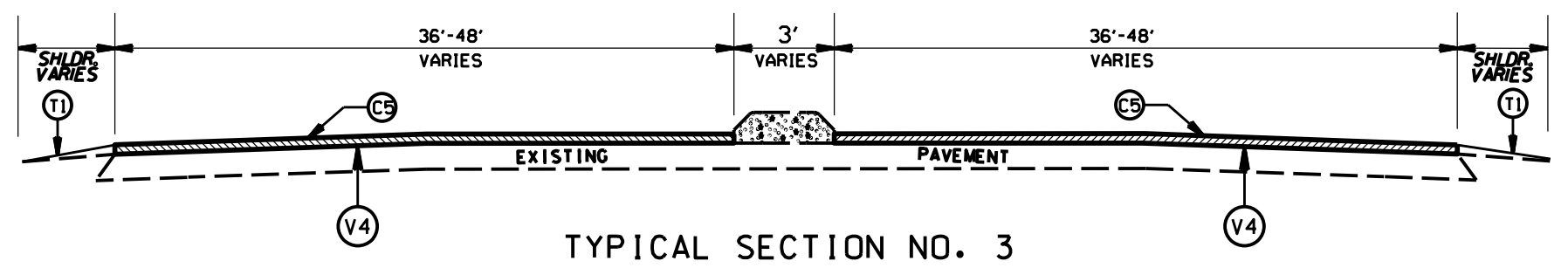
US 21 SUNSET RD (EB&WB)  
SR 2108 SUNSET RD.



SR 2018 SUNSET RD  
(WB & EB)



US-21 SUNSET RD (WB&EB)



PAVEMENT SCHEDULE	
C3	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C5	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C6	PROP. ASPHALT SURFACE TREATMENT, MATCOAT #67, AT AN AVERAGE RATE OF 38 LBS. PER SQ. YD. (STONE) AND 0.40 GALLONS PER SQ. YD. (LIQUID ASPHALT)
D2	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D3	PROP. APPROX. 5.0" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
E1	PROP. APPROX. 5.5" ASPHALT BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION
V4	MILLING 2.0" DEPTH
V5	MILLING 2.5" DEPTH

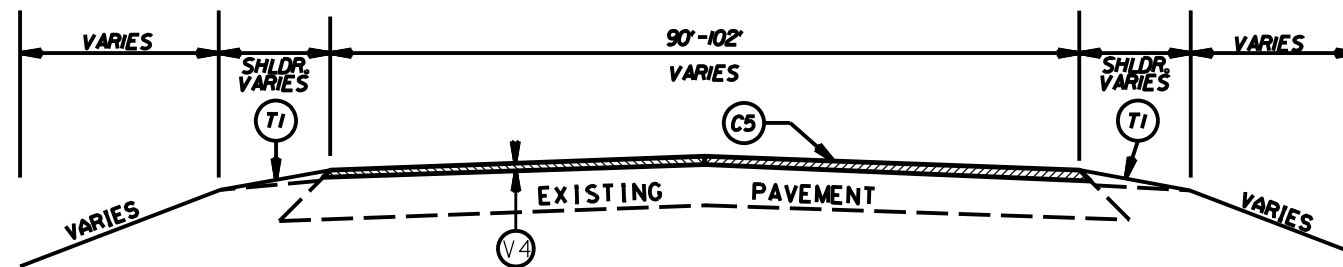
2017/2018 MECKLENBURG COUNTY  
RESURFACING

SCALE	-NA-		REVISIONS
DATE	3/17		
DWG. BY	JME		
DESIGN BY	JME		
APPROVED	TJP		

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		5	15
WBS NO. 2017CPTJ0.05J060LL ETC.			

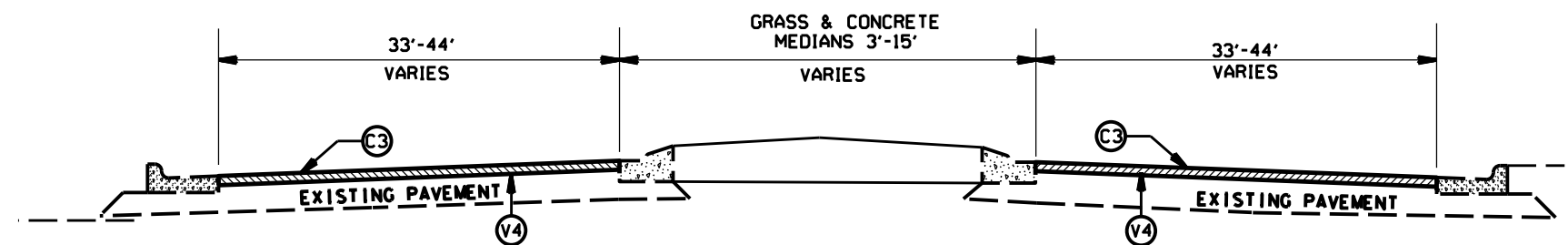
PAVEMENT SCHEDULE	
C3	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C5	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C6	PROP. ASPHALT SURFACE TREATMENT, MATCOAT #67, AT AN AVERAGE RATE OF 38 LBS. PER SQ. YD. (STONE) AND 0.40 GALLONS PER SQ. YD. (LIQUID ASPHALT)
D2	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D3	PROP. APPROX. 5.0" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
E1	PROP. APPROX. 5.5" ASPHALT BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION
V4	MILLING 2.0" DEPTH
V5	MILLING 2.5" DEPTH

US 21 & SR 2108 SUNSET RD (WB & EB)



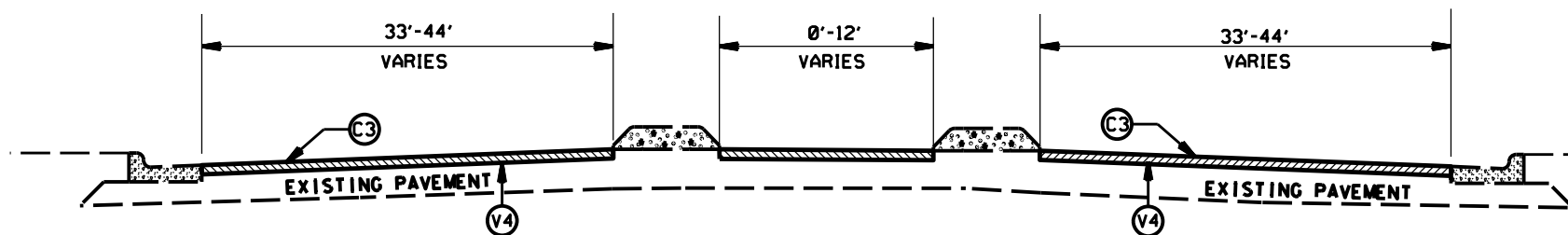
TYPICAL SECTION NO. 4

WILKINSON BLVD. (WB & EB)



TYPICAL SECTION NO. 5

WILKINSON BLVD. (WB & EB)



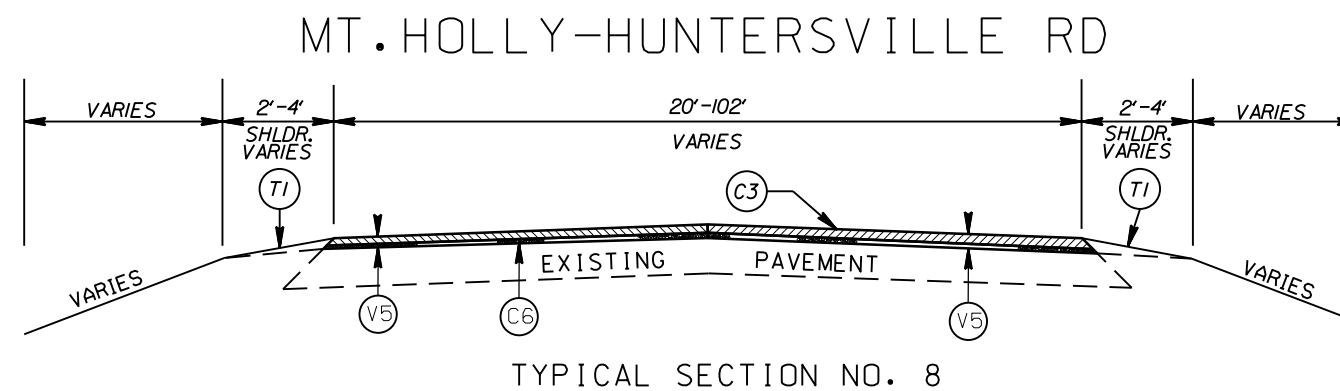
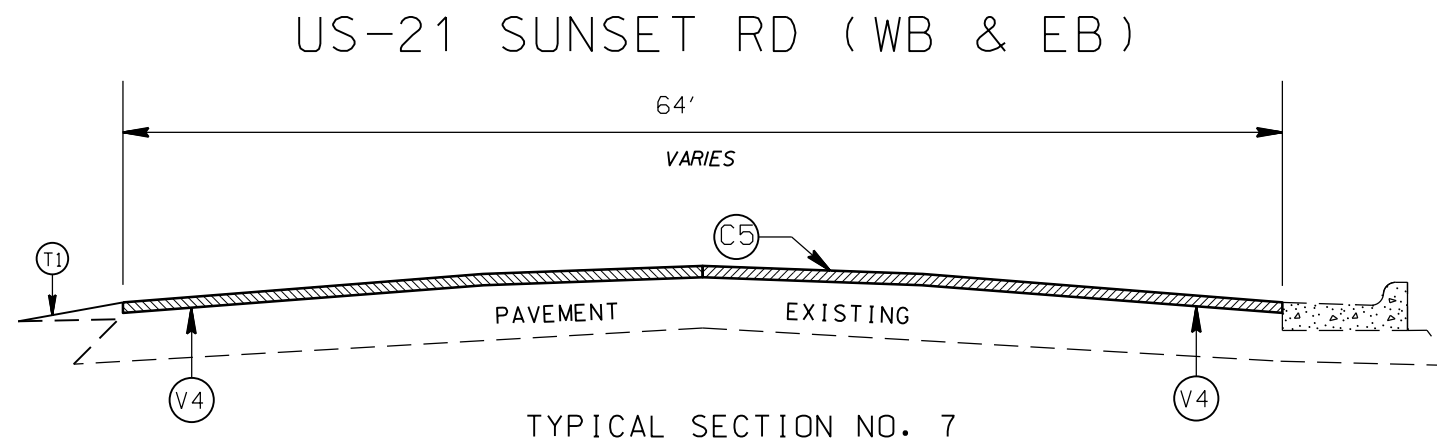
TYPICAL SECTION NO. 6

2017/2018 MECKLENBURG COUNTY RESURFACING

SCALE	-NA-		REVISIONS	
DATE	3/17			
DWG. BY	JHE			
DESIGN BY	JHE			
APPROVED	TJP			

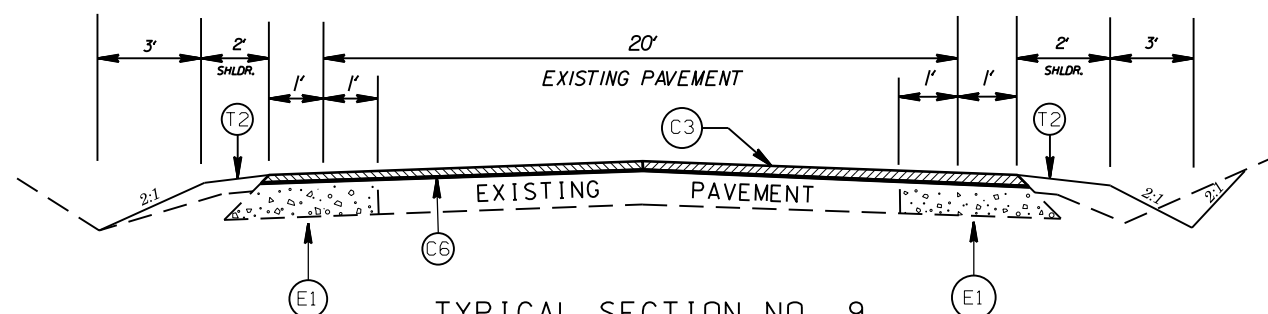
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.		6	15
WBS NO. 2017CPT.10.05.206011, ETC.			

PAVEMENT SCHEDULE	
C3	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C5	PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C6	PROP. ASPHALT SURFACE TREATMENT, MATCOAT #67, AT AN AVERAGE RATE OF 38 LBS. PER SQ. YD. (STONE) AND 0.40 GALLONS PER SQ. YD. (LIQUID ASPHALT)
D2	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D3	PROP. APPROX. 5.0" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
E1	PROP. APPROX. 5.5" ASPHALT BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
T1	SHOULDER RECONSTRUCTION
T2	SHOULDER CONSTRUCTION.
V4	MILLING 2.0" DEPTH
V5	MILLING 2.5" DEPTH



MILL 100FT. EACH DIRECTION FROM CENTER LINE OF US 21 OVERPASS BRIDGE

MT. HOLLY-HUNTERSVILLE RD



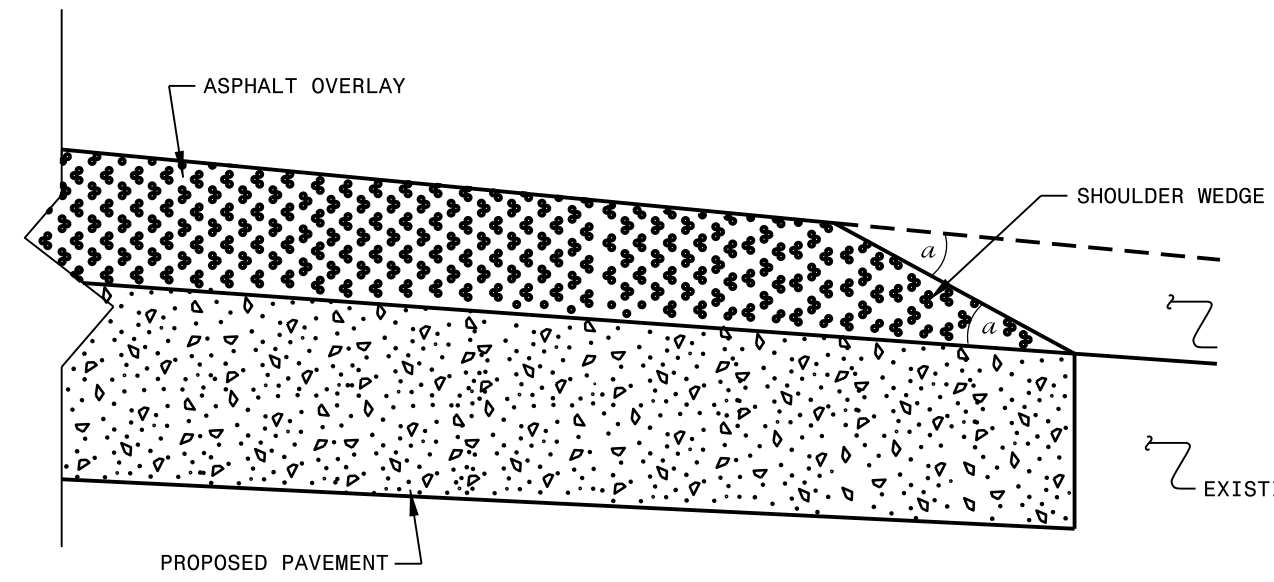
WIDENING FROM 0+00 TO 46+00

CONTRACTOR SHALL REMOVE 1' OF THE EXISTING EDGE OF PAVEMENT IN WIDENING AREAS.

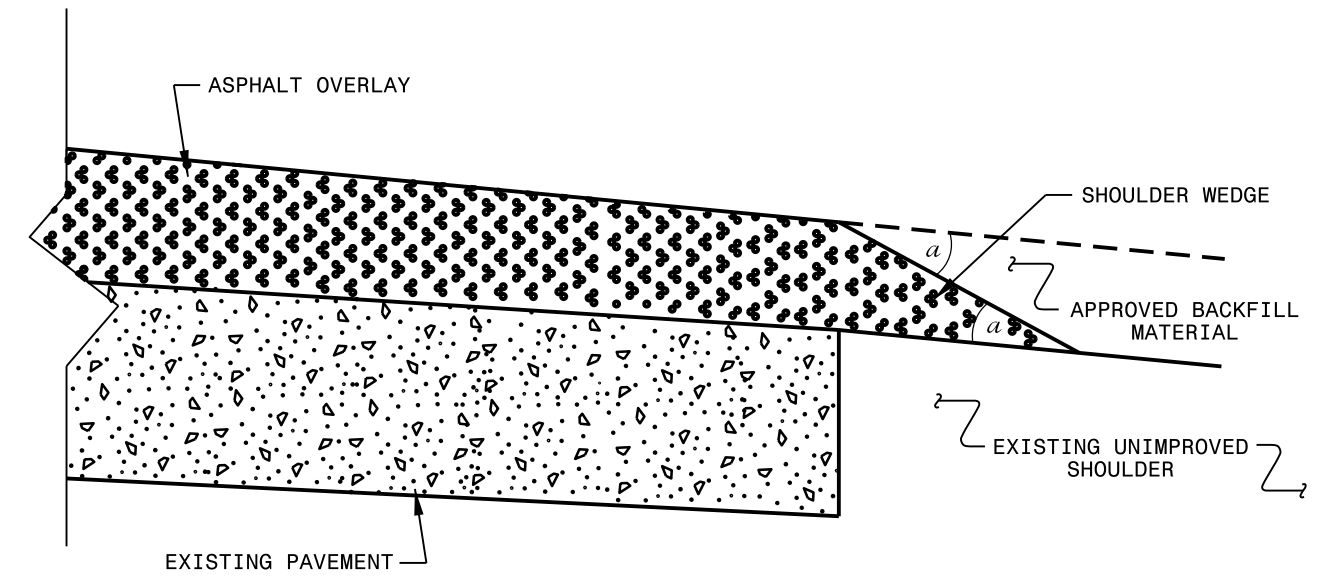
2017/2018 MECKLENBURG COUNTY RESURFACING

SCALE	-NA-		REVISIONS
DATE	3/17		
DWG. BY	JHE		
DESIGN BY	JHE		
APPROVED	TJP		

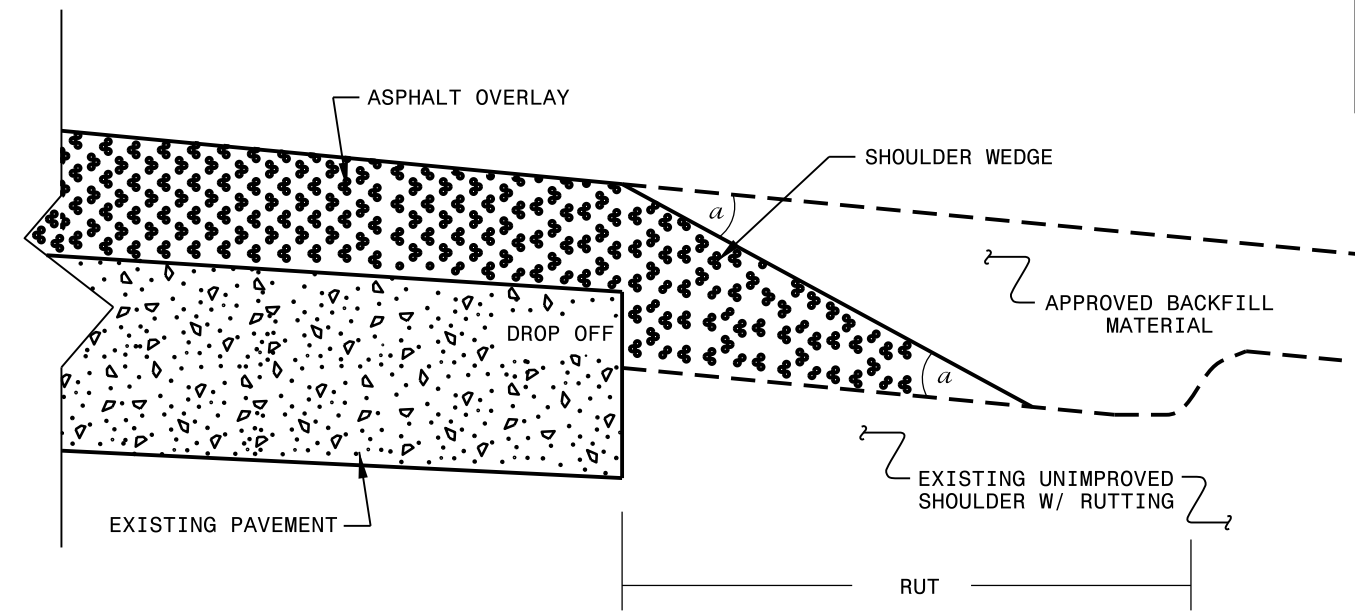
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
  - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
  - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



**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°

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>			
Office 919-707-6950		FAX 919-250-4119	
<b>SHOULDER WEDGE DETAILS</b>			
ORIGINAL BY: T.SPELL	DATE: 7-19-11		
MODIFIED BY:	DATE: 2/2/16		
CHECKED BY:	DATE:		
FILE SPEC.: susr/details/stand/shoulderwedgedetail.dgn			

SYSTEMS DESIGN  
 USER NAME



**SUMMARY OF QUANTITIES**

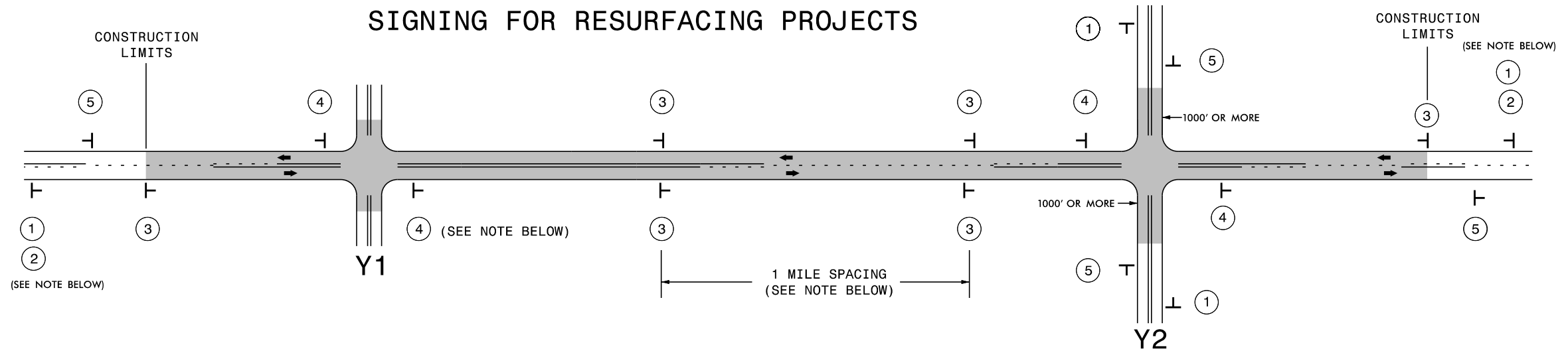
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	BORROW CY	INCIDENTAL STONE BASE TONS	SHOULDER CONSTRUCTION SMI	SHOULDER RECONSTRUCTION SMI	2.0" MILLING SY	2.5" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0C TONS	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, S9.5C TONS	ASPHALT BINDER FOR PLANT MIX TONS	PATCHING EXISTING PAVEMENT (MILL) TONS	ASPHALT SURFACE TREATMENT, MATCOAT, #67 STONE SY	EMULSION FOR ASPHALT SURFACE TREATMENT GAL	WHEELCHAIR RAMPS EA	6" DRIVEWAYS SY	RETROFIT EXISTING WHEELCHAIR RAMPS EA	ADJ. OF MANHOLES EA	ADJ. OF METER OR VALVE BOX EA	PORTABLE LIGHTING LS	TEMPORARY SILT FENCE LF	STONE FOR EROSION CONTROL, CLASS B TN	SEDIMENT CONTROL STONE TN	WATTLE LF	POLYACRYLAMIDE (PAM) LB	SEED & MULCHING AC		
2017CPT.10.05.10601.1	Mecklenburg	1	US 21 SUNSET RD (WB)	FROM STATESVILLE RD. TO I-77 (MP 14.58 TO 15.10)		1,3,7	2	MD	NO	0.52	27.8	6			0.09	8,903					1,051	62	314																
<b>TOTAL FOR MAP NO. 1</b>										<b>0.52</b>		<b>6</b>			<b>0.09</b>	<b>8,903</b>					<b>1,051</b>	<b>62</b>	<b>314</b>								<b>2</b>	<b>0.17</b>	<b>82</b>	<b>11</b>	<b>5</b>	<b>16</b>	<b>1</b>		
2017CPT.10.05.10601.1	Mecklenburg	2	US 21 SUNSET RD (EB)	FROM I-77 TO STATESVILLE RD (MP 15.74 TO 16.26)		1,2,3,7	2	M2	NO	0.52	45.8	43			0.59	14,419					1,728	102	487				10		1	3	0.17	80	11	5	16	1			
<b>TOTAL FOR MAP NO. 2</b>										<b>0.52</b>		<b>43</b>			<b>0.59</b>	<b>14,419</b>					<b>1,728</b>	<b>102</b>	<b>487</b>				<b>10</b>		<b>1</b>	<b>3</b>	<b>0.17</b>	<b>80</b>	<b>11</b>	<b>5</b>	<b>16</b>	<b>1</b>			
<b>TOTAL FOR PROJ NO. 2017CPT.10.05.10601.1</b>										<b>1.04</b>		<b>49</b>			<b>0.68</b>	<b>23,322</b>					<b>2,779</b>	<b>164</b>	<b>801</b>				<b>10</b>		<b>1</b>	<b>5</b>	<b>0.33</b>	<b>162</b>	<b>22</b>	<b>10</b>	<b>32</b>	<b>2</b>			
2017CPT.10.05.20601.1	Mecklenburg	3	SR 2108 SUNSET RD (EB)	FROM BEATTIES FORD RD. TO I-77 BRIDGE (MP 2.84 TO 3.34)		2,4	2		NO	0.503	68.59	6			0.08	19,670					2,500	148	240									0.17	82	11	5	16	1		
<b>TOTAL FOR MAP NO. 3</b>										<b>0.503</b>		<b>6</b>			<b>0.08</b>	<b>19,670</b>					<b>2,500</b>	<b>148</b>	<b>240</b>								<b>0.17</b>	<b>82</b>	<b>11</b>	<b>5</b>	<b>16</b>	<b>1</b>			
2017CPT.10.05.20601.1	Mecklenburg	4	SR 2108 SUNSET RD (WB)	FROM I-77 TO REAMES RD ( END DIVIDED) (MP 0.00 TO 0.13)		4,7	2	MD	NO	0.13	48	12			0.17	3,664					451	27	55								0.17	20	3	1	4	1			
<b>TOTAL FOR MAP NO. 4</b>										<b>0.13</b>		<b>12</b>			<b>0.17</b>	<b>3,664</b>					<b>451</b>	<b>27</b>	<b>55</b>							<b>0.17</b>	<b>20</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>1</b>				
<b>TOTAL FOR PROJ NO. 2017CPT.10.05.20601.1</b>										<b>0.633</b>		<b>18</b>			<b>0.25</b>	<b>23,334</b>					<b>2,951</b>	<b>175</b>	<b>295</b>							<b>0.34</b>	<b>102</b>	<b>14</b>	<b>6</b>	<b>20</b>	<b>2</b>				
2017CPT.10.05.20601.2	Mecklenburg	5	SR 2004 MT. HOLLY-HUNTERSVILLE RD	FROM NC-115 TO I-77 BRIDGE (MP 9.73 TO 8.69)		8,9	2	2WU	NO	1.04	24.41	296	40	1.74	1.19		444	6,517	880	1,836		150	504	14,013	5,605		100					154	21	10	31	1	0.6		
<b>TOTAL FOR MAP NO. 5</b>										<b>1.04</b>		<b>296</b>	<b>40</b>	<b>1.74</b>	<b>1.19</b>		<b>444</b>	<b>6,517</b>	<b>880</b>	<b>1,836</b>		<b>150</b>	<b>504</b>	<b>14,013</b>	<b>5,605</b>		<b>100</b>				<b>154</b>	<b>21</b>	<b>10</b>	<b>31</b>	<b>1</b>	<b>0.6</b>			
<b>TOTAL FOR PROJ NO. 2017CPT.10.05.20601.2</b>										<b>1.04</b>		<b>296</b>	<b>40</b>	<b>1.74</b>	<b>1.19</b>		<b>444</b>	<b>6,517</b>	<b>880</b>	<b>1,836</b>		<b>150</b>	<b>504</b>	<b>14,013</b>	<b>5,605</b>		<b>100</b>			<b>154</b>	<b>21</b>	<b>10</b>	<b>31</b>	<b>1</b>	<b>0.6</b>				
2017CPT.10.05.10601.2	Mecklenburg	6	US 74 WILKINSON BLVD (WB)	FROM ASHLEY RD TO PVT. JT. EAST OF LITTLE ROCK RD (MP 15.80 TO 18.65)		5,6	2		NO	2.842	37.23					62,083				7,676		461	1,320			3		4	38	17	0.17	50	5	5	15	1			
<b>TOTAL FOR MAP NO. 6</b>										<b>2.842</b>						<b>62,083</b>				<b>7,676</b>		<b>461</b>	<b>1,320</b>			<b>3</b>		<b>4</b>	<b>38</b>	<b>17</b>	<b>0.17</b>	<b>50</b>	<b>5</b>	<b>5</b>	<b>15</b>	<b>1</b>			
2017CPT.10.05.10601.2	Mecklenburg	7	US 74 WILKINSON BLVD (EB)	FROM PVT. JT. EAST OF LITTLE ROCK RD TO CONCRETE PVT JT. PRIOR TO I-277 (MP 4.10 TO 8.08)		5,6	2	MD	NO	3.98	37.04					84,114				10,656		639	1,185			3		4	26	57	0.17	50	5	5	15	1			
<b>TOTAL FOR MAP NO. 7</b>										<b>3.98</b>						<b>84,114</b>				<b>10,656</b>		<b>639</b>	<b>1,185</b>			<b>3</b>		<b>4</b>	<b>26</b>	<b>57</b>	<b>0.17</b>	<b>50</b>	<b>5</b>	<b>5</b>	<b>15</b>	<b>1</b>			
<b>TOTAL FOR PROJ NO. 2017CPT.10.05.10601.2</b>										<b>6.822</b>						<b>146,197</b>				<b>18,332</b>		<b>1,100</b>	<b>2,505</b>			<b>6</b>		<b>8</b>	<b>64</b>	<b>74</b>	<b>0.33</b>	<b>100</b>	<b>10</b>	<b>10</b>	<b>30</b>	<b>2</b>			
<b>GRAND TOTAL</b>										<b>9.535</b>		<b>363</b>	<b>40</b>	<b>1.74</b>	<b>2.12</b>	<b>192,853</b>	<b>444</b>	<b>6,517</b>	<b>880</b>	<b>20,168</b>	<b>5,730</b>	<b>1,589</b>	<b>4,105</b>	<b>14,013</b>	<b>5,605</b>	<b>6</b>	<b>110</b>	<b>8</b>	<b>65</b>	<b>79</b>	<b>1.00</b>	<b>518</b>	<b>67</b>	<b>36</b>	<b>113</b>	<b>7</b>	<b>0.6</b>		

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.10.05.10601.1, ETC.	9	15

**THERMOPLASTIC AND PAINT QUANTITIES**

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4510000000-N	4589000000-N	4695000000-E	4697000000-E	4710000000-E	4721000000-E	4725000000-E				4770000000-E	4810000000-E		4820000000-E	4835000000-E	4840000000-N	4845000000-N				4890000000-E				4895000000-N	4900000000-N	4905000000-N		
										WORKZONE ADVANCED/GENERAL WARNING SIGNS	LAW ENFORCEMENT	TEMPORARY TRAFFIC CONTROL	8" X 90 M WHITE THERMO	8" X 90 M YELLOW THERMO	8" X 120 M WHITE THERMO	24" X 120 M WHITE THERMO	THERMO MSG ONLY 120 M	THERMO RT ARROW 90 M	THERMO LT ARROW 90 M	THERMO STR ARROW 90 M	THERMO STR & RT ARROW 90 M	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE III (4")	4" WHITE PAINT	4" YELLOW PAINT	8" WHITE PAINT	24" WHITE PAINT	PAINT MSG ONLY	PAINT LT ARROW	PAINT RT ARROW	PAINT STR ARROW	PAINT STR & RT ARROW	4" X 90 M WHITE THERMO (HRM)	4" X 90 M YELLOW THERMO (HRM)	4" X 120 M WHITE THERMO (HRM)	4" X 120 M YELLOW THERMO (HRM)	THERMO SYMBOLS (24" YIELD, WHITE 120 M)	CRYSTAL & RED MARKERS	YELLOW & YELLOW MARKERS	SNOW PLOWABLE MARKERS
NO		NO			NO					SF	HR	LS	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA				
2017CPT.10.05.10601.1	Mecklenburg	1	US 21 SUNSET RD (WB)	FROM STATESVILLE RD. TO I-77 (MP 14.58 TO 15.10)	1,3,7	2	MD	0.52	27.8	73	40	0	440		200	55		1	3	4		1,000	718	1,270	200	55		3	1	4		1,500	1,270	1,250	280			75	
<b>TOTAL FOR MAP NO. 1</b>										73	40	0	440		200	55		1	3	4		1,000	718	1,270	200	55		3	1	4		1,500	1,270	1,250	280			75	
2017CPT.10.05.10601.1	Mecklenburg	2	US 21 SUNSET RD (EB)	FROM I-77 TO STATESVILLE RD (MP 15.74 TO 16.26)	1,2,3,7	2	M2	0.52	45.8	81	40	0		480	120		5	19	8		1,000	800	1,600		120		8	2	8		1,800	1,150	5,585	3,260			75		
<b>TOTAL FOR MAP NO. 2</b>										81	40	0		480	120		5	19	8		1,000	800	1,600		120		8	2	8		1,800	1,150	5,585	3,260			75		
<b>TOTAL FOR PROJ NO. 2017CPT.10.05.10601.1</b>										154	80	0	440		680	175		6	22	12		2,000	1,518	2,870	200	175		11	3	12		3,300	2,420	6,835	3,540			150	
													440						40				4,388					26			5,720			10,375					
2017CPT.10.05.20601.1	Mecklenburg	3	SR 2108 SUNSET RD (EB)	FROM BEATTIES FORD RD. TO I-77 BRIDGE (MP 2.84 TO 3.34)	2,4	2		0.503	68.59	81	80	0	250		460	170		19	6	6		1,700	4,700		170		10	1	6	6	1,100	1,750	3,090	4,780		125	175		
<b>TOTAL FOR MAP NO. 3</b>										81	80	0	250		460	170		19	6	6		1,700	4,700		170		10	1	6	6	1,100	1,750	3,090	4,780		125	175		
2017CPT.10.05.20601.1	Mecklenburg	4	SR 2108 SUNSET RD (WB)	FROM I-77 TO REAMES RD ( END DIVIDED) (MP 0.00 TO 0.13)	4,7	2	MD	0.13	48	46	40	0			40	4	4	3	3	4		670		40		2	2	4		450	450	670			30				
<b>TOTAL FOR MAP NO. 4</b>										46	40	0			40	4	4	3	3	4		670		40		2	2	4		450	450	670			30				
<b>TOTAL FOR PROJ NO. 2017CPT.10.05.20601.1</b>										127	120	0	250		460	210	4	3	22	10	6		2,370	4,700		210		12	3	10	6	1,550	2,200	3,760	4,780		155	175	
													250					41				7,070				31			3,750		8,540		330						
2017CPT.10.05.20601.2	Mecklenburg	5	SR 2004 MT. HOLLY-HUNTERSVILLE RD	FROM NC-115 TO I-77 BRIDGE (MP 9.73 TO 8.69)	8,9	2	2WU	1.04	24.41	146		0	80		20									20						11,000	11,000				80				
<b>TOTAL FOR MAP NO. 5</b>										146		0	80		20								20									11,000	11,000				80		
<b>TOTAL FOR PROJ NO. 2017CPT.10.05.20601.2</b>										146		0	80		20								20									11,000	11,000				80		
													80																22,000				80						
2017CPT.10.05.10601.2	Mecklenburg	6	US 74 WILKINSON BLVD (WB)	FROM ASHLEY RD TO PVT. JT. EAST OF LITTLE ROCK RD (MP 15.80 TO 18.65)	5,6	2		2.842	37.23	187	80	0	2,260		200		2	38	28	14		10,600	200	1,700	200		18		28	14		14,500	10,560		10		650		
<b>TOTAL FOR MAP NO. 6</b>										187	80	0	2,260		200		2	38	28	14		10,600	200	1,700	200		18		28	14		14,500	10,560		10		650		
2017CPT.10.05.10601.2	Mecklenburg	7	US 74 WILKINSON BLVD (EB)	FROM PVT. JT. EAST OF LITTLE ROCK RD TO CONCRETE PVT JT. PRIOR TO I-277 (MP 4.10 TO 8.08)	5,6	2	MD	3.98	37.04	157	80	0		300	4,200	400	8	4	47	28	14	15,200	200	3,000	400	8	32	4	28	14	230	20,500	13,650			800			
<b>TOTAL FOR MAP NO. 7</b>										157	80	0		300	4,200	400	8	4	47	28	14	15,200	200	3,000	400	8	32	4	28	14	230	20,500	13,650			800			
<b>TOTAL FOR PROJ NO. 2017CPT.10.05.10601.2</b>										344	160	0	2,260	300	4,200	600	8	6	85	56	28		25,800	400	4,700	600	8	50	4	56	28	230	35,000	24,210			10		1,450
													2,560					175				26,200					138			35,230		24,210							
<b>GRAND TOTAL</b>										771	360	1	3,030	300	5,340	1,005	12	15	129	78	34	2,000	29,688	7,970	4,900	1,005	8	73	10	78	34	16,080	50,620	34,805	8,320	10	155	255	1,600
													3,330					256					37,658					195			66,700		43,125		410				

# SIGNING FOR RESURFACING PROJECTS



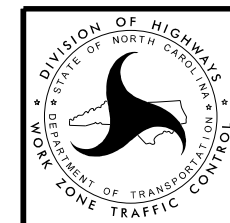
LEGEND	
⊥	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

## MAINLINE (-L-) SIGNING

## -Y- LINE SIGNING

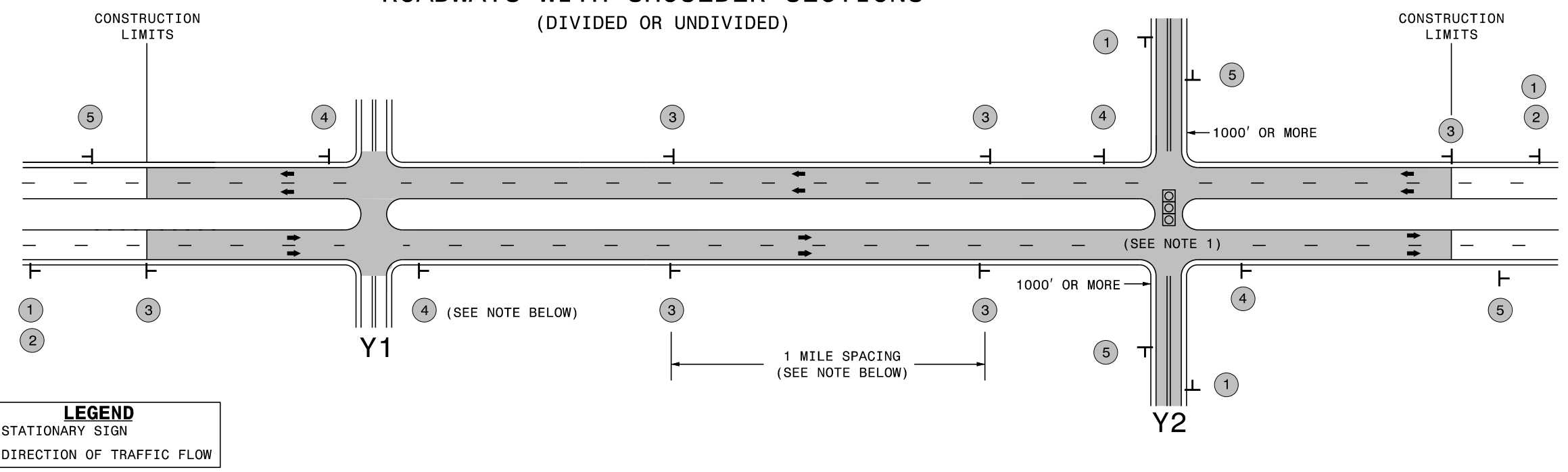
SIGNING NOTES AND PLACEMENT PER DIRECTION	MAINLINE (-L-) SIGNING		-Y- LINE SIGNING	
	①	 W20-1 48" X 48"	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:</p> <ol style="list-style-type: none"> <li>1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE</li> <li>2) SUBDIVISION ROADS</li> <li>3) DEAD END ROADS</li> </ol> <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.		

8/8/2013  
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 User:rmgarratt



RESURFACING  
 ADVANCE WARNING SIGNS  
 FOR  
 RURAL AND SUBURBAN  
 2 LANE ROADWAYS

## SIGNING FOR RURAL AND SUBURBAN MULTI-LANE ROADWAYS WITH SHOULDER SECTIONS (DIVIDED OR UNDIVIDED)



### MAINLINE (-L-) SIGNING

### -Y- LINE SIGNING

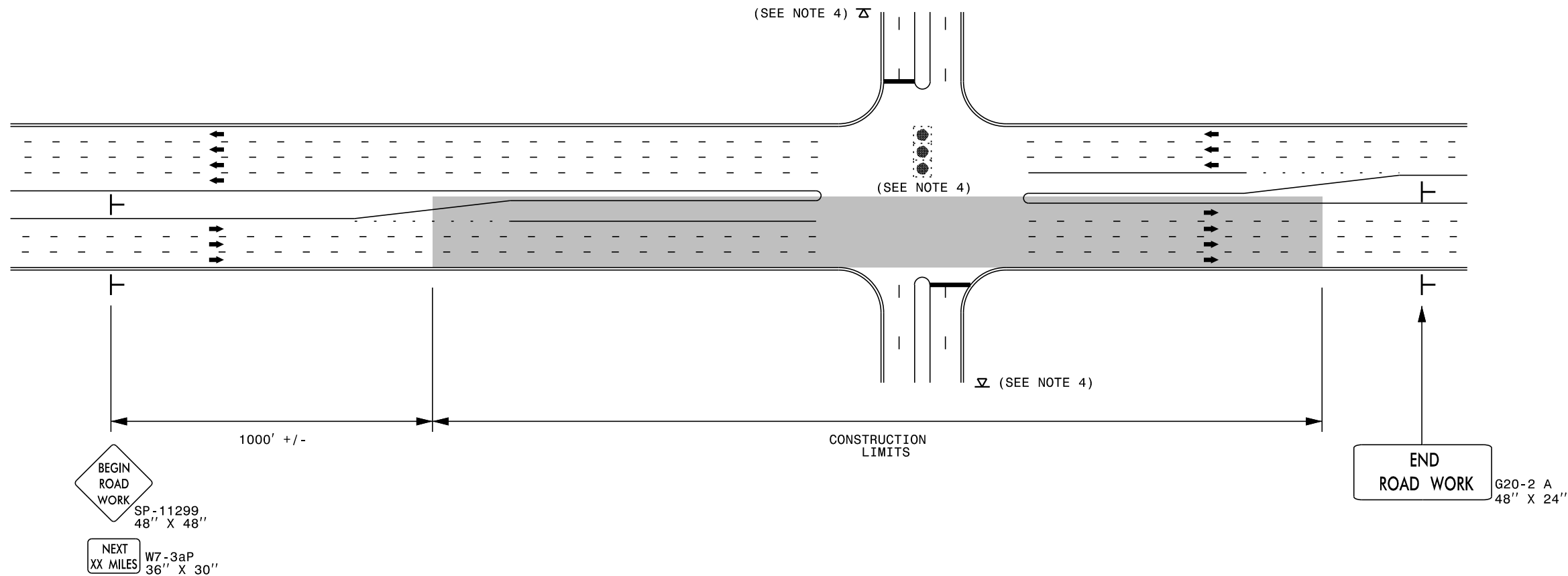
<b>SIGNING NOTES AND PLACEMENT PER DIRECTION</b>	1	 <small>W20-1 48" X 48"</small>	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.	<p style="text-align: center;"><b>NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE 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;">   <small>W20-1 48" X 48"</small> </div> <div style="text-align: center;">   <small>W20-7 A 48" X 48"</small> </div> </div> <p style="text-align: center;">PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p> <p><b>NOTES:</b></p> <ol style="list-style-type: none"> <li>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.</li> </ol>
	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.		

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)**

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# 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

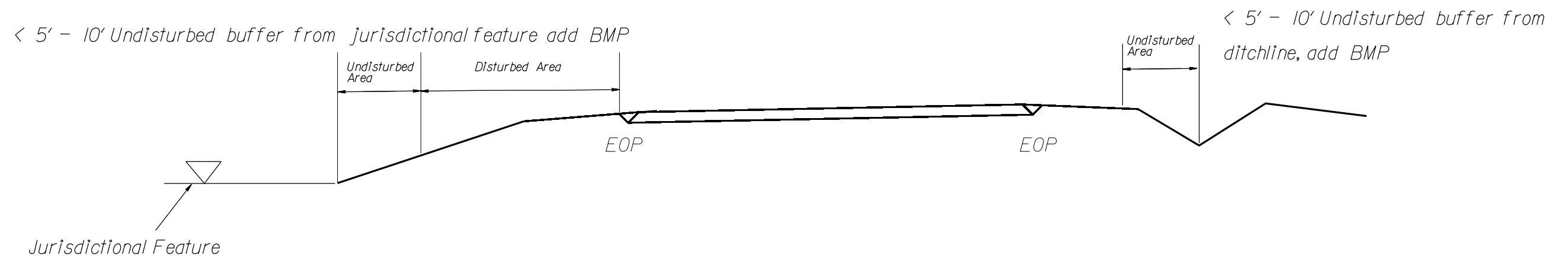
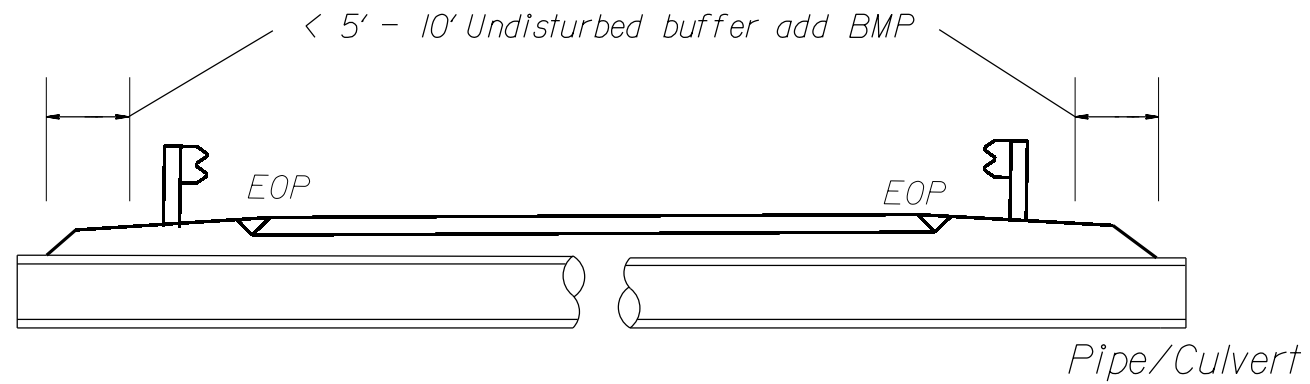


RESURFACING ADVANCE  
WARNING SIGNS FOR  
URBAN / SUBURBAN  
FACILITIES

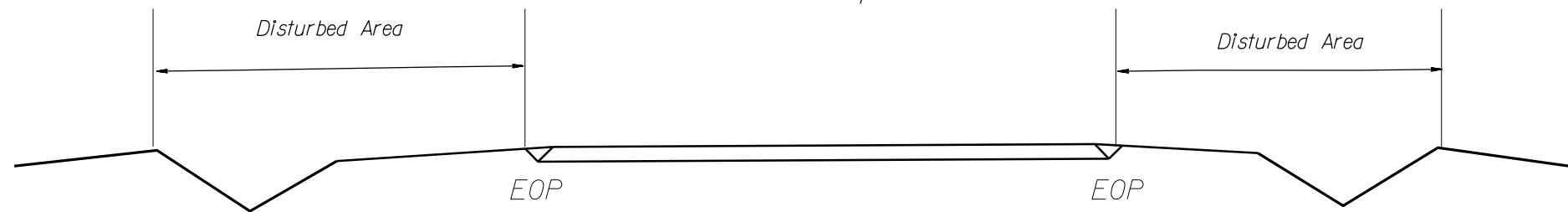
NOTES: Less than 5' - 10' undisturbed buffer from ROW, ditchline, water feature, or drainage inlet, add BMP.

BMP Options: Wattle or Silt Fence

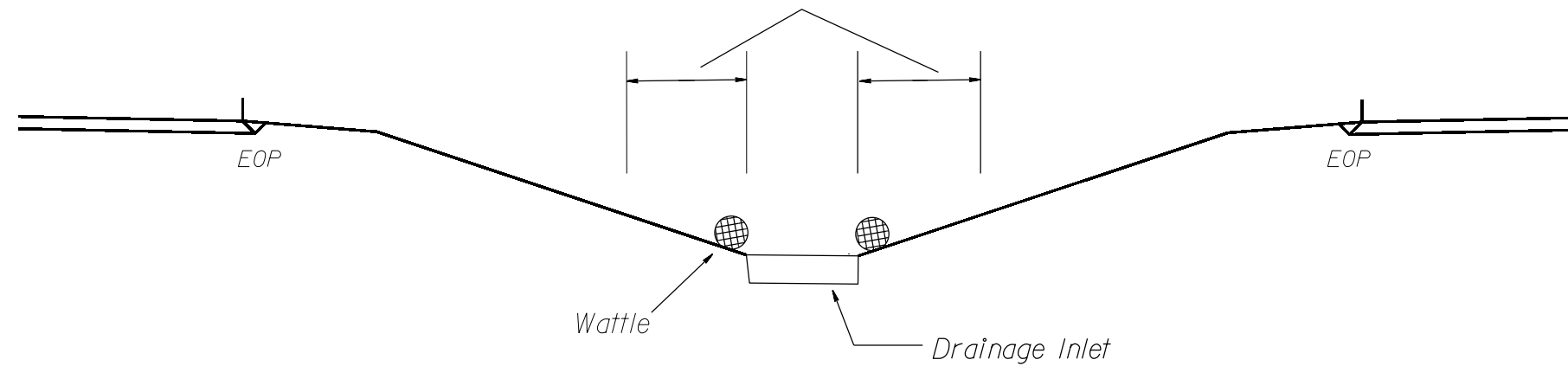
# EROSION CONTROL DETAIL



Use BMP's if shoulders and/or frontslopes and/or ditchline and/or backslopes are disturbed

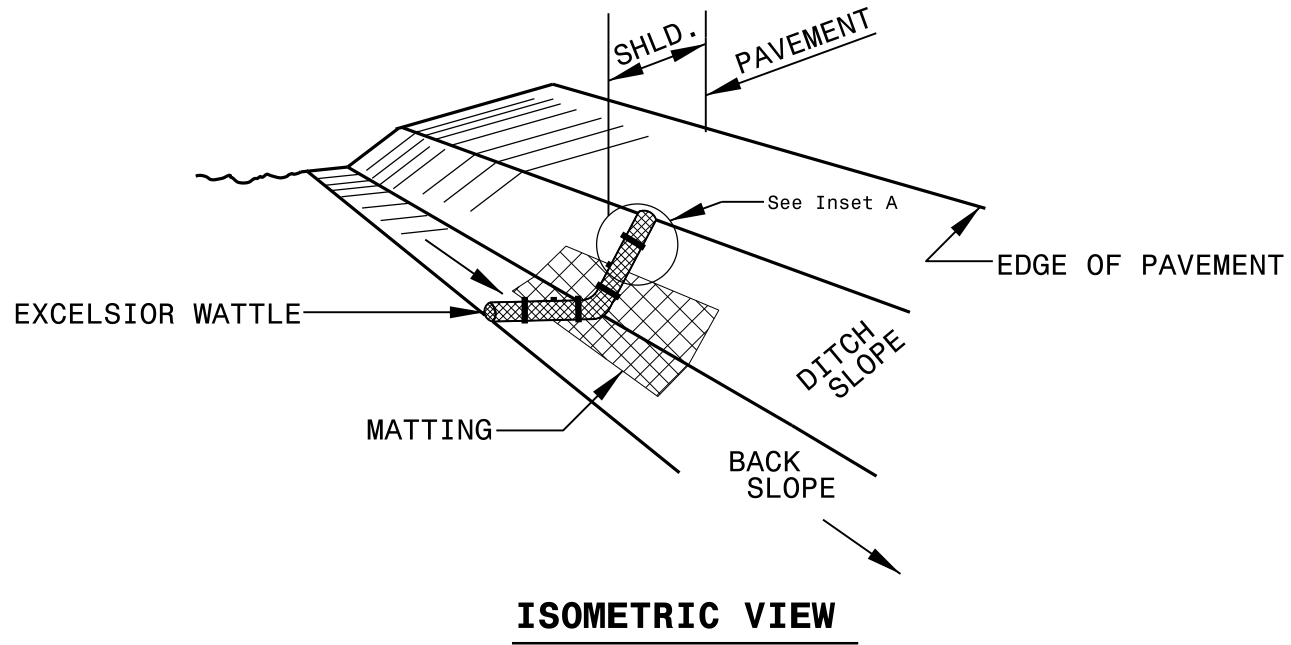


< 5' - 10' Undisturbed buffer from inlet, add wattle



NOT TO SCALE

# WATTLE DETAIL



**NOTES:**

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

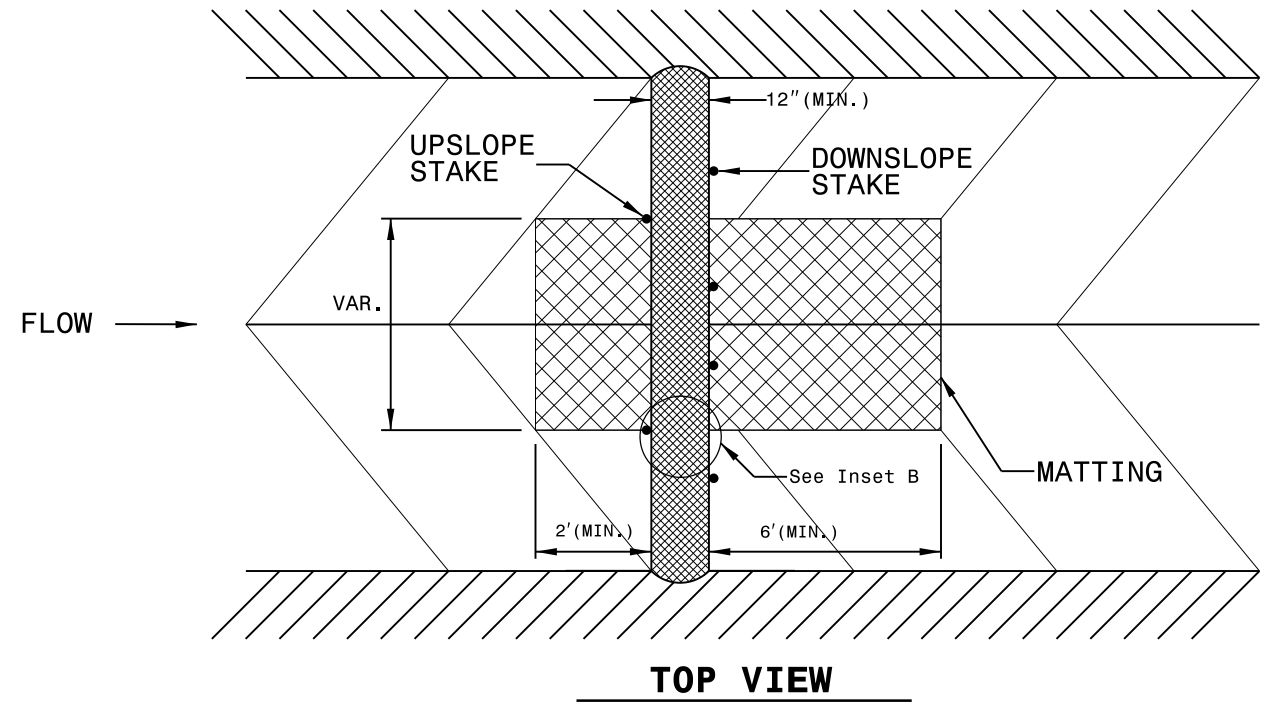
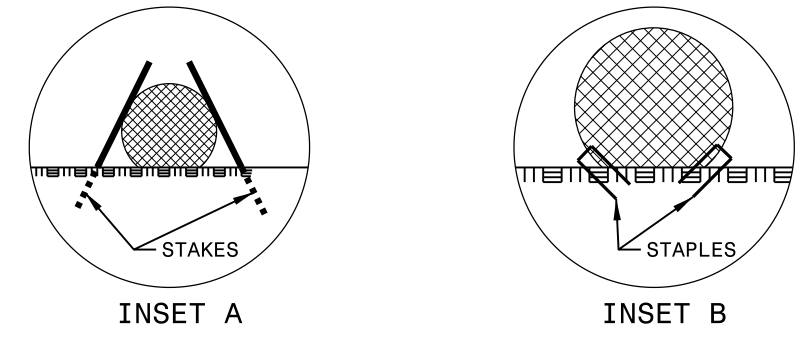
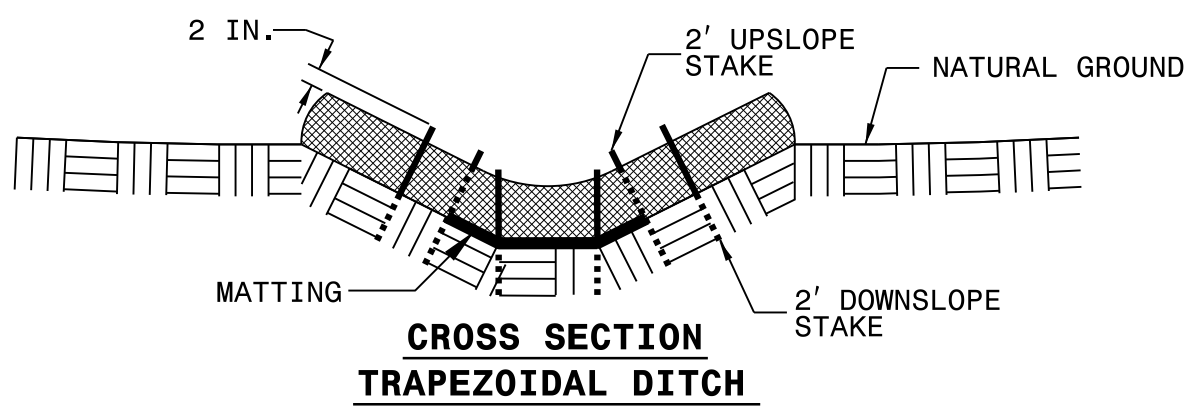
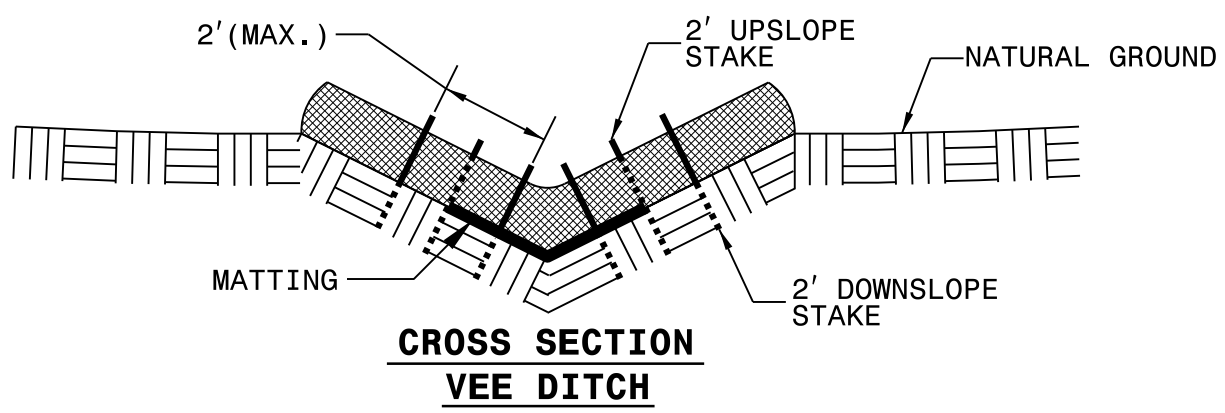
USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. CROSS SECTION.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

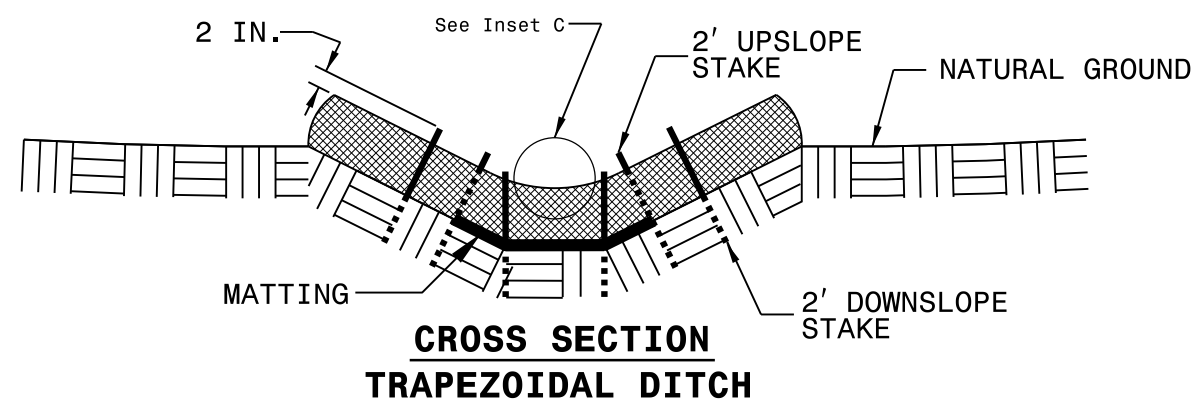
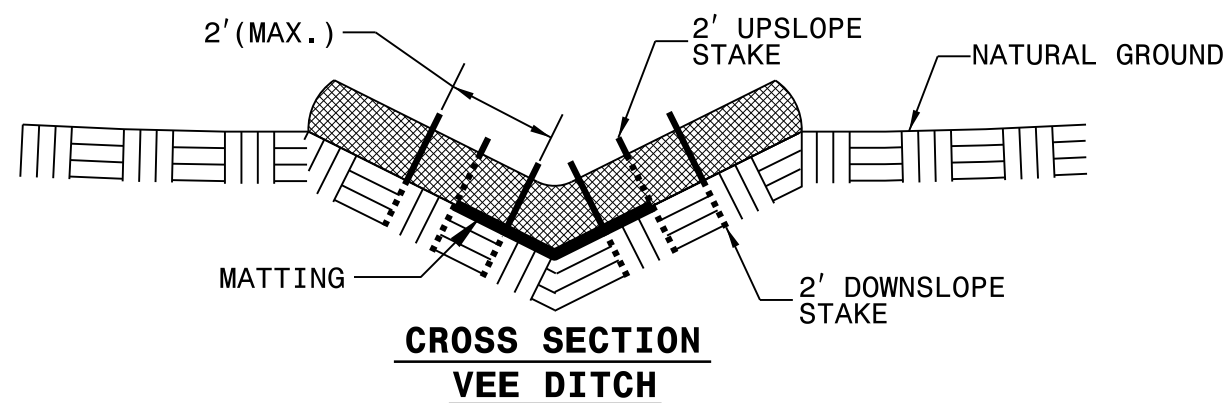
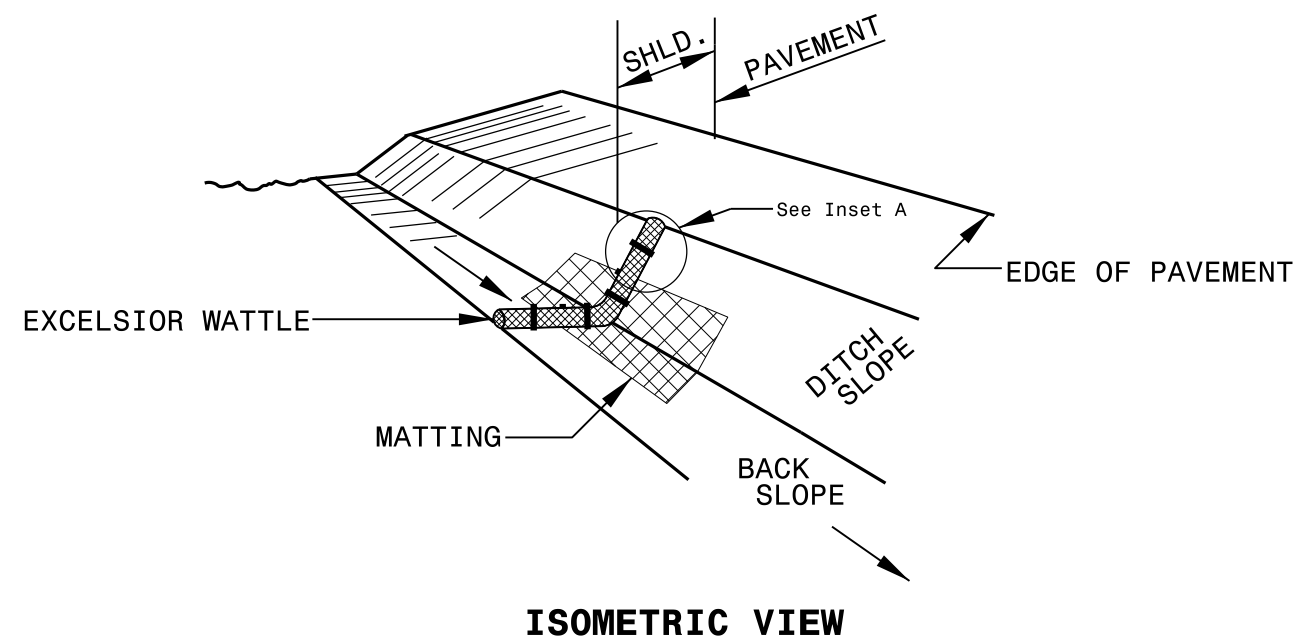
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



# WATTLE WITH POLYACRYLAMIDE DETAIL



**NOTES:**

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. CROSS SECTION.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 3.5 OUNCES OF ANIONIC OR NEUTRALLY CHARGED POLYACRYLAMIDE (PAM) OVER WATTLE WHERE WATER WILL FLOW AND AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

