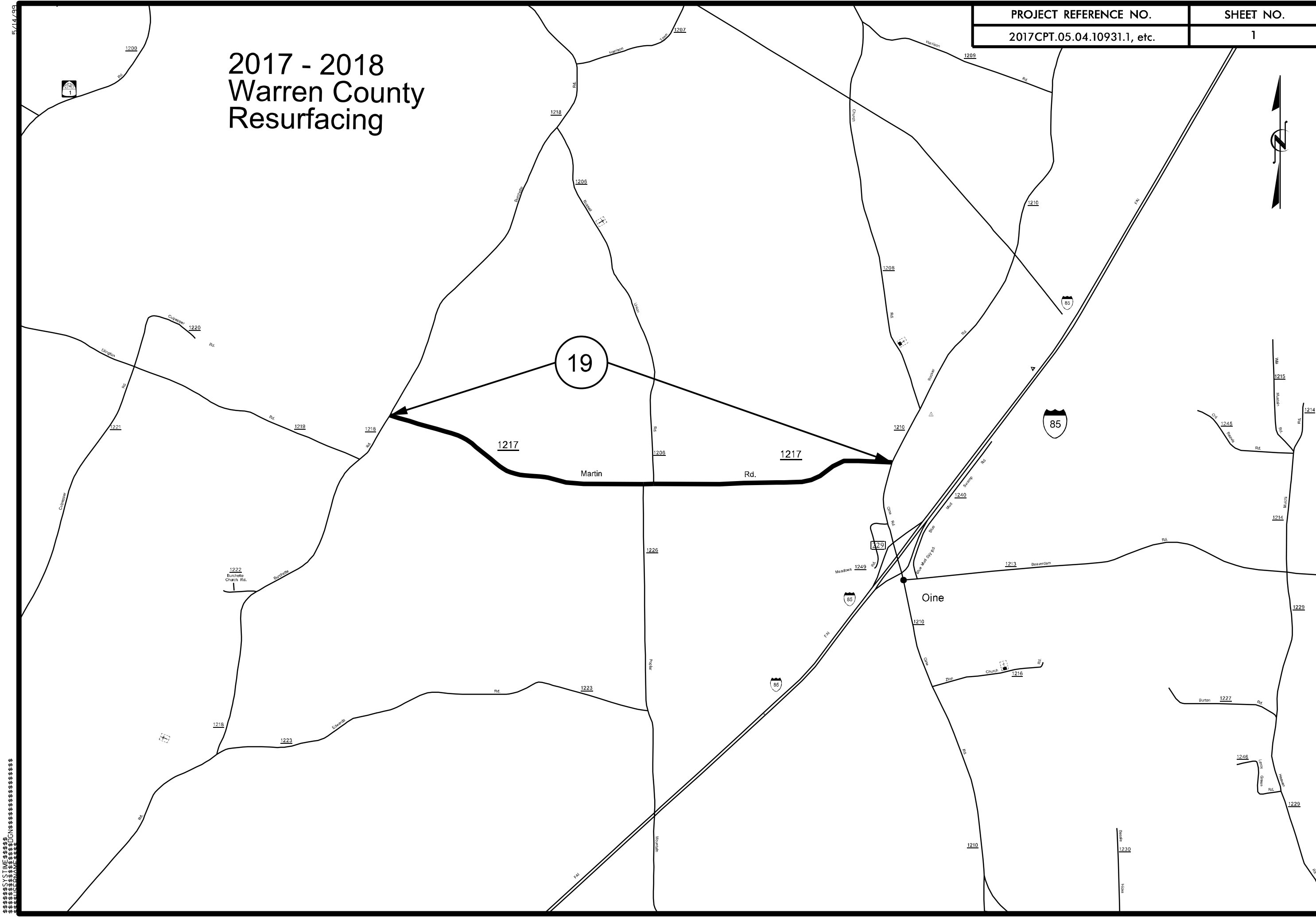


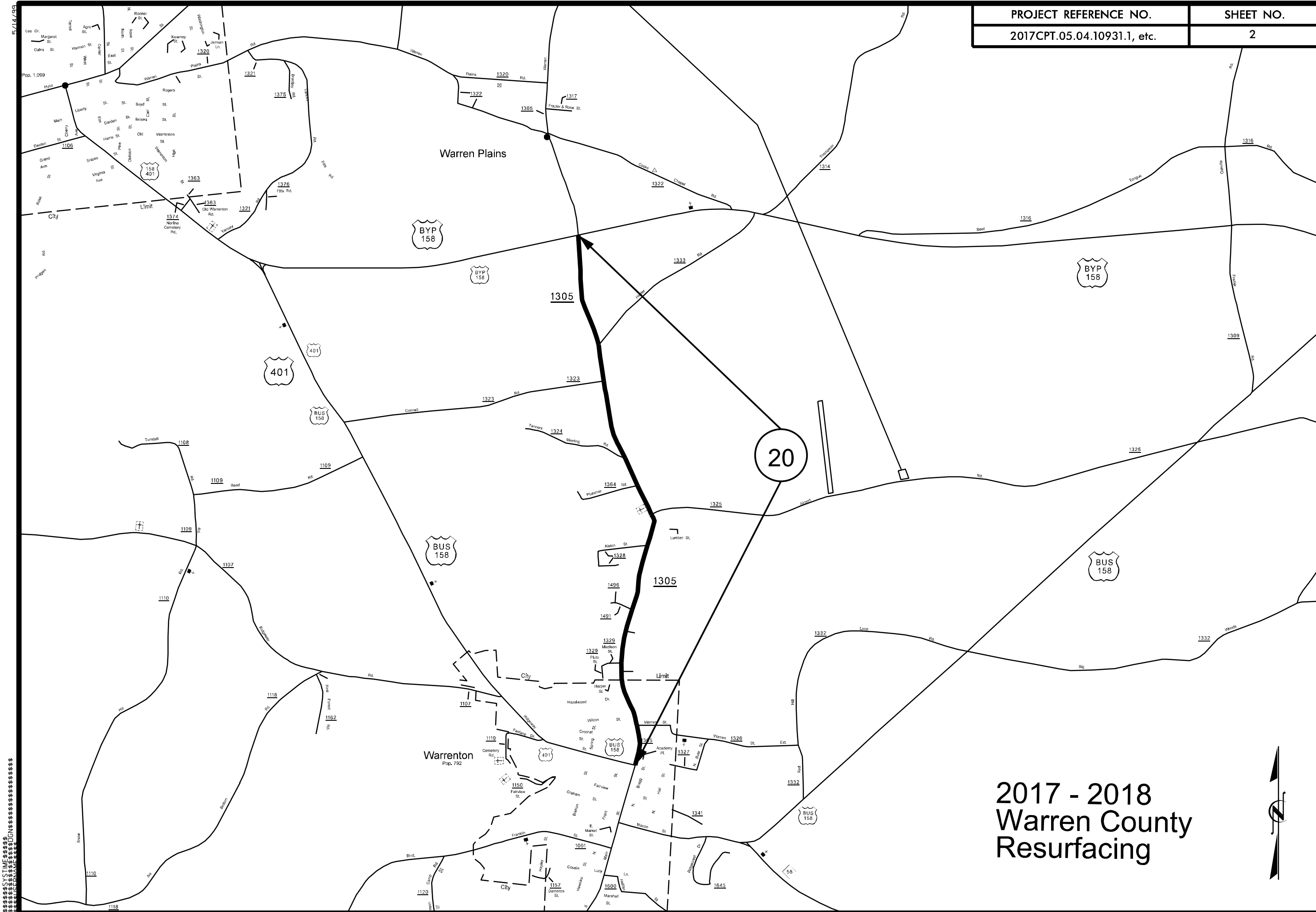
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2017 - 2018 Warren County Resurfacing





2017 - 2018 Warren County Resurfacing



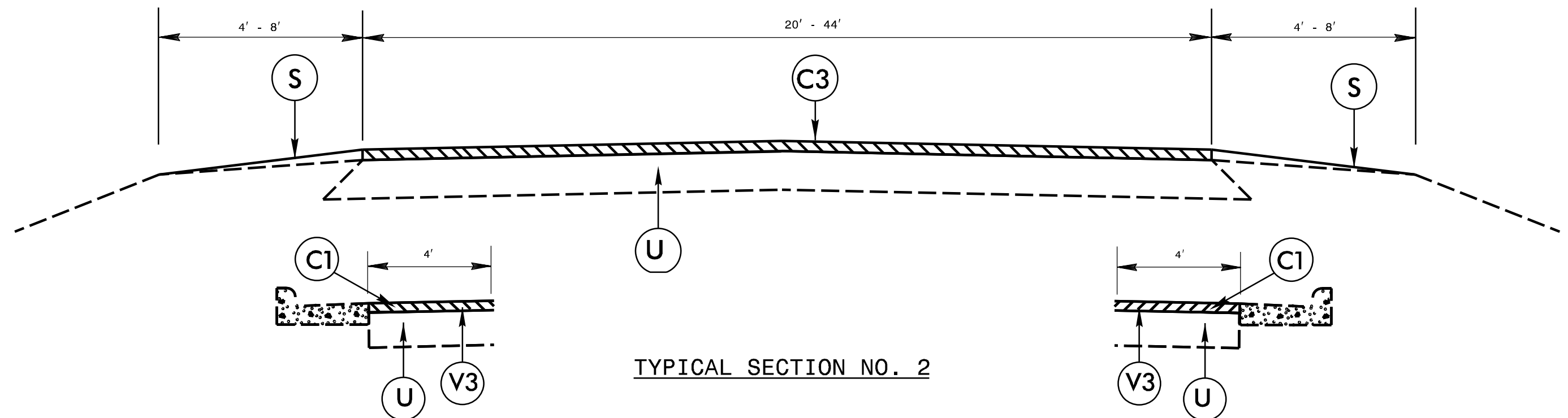
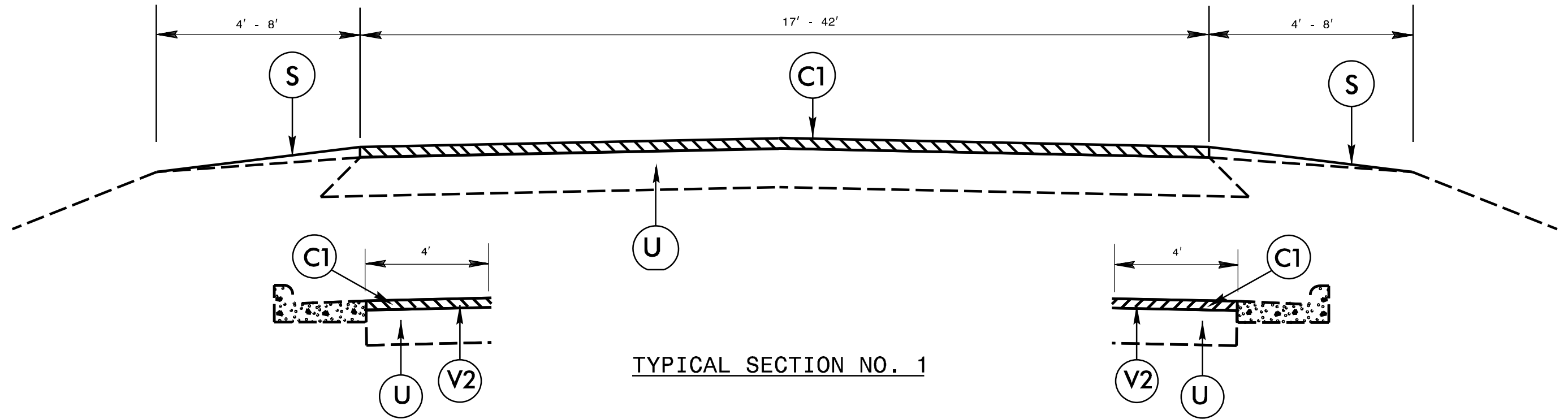
5/14/19

PAVEMENT SCHEDULE

PROJECT REFERENCE NO.
2017CPT.05.04.10931J, etc.

SHEET NO.
10

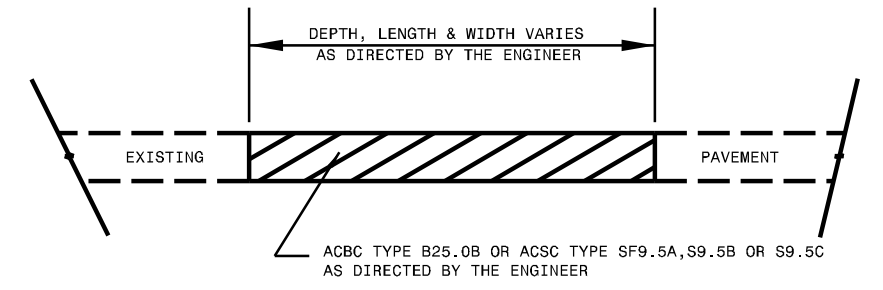
		U	EXISTING PAVEMENT
C1	1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	V1	1½" MILLING
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V2	0"-1¼" MILLING
C3	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V3	0"-1½" MILLING
S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)		



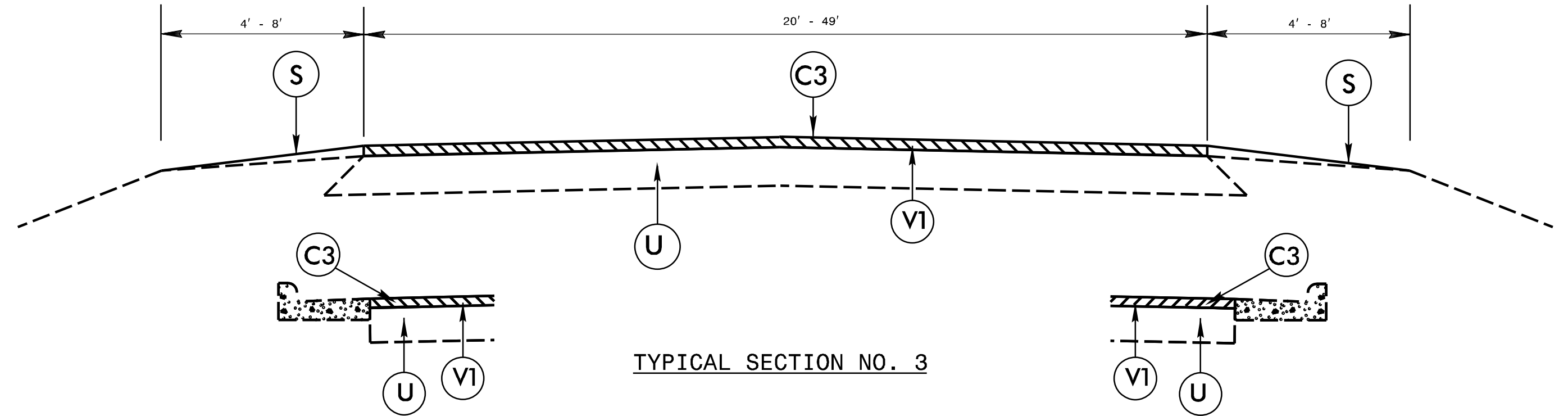
PAVEMENT SCHEDULE

		U	EXISTING PAVEMENT
C1	1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	V1	1½" MILLING
C2	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	V2	0"-1¼" MILLING
C3	1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	V3	0"-1½" MILLING
S	SHOULDER GRADING ASB REQUIRED (EXCEPT AT RESIDENTIAL AREAS)		

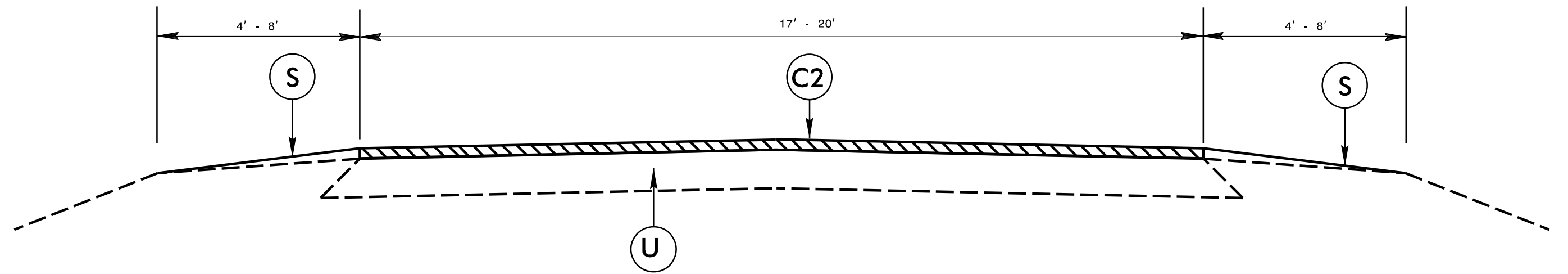
PROJECT REFERENCE NO. 2017CPT.05.04.10931J, etc.	SHEET NO. 11
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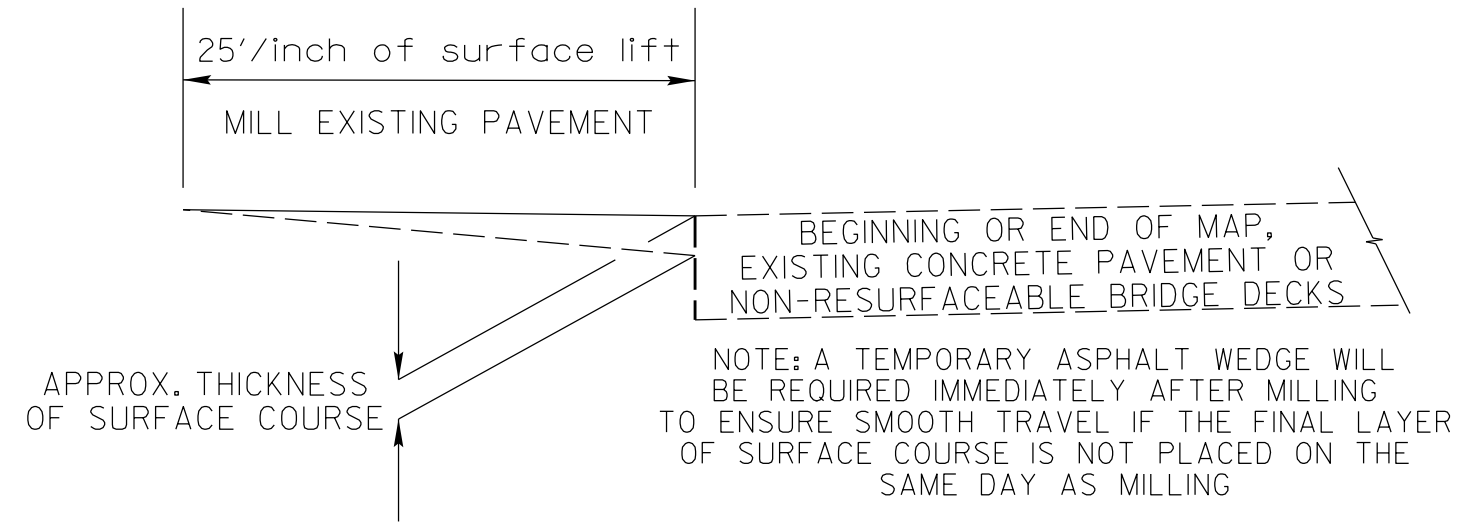
PATCHING EXISTING PAVEMENT
MILLING (IF REQUIRED BY TYPICAL) TO BE PERFORMED PRIOR TO PATCHING



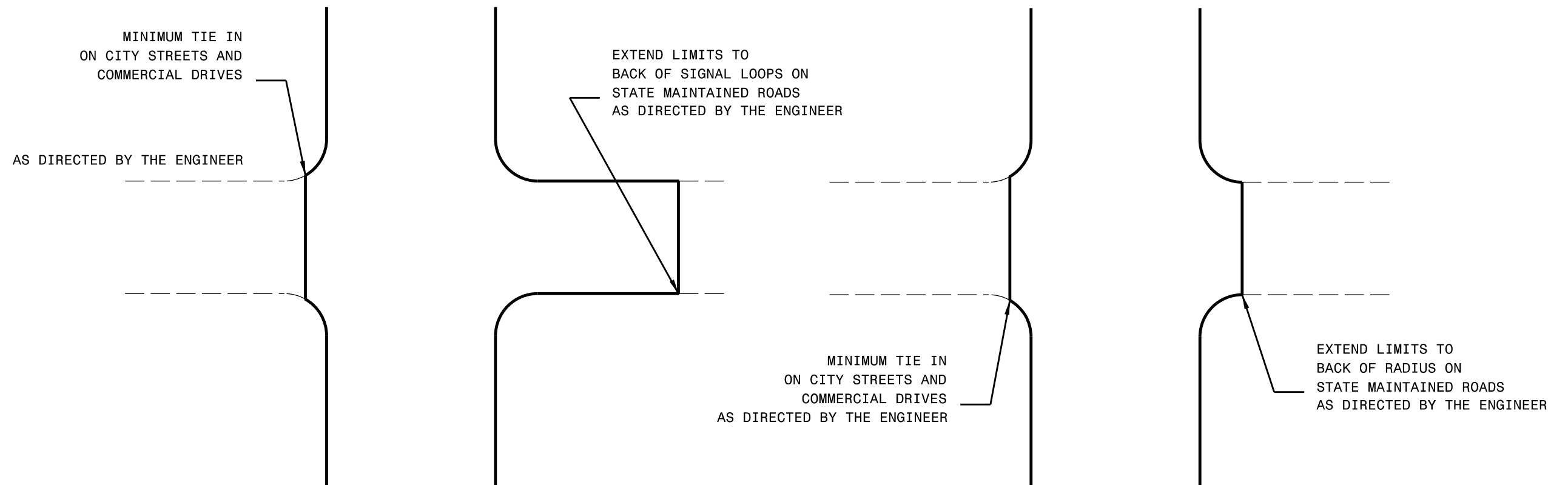
TYPICAL SECTION NO. 3



TYPICAL SECTION NO. 4



DETAIL OF INCIDENTAL MILLING



DETAIL OF PROJECT LIMITS AT SIGNALIZED Y LINES

DETAIL OF PROJECT LIMITS AT UNSIGNALIZED Y LINES

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.05.04.10931.1, etc.		

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	AGGREGATE SHOULDER BORROW (ASB) TON	SHOULDER GRADING SMI	INCIDENTAL STONE BASE TONS	1/2" MILLING SY	0" TO 1.5" MILLING SY	0" TO 1.25" MILLING SY	INCIDENTAL MILLING SY	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, S9.5A TON	ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT TONS	ADJUST MANHOLES EA	ADJUST METER OR VALVE BOX EA	TEMPORARY SILT FENCE LF	WATTLE LF	SEED & MULCHING AC	INDUCTIVE LOOP LF	
2017CPT.05.04.10931.1	Warren	1	NC 4	HALIFAX CO. TO HALIFAX CO.	2	2		NO	NO	0.33	26-44	12	34	0.47	3		306		575	539		32	60	1		9	30	0.08		
TOTAL FOR MAP NO. 1										0.33		12	34	0.47	3		306		575	539		32	60	1		9	30	0.08		
TOTAL FOR PROJ NO. 2017CPT.05.04.10931.1										0.33		12	34	0.47	3		306		575	539		32	60	1		9	30	0.08		
2017CPT.05.04.20911.1	Vance	2	SR 1276 - NOTTINGHAM CT	SR 1273 - S STRATFORD DR TO CUL-DE-SAC	1	2		NO	NO	0.09	20	18		0.18	4					94	6	10				13	40	0.13		
TOTAL FOR MAP NO. 2										0.09		18		0.18	4					94	6	10				13	40	0.13		
2017CPT.05.04.20911.1	Vance	3	SR 1274 - E STRATFORD	SR 1273 - S STRATFORD DR TO CUL-DE-SAC	1	2		NO	NO	0.23	18	46		0.46	12					206	14	150			3	33	90	0.34		
TOTAL FOR MAP NO. 3										0.23		46		0.46	12					206	14	150			3	33	90	0.34		
2017CPT.05.04.20911.1	Vance	4	SR 1533 - VICKSBORO RD	NC 39 TO SR 1524 - VICKSBORO RD	3	2		NO	NO	5.27	25-49	527	506	10.54	132	82,832			1,400	7,463		448	300			383	960	3.83		
TOTAL FOR MAP NO. 4										5.27		527	506	10.54	132	82,832			1,400	7,463		448	300			383	960	3.83		
2017CPT.05.04.20911.1	Vance	5	SR 1235 - LONG CREEK CIR	SR 1105 - KITTRELL COLLEGE RD TO SR 1105 - KITTRELL COLLEGE RD	1	2		NO	NO	0.17	17	33		0.33	8					123	8	15				24	70	0.24		
TOTAL FOR MAP NO. 5										0.17		33		0.33	8					123	8	15				24	70	0.24		
2017CPT.05.04.20911.1	Vance	6	SR 1273 - S STRATFORD DR	US 158 TO DEAD END	1	2		NO	NO	0.517	22	103		1.03	26				76	494	33	300			2	75	190	0.75		
TOTAL FOR MAP NO. 6										0.517		103		1.03	26				76	494	33	300			2	75	190	0.75		
2017CPT.05.04.20911.1	Vance	7	SR 1524 - VICKSBORO RD	SR 1533 - VICKSBORO RD TO WARREN COUNTY	3	2		NO	NO	0.87	25	87	84	1.75	22	9,596			3,560	1,166		70	100			63	160	0.64		
TOTAL FOR MAP NO. 7										0.87		87	84	1.75	22	9,596			3,560	1,166		70	100			63	160	0.64		
2017CPT.05.04.20911.1	Vance	8	SR 1277 - CANTERBURY CT	SR 1274 - WINDSOR CT TO END MAINT.	1	2		NO	NO	0.36	20	72		0.72	18					331	22	20				52	140	0.52		
TOTAL FOR MAP NO. 8										0.36		72		0.72	18					331	22	20				52	140	0.52		
2017CPT.05.04.20911.1	Vance	9	SR 1165 - BECKFORD DR	US 1 BUS/US 158 TO SR 1162 - DABNEY DR	3	2		NO	NO	2.39	20-48	263		2.63	66	50,713			1,840	4,651		279	35			191	480	1.92	1,464	
TOTAL FOR MAP NO. 9										2.39		263		2.63	66	50,713			1,840	4,651		279	35			191	480	1.92	1,464	
2017CPT.05.04.20911.1	Vance	10	SR 1101 - S LYNNBANK RD/CHARLIE GRISSOM RD	BRIDGE TO SR 1107 - COMMUNITY HOUSE RD/BRIGGS RD	2	2		NO	NO	2.99	20-22	239	344	5.97	60				873	3,408		204	45			173	440	1.74		
TOTAL FOR MAP NO. 10										2.99		239	344	5.97	60				873	3,408		204	45			173	440	1.74		
2017CPT.05.04.20911.1	Vance	11	SR 1326 - KELLY RD	SR 1303 - HICKSBORO RD TO SR 1308 - GLEBE RD	4	2		NO	NO	2.52	20	126	363	5.04	32				490	2,657		178	40			91	230	0.92		
TOTAL FOR MAP NO. 11										2.52		126	363	5.04	32				490	2,657		178	40			91	230	0.92		
2017CPT.05.04.20911.1	Vance	40	SR 1303 - HICKSBORO RD	SR 1326 - KELLY RD TO SR 1304 - DABNEY RD	4	2		NO	NO	0.265	20	27	25	0.53	7					324	22	10				19	50	0.19		
TOTAL FOR MAP NO. 40										0.265		27	25	0.53	7					324	22	10				19	50	0.19		
TOTAL FOR PROJ NO. 2017CPT.05.04.20911.1										15.672		1,541	1,322	29.18	387	143,141				8,239	16,688	4,229	1,284	1,025		5	1,117	2,850	11.22	1,464
2017CPT.05.04.20931.1	Warren	12	SR 1444 - GREEN VALLEY DR	SR 1450 - PARKWAY DR TO SR 1445 - GREENWOOD CIR	1	2		NO	NO	0.09	18	17		0.17	4					74	5	10				13	40	0.12		
TOTAL FOR MAP NO. 12										0.09		17		0.17	4					74	5	10				13	40	0.12		
2017CPT.05.04.20931.1	Warren	13	SR 1445 - GREENWOOD CIR	SR 1444 - GREEN VALLEY DR TO SR 1446 - GREENWOOD CIR	1	2		NO	NO	0.08	18	17		0.17	4					58	4	5				13	40	0.12		
TOTAL FOR MAP NO. 13										0.08		17		0.17	4					58	4	5				13	40	0.12		
2017CPT.05.04.20931.1	Warren	14	SR 1455 - LAKEVIEW CT	CUL-DE-SAC TO CUL-DE-SAC	1	2		NO	NO	0.08	42	16		0.16	4					153	10	5				12	30	0.12		
TOTAL FOR MAP NO. 14										0.08		16		0.16	4					153	10	5				12	30	0.12		
2017CPT.05.04.20931.1	Warren	15	SR 1393 - MAGNOLIA CT	SR 1378 - CLUB DR TO CUL-DE-SAC	4	2		NO	NO	0.1	18	20		0.20	5				60	124	8	10				14	40	0.14		
TOTAL FOR MAP NO. 15										0.1		20		0.20	5				60	124	8	10				14	40	0.14		
2017CPT.05.04.20931.1	Warren	16	SR 1725 - PLANTERS WD CT	CUL-DE-SAC TO CUL-DE-SAC	1	2		NO	NO	0.06	21	12		0.12	3					95	6	10				9	30	0.09		
TOTAL FOR MAP NO. 16										0.06		12		0.12	3					95	6	10				9	30	0.09		
2017CPT.05.04.20931.1	Warren	17	SR 1439 - CLEARVIEW CT	SR 1452 - CEDAR POINT TO CUL-DE-SAC	1	2		NO	NO	0.13	18	25		0.25	6					130	9	5				19	50	0.19		
TOTAL FOR MAP NO. 17										0.13		25		0.25	6					130	9	5				19	50	0.19		
2017CPT.05.04.20931.1	Warren	18	SR 1730 - PERSIMMON LN	SR 1403 - SUNNY ACRES DR TO CUL-DE-SAC	1	2		NO	NO	0.3	18	30	29	0.60	8					267	18	10				22	60	0.22		
TOTAL FOR MAP NO. 18										0.3		30	29	0.60	8					267	18	10				22	60	0.22		
2017CPT.05.04.20931.1	Warren	19	SR 1217 - MARTIN RD	SR 1218 - BURCHETTE RD TO SR 1210 - OINE RD	1	2		NO	NO	2.29	23	114	330	4.59	28				595	2,296	154	50				83	210	0.83		
TOTAL FOR MAP NO. 19										2.29		114	330	4.59	28				595	2,296	154	50				83	210	0.83		
2017CPT.05.04.20931.1	Warren	20	SR 1305 - WARREN PLAINS	US 158 TO US 158 BUS	1	2		NO	NO	2.41	22-36	214	206	4.30	54			1,242	1,433	2,500	167	200		5	14	156	400	1.56	594	
TOTAL FOR MAP NO. 20										2.41		214	206	4.30	54			1,242	1,433	2,500	167	200		5	14	156	400	1.56	594	
2017CPT.05.04.20931.1	Warren	21	SR 1356 - COON- MYRICK RD/SHOREWOOD DR	NC 903 TO END MAINT.	1	2		NO	NO	1.02	21	51	147	2.04	13					235	918	62	30			37	100	0.37		

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.05.04.10931.1, etc.		

SUMMARY OF QUANTITIES

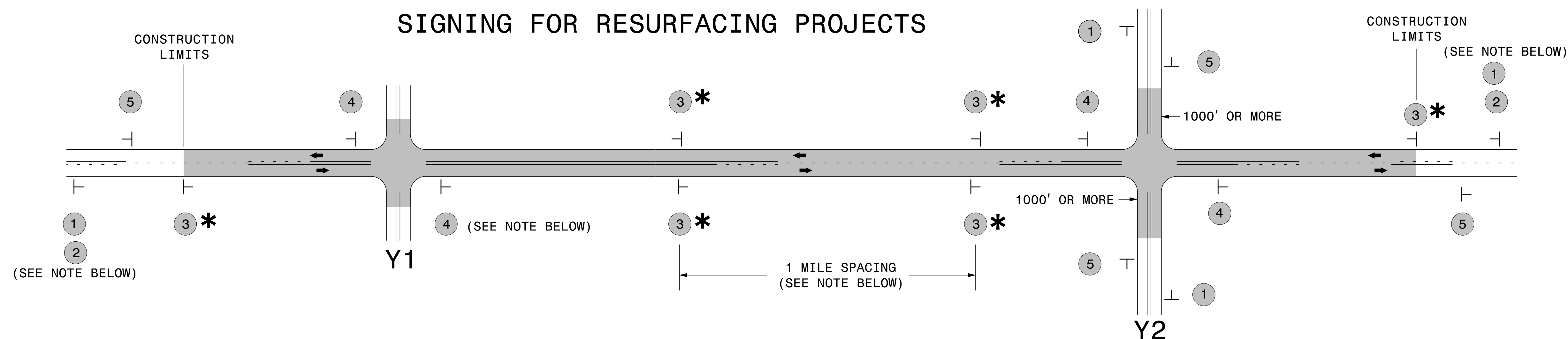
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	BORROW CY	AGGREGATE SHOULDER BORROW (ASB) TON	SHOULDER GRADING SMI	INCIDENTAL STONE BASE TONS	1½" MILLING SY	0" TO 1.5" MILLING SY	0" TO 1.25" MILLING SY	INCIDENTAL MILLING SY	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, SF9.5A TON	ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT TONS	ADJUST MANHOLES EA	ADJUST METER OR VALVE BOX EA	TEMPORARY SILT FENCE LF	WATTLE LF	SEED & MULCHING AC	INDUCTIVE LOOP LF			
TOTAL FOR MAP NO. 21										1.02		51	147	2.04	13				235	918	62	30			37	100	0.37					
2017CPT.05.04.20931.1	Warren	22	SR 1388 - DOVE MANOR RD	NC 903 TO SR 1433 - DOVE MANOR LN	1	2		NO	NO	0.82	21	41	118	1.64	10				145	733	49	50			29	80	0.30					
TOTAL FOR MAP NO. 22										0.82		41	118	1.64	10				145	733	49	50			29	80	0.30					
2017CPT.05.04.20931.1	Warren	23	SR 1403 - SUNNY ACRES DR	SR 1354 - PICKLE PLANT RD TO SR 1403 - SUNNY ACRES RD	1	2		NO	NO	0.91	18	46	132	1.83	11				190	724	48	20			34	90	0.33					
TOTAL FOR MAP NO. 23										0.91		46	132	1.83	11				190	724	48	20			34	90	0.33					
2017CPT.05.04.20931.1	Warren	24	SR 1449 - PARKVIEW CIR	SR 1450 - PARKWAY DR TO CUL-DE-SAC	1	2		NO	NO	0.06	18	12		0.12	3					66	4	10			9	30	0.09					
TOTAL FOR MAP NO. 24										0.06		12		0.12	3				66	4	10			9	30	0.09						
2017CPT.05.04.20931.1	Warren	25	SR 1482 - SUMMERWOOD RD EAST	SR 1354 - PICKLE PLANT RD TO HALIFAX CO.	1	2		NO	NO	0.35	18	70		0.70	17				240	303	20	45			51	130	0.51					
TOTAL FOR MAP NO. 25										0.35		70		0.70	17				240	303	20	45			51	130	0.51					
2017CPT.05.04.20931.1	Warren	26	SR 1484 - THREE CHOPT RD	SR 1482 - SUMMERWOOD RD EAST TO CUL-DE-SAC	1	2		NO	NO	0.23	18	11	33	0.45	3				125	209	14	15			9	30	0.08					
TOTAL FOR MAP NO. 26										0.23		11	33	0.45	3				125	209	14	15			9	30	0.08					
2017CPT.05.04.20931.1	Warren	27	SR 1731 - CANAAN SHORES RD/JORDAN TRAIL	NC 903 TO CUL-DE-SAC	1	2		NO	NO	0.76	18	76	73	1.52	19				112	611	41	45			56	140	0.55					
TOTAL FOR MAP NO. 27										0.76		76	73	1.52	19				112	611	41	45			56	140	0.55					
2017CPT.05.04.20931.1	Warren	28	SR 1732 - CARRIAGE PATH	SR 1724 - OLD FERRY RD TO CUL-DE-SAC	1	2		NO	NO	0.334	19	15	43	0.60	4					303	20	15			11	30	0.11					
TOTAL FOR MAP NO. 28										0.334		15	43	0.60	4				303	20	15			11	30	0.11						
2017CPT.05.04.20931.1	Warren	29	SR 1357 - ENTERPRISE RD	SR 1352 - EPWORTH RD TO US 158	1	2		NO	NO	2.54	25	253	243	5.07	63					2,743	184	70			184	470	1.84					
TOTAL FOR MAP NO. 29										2.54		253	243	5.07	63				2,743	184	70			184	470	1.84						
2017CPT.05.04.20931.1	Warren	30	SR 1450 - PARKWAY DR	NC 903 TO SR 1454 - SUNSET DR	1	2		NO	NO	0.78	18	155		1.55	39				422	638	43	15			113	290	1.13					
TOTAL FOR MAP NO. 30										0.78		155		1.55	39				422	638	43	15			113	290	1.13					
2017CPT.05.04.20931.1	Warren	31	SR 1452 - CEDAR POINT	SR 1437 - FORESTHILL DR TO SR 1442 - BEAVER DAM DR	1	2		NO	NO	0.55	19	55	52	1.09	14				132	449	30	15			40	100	0.40					
TOTAL FOR MAP NO. 31										0.55		55	52	1.09	14				132	449	30	15			40	100	0.40					
2017CPT.05.04.20931.1	Warren	32	SR 1724 - OLD FERRY RD	SR 1362 - ELAMS RD TO SR 1725 - PLANTERS WD CT	1	2		NO	NO	0.81	20	41	117	1.62	10				70	698	47	20			29	80	0.30					
TOTAL FOR MAP NO. 32										0.81		41	117	1.62	10				70	698	47	20			29	80	0.30					
2017CPT.05.04.20931.1	Warren	33	SR 1733 - DOGWOOD CT	SR 1377 - WILDWOOD CIR TO CUL-DE-SAC	4	2		NO	NO	0.15	18	31		0.31	8					153	10	30			22	60	0.22					
TOTAL FOR MAP NO. 33										0.15		31		0.31	8				153	10	30			22	60	0.22						
2017CPT.05.04.20931.1	Warren	34	SR 1385 - HOLLY POINT	SR 1378 - CLUB DR TO CUL-DE-SAC	4	2		NO	NO	0.14	17	28		0.28	7				60	142	10	15			20	60	0.20					
TOTAL FOR MAP NO. 34										0.14		28		0.28	7				60	142	10	15			20	60	0.20					
2017CPT.05.04.20931.1	Warren	35	SR 1386 - REDWOOD DR	SR 1377 - WILDWOOD CIR TO CUL-DE-SAC	4	2		NO	NO	0.36	17	72		0.72	18				136	373	25	10			52	140	0.52					
TOTAL FOR MAP NO. 35										0.36		72		0.72	18				136	373	25	10			52	140	0.52					
2017CPT.05.04.20931.1	Warren	36	SR 1394 - PINE CT	SR 1378 - CLUB DR TO CUL-DE-SAC	4	2		NO	NO	0.1	17	20		0.20	5				60	105	7	10			15	40	0.15					
TOTAL FOR MAP NO. 36										0.1		20		0.20	5				60	105	7	10			15	40	0.15					
2017CPT.05.04.20931.1	Warren	37	SR 1377 - WILDWOOD CIR	SR 1362 - ELAMS RD TO SR 1377 - WILDWOOD CIR	4	2		NO	NO	1.87	18	374		3.74	93				1,105	1,822	122	36			272	680	2.72					
TOTAL FOR MAP NO. 37										1.87		374		3.74	93				1,105	1,822	122	36			272	680	2.72					
2017CPT.05.04.20931.1	Warren	38	SR 1383 - HICKORY POINT	SR 1377 - WILDWOOD CIR TO CUL-DE-SAC	4	2		NO	NO	0.16	20	32		0.32	8					198	13	10			23	60	0.23					
TOTAL FOR MAP NO. 38										0.16		32		0.32	8				198	13	10			23	60	0.23						
2017CPT.05.04.20931.1	Warren	39	SR 1387 - SPRUCE CT	SR 1377 - WILDWOOD CIR TO CUL-DE-SAC	4	2		NO	NO	0.11	18	21		0.21	5					138	9	40			15	40	0.15					
TOTAL FOR MAP NO. 39										0.11		21		0.21	5				138	9	40			15	40	0.15						
TOTAL FOR PROJ NO. 2017CPT.05.04.20931.1										17.594		1,869	1,523	34.57	466				1,242	5,120				17,023	1,139	806	5	14	1,362	3,550	13.60	594
GRAND TOTAL										33.596		3,422	2,879	64.22	856				143,141	306	1,242	13,934	17,227	21,252	2,455	1,891	6	19	2,488	6,430	24.89	2,058

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.05.04.10931.1, etc.		

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4835000000-E	4840000000-N	4845000000-N					4900000000-N						
										24" WHITE PAINT LF	PAINT MSG SCHOOL EA	PAINT STR & RT ARROW EA	PAINT LT ARROW EA	PAINT RT ARROW EA	PAINT LT STR RT ARROW EA	PAINT YIELD TRIANGLE EA	PAINT STR ARROW EA	PAINT STR & LT ARROW EA	CRYSTAL & RED MARKERS EA	YELLOW & YELLOW MARKERS EA			
2017CPT.05.04.20931.1	Warren	22	SR 1388 - DOVE MANOR RD	NC 903 TO SR 1433 - DOVE MANOR LN	1	2		0.82	21												54		
TOTAL FOR MAP NO. 22																					54		
2017CPT.05.04.20931.1	Warren	23	SR 1403 - SUNNY ACRES DR	SR 1354 - PICKLE PLANT RD TO SR 1403 - SUNNY ACRES RD	1	2		0.91	18														
TOTAL FOR MAP NO. 23																							
2017CPT.05.04.20931.1	Warren	24	SR 1449 - PARKVIEW CIR	SR 1450 - PARKWAY DR TO CUL-DE-SAC	1	2		0.06	18														
TOTAL FOR MAP NO. 24																							
2017CPT.05.04.20931.1	Warren	25	SR 1482 - SUMMERWOOD RD EAST	SR 1354 - PICKLE PLANT RD TO HALIFAX CO.	1	2		0.35	18														
TOTAL FOR MAP NO. 25																							
2017CPT.05.04.20931.1	Warren	26	SR 1484 - THREE CHOPT RD	SR 1482 - SUMMERWOOD RD EAST TO CUL-DE-SAC	1	2		0.23	18														
TOTAL FOR MAP NO. 26																							
2017CPT.05.04.20931.1	Warren	27	SR 1731 - CANAAN SHORES RD/JORDAN TRAIL	NC 903 TO CUL-DE-SAC	1	2		0.76	18														
TOTAL FOR MAP NO. 27																							
2017CPT.05.04.20931.1	Warren	28	SR 1732 - CARRIAGE PATH	SR 1724 - OLD FERRY RD TO CUL-DE-SAC	1	2		0.334	19														
TOTAL FOR MAP NO. 28																							
2017CPT.05.04.20931.1	Warren	29	SR 1357 - ENTERPRISE RD	SR 1352 - EPWORTH RD TO US 158	1	2		2.54	25														
TOTAL FOR MAP NO. 29																							
2017CPT.05.04.20931.1	Warren	30	SR 1450 - PARKWAY DR	NC 903 TO SR 1454 - SUNSET DR	1	2		0.78	18														
TOTAL FOR MAP NO. 30																							
2017CPT.05.04.20931.1	Warren	31	SR 1452 - CEDAR POINT	SR 1437 - FORESTHILL DR TO SR 1442 - BEAVER DAM DR	1	2		0.55	19														
TOTAL FOR MAP NO. 31																							
2017CPT.05.04.20931.1	Warren	32	SR 1724 - OLD FERRY RD	SR 1362 - ELAMS RD TO SR 1725 - PLANTERS WD CT	1	2		0.81	20														
TOTAL FOR MAP NO. 32																							
2017CPT.05.04.20931.1	Warren	33	SR 1733 - DOGWOOD CT	SR 1377 - WILDWOOD CIR TO CUL-DE-SAC	4	2		0.15	18														
TOTAL FOR MAP NO. 33																							
2017CPT.05.04.20931.1	Warren	34	SR 1385 - HOLLY POINT	SR 1378 - CLUB DR TO CUL-DE-SAC	4	2		0.14	17														
TOTAL FOR MAP NO. 34																							
2017CPT.05.04.20931.1	Warren	35	SR 1386 - REDWOOD DR	SR 1377 - WILDWOOD CIR TO CUL-DE-SAC	4	2		0.36	17														
TOTAL FOR MAP NO. 35																							
2017CPT.05.04.20931.1	Warren	36	SR 1394 - PINE CT	SR 1378 - CLUB DR TO CUL-DE-SAC	4	2		0.1	17														
TOTAL FOR MAP NO. 36																							
2017CPT.05.04.20931.1	Warren	37	SR 1377 - WILDWOOD CIR	SR 1362 - ELAMS RD TO SR 1377 - WILDWOOD CIR	4	2		1.87	18														
TOTAL FOR MAP NO. 37																							
2017CPT.05.04.20931.1	Warren	38	SR 1383 - HICKORY POINT	SR 1377 - WILDWOOD CIR TO CUL-DE-SAC	4	2		0.16	20														
TOTAL FOR MAP NO. 38																							
2017CPT.05.04.20931.1	Warren	39	SR 1387 - SPRUCE CT	SR 1377 - WILDWOOD CIR TO CUL-DE-SAC	4	2		0.11	18														
TOTAL FOR MAP NO. 39																							
TOTAL FOR PROJ NO. 2017CPT.05.04.20931.1																							205
GRAND TOTAL																							205
									33.596	324	12	12	21	19	2	11	2	6	237	899			
										73					1,136								

SIGNING FOR RESURFACING PROJECTS



LEGEND	
┆	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

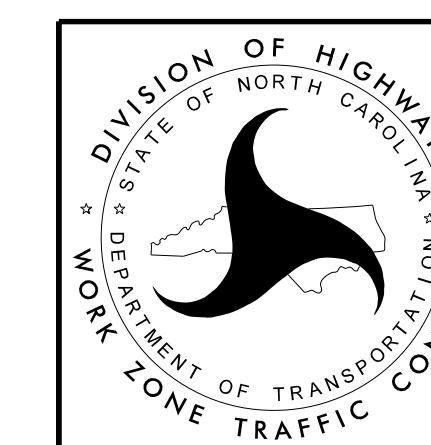
MAINLINE (-L-) SIGNING

-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION		
1 2		<p style="text-align: center;">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 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		

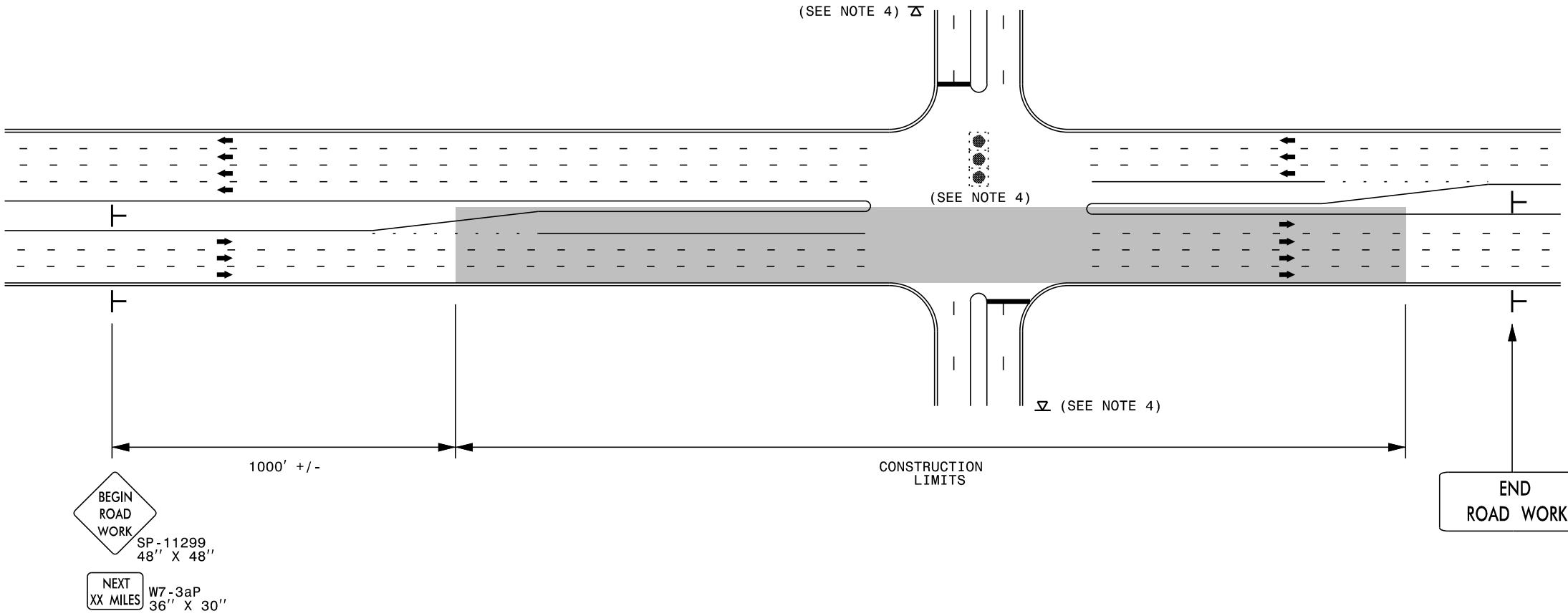
* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

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.

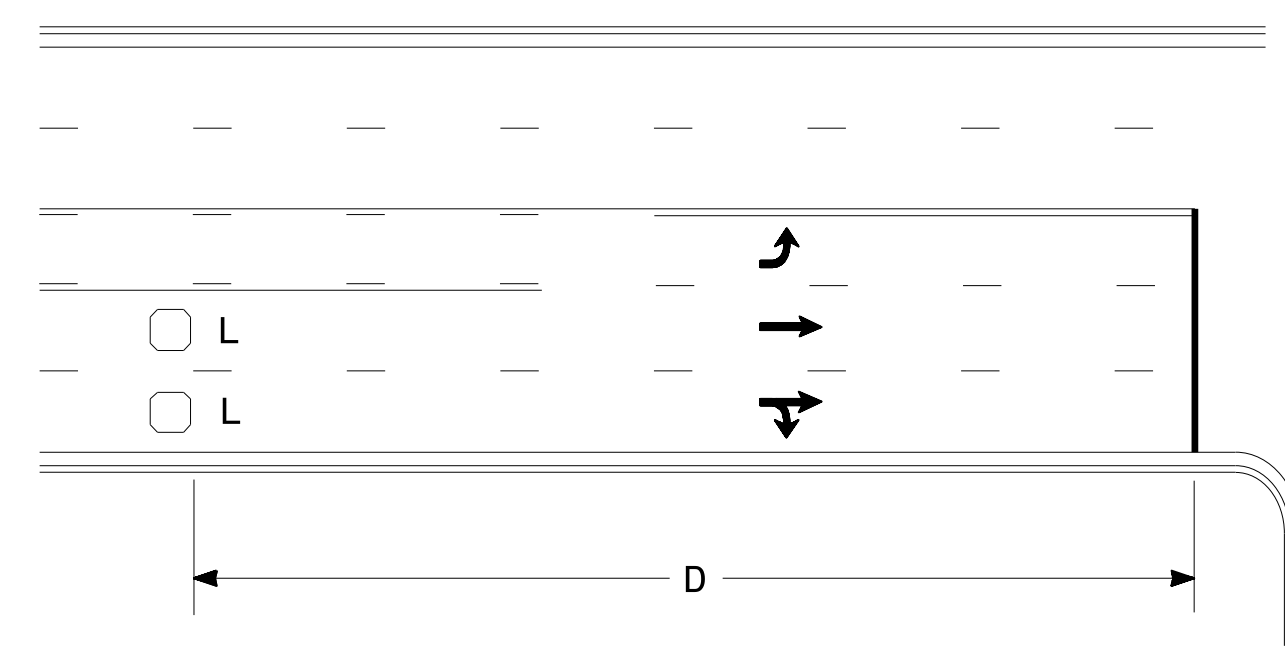
LEGEND	
┬	STATIONARY SIGN
➔	DIRECTION OF TRAFFIC FLOW



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

2/24/2014 S:\TMD\WZTC\Resurfacing\2013Documents\New_Procedures_05_09_2013\Resurfacing_AdvWarn_UrSub.dgn

High Speed Detection (≥40 mph)

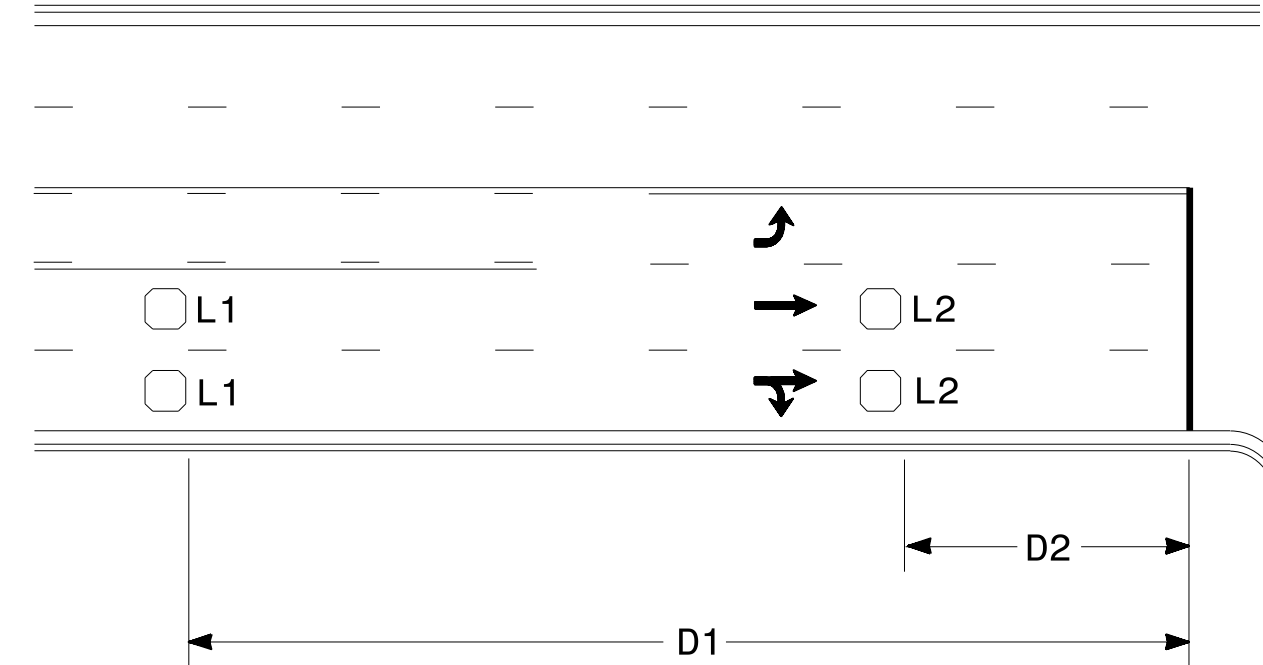


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

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

Volume Density Operation

OR

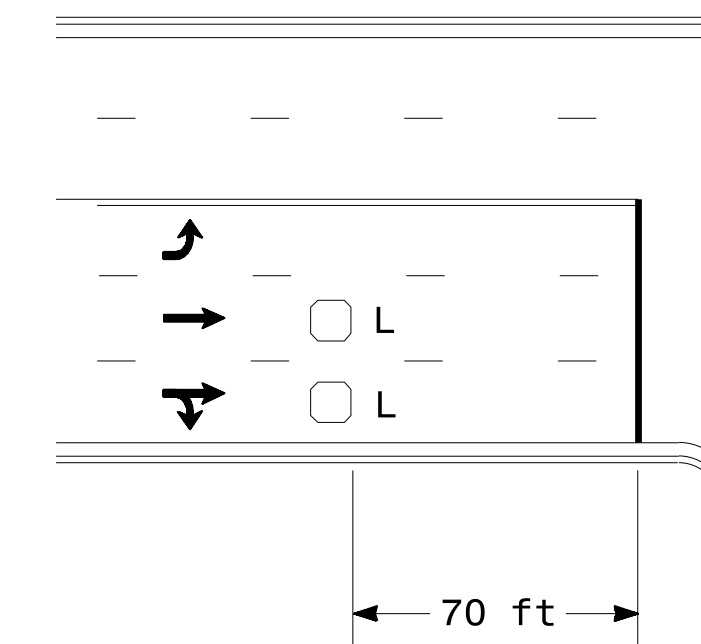


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

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

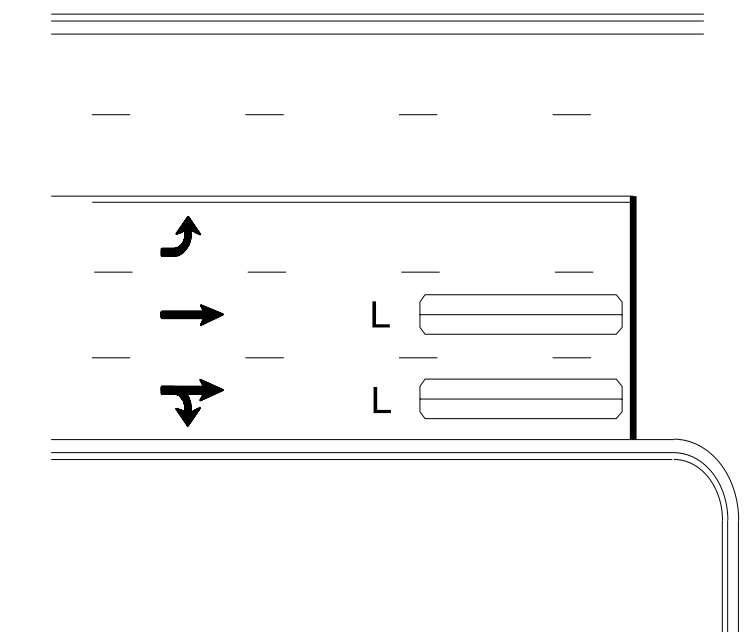
"Stretch" Operation

Low Speed Detection (≤35 mph)



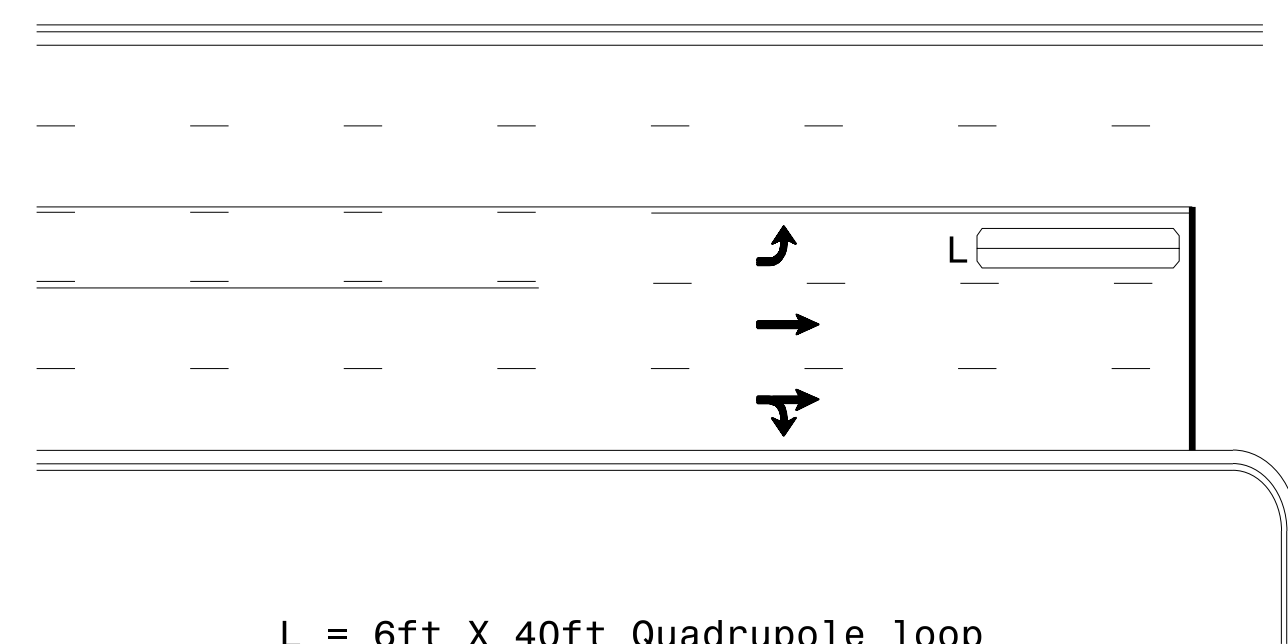
L = 6ft X 6ft
Wired in series

OR



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

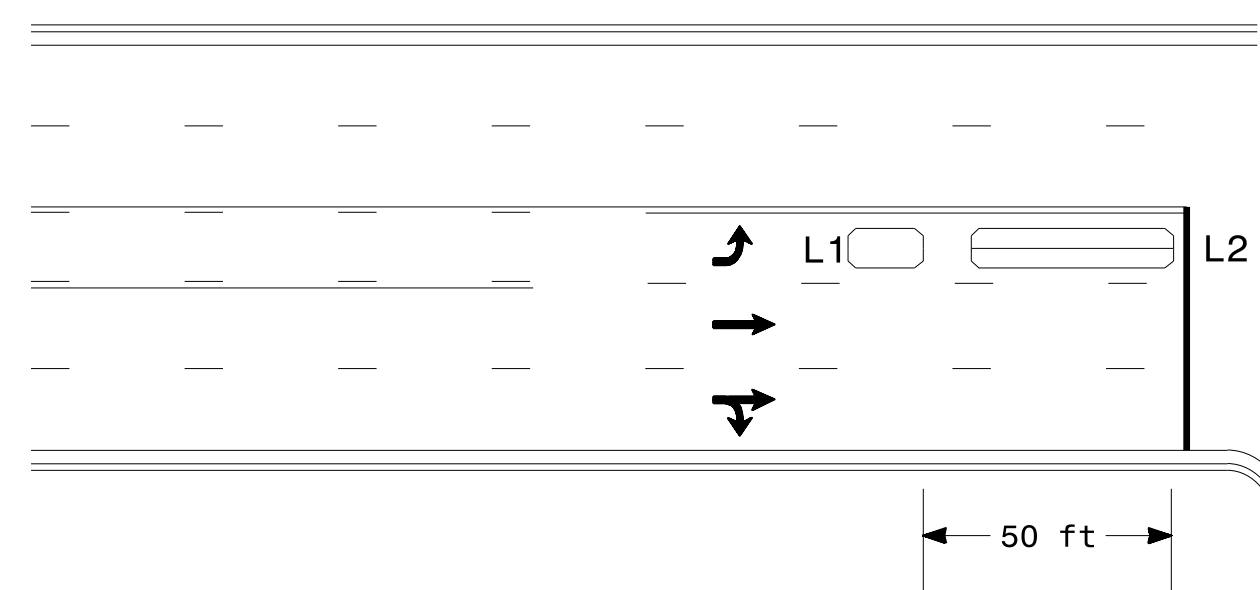
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

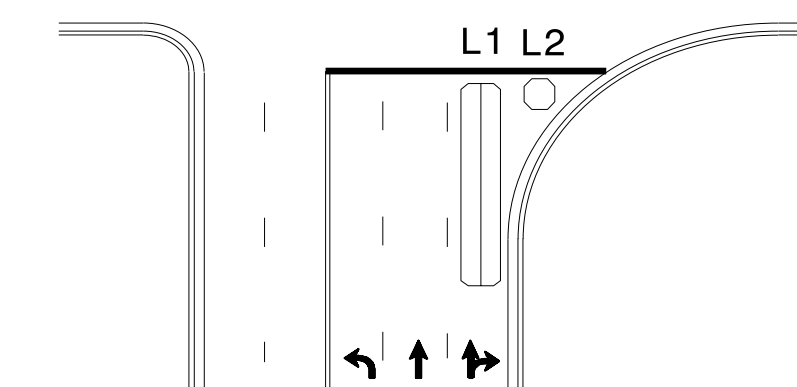
OR



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

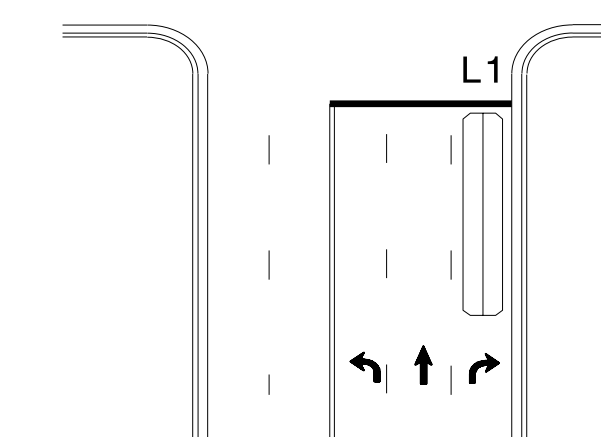
Queue Loop Detection

Right Turn Lane Detection

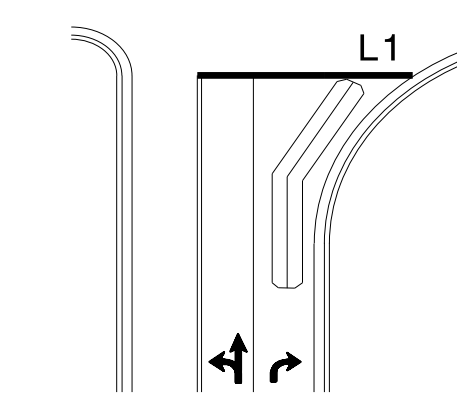


Shared Lane/
Wide Radius Turn

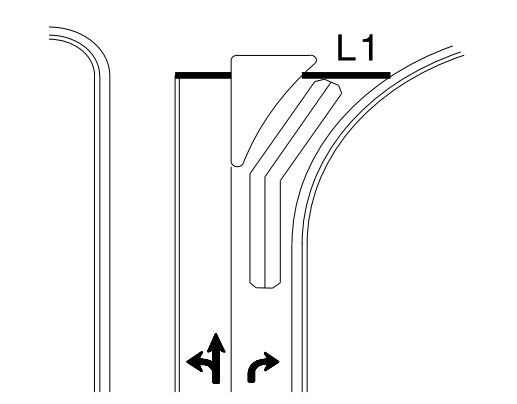
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

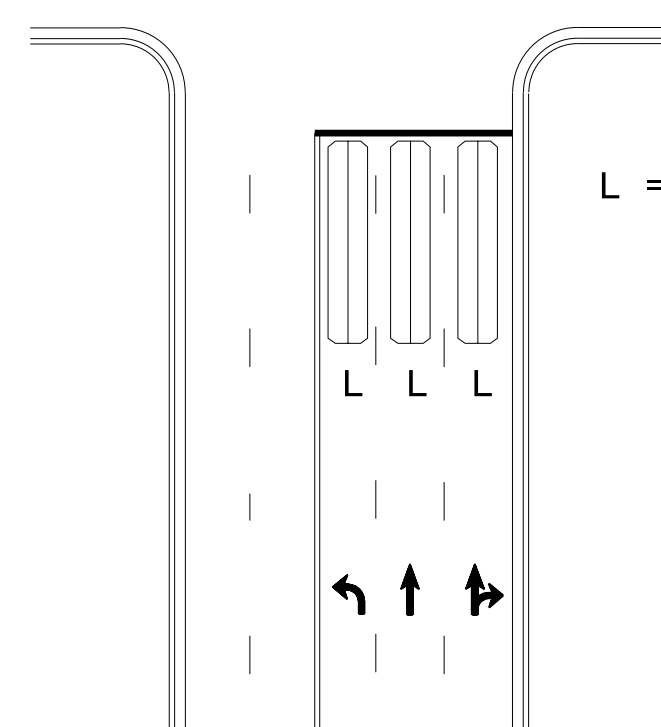


Wide Radius Turn



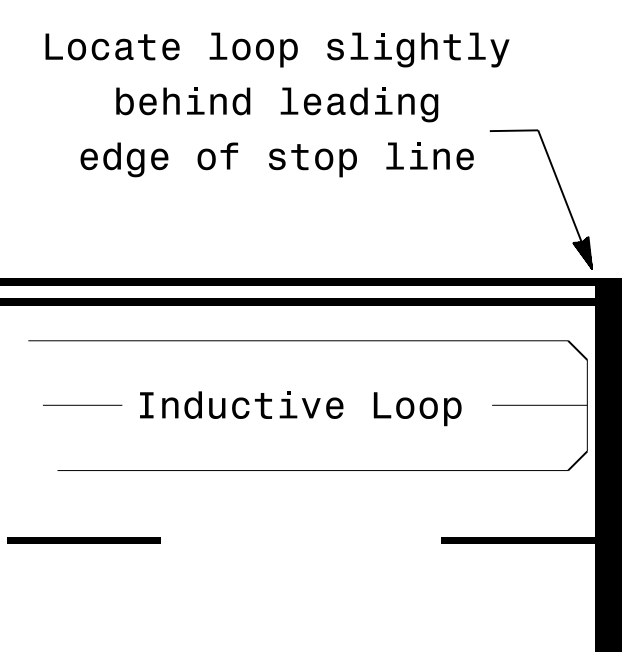
Channelized Turn

Side Street Detection



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

Presence Loop Placement at Stop Lines



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):

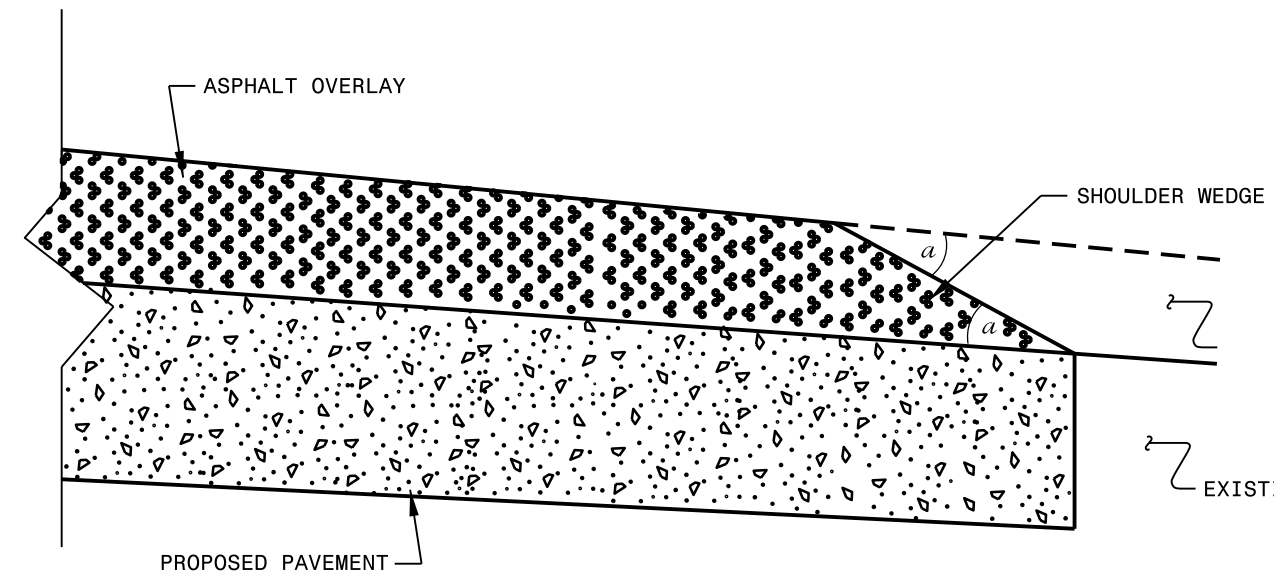
Length of Lead-in ft	Number of Turns
< 250	3
250-375	4
375-525	5
> 525	6

Quadrupole loops: Use 2-4-2 turns

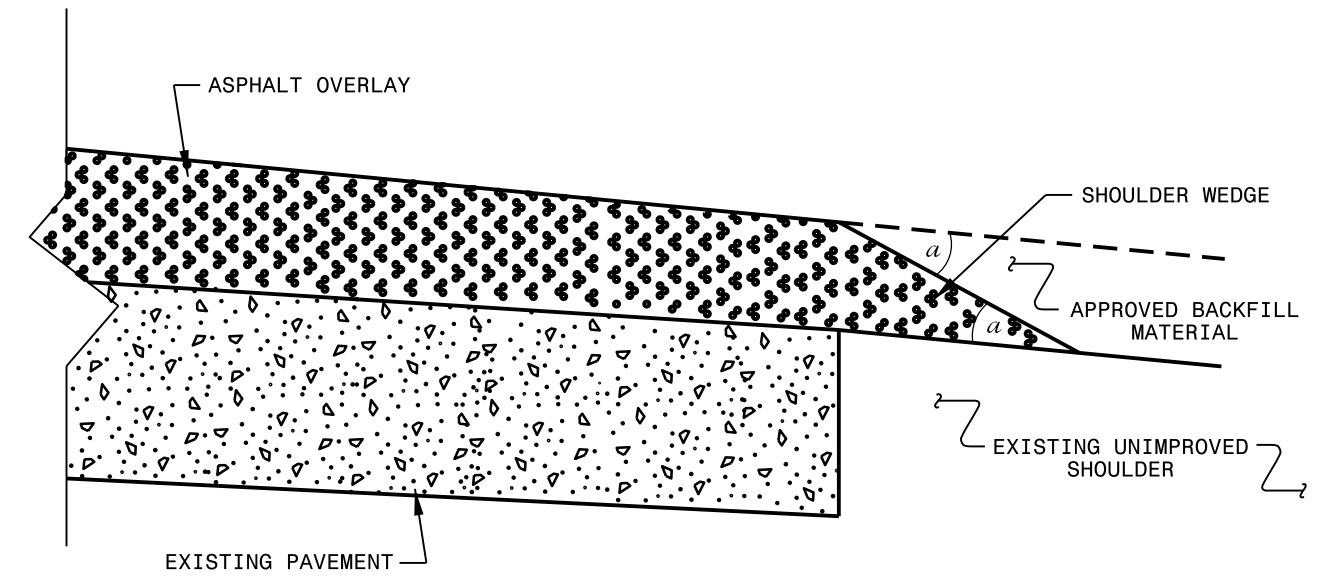
6' X 15' Loops:
Lead-in < 150', use 2 turns
Lead-in > 150', use 3 turns

	Typical Signal Loop Locations		
	PLAN DATE: January 2015 PREPARED BY: PLA	REVIEWED BY: JPG REVIEWED BY:	
REVISIONS		INIT. DATE	1/30/2015 DATE
SIG. INVENTORY NO.			

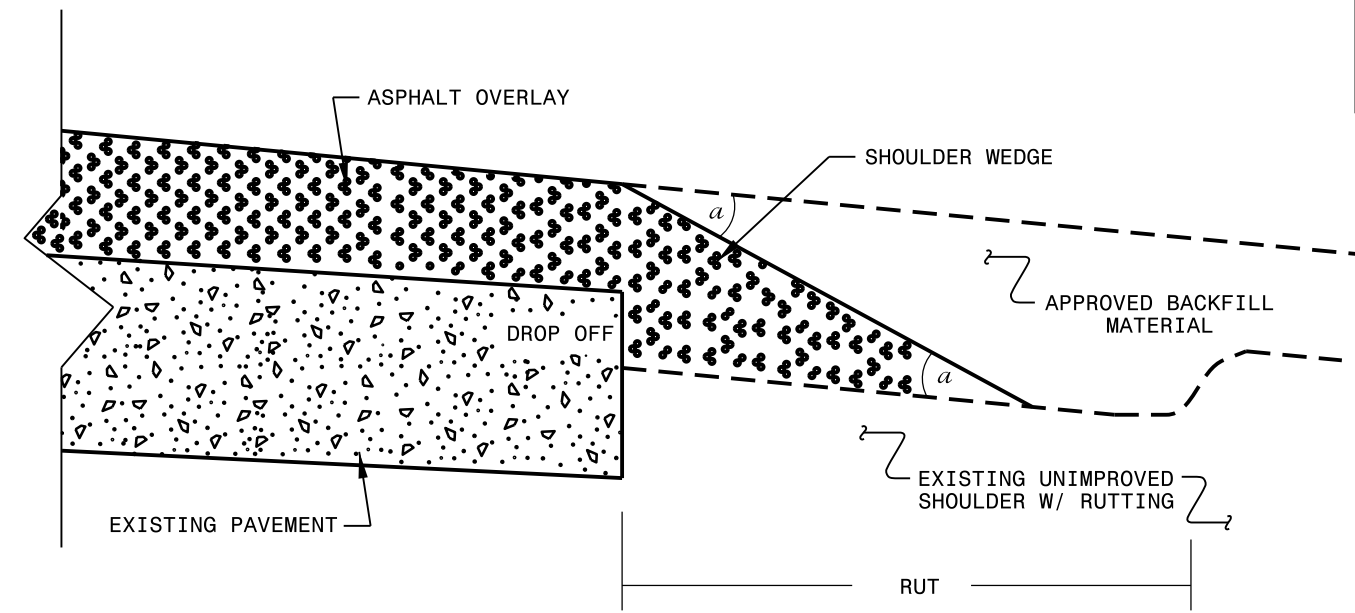
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



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°

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: 2/2/16		
CHECKED BY:	DATE:		
FILE SPEC.: susr/details/stand/shoulderwedgedetail.dgn			

SYSTEMS DESIGN CONSULTANTS
 11000 WILSON BLVD
 SUITE 100
 DALLAS, TX 75243
 TEL: 972-342-2200
 FAX: 972-342-2201
 WWW.SDCON.COM

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

SOIL STABILIZATION TIMEFRAMES

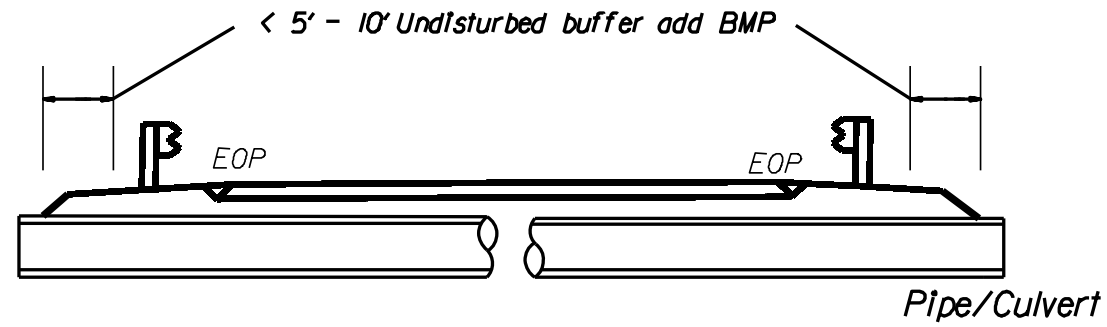
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES.

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

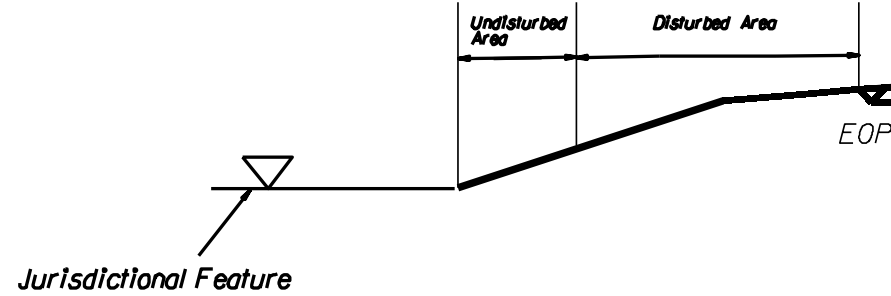
BMP Options: Wattle, Silt Fence, or Hardened Aggregate.

EROSION CONTROL DETAIL

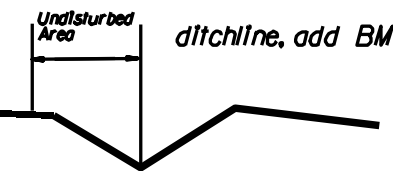
PROJECT REFERENCE NO. 1-1111	SHEET NO. 10-11/01/11
RDW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



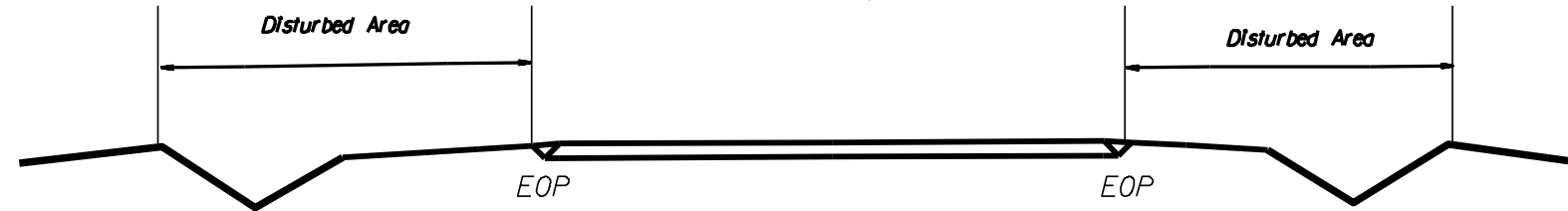
< 5' - 10' Undisturbed buffer from jurisdictional feature add BMP



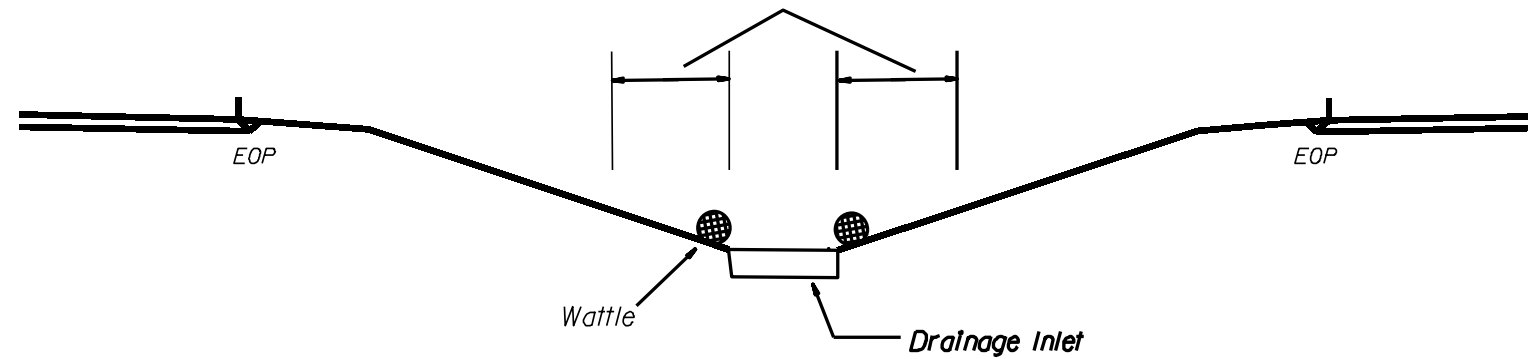
< 5' - 10' Undisturbed buffer from ditchline, add BMP



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

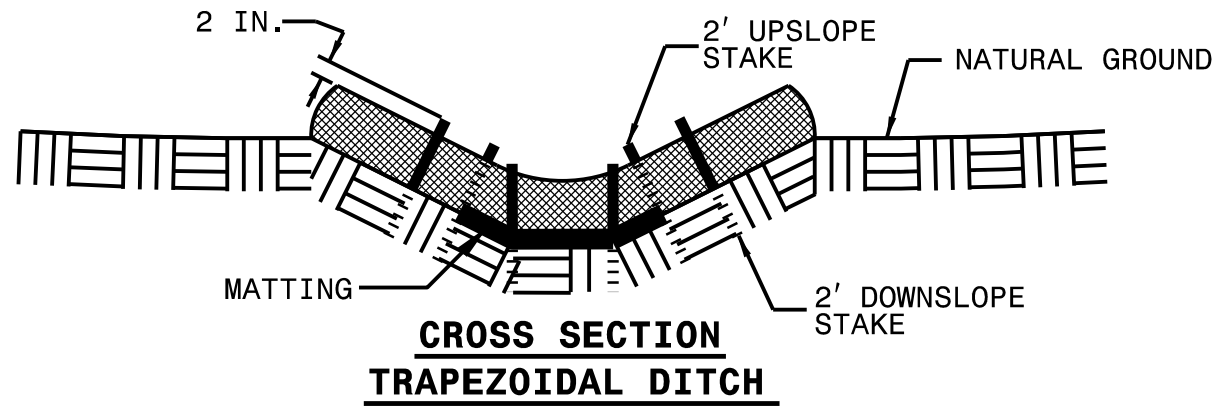
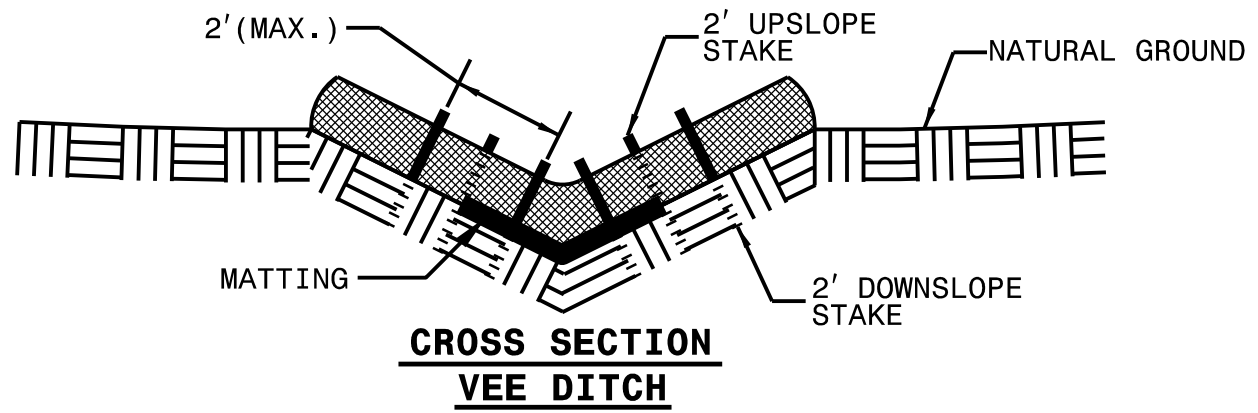
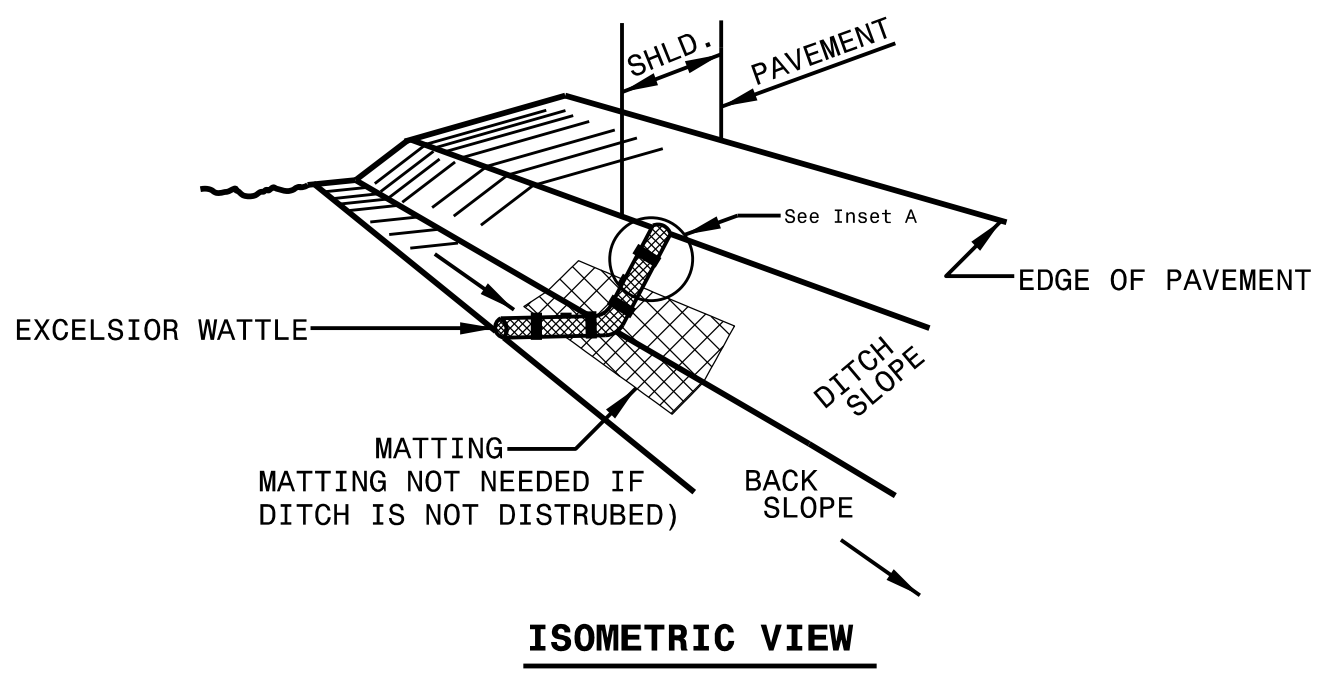


< 5' - 10' Undisturbed buffer from Inlet, add wattle



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. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

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.

IF DITCH WILL BE DISTURBED, INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

