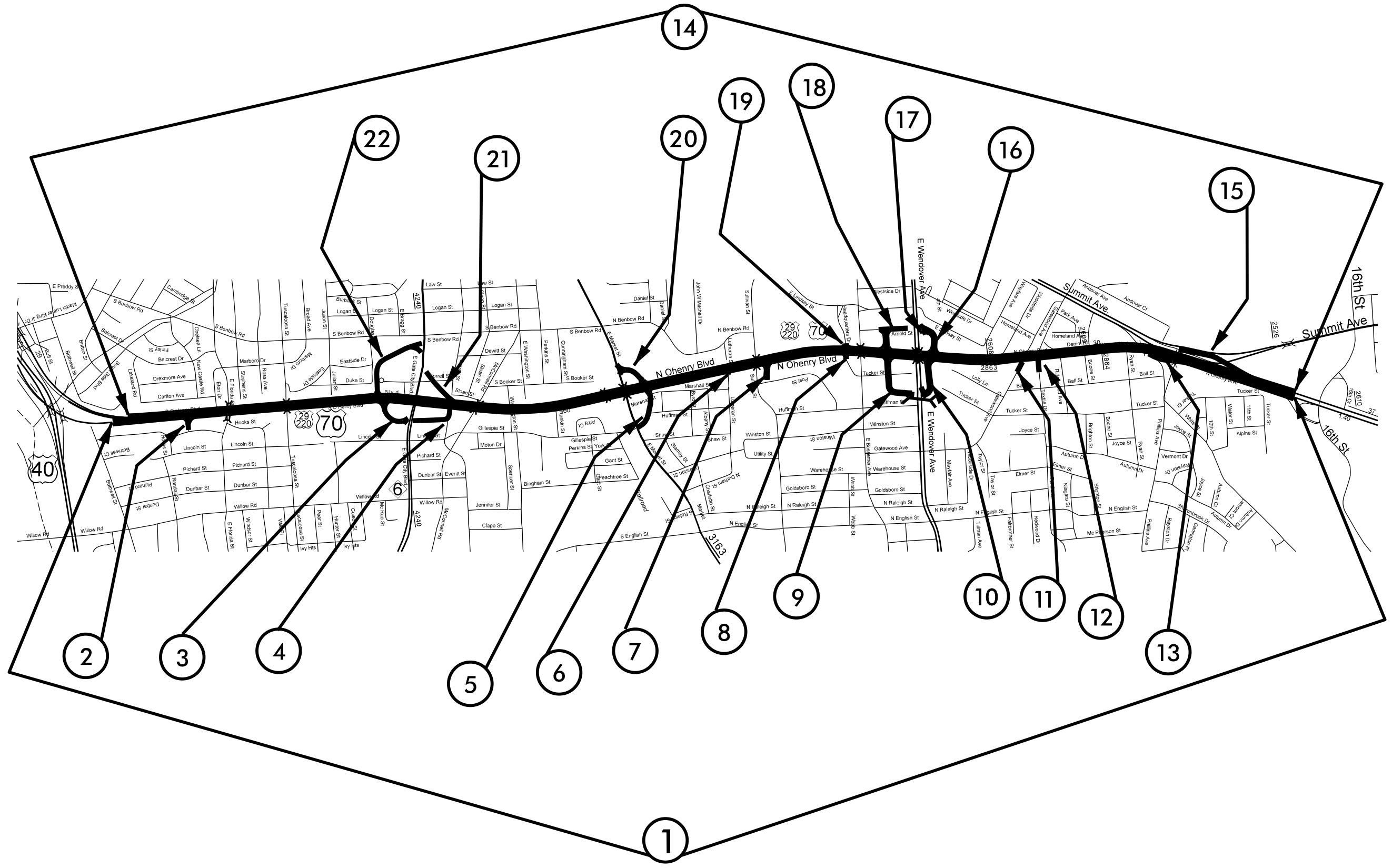
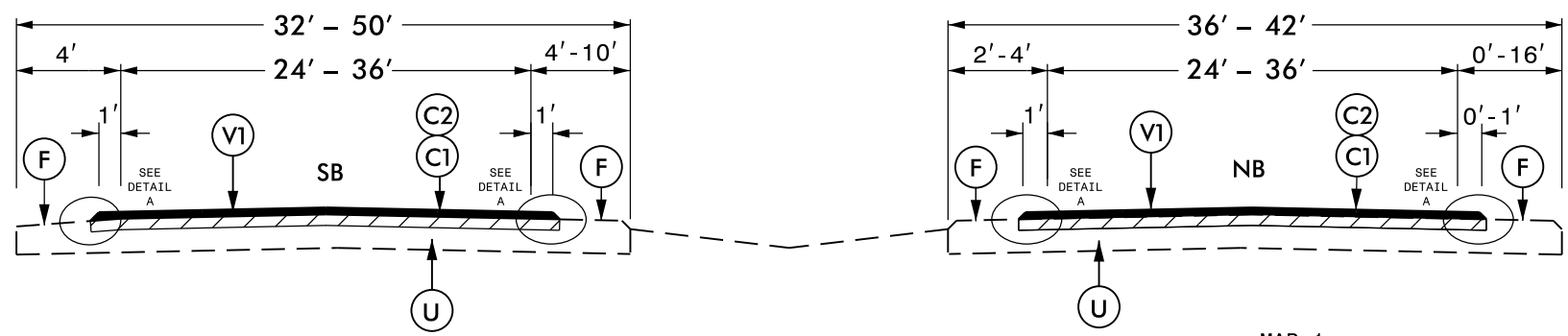


GUILFORD COUNTY

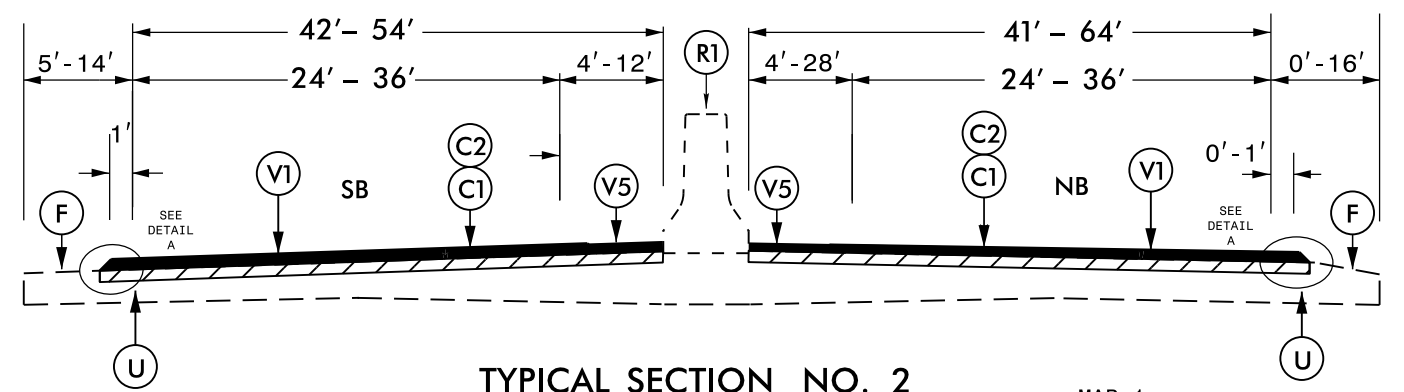


8/17/99

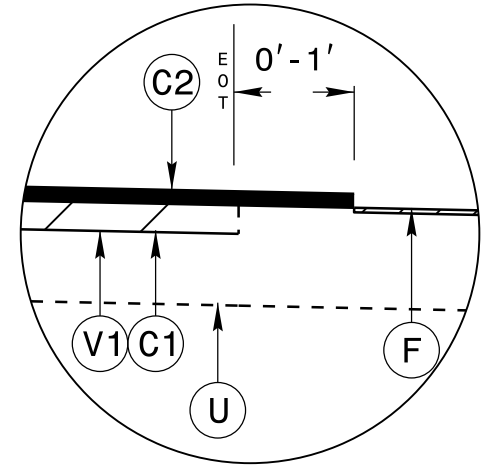
SYSTEMS DESIGN SERVICES



TYPICAL SECTION NO. 1
 MAP 14: STA. 10+00 TO STA. 25+98
 MAP 1: STA. 010+19 TO STA. 011+96
 STA. 203+22 TO STA. 219+09

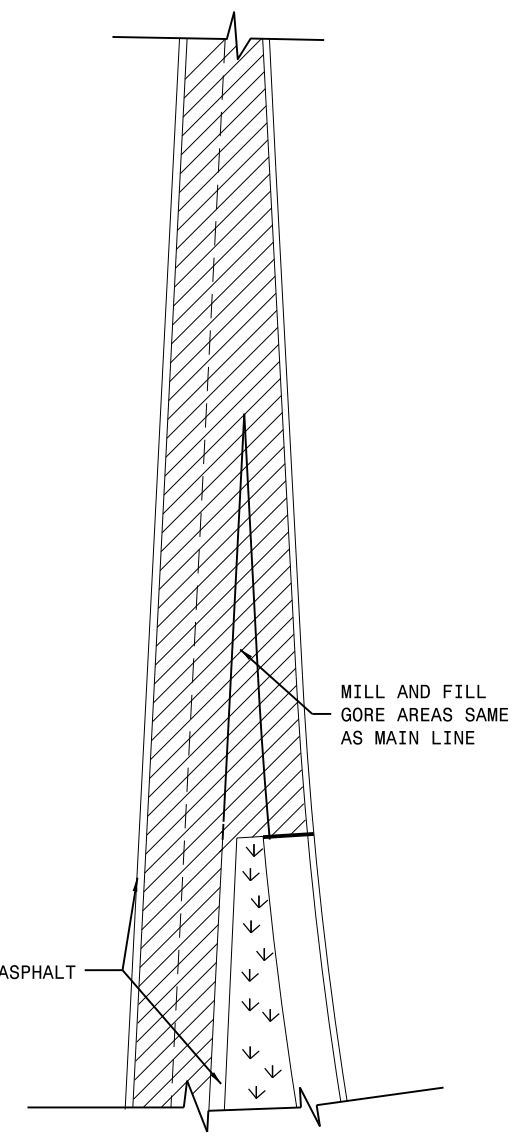


TYPICAL SECTION NO. 2
 MAP 14: STA. 043+70 TO STA. 053+53
 STA. 166+87 TO STA. 215+82
 MAP 1: STA. 011+96 TO STA. 058+25
 STA. 174+96 TO STA. 187+72

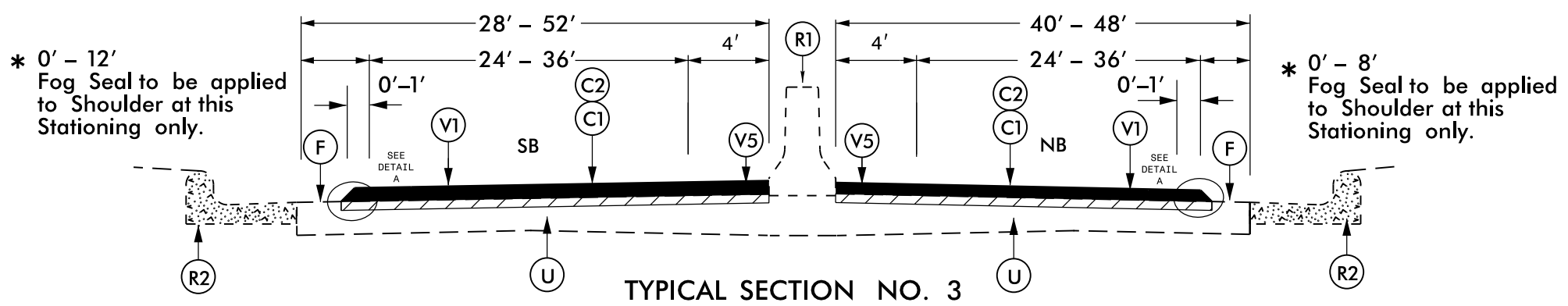


DETAIL A

EXISTING ASPHALT SHOULDERS



DETAIL - GORE AREAS



* 0' - 12' Fog Seal to be applied to Shoulder at this Stationing only.

* 0' - 8' Fog Seal to be applied to Shoulder at this Stationing only.

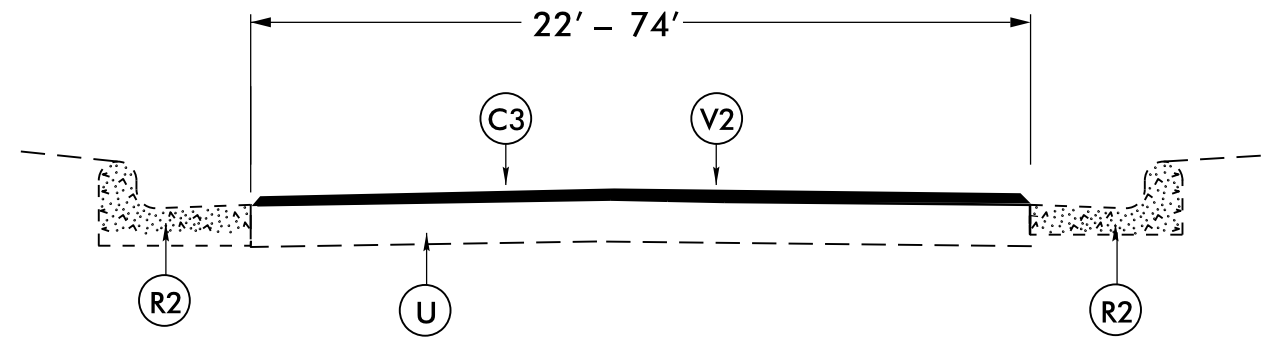
TYPICAL SECTION NO. 3
 MAP 14: STA. 025+98 TO STA. 043+70
 STA. 053+53 TO STA. 165+08
 STA. 165+08 TO STA. 166+87 (SKIP)
 * STA. 160+88 TO STA. 165+08
 MAP 1: STA. 058+25 TO STA. 062+15
 STA. 062+15 TO STA. 063+99 (SKIP)
 STA. 063+99 TO STA. 174+56
 STA. 187+72 TO STA. 203+22
 * STA. 063+88 TO STA. 067+30

PAVEMENT SCHEDULE

C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C2	PROP. APPROX. 3/4" OPEN-GRADED ASPHALT FRICTION COURSE, TYPE FC-1 MODIFIED, AT AN AVERAGE RATE OF 90 LBS. PER SQ. YD.
C3	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D	PROP. APPROX. 4 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.
F	PROPOSED FOG SEAL TO BE APPLIED TO THE EXISTING SHOULDER
R1	EXISTING CONCRETE MEDIAN BARRIER WALL
R2	EXISTING CONCRETE 2'-6" CURB & GUTTER
R3	EXISTING CONCRETE ISLAND
U	EXISTING CONCRETE PAVEMENT WITH ASPHALT OVERLAY
V1	MILLING ASPHALT PAVEMENT 2 5/8" DEPTH
V2	MILLING ASPHALT PAVEMENT 1 1/2" DEPTH
V3	FINE MILLING 5/8" DEPTH
V4	MILLING ASPHALT PAVEMENT 4 1/2" DEPTH
V5	MILLED RUMBLE STRIPS

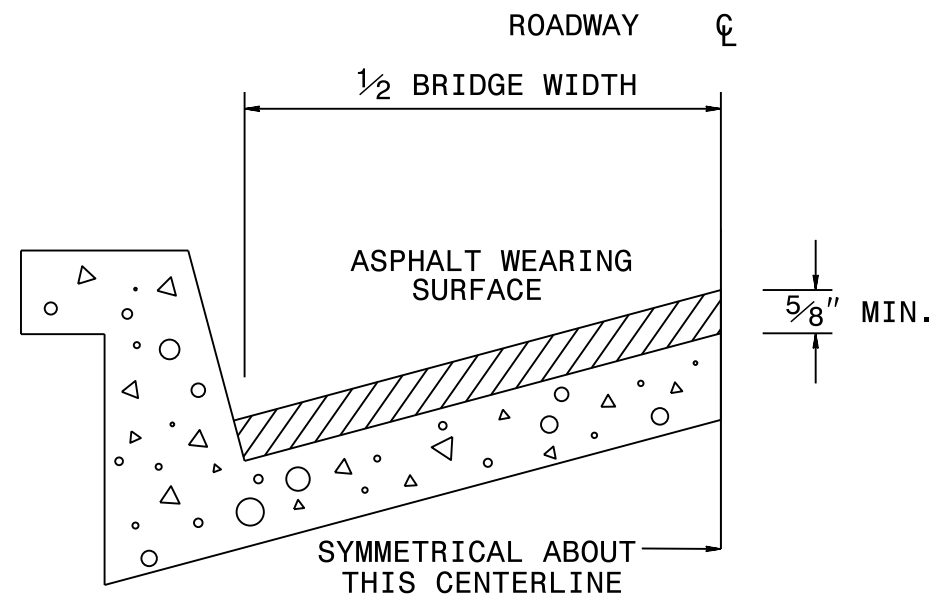
REVISIONS

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TYPICAL SECTION NO. 4

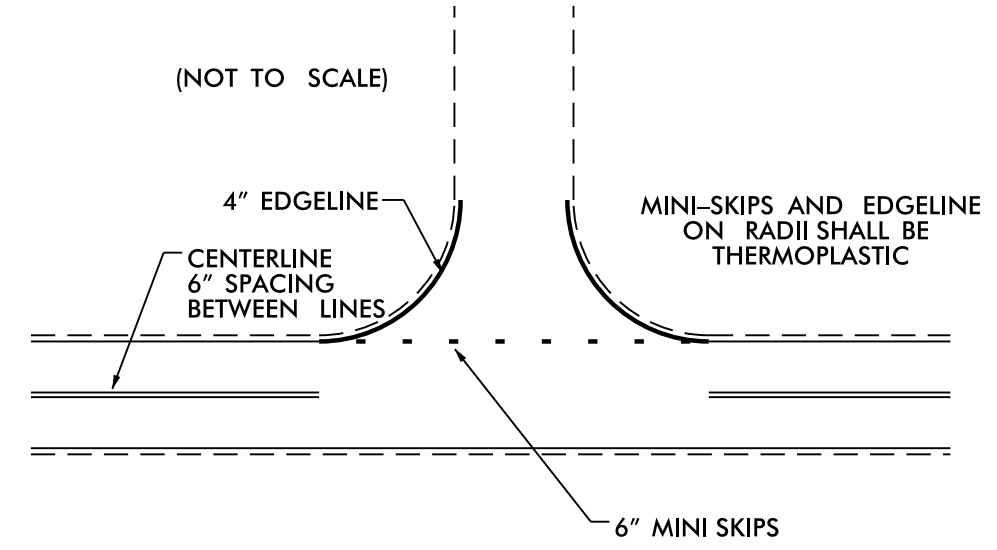
MAPS 2, 6, 8, 11, 12, 19, 20
 MAP 15 - STA. 15+56 TO STA. 22+57
 MAP 18 - STA. 13+59 TO STA. 17+36



BRIDGE HALF TYPICAL SECTION

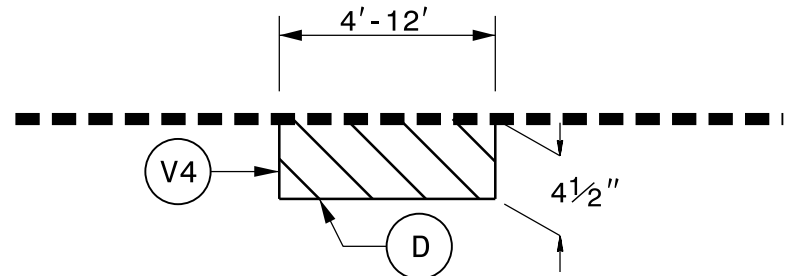
FOR BRIDGES WITH FLOOR DRAINS, CARE SHALL BE EXERCISED IN PLACING THE WEARING SURFACE AROUND FLOOR DRAINS SO AS NOT TO HINDER EFFECTIVE DRAINAGE. ALL DRAINS SHALL BE LEFT OPEN. THE PROPOSED WEARING SURFACE SHALL VARY IN THICKNESS AS NECESSARY TO PROVIDE A SMOOTH RIDING SURFACE. A THICKNESS OF NOT LESS THAN 5/8" SHALL BE PROVIDED. THE MAXIMUM THICKNESS SHALL PREFERABLY BE 1-1/2" UNLESS IT IS IMPRACTICAL TO PROVIDE A SMOOTH RIDING SURFACE OTHERWISE.

**STRIPING DETAIL
 NON-SIGNALIZED/ NON-CURB & GUTTER INTERSECTIONS**



NOTE: MINI SKIPS SHALL BE PLACED ON A 10' CYCLE, CONTAINING AN 8' SPACE AND 2' SKIP. THE WIDTH OF THE SKIP SHALL BE 6".

PATCHING DETAIL 1

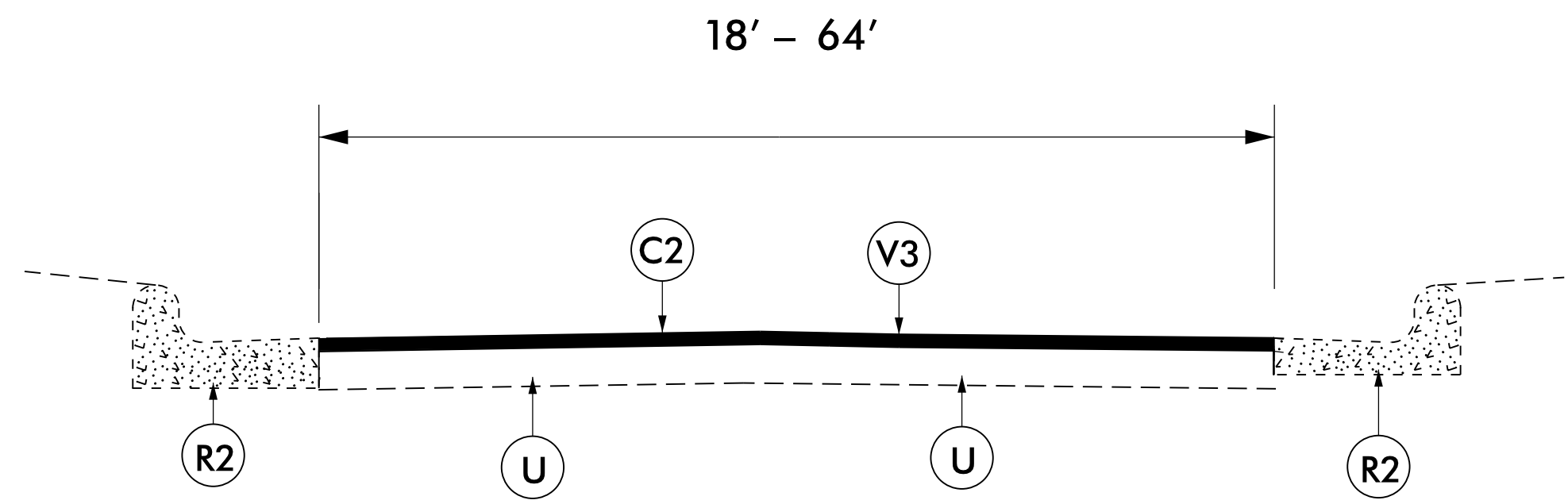


MILL EXISTING ASPHALT PAVEMENT 4 1/2" IN DEPTH AND FILL WITH INTERMEDIATE COURSE, TYPE I19.0C AT LOCATIONS AS DIRECTED BY THE ENGINEER.

PAVEMENT SCHEDULE			
C1	PROP. APPROX. 2" ASPHALT. CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.		
C2	PROP. APPROX. 3/4" OPEN- GRADED ASPHALT FRICTION COURSE, TYPE FC-1 MODIFIED, AT AN AVERAGE RATE OF 90 LBS. PER SQ. YD.		
C3	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.		
D	PROP. APPROX. 4 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.		
F	PROPOSED FOG SEAL TO BE APPLIED TO THE EXISTING SHOULDER		
R1	EXISTING CONCRETE MEDIAN BARRIER WALL	R2	EXISTING CONCRETE 2'-6" CURB & GUTTER
R3	EXISTING CONCRETE ISLAND	U	EXISTING CONCRETE PAVEMENT WITH ASPHALT OVERLAY
V1	MILLING ASPHALT PAVEMENT 2 5/8" DEPTH	V2	MILLING ASPHALT PAVEMENT 1 1/2" DEPTH
V3	FINE MILLING 5/8" DEPTH	V4	MILLING ASPHALT PAVEMENT 4 1/2" DEPTH
V5	MILLED RUMBLE STRIPS		

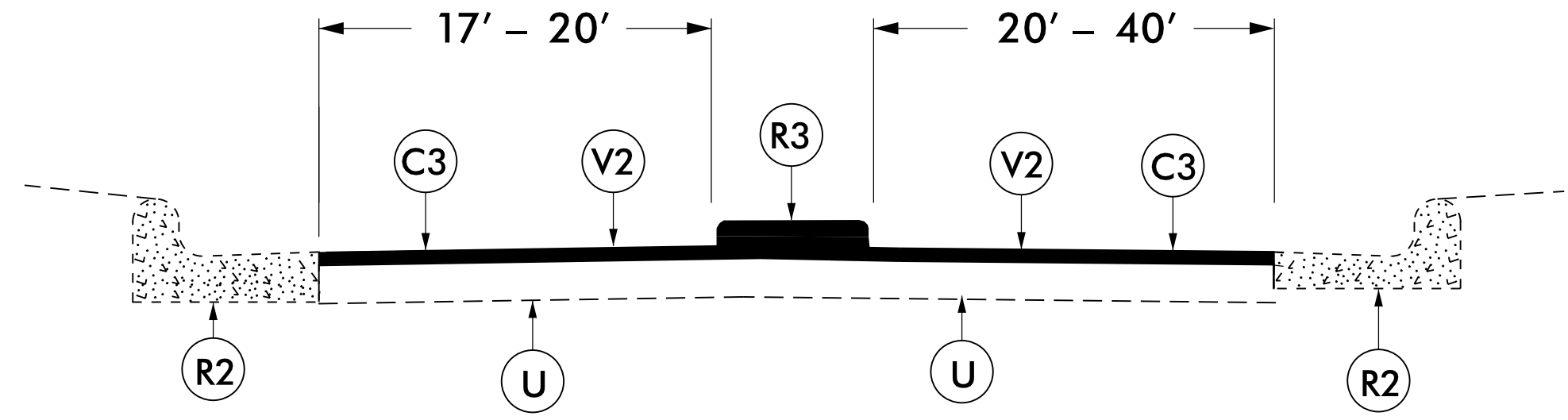
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TYPICAL SECTION NO. 5

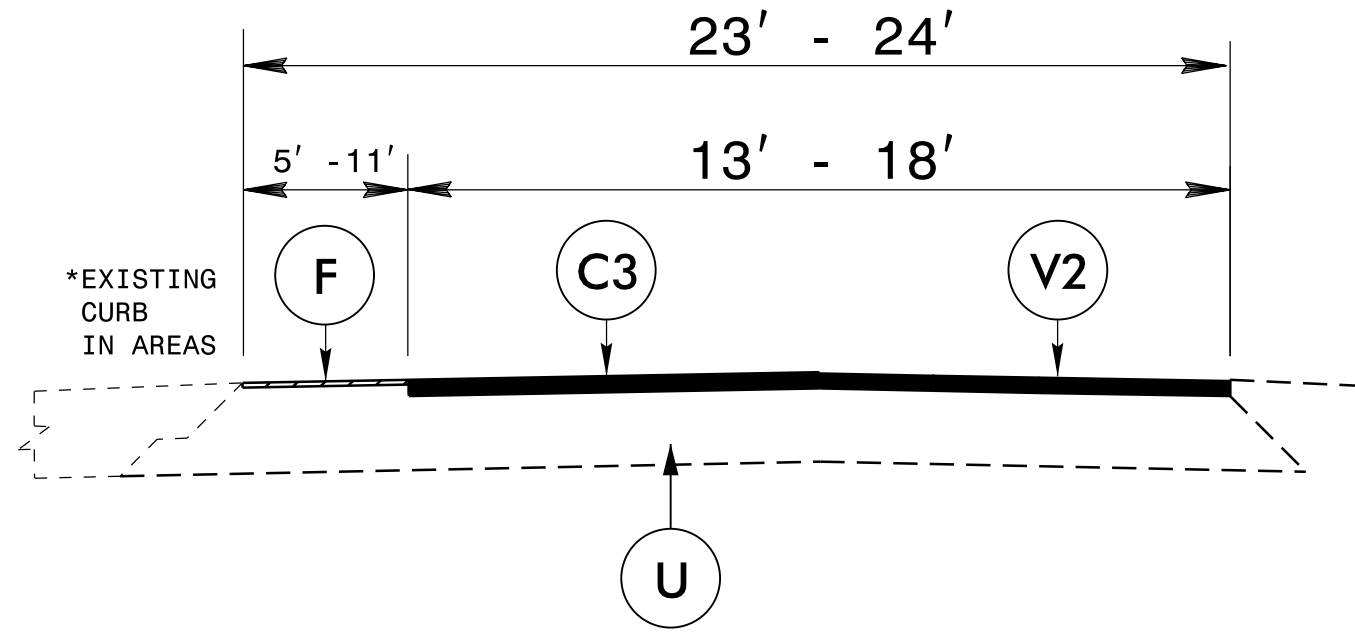
TO BE USED IN MAPS: 3, 4, 5, 7, 13, 21, 22



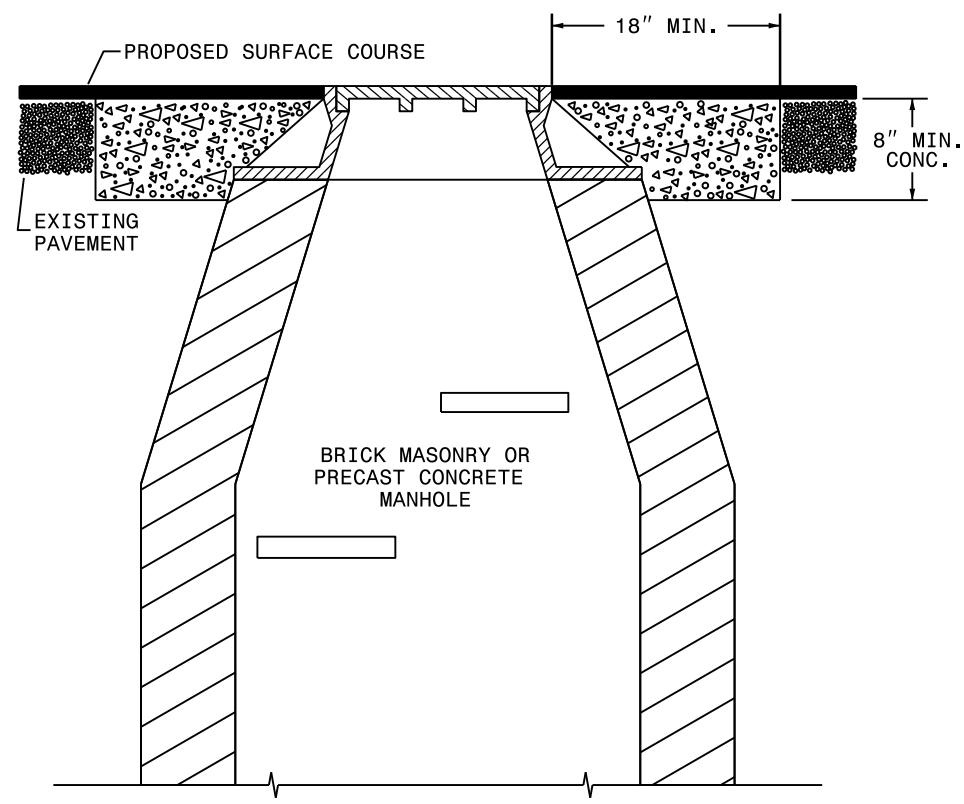
TYPICAL SECTION NO. 6

TO BE USED IN MAPS: 9, 10, 16, 17
MAP 18 STA. 10+00 TO STA. 13+59

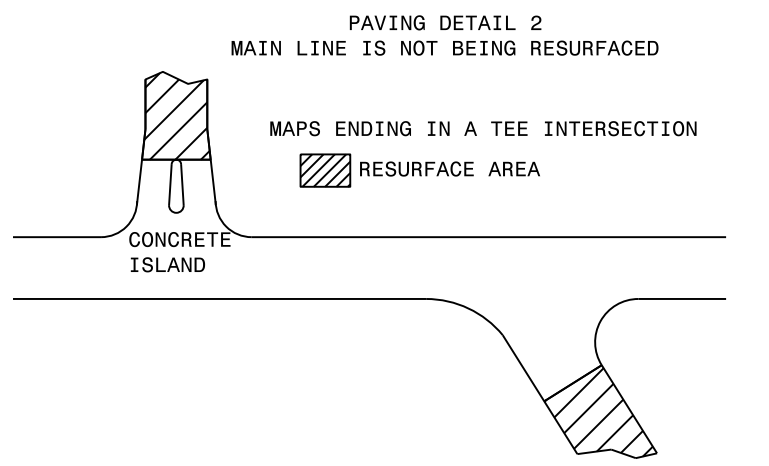
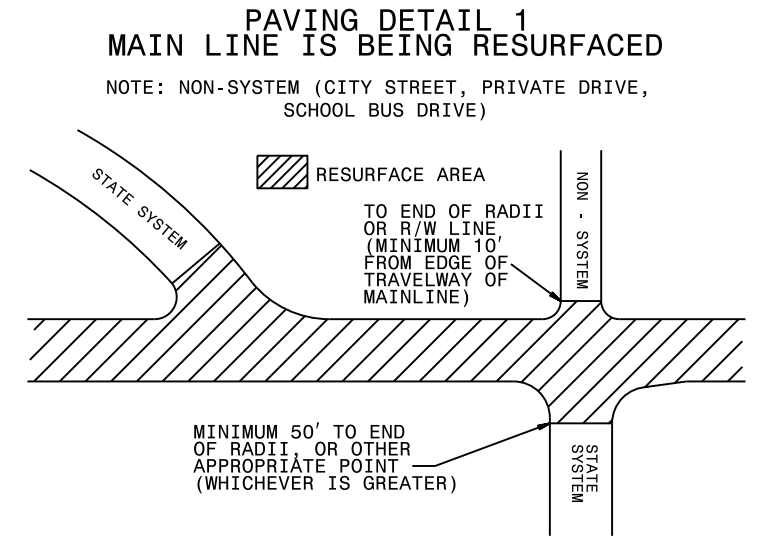
PAVEMENT SCHEDULE			
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.		
C2	PROP. APPROX. 3/4" OPEN-GRADED ASPHALT FRICTION COURSE, TYPE FC-1 MODIFIED, AT AN AVERAGE RATE OF 90 LBS. PER SQ. YD.		
C3	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.		
D	PROP. APPROX. 4 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.		
F	PROPOSED FOG SEAL TO BE APPLIED TO THE EXISTING SHOULDER		
R1	EXISTING CONCRETE MEDIAN BARRIER WALL	R2	EXISTING CONCRETE 2'-6" CURB & GUTTER
R3	EXISTING CONCRETE ISLAND	U	EXISTING CONCRETE PAVEMENT WITH ASPHALT OVERLAY
V1	MILLING ASPHALT PAVEMENT 2 5/8" DEPTH	V2	MILLING ASPHALT PAVEMENT 1 1/2" DEPTH
V3	FINE MILLING 5/8" DEPTH	V4	MILLING ASPHALT PAVEMENT 4 1/2" DEPTH
V5	MILLED RUMBLE STRIPS		



TYPICAL SECTION NO. 7
 MAP 15 STA. 10+00 TO STA. 13+71



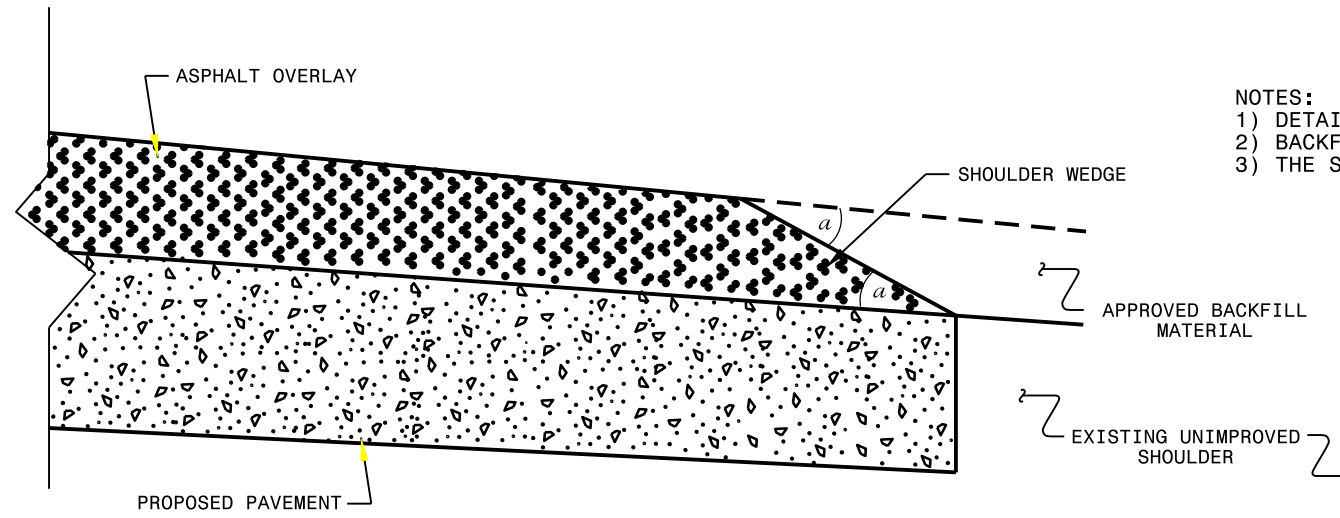
- NOTES:**
- MORTAR SHALL BE MIXED TO NCDOT SPECIFICATIONS.
 - ALL FAULTY EXISTING BRICKWORK TO BE REMOVED AND REPLACED WITH NEW BRICK MASONRY.
 - EXCAVATION FOR THE ADJUSTMENT SHALL BE SHEER CUT ON ALL SIDES.
 - RAPID SET GROUT, MORTAR, OR CONCRETE SHALL BE USED



PAVEMENT SCHEDULE			
C1	PROP. APPROX. 2" ASPHALT. CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.		
C2	PROP. APPROX. 3/4" OPEN- GRADED ASPHALT FRICTION COURSE, TYPE FC-1 MODIFIED, AT AN AVERAGE RATE OF 90 LBS. PER SQ. YD.		
C3	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.		
D	PROP. APPROX. 4 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.		
F	PROPOSED FOG SEAL TO BE APPLIED TO THE EXISTING SHOULDER		
R1	EXISTING CONCRETE MEDIAN BARRIER WALL	R2	EXISTING CONCRETE 2'-6" CURB & GUTTER
R3	EXISTING CONCRETE ISLAND	U	EXISTING CONCRETE PAVEMENT WITH ASPHALT OVERLAY
V1	MILLING ASPHALT PAVEMENT 2 5/8" DEPTH	V2	MILLING ASPHALT PAVEMENT 1 1/2" DEPTH
V3	FINE MILLING 5/8" DEPTH	V4	MILLING ASPHALT PAVEMENT 4 1/2" DEPTH
V5	MILLED RUMBLE STRIPS		

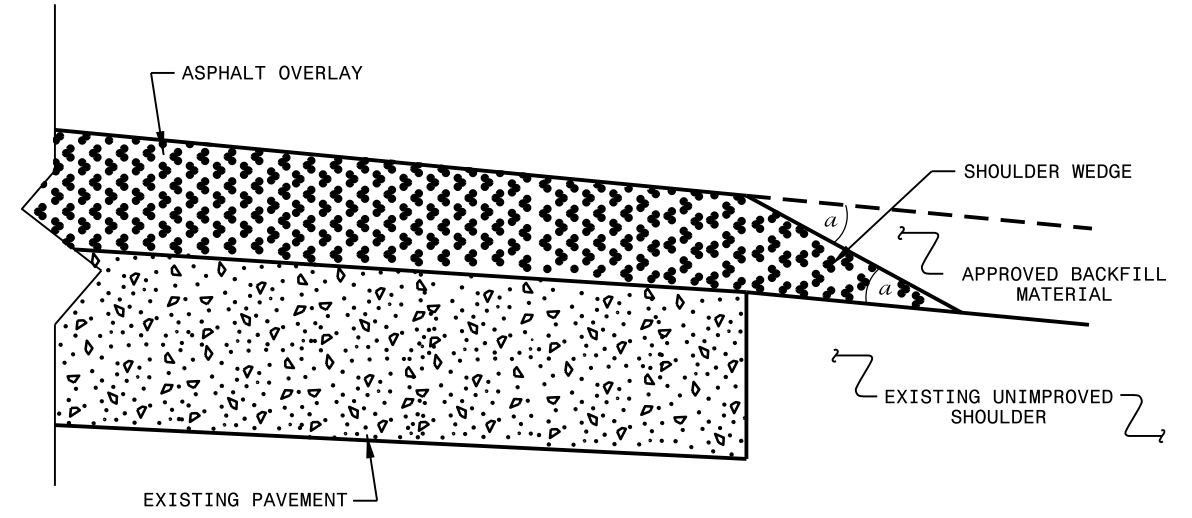
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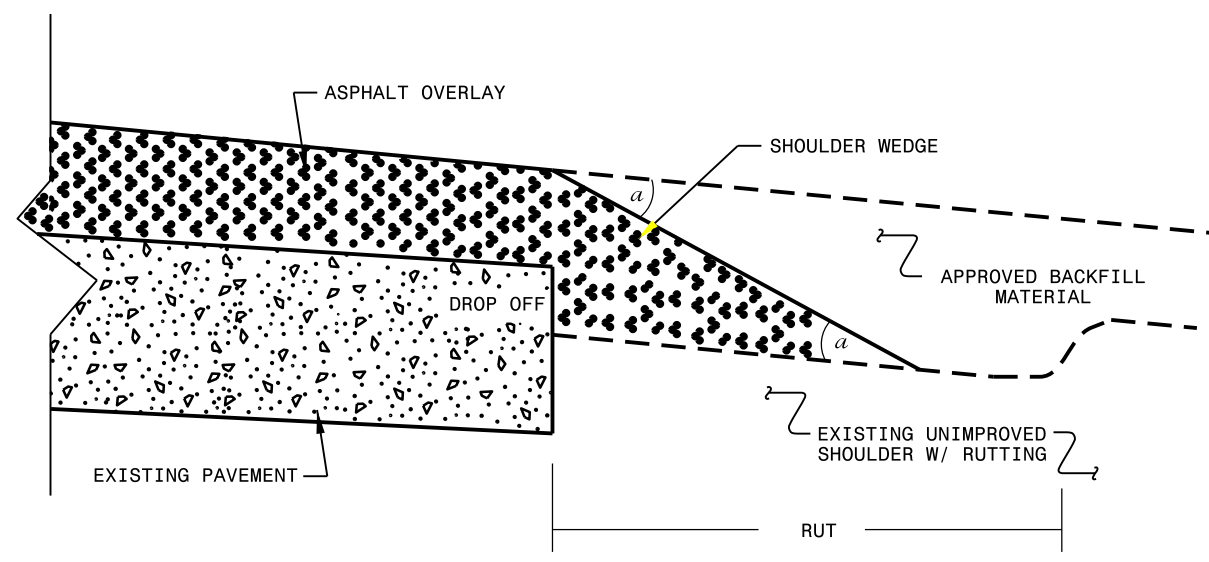


- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS AND SIDE STREETS.

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



SHOULDER WEDGE DETAIL
 (Resurfacing Projects w/ NO Widening)



SHOULDER WEDGE DETAIL
 (Resurfacing Adjacent to
 Rutted Shoulder)

- SHOULDER WEDGE ANGLE = 30°

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950 FAX 919-250-4119	
SHOULDER WEDGE DETAILS	
ORIGINAL BY: T. SPELL	DATE: 7-19-11
MODIFIED BY:	DATE: 10/16/12
CHECKED BY:	DATE:
FILE SPEC: s:\usr\details\stand\shoulderwedge\detail.dgn	

24-JAN-2019 14:25
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 ctuskms AT D:\107-308653

PROJECT NO.	SHEET NO.	TOTAL NO.
2020CPT.07.11.10411	7	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH		INCIDENTAL STONE BASE	122000000-E		129700000-E		152300000-E	152420000-E	157500000-E	157700000-E	166200000-E	170400000-E	182000000-E	184000000-E	
										MI	FT		TONS	SY	SY	TONS	TON	TON	TONS	TON	TONS	TONS	TONS	SY	LF
2020CPT.07.11.10411	Gulford	1	US 29 NB	FROM NORTHERN PROJECT LIMITS OF U-5754 (I-40/I-85) TO 16TH STREET (NS) (MM 17.07 - 21.025)	1	3	MD	NO	NO	0.034	37	20		738				83		7	35	100	160		
					2	3	MD	NO	NO	0.04	46			1,080				121		10	50			211	
					2	3	MD	NO	NO	0.152	44			3,924				441		36	181			803	
					2	3	MD	NO	NO	0.016	56			526				59		5	24			85	
					2	2	MD	NO	NO	0.025	49			730				81		7	33		268	132	
					2	3	MD	NO	NO	0.021	56			685				78		6	32			111	
					2	3	MD	NO	NO	0.079	48			2,196				250		22	103			417	
					2	3	MD	NO	NO	0.045	35			914				104		9	42		235	238	
					2	2	MD	NO	NO	0.286	30			5,033				567		47	234		2,181	1,510	
					2	3	MD	NO	NO	0.129	35			2,648				298		24	122		681	681	
					2	3	MD	NO	NO	0.011	41			269				30		2	12		46	58	
					2	3	MD	NO	NO	0.027	41			638				73		6	30		187	143	
					2	2	MD	NO	NO	0.021	55			684				76		6	31		101	111	
					2	2	MD	NO	NO	0.026	50			761				86		7	35		335	138	
					3	3	MD	NO	NO	0.018	53			565				63		5	26		85	95	
				SKIP BRIDGE OVER E. GATE CITY	3	3	MD	NO	NO	0.056	40			1,290				148		12	60		261	296	
					3	3	MD	NO	NO	0.035	36														
					3	3	MD	NO	NO	0.063	40			1,489				166		14	68		296	333	
					3	2	MD	NO	NO	0.029	52			872				99		8	41		67	153	
					3	2	MD	NO	NO	0.01	39			238				26		2	10		23	53	
					3	3	MD	NO	NO	0.015	54			468				53		4	22		35	79	
					3	3	MD	NO	NO	0.621	38			13,840				1,557		129	640			3,279	
					3	3	MD	NO	NO	0.012	49			348				39		3	15			64	
					3	2	MD	NO	NO	0.014	40			338				37		3	15			74	
					3	3	MD	NO	NO	0.012	49			348				39		3	15			64	
					3	3	MD	NO	NO	0.236	38			5,261				592		50	243			1,246	
					3	3	MD	NO	NO	0.01	50			294				33		3	13			53	
					3	2	MD	NO	NO	0.007	43			177				20		2	8			37	
					3	3	MD	NO	NO	0.009	51			278				30		2	13			48	
					3	3	MD	NO	NO	0.094	40			2,209				248		20	102			497	
					3	3	MD	NO	NO	0.013	52			404				45		4	18			69	
					3	2	MD	NO	NO	0.023	42			569				64		5	26			122	
					3	3	MD	NO	NO	0.035	52			1,063				120		11	49			185	
					3	3	MD	NO	NO	0.201	40			4,707				530		44	217			1,062	
					3	3	MD	NO	NO	0.015	55			495				54		4	22			79	
					3	2	MD	NO	NO	0.009	47			235				28		2	12			48	
					3	3	MD	NO	NO	0.015	53			459				52		4	22			79	
					3	3	MD	NO	NO	0.088	40			2,058				232		19	95			465	
					3	3	MD	NO	NO	0.018	52			560				62		5	26			95	
					3	2	MD	NO	NO	0.03	43			760				85		7	35			159	
					3	3	MD	NO	NO	0.03	52			916				103		8	42			159	
					3	3	MD	NO	NO	0.057	40			1,342				150		12	62			301	
					3	3	MD	NO	NO	0.019	52			589				65		5	27			101	
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					3	3	MD	NO	NO	0.18	40			4,236				475		39	195			951	
					3	3	MD	NO	NO	0.025	40			591				66		5	27			132	
					3	3	MD	NO	NO	0.029	40			680				77		6	31			153	
					3	2	MD	NO	NO	0.008	50			222				26		2	10			42	
					3	2	MD	NO	NO	0.003	44			88				9		1	4			16	
					3	2	MD	NO	NO	0.036	45			945				107		9	44			190	
					2,3	2	MD	NO	NO	0.466	28			7,647				862		71	357			2,460	
					3	3	MD	NO	NO	0.02	49			555				65		5	27			106	
					3,1	3	MD	NO	NO	0.057	42			1,400				158		13	64				
					2	2	MD	NO	NO	0.215	38			4,793				539		44	221				
					1	3	MD	NO	NO	0.022	36			465				52		4	22		77		
					1	3	MD	NO	NO	0.016	39			366				41		3	17			56	
					1	3	MD	NO	NO	0.02	58			681				76		6	31		117		
					1	2	MD	NO	NO	0.028	24			394				44		4	18		246		
TOTAL FOR MAP NO. 1										3.957		20		89,504				10,070		828	4,136	100	5,457	18,649	

PROJECT NO.	SHEET NO.	TOTAL NO.
2020CPT.07.11.10411	8	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	122000000-E	1297000000-E	1523000000-E	1524200000-E	1575000000-E	1577000000-E	1662000000-E	1704000000-E	1820000000-E	1840000000-E		
												INCIDENTAL STONE BASE	MILLING ASPHALT PAVEMENT, 2 5/8" DEPTH	MILLING ASPHALT PAVEMENT, 1 1/2" DEPTH	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	SURFACE COURSE, S9.5D	ASPHALT BINDER FOR PLANT MIX	POLYMER MODIFIED ASPHALT BINDER FOR PLANT MIX	OPEN-GRADED ASPHALT FRICTION COURSE, TYPE FC-1 MODIFIED	PATCHING EXISTING PAVEMENT	ASPHALT SURFACE TREATMENT, FOG SEAL	MILLED RUMBLE STRIPS	
												MI	FT	TONS	SY	SY	TONS	TON	TON	TONS	TONS	SY	LF
2020CPT.07.11.10411	Guilford	2	OFF/ON RAMP TO HOOKS ST	FROM/TO US 29 NB TO/FROM HOOKS STREET (NS)	4	2	2WD	NO	NO	0.009	29					192	16		1				
		"	"	"	4	2	2WU	NO	NO	0.009	32					169	14		1				
		"	"	"	4	2	2WU	NO	NO	0.022	31					400	34		2				
TOTAL FOR MAP NO. 2										0.04						761	64		4				
2020CPT.07.11.10411	Guilford	3	OFF/ON RAMP TO SR 4240 (E. GATE CITY BLVD)	FROM/TO US 29 NB TO/FROM SR 4240 (E. GATE CITY BLVD)	5	2	2WD	NO	NO	0.02	64							2	33				
		"	"	"	5	2	2WU	NO	NO	0.014	47							1	18				
		"	"	"	5	2	2WU	NO	NO	0.073	28							3	54				
		"	"	"	5	2	2WU	NO	NO	0.013	47							1	17				
		"	"	"	5	2	2WU	NO	NO	0.008	58							1	13				
TOTAL FOR MAP NO. 3										0.128								8	135				
2020CPT.07.11.10411	Guilford	4	OFF/ON RAMP TO/FROM SR 4240 (E. GATE CITY BLVD)	FROM/ON US 29 NB TO/FROM SR 4240 (E. GATE CITY BLVD) VIA (GORRELL ST & HACKETT ST)	5	2	2WD	NO	NO	0.009	50							1	12				
		"	"	"	5	2	2WU	NO	NO	0.009	39							1	9				
		"	"	"	5	2	2WU	NO	NO	0.047	42							3	53				
		"	"	"	5	2	2WU	NO	NO	0.084	28							4	62				
TOTAL FOR MAP NO. 4										0.149								9	136				
2020CPT.07.11.10411	Guilford	5	OFF/ON RAMP TO/FROM MARKET STREET	FROM/TO US 29 NB TO/FROM E. MARKET ST VIA N O'HENRY ST.	5	2	2WD	NO	NO	0.013	39							1	13				
		"	"	"	5	2	2WU	NO	NO	0.009	33								8				
		"	"	"	5	2	2WU	NO	NO	0.031	28							1	23				
		"	"	"	5	2	2WU	NO	NO	0.034	32							2	28				
		"	"	"	5	2	2WU	NO	NO	0.034	36							2	32				
		"	"	"	5	2	2WU	NO	NO	0.013	48							1	17				
TOTAL FOR MAP NO. 5										0.134								7	121				
2020CPT.07.11.10411	Guilford	6	OFF/ON RAMP TO LUTHERAN ST	FROM/TO US 29 NB TO/FROM LUTHERAN ST	4	2	2WD	NO	NO	0.005	35					103	9		1				
		"	"	"	4	2	2WU	NO	NO	0.008	31					146	12		1				
TOTAL FOR MAP NO. 6										0.013						249	21		2				
2020CPT.07.11.10411	Guilford	7	OFF/ON RAMP TO/FROM POST ST	FROM/TO US 29 NB TO/FROM POST ST	5	2	2WD	NO	NO	0.018	37							1	18				
		"	"	"	5	2	2WD	NO	NO	0.029	40							2	31				
		"	"	"	5	2	2WD	NO	NO	0.009	50							1	12				
TOTAL FOR MAP NO. 7										0.056								4	61				
2020CPT.07.11.10411	Guilford	8	OFF/ON RAMP TO/FROM BESSEMER AVE VIA HEARDQUARTERS DR	FROM/TO US 29 NB TO/FROM BESSEMER AVE VIA HEARDQUARTERS DR	4	2	2WD	NO	NO	0.009	42					222	19		1				
		"	"	"	4	2	2WU	NO	NO	0.013	41					313	26		2				
TOTAL FOR MAP NO. 8										0.022						535	45		3				
2020CPT.07.11.10411	Guilford	9	OFF/ON RAMP TO/FROM EB WENDOVER AVE	FROM/TO US 29 NB TO/FROM EB WENDOVER AVE	6	2	2WD	NO	NO	0.032	30					563	48		3				
		"	"	"	6	2	2WD	NO	NO	0.043	35					1,448	114		7				
		"	"	"	6	2	2WD	NO	NO	0.117	40					2,746	231		14				
TOTAL FOR MAP NO. 9										0.192						4,757	393		24				
2020CPT.07.11.10411	Guilford	10	OFF/ON RAMP TO/FROM WB WENDOVER AVE	FROM/TO US 29 NB TO/FROM WB WENDOVER AVE	6	2	2WD	NO	NO	0.033	40					774	65		4				
		"	"	"	6	2	2WD	NO	NO	0.057	40					1,492	123		7				
		"	"	"	6	2	2WD	NO	NO	0.034	54					1,077	91		5				
TOTAL FOR MAP NO. 10										0.124						3,343	279		16				
2020CPT.07.11.10411	Guilford	11	OFF/ON RAMP TO/FROM GATEWOOD AVE	FROM/TO US 29 NB TO/FROM GATEWOOD AVE	4	2	2WU	NO	NO	0.022	74					955	80		5				
TOTAL FOR MAP NO. 11										0.022						955	80		5				
2020CPT.07.11.10411	Guilford	12	OFF/ON RAMP TO/FROM TEXTILE DRIVE	FROM/TO US 29 NB TO/FROM TEXTILE DRIVE	4	2	2WD	NO	NO	0.005	32					94	8		1				
TOTAL FOR MAP NO. 12										0.005						94	8		1				
2020CPT.07.11.10411	Guilford	13	ON RAMP FROM SUMMIT AVE	FROM SUMMIT AVE TO US 29 NB (STARTS AT GORE TO PHILLIPS AVE)	5	2		NO	NO	0.097	19							3	49				
TOTAL FOR MAP NO. 13										0.097								3	49				

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH	WIDTH	1220000000-E	1297000000-E		1523000000-E	1524200000-E	1575000000-E	1577000000-E	1662000000-E	1704000000-E	1820000000-E	1840000000-E		
												INCIDENTAL STONE BASE	MILLING ASPHALT PAVEMENT, 2 5/8" DEPTH	MILLING ASPHALT PAVEMENT, 1 1/2" DEPTH	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	SURFACE COURSE, S9.5D	ASPHALT BINDER FOR PLANT MIX	POLYMER MODIFIED ASPHALT BINDER FOR PLANT MIX	OPEN-GRADED ASPHALT FRICTION COURSE, TYPE FC-1 MODIFIED	PATCHING EXISTING PAVEMENT	ASPHALT SURFACE TREATMENT, FOG SEAL	MILLED RUMBLE STRIPS		
												MI	FT	TONS	SY	SY	TONS	TON	TON	TONS	TONS	SY	LF	
2020CPT.07.11.10411	Guilford	14	US 29 SB	FROM 16TH STEEET (NS), 11.00 TO I-40/I-85, 14.90	1	3	MD	NO	NO	0.128	36			2,703			304		25	125		601		
			"	"	1	3	MD	NO	NO	0.046	50			1,349			152		12	62		135		
			"	"	1	2	MD	NO	NO	0.045	25			660			74		6	31		290		
			"	"	1	2	MD	NO	NO	0.083	24			1,169			132		11	55		292		
			"	"	2	2	MD	NO	NO	0.336	29			5,710			644		54	266		1,774		
			"	"	2	2	MD	NO	NO	0.186	29			3,167			356		29	148		982		
			"	"	3	2	MD	NO	NO	0.015	34			287			34		3	14		79		
			"	"	3	3	MD	NO	NO	0.02	38			456			50		4	21		106		
			"	"	3	3	MD	NO	NO	0.337	38			7,801			870		71	347		1,780		
			"	"	3	3	MD	NO	NO	0.016	52			491			55		4	22		85		
			"	"	3	2	MD	NO	NO	0.03	43			769			85		7	35		159		
			"	"	3	3	MD	NO	NO	0.025	50			728			82		7	33		132		
			"	"	3	3	MD	NO	NO	0.086	40			2,018			227		19	93		454		
			"	"	3	3	MD	NO	NO	0.018	56			579			66		5	27		95		
			"	"	3	2	MD	NO	NO	0.028	43			702			79		6	32		148		
			"	"	3	3	MD	NO	NO	0.03	52			913			103		8	42		159		
			"	"	3	3	MD	NO	NO	0.062	40			1,444			164		13	67		328		
			"	"	3	3	MD	NO	NO	0.019	53			589			66		5	27		101		
			"	"	3	2	MD	NO	NO	0.012	43			291			34		3	14		64		
			"	"	3	3	MD	NO	NO	0.015	52			452			51		4	21		79		
			"	"	3	3	MD	NO	NO	0.626	41			15,056			1,693		139	696		3,306		
			"	"	3	3	MD	NO	NO	0.02	54			630			71		6	30		106		
			"	"	3	2	MD	NO	NO	0.017	42			411			47		4	19		90		
			"	"	3	3	MD	NO	NO	0.036	56			1,195			133		12	54		190		
			"	"	3	3	MD	NO	NO	0.582	38			12,804			1,460		120	600		3,073		
			"	"	3	3	MD	NO	NO	0.014	51			419			47		4	19		74		
			"	"	3	2	MD	NO	NO	0.009	39			217			23		2	9		48		
			"	"	3	3	MD	NO	NO	0.017	41			707			71		5	19		90		
			"	"	3	3	MD	NO	NO	0.08	40			1,867			211		17	86		513		
			"	SKIP BRIDGE OVER E. GATE CITY BLVD.		3	MD	NO	NO	0.034	36													
			"	"	2	3	MD	NO	NO	0.086	40			2,022			227		19	93		657		
			"	"	2	3	MD	NO	NO	0.015	55			478			54		4	22		35		
			"	"	2	3	MD	NO	NO	0.1	40			2,342			264		22	108		351		
			"	"	2	3	MD	NO	NO	0.059	34			1,186			132		11	54		349		
			"	"	2	2	MD	NO	NO	0.667	28			10,951			1,234		103	512		6,258		
TOTAL FOR MAP NO. 14										3.899				82,563			9,295		764	3,803		9,523	13,502	
2020CPT.07.11.10411	Guilford	15	OFF RAMP TO SUMMIT AVE	FROM US 29 SB TO SUMMIT AVE	7	1		NO	NO	0.07	24				986	83		5						
			"	MILL & REPAVE BRIDGE OVER SUMMIT AVE.	4	1		NO	NO	0.035	23				472	40		2						
			"	"	4	2		NO	NO	0.133	23				1,795	152		9						
TOTAL FOR MAP NO. 15										0.238					3,253	275		16						
2020CPT.07.11.10411	Guilford	16	OFF RAMP WB WENDOVER AVE	FROM US 29 SB TO WB WENDOVER AVE	6	2	2WD	NO	NO	0.027	21				333	28		2						
			"	"	6	2	2WD	NO	NO	0.098	20				1,150	97		6						
TOTAL FOR MAP NO. 16										0.125					1,483	125		8						
2020CPT.07.11.10411	Guilford	17	ON RAMP FROM WENDOVER AVE	FROM WB WENDOVER AVE TO SB US 29	6	2	2WD	NO	NO	0.078	20				915	77		5						
			"	"	6	2	2WD	NO	NO	0.029	19				323	27		2						
TOTAL FOR MAP NO. 17										0.107					1,238	104		7						
2020CPT.07.11.10411	Guilford	18	OFF/ON RAMP TO/FROM EB WENDOVER AVE VIA ARNOLD ST	FROM/TO US 29 SB TO/FROM EB WENDOVER AVE VIA ARNOLD ST	6	2	2WD	NO	NO	0.024	40				563	47		3						
			"	"	6	2	2WD	NO	NO	0.028	39				1,349	112		7						
			"	"	4	2	2WU	NO	NO	0.059	36				1,246	105		6						
			"	"	4	2	2WU	NO	NO	0.012	39				275	23		1						
TOTAL FOR MAP NO. 18										0.123					3,433	287		17						
2020CPT.07.11.10411	Guilford	19	OFF/ON RAMP TO/FROM HEADQUARTERS DRIVE	FROM/TO US 29 SB TO/FROM HEADQUARTERS DRIVE	4	2	2WD	NO	NO	0.013	39				297	25		2						
TOTAL FOR MAP NO. 19										0.013					297	25		2						
2020CPT.07.11.10411	Guilford	20	OFF/ON RAMP TO/FROM MARKET STREET	FROM/TO US 29 SB TO/FROM MARKET STREET	4	2	2WD	NO	NO	0.017	48				479	40		2						
			"	"	4	2	2WU	NO	NO	0.011	37				239	20		1						
			"	"	4	2	2WU	NO	NO	0.028	33				542	46		3						
			"	"	4	2	2WU	NO	NO	0.019	38				424	36		2						
			"	"	4	2	2WU	NO	NO	0.012	48				338	28		2						
TOTAL FOR MAP NO. 20										0.087					2,022	170		10						
2020CPT.07.11.10411	Guilford	21	OFF/ON RAMP TO/FROM WB GATE CITY BLVD VIA O' HENRY BLVD	FROM/TO US 29 SB TO/FROM WB GATE CITY BLVD VIA O' HENRY BLVD	5	2	2WD	NO	NO	0.01	21									5				
			"	"	5	2	2WU	NO	NO	0.012	25								1	22				
			"	"	5	2	2WU	NO	NO	0.112	29								7	109				
TOTAL FOR MAP NO. 21										0.134									8	136				
2020CPT.07.11.10411	Guilford	22	OFF/ON RAMP TO/FROM EB GATE CITY BLVD VIA E SIDE STREET	FROM/TO US 29 SB TO/FROM EB GATE CITY BLVD VIA E SIDE STREET	5	2	2WD	NO	NO	0.011	48									1	14			
			"	"	5	2	2WU	NO	NO	0.008	39									8				
			"	"	5	2	2WU	NO	NO	0.195	28								9	144				
			"	"	5	2	2WU	NO	NO	0.026	49								2	33				
			"	"	5	2	2WU	NO	NO	0.024	56								2	36				
TOTAL FOR MAP NO. 22										0.264									14	235				
TOTAL FOR PROJECT NO. 2020CPT.07.11.10411										9.929				20	172,067	22,420	1,876	19,365	115	1,645	8,812	100	14,980	32,151

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	4400000000-E	4510000000-N	4688000000-E		4695000000-E	4700000000-E	4891000000-E	4892000000-N		4725000000-E						4815000000-E		4820000000-E	4825000000-E	4835000000-E				
										WORK ZONE SIGNS (STATIONARY)	LAW ENFORCEMENT	6" X 90 M WHITE THERMO	6" X 90 M YELLOW THERMO	8" X 90 M WHITE THERMO	12" X 90 M WHITE THERMO	24" X 90 M WHITE THERMO	THERMO MSG ONLY 90 M	THERMO MSG SCHOOL 90 M	THERMO RT ARROW 90 M	THERMO LT ARROW 90 M	THERMO STR ARROW 90 M	THERMO STR & RT ARROW 90 M	THERMO MERGE LEFT ARROW 90 M	THERMO STR & LT ARROW 90 M	6" WHITE PAINT	6" YELLOW PAINT	8" WHITE PAINT	12" WHITE PAINT	24" WHITE PAINT				
										MI	FT	SF	HR	LF	LF	LF	LF	LF	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
2020CPT.07.11.10411	Guilford	14	US 29 SB	FROM 16TH STEEET (NS), 11.00 TO 40/I-85, 14.90	1	3	MD	0.128	36	190		25,901	20,623		7,647		44	24							3			51,802	41,246		15,294		
			"	"	1	3	MD	0.046	50																								
			"	"	1	2	MD	0.083	24																								
			"	"	2	2	MD	0.336	29																								
			"	"	2	2	MD	0.186	29																								
			"	"	3	2	MD	0.015	34																								
			"	"	3	3	MD	0.02	38																								
			"	"	3	3	MD	0.337	38																								
			"	"	3	3	MD	0.016	52																								
			"	"	3	2	MD	0.03	43																								
			"	"	3	3	MD	0.025	50																								
			"	"	3	3	MD	0.086	40																								
			"	"	3	3	MD	0.018	56																								
			"	"	3	2	MD	0.028	43																								
			"	"	3	3	MD	0.03	52																								
			"	"	3	3	MD	0.062	40																								
			"	"	3	3	MD	0.019	53																								
			"	"	3	2	MD	0.012	43																								
			"	"	3	3	MD	0.015	52																								
			"	"	3	3	MD	0.626	41																								
			"	"	3	3	MD	0.02	54																								
			"	"	3	2	MD	0.017	42																								
			"	"	3	3	MD	0.036	56																								
			"	"	3	3	MD	0.582	38																								
			"	"	3	3	MD	0.014	51																								
			"	"	3	2	MD	0.009	39																								
			"	"	3	3	MD	0.017	41																								
			"	"	3	3	MD	0.08	40																								
			"	SKIP BRIDGE OVER E. GATE CITY BLVD.		3	MD	0.034	36																								
			"	"	2	3	MD	0.086	40																								
			"	"	2	3	MD	0.015	55																								
			"	"	2	3	MD	0.1	40																								
			"	"	2	3	MD	0.059	34																								
			"	"	2	2	MD	0.667	28																								
			TOTAL FOR MAP NO. 14					3.899		190		25,901	20,623		7,647		44	24						3			51,802	41,246		15,294			
2020CPT.07.11.10411	Guilford	15	OFF RAMP TO SUMMIT AVE	FROM US 29 SB TO SUMMIT AVE	7	1		0.07	24	27		1,547	560																				
			"	MILL & REPAVE BRIDGE OVER SUMMIT AVE.	4	1		0.035	23																								
			"	"	4	2		0.133	23																								
			TOTAL FOR MAP NO. 15					0.238		27		1,547	560		22									3			3,094	1,120		44			
2020CPT.07.11.10411	Guilford	16	OFF RAMP WB WENDOVER AVE	FROM US 29 SB TO WB WENDOVER AVE	6	2	2WD	0.027	21	15			661																				
			"	"	6	2	2WD	0.098	20																								
			TOTAL FOR MAP NO. 16					0.125		15			661																				
2020CPT.07.11.10411	Guilford	17	ON RAMP FROM WENDOVER AVE	FROM WB WENDOVER AVE TO SB US 29	6	2	2WD	0.078	20	12		67	565																				
			"	"	6	2	2WD	0.029	19																								
			TOTAL FOR MAP NO. 17					0.107		12		67	565															134	1,130				
2020CPT.07.11.10411	Guilford	18	OFF/ON RAMP TO/FROM EB WENDOVER AVE VIA ARNOLD ST	FROM/TO US 29 SB TO/FROM EB WENDOVER AVE VIA ARNOLD ST	6	2	2WD	0.024	40	14		145	1,616		16																		
			"	"	6	2	2WD	0.028	39																								
			"	"	4	2	2WU	0.059	36																								
			"	"	4	2	2WU	0.012	39																								
			TOTAL FOR MAP NO. 18					0.123		14		145	1,616		16												290	3,232		32			
2020CPT.07.11.10411	Guilford	19	OFF/ON RAMP TO/FROM HEADQUARTERS DRIVE	FROM/TO US 29 SB TO/FROM HEADQUARTERS DRIVE	4	2	2WD	0.013	39			126	156																				
			TOTAL FOR MAP NO. 19					0.013				126	156															252	312				
2020CPT.07.11.10411	Guilford	20	OFF/ON RAMP TO/FROM MARKET STREET	FROM/TO US 29 SB TO/FROM MARKET STREET	4	2	2WD	0.017	48	10		408	1,022																				
			"	"	4	2	2WU	0.011	37																								
			"	"	4	2	2WU	0.028	33																								
			"	"	4	2	2WU	0.019																									

PROJECT NO.	SHEET NO.	TOTAL NO.
2020CPT.07.11.10411	17	

THERMOPLASTIC AND PAINT QUANTITIES

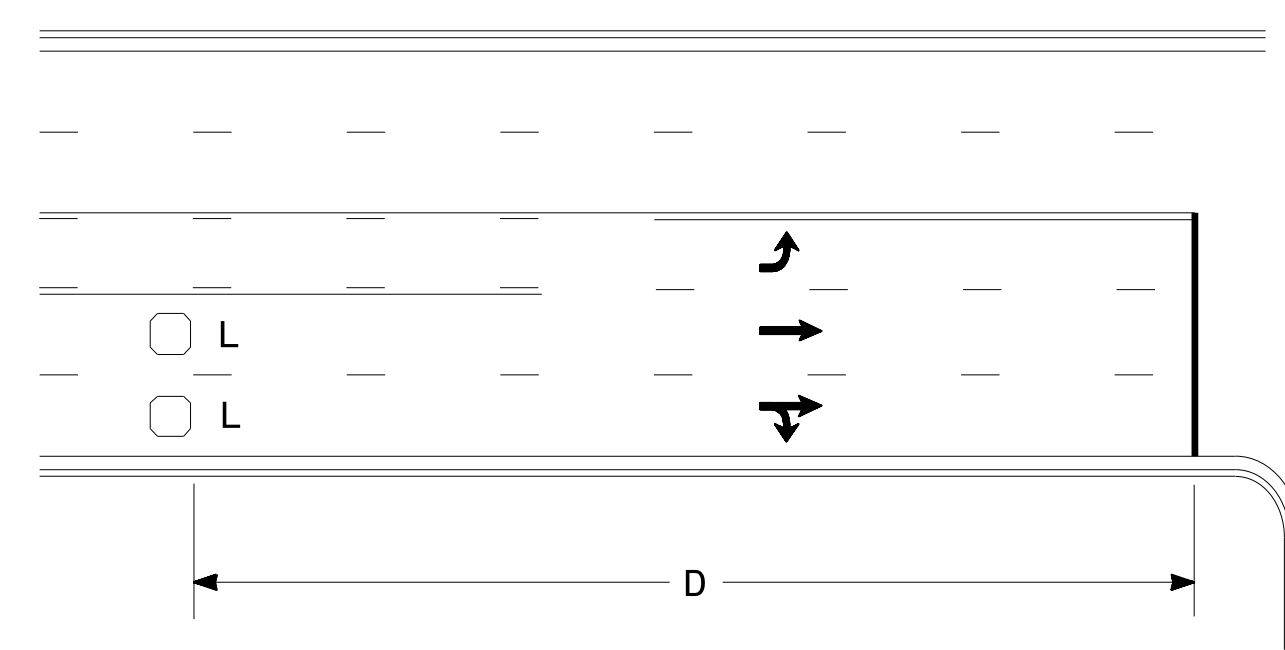
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	LENGTH	WIDTH	484000000-N		484500000-N					484703000-E			484707000-E		490500000-N		
										PAINT MSG ONLY	PAINT MSG SCHOOL	PAINT RT ARROW	PAINT LT ARROW	PAINT STR ARROW	PAINT STR & RT ARROW	PAINT STR & LT ARROW	PAINT MERGE LEFT ARROW	POLYUREA PAVEMENT MARKING LINES (6", 20 MILS WHITE) (HIGHLY REFLECTIVE ELEMENTS)	POLYUREA PAVEMENT MARKING LINES (6", 20 MILS) YELLOW (HIGHLY REFLECTIVE ELEMENTS)	POLYUREA PAVEMENT MARKING LINES (12", 20 MILS WHITE) (HIGHLY REFLECTIVE ELEMENTS)	SNOWPLOWABLE PAVEMENT MARKERS CRYSTAL/RED	SNOWPLOWABLE PAVEMENT MARKERS YELLOW/YELLOW		
										MI	FT	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
2020CPT.07.11.10411	Guilford	2	OFF/ON RAMP TO HOOKS ST	FROM/TO US 29 NB TO/FROM HOOKS STREET (NS)	4	2	2WD	0.009	29															
			"	"	4	2	2WU	0.009	32															
			"	"	4	2	2WU	0.022	31															
			TOTAL FOR MAP NO. 2					0.04																
2020CPT.07.11.10411	Guilford	3	OFF/ON RAMP TO SR 4240 (E. GATE CITY BLVD)	FROM/TO US 29 NB TO/FROM SR 4240 (E. GATE CITY BLVD)	5	2	2WD	0.02	64		12													
			"	"	5	2	2WU	0.014	47															
			"	"	5	2	2WU	0.073	28															
			"	"	5	2	2WU	0.013	47															
			"	"	5	2	2WU	0.008	58															
			TOTAL FOR MAP NO. 3					0.128			12													
2020CPT.07.11.10411	Guilford	4	OFF/ON RAMP TO/FROM SR 4240 (E. GATE CITY BLVD)	FROM/ON US 29 NB TO/FROM SR 4240 (E. GATE CITY BLVD) VIA (GORRELL ST & HACKET ST)	5	2	2WD	0.009	50															
			"	"	5	2	2WU	0.009	39															
			"	"	5	2	2WU	0.047	42															
			"	"	5	2	2WU	0.084	28															
			TOTAL FOR MAP NO. 4					0.149																
2020CPT.07.11.10411	Guilford	5	OFF/ON RAMP TO/FROM MARKET STREET	FROM/TO US 29 NB TO/FROM E. MARKET ST VIA N O'HENRY ST.	5	2	2WD	0.013	39															
			"	"	5	2	2WU	0.009	33															
			"	"	5	2	2WU	0.031	28															
			"	"	5	2	2WU	0.034	32															
			"	"	5	2	2WU	0.034	36															
			"	"	5	2	2WU	0.013	48															
			TOTAL FOR MAP NO. 5					0.134																
2020CPT.07.11.10411	Guilford	6	OFF/ON RAMP TO LUTHERAN ST	FROM/TO US 29 NB TO/FROM LUTHERAN ST	4	2	2WD	0.005	35															
			"	"	4	2	2WU	0.008	31															
			TOTAL FOR MAP NO. 6					0.013																
2020CPT.07.11.10411	Guilford	7	OFF/ON RAMP TO/FROM POST ST	FROM/TO US 29 NB TO/FROM POST ST	5	2	2WD	0.018	37															
			"	"	5	2	2WD	0.029	40															
			"	"	5	2	2WD	0.009	50															
			TOTAL FOR MAP NO. 7					0.056																
2020CPT.07.11.10411	Guilford	8	OFF/ON RAMP TO/FROM BESSEMER AVE VIA HEARDQUARTERS DR	FROM/TO US 29 NB TO/FROM BESSEMER AVE VIA HEARDQUARTERS DR	4	2	2WD	0.009	42															
			"	"	4	2	2WU	0.013	41															
			TOTAL FOR MAP NO. 8					0.022																
2020CPT.07.11.10411	Guilford	9	OFF/ON RAMP TO/FROM EB WENDOVER AVE	FROM/TO US 29 NB TO/FROM EB WENDOVER AVE	6	2	2WD	0.032	30															
			"	"	6	2	2WD	0.043	35															
			"	"	6	2	2WD	0.117	40															
			TOTAL FOR MAP NO. 9					0.192																
2020CPT.07.11.10411	Guilford	10	OFF/ON RAMP TO/FROM WB WENDOVER AVE	FROM/TO US 29 NB TO/FROM WB WENDOVER AVE	6	2	2WD	0.033	40															
			"	"	6	2	2WD	0.057	40															
			"	"	6	2	2WD	0.034	54															
			TOTAL FOR MAP NO. 10					0.124																
2020CPT.07.11.10411	Guilford	11	OFF/ON RAMP TO/FROM GATEWOOD AVE	FROM/TO US 29 NB TO/FROM GATEWOOD AVE	4	2	2WU	0.022	74													12		
			TOTAL FOR MAP NO. 11					0.022														12		
2020CPT.07.11.10411	Guilford	12	OFF/ON RAMP TO/FROM TEXTILE DRIVE	FROM/TO US 29 NB TO/FROM TEXTILE DRIVE	4	2	2WD	0.005	32															4
			TOTAL FOR MAP NO. 12					0.005																4
2020CPT.07.11.10411	Guilford	13	ON RAMP FROM SUMMIT AVE	FROM SUMMIT AVE TO US 29 NB (STARTS AT GORE TO PHILLIPS AVE)	5	2		0.097	19													5		
			TOTAL FOR MAP NO. 13					0.097														5		

PROJECT NO.	SHEET NO.	TOTAL NO.
2020CPT.07.11.10411	18	

THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP NO	LANES	LANE TYPE	484000000-N		484500000-N							4847030000-E		4847070000-E		4905000000-N		
								LENGTH	WIDTH	PAINT MSG ONLY	PAINT MSG SCHOOL	PAINT RT ARROW	PAINT LT ARROW	PAINT STR ARROW	PAINT STR & RT ARROW	PAINT STR & LT ARROW	PAINT MERGE LEFT ARROW	POLYUREA PAVEMENT MARKING LINES (6", 20 MILS WHITE) (HIGHLY REFLECTIVE ELEMENTS)	POLYUREA PAVEMENT MARKING LINES (6", 20 MILS) YELLOW (HIGHLY REFLECTIVE ELEMENTS)	POLYUREA PAVEMENT MARKING LINES (12", 20 MILS WHITE) (HIGHLY REFLECTIVE ELEMENTS)	SNOWPLOWABLE PAVEMENT MARKERS CRYSTAL/RED	SNOWPLOWABLE PAVEMENT MARKERS YELLOW/YELLOW	
								MI	FT	EA	EA	EA	EA	EA	EA	EA	EA	LF	LF	LF	EA	EA	
2020CPT.07.11.10411	Guilford	14	US 29 SB	FROM 16TH STEEET (NS), 11.00 TO 40/I-85, 14.90	1	3	MD	0.128	36	88			48				6	230	180	45	918		
			"	"	1	3	MD	0.046	50														
			"	"	1	2	MD	0.045	25														
			"	"	1	2	MD	0.083	24														
			"	"	2	2	MD	0.336	29														
			"	"	2	2	MD	0.186	29														
			"	"	3	2	MD	0.015	34														
			"	"	3	3	MD	0.02	38														
			"	"	3	3	MD	0.337	38														
			"	"	3	3	MD	0.016	52														
			"	"	3	2	MD	0.03	43														
			"	"	3	3	MD	0.025	50														
			"	"	3	3	MD	0.086	40														
			"	"	3	3	MD	0.018	56														
			"	"	3	2	MD	0.028	43														
			"	"	3	3	MD	0.03	52														
			"	"	3	3	MD	0.062	40														
			"	"	3	3	MD	0.019	53														
			"	"	3	2	MD	0.012	43														
			"	"	3	3	MD	0.015	52														
			"	"	3	3	MD	0.626	41														
			"	"	3	3	MD	0.02	54														
			"	"	3	2	MD	0.017	42														
			"	"	3	3	MD	0.036	56														
			"	"	3	3	MD	0.582	38														
			"	"	3	3	MD	0.014	51														
			"	"	3	2	MD	0.009	39														
			"	"	3	3	MD	0.017	41														
			"	"	3	3	MD	0.08	40														
			"	SKIP BRIDGE OVER E. GATE CITY BLVD.		3	MD	0.034	36														
			"	"	2	3	MD	0.086	40														
			"	"	2	3	MD	0.015	55														
			"	"	2	3	MD	0.1	40														
			"	"	2	3	MD	0.059	34														
			"	"	2	2	MD	0.667	28														
			TOTAL FOR MAP NO. 14					3.899		88			48				6	230	180	45	918		
2020CPT.07.11.10411	Guilford	15	OFF RAMP TO SUMMIT AVE	FROM US 29 SB TO SUMMIT AVE	7	1		0.07	24														
			"	MILL & REPAVE BRIDGE OVER SUMMIT AVE.	4	1		0.035	23														
			"	"	4	2		0.133	23														
			TOTAL FOR MAP NO. 15					0.238					6									29	
2020CPT.07.11.10411	Guilford	16	OFF RAMP WB WENDOVER AVE	FROM US 29 SB TO WB WENDOVER AVE	6	2	2WD	0.027	21														
			"	"	6	2	2WD	0.098	20														
			TOTAL FOR MAP NO. 16					0.125															
2020CPT.07.11.10411	Guilford	17	ON RAMP FROM WENDOVER AVE	FROM WB WENDOVER AVE TO SB US 29	6	2	2WD	0.078	20														
			"	"	6	2	2WD	0.029	19														
			TOTAL FOR MAP NO. 17					0.107															
2020CPT.07.11.10411	Guilford	18	OFF/ON RAMP TO/FROM EB WENDOVER AVE VIA ARNOLD ST	FROM/TO US 29 SB TO/FROM EB WENDOVER AVE VIA ARNOLD ST	6	2	2WD	0.024	40														
			"	"	6	2	2WD	0.028	39														
			"	"	4	2	2WU	0.059	36														
			"	"	4	2	2WU	0.012	39														
			TOTAL FOR MAP NO. 18					0.123															
2020CPT.07.11.10411	Guilford	19	OFF/ON RAMP TO/FROM HEADQUARTERS DRIVE	FROM/TO US 29 SB TO/FROM HEADQUARTERS DRIVE	4	2	2WD	0.013	39														
			TOTAL FOR MAP NO. 19					0.013															
2020CPT.07.11.10411	Guilford	20	OFF/ON RAMP TO/FROM MARKET STREET	FROM/TO US 29 SB TO/FROM MARKET STREET	4	2	2WD	0.017	48				4										
			"	"	4	2	2WU	0.011	37														
			"	"	4	2	2WU	0.028	33														
			"	"	4	2	2WU	0.019	38														
			"	"	4	2	2WU	0.012	48														
			TOTAL FOR MAP NO. 20					0.087					4										
2020CPT.07.11.10411	Guilford	21	OFF/ON RAMP TO/FROM WB GATE CITY BLVD VIA O' HENRY BLVD	FROM/TO US 29 SB TO/FROM WB GATE CITY BLVD VIA O' HENRY BLVD	5	2	2WD	0.01	21														
			"	"	5	2	2WU	0.012	25														
			"	"	5	2	2WU	0.112	29														
			TOTAL FOR MAP NO. 21					0.134															
2020CPT.07.11.10411	Guilford	22	OFF/ON RAMP TO/FROM EB GATE CITY BLVD VIA E SIDE STREET	FROM/TO US 29 SB TO/FROM EB GATE CITY BLVD VIA E SIDE STREET	5	2	2WD	0.011	48														
			"	"	5	2	2WU	0.008	39														
			"	"	5	2	2WU	0.195	28														
			"	"	5	2	2WU	0.026	49														
			"	"	5	2	2WU	0.024	56														
			TOTAL FOR MAP NO. 22					0.264															
			TOTAL FOR PROJ NO. 2020CPT.07.11.10411					9.929		224	12	120	10	6	4	4	6	460	360	90	2,053	4	
			GRAND TOTAL					9.929		224	12	120	10	6	4	4	6	460	360	90	2,053	4	
									236					150				820				2,057	

High Speed Detection (≥40 mph)

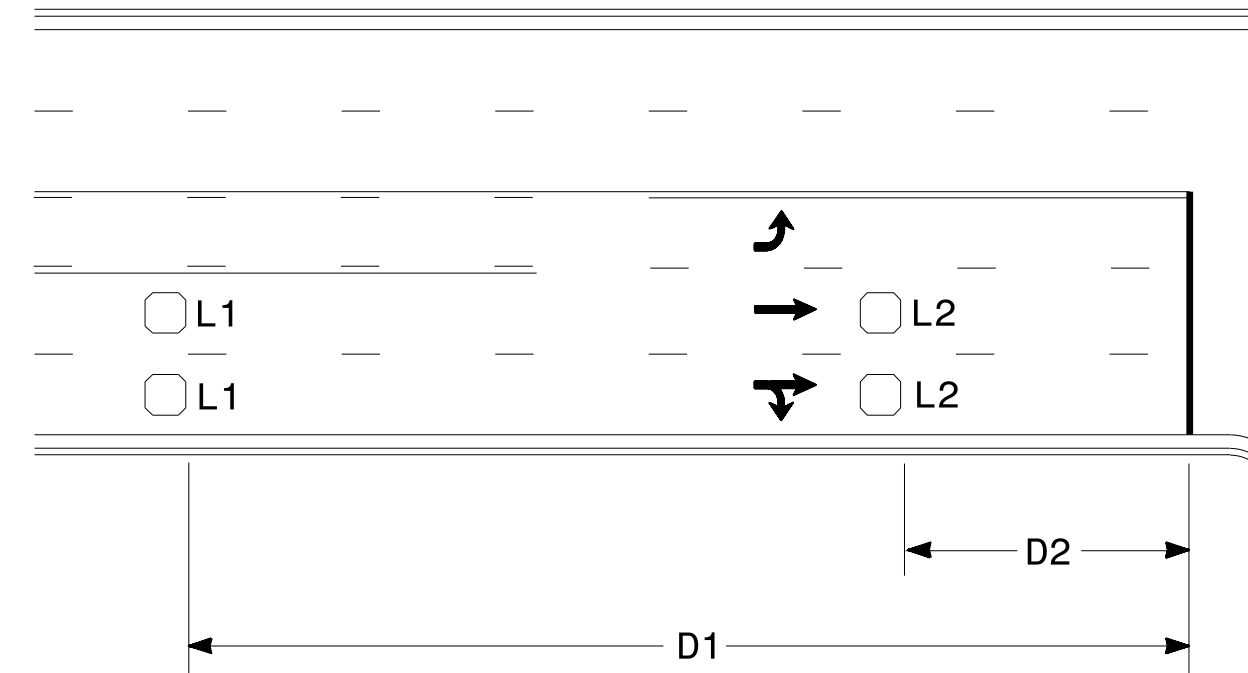


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

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

Volume Density Operation

OR

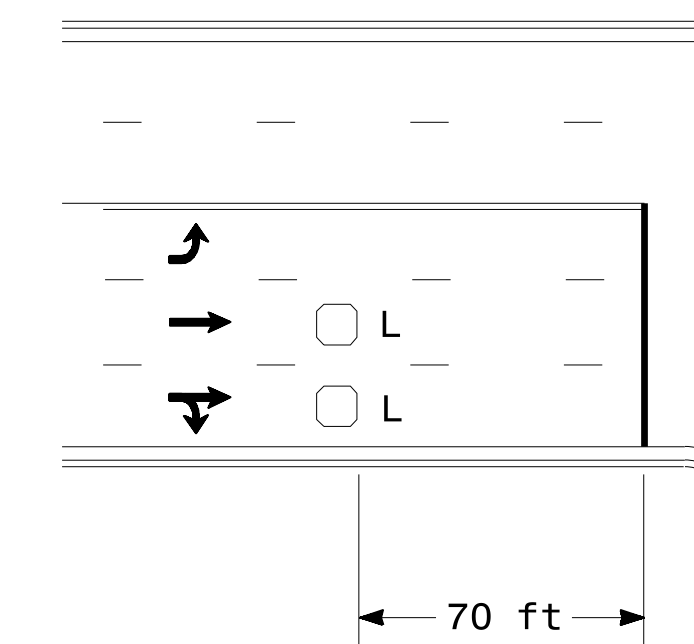


Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

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

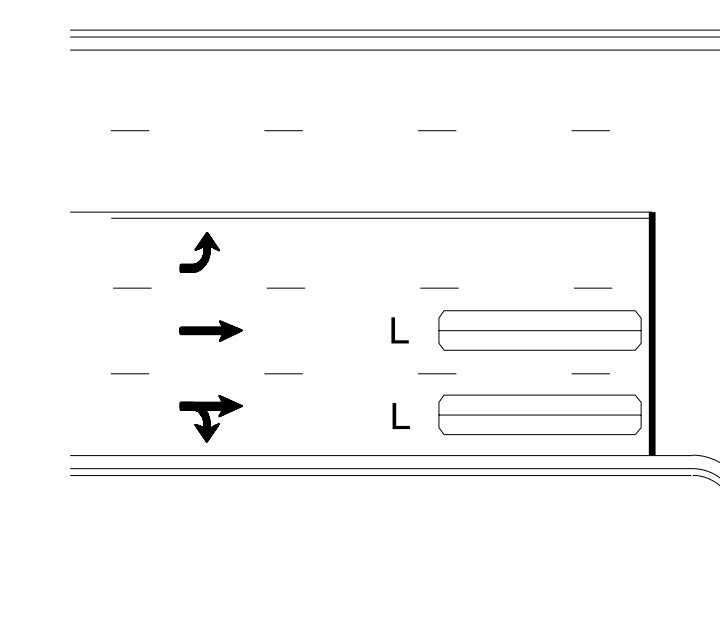
"Stretch" Operation

Low Speed Detection (≤35 mph)



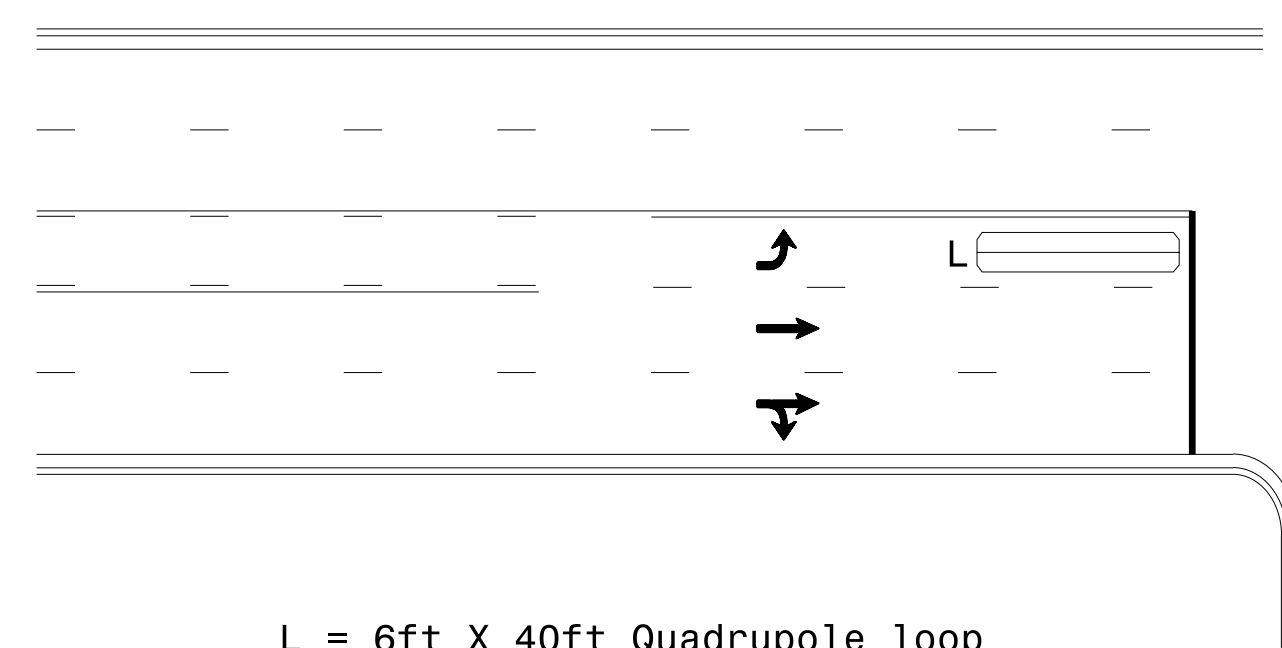
L = 6ft X 6ft
Wired in series

OR



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

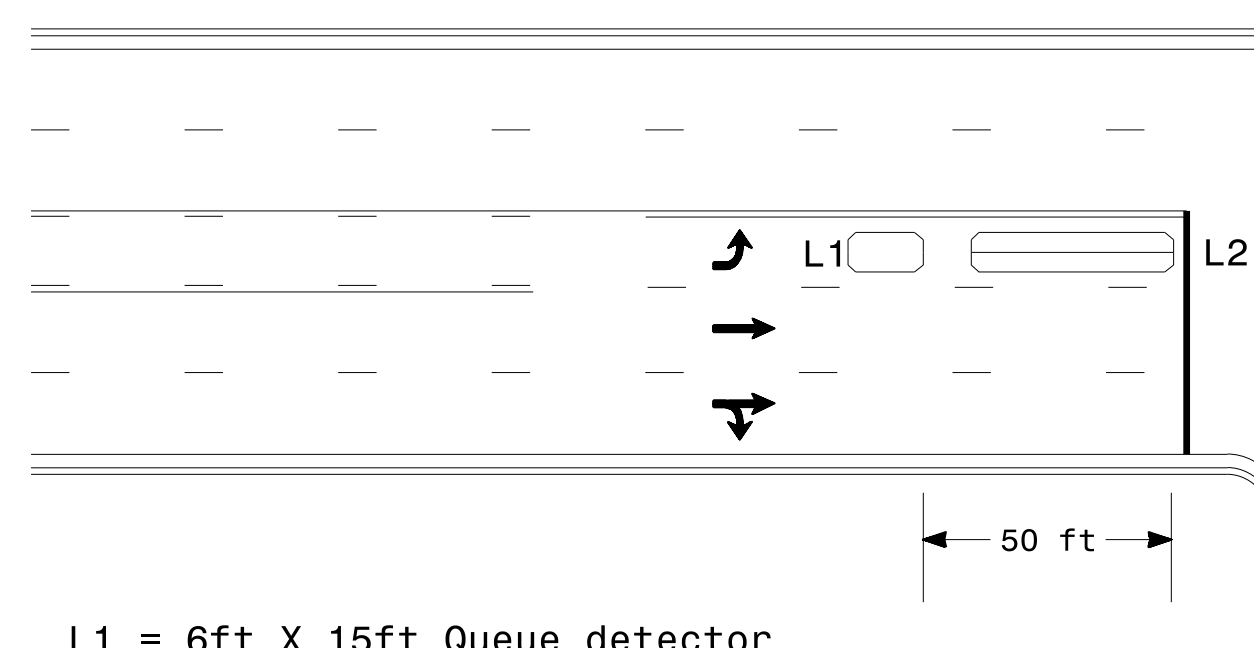
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

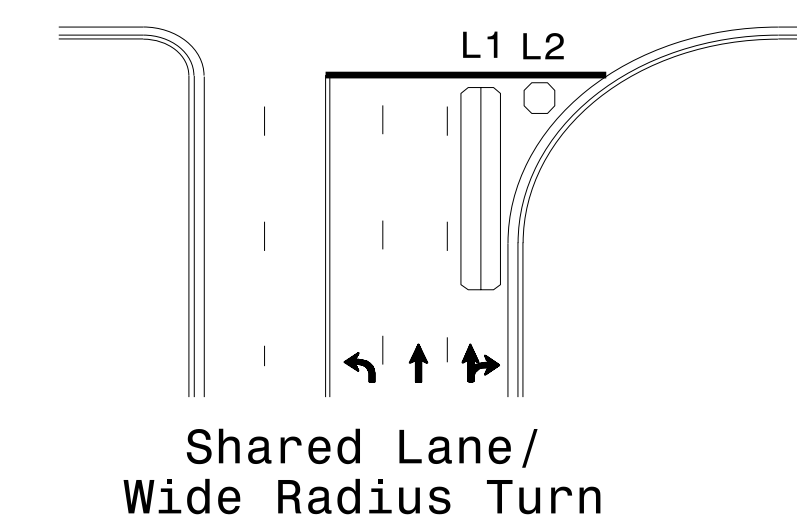
OR



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

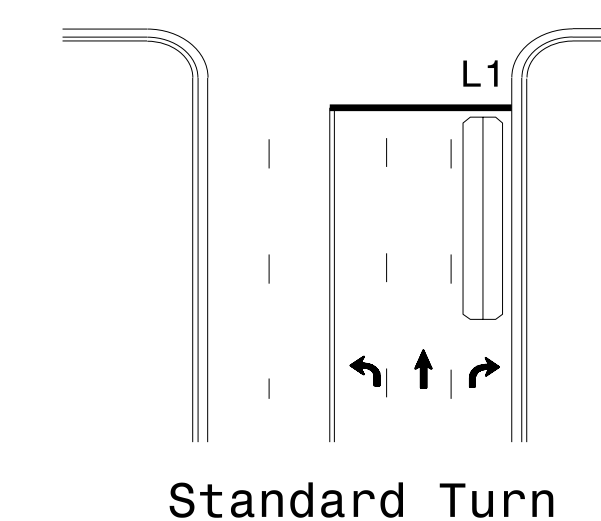
Queue Loop Detection

Right Turn Lane Detection

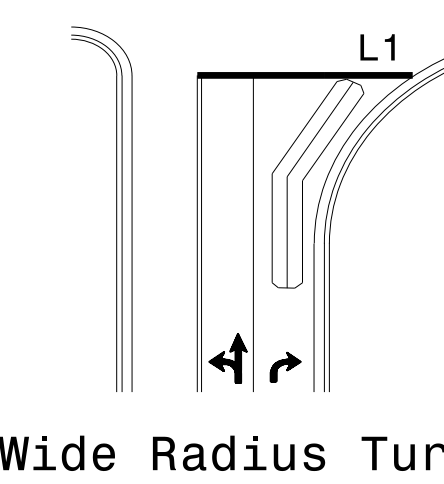


Shared Lane/
Wide Radius Turn

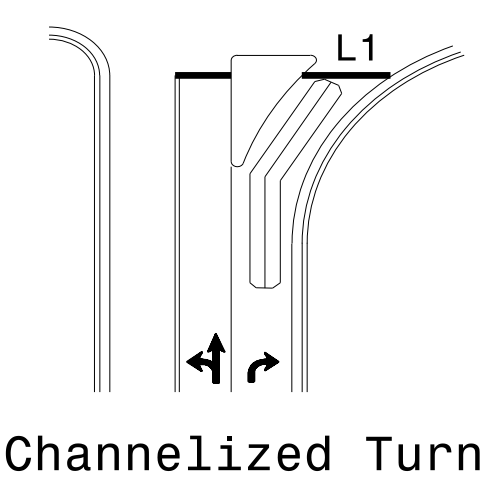
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

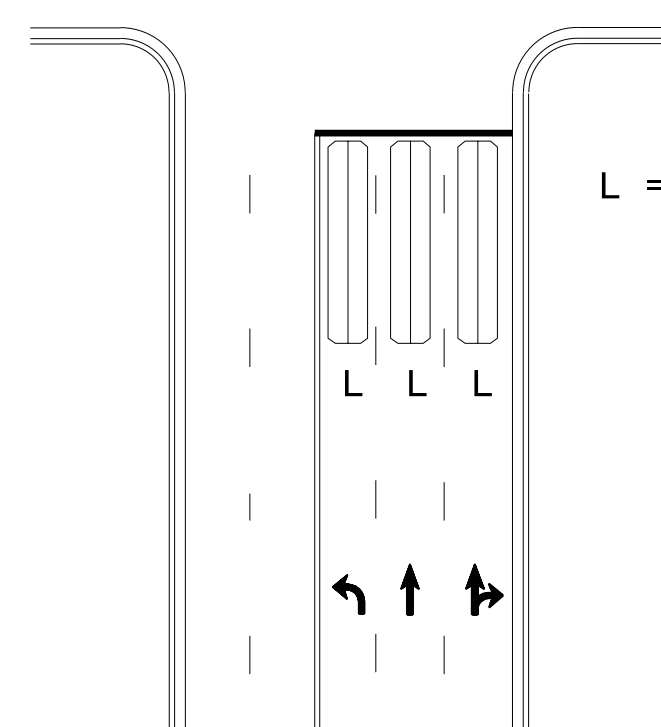


Wide Radius Turn



Channelized Turn

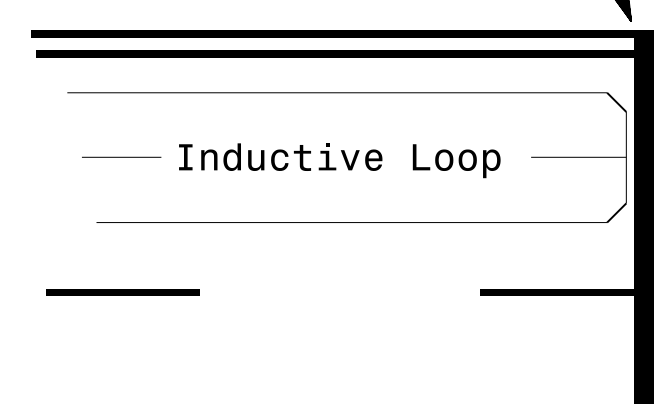
Side Street Detection



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

Presence Loop Placement at Stop Lines

Locate loop slightly
behind leading
edge of stop line



Note:

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

Recommended Number of Turns

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

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

Quadrupole loops: Use 2-4-2 turns

6' X 15' Loops:

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

	<p>Prepared In the Offices of:</p> <p>TRANSPORTATION MOBILITY AND SAFETY DIVISION DEPARTMENT OF TRANSPORTATION SIGNAL DESIGN SECTION</p> <p>750 N. Greenfield Pkwy, Garner, NC 27529</p>		<p>SEAL NORTH CAROLINA PROFESSIONAL ENGINEER PAMELA L. ALEXANDER 23489</p>
	<p>Typical Signal Loop Locations</p> <p>PLAN DATE: January 2015 REVIEWED BY: JPG</p> <p>PREPARED BY: PLA REVIEWED BY:</p>		
<p>SCALE N/A</p>	<p>REVISIONS</p>	<p>INIT. DATE</p>	<p>DocuSigned by: P. Alexander 1/30/2015 10:44:44 AM B4756E00CE4E4ED SIG. INVENTORY NO.</p>

NOTES

- OVERLAP SAW CUTS AT CORNERS AND INTERSECTION POINTS TO ENSURE UNIFORM SAW SLOT DEPTH.
- MAINTAIN 12" SPACING BETWEEN LOOP WIRE TAIL SECTIONS.
- WIRE LOOPS CONNECTED TO THE SAME DETECTOR IN SERIES.
- LOCATE LOOPS IN CENTER OF LANES UNLESS OTHERWISE SHOWN ON PLANS.
- USE A SERIES OF ONE INCH PIECES OF BACKER ROD SPACED ONE FOOT APART ALONG THE ENTIRE LENGTH OF THE FEEDER SLOT AND LOOP SAW SLOT.
- CONSULT LOOP SEALANT MANUFACTURER TO DETERMINE CURING TIME REQUIRED PRIOR TO MILLING.

SAW SLOT DEPTH CHART
ASSUMING 2" MILLING DEPTH

DEPTH (IN)	NO. OF WIRE LAYERS				
	2	3	4	5	6
SAW SLOT DEPTH	4.0	4.5	5.0	5.0	5.0
MINIMUM TOTAL ASPHALT DEPTH REQUIRED	5.0	5.5	6.0	6.0	6.0

LOOP WIRE TWISTING METHOD

INCORRECT WAY TO TWIST WIRE

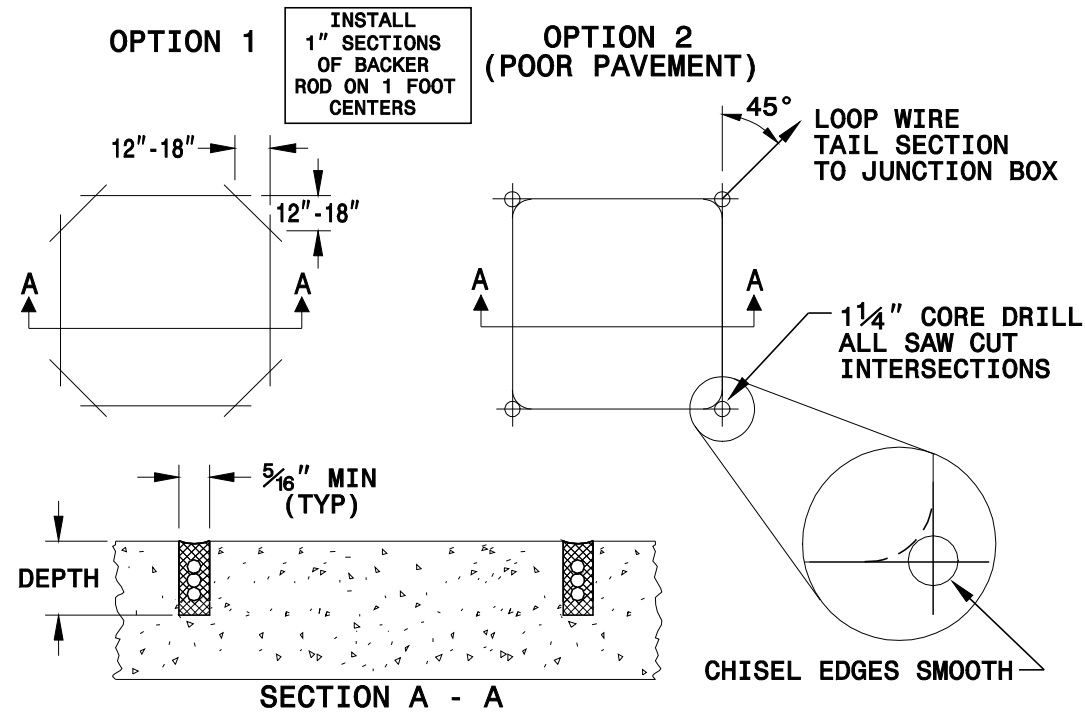


CORRECT WAY TO TWIST WIRE

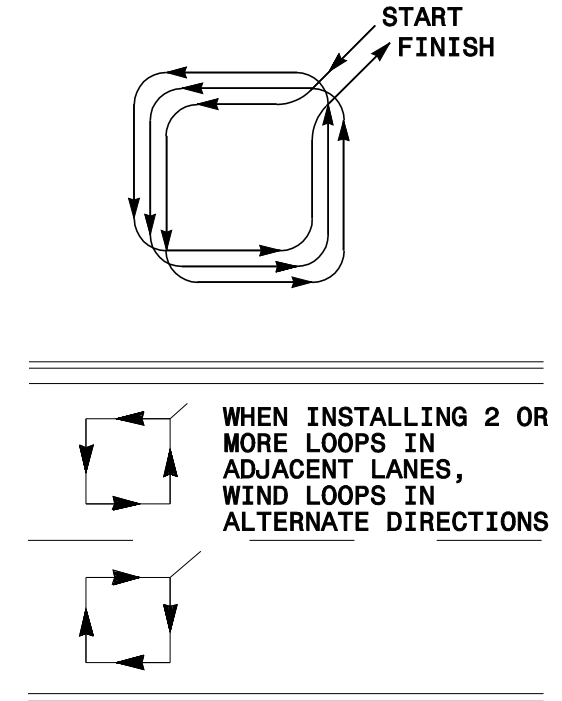


CONVENTIONAL 4-SIDED LOOP

SAW CUT OPTIONS

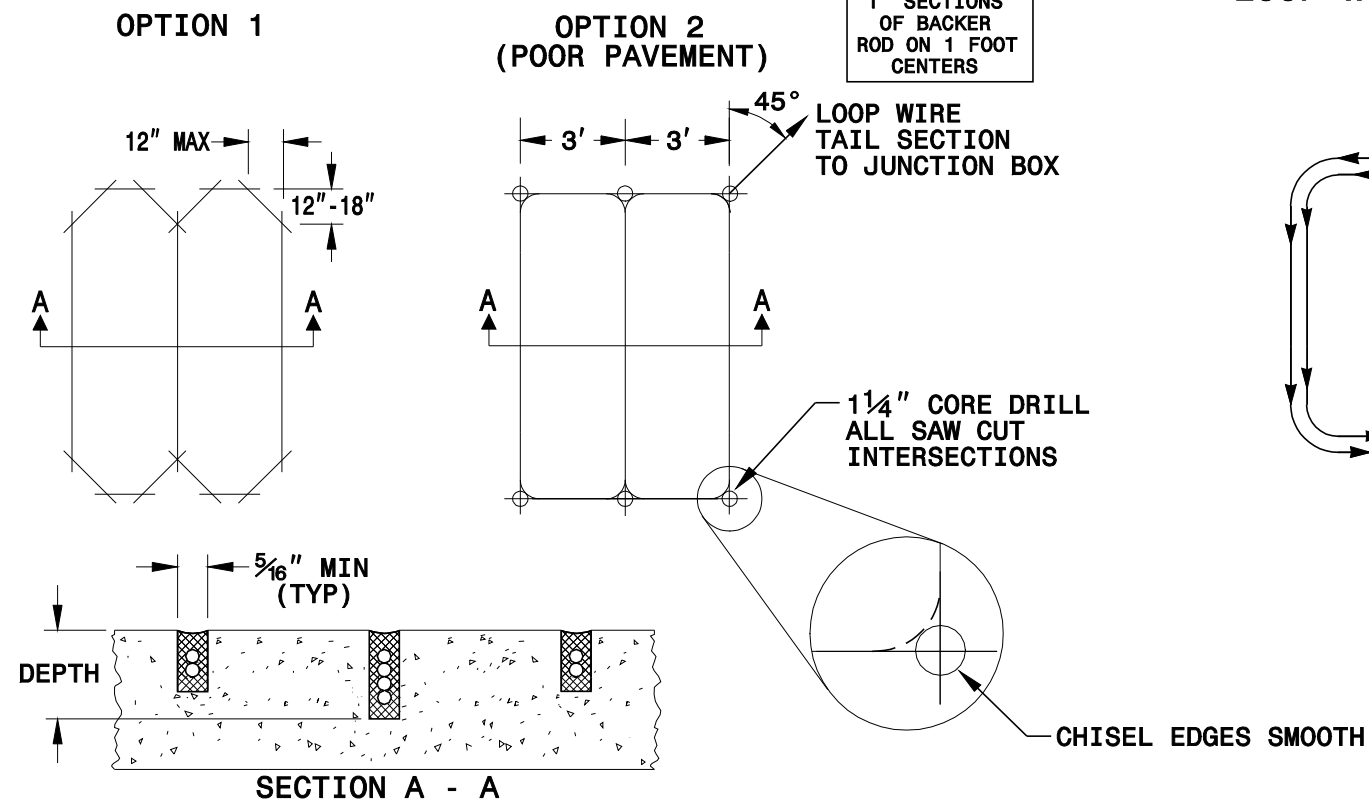


LOOP WINDING METHOD

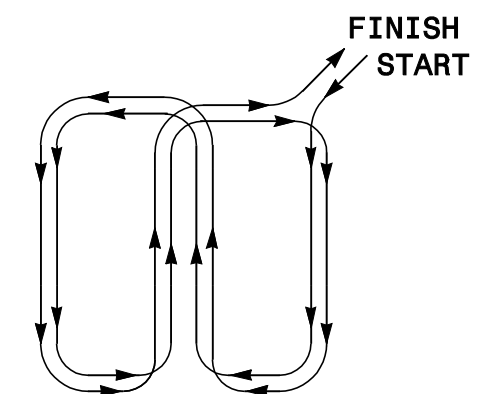


QUADRUPOLE LOOP

SAW CUT OPTIONS



LOOP WINDING METHOD



STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR
DEEP-CUT INDUCTIVE DETECTION LOOPS
(FOR INSTALLATION PRIOR TO MILLING)

STATE OF NORTH CAROLINA
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DIVISION OF HIGHWAYS
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ENGLISH STANDARD DRAWING FOR
DEEP-CUT INDUCTIVE DETECTION LOOPS
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REVISIONS

REMOVED TWISTING NOTES FROM TAIL SECT. TO JUNCTION BOX. 2/26/08 MWH