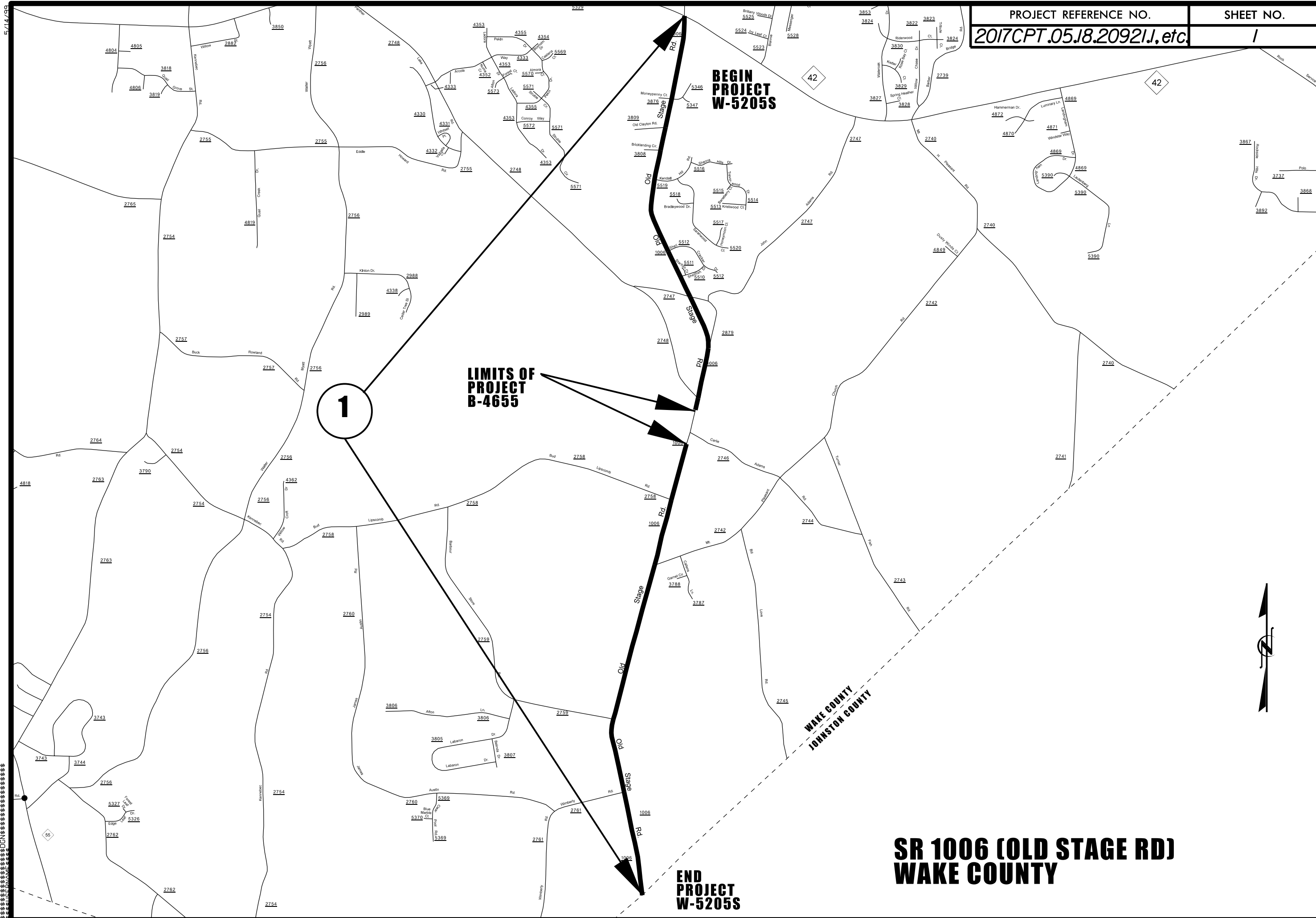


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BEGIN PROJECT W-5205S

LIMITS OF PROJECT B-4655

1

**SR 1006 (OLD STAGE RD)
WAKE COUNTY**

END PROJECT W-5205S

**WAKE COUNTY
JOHNSTON COUNTY**



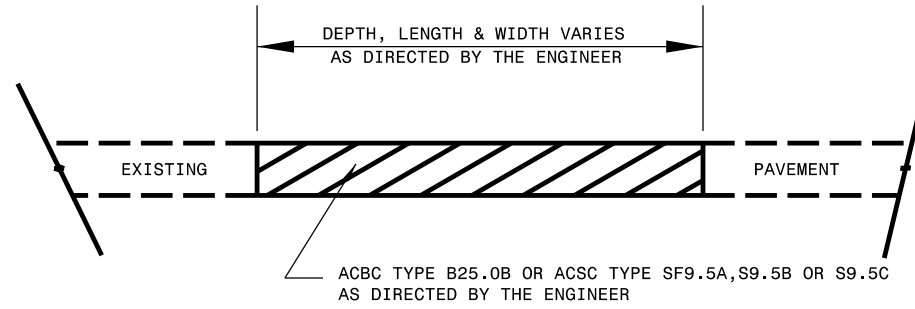
5/14/99
CUSTOMER'S USE ONLY
NO CHANGES TO BE MADE TO THIS PLAT
AFTER THE DATE OF RECORDATION
UNLESS OTHERWISE NOTED
BY THE ENGINEER'S SIGNATURE
AND SEAL

PAVEMENT SCHEDULE

C1	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
D	2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD. (TO BE PLACED OVER EXISTING ROAD AND WIDENING ON OLD STAGE RD)
E	9" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD. IN EACH OF TWO LAYERS (TO BE PLACED LEVEL WITH MILLED EXISTING ROAD)
S	PROP. SHOULDER RECONSTRUCTION WITH STATE SUPPLIED BORROW
P	PRIME COAT AT THE RATE OF 0.35 GALLONS PER SQ. YD.
U1	EXISTING PAVEMENT
U2	EXISTING ABC TO BE CONDITIONED AND SHAPED
V	1 1/2" MILLING (ON WIDTH OF EXISTING ROAD ONLY)

PROJECT REFERENCE NO.
2017CPT.0518.45335.3.20.etc.

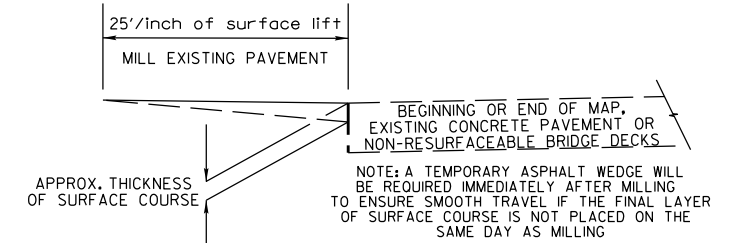
SHEET NO.
3



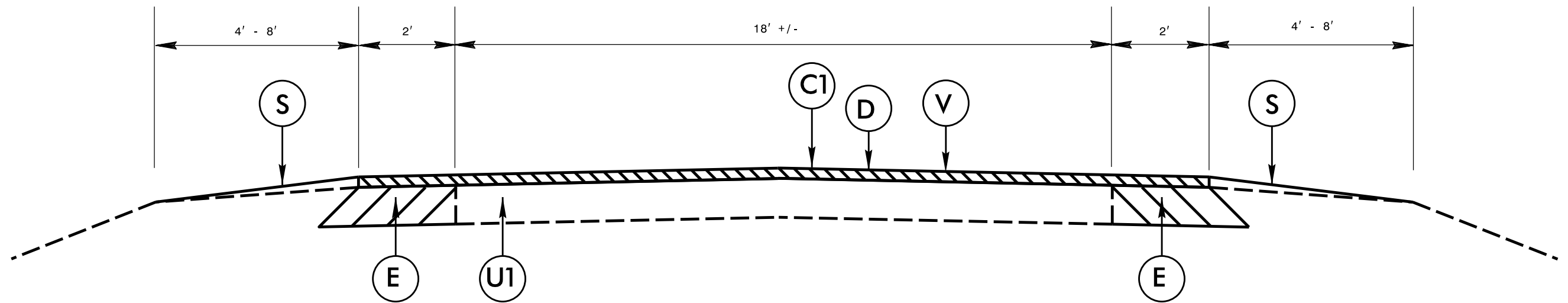
PATCHING EXISTING PAVEMENT
MILLING TO BE PERFORMED PRIOR TO PATCHING

NOTES

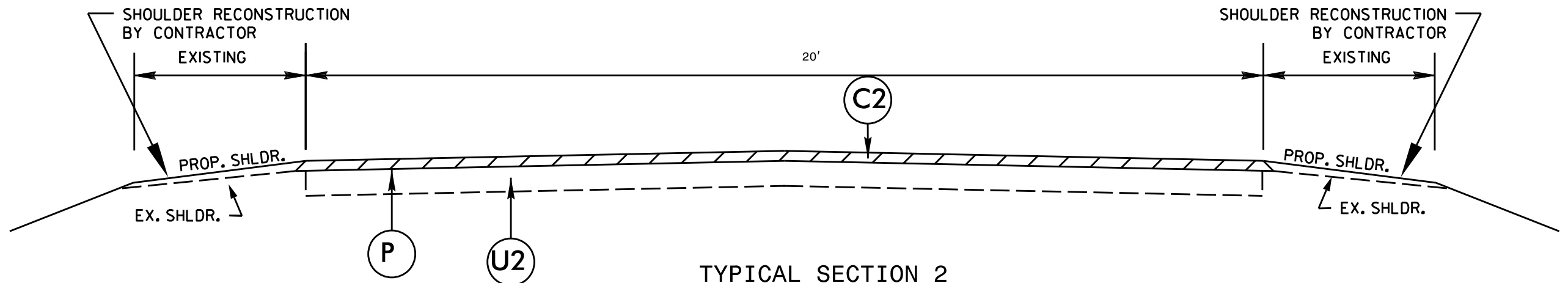
ALL UNPAVED S.R. ROADS TO BE RESURFACED 50' FROM EDGE OF PAVEMENT OF MAIN PROJECT
ALL PAVED S.R. ROADS TO BE RESURFACED TO THE ENDS OF THE RADII, OR AS DIRECTED BY THE ENGINEER.
EDGES, PAVEMENT WIDENING, INTERSECTIONS AND BRIDGE FLARES ARE INCLUDED IN THE TABLE OF QUANTITIES.
BRIDGES TO BE RESURFACED AT LOCATIONS AND TO DEPTH AS DIRECTED BY THE ENGINEER.



INCIDENTAL MILLING



TYPICAL SECTION 1



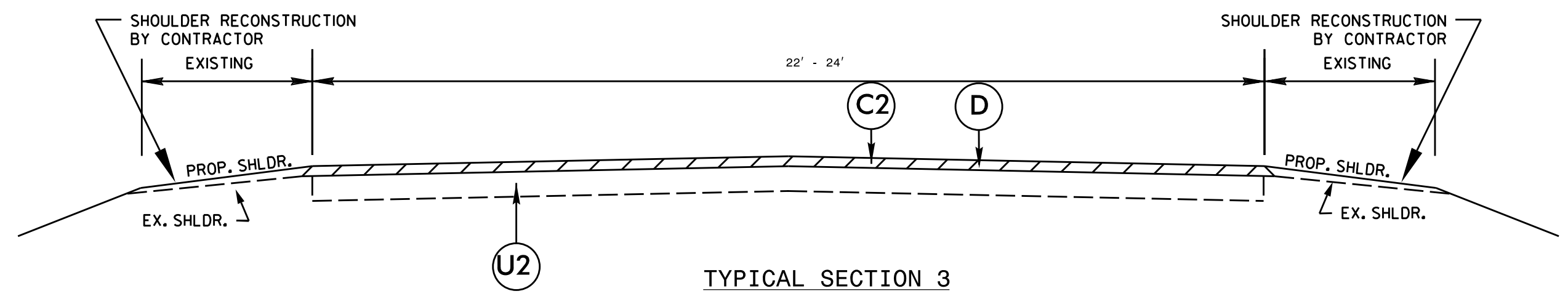
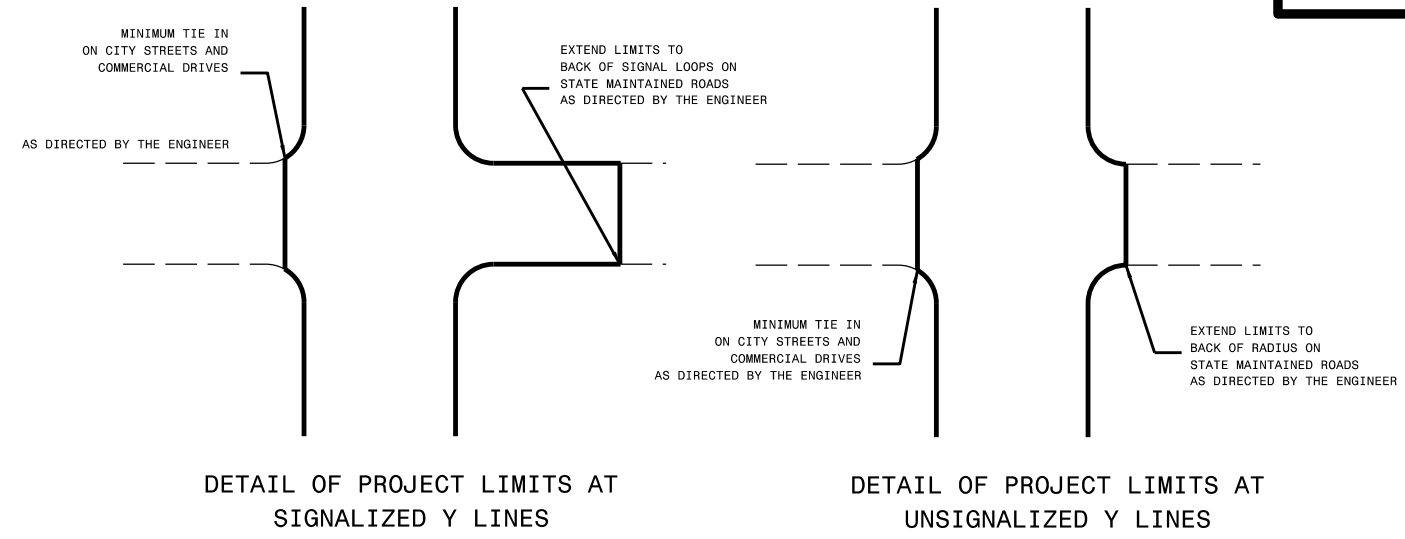
TYPICAL SECTION 2

PAVEMENT SCHEDULE

PROJECT REFERENCE NO.
2017CPT.05J8,45335.3,20,etc.

SHEET NO.
4

C1	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
D	2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD. (TO BE PLACED OVER EXISTING ROAD AND WIDENING ON OLD STAGE RD)
E	9" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD. IN EACH OF TWO LAYERS (TO BE PLACED LEVEL WITH MILLED EXISTING ROAD)
S	PROP. SHOULDER RECONSTRUCTION WITH STATE SUPPLIED BORROW
P	PRIME COAT AT THE RATE OF 0.35 GALLONS PER SQ. YD.
U1	EXISTING PAVEMENT
U2	EXISTING ABC TO BE CONDITIONED AND SHAPED
V	1 1/2" MILLING (ON WIDTH OF EXISTING ROAD ONLY)



PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.05.18.20921.1, 45335.3.20 5C.092100, ETC.		

SUMMARY OF QUANTITIES

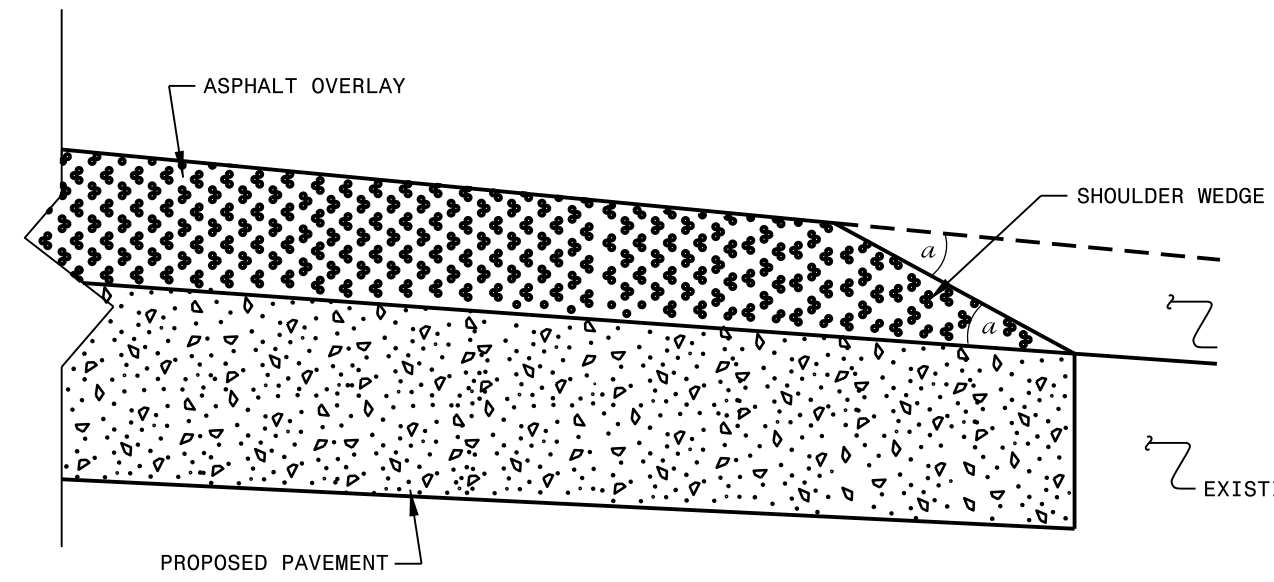
PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	FINAL SURFACE TESTING REQUIRED	WARM MIX ASPHALT REQUIRED	LENGTH MI	WIDTH FT	BORROW CY	REPAIR EXISTING AGGREGATE BASE COURSE TON	SHOULDER RECONSTRUCTION WITH STATE SUPPLIED BORROW SMI	CONDITIONING EXISTING BASE MSY	INCIDENTAL STONE BASE TONS	SHOULDER RECONSTRUCTION SMI	PRIME COAT GAL	1 1/2" MILLING SY	INCIDENTAL MILLING SY	BASE COURSE, B25.0B TONS	INTERMEDIATE COURSE, I19.0B TONS	SURFACE COURSE, S9.5B TONS	SURFACE COURSE, SF9.5A TON	ASPHALT BINDER FOR PLANT MIX TON	PATCHING EXISTING PAVEMENT TONS	TEMPORARY SILT FENCE LF	WATTLE LF	SEED & MULCHING AC	INDUCTIVE LOOP LF	
2017CPT.05.18.20921.1	Wake	1	SR 1006 - OLD STAGE RD	NC 42 TO JOHNSTON CO (EXCLUDE LIMITS OF B-4655)	1	2		NO	NO	4.17	22											5,068		304							
TOTAL FOR MAP NO. 1										4.17												5,068		304							
TOTAL FOR PROJ NO. 2017CPT.05.18.20921.1										4.17												5,068		304							
45335.3.20	Wake	1	SR 1006 - OLD STAGE RD	NC 42 TO JOHNSTON CO (EXCLUDE LIMITS OF B-4655)	1	2		NO	NO	4.17	22	65		7.84		209	0.50		38,935	752	6,060	5,825		546	2,500	605	1,520	6.05	30		
TOTAL FOR MAP NO. 1										4.17		65		7.84		209	0.50		38,935	752	6,060	5,825		546	2,500	605	1,520	6.05	30		
TOTAL FOR PROJ NO. 45335.3.20										4.17		65		7.84		209	0.50		38,935	752	6,060	5,825		546	2,500	605	1,520	6.05	30		
5C.092100	Wake	2	SR 2747 - JOHN ADAMS RD	NC 42 - TO SR 1006 - OLD STAGE RD	3	2	2WU	NO	NO	1.3	22	258	15		17	65	2.58					2,617		1,545	229						
TOTAL FOR MAP NO. 2										1.3		258	15		17	65	2.58					2,617		1,545	229						
TOTAL FOR PROJ NO. 5C.092100										1.3		258	15		17	65	2.58					2,617		1,545	229						
5C.092113	Wake	3	SR 1795A - OLD REEDY CREEK RD	I-40 BRIDGE - TO END OF MAINTENANCE	2	2	2WU	NO	NO	0.5	20	90	25		5	23	0.90	1,846					511	34							
TOTAL FOR MAP NO. 3										0.5		90	25		5	23	0.90	1,846					511	34							
TOTAL FOR PROJ NO. 5C.092113										0.5		90	25		5	23	0.90	1,846					511	34							
5C.092148	Wake	4	SR 1400 - BALLENTINE DAIRY RD	SR 1301 - SUNSET LAKE RD TO SR 1401 - STEWART RD	3	2	2WU	NO	NO	0.8	24	164	15		12	41	1.64			264		1,760		1,041	154						
TOTAL FOR MAP NO. 4										0.8		164	15		12	41	1.64			264		1,760		1,041	154						
TOTAL FOR PROJ NO. 5C.092148										0.8		164	15		12	41	1.64			264		1,760		1,041	154						
GRAND TOTAL										10.94		577	55	7.84	34	338	5.62	1,846	38,935	1,377	6,060	10,202	5,068	3,097	1,267	2,500	605	1,520	6.05	30	

PROJECT NO.	SHEET NO.	TOTAL NO.
2017CPT.05.18.20921.1, 45335.3.20 5C.092100, ETC.		

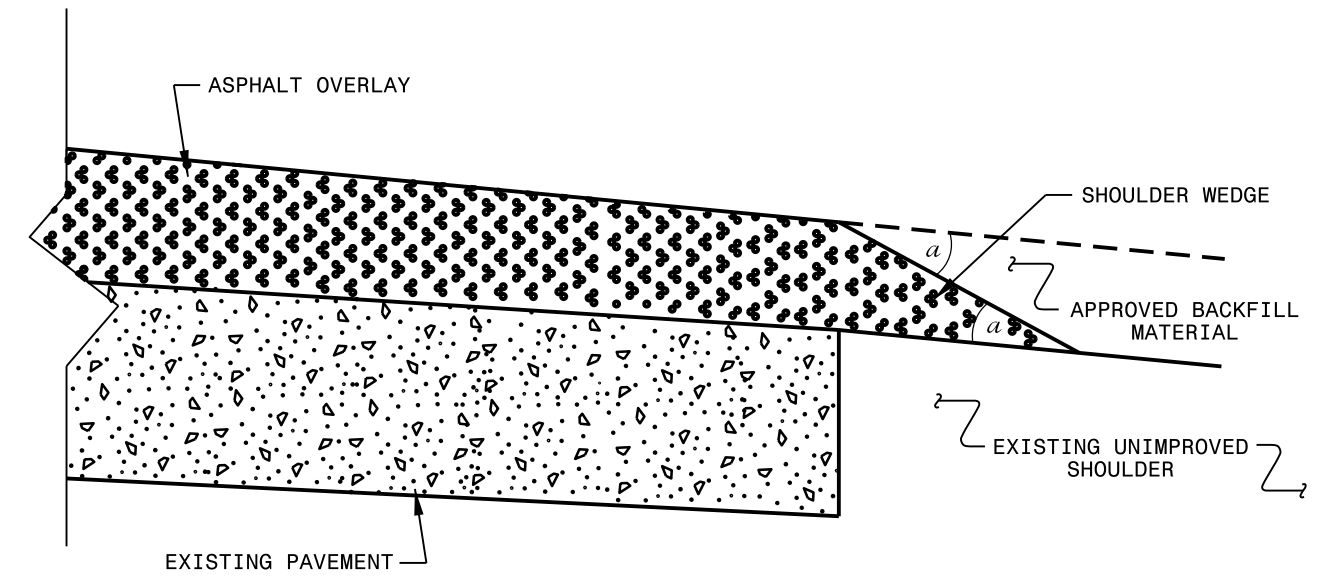
THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	LANES	LANE TYPE	LENGTH	WIDTH	4413000000-E	4457000000-N	4685000000-E	4686000000-E	4810000000-E		4890000000-E				4905000000-N	
										WORK ZONE ADVANCE/ GENERAL WARNING SIGNING	TEMPORARY TRAFFIC CONTROL	4" X 90 M WHITE THERMO	4" X 120 M YELLOW THERMO	4" WHITE PAINT	4" YELLOW PAINT	THERMOPLAS TIC MARKING LINES WHITE (4"X90 MILS)(HRE)	THERMOPLASTIC MARKING LINES YELLOW (4"X120MILS) (HRE)	THERMOPLASTIC MARKNG LINES WHITE (4"X120 MILS) (HRE)	THERMOPLASTIC MARKING LINES WHITE (24"X120 MILS)(HRE)	SNOW PLOWABLE MARKERS	
										SF	LS	LF	LF	LF	LF	LF	LF	LF	LF	EA	
2017CPT.05.18.20921.1	Wake	1	SR 1006 - OLD STAGE RD	NC 42 TO JOHNSTON CO (EXCLUDE LIMITS OF B-4655)	1	2		4.17	22												
TOTAL FOR MAP NO. 1																					
TOTAL FOR PROJ NO. 2017CPT.05.18.20921.1																					
45335.3.20	Wake	1	SR 1006 - OLD STAGE RD	NC 42 TO JOHNSTON CO (EXCLUDE LIMITS OF B-4655)	1	2		4.17	22	488	0.67			77,872	77,872	44,035	44,035	360	27	275	
TOTAL FOR MAP NO. 1										488	0.67			77,872	77,872	44,035	44,035	360	27	275	
TOTAL FOR PROJ NO. 45335.3.20										488	0.67			77,872	77,872	44,035	44,035	360	27	275	
														155,744		88,457					
5C.092100	Wake	2	SR 2747 - JOHN ADAMS RD	NC 42 - TO SR 1006 - OLD STAGE RD	3	2	2WU	1.3	22	144	0.18	13,622	13,622								
TOTAL FOR MAP NO. 2										144	0.18	13,622	13,622								
TOTAL FOR PROJ NO. 5C.092100										144	0.18	13,622	13,622								
5C.092113	Wake	3	SR 1795A - OLD REEDY CREEK RD	I-40 BRIDGE - TO END OF MAINTENANCE	2	2	2WU	0.5	20	50	0.03										
TOTAL FOR MAP NO. 3										50	0.03										
TOTAL FOR PROJ NO. 5C.092113										50	0.03										
5C.092148	Wake	4	SR 1400 - BALLENTINE DAIRY RD	SR 1301 - SUNSET LAKE RD TO SR 1401 - STEWART RD	3	2	2WU	0.8	24	92	0.12	8,659	8,659								
TOTAL FOR MAP NO. 4										92	0	8,659	8,659								
TOTAL FOR PROJ NO. 5C.092148										92	0	8,659	8,659								
GRAND TOTAL																					
										774	1	22,281	22,281	77,872	77,872	44,035	44,035	360	27	275	
														155,744		88,457					

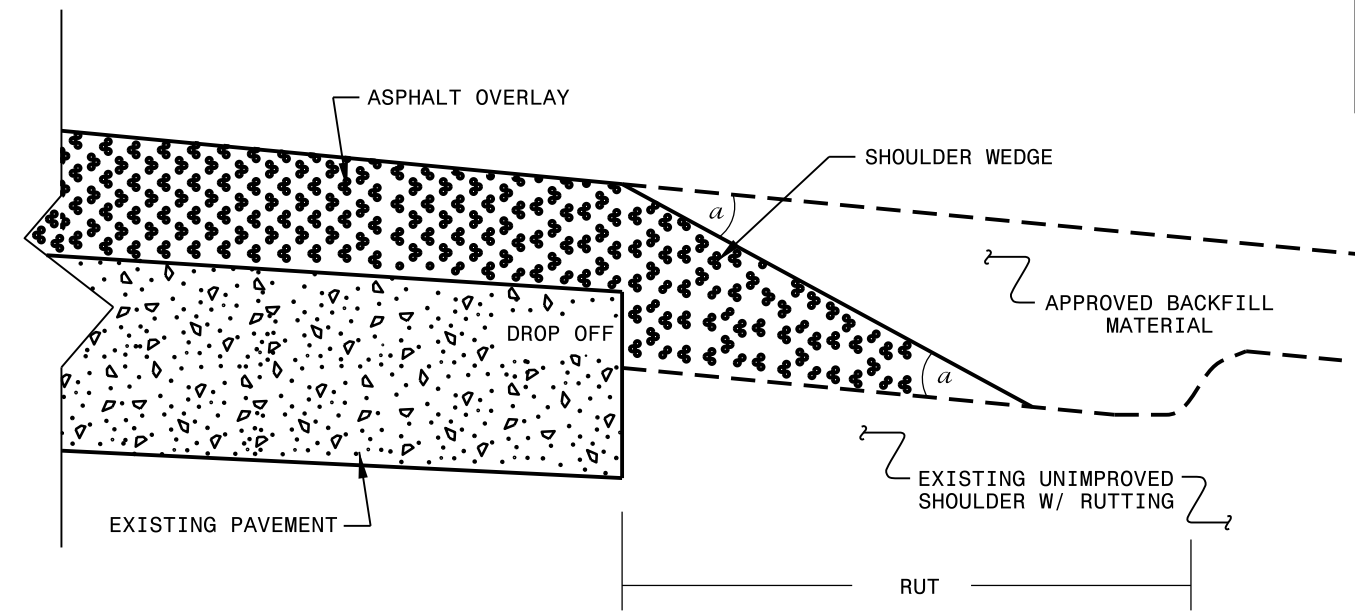
- NOTES:
- 1) DETAIL DOES NOT APPLY TO OGAFB AND ULTRA-THIN BONDED WEARING COURSE.
 - 2) BACKFILL SHOULDER WITH APPROVED MATERIAL.
 - 3) THE SHOULDER WEDGE DEVICE MAY BE DISENGAGED AT PAVED DRIVEWAYS, SIDE STREETS, HIGH SHOULDERS, AND OTHER LOCATIONS NOT FEASIBLE TO CONSTRUCT AS APPROVED BY THE ENGINEER.



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



SHOULDER WEDGE DETAIL
 (Resurfacing Projects w/ NO Widening)



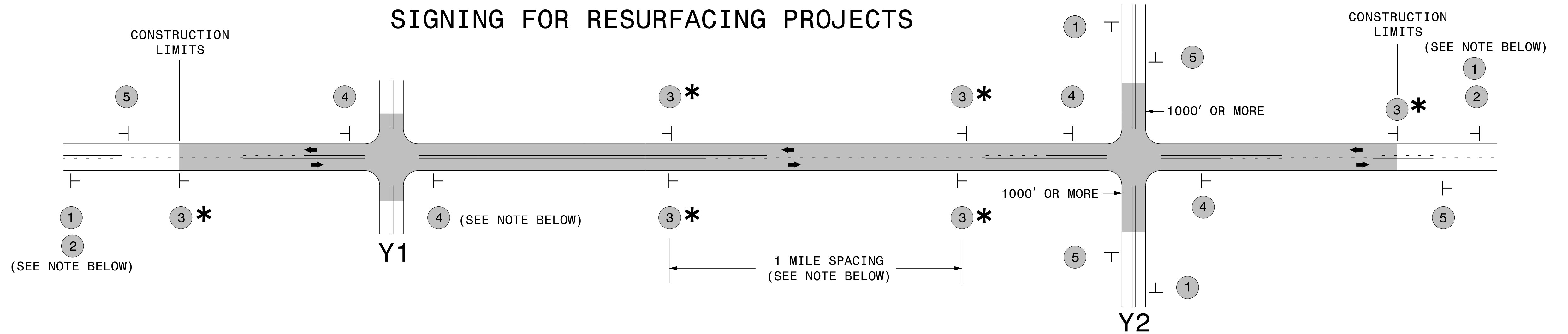
SHOULDER WEDGE DETAIL
 (Resurfacing Adjacent to
 Rutted Shoulder)

- 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
 USER NAME

SIGNING FOR RESURFACING PROJECTS



LEGEND	
	STATIONARY SIGN
←	DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

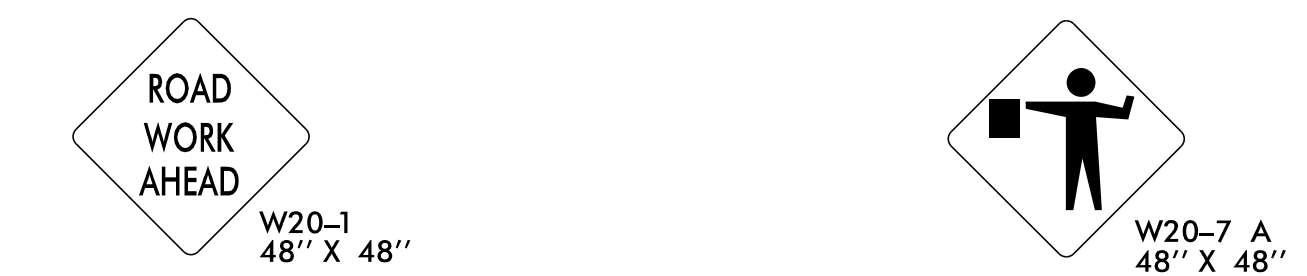
-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	1	 <small>W20-1 48" X 48"</small>	PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.		
	2	 <small>W7-3aP 24" X 18"</small>	#2 SIGN ONLY USED WHEN RESURFACING LIMITS ARE 2 OR MORE MILES IN LENGTH. ROUND UP TO NEXT WHOLE NUMBER. (NO FRACTIONAL OR DECIMAL NUMBERS)		
	3 *	 <small>SP 13107 48" X 48"</small>	PLACE INITIALLY AT THE CONSTRUCTION LIMITS AND SPACED 1 MILE APART THEREAFTER. IF NO -Y- LINES EXIST, PLACE 2ND SET 1/2 MILE FROM THE CONSTRUCTION LIMITS AND THEN SPACE 1 MILE THEREAFTER.		
	4	 <small>SP 13106 48" X 48"</small>	THESE ARE FOR -Y- LINES THAT ARE "THROUGH" ROADWAYS. DEAD END AND SUBDIVISION ROADS ARE NOT "THROUGH" ROADWAYS. INSTALL 500' +/- FROM EACH -Y- LINE APPROACH AS SHOWN ABOVE. FOR MULTIPLE -Y- LINES THAT ARE SEPARATED BY 0.25 MILES OR LESS, TREAT AS A SINGLE UNIT AND INSTALL WITHIN 500' OF EACH APPROACH. A MAXIMUM OF 2 SIGN SETS PER MILE. DO NOT INSTALL WHEN -Y- LINES ARE WITHIN 0.5 MILES FROM "END ROAD WORK" SIGN.		
	5	 <small>G20-2 A 48" X 24"</small>	PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.		

NO REQUIRED STATIONARY SIGNING FOR THE FOLLOWING -Y- LINE CONDITIONS:

- 1) LESS THAN 1000' OF RESURFACING ALONG -Y- LINE
- 2) SUBDIVISION ROADS
- 3) DEAD END ROADS

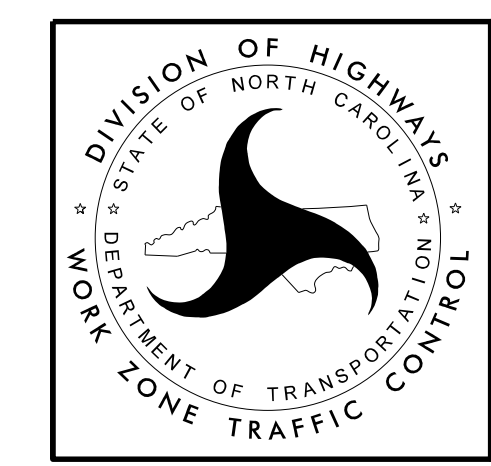
WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.



PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.

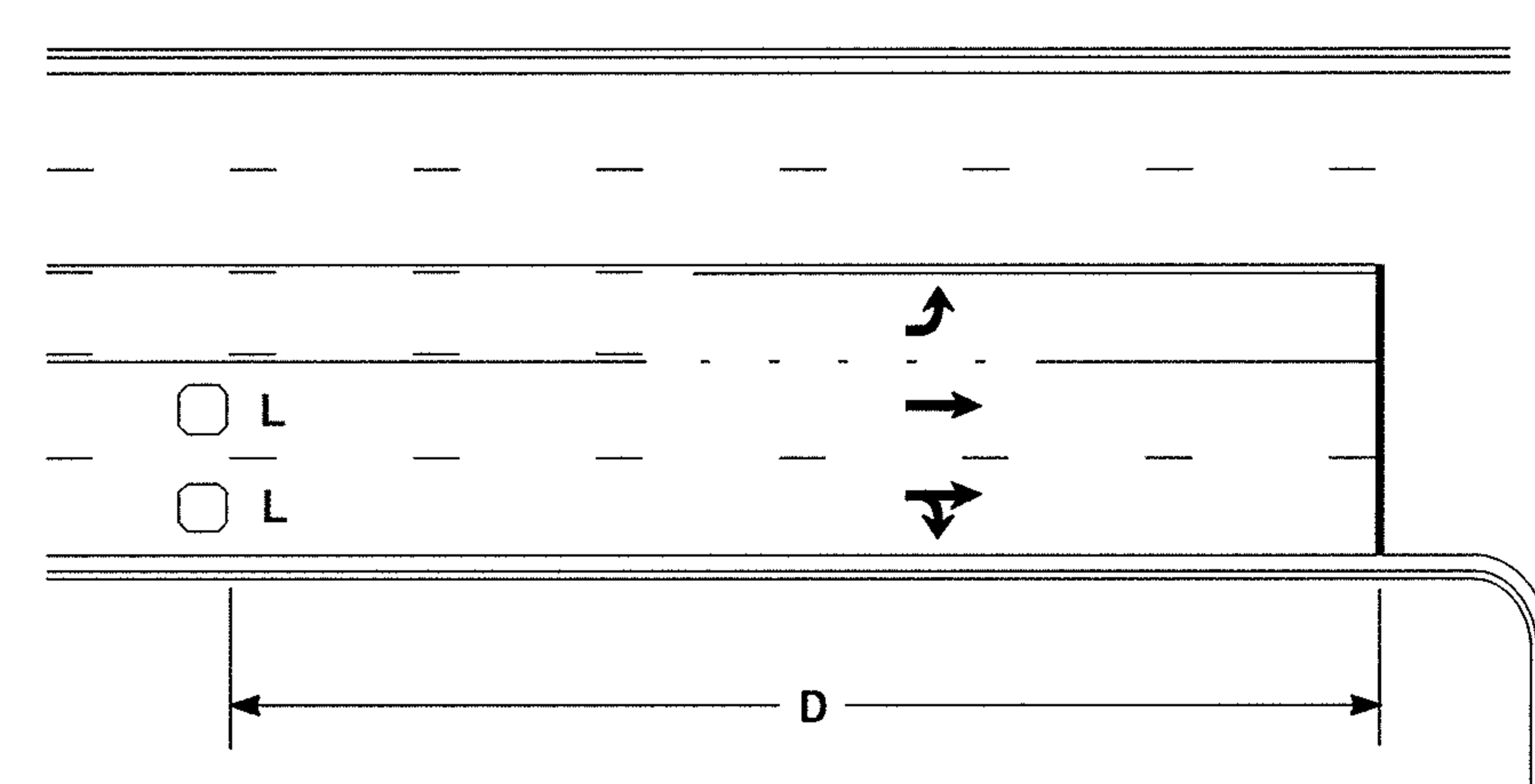
* SIGNING FOR ASPHALT SURFACE TREATMENTS (ONLY)

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**

High Speed Detection [≥40 mph (64 km/hr)]

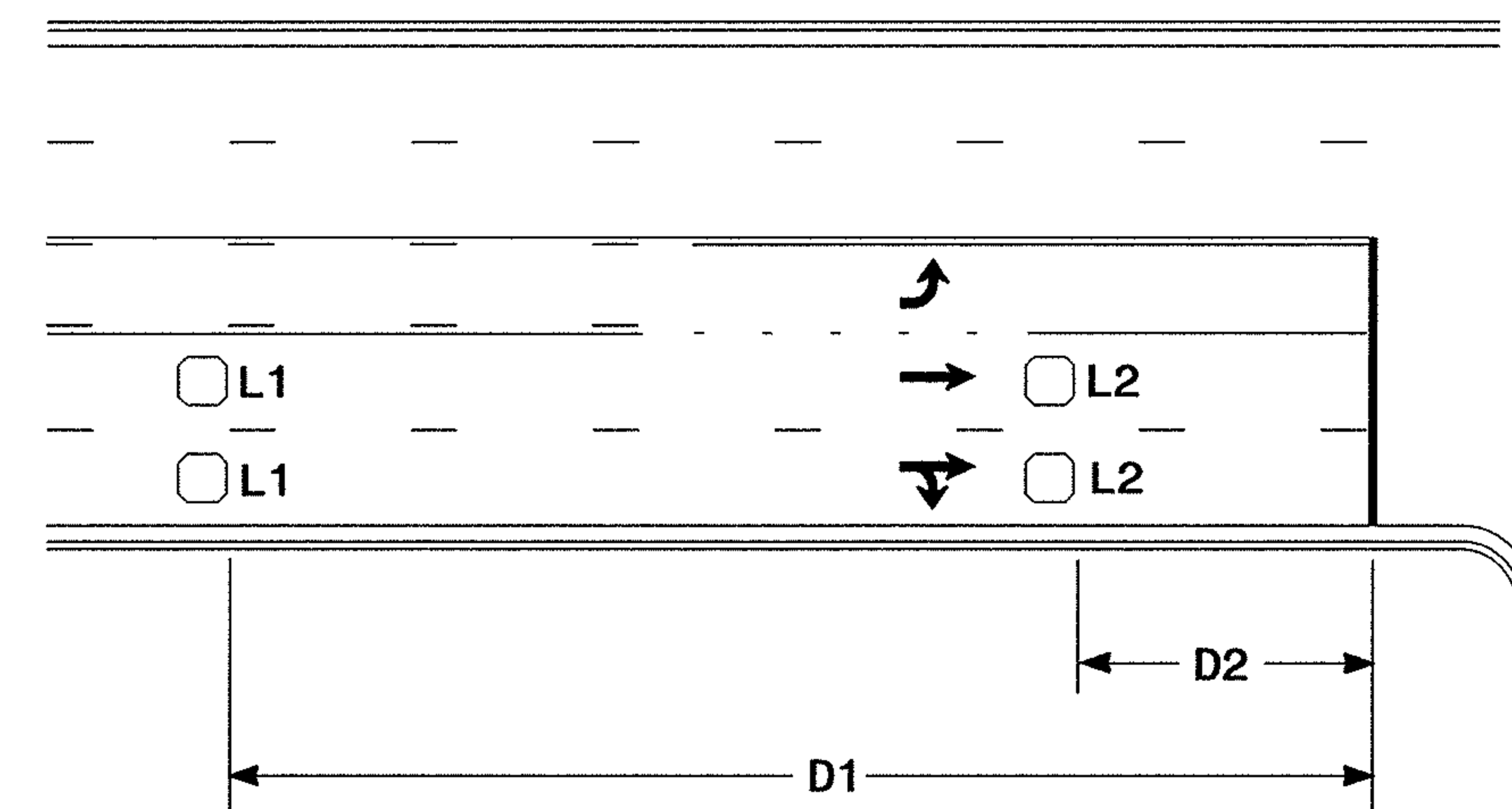


Speed Limit mph (km/hr)	D ft (m)
40 (64)	250 (75)
45 (72)	300 (90)
50 (80)	355 (110)
55 (88)	420 (130)

L = 6ft X 6ft (1.8m X 1.8m)
Wired in series for TS1
Controllers
Wired separately for TS2,
170, and 2070L Controllers

Volume Density Operation

OR

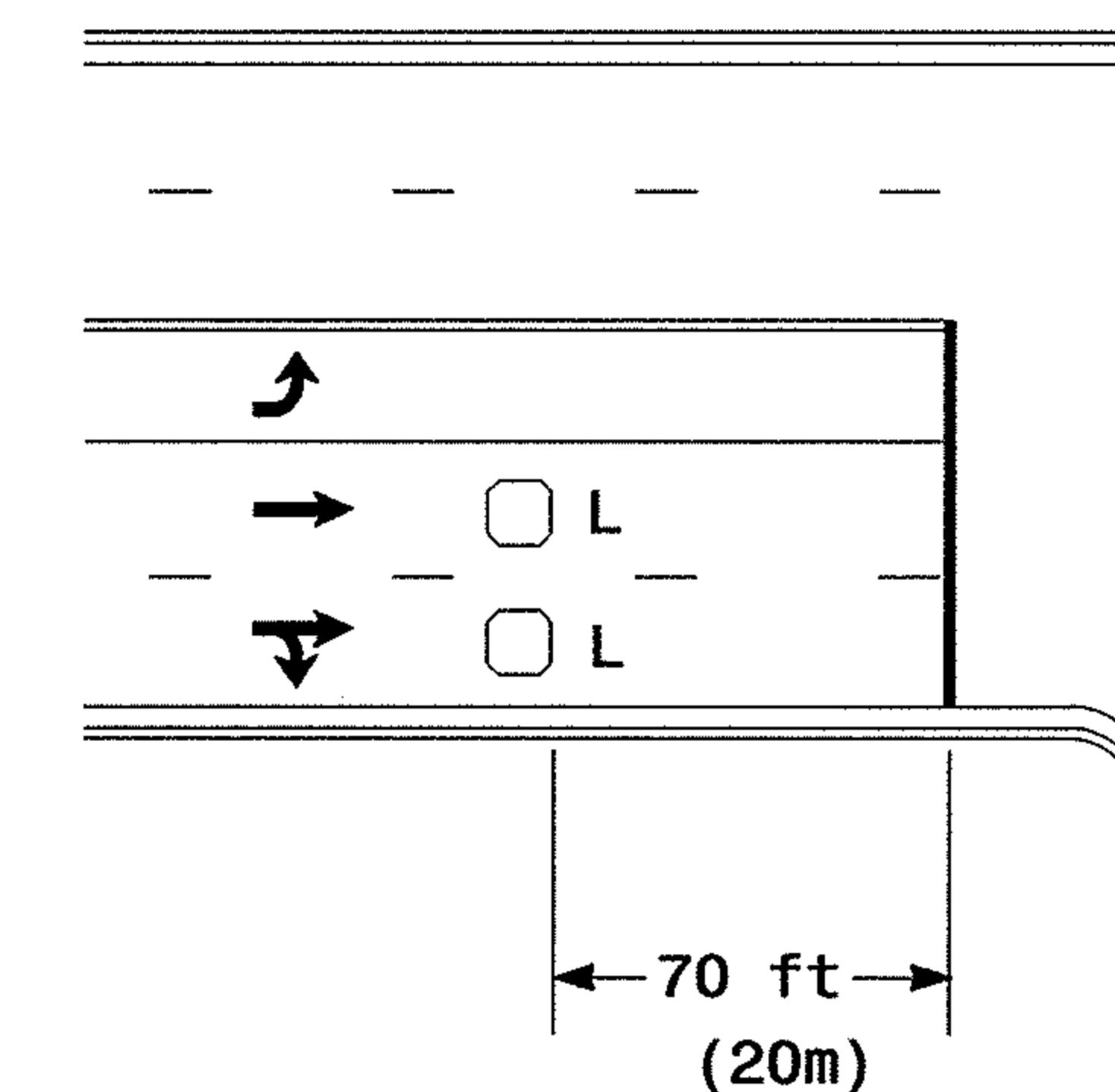


Speed Limit mph (km/hr)	D1 ft (m)	D2 ft (m)
40 (64)	250 (75)	80 (25)
45 (72)	300 (90)	90 (27)
50 (80)	355 (110)	100 (30)
55 (88)	420 (130)	110 (35)

L1 = 6ft X 6ft
(1.8m X 1.8m)
Wired in series
L2 = 6ft X 6ft
(1.8m X 1.8m)
Wired in series

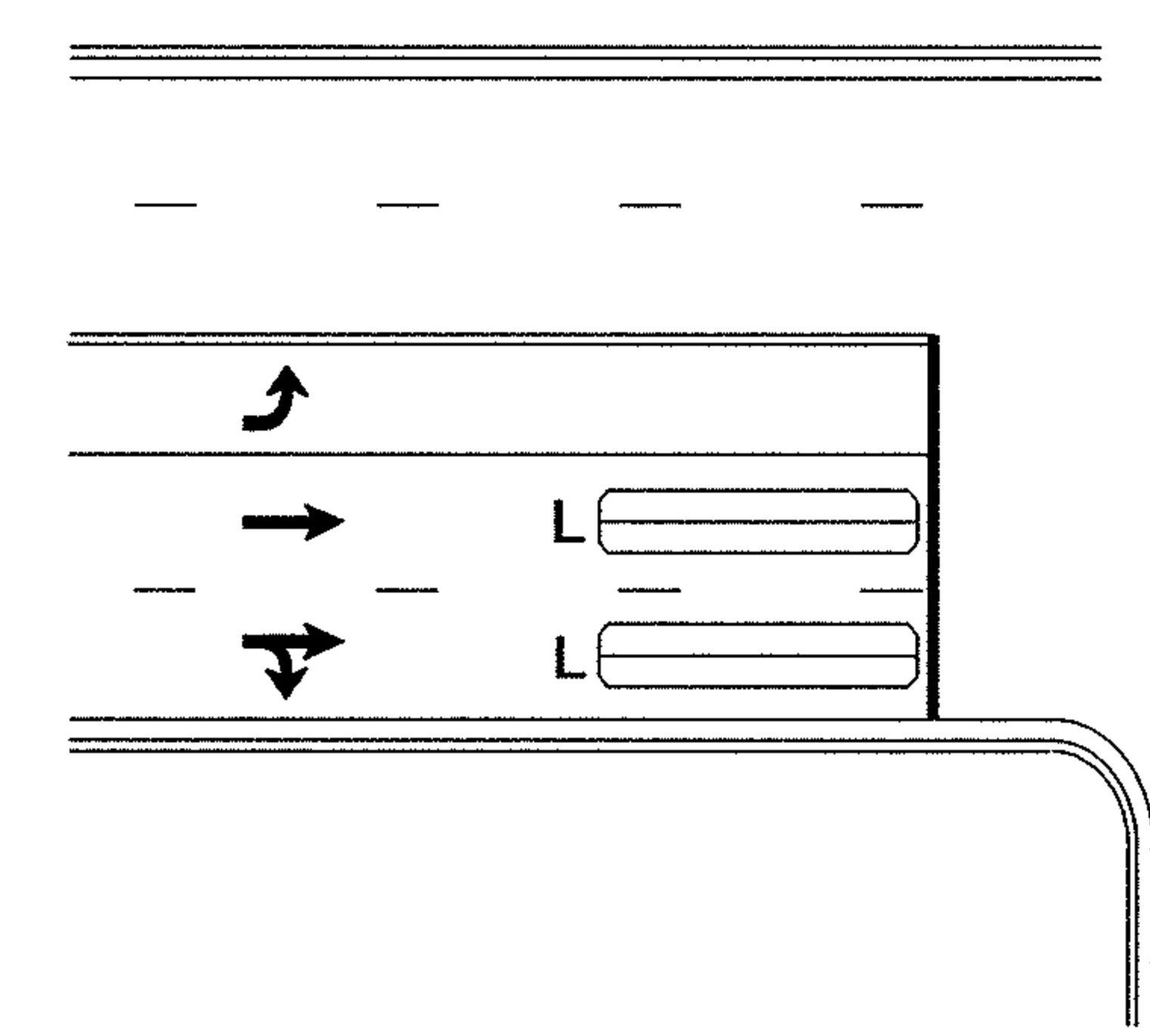
"Stretch" Operation

Low Speed Detection [≤35 mph (56 km/hr)]



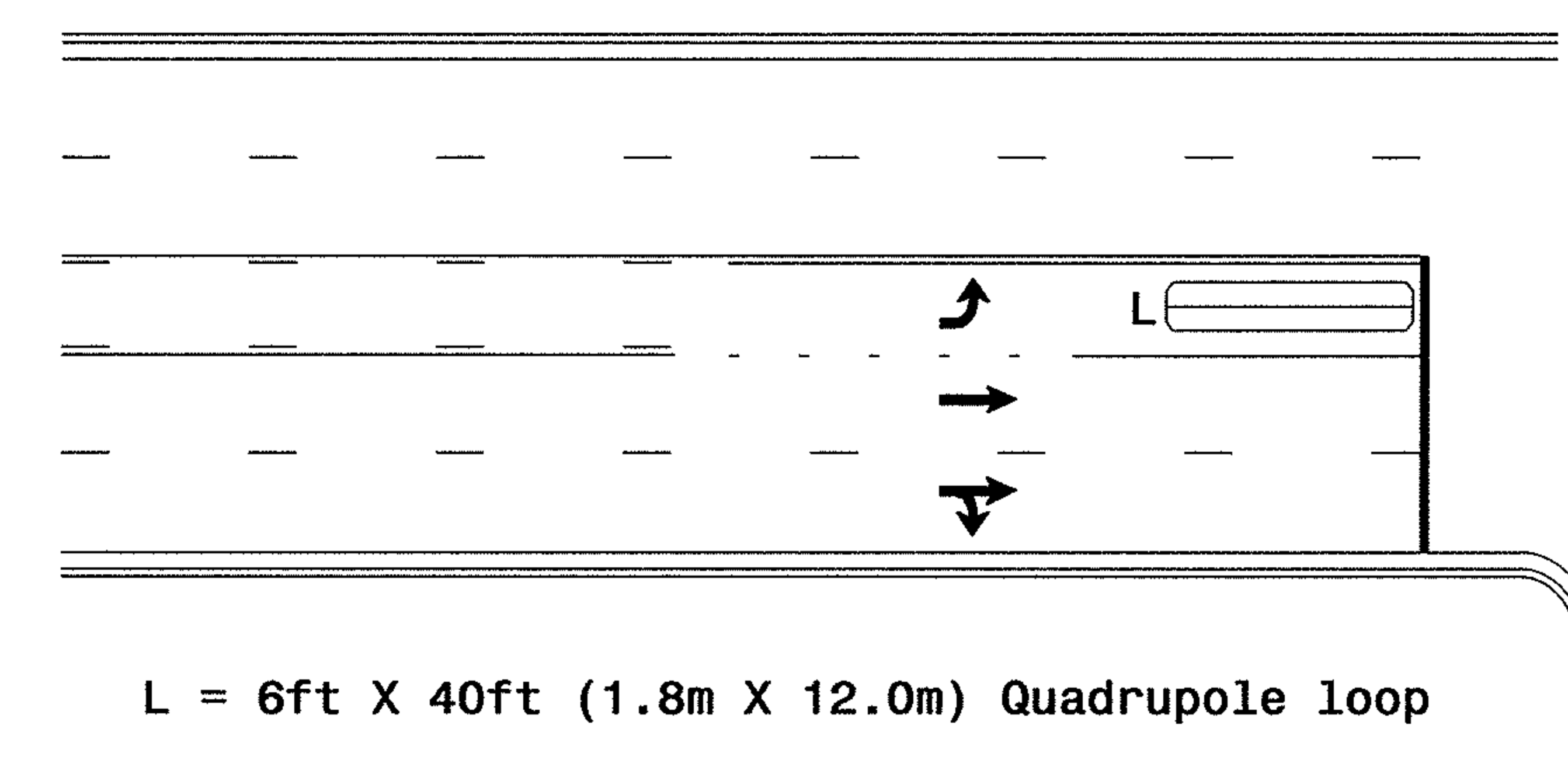
L = 6ft X 6ft (1.8m X 1.8m)
Wired in series

OR



L = 6ft X 40ft (1.8m X 12.0m)
Quadrupole loop, wired separately

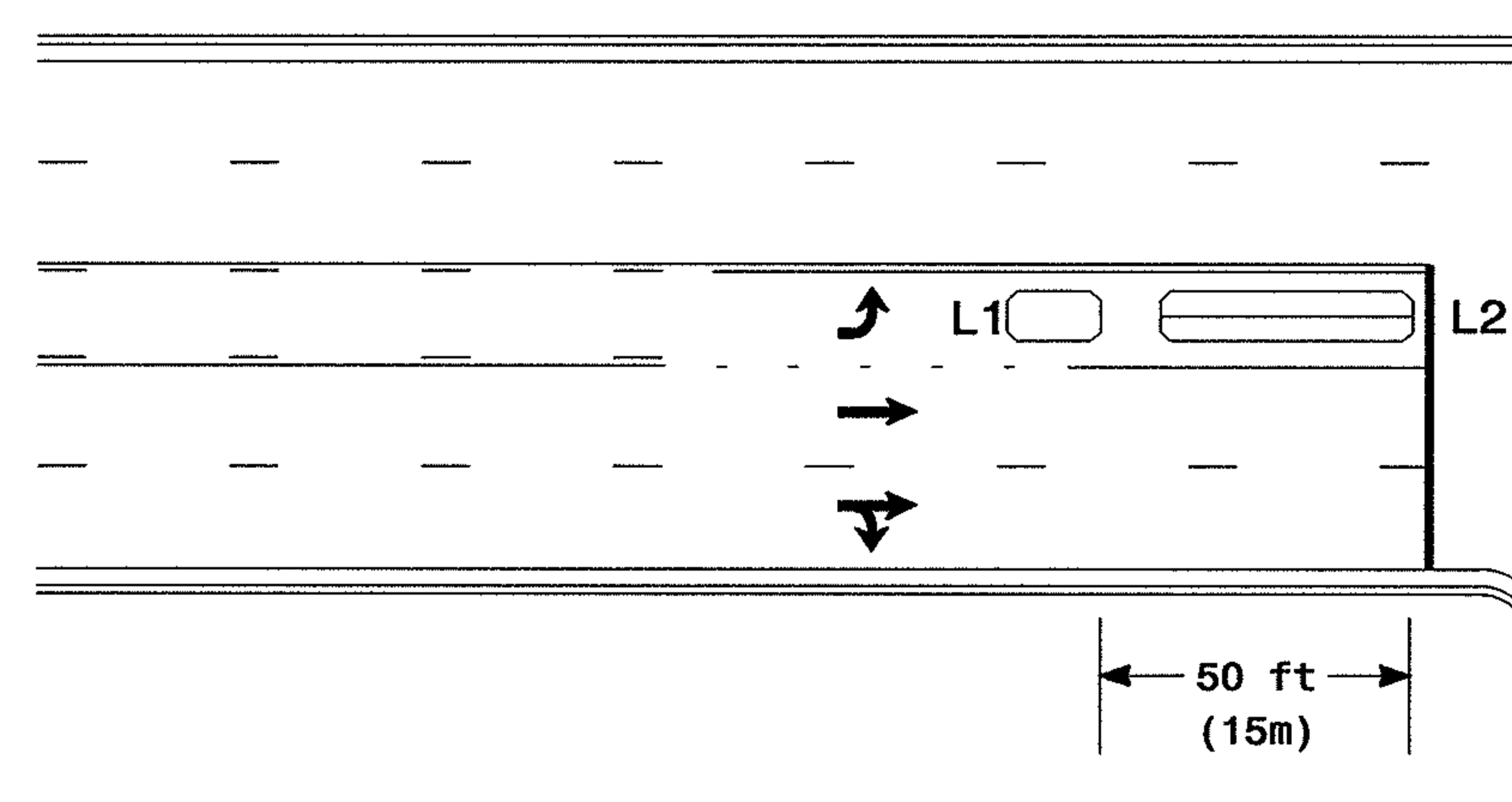
Left Turn Lane Detection



L = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop

Presence Loop Detection

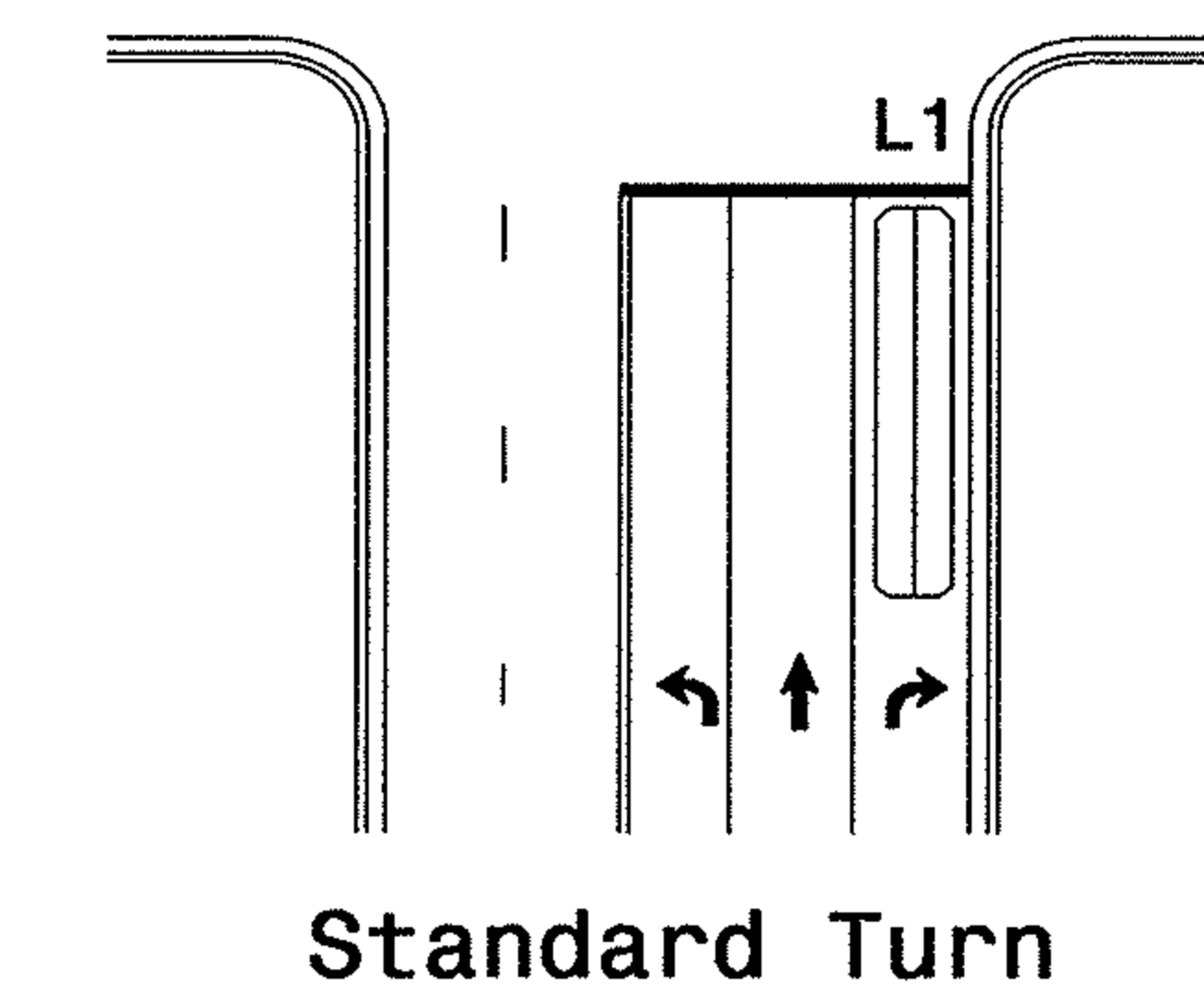
OR



L1 = 6ft X 15ft (1.8m X 4.6m) Queue detector
L2 = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop

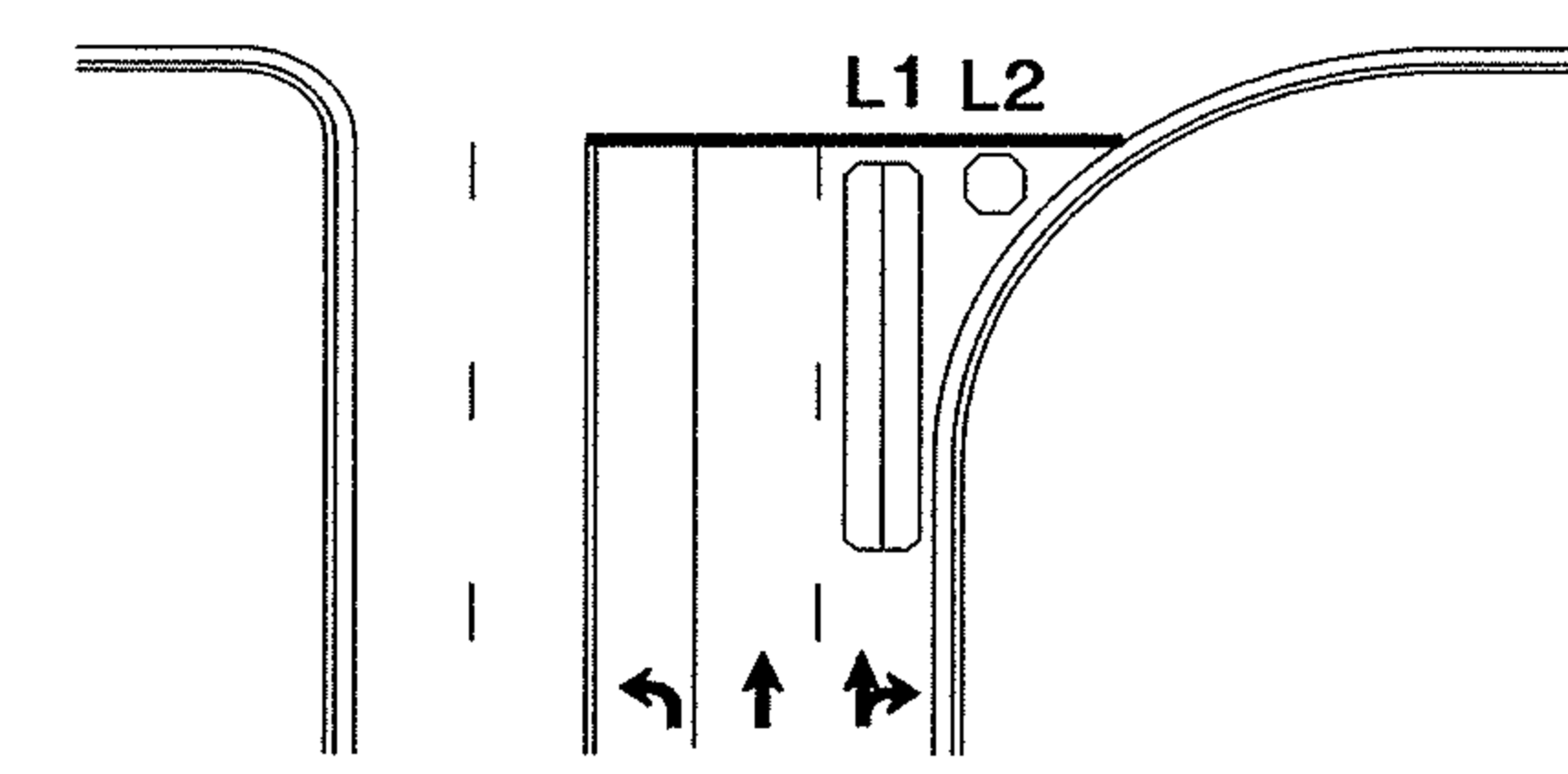
Queue Loop Detection

Right Turn Lane Detection

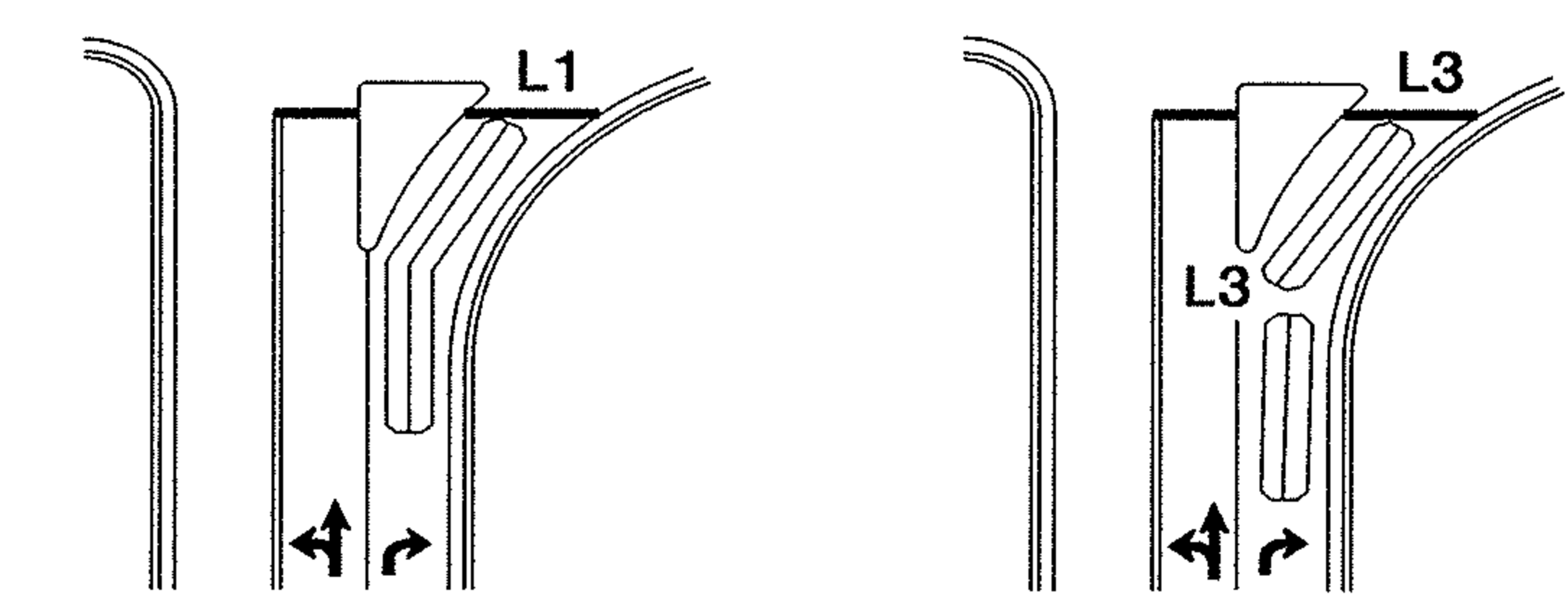


Standard Turn

L1 = 6ft X 40ft (1.8m X 12.0m) Quadrupole loop
L2 = 6ft X 6ft (1.8m X 1.8m) [Minimum] Presence loop
Wired separately
L3 = 6ft X 20ft (1.8m X 6.0m) Quadrupole loop
Wired in series

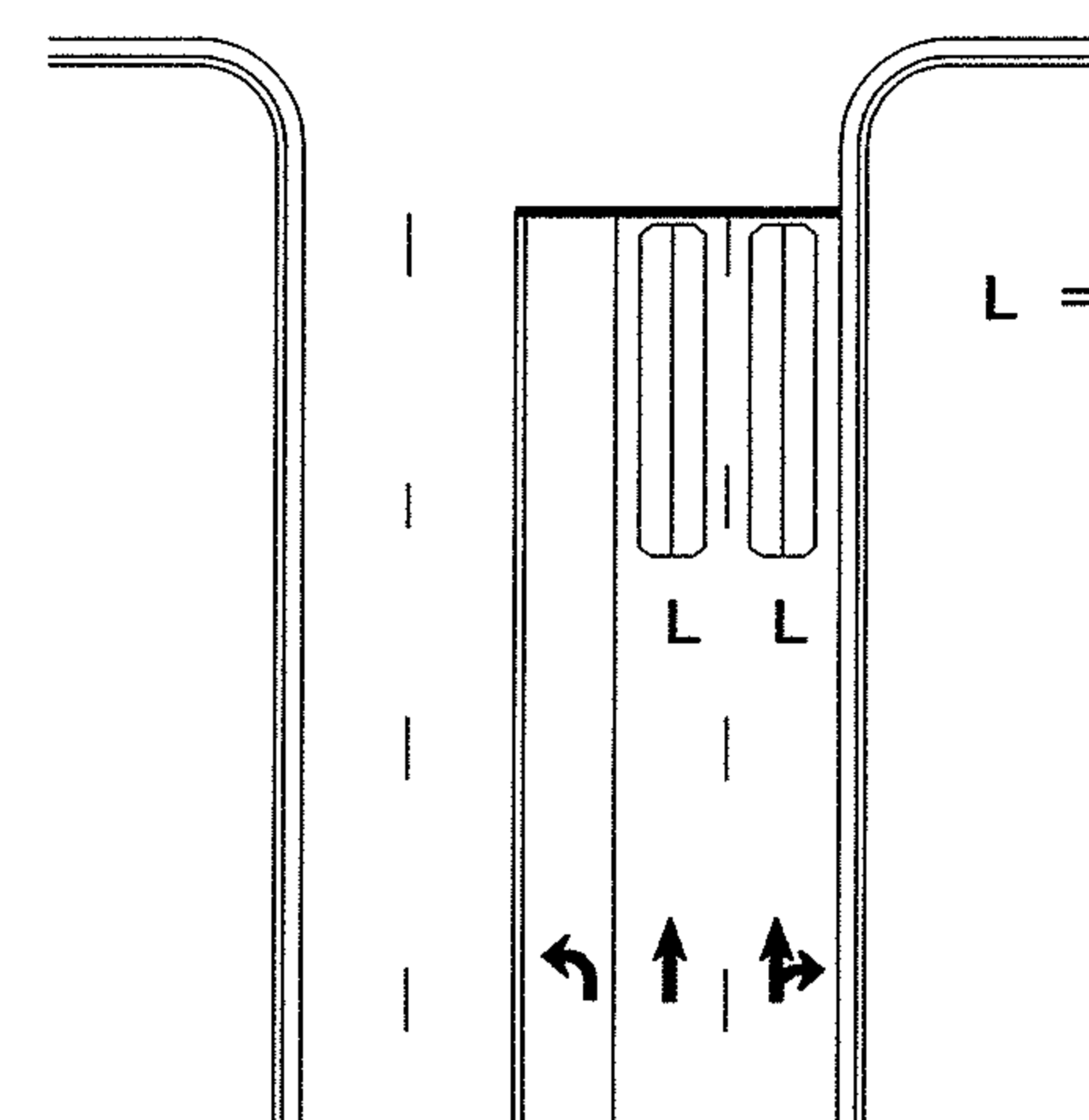


Wide Radius Turn



Channelized Turn

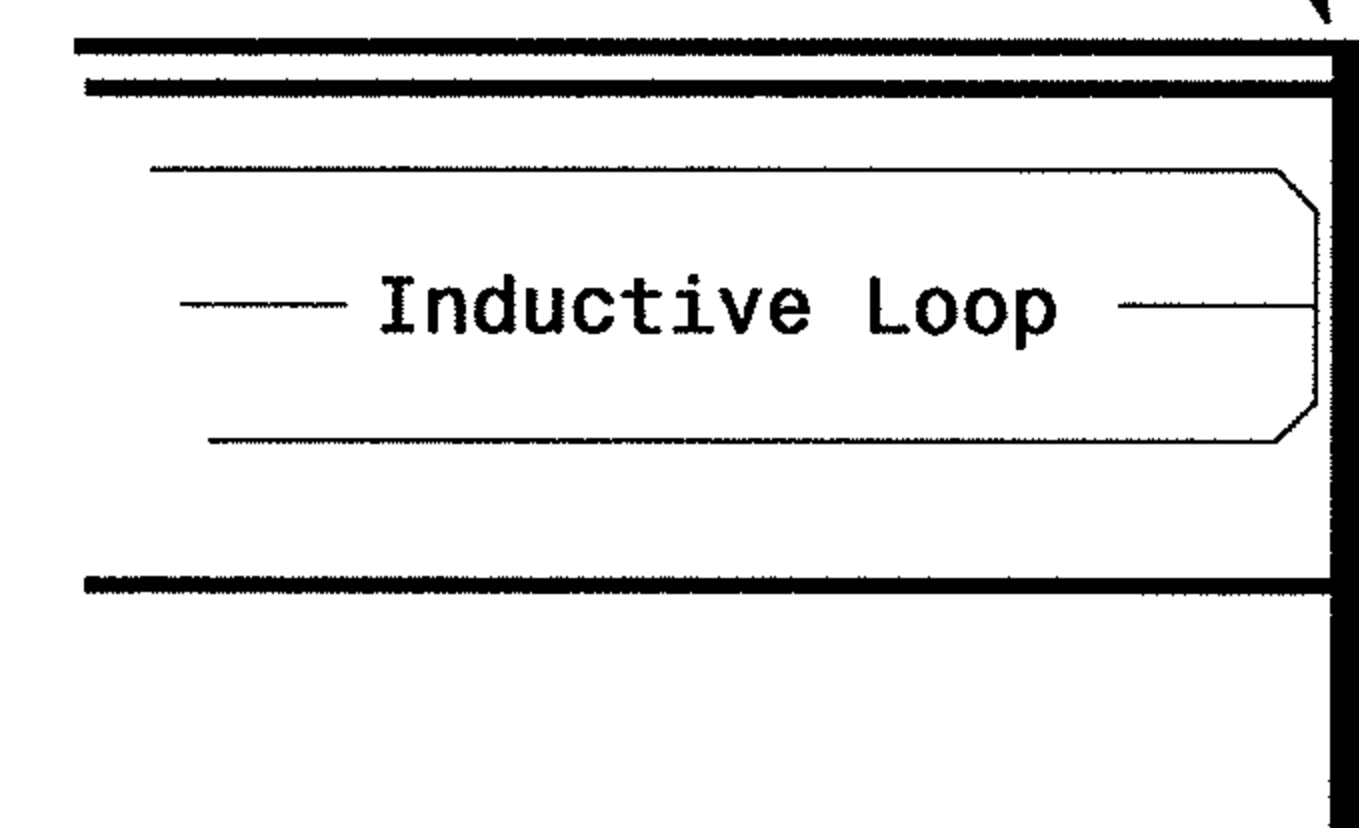
Side Street Detection



L = 6ft X 40ft (1.8m X 12.0m)
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 when stop line is
greater than 15' (4.5m) from edge
of intersecting roadway; or, when
loop detects a permissive or
protected/permissive left turn.

Recommended Number of Turns

Single 6' X 6' (1.8m X 1.8m)
loop (wired separately):

Length of Lead-in ft (m)	Number of Turns
< 250 (75)	3
250-375 (75-115)	4
375-525 (115-160)	5
> 525 (160)	6

Quadrupole loops: Use 2-4-2 turns
6' X 15' (1.8m X 4.6m) Loops:
Lead-in < 150' (45 m), use 2 turns
Lead-in > 150' (45 m), use 3 turns

19-050-2006 14129
21-11-15 10:00:11.1b turn_inm1scwloopyp1cal2006.dgn
pa.alexander

	Typical Loop Locations		
	PLAN DATE: June 2006 PREPARED BY: P. L. Alexander	REVIEWED BY: REVIEWED BY:	
SCALE N/A	INIT. DATE [Signature] [Date]	SIGNATURE DATE [Signature] [Date]	SEAL NORTH CAROLINA PROFESSIONAL ENGINEER P. L. ALEXANDER License No. 23486

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

SOIL STABILIZATION TIMEFRAMES

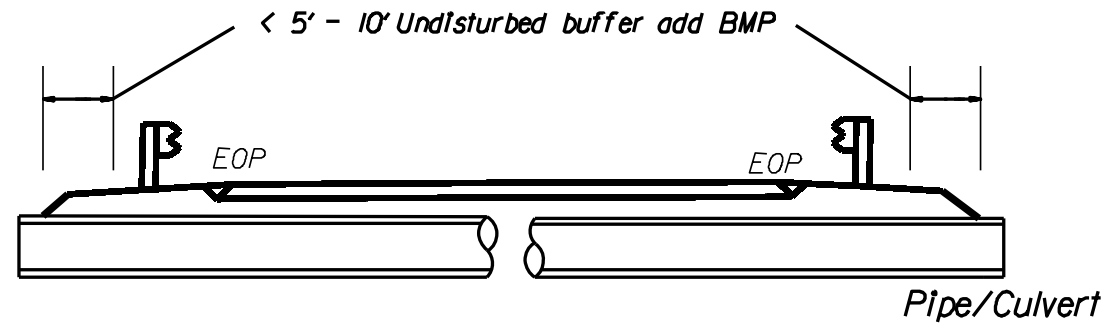
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES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

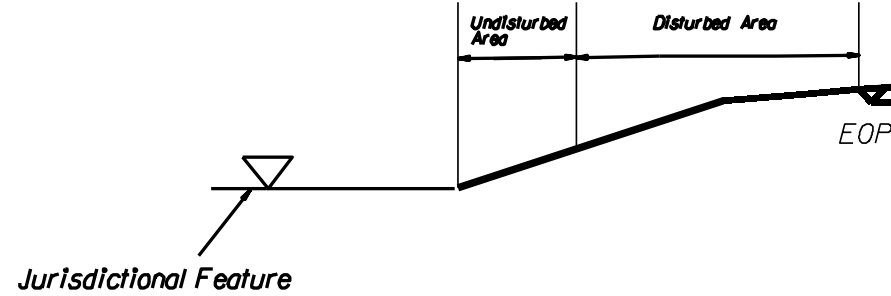
BMP Options: Wattle, Silt Fence, or Hardened Aggregate.

EROSION CONTROL DETAIL

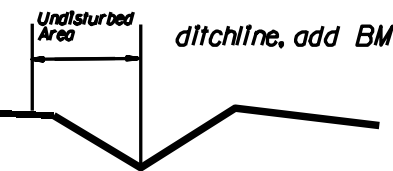
PROJECT REFERENCE NO. 1-1111	SHEET NO. 10-11/01/11
BMP SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



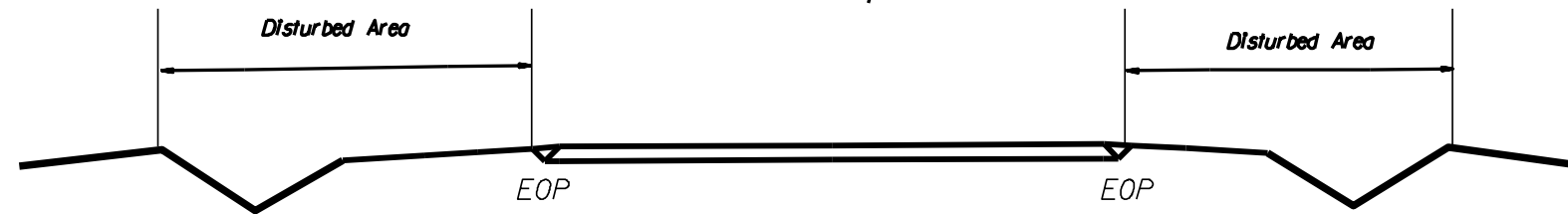
< 5' - 10' Undisturbed buffer from jurisdictional feature add BMP



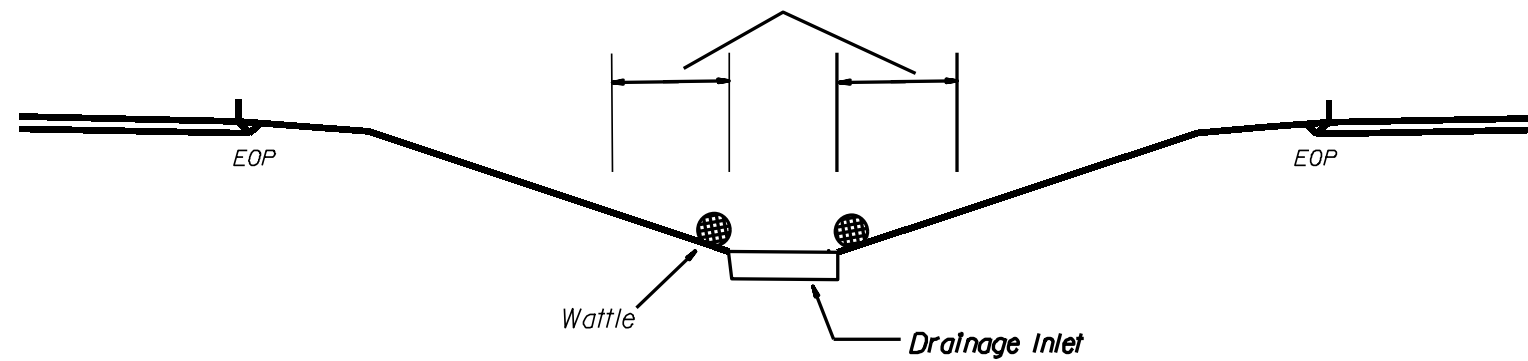
< 5' - 10' Undisturbed buffer from ditchline, add BMP



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

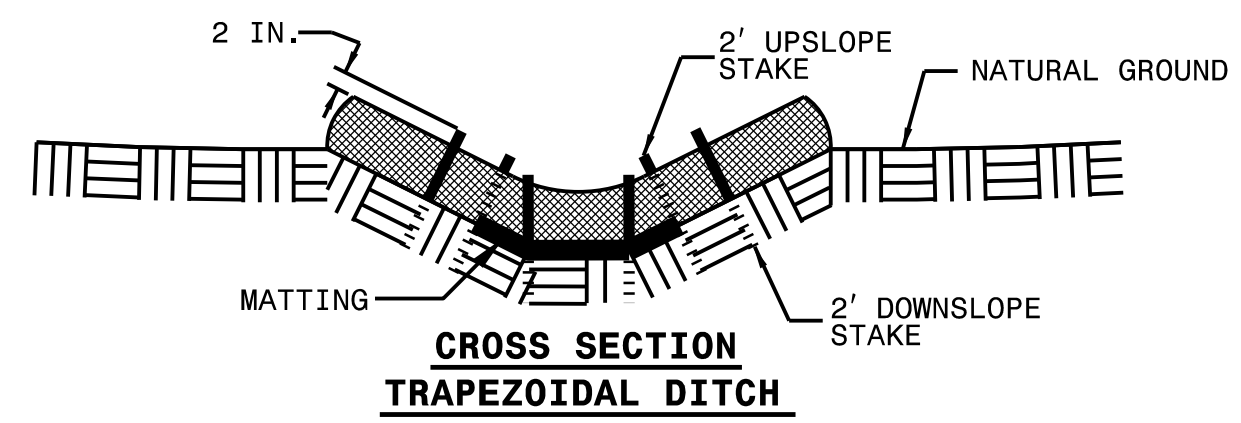
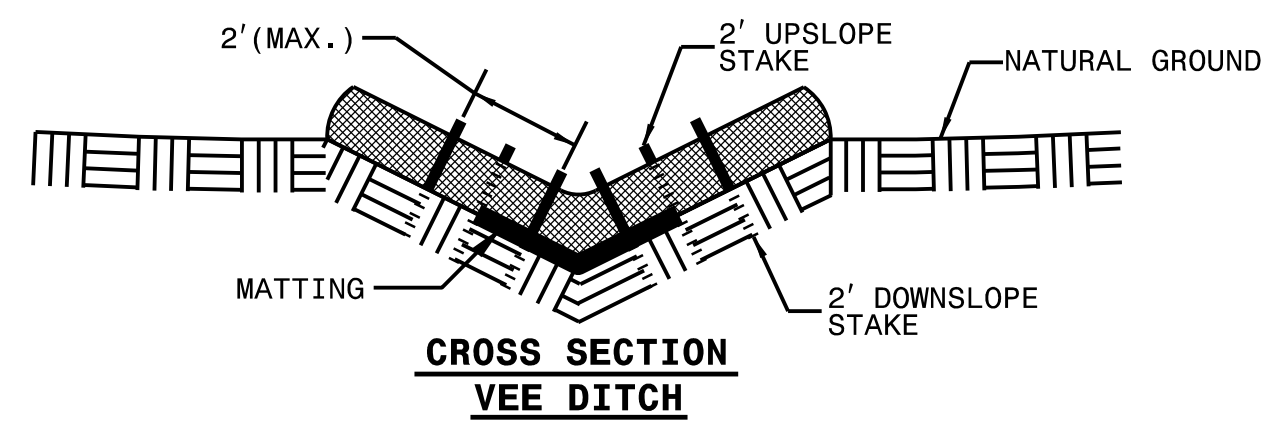
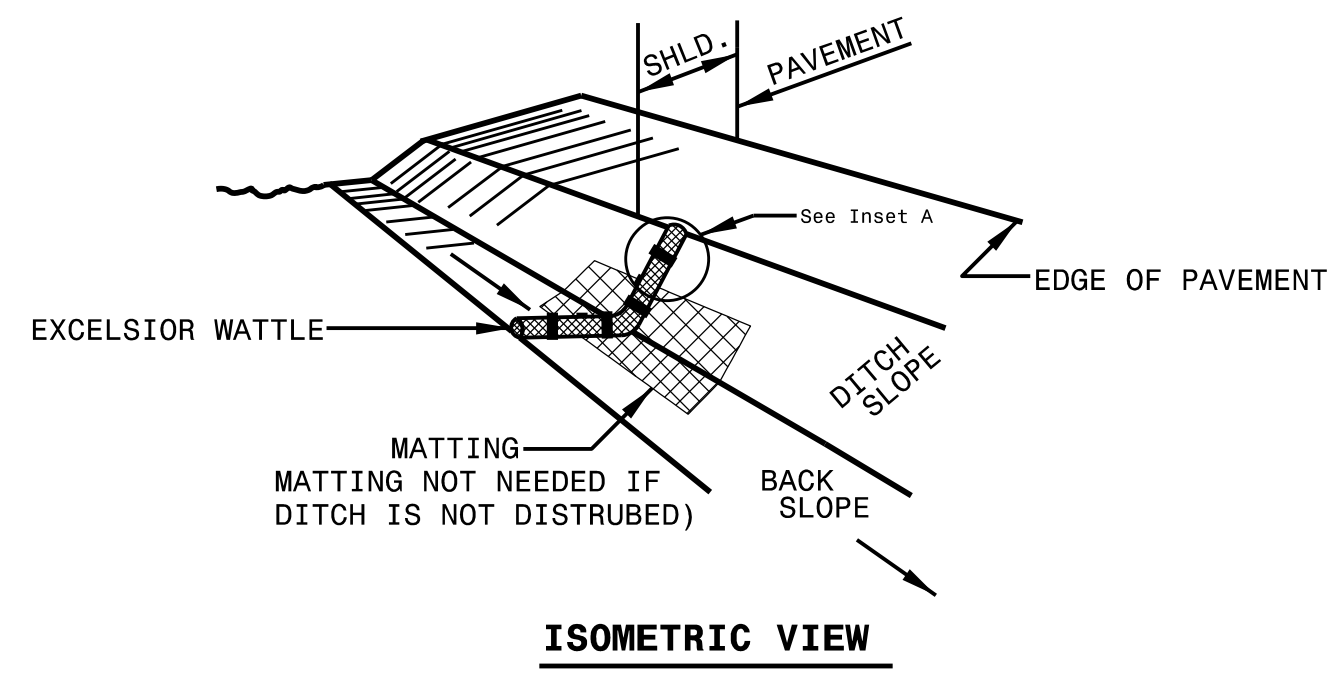


< 5' - 10' Undisturbed buffer from Inlet, add wattle



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.

