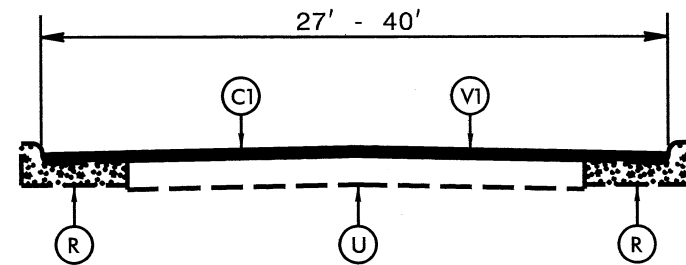
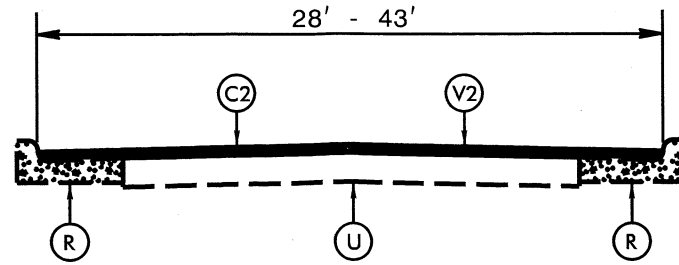


STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	7CR.10011.46, etc.	2	

7CR.10011.46
7CR.20011.46
7CR.10411.68

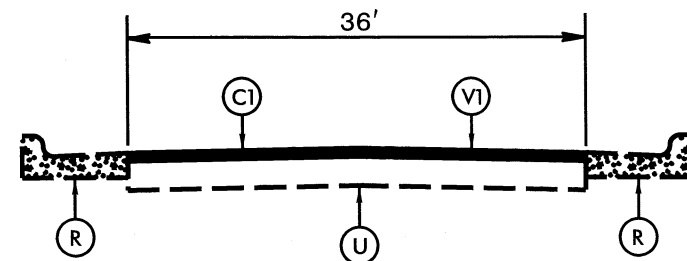


TYPICAL SECTION NO. 1
TO BE USED ON MAPS 1 AND 11
MAP 1: STA. 0+00 TO STA. 17+85
MAP 11: STA. 0+00 TO STA. 4+30
STA. 8+50 TO STA. 11+30

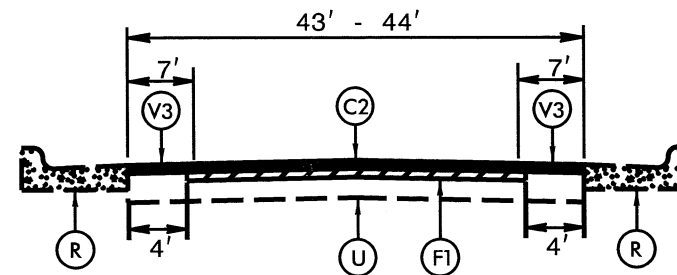


*NOTE: MAP 3: NO PAVEMENT ON SECTIONS
STA. 4+40 TO STA. 4+90
STA. 8+35 TO STA. 10+00
STA. 13+75 TO STA. 14+50

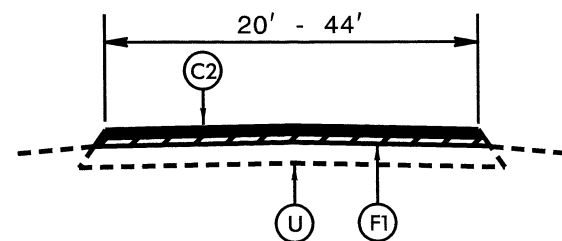
TYPICAL SECTION NO. 4
TO BE USED ON MAPS 3 AND 5
MAP 3: STA. 0+00 TO STA. 29+40
MAP 5: STA. 0+00 TO STA. 12+60



TYPICAL SECTION NO. 2
TO BE USED ON MAP 1
STA. 17+85 TO STA. 44+85



TYPICAL SECTION NO. 5
TO BE USED ON MAPS 5
STA. 12+60 TO STA. 31+50

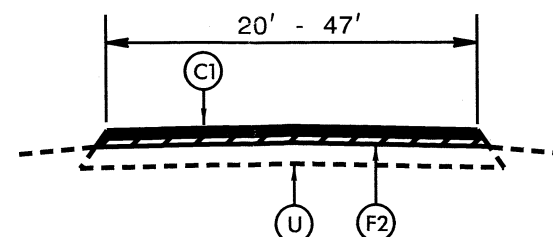


*NOTE: MAP 10: NO PAVEMENT ON BRIDGES
BRIDGE #41: STA. 151+60 TO STA. 154+35
BRIDGE #42: STA. 169+60 TO STA. 171+80

**NOTE: MAP 10: NO PAVEMENT ON SECTION
STA. 129+15 TO STA. 130+50

TYPICAL SECTION NO. 3

TO BE USED ON MAPS 2, 3, 4, 5, 6, 7, AND 10
MAP 3: STA. 29+40 TO STA. 67+20
MAP 5: STA. 31+50 TO STA. 118+60



TYPICAL SECTION NO. 6

TO BE USED ON MAPS 8 AND 9
MAP 8: STA. 0+00 TO STA. 0+35
STA. 0+70 TO STA. 2+80
STA. 6+75 TO STA. 44+40

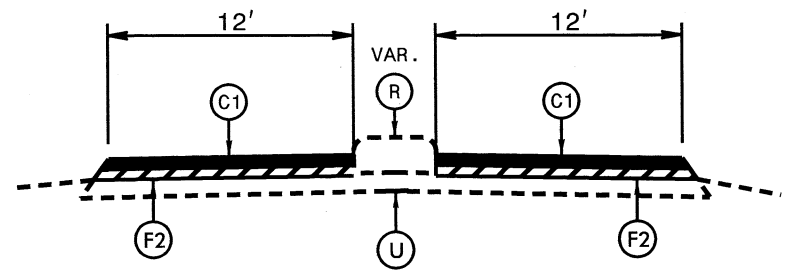
PAVEMENT SCHEDULE

C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.		
C2	PROP. APPROX. 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.		
F1	AST MAT COAT #78M STONE		
F2	AST MAT COAT, #67 STONE		
R	CONCRETE CURB AND GUTTER		
U	EXISTING PAVEMENT.		
V1	1½" MILLING	V2	1¼" MILLING
V3	0" - 1¼" MILLING	V4	0 - 1½" MILLING

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DGN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

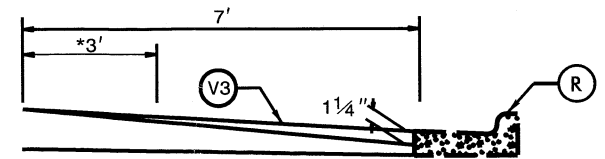
STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	7CR.10011.46, etc.	3	

7CR.10011.46
7CR.20011.46
7CR.10411.68

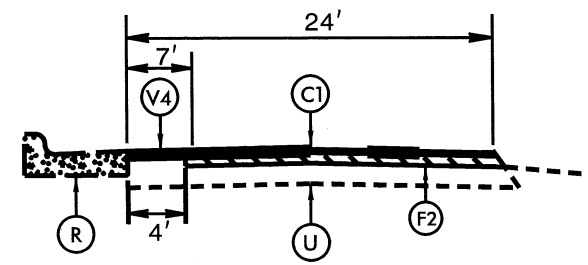


TYPICAL SECTION NO. 7
TO BE USED ON MAP 8
STA. 0+35 TO STA. 0+70

MILLING DETAIL 1

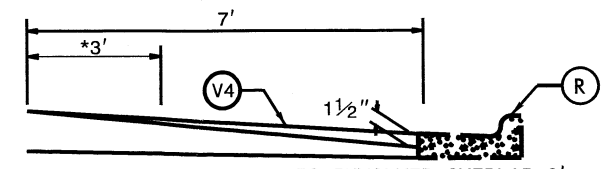


*IF #67 STONE OR 78M SEAL IS INVOLVED OVERLAP 3'.
PROFILE MILLING 0 - 1 1/4"
PROFILE MILL EXISTING ASPHALT PAVEMENT
1 1/4" AT LOCATIONS AS DIRECTED BY THE
ENGINEER.
NOTE: TO BE USED IN CONJUNCTION WITH:
TS. NO. 5 ON MAP 5 STA. 12+60 TO STA. 31+50 LT & RT

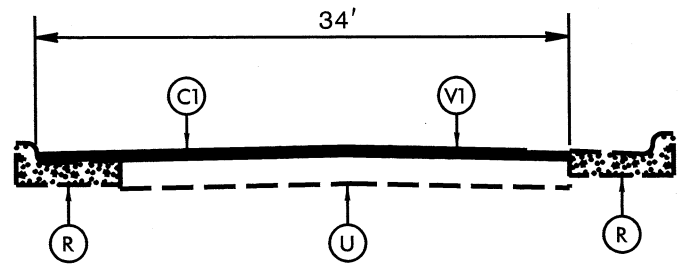


TYPICAL SECTION NO. 8
TO BE USED ON MAP 8
STA. 2+80 TO STA. 6+75

MILLING DETAIL 2



*IF #67 STONE OR 78M SEAL IS INVOLVED OVERLAP 3'.
PROFILE MILLING 0 - 1 1/2"
PROFILE MILL EXISTING ASPHALT PAVEMENT
1 1/2" AT LOCATIONS AS DIRECTED BY THE
ENGINEER.
NOTE: TO BE USED IN CONJUNCTION WITH:
TS. NO. 8 ON MAP 8 STA. 2+80 TO STA. 6+75 LT



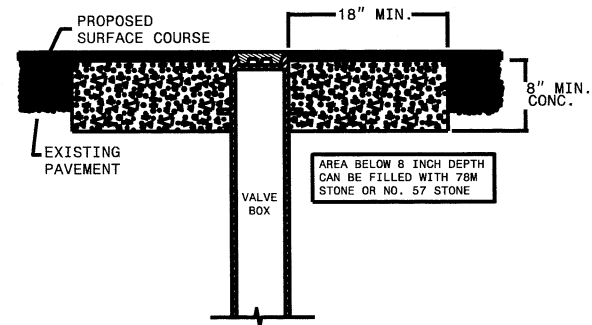
TYPICAL SECTION NO. 9
TO BE USED ON MAP 11
STA. 4+30 TO STA. 8+50

PAVEMENT SCHEDULE

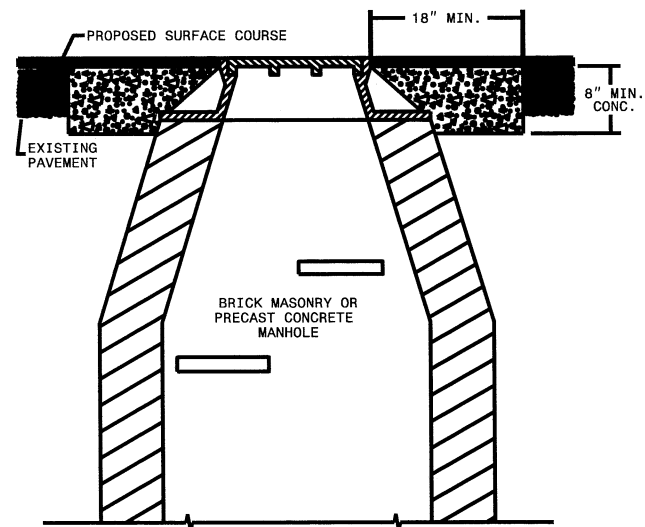
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	
C2	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	
F1	AST MAT COAT #78M STONE	
F2	AST MAT COAT, #67 STONE	
R	CONCRETE CURB AND GUTTER	
U	EXISTING PAVEMENT.	
V1	1 1/2" MILLING	V2 1 1/4" MILLING
V3	0" - 1 1/4" MILLING	V4 0 - 1 1/2" MILLING

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DGN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

STANDARD CONCRETE ENCASUREMENT FOR MANHOLE & VALVE CASTINGS IN PAVEMENT
DETAIL DRAWING NO. 858.01

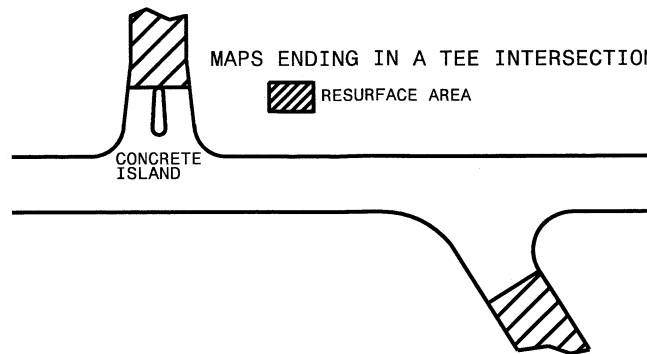


USE RAPID SET GROUT, MORTAR, OR CONCRETE CLASS B CONCRETE MAY BE USED WHEN ADJUSTMENTS ARE NOT IN THE TRAVEL LANE.



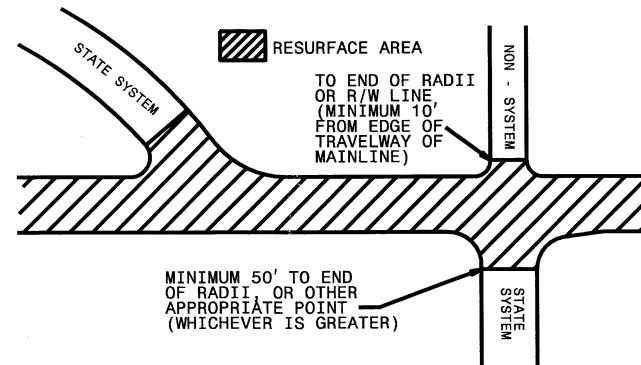
- NOTES:
1. MORTAR SHALL BE MIXED TO NCDOT SPECIFICATIONS.
 2. ALL FAULTY EXISTING BRICKWORK TO BE REMOVED AND REPLACED WITH NEW BRICK MASONRY.
 3. EXCAVATION FOR THE ADJUSTMENT SHALL BE SHEER CUT ON ALL SIDES.
 4. RAPID SET GROUT, MORTAR, OR CONCRETE SHALL BE USED

PAVING DETAIL 1
MAIN LINE IS NOT BEING RESURFACED

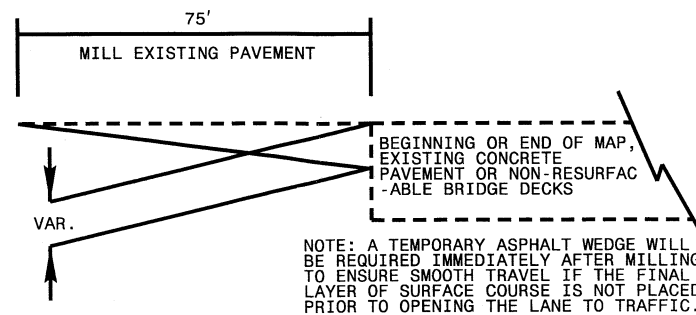


PAVING DETAIL 2
MAIN LINE IS BEING RESURFACED

NOTE: NON-SYSTEM (CITY STREET, PRIVATE DRIVE, SCHOOL BUS DRIVE)



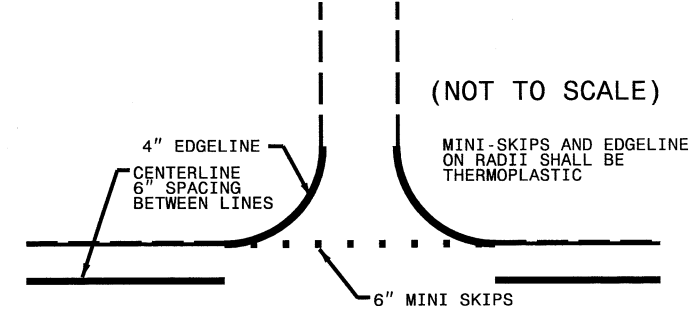
INCIDENTAL MILLING DETAIL



STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	7CR.10011.46, etc.	4	

7CR.10011.46
7CR.20011.46
7CR.10411.68

TO BE USED AT ALL
NON-SIGNALIZED INTERSECTIONS



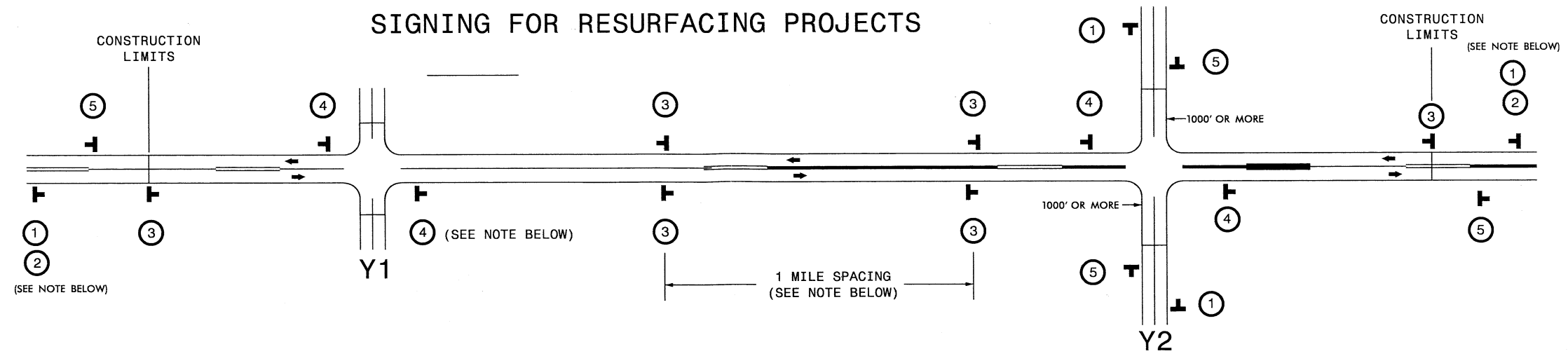
NOTE: MINI SKIPS SHALL BE PLACED ON A 8' CYCLE, CONTAINING A 6' AND 2' SKIP, THE WIDTH OF THE SKIP SHALL BE 6".

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.		
C2	PROP. APPROX. 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.		
F1	AST MAT COAT #78M STONE		
F2	AST MAT COAT, #67 STONE		
R	CONCRETE CURB AND GUTTER		
U	EXISTING PAVEMENT.		
V1	1½" MILLING	V2	1¼" MILLING
V3	0" - 1¼" MILLING	V4	0 - 1½" MILLING

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DGN\$\$\$\$\$
\$\$\$\$\$SERNAME\$\$\$\$\$
\$\$\$\$\$LIC\$\$\$\$\$

SIGNING FOR RESURFACING PROJECTS



LEGEND	
	STATIONARY SIGN
	DIRECTION OF TRAFFIC FLOW

MAINLINE (-L-) SIGNING

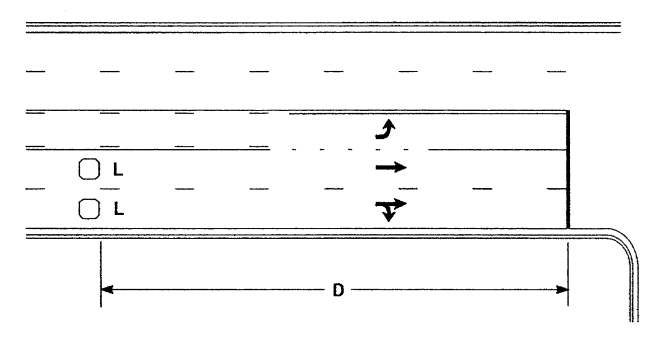
-Y- LINE SIGNING

SIGNING NOTES AND PLACEMENT PER DIRECTION	 	<p>PLACE 1000' PRIOR TO BEGINNING OF CONSTRUCTION LIMITS. ONLY USED ON -Y- LINES IF RESURFACING LIMITS EXTEND 1000' ALONG -Y- LINE.</p> <p>#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)</p>	<p>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>WHEN PAVING/CONSTRUCTION ACTIVITIES PROCEED ACROSS AN UNSIGNED -Y- LINE, ADVANCE WARNING PORTABLE SIGNS SHALL BE USED ALONG THE -Y- LINE AS SHOWN BELOW. REMOVE UPON COMPLETION OF WORK.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <small>W20-1 48" X 48"</small> </div> <div style="text-align: center;"> <small>W20-7 A 48" X 48"</small> </div> </div> <p>PLACED 500' IN ADVANCE OF FLAGGER. PLACED 250' IN ADVANCE OF FLAGGER.</p>
		<p>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.</p>	
		<p>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.</p>	
		<p>PLACE 500' FOLLOWING THE END OF CONSTRUCTION LIMITS.</p>	

\$\$\$SYTIME\$\$\$
 \$\$\$DIGN\$\$\$
 \$\$\$SERNAME\$\$\$

RESURFACING
ADVANCE WARNING SIGNS
FOR
RURAL AND SUBURBAN
2 LANE ROADWAYS

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

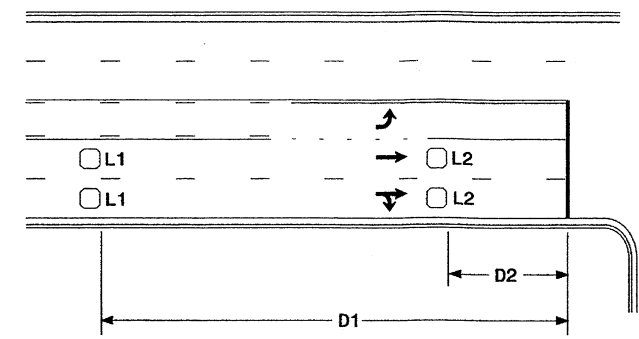


Speed Limit mph (km/hr)	D ft (m)
40 (64)	250 (75)
45 (72)	300 (90)
50 (80)	355 (110)
55 (88)	420 (130)

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

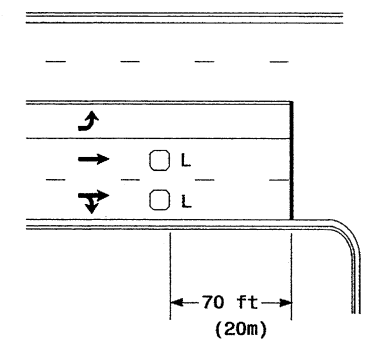


Speed Limit mph (km/hr)	D1 ft (m)	D2 ft (m)
40 (64)	250 (75)	80 (25)
45 (72)	300 (90)	90 (27)
50 (80)	355 (110)	100 (30)
55 (88)	420 (130)	110 (35)

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

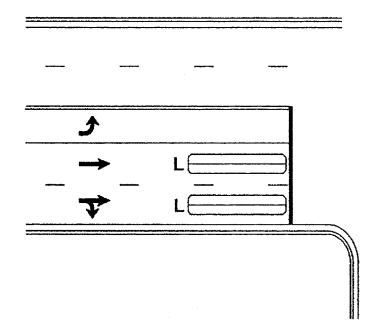
"Stretch" Operation

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



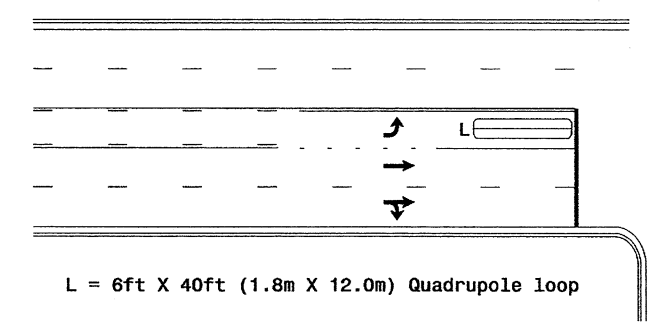
L = 6ft X 6ft (1.8m X 1.8m)
Wired in series

OR



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

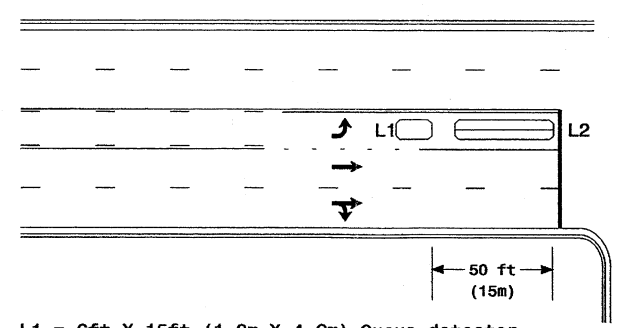
Left Turn Lane Detection



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

Presence Loop Detection

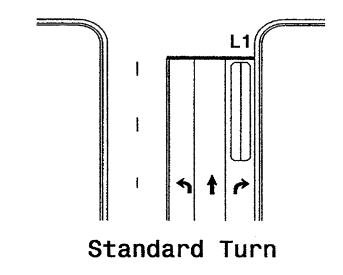
OR



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

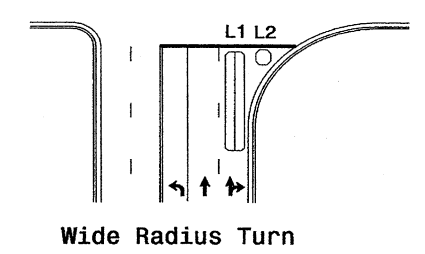
Queue Loop Detection

Right Turn Lane Detection

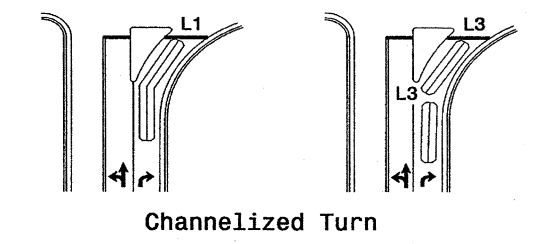


Standard Turn

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

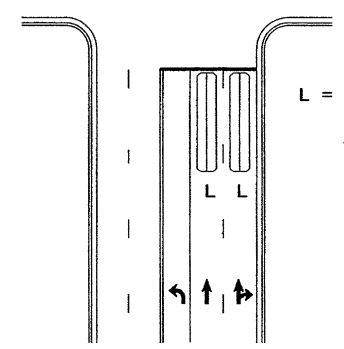


Wide Radius Turn



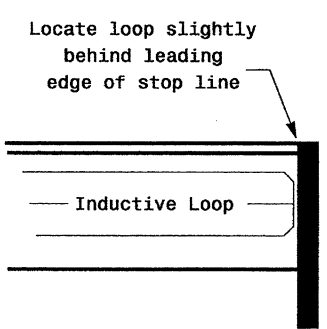
Channelized Turn

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

Inductive Loop

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-DEC-2006 14:28
d:\w\115\signal\115\turn_in\m15sch_loop\typical\2006.dgn
palexander

	Typical Loop Locations		
	PLAN DATE: June 2006 PREPARED BY: P. L. Alexander	REVIEWED BY: REVIEWED BY:	
REVISIONS Revise pavement markings		INIT. DATE DATE	SIGNATURE DATE DATE