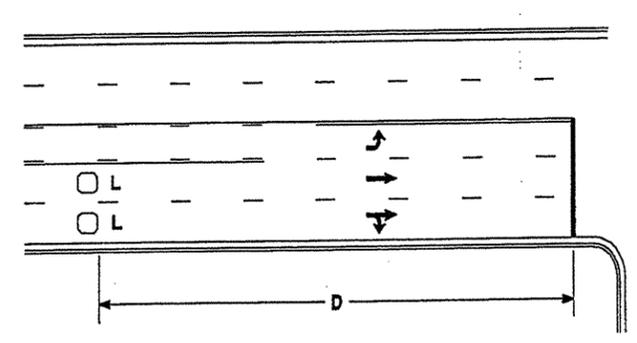


High Speed Detection [≥40 mph (64 km/hr)]

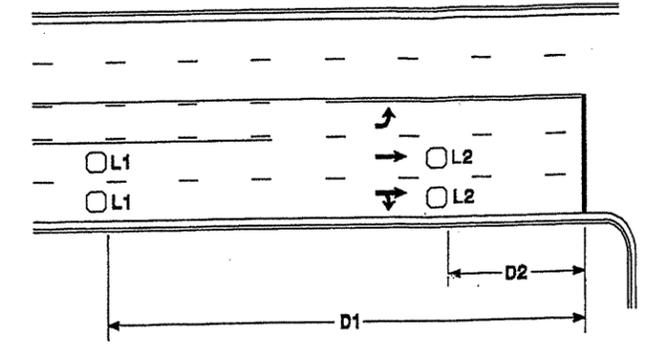


Speed Limit mph (km/hr)	D ft (m)
40 (64)	250 (75)
45 (72)	300 (90)
50 (80)	355 (110)
55 (88)	420 (130)

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

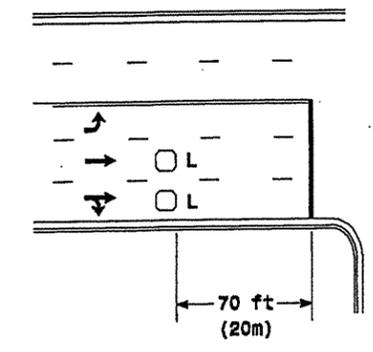


Speed Limit mph (km/hr)	D1 ft (m)	D2 ft (m)
40 (64)	250 (75)	80 (25)
45 (72)	300 (90)	90 (27)
50 (80)	355 (110)	100 (30)
55 (88)	420 (130)	110 (35)

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

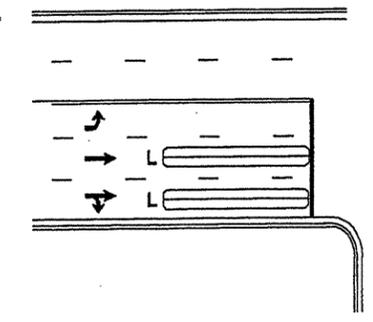
"Stretch" Operation

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



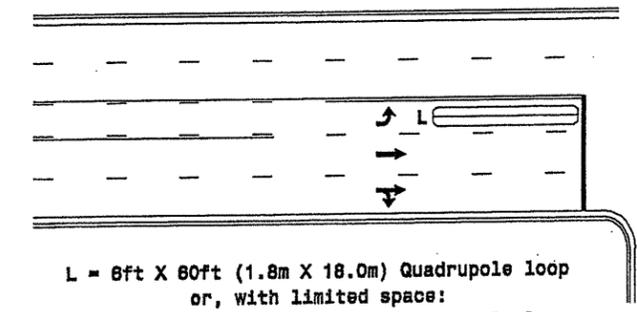
L = 6ft X 6ft (1.8m X 1.8m)
 Wired in series

OR



L = 6ft X 60ft (1.8m X 18.0m)
 Quadrupole loop, wired separately

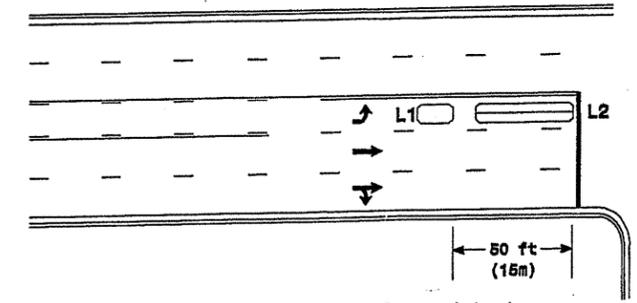
Left Turn Lane Detection



L = 6ft X 60ft (1.8m X 18.0m) Quadrupole loop
 or, with limited space:
 6ft X 50ft (1.8m X 15.0m) Quadrupole loop
 or
 6ft X 40ft (1.8m X 12.0m) Quadrupole loop

Presence Loop Detection

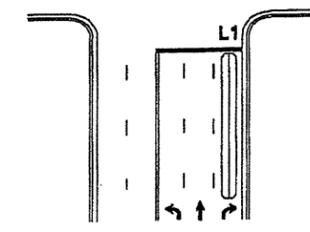
OR



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

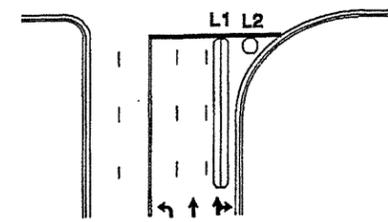
Standard Turn



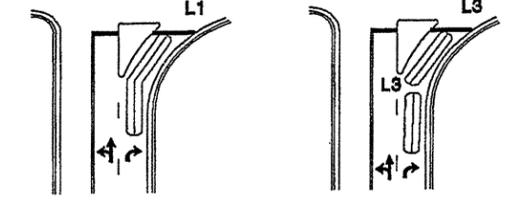
Right Turn Lane Detection

L1 = 6ft X 60ft (1.8m X 18.0m) Quadrupole loop
 L2 = 6ft X 6ft (1.8m X 1.8m) [Minimum] Presence loop
 Wired separately
 L3 = 6ft X 30ft (1.8m X 9.0m) Quadrupole loop
 Wired in series

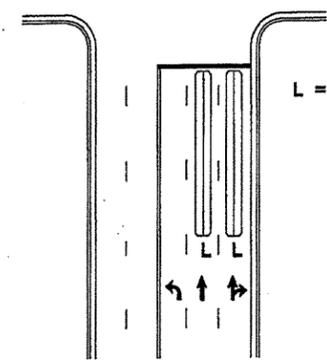
Wide Radius Turn



Channelized Turn

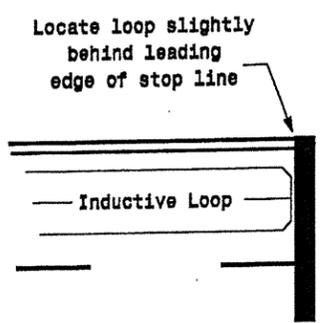


Side Street Detection



L = 6ft X 60ft (1.8m X 18.0m)
 Quadrupole loop
 Wired to separate
 detectors/channels

Presence Loop Placement at Stop Lines



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 permitted or
 exclusive/permitted left turn.

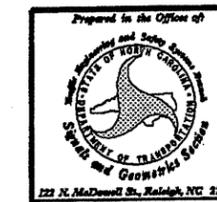
Recommended Number of Turns

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

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

Quadrupole loops:
 Use 2-4-2 turns



Typical Loop Locations

PLAN DATE: August 2001	REVIEWED BY:
PREPARED BY: P. L. Alexander	REVIEWED BY:
REVISIONS	DATE
Add queue detector loop reference to 2070L controllers.	8/02