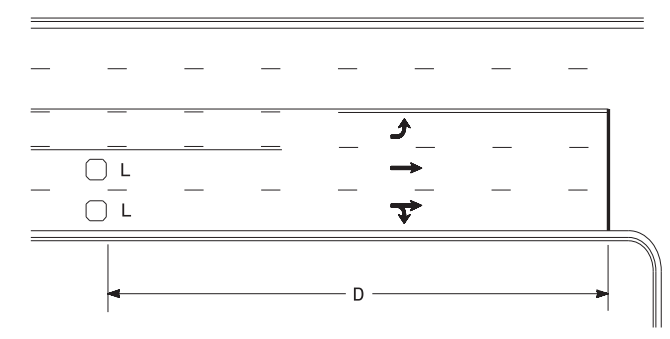


High Speed Detection (≥40 mph)

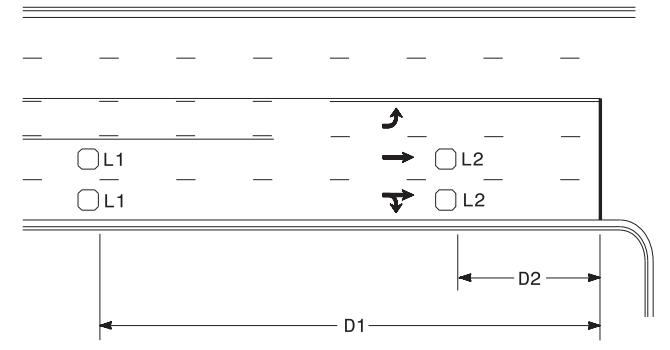


Speed Limit mph	D ft
40	250
45	300
50	355
55	420

L = 6ft X 6ft
Wired separately

Volume Density Operation

OR



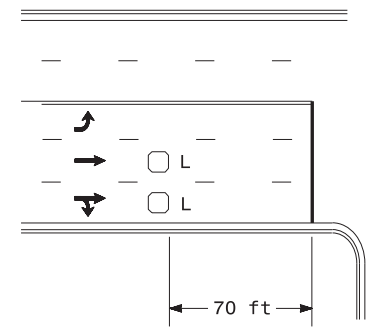
Speed Limit mph	D1 ft	D2 ft
40	250	80
45	300	90
50	355	100
55	420	110

L1 = 6ft X 6ft
Wired in series

L2 = 6ft X 6ft
Wired in series

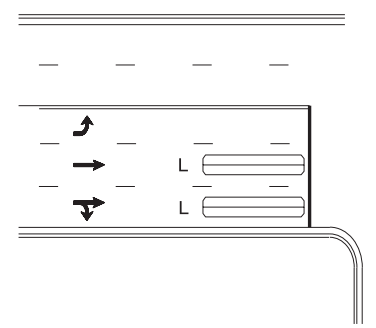
"Stretch" Operation

Low Speed Detection (≤35 mph)



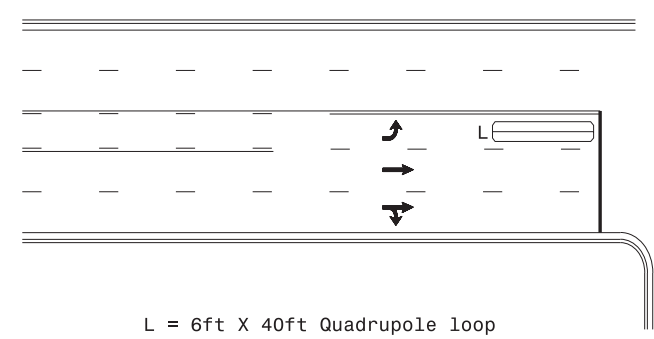
L = 6ft X 6ft
Wired in series

OR



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

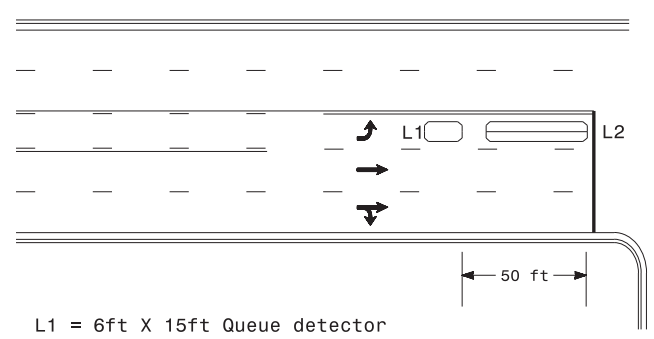
Left Turn Lane Detection



L = 6ft X 40ft Quadrupole loop

Presence Loop Detection

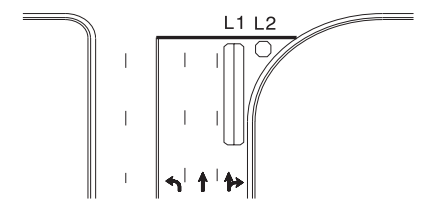
OR



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

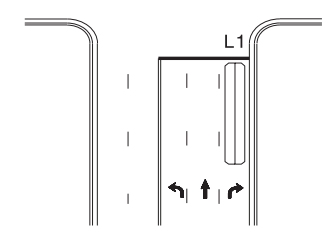
Queue Loop Detection

Right Turn Lane Detection

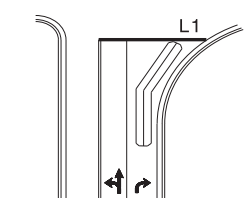


Shared Lane/
Wide Radius Turn

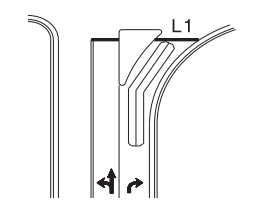
L1 = 6ft X 40ft Quadrupole loop
L2 = 6ft X 6ft [Minimum] Presence loop
Wired separately



Standard Turn

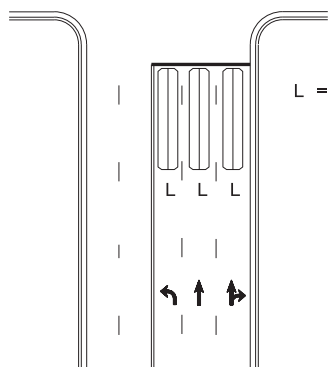


Wide Radius Turn



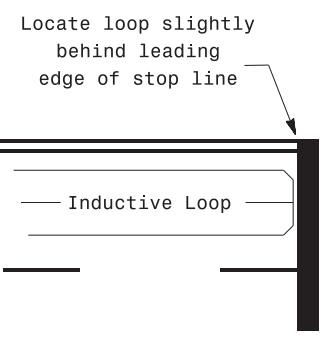
Channelized Turn

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

09-SEP-2020 11:54 S:\MITS\SIG\15\SIGNAL\SIGNAL Design Section\Eastern Region\Loop Typo\cal\looptypo\cal2015.dgn JGallaway

	<p>Prepared In the Offices of:</p> <p>STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION SIGNAL DESIGN SECTION</p> <p>750 N. Greenfield Pkwy, Garner, NC 27529</p>		<p>SEAL NORTH CAROLINA PROFESSIONAL ENGINEER 029904 JASON P. GALLOWAY</p>				
	<p>PLAN DATE: September 2020</p> <p>REVIEWED BY: JPG</p>		<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>INIT.</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>		INIT.	DATE	
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<p>SCALE N/A</p>		<p>TYPICAL SIGNAL LOOP LOCATIONS</p>					
<p>PREPARED BY: PLA</p>		<p>REVIEWED BY:</p>					
<p>DATE</p>		<p>DATE</p>					
<p>SIG. INVENTORY NO.</p>		<p>9/8/2020</p>					