

Left Turn Arrows on Rt 222

Route 222 north and south are Not close to meeting warrants for a left turn arrow after construction of the round about project with road widening.

2015 traffic counts - 27,000 vehicles per day – need 65,000 vehicles per day to warrant a left turn arrow.

At A.M. peak hour there are 29 vehicles in that hour trying to make a left turn from 222 North on to Rt 73 West

There are 3600 seconds in an hour and 110 seconds in a traffic signal cycle (all 4 approaches)

$3600/110=32$ cycles in an hour – 1 vehicle per cycle is making a left turn from Rt 222 to Rt 73.

A left turn arrow is warranted when more than 2 vehicles per cycle are making the left turn.

As designed the intersection will service all vehicles in one cycle. Level of service B. Left turn arrows take 15 seconds from the other approaches and will drop the intersection by one level of service.

Penn DOT will install all hardware, wiring (not the signal) now.

If the Township sees issues after the construction is complete, Penn DOT will reevaluate. If the left turn signal is needed in the first 5 years after construction, Penn DOT will pay to install.

Light will have radar on the pole to detect the dilemma zone.

40 mph between Snyder and Schaeffer. No speed limit in the round about.

NEW LET DATE JULY 2019

*Want round about maintenance agreement by end of summer 2018

Left-Turn Phasing Worksheet



Project: SR 0222 - 022 Date: 5/6/2015
 Intersection: SR 222 and SR 73
 Time Period: 2018 OPENING YEAR
 County: Berks
 Municipality: Maidencreek Township
 Computed by: ADJ Checked by: JLD

Assumed Cycle Length 110

Direction	Left Turn			Opposing Traffic Volume	Number of Opposing Lanes	Conflict Factor (CF)	Phasing Criteria Met	
	Time	Volume	Number Per Cycle					
Westbound to Southbound	AM	124	3.79	305	1	37,820	No	76%
	PM	99	3.03	307	1	30,393	No	61%
Southbound to Eastbound	AM	33	1.01	1012	2	33,396	No	51%
	PM	39	1.19	1132	2	44,148	No	68%
Eastbound to Northbound	AM	74	2.26	273	1	20,202	No	40%
	PM	99	3.03	280	1	27,720	No	55%
Northbound to Westbound	AM	29	0.89	962	3	27,898	No	43%
	PM	13	0.40	1070	3	13,910	No	21%

Phasing Criteria (Two turns per cycle minimum)

		One Opposing Lane	Two Opposing Lanes
1	Protected / Permitted Without Separate Lane	CF = 35,000	CF = 45,000
2	Protected / Permitted With Separate Lane	CF = 50,000	CF = 65,000
3	Protected / Prohibited With Separate Lane	CF = 67,500	CF = 90,000

Comments: Opening Year 2018 Traffic Volumes do not justify a protected phase.

