Simulated Travel Time from County Road (C.R.) 561/12th Street to Bloxam Avenue

Time	Location (From-To)	Existing		Existing Optimized*		2040 Optimized*	
		AM	PM	AM	PM	AM	PM
Eastbound	12th St Approach	35.1	33.7	31.5	29.5	108	40.8
	12th St to 8th St	49.1	42.7	49.8	44.7	53.6	54.2
	8th St to 5th St	40.7	37.2	40.4	37.8	40.9	37.5
	5st St to East Ave	56.3	48.5	48.1	47.1	61.1	52.4
	East Ave to Bloxam Ave	98.9	120.7	82	90.8	113.1	119.5
	Total (Sec)	**280.1**	**282.8**	**251.8**	**249.9**	**376.7**	**304.4**
	Total (Min)	**4.7**	**4.7**	**4.2**	**4.2**	**6.3**	**5.1**
Westbound	Bloxam Ave Approach	31.4	94.6	43.2	42.1	34.4	176.4
	Bloxam Ave to East Ave	80.9	104.8	60.2	85	80.6	140.7
	East Ave to 5th St	46	54.4	41.3	49.5	49.7	54.7
	5th St to 8th St	34.4	42.5	36.9	40.2	37	39.6
	8th St to 12 Street	51.2	66.2	45	50.3	55.1	61.3
	Total (Sec)	**243.9**	**362.5**	**226.6**	**267.1**	**256.8**	**472.7**
	Total (Min)	**4.1**	**6.0**	**3.8**	**4.5**	**4.3**	**7.9**

What is Level of Service (LOS)?

Level of Service is a quantitative measure of traffic operational conditions. Ranges of operation are defined for each type of roadway section (signalized intersections, freeways, ramp junctions and weaving sections) and are related to the amount of traffic demand at a given time as compared to the capacity of that type of roadway section.

Six levels of service are defined for each type of roadway section and are given letter designations from A to F, with A representing good operating conditions and F representing unsatisfactory operating conditions.

Intersection — **Roadway**

- **LOS A** — Highly stable, free-flow condition with little or no congestion • Delay: <10 seconds/vehicle — Free flowing • Uninterrupted vehicle
- **LOS B** — Stable, free-flow condition with little congestion • Delay: 10 to 20 seconds/vehicle — Stable flow • Other vehicles are more noticeable
- **LOS C** — Free-flow condition with moderate congestion • Delay: 20 to 35 seconds/vehicle — Stable flow • Vehicle operations affected by other vehicles
- **LOS D** — Approaching unstable condition with increasing congestion • Delay: 35 to 55 seconds/vehicle — High density free flow • Operation of vehicle is affected by other vehicles
- **LOS E** — Unstable, congested condition • Delay: 55 to 80 seconds/vehicle — High density traffic flow, nearing capacity • Operating conditions are extremely poor
- **LOS F** — Stop and go • Delay: >80 seconds/vehicle — Forced or breakdown flow • Amount of traffic exceeds capacity

Source: Maryland Department of Transportation Policy Manual

*The term "Optimized" refers to traffic signal optimization, which is the process of changing the length of the green light for each traffic movement and the coordination between signalized intersections using a computer software program known as Synchro. Optimizing traffic signal timing reduces both idling and the acceleration of vehicles, leading to less fuel being burned and less carbon dioxide emissions.

AM Peak Period Intersection Levels of Service (LOS)

Location	Approach Delay (LOS)		
	Existing	Existing Optimized	2040 Optimized
S.R. 50 @ 12th St	15.6 (B)	20.9 (C)	42 (D)
S.R. 50 @ 8th St	8.3 (A)	8.3 (A)	13 (B)
S.R. 50 @ 5th St	14.1 (B)	19.7 (B)	25.2 (C)
S.R. 50 @ East Ave	21.7 (C)	19 (B)	34.9 (C)
S.R. 50 @ Bloxam Ave	67.6 (E)	30.2 (C)	53.5 (D)

PM Peak Period Intersection Levels of Service (LOS)

Location	Approach Delay (LOS)		
	Existing	Existing Optimized	2040 Optimized
S.R. 50 @ 12th St	29 (C)	16 (B)	17.8 (B)
S.R. 50 @ 8th St	7 (A)	6.7 (A)	9.3 (A)
S.R. 50 @ 5th St	15.1 (B)	7.7 (A)	12.1 (B)
S.R. 50 @ East Ave	22.8 (C)	23.8 (C)	75.8 (E)
S.R. 50 @ Bloxam Ave	151.6 (F)	37.3 (D)	70.3 (E)