

Appendix B – Level of Service for Evaluating a Roadway or Signalized Intersection

A level of service (LOS) is a qualitative measure used to relate the quality of traffic service on a given roadway. LOS is used to analyze roadways by categorizing traffic flow and assigning quality levels of traffic based on performance measures like speed, traffic flow, and expected delays. LOS will typically decline during the morning and afternoon peak hour traffic.

LOS alphabetic rankings should not be thought of in the same way as a school report card. Roadways at LOS C and D, for example, provide the optimized value for taxpayers, as they handle the highest volume of traffic with acceptable delays. Providing a LOS of A would result in overbuilt roads and increased infrastructure maintenance costs.

Generally speaking, the City of Regina typically targets a LOS D as acceptable for our peak traffic hours and improvements are typically considered when the LOS reaches F.

Level of Service (LOS)		Driver Experience while using Roadway	Delay at Signalized Intersection (seconds/vehicle)
A	Free Flow	Traffic flows at or above the posted speed limit and motorists have complete mobility between lanes.	≤ 10
B	Reasonably Free Flow	Posted speeds are maintained, maneuverability within the traffic stream is slightly restricted.	$> 10 - 20$
C	Stable Flow	Ability to maneuver through lanes is noticeably restricted and lane changes require more driver awareness. Posted speed is maintained.	$> 20 - 35$
D	Approaching unstable flow	Speeds slightly decrease as traffic volume slightly increase. Freedom to maneuver within the traffic stream is much more limited and driver comfort levels decrease.	$> 35 - 55$
E	Unstable Flow	Flow becomes irregular and speed varies rapidly because there are virtually no usable gaps to maneuver in the traffic stream and speeds rarely reach the posted limit.	$> 55 - 80$
F	Breakdown Flow	Every vehicle moves in lockstep with the vehicle in front of it, with frequent slowing required. Travel time cannot be predicted, with generally more demand than capacity	> 80