

Definition of Level of Service (LOS)

Table 1 – Intersection Level of Service Criteria (LOS)

LOS	Signalized Intersection	Unsignalized Intersection
A	≤10 sec	≤10 sec
B	10-20 sec	10-15 sec
C	20-35 sec	15-25 sec
D	35-55 sec	25-35 sec
E	55-80 sec	35-50 sec
F	≥80 sec	≥50 sec

A= Free flow
 B=Reasonably free flow
 C=Stable flow
 D=Approaching unstable flow
 E=Unstable flow
 F=Forced or breakdown flow

The transportation LOS system uses the letters A through F, with A being best and F being worst.

LOS A is the best, described as conditions where traffic flows at or above the posted speed limit and all motorists have complete mobility between lanes. LOS A occurs late at night in urban areas.

LOS B is slightly more congested, with some impingement of maneuverability; two motorists might be forced to drive side by side, limiting lane changes. LOS B does not reduce speed from LOS A.

LOS C has more congestion than B, where ability to pass or change lanes is not always assured. LOS C is the target for urban highways in some places, and for rural highways in many places. At LOS C most experienced drivers are comfortable and the posted speed is maintained.

LOS D is perhaps the level of service of a busy shopping corridor in the middle of a weekday, or a functional urban highway during commuting hours: speeds are somewhat reduced, motorists are hemmed in by other cars and trucks. LOS D is a common goal for urban streets during peak hours, as attaining LOS C would require a prohibitive cost and societal impact in lane additions.

LOS E is a marginal service state. Flow becomes irregular and speed varies rapidly, but rarely reaches the posted limit. On highways this is consistent with a road at or approaching its designed capacity. LOS E is a common standard in larger urban areas, where some roadway congestion is inevitable.

LOS F is the lowest measurement of efficiency for a road's performance. Flow is forced; every vehicle moves in lockstep with the vehicle in front of it, with frequent slowing required. Technically, a road in a constant traffic jam would be at LOS F. Facilities operating at LOS F generally have more demand than capacity.

Examples of LOS By Mode for Urban Roadways

Level of Service

Automobile

Bicycle

Pedestrian

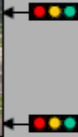
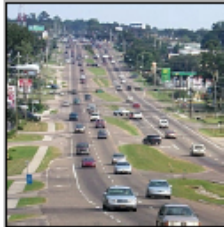
Bus

A/B



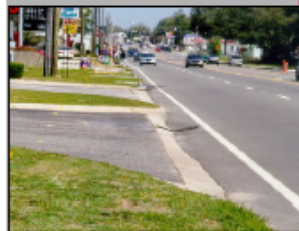
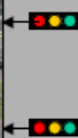
>4 buses/hour

C/D



2 to 4 buses/hour

E/F



≤ 1 bus/hour

