

## HCM Level of Service (LOS) Descriptions

### Intersection Level of Service (LOS)

**LOS A** describes driving conditions with average delays of 10 seconds or less per vehicle. When traffic signals are synchronized, this level of service allows for most vehicles to arrive during the green light. The majority of through traffic on the main street does not stop at all.

**LOS B** describes driving conditions where more vehicles have to stop at red lights and average delays increase up to 20 seconds per vehicle. Synchronized traffic signals can still provide good progression for through traffic on the major street.

**LOS C** describes driving conditions at intersections where the red signal lights stay on noticeably longer and the average delays per vehicle increases to 35 seconds. At this level of congestion some cars must wait through multiple green lights to get through the intersection. With synchronized traffic signals, some through traffic on the main street can still pass through the intersection without stopping.

**LOS D** describes congested driving conditions with more stops and delays averaging up to 55 seconds per vehicle. Most cars have to stop at red lights and more vehicles have to wait for more than one green light before passing through the intersection.

**LOS E** describes very congested driving conditions with delays averaging up to 80 seconds per vehicle. This high congestion allows for very poor progression down the main street and green lights are frequently not long enough to clear stopped vehicles.

**LOS F** describes very congested driving conditions where the number of vehicles arriving at an intersection exceeds the capacity of the intersection. Average delays exceed 80 seconds and most drivers have to wait for multiple green lights before they get through the intersection. Long queues of left turning vehicles stack out of the left turn pockets and block adjacent through lanes.

### Roadway Level of Service (LOS)

**LOS A** describes driving conditions with average travel speeds around 90 percent of free-flow conditions. Drivers can freely maneuver within the flow of traffic and stopped delay at signalized intersections is minimal.

**LOS B** describes reasonably unimpeded driving conditions at average travel speeds around 70 percent of free-flow conditions. The ability to maneuver within the flow of traffic is only slightly restricted and stopped delays at signals are not bothersome. Drivers are not generally subjected to appreciable tension under these conditions.

**LOS C** describes a stable driving environment, however the ability to maneuver and change lanes in midblock locations may feel more restricted. Longer traffic queues begin to build up at signalized intersections and getting through on the green light is getting tighter. Driving speeds drop to 50 percent of free-flow conditions and motorists experience appreciable tension while driving.

**LOS D** describes driving conditions with substantial delays and travel speeds drop to 40 percent of free-flow conditions. It becomes very difficult to arrive on two green lights in a row and you often have to drive around left turn traffic that has backed out of the left turn pocket and into the through lanes.

**LOS E** describes driving conditions that are characterized by significant delays and average speeds of one-third of free-flow conditions or less. There are extensive traffic queues at intersections and you have to wait for more than one green to clear the intersection.

**LOS F** describes extreme congestion with maximum driving speeds of one-third to one quarter of the free-flow conditions. All major signalized intersections are congested with long delays and extensive queues.