

Level of Service & Traffic Mitigation

The Code requires that the traffic analysis be conducted using the maximum build out scenario, allowing up to 260,924 square feet of commercial use on a 5.99 acre parcel. Using this scenario, the level of service on Avenue O during the PM peak hour drops from “C” to “F”. The AM peak hour level of service for Avenue O and the AM and PM peak hour level of service for US 1 all remain at “C.” See Trip Generation Letter for more details.

Although the Code requires a full build out scenario, a more likely build out scenario is 20% of the lot size, allowing a maximum of 52,184 square feet of commercial use. This is due to the fact that commercial centers are typically one story and have needed improvements on the site such as parking, drainage and landscaping that will consist of typically 80-85% of the site. Based on this scenario, the level of service will remain at a level of service C for all roadway segments for both the AM and PM Peak Hour Trips.

A more detailed traffic impact analysis based on the actual constructed building square footage will be conducted at the time of site plan application submittal; with this land use plan amendment and zoning atlas amendment, the following mitigation options are provided to address the level of service on Avenue O for the PM peak hour:

1. Concurrent with this application is a request to vacate & abandon the unimproved right of way of N. 10 St., located between the two parcels that will eventually be built out with a commercial center. This right of way runs between Avenue O & Avenue M, connecting the two roadways. A drive aisle can be constructed in this area to be abandoned, allowing access to the site from Avenue O & Avenue M. This will relieve the amount of traffic on Avenue O, allowing the level of service to remain at “C.”
2. Construct additional lanes on Avenue O to increase the capacity. Currently, Avenue O consists of a one lane road. The right-of-way is 80 feet in width from N. 10th Ave. to US 1 and 60 feet in width from N. 10th St. to N. 13th St. This leaves room within the existing right-of-way to add two more lanes, one in each direction. This would increase the capacity of the roadway, allowing the level of service to remain at “C.”

Although the maximum build out scenario will not adversely impact the level of service on US 1, this application provides mitigation options to assist in relieving traffic at the intersection of US 1 and Avenue O. Improving the intersection with a traffic signal, a dedicated left turn lane & medians on the northbound lanes and a dedicated right turn lane and medians on the southbound lanes will allow traffic to move efficiently and safely through the intersection and onto Avenue O.