



Re: Lakes Parkway and North and South Lake Boulevards 2017 Traffic Study

A traffic study for this area was prepared in 2014, see attached. At that time there was a concern in the Lakes Development that the intersection of Lakes Parkway and North and South Lake Boulevards were becoming an unsafe at this intersection and required additional traffic control. The results of the 2014 study showed that the intersection did not meet warrants for an all way stop condition. The study did recommend that staff continue to monitor the intersection to ensure that the appropriate traffic control devices are in place, especially as the Lakes Development and the surrounding area continue to grow. Staff has again reviewed this intersection to verify that proper traffic control devices are in place to safely traverse traffic through this intersection. The current conditions of the intersection are as follows, North and South Lake Boulevards are in a stop condition at Lakes Parkway and Lakes Parkway has the through movement. The stop signs on North and South Lakes Boulevard also include additional signage indicating that Lakes Parkway does not stop.

The City of Blaine follows the criteria as outlined in the “Minnesota Manual on Uniform Traffic Control Devices” (MMUTCD) as provided by the Minnesota Department of Transportation. The criteria adopted by the City of Blaine’s Neighborhood Traffic Management Program for the installation of a multi-way stop sign are attached.

The first warrant reviewed was the accidents/incidents in the study intersection. The following are the number of accidents that have been reported at the intersection from 2011 thru July 2017.

Intersection Accidents	2011	2012	2013	2014	2015	2016	2017
Lakes Parkway/N and S Lake Blvd	00	01	01	01	00	00	00

Using the criteria as stated in the MMUTCD, the installation of a multi-way stop would need to meet the following warrant. **Five or more accidents need to occur and be reported in a 12-month period.** Currently this intersection does not meet this warrant.

The next warrant reviewed as part of this study was the volume of traffic entering an intersection in a given period of time. Staff collected traffic counts for this intersection between September 14 and September 21, 2017. The following is a summary of the intersection counts of Average Daily Traffic (ADT) or vehicles per day on each leg of the intersection:

Intersection Leg	North	South	West	East
Lakes Parkway			966 ADT	342 ADT
N/S Lake Boulevard	1,618 ADT	1,333 ADT		

The traffic data was collected by the hour, enabling a calculation of the average volume for the peak 8 hours for each leg in the intersection.

Intersection Leg	Avg. Peak Volume
Lakes Parkway (west)	74 vph
Lakes Parkway (east)	13 vph
North Lake Boulevard	53 vph
South Lake Boulevard	51 vph

The criteria for traffic volumes as stated in the MMUTCD, to warrant the installation of a multi-way stop is a **minimum average volume of at least 300 vehicles per hour from the major street and a combined vehicle, pedestrian, and bicycle volume of at least 200 units per hour from the minor street for the same 8 hours of an average day.** Currently the intersection does not meet this warrant.

The final warrant reviewed was the traffic speed. Please note that stop and yield signs should not be used as a speed control device. Lakes Parkway is currently posted at 35 mph. The tube counters that were located on Lakes Parkway west of North and South Lake Boulevards also collected traffic speeds. The following are the results:

	Average Speed	85 th Percentile
Lakes Parkway (East Bound)	31 mph	36 mph
Lakes Parkway (West Bound)	30 mph	34 mph

Using the criteria from the MMUTCD, the warrant states that if **the 85th percentile approach speed of the major street exceeds 40 mph, the minimum vehicular volume of 70 percent of the criteria for traffic volumes.** Currently this intersection has an 85th Percentile speed below 40 mph, and thus does not meet the warrant.

There is a provision in the MMUTCD manual for situations where **the intersecting streets do not meet any of the criteria but do come within 80 percent of the criteria for accidents and intersection volumes.** Using this provision, the Lakes Parkway and North and South Lake Boulevards intersection still does not meet warrants to install a multi-way stop sign.

Staff makes the following recommendations:

1. That staff continue to monitor the traffic at the intersection of Lakes Parkway and North and South Lake Boulevards. This will allow staff to continue to study any changes in traffic patterns and volumes due to the continued development in the Lakes Development and surrounding area. The data received will allow staff to verify if the correct traffic control devices are in place to continue to move traffic in a safe and efficient manner.