

INTERSECTION AND ACCESS IMPROVEMENTS

HOLY NAME CATHOLIC SCHOOL 2585 KING ROAD TOWNSHIP OF KING

1. Background Information

The Holy Name Catholic School has an entrance off King Road in the Township of King. King Road, in the vicinity of the school entrance, is a four-lane roadway without turning lanes. The speed limit is 50-km per hour.

In response to ongoing concerns from the Parent Council, the Township of King's Council at their meeting on October 25, 2004 passed a resolution requesting the Region to investigate the feasibility of installing a left turn lane for westbound traffic at the entrance to the Holy Name Catholic School on King Road.

Considering the high traffic volumes and high speeds on King Road, parents do not feel safe and secure waiting in the westbound centre lane to perform a left turn into the school driveway on the south side. Since 1999, there have been four rear-end collisions involving vehicles turning left into the school. It is reported that sometimes parents avoid making a left turn by continuing to drive west until Jane Street where they turn around to go east on King Road to eventually make a right turn into the school.

In response to the school's concerns, the Region has lowered the speed limit to 50-km per hour, installed school zone road signs with flashing lights and implemented a community safety zone. The Parent Council is not satisfied with these improvements as 99% of drivers still exceed the 50-km per hour speed limit.

2. Analysis and Options

2.1 Traffic Volumes

A video surveillance on February 12, 2002 from 8:00 am to 9:00 am counted 35 vehicles (buses included) turning into the school.

A traffic count was conducted on King Road west of Keele Street between Saturday, November 15, 2003 and Friday, November 21, 2003. Between 8:00 am to 9:00 am, the eastbound volume on King Road past the entrance is about 1,100 vehicles per hour and in the westbound volume on King Road past the entrance is about 1,300 vehicles per hour.

2.2 Left Turn Lane Warrants

York Region does not have an official policy concerning the provision of left turn lanes at unsignalized intersections on four-lane undivided roadways and relies on the Ministry of Transportation's (MTO) Geometric Design Standards for Ontario Highways for guidance.

According to MTO's warrant, assuming a left turn volume of 35 vehicles per hour and an opposing traffic volume of 1,100 vehicles, a 15 metre long left turn storage lane is warranted.

It is likely that this warrant is only satisfied for two periods of about 0.5 to 1 hours per day from Mondays to Fridays when the Holy Name School is open.

2.3 Cost Effectiveness

In York Region, there are numerous driveways onto four-lane undivided highways where exclusive left turn lanes have not been provided and are warranted in terms of MTO's guidelines. Many of these driveways have greater left turn volumes and experience more collisions than the Holy Name School entrance.

Assuming it will cost between \$150,000 to \$200,000 to construct a left turn lane, and that it will prevent the equivalent of three property damage collisions (benefit = \$30,000) per year, the estimated benefit-to-cost ratio (assuming an 8% discount rate and a 10 year life span) is between 1 and 1.3. The benefit-to-cost ratio for a 20-year lifespan is between 1.5 and 2.0.

From an economic feasibility perspective, considering collision reduction benefits only, a left turn lane is hardly warranted. However, it is obvious that the parents feel at risk when turning left into the school, especially considering the likelihood of young children as passengers. The lack of a left turn lane therefore presents a serious quality of life issue to these parents and children – something that is very difficult to attach a monetary value.

2.4 Recommendations

It is recommended that permission be granted for the installation of a westbound left turn lane provided that the Region does not pay for it.