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TRAFFIC OPERATIONAL ASSESSMENT
LESLIE STREET AT 16TH AVENUE
TOWN OF RICHMOND HILL

The Transportation and Works Committee recommends the adoption of the recommendation contained in the following report, June 3, 2004, from the Commissioner of Transportation and Works:

1. RECOMMENDATION

It is recommended that:

1. The following report be received for information by Committee and Council and a copy be forwarded to the Clerk at the Town of Richmond Hill.

2. PURPOSE

The purpose of this report is to present information, in response to a request from the Town of Richmond Hill, to investigate traffic concerns at the intersection of Leslie Street and 16th Avenue and report on the timing of any improvements. *Attachment 1* provides the location map.

3. BACKGROUND

At the meeting of the Richmond Hill Town Council on January 26, 2004, the Region was requested to investigate traffic concerns at the intersection of Leslie Street and 16th Avenue and report on the capacity of this intersection and plans for improvement.

4. ANALYSIS AND OPTIONS

The intersection of Leslie Street and 16th Avenue is a four-legged intersection located in the Town of Richmond Hill. Leslie Street is a five-lane urban cross section that carries an average volume of 24,467 vehicles per day. 16th Avenue is also a five-lane cross section and carries an average volume of 38,404 vehicles per day.

Regional staff reviews the arterial road network on a regular basis to monitor traffic patterns and make traffic signal timing adjustments to best co-ordinate traffic signals and maximize intersection operation, while reducing congestion and minimizing delay.

The Region completed a review of the 16th Avenue corridor between Mural Street/Vogell

Road and Berwick Avenue on May 15, 2003. The review consisted of data collection which included turning movement counts, travel time/delay studies, capacity analysis and signal progression analysis. At this time, it was found that Leslie Street at 16th Avenue intersection exceeds its capacity during the peak periods.

4.1 Intersection Delay

Regional staff completed southbound and eastbound intersection delay studies during the morning peak hour at the intersection of Leslie Street and 16th Avenue during the month of April 2004. The typical results of the intersection delay studies are summarized in *Attachment 2*.

During the study period, the maximum number of through vehicles queued along Leslie Street approaching 16th Avenue, in the southbound direction, was 38, while the average delay time was 70 seconds. During this same period, the average vehicle delay for all approaches was 66 seconds per vehicle.

The maximum number of vehicles queued along 16th Avenue approaching Leslie Street, in the eastbound direction, was 52, while the average delay time was 82 seconds. During this same period, the average delay for all approaching vehicles was 81 seconds per vehicle.

Based upon the results of the delay studies, staff completed a signal timing adjustment to reduce the delay that motorists currently experience. However, because the intersection exceeds its capacity during the morning and afternoon peak periods, the improvement is marginal. The traffic control signal timing adjustment has balanced traffic demands at this intersection.

Further studies are scheduled for the Leslie Street and 16th Avenue corridors in 2004 to continue the development of signal timing strategies to balance traffic demand and reduce vehicular delays. The intersection of Leslie Street and 16th Avenue will be reviewed for possible improvements and widening to increase the capacity. Any road improvements or widening would be included in a future 10-year capital program.

5. FINANCIAL IMPLICATIONS

There are no financial implications associated with this report. The cost of the studies carried out by staff is included in the approved 2004 Budget.

6. LOCAL MUNICIPAL IMPACT

This report is prepared in response to a request from the Council of the Town of Richmond Hill. A copy of this report should be forwarded to the Clerk at the Town of Richmond Hill.

7. CONCLUSION

The intersection of Leslie Street at 16th Avenue exceeds its capacity during the morning and afternoon peak periods. The existing intersection includes two through-lanes in each direction and left and right turn lanes. Staff has attempted to balance traffic demands at this intersection through a signal timing adjustment to reduce the delay that motorists currently experience.

Further studies are scheduled for the Leslie Street and 16th Avenue corridors in 2004 to continue the development of signal timing strategies to balance traffic demand and reduce vehicular delays. The intersection of Leslie Street and 16th Avenue will be reviewed for possible improvements for inclusion in a future 10-year capital program.

The Senior Management Group has reviewed this report.

(A copy of the attachments referred to in the foregoing was forwarded to each Member of Council with the June 3, 2004, Transportation and Works Committee agenda and a copy thereof is on file in the Regional Clerk's Office.)