

W. Leslie Kelman, P.Eng. Acting General Manager
 Transportation Services Division

Transportation Services
 Metro Hall, 17th Floor
 55 John Street
 Toronto, Ontario M5V 3C6

Reply to: Dan Clement
Tel: (416) 338-5454
Fax: (416) 392-1920
E-mail: dclemen@toronto.ca

August 31, 2004

 Councillor Michael Walker
 City of Toronto, Ward 22 – St. Paul's
 100 Queen St. W., Suite B26
 Toronto, Ontario
 M5H 2N2

and;

 Councillor Joe Mihevc
 City of Toronto, Ward 21 – St. Paul's
 100 Queen St. W., Suite B35
 Toronto, Ontario
 M5H 2N2

Dear Councillors Walker and Mihevc:

Re: Spadina Road and Kilbarry Road/Burton Road – Various traffic issues related to potential signalization

In response to Councillor Walker's June 30, 2004 letter, summarizing the concerns raised in a June 17, 2004 public meeting, we have reviewed various traffic issues related to the potential signalization of the above-noted intersection. The following discussion summarizes the details of our study on a point-by-point basis.

Request to review the feasibility of prohibiting northbound right-turns and southbound left-turns (to Kilbarry Road)

The most likely alternate routes for traffic displaced by northbound right-turn and southbound left-turn prohibitions will be the adjacent local roadways. For a displaced northbound right-turning motorist, eastbound Coulson Avenue to either northbound Dunloe Road or Russell Hill Road would be the most likely alternate route. The only entry or turn prohibition in the immediate area is the entry prohibition to northbound Dunloe Road from Hawarden Crescent between the hours of 8:00 a.m. to 9:15 a.m., 11:30 a.m. to 1:15 p.m. and 3:00 p.m. to 4:00 p.m., Monday to Friday. For a displaced southbound left-turning motorist, eastbound Hawarden Crescent to either southbound Dunloe Road or Russell Hill Road would be the most likely alternate route. There are no entry or turn prohibitions in the immediate area.

No time periods were specified for the hours of the prohibitions. The northbound right-turn and southbound left-turn volumes at the intersection of Spadina Road and Kilbarry Road/Burton Road have been summarized by the morning and afternoon peak periods as well as the busiest eight-hour period of a typical weekday in the table below.

Time Period	Northbound Right-Turn Volume	Southbound Left-Turn Volume	Total
7:00 a.m. to 9:00 a.m.	70	130	200
4:00 p.m. to 6:00 p.m.	60	45	105
Eight-hour Total	235	265	500

Request to review the feasibility of prohibiting northbound left-turns and southbound right-turns (to Burton Road)

The most likely alternate routes for traffic displaced by northbound left-turn and southbound right-turn prohibitions will be the adjacent local roadways. For a displaced northbound left-turning motorist, westbound Strathearn Boulevard or Delavan Avenue to either northbound Vesta Drive or Glenayr Road would be the most likely alternate route. There are no entry or turn prohibitions in the immediate area. For a displaced southbound right-turning motorist, westbound Ardmore Road to either southbound Vesta Drive or Glenayr Road would be the most likely alternate route. There are no entry or turn prohibitions in the immediate area.

No time periods were specified for the hours of the prohibitions. The northbound left-turn and southbound right-turn volumes at the intersection of Spadina Road and Kilbarry Road/Burton Road have been summarized by the morning and afternoon peak periods as well as the busiest eight-hour period of a typical weekday in the table below.

Time Period	Northbound Left-Turn Volume	Southbound Right-Turn Volume	Total
7:00 a.m. to 9:00 a.m.	30	15	45
4:00 p.m. to 6:00 p.m.	75	25	100
Eight-hour Total	230	90	320

It should be noted that there are yellow advisory signs posted on westbound entrances at all intersections on Spadina Road, between Chadwick Avenue and Hawarden Crescent. These signs state "Local Traffic Only, 4:00 p.m.-6:00 p.m., Mon-Fri". As all of these signs are advisory, they are not by-lawed, and thus are not legally enforceable. However, their purpose is to warn motorists of other turn prohibitions at Eglinton Avenue West and at Bathurst Street, which would preclude motorists from using some streets west of Spadina Road as short cuts.

Request to review the feasibility of prohibiting east-west throughs from 7:00 a.m. to 9:00 a.m., and from 4:00 p.m. to 6:00 p.m., Monday to Friday

Besides Kilbarry Road/Burton Road, there are few direct east-west routes between Bathurst Street and Avenue Road/Oriole Parkway that are south of Eglinton Avenue West and north of St. Clair Avenue West. The only crossings of Spadina Road that are protected by traffic control signals in the above-noted section of roadway are Old Forest Hill Road, Lonsdale Road and Heath Street West/Tichester Road. However, only the latter road provides a direct route.

It is possible that some displaced east-west motorists may travel on any of these three roads, then travel on Spadina Road to access another east-west road to complete their east-west trip. Other displaced motorists may be dispersed to other local roadways.

The eastbound and westbound through volumes at the intersection of Spadina Road and Kilbarry Road/Burton Road have been summarized by the morning and afternoon peak periods as well as the busiest eight-hour period of a typical weekday in the table below.

Time Period	Eastbound Through Volume	Westbound Through Volume	Total
7:00 a.m. to 9:00 a.m.	180	55	235
4:00 p.m. to 6:00 p.m.	55	150	205
Eight-hour Total	375	325	700

Request to install speed humps on Kilbarry Road, between Spadina Road and Dunloe Road and on Burton Road, between Spadina Road and Vesta Drive

We conducted twenty-four automatic speed and volume surveys in July 2004 on both of the above-noted sections of roadway. The data was evaluated against the Traffic Calming Policy criteria adopted by Toronto City Council in April 2002. The following table shows the results of the warrant analysis.

Location	Installation Warrant Analysis and Evaluation								Installation Warrants Satisfied
	Warrant 1 Request	Warrant 2 Safety Requirements			Warrant 3 Technical Requirements				
	1.1 Review Initiated by Councillor or Petition	2.1 Sidewalk Adjacent to the Road	2.2 ≤ 8% Road Grade	2.3 Nominal Impact on Emergency Services	3.1 85 th Percentile Speed > 50 km/h	3.2 Traffic Volume > 1000 veh/day	3.3 Block Length > 120 m	3.4 No Transit Service	
Kilbarry Road	YES	YES	YES	YES	NO (46 km/h)	YES (2,855)	YES	YES	NO
Burton Road	YES	YES	YES	YES	NO (47 km/h)	YES (2,331)	YES	YES	NO

As noted in the table above, the policy sets out three major warrant categories that must be met in order to install speed humps. Failure to satisfy any one of the primary criteria could result in a location not being considered further for the installation of speed humps. The warrants for both sections of roadway fail, as the 85th percentile speeds (the speed at which 85 percent of traffic travels at or below) are less than the required 50 km/h. Additionally, the average speeds on the subject sections of Kilbarry Road and Burton Road were 39 km/h and 40 km/h, respectively. Based on these speed profiles, there does not appear to be a significant speeding problem and speeds are generally in a range that is typical for local roadways. As well, the policy describes four ranking criteria to be used in prioritizing requests and outlines the consultation process that should be followed. Based on the results of our study, Kilbarry Road, between Spadina Road and Dunloe Road and Burton Road, between Spadina Road and Vesta Drive, do not meet the necessary primary criteria for further consideration of speed hump installations. Should you or your constituents wish to review the Traffic Calming Policy, please refer to www.toronto.ca/legdocs/2002/agendas/council/cc020416/wks4rpt/cl001.pdf.

Request to install bollards on all four intersection corners of Spadina Road and Kilbarry Road/Burton Road

Generally, bollards are installed to prevent sidewalk/boulevard parking and are not used for pedestrian protection. We reviewed Toronto Police Service collision records over a three-plus year period between January 1, 2001 and May 31, 2004. During this time period there have been fourteen collisions at the intersection of Spadina Road and Kilbarry Road/Burton Road. A detailed analysis of the fourteen collisions revealed that a vehicle did not mount a sidewalk in any of the collisions. In the single pedestrian collision, a westbound motorist on the east intersection leg stopped at the "Stop" sign, then moved forward, striking a northbound pedestrian. The pedestrian sustained minor injuries and the motorist was not charged. Additionally, the presence of bollards reduces the pedestrian storage area and impedes snow removal.

Therefore, we cannot support the installation of bollards on all four intersection corners of Spadina Road and Kilbarry Road/Burton Road.

Request to install additional school signage on Spadina Road, north and south of Kilbarry Road/Burton Road

Forest Hill Junior and Senior Public School is located on the east side of Spadina Road, between Archer Road and Hawarden Crescent. Presently, the only school signage on Spadina Road are "School Area" signs north of Silverwood Avenue for southbound motorists and north of Kilbarry Road for northbound motorists, which has been illustrated at right. This signage warns motorists on Spadina Road of school-age pedestrians crossing at the pedestrian crossover (PXO) at Ardmore Road. In order to provide advance warning of school-age pedestrian crossings on Spadina Road at the PXO at Kilbarry Road/Burton Road, we will arrange to install "School Area" signs north and south of Kilbarry Road/Burton Road as soon as our schedule permits. A review of the area surrounding Forest Hill Junior and Senior Public School found all other school signage to be appropriate.



**"School Area"
sign**

Request to install flashing amber beacons on Spadina Road, in the vicinity of Kilbarry Road/Burton Road

According to the guidelines outlined in the Ontario Traffic Manual, Book 6 (Warning Signs), the installation of flashing amber beacons on Spadina Road, north and south of Kilbarry Road/Burton Road, would not be appropriate. Generally, flashing amber beacons are installed where there are poor sightlines for approaching motorists, or where there is a pattern of low signal observance. Sightlines on Spadina Road are good for north-south motorists, with a straight roadway approach in both directions and a slight downgrade to the south. Additionally, the presence of flashing amber beacons could potentially detract from the overhead flashing beacons at the pedestrian crossover.

Request to review the feasibility of installing traffic control signals at Spadina Road and Ardmore Road

We reviewed the intersection of Spadina Road and Ardmore Road in 2000 for the installation of traffic control signals. The study that was undertaken at that time determined that the warrants for the installation of traffic control signals

were not met. We will arrange to undertake updated studies in September, after Labour Day, when schools are back in session.

Request to review how pedestrians use the PXO at Spadina Road and Kilbarry Road/Burton Road with respect to vehicle pedestrian conflicts as well as how disabled citizens use the PXO

We will arrange to undertake a pedestrian crossover observance study in September, after Labour Day. This study will classify pedestrian crossings by five types (assisted children, unassisted children, youths and adults, senior citizens and disabled) and will note where pedestrian crossings occur (within crosswalk lines or outside the crosswalk lines), how many pedestrians activate the overhead flashing beacons and how many motorists do not yield to pedestrians.

Request to review the impacts on vehicle speeds and volumes on Kilbarry Road, Burton Road and other roadways in the vicinity

It is very difficult to predict if traffic volumes will increase on Kilbarry Road and/or Burton Road if traffic signals are installed. Based on previous traffic signal installations traffic volumes have increased at some locations, while at other locations they have remained the same. For example, traffic signals on some four-lane major arterial roadways have increased traffic volumes on side-streets, as traffic signals provide for a safe crossing across four lanes of traffic. As the vast majority of new traffic signals are installed on four-lane roadways, we have not had much experience with two lane roadways, such as Spadina Road. As no two intersections are alike, it is difficult to predict what effect the traffic signals will have on this neighbourhood.

Vehicle speeds will likely not increase on any of the streets in the neighbourhood if the intersection of Spadina Road and Kilbarry Road/Burton Road is signalized. Under existing conditions, east-west motorists on Kilbarry Road/Burton have to stop at the "Stop" sign controlled approaches to Spadina Avenue. If traffic control signals are installed, there will be opportunities for east-west motorists on a green signal indication to proceed through the intersection without stopping. However, the majority of the green signal time will be provided to Spadina Road. Based on some previous public concerns, the only instance in which vehicle speeds may increase is if a motorist speeds up right before the intersection to clear at the end of the east-west green phase.

If you have any questions regarding this investigation, please contact Dan Clement, Transportation Technologist, at (416) 338-5454.

Yours truly,



Stephen Benjamin
Manager, Traffic Operations
South District, West Area

DC/dc
04-1448
File 201

bc: Les Kelman – FYI
Andrew Koropeski – FYI
Steven Kodama – FYI
Henry Chu – please install "School Area" signage (Wc-1) north and south of Kilbarry Road/Burton Road