



## STAFF REPORT ACTION REQUIRED

### Hathor Crescent – Speed Limit Amendment

<b>Date:</b>	June 2, 2010
<b>To:</b>	Etobicoke York Community Council
<b>From:</b>	Director, Transportation Services - Etobicoke York District
<b>Wards:</b>	Ward 7 – York West
<b>Reference Number:</b>	p:\2010\Cluster B\TRA\EtobicokeYork\eycc100100-to

#### SUMMARY

This staff report is about a matter that Community Council has delegated authority from City Council to make a final decision.

The purpose of this report is to provide the results of our studies regarding vehicular speed and volume on Hathor Crescent and the need for traffic calming or other mitigating measures for this road.

A review of the existing physical and operating characteristics of Hathor Crescent shows that the installation of traffic calming measures is not technically justified; however, a reduction of the existing 50 km/h posted speed limit to 40 km/h is justified for Hathor Crescent as the warrant requirements are achieved. In addition, staff are recommending that a centre line be installed on Hathor Crescent to further emphasize the curves in the road.

#### RECOMMENDATIONS

##### **Transportation Services recommends that Etobicoke York Community Council:**

1. Approve enacting a 40 km/h speed limit on Hathor Crescent, between Rowntree Mill Road, east intersection, and Rowntree Mill Road, west intersection, as the requirements of the 40 km/h Speed Limit Warrant are achieved.
2. Not approve traffic calming on Hathor Crescent.

#### Financial Impact

Type of Funding	Source of Funds	Amount
Available within current budget	Transportation Services Operating Budget	\$800.00

If Community Council decides to approve installing traffic calming devices on Hathor Crescent, the following financial impact will result:

- The estimated cost for installing approximately three speed humps will be \$9,000.00. This can be accommodated within funds allocated by City Council as part of the Transportation Capital Budget, subject to competing priorities and funding availability.

## **ISSUE BACKGROUND**

We received a request from the office of the Ward Councillor along with a petition signed by approximately 57% of households on Hathor Crescent to install:

- a STOP sign on Hathor Crescent between 7 and 20 Hathor Crescent
- and speed humps on Hathor Crescent

This request results from residents concerns that there has been an increase in vehicular speed and volumes for this road.

The main purpose of the STOP sign is to clearly assign right-of-way between vehicles approaching an intersection. Although there is a turning basin near the easterly curve in the road, and it may appear as an intersection, it is not considered an intersection of two roads. As such, staff can not legally install STOP signs at this curve.

As part of our assessment, we collected data with respect to the physical characteristics of Hathor Crescent and conducted vehicular volume and speed studies. We applied our data to the City's Traffic Calming Warrant as well as the 40 km/h Speed Limit Warrant, since the existing speed limit for Hathor Crescent is 50 km/h.

A map of the area is Attachment 1.

## **COMMENTS**

Hathor Crescent is an 8.5 metre wide, two-lane local road constructed to urban standards (curb and gutter) with sidewalks on both sides. The existing legal speed limit is 50 km/h for the entire length of the road.

### **Traffic Calming**

We assessed the subject location according to the City of Toronto's Traffic Calming Policy. The principal criteria for installing of speed humps are vehicle operating speeds and volume. Other environmental factors are also examined, such as road width, pedestrian facilities and grade. The proposal was evaluated under each of the three criteria (Warrants 1, 2 and 3), with the results summarized in Appendix A.

Based on our assessment, Hathor Crescent does not satisfy Warrant 3.1 "Minimum Speed" and Warrant 3.2 "Minimum Traffic Volume" which is required to satisfy the Warrant, as specified in Appendix A.

Notwithstanding our recommendation, if Etobicoke York Community Council decides to proceed with installing speed humps on Hathor Crescent, we recommend that:

1. The City Clerk (Polling Registry Services) survey eligible householders in English or any other language specified by Community Council, on Hathor Crescent to determine if property owners/occupants support the installation, according to the City of Toronto Traffic Calming Policy.
2. Subject to favourable results of the survey;
  - a. The City Solicitor prepares a by-law to alter sections of the road on Hathor Crescent, for traffic calming purposes.
  - b. Transportation Services take the necessary actions to reduce the speed limit from 40 km/h to 30 km/h on Hathor Crescent when the speed humps are installed.

Installing speed humps will result in slower operating speeds for all vehicles, including emergency service vehicles, and could result in increased response times in the event of an emergency.

The current City of Toronto Traffic Calming Policy requires that the City Clerk (Polling Registry Services) formally survey property owners/occupants who are directly affected by installing speed humps on Hathor Crescent. Under the policy, the City Clerk must receive a minimum response rate of 51 percent, of which at least 60 percent of respondents must favour installing speed humps.

Subject to approval by Community Council, according to the recommendations indicated above, the City Clerk will survey property owners/occupants and report the results to Etobicoke York Community Council. If the survey supports installing speed humps on Hathor Crescent, Transportation Services staff will schedule their installation based on relative need and competing priorities.

Relative need (and to prioritize installing speed humps) is based on traffic volume, vehicle speed percentages, speed related crashes, and the presence of schools, parks, seniors residences or bicycle routes.

Consultation with emergency services (Police, Fire and Emergency Medical Services) is required in order to ensure that the design and layout of a traffic calming proposal does not unduly affect their operations. Although we generally advise emergency services of our intentions, we do not always receive a formal response. However, Toronto Fire Services provides the following general statement regarding speed hump installation:

“...Toronto Fire Service is supportive of initiatives that improve the life safety of our citizens. Our concern is that the physical calming measures being proposed may negatively impact emergency response to the area.

The vertical restrictions imposed by speed humps have a much greater affect on large fire vehicles than smaller passenger vehicles. Response time increases with every obstacle a fire vehicle encounters en route from the fire station to the incident. Although the increase at each hump may only be seconds, the cumulative effect can be a significant amount of time that could result in increased property damage, unnecessary injury or loss of life.

Speed humps are generally hard on large, heavy vehicles (fire vehicles) and increase the potential to suffer mechanical damage. This in turn can lead to a vehicle being placed out of service for considerable periods of time. Aside from the costs associated with repairs, there is a decrease in the resources available to respond to other emergency situations.”

#### **40 km/h Posted Speed Limit**

According to the City’s 40 km/h Speed Limit Warrant, 40 km/h speed limits may be implemented on roads where the criteria of ‘Road Width’ (Section ‘A’) and either Pedestrian Environment (Section ‘B’) or ‘Road and Traffic Environment’ (Section ‘C’) are satisfied.

Hathor Crescent satisfies the ‘Road Width’ and ‘Road and Traffic Environment’ criteria as shown in the attached Appendix B. There are two curves on Hathor Crescent where the safe operating speed is less than 50 km/h.

We also conducted automatic speed and volume studies on Hathor Crescent and the results of those studies are as follows.

Location	Speed Limit	Vehicle Speeds (km/h)			Traffic Volume		
		85 <sup>th</sup> percentile	Average	10 km/h Pace	AM (1-hour)	PM (1-hour)	24-Hour
Hathor Crescent in front of 25 Hathor Crescent	50 km/h	36	27	22-31	8	11	105

The 85<sup>th</sup> percentile and 10 km/h pace speed are statistical measures of free-flow vehicle operating speeds. The 85<sup>th</sup> percentile speed is the vehicle operating speed at or below which 85 percent of all traffic is moving. Studies show that crash rates are lowest at or around the 85<sup>th</sup> percentile speed. The 10km/h pace speed represents the speed range containing the highest number of speed observations.

Implementing a reduced legal speed limit on Hathor Crescent is technically justified and will not penalize the vast majority of motorists since they already travel at or below the proposed 40 km/h speed limit.

## **CONTACT**

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## **SIGNATURE**

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## **ATTACHMENTS**

Appendix A: 40 km/h Warrant Table  
Appendix B: Traffic Calming Warrant Table  
Attachment 1: Map

**APPENDIX A**  
**Traffic Calming Warrant Criteria**  
Hathor Crescent

Warrant	Criterion	Requirement		Met/Not Met
<b>Warrant 1</b>  Petition	1.1 Petition	A petition requesting traffic calming must be signed by at least 25% of households on the street <b>OR</b> A direct request from the Ward Councillor.  <b>Warrants #2 and #3 will not be considered until Warrant #1 is satisfied.</b>		<b>Met</b> – Direct request from Ward Councillor, along with petition.
	Impacts to Adjacent Streets	No significant traffic impacts on adjacent streets.		<b>Met</b> – There should be no traffic spill-over to other streets given the configuration of streets in the area.
<b>Warrant 2</b>  Safety Requirements  (all three criteria must be fulfilled to satisfy this Warrant)	2.1 sidewalks	Continuous sidewalks on at least one side of the street (both sides for collector streets or higher classification) <b>OR</b> Where there are no sidewalks, the installation of sidewalk on at least one side of the street must have first been considered.		<b>Met</b> – Continuous sidewalk on both sides of Hathor Crescent.
	2.2 Road Grade	Road grade 5% or less <b>OR</b> Between 5% and 8% road grade may be considered. Investigation must determine installation to be safe.		<b>Met</b> – Road grade is less than 8%.
	2.3 Emergency Response	No significant Impacts on Emergency Services (as determined in consultation with Emergency Services (Fire, Ambulance and Police) staff.		<b>Met</b> – General objections from Toronto Fire, Ambulance and Police.
<b>Warrant 3</b>  Technical Requirements  (all four criteria must be fulfilled to satisfy this warrant)	3.1 Minimum Speed	85 <sup>th</sup> percentile speed is a minimum of 10 km/h (but less than 15 km/h) over the warranted 40 km/h speed limit, and the traffic volume requirements of Warrant 3.2 must be fulfilled. <b>OR</b> On streets where the 85 <sup>th</sup> percentile speed exceeds a warranted 40 km/h speed limit by a minimum of 15 km/h, there is no minimum volume required in warrant 3.2.		<b>Not Met</b> – Speed studies show 85 <sup>th</sup> percentile to be 36 km/h for two-way traffic.
	3.2 Min. and Max. Traffic Volume	Local Roads Traffic volume between 1,000 Veh/day and 8,000 Veh/day	Collector Roads Traffic volume between 2,500 Veh/day and 8,000 Veh/day	<b>Not Met</b> – Local Road having 105 veh/day.
	3.3 Minimum Street Segment Length between stop controls	Road segment length must exceed 120 meters between stop controls (signals or stop signs)		<b>Met</b> – Road segment is 270 metres in length.
	3.4 Transit Service	Impacts on regularly scheduled Toronto Transit Commission (TTC) services will not be significant (as determined in consultation with TTC staff)		<b>Met</b> – No TTC service.

## APPENDIX B

### 40 km/h Speed Limit Warrant

Hathor Crescent

<b>A. ROAD WIDTH</b>		
(i) Pavement width equal to or greater than 10.5 metres and the 85 <sup>th</sup> percentile speed is equal to or less than 50 km/h Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>OR</b>		
(ii) Pavement width less than 10.5 metres Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>  <b>PAVEMENT WIDTH: 8.5 metres</b> <b>85<sup>TH</sup> PERCENTILE SPEED: 36 km/h</b>		

**AND**

<b>B. PEDESTRIAN ENVIRONMENT</b>		
(i) Elementary or junior high school abuts the road Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
<b>OR</b>		
(ii) Parkland abuts the road which is contiguous to and used to gain access to an elementary or junior high school Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
<b>OR</b>		
(iii) Absence of sidewalk on both sides of the road or a major portion of the road Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		

**OR**

<b>C. ROAD AND TRAFFIC ENVIRONMENT</b>		
(i) Two or more locations where grades are greater than 5%; and/or safe speed on curves is less than 50 km/h Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<b>OR</b>		
(ii) 2 or more locations where there is lack of sufficient distance to stop safely traveling at 50 km/h Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
<b>OR</b>		
(iii) Pattern of collisions where vehicle speed was identified as a factor Local streets – 3 or more over 3 years Other streets – 5 or more over 3 years Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> <b>No speed related collisions over three years</b>		

Warrant Satisfied? Yes ☒ No ☐