

October 2, 2007

PUBLIC WORKS AND INFRASTRUCTURE COMMITTEE:

City Council on September 26 and 27, 2007, referred the following Motion to the Public Works and Infrastructure Committee:

M135 Feasibility and Benefits of Roundabouts in Toronto

Moved by Councillor Ootes, seconded by Councillor Parker

SUMMARY:

To investigate the feasibility and benefits of installing roundabouts in Toronto

A roundabout is an intersection at which all traffic circulates counter-clockwise, to the right of a central island. Entering vehicles must yield to all traffic already in the roundabout. Roundabouts may be single or multi-lane.

Toronto would benefit from the introduction of roundabouts in many ways, including:

- **Reduced Speeds.**
Speeds through multi-lane roundabouts range from 25 km/h to 40 km/h, depending on the vehicle movement.
- **Reduced Vehicle Emissions.**
Many vehicles do not stop at a roundabout, do not idle, waiting to enter the intersection, and do not accelerate from a stop. A study from Vermont stated that replacing 25 regular intersections with roundabouts instantly gets that City 20 percent closer to its greenhouse gas emissions goal.
- **Reduced Number of Collisions.**
As a result of lower speeds, the number of crashes at roundabouts is lower than at conventional intersections.
- **Reduced Severity of Crashes.**
In general, most crashes which occur at roundabouts are low-speed crashes involving property damage only. As well, low speed collisions with pedestrians are far less likely to result in serious injury or death – in a collision at 30 km/h, there is a 5 percent chance that the pedestrian will be killed, whereas at 55 km/h the chance of a pedestrian being killed is 50 percent

- Pedestrian and Cyclist Safety.
Roundabouts are safer for pedestrians and cyclists. Experience at roundabouts in the U.S. and Europe show reduction in pedestrian-motor vehicle crashes of 33 percent – 100 percent.
- Other Benefits Include:
Reduced delays to pedestrians, reduced delays for traffic, reduced queue lengths, increased capacity, reduced traffic noise, and enhanced appearance.

RECOMMENDATIONS:

1. That the General Manager, Transportation Services report to the Public Works and Infrastructure Committee meeting in January 2008, regarding the potential benefits of traffic roundabouts for the City of Toronto (including the safety and environmental benefits) to replace traditional, signalized intersections.
2. That the General Manager, Transportation Services report to the Public Works and Infrastructure Committee, regarding the criteria that must be met for a signalized intersection to be considered an appropriate candidate for conversion to a roundabout.
3. That the General Manager, Transportation Services report to the Public Works and Infrastructure Committee, regarding how all road users would utilize roundabouts, including: pedestrians, cyclists, motorcycle operators, personal vehicles, public transit buses and trucks.
4. That the General Manager, Transportation Services, in consultation with local Councillors, report to the Public Works and Infrastructure Committee on potential locations for a limited number of roundabouts, which would be assessed as part of a pilot project, prior to any larger roll-out.
5. That the General Manager, Transportation Services report to the Public Works and Infrastructure Committee on the financial costs associated with the design and implementation of the roundabouts listed in Recommendation 4.

for City Clerk

M. Toft/cd