

# APPENDIX B

**TO:** File

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**DATE:** February 8, 2008

**SUBJECT: Capacity Analysis Roncesvalles Avenue**

Roncesvalles Avenue, between The Queensway/Queen Street West and Dundas Street West is a minor arterial roadway, operating as a two lane road, with parking unrestricted on the east side and restricted during the hours 7:00 a.m. to 9:00 a.m. on the west side of the street. The street has a daily two-way volume of approximately 17,000 vehicles and a speed limit of 50 km/h.

Transit service is provided by the 504 Roncesvalles streetcar, which operates on a shared right-of-way with general traffic. Roncesvalles Avenue contains four traffic control signals and six pedestrian crossovers (PXO).

The general parking regulations on Roncesvalles Avenue are as follows:

West side:

- a) No Parking 7:00 a.m. to 9:00 a.m., Monday to Friday;
- b) Pay-and-Display parking, between the hours 9:00 a.m. to 9:00 p.m., Monday to Friday, 8:00 a.m. to 9:00 p.m., Saturdays and 1:00 p.m. to 9:00 p.m., Sundays.

East side:

- a) Pay-and-Display parking, between the hours 8:00 a.m. to 9:00 p.m., Monday to Saturday and 1:00 p.m. to 9:00 p.m., Sundays.

It is proposed to rescind the morning peak period (7:00 a.m. to 9:00 a.m.) parking prohibition on the west side of Roncesvalles Avenue, between Boustead Avenue and Harvard Avenue.

In conjunction with the parking amendment it is proposed to narrow the shared right-of-way to a single north and southbound traffic lane having a lane width of 4.1 metres per direction. This shared right-of-way will accommodate motor vehicles, streetcars and cyclists. The proposal provides permanent mid-block parking lay-bys on both the east and west sides of Roncesvalles Avenue, in addition to intersection narrowing treatments. The proposal also extends the public realm and complements Toronto Transit Commission's future business plan to acquire new low level streetcars.

Various road alteration features have been incorporated into the plan to improve the pedestrian environment by reducing overall pavements widths at the pedestrian crossovers

and across intersecting local streets, reinforcing one-way directional designations on the locals, improving existing commercial loading areas, expanding the public realm and enhancing the transit stop locations. To minimize queuing within the shared right-of-way protected right turn and/or jump lanes are provided at the local intersecting streets. As part of the contract the pedestrian crossovers will be upgraded with the side mounted flashing amber warning beacons.

The approximate hourly north-south traffic volumes on Roncesvalles Avenue by time period are summarized below:

Intersection	A.M. Peak Hour		Off Peak Hour		P.M. Peak Hour	
	Nbd	Sbd	Nbd	Sbd	Nbd	SBd
The Queensway/ Queen Street West	423	373	354	348	329	462
Fermanagh Avenue/ High Park Boulevard	326	680	368	380	486	483
Howard Park Avenue	335	400	177	284	405	393
Dundas Street West	324	289	318	292	364	361

The generated operating Levels of Service at these intersections by existing and proposed conditions showed the following:

Intersection	Existing A.M. Peak Hour		Proposed A.M. Peak Hour	
	Nbd	Sbd	Nbd	Sbd
The Queensway/ Queen Street West	F	C	F	C
Fermanagh Avenue/ High Park Boulevard	A	A	B	B
Howard Park Avenue	A	A	A	B
Dundas Street West	D	B	D	B

It should be noted that the levels of service during the off and p.m. peak hours are unchanged.

Capacity is defined as the maximum number of vehicles per unit of time that can be handled by a particular roadway component under prevailing conditions. Typically the maximum service volume for a single traffic lane is 800 to 1,000 vehicles per hour.

The existing peak hour volumes as noted above are below the maximum service volume levels.

As noted above by reducing Roncesvalles Avenue to a single southbound traffic lane for the morning peak period has not negatively impacted operating service levels. In conclusion rescinding the morning peak period parking restriction on the west side of Roncesvalles Avenue does not negatively impact overall traffic operations.

The proposal includes a southbound left turn prohibition on Roncesvalles Avenue at Howard Park Avenue at all times and a northbound left turn prohibition on Roncesvalles Avenue at Fermanagh Avenue/High Park Boulevard at all times.

An analysis of the implications of these restrictions reveals the following:

#### Roncesvalles Avenue at Howard Park Avenue

A total of 192 southbound vehicles were recorded turning left from Roncesvalles Avenue onto Howard Park Avenue. Generally, the eight hour turning movement count represents 50% of the total 24 hour daily traffic flow.

Howard Park Avenue is a two-way collector road, traversing in an east/westerly direction between Parkside Drive and Dundas Street West. Prohibiting this movement will not result in a displacement of traffic onto an adjoining local street, as this traffic volume has a viable alternative to stay on Dundas Street West or conversely enter Howard Park Avenue at its intersection with Dundas Street West.

It should be noted that the generated proposed southbound operating level of service “B” on Roncesvalles Avenue at Howard Park Avenue was modelled allowing the left turn movement.

#### Roncesvalles Avenue at Fermanagh Avenue/High Park Boulevard

A total of 556 northbound vehicles were recorded turning left from Roncesvalles Avenue onto High Park Avenue. As noted above the eight hour turning movement represents 50% of the total 24 hour daily traffic flow.

High Park Avenue is a two-way collector road, traversing in an east/west direction between Parkside Drive and Roncesvalles Avenue. Fermanagh Avenue is one-way local road, traversing in a one-way westbound direction between Sorauren Avenue and Roncesvalles Avenue.

Prohibiting this movement will result in those vehicles destined within the community west of Roncesvalles Avenue to use either Fern Avenue or Geoffrey Street, both of which are local roads. Those vehicles destined outside the community and/or within the community west of Roncesvalles Avenue will utilize Howard Park Avenue, being a collector road.

It should be noted that the generated proposed northbound operating level of service “B” on Roncesvalles Avenue at Fermanagh Avenue/High Park Avenue was modelled allowing the left turn movement.