



## MEMO / NOTE DE SERVICE

To / Destinataire	Mayor and Members of Council Chair and Members of the Transit Commission	File/N° de fichier:
From / Expéditeur	General Manager Transportation Services Department	
Subject / Objet	Bicycles and Transit	Date: 17 April 2018

The purpose of this memo is to respond to a request for information from Councillor Egli at the Transit Commission meeting of February 21, 2018, regarding the following information, if available, pertaining to bicycles and transit:

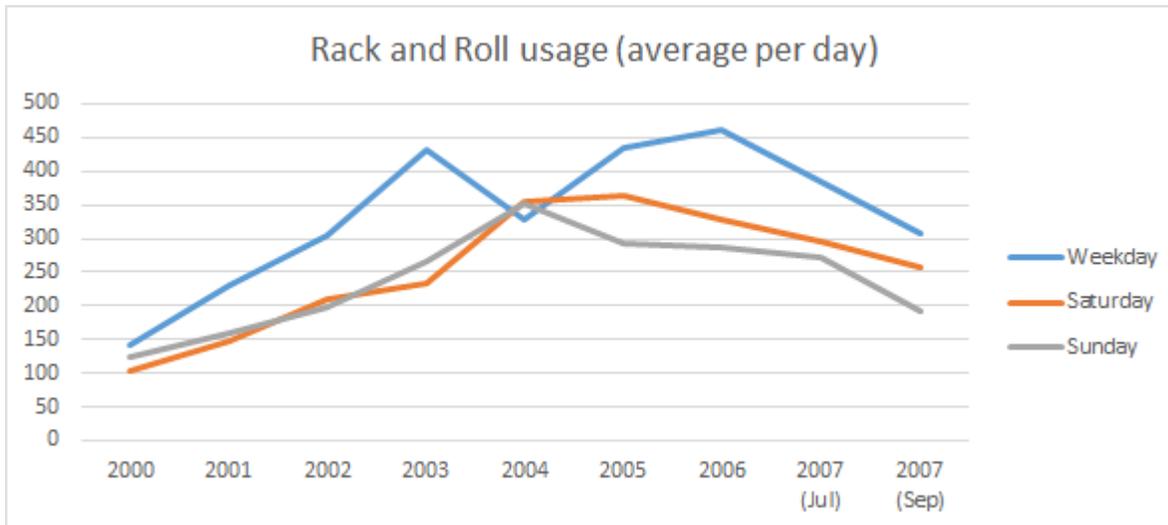
- 1) Current and historical use of the Rack and Roll transit option;
- 2) Projections of bike demand for trips on the O-Train lines;
- 3) The feasibility of allowing counter-to-peak bike trips;
- 4) The amount of space required for bikes, and its equivalency in standing passengers;
- 5) Projections for how many riders might be delayed if bikes are allowed, and by how long; and,
- 6) A proposed monitoring process and suggested thresholds for either permitting or not bikes on the O-Train lines.

### **Current and Historical Use of the Rack and Roll Transit Option**

Monitoring of the Rack and Roll program began in 2000, shortly after the program was introduced at OC Transpo. The last year that Rack and Roll monitoring took place was in 2007, where two samples were taken: one in July and one in September.

The monitoring was carried out by bus operators on the Rack and Roll routes. The operators tallied on forms the number of customers who used the bicycle racks. This was done over nine days, from a Saturday to the Sunday of the following week, which ensured that rack and roll use was measured on five weekdays, two Saturdays, and two Sundays.

The graph below summarizes the average number of times that a bicycle rack was used daily across the system during each year's survey period, on weekdays, Saturdays and Sundays:



### Projections of Bike Demand for Trips on the O-Train Lines

In Fall 2016, when weather was still favourable for cycling, staff counted the number of bicycles carried on O-Train Line 2, the Trillium Line, at Greenboro and Carleton O-Train stations during the morning and afternoon peak periods. Staff observed that, on average, less than one bicycle was onboard the train in either direction of travel at any given time. Given these observations, staff anticipate similar levels of bicycle usage on Line 2 in the near future.

In Summer and Fall 2016, when weather was still favourable for cycling, staff counted the number of bicycles carried on buses on the detoured Transitway routes at Tunney's Pasture and St-Laurent stations during the morning peak period. Staff observed 32 bicycles carried east of Tunney's Pasture Station, and 19 carried west of St-Laurent Station. Given the anticipated service frequency of O-Train Line 1, the Confederation Line, this would translate to approximately one bicycle per train, on average, during the morning peak period at any given time.

No other mid or long-range projections have been made for bicycle trips on the O-Train lines. Staff will continue to monitor bicycle usage on O-Train Line 2, the Trillium Line, and will begin monitoring bicycle usage on O-Train Line 1, the Confederation Line, when it opens later this year.

### Feasibility of Allowing Counter-to-peak Bike Trips

The initial segment of the O-Train Line 1, the Confederation Line, will have two peak directions. In the morning, ridership will be high going west from Blair Station to Tunney's Pasture Station, and going east from Tunney's Pasture Station to uOttawa Station. The only clear off-peak direction would be going east in the morning from uOttawa Station to Blair Station. Because of this, staff suggest that allowing bicycles only in the off-peak direction at rush hours would be of limited value. In the future, with the extensions to Trim, Moodie, and Bayshore stations, this could be a feasible approach.

Given Council's approval of the Transit Commission's decision to allow bicycles onboard trains at all times, staff suggest that this option is now moot.

## **Amount of Space Required for Bikes, and its Equivalency in Standing Passengers**

A bicycle held horizontally occupies 1.10 to 1.54 square metres, or the equivalent of 5 to 7 adults with heavy clothing (Transit Capacity and Quality of Service Manual, 3<sup>rd</sup> Edition, 2013). Given the service design standard for O-Train Line 1, the Confederation Line, trains of 3.30 standees per square metre, the space required for one bicycle is equivalent to 3.7 to 5.1 standees. It is anticipated that two bicycles in the multi-purpose area at the front of a train will take up the same space as 5 or 6 customers.

## **Projections for How Many Riders Might be Delayed if Bikes are Allowed, and by How Long**

The O-Train Line 1, the Confederation Line, will accommodate a capacity of 10,700 customers in peak direction during peak hours. On rare occasions, customers travelling during the busiest travel periods may experience an environment that is slightly more crowded than is planned, but customers will not likely be delayed by being left behind. If the O-train exceeds capacity, customers will need to wait for the next train, which would arrive within 5 minutes or less during peak periods.

## **A Proposed Monitoring Process and Suggested Thresholds for either Permitting or Not Bikes on the O-Train Lines**

Once the Confederation Line, opens, staff will monitor the number of bicycles carried on board trains and the use of cycling facilities along the line. Any issues related to bicycles onboard trains that are reported through existing customer service channels will also be tracked.

Based on experience during all seasons of the first year of operations, staff will review whether any of the arrangements should be adjusted, and will bring any major recommended changes to the Transit Commission for consideration.

If you have any questions on this matter, please contact Pat Scrimgeour, Director, Transit Customer Systems and Planning at extension 52205, or myself at extension 52111.

*Original signed by  
John Manconi*

c.c. Senior Leadership Team  
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