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DATE: 10 June 1999

TO/DEST: Co-ordinator, Transit Services Committee

FROM/EXP: General Manager

SUBJECT/OBJET: **SEASONAL VARIATIONS IN TRANSIT SCHEDULES**

BACKGROUND

At its meeting of 28 April 1999, the Transit Services Committee requested more information about why schedules change by season. In particular, information on the level of demand throughout the year, the amount of service provided, and the length of time for which the Commission has operated in this way were requested.

This report responds to that request.

SEASONAL DEMAND FOR TRANSIT SERVICE

The way in which OC Transpo's ridership varies by season is shown in Exhibit 1. The heaviest months for transit ridership are from November through March and in warmer weather the ridership falls as people use their bicycles, walk more and take holidays.

Overall, if winter ridership from November to March is taken as the base, ridership is less by 15-20% in the spring and by 25-30% in July and August. In the early fall, ridership starts at about 95% of winter levels and ramps up through September and October.

The December ridership shown in Exhibit 1 is perhaps a little misleading since it includes the Christmas period. There is always a period of lower ridership around Christmas and New Year's Day and the day of the week on which December 25 falls has an impact on when people take leave and how they travel.

The school year has a strong influence on transit ridership, both in terms of overall demand and the type of trips people take. Demand for service to and from the major post-secondary institutions falls off sharply outside of the main school year from September to April. High school students maintain relatively stable travel patterns from September until the exam period in early June, when regular timetables no longer apply. Students are likely to use bicycles in good weather and therefore in both the early fall and spring there is a reduction in transit ridership among students. Also, some school boards buy transit passes only for the months November through March which has an effect.

SUPPLY OF TRANSIT SERVICE BY SEASON

There are several factors which need to be balanced when scheduling transit service to respond to these seasonal travel patterns:

- ⇒ ensuring that available resources are used to the best possible effect;
- ⇒ keeping the service schedules as consistent as possible for customers;
- ⇒ maintaining service headways at as attractive a level as possible on peak period services;
- ⇒ permitting reasonable holidays for operators at times when demand is low and vacation is desirable (e.g. summer, Christmas).

Seasonal adjustments have been made to OC Transpo's weekday transit schedules since the late nineteen seventies. Weekend schedules are maintained at the same level throughout the year. The weekday adjustments for the period May 1998 to April 1999 are shown in Exhibit 1. From this it can be seen that the winter schedules are introduced in September and maintained through April. Spring reductions of about eight percent are made from the end of April to the end of June and, in the summer service hours are reduced by a further few percent. It can be seen from Exhibit 1 that the seasonal reductions in service are considerably less than the reduction in demand for service.

Every effort is made to keep schedules consistent between September and April. This is not always possible since traffic conditions change and there is always a dialogue between operations and scheduling staff to ensure that running times are appropriate. Sometimes changes need to be made which have an impact on one or more routes. For example, last September it was discovered that conditions for Kanata express buses in the morning peak were worse than had been anticipated, due to new traffic from Highway 416 on the Queensway. Additional time was added to the schedules in January which had an impact on timetables.

Were the winter service schedules to be carried through the entire year, the additional cost would be about 60,000 peak period hours at a cost of \$4 million. Were the schedules to be matched more closely to the pattern of demand, it would be possible to save more in the spring and summer, or to supply more service in the winter months. A reduction in spring and summer schedules to exactly match the fall in ridership would save another 30,000 hours. However, this would result in such poor service frequencies on some routes that many passengers who use transit year round may decide to find alternate means of travel. The current balance between effective use of resources and customer convenience and simplicity is working reasonably well and major changes are not recommended.

The Christmas season is a little different from other times of the year. It is a time when many people take holidays, when schools are out and when it is desirable to give our own staff holidays if possible. In fact, we have a contractual obligation to provide additional holidays in this period.

The type of service needed around the Christmas period depends to a large extent on the day of the week on which Christmas Day and New Year=s Day fall. When Christmas Day and New Year=s day fall mid-week, there is reduced ridership for both the week of Christmas and the week of New Year=s Day. However, the closer to the weekend these days fall, the less people take holidays before Christmas and the more they take them between Christmas and New Year. Each year a survey of the plans of local businesses, schools, post-secondary institutions and shopping centres is made to assist in planning the service for this period. Since Christmas Day will be on a Saturday this year, and many people will have statutory holidays on Monday and Tuesday of the following week, no schedule reductions are planned for the week of December 19th beyond the cancellation of school service. Service for the normal working days in the week of December 26th, however, will be scheduled at a reduced level. The overall service levels for the period are summarized in Exhibit 2.

IMPACT ON CUSTOMERS OF SCHEDULE CHANGES

There are many ways of informing customers about changes in schedules and we make every effort to ensure that customers understand what service will be running. Takes ones are carried on buses, 560 and Telidon screens are used, our web site flags upcoming changes clearly and schedules at bus stops are updated. Operators carry new schedules with them for customers and we make use of public service announcements, press releases and newspaper advertising. However, people do not like change, and are not always prepared for it, even after the most comprehensive publicity campaign. Inevitably, during the first day or two of any schedule change there are some people who are inconvenienced. It is our challenge to minimize this number.

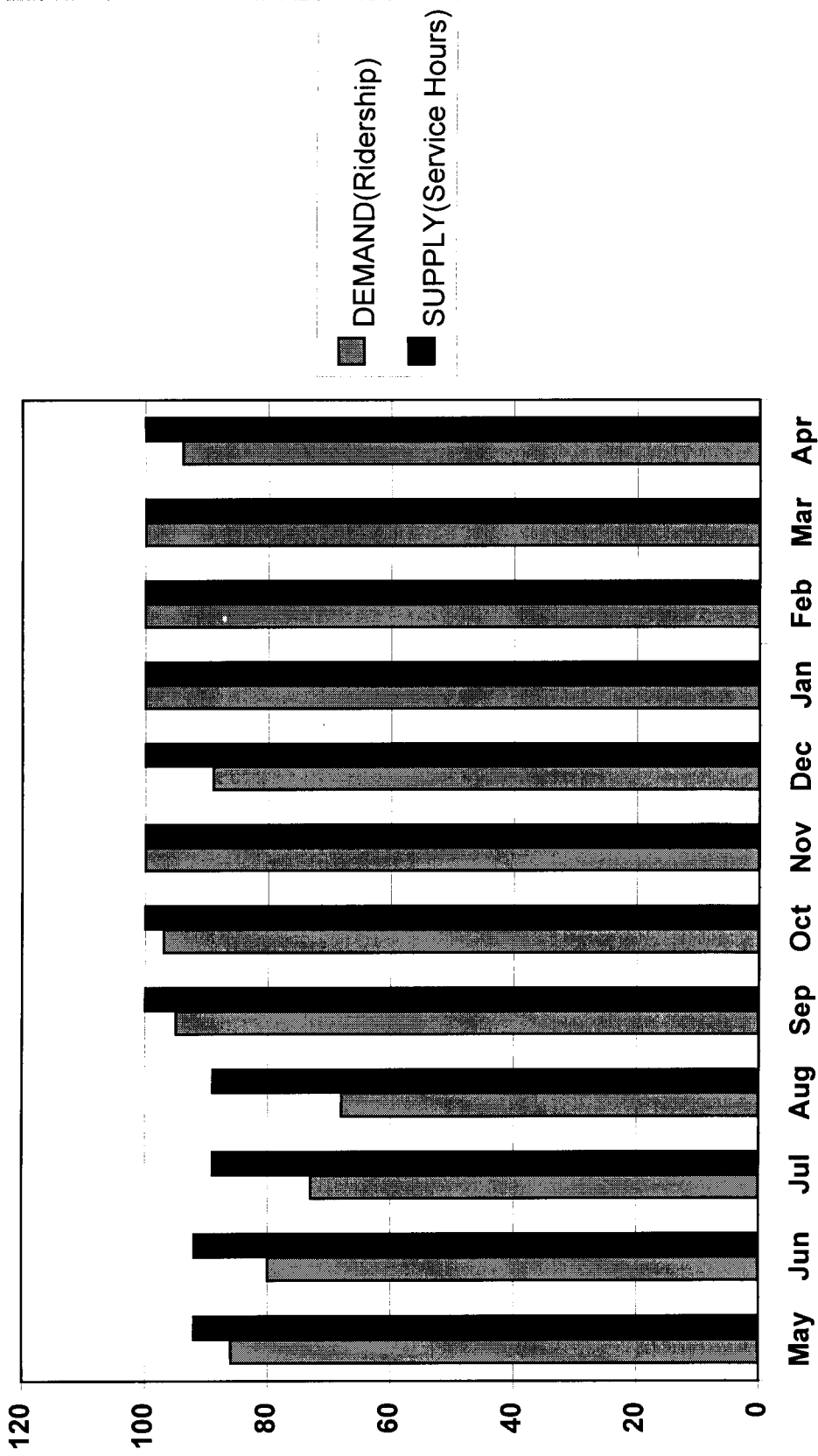
Beyond the fact of change, a recurring complaint is about reduced spring and summer schedules on some of the already less frequent express routes. Headways of twenty minutes can become twenty-five, and the question of whether it is worth buying a Unipass for this type of service is raised. The transformation of express routes inside the greenbelt into combined, regular-fare peak and local services will make it possible to provide a better frequency in the community, and also make the service available at regular fare.

*Approved by
M.J.E Sheflin, P.Eng.*

Exhibit 1

Seasonal Variations in Supply and Demand for Transit Service May 1998 - April 1999

(%)



Holiday 1999/2000 Service Levels

Date	Day of Week	Service Level	Comments
Dec. 19	Sunday	Sunday	
Dec. 20	Monday	Regular Weekday	Schools open. Business as usual.
Dec. 21	Tuesday	Regular Weekday	
Dec. 22	Wednesday	Regular Weekday	OCDSB closed. Other school boards open. Business as usual.
Dec. 23	Thursday	Regular Weekday	
Dec. 24	Friday	Regular Weekday - additional early afternoon service	
Dec. 25	Saturday	Reduced Sunday	More service than last Christmas Day. (7 a.m. - midnight)
Dec. 26	Sunday	Saturday	Boxing Day sales.
Dec. 27	Monday	Saturday	Most businesses closed. Shops open.
Dec. 28	Tuesday	Saturday	
Dec. 29	Wednesday	Saturday plus reduced Interline	Some businesses closed. No school. Shops open.
Dec. 30	Thursday	Saturday plus reduced Interline	
Dec. 31	Friday	Saturday plus reduced Interline - additional early afternoon service	Some businesses close early.
		Special millenium evening/night service	All night Transitway service. Other service extended two hours. Corel Centre service, special Parliament Hill service.
Jan. 1	Saturday	Reduced Sunday	More service than last New Year=s Day. (7 a.m. - midnight)
Jan. 2	Sunday	Sunday	
Jan. 3	Monday	Saturday	Holiday for most businesses. Shops open.
Jan. 4-7	Tues.-Friday	Regular Weekday	OCDSB returns. Other schools still closed. Business as usual.
Jan. 10	Monday	Regular Weekday	All school boards open.