



Subject: On-Demand Transit Service

Department: Infrastructure Services

Division: Transportation and Development

Report #: INS-2021-030

Meeting Date: 2021-05-10

Recommendations

That Report INS-2020-30, On-Demand Transit Service be received;

And that Council direct Staff to engage a consultant to assist in the design of a fixed and on-demand system, utilizing the existing Town owned buses;

And That Council direct Staff to implement the route strategy as presented within this Report.

Background and Analysis

The purpose of this report is to provide Council with a proposed strategy that will guide transit service delivery over the coming months. Orangeville Transit operates a conventional fixed three-route looped system. The three-route system currently reaches approximately 66% of the municipality utilizing a fleet of four 30 ft. low floor buses. The 2015 Transit Optimization Study (the Study) identified a number of issues with the structure of the system. Accordingly, with the guiding principles to improve service efficiency, expand service area coverage and develop innovative transit services, Orangeville Transit is looking to add a fourth route and expand the current vehicle fleet with additional buses in 2021. Adding the fourth route aligns with Council's approval of the Orangeville Transit Task Force's recommendations set out in Staff Report IS-TD-2020-007. Integral with this is the construction of a new transit transfer station at the Edelbrock Centre on Centre Street, which is discussed separately in another report on this agenda.

A fourth route will be added when the construction of new transfer terminal at the Edelbrock Centre is completed. The implementation of a fourth route will allow for an expanded service area and assist greatly in improving route efficiency. Riders have

routinely commented on the timing of the system and the intent is to create four balanced routes, thus providing a transit system that is reliable and a value-based service to the community.

The challenge in creating a fourth fixed route is that additional fleet vehicles are required. With four routes it is necessary to have six vehicles which provides for an appropriate spare ratio. The additional buses serve to ensure continued service when routine maintenance and/or unexpected mechanical disruptions occur. The 2021 Capital Budget has made an allowance to purchase two new 30-foot low floor buses this year. To tender, award and to deliver new buses typically takes 14 to 18 months. Accordingly, moving to a four-route fixed system would result in a shortage of buses. Given the anticipated timelines in tendering and purchasing new buses, Staff investigated leasing the spare vehicles. This option would result in significant additional operating costs for Orangeville Transit. Monthly rental fees for a similar 30' low floor bus is \$8500 per month per bus.

As an alternative option in addressing the challenge of bus shortages and to avoid further delays in upgrading the system, Staff are recommending that a pilot “on-demand” response type service be implemented. The demand response type service was also identified in the 2015 Study as an option to address system improvements turning transitional stages of expansion.

On demand bus service is a complement to the conventional fixed route service currently in place. On-demand differs from conventional transit in that there is no fixed route or schedule, and buses are dispatched on a request type basis. The flexibility allows greater service areas to be reached by transit and riders can book a ride when it is more convenient. During set on-demand service hours, a bus will be able to pick up and drop off riders at pre-set locations.

How does on-demand service work? Instead of operating on fixed routes, the transit service provider creates a dynamic route based on passenger requests for service. To book a ride, passengers call a customer service provider and request a pick-up. The request must be made at least one-hour before the requested trip. The trip request is communicated to the driver of the bus and the passenger is told to wait at a specified stop at a scheduled time. The driver adjusts their normal route, based on the requested pick-up and drop off locations. Trips outside the demand responsive zone would be made as scheduled pick-ups and drop offs with the fixed route.

To assist in providing ridership convenience and accessibility, technological platforms have been developed to manage stop based and address-based locations, which guide drivers on flex routes from location to location to manage rider trips. Riders have access to mobile applications for requesting rides and monitoring their status. Riders book trips on-demand or in the future with the simple registration using an email address. As highlighted above, riders without access to technology, can call a customer service number to book a trip.

Based on the above, Staff are recommending that this pilot be implemented based on two fixed routes and one “on-demand” flex or responsive demand route. This will allow Orangeville Transit to continue to operate with its existing fleet. There would be no need to enter into a lease agreement for additional buses, thus saving operating costs. In implementing this pilot Staff are recommending that a consultant be engaged to assist in designing the two fixed routes and the “on-demand” service and to assist in the procurement and selection of an on-demand digital mobile application. There are several third party on-demand digital mobile app software companies. Therefore an “off the shelf” product to secure this technology can be sought in a timely manner.

“On-demand” service is a relatively new concept in transit. Many municipalities like Belleville and Barrie have successfully implemented this technique to meet similar transit challenges and needs. The concept is intended to work where trip demands are low and outside the fixed route zones. The service hours would need to be determined; however, it is felt that the pilot would consider two fixed routes and one on-demand/flex route during the day and on-demand service during the evening hours. It should also be recognized that running the pilot on-demand service will provide valuable data on ridership characteristics, i.e. capacity, location and timing of trips. The data will be useful in designing future routes, hours of operation, fleet management and the extension of services throughout the municipality. The system should also not be confused with a door-to-door type system.

Strategic Alignment

Orangeville Forward – Strategic Plan

Priority Area: Sustainable Infrastructure

Objective: Provide systems that keep people moving

Sustainable Neighbourhood Action Plan

Theme: Transportation System

Strategy: Promote more sustainable and efficient transportation options

Notice Provisions

N/A

Financial Impact

This report is to inform Council of potential operational changes to the Orangeville Transit bus schedules. While the format of transit's daily operation will be slightly different, two fixed and one on-demand routes vs three fixed loops, the system will continue to run with the existing fleet. As such operational costs should remain relatively the same. A nominal cost to engage a consultant to assist in the preparation of the new fixed and flex routes will be required. The approved 2021 Operational budget has an allowance for this work. The capital budget has also set aside the necessary funds to operate and purchase two new buses.

In addition to this, the Province announced in March 2021, additional support for municipal transit systems. The COVID Safe Restart Agreement (SRA) program provided additional financial support for the implementation of on-demand transit studies, pilot initiatives and capital expenses. The funding allocation under this programme for Orangeville is \$81,309. Accordingly, there are no financial impacts associated with this report.

Respectfully submitted

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