



TRANSIT AND PARKING MEMORANDUM

TO: MAYOR J. LEHMAN AND MEMBERS OF COUNCIL

FROM: M. MCCONNELL, TRANSIT OPERATIONS PLANNER
J. ZIMMERMAN, SUPERVISOR TRANSIT OPERATIONS AND INFRASTRUCTURE,
EXT 4305

NOTED: B. FORSYTH, DIRECTOR OF TRANSIT AND PARKING STRATEGY
R. JAMES-REID, EXECUTIVE DIRECTOR OF ACCESS BARRIE
M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RE: 2019 BARRIE TRANSIT ROUTE ENHANCEMENTS

DATE: JUNE 10, 2019

1.0 ROUTE PLAN BACKGROUND

Barrie Transit has experienced significant ridership growth in recent years where a year over year increase of 36% has been observed in 2018. To accommodate this growth, the first express route (Route 100) was introduced to the City of Barrie. It became apparent soon after the implementation that the express route was a resounding success and quickly became the highest utilized route, in terms of boarding's per service hour, as displayed in **Appendix "A"**. In response to this success, staff have identified a cost-neutral route plan to enhance the express route while addressing over-crowding buses in the north east corridor of the City, providing additional service needs along the Bayfield corridor, and offering better service frequencies to 60% of Barrie Transit's existing ridership. The adjusted route plan is to commence on August 25, 2019.

2.0 MAIN THEMES

The updated route plan was built upon the following themes:

- **Data driven decision processes** – All decisions made with respect to the route plan are supported by ridership and real-time bus tracking data collected through the on-board automated passenger counters.
- **Guiding towards the 2041 Transportation Master Plan** – The route plan addresses the current transit needs while conforming to the Transportation Master Plan's 2041 recommended network. The 2019 route plan adjustments would be the first phase towards the realization of the ultimate Barrie Transit network.
- **Building on success** – The route plan provides improved service to an area of the City where Barrie's buses are frequently tracked as being at maximum capacity. The route plan also optimizes routing in other areas of the City for improved transit trips through improved connections and/or reduced travel times.
- **Cost Neutral** – The route plan can be implemented with no additional operating or capital cost.

3.0 ROUTE PLAN DESCRIPTION

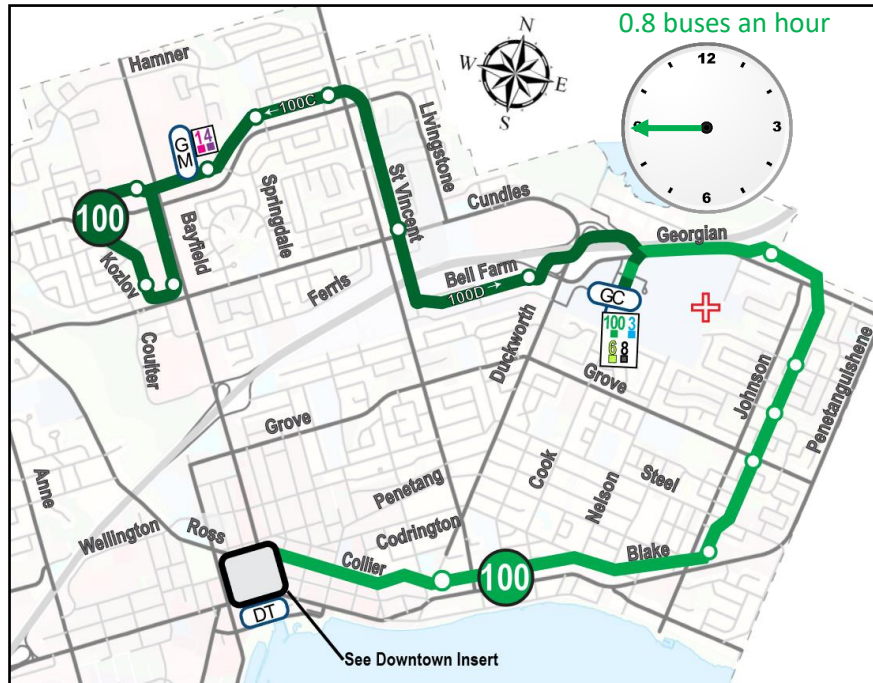
Details of the route adjustments are provided below:

3.1 *Item #1: Route 100 Expansion and Enhancement*

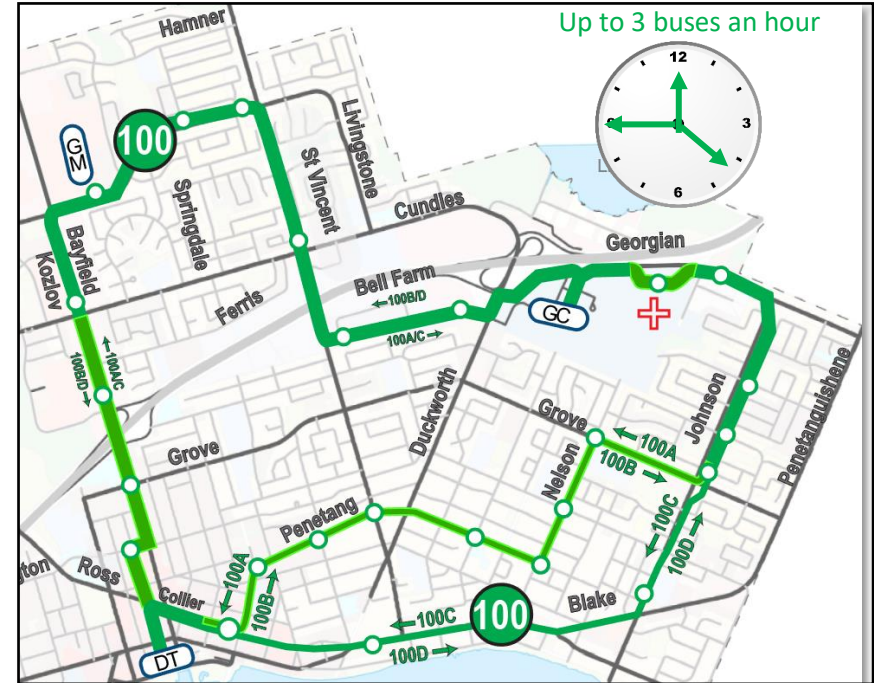
Route 100 was implemented in September of 2018 and operates between Barrie's Downtown Terminal and Georgian College via the Blake and Johnson Street corridors. In the afternoon, this route extends to the Georgian Mall retail area. The current Route 100 is provided in **Figure 1**.

The planned Route 100 enhancement will operate with 4 buses which will arrive every 22.5 minutes during peak periods. Route 100 will also be extended to service The Royal Victoria Hospital and the Bayfield Street corridor in a two-way northeast Barrie express route.

The route will contain a two-way branch on Penetang and Blake Streets. The ridership levels along these streets is relatively low compared to the rest of the Route 100. This routing strategy allows the right sizing of the route's resources to the ridership levels while providing express service to the majority of the riders. The branches will operate with two directional 45-minute frequencies during peak and off-peak hours. The enhancements to Route 100 is illustrated in **Figure 1**.



Existing Route 100 Buses:



Planned Route 100 Buses:

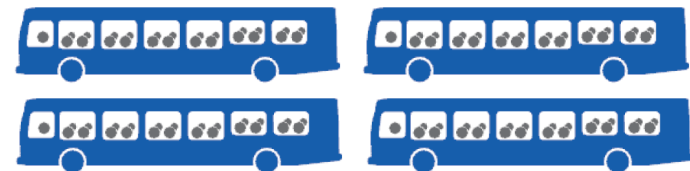
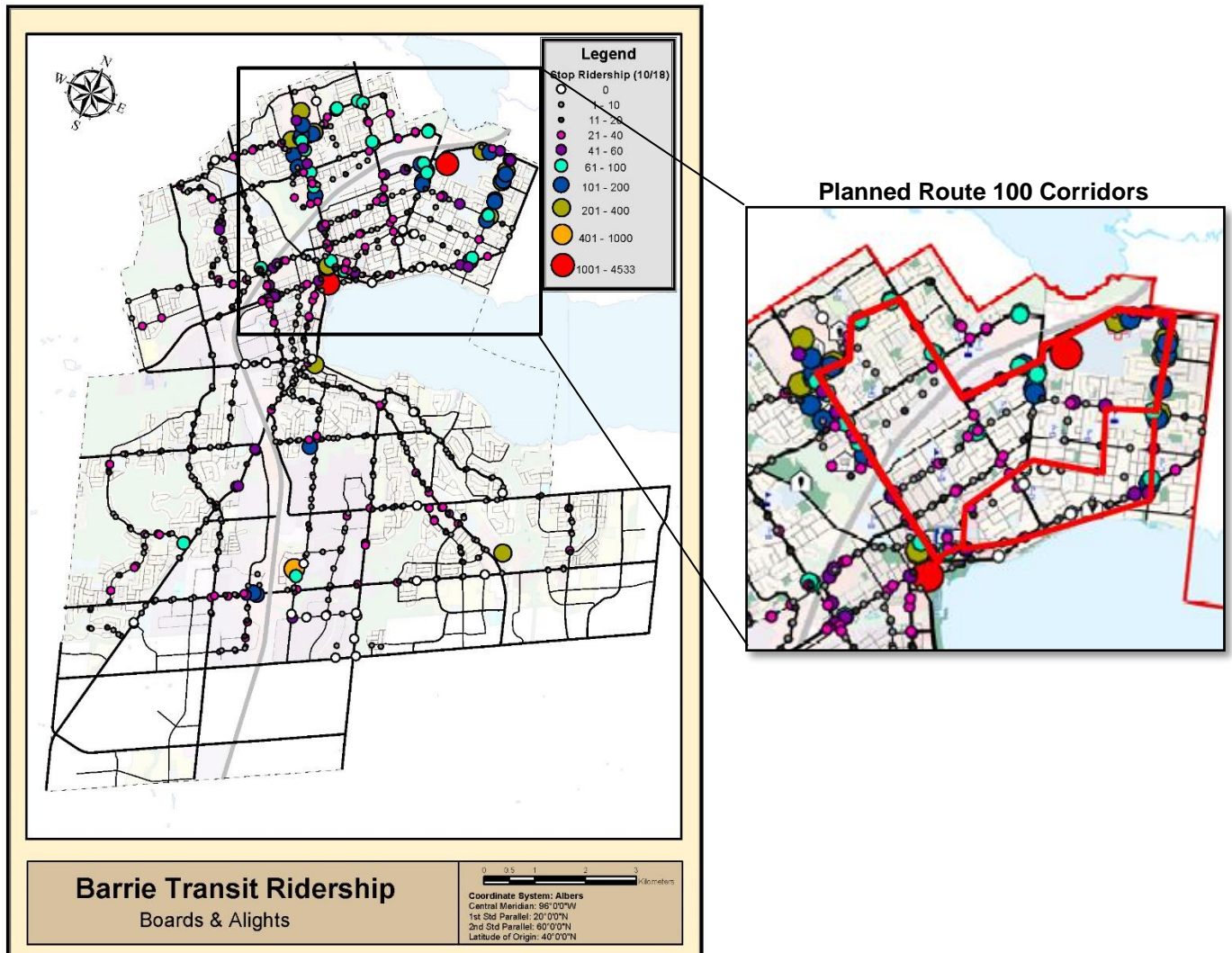


Figure 1: Existing Route 100 (on the left being serviced by one bus) & Planned Route 100 (on the right to be serviced by four buses)

Route 100 Supporting Data

The enhanced routing was chosen based upon ridership statistics and travel trends. The average weekly boarding and alighting (or disembark) data indicates the expanded and enhanced Route 100 will provide express service to approximately 60% of Barrie Transit's ridership.



The reasons behind the Route 100 enhancement strategy include:

- **Resident Request:** Barrie Transit Customer Satisfaction surveys indicates a significant desire for additional fast and frequent transit service.
- **Congestion Relief:** The planned Route 100 will provide additional bus trips along the Johnson Corridor. It is expected that the Route 8A-NB and Route 100B/D will provide sufficient transit capacity to accommodate the observed and expected ridership in the AM hours to Georgian College.
- **Transit Demand:** The Bayfield Corridor is one of the highest travel demands for transit riders. Approximately 950 riders per weekday travel along the Bayfield corridor to/from Barrie's downtown.

- **Travel Time Reduction:** An assessment was conducted to statistically determine the overall impact of the route plan to the existing transit riders. This assessment estimates rider's demand for transit and how they will experience the transit system before and after the route plan. The results indicate 5 riders will experience a shorter transit trip for every 1 rider with a longer transit trip. The travel time reduction for all of Barrie Transit's riders is estimated at 500 hours per weekday.

Cost Neutral

To build on the success of Route 100 other route changes are required to provide a cost neutral approach. **Table 1** below provides the vehicle impact on each route highlighting the cost neutral approach as part of these route changes. Route 5 and Route 3's service coverage areas will be covered by Route 100. The Route 4 southeastern allocation will primarily be covered by routing and scheduling optimization.

Report Heading	Route Coverage Area	Action	Bus Allocation
Item #1	Route 100 Enhancement		+3 buses
Item #2	Route 5 – East	Replaced with Route 100	-1 bus
Item #3	Route 3 - North	Replaced with Route 100	-1.6 bus
Item #4	Route 4 - South	Realigned with Route 3 south	-0.4 bus

Table 1: Cost Neutral Planned Route Changes

3.2 Item #2: Route 5 East

Travel trends indicate Route 5 operates as two separate routes with minimal riders traveling through the Downtown Terminal from east to west. Route 5 east is primarily a supplementary coverage on Blake and Johnson with Routes 8A-NB, 8B-SB, and Route 100 also operating on this corridor. As such, this route's coverage will be re-allocated to route 100. To ensure maintenance of all coverage areas, Route 8 will be extended towards Penetanguishene Road and Shanty Bay Road (No Frills Bus Stop).

3.3 Item #3: Route 3 North

The north end of Route 3 is to be replaced with Route 100 A/B. The existing one-way loop will be replaced with two-way service along Grove and Johnson. The existing one-way services along Penetang and Codrington will evolve to a two-way service via Penetang. This plan simplifies the route structure for the riders and removes buses on the local residential road of Codrington in favour of the minor collector Penetang. The existing routes are provided in **Figure 2**. The planned routes are provided in **Figure 3**.

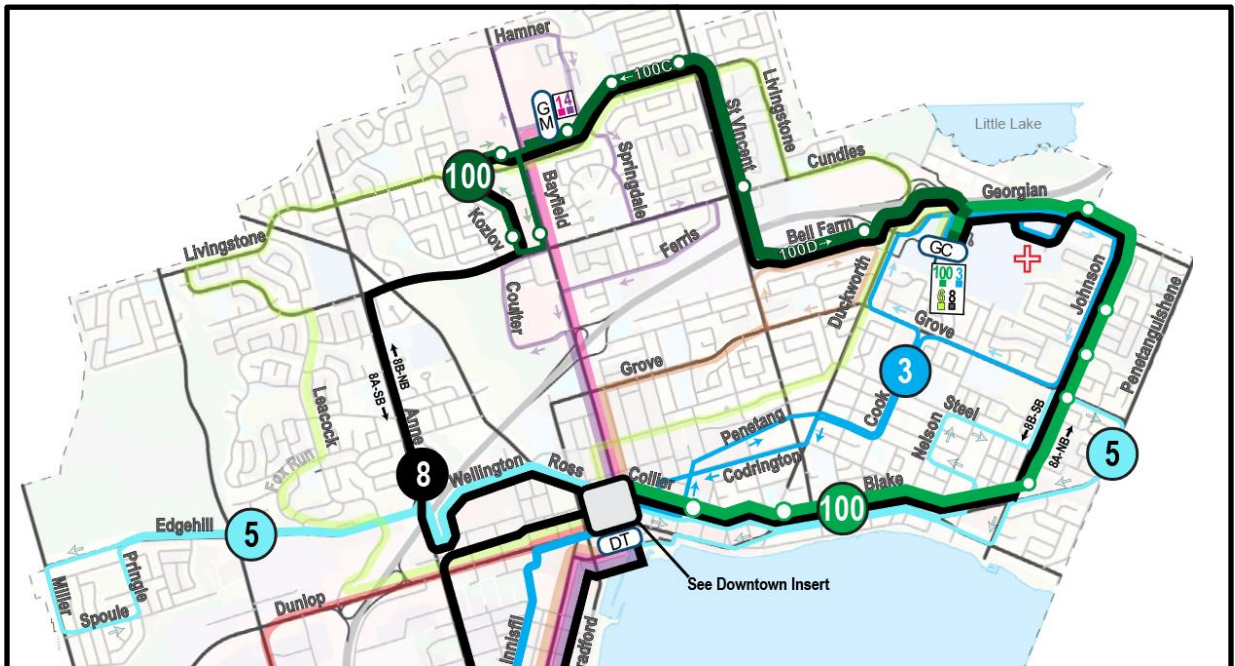


Figure 2: Existing Route 3, 5, 8, & 100

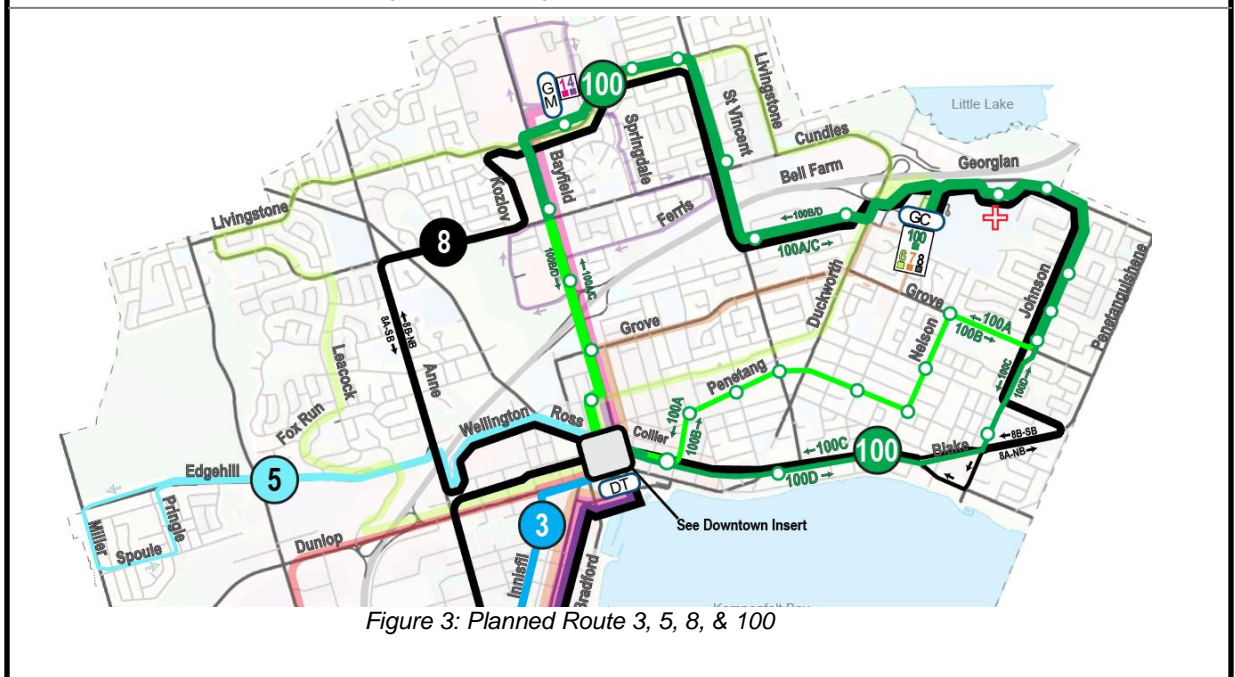


Figure 3: Planned Route 3, 5, 8, & 100

3.4 Item #4: Route 4 South

This route plan exchanges the coverage areas of Routes 3 & 4. The primary reason for this route change is efficiency. The current routing has a 10-minute detour loop (along Big Bay Point Rd, Dean Ave and Ashford Dr) before continuing on the primary north-south travel pattern. A rider traveling from Hurst to Barrie South GO would experience two 10-minute detours each day. The new route plan maintains the existing travel options but in a more efficient manner saving rider's time. The existing and planned routes are provided in **Figure 4** and **Figure 5**.

Route 3 will maintain a 30-minute headway. Route 4 will increase its headway from 35 to 37 minutes. With the removal of the 10-minute detour loop, travel time will still be improved even though the headway is increasing by 2 minutes.

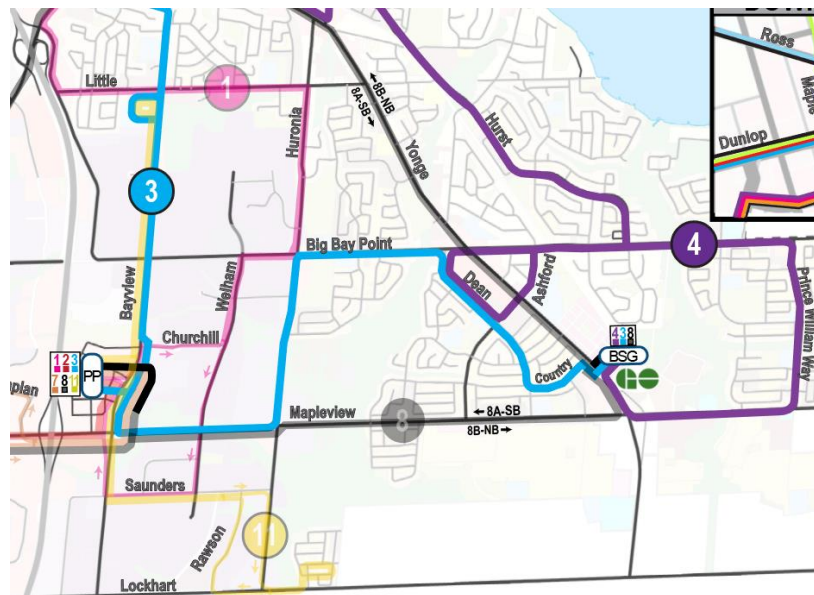


Figure 4: Existing Route 3 & 4

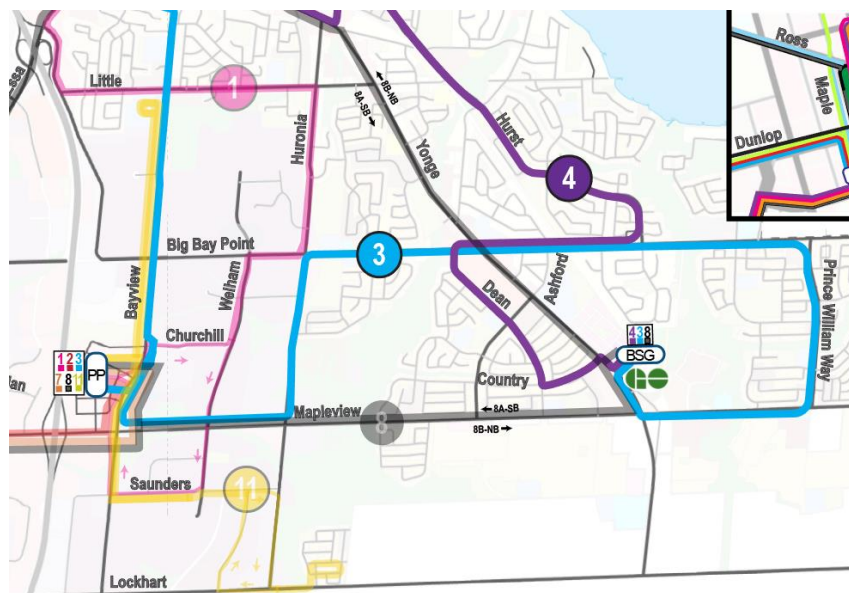


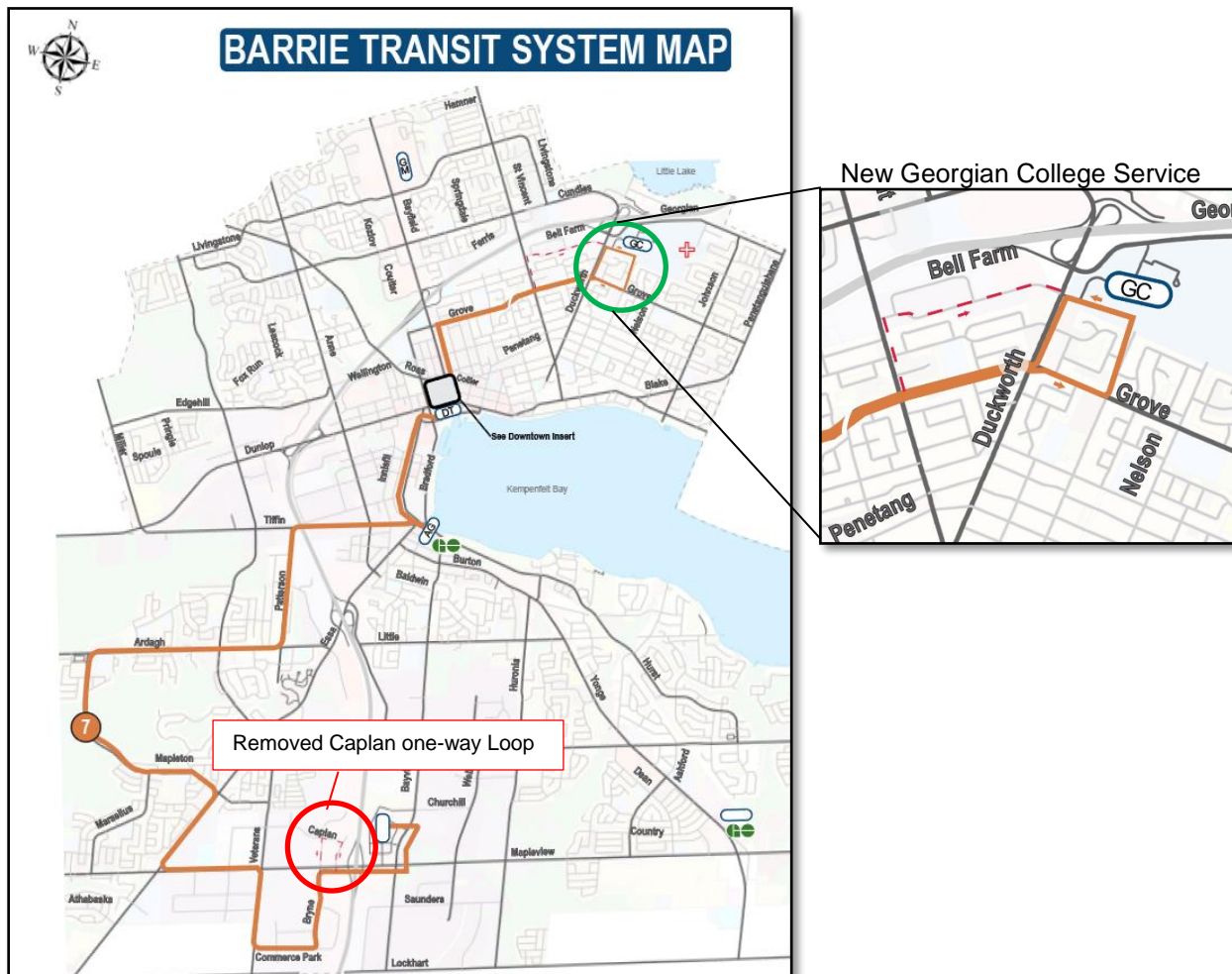
Figure 5: Planned Route 3 & 4

3.5 Item #5: Other Route Changes

The following route changes improve the network by enhancing connections between origins and destinations and are not specifically related to the Route 100 expansion and enhancement.

Route 7 proposed route plan involves:

- An extension into Georgian College via Cook and two-way service via Grove between St. Vincent and Duckworth. The existing Route 7 operates as a one-way loop via Duckworth. The existing ridership demand to the college of approximately 70 riders justifies the extension while also encouraging future ridership growth at Georgian College.
- A minor one-way loop on Caplan (which has minimal ridership) will be straightened out to provide directness and improve the efficiency of the route.
- Route 7 will also be re-routed from Bell Farm. Bell Farm has transit service from Routes 8 and 100 whereas Grove Street, with the discontinued Route 3 north, requires additional transit service.



Routes 8A-NB and 8B-SB proposed route plan involves:

- This plan allows for additional connections to the Allandale GO Station, and will provide greater connection opportunities to the GO service for residents in southwest Barrie. The route plan is displayed in Figure 6 with the extension in green and the removed coverage in red. The re-routed area has four low ridership stops within 300m walking distance of where Routes 8A-NB and 8B-SB will continue to service.

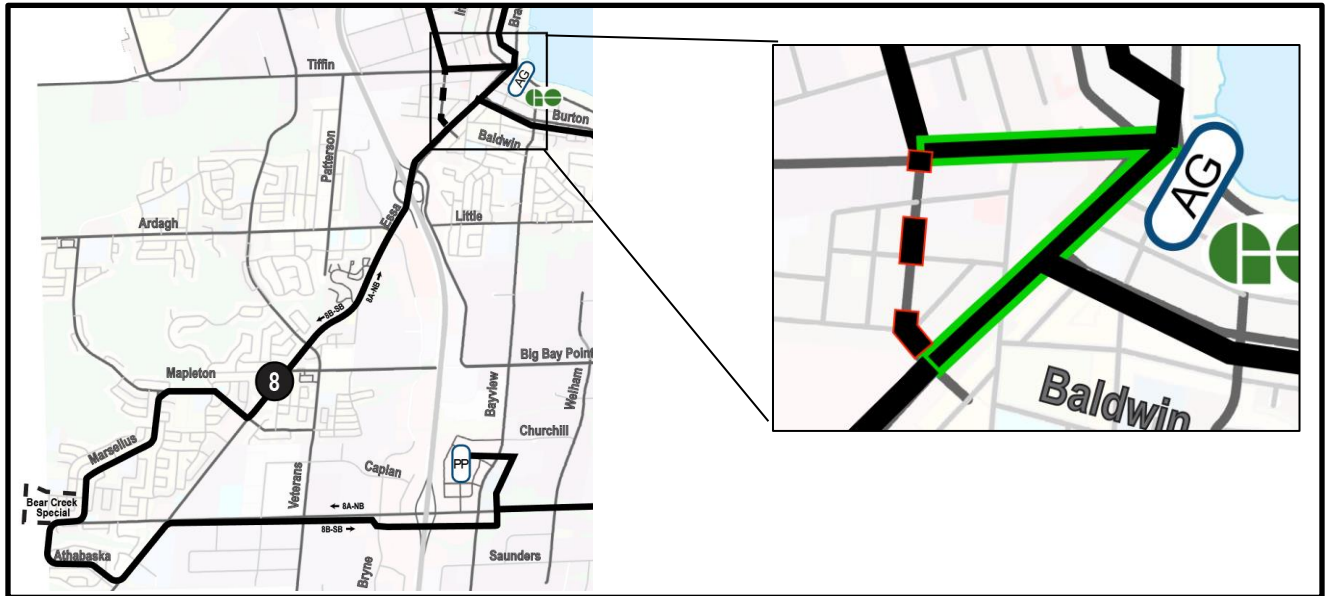


Figure 6: Routes 8A-NB and 8B-SB Coverage Extension

4.0 SUMMARY OF ROUTE PLAN

The net change in service coverage from the 2019 route plan relative to existing routes is provided in **Figure 7**. The route plan focuses on Barrie's northeast which is the highest ridership area due to the Downtown, Georgian College, Georgian Mall, and RVH destinations.

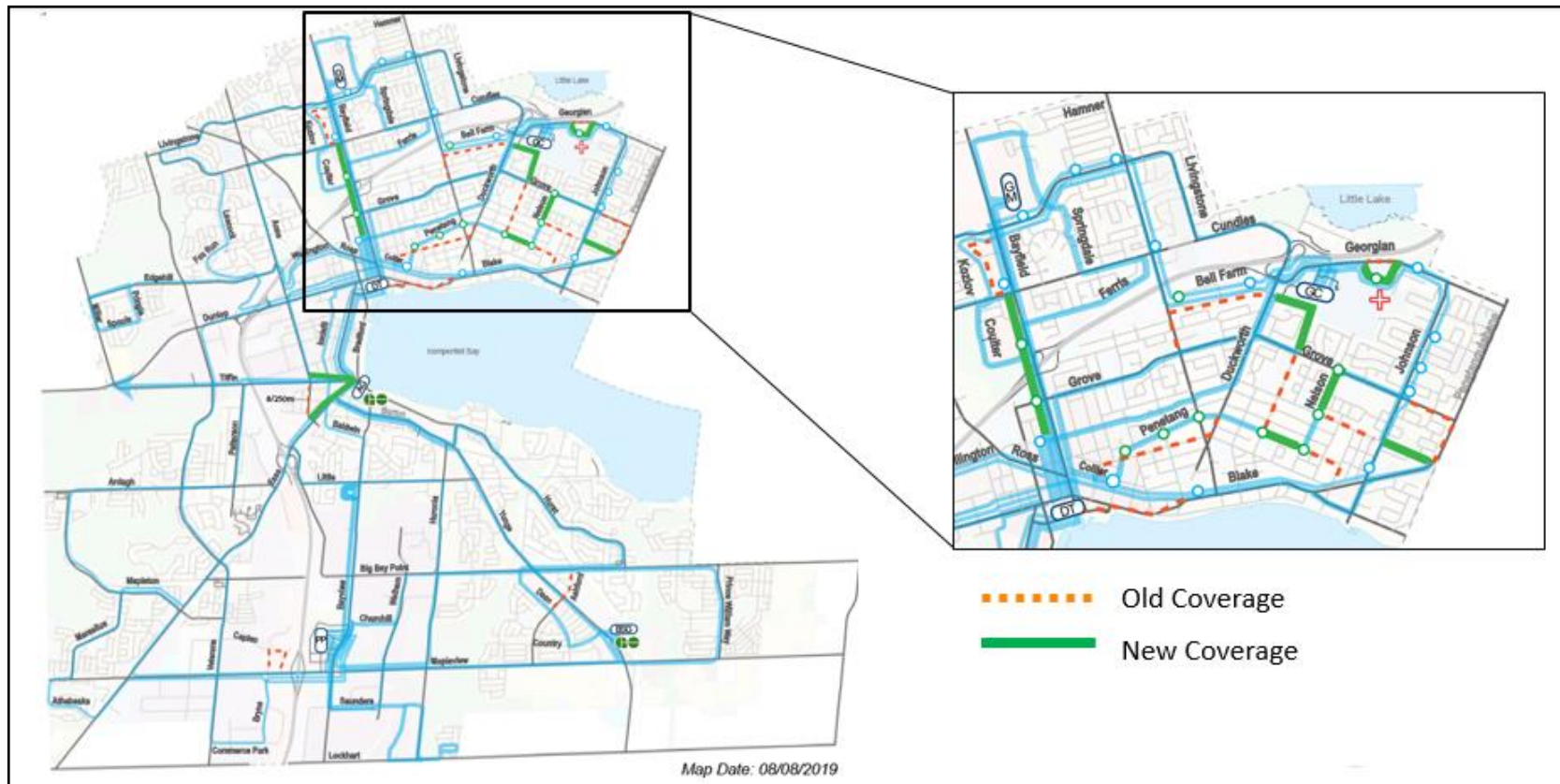


Figure 7: Net Route Coverage by Corrido

The route changes will take effect Sunday August 25, 2019 with the updated system map illustrated in **Figure 8**.

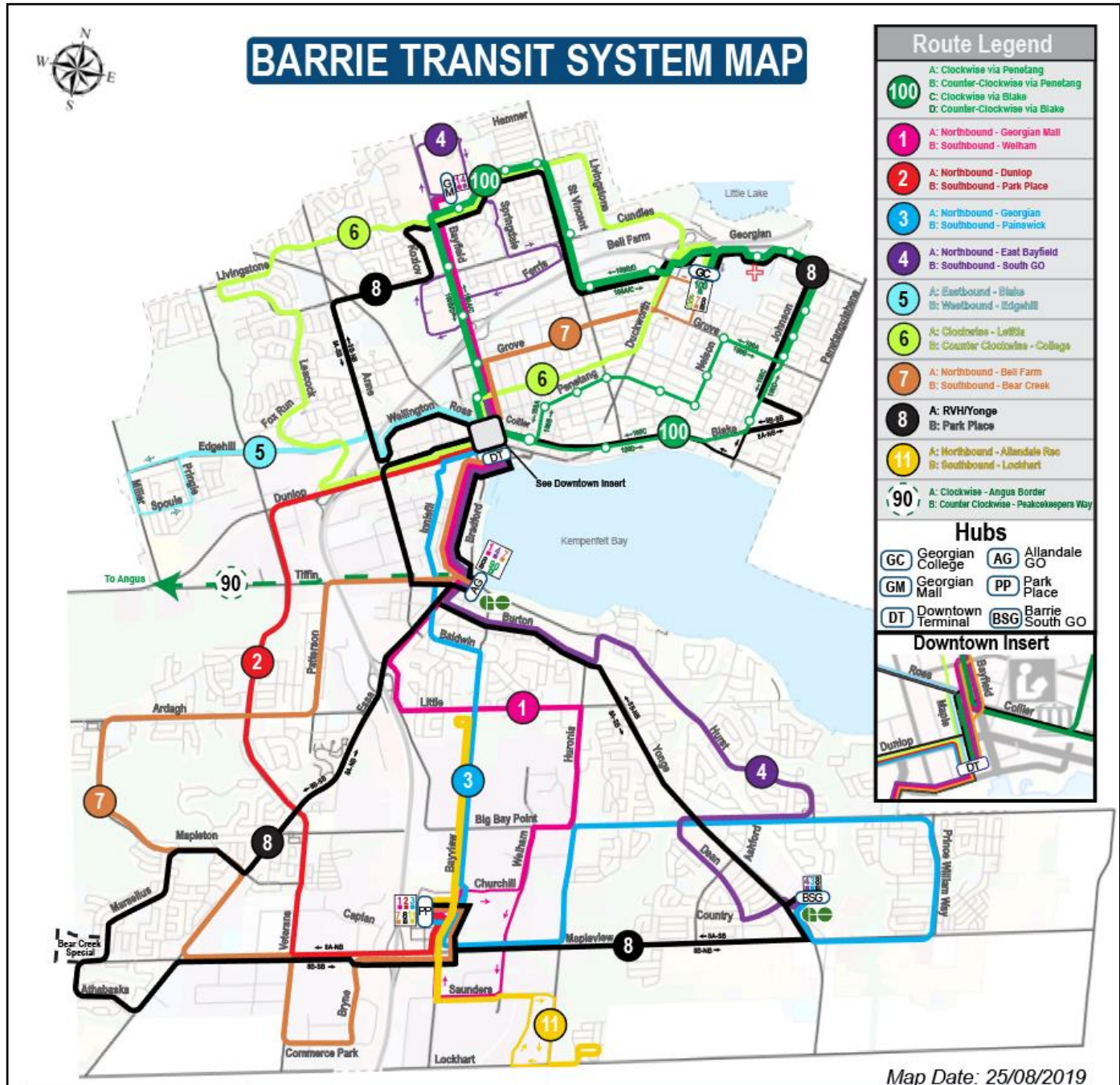


Figure 8: August 25, 2019 System Map

5.0 COMMUNICATIONS PLAN

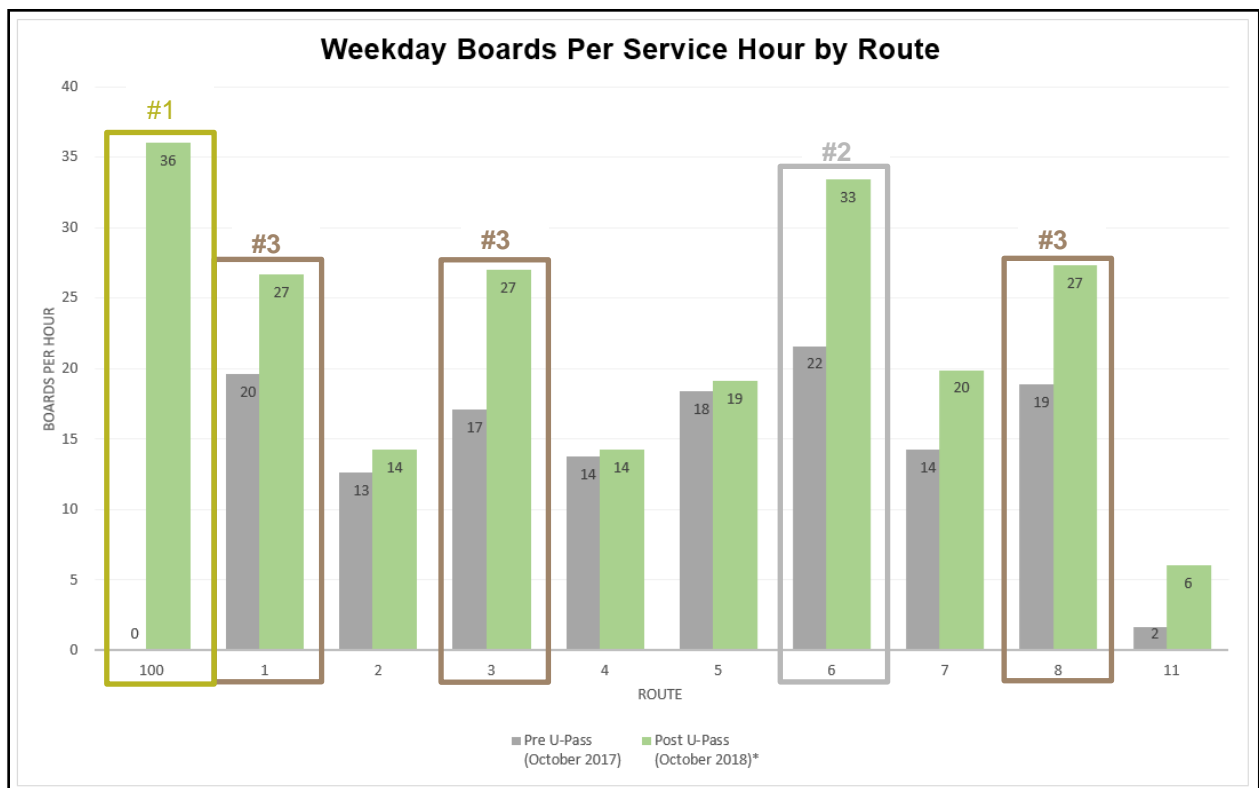
Staff within the Transit & Communication Departments will work together to initiate a Communications Plan for the route and schedule changes. The Communications Plan is structured to reach residents with and without smart phone or internet access. The communications plan will include the following:

- **Stop Notices:** Notices will be placed at each bus stop that is to be relocated, removed, or to experience a route change. It is planned for these notices to be color coded with a before and after description based on whether it will be a new stop, removed stop, relocated stop, or with a route change for a more informative level of understanding to the users at the bus stops.
- **Online Notices:** Notices will be placed within the Service Notices webpage within the Barrie Transit section of the city's website with the detailed before and after route change network maps. Full schedules and summary schedule brochures will be placed online.
- **On-Bus Notices:** Notices containing details of the changes and whom to contact or where to go to find more information will be placed within all public notification boards on each bus.
- **Terminal Communications:** Notices containing details of the changes and whom to contact or where to go to find more information will be placed within all message cabinets, and at each ticket sales window.
- **Social Media:** Social media posts will include details related to the changes that will be created and posted by the Communications Department guiding residents to the Service Notices webpage within the Barrie Transit section of the city's website.
- **This Week In Barrie:** A post in the 'This Week In Barrie' newspaper section summarizing the changes and guiding residents to the Service Notices webpage within the Barrie Transit section of the city's website.
- **Media Release:** Will include details related to the changes and will be created and released by the Communications Department guiding residents to additional information on the Service Notices webpage within the Barrie Transit section of the city's website.



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APPENDIX A: SYSTEM RIDERSHIP PER SERVICE HOUR



Weekday Ridership Before and After Implementation of the U-Pass