



TO: GENERAL COMMITTEE

SUBJECT: ALLANDALE MOBILITY HUB FEASIBILITY STUDY

WARD: ALL

PREPARED BY AND KEY CONTACT: M. MCCONNELL, TRANSIT OPERATIONS PLANNER, EXT 4168

SUBMITTED BY: B. FORSYTH, DIRECTOR OF TRANSIT AND PARKING STRATEGY

GENERAL MANAGER APPROVAL: R. JAMES-REID, EXECUTIVE DIRECTOR – ACCESS BARRIE

CHIEF ADMINISTRATIVE OFFICER APPROVAL: M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RECOMMENDED MOTION

1. That functional design Concept C for the functional design as set out in the Allandale Mobility Hub Feasibility Study be endorsed in principle, subject to future capital prioritization and approvals.
2. That staff be delegated authority to apply for funding under the Public Transit Infrastructure Fund (PTIF) program or any other available funding program for the Allandale Hub, and if possible partner with Metrolinx on the submission of the application.
3. That Scenario 2 for the transit service and scheduling as set out in the Allandale Mobility Hub Feasibility Study, be endorsed in principle, so that subject to the capital project advancing, staff undertake the modifications to the transit route system based on the general parameters in Scenario 2 and report back to General Committee prior to any route changes.

PURPOSE & BACKGROUND

4. As part of the Year Round Downtown Market Public Market staff report (FCT006-17) presented at General Committee on December 11, 2017, staff had advised that the estimated cost of completing a full Multi-Modal Transit Hub Study would be approximately \$150K and take approximately 1 year to complete.
5. At the December 11, 2017 General Committee meeting Council had requested staff to investigate the impact to reduce the funding for the study and to expedite the process. As part of that request staff had prepared a memo ahead of Council on December 18, 2017 outlining that the project would include the Allandale site be the only site considered, completion of a Traffic Impact Study, high level transit service/scheduling scenarios and the delivery of a functional design. The memo also indicated that public consultation, certain components of active transportation and the Parking Demand Assessment would likely need to be de-scoped from the project.
6. At the December 18, 2017 Council meeting and under motion (17-G-325), Council directed staff:

That funding for the Multi Modal Transit Hub Study that is being requested within the 2018 capital plan totaling \$100,000 to be funded from the Tax Rate Stabilization Reserve, be

expedited and approved to commence immediately, and staff report back to General Committee with the results of the Study.

7. Staff issued an invitational RFP in December 2017 and on January 23, 2018 the project was awarded to WSP.

ANALYSIS

8. Staff from various departments within the City of Barrie have been working collaboratively with WSP over the last four months to develop the Allandale Mobility Hub Feasibility Study. The main sections in the report include Policy Review, Mobility Hub Design Best Practices, Transit and Scheduling Review, Traffic Impact Study and the Concept and Functional Design Drawings.

Policy Review

9. It is important that the Allandale Mobility Hub Feasibility Study include a policy review to fully contextualize the policy framework for the site in terms of land use planning, urban design and transportation. The complete Allandale Policy Review Report is included in the Allandale Mobility Hub Feasibility Study.

10. Land Use Planning Policies:

a) The Growth Plan for the Greater Golden Horseshoe

- i) Within the Growth Plan, the Allandale Mobility Hub is characterized as a 'Major Transit Station Area' within constructs of Provincial policy. This means a development within 500m of the mobility hub and GO Station will be planned as a 'transit supportive' community with a minimum density target of 150 residents and jobs combined per hectare.
- ii) 'Transit Supportive' in The Growth Plan means: "Relating to development that makes transit viable and improves the quality of the experience of using transit. It often refers to compact, mixed-use development that has a high level of employment and residential densities.
- iii) Within a Major Transit Station Area a municipality must delineate the boundaries of major transit station areas in a transit-supportive manner that maximizes the size of the area and the number of potential transit users that are within walking distance of the station.

b) Official Plan

- i) The OP designates the station site and surrounding areas as an Urban Growth Centre with the density target of 150 residents and jobs combined per hectare within Schedule I of the Official Plan.
- ii) At present, the City of Barrie Official Plan does not delineate the boundaries of any Major Transit Station Area around the proposed Allandale Mobility Hub lands. This will need to be done as part of the municipality's conformity exercise to bring the current Official Plan into conformity with the 2017 Growth Plan.

c) **Urban Design Guidelines for Barrie's Intensification Areas**

- i) The 2012 City of Barrie Intensification Area Urban Design Guidelines provide a vision, a set of priority directions, and detailed design guidelines, to direct new development within the Intensification Nodes and Corridors, Urban Growth Centre, and Major Transit Station Areas identified in the City of Barrie Official Plan.
- ii) In particular, this document provides a number of urban design guidelines to shape development within the City's Major Transit Station Areas. This area would extend 500 metres (approximately a 10 minute walk) around the proposed Allandale Station Mobility Hub. The goals of the guidelines for the Major Transit Station Area is to promote development that is transit supportive, promotes active streetscapes and that encourages active transportation alternatives.

11. **Transportation Planning Policy**

a) **Metrolinx - GO Regional Express Rail**

- i) As part of the GO Regional Express Rail (RER) program two-way, all-day rail service is expected between Union Station and Allandale Waterfront GO. The RER program is fully funded and is currently in design and procurement with completion anticipated by 2024. The full length of the Barrie Corridor is owned by Metrolinx and will be fully electrified.

b) **Metrolinx - GO Rail Station Access Plan**

- i) The plan outlines high level strategies and objectives for how passengers will access different kinds of GO Rail Station and lays out specific plans and targets for each station. The plan envisions dramatically increasing the share of GO passengers who arrive at rail stations by local public transit. The transit mode share for Allandale GO Station is a target of 28-30% by 2031. The full modal share targets for Allandale GO are provided in **Table 1**.
- ii) The Allandale Waterfront GO station is identified as a Historic Suburban Town Center type station. This typology is characterized in the plan as having limited expansion opportunities because of surrounding established medium density development and a walkable environment with smaller block sizes. The station is seen as having significant potential to increase walking and cycling access as well as integration with local transit because of a central location within the local municipality.
- iii) There are currently 160 surface parking spaces at the station with an estimated utilization of over 90%. Based on the GO Rail Station Access plan and further discussions with Metrolinx, no significant vehicle parking infrastructure is planned in the future.
- iv) The initial ridership estimates for boardings at the Allandale GO Station, contained in the GO Rail Station Access Plan, grow from 300 riders per day to 2,000 riders per day by 2031.

Mode	Current Share (2015)	Target Share 2031
Walking	9%	14-16%
Local Transit	7%	28-30%
Micro-Transit	n/a	tbc
Cycling	0%	3-5%
Pick Up/Drop Off	20%	26-28%
Drive and Park	64%	26-28%
Carpool	0%	3-5%

Table 1: Current and Target Mode Split for Access to Allandale Waterfront GO Station (2016 GO Rail Access Plan).

c) Multi-Modal Active Transportation Master Plan Update

- i) The City of Barrie is currently undertaking an update to its Multi-Modal Active Transportation Master Plan (MMATMP) to address needs to 2041. This study will include a review of existing conditions, identify transportation improvements needed to support growth, assess alternatives based on different mode split scenarios and development a long-range implementation plan.
- ii) The enacted January 2014 Transportation Master Plan recommends the following for Barrie Transit:
 - Provide fast and direct routes to the downtown and Allandale areas
 - Provide direct service to the Allandale-Waterfront and Barrie South GO Stations and coordinate buses with the train schedule
 - Create direct north-south routes to serve destinations such as Georgian Mall, Georgian College and Royal Victoria Hospital in the north and the industrial area near Highway 400/Mapleview in the south
 - Implement frequent service in all Intensification Areas and towards the downtown/Allandale area
 - Provide good service area coverage and frequency in the Annexed Lands

d) Simcoe County Transit Study

- i) The County of Simcoe is currently establishing an inter-municipal service which would operate between urban areas. Simcoe County is proposing three routes which would operate from Barrie to Orillia, Midland and Wasaga Beach. Each route is assumed to operate on a 60 minute headway.
- ii) It is unclear in the long term where the routes will terminate. As part of the Allandale Mobility Hub Feasibility Study, it has been assumed that the Simcoe County service could utilize the Allandale Mobility Hub as a terminal location in the long term whereby linking to RER service to the GTA.

Mobility Hub Design Best Practices

12. The Mobility Hub Design Best Practices report will summarize research into terminal design best practices locally and globally to select the best attributes specific to Barrie and the Allandale site.

The complete Allandale Best Practice Report is included in the Allandale Mobility Hub Feasibility Study.

Transit and Scheduling Review

13. This section summarizes transit operations expectations with the relocation of the main terminal. The review was separated into two transit operational scenarios.
 - a) **Scenario 1 Minimal Disruption (12.1% Projected Cost Increase):** Scenario 1 involves diverting all the existing Barrie Transit routes to Allandale Mobility Hub. This scenario creates the benefit of having a central hub location where travelers can easily transfer to any other route in the system. However, it brings the disadvantage of increased operating costs as some routes become longer and may require additional vehicles to maintain current headways.
 - b) **Scenario 2 Minimal Cost (3.2% Projected Cost Increase):** Scenario 2 involves strategically diverting some routes to service the hub while maintaining other routes with a focus on Downtown. This scenario includes strategic improvements to provide more direct service to the GO Station for areas where there are likely clusters of trip origins. Importantly, this scenario was designed to be cost neutral, meaning that operating costs are relatively close to the existing network and no additional buses are anticipated to be required.
14. **Scenario 1:** The analysis showed that while scenario 1 provided significantly higher coverage to Allandale station, it did so at the expense of providing coverage to the downtown. Scenario 1 also incurred an increased annual operating cost and the purchase of two new buses to accommodate the longer total route lengths with longer roundtrip travel times.
15. **Scenario 2:** was able to preserve only a small decrease in direct coverage to the Downtown while substantially increasing coverage to the Allandale Mobility Hub. This scenario still involves increasing the length of some routes to divert into the new terminal and thus a small incremental operating cost increase. This is somewhat offset by improvements to operating speed.
16. A summary of the two scenarios is provided in **Table 2**.

Scenario	Description	Cost Increment	% Of Residents With Direct Coverage
Transit Network Scenario 1	All routes diverted to serve Allandale Hub Additional Operating Cost	12.1% Annual Operating Cost Increase 2 Additional Buses	To Downtown: 72% To Allandale: 78% To Georgian College: 63% To Park Place: 62%
Transit Network Scenario 2	Select routes diverted to Allandale, service levels maintained to Downtown Barrie Cost Neutral	3.2% Annual Operating Cost Increase No Additional Buses	To Downtown: 78% To Allandale: 68% To Georgian College: 62% To Park Place: 64%
Existing Network	Current Barrie Transit Network	N/A	To Downtown: 79% To Allandale: 63% To Georgian College: 63% To Park Place: 63%

Table 2: Transit Scenario Summary

17. As Council provides direction on the above scenario's and staff undertake the development of the detailed changes to the transit route system to support the main hub relocation to Allandale, public engagement will be required. Staff will conduct public consultation as they make recommended modifications to the transit route system.
18. The timing of the route changes will be dependent on the timing of construction of the Allandale Mobility Hub and updated transit route system would be presented to Council for endorsement prior to implementing the corresponding changes.

Traffic Impact Study

19. The Traffic Impact Study modeled five intersections in the area. The study utilized the peak 15 minutes of the peak hour on a typical weekday AM/PM peak hour and weekend peak hour. These volumes and analysis therefore represent the highest traffic volumes to be expected in a typical week
20. The full traffic impact study is in the Allandale Mobility Hub Feasibility Study.
21. **Allandale Mobility Hub and Traffic Conditions**
 - a) The difference between the bus volumes with the Allandale Mobility Hub and without the Allandale Mobility Hub is 9 buses per hour under Scenario 2 of the Transit and Scheduling Review.
 - b) If council were to adopt scenario 1 within the Transit and Scheduling Review section below, this would result in 17 additional buses per hour. This scenario was used in the Traffic Study to represent the worst case conditions. A summary of the bus volumes between scenarios is provided below in **Table 3**.

Transit Scenario	Time Frame	Existing & 2024 <u>Without</u> the Mobility Hub	2024 <u>With</u> the Mobility Hub	Allandale Mobility Hub Bus Growth
1	Per Hour	15	32	17
	Per Day	269	575	306
2*	Per Hour	15	24	9
	Per Day	269	400	131

* Recommended

Table 3: Barrie Transit Bus Volumes (Weekday)

- c) For reference, Barrie Transit is expecting at most an additional 17 buses during the weekday PM peak hour to the intersection of Bradford & Essa. The background vehicle traffic growth is expected to add approximately 225 vehicles during the same time at the intersection of Bradford & Essa.
- d) The difference in average delay caused by the additional bus volumes is not determined to be significant. Detailed traffic signal optimization would be coordinated with Barrie's Traffic department as the transit scheduling and servicing task is being completed in order to accommodate vehicular traffic and bus traffic flows.

22. Further Traffic Analysis – Summer Traffic Volumes

- a) This traffic model does not account for summer traffic volumes due to a submission requirement prior to typical summer months (July & August) and limited historical data to substitute 2018 summer data. Further analysis with summer month traffic volumes could be conducted and completed during the summer months of 2018 which would provide greater intersection optimization and insight into summer traffic peak periods. This additional work would be taken into consideration from operation and financial standpoint in order to develop the transit and scheduling.

Concept and Functional Design Drawings

23. This section summarizes the process behind the evaluation and refinement of concept plans into the recommended functional design drawing.

24. Study Area

- a) For the purposes of this study, the scope of analysis is limited to the Allandale Station transit facilities and the immediate surrounding road network. The principal site of the new terminal will be the vacant parcel of land immediately north of the current bus facilities at the station, formerly occupied by the Barrie Lawn Bowling Club.
- b) The overall existing station facility includes GO Rail platforms, a 6-bay bus facility, on-street parking on Gowan Street as well as the station access road via Essa and an east and west signalized intersection access via Lakeshore Dr. The site is provided in **Figure 1**.

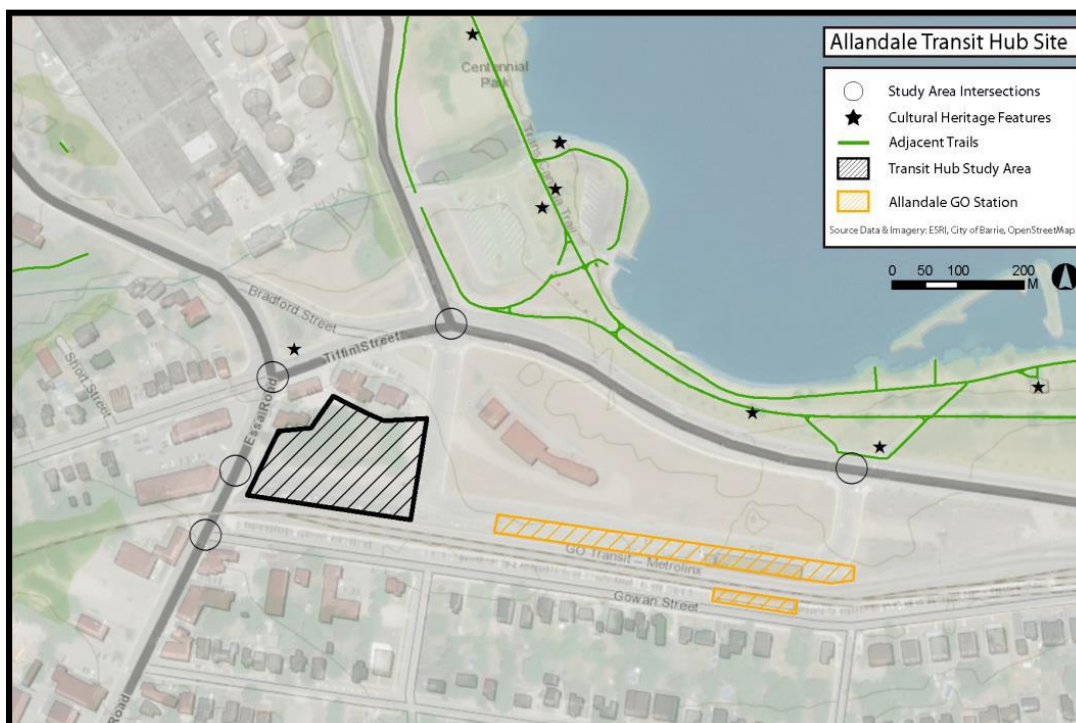


Figure 1: Allandale Station Site (GO Station and Mobility Hub)

- c) GO Transit currently services the terminal with the route 68 bus which operates approximately hourly throughout the day. Barrie Transit currently serves the station with five routes connecting from Essa Rd, Tiffin St and Bradford Street. There are four heated, fully enclosed shelters at the site to provide full weather protection for transit patrons.
- d) The site is well served by an extensive multi-use path network along the adjacent waterfront. This trail provides direct connections to the downtown area and to the communities to the southeast.

25. **Design Criteria**

- a) The development of functional design alternatives for the Mobility Hub was driven by a range of issues and the estimated future functional requirements identified as part of the transit servicing and scheduling review. This analysis was driven by impacts to ridership, coverage, operating expenses and maintaining service to the downtown.
- b) A number of alternative bus terminal design configurations were considered during the study. Alternative bus terminal configurations were developed based on the consultant's knowledge of similar facilities domestically and abroad.
- c) These concepts were provided to the City of Barrie Transit, Traffic, Engineering, Facilities, and Planning Department for comment. The concepts are further outlined in the Allandale Mobility Hub Feasibility Study.

26. **Assessment Criteria**

- a) The evaluation criteria, which is further detailed in the Allandale Mobility Hub Feasibility Study, were used to determine a preferred functional design based on a set of criteria including Ease of Bus Access, Ease and Safety of Pedestrian Linkages, Impact on Area Traffic Operations, Relationship to Policies, Impact on Existing Properties, Efficiency of Site Use, Potential for Future Expansion, and Construction Cost.

27. **Concept Selection**

- a) Considering all the above, Concept C is the simplest, safest, and most efficient of the alternatives considered. Concept C does result in minor increases in bus travel distances over Concept A. However, Concept A has other notable drawbacks in pedestrian/cyclist access, and complexity without commensurate improvements in bus operations. The full scoring details are provided in the Allandale Mobility Hub Feasibility Study.



Figure 2: Allandale Mobility Hub Recommended Functional Design Rendering

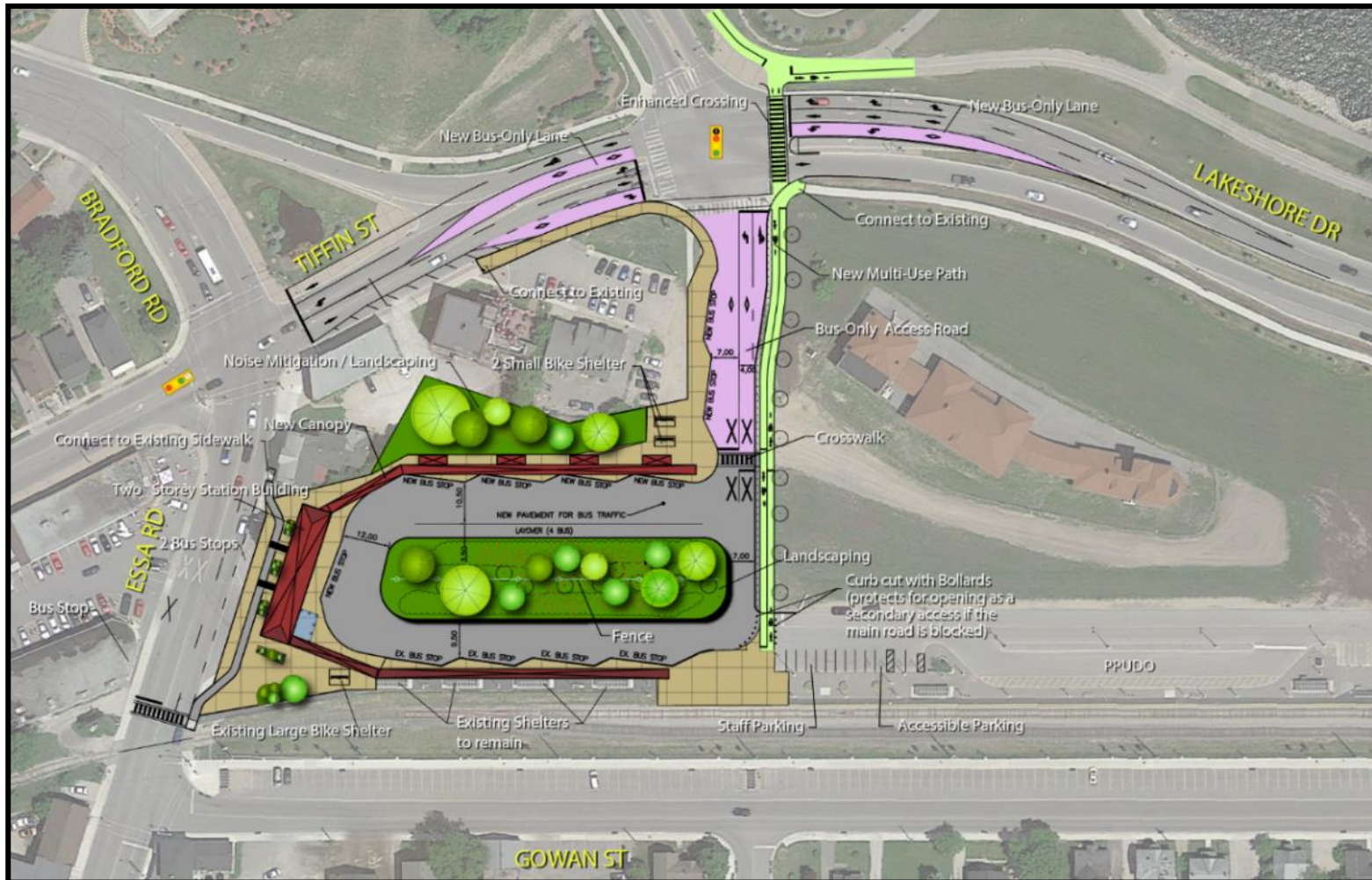


Figure 3: Functional Plan Drawing

- b) Concept C was refined from a concept level to a functional design level which includes additional site specific details. A rendering with and without the canopy is provided in **Appendix A**. A high level description of the detail is provided below.
- c) *Bus Service Configuration*
 - i) The recommended functional design for the Mobility Hub is a loop configuration with 11 saw tooth bus bays within the loop and an additional 2 bays on Essa Road for a total of 13 bus bays and will utilize the majority of the existing site's infrastructure.
- d) *Terminal Building*
 - i) A two-storey transit terminal is provided on the east of the site. The terminal building will contain ticket selling services for local & regional service, parcel receipt, washroom facilities, a waiting area vestibule, second floor offices and potential retail space.
 - ii) A glass-enclosed vestibule area is shown adjacent to the station building which can allow for a heated waiting area to remain open when the rest of the station building may be closed.
- e) *Transit Operations*
 - i) Buses will enter and egress the site via a bus only access at the signalized intersection of Lakeshore & Tiffin.
 - ii) The two linear bus stops on Essa Road allow Barrie Transit the flexibility to operate express services that may not enter the rest of the terminal facility saving riders travel time.
- f) *Traffic Operations*
 - i) The current mixed-traffic station access road is re-purposed as a transit-only access to the site.
 - ii) The intersection maintains a transit priority phase which preserves any future need for enhanced transit-priority at the site.
- g) *Rider Amenities*
 - i) The mobility hub would include a canopy to provide weather protection (rain, sun, snow) from 'building to bus'. The canopy would be constructed with materials similar to the historic Allandale Station.
 - ii) A multi-use path (cyclist & pedestrian) is proposed on the east side of the north access road. This path will be of similar treatment as the existing waterfront trail for contiguity between active transportation corridors.
 - iii) Bike parking facilities will be provided to the north of the loop in a highly visible and secure area. The existing GO bike parking structure near Essa will remain.

- iv) Four of the existing GO heated shelters will remain and four new heated shelters are proposed on the north side of the loop.
 - h) *Pedestrian Safety Features*
 - i) The loop configuration will minimize the amount of road crossings to one. This pedestrian crossing is provided in a highly visible area with clearly visible road paint. The pedestrian crossing will be in a low speed limit 'bus only area' meaning only trained and controlled drivers are present.
 - ii) A pedestrian barrier fence will be constructed in the central island landscaped area to prevent walking in active lanes.
 - iii) Bollards will be placed at the southeast access to the loop. This access will only be accessible to emergency vehicles. The bollards will eliminate a conflict point between vehicles and the multi-use path users (pedestrians and cyclists).
28. **Future Growth Considerations**
- a) Future infrastructure should be protected for as the Essa Intensification Corridor comes to fruition. This includes a bus lay by lane southbound along Essa and a full transit priority left turn lane at Essa and Bradford.
29. Further work and analysis was completed by City of Barrie in order to provide additional details into the feasibility of the Allandale Mobility Hub. The additional work included Downtown Minor Hub Assessment, Stakeholder Engagement, Vehicle Parking Assessment, and Public Transit Infrastructure Funding.

Downtown Minor Hub Assessment

30. Maintaining a downtown presence is important to the City of Barrie for the following reasons:
- a) Supports local businesses, downtown intensification, and the permanent market project by providing city-wide sustainable mobility.
 - b) Enables a place for downtown residence to purchase tickets close to home or work.
 - c) Provides a timed transfer location and thus enhanced mobility to downtown residents similar to what is offered today at the existing terminal.
 - d) Limits the disruption to existing downtown riders.
 - e) Provides a lay-by for routes to terminate downtown resulting in more efficient and flexible transit routing.
31. As part of motion 17-G-020, it was identified that Barrie Transit would sustain a downtown presence to maintain the level of service for the riders. Therefore, an assessment and recommendation was conducted by Barrie Staff to determine the most suitable location for the downtown minor hub.
32. Barrie Transit recommends minor modifications to Maple Avenue to accommodate a lay-by bus stop on the east and west side of the road as well as a heated shelter on the west side of Maple Avenue as the Minor Hub. The proposed modifications are provided in **Figure 4**.



Figure 4: Proposed Maple Avenue Minor Hub

33. This location was chosen for financial, operational, and property reasons.
- a) **Financially:**
 - i) The lay-bys can be accommodate within the existing street parking. As a result, intrusive and expensive road widenings are not required. Simplistic curb or road paint bump outs provide sufficient infrastructure for transit operation.
 - ii) The terminal will contain existing washroom facilities and waiting areas allowing for a maintained level of service with significant cost avoidance.
 - iii) Hanscomb Costing Consultants estimate that the total cost of the downtown lay-by lanes to be \$270,800. The full costing report is provided in **Appendix B**.

b) **Operationally:**

- i) The lay-by stops can accommodate a maximum of three buses simultaneously. As a result, a timed-transfer system should be created allowing routes 5 and 6 to timed-transfer with the other downtown routes 1,2,3,4,7, and 8.
- ii) A waiting area in the market building for the east side bus riders and a heated shelter for the west side bus shelter will provide a comfortable waiting area on both sides of the road. The nearby signalized crosswalk at Simcoe & Maple will provide a safe crossing opportunity.
- iii) Further ticket sales arrangements could be made at the market building to allow Barrie Transit riders to continue to purchase their passes and ride cards from this location.
- iv) Maple Avenue is signalized on the north and south ends of the corridor allowing for safe and efficient turning movements of Barrie Transit buses.

c) **Property:**

- i) There are no private property implications to this location. All private accesses remain.

Stakeholder Engagement

34. This section summarizes the engagement and feedback received from departments, transit agencies, and the public with respect to the Allandale Mobility Hub or the Downtown Mini-Hub.

35. **Transit Riders and Barrie Public Engagement**

- a) A survey was open for public consultation from May 1st 2018 to May 31st 2018. The survey was available online at BuildingBarrie.ca and via hardcopy at the downtown terminal and recreation centres. The survey received a total of 151 participants.
- b) The survey asked questions related to transit amenities such as covered waiting areas, public art, retail space, etc. The survey also asked which building design would be preferred between a heritage and modern design.
- c) Results from the survey included:
 - i) The most important terminal amenity was the covered outdoor waiting area, followed by a 'next bus' display, and heated shelters. **(Figure 5)**
 - ii) The most preferred retail space was a coffee shop.
 - iii) The preferred building design was 'heritage'. **(Figure 6)**
 - iv) Comments from the survey were generally with respect to the amenities. However, there were a few concerns raised that the public was not being consulted on whether the terminal should be moved from Downtown to the Allandale location.

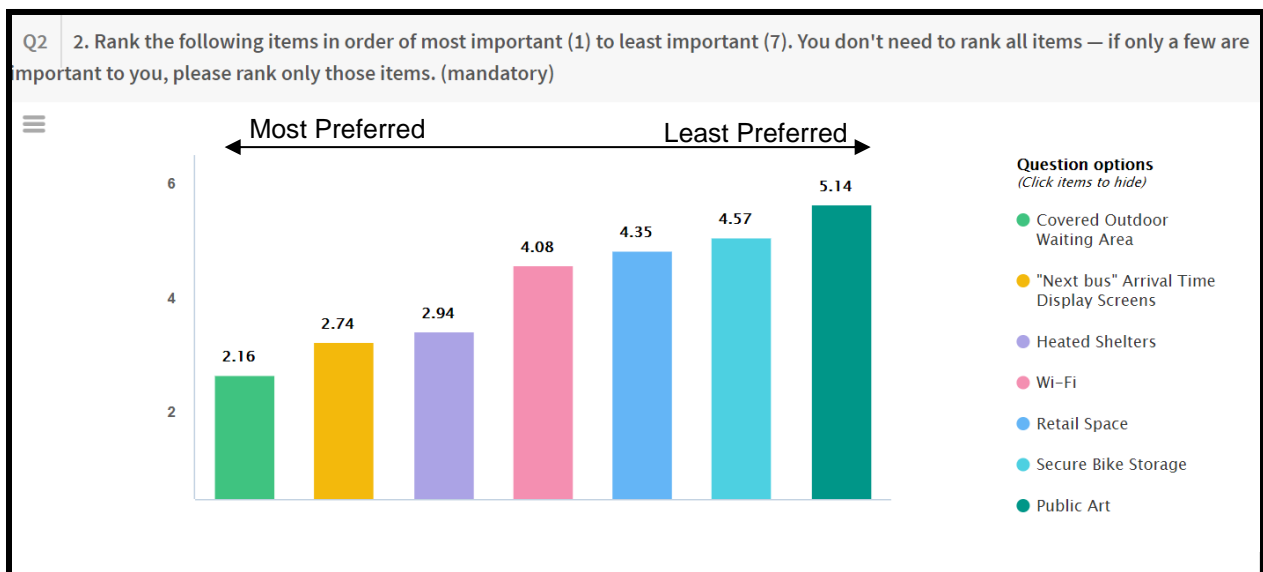


Figure 5: Preferred Terminal Amenity (The Lowest Score is the Most Preferred)

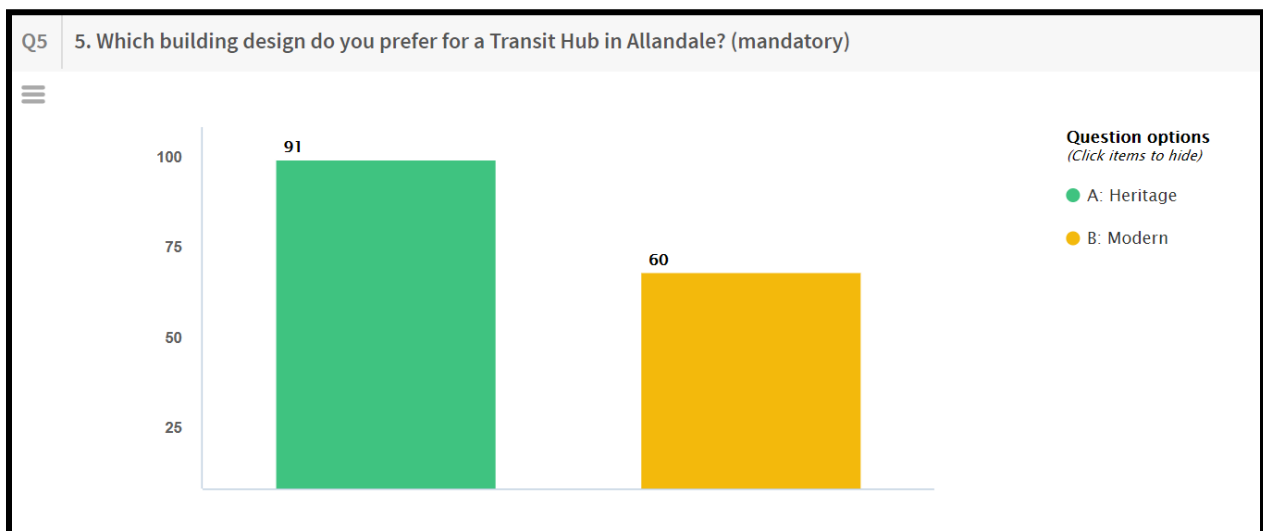


Figure 6: Building Design Preference

36. City of Barrie Intra-Department

- A series of meetings and communications were received from various departments within the City of Barrie. Feedback for Concepts was received from Traffic, Engineering, Facilities, Emergency Services, and Planning. The consensus was Concept C which was a driving factor towards selection of this concept.

37. Transit Consultation Engagement

- The City of Barrie Transit Staff and have been in communication with relevant transit agencies such as Metrolinx, York Region Transit, and Grand River Transit with similar

terminal designs and the proposed concepts. Feedback from these agencies was received with respect to their experiences with the various terminal design concepts.

- b) Simcoe County transit routes will not be utilizing the Allandale Mobility Hub bus bays in phase 1 of their transit system roll out. It is unclear at this time if Simcoe County will utilize the bus bays for future phases, however there is adequate space available for future use if needed.

Vehicle Parking Assessment

- 38. As the timelines of the Allandale Mobility Hub Feasibility Study did not allow for a full Parking Demand Management study, the Transit and Parking Strategy Department continues to explore alternatives such as a permitting system or shared parking methods with private lots in the vicinity of Allandale GO Station to relieve parking congestion for GO Transit riders.
- 39. As staff are planning to update the Parking Strategy in 2019, which examines the existing parking systems determining the need for improvements to accommodate existing and future parking demands, parking utilization counts are planned for the June and August of 2018 in the downtown core, waterfront and at the Allandale Station.

Public Transit Infrastructure Funding

- 40. As part of the 2017 federal budget there was a commitment to the Public Transit Infrastructure Fund (PTIF) Phase II of \$20.1 billion over 11 years designated to transit infrastructure.
- 41. In March of 2018, the Government of Canada and Province of Ontario executed a bilateral agreement where transit rehabilitation projects could be funded based on the split of 40% federal, 33% provincial, 27% municipal. New transit projects could be funded based on a split of 33% federal, 33% provincial, and 33% municipal.
- 42. The Province of Ontario have not released the specific details of the PTIF Phase II program parameters, however the bilateral agreement does specify that the funding allocation will be based on ridership. The estimated funding that the City of Barrie would receive is up to \$23M from the Government of Canada over 10 years and based on the funding split above the City of Barrie could receive up to \$19M from the Province of Ontario.
- 43. Based on some of the information released to date on the program, there appears to be a focus on supporting regional transit as part of the program, and staff feel that the Allandale Mobility Hub is a prime candidate for this type of project as it would be connecting the City of Barrie's main transit hub to the Allandale GO Station and would support Metrolinx's GO Rail Station Access Plan to connect more riders to the station through locally supported transit.
- 44. The PTIF application submissions are projected to open in the fall of 2018 and in order for the City of Barrie to have the authority to submit an application staff are requesting delegated authority to submit an application as part of this staff report.
- 45. Considering the focus of this program on regionally supported transit and the fact that the Allandale Hub would complement Metrolinx's GO Rail Station Access Plan for the Allandale GO Station, the City of Barrie staff will also be contacting Metrolinx on the viability to submit a joint application for PTIF funding.

ENVIRONMENTAL MATTERS

- 46. There are no environmental matters related to the recommendation.

ALTERNATIVES

47. The following alternatives are available for consideration by General Committee:

Alternative #1 General Committee could direct staff to not to proceed with Concept C and suggest further design work be completed on Concept A.

This alternative is not recommended given the scoring assessment results provided in the Allandale Mobility Hub Feasibility Study.

Alternative #2 General Committee could direct staff to proceed with scenario 1 of the Transit and Schedule review.

This alternative is not recommended given the increased operational costs, reduced traffic performance, and negative rider impact.

Alternative #3 General Committee could direct staff not to proceed with the Allandale Mobility Hub project.

This alternative is not recommended given the connections with the improved GO RER service, the City' geographic centre moving southward with the annexed lands, and the establishment of the permanent farmers market in the current terminal location.

FINANCIAL

48. There are no direct financial implications resulting from the Allandale Mobility Hub Feasibility Study. However, there is a direct connection between any future transit hub and the proposed development of a permanent downtown market. The financial implications of both the transit hub and permanent market are discussed in staff report FCT004-18 (Year Round Downtown Public Market).
49. WSP provided a high level cost estimate as part of their study. Hanscomb Consultants were retained to provide a more thorough review through a Class D Cost Estimate to provide the most accurate estimate available at this conceptual stage of the project. The estimated total cost of \$6,418,100 including soft charges such as professional services, utilities, and contingency for the one storey option and \$9,039,500 for the two storey option is provided in more detail in **Appendix B**.
50. The new Allandale Transit Hub Project is estimated to cost approximately \$9M and would be debt financed subject to the availability of PTIF funding. Additionally, a percentage of the Allandale Transit Hub Project could be funded from DC's as the new Transit Terminal will accommodate growth within the City of Barrie. However, as reported in the year-end DC report, development charge reserves are nearly overdrawn and would therefore likely also require debt financing. Some of the possible funding outcomes are shown in **Table 4**.

	1	2	3
Federal PTIF	\$ -	\$ 3,013,167	\$ 3,013,167
Provincial PTIF	\$ -	\$ 3,013,167	\$ 3,013,167
Provincial Gas Tax (PGT)	\$ -		\$ 1,506,583
Municipal*	\$ 9,039,500	\$ 3,013,166	\$ 1,506,583
Total	\$ 9,039,500	\$ 9,039,500	\$ 9,039,500

**Likely requires debt financing*

Table 4: Funding Options

Funding Option 1 – Fully funded by City of Barrie. Assumes not successful in PTIF application

Funding Option 2 – Assumes funding model as outlined in the PTIF Federal/Provincial bi-lateral agreement

Funding Option 3 – Assumes funding option 2, and in addition the City of Barrie having the ability to stack Provincial Gas Tax funding

51. If Council approves the project to proceed and as staff move through the value engineering process, the following components of the project could be considered to be removed or modified to find additional cost savings. However, it is not recommended to remove these items based on the implications in **Table 5** as well as the fact that provincial and federal funding for this project could be significant in the near term and may not be available in the future.

Item	Cost Reduction	Implication
Outdoor Canopy	\$1,459,000	<ul style="list-style-type: none"> - The canopy provides a weather protected corridor from the terminal building to the bus. This includes protection from rain, sun exposure, or snow. The existing terminal contains a canopy and as such this would be a decrease in the service levels between the existing terminal and the proposed Mobility Hub. - The most preferred amenity based upon 151 respondents in the public consultation survey. - The canopy improves the aesthetic and historic look of the site as a continuation from the historic Allandale Station. - Adding the canopy in the future would result in greater cost and disruption. PTIF funding also may not be available.
Reduce the building from two to one storey	\$2,621,400	<ul style="list-style-type: none"> - Reduces office space which could be needed in the future. Will save costs now to spend more in the future as PTIF funding may not be available. - May limit flexibility to add additional amenities such as retail space. - Loss of height and aesthetic connection with the historic Allandale Station building and the Essa Road Intensifications vision.
Reduce the number of heated shelters	\$122,875 (each)	<ul style="list-style-type: none"> - Less heated waiting area near the bus bays. - A longer walk from the heated shelter to the bus bay equally a greater amount of time exposed to the weather elements.

Table 5: Cost Reduction Items

52. The potential project schedule for the Allandale Mobility Hub design and construction will be presented in detail as part of staff report FCT004-18 (Year Round Downtown Public Market), and will be contingent on the successful application for PTIF Phase Two funding.
53. The detailed annual operational costs for the Allandale Hub will be further developed from the detailed design, however considering the age of the downtown terminal building, as well as the reduced size of the new facility proposed at Allandale it is expected that the operating costs of the new facility would be lower at Allandale than the downtown location.

LINKAGE TO 2014-2018 STRATEGIC PLAN

54. The recommendation(s) included in this Staff Report support the following goals identified in the 2014-2018 Strategic Plan:
- ☒ Responsible Spending
 - ☒ Well Planned Transportation
55. The Allandale Mobility Hub will provide a new transit facility with best practices amenities to improve the level of service for existing riders while locating at a site with strong synergies to the improving GO Rail Service to accommodate the first and last mile of GO trips.

APPENDIX A

3-D Rendering

Rendering With Canopy and Second Story Glass Finishing



Rendering Without Canopy and Second Storey Glass Finishing



APPENDIX B

CLASS D COST ESTIMATE

CITY OF BARRIE
ALLANDALE MOBILITY HUB & DOWNTOWN MINI HUB
BARRIE, ONTARIO

Hanscomb

3.0 Main Summary

	Option 1 (One Storey)			Option 2 (Two Storey)			Downtown Mini Hub		
New Construction	320 bgsf	3,600.00	\$1,152,000	640 bgsf	4,100.00	\$2,624,000	0 bgsf	0.00	\$0
Site Works	1 Sum		\$2,665,099	1 Sum		\$2,665,099	1 Sum		\$165,201
Site Clearing and Grubbing	9,572 m2	11.00	105,004	9,572 m2	11.00	105,004	580 m2	0.00	11,313
Bus Canopy	683 m2	1,304.00	890,580	683 m2	1,304.00	890,580	0 nil	0.00	0
Heated Bus Shelters	4 No	75,000.00	300,000	4 No	75,000.00	300,000	1 No	87,136.00	87,136
Bike Shelters	2 No	0.00	50,000	2 No	0.00	50,000	0 nil	0.00	0
Allowance for Hard landscaping	6,977 No	93.00	649,790	6,977 m2	93.00	649,790	566 m2	0.00	66,752
Allowance for Soft landscaping	2,595 m2	39.00	102,250	2,595 m2	39.00	102,250	0 nil	0.00	0
Site Furnishing	1 Sum	24,300.00	24,300	1 Sum	24,300.00	24,300	0 nil	0.00	0
Road Works (Essa Road, Tiffin Street & Lakeshore Road)	1 Sum	156,175.00	156,175	1 Sum	156,175.00	156,175	0 nil	0.00	0
Allowance for mechanical site services	1 Sum	297,000.00	297,000	1 Sum	297,000.00	297,000	0 nil	0.00	0
Allowance for electrical site services	1 Sum	90,000.00	90,000	1 Sum	90,000.00	90,000	0 nil	0.00	0
NET CONSTRUCTION COST	320 bgsf	11,928.43	\$3,817,099	640 bgsf	8,264.22	\$5,289,099	1 Sum	165,201.12	\$165,201
Design Scope Allowance	20.0%		\$763,500	20.0%		\$1,057,900	20.0%		\$33,100
Design and Built Fee	12.0%		\$549,672	12.0%		\$761,640	12.0%		\$23,796
Escalation (2 years @ 3% per annum)	6.0%		\$307,816	6.0%		\$426,518	6.0%		\$13,326
TOTAL CONSTRUCTION COST	320 bgsf	16,994.06	\$5,438,100	640 bgsf	11,773.75	\$7,535,200	1 bgsf	235,423.09	\$235,423
Construction Contingency	5.0%		\$272,000	5.0%		\$376,900	5.0%		\$11,800
Owners Ancillaries	10.0%		\$543,900	10.0%		\$753,600	10.0%		\$23,500
FF&E / IT	10%		\$164,100	10%		\$373,800	0%		\$0
SUB-TOTAL	320 bgsf	20,056.56	\$6,418,100	640 bgsf	14,124.22	\$9,039,500	1 Sum	270,723.09	\$270,723
HST - excluded	0%		\$0	0%		\$0	0%		\$0
TOTAL CONSTRUCTION COST	320 bgsf	20,056.56	\$6,418,100	640 bgsf	14,124.22	\$9,039,500	1 Sum	270,723.09	\$270,723

Notes:

1. The design build fee include the design fee of 8% and design build contractor fee of 4%
2. The Owners ancillaries include internal city staff project management cost of 4%, owners's technical advisor cost of 3% and other cost such as commissioning, inspection, testing etc. of 3%