





TO: GENERAL COMMITTEE


SUBJECT: ROADS, PARKS & FLEET OPERATIONS MASTER PLAN

WARD: ALL

PREPARED BY AND KEY CONTACT: D. FRIARY
DIRECTOR OF ROADS, PARKS & FLEET 
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ACTING MANAGER OF FACILITY PLANNING & DEVELOPMENT 

SUBMITTED BY: R. PEWS, P.ENG.
DIRECTOR OF CORPORATE FACILITIES 

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GENERAL MANAGER OF INFRASTRUCTURE & GROWTH MANAGEMENT 

CHIEF ADMINISTRATIVE OFFICER APPROVAL: C. LADD, CHIEF ADMINISTRATIVE OFFICER 

RECOMMENDED MOTION

1. That the Service Delivery Model #1 (Location B), as described in Staff Report FCT003-16 be adopted, and that this model be used as a basis to plan the delivery of Roads, Parks and Fleet operations with timing subject to future Capital Plans.
2. That staff be authorized to further investigate co-location opportunities and land acquisition costs for Service Delivery Model #1 (Location B), and report back to General Committee with a proposed strategy.

PURPOSE & BACKGROUND

Report Overview

3. The purpose of the Operations Master Plan study is to determine the optimal service delivery model for the delivery of Roads, Parks and Fleet operations including the annexed lands.
4. The annexed lands call for a population of 40,000 people by 2031. The geographic area of the City has expanded from 77 sq. km to 100 sq. km with the annexation of 2,293 hectares in 2010. There are a total of 1500 lane kilometres within the boundary of former Barrie today, and this number is expected to reach a total of 2037 lane kilometres by 2031.
5. The Operations Master Plan analysed three potential service delivery model options to accommodate this growth:
 - a) Expansion of the existing Ferndale site;
 - b) A satellite facility located within the annexed lands; and,
 - c) A satellite within the future First Responders Campus.
6. A mapping (GIS) analysis was performed as a part of the study, to compare operational efficiency, which translates to cost effectiveness through operational savings for all potential sites. In addition to the cost analysis, the study explored the qualitative reasons for selecting one delivery model over another.

Background

7. The Roads, Parks and Fleet Department is currently located in a centralized Operations Centre located at 165 Ferndale Drive, in the northwest area of the City of Barrie. The existing site is comprised of an administrative building with an adjoining operations garage, adjacent to several storage buildings, varying in size and structure. The grounds include various outdoor storage areas utilized by different operations branches in addition to a snow storage and stormwater pond.
8. The Ferndale facility was originally constructed in 1972. There have been a limited number of capital projects completed on the main administrative building through the years (roof replacement, electrical servicing and emergency structural repairs). The overall condition of the facility is rated as fair to poor, based on facility condition assessment data, and will require significant improvements as many building components have reached or exceeded their useful life.
9. In addition, there is significant discontinuity within the existing space, causing internal adjacency issues and a disproportionate allocation of interior spaces within each branch. Accommodating future growth is not possible without expansion and reorganization to achieve an optimized program of interior space and create more efficiency for future growth.
10. Staff recently completed a strategic workforce planning exercise to identify resource requirements to meet legislated service levels in the annexed lands.
11. The following is a summary of responsibilities and services provided by the current City branches operating from the existing Ferndale site:
 - a) **Roads Operations** services and responsibilities include:
 - Road, sidewalk, curb maintenance and operations;
 - Winter Control;
 - Sanitary sewer collection;
 - Storm ponds, ditches, sewers;
 - Railway (excluding GO); and,
 - Street sweeping.
 - b) **Parks & Forestry Operations** services and responsibilities include:
 - Parks maintenance and operations;
 - Parks services, infrastructure, furnishings;
 - Waterfront and beach maintenance;
 - Natural areas and trails maintenance;
 - Urban forestry planning and operations; and
 - Horticulture.
 - c) **Fleet Services** and responsibilities include:
 - Corporate fleet management; and,
 - Equipment (lawn mowers, trimmers, chain saws, etc.).
 - d) **Traffic & Parking Services** and responsibilities include:
 - Operation and maintenance of traffic control signals and systems;
 - Pavement markings
 - Traffic signage and parking systems;
 - Operation and maintenance of streetlight systems;
 - Traffic safety; and,
 - Transportation planning.

12. As a result of the Barrie-Innisfil Boundary Adjustment Act in 2010, Barrie annexed 2,293 hectares of land from the Town of Innisfil now known as the Hewitt and Salem lands. The current operations will need to expand to accommodate servicing future population growth of the annexed lands.
13. The existing Ferndale facility, due to its location in the northwest quadrant of Former Barrie, has challenges now to cost effectively service areas near the south City limits.

Scope of Master Plan Study

14. The Operations Master Plan examined existing conditions and future growth of Roads, Parks & Fleet operations, utilizing gathered data and mapping analysis to illustrate comparative cost avoidance for alternate future scenarios. The study addressed and provided solutions to the forecasted predicted growth and future service delivery. The study included:
 - Conducting interviews with key staff;
 - Reviewing existing service models, data and statistics;
 - Analyzing and developing documents, plans and graphics to support location study analysis and recommended scenarios; and,
 - Researching regulations and legislations to determine restrictions and constraints.
15. The Operations Master Plan scenarios take into consideration the financial, social, environmental and institutional opportunities and constraints. These requirements included, but were not limited to:
 - Required site size(s);
 - Site and infrastructure cost(s);
 - Travel time(s) and distance(s) from scenario locations;
 - Existing and future infrastructure and land uses; and,
 - Short and long term impact to levels of service.

Approach and Methodology

16. The following approach and methodology was used:
 - a) *Phase One: Project Planning & Information Gathering*
 - Confirming project objectives, drivers, current operational gaps;
 - Gathering information on existing space, personnel, equipment, demographics, service demand, growth, development phasing, and mapping.
 - b) *Phase Two: Needs Assessment & Development of Service Delivery Models*
 - Outlining functional needs and facility requirements for each of the four operational branches, from the perspective of current and future operations;
 - Conducting GIS service delivery analysis, based on service demands mapped to each grid sector, quantified with respect to service delivery time and cost, for each proposed location.
 - c) *Phase Three: Location Analysis*
 - A list of five potential location options for a satellite facility was developed, and an evaluation of each location was undertaken, to identify which would best meet existing and future operational requirements through improved service delivery, travel time, and operating costs.

ANALYSIS

Needs Assessment

17. The functional needs and facility requirements for each of the four operational units have been reviewed from the perspectives of current and future operations. In summary, the following conclusions were presented within the Operations Master Plan study:
- a) **Overall administrative** functions can continue to operate out of their current location, presently at the Ferndale facility. If a satellite facility is constructed, a small ancillary administrative support space would be included;
 - b) **Roads Operations** can be split between the Ferndale facility and a satellite facility, as operations are dependent on optimal vehicle locations, and needs will greatly increase with development in the annexed lands;
 - c) **Parks & Forestry Operations** can continue to operate from the Ferndale facility. It is recommended that Parks staff remain under one roof. There is opportunity to relocate a portion of the parks materials, equipment and vehicles to a satellite. Upgrades will be required at Ferndale, as Parks & Forestry Operations is currently deficient in space;
 - d) **Fleet Services** can continue to operate and meet growing service demand from the Ferndale facility. It is recommended that Fleet Services not be split between two locations, as this creates additional supervision, parts inventory, and service timing. Upgrades in the future will be required at Ferndale facility, to accommodate additional fleet servicing bays and fleet storage;
 - e) **Traffic & Parking Services** can continue to operate from the Ferndale facility, or relocate to a second location.

Service Delivery Model Options

18. Three Service Delivery Models were developed and analysed in the Operations Master Plan study.

Model #1	Primary RPF Operations remain at Ferndale (renovation) + Roads / Parks satellite yard at "Location B" in Annexed Lands (new build)
Model #2	All RPF Operations remain at Ferndale (renovation + expansion) + off-site snow management
Model #3	Primary RPF operations at Ferndale (renovation + expansion) + RPF satellite at First Responder's Campus (new build)

19. The Operations Master Plan recommends Model #1, as it provides the optimal service delivery to the south end of Former Barrie, and into the Annexed Lands area further south. Model #2, remaining at the Ferndale facility, presents several challenges in serving the southeast and southwest of Barrie, and carries a significant operating cost premium over the 25-year analysis period. Model #3 with a satellite at the First Responder's Campus, carries a higher up-front capital cost as a part of a newly built joint facility, and slightly higher ongoing operating cost due to an unfavourable split of operational services between Ferndale and the Campus.

20. **Summary of Service Delivery Model Costs**

Service Delivery Model #1

Primary @ Ferndale

Satellite @ Location B

Construction @ Ferndale	\$22.3M (renovation)
Construction @ Satellite	\$8.8M (new build)
Total Construction	\$31.1M
Annual Travel Costs	\$1.08M
25-year Travel Costs	\$27.0M (save \$10.5M over baseline Model #2)

Service Delivery Model #2

Operations Remain at Ferndale

Construction @ Ferndale	\$31.0M (renovation & expansion)
Satellite Snow Management Facility	\$1.5M
Total Construction	\$32.5M
Annual Travel Costs	\$1.50M (baseline)
25-year Travel Costs	\$37.5(baseline)

Service Delivery Model #3

Primary @ Ferndale

Satellite @ Location E

Construction @ Ferndale	\$20.5M (renovation & expansion)
Construction @ Satellite	\$15.0M (First Responder's Campus)
Total Construction	\$35.5M
Annual Travel Costs	\$1.11M
25-year Travel Costs	\$27.8M (save \$9.7M over baseline Model #2)

Location Evaluation

21. The prime determining factor for selecting an appropriate satellite facility location is serviceability across the City of Barrie, including the southern limits of former Barrie and beyond into the new annexed lands, as development progresses. This includes the cost of servicing and maintaining Barrie from a fuel, vehicular maintenance, and personnel perspective. The proposed service models have been evaluated based on a strategy that provides optimal positioning for Operations as a whole.
22. In addition to service efficiency and feasibility, the optimal location has been determined based on physical limiting factors and opportunities. Locations have been evaluated based on relative distance from any surrounding residential neighbourhoods, and potential future residential developments. Access to major thoroughfares is also a primary factor in physical location.

Mapping Analysis (GIS)

23. The Operations Master Plan study included a city-wide GIS network level analysis aimed to help identify the optimum location for a new Satellite yard facility in the City of Barrie. Historical data of kilometres travelled by each of the different categories of Roads, Parks and Fleet Operations vehicles were reviewed to identify the vehicle categories with the highest annual kilometres travelled.
24. Water Service vehicles, Street Sweepers, Winter Control vehicles and Parks Services vehicles have the highest kilometres travelled. Thus, the analysis of travel distances for Roads and Parks is expected to hold a greater potential impact in terms of travel distance and cost avoidance, particularly considering the planned increase in road infrastructure and Parks in the annexed lands of the City.

Satellite Yard Location Options

25. Along with the existing Ferndale site, five different south satellite yard locations were considered as part of the Operations Master Plan study. A map is included for reference as Appendix A.
26. The below locations were evaluated based on quantitative GIS analysis, as well as several qualitative factors including adequate land size, the overall usability of sites, compatible adjacencies, and access to arterial roads.
27. Travel Cost Savings are the differential savings when compared to the Baseline Option. When operating all services out of the existing Ferndale location (Baseline) the total travel cost to deliver service across the City is \$37.5M over 25 years.

	Location	Travel Cost Savings \$ (25 Years)	Adequate Land Size	Usable Site	Compatible Adjacencies	Arterial Road Access
*	165 FERNDALE	Baseline	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
A	Mapleview Dr & Essa Rd	\$9.6M	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B	Salem Rd & Veterans Dr	\$10.5M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C	Lockhart Rd & Huronia Rd	\$13.0M	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D	McKay Rd & Huronia Rd	\$8.8M	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E	First Responder's Campus	\$9.7M	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

28. Location B is the recommended location for a satellite yard within the annexed lands, when considering the combined overall travel cost savings with qualitative location and servicing factors.
29. Although Location C achieved the highest travel cost savings of the five options, when considering the timing of development, along with the availability of adequately sized land, it ranked lower overall.
30. Location E which considered a satellite within the First Responder's Campus, was not recommended as the optimal location due to limitations of land size when combined with other stakeholders needs, noise factors due to adjacent residential neighbourhoods, as well as overall access to the City's arterial roads. Selecting this location would also require that Ferndale expand (in addition to renovating), which resulted in higher capital costs overall.
31. There is a 2016 capital project for a feasibility study of the First Responders Campus, intended to gather financial, site, social, economic, operational considerations, along with a detailed functional program for the facility and location. The feasibility study will be presented to Council in 2017.

ENVIRONMENTAL MATTERS

32. The following environmental matters have been considered in the development of the recommendation:
- a) Noise impact in residential areas
 - b) Future planning and implementation of the recommended service delivery model will include all due diligence and adherence to regulatory and environmental requirements.

ALTERNATIVES

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

Alternative #1 *Select a different option:* General Committee could select one of the other two options provided within this report in lieu of Service Delivery Model #1 (Location B), as recommended by staff.

This alternative is not recommended, as Model #1 provides the optimal service delivery to the south end of Former Barrie, and into the Annexed Lands area further south. Model #2 carries a significant operating cost premium over the 25-year analysis period while Option #3 carries a higher up-front capital cost and slightly higher ongoing operating cost.

Alternative #2 *Do nothing:* General Committee could choose not to endorse the recommendations within this staff report.

Not addressing the needs of the City's Roads, Parks & Fleet Operations would compound the service delivery and facility constraint issues that currently exist. With anticipated growth in the Former Barrie and Annexed Lands, it is in the City's best interest to establish a plan to meet the service delivery needs of its infrastructure and residents.

FINANCIAL

34. There are no financial implications as a result of the recommendations within this staff report. Future phasing and associated costs established through further investigation of the recommended Service Delivery Model will be reported back to General Committee, and updated through the Capital Planning process.

LINKAGE TO THE GROWTH MANAGEMENT PLAN

35. The Operations Master Plan is aligned to support Building Barrie, the collection of planning and implementation initiatives designed to position the City for future success and to capitalize on coming growth. This includes the City's Growth Management Study, Planning for the Annexed Lands, and Intensification Policies.

LINKAGE TO 2014-2018 COUNCIL STRATEGIC PLAN

36. The recommendation(s) included in this Staff Report support the following goals identified in the 2014-2018 City Council Strategic Plan:
- Responsible Spending - Demonstrate value for money; Build a community that respects both current and future taxpayers
 - Well Planned Transportation – Improve Road Safety

APPENDIX 'A'

