Township of South Frontenac
Council Meeting Agenda

TIME: 7:00 PM,
DATE: Tuesday, December 5, 2023
PLACE: Council Chambers/Virtual Via Zoom .

1. *Call to Order*

a) Resolution

2. *Declaration of pecuniary interest and the general nature thereof*

3. *Approval of Agenda*

a) Resolution

4. ***Scheduled** Closed Session*

5. *Recess*

6. *Public Meeting*

7. *Delegations*

a) Patricia Dawson and Hellen Hill will be present to speak to Council regarding the proposed Alectra Energy Solutions, South Frontenac and Harrowsmith Energy Storage Projects. 5 - 20

8. *Briefings*

a) Representatives from Strategic Corp will speak to Council regarding the proposed 2023-2026 Corporate Strategic Plan.

9. *Approval of Minutes*

a) Resolution 21 - 24

10. *Reports Requiring Action*

a) Strategic Plan 25 - 50

That Council approve the 2023-2026 Corporate Strategic Plan document, attached as Schedule A to this report; and

That Council direct staff to bring forward an implementation plan for the Strategic Plan in the first quarter of 2024.

b) Request for Lane Name Change – Neill Lane to James Thomas Lane 51 - 65

Council direction is being sought regarding this matter.

c) 2024 Meeting Schedule 66 - 68

That notwithstanding By-law 2017-76, As Amended and By-law 2023-04, the following Council, Lake Ecosystem Advisory Committee and Recreation & Leisure Services Advisory Committee meeting dates be rescheduled as follows:
• February 22, Recreation & Leisure Services Advisory Committee meeting rescheduled to February 29;
• March 28, Lake Ecosystem Advisory Committee meeting rescheduled to March 21; and
• July 9, Council meeting rescheduled to July 16;
• December 26, Lake Ecosystem Advisory Committee meeting rescheduled to December 5; and
That the 2024 Council, advisory committees and legislated committees meeting schedule, attached as Exhibit A to the Report, be approved.

d) Support for Enabling Accessibility Fund – Mid Sized Projects Application for the Centennial Park Accessibility Upgrades Project — 69 - 71

That Council support a grant application to the Employment and Social Development Canada Enabling Accessibility Fund – Mid Sized Projects for the Centennial Park Accessibility Upgrades Project; and

That authorization be given to the Mayor and the Clerk to sign a transfer payment agreement with Employment and Social Development Canada for the funding if the grant application is successful.

e) IESO Municipal Support Resolution for Battery Energy Storage Systems — 72 - 126

Council direction is being sought regarding this matter.

11. *Advisory Committee Reports or Minutes*

12. *Reports Requiring Approval of By-laws*

a) Zoning By-law Amendment Application - PL-ZBA-2023-0048, Bob's Lake Co-Operative (ZanderPlan), Bedford District — 127 - 137

That By-law 2023-96 being a By-law to amend Zoning By-law 2003-75, as amended, to amend the Limited Service Residential – Waterfront – Special Provision (RLSW-3) zone on lands described as Part of Lot 32, Concession 6 and Part of Lots 33 and 34, Concession 7, District of Bedford, be given first and second reading; and

That By-law 2023-96 be given third reading, signed and sealed.

13. *Reports for Information*

a) Close Out Report – 2023 Private Lane Upgrade Assistance Program — 138 - 140
- This report provides a summary of the outcomes of the 2023 Private Lane Upgrade Assistance Program and provides recommendations with respect to allocation for the resulting year end surplus.

b) Joint Rural Transportation Study — 141 - 272
- This report provides for information the results of the Joint Rural Transportation Study.

c) Fuel Management System — 273 - 274
- The purpose of this report is to provide Council an update on the Townships new fuel management system and Municipal Modernization funds allocated to this project.

d)	Bellrock and Petworth Mill Projects	275 - 298
e)	Rural Economic Development Support • This report provides a summary of the projects to date under the agreement with the City of Kingston for Rural Economic Development Support.	299 - 302

14. *Committee of the Whole*

15. *Information Items*

a)	Correspondence received from Sydenham High School regarding the 150th reunion.	303 - 304
b)	Correspondence received from Boulton Septic regarding Utilities Kingston septage disposal rate increase.	305 - 306
c)	Additional Correspondence received regarding BESS Proposal (Distributed, December 5, 2023)	307 - 338
d)	Correspondence received from Alectra Inc. regarding South Frontenac and Harrowsmith Energy Storage Projects. (Distributed December 5, 2023)	339 - 341

16. *Notice of Motions*

17. *Rise and Report regarding County Council and External Boards*

a) County Council

b) Police Services Board

c) Cataraqui Conservation

d) Frontenac Community Arena Board

e) Quinte Conservation

f) Rideau Valley Conservation Authority

18. *Announcements/Statements by Councillors*

19. *Closed Session (if requested)*

a) Resolution - That Council resolve itself into the Committee of the Whole "Closed Meeting" to consider the following items:
a) Approval of the November 7, 2023 Committee of the Whole "Closed Meeting" minutes.
b) A position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local board.
c)A proposed or pending acquisition or disposition of land by the municipality or local board - Sydenham Area.

b) Approval of the November 7, 2023 Committee of the Whole "Closed Meeting" minutes.

c) A position, plan, procedure, criteria or instruction to be applied to any negotiations carried on or to be carried on by or on behalf of the municipality or local board

d) A proposed or pending acquisition or disposition of land by the municipality or local board - Sydenham Area.

e) Resolution - That Council rise from the Committee of the Whole "Closed Meeting" without reporting.

20. *Confirmatory By-law*

a) Resolution 342

21. *Adjournment*

a) Resolution

“IMPATIENT DECISIONS WILL ONLY LEAD TO FINANCIAL LOSS”

Answers to our questions have been ill-defined, leaving little assurance for safety and our well-being.
In principle these sites will work;
- once battery technology advances
- once our municipality has a chance to analyze the actuals. The “real numbers” and initiate a plan.

ALECTRA / CONVERGENT

- Not new to the energy supply industry
- Very new to battery storage

As it is with all energy suppliers, they are just now advancing toward building BESS sites, no proven track record managing such facilities.

Tremor Temchin Video by Convergent says

"this is not necessarily a new technology, but this is a fairly new application of it"

We need convincing evidence that this is the safest and least invasive way to move forward.

POTENTIALS SITES

80MW TOTAL

Supply 83,000 homes

20MW GUELPH

Households 56,480

60MW VAUGHAN

Households 103,910

700MW SOUTH FRONT

Households 9,503

Population 20,188

1/3 OF ONTARIO'S BATTERY STORAGE

IESO RFP 2500MW we represent 28% of the total RFP

South Frontenac Households 9503*

Ontario stats 9.5MWh/yr. div.365 . 026 MWh/day SF

Total Electricity needed for homes in SF 247.8 MWh/Day

These sites will produce a combined 2800MWh/Day

Or will they?

Let's take a look!

** Not including business, industry or schools*

WHAT IS IN IT FOR US ?

At full capacity they offer us an annual payment of $1,000 / MW of Contracted Capacity for the 21- year life

National Renewable Energy Laboratory Study- 85% ‘round trip’ efficiency for battery storage sites.

RFP – sites ; deduct all energy costs required to operate

Temperature effects these numbers

The truth is, they DON’T know how many MW we will be compensated for until things are up and running.

Up to $400,000 per year

Up to $300,000 per year

TEMPERATURE

Even the RPF states temperatures?

Capacity Checks are run from

10 days consecutively

If for 50% of the time the test is run the

temperatures are;

Month	High	Low
January	15	-34.5
February	14.4	-35.6
March	24	-26.1
April	30.7	-17.2
May	31.7	-6.1
June	34	1.1
July	35.6	6
August	34.5	3.3
September	33.3	-1.7
October	26.1	-7.5
November	20.6	-25.6
December	16.1	-34.4

"not exceeding +35 degrees Celsius in the Summer and not below -20 degrees Celsius in the Winter"

Renewables Integration and Grid Services in Sault Ste. Marie, ON
Kate Siskel
A 7MW Facility
South Frontenac
100 times this size
Do we know how
the plans for layout?
01:30

SAULT STE. MARIE, ON

7MW 7KWH Facility

2100 Batteries

6 Inverters

7 Transformers

6 HVAC units

400MW Alton (57x)

119,700 Batteries

342 Inverters

399 Transformers

342 HVAC units

300MW Trousdale (43x)

90,300 Batteries

258 Inverters

301 Transformers

258 HVAC units

COST TO OUR COMMUNITY

VOLUNTEER FIREFIGHTERS

- 110 Volunteer fire fighters
- Inundated with emergency calls
- Qualifications in Ontario Driver's license; 18yrs
- Equipment & Training costs

Are we prepared to put their lives on the line?

Have we asked them?

BUDGET

Have we factored in the costs?

- Outside services - fire?
- Insurance costs?

Insurance industry were talking of increased insurance costs for municipalities hosting these risks.

Recently the talks are about dropping these municipalities from their portfolios.

Have we considered security or protection against a financial liability

LET'S SLOW THINGS DOWN!

DO WE KNOW THE FACTS!

BATTERY TYPES

LITHIUM ION

Nov 14th
Explosive
Toxic under fire
Lung Damage
Charging capacity dissipates over time

LITHIUM IRON PHOSPHATE

Nov 21st
Less explosive
Lithium salts and organic solvents
Less seepage
Toxic under fire
Charging capacity dissipates over time

Investigation of 3 lithium-Ion BESS fires concluded:

ZINC ION

Final stages of research
Non-toxic
aqueous electrolyte
the metallic zinc anode could be easily reused in new batteries.

IRON AIR

Massachusetts-based
Form Energy is heading to production
Iron Air batteries
Non-toxic
Can supply power for days
Currently up to 100 hours
10x cheaper than lithium batteries

All 3 were faulty battery manufacturing

NOISE POLLUTION

Tonal buzzing and humming that result from the high voltage electrical equipment onsite can be offensive to listeners living and working nearby

Primary noise sources that arise from battery energy storage systems:

- Cooling Systems –like industrial style roof top HVAC units
- Inverters – Hum & Fans
- Transformers – Hum & Fans

AMPLIFICATION

ALTON - 342 UNITS TROUSDALE - 258 UNITS

Alectra in the public meetings stated one unit produces 40 DB. Science tells us that sound increases exponentially by 10. Using a simple example of one fiddle; your ear would perceive 10 fiddles as being twice as loud. The science behind noise is very complex when you factor in the surroundings like trees and berms etc. However, it would be irresponsible for us to ignore the issue of noise pollution from these sites given the magnitude of the potential noise.

- sound mitigation companies maintain that because of the newness of these sites the noise levels cannot be determined until after the facilities are completed.
- hearing damage happen by regular 8hour exposures to 85db. Where might our liability lie if approved?

Oneida energy

Facility Storage LP
IESO Agreement

"The Facility is not expected to have any environmental impacts requiring mitigation measures, other than resulting ambient noise levels that may be higher than existing levels"

DECOMMISSIONING

The systems can pose risks of explosion from overheating, or of environmental contamination during decommissioning from aged unstable batteries. Who is clearly responsible for decommissioning? Who holds financial responsibility?

Alectra /Convergent?

Landowner?

Municipality?

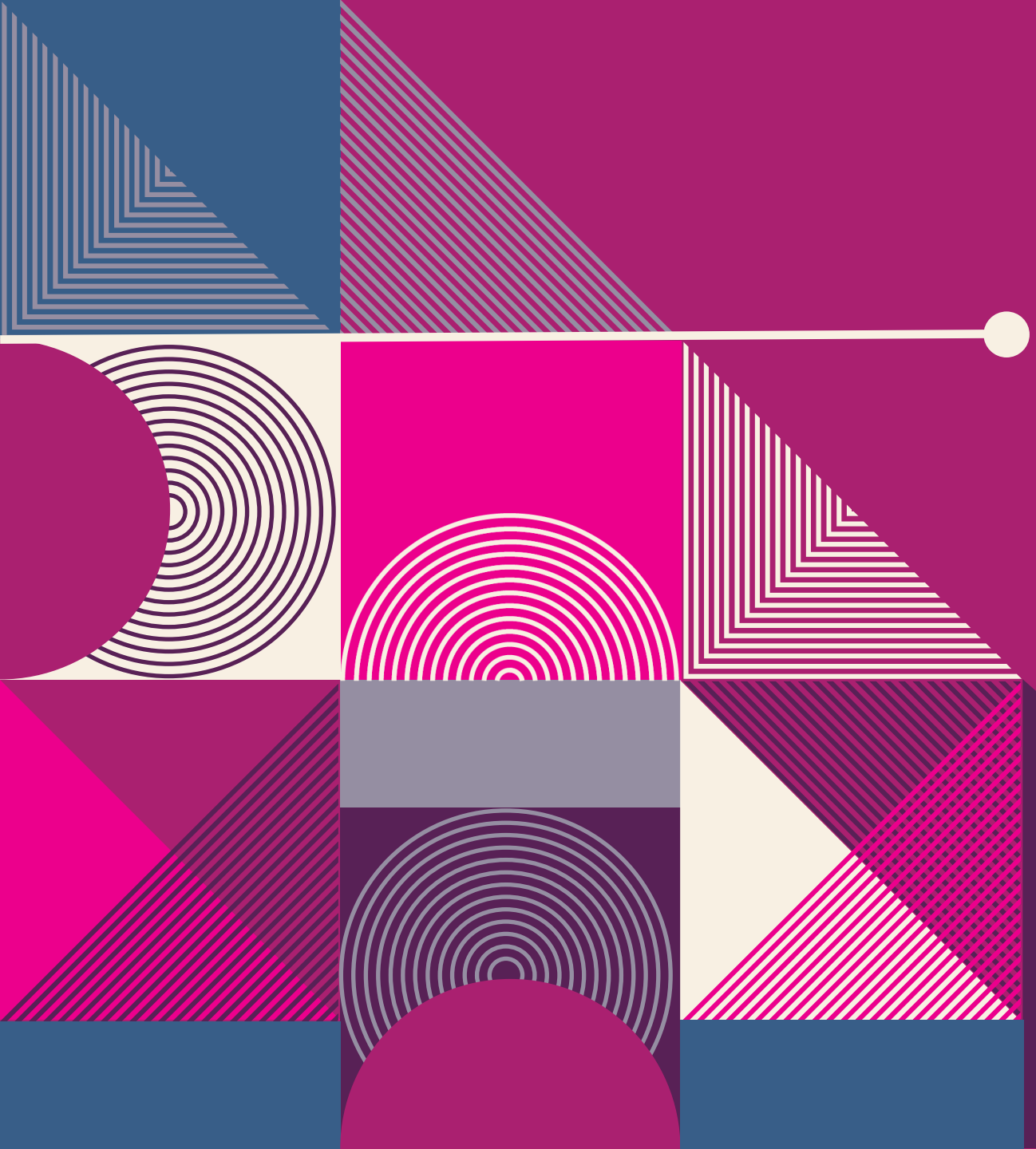
SUMMARY

We have time to say yes when we are ready. If the leaders of our municipality are asking questions like " can we still get out if we say yes now?

If any of our council or staff have unanswered questions.

Then the answer is clearly NO

The responsible answer is not yet.



THANK YOU

Minutes of Council
November, 21, 2023

Township of South Frontenac
Council Meeting Minutes

Meeting #

Time: 6:00 PM
Location: Council Chambers/Virtual Via Zoom

Present: Charlene Godfrey; Virtual, Ray Leonard, Doug Morey, Steve Pegrum, Norm Roberts, Randy Ruttan, Ron Sleeth, Scott Trueman, Mayor Ron Vandewal

Staff: Louise Fragnito - Chief Administrative Officer, James Thompson - Clerk, Michelle Hannah - Deputy Clerk, Brad Wright - Director of Development Services, Alex Bennett- Acting Director of Fire and Emergency Services, Kyle Bolton - Director of Public Services, Shelley Stedall - Director of Corporate Services and Treasurer

1 Call to Order

a) Resolution

Resolution No. 2023:33:01
Moved by Councillor Leonard
Seconded by Councillor Ruttan
That the Council meeting of November 21, 2023 be called to order at 6:00 p.m.
Carried

2 Declaration of pecuniary interest and the general nature thereof

a)
There were none.

3 Approval of Agenda

a) Resolution

Resolution No. 2023:33:02
Moved by Councillor Roberts
Seconded by Councillor Pegrum
That the agenda be approved, as presented.
Carried

4 Scheduled Closed Session

a)
There was none.

5 Recess

a)
There was none.

6 Public Meeting

a) There was none.

7 Delegations

a) David Anders & Tremor Temchin from Alectra Energy Solutions were present to speak to Council regarding the proposed South Frontenac and Harrowsmith Energy Storage Projects.

b) Brandi Teeple was present to speak to Council regarding the proposed Alectra Energy Solutions, South Frontenac and Harrowsmith Energy Storage Projects.

8 Briefings

a) Shelley Stedall, Director, Corporate Services & Treasurer was present to speak to Council regarding the 2024 Capital Budget Overview.

9 Approval of Minutes

a) Resolution

Resolution No. 2023:33:03
Moved by Councillor Trueman
Seconded by Councillor Morey
That the minutes of the November 14, 2023 Council meeting be approved.

Carried

10 Reports Requiring Action

a) SFFR Pumper Purchase – 2024 Pre-Budget Approval

Resolution No. 2023:33:04
Moved by Councillor Pegrum
Seconded by Councillor Leonard
That Council provide pre-budget approval with an upset limit of $550,000 for the Pumper replacement.

Carried

11 Advisory Committee Reports or Minutes

a) There were none

12 Reports Requiring Approval of By-laws

a) There were none.

13 Reports for Information

a) **2024 Budget – Public Input**

14 Committee of the Whole

a) There was none.

15 Information Items

a) There were none.

16 Notice of Motions

a) Notice of Motion – Draft Official Plan – Proposed provisions related to Irregular Shaped Parcels of Land within Hamlet Boundaries

Resolution No. 2023:33:05

Moved by Deputy Mayor Sleeth
Seconded by Councillor Trueman
That staff be directed to include language in the draft Official Plan to allow irregular shaped and sized parcels of land within hamlet boundaries to be considered for development provided defined criteria is met such as environmental considerations.

Carried

17 Rise and Report regarding County Council and External Boards

a) County Council

Councillor Leonard advised that the addition to the Frontenac County Administrative Offices are still projected for a completion date of January 1, 2024 along with the new Paramedic Station on the same site.

Mayor Vandewal noted that Kelly Pender, Frontenac County CAO has announced his impending resignation.

b) Police Services Board

Councillor Pegrum advised that he will be participating on the interview panel for the Frontenac Detachment Commander position.

18 Announcements/Statements by Councillors

a)

Mayor Vandewal shared that the Warden's Banquet is scheduled Wednesday November 29, 2023 at 6:00 p.m. at the Storrington Centre.

19 Closed Session (if requested)

a)

There was none.

20 Confirmatory By-law

a) Resolution

Resolution No. 2023:33:06
Moved by Councillor Morey
Seconded by Councillor Roberts
That By-law 2023-95, being a by-law to confirm generally all actions and proceedings of the Council of the Township of South Frontenac, be given first and second reading.

Carried

Resolution No. 2023:33:07
Moved by Councillor Leonard
Seconded by Councillor Trueman
That By-law 2023-95, being the confirmatory by-law, be given third reading, signed and sealed.

Carried

21 Adjournment

a) Resolution

Resolution No. 2023:33:08
Moved by Councillor Godfrey
Seconded by Councillor Pegrum

That the Council meeting of November 21, 2023 be adjourned at 8:16 p.m.

Carried

Ron Vandewal, Mayor

James Thompson, Clerk

Township of South Frontenac

Staff Report

To:	Council
Prepared by:	Office of the Chief Administrative Officer
Date of Meeting:	December 5, 2023
Subject:	**Strategic Plan**

Summary

This report provides Council with the draft Township Strategic Plan for approval.

Recommendation

That Council approve the 2023-2026 Corporate Strategic Plan document, attached as Schedule A to this report; and

That Council direct staff to bring forward an implementation plan for the Strategic Plan in the first quarter of 2024.

Background

In summer of 2023, with the use of Strategic Corp, the process of updating the existing Strategic Plan from 2019 was initiated. The strategic plan process involved one on one interviews with Council and senior staff, public survey and staff surveys which yielded 520 responses along with two Council/senior staff workshops.

Discussion/Analysis

The strategic plan as presented was crafted largely from the feedback provided by Council and senior staff during the first Council/staff workshop. Overall, the workshops provided an opportunity for Council and staff to:

- Discuss a long-term vision for the Township
- Discuss the ways in which the Township should achieve that vision, through its values and overall approach to service delivery (mission)
- Review the results of the public and staff surveys
- Identify key themes from the consultation and prioritize specific areas
- Consider the suitability of current strategic plan priorities

Financial Implications

None for the purpose of this report but this updated strategic plan will continue to inform future Township budget decisions.

Relationship to Strategic Plans

☒ Not applicable to this report. The updated draft plan within this report will provide the revised Council priorities whether new or continued from the prior plan for staff to work towards.

☐ This initiative is supported by the following priorities of the 2019-2022 Strategic Plan.

- Priority: Choose an item.

Climate Considerations

☒ Not applicable to this report.

☐ This initiative supports climate change mitigation/adaption efforts in South Frontenac; and/or impacts the Township's resilience to climate change.

Attachments

Schedule A – Draft 2023-2026 Strategic Plan

Approvals

Approved By:

Louise Fragnito, CPA, CGA
Chief Administrative Officer

SOUTH FRONTENAC

2023 – 2026 STRATEGIC PLAN

Township of South Frontenac

LAND ACKNOWLEDGEMENT

We recognize that the lands known to us as the Township of South Frontenac are entirely within the traditional unceded territory of the Algonquin, Anishinaabe, and the Haudenosaunee peoples.

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RON VANDEWAL
MAYOR

A MESSAGE FROM THE MAYOR

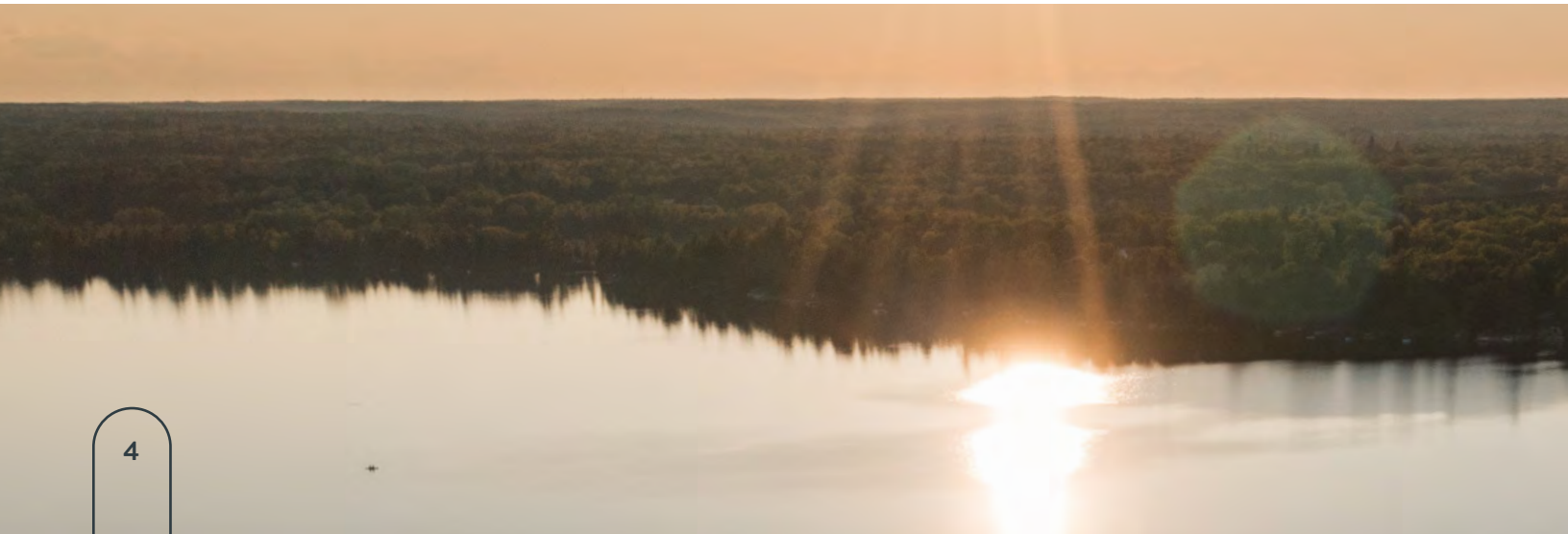
On behalf of Council, I'm very pleased to share our updated Strategic Plan for South Frontenac Township.

This plan builds on the great work and vision of previous Councils, to be a growing, vibrant rural community and a leader that other municipalities look up to.

Our mission is to provide efficient and responsive public services, foster sustainable growth, and enhance the quality of life for all residents, but it is our values that will be our trusted guide and govern our decisions as we grow.

Our population is anticipated to grow by 25% over the next 20 years. With growth comes increased demand for services, infrastructure, and resources. We've been taking a proactive approach to manage this growth effectively. The framework outlined in our new strategic plan will help us anticipate and plan for this growth to ensure we can provide the services and infrastructure to meet the unique needs of our community.

I want to thank everyone who provided input into this plan. I believe it reflects the hopes, aspirations and goals of our community and I'm excited to see what's in store as we continue to grow and thrive in South Frontenac.



LOUISE FRAGNITO
CHIEF ADMINISTRATIVE OFFICER

A MESSAGE FROM THE CAO

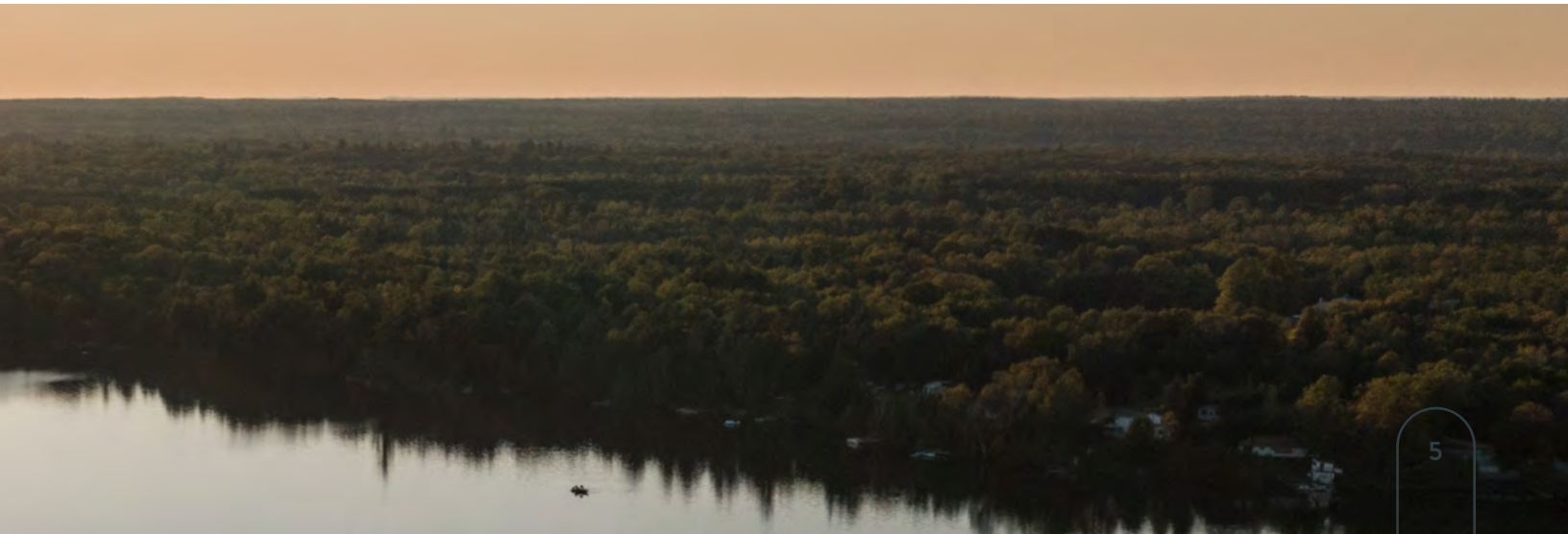
This strategic plan reflects and builds on what we do every day at South Frontenac: engage with residents, provide important services and excellent customer service, and manage trusted assets in a financially, environmentally, and socioeconomically sustainable manner.

Municipal service excellence is one of the strategic pillars of the plan. We will continue to provide excellent customer service, be transparent in our operations and find ways to improve the efficiency, effectiveness, and accessibility of our services and operations.

We've also identified people and partnerships as a strategic pillar in the plan. That is because we know it is the strength and passion of the people who make up this great community who will help us forge the path forward.

The success of this plan will be measured by how well it is executed and the positive and tangible actions and outcomes. I'm confident this plan provides clear direction and actions to achieve our vision of being a welcoming and thriving rural community.

I would like to thank Council for their continued direction and support and our amazing staff who strive every single day to do what's right for the residents of South Frontenac. We know it is our people who will bring this plan and vision to life.



ABOUT SOUTH FRONTENAC

South Frontenac Township is located in Eastern Ontario, 20 minutes north of Highway 401 and downtown Kingston, Ontario. South Frontenac is known for its lakes and naturalized spaces, including its provincial park, conservation area and parks, regional trails network and inviting hamlets. With a rich agricultural heritage and a promising future, the Township is committed to serving its diverse and growing community of over 20,000 residents through a wide range of services and programs.

ESTABLISHING A CLEAR DIRECTION

This plan will help guide decision-making, set priorities, and focus the Township's efforts on areas of strategic change that will make our vision for South Frontenac a reality.

Our new strategic plan incorporates Council, staff and the community's ideas and vision for the future of South Frontenac and sets the stage for collaborative action.

By working together, we can ensure our community continues to thrive economically, socially, and environmentally.

WHAT WE HEARD

- 520 Community Survey Responses
- 2 Council and Senior Leadership Team Workshops
- 10 one-on-one interviews with Council and Senior Leadership Team

STAKEHOLDER FEEDBACK EMERGED AROUND FIVE KEY THEMES:

Responsible Growth	Ensuring growth is undertaken in a way that preserves the Township's rich natural features and agriculture, while also considering the needs of future generations.
Business Transformation	Continuously driving business transformation and modernization efforts to enhance efficiency and effectiveness in delivering municipal services to the community.
Climate Change	Proactively adopting sustainable practices and measures to mitigate and adapt to the impacts of climate change.
Age-Friendly Community	Creating a welcoming and vibrant community that caters to the needs of residents of all ages, promoting inclusivity and quality of life for everyone.
Talent Development and Engagement	Recognizing the importance of staff engagement, succession planning, and attracting top talent to ensure the Township's ability to provide excellent municipal services to its residents.

STRATEGIC PLAN ON A PAGE

VISION

South Frontenac is a welcoming and thriving rural community.

MISSION

To provide efficient and responsive public services, foster sustainable growth, and enhance the quality of life for all residents.

VALUES

- Financial Sustainability
- Environmental Stewardship
- Collaboration
- Engagement
- Community

STRATEGIC PILLARS AND DIRECTIONS

Sustainable Long-Term Prosperity

We will work with local, regional, provincial, and federal stakeholders to achieve the community's long-term environmental, economic, and social priorities.

Municipal Service Excellence

We will be transparent in our operations and look to continuously improve the efficiency, effectiveness, and accessibility of our services and operations.

People and Partnerships

We encourage, support, recognize, and celebrate the passion of the people who serve our community and partner with key stakeholders.

STRATEGIC LEVERS

- Performance Measurement and Standards
- Environmental Awareness
- Accountable Governance
- Advocacy and Community Engagement
- Strategic Alliances and Partnerships
- Staff Development

VISION

South Frontenac is a welcoming and thriving rural community.

MISSION

To provide efficient and responsive public services, foster sustainable growth, and enhance the quality of life for all residents.

VALUES

Serve as the guiding principles for everything we do. They act as a lens both reflecting our beliefs, but also guiding us in our decisions.

Financial Sustainability

We assess and provide affordable and reliable services that are aligned to our community's needs.

Environmental Stewardship

We protect and promote our natural environment.

Collaboration

We foster strong relationships and partnerships to provide the resources our community needs to thrive.

Engagement

We listen, communicate and are responsive to the needs of our community.

Community

We support each other to build on a community we are proud of.

Sir Salter
SOUTH

STRATEGIC PILLARS

Our Strategic Pillars are our areas of focus, and the associated directions provide guidance on how the Township plans to action these pillars.

STRATEGIC PILLAR	OBJECTIVE
SUSTAINABLE LONG-TERM PROSPERITY	We will work with local, regional, provincial, and federal stakeholders to achieve the community's long-term environmental, economic, and social priorities.
MUNICIPAL SERVICE EXCELLENCE	We will be transparent in our operations and look to continuously improve the efficiency, effectiveness, and accessibility of our services and operations.
PEOPLE AND PARTNERSHIPS	We encourage, support, recognize, and celebrate the passion of the people who serve our community and partner with key stakeholders.

PILLAR 1

SUSTAINABLE LONG-TERM PROSPERITY

OBJECTIVE:

To work with local, regional, provincial, and federal stakeholders to achieve the community's long-term environmental, economic, and social priorities.

DIRECTIONS & PROGRESS MEASURES

1 | FINANCIAL SUSTAINABILITY

Our aim is to continue to maintain a focus on prudent financial management through long-term financial planning. This includes integrating other critical plans such as our Asset Management Plan, Recreation, Parks, and Leisure Master Plan, and Transportation Master Plan.

2 | RESILIENCE AND ADAPTATION

Our commitment is to foster community resilience to climate change through the safeguarding of our natural assets and mitigating the impacts of climate change.

3 | LEADERSHIP FOR RESULTS

We will encourage and support the Township's Council and senior staff in performing leadership and advocacy roles at the various levels of government.

4 | WELL-BEING FOR ALL

Our aim is to support well-being across all age groups by providing welcoming spaces and services that encourage community connection and caring.

PILLAR 2

MUNICIPAL SERVICE EXCELLENCE

OBJECTIVE:

The Township will be transparent in our operations and look to continuously improve the efficiency, effectiveness, and accessibility of our services and operations.

DIRECTIONS & PROGRESS MEASURES

1 | EVIDENCE-BASED

Our commitment is to use data-driven insights for informed planning and decision-making. Where available, tools such as performance indicators and analytics will be used within proposals, reports and day-to-day decision making.

2 | CUSTOMER FOCUS

Our goal is to enhance customer service and community outreach, making it more accessible through clear communications, self-service, and staff support and resources.

3| LONG-TERM PLANNING

The Township is dedicated to developing and implementing long-term financial and master plans to ensure the sustainability and suitability of our programs and services.

4| OPERATIONAL EFFICIENCY

We will optimize processes, service levels, resources, and systems to modernize service delivery, streamline operations, maximize cost-effectiveness, and support and empower management to innovate municipal service delivery.

PILLAR 3

PEOPLE AND PARTNERSHIPS

OBJECTIVE:

The Township will encourage, support, recognize and celebrate the passion of the people who serve our community and partner with key stakeholders.

DIRECTIONS & PROGRESS MEASURES

1 | EMPLOYER OF CHOICE

We will lead by example with a focus on creating a supportive and inclusive work culture, attracting and retaining talented employees, and promoting professional growth and development opportunities.

2 | PARTNERSHIP DEVELOPMENT

Forge collaborative relationships with external organizations, stakeholders, and neighbouring communities to leverage resources, share expertise, and achieve common goals for the betterment of the community.

3 | SUSTAINING COMMUNITY PASSION

At the heart of our Township is a vibrant community spirit. We strive to kindle this spirit by nurturing civic engagement and volunteerism, promoting a sense of pride, and encouraging active participation in local initiatives and Township decision-making processes.

STRATEGIC LEVERS

Strategic levers are the essential organizational competencies, capabilities, and assets that we will use to achieve the priorities laid out in this plan.

Performance Measurement and Standards

By consistently tracking and evaluating the progress and outcomes of municipal programs and initiatives, we identify areas for enhancement, ensuring the municipality's operations remain both effective and efficient.

Advocacy and Community Engagement

Council and Staff will be proactive in advocating for the Townships' interests, raising awareness about key issues, and building strong relationships with stakeholders, including residents, businesses, and other levels of government.

Environmental Awareness

Our commitment to a sustainable future is showcased through dedicated education, policy development, and stakeholder engagement focused on environmental protection.

Strategic Alliances and Partnerships

We will forge and nurture strategic collaborations and partnerships with other organizations, government agencies, and community stakeholders. These partnerships amplify our resources, expertise and collective capacity to achieve aligned goals.

Accountable Governance

Emphasizing transparency, accountability, and ethical decision-making, the Township upholds governance practices that inherently prioritize the well-being and interests of our residents and stakeholders.

Staff Development

The backbone of our Township, our staff, are continually engaged and supported through training and professional development programs. We ensure our staff thrive by fostering a supportive work culture and continual growth and improvement.

MEASUREMENT AND REPORTING

We are committed to tracking and reporting on the progress of our strategic plan. To ensure transparency and accountability, we will:

- Present reports to South Frontenac's Council twice a year.
- Develop Action Plans that align with specific measures, targets, and the annual budget.

We will consistently assess and adjust our performance, ensuring it aligns with our shared priorities.

SOUTH
FRONTENAC

Box 100, 4432 George St, Sydenham, ON K0H 2T0
613-376-3027
southfrontenac.net
facebook.com/SouthFrontenacTwp
twitter.com/SthFrontenacTwp
instagram.com/southfrontenac/
linkedin.com/company/south-frontenac-township/

Township of South Frontenac

Staff Report

To:	Council
Prepared by:	Office of the Clerk
Date of Meeting:	December 5, 2023
Subject:	**Request for Lane Name Change – Neill Lane to James Thomas Lane**

Summary

A request has been received by staff seeking Council approval to change the name of Neill Lane.

Recommendation

Open.

Background

A brief description of the history and reason for this request was received by Mr. Lou Bilkovski and is attached to this report as Attachment #1 for Council consideration as the background for request.

Discussion/Analysis

In November 2015 Council passed By-law 2015-60 “Being a By-law to approve a list of names for future roads and private lanes and the re-naming of existing roads/lanes in the Township of South Frontenac”.

The By-law sets out a list of names for any future new road or private lane or to any re-naming of an existing road or private lane in the Township. The By-law also states that “where a request for a road name other than provided on Schedule ‘A’ is approved, the applicant shall bear the costs for the associated advertising and administration of such change.

Mr. Bilkovski has requested that Council consider approving one of the three following options:

1. James Thomas Lane
2. Thomas Lane
3. Jim Thomas Lane

By-law 2015-60 does not prohibit Council from approving a name not listed.

Clerk's Department staff consulted with County staff, and they have indicated there is no current County By-law or policy with respect to lane or road names, although there is a draft policy that has been circulated to the CAOs of the Frontenac Townships for consideration to provide uniformity throughout the County with respect to this subject.

County staff advised that the draft policy, if passed, will recommend that names longer than one word or the name of a living person not be used. The draft policy also states that "no proposed new name or change can conflict or be similar to an existing public or private road name within the same municipality, or an existing official road name within 5 km of any neighbouring municipality". County staff advised that there is both a Thomas Road and a James Street just outside South Frontenac Township border (within 5 km) near Whitefish Lake.

Council can consider the following options for a decision:

1. That Council direct staff to proceed with the advertising and notice requirements to rename Neill Lane, and that (James Thomas Lane, Thomas Lane or Jim Thomas Lane) be the preferred name choice.

2. That the request to change the name of Neill Lane be denied.

Financial Implications

If this name change is approved, as per By-law 2015-60, all costs associated with the advertising and administration of such change shall be the responsibility of the applicant.

Relationship to Strategic Plans

☒ Not applicable to this report.

☐ This initiative is supported by the following priorities of the 2019-2022 Strategic Plan.

- Priority: Choose an item.
- Action Item (if applicable):

Climate Considerations

☒ Not applicable to this report.

☐ This initiative supports climate change mitigation/adaption efforts in South Frontenac; and/or impacts the Township's resilience to climate change.

Notice/Consultation

- Chief Administrative Officer
- County GIS Staff

Attachments

Attachment #1 – Request for name change from Neill Lane to James Thomas Lane, Bobs Lake, Tichborne, Lou Bilkovski

Approvals

Submitted By:

Michelle Hannah
Deputy Clerk

Approved By:

Louise Fragnito, CPA, CGA
Chief Administrative Officer

Request for name change from Neill Lane to James Thomas Lane Bob's Lake, Tichborne

September 18, 2023

1.0 Application from: Lou Bilkovski
35 Neill Lane
Tichborne, ONT
Bob's Lake
Tele: 613-532-1960
ROLL # 010-010-12100-0000

2.0 Purpose: 2 (A) I am requesting consideration of a name change from NEILL LANE to **JAMES THOMAS LANE**

3.0 Reason: **3 (A)** Preserve History

3 (B) In 1969, James Thomas purchased from the WARREN family six (6) Lakefront properties on Bob's Lake located on what is now known as NEILL LANE.

3 (C) The properties were provided to each of his children FRED THOMAS, MARY THOMAS, BETTY THOMAS and PETER THOMAS and one for JAMES THOMAS and his wife..

3 (D) Mary THOMAS married Don BETTS

3 (E) Betty THOMAS married Bruce **NEILL**.

3 (F) Sometime in the late 1980's a representative from South Frontenac attended the lane which was not named at that time and happened to meet Bruce NEILL husband of BETTY NEILL (Nee THOMAS). Bruce NEILL suggested they name the lane "NEILL LANE" which was done.

3 (G) This name was never agreed upon by any of the family and always felt it should have been JAMES THOMAS LANE because of his vision to keep his family close and together each summer.

RECEIVED
SEP 18 2023
Township of South Frontenac
BUILDING DEPARTMENT

4.0 Families Presently on NEILL LN.:

4 (A) There are a total of six (6) families that have a cottage on NEILL LN.

4 (B) Part Lot 1 & 2 – Don & Mary BETTS (Nee Thomas)
Part Lot 3, 4, 5 – FRED THOMAS
Part Lot 5, 6, 7 - Lou (writer) & Jennifer BILKOVSKI (- Jennifer is Fred Thomas's daughter.
Part Lot 8 & 9 - Harold & Nancy YULE (This was sold to the Yules from Bruce & Betty NEILL approximately 12 years ago.
Part Lot 10/ 11 – Nancy O'Connor – (This was sold to Ms. O'Connor from Bruce & Betty NEILL approximately 12 years ago.
Part Lot 12/ 13 – Peter & Lina NYKORCHUCK this property was sold approximately 4 years ago by Peter & Elaine THOMAS.

5.0 Supporting Documentation:

5 (A) The writer has obtained emails in writing from each of the present owners who are in agreement with the name change to James Thomas Lane.. **(See Appendix "A")**
There are two missing e-mails one from the writer who is submitting this request and fully supports it and Fred THOMAS who is the writers father-in-law. If this submission is approved the writer wished to surprise him. The writer has had numerous conversations over many years about the lane not being named after his father.

5 (B) Copy of Agreement dated 13 October, 1969, outlining the division of each lot to each THOMAS family member. **(See Appendix "B"**, 6 pages)

Respectfully Submitted,

Lou Bilkovski

Gmail

APPENDIX "A"

Lou Bilkovski <loubilkovski@gmail.com>

Lane Name Change

Lou Bilkovski <loubilkovski@gmail.com> Sun, Sep 17, 2023 at 6:21 PM
To: Lou Bilkovski <loubilkovski@gmail.com>

RECEIVED
SEP 18 2023
Township of South Frontenac
BUILDING DEPARTMENT

Sent from Coach Lou's iPhone

Begin forwarded message:

From: Lina Nykorchuk <lnykorchuk@yahoo.ca>
Date: September 15, 2023 at 11:08:22 AM EDT
To: Lou Bilkovski <loubilkovski@gmail.com>
Subject: Re: Lane Name Change

Hi Lou,

We don't have a problem with the name change. Good luck!

Peter and Lina

On Thursday, September 7, 2023 at 10:51:17 a.m. EDT, Lou Bilkovski <loubilkovski@gmail.com> wrote:

Hello all:
I hope this email finds you all well.

I am revisiting the idea of changing our Lane name from Neill Lane to James Thomas Lane.

I originally proposed to the Township "Thomas Lane", however, that lane already exists and then I got caught up with our cottage build.

I would like to give this one more try and do this for my father-in-law, Fred Thomas.

As you may or may not know, there is a bit of history behind all of the lots on Neil Lane. Fred's father John Frederick James Thomas, purchased all these lots in the 1960's for the sole purpose of his children, Fred Thomas, Mary Betts (nee Thomas), Elizabeth Neil (nee Thomas), Peter Thomas and of course a lot for himself so that his family would have the opportunity to come to one central place even though they were spread out over Ontario and Quebec. It was an incredible vision that gave all the families so many wonderful memories!

Of course, there was always an option for each family to sell if they so choose and as you all know, Bruce and Betty Neil and Peter Thomas have since sold.

During the late eighties the Township of Bedford had come by to provide names to the

Gmail Lou Bilkovski <loubilkovski@gmail.com>

Lane Name Change

Lou Bilkovski <loubilkovski@gmail.com> Sun, Sep 17, 2023 at 6:10 PM
To: Lou Bilkovski <loubilkovski@gmail.com>

Sent from Coach Lou's iPhone

Begin forwarded message:

From: Mary Betts <maryb@rogers.com>
Date: September 11, 2023 at 8:26:16 AM EDT
To: DONALD BETTS <4donaldbetts@rogers.com>
Cc: Lou Bilkovski <loubilkovski@gmail.com>
Subject: Re: Lane Name Change

I agree. This would be wonderful for all of us.
[Quoted text hidden]

Gmail Lou Bilkovski <loubilkovski@gmail.com>

Lane Name Change

nancyjoyceoconnor@gmail.com <nancyjoyceoconnor@gmail.com> Fri, Sep 15, 2023 at 6:26 PM
To: Lou Bilkovski <loubilkovski@gmail.com>

My only reservation is that there is already a Thomas Lane. The names and numbers were set up to make it easier for Emergency Medical Services to find us if 911 was called. For me it could be a safety concern.
Nancy

Sent from my iPhone

> On Sep 15, 2023, at 12:19 PM, Lou Bilkovski <loubilkovski@gmail.com> wrote:
>
> Hello everyone.
[Quoted text hidden]

Gmail Lou Bilkovski <loubilkovski@gmail.com>

Lane Name Change

Lou Bilkovski <loubilkovski@gmail.com> Fri, Sep 15, 2023 at 9:53 PM
To: nancyjoyceoconnor@gmail.com

Hi Nancy
Yes I agree, when I first started this the township said "No" to Thomas Lane. When I spoke to our local councillor he said James Thomas Lane has a 50/50 chance.
So it's exactly that sort of thing they will take into account.
It will be a yes or no most likely based on your concern exactly.
My submission this time will be for "James Thomas Lane" if everyone is agreeable.
Lou

Sent from
Coach Lou

>
> Hello everyone.
[Quoted text hidden]

Lou Bilkovski <loubilkovski@gmail.com> Fri, Sep 15, 2023 at 9:53 PM
To: nancyjoyceoconnor@gmail.com

Hi Nancy
Yes I agree, when I first started this the township said "No" to Thomas Lane. When I spoke to our local councillor he said James Thomas Lane has a 50/50 chance.
So it's exactly that sort of thing they will take into account.
It will be a yes or no most likely based on your concern exactly.
My submission this time will be for "James Thomas Lane" if everyone is agreeable.
Lou

Sent from
Coach Lou

[Quoted text hidden]

Harold Yule <harold.yule@gmail.com> Sat, Sep 16, 2023 at 7:17 AM
To: Lou Bilkovski <loubilkovski@gmail.com>
Cc: Donald Betts <4donaldbetts@rogers.com>, lnykorchuk@yahoo.ca, Nancy O'Conner <nancyjoyceoconnor@gmail.com>, Sheldon Betts <sheldon.betts@gmail.com>, Nancy Yule <nancy.e.yule@gmail.com>

Lou

We are OK with the name change.

Harold

Sent from my iPhone

> On Sep 15, 2023, at 12:19 PM, Lou Bilkovski <loubilkovski@gmail.com> wrote:
>
> Hello everyone.
[Quoted text hidden]

LOU & JENNIFER BILKOVSKI.
35 NEILL LANE.
YES TO NAME CHANGE TO JAMES THOMAS LANE

FRED THOMAS
33 NEILL LN
DOES NOT KNOW ABOUT THIS BUT ~~HIS~~ ALWAYS
BEEN UPSET ABOUT THE NAME BEING NEILL LN.
SO HE IS "YES TO JAMES THOMAS LN. HIS
FATHERS NAME

APPENDIX "B"

THIS AGREEMENT made in quintuplicate this 13th day of October, 1969.

BETWEEN:

ELIZABETH JANE NEILL, of the City of Ottawa, in the Province of Ontario, Teacher, hereinafter called the Party,

OF THE FIRST PART,

AND: PETER JAMES THOMAS, of the City of Guelph, in the Province of Ontario, Student, hereinafter called the Party,

OF THE SECOND PART,

AND: FREDERICK WILLIAM THOMAS, of the City of Montreal, in the Province of Quebec, Professional Engineer, hereinafter called the Party,

OF THE THIRD PART,

AND: MARY JOYCE BETTS, of the City of Montreal, in the Province of Quebec, Housewife, hereinafter called the Party,

OF THE FOURTH PART,

AND: BEATRICE MAUDE THOMAS, of the City of Ottawa, in the Province of Ontario, Public Servant, hereinafter called the Party,

OF THE FIFTH PART.

WHEREAS the parties to this Agreement own real property abutting one another in Lot 32, Concession IX, Township of Bedford in the County of Frontenac and Province of Ontario;

AND WHEREAS the real property owned by the parties hereto may be identified by reference to the Plan of Survey of part of said Lot 32, prepared by M. Vorsteveld, O.L.S. and dated September 28th, 1968 and annexed hereto as follows:

Parcel A -	Beatrice Maude Thomas
Parcel B -	Elizabeth Jane Neill
Parcel C -	Peter James Thomas
Parcel D -	Frederick William Thomas
Parcel E -	Mary Joyce Betts

AND WHEREAS the parties hereto wish to give to each other a right of first refusal if they should decide to sell the real property in the order of preference in each case set out herein;

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of the covenants contained herein the parties hereto agree each with the

others as follows:-

1. In the event that any one of the parties hereto wishes to sell the real property owned by him to a bona fide purchaser he shall, before selling to such purchaser, notify in writing the person identified by the number 1 underneath the parcel of land owned by him as set forth in Schedule "A", of his desire to sell and of the price offered to him for the parcel by the said prospective purchaser, and the person so identified by the number 1 set opposite his name shall have the exclusive option to buy the real property at the same price for a period of seven days from the date of the receipt of such notice.

In the event that the person identified as number 1 does not exercise his option as aforesaid then the owner of the parcel shall similarly offer the real property to the person identified as aforesaid as number 2 in the same manner and upon the same terms as it was offered to the person numbered 1.

In the event that the person identified as number 2 does not exercise his option as aforesaid then the owner of the parcel shall similarly offer the real property to the person identified as aforesaid as number 3 in the same manner and upon the same terms as it was offered to the person numbered 2.

In the event that the person identified as number 3 does not exercise his option as aforesaid then the owner of the parcel shall similarly offer the real property to the person identified as aforesaid as number 4 in the same manner and upon the same terms as it was offered to the person numbered 3.

2. These conditions and restrictions shall be binding upon the parties hereto, their heirs, executors, administrators and assigns.

IN WITNESS WHEREOF the parties hereto have hereunto set

their hands and seals the day and year first above written.

WITNESS:

F. J. Thomas

Elizabeth Jane Neill

Peter James Thomas

Frederick William Thomas

Mary Joyce Betts

Beatrice Maude Thomas

THIS IS SCHEDULE "A" to the within Agreement dated October 13th, 1969.

PARCEL B- (Owner - Elizabeth Jane Neill)

1. Beatrice Maude Thomas
2. Peter James Thomas
3. Frederick William Thomas
4. Mary Joyce Betts

PARCEL C- (Owner - Peter James Thomas)

1. Beatrice Maude Thomas
2. Elizabeth Jane Neill
3. Frederick William Thomas
4. Mary Joyce Betts

PARCEL D- (Owner - Frederick William Thomas)

1. Beatrice Maude Thomas
2. Mary Joyce Betts
3. Peter James Thomas
4. Elizabeth Jane Neill

PARCEL E- (Owner - Mary Joyce Betts)

1. Beatrice Maude Thomas
2. Frederick William Thomas
3. Peter James Thomas
4. Elizabeth Jane Neill

PARTS OF LOT 32 CONCESSION IX

TOWNSHIP OF BEDFORD
COUNTY OF FRONTENAC

SCALE 1" = 100'

Bearings are astronomic derived from solar observations

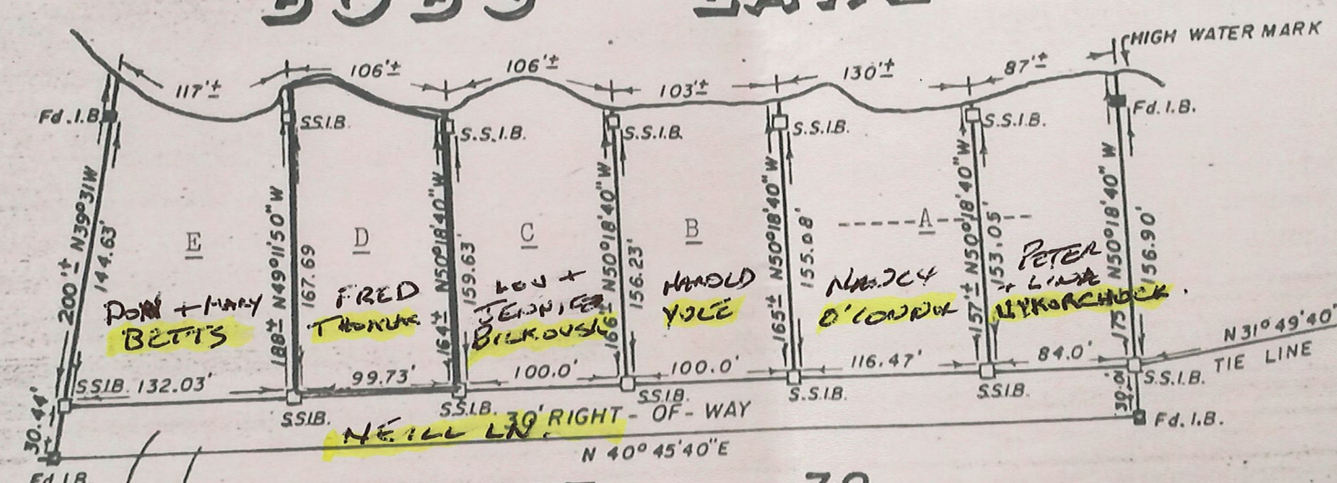
LEGEND
- S.S.I.B. denotes short standard iron bar 1"X1"X24"
- I.B. denotes iron bar 5/8"X5/8"X24"

OFFICE OF
Geo. W. Bracken P.Eng.
Ontario Land Surveyor

M. Vorsteveld

M. Vorsteveld O.L.S.

Smiths Falls Ontario
September 28, 1968



(Ref 1393)

DATED: October 13th, 1969.

Between:

ELIZABETH JANE NEILL
-and- PETER JAMES THOMAS
-and- FREDERICK WILLIAM THOMAS
-and- MARY JOYCE BETTS
-and- BEATRICE MAUDE THOMAS

A G R E E M E N T

BEAUMONT, FYFE, AULT, HUTTON & WILSON,
Barristers and Solicitors,
56 Sparks Street,
Ottawa 4, Ontario.

Township of South Frontenac

Staff Report

To:	Council
Prepared by:	Office of the Clerk
Date of Meeting:	December 5, 2023
Subject:	**2024 Meeting Schedule**

Summary

The purpose of the report is to recommend adoption of the 2024 meeting schedule for Council, advisory committees and legislated committees.

Recommendation

That notwithstanding By-law 2017-76, As Amended and By-law 2023-04, the following Council, Lake Ecosystem Advisory Committee and Recreation & Leisure Services Advisory Committee meeting dates be rescheduled as follows:

- February 22, Recreation & Leisure Services Advisory Committee meeting rescheduled to February 29;
- March 28, Lake Ecosystem Advisory Committee meeting rescheduled to March 21; and
- July 9, Council meeting rescheduled to July 16;
- December 26, Lake Ecosystem Advisory Committee meeting rescheduled to December 5; and

That the 2024 Council, advisory committees and legislated committees meeting schedule, attached as Exhibit A to the Report, be approved.

Background

The respective meeting schedule for Council, advisory committees and legislated committees is governed by By-law 2017-76, as amended and By-law 2023-04.

Discussion/Analysis

With the exception of four meetings, the proposed 2024 meeting schedule, attached as Exhibit A to the Report, reflects the meeting schedule prescribed in the Council Procedure By-law and Committee By-law.

Notwithstanding By-law 2017-76, As Amended and By-law 2023-04, it is proposed that the following Council, Lake Ecosystem Advisory Committee and Recreation & Leisure Services Advisory Committee meeting dates be rescheduled as follows:

- February 22, Recreation & Leisure Services Advisory Committee meeting rescheduled to February 29;
- March 28, Lake Ecosystem Advisory Committee meeting rescheduled to March 21; and
- July 9, Council meeting rescheduled to July 16; and
- December 26, Lake Ecosystem Advisory Committee meeting rescheduled to December 5.

The 2024 meeting schedule will be posted to the Township of South Frontenac website upon approval.

Financial Implications

Not applicable.

Relationship to Strategic Plans

☒ Not applicable to this report.

☐ This initiative is supported by the following priorities of the 2019-2022 Strategic Plan.

- Priority: Choose an item.

Climate Considerations

☒ Not applicable to this report.

Attachments

Exhibit A – 2024 Meeting Schedule

Approvals

Submitted By:

James Thompson
Clerk

Approved By:

Louise Fragnito, CPA, CGA
Chief Administrative Officer

SOUTH FRONTENAC
ONTARIO CANADA

2024 Meeting Schedule

JANUARY 2024						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY 2024						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29		

MARCH 2024						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

APRIL 2024						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

MAY 2024						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

JUNE 2024						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

JULY 2024						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

AUGUST 2024						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

SEPTEMBER 2024						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

OCTOBER 2024						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

NOVEMBER 2024						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

DECEMBER 2024						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

LEGEND

- Holiday
- Council Meeting
- Committee of Adjustment
- Police Services Board
- Lake Ecosystem Advisory Committee
- Heritage Advisory Committee
- Recreation Advisory Committee

Township of South Frontenac

Staff Report

To:	Council
Prepared by:	Public Services Department
Date of Meeting:	December 5, 2023
Subject:	**Support for Enabling Accessibility Fund – Mid Sized Projects Application for the Centennial Park Accessibility Upgrades Project**

Summary

The Public Services Department is seeking Council's support for an application to this fund toward the Centennial Park Accessibility Upgrades Project.

Recommendation

That Council support a grant application to the Employment and Social Development Canada Enabling Accessibility Fund – Mid Sized Projects for the Centennial Park Accessibility Upgrades Project; and,

That authorization be given to the Mayor and the Clerk to sign a transfer payment agreement with Employment and Social Development Canada for the funding if the grant application is successful.

Background

The Employment and Social Development branch of the Government of Canada has recently put out a call for proposals for the Enabling Accessibility Fund – Mid Sized Projects. The fund is aimed at providing funding to projects that make Canadian communities and workplaces more accessible for persons with disabilities.

As a part of the 2023 budget, Council had approved the redesign of the existing washrooms at Centennial Park to meet Accessibility for Ontarians with Disabilities (AODA) Act standards. Construction on this project is proposed in the 2024 capital budget request.

In the 2024 capital budget submission, the Public Services Department intends to put forth several projects intended to address the need for accessibility upgrades at Centennial Park.

Discussion/Analysis

Staff are recommending an application to the Employment and Social Development Canada Enabling Accessibility Fund (EAF) – Mid Sized Projects for accessibility upgrades at Centennial Park.

Under the program, organizations can apply for funding for a minimum of $500,000 and a maximum of $3,000,000 per project. Leveraging for this grant is 35% of the total project costs. Successful projects under this call for proposals will provide funding to eligible organizations for new construction, renovation, and/or retrofit activities that will contribute to reducing waitlists and/or increasing access to programs, services and support targeted for persons with disabilities by improving accessibility in facilities in Canadian communities.

Projects must be ready to start as early as September 1, 2024, and no later than October 31, 2024, and must be completed within a 2-year timeframe. The scope of the Centennial Park Accessibility Upgrades Project would span over a two-year timeframe.

2024:

- Paved hard surface walkways throughout the park, connecting each amenity.
- Accessible parking upgrades.
- Retrofit of existing washroom facility to meet AODA standards.
- Design and architectural plans for new accessible washroom and storage facility.

2025:

- Construction of new accessible washroom and storage facility.

In the 2024 Capital Budget submission, Council will see the Public Services Department is requesting funds towards accessibility enhancements at Centennial Park. This grant would reduce the capital funding requirements of the projects.

Financial Implications

The 2024 Capital Budget itemizes the following project that would be related to this grant application:

Project #	Project *	2024 Budget	2025 Budget	Total
24-56	Centennial Park New Accessible Washrooms Design and Build	30,000	500,000	530,000
24-57	Centennial Park Renovations to existing Canteen/Washrooms	150,000		150,000
24-66	Centennial Park Walkway Connections	240,000		240,000
	Total	**420,000**	**500,000**	**920,000**
	Grant Funding - 65%	273,000	325,000	598,000
	Township Portion	147,000	175,000	322,000
	Total	**420,000**	**500,000**	**920,000**

Over 2024 and 2025, the total estimated project cost is $920,000. This figure uses an estimate of $500,000 for the construction of the new washrooms in 2025 which would be designed in 2024 based on budget approval.

The grant provides a funding opportunity of 65% or $598,000 with the remaining cost of $322,000 to be paid by the Township.

Relationship to Strategic Plans

☐ Not applicable to this report.

☒ This initiative is supported by the following priorities of relevant plans.

- Strategic Plan Priority: 4. Be a catalyst for the creation of vibrant, complete communities.
- Recreation, Parks, and Leisure Master Plan:
  - PK.1: Continue to make required accessibility upgrades to parks (including playground safety, routes and wayfinding, seating, shade and bicycle parking) as part of ongoing maintenance and upgrades.
  - PK.9: Develop a path and wayfinding system in Centennial Park.

Climate Considerations

☒ Not applicable to this report.

☐ This initiative supports climate change mitigation/adaption efforts in South Frontenac; and/or impacts the Township's resilience to climate change.

Notice/Consultation

- Clerks Department

Approvals

Submitted By:

Kyle Bolton
Director of Public Services

Approved By:

Louise Fragnito, CPA, CGA
Chief Administrative Officer

Township of South Frontenac
Staff Report

To:	Council
Prepared by:	Development Services Department
Date of Meeting:	December 5, 2023
Subject:	**IESO Municipal Support Resolution for Battery Energy Storage Systems**

Summary

The Independent Electricity System Operator ("IESO") is acting under the direction of the Minister of Energy to undertake initiatives to increase electricity supply or capacity in Ontario. The IESO is competitively securing additional capacity through procurement processes from private companies across Ontario. The IESO has determined that a Municipal Support Resolution is a weighted criteria for a company seeking to develop a battery storage facility. Alectra Convergent JV is requesting a Municipal Support Resolution for their Harrowsmith and South Frontenac Battery Energy Storage proposals.

Recommendation

Open.

Background

Ontario faces new energy needs driven by increased demand, the Pickering nuclear plant retirement, and facility contract expirations. To address this, the Independent Energy System Operator (IESO) has developed the Long-Term Request for Proposals (LT1 RFP), aiming to procure capacity services for system reliability, including New Build and Eligible Expansion from 2028 onwards. LT1 RFP intends to secure up to 2,500 MW of system capacity, of which 1,600 MW is to come from energy storage. The application window for the LT1 RFP runs from September 29 to December 12, 2023, with IESO awarding contracts based on various criteria.

Battery energy storage systems (BESS), enable the storage of excess energy during times of surplus supply, which can then be fed back into the grid during periods of high demand. The advantages of employing these systems include:

- Storing electricity when prices are lower, such as during off-peak hours when supply is abundant.
- Allowing the province to accumulate renewable energy (e.g., solar and wind) to reduce reliance on fossil fuels even in the absence of sunlight or wind.
- Supporting governmental commitments at the municipal, provincial, and federal levels to reduce greenhouse gas emissions.

- Approximately 95 percent of lithium-ion batteries can be recycled to create new batteries.
- Scalability to suit available site dimensions.
- Potential reduction in outages during extreme weather events and improved outage restoration timelines when they occur.

Battery storage systems typically resemble storage or shipping containers placed on concrete pads. They incorporate additional components like air conditioning units, electrical controls, and wiring. System designs must adhere to provincial sound limits. These storage systems connect to a transformer before linking to the local distribution system or the provincial grid.

Proponents must engage with various regulatory bodies to secure necessary permits and approvals, including those from the Ontario Ministry of Energy, Northern Development, and Mines, the Ontario Ministry of Environment; the IESO; the Electrical Safety Authority; Local Conservation Authorities; Public Utilities (Hydro One); as well as Planning and Building Departments. They must obtain all mandatory approvals, including environmental and municipal consents, before commencing construction of their projects. Municipalities supporting Long-Term Reliability Projects can issue Municipal Support Resolutions for applicable projects or issue a blanket support resolution that would be applicable municipal-wide. Of note, the City of Kingston passed a blanket municipal wide support resolution for such projects.

As provided in the presentation received on November 21st , 2023 from Alectra Convergent JV, included under attachment 4, below is summary information of the 2 proposed sites for the Battery Energy Storage Long-Term (LT1) Reliability Projects in South Frontenac.

Site Location	Proposed MW
3891 Alton Road West, Harrowsmith	Up to 400MW
3562 Trousdale Road, Hartington	Up to 300MW

Department and Agency Comments

Public Works
These types of green energy projects will involve major construction activities along with the potential for extensive trucking and over-size or over-weight loads. Given that many of these candidate sites are located on low volume local roads, the Township will want assurances that roads will be monitored and appropriately mitigated against damages from abnormally high levels of construction traffic. Entrance Permits may apply if new points of access are needed.

Building Services

Building permits will be a requirement for the proposed project.

Fire Department
From the Ontario Fire Marshall:

"From an OFM training and certification perspective there are no additional requirements, but it is up to the municipality to ensure proper zoning and regulation rules are followed,"

"Effective suppression and control techniques for fires that result from electric vehicles and lithium-ion battery energy storage systems are an evolving science and the OFM continues to work with its partners to develop programs to assist the fire service in their responses to Li-ion related fires." [1]

There are considerations that the Fire Department will be concerned about and will be involved in the site plan process to ensure:

- An emergency response plan will need to be provided to the Fire Department including SDS sheets specific to the battery type being stored.
- Consideration of explosion venting.
- Type of suppression systems that would or could be incorporated into the building construction.
- Battery management systems preferably using thermal imaging to monitor battery conditions for the build up of heat.
- Fire separations to minimize transfer of heat created by thermal runaway.

Further training and or equipment needs would be discussed further with Alectra Convergent JV as part of the review process to ensure departments are adequately supported and this does not come at the expense of the Municipality.

Planning
Section 6.7 of the Official Plan states: *"Any necessary public use or institutional use required by a public authority to fulfill its role in providing for the health, education, welfare and comfort of the residents shall be permitted anywhere within the Municipality except the Agricultural designation and buildings in Environmental Protection areas provided that the site design and the design of any buildings and structures are in keeping with the character of the surrounding area."*
"Energy and communication facilities, including electric power facilities, transformers and generators, as defined in the Power Corporation Act, shall be permitted in any land use designation without an amendment to this Official Plan provided that such development satisfies the provisions of the Environmental Assessment Act, including Regulations made under the Act and any other relevant statutes. All electric power providers shall be encouraged to consult with the Municipality regarding the location of new transformer stations."

It is the opinion of planning staff that there would be no requirement for an Official Plan Amendment or Zoning By-law Amendment since the proposed project would be defined as a public use. The proposed lands are not designated Agricultural or Environmental Protection. The proposed properties are designated Rural. Since the project falls under provincial guidelines, studies such as an Environmental Assessment would be required to fulfill technical requirements.

Section 6.17 of the Official Plan states *"Site Plan Control is intended to be used to help minimize the impacts of development on neighbouring properties and waterbodies."* Site plan control applies to development that is:

(g) land within 90 metres (295 feet) of a waterbody (primarily waterfront lots), including land used for residential purposes.

The proposed project at 3562 Trousdale Road would be subject to site plan control due to the close proximity of a waterbody. While the proposed project at 3891 Alton Road West, Harrowsmith is not proposed to be located close to a waterbody, the intent of Section 6.7 of the Official Plan is: *site design and the design of any buildings and structures are in keeping with the character of the surrounding area*. It is staff opinion that this proposed project would also be subject to site plan control. The Alton Road site is partially located next to a watercourse, therefore, potential development constraints associated with the identified natural hazards such as the surface water feature on the site may apply.

BESS facilities are a required component of the overall electrical delivery system and need to be located adjacent to existing power lines at strategic locations. The subject sites meet these locational requirements and is considered appropriate to host the proposed use. Further, BESS facilities require a large land area with direct highway access, which are typically found outside of urban settlement areas.

Public Comments

Alectra Convergent JV hosted two public meetings on November 14, 2023, regarding the proposed projects. As this was a requirement of the IESO and led by the developer, the municipality did not play a role in this event.

There was a Council delegation on November 21, 2023, by Brandi Teeple in opposition to the proposed projects. Please see Attachment 1 for Ms. Teeple's speaking notes.

Alectra Convergent JV provided the municipality with a question and answer summary for Council's consideration. This can be seen in Attachment 2.

Public comments received are provided in Attachment 3.

Alectra Convergent JV provided a delegation to Council on November 21, 2023, and the presentation is provided in Attachment 4.

Based on comments from Council on November 21, 2023, Alectra Convergent JV provided an environmental assessment report regarding adjacent lands in proximity to a fire that occurred at a Convergent Energy Lithium Battery Storage unit in Warwick, New York listed

under Attachment 5. Alectra Convergent JV has also the following link providing further information on the same fire:

- Community Update: Battery Energy Storage System Failures Discussed at WVCSD Board Meeting

Council questions from November 21, 2023, delegation:

Councillor Pegrum: When you talk to special training and equipment required by fire, please expand on what that would entail, and if so, who bears the cost of this additional equipment.

Tremor Temchin: We have not met with the fire department regarding capacity. May be a need for additional capacity for the community to feel comfortable with these assets located in the community. We understand that fire is a significant concern with the community and are happy to discuss more.

Councillor Trueman: The pads that hold the containers. Are they containment pads to maintain leakages?

Tremor Temchin: There is no possibility for leakage from battery systems. Conventional batteries in your car have a liquid electrolyte. In lithium batteries the electrolyte is dry and so there is no ability to create leakages.

Councillor Trueman: The cabinets supporting the batteries – Can they contain batteries during a possible explosion.

Tremor Temchin: The cabinets are NEMA 4R (NEMA Enclosure Ratings) and weatherproof rated cabinets. There is a fail-safe mechanism in them so that in the event of a battery runaway, it will prevent gas from building inside the unit. It has an automatic venting system and release mechanism.

Councillor Trueman: Is there any type of magnetic field created by the battery systems?

Tremor Temchin: No.

Councillor Morey: Regarding site specific safety plans, is the municipality/Council/community involved in this process. Do they receive the report, provide safety concerns or comment?

Tremor Temchin: These are 21-year contracts, long term partnerships with the community. Would solicit community feedback on studies. Actively seek to have forums with community feedback on these important risk studies.

Councillor Leonard: On the failure of batteries, where does the gas go and is it toxic?

Dave Anders: Main issue is that as the batteries heat up, they release carbon monoxides, carbon dioxides, hydrogens, hydrocarbons, and that's the danger for explosion if not vented. In the event of a fire, the fire would contain mostly these compounds. There are no emissions of toxic chemicals at hazardous levels from any fires that we have data on.

Councillor Leonard: Is there any containment of leakage around the units?

Tremor Temchin: We have spoken with environmental and fire risk experts on these proposed locations, in large part from feedback from community. The thinking is that these particular sites, there are concerns for groundwater. Therefore, there will not be water deluge systems deployed for these sites. In the unlikely event of a fire, the notion is that the design of the site, would be to prevent it from spreading to other cells. In the event of a fire, a single unit would completely combust and burn itself out. There would be no water tanks on site, so therefore, no liquid runoff in the event of a fire.

Deputy Mayor Sleeth: Pictures seem to show that the cells are so close together, if there is an explosion, it will take down the whole site. We have a volunteer fire fighter crew, but in no way does this Township's fire department have the capacity to manage something of this scale. How would it ever be dealt with in a rural municipality?

Dave Anders: Utilizing UL 95 standards, testing methods compel these units to fail, turn off safety measures, the UL test confirms that the fire will not spread to other units, and is fundamental to undertaking risk assessment. Fire in one unit will not propagate to other units.

Councillor Roberts: How thick are these walls?

Tremor Temchin: Containment walls for the battery modules themselves? Every design will be different. Working with Tier 1 suppliers, best of best globally. There are subtle differences for system design. Happy to share with Council. All the containments are NEMA 4R. Robust and sophisticated containment units.

Councillor Ruttan: Regarding environmental safety controls. Can you share with us any problems that have occurred with these systems and what the result was from an environmental standpoint?

Tremor Temchin: The primary failure is thermal runaway. This is not common, and we can provide statistics. What we have seen is that when these systems fail, the very overwhelming evidence from third party and independent sources is that air emissions are not concentrated enough to be toxic. This is seen in the literature and our experience. For water that has been used in deluge systems, which we are not proposing in South Frontenac, there has been no evidence of high concentrations of toxins after the event of a failure. Documentation indicates that concentrations in air and soil very minimal after the event.

Councillor Ruttan: Can you provide this information to Council to understand the statistics and examples of failures and environmental impacts?

Tremor Temchin: We can provide.

Mayor Vandewal: If you don't get approval from Council can the project still proceed?

Tremor Temchin: The IESO procurement structure encourages early engagement with municipalities. A Municipal Council Support resolution is a good sign to the IESO that South Frontenac is a willing and supportive host. If this is not issued ahead of the bid deadline, the proponent can still submit and wait and see if project is successful. What we have seen from the first round is that projects that do not have resolution were not successful. If the IESO approves a project that does not have a Municipal Council Support resolution could proceed, the proponent has 20 months to try and receive a resolution. At the end of those 20 months, and the municipality does not provide, then constitutes a default and contract would be canceled.

Financial Implications

There are no financial implications to the Township at this time. The Alectra Convergent JV is offering a Community Benefit payment to the municipality at a rate of $1,000 per MW per year over the 21-year life span of the project. If the projects are approved by the IESO this could represent up to $14.7 million dollars in revenue to the Township.

Council Decision

Council can select one of the following options:

Option 1

That Council receive for information the Harrowsmith and South Frontenac Battery Energy Storage Phase II Project Request for Municipal Support Resolution report;

And further that, in principle, the Council of the Township of South Frontenac grant a Municipal Council Support Resolution for the proposed battery energy storage system bids located at 3891 Alton Road West, Harrowsmith and 3562 Trousdale Road, Hartington.

And further, that Council support for the proposals be contingent on further negotiations taking place between the Township and Alectra Convergent JV to provide final approval should their bid to the IESO be successful. These negotiations would include, but not limited to:

- A review of all applicable Municipal and Provincial by-laws and Standards as determined by the Municipality including site plan control by-law.
- Further public consultation to review community concerns.
- Impact of all stages of the project on Township infrastructure and resources.

Option 2

That the Council of the Township of South Frontenac does not grant a Municipal Council Support Resolution for the battery energy storage system bids proposed at 3891 Alton Road West, Harrowsmith and 3562 Trousdale Road, Hartington.

Relationship to Strategic Plans

☒ Not applicable to this report.

☐ This initiative is supported by the following priorities of the 2019-2022 Strategic Plan.

- Priority: Choose an item.
- Action Item (if applicable): N/A

Climate Considerations

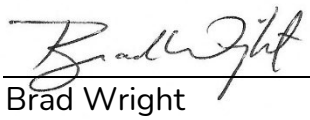
☒ Not applicable to this report.

☐ This initiative supports climate change mitigation/adaption efforts in South Frontenac; and/or impacts the Township's resilience to climate change.

Attachments

1. Ms. Brandi Teeple's speaking notes – November 21, 2023 delegation.
2. Alectra Convergent JV question and answer summary.
3. Public comments received.
4. Alectra Convergent JV Council delegation presentation – November 21, 2023
5. Convergent Adjacent Lands Environment Assessment – 2023 Fire Incident

Submitted By:



Brad Wright
Director of Development Services

Approved By:

Louise Fragnito, CPA, CGA
Chief Administrative Officer

References:

1. https://www.standard-freeholder.com/news/local-news/battery-energy-storage-doesnt-require-new-training-certification-office-of-the-ontario-fire-marshal

Background

The Independent Electricity System Operator (IESO) delivers key services across the electricity sector including: managing the power system in real-time, planning for the province's future energy needs, enabling conservation and designing a more efficient electricity marketplace to support sector evolution. The IESO is governed by an independent board of directors that is appointed by the Government of Ontario. According to the IESO's website, after more than a decade of strong supply, Ontario is entering a period of emerging electricity system needs, driven by increasing demand, the retirement of the Pickering nuclear plant, the refurbishment of other nuclear generating units, as well as expiring contracts for existing facilities.

In order to address the future needs of power supply in Ontario, the IESO issued in 2022 a Long-Term Request for Qualifications (LT1 RFQ) to establish a list of applicants with the experience and capability to successfully develop, construct and operate renewable energy facilities. The procurement process only started in May of 2023 and the deadline for companies to submit their RFP closes on December 12. Applicants submitting an RFP are scored and part of the scoring system is receiving a resolution of support from the host municipality.

The IESO is being reactive and pushing to get these systems built by 2025-2027. This mad dash to secure applicants to build Battery Energy Storage Systems, is unfair to the public at large and the communities in which these systems would be set up in. So far there has been zero public engagement or discussions with local government official to discuss the impacts at the local level.

While renewable energy is key for future energy demands, Battery Energy Storage Systems on this scale is a relatively new concept and there are no best practices or regulatory frameworks at this point. This view that more regulations are required is shared with the Canadian Renewable Energy Association or "CanREA "which notes the need for these requirements in their January 2022 white paper, "Laying the Foundation.

Do Ontario communities really want to be the guinea pigs for testing large scale Battery Energy Storage Systems??

What is a Battery Energy Storage System (BESS)?

A BESS is a type of energy storage system that uses batteries to store and distribute energy in the form of electricity. The proposed locations in South Frontenac would draw energy from the Hydro One lines during low peak times and store that energy. During high peak times, the batteries can put that energy back into the Hydro grid.

Areas of Concern

Fire and its consequent environmental risks

A failure event database for Battery Energy Storage Systems records no less than 50 fire events in these systems since August 2017. One of the worst occurred in July 2021 at a 300MW system in Australia (built by Tesla), it took 150 firefighters 3 days to extinguish it while toxic fumes emanated from the system. As a reference, the system proposed for Trousdale Rd. is 300MW and the system proposed on Alton Rd. is 400MW. A fire and explosion at a 2 MW installation in Arizona – smaller than any of the installations proposed for South Frontenac – severely injured 9 responders. There are numerous reports of fires and explosion happening with these systems.

South Frontenac does not have the necessary infrastructure to deal with an emergency such as a fire or explosion. Toxic fumes can be released when these facilities are experiencing a fire. These emissions can contain hydrocarbons, carbon dioxide and carbon monoxide, along with many other toxins found in battery materials. If there was a fire or an explosion the soil would be contaminated for an unknown amount of time and homeowners would likely not be able to use their wells and farmland would no longer be safe for animals. Additionally, the municipality would likely be on the hook to perform an environmental clean up.

These projects are being proposed on rural lots that do not have connection to municipal water. An emergency at one of these facilities would be far too great of a burden on the Townships emergency services which likely would not be able to handle a catastrophic event.

On the company's website, it indicates that they have only managed 20 MW facilities and under the failure event database, Convergent Energy had two fire failure events in the State of New York in June 2023, at facilities that were only 4 and 8 MW.

As there is no IESO requirement to address fire safety issues as part of the community meetings or requests for municipal support required in the RFP process, there is limited published information on how the proponents of BESS projects intend to ensure safety of the communities.

Impacts on Wildlife

In most parts of the world wildlife is being forced out of their natural habitat due to development to support the needs of humans. South Frontenac is one of Canadas 19 biosphere regions; Frontenac Arch Biosphere, designated by UNESCO. In South Frontenac we are lucky to still have untouched lands that support a variety of animals. One of the proposed sites is in the middle of a fragile ecosystem that host numerous animals, such as bears, deer, coyotes and the following that have been identified as Species at Risk by the Ministry of the Environment, Conservation and Parks,

- Gray Ratsnake (Frontenac Axis population) Threatened

- Snapping Turtle -Special Concern
- Blanding Turtle- Threatened
- Unisexual Ambystoma (Small mouthed salamander dependent population)- Endangered
- Bald Eagle- Special Concern
- Eastern Whip-poor-will- Threatened
- American Bumble Bee- Special Concern
- Monarch- Special Concern

A 21 Acre facility will without a doubt displace some of these species. Should an emergency situation develop, and a fire occurs, toxic fumes will be released. The impact on the lands will remain for decades.

The IESO BESS contracts are designed to expire on April 30, 2048. What certainty is there that the lands will be restored to their natural or previous state?

Noise pollution

There is a concern that these facilities may create noise pollution impacting wildlife and nearby properties. A facility of this size will require large cooling systems and fans.

Decommissioning

These facilities appear to have a short lifespan of 10-20 years. Who is responsible for the decommissioning of these facilities? What will happen if the company folds and is no longer there to manage the facility or conduct decommissioning?

Insurance

Marsh Commercial (leading insurance broker and risk advisor in the world) published an article on February 23rd 2021, entitled “Battery energy storage systems fire risks explained”, in this article they have stated: “High profile fire incidents in the BESS sector have started to affect insurers’ appetite to provide energy storage insurance cover. The insurance market for BESS has reduced capacity as a consequence of some key insurers exiting the insurance market or having a very narrow underwriting footprint. This has ultimately led to increased premiums, higher policy excesses (this is the amount of loss initially paid by the insured) and sometimes difficulties with obtaining 100% cover for larger projects…….BESS operators should ensure an adequate water supply is available for firefighters and that the local fire brigade have visited the site to familiarise themselves with the site.” The article goes on to state that “there were 23 BESS fires in South Korea between 2017 and 2019, resulting in losses valued at $32 million – with the resulting investigation attributing the main causes to system design, faulty installations and inadequate maintenance”.

If these large-scale facilities are being developed in South Frontenac, there could be large tax burden on residents as the Township will require proper insurance.

Additionally, nearby property owners may require additional insurance. In a time of rising cost and people struggling to pay their bills, this does not seem like an appropriate burden for the rate payer.

Competency of the Company

Alectra Energy Solutions and Convergent are the companies proposing the BESS in South Frontenac. On their website the company indicates that they have a portfolio of 95 projects & 20 MW under management. The proposed BESS facilities are 300 and 400 MW. Based on the information on their website, it appears the company has zero experience managing a project of this scale. In addition, on the BESS Failure Event Database, Convergent had two failure events in Warwick New York in June of 2023.

Resources and Sources

BESS Failure Event Database - EPRI Storage Wiki

Alectra Energy Solutions (alectrasolutions.com)

Species at risk in Ontario | ontario.ca

BESSreport-Feb21.pdf (windconcernsontario.ca)

CanREA-EnergyStorage-Jan2022-Eng.pdf (renewablesassociation.ca)

Battery Energy Storage Systems Insurance Risks (marshcommercial.co.uk)

Letter to Prince Edward County by Angus Ross- Prince Edward County - Search (civicweb.net)

The following information has been prepared by the Alectra Convergent Development Joint Venture to inform municipalities and the public regarding questions that have been received throughout the course of our public engagement process.

1. **Why are battery storage systems needed to support Ontario's electric grid?**

- The Independent Electricity System Operator (IESO) is responsible for ensuring that the province has sufficient energy supply to meet Ontario's demand for electricity. Presently Ontario has sufficient supply, but the IESO has forecasted that the electric grid will experience a shortfall in supply beginning in 2028.
- This shortfall is due to two things:
    - More demand for electricity, also known as load growth. As economic activity increases, and as we increasingly convert to electric power for things like heating and electric vehicles, the province will need more power. The IESO is forecasting a 40% increase in demand over the next 20 years.
    - Less supply, due to the retirement of the Pickering nuclear plant, refurbishments at the Bruce and Darlington nuclear facilities, and retirement of other generators.
- If unaddressed, this shortfall in capacity could lead to interrupted electricity in the form of blackouts or brownouts.
- To address this issue, the IESO is currently seeking to contract "capacity resources" which can be brought online quickly to provide power for four to eight hours of supply. These resources are being procured by the IESO through a competitive process called the Long Term RFP or LT1 RFP.
- In this RFP, the IESO is hoping to procure 2,200 MW of new resources, including energy storage and natural gas generation, to come online in 2028. These resources will provide capacity to the IESO grid under a 21-year contract, and are being procured through a competitive process, to provide the best value to ratepayers.
- And, as a non-emitting technology, the energy storage projects the JV is proposing will help the IESO maintain a reliable energy supply, while reducing GHG emissions by reducing the reliance on natural gas generation and maximizing the use of Ontario's clean energy resources.

2. **Who is behind the Alectra Convergent JV?**

- As a joint venture, the Alectra Convergent Development JV brings together two of Canada's most experienced and trusted energy storage developers.
- Alectra Energy Solutions is an affiliate of Alectra Utilities, which is Canada's largest distribution utility, managing power distribution for 17 communities and over 1M customers in Ontario. AES actively manages over 100 distributed energy project sites in Ontario, ranging including solar PV, distributed generation and energy storage.
- Convergent Energy and Power is a leading provider of energy storage solutions in North America, with over 800 MW of storage and solar assets in operation or under development and a track record of safely operating energy storage in Ontario since 2017. In Canada, Convergent's solutions serve both the IESO and some of Ontario's largest industrial manufacturers, including Shell, Ford, Husky, and Pilkington Glass.
- On the basis of this track record, the Alectra Convergent JV was qualified by the IESO to participate in the Long Term RFP process, and – in the recent Expedited Long Term 1 RFP – the JV was awarded 3 battery energy storage system (BESS) contracts totaling 320 MWh. These assets are now under construction.

3. What are the benefits to the local community?

- The battery storage systems proposed by the Alectra Convergent JV will provide significant benefits to both the local community and the Province as a whole.
- The system will provide additional revenues to the municipality which can be directed to a variety of needs, through taxes as well as a proposed annual Municipal Support Payment of $1000 / MW of awarded capacity over the operating term of the contract.
- Construction and operations of the facility will require materials and labour, which can ideally be sourced from the local economy, creating jobs.
- The proposed energy storage systems will support the power grid at the transmission level, on which the local distribution supply is reliant. This means that the local electricity grid will be more reliable and more resilient, and – as demand for electricity increases – these systems can enable load growth.
- The IESO contract structure ensures that the energy storage systems will provide the required capacity service at the lowest possible price. This will help manage costs for Ontario's ratepayers.
- Last but not least, the system will reduce the reliance on natural gas, enabling a cleaner electricity grid. Reducing the reliance on fossil fuels will help reduce GHG emissions, as well as promote cleaner air and water.

4. Why are these energy storage projects being proposed at this particular location?

- Early in the procurement process, the IESO issued locational guidance to proponents, which identified broad geographic areas that are considered too constrained from a power transmission perspective, as well as particular circuits the IESO would not allow projects to connect.[1] This guidance indicated that the preferred locations for new resources would be South of Barrie, and would avoid constrained load centers like the Windsor region.
- In response to this guidance, the Alectra Convergent JV sought sites in areas that satisfy several requirements for the project, including:
    - Availability of interconnection capacity on the transmission system
    - Proximity to high-voltage lines to reduce the need for long interconnecting lines
    - Availability of vacant land which can accommodate the projects
    - Land that is not zoned as Prime Agriculture or Environmentally Protected
    - Supportive landowners who have agreed to lease the proposed site for a tenure exceeding the 21-year contract term.
- This process resulted in identifying a number of viable sites across several different communities in Ontario.
- Despite a condensed consultation timeline, the Alectra Convergent JV is working diligently to engage and work with host communities to address any concerns regarding the proposed sites. The Alectra Convergent JV is actively seeking Municipal Council Support Resolutions for each system it is proposing.
- If awarded, the Alectra Convergent JV is committed to meaningful collaboration with each municipality and community where the systems will be located, including:
    - Adhering to all municipal permitting and planning requirements

[1] https://www.ieso.ca/-/media/Files/IESO/Document-Library/long-term-rfp/ieso-LT1-RFQ-locational-considerations-for-new-resources.ashx

- Seeking approval for utility interconnection from Hydro One and the IESO
- Conducting Environmental Impact Studies (including acoustic studies) and full compliance the Ministry of Environment and Climate Protection (MECP)
- Coordinating inspection and approval by the Electrical Safety Authority
- On-going communication with, training for, and support of fire departments and first responders

5. What does the approval process look like and what are the next steps?

- The energy storage systems being proposed by the Alectra Convergent JV are not slated to come online until 2028, and significant collaboration with the "host" municipalities is required between now and then.
- A brief timeline is below:
  - The Alectra Convergent JV is currently seeking Municipal Council Support Resolutions as part of meeting the IESO's requirements to award the systems.
  - The next step in the process will be to submit proposals to the IESO by December 12th, 2023.
  - The IESO has indicated that it will award contracts to selected projects by May of 2024.
  - Provided there is an award, each system will go through all required approvals processes potentially including, but not limited to:
    - Site plan approvals by the municipality, including any required zoning or planning amendments
    - Any additional jurisdictional approvals as required, such as by conservation authorities etc.
    - Environmental approvals through the Ministry of Environment and Climate Protection (MECP)
    - Inspection by the Electrical Safety Authority
    - Approval for utility interconnection by Hydro One and the IESO

6. Can you confirm that there are no costs for the community?

- All costs for the system(s) will be borne by the Alectra Convergent JV. This would include any improvements to the system location, electrical infrastructure, access roads, grading, and landscaping.
- As part of the development process, the project will work with the local municipality to identify any issues relating to infrastructure, such as roads and access for equipment needed during construction and identify any constraints.
- In addition, awareness training for emergency services will commissioned by the Alectra Convergent JV.
- Any costs associated with the maintenance, operation and the eventual decommissioning and removal of the system will be paid for by the Alectra Convergent JV.
- The Alectra Convergent JV aims to ensure that its proposed projects results in clear net economic benefits for the host Municipality, which is why the JV is proposing a $1,000 / MW annual Community Support Payment based on the capacity awarded by the IESO, for each year of operations.

7. What preventative safety measures are underway or planned?

- The Alectra Convergent JV is committed to ensuring the safety of our systems and the well-being of our customers, community partners, employees, and vendors.

- The risk associated with operating electrical equipment will never be zero, but the Alectra Convergent JV will utilize several key strategies and best practices to ensure the safety of our proposed energy storage systems. These strategies and best practices include:
    a. Procuring our energy storage systems from best-in-class, Tier 1 battery energy storage system suppliers that have deployed gigawatts of systems across the globe and share our prioritization of safety.
    b. Ensuring that every piece of equipment on site—from the batteries, to the inverters, to the transformers, to the switchgear, to the smoke detectors and fire suppression systems—are fully certified and compliant with the relevant regulations issued by UL, ESA, CSA, Hydro One and other Agencies Having Jurisdiction.
    c. Conducting site-specific Hazard Mitigation Studies (HMS), carried out by independent, third party, energy storage experts. These studies will identify potential risks and formulate mitigation measures that take into account the system specifications, the specific project location and specific site conditions – in other words, tailored mitigation measures for specific risks rather than a generic risk mitigation approach.
    d. Commissioning detailed project designs that consider required setbacks and adequate spacing, and incorporates mitigation measures identified in the HMS.
    e. Drafting, issuing and maintaining site-specific Emergency Response Plans, tailored to address a wide range of potential situations.
    f. Conducting ongoing training and support for the local fire department and first responders. The fire department(s) will receive training before the system is commissioned and once the system is operational to ensure familiarity with the equipment on the ground, presence of hazards, and the "as built conditions" of the site, including access routes.
    g. Deploying 24/7 remote monitoring capabilities with a multi-layer approach to fire detection and suppression (e.g., gas sensors, temperature sensors, and early detection warnings like cell voltage).
    h. Strictly adhering to all operational and maintenance requirements.

8. What safety standards are in place?

- Lithium-Ion batteries are presently everywhere in our society, from our cars, to our phones and computers. The vast majority of safety incidents related to batteries are related to consumer products, and not to large-scale utility-grade battery systems such as the system(s) being proposed.
- The Lithium-Ion battery systems proposed by the Alectra Convergent JV are designed, manufactured and certified in accordance with internationally recognized engineering and safety standards. These include standards and best practices established by the Institute of Electrical and Electronic Engineering (IEEE) and International Electrical Commission (IEC), certification standards provided by Underwriters Laboratories (UL) and the Canadian Standards Association (CSA).
- The installation, construction and operations will also be in accordance with specific safety protocols established by Hydro One's BESS Fire Protection Risk & Response Assessment Standard[2], National Fire Protection Association (NFPA), Electrical Safety Authority (ESA), Ontario Fire Code, the Fire Protection and Prevention Act (FPPA), and regulations established by Occupational Health and Safety Act.

[2] https://www.hydroone.com/businessservices /generators /Documents/Fire Protection Risk and Response Assessment Standard.pdf

- Our systems and system components comply with or exceed all of the latest applicable energy storage system (ESS) electrical, safety, and industry standards. Some of the standards currently being used to ensure battery system safety including the following:
    - UL 1741 is a Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources
    - UL1973 is a Standard for Batteries for Use in Stationary Storage, Vehicle Auxiliary Power and Light Electric Rail (LER) Applications.
    - UL 9540 is a safety standard for Energy Storage Systems and Equipment[3]
    - UL9540A is a test method that allows for testing the effect of thermal runaway on full-scale energy storage systems. [4]
    - NFPA 855 is a safety standard for the Installation of Stationary Energy Storage Systems, which provides comprehensive criteria for the fire protection of energy storage system (ESS) installations based on the technology used, the setting where the technology is being installed, the size and separation of ESS installations, and the fire suppression and control systems in place.[5]
- Additionally, the Alectra Convergent JV will exclusively use systems integrated by Tier 1 suppliers, companies with the highest standards of quality assurance and quality control, a demonstrated operational track record, and backstopped by performance guarantees for the full contract duration. These vendors have deployed gigawatts of systems across the globe and share the Alectra Convergent JV's prioritization of safety.

9. Is the Alectra Convergent JV prepared to respond to a potential safety incident?

- While unlikely, the Alectra Convergent JV will be fully prepared to respond to a safety incident.
- If the project is contracted by the IESO, the Alectra Convergent JV will commission a Hazard Mitigation Analysis (HMA) to be conducted by an independent, third-party energy storage expert. This HMA will identify potential risks and formulate mitigation measures, taking into account the system specifications, the specific project location and site conditions.
- On the basis of this HMA, the Alectra Convergent JV will commission an Emergency Response Plan (ERP). ERPs are crafted to be useful manuals both to operators and emergency services in the unlikely event an issue occurs. This plan will be tailored to the specific equipment, site and community considerations, to address a wide range of potential incidents.
- The Alecta Convergent JV will use this ERP as a foundation for the trainings it will conduct with the local Fire Department and First Responders. These trainings will ensure the Fire Department and First Responders are prepared to respond in the unlikely event of an emergency.

10. Will the local fire department be able to respond to a potential emergency?

- Generally speaking, there are no unique capabilities, equipment or capacity required for firefighting services to respond to potential incidents at a lithium-ion battery facility.
- The Ontario Fire Marshall has recently stated that "there are no additional requirements on municipal fire services for equipment or certifications" related to Lithium-Ion batteries[6]

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[3] https://www.ul.com/news/ul-9540-energy-storage-system-ess-requirements-evolving-meet-industry-and-regulatory-needs

[4] https://www.ul.com/services/ul-9540a-test-method

[5] https://www.nfpa.org/product/nfpa-855-standard/p0855code

[6] https://www.standard-freeholder.com/news/local-news/battery-energy-storage-doesnt-require-new-training-certification-office-of-the-ontario-fire-marshal

- The Alectra Convergent JV will engage early on in the development process to understand their specific requirements and processes.
- The Fire department will receive awareness training before the system is commissioned to ensure familiarity with the equipment and the site, including access routes, as well as all on-site fire alarm and suppression equipment.
- An ERP will be developed in collaboration with the local fire departments to ensure that it is tailored to the needs of the community.
- The formulation of the ERP includes consideration for the "as built design" of the project, the specific equipment that is installed, and results from the Hazard Mitigation Analysis, as well as recommendations from system manufacturers.
- With outdoor lithium-ion battery storage systems, it is an industry best practice to maintain a safe distance and let combustible material deteriorate. These energy storage systems are tested according to UL9540A protocols to ensure that fire affecting one module will not propagate to any neighboring modules; UL9540A systems are designed to prevent explosions, limit the spread of fire, and allow the limited fire to exhaust itself. While water can be used where appropriate to cool adjacent containers, it is not always recommended to suppress a battery storage fire, and is not a requirement.
- In the event of a safety incident, the Alectra Convergent JV defers to the fire department on protocols, including whether a shelter-in-place event would be appropriate.

11. Has the Alectra Convergent JV experienced any battery fires?

- During 2023, Convergent experienced two fires at battery facilities in New York state, which were the first of their kind in our company's 12-year history.
- At both sites, the fire was contained within the projects fence lines and managed, with zero injuries or damage to adjacent property or equipment.
- Detailed root cause analyses have been commissioned on both incidents.
- One of the two Root Cause Analyses is complete and conclusively points to a product design failure relating to the battery system manufactured by Powin ("Centipede" product).[7] Alectra Convergent will not be deploying Powin products at any of its proposed sites.

12. What impact could there be in the event of a safety incident?

- There is minimal risk to air quality associated with battery fires in remote, outdoor areas.
- Any time there is a fire—whether it be a forest fire, a house fire or an energy storage fire—a mixture of gases and particulates are emitted.
- Fire testing conducted on leading battery energy storage systems as part of UL9540A testing, which includes air emissions monitoring, has found for a that battery smoke is no worse than other smoke present during a fire.[8]
- Lithium-Ion batteries will not leak or leach any liquids into the surrounding areas. The vast majority of any residue from a potential fire will be contained within the enclosure, or on the concrete slabs underneath the energy storage modules.

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[7] https://www.warwickadvertiser.com/news/local-news/manufacturing-defect-blamed-for-battery-fires-at-convergent-storage-facilities-NG2800384#:~:text=After%20an%20investigation%20that%20included,each%20location%2C%20resulting%20in%20an

[8] https://www.solarpowerworldonline.com/2023/05/wartsila-ess-fire-safety-testing-showed-battery-smoke-is-no-worse-than-other-smoke/

- Emergency response plans and fire suppression methods will be informed by the nature of the site, and - as previously mentioned, using water for fire protection is not a prerequisite (or default) for managing Lithium-Ion battery fires.
- As part of the site civil design and approvals process, the Alectra Convergent JV will ensure that adequate control of any runoff or groundwater diversion form the site does not pose any impact to sensitive environmental areas. This will also ensure that there is no danger of contamination from any on-site materials that could be carried off-site by runoff.

13. How will the system maintained?

- The system will be physically secure and remotely monitored 24/7 by Convergent, along with the system manufacturer.
- A preventative maintenance plan that includes routinary inspections and the servicing of the various component of the systems will be in place prior to the system being energized. The preventative maintenance plan is dictated by the systems' manufacturer and is intended to ensure the good condition, safety, and security of the site.
- Service personnel will be on call to respond to any issues, should they occur, as well as to address the need for unplanned maintenance activities.

14. What happens at the end of the IESO contract?

- If awarded a contract by the IESO, the proposed energy storage system(s) will initially be under contract to provide capacity services for a period of 21 years, starting in April of 2028.
- It is expected that after 21 years of operation, the battery system will still have over 80% of its capacity available. With so much capacity remaining in the system, the energy storage system may be re-contracted by the IESO to continue providing a variety of potential services to Ontario's grid.
- If preferred, the system can be fully decommissioned and the site will be cleared. In this event, the majority of the electrical components can be recycled or repurposed.

15. How will the Alectra Convergent JV continue to collaborate with our community?

- First and foremost, safety is our top priority.
- Battery storage systems allow electricity to be stored—and then discharged—at the most strategic times. With this in mind, battery storage is designed to **enhance** the IESO's infrastructure, **improve** the power grid's reliability, and **prevent** the community from experiencing power disruptions.
- In order to achieve this goal, battery storage systems are being proposed in areas where Ontario's electricity system has available capacity, and this capacity has been evaluated by the IESO's Deliverability Test process.
- The Alectra Convergent JV is committed to partnering with each community where we may have a battery storage system to understand its needs, concerns, and goals.
- One of our adages is to listen more than we speak. We will listen to you.
- We are just at the beginning of a process that will be years in the making and are simply looking for approval to continue this conversation, continue to work with your community, and to deliver clean, safe, reliable, cost-effective energy to your homes and to the Province as a whole.

From: Helen Hill
To: James Thompson
Cc: [redacted]
Subject: Opposition to Battery Energy Storage System (BESS) Project
Date: November 28, 2023 1:34:02 PM

Greetings Members of Council,

I hope this email finds you well. I am writing to express my deep concern and opposition to the proposed Battery Energy Storage System (BESS) projects in our community of South Frontenac. While I understand the importance of renewable energy and the need for sustainable practices, I believe that the chosen location for this BESS project poses significant risks and drawbacks that need to be carefully considered. Furthermore, after attending the Alectra/Convergent public engagement meeting and their presentation to council, it became clear that the project details are fluid. It is difficult to discern exactly what is to be decided upon.

My neighbour, Patricia Dawson, and I will be presenting a full deposition at the Dec 5th, 2023 council meeting. Only recently did our community become aware of the BESS proposals in South Frontenac. Only a few short weeks have been available to do the necessary research to evaluate what impacts and potential benefits an industrial scale battery storage system may have in our rural community. As a result of the time constraints and knowing that an information package for councilors is being compiled by your staff, I will be sending brief emails, including cited sources, over the next few days. I was unable to find email addresses for individual councilors so kindly distribute these emails to council members and any necessary staff.

The proposed BESS project raises several concerns that I believe require thorough examination and the upcoming emails will address the following:

1. **Environmental Impact:** The environmental impact assessment for the BESS project must be comprehensive and transparent. It is essential to evaluate potential risks to local ecosystems, water sources, and air quality. Additionally, the disposal and recycling of batteries should be addressed to ensure minimal harm to the environment.
2. **Health and Safety/ Emergency Response**: The safety of residents should be the top priority. Batteries in energy storage systems pose known fire risks, and it is crucial to assess and address the potential impact on the safety of nearby homes and the safety of residents and our volunteer firefighters.
3. **Enjoyment of Property Concerns**: The visual impact of the BESS project on our community should not be underestimated. Large-scale installations can significantly alter the character of the area, potentially affecting property values and the overall quality of life for residents. The noise impact of the cooling systems must not be underestimated.
4. **Community Engagement/ Community Stakeholder Relations:** Meaningful and transparent community engagement is vital in the decision-making process. Residents should be provided with ample opportunities to voice their concerns, ask questions, and receive clear and detailed information about the project.
5. **Financial Liability & Incentives:** Who benefits?

I urge the council to review the information in forthcoming emails, to consider these concerns seriously and to vote no. Furthermore, regarding any BESS proposals, I request that the

council actively involve the community in the decision-making process, ensuring that the voices and concerns of residents are heard and addressed.

Thank you for your attention to this matter. I trust that the council will make decisions that prioritize the well-being of our community and safeguard our environment by voting no.

Feel free to reach out to me.

Sincerely,

Helen Hill
3769 Alton Rd W., Harrowsmith, ON K0H 1V0
[redacted]

From: James Thompson
To: Brad Wright; Louise Fragnito
Subject: FW: BESS Fire Risk is Real
Date: November 29, 2023 1:07:14 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png

---

fyi

James Thompson
Clerk and
Community Emergency Management Coordinator
Township of South Frontenac

p: +613-376-3027 ext. 2239
e: jthompson@southfrontenac.net
a: 4432 George St., Box 100, Sydenham, ON
www.southfrontenac.net

Please consider the environment before printing this email

From: Helen Hill [redacted]
Sent: Tuesday, November 28, 2023 7:00 PM
To: Scott Trueman <STrueman@southfrontenac.net>; Charlene Godfrey <CGodfrey@southfrontenac.net>; Doug Morey <DMorey@southfrontenac.net>; Norm Roberts <NRoberts@southfrontenac.net>; Randy Ruttan <RRuttan@southfrontenac.net>; Ray Leonard <RLeonard@southfrontenac.net>; Ron Vandewal <rvandewal@southfrontenac.net>; Ron Sleeth <RSleeth@southfrontenac.net>; Steven Pegrum <SPegrum@southfrontenac.net>
Cc: James Thompson <jthompson@southfrontenac.net>; PATRICIA DAWSON [redacted]
Subject: BESS Fire Risk is Real

Greetings Members of Council,

This is the second in a series of emails being sent to you over the next several days.

There is no doubt, BESS fire risk is real.

You may be familiar with the following notable BESS fire incidents:

1. Arizona Public Service (APS) Facility (2019):

    • A fire occurred at a large battery facility operated by Arizona Public Service (APS) in April

2019. The fire prompted safety concerns and investigations into the cause. It was reported that a single battery cell failure led to the fire. https://spectrum.ieee.org/dispute-erupts-over-what-sparked-an-explosive-liion-energy-storage-accidenthttps://spectrum.ieee.org/dispute-erupts-over-what-sparked-an-explosive-liion-energy-storage-accident

2. Maricopa County Facility (Arizona, 2020):

   • In July 2020, a fire occurred at a BESS facility in Maricopa County, Arizona. The incident involved multiple batteries, and investigations were conducted to determine the cause. Thermal runaway in one battery cell was identified as a contributing factor.

3. Escondido Energy Storage Facility (California, 2021):

   • In May 2021, a fire occurred at the Escondido Energy Storage Facility in California. The incident resulted in an explosion, and investigations were conducted to determine the cause. The focus was on a lithium-ion battery container, and it was reported that a faulty capacitor caused the explosion.

   Moss Landing incident (Sept 2022)
   The fire occurred in September 2022 at Pacific Gas & Electric's (PG&E) Moss Landing battery storage facility in California. The fire was isolated to a single battery pack at the facility, according to the County of Monterey, Calif.
   PG&E in April announced the commissioning of its 182.5-megawatt (MW) Tesla Megapack battery energy storage system – known as the Elkhorn Battery – located at its Moss Landing electric substation in Monterey County.
   The Elkhorn Battery system was designed, constructed, and is maintained by both PG&E and Tesla, and is owned and operated by PG&E.
   An editorial in California's Santa Cruz Sentinel newspaper said that while the move to energy storage will continue, the Moss Landing fire "was also a reminder that battery blazes are becoming increasingly common and destructive – and safety measures, including fire drills, for residents around storage facilities will have to be put in place and widely disseminated.

   https://www.publicpower.org/periodical/article/recent-california-energy-storage-battery-fire-draws-renewed-attention-storage-safety-issues

4. South Korea (2021) Lithium-ion energy storage battery explosion incidents - ScienceDirect

5. Australia https://wattclarity.com.au/articles/2023/09/27sept-bouldercombe-bess-fire

   Tesla (Moorabool, Victoria, Australia) – July 30, 2021
   Tesla's 300 MW "big battery" project suffered a catastrophic fire that burned for four days. Reputedly the largest such BESS fire in the world to date, the local fire service experienced

significant challenges in extinguishment. They eventually cooled surrounding structures and allowed the fire to burn out.

But what about Convergent's recent track record with BESS projects of a much smaller scale in New York State?

Convergent appears to have no record of projects of the scale proposed in South Frontenac. Please read on concerning very recent fires on their facilities in New York State.

1. Lyme &Warwick, New York (2023) Convergent BESS Facility Fires

Battery Fires Challenge Warwick, NY Energy Storage Safety Measures
Convergent noted in the 2020 Emergency Response Plan that their LI-ion batteries were sourced, "… from Tier-1 suppliers with products that have a track record of utilizing technology and components that render the likelihood of a safety event low."
Are these the same Tier-1 suppliers mentioned in the Alectra/ Convergent presentation to SF council?

Three BESS fires this summer in New York including Convergent facilities in Lyme and Warwick
The Warwick fire burned for days.
It smells like glue...

Village board discusses safety concerns following battery storage facility fire (warwickadvertiser.com
Convergent Energy, who declined an invitation to speak at the meeting due to the ongoing investigation, provided a statement on the storage facility event at Church Street that was read aloud by Mayor Michael Newhard.
In the letter, Convergent Energy, along with Powin, the manufacturer of the battery storage units that are used within the Convergent facilities, expressed their regrets for the event and gratefulness to the Warwick Fire Department and other first responders for their assistance in controlling the incident. Convergent Energy noted the impacted unit was disassembled and removed from the facility, and how similar units will remain disconnected from power as the investigation continues.
While members of the Board expressed frustration at Convergent and Powin for failing to address them in person, they shared their appreciation for Michael Contaxis, Chief of the Warwick Fire Department, for his presence and willingness to share the local response to the events and answer questions.
Contaxis clarified that Powin was the manufacturer of the energy storage systems housed in the Convergent Energy facilities in Warwick. This prompted Trustee Thomas McKnight to cite minutes from 2020 that claimed GE (General Electric) was to be the battery supplier. McKnight further questioned how Convergent moved from using a well-established brand like GE to one that is lesser known.
"I don't have the answers for Powin or Convergent," said Contaxis. "My job is to protect the community. I don't get a dime in it. I don't get paid. These people get paid."

Lots to read here in the emergency safety plan but again it's noted in the plan that "The LI-ion batteries are sourced from Tier-1 suppliers with products that have a track record of utilizing technology and components that renders the likelihood of a safety event low." Yet a fire occured.

Convergent Communication Release:

> Battery Storage Systems
> NEW YORK, NY June 29, 2023, 6:55 PM ET—At this time there is a lot we still do not know. What we have learned is that the fire alarms that went off occurred with two of Powin's newest model battery storage systems, which are referred to as the Centipede. One of those Powin Centipede systems, on County Road 1A in Warwick, NY caught fire as of early afternoon on June 27th, 2023. The other system, on Church Street, is experiencing problems. Convergent, which purchased these systems from Powin, does not have this model deployed anywhere else and was among the first customers to receive the system from Powin. The Powin Centipedes are the only systems that are currently experiencing problems at Convergent's Warwick, NY projects.
> While Convergent is responsible for developing and operating these two sites, we rely on partners to manufacture and install the battery storage systems. In this case, Powin provided the battery storage systems. We are now working in a support role with Powin's team as they assess the source of the problem and coordinate a response.
>
> NEW YORK, NY, June 27, 2023, 6:06 PM ET—On the evening of June 26th, fire alarms went off at two of the battery storage systems we own and operate in Warwick, New York. The fire suppression units within the affected battery containers at both sites were activated.
> We have deployed our safety protocol and are actively monitoring the sites.
> There is currently an active fire at one of the sites. The local fire department, team members, and battery storage system manufacturer Powin have representatives on-site actively managing the situation and coordinating the response.
> Our primary focus right now is working with the response team to ensure the safety of the individuals on-site and within the surrounding community. Please contact the Warwick Fire District for immediate updates. Convergent is actively monitoring the situation and will provide updates as the situation evolves.
> Convergent Press Contact
> Kate Siskel
> SVP, Marketing and Communications
> Convergent Energy and Power
> ksiskel@convergentep.com
> 917-508-0274

Were the answers you received from Dave Anders of Alectra and Tremor Temchin of Convergent, clear enough or detailed enough or came with enough assurances of safety in terms of our community and our well-being?

Best regards,

Helen Hill

From:	Helen Hill
To:	Scott Trueman; Charlene Godfrey; Doug Morey; Norm Roberts; Randy Ruttan; Ray Leonard; Ron Vandewal; Ron Sleeth; Steven Pegrum
Cc:	James Thompson; PATRICIA DAWSON
Subject:	BESS Assessment of Community Risk
Date:	November 28, 2023 7:53:48 PM

Greetings Member of Council,

This is the third in a series of emails being sent to you over the next several days.and the last one for today. I promise this to be a shorter one as well!

I urge you to read the following well researched overview - BESS assessment of Community Risk:

Battery Energy Storage Systems (BESS) Assessment of Community Risks (Wind Concerns Ontario)

Some highlights...

- **Hydro One Setback Considerations for BESS facilities**. Hydro One explains that these requirements are necessary because: Lithium battery storage facility fires can generate intense heat and smoke for prolonged periods of time and are difficult to extinguish. If these facilities are located in close proximity to Hydro One transmission facilities, there is an increased risk to the system. Of more concern is the risk associated with a fire in the BESS that can damage the Hydro One facilities and/or cause line or station equipment flashovers due to the ionization of the air. This can cause Hydro One facilities to be taken out of service and pose a risk to safe, secure and reliable operation of the transmission system.
- **Noise Emissions**
- **IESO Requirements.**
- **Role of Ontario Regulation 359/09**.
- **Fire Suppression Systems.**
- **Requirements for Local Emergency Resource**

Thank you,

Helen Hill
[redacted]

Appeal for Municipal Support Resolution

South Frontenac and Harrowsmith Energy Storage Projects

November 16, 2023

Agenda

- Introduction to the Alectra Convergent Joint Venture
- Overview of Ontario's Electrical Needs and the IESO Procurement
- Battery Energy Storage System Operations and Technology
- Harrowsmith and South Frontenac Project Overviews
- Benefits for the Township of South Frontenac and Ontario
- Contact Information

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About the Alectra Convergent JV

The Alectra Convergent Development JV's goal is to help meet Ontario's growing electricity reliability and decarbonization needs

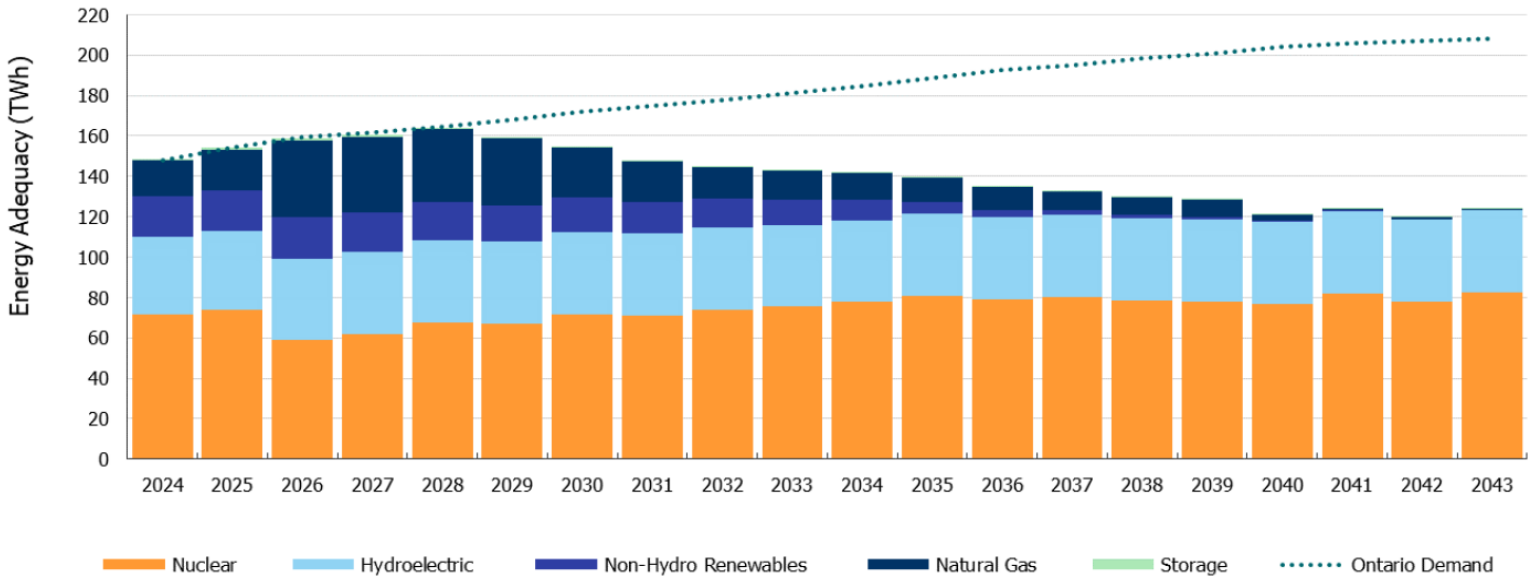
- Alectra Energy Solutions (AES) is a progressive and customer-focused energy company working in many Ontario communities
- As part of the Alectra Inc. family of companies, which includes Alectra Utilities Corporation, a **local utility company** serving more than one million homes and businesses in 17 communities in Ontario's Greater Golden Horseshoe area
- Alectra Utilities is the largest **municipally-owned** electric utility in Canada, based on the total number of customers served

- Founded in 2011, Convergent Energy and Power is a **leading developer of energy storage solutions** in North America.
- Portfolio includes over **1 GW of storage** solutions operating, in construction, or awarded to-date
- Owned by Energy Capital Partners, a leading energy transition private equity fund with **$500M of capital** support for Convergent to-date
- Built **first energy storage asset in Ontario** in 2015; currently operating >45MWs in the Province with customers such as Shell, Ford, Pilkington and the IESO

Ontario Needs New Capacity

Ontario is facing a gap in forecast energy demand and contracted supply starting in 2028.

- The IESO has forecast the need for additional resources to support the grid, starting in 2028, due to load growth, and retirement of generation assets
- IESO is seeking to contract additional supply of power to meet short duration needs (up to 4 hours) to meet these needs
- Resource adequacy is critical to support the reliability of the grid at both the local and system-wide levels



Source: IESO.ca

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Overview of the IESO Procurement

Ontario is in the process of acquiring long term capacity to support future growth, and the Alectra Convergent JV firmly believes in the "Power of Partnership" with local communities

The Opportunity

- To support projected capacity needs, a Long-Term RFP ("LT1") has been issued by the Independent Electricity System Operator (IESO)
- The LT1 process is now underway with a target of procuring a total of 2200 MW in additional resources to be online by 2028
- Our JV has been pre-qualified to participate in the request for proposals; and was awarded 80MW / 320 MWh of projects in the previous round of the RFP
- The IESO has conducted deliverability assessments on specific proposed project locations put forward by the proponents; capacity for our projects has been affirmed

The JV Approach

- The Alectra Convergent JV firmly believes that partnership with local communities is the best pathway to achieving long-term, sustainable success for LT1 projects
- We will work expeditiously to consult with local communities and Municipal Councils to address concerns and build support for the proposed project

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Battery Energy Storage Systems - Operations

Battery Energy Storage Systems (BESS) are safe, affordable, long-lasting energy resources that will make Ontario's electricity grid cleaner, more reliable and more resilient

- **Operations Profile:** BESS provides flexible power to support the operation of the electricity grid; overnight, the BESS will charge using surplus power on the grid, and it will store that power for use during the day, when demand for electricity is higher
- **Advantages over traditional generation:** BESS can be deployed more quickly than new transmission lines, gas plants or nuclear generation
- **Emissions Free:** BESS produce no point source air, gas or liquid emissions, and will not produce pollution that could contaminate soil or water
- **Visual & Acoustic Impact Mitigation:** In an effort to minimize the visual impact of the BESS, the site will be screened by vegetation and landscaping. An acoustic study will be conducted to ensure that noise emissions from the BESS comply with all MECP requirements (40 dB at receptors).

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Battery Energy Storage Systems - Technology

Battery Energy Storage Systems (BESS) are safe, affordable, long-lasting energy resources that will make Ontario's electricity grid cleaner, more reliable and more resilient

- **Tier 1 Batteries & Best-in-Class Integrators:** the Alectra Convergent Development JV will exclusively use Tier 1 Lithium-Ion batteries integrated by major manufacturers that provide performance guarantees for the full contract duration.
- **Safety:** BESS will incorporate 24/7 remote monitoring with a multi-layer approach to fire suppression including dry chemicals and/or deluge systems, in accordance with UL and CUL certifications and NFPA855 codes.

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Proposed Project Details: Harrowsmith

The Harrowsmith BESS project intends to build up to 400MW of capacity

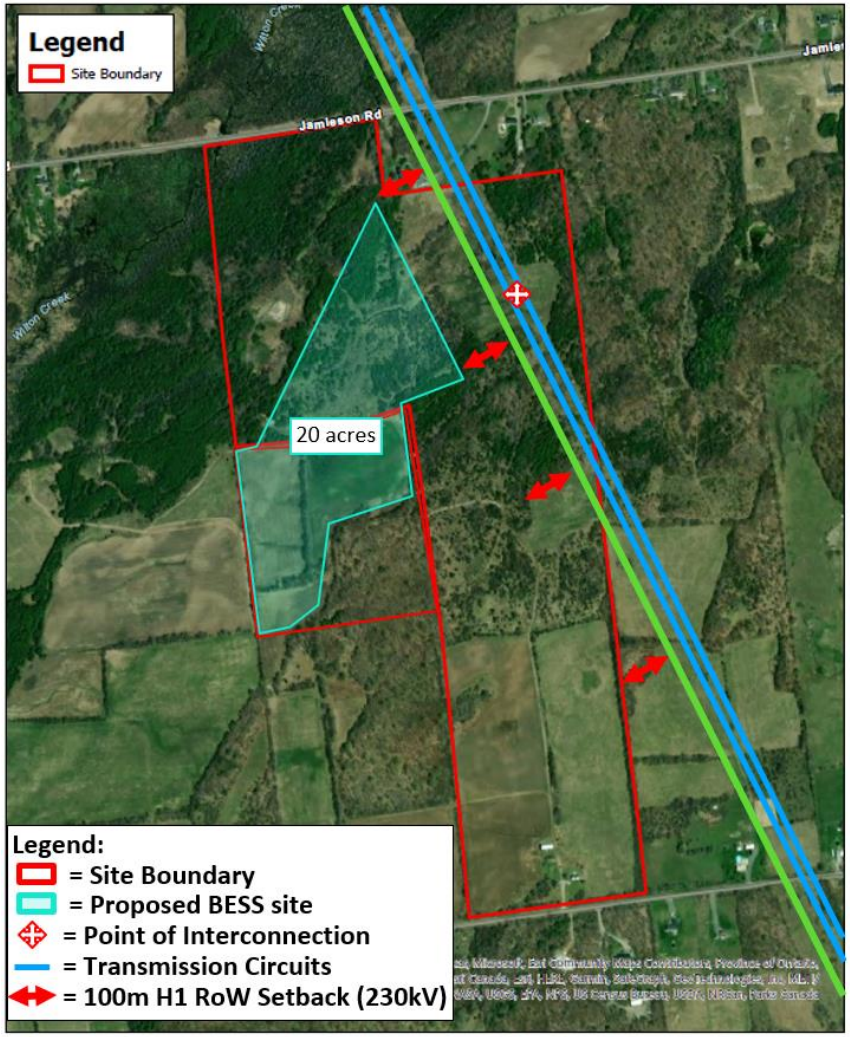

Figure 2. Project Site Boundary
Frontenac, Ontario
Convergent Energy + Power

Key Information	
Address	3891 Alton Rd. W., Harrowsmith, K0H 1V0
Site Coordinates	44.424709, -76.654857
Interconnection Coordinates	44.426522, -76.653458
Maximum Project Size	400 MW / 1600 MWh
BESS Parcel Size	~20 Acres
Soil Class	Not Prime Agriculture
Technology	Tier 1 Lithium-Ion BESS

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Proposed Project Details: South Frontenac

The South Frontenac BESS project intends to build up to 300MW of capacity

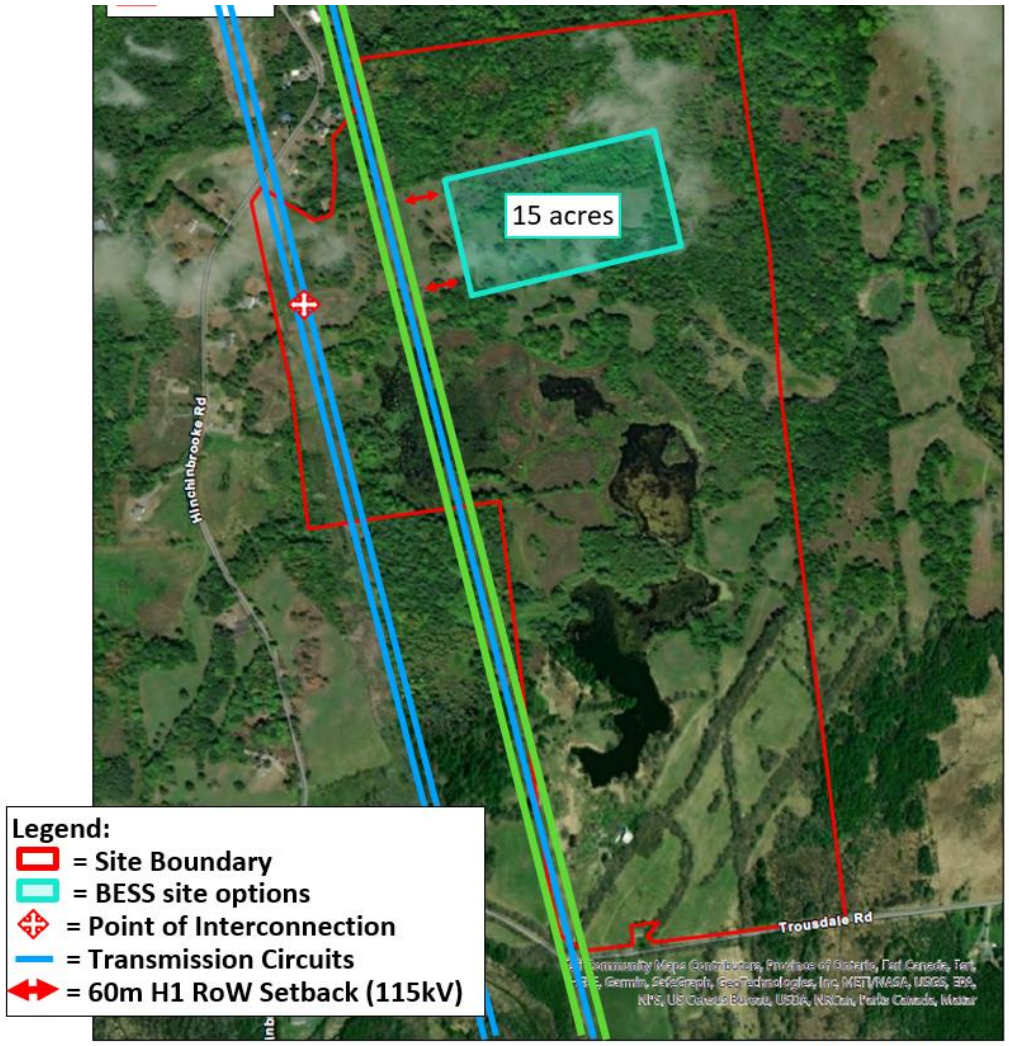

Figure 2. Project Site Boundary
Frontenac, Ontario
Convergent Energy + Power

Key Information	
Address	3562 Trousdale Rd, South Frontenac, K0H 1W0
Site Coordinates	44.4639286, -76.661043
Interconnection Coordinates	44.462412, -76.666830
Maximum Project Size	300 MW / 1200 MWh
BESS Parcel Size	~15 Acres
Soil Class	Not Prime Agriculture
Technology	Tier 1 Lithium-Ion BESS

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Project Benefits – Community Benefit Payment

The Alectra Convergent JV recognizes the importance of partnership with the Township of South Frontenac, and is offering a meaningful long-term investment in the community

Funding to Support South Frontenac

- If the Township of South Frontenac provides a Municipal Council Support Resolution for the Harrowsmith and South Frontenac projects before the Dec. 12 bid deadline, the Alectra Convergent JV will offer the Township an annual payment of $1,000 / MW of Contracted Capacity for the 21-year life of the contract.

- These annual payments will start 1 year after the project achieves Commercial Operation

- If the IESO awards the full proposed Contracted Capacity to these projects, this funding would equate to:

Harrowsmith Project

- Up to **$400,000 per year**
- Up to **$8,400,000** over the 21-year contract life

South Frontenac Project

- Up to **$300,000 per year**
- Up to **$6,300,000** over the 21-year contract life

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Project Benefits – Beyond South Frontenac

The Alectra Convergent JV will maximize local and province-wide benefits in the following key areas

Strengthening Ontario's grid

- These projects will be a key resource in maintaining the safe and reliable operation of Ontario's electricity grid; they will serve as a flexible, quick-reacting resource to balance the grid during volatility
- Additional capacity will give Ontario the ability to address increased load growth and electrification over the coming decades

Local and province-wide economic benefits

- BESS can provide needed capacity at a lower cost than traditional generation or transmission infrastructure, meaning lower costs for ratepayers
- Project construction and operations will engage local labour and businesses, leading to job creation
- Tax revenue will flow to both the Municipality and the Province

Protecting the environment and supporting clean energy production

- Technology will have minimal site impact, with no emissions
- BESS will reduce the reliance on natural gas peaking plants, and maximize the use of clean Hydro, Nuclear and Renewable energy
- Each MW of storage will eliminate 40.23 tonnes of CO_2 per year.

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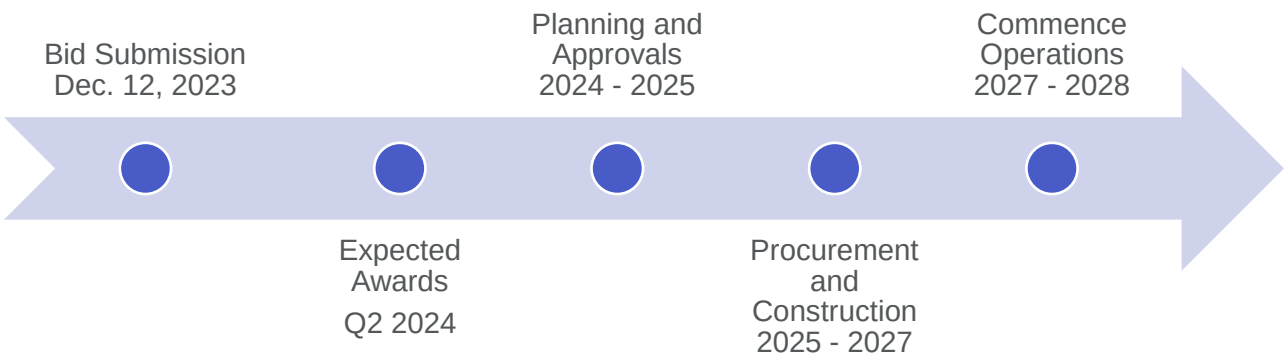
Project Next Steps

The Alectra Convergent JV will work with the municipal and provincial authorities as part of the planning and approvals process



- Projects will seek Municipal Council Support for our proposal to the IESO (does not constitute approval of project)
- After project award, we will continue to engage with the municipality as part of the planning and approvals process
- Projects will be subject to reviews and approvals related to site plan, environment, noise, safety, and interconnection

Frequently Asked Questions

The Alectra Convergent JV values feedback, and aims to provide transparent, accurate responses to your questions

Q: What happens to the BESS at the end of the contract?

- At the end of the contract, the BESS will have approximately 80% of its capacity remaining, so it can be recontracted (to continue serving Ontario's grid) or removed from the site and recycled.

Q: Will the BESS impose any costs on the Municipality's ratepayers?

- The BESS is 100% contracted by the IESO, so it is paid for by all of Ontario's ratepayers as the BESS delivers its capacity to the grid. Beyond that cost, there will be no costs to the Municipality. The Alectra Convergent JV will pay for the training of the local fire department, and cover all costs associated with the operations and maintenance of the system.

Q: What does the Alectra Convergent Development JV do to mitigate the risk of environmental contamination?

- All systems are sourced from Tier 1 suppliers with best-in-class designs and safety track records
- The BESS are designed around best practices to minimize environmental and fire risk
- All systems are monitored 24/7
- All BESS incorporate advanced fire suppression systems
- The Alectra Convergent JV will adhere to a strict Operations and Maintenance schedule to ensure all systems (including fire detection and suppression systems) are operational
- The Alectra Convergent JV will train and support (at our cost) the local Fire Department and Emergency Response teams

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Questions?

We look forward to forging a strong partnership with you to help Ontario meet its energy needs, and build meaningful energy projects within our communities

Minutes from this meeting will be uploaded to
www.AlectraConvergentJV.com
for reference by community members who were not able to attend this meeting

David Anders
Director, Distributed Energy Solutions
Alectra Energy Solutions
david.anders@alectrasolutions.com
647.449.8423 (m)

Tremor Temchin
SVP, Development
Convergent Energy and Power
ttemchin@convergentep.com
310.562.2423 (m)

Environmental Safety Management Corporation
Air Quality, Mold Testing, Ergonomics, OSHA

21 Scott Street
Riverside, NJ 08075
Tel: (856) 764-3557
Fax: (856) 764-3558
www.esmcorp.com

June 30, 2023

Jack I. Eisenbach, P.E.
President
EISENBACH & RUHNKE ENGINEERING, P.C.
315-735-1916: Office
315-335-1103: Cell

Dear Eisenbach,

This report summarizes the findings from our June 28, 2023 site inspection, air monitoring and surface sampling of representative areas of the Warwick Valley Schools Administrative Offices, Middle School, Transportation Office as well as School buses being considered for summer school. This assessment was conducted at your request due to the fire which initiated on a Convergent Energy Lithium Battery Storage unit, located approximately 900 feet from the Administrative Office/Middle School building. School bus parking and the transportation garage were also in the vicinity of the fire. It is our understanding that the fire started on Tuesday June 27, 2023, and shortly thereafter, the Facilities Department for the district took actions to close the school and deactivate rooftop air handling units to reduce the potential for entrainment of fire - related smoke and odors within the building. At the time of our June 28, 2023 inspection, the fire was still actively burning and smoke was being released.

Based upon the above, the purposes of the inspection were the following:

- Determine if all accessible air handling units on the Administrative and Middle School buildings were deactivated.
- Determine if there were any signs of smoke-related residues in representative offices, classrooms, gymnasium or cafeteria or common space areas.
- Determine if there were smoke-related odors in representative areas
- Determine if there were unusual airborne levels of volatile organic compounds or carbon monoxide measured within representative offices and classrooms which may be associated with the fire.
- Determine if there were measurable residues of lithium or unusual levels of fluoride ion on representative surfaces of the administrative, middle school, transportation office and school buses.
- Determine recommended steps to reduce potential smoke-related risks prior to returning to normal use of the building by students and staff.

Dr. Richard M. Lynch, Ph.D., CIH of Environmental Safety Management Corporation conducted this assessment with the assistance of yourself, and facilities staff of the Warwick Valley School District.

Executive Summary of Preliminary Findings

The fire was actively burning at the time of our June 28, 2023 inspection. Depending on wind direction, low-level smoke odors were detectable, and low elevations of volatile organic compounds and carbon monoxide were detected outside of the building and on the rooftop. Most rooftop air handlers had been deactivated. Low level smoke-like odors were detectable in a few offices and classrooms, however were no visible signs of smoke residues on surfaces of supply air diffusers, walls, desktops, or floors of the Administrative/Middle School building at the time of inspection. There were no significant elevations of volatile organic compounds detected in any indoor locations. Airborne particulate matter levels were all lower than outdoor levels. No lithium, fluoride or bromide residues were detected on surfaces of classroom or office desks, file cabinets or floors, nor on steering wheels, controls or driver or passenger seats within buses planned for use during summer school. Recommendations for keeping the building closed until the County HazMat team provides the All Clear, replacing rooftop air handling filters, and precautionary cleaning of offices and classrooms including walls, desks, floors and carpets where odors are detected, as well as for precautionary cleaning of summer school-planned buses are contained at the end of this report.

I. Methods

The full scope of emissions from Lithium ion cell battery fires is currently under study. The current literature indicates that in addition to lithium fumes, gases and vapors released from Lithium-Ion battery fires may include carbon dioxide, carbon monoxide, hydrogen fluoride, phosphoryl fluoride and volatile organic compounds.

Based upon the above, the following methods were addressed during this assessment:

- A visual inspection of representative offices, classrooms and bus surfaces was conducted to determine the presence of smoke-like odors and signs of smoke or combustion residues
- Air monitoring was conducted for airborne particulate matter, carbon monoxide, carbon dioxide, hydrogen sulfide, volatile organic compounds, and temperature in approximately 16 representative classrooms and offices throughout the administrative and middle school building.
- Surface wipe samples were collected for lithium and anion (fluoride) residues in approximately 20 offices, classrooms and buses (including the transportation office).
- Samples were hand-delivered for Lithium analysis via Inductively Coupled Plasma-Mass Spectrophotometry, and fluoride and bromide anion analysis via Ion Chromatography.

II. Findings and Results

Findings revealed the following:

- The fire was actively burning at the time of our June 28, 2023 inspection. Depending on wind direction, low-level smoke odors were detectable,
- Low levels of volatile organic compounds and carbon monoxide were detected outside of the building (ground levels and on the rooftop) up to 0.1 to 0.5 parts per million (100 to 500 parts per billion). Most rooftop air handlers had been deactivated.
- Low level smoke-like odors were detectable in a few offices and classrooms as shown in Table #1 at the end of this report.
- There were no signs of smoke residues on surfaces of supply air diffusers, walls, desktops or floors of the Administrative/Middle School building at the time of inspection.
- There were no elevations of volatile organic compounds or carbon monoxide detected in any indoor locations. Hydrogen sulfide levels were all below 0.2 parts per million.

- Indoor airborne particulate matter levels within the school and administrative offices were all lower than outdoor levels.
- There were no smoke-like odors in the 4 buses reported to be planned for use during summer school (Bus 355, 356, 360 and 376).
- Surface sampling for Lithium revealed no detected lithium (< 0.250 micrograms per square foot) from any office, classroom or bus surfaces sampled.
- No bromide or fluoride were detected from any of the sampled locations (, 25 µg/ft^2)

All monitoring and sampling results are shown on Table #1 at the end of this report. Laboratory results are attached.

III. Conclusions and Recommendations

Based upon the findings of this inspection, the deactivation of air handling units immediately upon the onset of the fire appear to have been helpful in reducing entrainment of smoke and residues associated with the burning Lithium-Ion batteries located at the southeast corner of the property. There were no signs of smoke residues in any of the classrooms or offices inspected within the administrative, middle school or transportation offices. There were no smoke-like odors in the 4 buses reported to be planned for use during summer school. No lithium, bromide or fluoride, residues were detected in classrooms, offices or bus surfaces sampled.

- Continue to keep the Administrative and Middle School classrooms closed with air handlers deactivated until the fire has terminated and the County HazMat Team has issued the "All Clear."
- After the "All Clear" filters in all rooftop air handlers should be removed and replaced and rooftop air handlers should be reactivated to ventilate the building and return temperature and humidity to normal levels.
- Custodial cleaning of classrooms and offices where smoke-like odors are detected should occur to include detergent cleaning and rinsing of desks and floor surfaces using cleaning agents normally used by custodial staff within the school e.g. Ecolab FaciliPro 77 Bio Enzymatic Odor Eliminator (already present in custodial closets throughout the school). Disposable vinyl gloves and eye protection, commonly used during routine custodial cleaning should be worn.
- If smoke-like odors remain in carpeted rooms (e.g. media center, main office, etc,) conduct carpet cleaning and water extraction.
- The Transportation Office and Facilities Offices which were closest to the fire should be detergent cleaned and rinsed. Buses used for summer school should be cleaned including the driver and passenger areas, using detergent and water. Disposable vinyl gloves and eye protection, commonly used during routine custodial cleaning should be worn.

Thanks for the opportunity to assist you. Please contact me at 856-764-3557 with any questions.

Sincerely,
Richard M. Lynch
Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM
President - Environmental Safety Management Corporation
Certified Industrial Hygienist
Certified Microbial Consultant
Certified Microbial Remediation Supervisor
Certified Healthcare Facility Manager
NJ Licensed Indoor Environmental Consultant
www.esmcorp.com

School Name **Warwick School District**

Inspection Type **Air Quality Inspection/Convergent Lithium Ion Battery Fire**

Date of inspection **6/28/2023**

Inspected by: **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President - www.esmcorp.com**

Environmental Safety Management Corporation
Air Quality, Mold Testing, Ergonomics, OSHA
21 Scott Street
Riverside, NJ 08075
Tel.: (856) 764-0557
Fax: (856) 764-3558
www.esmcorp.com

Location	HVAC / Unit Ventilator Running?	Windows Open?	Smoke Odors?	Visible Smoke Residue?	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	oF	H2S	Volatile Organics (ppb)	pm 2.5 ug m3	surface lithium (ug/ft2)	surface FF/HBr (ug/ft2)	Comments
Outdoor Rooftop					350	2.5	79		100 to 500	10.2			
District Offices													
cse meeting	no	n/a	no	no	488	0	74	0.13	294	3.3	<0.250	<25	
break room	no	no			561	0	74	0.15	294	4.4	<0.250	<25	
conference room	no	no			436	2.4	74	0.11	292	4.6	<0.250	<25	
board room	yes	n/a	no	no	418	2.4	72	0.08	222	3	<0.250	<25	
Middle School											<0.250	<25	
gym	no	n/a	yes	no	444	2.3	73	0.19	311	6.1	<0.250	<25	custodial clean surfaces
cafeteria	yes	n/a	no	no	362	c.4	73	0.13	312	5.5	<0.250	<25	deactivated duting inspection
main office/ guidance	no	no	yes	no	372	2.4	72	0.1	317	4.4			custodial clean surfaces
faculty room	no	n/a	no	no	368	2 4	75	0.12	310	7.5			custodial clean surfaces
Delta 3 Classrooms	no	no	no	no	356	2.3	73	0.14	318	11.8			
Delta 7	no	no	no	no	382	2.3	73	0.11	322	6.2	<0.250		
Gamma 9	no	no	no	no	400	2.3	73	0.1	307	6.4	<0.250		custodial clean surfaces
Gamma 3	no	no	yes	no	361	2.3	73	0.14	286	7	<0.250		custodial clean surfaces
Middle School Media Center	no	n/a	yes	no	355	2.2	72	0.09	292	7.1			custodial clean surfaces
Beta 4	no	no	yes	no	358	2.2	72	0.1	283	6.2	<0.250		custodial clean surfaces
Alpha 8	no	no	no	no	375	2.2	72	0.09	285	5.6	<0.250		
Art2	no	no	yes	no	361	2.2	73	0.06	307	5.1	<0.250		custodial clean surfaces
outdoors @ art					350	2.6	78	0.01	268	8.9	<0.250		custodial clean surfaces
Transporation Office											<0.250	<25	custodial clean surfaces
Bus 355											<0.250	<25	custodial clean surfaces
Bus 356											<0.250	<25	custodial clean surfaces
Bus 360											<0.250	<25	custodial clean surfaces
Bus 376											<0.250	<25	custodial clean surfaces
blank											<0.250	<25	custodial clean surfaces
					400	**2**	**73**	**0.12**	**297**	**5.9**		-	-

Conclusions & Recommendations	**No smoke-like residues observed at time of inspection. Minor smoke odors detected where indicated. Reactivate air handlers to ventilate and control temperature and humidity. Conduct precautionary cleaning of surfaces and carpets where odors exist following termination of fire.**

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 858-4800
Fax: (856) 786-0392

Attn.: *Dr. Richard Lynch*
Environmental Safety Management Corp.
21 E. Scott Street
Riverside, NJ 08075
RLynch@ESMCorp.com
Phone: (856) 764-3557

EMSL Case No.: 362302164
Sample(s) Received: 6/29/2023
Date Reported: 6/30/2023
Date Printed: 6/30/2023
Reported By: D. Macready

Laboratory Report

Procurement of Samples and Analytical Overview:

The samples (twenty-eight, wipes) arrived at EMSL Analytical (Cinnaminson, NJ) on June 29, 2023 in good condition. The samples were submitted for the purpose of lithium, fluoride, and bromide analysis. The data reported herein has been obtained using the following equipment and methodologies.

Methods:
Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)
Hot Block Digestion
Ion Chromatography (IC)

Lithium was analyzed by ICP-MS.
Fluoride and Bromide were analyzed by IC.

Analyzed by:

Daniel Macready *Senior Materials Science Engineer*	*Joel Keller* *Laboratory Technician*	June 30, 2023 *Date*

Reviewed/Approved:

Eugenia Mirica, Ph.D. *Laboratory Director*	June 30, 2023 *Date*

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077
Phone: (856) 858-4800
Fax: (856) 786-0392

Attn.: *Dr. Richard Lynch*
Environmental Safety Management Corp.
21 E. Scott Street
Riverside, NJ 08075
RLynch@ESMCorp.com
Phone: (856) 764-3557

EMSL Case No.: 362302164
Sample(s) Received: 6/29/2023
Date Reported: 6/30/2023
Date Printed: 6/30/2023
Reported By: D. Macready

Results:

Sample Number:	Not Specified	
COC Sample ID:	Field Blank	
EMSL Sample Number:	362302164-0001	
Analyte	Result (µg/wipe)	Limit of Quantitation/LOQ (µg/wipe)
Lithium (Li)	< LOQ	0.250
Fluoride (F^-)	< LOQ	25.0
Bromide (Br^-)	< LOQ	25.0

Sample Number:	Not Specified	
COC Sample ID:	Bus 355	
EMSL Sample Number:	362302164-0002	
Analyte	Result (µg/wipe)	Limit of Quantitation/LOQ (µg/wipe)
Lithium (Li)	< LOQ	0.250
Fluoride (F^-)	< LOQ	25.0
Bromide (Br^-)	< LOQ	25.0

Sample Number:	Not Specified	
COC Sample ID:	Bus 356	
EMSL Sample Number:	362302164-0003	
Analyte	Result (µg/wipe)	Limit of Quantitation/LOQ (µg/wipe)
Lithium (Li)	< LOQ	0.250
Fluoride (F^-)	< LOQ	25.0
Bromide (Br^-)	< LOQ	25.0

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Environmental Safety Management Corp.
21 E. Scott Street
Riverside, NJ 08075
RLynch@ESMCorp.com
Phone: (856) 764-3557

EMSL Case No.: 362302164
Sample(s) Received: 6/29/2023
Date Reported: 6/30/2023
Date Printed: 6/30/2023
Reported By: D. Macready

Sample Number:	Not Specified	
COC Sample ID:	Bus 360	
EMSL Sample Number:	362302164-0004	
Analyte	Result (µg/wipe)	Limit of Quantitation/LOQ (µg/wipe)
Lithium (Li)	< LOQ	0.250
Fluoride (F^-)	< LOQ	25.0
Bromide (Br^-)	< LOQ	25.0

Sample Number:	Not Specified	
COC Sample ID:	Bus 376	
EMSL Sample Number:	362302164-0005	
Analyte	Result (µg/wipe)	Limit of Quantitation/LOQ (µg/wipe)
Lithium (Li)	< LOQ	0.250
Fluoride (F^-)	< LOQ	25.0
Bromide (Br^-)	< LOQ	25.0

Sample Number:	Not Specified	
COC Sample ID:	Transportation	
EMSL Sample Number:	362302164-0006	
Analyte	Result (µg/wipe)	Limit of Quantitation/LOQ (µg/wipe)
Lithium (Li)	< LOQ	0.250
Fluoride (F^-)	< LOQ	25.0
Bromide (Br^-)	< LOQ	25.0

EMSL Analytical, Inc.

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Phone: (856) 858-4800
Fax: (856) 786-0392

Attn.: *Dr. Richard Lynch*
Environmental Safety Management Corp.
21 E. Scott Street
Riverside, NJ 08075
RLynch@ESMCorp.com
Phone: (856) 764-3557

EMSL Case No.: 362302164
Sample(s) Received: 6/29/2023
Date Reported: 6/30/2023
Date Printed: 6/30/2023
Reported By: D. Macready

Sample Number:	1	
COC Sample ID:	CSE File	
EMSL Sample Number:	362302164-0007	
Analyte	Result (µg/wipe)	Limit of Quantitation/LOQ (µg/wipe)
Lithium (Li)	< LOQ	0.250
Fluoride (F^-)	< LOQ	25.0
Bromide (Br^-)	< LOQ	25.0

Sample Number:	2	
COC Sample ID:	Admin B.R.	
EMSL Sample Number:	362302164-0008	
Analyte	Result (µg/wipe)	Limit of Quantitation/LOQ (µg/wipe)
Lithium (Li)	< LOQ	0.250
Fluoride (F^-)	< LOQ	25.0
Bromide (Br^-)	44.8	25.0

Sample Number:	3	
COC Sample ID:	Conf table	
EMSL Sample Number:	362302164-0009	
Analyte	Result (µg/100cm^2)	Limit of Quantitation/LOQ (µg/100cm^2)
Lithium (Li)	< LOQ	0.250

Sample Number:	4	
COC Sample ID:	Board Room	
EMSL Sample Number:	362302164-0010	
Analyte	Result (µg/100cm^2)	Limit of Quantitation/LOQ (µg/100cm^2)
Lithium (Li)	< LOQ	0.250

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Phone: (856) 858-4800
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Attn.: *Dr. Richard Lynch*
Environmental Safety Management Corp.
21 E. Scott Street
Riverside, NJ 08075
RLynch@ESMCorp.com
Phone: (856) 764-3557

EMSL Case No.: 362302164
Sample(s) Received: 6/29/2023
Date Reported: 6/30/2023
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Reported By: D. Macready

Sample Number:	5	
COC Sample ID:	Gym Floor	
EMSL Sample Number:	362302164-0011	
Analyte	Result (µg/100cm^2)	Limit of Quantitation/LOQ (µg/100cm^2)
Lithium (Li)	< LOQ	0.250

Sample Number:	6	
COC Sample ID:	Cafe Stage	
EMSL Sample Number:	362302164-0012	
Analyte	Result (µg/100cm^2)	Limit of Quantitation/LOQ (µg/100cm^2)
Lithium (Li)	< LOQ	0.250

Sample Number:	7	
COC Sample ID:	Art Sink	
EMSL Sample Number:	362302164-0013	
Analyte	Result (µg/100cm^2)	Limit of Quantitation/LOQ (µg/100cm^2)
Lithium (Li)	< LOQ	0.250

Sample Number:	9	
COC Sample ID:	Faculty Table	
EMSL Sample Number:	362302164-0014	
Analyte	Result (µg/100cm^2)	Limit of Quantitation/LOQ (µg/100cm^2)
Lithium (Li)	< LOQ	0.250

Sample Number:	11	
COC Sample ID:	Delta 7	
EMSL Sample Number:	362302164-0015	
Analyte	Result (µg/100cm^2)	Limit of Quantitation/LOQ (µg/100cm^2)
Lithium (Li)	< LOQ	0.250

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Phone: (856) 858-4800
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Environmental Safety Management Corp.
21 E. Scott Street
Riverside, NJ 08075
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Phone: (856) 764-3557

EMSL Case No.: 362302164
Sample(s) Received: 6/29/2023
Date Reported: 6/30/2023
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Reported By: D. Macready

Sample Number:	12	
COC Sample ID:	Gamma 9	
EMSL Sample Number:	362302164-0016	
Analyte	Result (µg/100cm^2)	Limit of Quantitation/LOQ (µg/100cm^2)
Lithium (Li)	< LOQ	0.250

Sample Number:	13	
COC Sample ID:	Gamma 3	
EMSL Sample Number:	362302164-0017	
Analyte	Result (µg/100cm^2)	Limit of Quantitation/LOQ (µg/100cm^2)
Lithium (Li)	< LOQ	0.250

Sample Number:	14	
COC Sample ID:	Media Circle	
EMSL Sample Number:	362302164-0018	
Analyte	Result (µg/100cm^2)	Limit of Quantitation/LOQ (µg/100cm^2)
Lithium (Li)	< LOQ	0.250

Sample Number:	15	
COC Sample ID:	Beta 4	
EMSL Sample Number:	362302164-0019	
Analyte	Result (µg/100cm^2)	Limit of Quantitation/LOQ (µg/100cm^2)
Lithium (Li)	< LOQ	0.250

Sample Number:	16	
COC Sample ID:	Alpha 8	
EMSL Sample Number:	362302164-0020	
Analyte	Result (µg/100cm^2)	Limit of Quantitation/LOQ (µg/100cm^2)
Lithium (Li)	< LOQ	0.250

EMSL Analytical, Inc.

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Riverside, NJ 08075
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Phone: (856) 764-3557

EMSL Case No.: 362302164
Sample(s) Received: 6/29/2023
Date Reported: 6/30/2023
Date Printed: 6/30/2023
Reported By: D. Macready

Important Terms, Conditions, and Limitations:

Sample Retention: Non-perishable samples analyzed by EMSL will be retained for 60 days after analysis date at room temperature conditions. Perishable samples will be retained for maximum of 30 days in refrigerated conditions. Storage beyond this period is available for a fee with written request prior to the initial 30 day period. Samples containing hazardous/toxic substances which require special handling may be returned to the client immediately EMSL reserves the right to charge a sample disposal or return shipping fee.

Change Orders and Cancellation: All changes in the scope of work or turnaround time requested by the client after sample acceptance must be made in writing and confirmed in writing by EMSL. If requested changes result in a change in cost the client must accept payment responsibility. In the event work is cancelled by a client, EMSL will complete work in progress and invoice for work completed to the point of cancellation notice. EMSL is not responsible for holding times that are exceeded due to such changes.

Warranty: EMSL warrants to its clients that all services provided hereunder shall be performed in accordance with established and recognized analytical testing procedures and with reasonable care in accordance with applicable federal, state and local laws. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied. EMSL disclaims any other warranties, express or implied, including a warranty of fitness for particular purpose and warranty of merchantability.

Limits of Liability: In no event shall EMSL be liable for indirect, special, consequential, or incidental damages, including, but not limited to, damages for loss of profit or goodwill regardless of the negligence (either sole or concurrent) of EMSL and whether EMSL has been informed of the possibility of such damages, arising out of or in connection with EMSL's services thereunder or the delivery, use, reliance upon or interpretation of test results by client or any third party. We accept no legal responsibility for the purposes for which the client uses the test results. EMSL will not be held responsible for the improper selection of sampling devices even if we supply the device to the user. The user of the sampling device has the sole responsibility to select the proper sampler and sampling conditions to ensure that a valid sample is taken for analysis. Any resampling performed will be at the sole discretion of EMSL, the cost of which shall be limited to the reasonable value of the original sample delivery group (SDG) samples. In no event shall EMSL be liable to a client or any third party, whether based upon theories of tort, contract or any other legal or equitable theory, in excess of the amount paid to EMSL by client thereunder.

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Warwick School
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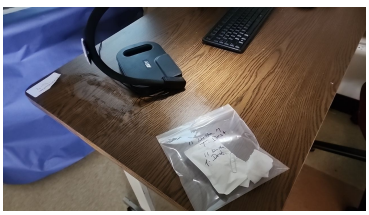

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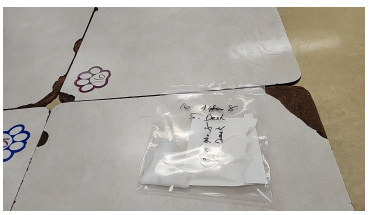

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Township of South Frontenac

Staff Report

To:	Council
Prepared by:	Development Services Department
Date of Meeting:	December 5, 2023
Subject:	**Zoning By-law Amendment Application PL-ZBA-2023-0048, Bob's Lake Co-Operative (ZanderPlan), Bedford District**

Summary

This report recommends that Council pass a by-law to amend the RLSW-3 zone on the Bob's Lake Co-Operative properties on Badour Road, Co-op Lane, Donalds Lane and Nightingale Lane. The amendment would better reflect the current and potential uses and eliminate the need for a minor variance when trailers are replaced. A holding symbol would be placed on the zone to prohibit trailer replacements as well as new buildings and structures until such time as a Site Plan Agreement is entered into between the Owner and the Township and is registered on the title of the properties.

Recommendation

That By-law 2023-96 being a By-law to amend Zoning By-law 2003-75, as amended, to amend the Limited Service Residential – Waterfront – Special Provision (RLSW-3) zone on lands described as Part of Lot 32, Concession 6 and Part of Lots 33 and 34, Concession 7, District of Bedford, be given first and second reading; and

That By-law 2023-96 be given third reading, signed and sealed.

Background

Council held a virtual public meeting under the Planning Act on June 20, 2023, on the proposed amendment to Zoning By-law 2003-75. This application is being brought forward to Council for a decision.

Discussion

Summary of Application

The purpose of the rezoning application is to amend the RLSW-3 zone to include text that would better reflect the current and potential uses and eliminate the need for a minor variance when trailers are replaced. No new development is proposed at this time.

Property History

Bob's Lake Co-Operative owns several properties on Bob's Lake in the area of Badour Road.

The subject lands were used as a trailer park since the 1970s. Bob's Lake Co-Operative took over operation and management of the trailer park in the 1980s. The predecessor to the current RLSW-3 zone on the properties was passed in 1988. It was intended that the location of campsites and trailers would eventually be regulated using site plan control.

The RLSW-3 zone permits a total of 62 campsites for recreational vehicles on these properties. The RLSW-3 zone requires the replacement of existing trailers on the properties to be subject to a minor variance application to determine the appropriateness of the size and location of the replacement trailer.

Property Description

Bob's Lake Co-Operative properties are located on Badour Road, Co-op Lane, Donalds Lane and Nightingale Lane. All of the properties contain shorelines with variable heights, but most are high and steep. The main property is on Co-op Lane. It is approximately 40.5 acres in area and forested. The property contains 23 trailers plus accessory buildings and structures. The Donalds Lane property is approximately 7.5 acres in area and contains eight trailers plus accessory buildings and structures. The Nightingale Lane property is approximately 3.5 acres in area and contains seven trailers plus accessory buildings and structures. There are several docks and water access points associated with the campsites.

Related Applications

The properties are not subject to any other applications under the Planning Act.

Supporting Documentation

An existing conditions report, sketches illustrating the trailer lots, and a planning report were submitted in support of the rezoning application.

Existing Conditions Report

An Existing Conditions Report (WSP, October 28, 2019) documents the location of all trailers, roadways and services. It includes a preliminary hydrogeological assessment and provides recommendations to ensure the existing site is functioning properly and meets all required guidelines and codes. The report is available for viewing on request in Planning Services due to the file size.

The report indicates that the existing roadways are approximately 6 metres wide and in good to excellent condition. There area waterlines that are fed by two wells. Each campsite has an individual connection to the waterlines. Monthly water quality testing is conducted between April and October each year by the Co-Operative.

The report inventoried 52 on-site sewage systems. The campsites are serviced by a variety of on-site sewage systems including outhouses and privies (Class 1), greywater systems (Class 2), septic tank and leaching bed systems (Class 4), and holding tanks (Class 5).

The report recommendations include that granular driveways be installed on each campsite to reduce soil erosion potential, that on-going monthly water quality testing be continued, that high-level alarms be installed on all existing holding tanks, and that the Co-Operative should enter into a written agreement with a local licensed sewage hauler for each parcel.

Sketches Illustrating Trailer Lots

Three sketches illustrating the trailer lots on Co-op Lane, Donalds Lane and Nightingale Lane (Hopkins Chitty Land Surveyors, 2020) were submitted to identify the location of trailers and accessory buildings on each of the trailer lots (i.e. campsites). The sketches are attachment 3 to this report.

Planning Report

A Planning Report (ZanderPlan, April 11, 2023) was submitted in support of the subject application. The report is attachment 4.

The report assessed the appropriateness of the proposed zoning by-law amendment in the context of the surrounding area as well as its conformity with the applicable policy and regulatory framework. It also included draft by-law wording.

Staff Report – Council Meeting June 21, 2023

The staff report presented at the June 21st, 2023 Council meeting is available through the attached link.

Department and Agency Comments

Building Services indicated on July 13, 2023, that based on the Existing Conditions Report (WSP, October 28, 2019), there is a lack of information and approved permits for many of the sewage systems installed on the properties. This report also identified that the existing systems are generally undersized, poorly equipped, and have limited maintenance records. Building Services indicated that the Co-operative will need to take responsibility for replacing or upgrading inadequate systems so they comply with the Ontario Building Code.

Also, that the replacement of a trailer should require that, going forward, the Co-operative must apply for and obtain a permit for any sewage system.

Rideau Valley Conservation Authority staff indicated on May 29, 2023, that they had no objection to the application within the context of natural hazard policies, O. Reg. 174/06 under the Conservation Authorities Act, and the Mississippi-Rideau Source Water Protection Plan.

Public Comments

A public meeting was held under the *Planning Act* on June 20, 2023. No comments were received from members of the public at the meeting. Mayor Vandewal commented that it is positive to have clean up requirements and have a path moving forward.

Planning Analysis

The proposed zoning by-law amendment was assessed against the applicable policies of the Provincial Policy Statement 2020, County of Frontenac Official Plan, and Township of South Frontenac Official Plan, as well as the provisions of Zoning By-law No. 2003-75.

The subject lands are used as a private campground. The campground is owned by a co-operative and not open to the public. The lands were originally placed in a site-specific Limited Service Residential – Waterfront (RLSW-3) zone because this type of use/ownership is not contemplated by any of the zones in the Zoning By-law. The RLSW zone best fit with the intended seasonal residential use of the lands.

The purpose of the rezoning application is to amend the RLSW-3 zone to include text that would better reflect the current and potential uses, and eliminate the need for a minor variance when trailers are replaced.

The current RLSW-3 zone permits a total of 62 campsites on parts on several reference plans. The proposed by-law would continue to permit a total of 62 campsites. However, the sites would be divided across three separate zones (RLSW-3, RLSW-136 and RLSW-137) based on the number of campsites associated with each of the reference plans. This change will make the zone text more accessible and easier to interpret because the reader will not need to have a copy of the reference plans.

The structure and terminology of the proposed by-law is consistent with that of the overall Zoning By-law. Each zone includes a list of permitted uses, a definition, and zone provisions.

The list of permitted uses includes travel trailer sites, accessory buildings and uses, and docks. The term "travel trailer site" is defined so that it corresponds with an area licenced for occupation by the Bob's Lake Co-operative.

The zone provisions specify that a maximum of one travel trailer and one sleeping cabin are permitted on a travel trailer site. The by-law would allow one sleeping cabin per site to acknowledge existing situations and that the Co-operative's Rules and Regulations allow for this use. Section 5.24.7 of the Zoning By-law only allows a sleeping cabin as an accessory structure to a principal dwelling on a waterfront property. Since a travel trailer site and a travel trailer are not a principal dwelling, a sleeping cabin needs to be specified in the by-law to override section 5.24.7 of the Zoning By-law.

A travel trailer is neither a building nor a structure defined in the Zoning By-law. Therefore, the proposed zone provisions would also specify minimum yards and setbacks for a travel trailer. The minimum yards and setbacks are the same as those that apply to houses in the RLSW zone. The addition of these provisions will help with zoning interpretation.

Regarding eliminating the need for a minor variance when trailers are replaced, the proposed by-law includes a provision that allows a travel trailer to be replaced provided that it does not further reduce a required yard or setback. This provision would consider a travel trailer the same way as any non-conforming building or structure in the Township is considered through sections 5.10.1 and 5.10.2 of the Zoning By-law.

Finally, the proposed by-law would place a Holding (H) Symbol on each of the zones that would prohibit new development and trailer replacements. The Holding Symbol would only be removed when a Site Plan Agreement is entered into between the Co-operative and the Township and is registered on the title of the properties. Site plan control will be used to regulate the location and use of travel trailer sites, and to regulate the replacement of trailers so that inadequate sewage systems will be replaced or upgraded so they comply with the Ontario Building Code. The addition of this provision would implement Council's intent for the properties from 1988, and address Building Services' current concerns about the condition of existing sewage systems.

It is the opinion of staff that the proposed zoning by-law amendment is consistent and conforms to the Provincial Policy Statement 2020, the County of Frontenac Official Plan, and the South Frontenac Official Plan, and represents good planning for the subject properties.

Financial Implications

Not applicable.

Relationship to Strategic Plans

☒ Not applicable to this report.

☐ This initiative is supported by the following priorities of the 2019-2022 Strategic Plan.

- Priority: Choose an item.
- Action Item (if applicable): N/A

Climate Considerations

☒ Not applicable to this report.

☐ This initiative supports climate change mitigation/adaption efforts in South Frontenac; and/or impacts the Township's resilience to climate change.

Notice/Consultation

Council held a public meeting under the *Planning Act* on June 20, 2023. Notice of the Statutory Public Meeting was given pursuant to the requirements of the Planning Act, 20 days in advance of the Public Meeting.

Attachments

1. By-law 2023-96

Approvals

Report Prepared By:

Christine Woods, RPP, MCIP, Senior Planner

Submitted By:

Brad Wright
Director of Development Services

Approved By:

Louise Fragnito, CPA, CGA
Chief Administrative Officer

TOWNSHIP OF SOUTH FRONTENAC
BY-LAW 2023-96

BEING A BY-LAW TO AMEND BY-LAW 2003-75, AS AMENDED, TO REZONE LANDS FROM LIMITED SERVICE RESIDENTIAL – WATERFRONT – SPECIAL PROVISION (RLSW-3) TO LIMITED SERVICE RESIDENTIAL – WATERFRONT – SPECIAL PROVISION (RLSW-136-H AND RLSW-137-H), AND TO AMEND THE LIMITED SERVICE RESIDENTIAL – WATERFRONT – SPECIAL PROVISION (RLSW-3) ZONE, ON LANDS DESCRIBED AS PART OF LOT 32, CONCESSION 6 AND PART OF LOTS 33 AND 34, CONCESSION 7, DISTRICT OF BEDFORD: BOB'S LAKE CO-OPERATIVE LIMITED

WHEREAS pursuant to the provisions of Section 34 of the *Planning Act*, RSO 1990 as amended, the Council of a Municipality may enact by-laws regulating the use of land and the erection, location and use of buildings and structures thereon;

AND WHEREAS By-law 2003-75 being the Zoning By-law regulates the use of land and the erection, location and use of buildings and structures within the Township of South Frontenac;

AND WHEREAS the Council of the Corporation of the Township of South Frontenac considered all written and oral submissions received on this application, the effect of which helped Council make an informed decision;

AND that there be no further notice pursuant to Section 34 (17) of the *Planning Act*;

NOW THEREFORE, the Council of the Corporation of the Township of South Frontenac, hereby enacts as follows:

1. **THAT** Schedule "D" to Zoning By-law Number 2003-75 as amended, is hereby further amended by changing the zoning from RLSW-3 to RLSW-136-H and RLSW-137-H, and by adding a holding symbol (-H) to the RLSW-3 zone, for lands shown on Schedule "1".

2. THAT Section RLSW-3 (Part Lot 32, Concession VI, Part of Lots 33 and 34, Concession VII, Bedford District - Bob's Lake Co-operative Limited) of Zoning By-law Number 2003-75 as amended is hereby amended by deleting the existing text and adding the following text:

   RLSW-3-H (Part Lot 32, Concession VI, Part of Lots 33 and 34, Concession VII, Bedford District - Bob's Lake Co-operative Limited)

   Notwithstanding the provisions of Section 10 or any other provision of this By-law to the contrary, the lands zoned Special Limited Service Residential – Waterfront (RLSW-3) shall be used only in accordance with the following:

   Permitted Uses

   - *Travel Trailer Sites*
   - *Accessory buildings and uses*
   - *Docks*

   For the purpose of the RLSW-3 zone:

   ***"Travel Trailer Site"** shall mean an area of land for which a shareholder is issued a license to occupy by the Bob's Lake Co-operative. For clarity, a Travel Trailer Site is not a Lot within the meaning of the Zoning By-law.*

   Zone Provisions

   - *Maximum Number of Travel Trailer Sites 43 (Forty three)*
   - *Travel Trailer Sites are prohibited on the lands bounded on three sides by Mill Bay Lane, Badour Road and Bob's Lake*
   - *Maximum Number of Travel Trailers on a Travel Trailer Site 1 (One)*
   - *Maximum Number of Sleeping Cabins on a Travel Trailer Site 1 (One)*

For a Travel Trailer:

• Front Yard (Minimum)	*30 metres (98.4 ft.)*
• Rear Yard (Minimum)	*10 metres (32.8 ft.)*
• Interior Side Yard (Minimum)	*3 metres (9.8 ft.)*
• Exterior Side Yard (Minimum)	*10 metres (32.8 ft.)*
• Setback from highwater mark or floodline of a body of water (Minimum)	*30 metres (98.4 ft.)*

• Off-street parking shall be provided in accordance with Section 5.30.

A travel trailer may be replaced provided that it does not serve to further reduce a required yard or a required setback from the highwater mark of a waterbody or watercourse.

All other provisions of this By-law shall apply.

Removal of the Holding (H) Symbol

The Holding (H) Symbol shall be removed to permit development and trailer replacements only when a Site Plan Agreement is entered into between the Owner and the Township and is registered on the title of the properties zoned RLSW-3, RLSW-136 and RLSW-137.

3. ***THAT*** *Zoning By-law Number 2003-75 as amended is hereby further amended by adding a new Section RLSW-136 and Section RLSW-137 (Part Lot 32, Concession VI, Part of Lots 33 and 34, Concession VII, Bedford District - Bob's Lake Co-operative Limited) immediately after the last Limited Service Residential – Waterfront Special Exception section to read as follows:*

RLSW-136-H (Part Lot 32, Concession VI, Part of Lots 33 and 34, Concession VII, Bedford District - Bob's Lake Co-operative Limited)

Notwithstanding the provisions of Section 10 or any other provision of this By-law to the contrary, the lands zoned Special Limited Service Residential – Waterfront (RLSW-136) shall be used only in accordance with the following:

Permitted Uses

- *Travel Trailer Sites*
- *Accessory buildings and uses*
- *Docks*

For the purpose of the RLSW-136 zone:

"Travel Trailer Site" *shall mean an area of land for which a shareholder is issued a license to occupy by the Bob's Lake Co-operative. For clarity, a Travel Trailer Site is not a Lot within the meaning of the Zoning By-law.*

Zone Provisions

• Maximum Number of Travel Trailer Sites	*10 (Ten)*
• Maximum Number of Travel Trailers on a Travel Trailer Site	*1 (One)*
• Maximum Number of Sleeping Cabins on a Travel Trailer Site	*1 (One)*

For a Travel Trailer:

• Front Yard (Minimum)	*30 metres (98.4 ft.)*
• Rear Yard (Minimum)	*10 metres (32.8 ft.)*
• Interior Side Yard (Minimum)	*3 metres (9.8 ft.)*
• Exterior Side Yard (Minimum)	*10 metres (32.8 ft.)*
• Setback from highwater mark or floodline of a body of water (Minimum)	*30 metres (98.4 ft.)*

• Off-street parking shall be provided in accordance with Section 5.30.

A travel trailer may be replaced provided that it does not serve to further reduce a required yard or a required setback from the highwater mark of a waterbody or watercourse.

All other provisions of this By-law shall apply.

Removal of the Holding (H) Symbol

The Holding (H) Symbol shall be removed to permit development and trailer replacements only when a Site Plan Agreement is entered into between the Owner and the Township and is registered on the title of the properties zoned RLSW-3, RLSW-136 and RLSW-137.

RLSW-137-H (Part Lot 32, Concession VI, Part of Lots 33 and 34, Concession VII, Bedford District - Bob's Lake Co-operative Limited)

Notwithstanding the provisions of Section 10 or any other provision of this By-law to the contrary, the lands zoned Special Limited Service Residential – Waterfront (RLSW-137) shall be used only in accordance with the following:

Permitted Uses

- *Travel Trailer Sites*
- *Accessory buildings and uses*
- *Docks*

For the purpose of the RLSW-137 zone:

***"Travel Trailer Site"** shall mean an area of land for which a shareholder is issued a license to occupy by the Bob's Lake Co-operative. For clarity, a Travel Trailer Site is not a Lot within the meaning of the Zoning By-law.*

Zone Provisions

• *Maximum Number of Travel Trailer Sites*	*9 (Nine)*
• *Maximum Number of Travel Trailers on a Travel Trailer Site*	*1 (One)*
• *Maximum Number of Sleeping Cabins on a Travel Trailer Site*	*1 (One)*

For a Travel Trailer:

• *Front Yard (Minimum)*	*30 metres (98.4 ft.)*
• *Rear Yard (Minimum)*	*10 metres (32.8 ft.)*
• *Interior Side Yard (Minimum)*	*3 metres (9.8 ft.)*
• *Exterior Side Yard (Minimum)*	*10 metres (32.8 ft.)*
• *Setback from highwater mark or floodline of a body of water (Minimum)*	*30 metres (98.4 ft.)*

• *Off-street parking shall be provided in accordance with Section 5.30.*

A travel trailer may be replaced provided that it does not serve to further reduce a required yard or a required setback from the highwater mark of a waterbody or watercourse.

All other provisions of this By-law shall apply.

Removal of the Holding (H) Symbol

The Holding (H) Symbol shall be removed to permit development and trailer replacements only when a Site Plan Agreement is entered into between the Owner and the Township and is registered on the title of the properties zoned RLSW-3, RLSW-136 and RLSW-137.

4. THIS BY-LAW shall come into force in accordance with Section 34 of the Planning Act, 1990, as amended, either upon the date of passage or as otherwise provided by said Section 34.

Dated at the Township of South Frontenac this 5th day of December, 2023.

Read a first and second time this 5th day of December, 2023.

Read a third time and finally passed this 5th day of December, 2023.

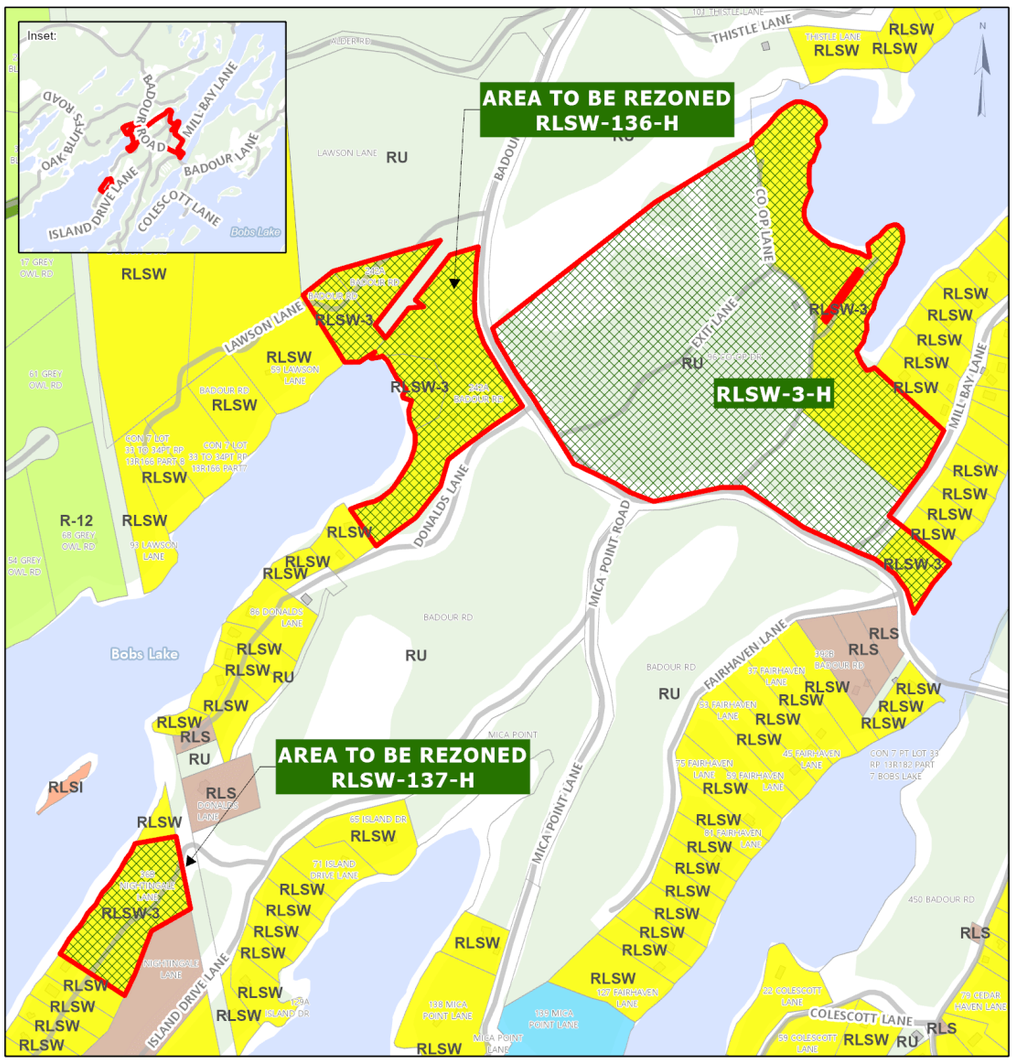
THE CORPORATION OF THE
TOWNSHIP OF SOUTH FRONTENAC

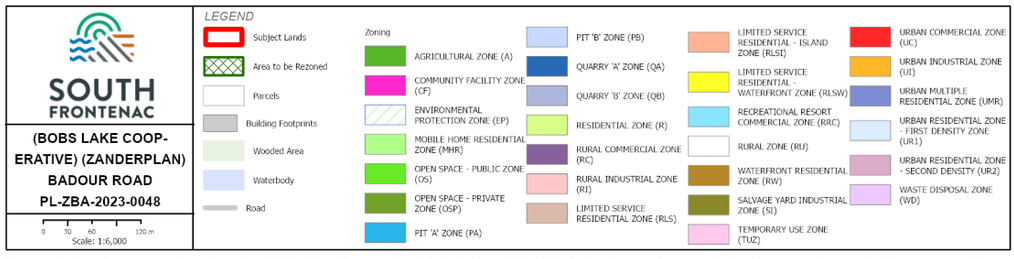
_____
Ron Vandewal, Mayor

_____
James Thompson, Clerk

Schedule 1

This is Schedule “1” to By-law No. 2023-##.





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UTM Projection NAD 83 | Date: 2023-11-23

Passed this 5th day of December, 2023

Ron Vandewal, Mayor

James Thompson, Clerk

Township of South Frontenac

Staff Report

To:	Council
Prepared by:	Public Services Department
Date of Meeting:	December 5, 2023
Subject:	**Close Out Report – 2023 Private Lane Upgrade Assistance Program**

Summary

This report provides a summary of the outcomes of the 2023 Private Lane Upgrade Assistance Program and provides recommendations with respect to allocation for the resulting year end surplus.

Recommendation

That Council receive the close out summary report for the 2023 Private Lane Upgrade Assistance Program for information.

Background

On June 6th, 2023, Council authorized the approval of grant subsidies totalling $135,885.84 to support private lane upgrades benefitting 32 different private lane associations in 2023. The purpose of this incentive program was to offer financial support to lane associations to carry out lane improvements that offered direct benefit to emergency service vehicles.

Discussion/Analysis

Over the summer of 2023, the Public Services Department worked closely with Private Lane Associations to review the completed work and associated expense reports supported through project invoices. In November of 2023, Public Services authorized the last of the subsidy requests and the program was officially closed out.

Staff are pleased to report that 29 of the 32 lane associations were able to complete their work requests and only 3 were unable to advance their projects due to financial or other considerations. Under the terms of the current policy, these grants are issued for works completed in the current year and are otherwise ineligible for carried forward by the applicants.

Total expenditures on the 2023 program were $115,815.60 which translated to a balance of $20,070.24 in uncommitted funds.

Financial Implications

The allocation for the 2023 Private Lane Upgrade Assistance Program was approved at $135,885.84 which exceeded the available budget of $130,094.62. This budgetary approval was issued by Council with the understanding that the annual program is historically underspent. Each year there are a handful of lanes that are unable to collect the required funding from participating members or the individual projects are scaled back accordingly.

As part of this year's program a total of $115,815.60 of grants were paid out to successful applicants in 2023. The resulting surplus on the program is therefore $14,279.02.

A summary of the outcomes of the 2021, 2022 and 2023 programs can be seen in the table below for reference:

Private Lane Upgrading Assistance Program (Year)	Annual Budget ($)	Actual Grants Paid Out ($)	Balance ($)
2021	$107,181.14	$91,114.44	$16,066.70
2022	$116,066.00	$85,971.38	$30,094.62
2023	$130,094.62	$115,815.60	$14,279.02

As per the policy, the remaining 2023 balance will be carried forward to 2024.

Relationship to Strategic Plans

☒ Not applicable to this report.

☐ This initiative is supported by the following priorities of the 2019-2022 Strategic Plan.

- Priority: Choose an item.
- Action Item:

Climate Considerations

☒ Not applicable to this report.

☐ This initiative supports climate change mitigation/adaption efforts in South Frontenac; and/or impacts the Township's resilience to climate change.

Notice/Consultation

- Director of Corporate Services & Treasurer
- Director of Public Services
- Operations Technologist

Approvals

Submitted By:

W. Troy Dunlop, C.E.T.
Manager of Engineering and Capital Projects

Reviewed By:

Kyle Bolton, C.E.T.
Director of Public Services

Approved By:

Louise Fragnito, CPA, CGA
Chief Administrative Officer

Township of South Frontenac
Staff Report

To:	Council
Prepared by:	Office of the Chief Administrative Officer
Date of Meeting:	December 5, 2023
Subject:	**Joint Rural Transportation Study**

Summary

This report provides for information the results of the Joint Rural Transportation Study.

Recommendation

That the report be received for information.

Background

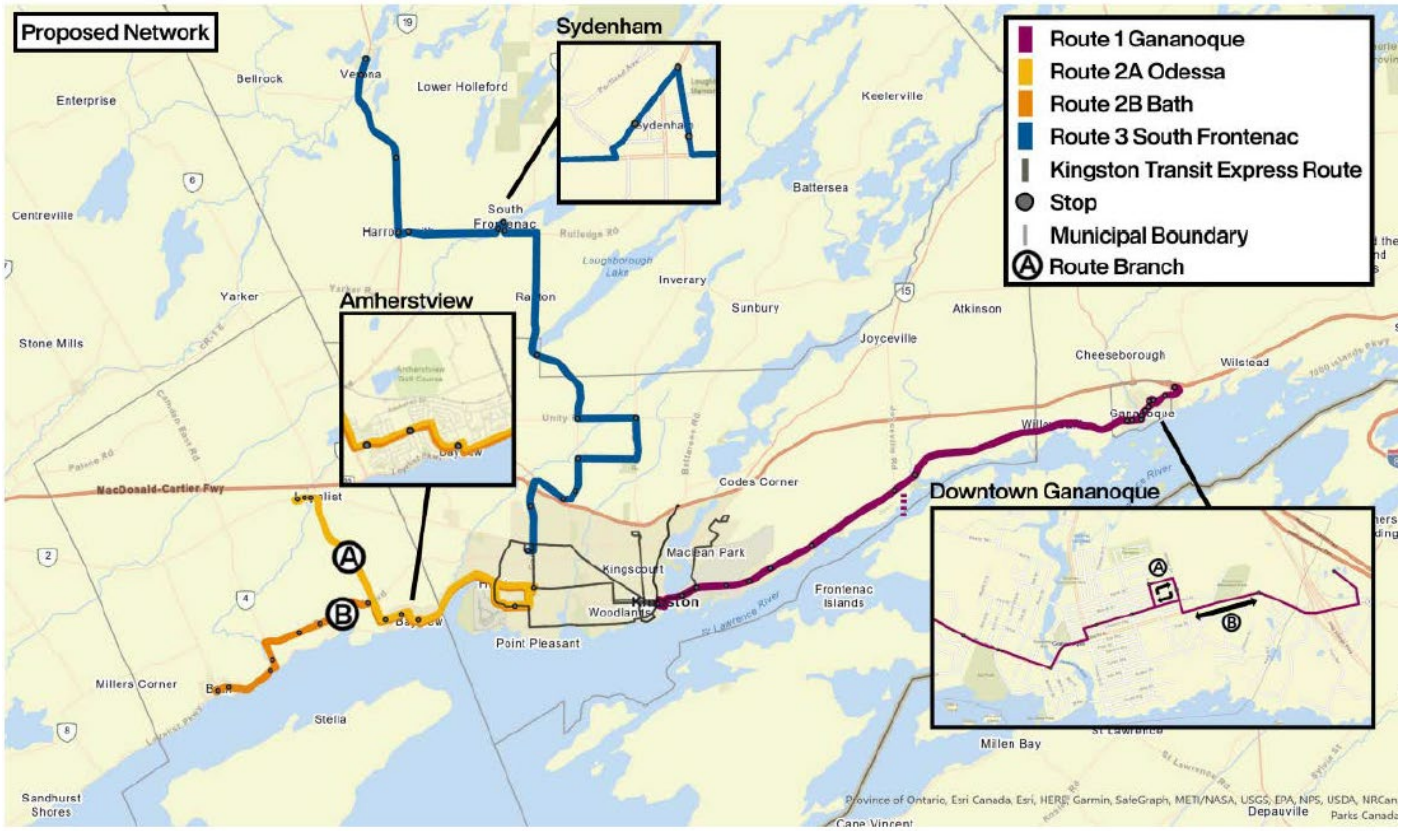
In October 2021, staff brought forward an information report summarizing a joint grant application opportunity between the City of Kingston, Gananoque and South Frontenac to undertake a rural commuter transit study/plan. The October 12th, 2021 staff repot is included as Attachment A. The City was successful in its application for funding and through it's procurement process hired Arcadis IBI Group to conduct a rural transportation needs assessment along with public stakeholder engagement as well as work with neighbouring municipalities and stakeholders to identify transportation connections, route design, schedules and financial models.

Discussion/Analysis

The study began in October 2022 and was completed in September 2023. In the early stages of the project, The Township of Loyalist also showed interest in this study and was added within the scope. The project included three consultations including two direct stakeholder consultation sessions in December 2023 and April 2023. There was also a widely distributed survey issued in early 2023 with nearly 1,750 responses across the four municipalities. Of the 1,750 responses, 33% were from South Frontenac.

Through the study, included as Attachment B, the focus of the study was to provide the best options available for a future commuter public transportation service. The study looked at a mix of options for service delivery including conventional fixed route, flexible route, on-demand transit, rideshare and taxi vouchers, specialized transit and volunteer driver networks. For North Rural Kingston and South Frontenac, the study recommends a fixed route that would connect population centres such as Verona, Harrowsmith, Sydenham to the Cataraqui Centre Transfer point. Discussion on the alternate routes and process of

selecting the recommended route can be found starting on page 44 of the study as well as under section 5 Proposed Service on page 55. The proposed route, pictured below was assessed based on running Monday to Friday from 6am to 7:15pm with an estimated 6 round trips and an annual ridership of 4,500-5,000 boardings by year 5.



With the study completed, the partners must now determine how they wish to proceed with the study's recommendations and timelines for implementation. The data in this report will also provide the ability to apply for future funding. However, in considering the proposed route shared between the City of Kingston and South Frontenac, further discussion needs to take place between the partners to gather further information, look at options for implementation and the possible cost sharing scenarios. Staff will report in 2024 with the findings of these discussions and to provide more detailed information on the available options to better inform Council in relation to any request to consider moving forward with the proposal.

Financial Implications

None.

Relationship to Strategic Plans

☐ Not applicable to this report.

☒ This initiative is supported by the following priorities of the 2019-2022 Strategic Plan.

- Priority: 4. Be a catalyst for the creation of vibrant, complete communities.

Climate Considerations

☐ Not applicable to this report.

☒ This initiative supports climate change mitigation/adaption efforts in South Frontenac; and/or impacts the Township's resilience to climate change.

A rural transportation system would reduce the number of vehicles on the road and reduce vehicle emissions.

Attachments

Attachment A – Staff Report – 2021- Joint Rural Transportation application

Attachment B – Joint Rural Transportation Study

Approvals

Approved By:

Louise Fragnito, CPA, CGA
Chief Administrative Officer

Township of South Frontenac

Staff Report

To:	Council
Prepared by:	Office of the Chief Administrative Officer
Date of Meeting:	October 12, 2021
Subject:	**Rural Transit Solutions Fund – Joint Grant Application**

Summary

This report provides Council with information about a joint grant application being submitted by the City of Kingston for funding to undertake a rural commuter transit study/plan, in partnership with the Town of Gananoque and the Township of South Frontenac. It is for information only.

Recommendation

This report is for information only.

Background

The Rural Transit Solutions Fund seeks to help Canadians living in rural and remote areas get around their communities more easily and connect with nearby communities.

People living in rural, remote, Northern and Indigenous communities often depend on private vehicles for transportation and more often than not lack access to transit options. Additionally, people without access to private vehicles or who are unable to drive are left isolated from essential services or are unable to travel with ease among their communities or nearby communities.

The Rural Transit Solutions Fund, delivered through Infrastructure Canada, is making $250 million in federal funding available over 5 years to support the development of locally-driven transit solutions that will help people living in rural communities get to work, school, appointments, and visit loved ones.

From on-demand services, to publicly-owned, ride shares, and volunteer community car-pooling, funding will help rural, remote, Northern and Indigenous communities and eligible organizations across Canada develop and offer new public transit options to their residents.

Eligible applicants can seek grants of up to $50,000 in support of project planning; up to $3 million to help cover capital costs (e.g. purchase of a vehicle or digital platforms); and up to

$5 million to support zero-emission transit solutions (e.g. for the purchase of a zero-emission vehicle(s)).

The Planning and design stream will support transit planning activities and the development of new solutions through public engagement, needs assessments, feasibility or viability studies, surveys and assessments of routes or modes of travel. These planning and design projects are important to support communities developing projects for consideration in future intake processes for capital funding and implementation.

Discussion/Analysis

The City of Kingston has been exploring opportunities to expand its public transit system north of the 401 and east of Highway 15, with the objective of addressing workforce commuter needs and reducing greenhouse gas emissions (GHG). Similarly, the Town of Gananoque recently commissioned a study by Queens University to assess opportunities to provide public transit to and from the City of Kingston for leisure, work and essential services.

While South Frontenac has not formally identified public transit as a priority, a 2020 growth study identified that 78% of the Township's working population commutes daily to the City for employment (5,800). Further, data obtained through EMSI Analyst from the Eastern Ontario Leadership Council indicated that this number represents the largest source of commuters into the City of Kingston from any of the surrounding jurisdictions including Loyalist Township, Rideau Lakes or Gananoque.

With South Frontenac's population anticipated to increase by nearly 5,000 people over the next 30 years, and considering current development pressures and the anticipation of communal servicing options that will promote higher densities, the number of commuters from South Frontenac into the City of Kingston will likely increase, as will the demand for transit for other purposes.

Further, Council will soon consider recommendations for a Climate Change Adaptation and Mitigation Strategy and related action items. Public transit may help further those eventual goals by helping to reduce vehicles on Township roads, thereby reducing GHG emissions.

For these reasons, the City of Kingston initiated discussions with Gananoque and South Frontenac about the possibility of submitting a joint application for funding to the Rural Transit Solutions Fund Planning and Design Stream, to establish a rural transit plan that would address the mutual interests of all three (3) partners.

Joint Application

The application to the Rural Transit Solutions Fund aims to explore the feasibility of bringing and operating public transit to rural areas in and around the City of Kingston, for those who commute regularly into the City for work.

The project would involve the hiring of a specialized transit consulting firm to assess the feasibility of various approaches to a rural commuter transit model in consultation with the public, business stakeholders and other community partners, and to develop business cases, costing, and implementation plans for the recommended model.

The objectives of the project would be to reduce the number of vehicles on the road, thereby reducing greenhouse GHG emissions and wear and tear on roadways, as well as to reduce congestion in areas of Kingston and to help address workforce challenges due in part to housing availability and affordability, by allowing more people within the City's broader labourshed to easily travel to and from the City.

Approaches to public transit to be reviewed include operating a fixed-route bus service along major commuter corridors, the creation of commuter parking lots, and "last-mile" ride-sharing options.

Next Steps

Approval of the grant application and development of a transit feasibly study and plan would not commit the partners to moving forward with implementation. Only once a recommended model and its costs are known would the partners be able to make decisions regarding potential implications.

Contingencies would be identified in circumstances where one or more of the partners elected not to ultimately participate.

Financial Implications

For the Planning and Design stream of the Rural Transit Solution Fund, applicants can apply for 100% of total eligible project costs up to a maximum of $50,000. The joint application has been submitted with a total project cost of $55,000 with a request for the maximum of $50,000 through the funding program. The balance of $5,000 is being funded by the three (3) municipalities (Kingston - $2,000; South Frontenac - $1,750; Gananoque - $1,750).

If the grant application is not successful and the partners wish to still proceed with the development of a rural commuter transit plan, Council approval would be sought for a larger amount to cover a portion of the unfunded cost. Depending on the timing of notification about this application, approval for additional funding may be sought during the 2022 budget process.

Relationship to Strategic Plans

☐ Not applicable to this report.

☒ This initiative is supported by the following priorities of the 2019-2022 Strategic Plan.

- Priority: **2. Promote and support growth than meets the community's needs while maintaining the integrity of our natural environment.**
- Action Item (if applicable): N/A

Notice/Consultation

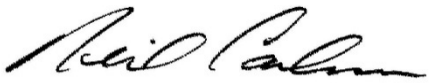
- City of Kingston – Finance and CAO office staff
- Shellee Fournier, CAO, Town of Gananoque
- Infrastructure Canada – Rural Transit Solutions Fund Team

Attachments

- None

Approvals

Submitted/Approved By:



Chief Administrative Officer

Final Report

Bringing Commuter Public Transportation to Rural Kingston, Gananoque, South Frontenac, and Loyalist

Prepared for the City of Kingston
By Arcadis
November 7, 2023

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Executive Summary

Introduction

The City of Kingston has identified rural public transportation as one of its strategic priorities, to improve access to employment and services, and facilitate rural economic development. Arcadis was retained in October 2022 to move forward with the development of a rural public transportation feasibility study and business case. The City of Kingston partnered with the neighbouring rural municipalities of the Town of Gananoque, South Frontenac Township, and Loyalist Township ("the Partners") to oversee both the study process and implementation of its recommendations upon completion. The plan developed assumes the full participation of all Partners, but there are alternative viable pathways to implementation of the service if only certain Partners wish to proceed.

Needs and Opportunities

An analysis of study needs and opportunities identified a strong case for improved rural transportation options:

- 64% of public survey respondents reported facing **barriers to accessing transportation**
- Residents aged 65 and older, who are more likely to be **unable to safely drive themselves**, are significantly more prevalent in the study area compared to the Ontario average
- The age 25-and-under demographic, which often **lacks vehicle access to get to destinations like employment or school**, makes up nearly a quarter of the study area population
- A **strong commuting pattern into Kingston** was noted, with over 80% of commuters from the Townships of South Frontenac and Loyalist working in Kingston

- It was heard in public consultation that access to Kingston for non-commuting trips is essential for **services such as healthcare and recreation**

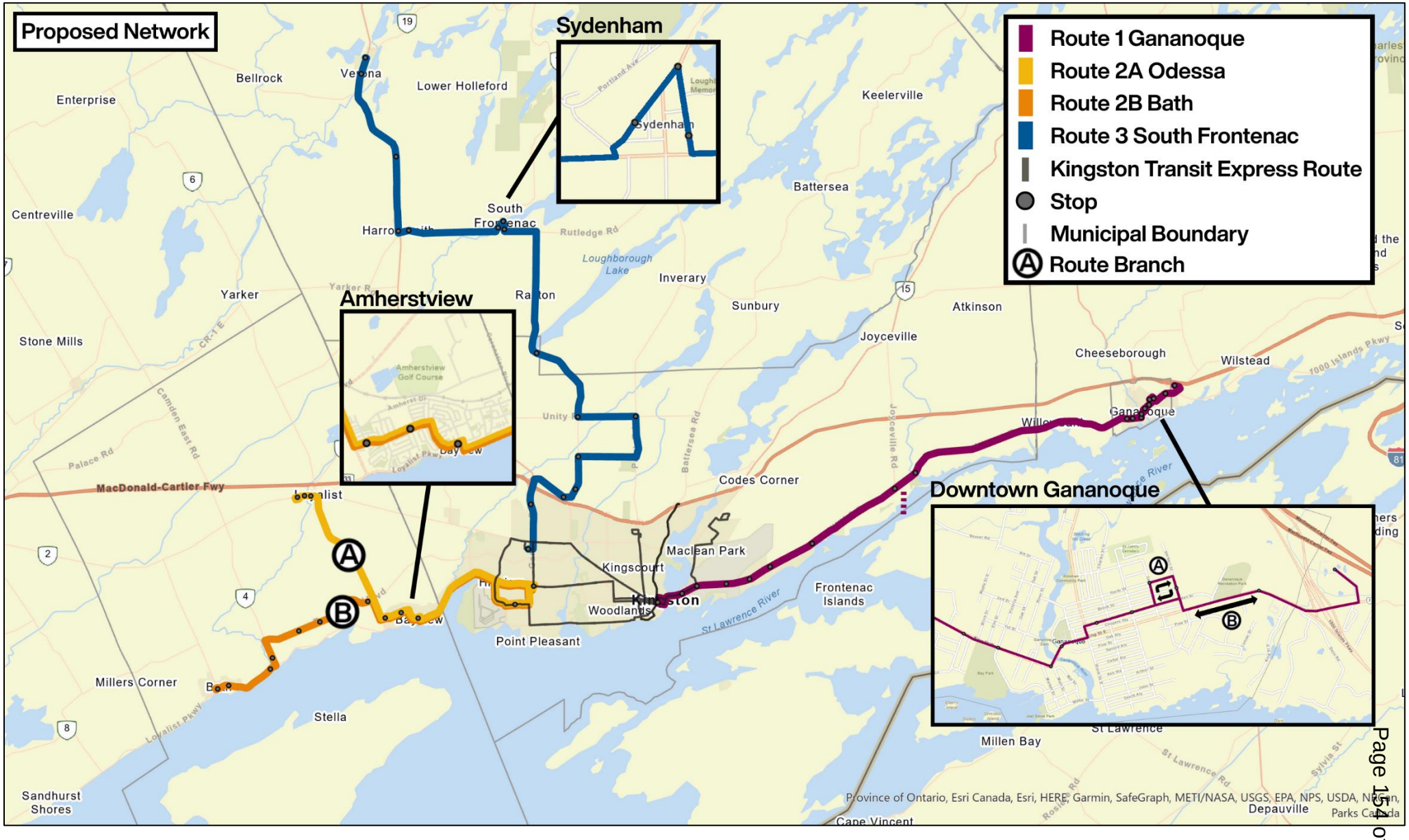
Service Design

Based on the results of the needs and opportunities work, it was determined that the study area should be divided up into three distinct service areas: **South Frontenac & North Rural Kingston, Gananoque & East Rural Kingston, and Loyalist**. Various service delivery approaches were evaluated for each service area, and **fixed routes** were ultimately recommended for the South Frontenac & North Rural Kingston, and Loyalist service areas, while a **flexible route** was recommended for the Gananoque & East Rural Kingston service area (to be able to directly connect riders with the Howe Island ferry by request). The network is seen below in Exhibit E.1. For areas not covered by the proposed routes, a **taxi voucher program** is recommended to support universal transportation access.

Initially it is envisioned that all routes would operate during the weekdays only, although it is recommended that opportunities with Shorelines Casino be explored to provide weekend and evening service on the route to restore casino shuttle service, and further conversations are held with major employers in Loyalist regarding shift timings.

The proposed fare structure would see trips within Kingston cost $3.25, trips within a municipal boundary cost $5.00, and trips between municipal boundaries cost $10.00. Monthly passes could provide per-trip discounts and encourage ridership uptake. A concession fare would provide additional discounts to youth, seniors, and low-income residents.

Exhibit E.1: Proposed Commuter Public Transportation Service Design



Business Case

A business case was prepared which outlines the "four cases" for advancing the project in accordance with provincial guidance: The Strategic Case, Economic Case, Financial Case, and Deliverability and Operations Case. The business case assumed full implementation of all routes.

The Strategic Case outlined the qualitative and policy-based impetus for implementing the project, especially to directly support major policy initiatives such as **rural economic development, workforce development, aging in place, and increased sustainable/active transportation.**

The Economic Case identified that the proposed service is projected to see an **annual ridership of 24,000 boardings** by the fifth year of operation, putting over **23,000 residents within walking distance** of daily public transportation service. The service would also **connect over 1,750 planned new jobs** over the next three years to an increased labour pool with newfound access to mobility. The public transportation service will also yield additional socioeconomic benefits such as improved health outcomes associated with increased active travel, and fewer missed healthcare appointments.

The Financial Case determined that by Year 5 of operations, the service will be generating **$178,000 of annual revenue**, with an annual **net municipal contribution of $653,000**. This includes the introduction of provincial Gas Tax funding which provides up to 75 cents per $1.00 of net municipal investment. The net contribution equates **to an annual per-capita contribution of less than $4**. The Financial Case summary is provided in Exhibit E.2.

The Deliverability and Operations Case included considerations for service implementation, funding, marketing, and monitoring. Lastly, considerations for future service enhancements such as service expansion, fare integration, Park & Rides, and zero-emission buses were discussed.

Exhibit E.2: Proposed Commuter Public Transportation Service Financial Case

Item	Plan Year				
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Revenue Hours	9,500	9,500	9,500	9,500	9,500
Annual Ridership	12,000	17,000	24,000	24,000	24,000
Revenue					
Fare Revenue	$83,000	$127,000	$171,000	$172,000	$174,000
Advertising Revenue	$5,000	$5,000	$5,000	$5,000	$5,000
Total Revenues	**$88,000**	**$132,000**	**$176,000**	**$177,000**	**$179,000**
Capital and Operating Costs					
Operating Contract	$889,000	$906,000	$924,000	$942,000	$961,000
Marketing and Communications	$20,000	$10,000	$10,000	$10,000	$10,000
Dedicated Transit Coordinator (0.5 FTE)	$42,000	$43,000	$43,000	$44,000	$45,000
Taxi Voucher Program	$13,000	$19,000	$25,000	$25,000	$25,000
Parallel Specialized Transit Contract	$13,000	$19,000	$25,000	$25,000	$25,000
Total Expenses	**$977,000**	**$997,000**	**$1,027,000**	**$1,046,000**	**$1,066,000**
Cost Recovery Ratio	0.09	0.13	0.17	0.17	0.17
Gas Tax Funding[1]	$219,000	$224,000	$228,000	$231,000	$233,000
Net Municipal Investment	**$670,000**	**$641,000**	**$624,000**	**$638,000**	**$653,000**
Net Investment Per Capita	$3.80	$3.60	$3.47	$3.51	$3.55

1. Available in year one with a pro-rated contribution; amount to be confirmed

1 Introduction

The City of Kingston has identified rural public transportation as one of its strategic priorities, to improve access to employment and services, and facilitate rural economic development. To move forward with the development of a rural public transportation feasibility study and business case, Arcadis was retained in October 2022. The City of Kingston partnered with the neighbouring rural municipalities of the Town of Gananoque, South Frontenac Township, and Loyalist Township ("the Partners") to oversee both the study process and implementation of its recommendations upon completion.

The purpose of this study is to explore the feasibility of new commuter public transportation services connecting central Kingston with its outlying rural areas and Partners and prepare a business case which outlines the benefits and costs of the proposed system. The plan developed assumes the full participation of all Partners, but there are alternative viable pathways to implementation of the service if only certain Partners wish to proceed.

1.1 Background

The City of Kingston has operated public transit since 1962, but rural transit service has not been a priority due to financial constraints and lower ridership potential than in urban areas. Several major shifts in the Kingston area have prompted the Partners to re-visit the feasibility of commuter public transportation:

- **Emerging population growth:** The City of Kingston and its outlying areas have seen new residents arriving in record numbers, in part due to job growth and the availability of relatively affordable housing.
- **Rural economic development and access to employment:** Rural areas such as Loyalist Township have been successful in attracting major employers, such as Umicore, which will bring hundreds of new jobs to

areas unserved by transit. At the same time, a labour shortage is projected within Kingston for industries such as manufacturing, construction, accommodations and food services, and there is a stronger push to leverage the labour pool of existing rural residents.

- **Environmental leadership:** As the first Ontario municipality to declare a Climate Emergency in 2019, Kingston has been an environmental leader. The provision of commuter public transportation service has the potential to reduce automobile-related greenhouse gas emissions and traffic congestion, and help the City meet local and federal climate change targets.
- **Accessibility and social equity:** A greater focus on accessibility and social equity has prompted a fresh look at commuter public transportation service as a way of benefitting equity-deserving populations such as seniors, new immigrants, and low-income residents, who may have limited or no vehicle access. A notably older population lives in Kingston's rural areas, with a median age of 49.5 years compared to 41.3 years in the urban areas.
- **Seasonal tourism opportunities:** Kingston and Gananoque are both popular summer tourism destinations, bringing with them seasonal workers and tourists. Commuter public transportation can be one method of boosting the seasonal tourism economy, by providing sustainable transportation to both tourists and seasonal workers.

1.2 Objectives

The primary objective of this study is to provide a resource and roadmap for effective decision-making regarding future commuter public transportation services to be established by the Partners. To meet this objective, the report includes the following:

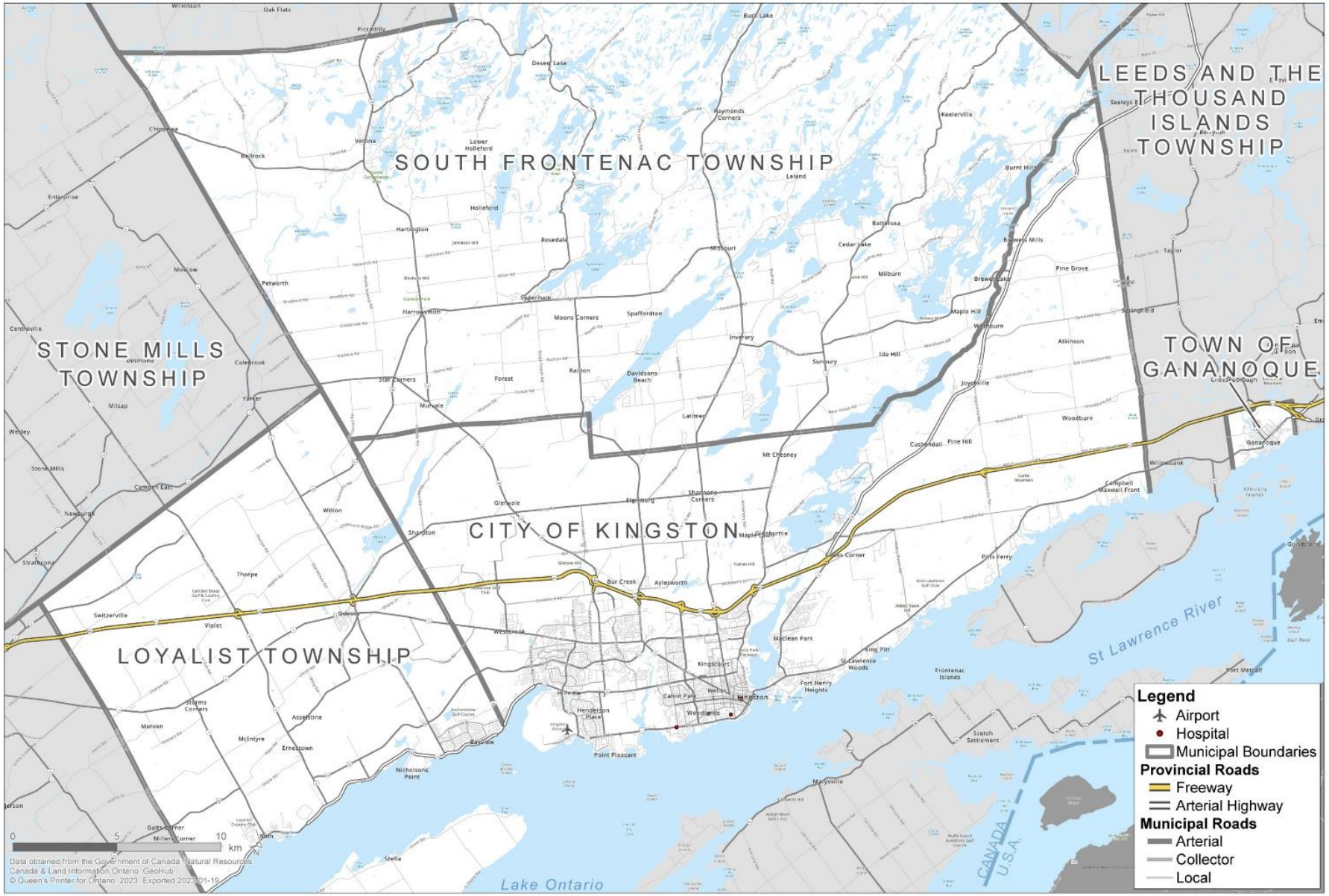
- Establishment of the need for commuter public transportation via an assessment of needs and opportunities;
- A plan to initiate future rural commuter public transportation services;

- Business case analysis that outlines the benefits and costs of providing new commuter public transportation services; and
- Recommendations, presented as a clear schedule of actions, for the Partners to take towards implementation.

1.3 Study Area

The study area for this project consists of the City of Kingston (with a particular focus on the rural Countryside District as well as portions of Pittsburgh District, Loyalist-Cataraqui District and Collins-Bayridge District), the Town of Gananoque, South Frontenac Township, and Loyalist Township. This can be seen in Exhibit 1.1 below.

Exhibit 1.1: Study Area



2 Needs and Opportunities Analysis

This section identifies the current and future need for new commuter public transportation services in the Kingston area, and opportunities to be able to facilitate the implementation of these services. The assessment includes:

- **An outline of the study policy context** that will guide service provision in the study area;
- **A demographic analysis** across each municipality to understand the potential market for commuter public transportation;
- **A review of existing and past transit services** in the study area to understand transit service gaps and identify challenges and opportunities for service provision;
- **An analysis of existing travel patterns** and key connection points to inform service design and integration;
- **A peer review** of transit systems in operating environments similar to the study area to understand service performance and productivity; and
- **Identification of future opportunities** for commuter public transportation service within the study area.

2.1 Policy Context

A review of local policies and initiatives was conducted to understand the context for commuter public transportation service provision. The purpose of this review is to align the potential service with local strategic priorities and build on previous studies and plans rather than duplicate them.

The following policies, plans, and reports were reviewed:

- 2019-2022 Kingston Strategic Plan

- 2023-2026 Kingston Strategic Priorities Implementation Plan
- Kingston Integrated Economic Development Strategy
- Rural Kingston Economic Development Strategy
- Kingston Transit 2017-2021 Business Plan
- Kingston Climate Leadership Plan
- Gananoque Transit Feasibility Study
- Gananoque Age-Friendly Action Plan 2022-2031
- Loyalist Township 2019-2023 Strategic Plan
- Loyalist Township "Improving Public Transit" Staff Report
- ResiLienT Loyalist Township Climate Action Plan
- South Frontenac 2040 Policy Directions
- Eastern Ontario Leadership Council Commuter Strategy and Call for Expressions of Interest
- Canada 2030 Emission Reduction Plan

The analysis of existing policy context was used to inform the business case. Section 6.1 contains descriptions of relevant policies and how they support the implementation of commuter public transportation services.

2.1.1 Key Findings

Key findings from these policies and initiatives include:

- Strong local interest in public transportation as a means of facilitating economic development in rural areas
- Groundwork has already been laid to develop inter-community transit services in the study area
- Regional support for commuter public transportation service to connect rural residents with job opportunities, and active initiatives to fund service pilots

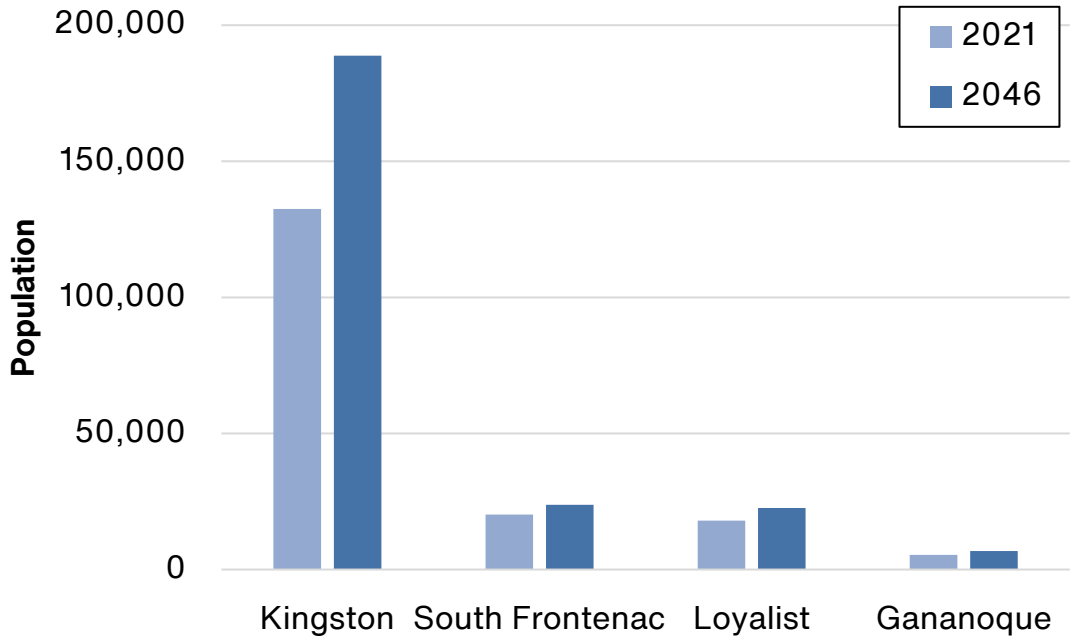
2.2 Demographic Analysis

As of 2021, Census data indicates that the total population of the partner municipalities is 176,000 residents. According to individual municipal projections, this number is expected to grow 35% by 2046, to approximately 242,000 residents.

2.2.1 Population Growth by Municipality

Significant population growth is being projected for the next 25 years for each municipality. The fastest-growing municipality by percentage is Kingston, at 43% population growth by 2046, followed by Gananoque (27%), Loyalist (26%) and South Frontenac (18%). The actual population for 2021 and 2046 projections are shown below in Exhibit 2.1.

Exhibit 2.1: Population 2021 Actuals and 2046 Projections by Municipality



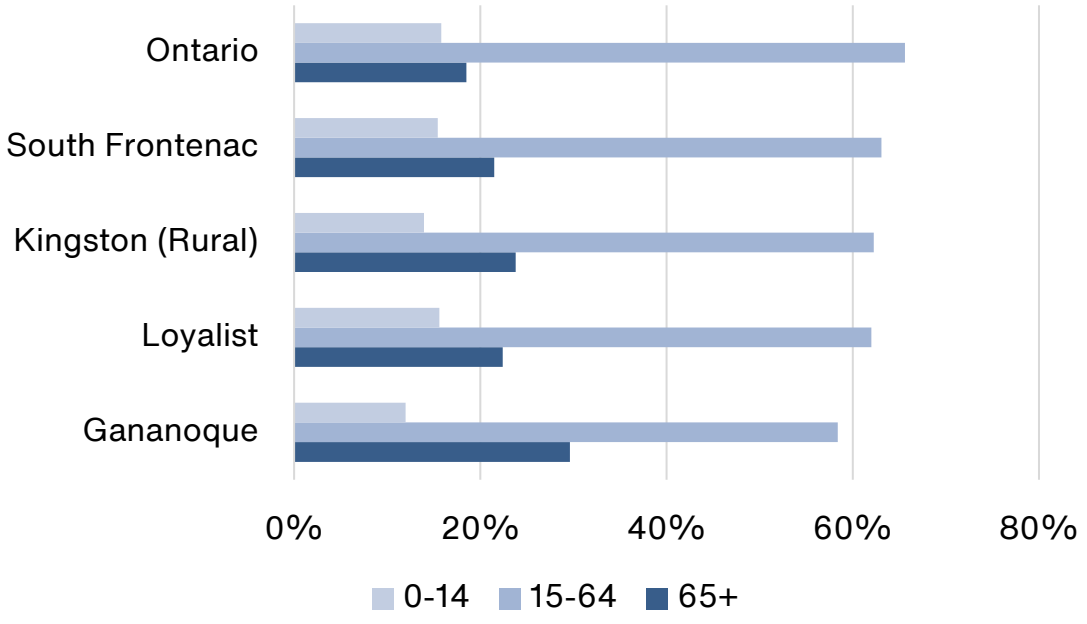
Source: Statistics Canada 2021 Census of Population, City of Kingston Population, Housing, and Employment Forecast Study (2023), South Frontenac Township Growth Analysis Study 2016-2046 (2020), Loyalist Township Population, Housing and Employment Projections to 2046 (2019), Gananoque Development Charges Background Study (2020)

In light of record population growth, the City of Kingston is updating its population growth projections, but the final results of this study will not be available until 2024. As a preliminary projection, work to date has indicated that the Kingston Census Metropolitan Area (CMA) will have a growth rate of approximately 43% between 2021 and 2051. Likewise, population projections for each municipality were developed prior to the impacts of the COVID-19 pandemic, and actual population growth since has generally outpaced projections for 2021. It is therefore possible that actual population growth in the study areas could continue to exceed expectations and outpace projections.

2.2.2 Age Segmentation by Municipality

The demographic composition of the municipalities in the study area was examined against the provincial average, as shown in Exhibit 2.2. All municipalities have larger shares of seniors (65+), and smaller shares of residents aged 64 and under. Within the study area, Gananoque has the oldest average population, with 30% of their population over age 65. South Frontenac has the youngest average population within the study area, although it is still below provincial averages.

Exhibit 2.2: Population Age Segmentation by Municipality (2021)



Source: Statistics Canada 2021 Census of Population

2.2.3 Social Equity

In the context of commuter public transportation , the aim of a review of social equity is to investigate where equity-deserving population (such as low-income residents, seniors, visible minorities, etc.) reside, and determine how their access to transportation compares to the wider community. As a commuter service, it is essential to understand which populations may be more likely to use commuter public transportation, and where they are located. For example, ensuring that future services connect disadvantaged neighbourhoods to new employment opportunities.

The social equity factors selected for analysis were the following:

- Youth: Residents aged 0-14
- Seniors: Residents aged 65+
- Single-Parent Households: Households with one parent
- Low-Income: Residents with an after-tax income before the federal After-Tax Low-Income Cut-Off (LICO-AT)
- Unemployment Rate: Residents in the labour force who are not currently employed
- CERB Recipients: Residents who received federal COVID-19 income supplements
- Visible Minorities: Residents who are non-Caucasian
- Recent Immigrants: Residents who immigrated to Canada between 2016-2021

Exhibit 2.3 below compares the rates of these factors for each municipality against provincial averages. Generally, municipalities in the study area were below the provincial average for most social equity factors. This can be explained by the tendency for equity-deserving groups to settle in larger urban areas with a greater concentration social services and cultural communities. Despite this, all communities in the study area had a higher prevalence of seniors than the rest of the province, and Loyalist had an equal share of youth (as described in Section 2.2.2).

Comparing municipalities within the study area, Gananoque exhibits the highest prevalence of social equity factors, in all categories except for youth and visible minorities. Loyalist had the highest share of visible minorities and youth within the study area.

Exhibit 2.3: Prevalence of Equity/Socioeconomic Factors by Municipality

	Rural Kingston	South Frontenac	Loyalist	Gananoque	Ontario
Youth (0-14)	14%	15%	16%	12%	**16%**
Seniors (65+)	24%	22%	22%	30%	**19%**
Single-Parent Households	10%	10%	16%	20%	**17%**
Low-Income[1]	2%	2%	2%	3%	**5%**
Unemployment Rate	11%	9%	10%	12%	**12%**
CERB Recipients	16%	17%	17%	23%	**28%**
Visible Minorities	3%	2%	4%	3%	**34%**
Recent Immigrants	0%	0%	0%	1%	**4%**

	Higher prevalence than the Ontario average

	Higher prevalence than the study area average

Source: Statistics Canada 2021 Census of Population, rounded to zero decimal places

2.2.4 Key Findings

The study area is comprised of four municipality with their own unique demographics and needs.

- Tens of thousands of new residents are expected to live in the study area by 2046, with the fastest percentage-basis growth occurring in Gananoque

[1] The low-income statistics collected in the 2021 Census were affected by COVID-19 income supplements, and low-income prevalence in typical years was generally observed to be several percentage points higher than 2021.

- The study area has a population which is generally older than the provincial average, although South Frontenac has the youngest average age of the Partners
- Gananoque has the highest observed equity need, particularly with respect to the needs of the unemployed, low-income residents, single-parent households, and seniors

2.3 Existing Service Review

There are several existing and past public transportation services offered in the study area, although coverage is minimal in rural areas.

- **Kingston Transit:** Route 10 operates between Amherstview and the Cataraqui Centre mall hourly, between 6:30am-11:00pm. Accessible transit is provided via a contract with an accessible taxi provider. In the past, a limited-service Dial-a-Bus route was operated to Glenburnie and Elginburg, although this has since been discontinued due to low demand.
- **Kingston Access Bus:** Accessible transit is provided throughout all of Kingston, including rural areas. The service requires pre-booking a trip in advance, and provides door-to-door service between 6:00am-12:00am Monday to Saturday and 8:00am-9:00pm on Sunday.
- **Shorelines Casino Shuttle:** The casino ran a free shuttle prior to COVID-19 which connected downtown Kingston to the casino in Gananoque.
- **Volunteer-operated community transportation:** Various non-profit organizations provide community transportation services to those who are unable to access transportation otherwise. Current organizations providing these services include Gananoque Wheels of Care, Frontenac Transportation Services, South Frontenac Community Services, and Victorian Order of Nurses.
- **Taxis and ride-hailing services:** For-profit taxi companies operate in most of the study area, with the exception of South Frontenac.

The City of Kingston and Loyalist Township jointly run the Kingston Area Taxi Commission to manage taxi licensing, while the Town of Gananoque licenses taxis independently. Operators are permitted to travel outside their licensed areas to drop off passengers. Conventional taxi services include Amey's Taxi, Modern City Taxi, and TI Taxi. Major ride-hailing services (i.e., Uber) are available in Kingston only.

2.3.1 Urban Transit Services

Kingston Transit provides urban transit services throughout the City of Kingston, and Amherstview within Loyalist Township. Beyond local city routes, Kingston Transit also operates a network of Express Routes that operate at weekday peak headways of 15-minutes or better[2].

The Express Route network connects major transfer points such as the Downtown Transfer Point, Cataraqui Centre, Kingston Centre, Gardiners Centre, and King's Crossing Centre. A future commuter public transportation service could greatly improve its connectivity within Kingston by leveraging these transfer points, including ratification of a transfer agreement between Kingston Transit and the commuter public transportation service.

2.3.2 Key Findings

Although only one fixed route service is offered in the study area, there are a number of community transportation and specialized transit services in the study area. These services provide a basic level of service which supports the needs of many current residents who face the most challenges with transportation access, particularly those with mobility challenges. However, not all needs are met by existing services, and a significant transportation gap is noted for able-bodied residents who may lack access to a personal vehicle or prefer to take transit for environmental or convenience reasons. Kingston Transit is well-positioned to transport rural residents within Kingston via its Express Route network and numerous transfer points.

[2] These service levels have been impacted temporarily by COVID-19 related labour shortages and decreased demand

2.4 Travel Pattern Analysis

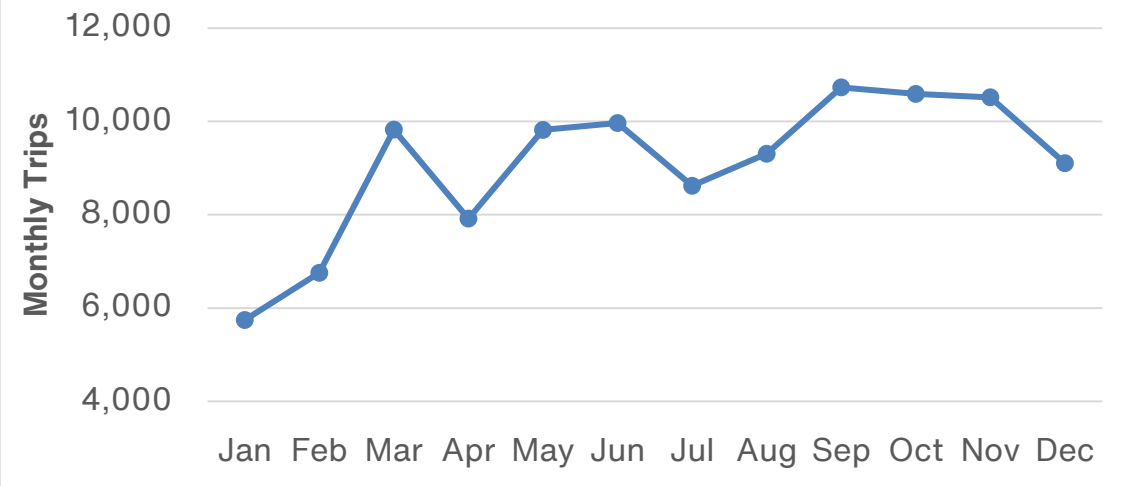
To develop commuter public transportation services that meet the needs of residents, existing travel patterns can reveal where demand exists and not currently met. A successful commuter public transportation service fills gaps in existing networks and supplies convenient transportation options to where people need to go.

2.4.1 Transit Service Review

The only transit route operating in the study area is the Kingston Transit Route 10 to Amherstview. Route 10 served 109,000 riders in 2022, with a peak monthly ridership of 10,700 riders in September 2022. Exhibit 2.4 shows the monthly ridership of Route 10.

Kingston Transit data shows that Route 10's on-time performance is significantly below service standards. This is due to delays related to traffic congestion, tight schedules, and road-rail at-grade crossings.

Exhibit 2.4: Kingston Transit Route 10 Monthly Ridership (2022)



Source: Kingston Transit ridership data

2.4.2 'Journey to Work' Census Data Analysis

To determine travel patterns between study area municipalities, the 2016 Census 'Journey to Work' commuting dataset was utilized.[3] The dataset

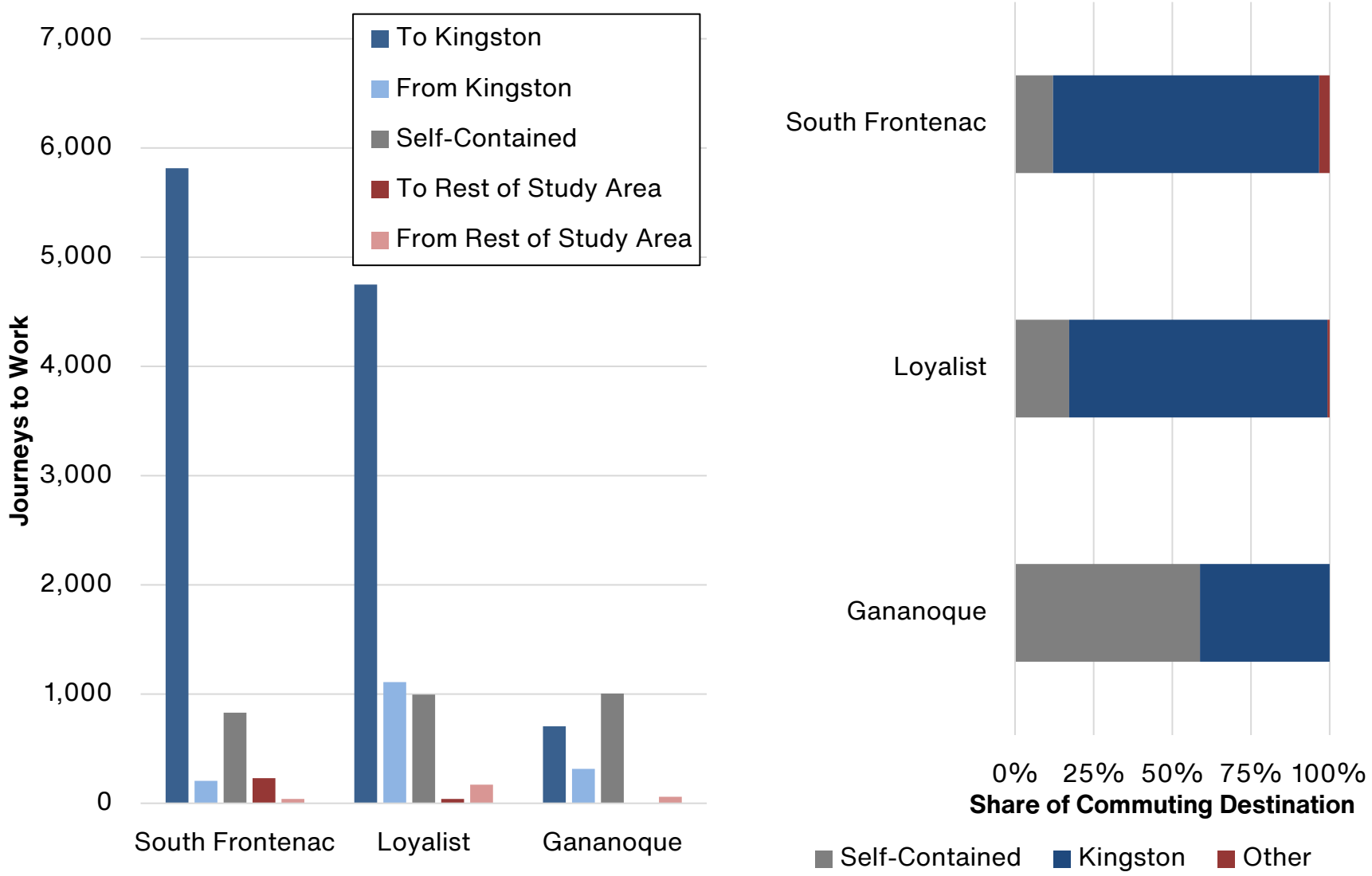
[3] 2016 data was used as COVID-19 had significant impacts on commuting and travel patterns within the 2021 Census.

indicates each census respondent's commuting origin and destination to establish how many trips are made within and between municipalities.

Exhibit 2.5 outlines the travel patterns observed from the commuting data. South Frontenac has the largest volume (5,800 respondents) and share of travel (85%) to Kingston, but minimal 'reverse commuting' in the other direction. Loyalist has a similar level of commuting towards Kingston (4,800 respondents), but also has notable levels of reverse commuting into Loyalist from Kingston (1,100 respondents). Gananoque has the highest levels of self-contained travel (1,000 respondents, 59% share), with fewer respondents reporting commuting to or from Kingston.

It should be noted that this dataset is limited only to work-related trips, and therefore does not account for travel demand related to access to healthcare, recreation, services, or tourism.

Exhibit 2.5: Study Area Travel Pattern Analysis



Source: Statistics Canada 2021 Census of Population

2.4.3 Trip Generators

Identifying major generators of travel can help indicate where a future commuter public transportation service would be most beneficial – while most major destinations are located within central Kingston, the remainder of the study area has significant employment, tourism, and educational clusters.

Within central Kingston, major trip generators include:

- **Hospitals**: Kingston General Hospital, Hotel Dieu, Providence Care
- **Education**: Queen's University, St. Lawrence College, Royal Military College of Canada
- **Canadian Forces Base Kingston**
- **Industry:** INVISTA, industrial parks in the northern areas of the city
- **Transportation:** Kingston VIA Rail station, Kingston Bus Terminal
- **Retail:** Cataraqui Centre, Kingston Centre, King's Crossing Centre

Within the remainder of the study area, the following rural trip generators are significant regional destinations:

- **Employment:** Industrial parks in Millhaven, Cardinal Health in Gananoque, Joyceville and Millhaven institutions
- **Grocery Stores**: Located in Gananoque, Bath, Sydenham, Verona, and Glenburnie
- **Recreation and Tourism:** Cataraqui Trail, K&P Rail Trail, Shorelines Casino and 1000 Islands cruises in Gananoque
- **Education:** Sydenham High School, Ernestown Secondary School

2.4.4 Key Findings

The travel pattern analysis paints a clear picture of where travel demand exists in the study area:

- Strong commuting into Kingston from South Frontenac and Loyalist, with some reverse demand into Loyalist from Kingston
- Travel from Gananoque into Kingston for work, healthcare, and recreation, and seasonal reverse demand into Gananoque for tourism
- Dense clusters of trip generators in central Kingston, and distributed employment, educational, and recreational services located in population centres within the study area

2.5 Peer Service Review

An analysis of existing Canadian Urban Transit Association (CUTA) and Ministry of Transportation (MTO) data was undertaken to understand the potential performance of a new commuter public transportation service. The selected commuter public transportation services serve communities that have similar size, demographics, character, and/or population density as the study area.[4]

The services reviewed from the CUTA/MTO Fact Book dataset include:

- **Central Hastings Transit**: An inter-municipal transit service, connecting Marmora to Central Hastings and Belleville. The service is fixed-route with certain stops only made by request, and utilizes an accessible fleet. Service is provided Monday-Friday.
- **Deseronto Transit**: An accessible inter-municipal fixed-route service connecting Deseronto to Napanee, Belleville, Tyendinaga Territory and Prince Edward County. Some trips operate early in the morning or late in the evening.
- **Ride Norfolk**: A transit service operating daily in Simcoe and Brantford, and connecting other communities within Norfolk County to Simcoe on alternating days. The service is entirely fixed-route and the fleet is fully accessible.

[4] CUTA data is sourced from the 2019 CUTA and MTO Fact Books to reflect pre-COVID operational conditions

- **Simcoe County LINX**: A regional transit service connecting communities within Simcoe County. Service is provided Monday-Friday on all routes. Fares are variable and based on the distance travelled by customers. Customers can connect to GO Transit at Barrie and Bradford. LINX does not provide local transit service in larger cities of Simcoe County, as they have their own municipal systems. LINX+ provides door-to-door paratransit service for customers who cannot use the fixed-route service.
- **Quinte Transit**: A transit service providing connections within Picton, as well as to Trenton and Belleville. An on-demand route also provides additional service coverage within Prince Edward County. The service operates Monday-Friday using an accessible fleet, with the County fixed route running four round trips per day.

These services were compared to the project study area below in Exhibit 2.7. Overall, the services provide inter-community rural transit service with fixed routes, often including 'flex stops' (where the bus will deviate slightly from its route on request), and 'flag stops' (where the bus will make an unscheduled stop between fixed stops on request).

In addition, the following peer transit services have been established recently and have not yet reported data to CUTA/MTO, but were included for qualitative consideration:

- **Guelph to Owen Sound Transportation (GOST)**: A fixed-route service which provides two round trips, seven days a week, connecting Guelph to Owen Sound. The bus stops at numerous rural municipalities along its route, and services the route using a fully accessible vehicle. A zoned fare structure is used, with a $20 fare charged for the full route.
- **Grey Transit Route (GTR)**: An inter-municipal transit service which provides regional connections in Grey County, Bruce County, and Dufferin County. Owen Sound acts as a hub, with routes towards Orangeville, Blue Mountains, and Wiarton. Trips are booked in advance to ensure the rider is picked up at the stop, and a flat fare is charged for all trips. All buses are equipped with bicycle racks to facilitate inter-modal trips.

- **PR Transpo (Prescott and Russell)**: An on-demand transit service which uses smartphone-based booking to dynamically route vehicles throughout the service area. Two accessible buses operate from Monday-Saturday. Fares are charged by distance to ensure the municipality can operate longer trips in a financially sustainable manner.[5]

These peer transit services (GOST, GTR and PR Transpo) are funded by the provincial Community Transportation Grant program until 2025, which subsidizes up to 100% of operational costs. Their performance and characteristics are described in Exhibit 2.6.

Exhibit 2.6: Non-Fact Book Peer Review

System	Service Type	Service Area and Population	Service Span	Fare	Annual Ridership
GOST	Fixed route	Guelph, Wellington County, Grey County Est. 85,000 residents	Mon-Sun	$5.00-$20.00 fare zones	5,000
GTR	Fixed route	Grey County, Bruce County Est. 101,000 residents	Mon-Sun	$5.00 flat fare	9,500
PR Transpo	On demand	Prescott and Russell United Counties Est. 96,000 residents	Mon-Sat	Min. $5.00 fare by distance (per-km)	6,100

While the peer transit services described in both tables above serve a diverse mix of travel needs, they are generally geared towards residents with limited vehicle access or mobility challenges and serve long-distance regional travel markets. For these rider groups, affordability of the service is a key consideration which may be reflected in ridership uptake of the service.

[5] PR Transpo is temporarily suspended as a result of labour shortages and slow ridership uptake

Exhibit 2.7: Fact Book Peer Review[6]

System	Description	Service Area and Population	Annual Revenue Hours	Service Span	Average Fare	Annual Ridership (Linked Trips)	Annual Rides Per Capita
Central Hastings Transit	2 routes, 2 buses, fixed and flex stops	2,294 km^2 21,731 residents	5,530	Weekdays: 7:00-19:00	$6.77	5,036	0.25
Deseronto Transit	2 routes, 4 buses, fixed-route/on-demand service	1,898 km^2 48,725 residents	6,930	Weekdays: 05:00-23:59 Weekends: 05:00-17:00	$9.07	10,799	0.22
Ride Norfolk	3 buses, fixed routes which alternate days	1,648 km^2 31,000 residents	4,759	Weekdays: 07:45-18:30	$3.83	10,698	0.35
Simcoe County LINX	5 routes, 16 buses, fixed-route service	4,841 km^2 158,377 residents	26,127	Weekdays: 05:30-21:00	$1.17 [7]	91,140	0.58
Quinte Transit (2021)[8]	4 routes, 5 buses, fixed-route/on-demand service	50 km^2 25,704 residents	3,521	Weekdays: 06:30-18:30	$7.22	2,258	0.3
For comparison, the project study area comprises of 52,000 residents over 1,445 km^2**.**							

Source: Canadian Urban Transit Association, Ontario Urban Transit Fact Book (2019), Statistics Canada 2021 Census of Population

[6] Data is provided directly by the transit systems and is not able to be independently verified.

[7] In 2019, Simcoe County LINX begun operating new routes and offered a period of fare-free operation. These factors may have affected average fare calculations.

[8] County service was not initiated until 2021, so the 2021 Fact Book data was used for this system

2.5.1 Key Findings

The key findings of the peer review include:

- Inter-community systems have **focused operating hours** when compared to urban transit systems, which are more likely to operate all day, every day. Services which provide consistent daily service tend to see higher ridership, while services which maximize coverage such as Quinte Transit see lower ridership as a result.
- The performance of **on-demand services** is comparable to, or less than that of fixed-route in the rural context. Municipalities operating on-demand services (i.e. PR Transpo) have reported that the main constraint on ridership has been supplying drivers and vehicles to meet peaks in trip demand. Along corridors of higher travel demand, fixed-route services deliver a more scalable service, as seen by Grey Transit Route.
- The operations of peer systems are most commonly **contracted** to third party operators. Contracted operations can be a way of minimizing costs through competitive bids. This may also allow municipalities that do not have transit operations experience to lean on the expertise of companies that are accustomed to running a transit system.
- Many peer systems use **flat** or **zone-based fare structures**. Flat fares are viewed as more equitable, as they provide long-distance travel at more affordable costs, while zone-based fares can be a way to offset the high operating cost of long distances in commuter public transportation systems from the farebox. GOST is a good example of this, with trips to nearby stops costing one-quarter the fare of the full route distance.

2.6 Stakeholder and Public Engagement – Phase 1

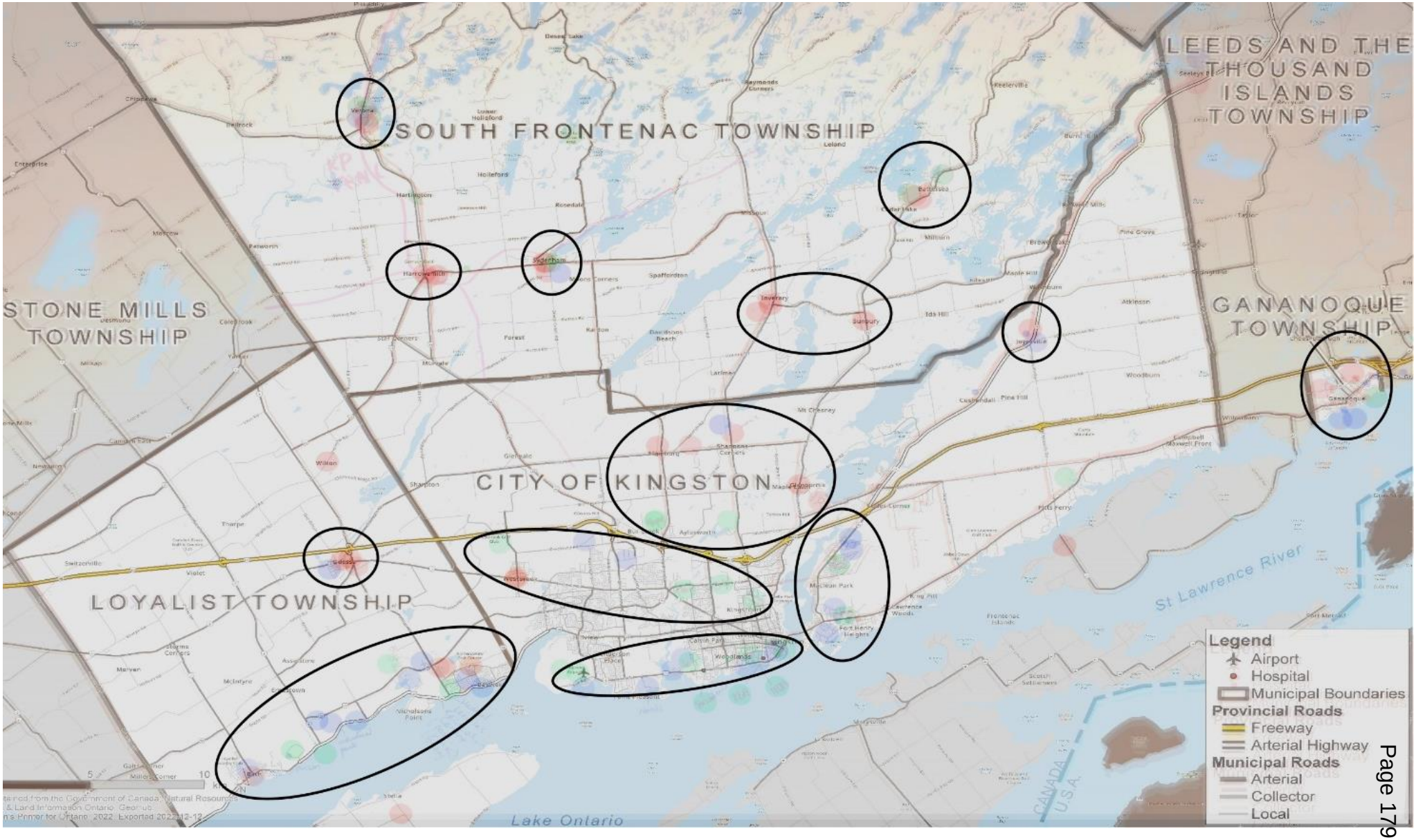
To develop an understanding of commuter public transportation service needs and priorities directly from local residents and stakeholders, engagement activities were conducted. For this study, public and stakeholder engagement was organized in two phases, with the first phase occurring in December 2022-February 2023. A full summary of the feedback received is detailed in Appendix A.

Phase 1 engagement focused on identifying needs and opportunities, including current travel patterns, reasons for travel, and how commuter public transportation could be implemented most effectively. With respect to the public, this was facilitated through a public opinion survey, which received nearly 1,750 responses.

In addition, Arcadis staff travelled to Kingston to conduct in-person stakeholder engagement sessions held at the INVISTA Centre on December 13th, 2022. A total of 30 stakeholders attended, representing local government, major employers, healthcare providers, post-secondary institutions, and social services. Targeted input into how to best tailor commuter public transportation service to the needs of stakeholder clients, constituents, and employees was solicited. This includes a mapping exercise shown in Exhibit 2.8, which identified hotspots of residential areas, employment, or other major destinations.

Feedback from both the public and stakeholder engagement activities was critical to informing the development of the service concepts and delivery options.

Exhibit 2.8: Stakeholder Engagement Activity, Overlay of Travel Demand 'Hotspots'



2.6.1 Engagement Key Takeaways

Key findings of the public and stakeholder engagement include:

- A future commuter public transportation service should facilitate not only trips into Kingston from rural areas, but also "reverse commuting" trips to help major employers in rural areas expand their labour pool to Kingston and facilitate rural economic development.
- Ensure connectivity for seniors and youth to access Kingston for non-work-related travel, such as access to healthcare, social services, places of worship, recreation, and entertainment. A particular trend noted in stakeholder workshops was the tendency for post-secondary international students to seek out affordable housing in rural areas and commute long distances to classes.
- In light of limited parking availability in downtown Kingston, commuter public transportation services should be directed to park & rides and urban transit transfer points to develop an efficient multi-modal transportation network.
- Explore partnerships with community transportation services to connect riders from the bus stop to their final destinations (first/last-kilometre). This has the added benefit of improving the efficiency of community transportation services, allowing them to provide more daily trips.

2.7 Summary of Needs and Opportunities

The preceding sections provide context for the needs and opportunities associated with the provision of new commuter public transportation services. They can be summarized as follows:

2.7.1 Needs

- **Gaps in existing transportation system:** Current transportation offerings are focused on providing lifeline connections for those with mobility challenges. Access to reliable, everyday transportation is still a major barrier for low-income residents, seniors, and youth. This was noted as a particular challenge in Gananoque, which was determined to have a larger equity need that the other study Partners.
- **Addressing labour shortages:** Employers have indicated a significant need to provide connections between the labour force and growing employment areas. Hundreds of new jobs are expected by 2025, while existing manufacturers report ongoing issues with filling open positions. Improved rural transportation would also advance rural economic development goals.
- **A changing population:** Residents aged 65+ are more prevalent in the study area compared to provincial averages, while many of these residents will continue to drive into old age, they represent a potential market for public transportation. In addition, the under-25 demographic will continue to make up a large share of the population, and often lack vehicle access to get to destinations like employment or school.
- **Responding to local travel patterns:** Over 80% of commuters in Loyalist and South Frontenac work in Kingston. Meanwhile, Gananoque sees over 40% of commuter travel to Kingston and high travel demand for non-work trips. These travel patterns are not currently met with existing transit services.

2.7.2 Opportunities

- **Supportive policy framework:** The City of Kingston as well as its regional partners (Eastern Ontario Leadership Council) recognize the benefits of commuter public transportation service in supporting strategic initiatives such as rural economic development, aging in place, and active transportation. In addition, the Partners have previously explored the feasibility of commuter public transportation and have signalled interest in facilitating it.
- **Tapping into the local transit network:** Kingston Transit operates a frequent Express Route network which connects major hubs in the city. A commuter public transportation service could improve its connectivity and efficiency by integrating into the network, allowing riders to easily reach destinations across Kingston.
- **Building on the success of other rural systems:** The aforementioned interest in rural public transportation has resulted in a growing number of commuter public transportation service offerings, including Quinte Transit that operates in Prince Edward County and Prescott and Russell's PR Transpo service. These systems present valuable case studies for the potential deployment of commuter public transportation in the study area to inform the development of financial projections, marketing and communications, service design, and several other elements of a potential commuter public transportation system.
- **New technologies:** Recent advances in mobile computing, vehicle dispatching algorithms, and the near-ubiquity of smartphones have resulted in an increase in the efficiency of on-demand transit. This means that some services that would not have been feasible in the past can now be offered more cost-effectively to the benefit of rural municipalities and their residents.

These findings confirm both the need for commuter public transportation services in the study area, and highlight opportunities associated with the development of a potential commuter public transportation system serving Kingston, Gananoque, South Frontenac and Loyalist.

3 Service Approach

To the end of identifying a commuter public transportation network for the study area, this chapter investigates and evaluates alternative high-level approaches to deliver public transportation in the region.

3.1 Potential Service Types

The following service types were evaluated for their applicability to the study area and rated according to how well they could accomplish the objectives of the future commuter public transportation service:

- Conventional fixed route;
- Flexible route;
- On-demand transit;
- Rideshare and taxi vouchers;
- Specialized transit (exclusively); and
- Volunteer driver networks.

3.1.1 Conventional Fixed Route

This type of service is characterized by a formal, defined route and a formal, defined schedule. Customers can determine where and when the bus is coming by consulting its schedule. The bus will not depart from its route to reduce customer walk distance, as that would compromise its reliability. Fixed transit routes are good for connecting major centres and destinations and in built-up urban areas, but are less effective in dispersed areas, where the number of potential customers is lower and walking distance to stops is higher.

Exhibit 3.1: Kingston Transit Bus [9]

In a rural context, a fully fixed-route system is more expensive due to higher operating costs and has a limited service area compared to more flexible options. Many rural fixed-route transit systems, such as Perth County Connect, are based around connecting towns with a critical mass of residents, jobs and services.

3.1.2 Flexible Route

A flexible route is similar to a fixed route, as it normally follows a defined route on a defined schedule. However, the bus is able to deviate a certain distance away from the normal route if a customer asks the operator to do so, or if the customer books the deviation ahead of time. Departure times are typically provided from a series of set points that the route will always serve. Deviation requests are easier for a transit provider to accommodate if they are made further in advance. A flexible route will allow for wider service coverage than a fully fixed route, but the deviations made by a flexible route can also cause travel time impacts for other customers on the

[9] GHN83613 (https://commons.wikimedia.org/wiki/File:Kingston_Transit_in_front_of_City_Hall.jpg), Kingston Transit in front of City Hall", https://creativecommons.org/licenses/by-sa/4.0/deed.en

bus. An example of this type of service is provided by Muskoka Community Transit with its Rural Community Connector service.

Exhibit 3.2: Muskoka Community Transit Vehicle[10]

A system of flexible routes could serve the study area's dispersed population more equitably than a system of fixed routes, but this service type otherwise encounters many of the same challenges. Flexible routes would be able to serve an increased coverage area compared to fixed routes, but a route can only deviate so much before its reliability is compromised. As such, a flexible route system would not be able to cover all residents of the study area in a sustainable way; it could only serve some corridors and some residents within walking distance.

3.1.3 Demand-Responsive (On-Demand) Transit

Demand-responsive, or on-demand transit is a type of transit service that does not operate on a fixed route or a fixed schedule. Customers request or book trips using either an app on a mobile device, or by calling a customer service centre. On-demand transit has less certainty for a customer in terms of when the bus arrives, but it has more flexibility in its routing, which may allow for a customer to travel more directly to their destination. On-demand transit services can be more cost-efficient in

[10] District of Muskoka (https://www.muskoka.on.ca/en/community-services-and-support/community-transit.aspx), "Rural and Community Connection Bus"

lower-density, lower-demand areas, as the bus will only go out to a pickup or drop-off location if a customer requests it. An example of this type of service is provided by the City of Stratford Transit on Saturdays, when the fixed-route network is replaced by a demand-responsive service. Belleville Transit also operates a similar service which replaces its previous night route with a city-wide on-demand zone.

Exhibit 3.3: Stratford Transit On-Demand Bus[11]

Demand-responsive transit is good at serving lower-demand, lower-density areas, like much of the study area, in a cost-effective manner. Vehicles only go out when and where they are needed, and vehicles which allows them to be utilized more effectively than a bus that must follow a fixed route and schedule regardless of where customers need it to be. Longer trips using demand-responsive transit are more expensive to operate, and a customer's wait time will be limited by the number of vehicles in service at once, so these are important considerations in how the service should be designed. Each hour of in-service or on-call time for an operator and vehicle adds cost to operating the system.

[11] City of Stratford (https://www.facebook.com/cityofstratford/posts/saturday-on-demand-transit-begins-feb-6starting-february-6-2021-in-conjunction-w/3738670419531782/)

3.1.4 Rideshare & Taxi Vouchers

Municipalities may also partner with existing private transportation providers that are already operating in their jurisdiction, such as rideshare and taxi companies. These companies employ drivers who can be hired by anyone, either by booking a trip on a mobile app (rideshare) or calling a dispatch office (taxi). The cost of hiring a rideshare vehicle or a taxi typically exceeds that of an average transit fare. Municipalities partnering with these companies can subsidize customers' trips in order to bring down the cost to the customer to a level more in line with a public transit service. An example of this type of service is provided by the Town of Innisfil, which has partnered with Uber for its transportation service.

Rideshare systems and taxi vouchers have similar positive and negative attributes; the main difference between the two is the booking interface. Rideshare apps also allow for the pooling or sharing of customer trips to increase service productivity Contracting service to a rideshare or taxi company provides a similar service to customers as demand-responsive transit but requires less start-up infrastructure from the municipality. Rather than paying to operate a service, the study Partners would subsidize the trips of an individual customer.

There are pros and cons to this approach. It requires less direct involvement from the municipality but depends on factors such as vehicle and driver availability that are outside the government's control. This can make finding wheelchair-accessible vehicles more complex, as it is up to an individual rideshare driver to determine their vehicle. The program can become very expensive; in Innisfil's example, customers are limited to a maximum of 30 trips per month to keep costs down.

3.1.5 Specialized Transit (Exclusive)

A specialized transit service is similar to an on-demand transit system, but it requires customers to meet eligibility criteria. Specialized transit systems are designed to be fully accessible for people with disabilities and will often transport customers door-to-door. Because the cost per trip of a specialized transit service is very high, access to the system is restricted to those who need it most. Many larger transit agencies will operate a parallel specialized transit system to provide service for those who cannot use

other transit routes due to physical or other limitations. Under the Accessibility for Ontarians with Disabilities Act (AODA), discussed further in Section 5.4, it is mandatory for providers of conventional transit to provide a specialized transportation alternative for anyone who is not able to use the conventional system because of a disability. An example of a specialized transit system restricting potential customers is Kingston Access Bus, which requires customers to apply and pass an eligibility check before they can use the service.

Exhibit 3.4: Example of a Specialized Transit Vehicle

A specialized transit system may be necessary in parallel to a transit system in the study area, depending on the accessibility of the chosen service delivery. A specialized transit service requires customers to be eligible. It would provide highly accessible door-to-door service to those who qualify but would not provide transportation to all residents. A system that only provides specialized transit service would be in line with the Ingersoll approach of allocating limited resources to those with the highest need.

3.1.6 Volunteer Driver Networks

Networks of volunteer drivers are another potential way to transport residents in rural municipalities. The Greater Kingston chapter of the Victorian Order of Nurses (VON) employs a network of volunteer drivers to transport clients to medical appointments, shopping, and appointments

with government or social programs. As with specialized transit systems, VON requires clients to be eligible for the service. While the service provides value to the community, it is not recommended for a transit service operated by the study Partners to depend on volunteer drivers as their availability cannot be guaranteed. Carpooling incentives, or other types of travel demand management, could be an option for the study Partners to pursue to address some demand for transportation in the study area, particularly for work purposes.

3.2 Service Operation Models

Several models were contemplated for the operations of the commuter public transportation services. They are as follows:

- **New Public Operator (In-House)**: The Partners would develop a new jointly administered body to oversee and operate commuter public transportation services in the study area.
- **Contracted Operator**: The Partners would jointly plan and oversee commuter public transportation services in the study area, while day-to-day operations would be contracted out to a local private-sector service provider.
- **Existing Public Operator (Kingston Transit)**: The Partners would jointly plan and oversee commuter public transportation services in the study area, with Kingston Transit operating the service using its own labour force and fleet.

It is important to note that the service operator may differ for each proposed commuter public transportation service – what may work best in Loyalist may not be an ideal solution to Gananoque. Generally, the pros and cons of each model are described below in Exhibit 3.5. Recommendations are provided for each service design in Section 5.

Exhibit 3.5: Advantages and Disadvantages of Service Operating Models

	In-House	Contracted Operator	Kingston Transit
Flexibility	Medium flexibility as service is directly managed but reliant on fixed resources	Highest flexibility, in accordance with the operating agreement	Lowest flexibility as bound by Kingston Transit operating practices
Capital Cost	Highest capital costs associated with the acquisition of fleet and potentially land	Minimal capital costs, built into the hourly rate of the operating agreement	Dependent on if new fleet would be required to operate
Operating Cost	No markup on labour, fuel, and maintenance costs	Costs built into hourly rate of the operating agreement	Costs built into hourly rate of the operating agreement
Grant Funding	Eligible for grants related to capital costs	Not eligible for grants related to capital costs	Eligible for grants related to capital costs
Labour Implications	Operate within existing collective agreements, ongoing labour shortages	Ongoing labour shortages	Operate within existing collective agreements, ongoing labour shortages
Risk to Operation and/or Finances	Highest risk as service is directly operated by the Partners	Least risk, contained via the terms of the operating agreement	Some risk as operating agreement would likely have less oversight than that of a contracted operator

3.3 Evaluation of Service Approach

Prior to conducting the evaluation, evaluation criteria were derived from industry best practices:

- **Equitable**: Allows as many residents as possible to access transportation at an affordable price.
- **Connected:** Connects residents to essential services, employment, and other major destinations, along with linkages to other transportation services.
- **Accessible:** Meets the needs of riders with mobility challenges, through the provision of accessible vehicles and the ability to minimize travel distance to/from the drop-off/pick-up location.
- **Affordable:** The cost-effectiveness of the service from the perspective of the government and taxpayer.

The service types are evaluated in Exhibit 3.6 using shaded circles (○◔◑◕●) to indicate how well a potential service type aligns with each goal. The more filled-in a circle is, the more it accomplishes the goal. The results are as follows:

- **Fixed routes** are most effective at connecting long distances with reliable, schedule transportation. This provides many benefits for riders, although fixed routes alone would not satisfy the need for equitable transportation access for residents within the study area. **Suitable for implementation. Carried forward to service design.**
- **Flexible routes,** or fixed routes with the ability to deviate slight off-route on request, would provide slight improvements to service coverage. However, many residents within the study would still not be served by transit. Customer trips would be less frequent overall due to the need to build flexibility into the route schedule. **Suitable for implementation. Carried forward to service design.**

- **Demand-responsive**, or on-demand transit, would dynamically route vehicles to match riders desired trip origins and destinations. However, on-demand transit does not perform are efficiently as fixed-route transit over vast rural areas, meaning additional vehicles would be required to carry the same number of passengers. Fuel and maintenance costs could be lower, as the service only runs when needed, but on-demand transit often require long distances of non-revenue travel (deadheading) between trips. A start-up cost would be required to set up the technology required for such a system. **Suitable for implementation. Carried forward to service design.**
- **Rideshare or taxi voucher** transportation, like on-demand transit, could cover low-density regions of the study area with a smaller number of vehicles and at a lower cost. While capital cost would be reduced due to the lower amount of start-up infrastructure required, the system would be less scalable than a demand-responsive one, and total subsidies would vary depending on demand. In addition, the service would be limited by the driver availability of ridesharing and taxi services. **Suitable for implementation. Carried forward to service design.**
- An exclusively **specialized transit** system would limit services to only residents with the highest amount of need. The system would operate in a manner similar to on-demand, but the eligibility of potential customers would be restricted. It is important to provide a service that addresses the unique needs of residents with disabilities, but operating a system exclusively for these customers would restrict the overall utility of the service. **Not suitable for implementation.**[12]
- **Volunteer driver networks** would provide a system that is very low-cost to the Partners, but could not reliably or consistently serve local residents due to the inconsistent availability of volunteer drivers. Additionally, it would duplicate the market

[12] Note: As discussed within the report, the provision of accessible public transportation options is a legal requirement. The screening out of an exclusively specialized transit system does not preclude the inclusion of accessible transportation alongside other services (as discussed in Section 5.4).

share of existing volunteer-operated services. **Not suitable for implementation.**

Exhibit 3.6: Service Type Evaluation

Service Type	Equitable	Connected	Accessible	Affordable	Overall
Fixed Route	◕	◑	◑	◕	◕
Flexible Route	◕	◑	◕	◕	◕
Demand-Responsive	◑	●	◕	◔	◕
Rideshare & Taxi Vouchers	◔	●	●	◕	◕
Exclusive Specialized Transit	◔	●	●	◔	◑
Volunteer Driver Networks	◑	○	○	●	◔

As a result of the above evaluation, Fixed Route, Flexible Route, Demand-Responsive, and Rideshare & Taxi Vouchers were carried forward to the service design stage. As discussed in Section 4.1 below, various combinations of the first three service approaches were considered for the three distinct service areas, while Rideshare & Taxi Vouchers were used to supplement these three service designs where necessary, to ensure universal transportation access.

4 Service Design and Evaluation

The purpose of this section is to detail the development and evaluation of service design options based on the service delivery approaches identified as feasible in the previous section. The evaluation informs the recommended commuter public transportation service for the study area.

4.1 Service Concept

The overarching service concept guides the detailed design and evaluation of commuter public transportation services in the study. The service concept was advanced to meet the needs and leverage opportunities identified in Section 2, in addition to carrying forward feasible service delivery approaches outlined in Section 3. The service concept is as follows:

- **Gananoque & East Rural Kingston:** A fixed route or flexible route connecting Gananoque and the eastern rural areas of Kingston to the Downtown Transfer Point in downtown Kingston
- **Loyalist:** Two fixed routes connecting population centres and industrial areas in Loyalist to Kingston Transit transfer point(s) in western Kingston
- **South Frontenac & North Rural Kingston:** A fixed route or on-demand zone connecting population centres in South Frontenac and northern rural areas of Kingston to the Cataraqui Centre Transfer Point (and potentially other Kingston Transit transfer points)
- **Supplementary transportation access program:** The provision of program(s) to provide lifeline access to transportation in rural areas which cannot support fixed route or on-demand transit, such as taxi vouchers or vanpooling

The three geographic areas outlined above were selected due to the nature of travel demand in the study area, which was found to be mostly Kingston-centric, with some self-contained travel. The study findings did not indicate

a strong need for commuter public transportation service between rural municipalities.

4.2 Gananoque and East Rural Kingston

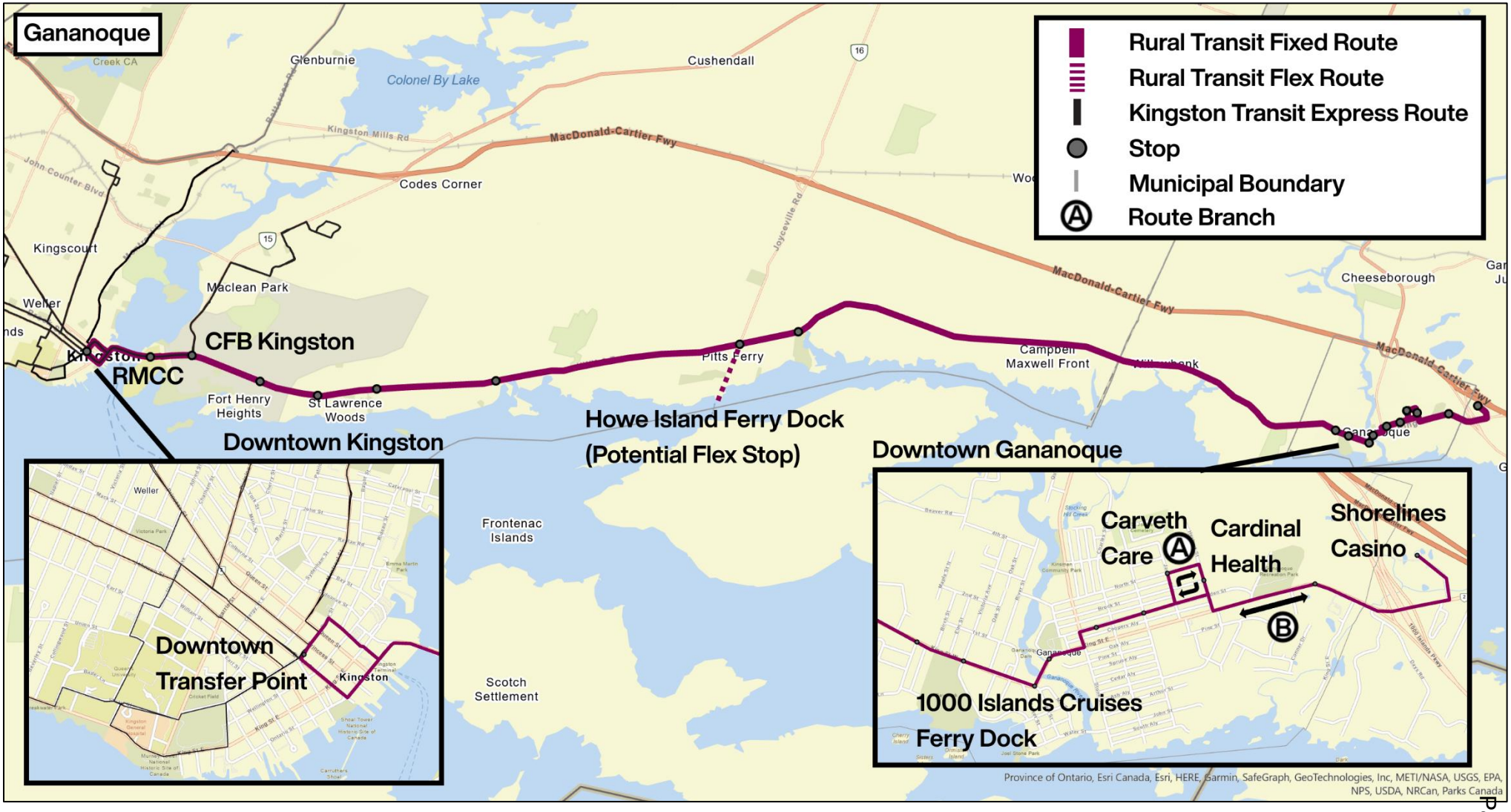
4.2.1 Service Design Alternatives

It was determined that the linear routing and concentrated areas of demand within the service area indicate towards a fixed route solution. However, based on stakeholder feedback, a flexible route option was also considered, to provide direct access to the Howe Island Ferry Dock. Therefore, the two service options carried forward to evaluation are as follows:

- **Option A - Fixed Route**: A fixed route service, operating approximately every two hours, between downtown Kingston and Gananoque. The route would terminate either within central Gananoque or at Shorelines Casino, depending on time of day.
- **Option B – Flex Route:** Similar to Option A, with a route deviation to the Howe Island Ferry Dock which would only be made if requested ahead of time, by calling to notify the service operator. There is sufficient padding in the schedule to accommodate the route deviation within the two-hour cycle time.

The two options are illustrated in Exhibit 4.1 below.

Exhibit 4.1: Gananoque and East Rural Kingston Route Options



4.2.2 Service Design Evaluation

While similar in nature, the two options were evaluated against each other in Exhibit 4.2.

Exhibit 4.2: Gananoque and East Rural Kingston Route Option Evaluation

	A – Fixed Route	B – Flex Route
Daily round trips	Up to 6 round trips	Up to 6 round trips
Round trip travel time	120 minutes	120 minutes
Residents within walking distance (500m) of public transportation	6,700 residents	6,700 residents
Annual ridership estimate[13]	5,500-6,000 boardings	5,500-6,000 boardings
Major destinations	• CFB Kingston • RMCC • Downtown Transfer Point • Shorelines Casino • Cardinal Health • Carveth Care • 1000 Island Cruises	• CFB Kingston • RMCC • Downtown Transfer Point • Shorelines Casino • Cardinal Health • Carveth Care • 1000 Island Cruises • Howe Island Ferry Dock

As seen in the comparison above, the flex route option would not impact the number of daily trips or round-trip travel time. The impact may be felt in variability and reliability of one-way trip schedules, as certain trips would be required to deviate to the ferry dock, and trips may be delayed if the ferry is running late. Despite these potential downsides, it would enable travel for hundreds of residents living on Howe Island, many of whom who are seniors who may face mobility challenges and transportation barriers (the median age of Frontenac Islands Township is 60 years old). Therefore, **it is recommended that Option B – Flex Route is carried forward** as the preferred alternative for this service area.

[13] Note: Ridership estimates were developed using a conceptual schedule (Appendix C) which does not include evening and weekend service. Contributions from private-sector partners to enhance service span would induce a positive effect on ridership estimates.

4.3 Loyalist

4.3.1 Service Design Alternatives

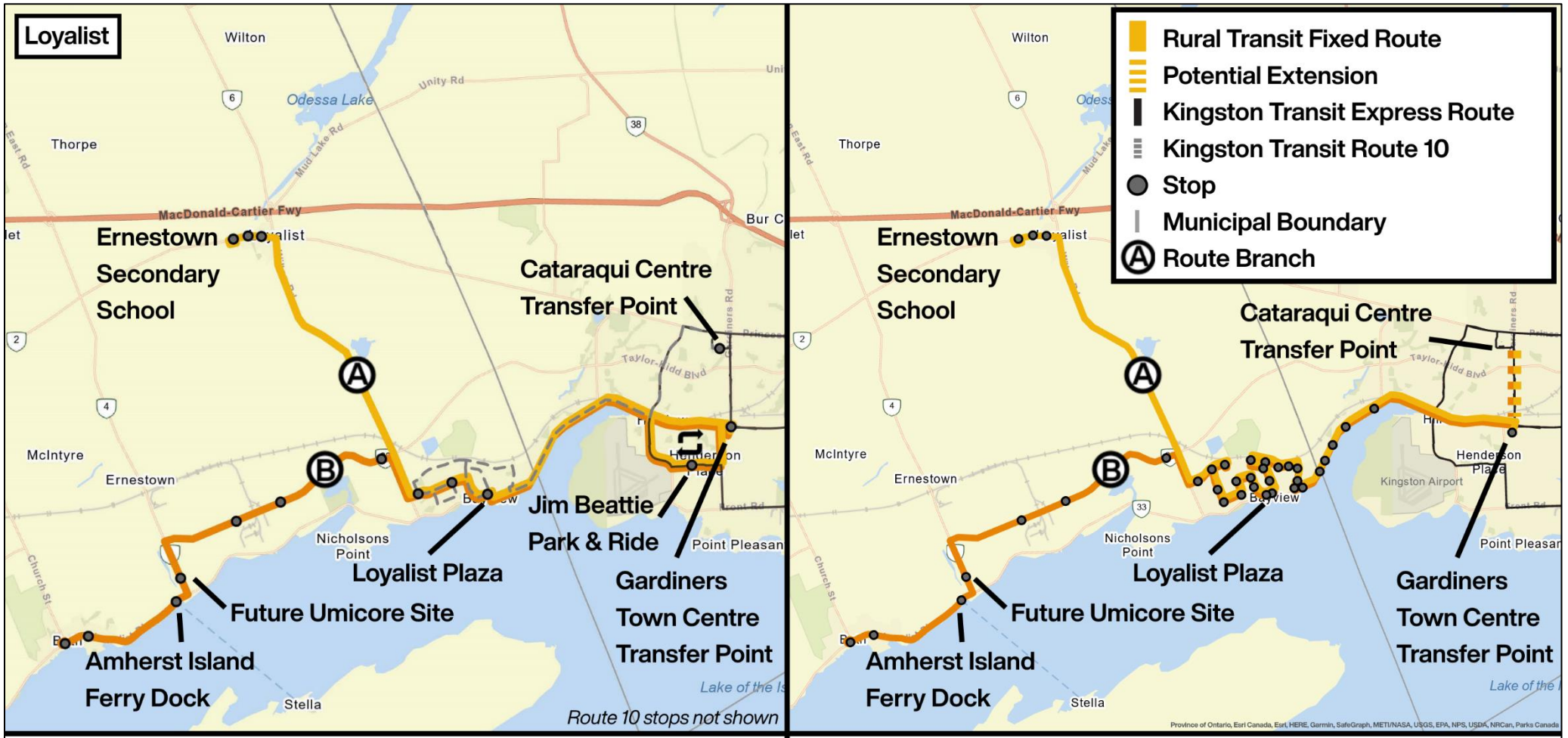
Initial service designs were focused on connecting the Cataraqui Centre to Loyalist's industrial parks. However, based on stakeholder feedback and recent developments with respect to the previously proposed Kingston-Napanee route, the need for a more holistic commuter public transportation service in Loyalist Township was identified (particularly to connect Ernestown Secondary School, the only high school in the township, to other destinations).

Arcadis worked with Township staff to develop two viable options which extend service to Bath and Odessa:

- **Option A – New Rural Routes**: A fixed route service which would utilize one minibus. Beginning at Gardiners Town Centre Transfer Point, the route would continue to the Jim Beattie Park & Ride to connect to Kingston Transit Express routes, then provide limited-stop service through Amherstview before splitting into two branches. The first branch would continue to Bath via the Taylor Kidd Industrial Park. The second branch would travel north to Odessa. This option would maintain Route 10, providing additional service to Amherstview.
- **Option B – Extend Route 10:** Route 10 would be modified within Amherstview, but extended with two new branches out to Bath via the Taylor Kidd Industrial Park, and Odessa. The service would use two Kingston Transit vehicles which would make all local stops within Amherstview. Service would terminate at Gardiners Town Centre or Cataraqui Centre Transfer Point.

The two options are illustrated in Exhibit 4.3 below.

Exhibit 4.3: Loyalist Route Option



Option A - New Rural Routes

Option B - Extend Route 10

4.3.2 Service Design Evaluation

The two options presented above were evaluated below in Exhibit 4.4.

Exhibit 4.4: Loyalist Route Option Evaluation

	A – New Rural Routes	B – Extend Route 10
Daily round trips (each branch)	Up to 5 round trips	Up to 6 round trips
Round trip travel time (each branch)	80 minutes	120 minutes
Residents within walking distance (500m) of public transportation	13,400 residents	13,400 residents
Annual ridership estimate (including baseline Route 10)	132,000-133,000 boardings	123,000-125,000 boardings
Annual ridership estimate (excluding baseline Route 10)	12,000-13,000 boardings	3,000-5,000 boardings
Major destinations	• Taylor Kidd Industrial Park • Umicore Battery Plant • Loyalist East Business Park • Ernestown Secondary School • Amherst Island Ferry Dock • W.J. Henderson Recreation Centre • Loyalist Plaza • Gardiners Town Centre	

Option A would provide a faster throughout Loyalist and into Kingston. It would utilize a single minibus which could be operated independently of Kingston Transit, alternating between each route branch. Option A would stop in Bath and Odessa roughly every 3 hours but provide 80-minute service to select stops in Amherstview in addition to existing Route 10 service. This would in effect boost transit capacity between Amherstview and Kingston and offer a connection along Bath Rd. to the Gardiners Town Centre Transfer Point. This would save commuters heading to downtown

Kingston time versus travelling north to Cataraqui Centre to connect to express routes. Route 10 would continue to service the Cataraqui Centre.

Option B would utilize two Kingston Transit buses with alternating schedules to provide one-hour frequency within Amherstview and two-hour frequency in rural areas. The service would rely on Kingston Transit's participation, which has indicated it would not have the capacity to operate the route in the near-term due to ongoing labour shortages. The use of full-size Kingston Transit buses for the entire length of the route will likely see the capacity underutilized in rural areas ("empty buses"). Extra time at the terminal stops would be scheduled to keep buses on schedule, although the number of stops will may impact schedule adherence.

Discussion with Loyalist Township and Kingston Transit revealed that the current operating agreement with Primaris (Cataraqui Centre's owner) only allows Kingston Transit vehicles to access the transfer point. Previous discussions with Primaris regarding amending the operating agreement to allow external transit operators have not been productive, despite the mutual economic benefits of providing access to the mall for rural residents. Therefore, use of the Gardiners Town Centre Transfer Point is recommended until the operating agreement can be amended to allow the envisioned transit operator to access the Cataraqui Centre Transfer Point.

Based on the considerations discussed above, **Option A – New Rural Routes is recommended to be carried forward** as the preferred alternative for this service area.

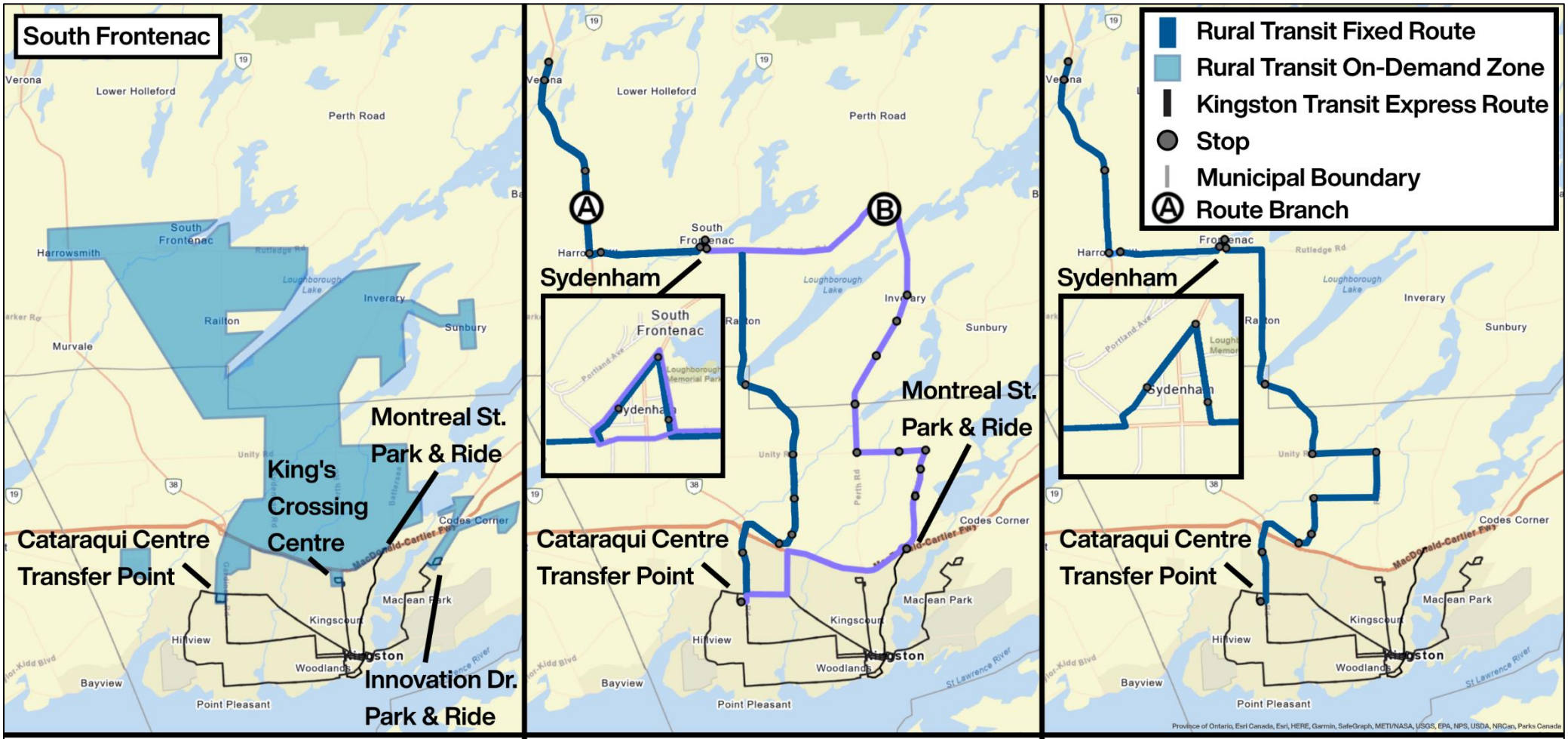
4.4 South Frontenac & North Rural Kingston

4.4.1 Service Design Alternatives

This service area presents the most challenging environment for the provision of commuter public transportation service, as travel demand is highly directional into Kingston, while also being dispersed over a wide rural area. The service design would also need to balance convenient connections into Kingston with facilitating travel between local population centres, including to Sydenham High School, the only high school in the township. Three feasible options were identified for South Frontenac and are illustrated in Exhibit 4.5 below:

- **Option A – On-Demand:** A 150 sq-km zone in which a rider can book door-to-door trips to and from “virtual stops” using their smartphone or by calling a call centre. 1-2 accessible vans would provide service within the zone, which would cover most of the largest population centres in the service area. The service would connect into four Kingston Transit transfer points.
- **Option B – “Coverage” Fixed Route:** Designed to maximize service coverage with a fixed route, one minibus would service two routes, one between Verona and Cataraqui Centre via Sydenham, and one between Sydenham and Cataraqui Centre via Inverary. Each route would operate up to every four hours, with a combined frequency of approximately two hours between Sydenham and Kingston.
- **Option C – “Frequency” Fixed Route:** Designed to maximize service frequency while connecting major population centres, one minibus would service Option B’s Verona-Cataraqui Centre route, with service approximately every 2 hours.

Exhibit 4.5: South Frontenac & North Rural Kingston Route Options



4.4.2 Service Design Evaluation

The three options presented above were evaluated below in Exhibit 4.6.

Exhibit 4.6: South Frontenac & North Rural Kingston Route Option Evaluation

	A – On-Demand	B – "Coverage" Fixed Route	C – "Frequency" Fixed Route
Daily round trips	N/A	Up to 3 per branch	Up to 6
Round trip travel time	N/A	120 minutes per branch	135 minutes
Residents within walking distance (500m) of public transportation	11,400 residents	4,100 residents	3,100 residents
Annual ridership estimate	2,500-3,000 boardings	4,500-5,000 boardings	4,500-5,000 boardings
Major destinations	• Islamic Centre • Sydenham High School • Southern Frontenac Community Services • Cataraqui and K&P Rail Trails • Cataraqui Centre • Fairmount Home • Glenburnie Grocery • Montreal St. Carpool Lot (transfer point)		• Islamic Centre • Sydenham High School • Southern Frontenac Community Services • Cataraqui and K&P Rail Trails • Cataraqui Centre • Glenburnie Grocery

Option A, the on-demand service, would provide the most service coverage of the options, even after reducing the zone size considerably after stakeholder feedback indicated a preference for service efficiency. It is still likely that one vehicle will not be sufficient to provide true "on demand" service, and trips would need to be booked well in advance to secure a booking. Additionally, using one vehicle over vast areas would likely result in a high rate of unaccommodated trips, such as if one rider in Sydenham and one rider in Glenburnie both want to travel into Kingston at the same

time. Increasing the service to two vehicles would mitigate this issue, but effectively double operating costs compared to the other two options.

Peer systems such as PR Transpo and RIDEWELL in Wellington County have demonstrated that rural on-demand services are possible, but the number of trips able to be serviced per hour will typically be lower than a fixed route service due to the vast distances involved. These services have also reported a high rate of deadheading (travel between trips without passengers), which increases fuel and maintenance costs. As a result, these rural systems have resorted to per-kilometre fare structures which impact the affordability of the service.

Options B and C, the fixed route options, are better able to accommodate the long-distance, directional travel patterns. The use of fixed schedules limits convenience relative to on-demand service, but ensures that all riders are able to have their trips accommodated.

Option B services 1,000 more residents than Option C via its eastern route through Inverary, at the expense of up to three additional round trips on the western Verona route. Despite having the smallest service coverage area, Option C maximizes the usability of the service for the most residents.

It is expected that Option C's more frequent service for the majority of residents (including a frequency which could support travel to/from the mosque north of Highway 401) will improve the attractiveness of the service over time.

Based on the considerations discussed above, **Option C – "Frequency" Fixed Route is recommended to be carried forward** as the preferred alternative for this service area.

4.5 Supplementary Service Options

While the proposed commuter public transportation services seek to provide the maximum benefit to the greatest number of residents, there continue to be residents outside of the proposed catchment areas who may face barriers to transportation. Typically, these unserved residents are in extremely low-density rural environments, and face mobility challenges or limited/no access to a vehicle. Therefore, an analysis of supplementary transportation options was undertaken to determine how these residents could be supported.

The following options were identified as potential solutions:

- **Taxi vouchers:** To accommodate trips beyond the proposed commuter public transportation service area, the local municipality would provide subsidies to residents who need to take taxi or ride hailing (i.e., Uber) trips. Taxi vouchers are typically administered via booklets of vouchers which can be means-tested and distributed on a limited basis to ensure resources are being directed to those with the highest need.
- **Vanpooling:** A small fleet of vans would be acquired (purchased or leased) by participating municipalities and supplied to groups of residents for a fee to provide coordinated transportation amongst themselves. Major employers would partner with the municipalities to offer free vanpool parking on-site to incentivize their use.
- **Carpooling/Ridesharing:** Participating municipalities would supply a software platform which would allow local residents to coordinate carpooling trips, using their own personal vehicles.[14]

The alternatives proposed above are assessed in Exhibit 4.7.

[14] Rural Frontenac Community Services, in partnership with the Counties of Frontenac, Lennox & Addington, and Lanark, operates a "Community Car Pool" software platform. All residents in the study area, except Gananoque residents, are therefore eligible to use this service. At report publication, there are no available rides or ride requests on the platform, suggesting low uptake.

Exhibit 4.7: Supplementary Transportation Option Evaluation

	Taxi Vouchers	Vanpooling	Carpooling
Equitable	Able to means-test to ensure resources are directed to those most in need. Does not require resident to drive themselves.	User fees can be set by the municipality but may require resident to drive themselves to participate.	User fee and trip availability is determined by the driver.
	●	◑	◔
Connected	Taxi trips would be able to connect the rider from their origin to their desired destination.	Vans would be stationed at designated spots which would require first/last-kilometre travel to access.	Trip pick-up and drop-off locations would be determined by the driver.
	●	◑	◔
Accessible	Accessible taxi service is compliant with AODA requirements.	No requirement to meet AODA.	No requirement to meet AODA.
	●	○	○
Affordable	Ongoing annual cost to the municipality and trip cost to the rider would still be determined by distance travelled.	High initial costs to acquire fleet and ongoing fuel/maintenance costs, although these would be recouped through reasonable user fees.	Low ongoing cost to the municipality to establish the platform and reasonable trip costs to the rider (subject to individual pricing).
	◔	◑	●
Overall Score	◕	◑	◔

A taxi voucher program was carried forward as the preferred alternative. The preferred alternative would be the most effective option to provide an equitable and accessible transportation service which facilitates access to healthcare, services, and recreation.

The exact subsidy amount and program structure would require further discussion and refinement between the Partners prior to implementation. To provide context into subsidization of taxi/ridehailing programs, Exhibit 4.8 below lists several peer examples.

Exhibit 4.8: Peer Taxi and Ridehailing Program Costs

Municipality	Description	Total Subsidy	Per Resident Subsidy	Per Trip Subsidy
Innisfil	Use of Uber to provide on-demand transit throughout the town in lieu of a conventional fixed-route transit system	$826,000	$19.06	$8.70
Waterloo	A taxi voucher program to provide MobilityPLUS customers (specialized transit service) with access to convenient transportation via accessible taxi	$40,000	$0.07	Not available
Peel Region	A taxi voucher program to provide TransHelp customers (specialized transit service) with access to convenient transportation via accessible taxi	$26,000	$0.01	$5.00
Peterborough[15]	A conceptual taxi voucher program to incentivize the use of accessible taxis to reduce the overall program cost of Handi-Van (specialized transit service).	$40,000	$0.50	$5.00

[15] Peterborough's taxi voucher costing is a conceptual estimate derived as part of a previous Public Transit Operations Review (2012).

4.6 Stakeholder Engagement – Phase 2

The second phase of stakeholder engagement focused on reviewing the needs and opportunities findings and presenting initial service delivery approaches and service design concepts. A virtual meeting with project stakeholders occurred in April 2023. Feedback from the session was used to refine the service designs into the final versions proposed in Sections 4.2-4.4 above.

4.6.1 Engagement Key Takeaways

The second phase of stakeholder engagement provided the following input into the service designs, which is outlined along with respective responses in Exhibit 4.9 below:

Exhibit 4.9: Stakeholder Comments and Resulting Actions

Type	Comment	Action(s)
General	Discussions with Kingston Transit should be held to understand their capacity to operate commuter public transportation.	Discussions between the project team and Kingston Transit have since been held, which reflect the final recommendations.
General	Transit vehicles not operated by Kingston Transit are not covered within the City's operating agreement with Cataraqui Centre and therefore cannot access the transfer point.	Near-term alternatives routed to other transfer points on public rights-of-way. Recommended for the City to continue discussions with the mall owner.
Gananoque & East Rural Kingston	The Howe Island ferry runs on-demand, and so an on-request transit stop would be able to serve residents boarding/alighting the ferry.	A flex route option serving the ferry dock was added, and ultimately recommended.
Gananoque & East Rural Kingston	More stops along Highway 2 are needed to adequately serve CFB Kingston.	An additional stop was added.
Loyalist	Service concepts are focused on serving the industrial parks and do not provide service to other areas of the township such as Odessa and Bath.	The final service design was re-worked with the input of Loyalist Township staff to provide service to Bath and Odessa.
Loyalist	Residents of Wilton, a hamlet in Loyalist Township, would not be served by the proposed service concepts.	Wilton's population size and location provided challenging conditions for transit service provision – a taxi voucher program was recommended.
South Frontenac & North Rural Kingston	The on-demand service concept (Option A) is too large of a service area to effectively complete trips.	The on-demand zone service concept was reduced from approximately 350 sq-km to 150 sq-km.
South Frontenac & North Rural Kingston	The frequency fixed route service concept (Option C) would maximize access to the mosque for religious observances and programming.	Considered in evaluation process.

5 Proposed Service

The proposed commuter public transportation service is comprised of the following preferred alternatives:

- **Gananoque & East Rural Kingston Service Area:** Option B – Flex Route
- **Loyalist Service Area:** Option A – New Rural Routes
- **South Frontenac & North Rural Kingston Service Area:** Option C – "Frequency" Fixed Route

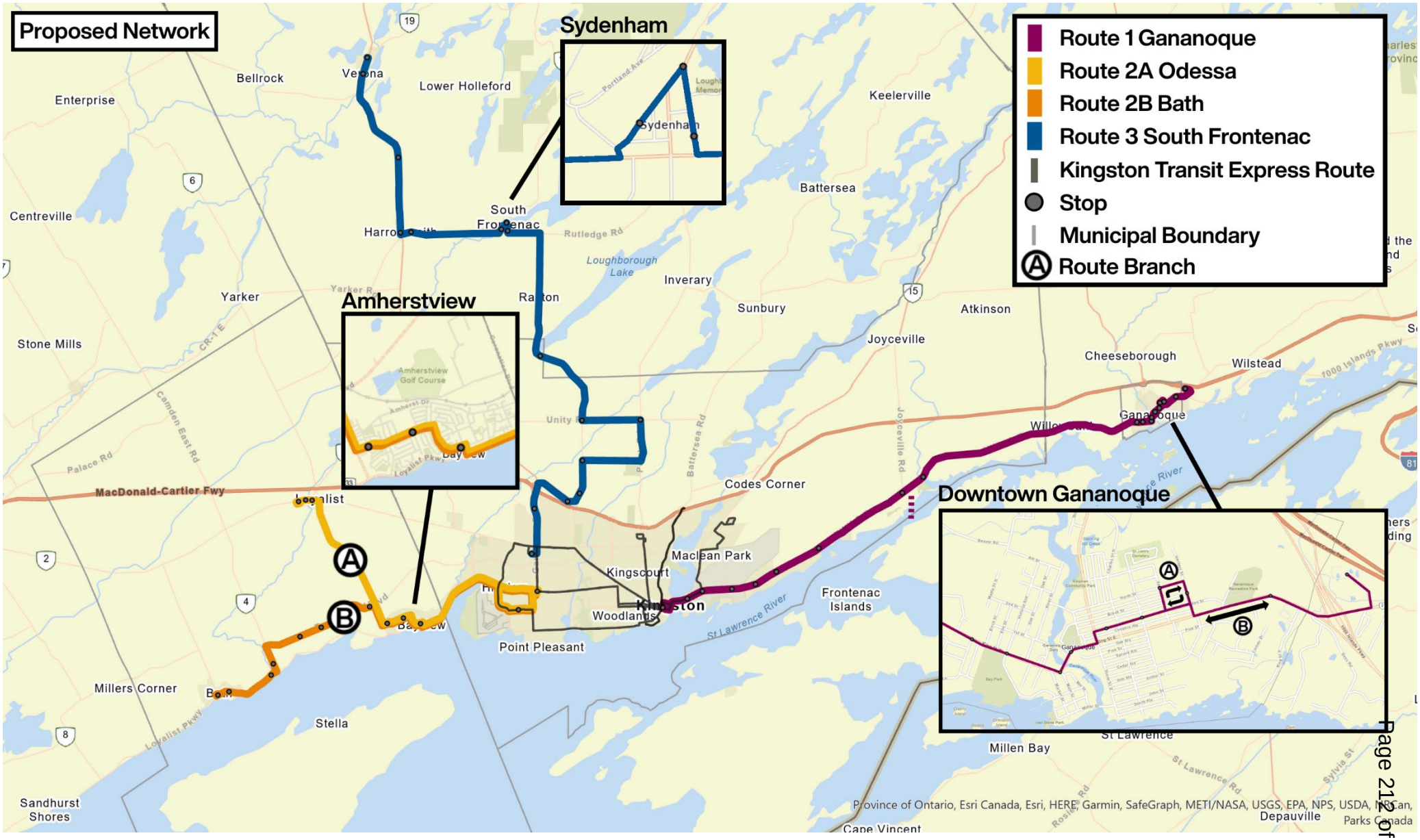
5.1 Commuter Public Transportation Network

The proposed commuter public transportation network would connect major population centres in the study area to Kingston. In addition, Kingston Transit's 501/502 express routes connect all three transfer points, opening up the possibility of transfers between rural routes. The proposed network characteristics are provided below in Exhibit 5.1, and the route map in Exhibit 5.2. A list of stops for each route are provided in Appendix B

Exhibit 5.1: Network Characteristics

	Proposed Transit Network
Number of routes	4 routes
Daily round trips	Up to 22 round trips
Number of buses	3 buses
Residents within walking distance (500m) of public transportation	23,200 residents
Wider service area population	53,200 residents
Initial annual ridership estimate	23,000-25,000 boardings by Year 5

Exhibit 5.2: Proposed Commuter Public Transportation Network



5.2 Service Span

The service span would initially provide Monday-Friday service on all three routes. This initial service would allow for weekday access to jobs, recreation, healthcare, and other services. Once the service is established, service span could be expanded to include weekends. The proposed service span is indicated in Exhibit 5.3. These conceptual schedules are based on the current understanding of major employer shift schedules, and may change as needs are better understood.

Exhibit 5.3: Proposed Service Span

	Monday-Friday	Saturday	Sunday
Route 1 Gananoque & East Rural Kingston	6:00AM-TBD[16]	TBD[14]	TBD[14]
Route 2 Loyalist	6:00AM-6:45PM	N/A	N/A
Route 3 South Frontenac & North Rural Kingston	6:00AM-7:15PM	N/A	N/A

5.3 Operating Model

Consideration of which operating model would be most suitable for each route was undertaken in collaboration with Kingston Transit and the City of Kingston staff. Kingston Transit communicated that its resources (labour and fleet) are highly constrained in the near-term, due to labour shortages and a mandate to begin restoring local service to pre-pandemic levels. Therefore, it was determined that **initially, all three routes would be best implemented using a third-party contracted operator**.

Kingston Transit indicated an openness to future discussions regarding responsibility for the operations of the Loyalist (Bath and Odessa) route in the medium-term (2025 or beyond). It is recommended that ongoing discussions are held to determine if and when this arrangement could be implemented if Loyalist Township and the City of Kingston wish to continue

[16] Pending potential contributions from Shorelines Casino to operate evening and weekend service.

service upon the end of the pilot period. It is recognized that in the near-term, Kingston Transit's immediate focus is to restore service to pre-pandemic service levels.

It was also determined that the establishment of a distinct, jointly-managed regional transportation body would initially be a complex and costly undertaking, with a higher degree of financial risk. It is recommended that the benefit and drawbacks of the establishment of such a body are re-examined once comprehensive operating and financial data is available.

5.4 Accessibility and Legislative Requirements

This sub-section outlines the legislative requirements for providing public transportation services and suggests supporting policies for the implementation of the service.

The provision of public transportation in Ontario is guided by various regulations which outline the municipal obligations when providing public transportation service. The main regulations guiding the provision of a public transportation service and their requirements are:

- The **Accessibility for Ontarians with Disabilities Act** (AODA), 2005, which requires that all public transportation services are compliant with the Act. AODA aims to have a fully accessible province by 2025. To be compliant with the Act, all public transportation services must work to remove barriers from their operations and provide convenient services for all users, including those with disabilities. The legal obligations for a public transportation service operating in the Province are outlined in Ontario Regulation (O. Reg.) 191/11 and include:
  - Providing an alternative accessible method of transportation if the conventional service provided is not accessible and a specialized service is not provided;
  - Providing information on the accessibility equipment and features on their vehicles, routes and services in an accessible format;

  - Accessibility training for employees and volunteers;
  - Developing public emergency preparedness and response policies that provide for the safety of all users;
  - Developing equitable fare policies including allowing support persons accompanying a person with a disability to travel for free;
  - Developing accessibility plans that include processes for managing, evaluating and taking action on customer feedback;
  - Ensuring there is clearly marked priority seating on all vehicles;
  - Establishing booking policies that either provide same day service to the extent that it is available or accept booking requests up to three hours before the published end of the service period on the day before the intended day of travel; and,
  - Providing accessible means to accept bookings.

- **Accessible Vehicles Regulation**, 1990 O. Reg. 629 which identifies the features required to ensure a public transit vehicle is accessible;
- **Ontario's Canadian Content for Transit Vehicle Procurement Policy**, 2008, requires that all transit vehicles procured with provincial funding must have at least 25% Canadian content. Specialized transit buses are exempted from this requirement and instead the transit operator and entity would apply a 5% price preference to the price for the submission with the highest percentage of Canadian content; and,
- The **Municipal Freedom of Information and Protection of Privacy Act**, 1990, requires municipalities to protect the privacy of individual's personal information existing in government records, and gives individuals the right to request access to municipal

government information, including most general records and those containing their personal information.

5.4.1 Actions

It is necessary that the study Partners take the following steps to ensure regulatory and legal compliance when implementing the proposed commuter public transportation service:

- Ensure an alternative accessible method of transportation is provided to riders in the service area;
- Adopt accessibility training procedures for all staff associated with implementing the public transportation service, including those developing marketing and promotional materials;
- Adopt operating policies that are compliant with the O. Reg. 191/11 requirements for fare policies, booking procedures, and communications; and,
- Establish policies and procedures for the monitoring the compliance of the service with the legislative requirements outlined in this report.

5.5 Fare Structure

The following principles were considered when developing a fare structure that would balance financial sustainability, affordability, and social equity:

- Fares should be kept low enough to provide an attractive option for rural residents who may have fewer transportation alternatives available to them;
- The fare structure should be simple and easy to understand;
- Multiple options for fare payment should be provided, but cash fares should always be allowed;
- Bulk fare products such as monthly passes should offer an appealing discount relative to single-use fares to incentivize use of public transportation;

- Rural commuter public transportation services typically recoup a marginal share (typically less than 20%) of its operating costs from the farebox;
- The cost of fare collection should not exceed revenues from the farebox; and
- What is considered affordable for one rider may not be considered affordable for another.

When acknowledging these principles, the following fare structure is proposed in Exhibit 5.4:

Exhibit 5.4: Proposed Fare Structure

Trip Type	Trip Example (To ↔ From)		General Fare	Concession Fare
Trips crossing a municipal boundary	Gananoque	Downtown Transfer Point	$10.00	$8.00
Trips which do not begin or end in Kingston	Verona	Sydenham	$5.00	$4.00
Trips within Kingston or existing Kingston Transit service area	Amherstview	Gardiners Town Centre	$3.25[17]	Free[16]

Trips within Kingston and the existing Kingston Transit service area would cost the same as a Kingston Transit fare. Trips which do not begin or end in Kingston would cost $5.00. Trips which begin outside of Kingston and end within Kingston would cost $10. In addition, a concession fare with a 20% discount would be provided for equity-deserving groups such as seniors, students, and low-income residents.

It is also recommended that “commuter passes” and “monthly passes” are available, with similar percentage discounts to the ones which Kingston Transit offers. These passes would provide unlimited travel on weekdays, or for the full week (if service span is extended), to any destination for a fixed monthly cost.

[17] Equal to existing Kingston Transit fare, subject to change. Concession fare applicable only to children aged 14 and under.

The proposed fare structure has been developed considering costs of comparable transportation options, peer system fare structures, and affordability to the Partners. It is important to review the fare structure periodically to ensure that is continues to adhere to the fundamental principles, as well as ensuring the system remains financially sustainable.

5.6 Fleet Considerations

Based on expected ridership levels, service span, and the geography of the routes, it is recommended to utilize “cutaway” style minibuses. It is expected that three in-service vehicles will be required (plus any spare vehicles required to maintain continuity of service). These vehicles are comparable to those shown in Exhibit 3.2, Exhibit 3.4, and those used by Kingston Access Bus. The seating arrangement would be optimised for a higher seating capacity- comparable vehicles offer room for up to 20 passengers, with flip up seats to accommodate multiple mobility devices.

The service must be accessible to users with mobility devices as it would be the only municipally-led rural public transportation service available in much of the service area. Therefore, the vehicles will need to accommodate users with mobility devices. The vehicles should have a capacity for two or more wheelchairs or mobility devices. A spare vehicle with similar characteristics should be available in the event of capacity constraints on the main vehicle, or for maintenance activities.

The Partners have the option to purchase or lease vehicles for the service or require the contractor to provide vehicles. Due to potential funding availability, it is possible that the Partners could procure vehicles at a minimal expense and provide them to the contractor to operate. While this arrangement would be financially beneficial, it may introduce complexity and contractual risk and should be analysed further before proceeding.

Another option would be to utilize a Kingston Transit bus for the Loyalist routes, as discussed in Section 5.3. Further discussions will be required between Kingston Transit and the Partners to explore possibilities related this approach, or others (such as Kingston Transit operating and maintaining a minibus owned by the Partners).

6 Business Case Analysis

This section provides a holistic look at the benefits, costs, and key considerations with respect to implementing the proposed service as described in Section 4. To align with provincial guidance, the business case is structured using four different lenses:

- **Strategic Case:** Identifies the project's alignment with relevant plans, policies, and goals at all three levels of government.
- **Economic Case:** Outlines the overall societal value through direct and indirect economic benefits and costs associated with the project.
- **Financial Case:** Quantifies the project's direct capital and operating costs, along with expected revenues and funding sources.
- **Deliverability and Operations Case:** Describes a pathway to project feasibility via an implementation plan which includes procurement, operations, and service monitoring next steps.

The business case assumes full implementation of the proposed routes and participation of all Partners. Any changes to the final service plan could impact the results of the business case.

6.1 Strategic Case

6.1.1 Enhancing Transit Options

The proposed commuter public transportation service will expand transportation access to areas which have never previously had alternative transportation options. This satisfies the respective priorities in the **2019-2022 and 2023-2026 City of Kingston Strategic Priorities** to improve the connectivity of the transit network.

The rural municipalities have investigated and supported the expansion of commuter public transportation in the past. Gananoque conducted a **Transit Feasibility Study** which recommended a route between downtown Kingston and Gananoque in partnership with the casino. This concept was

refined and carried forward within this study, and satisfies the Feasibility Study's original objectives.

The **Loyalist Township 2019-2023 Strategic Plan** highlights "infrastructure" as a strategic priority, which includes enhancements to the local transit system. In addition, Loyalist Township's **Improving Public Transit** report identified a need to introduce transit service in Odessa and expand existing services in Amherstview. The proposed Loyalist routes will connect Bath and Odessa to Amherstview, as well as into Kingston, satisfying these priorities.

6.1.2 Developing Urban and Rural Economies

Rural economic development and access to employment were significant policy drivers for this study. The **Rural Kingston Economic Development Strategy** outlines that public transit service is a key amenity to facilitate rural "Hamlet-led Development" and connect rural growth nodes to urban Kingston. The proposed commuter public transportation services will connect rural communities along Highway 2, Sydenham Road to Kingston Transit transfer points that will open up these areas to a larger labour pool.

The **Eastern Ontario Leadership Council Commuter Strategy** identifies lack of access to cross-boundary transportation as a barrier to employment in the area, and recommends the development of commuter transportation business cases. The proposed commuter public transportation services will fulfill these objectives and allow rural residents to access a significant employment base (and vice versa).

In particular, Loyalist Township is preparing to greatly expand the number of employees working in rural industrial parks, particularly due to the Umicore Battery Plant which will ramp up over the next several years. Lack of transportation was identified as a major barrier to workforce development. Thus, major employers have indicated they are willing to work with the Township to provide transportation options to their workforce.

6.1.3 Building Age-Friendly and Equitable Communities

Rural public transportation is a key driver in the development of communities which are both age-friendly and equitable. This includes the

significant benefit of connecting residents to healthcare and social services. A US research study found that the avoidance of missed medical appointments by providing reliable rural transportation provides the highest quantifiable economic benefit of any socioeconomic factor studied (estimated at $733 million USD annually, or $713 USD per round trip).[18]

All of the Partners have a share of senior residents greater than the provincial average, as shown in Section 2.2.2. This need is particularly great for Gananoque, and was noted in stakeholder and public consultation. The **Gananoque Age-Friendly Action Plan 2022-2031** clearly establishes the creation of a new daily public transportation link between Gananoque and Kingston as one of its key priorities.

In addition, a lack of parking at the major hospitals in Kingston makes access a challenge for both patients and employees. This was noted by Kingston Health Sciences Centre during stakeholder engagement. The proposed commuter public transportation services will allow residents within the study area to reliably access medical and social services within Kingston.

The **South Frontenac 2040 Policy Directions Report** recommended the development of transit-supportive communities to increase the future potential of rural public transportation services. Stakeholder input in the report included strong support for rural public transportation as an age-friendly community initiative.

6.1.4 Advancing Climate Action

In 2019, the City of Kingston was the first municipality in Ontario to declare a climate emergency. Therefore, it is worth noting that public transportation can be an effective tool in the reduction of carbon emissions and particulate matter associated with automobile usage. The **Kingston Climate Leadership Plan** includes a relevant objective to “encourage a shift to sustainable modes and a reduced reliance on personal vehicle use”. It also references previous plans which target a 15% transit mode share by 2034.

[18] Godavarthy, Ranjit, Jeremy Mattson, and Elvis Ndembe. “Cost-Benefit Analysis of Rural and Small Urban Transit.” National Center for Transit Research, July 2014. https://www.nctr.usf.edu/wp-content/uploads/2015/01/77060-NCTR-NDSU03-508.pdf.

The **ResiLienT Loyalist Township Climate Action Plan** targets a 5% transit mode share by 2030, and encourages the implementation of "a transit plan which will meet the needs of urban and rural communities". The Loyalist routes will connect Bath and Odessa to Amherstview and Kingston, reducing the number of trips currently made by automobile and expanding transportation access in rural areas.

The **Canada 2030 Emission Reduction Plan** is the guiding document for the federal government's overarching climate action initiatives. It highlights that transportation is the second-highest emitter federally and the Plan targets an 40% reduction in total emissions from 2005 levels. The Plan states, "Public transit systems contribute to the decarbonization of the transportation sector by encouraging modal shift, combatting congestion, and reducing reliance on personal vehicles."

As proposed, the commuter public transportation system is not projected to reduce carbon emissions within the first five years of operation. However, climate action and emission reduction benefits may be better realized in the future as ridership grows and/or zero-emission buses are procured to operate along the routes.

6.1.5 Supporting Seasonal Tourism and Recreation

Another major driver of rural public transportation service is improving access to seasonal tourism, particular in Gananoque. Gananoque is a popular destination from Kingston, where tourists enjoy the 1000 Islands cruises, visit Shorelines Casino, and explore downtown Gananoque. Public transportation access also allows these employers to source seasonal labour from Kingston. During stakeholder consultation, it was also remarked that Gananoque residents frequently travel to Kingston to access recreation and activities in the city. The proposed Gananoque route would provide up to 6 daily round trips, with additional service possible via operating support from the casino.

The proposed South Frontenac & North Rural Kingston route will also connect residents across the study area to numerous recreational cycling and hiking opportunities in the area, including the Cataraqui Trail and K&P Rail Trail. Many residents mentioned this as a benefit of rural public

transportation during public consultation. The route would run up to 6 round trips to connect to these recreational sites.

6.1.6 Summary

The proposed commuter public transportation services would align with goals and objectives in the following policy documents:

- 2019-2022 Kingston Strategic Plan
- 2023-2026 Kingston Strategic Priorities Implementation Plan
- Rural Kingston Economic Development Strategy
- Kingston Climate Leadership Plan
- Gananoque Transit Feasibility Study
- Gananoque Age-Friendly Action Plan 2022-2031
- Loyalist Township 2019-2023 Strategic Plan
- Loyalist Township “Improving Public Transit” Staff Report
- ResiLienT Loyalist Township Climate Action Plan
- South Frontenac 2040 Policy Directions
- Eastern Ontario Leadership Council Commuter Strategy
- Canada 2030 Emission Reduction Plan

In addition to these policy documents, the proposed services would also fulfill commitments and objectives outlined in other plans and reports.

6.2 Economic Case

6.2.1 Number of Residents Served

The proposed commuter public transportation service would provide significant economic benefits to the communities located in the vicinity of its four routes. The service would put new public transportation service within **walking distance of over 23,000 residents**, connecting them with daily weekday service to Kingston

and other rural communities. The total **service area population of over 53,000 residents** would be able to access the commuter public transportation service via connecting community transportation service, drop-offs, and potential park & rides.

6.2.2 Number of Jobs Served

Commuter public transportation will be an essential economic development tool for both Kingston and its rural partners. Manufacturers in Kingston have indicated they expect **750 new jobs over the next three years**, while existing roles are already going unfilled. This is in addition to even higher job growth expected across the broader Kingston economy. Access to commuter public transportation will overcome existing transportation barriers to connect the rural labour force to these employment opportunities.

Major rural employers such as Umicore, Cardinal Health, Latham Pools, Direct Coil and Alstom will be able to tap into an expanded labour pool via the enhanced rural transportation network. These **major employers will provide over 1,000 rural manufacturing jobs by 2025** to urban Kingston and rural residents.

6.2.3 Ridership Projections

Ridership on the proposed commuter public transportation service is projected to reach **23,000-25,000 annual boardings** by Year 5. This projection was based on the service area population, growth projections, performance of peer services, and unique considerations such as historical casino shuttle ridership.

6.2.4 Mode Shift

Weighing both academic research and the results of the public survey with respect to access to alternative transportation options, it is expected that 65% of commuter public transportation trips would have otherwise been taken using an automobile. This equates to up to **16,000 automobile trips per year diverted onto public transportation**, contributing to reduction in traffic congestion.

6.2.5 Health Benefits

An often-overlooked benefit of public transportation is encouragement of healthy lifestyles via the active travel (walking/cycling) required to reach the bus stop from the trip origin and destination. Based on average travel distances to/from bus stops, is estimated that riders will make up to **an additional 13,000 kilometres of active travel every year**, providing physical activity and promoting better health outcomes.

Another consideration with respect to improving health outcomes is connecting rural residents to healthcare appointments. Missed appointments are a significant financial and operational drain on the healthcare system, and appointments for vulnerable patients are often missed due to transportation barriers. The commuter public transportation service will also better connect rural residents to local communities, promote social inclusion, and improve the independence of seniors, all of which lead to tangible, but difficult to monetize, socioeconomic benefits.

6.3 Financial Case

The Financial Case considers only direct cash flows – revenues and costs. The Financial Case assumed full participation of the Partners, and changes to the final service plan could affect actual revenues and costs.

6.3.1 Project Revenues

The primary source of revenue is from the farebox. Fare revenue was estimated by applying the fare structure in Exhibit 5.4 to the ridership estimate, by expected fare distribution. Additionally, advertising revenue is expected to be a minor secondary revenue source. The projected revenues for each route are provided in Exhibit 6.1:

Exhibit 6.1: Annual Project Revenues

Benefit	Fare Revenue in Year 5 ($)		Advertising Revenue ($)
	Low Scenario	High Scenario	
Route 1 Gananoque & East Rural Kingston	$48,000	$53,000	$1,500
Route 2 Loyalist	$82,000	$88,000	$1,500

Route 3 South Frontenac & North Rural Kingston	$37,000	$41,000	$1,500
Total	**$167,000**	**$181,000**	**$4,500**

6.3.2 Project Operating Costs

The costs of operating the service are broken down as follows:

- **Operating contract:** The most significant expense, this cost is the payment to the service provider to operate the service.
- **Dedicated staff:** While operations will be handled by the service provider, an in-house transit coordinator will be required to handle activities such as marketing, customer service, reporting, service changes, and long-term planning. This role is estimated at 0.5 FTE (full-time equivalent).
- **Marketing and communications:** To ensure the success of the service, funding must be dedicated towards promoting use of the service. This cost includes printing marketing materials, buying advertisements and maintaining an updated website, and is expected to decrease once the service is established.
- **Taxi voucher program:** As discussed in Section 4.5,
- subsidized taxi vouchers would provide supplementary transportation access in areas which do not have the population densities to support public transportation service. This cost is not allocated equally between routes, so it is only provided for the total system financial case.
- **Parallel specialized transportation contract:** To fulfill AODA requirements, accessible transit service is proposed to be provided via a contract with a local accessible taxi service.

The costs vary by year, so are detailed in the following sections.

6.3.3 Funding Source Assumptions

Section 6.4.6 below outlines all potential capital and operating funding sources. For the purposes of the Financial Case, it is assumed that the

Provincial Gas Tax is the only funding source provided. Kingston and Loyalist are already allocated Gas Tax funding for public transit, and therefore they are excluded from the funding allocation calculation. It is important to note that the remaining municipalities of Gananoque and South Frontenac are only eligible for Gas Tax funding if they commit to sustained operation of commuter public transportation– a pilot project would not qualify.

6.3.4 Route 1 Gananoque & East Rural Kingston

The Financial Case for Route 1 is provided in Exhibit 6.2 below:

Exhibit 6.2: Route 1 Gananoque & East Rural Kingston Financial Case

Item	Plan Year				
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Revenue Hours	2,900	2,900	2,900	2,900	2,900
Annual Ridership	2,900	4,400	5,900	6,000	6,100
Revenue					
Fare Revenue	$24,000	$37,000	$49,000	$50,000	$51,000
Advertising Revenue	$2,000	$2,000	$2,000	$2,000	$2,000
Total Revenues	**$26,000**	**$39,000**	**$51,000**	**$52,000**	**$53,000**
Capital and Operating Costs					
Operating Contract	$268,000	$273,000	$278,000	$284,000	$290,000
Marketing and Communications	$7,000	$3,000	$3,000	$3,000	$3,000
Dedicated Transit Coordinator (0.5 FTE)	$14,000	$14,000	$14,000	$15,000	$15,000
Parallel Specialized Transit Contract	$4,000	$6,000	$8,000	$8,000	$8,000
Total Expenses	**$293,000**	**$296,000**	**$303,000**	**$310,000**	**$316,000**
Cost Recovery Ratio	0.09	0.13	0.17	0.17	0.17

6.3.5 Route 2 Loyalist

The Financial Case for Route 2 is provided in Exhibit 6.3 below:

Exhibit 6.3: Route 2 Loyalist Financial Case

Item	Plan Year				
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Revenue Hours	3,300	3,300	3,300	3,300	3,300
Annual Ridership	6,300	9,600	12,900	13,000	13,100
Revenue					
Fare Revenue	$41,000	$62,000	$84,000	$85,000	$85,000
Advertising Revenue	$2,000	$2,000	$2,000	$2,000	$2,000
Total Revenues	**$43,000**	**$64,000**	**$86,000**	**$87,000**	**$87,000**
Capital and Operating Costs					
Operating Contract	$304,000	$310,000	$316,000	$322,000	$328,000
Marketing and Communications	$7,000	$3,000	$3,000	$3,000	$3,000
Dedicated Transit Coordinator (0.5 FTE)	$14,000	$14,000	$14,000	$15,000	$15,000
Parallel Specialized Transit Contract	$4,000	$6,000	$8,000	$8,000	$8,000
Total Expenses	**$329,000**	**$333,000**	**$341,000**	**$348,000**	**$354,000**
Cost Recovery Ratio	0.13	0.19	0.25	0.25	0.25

6.3.6 Route 3 South Frontenac & North Rural Kingston

The Financial Case for Route 3 is provided in Exhibit 6.4 below:

Exhibit 6.4: Route 3 South Frontenac & North Rural Kingston Financial Case

Item	Plan Year				
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Revenue Hours	3,400	3,400	3,400	3,400	3,400
Annual Ridership	2,400	3,600	4,900	5,000	5,100
Revenue					
Fare Revenue	$18,000	$28,000	$37,000	$38,000	$38,000
Advertising Revenue	$2,000	$2,000	$2,000	$2,000	$2,000
Total Revenues	**$20,000**	**$29,000**	**$39,000**	**$40,000**	**$40,000**
Capital and Operating Costs					
Operating Contract	$316,000	$323,000	$329,000	$336,000	$343,000
Marketing and Communications	$7,000	$3,000	$3,000	$3,000	$3,000
Dedicated Transit Coordinator (0.5 FTE)	$14,000	$14,000	$14,000	$15,000	$15,000
Parallel Specialized Transit Contract	$4,000	$6,000	$8,000	$8,000	$8,000
Total Expenses	**$341,000**	**$346,000**	**$354,000**	**$362,000**	**$369,000**
Cost Recovery Ratio	0.06	0.09	0.11	0.11	0.11

6.3.7 Total Financial Impact

The Financial Case for the full system is provided in Exhibit 6.5 below:

Exhibit 6.5: Overall Financial Case

Item	Plan Year				
	Year 1	Year 2	Year 3	Year 4	Year 5
Annual Revenue Hours	9,500	9,500	9,500	9,500	9,500
Annual Ridership	12,000	17,000	24,000	24,000	24,000
Revenue					
Fare Revenue	$83,000	$127,000	$171,000	$172,000	$174,000
Advertising Revenue	$5,000	$5,000	$5,000	$5,000	$5,000
Total Revenues	**$88,000**	**$132,000**	**$176,000**	**$177,000**	**$179,000**
Capital and Operating Costs					
Operating Contract	$889,000	$906,000	$924,000	$942,000	$961,000
Marketing and Communications	$20,000	$10,000	$10,000	$10,000	$10,000
Dedicated Transit Coordinator (0.5 FTE)	$42,000	$43,000	$43,000	$44,000	$45,000
Taxi Voucher Program	$13,000	$19,000	$25,000	$25,000	$25,000
Parallel Specialized Transit Contract	$13,000	$19,000	$25,000	$25,000	$25,000
Total Expenses	**$977,000**	**$997,000**	**$1,027,000**	**$1,046,000**	**$1,066,000**
Cost Recovery Ratio	0.09	0.13	0.17	0.17	0.17
Gas Tax Funding[1]	$219,000	$224,000	$228,000	$231,000	$233,000
Net Municipal Investment	**$670,000**	**$641,000**	**$624,000**	**$638,000**	**$653,000**
Net Investment Per Capita	$3.80	$3.60	$3.47	$3.51	$3.55

2. Available in year one with a pro-rated contribution; amount to be confirmed

6.4 Deliverability and Operations Case

6.4.1 Service Delivery Responsibilities

The proposed operating model, described in Section 5.3, would see an initial operating model where a private third-party contractor would operating the commuter public transportation service under contract to the Partners. The operator would provide drivers, fleet, and service management. It is recommended that this operator is contracted via a competitive RFP process.

The RFP process also allows respondents to propose “value-added” services that may enhance the operation and delivery of the service. A competitive bid process also ensures that the cost to operate the service reflects market conditions while also providing the flexibility to modifying services without incurring high capital costs or to alter the level of service as needed.

The RFP would include a full description of the service to be provided, performance expectations and accountability. The RFP should be developed to be flexible and allow for various service providers to respond.

In recognition of ongoing issues with driver availability, it is recommended that the RFP incentivise the contractor to ensure they have sufficient workforce to operate the service reliably and penalize any service cancellations due to labour shortages.

With a contracted service, the Partners are responsible for oversight of the contract and service as well as some supportive administrative tasks as outlined in the delivery structure below in Exhibit 6.6.

Exhibit 6.6: Recommended Administrative Roles and Responsibilities

Task	Province	Partner Municipalities	Operator
Planning			
Approving a service strategy (including operating model, service levels and coverage areas)		✓	
Developing supporting policies and procedures (e.g. fares, training)		✓	
Marketing and promotion		✓	
Funding			
Gas Tax funding	✓		
Local funding		✓	
Operations and Management			
Scheduling and dispatch			✓
Service delivery			✓
Contract management		✓	
Operations management		✓	✓
Fare collection/fare product distribution			✓
Customer service		✓	✓
Fleet maintenance			✓
Operator training, labour relations			✓

6.4.2 Staff Resource Requirements

Administrative staff resources will be required for the planning, management, and marketing of the service. The main responsibilities of this position will include:

- Administration and monitoring of contracts and operating agreements. This may include periodic inspection of the vehicles used for service;
- Marketing and communications, including preparing and distributing customer information and promotional materials,

communicating service disruptions, and updating (or coordinating updates to) the website;

- Coordinating the distribution of any fare products (e.g. passes, tickets);
- Responding to customer enquiries and feedback;
- Reconciliation of ridership and revenue – including coordinating the daily collection of fare revenues from the contractor. This task can be incorporated into the operator contract to streamline administrative costs;
- Regularly reviewing and updating supporting policies and procedures as needed;
- Preparing all necessary reports and documentation on the performance of the service for Council updates, the Ministry of Transportation (MTO), the Canadian Urban Transit Association (CUTA), and other agencies that request information on the service; and
- Reviewing the eligibility requirements for receiving funding from other levels of government (e.g. Gas Tax) and exploring additional funding options as required.

At this time, it is recommended that this staff resource is situated within City of Kingston Transportation Services or Kingston Transit, to better promote integration with Kingston Transit and support regional initiatives. This is subject to further discussion between the Partners.

6.4.3 Marketing and Communications

A marketing and communications plan is integral to raising awareness of a future commuter public transportation service. Increasing awareness can be particularly challenging because the relatively infrequent service and lack of physical infrastructure make them less visible than urban fixed route services.

A simple way to make the service more visible is by developing recognizable branding. The purpose of branding is to develop an image of the service to potential users. It involves two key considerations:

- a brand message, which should convey the vision, goals and objectives of the services; and
- a visual identity, which makes the service recognizable and confirms its authenticity.

The brand message is communicated to users through their experience of the service (i.e. in the day-to-day operation) and influences their perception of the system. The vision, goals and objectives of the service should be communicated internally so that all staff are aware of them, and the actions being taken toward meeting them. The visual identity should be applied to all the materials used for the service, including vehicle livery, marketing materials, and online communications.

For the launch of the service, branding should be paired with targeted marketing to make people more aware of the service. Targeted marketing can take two main forms: community-based marketing, and media advisories or paid advertising. Community based marketing would primarily involve communicating with existing services that work with the demographic groups that would benefit most from the service, such as seniors and low-income residents. This is a more engaged form of promotion, and requires on-going two-way communication with community groups.

In addition to communicating through existing service providers, it will be important for the service to be promoted at community events, such as festivals and farmers markets. Media advisories and paid advertising (including targeted social media advertising) can be a one-time undertaking to promote the launch of the service.

Following the launch of the service, it is important to communicate information about the service on an on-going basis to help grow ridership. The following tasks are recommended as part of the marketing and communications plan:

- **Develop customer information materials** including a website and a transportation service brochure. These will incorporate all of the essential information about the service, such as hours of

operations, coverage area, fare structure and where to purchase fare media.

  - **Website:** The website should also include a trip booking form, contact information, service policies, a feedback form and rider alerts. It should be promoted on the service's website landing page, as well as on the local municipalities' websites.
  - **Print brochure:** The brochure should be available on the vehicle, at service agencies and retailers, municipal offices and other municipal facilities, and should feature the visual brand.
  - **Digital trip planning:** To improve ease of trip planning for customers, especially those connecting to other services, it is recommended that the service develops a General Transit Feed Specification (GTFS) feed. A GTFS feed contains the operating data which allows trip planning services such as Google Maps to "see" the routes and schedules and integrate them into its trip planning algorithms.

- **Establish a customer information line** for feedback. This should be a dedicated telephone number for customer information that is coordinated by the contractor and staffed during the regular business hours. An email address or comment form on the website can also be provided for the same purpose.
- **Update participating Councils regularly** regarding the performance of the transportation service and any other relevant occurrences.
- **Create special promotion days** that allow people to try the service for special fares or to community-wide events. This could include targeted outreach to senior care centres, schools, or social services.
- **Maintain regular community involvement** to promote the benefits of a public transportation system and communicate service changes or disruptions. This can include regular communication with community agencies, and the media.

Financial and administrative resources will be required to support and implement the marketing and communications plan. The main cost will be developing the branding of the service, which will require retaining the services of branding professionals if none are available between the Partners. The typical cost to develop a brand for this purpose and scale is approximately $10,000. In addition to the branding, a special promotional budget of $10,000 should be established for the launch of the service, including development and distribution of promotional materials. In terms of staffing resources, there should be expected to be high volumes of customer enquiries with the launch of the service, and for the first few months of service.

An annual budget for on-going promotional activities should be established based on the promotional activities selected (e.g. the special promotion days). The full-time employee will be required to manage and update the marketing and communication plan. This budget can be supplemented by cross-promotional activities with other municipal services, local businesses and community services.

6.4.4 Monitoring and Reporting

On the basis of contracting out the service to a third party, the Partners would be responsible for monitoring the operations and maintenance of the service, as well as reporting on the performance of the service to participating Councils and residents.

The contract for services should outline the information the operator must provide, including usage metrics and public feedback.

Exhibit 6.7 identifies the recommended performance indicators that should be collected to monitor the performance of the system and who should be responsible for collecting it.

The purpose of collecting this data is to identify usage trends, including common destinations, usage peaks, service utilization, and the cost effectiveness of the service. Collection of these metrics is required to qualify for Gas Tax funding. In addition, these metrics are shared by trade associations such as CUTA and the Ontario Public Transit Association (OPTA). It is useful internally for benchmarking the system against peer

communities, monitoring trends, and providing regular Council updates on the service's performance.

Exhibit 6.7: Recommended Performance Indicators

Recommended Performance Indicators	Collected By
Operating Data	
Revenue Vehicle Kilometres	Operator
Total Vehicle Kilometres	Operator
Revenue Vehicle Hours	Operator
Total Vehicle Hours	Operator
Passenger Data	
Total ridership	Operator
Ridership by stop/route	Operator
Number and nature of complaints	Operator
Operating Expenses	
Administrative costs	Partners
Number of employees (by role)	Partners/Operator
Contract costs	Partners
Maintenance	Operator
Fuel	Operator
Capital Expenses	
Vehicles purchases	Operator
Other capital expenses	Partners
Operating Revenue and Funding Contributions	
Total operating revenue	Partners
Federal contributions	Partners
Provincial contributions	Partners
Municipal contributions	Partners

6.4.5 Implementation Timeline and Prioritization

Prioritization of the routes should be considered carefully, as tendering the entire system as a package may yield economy of scale benefits. As a dueling consideration, Loyalist Township has received funding to pilot a rural transportation service which it must spend by 2025. Therefore, **it is recommended that Loyalist Township proceed imminently with the implementation of their routes** to responsibly make use of available funding. Further**, it is recommended that Loyalist is re-tendered with the other two routes post-2025** when Loyalist's funding agreement expires.

The following implementation actions are outlined in Exhibit 6.8 to guide the Partners from the presentation of this report to Council in Q1 2024, tendering the service, and officially launching the proposed public transportation service. The timeline is conceptual, based on alignment and buy-in from all stakeholders. It is also reported in number of months prior to service initiation, to allow for flexibility in case the service is extended or terminated early.

Exhibit 6.8: Implementation Plan Actions

Actions
Q1 2024
Present report to Kingston City Council
Consult participating Councils and the public on the detailed proposal for commuter public transportation service
Q3 Year 0 (12 months to service launch)
Budget approval of the commuter public transportation service
Pass by-laws at participating Councils to affirm continued financial support, to qualify for Gas Tax funding
Establish implementation date
Development procurement strategy and refine service plan to develop RFP
Prepare RFP and Contract Documents
Council approval for RFP and Contract
Issue RFP: Allow 6-8 weeks for responses
Q1 Year 1 (6 months to service launch)
RFP Closes
Evaluate bids and award contract
Finalize contract with successful bidder
Develop system branding
Q2 Year 1 (3 months to service launch)
Prepare communication and information materials: e.g. website, promotional materials
Targeted marketing: Paid advertising; community-based marketing; promotional efforts to gain publicity
Q3 Year 1 (0 months to service launch)
Launch new public transportation service: Plan promotional events
Ongoing after launch
Monitor performance and report to participating Councils regularly
Provide contract and service oversight
Work with contractor to improve efficiency and consider service enhancements discussed in Section 7.

6.4.6 Funding Sources

Federal and Provincial funding opportunities for public transit projects are outlined below:

Provincial Gas Tax Funding

Ontario's Dedicated Gas Tax Funds for Public Transportation Program (Gas Tax) supports public transit in municipalities across Ontario by providing two cents per litre of Provincial Gas Tax to improve and expand transit. Funding can be used for capital and operating costs for public transit and is prorated if the Partners join the program mid-year. The funding allocation is capped at 75% of the net municipal investment, and is based on 70% ridership and 30% municipal population. If the Partners apply before the service is operational, only the population will be used to determine funding allocation in the first year of operation. **This is a viable funding source.**

It is recommended that the Partners apply for the Provincial Gas Tax program prior to the operation of the future transit service. In order to be eligible for the Gas Tax program, the eligible Partners must adopt a by-law or resolution committing to ongoing financial support of public transit. The by-law or resolution should include the expected municipal contributions that are being committed. In addition, "double dipping" is not allowed, meaning Kingston and Loyalist would not be eligible to receive additional funding beyond their existing allocations. MTO requires ridership data to be collected and reported to CUTA to calculate funding allocations.

Provincial Community Transportation Grant

The Provincial Community Transportation Grant is a funding program to support areas of Ontario that are unserved or underserved by transit services. Municipalities can use the funding to plan, implement and operate public transportation services in their community. The program was initiated with a five-year funding term (2018-2023) and was subsequently extended in 2021 to provide funding until 2025. The program intake has closed, meaning this is **not a viable funding source.**

Given the Province's support for addressing transportation barriers and improving access and availability of transit, there could be an opportunity for the province to extend the program. However, current messaging to

municipalities enrolled in the program suggest that the program is likely to be discontinued in 2025, as planned. Communications from municipalities, such as the Partners, that are considering expanding their rural public transportation systems could help to support or influence the Province's decision.

Federal Rural Transit Solutions Fund

The Federal government's Rural Transit Solutions Fund program is targeting the development of transit solutions in rural, remote, northern and Indigenous communities to improve mobility within and between communities. The fund is available for five years beginning in 2021. Eligible applicants can seek grants of up to $50,000 in support of project planning; up to $3 million to cover capital costs (e.g. purchase of a vehicle, digital platforms, bus shelters, sidewalks, etc.); and up to $5 million to support zero-emission transit solutions (e.g. purchase of a zero-emission vehicle(s)). The Federal contribution, from this program and other programs, is limited at 80% of capital expenses.

The application period for the planning program closed on October 8, 2021, and the capital program intake is now open on a continuous basis until further notice. If capital program intake continues, the fund **may be a viable funding source to fund capital expenditures such as bus shelters, sidewalks, and start-up costs for software (i.e. trip booking or bus tracking).**

Canada Community-Building Fund

Canada Community-Building Fund, previously named the Federal Gas Tax Fund, is a source of infrastructure capital funding for provincial and municipal governments. The funding is distributed from the Federal government to the Province, and then to AMO (Association of Municipalities of Ontario) before being distributed to the municipalities. Municipal allocation is based on population per capita. The Partners were allocated a total of $9.7 million in 2023. Public transit infrastructure is eligible for funding under this program.

Dependent on the existing and planned allocation of the Partners' funding for 2023 (and beyond), they could recommend allocating a portion of the

funding for any capital investment incurred from a future transit service. As such, this fund is **a viable funding source for capital expenditures.**

Investing in Canada Infrastructure Program (ICIP) – Public Transit Stream

The Public Transit stream of ICIP provides funding for planning and feasibility studies and capital investments in public transit. The program was originally designed to allocate funding based on ridership and population for established transit systems. As part of the COVID-19 Resilience stream, funding eligibility was expanded to include inter-community transit projects that are not connected to an existing transit system. These projects were required to start construction by September 30, 2021. As such, this is **no longer a viable funding source.**

Industry Partnerships

It may be advantageous for major industry partners to support the proposed commuter public transportation service in lieu of funding and operating their own dedicated shuttle services. In particular, Shorelines Casino, CFB Kingston, and Umicore are three major partners who have expressed interest in transit service to their locations. There may also be potential for new Provincial support to fulfill their obligations to major employers to supply a skilled workforce. These options should continue to be explored as **potentially viable funding sources**.

It is recommended that the Partners consider applying for funding under future intakes of the ICIP Public Transit stream if the future commuter public transportation service requires major capital investment.

6.4.7 Cost Sharing

Partner municipalities could consider sharing capital and operating costs using a variety of different approaches used by peer transit systems to ensure fairness.

Niagara Region Transit

Niagara Region Transit (NRT) amalgamated the region's local transit services in 2023, forming a single system which provides both local and regional services across Niagara Region, including Niagara Falls, St. Catharines, and Welland. For inter-municipal routes, NRT allocates costs

by the municipal share of the total Region-wide property assessment. The property assessment is the assessed value on properties as calculated by the Municipal Property Assessment Corporation. This method factors in property values, therefore considering equity at the municipal level.

Simcoe County LINX

Simcoe County LINX provides regional bus service within Simcoe County, including Barrie, Orillia, and Collingwood. The service is funded primarily via the County's tax levy. This means that municipalities do not pay directly for service, but local residents instead contribute via County taxes. As County taxes are paid by each property, this functionally means that on a per-municipality basis, costs are allocated the same way as NRT, by the municipal share of total County property assessment.

Saugeen Mobility & Regional Transit

Saugeen Mobility & Regional Transit (SMART) is a door-to-door specialized public transit service for residents of 10 municipalities in Bruce County and Grey County. SMART has elected to use the same formula that the Province uses to calculate Gas Tax funding allocation: 70% ridership and 30% population. Functionally, this means that 70% of the total cost is allocated by calculating the number of annual trips made from each participating municipality as a share of the total, and 30% of the cost is allocated based on share of the total service population. This method may be more complicated to apply to a fixed route system where less accurate data regarding stop-level ridership exists.

Loyalist Township

Loyalist already has an existing agreement in place which could be looked at as a model for the sharing of costs for the commuter public transportation service. The agreement stipulates that Loyalist pays Kingston Transit for the entirety of the Route 10 service, including an hourly rate to operate the route and a fixed amount for capital costs. However, Route 10 operates through certain areas of Kingston which are not otherwise served by transit service. To reflect this, Loyalist keeps all fare revenue collected via operation of the route.

Fraser Valley Express

The Fraser Valley Express (FVE) is a commuter bus route to Vancouver operated by the municipalities of Abbotsford and Chilliwack in British Columbia. As per provincial legislation, roughly half of costs are paid for by the Province, with the other half borne by local municipalities. Abbotsford and Chilliwack negotiated an agreement to share costs based on share of the total assessed property value. Based on this formula, Abbotsford pays approximately two-thirds of the total municipal share, with Chilliwack paying the remaining one-third. Notably, Vancouver does not pay for the service.

Additional Cost-Sharing Models

The following additional cost-sharing models were explored for the Partners' consideration:

- Equal cost sharing (25% for each Partner)
- Costs split by number of stops within each municipality
- Costs split based on annual vehicle-kilometres covered within each municipality
- Costs split based on annual ridership within each municipality

Exhibit 6.9: Potential Cost Sharing Scenarios (Illustrative Examples)

Scenario		Kingston			South Frontenac			Loyalist			Gananoque		
		Cost in Year 5	Share of Total	Per Capita Cost	Cost in Year 5	Share of Total	Per Capita Cost	Cost in Year 5	Share of Total	Per Capita Cost	Cost in Year 5	Share of Total	Per Capita Cost
NRT, Simcoe County LINX	Share of assessed property	$490,000	75%	$3.70	$91,000	14%	$4.51	$59,000	9%	$3.29	$13,000	2%	$2.42
SMART	70% ridership, 30% population[19]	$359,000	55%	$2.71	$65,000	10%	$3.63	$170,000	26%	$8.46	$65,000	10%	$12.08
Loyalist Route 10	Direct payment, largest municipality excluded[20]	$0	0%	$0.00	$209,000	32%	$10.35	$276,000	42%	$15.38	$168,000	26%	$31.21
FVE	Share of assessed property, largest municipality excluded	$0	0%	$0.00	$366,000	56%	$18.13	$229,000	35%	$12.76	$65,000	10%	$12.08
Equal share		$163,000	25%	$1.23	$163,000	25%	$8.07	$163,000	25%	$9.08	$163,000	25%	$30.28
Split by # of stops		$266,000	41%	$2.01	$120,000	18%	$5.97	$173,000	27%	$9.66	$93,000	14%	$17.22
Split by veh-km		$335,000	51%	$2.53	$146,000	22%	$7.26	$139,000	21%	$7.77	$32,000	5%	$5.93
Split by ridership		$298,000	46%	$2.25	$60,000	9%	$2.99	$213,000	33%	$11.90	$82,000	13%	$15.19

[19] Approximate calculation based on high-level estimate of trip origin-destination flows

[20] Assumes gas tax revenue is allocated to eligible municipalities, proportional to 70% ridership/30% population formula

7 Future Considerations

This section discusses how the service could evolve in the future, and how to best support the growth of the service to meet its goals.

7.1 Service Expansion

In the event that ridership growth, community feedback, or local priorities prompt the need for a longer span of service, the Partners could explore investing additional funds to do so. Based on public consultation feedback, the following times of day should be considered for new service: Weekday evenings, Saturday mid-day, Sunday mid-day, Friday nights, and Saturday nights.

Over time, if ridership exceeds the projections and vehicle capacity becomes strained due to high demand, it is advised to switch to a higher-capacity vehicle before operating increased service.

7.2 Fare Integration

The provision of a truly affordable commuter public transportation service will rely on the implementation of a fare integration agreement with Kingston Transit. This agreement would allow riders on the commuter public transportation service to transfer for free onto Kingston Transit without paying a second fare. Conversations with Kingston Transit regarding the possibility of such an agreement have been optimistic. A fare integration agreement may require transfer payments between the Partners and the City of Kingston depending on expected revenue loss to the City. The City may alternatively forego these payments on the basis that the rural transit service will increase ridership on local Kingston Transit routes and improve ridership, and in turn increase the share of its' Gas Tax funding allocation.

7.3 Park & Ride Opportunities

A key strategy identified by project stakeholders to support ridership growth has been the construction of new Park & Rides. Park & Rides allow riders to drive their car to the lot, park at no cost, and continue their trip on public transportation. This strategy has been successful in urban Kingston, where limited downtown parking availability is an opportunity for transit service.

Partnerships can be sought with municipalities and private property owners of existing under-utilized parking lots to allocate parking spots for park-and-ride purposes. Potential locations for new rural Park & Rides for further consideration and discussion are listed below in Exhibit 7.1. These locations are only conceptual, based on potential need along the routes.

Exhibit 7.1: Potential Park & Ride Locations

Location	Address
Kingston	
Islamic Centre of Kingston	1477 Sydenham Road
Glenburnie	Perth Road & Unity Road
Gananoque	
Municipal parking lot	155 Garden Street
Municipal parking lot	79 Pine Street
Loyalist	
Bath	Church Street, between Loyalist Boulevard and Academy St
South Frontenac	
Sydenham	Rutledge Road & Wheatley Street
Harrowsmith	Harrowsmith Road, east of Road 38
Hartington	Road 38 & Holleford Rd
Verona	Road 38, between Easy Street and Sand Road

Park & Rides should be located either at the end of a route, or at a point where a wide area of adjacent residents unserved by public transportation can conveniently access the lot. If multiple locations for a potential Park &

Ride are available in the same area, it is expected that it will be easier to obtain permission, and be more cost-effective, to use publicly-owned property than private property.

7.4 Stop Infrastructure Upgrades

Initially, it is recommended that rural fixed route stops consist of a signpost with adequate wayfinding that indicates the service, route, and directs riders where to find the schedule. As ridership grows, investments in stop infrastructure should be made at the highest-volume stops. Infrastructure can include a concrete pad, bus shelter, benches, garbage bins, and other amenities to improve the waiting experience. Capital funding sources to implement these improvements are discussed in Section 6.4.6.

7.5 Zero Emission Buses

As a long-term consideration that would require further analysis, the Partners could explore the opportunity to invest in zero emission buses (ZEBs) for the commuter public transportation system. In addition to the Federal Rural Transit Solutions Fund for ZEBs, the Federal Zero Emission Transit Fund is a potential source of capital funding.

ZEBs primarily comprise of two separate technologies: battery-electric buses (BEBs) and hydrogen fuel-cell buses (FCEBs). While FCEBs have superior range, they are hindered by fueling costs, as hydrogen production is highly sensitive to economies of scale and is very expensive in small quantities. BEBs are the more common choice in an urban environment due to relative affordability and ease of implementation, but current BEB range may not be able to accommodate the length of the routes proposed for the commuter public transportation service, especially when factoring in degraded performance in cold weather conditions.

ZEB technology and best practices are quickly evolving, and further study would be required to properly assess if/which ZEB technology would be feasible for the commuter public transportation service presently or in the future.

8 Conclusion and Recommendations

This section provides a summary of the study and presents the recommendations for the initiation and ongoing operation of commuter public transportation service as described in the report.

8.1 Conclusion

8.1.1 The Need for Commuter Public Transportation

This study has determined a strong need for commuter public transportation service in the rural areas within and surrounding Kingston.

The existing policy framework is highly supportive of public transportation on the basis of **economic development, equity and accessibility, age-friendliness, and personal independence**. In addition, federal and provincial policy has driven the availability of funding for certain capital and operating expenses.

Implementation of commuter public transportation can act as a solution to many of the challenges facing **workers, employers, students, seniors, and equity-deserving communities** by removing barriers to transportation and connecting rural residents to services and opportunities.

The proposed commuter public transportation service would **effectively serve commuting travel demand into Kingston** from the participating rural municipalities, particularly South Frontenac and Loyalist. Public transportation will also facilitate essential non-commuting trips, such as for **healthcare, services, along with recreation and tourism**.

With a particular study focus on commuting, it is clear that commuter public transportation can be a solution for ongoing and expected labour pressures. The study area is expected to **add over 1,750 manufacturing jobs over the next three years**, many in rural Loyalist. Kingston can play a key role as both a producer of highly qualified

university and college graduates, and as a major population centre with a significant labour pool.

8.1.2 Service Approach and Design

Based on the expected long distances, vast rural areas, and highly directional travel patterns, a **fixed route service** would be best able to meet transportation needs. This design will provide capacity along major corridors of travel demand and allow for riders to "just show up" at the bus stop without needing to pre-book their trip.

The best operating model for this service is a **third-party contracted operations model**, which would operate the routes using **minibuses** which are able to seat up to 20 passengers**.**

For areas which face transportation barriers but cannot support public transportation, a **taxi voucher program** is proposed to help vulnerable residents access lifeline transportation service.

8.1.3 Business Case

The results of the business case indicate a strong strategic impetus to begin operating commuter public transportation service. The ability to connect residents to employment, healthcare, social services, and recreation will yield socioeconomic benefits, while also reducing the number of automobiles on the road.

The service as proposed will result in a similar cost recovery ratio to peer transit systems studied, and result in an annual municipal subsidy which is less than $4.00 per resident within the study area. This equates to a net municipal contribution of $670,000 in the first year of operations, decreasing to $653,000 by the fifth year of operations.

8.1.4 Funding Sources

The service can take advantage of available funding sources, such as federal and provincial grants, to fund improvements to the system. the Rural Transit Solutions Fund can be leveraged as a capital funding source for infrastructure, fleet, and software. For operating funding, it is recommended that the Partners apply for provincial Gas Tax funding, which is estimated to cover approximately one-fifth of net operating costs.

8.2 Recommendations

The final study recommendations are divided into three distinct phases, Planning, Implementation and Monitoring, to reflect how the next steps for the commuter public transportation service are grouped.

The following recommendations provide a guide for the Partners to initiate a new commuter public transportation service should the participating Councils decide to endorse the service. These recommendations assume full participation of all Partners involved in the study, but implementation of the service could proceed with whichever municipalities wish to move forwards.

The recommendations provided below are based on the best technical information available at the time of study completion. As work continues towards implementing the service, adjustments may be made to the final service plan based on the new/updated project realities.

8.2.1 Phase 1 – Service Planning

- Consult with project Partners and local stakeholders on the recommended plan and critical success factors. Specific items to confirm with the Partners will include:
  - Organizational structure of the commuter public transportation service and the transit coordinator role
  - Contractual structure with the operator
- Initiate conversations with major rural employers (including Umicore and CFB Kingston) to understand and confirm shift timings in relation to the final route schedules.
- Begin negotiations with Kingston Transit to work towards an integrated fare structure (i.e. free transfers to/from Kingston Transit fare for commuter public transportation riders)
- Hold discussions with all project stakeholders and Primaris to modify the operating agreement for the Cataraqui Centre Transfer Point to allow contracted fleet to use the facility.

- Determine the feasibility of tendering the Loyalist routes as an initial pilot project to responsibly make use of available funding opportunities.
- Pursue a long-term permanent solution for the remaining two routes (South Frontenac & North Rural Kingston and Gananoque & East Rural Kingston).
- Following consultation and budget approval from participating Councils, proceed with the development of an operating RFP for the entire service as outlined in Section 6.4.

8.2.2 Phase 2 – Service Implementation

- Dedicate 0.5 FTE (50% of a full-time staff's time) to be responsible for coordinating day-to-day operations and long-term planning of the commuter public transportation service. This staff resource would manage municipal investment, monitor KPIs, and report to participating Councils/other levels of government. It is recommended that this FTE is situated within the City of Kingston Transportation Services / Kingston Transit.
- Launch a local marketing campaign to grow interest in the service, including social media posts, physical advertising, outreach to stakeholder groups, and pop-ups at local events.
- Supporting policies:
  - Adopt a by-law or resolution committing to ongoing financial support of public transit.
  - Adopt accessibility training procedures for all staff associated with implementing the public transportation service, including those developing marketing and promotional materials.
- Coordinate with the provincial Ministry of Transportation to apply for and obtain Gas Tax funding.

8.2.3 Phase 3 – Service Monitoring

- Provide regular performance reporting to participating Councils, CUTA, OPTA, and other transportation bodies as required.
- Continue discussions with Kingston Transit to determine if/when to transfer operations of the Loyalist routes
- Identify where Park & Rides may be required based on resident feedback and identified ridership patterns
- Implement improved bus stop infrastructure (shelters, benches, concrete pad, etc.) at high ridership stops along the fixed routes, as the capital budget and funding sources allows.

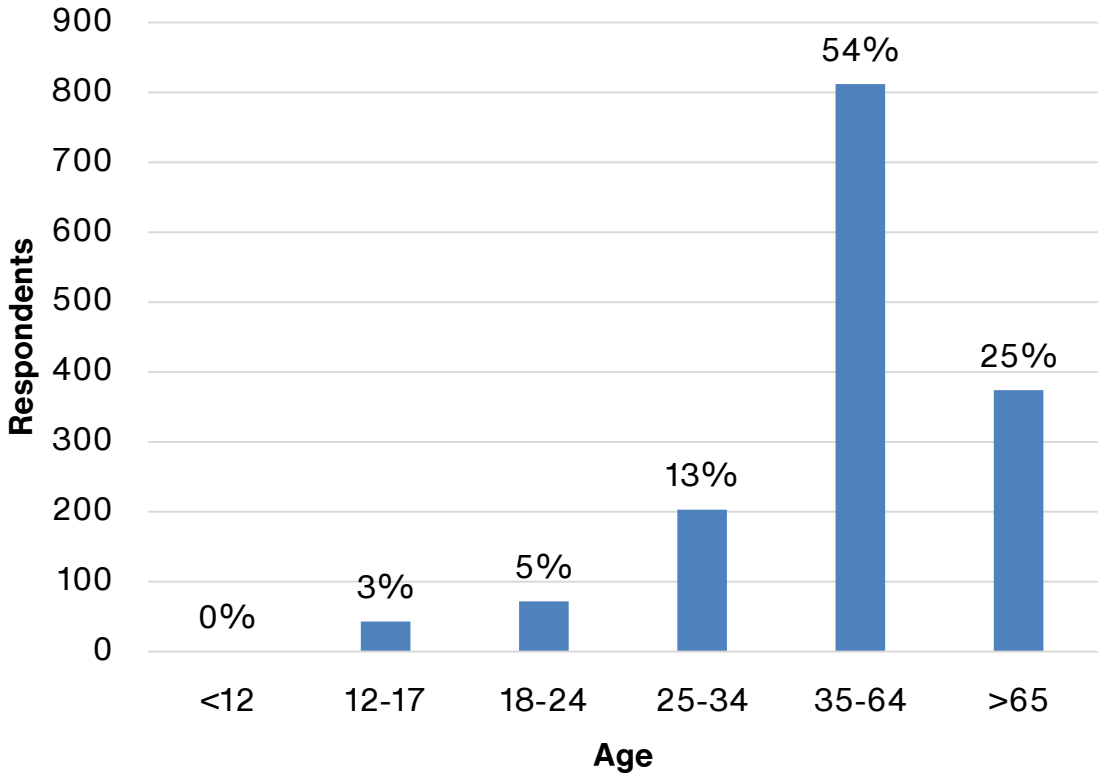
Appendix A – Engagement Summary

Engagement Summary

Respondent Profile

Exhibit A.1 shows the age distribution of respondents. 68% of respondents were of working age (25-64 years old). Census data show that this group is slightly over-represented, making up only 60% of the population. The proportion of seniors is representative, at 25% of respondents versus 25% of population. Youth (12-24 years old) are therefore under-represented, at only 8% of respondents despite making up 14% of residents.

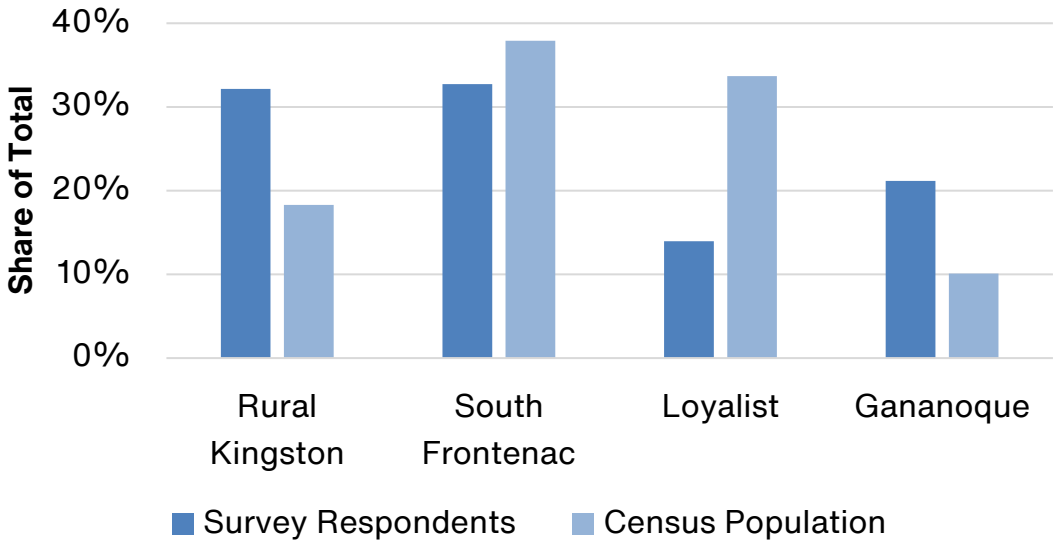
Exhibit A.1: Survey Respondent Age Distribution



The distribution of respondents over the four municipalities, along with actual population, is provided in Exhibit A.2. Most surveys were collected through the South Frontenac (33%) and Kingston (32%) collector links, followed by Gananoque (21%) and Loyalist (14%). Gananoque was over-represented, at 10% of the study area population. Kingston's rural areas, with a population of approximately 10,000, were also over-represented,

although this is likely explained by non-rural residents also completing the survey. Loyalist and South Frontenac were under-represented. Interpretation of these comparisons is limited by the collection approach, where respondents; location was determined by which collector link URL they used. The results could thus be distorted by sharing of collector link across municipal boundaries via word-of-mouth, for example.

Exhibit A.2: Survey Respondent Geographic Distribution



Source: Statistics Canada 2021 Census of Population

Respondents appear generally favourable to public transit. Three-quarters (77%) of respondents have used transit, while 23% have not. An even larger majority is open to using transit, with 90% of respondents reporting they would use transit to travel to or from rural areas surrounding the City of Kingston, if services were available.

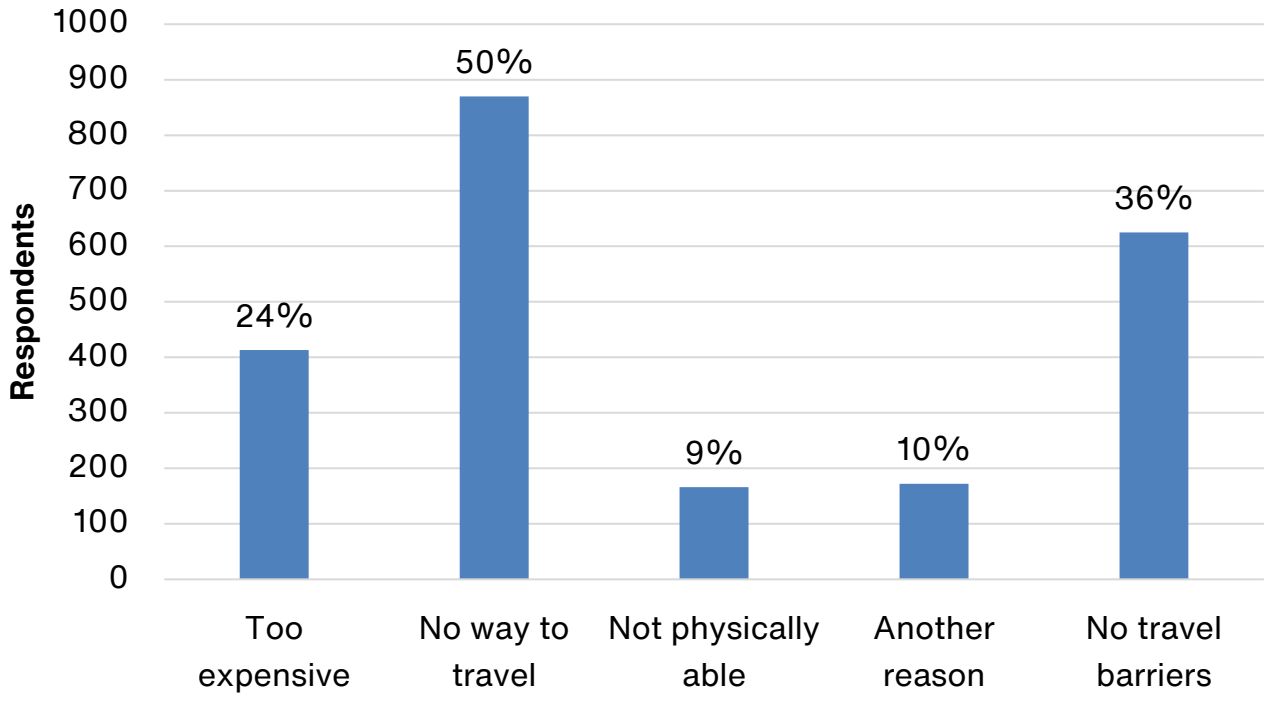
Mobility

Survey participants were asked about their mobility levels, such as their access to a vehicle. 81% of respondents had both a driver's license and at least occasional access to a vehicle, 5% had a license but no access to a vehicle, and 14% had no license.

Survey participants were asked about barriers they faced to transportation: cost, access, or physical limitations. Exhibit A.3 shows the distribution of

reasons people were unable to travel. The most common barrier was having no way to travel, experienced by almost half of all survey participants. 24% could not afford to travel, while 10% have been physically unable to. One in three respondents (36%) either did not experience any of the suggested barriers or did not complete the question.

Exhibit A.3: Reasons Respondents Were Unable to Travel



Respondents who lack either a driver's license or vehicle access were much more likely to experience transportation barriers. Over three-quarters (76%) have had no way to travel, 32% have been unable to afford travel, and 17% have found transportation physically inaccessible.

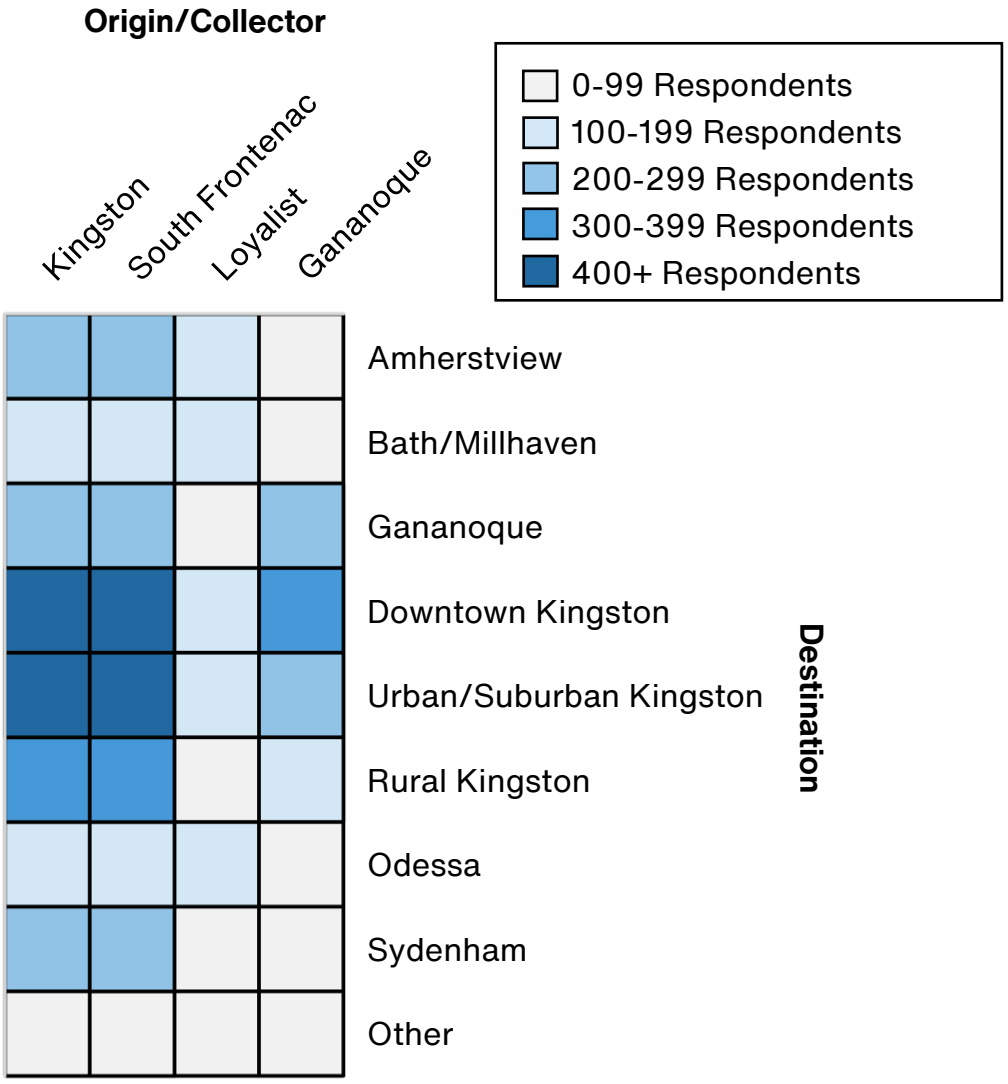
Travel Patterns

Survey participants were asked where and when they usually travel.

Respondents associated with different collection links had different distributions of destinations. Exhibit A.4 shows the destinations respondents reported travelling to in the last year. Regardless of origin, areas in Kingston, especially downtown, were the most common

destination. Within each collector, more respondents travelled to local destinations than further ones.

Exhibit A.4: Destinations by Collector

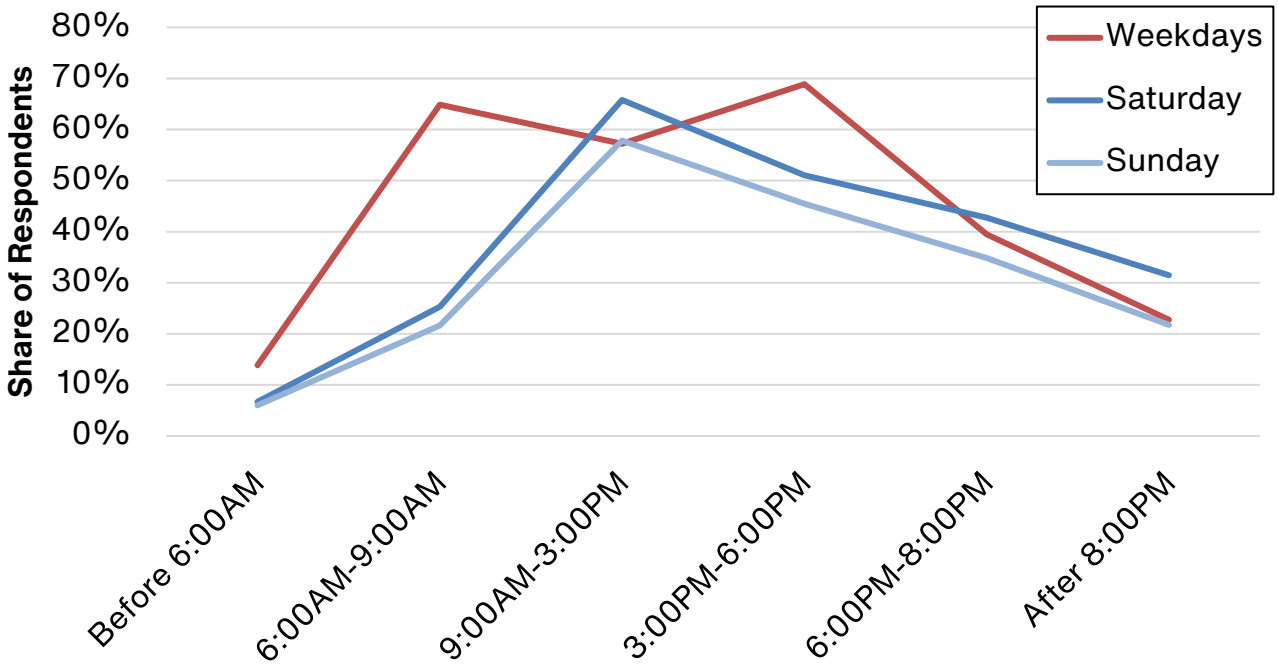


Survey participants were also asked when they usually travelled by any means of transportation. The resulting curve, plotted in Exhibit A.5, shows the highest-demand times to be weekday mornings and early evenings and Saturday mid-day, with 65-69% of respondents travelling during these periods. Mid-day demand is high throughout the week. This distribution changes dramatically when isolating for respondents over or under 65

years of age. More seniors travel on weekdays than Saturdays or Sundays, regardless of time of day. They travel mainly at mid-day (88% weekdays, 51-63% weekends), and have very limited early morning or late evening travel. Respondents under 65 years old had more pronounced weekday peaks (82-83%) but were less likely to travel weekends.

Regardless of age, few respondents travelled at early or late hours: depending on the day of the week, 6-14% of respondents travel before 6AM, and 22-31% travel after 8PM. Saturdays are the most common day for evening travel.

Exhibit A.5: Times of Day Respondents Travel

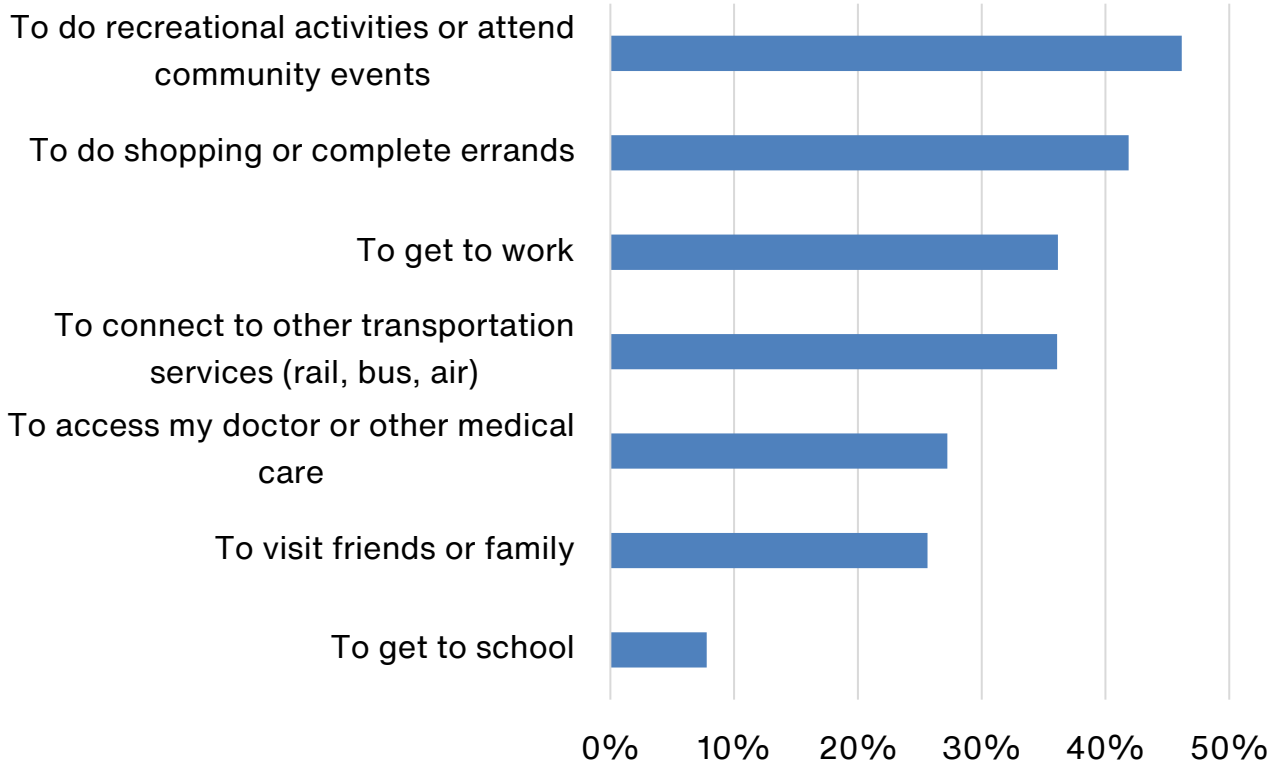


Transit Opinions

Survey participants were asked about the kinds of transit services they would find useful.

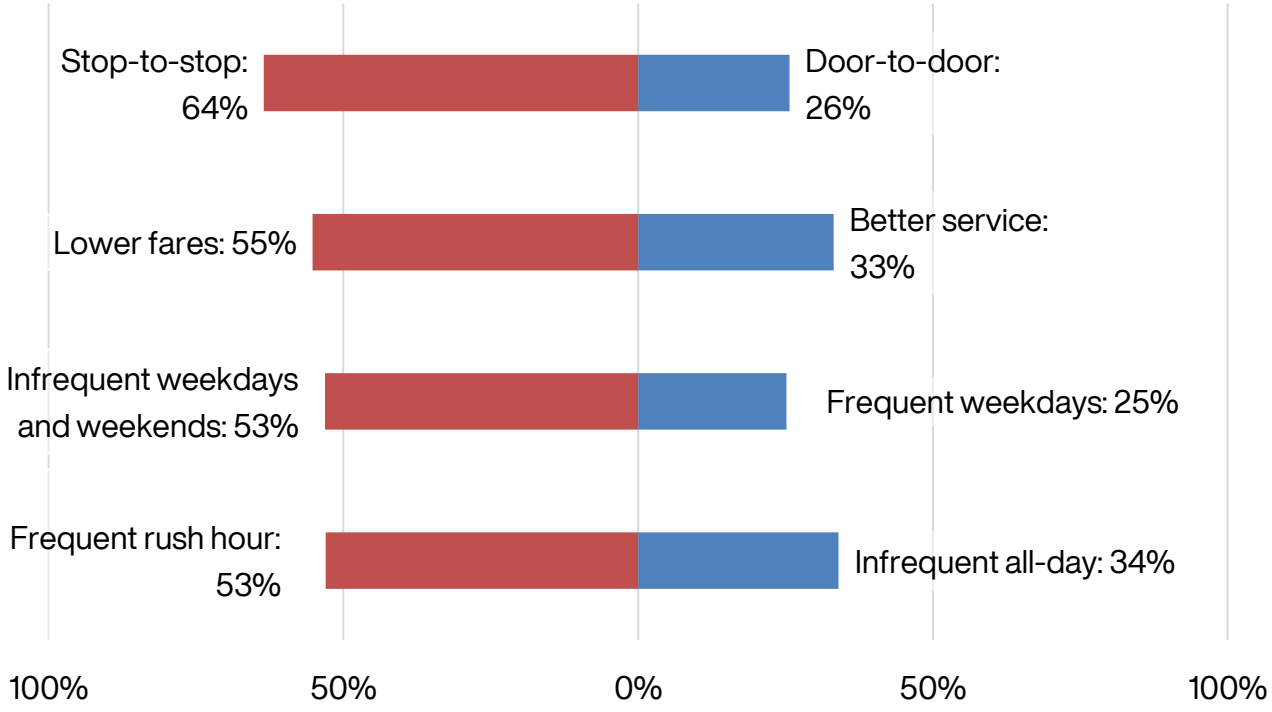
Respondents who indicated they would take transit were asked the top three types of trips they would use it for. The most common purposes, as shown in Exhibit A.6, were to access recreation or community events (46%), to do shopping (42%), to get to work (36%) and to connect to other transportation services (36%).

Exhibit A.6: Predicted Purpose for Transit



Survey participants were asked to decide between alternative transit service approaches, arranged as multiple-choice questions. Exhibit A.7 indicates their preferences; not all options sum to 100% as up to 20% of respondents selected “Neither” for some choices. Though all choices had a clear preference with over 50% of responses, respondents strongly preferred seven-days-a-week service over more frequent weekday-only service, but also showed a slight preference for frequent rush hour over infrequent all-day schedules. Stop-to-stop service was strongly preferred over door-to-door service, by a greater than two-to-one ratio, and lower fares were prioritized over better service.

Exhibit A.7: Preferred Service Approaches



Survey respondents were asked an open-ended question about what they would like to see in a future commuter public transportation service. Respondents were generally supportive, including benefits for specific communities, their needs for public transportation, and challenges it could resolve.

Equity benefits of public transportation services were highlighted, especially youth access to employment and activities, independence for seniors, and rural communities. Services should be designed to work for these groups.

Destinations and places around public transportation services were emphasized. Respondents want services to connect to active transportation networks, especially sidewalks, and to support park & rides. Destinations of interest included medical facilities, work, and recreation, especially rural recreational areas.

Some respondents indicated aspects of their current transportation patterns that they hope public transportation could address, like difficulty finding parking and isolation due to low mobility. Respondents with connections to long-term care commented on challenges accessing these destinations, including resulting difficulty visiting family or volunteering.

Other respondents expressed concerns about adding new services. These included costs to taxpayers, personal and road safety, and traffic impacts.

Lastly, anonymized postal code information was obtained to understand where respondents live and work. Exhibit A.8 and A.9 provide a heatmap of the respective home and work postal codes belonging to participating survey respondents.

Due to limitations of the analysis, particularly the size of the geographic areas contained within rural postal codes, the mapping appears to show denser concentration of responses in rural areas than the likely actual distribution of these responses. Therefore, the analysis should be used mainly to identify major areas of employment within Kingston: Downtown, Queen's University, Kingston General Hospital, INVISTA, and St. Lawrence College. Additionally, corridors of employment were noted along Princess Street, Division Street, Bath Road, and northern areas of Gardiners Road.

Exhibit A.8: Survey Respondent Location of Residence

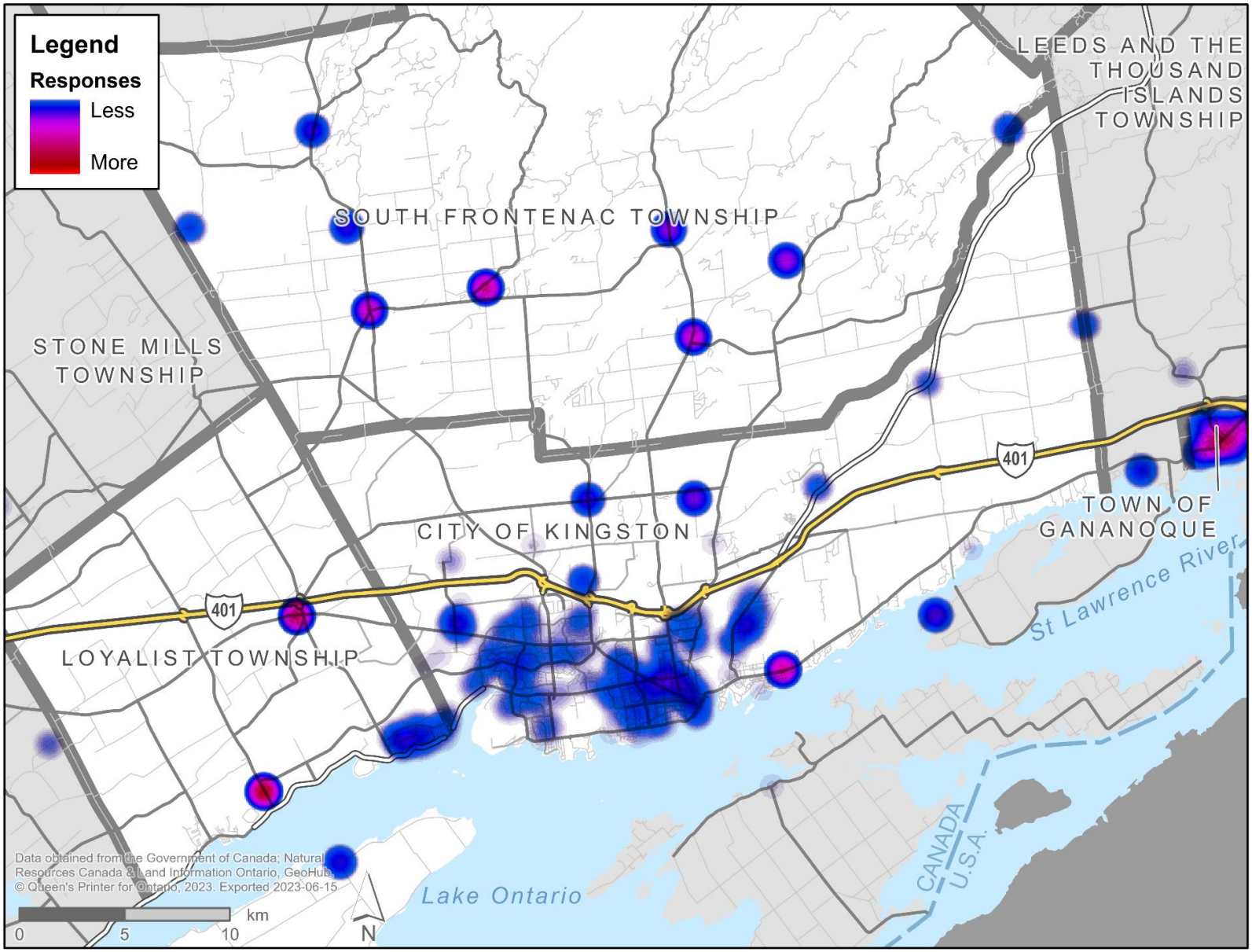
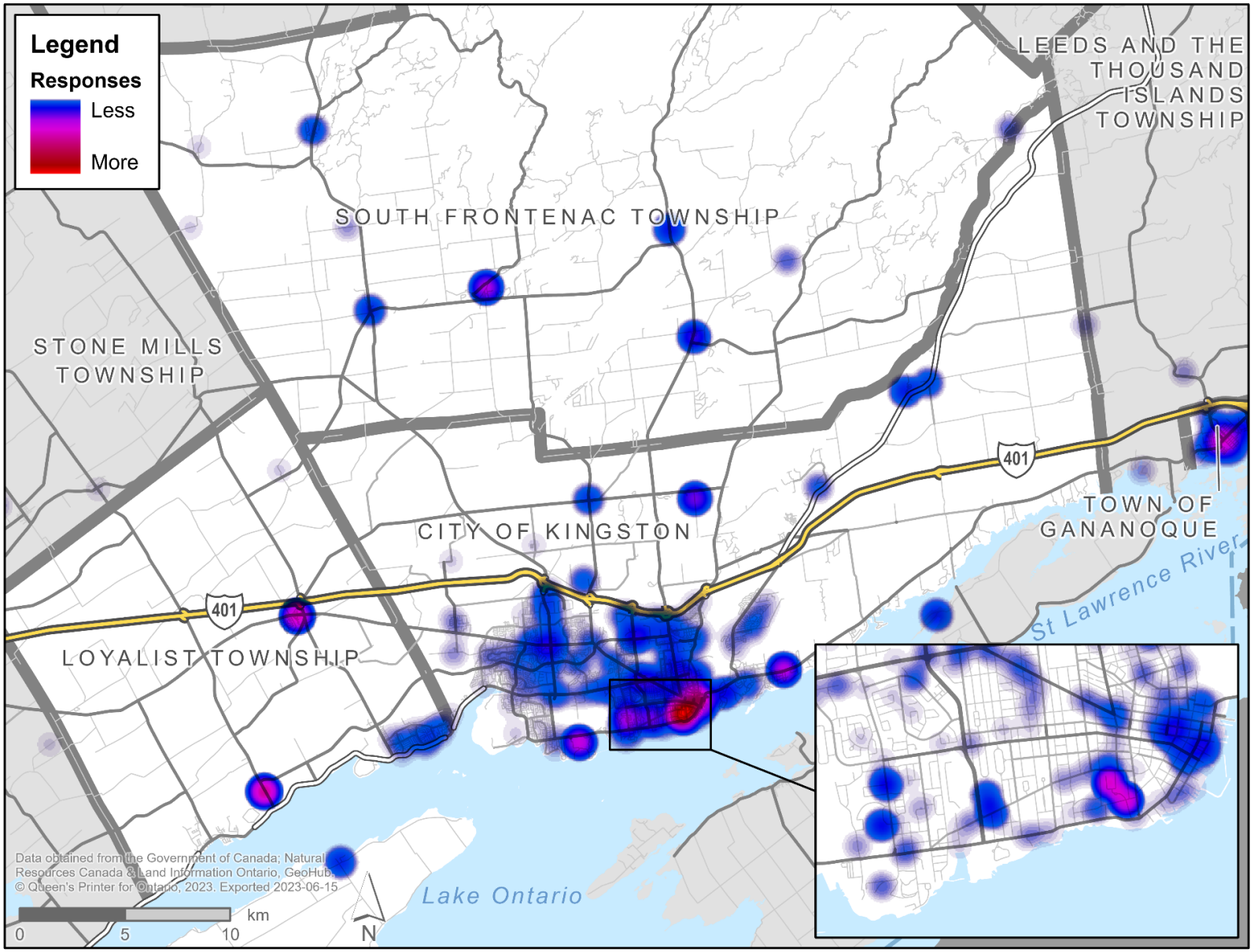


Exhibit A.9: Survey Respondent Place of Work



Appendix B – Conceptual Stop Locations

Conceptual Stop Locations

Route 1 Gananoque & East Rural Kingston

Exhibit B.1: Route 1 Gananoque & East Rural Kingston Stop Locations

Community	Stop	Branch	Stop Type	Point(s) of Interest
Urban Kingston	Downtown Transfer Point		Fixed	Kingston Transit connection
	Highway 2/Verite Ave.		Fixed	Royal Military College of Canada
	Highway 2/Niagara Park		Fixed	CFB Kingston
	Highway 2/Craftsman Blvd.		Fixed	CFB Kingston
Rural Kingston	Highway 2/Gates Blvd.		Flag	
	Highway 2/Faircrest Blvd.		Flag	
	Highway 2/Abbey Dawn Rd.		Flag	
	Highway 2/Joyceville Rd.		Flag	
	2 Howe Island Ferry Rd.		Flex	Howe Island Ferry Dock
	Highway 2/Grass Creek Park		Seasonal	Grass Creek Park
Gananoque	King St. W/Maple St. S		Fixed	
	King St. W/Victoria Ave.		Fixed	
	Main St./Water St.		Seasonal	1000 Islands cruises
	King St. E/Park St.		Seasonal	Gananoque Visitor Centre
	155 Garden St.		Fixed	Potential Park & Ride
	North St./Herbert St.	A	Fixed	Carveth Care, Cardinal Health
	380 Highway 2	B	Fixed	Shorelines Casino

Route 2 Loyalist

Exhibit B.2: Route 2 Loyalist Stop Locations

Community	Stop	Branch	Stop Type	Point(s) of Interest
Kingston	Gardiners Town Centre		Fixed	Kingston Transit connection
	Henderson Blvd./Glen Castle Rd.		Fixed	Kingston Transit connection, Jim Beattie Park & Ride
Amherstview	Sherwood Ave./Manitou Cres.		Fixed	Loyalist Plaza
	Kildare Ave./Kidd Dr.		Fixed	
	Kildare Ave./Pratt Dr.		Fixed	
	Taylor Kidd Blvd./William Henderson Dr.	B	Fixed	Loyalist East Business Park
Millhaven	Taylor Kidd Blvd./Jim Snow Dr.	B	Fixed	Taylor Kidd Industrial Park
	County Road 4/Taylor Kidd Blvd.	B	Fixed	Umicore Battery Plant
	120 County Road 4	B	Fixed	Royal Canadian Legion Branch 623
	5604 Bath Rd.	B	Fixed	Amherst Island Ferry Dock
Bath	Main St./Heritage Dr.	B	Fixed	
	Main St./Church St.	B	Fixed	
Odessa	Main St./Factory St.	A	Fixed	
	Main St./Old Wilton Rd.	A	Fixed	
	50 Main St.	A	Fixed	Ernestown Secondary School

Route 3 South Frontenac & North Rural Kingston

Exhibit B.3: Route 3 South Frontenac & North Rural Kingston Stop Locations

Community	Stop	Stop Type	Point(s) of Interest
Urban Kingston	Cataraqui Centre	Fixed	Kingston Transit connection
	Gardiners Rd./Cataraqui Woods	Fixed	
	Gardiners Rd./Fortune Crs.	Fixed	Cataraqui Estates Business Park, INVISTA Centre
Rural Kingston	McIvor Rd./Sunnyside Rd.	Fixed	Cataraqui Arena
	1477 Sydenham Rd.	Fixed	Islamic Centre of Kingston
	Sydenham Rd./Unity Rd.	Fixed	Elginburg Public School
	Perth Rd./Unity Rd.	Fixed	Glenburnie Grocery
	Sydenham Rd./Kepler Rd.	Flag	
Sydenham	4295 Stage Coach Rd.	Fixed	South Frontenac Community Services
	Wheatley St./Rutledge Rd.	Fixed	Sydenham High School, Loughbrough Public School
	Wheatley St./Sydenham William St.	Fixed	Township Office, Kingston Frontenac Public Library, Foodland
	Sydenham William St./Brewery St.	Fixed	Royal Canadian Legion Branch 496, Loughbrough Housing Corporation
Harrowsmith	3876 Harrowsmith Rd.	Fixed	Harrowsmith Free Methodist Church, New Leaf Link
	Road 38/Maria St.	Fixed	
Hartington	Road 38/Boyce Rd.	Fixed	Kingston Frontenac Public Library, South Frontenac Museum
Verona	Road 38/Bank St.	Fixed	ServiceOntario
	Road 38/Pine Ridge Dr.	Fixed	Prince Charles Public School

Appendix C – Conceptual Timetables

Conceptual Timetables

The following conceptual timetables are provided for each proposed route.[21] It should be noted that these timetables were developed to determine high-level service hour requirements and may be subject to modification by the service provider based on evolving traffic conditions and any stop/route changes.

Exhibit C.1: Route 1 Gananoque & East Rural Kingston Eastbound Timetable

Run	1	2	3	4	5	6
Branch	A	B	B	B	B	B
Kingston Downtown Transfer Point	6:00	8:00	10:15	12:15	14:15	16:30
Gananoque Main St./Water St.	6:42	8:43	10:57	12:57	14:57	17:12
Gananoque Highway 2/Park St.	6:44	8:44	10:59	12:59	14:59	17:14
Gananoque North St./Herbert St.	6:48	8:48	11:03	13:03	15:03	17:18
Gananoque Shorelines Casino		8:52	11:07	13:07	15:07	17:22

Exhibit C.2: Route 1 Gananoque & East Rural Kingston Westbound Timetable

Run	1	2	3	4	5	6
Branch	A	B	B	B	B	B
Gananoque Shorelines Casino		8:52	11:07	13:07	15:07	17:22
Gananoque North St./Herbert St.	6:48	8:56	11:11	13:11	15:11	17:26
Gananoque Highway 2/Park St.	6:52	9:00	11:15	13:15	15:15	17:30
Gananoque Main St./Water St.	6:54	9:02	11:17	13:17	15:17	17:32
Kingston Downtown Transfer Point	7:36	9:45	11:59	13:59	15:59	18:14

[21] Only timepoints are shown in conceptual schedules.

Exhibit C.3: Route 2 Loyalist Eastbound Timetable

Run	1	2	3	4	5	6	7	8	9	10
Branch	B	A	B*	A	B*	A	B*	B	A	A
Bath Main St./Church St.	6:55		9:15		12:05		14:15	15:35		
Millhaven Taylor Kidd Blvd./Jim Snow Dr.	7:03		↓		↓		↓	15:43		
Odessa Ernestown Secondary School	↓	8:05	↓	10:25	↓	13:15	*14:35*	↓	17:15	18:20
Amherstview Loyalist Plaza	7:15	8:22	9:35	10:42	12:25	13:32	14:52	15:55	17:32	18:37
Kingston Gardiners Town Centre	7:27	8:33	9:46	10:53	12:36	13:44	15:03	16:07	17:43	18:48

Exhibit C.4: Route 2 Loyalist Westbound Timetable

Run	1	2	3	4	5	6	7	8	9	10
Branch	B	A	B	A	B	A	B*	B*	A	A
Kingston Gardiners Town Centre	6:10	7:29	8:35	9:46	11:25	12:37	13:45	15:05	16:39	17:44
Amherstview Loyalist Plaza	6:29	7:48	8:54	10:05	11:44	12:56	↓	↓	16:58	18:01
Odessa Ernestown Secondary School	↓	8:05	↓	10:25	↓	13:15	↓	↓	17:15	18:18
Millhaven Taylor Kidd Blvd./Jim Snow Dr.	6:41		↓		↓		↓	15:25		
Bath Main St./Church St.	6:52		9:14		12:04		14:15	15:35		

Exhibit C.5: Route 3 South Frontenac & North Rural Kingston Southbound Timetable

Run	1	2	3	4	5	6
Verona Prince Charles Public School	6:00	7:45	9:40	12:25	14:40	17:05
Harrowsmith Road 38/Maria St.	↓	7:58	9:53	12:38	14:53	↓
Sydenham Township Office	6:18	8:08	10:03	12:48	15:03	17:23
Glenburnie Perth Rd./Unity Rd.	6:34	8:30	10:25	13:10	15:25	17:39
Kingston Islamic Centre	↓	8:38	10:33	13:18	15:33	↓
Kingston Cataraqui Centre	6:55	8:52	10:45	13:32	15:45	18:00

Exhibit C.6: Route 3 South Frontenac & North Rural Kingston Northbound Timetable

Run	1	2	3	4	5	6
Kingston Cataraqui Centre	6:55	8:52	11:15	13:32	16:15	18:00
Kingston Islamic Centre	↓	↓	11:29	13:46	↓	18:14
Glenburnie Perth Rd./Unity Rd.	↓	↓	11:37	13:54	↓	18:22
Sydenham Township Office	7:25	9:22	11:59	14:16	16:45	18:44
Harrowsmith Road 38/Maria St.	↓	↓	12:09	14:26	↓	18:54
Verona Prince Charles Public School	7:43	9:40	12:22	14:39	17:03	19:07

Township of South Frontenac

Staff Report

To:	Council
Prepared by:	Public Services Department
Date of Meeting:	December 5, 2023
Subject:	**Fuel Management System**

Summary

The purpose of this report is to provide Council an update on the Townships new fuel management system and Municipal Modernization funds allocated to this project.

Recommendation

This report is for information only.

Background

The 2023 budget included an approved project to upgrade the Storrington yard to the automated card lock system for fuel tracking with the addition of two more tanks for gasoline and coloured diesel. Previously the Storrington yard only had a clear diesel tank with a pump that required the Public Services and Fire Department to manually track and report the fuel use for Corporate Services.

In April 2023, the card lock system at the Bedford yard failed and it was determined that the hardware for the ProFuel system was becoming obsolete and the software was outdated. A decision was made at the May 2, 2023 Council meeting to implement a new fuel management system and fund the upgrades at the Bedford, Keeley, and Portland yards from the balance of the Municipal Modernization funds.

Discussion/Analysis

FFS Distributors provides the cardlock system and support for the Township's fuel management system and DPH Service Station Maintenance provides the installation and service for the fuel tanks and pumps. Both companies are vendors of record and work together on installations, service, and support on the Townships fuel systems.

FFS Distributors was consulted on options for card lock system upgrades and provided a presentation on the GIR fuel management system. The GIR system uses a FOB device associated to each vehicle to dispense fuel and a web based software system that provides fuel transactions in real time, meeting the needs of both the Public Services and Corporate Services Departments.

FFS Distributors and DPH Service Station Maintenance provided joint quotations for each yard and the projects were within budget and awarded under delegated authority.

The Bedford, Keeley, and Portland yards were converted to the new GIR system in June 2023 and the Storrington Yard was completed in October 2023 and is now operational. All fuel transactions for the Development Services, Public Servies, and Fire Departments are now being tracked and reported to Corporate Services through the new system.

Financial Implications

The Storrington Yard fuel system project had an approved budget of $50,750 in the 2023 capital budget. The projects to convert the remaining yards to the new system were funded from the $48,603 remaining of the Municipal Modernization funds.

Project Description	Budget
23-65A Storrington Yard Fuel System	$50,750
23-65B Fuel Management System - Bedford	$15,000
23-65C Fuel Management System – Keeley	$18,603
23-65D Fuel Management System – Portland	$15,000

Relationship to Strategic Plans

☒ Not applicable to this report.

☐ This initiative is supported by the following priorities of the 2019-2022 Strategic Plan.

- Priority: Choose an item.

Climate Considerations

☒ Not applicable to this report.

Approvals

Submitted By:

Kyle Bolton, C.E.T.
Director of Public Services

Approved By:

Louise Fragnito, CPA, CGA
Chief Administrative Officer

Township of South Frontenac

Staff Report

To:	Council
Prepared by:	Public Services Department
Date of Meeting:	December 5, 2023
Subject:	**Bellrock and Petworth Mill Projects**

Summary

The purpose of this report is to provide Council an update on the completed Bellrock and Petworth Mills projects.

Recommendation

This report is for information only.

Background

At the February 7th, 2023 meeting of Council, the Public Services Department received approval to proceed with the design and demolition of the Bellrock and Petworth Mill structures. The design plan was to include preserving a portion of the Petworth Mill wall as a ruin, repurposing any of the existing materials on the sites, and preserving any salvageable equipment from the Bellrock Mill. This work was to be advanced under existing capital projects 21-37 Petworth Mill and 22-35 Bellrock Mill.

Discussion/Analysis

The Public Services Department issued request for quotation (RFQ) # PS-RFQ-2023-06 for the engineering and design of the demolition and preservation of the Bellrock and Petworth Mill structures. The RFQ closed on June 21st, 2023 with no submissions received. After following up on the RFQ it was determined that for these types of projects the demolition contractor typically engineers and designs the demolition plan.

G&N Contracting was recommended by the structural engineers contacted for the RFQ as a demolition contractor with experience in these types of projects. They provided a quote of $115,900 +HST to provide an engineered demolition plan, demolition services for the two structures, and preservation of equipment and materials on site. The total cost was within the combined remaining budgets of capital projects 21-37 and 22-35 and awarded under delegated authority.

Bellrock Mill Site

An engineer's report on the guidelines and procedures for the demolition of the Bellrock structure was provided by art engineering, a demolition permit and Quinte Conservation permit was acquired, and clearance was issued from the Ministry of Environment,

Conservation, and Parks. The structure was dismantled using an excavator with a clam bucket while carefully removing all pieces to be salvaged. The site will remain closed with construction fence due to the opening down into the sluice way until future alterations to the site are completed. The current condition of the site can be seen in Appendix A.

All of the salvaged equipment, materials, and tools from the Bellrock Mill were transported by the Township off site to be stored for future use. The salvaged pieces have been catalogued in Appendix C with a corresponding identification number that can be used as an inventory for future decisions regarding the items.

The 2024 capital budget is proposing capital project 24-70 for the conceptual parkette design of this site. The conceptual design will propose how to develop the site into a park in accordance with the recreation masterplan. The design will need to include the existing sluiceway and retaining walls that must remain, if railings are required, and how to incorporate any of the salvaged artifacts from the Mill on site.

Petworth Mill Site

An engineer's report on the guidelines and procedures for the partial demolition of the Petworth Mill stone wall was provided by art engineering and a permit was acquired by Quinte Conservation for work near the waterway. The stone wall was dismantled down to a level height where the wall was structurally sound and the removed stone was hauled off site and stored by the Township for a future preservation project on the structure. The site will remain closed with construction fence until future alterations are completed. The current condition of the site can be seen in Appendix B.

The 2024 capital budget is proposing two projects for this site:

Project 24-70 is for the conceptual parkette design of the site and will propose how to develop the site into a park in accordance with the recreation master plan. The design will need to include wall height for pedestrian safety, if there will be access down inside the site, and landscape plan for the existing trees.

Project 24-71 is to install a cap on the wall to prevent water from deteriorating remaining structure. The project would require wall repairs using the salvaged stone to fill in the existing opening and low spot in the wall. Once complete a level concrete cap can be poured on top of the wall to deflect water off the stone.

Financial Implications

The contracted services for the engineering, demolition, and preservation of materials from the two sites was completed for $115,900 +HST, within the combined remaining budget of the 21-37 Petworth Mill Improvement and 22-35 Bellrock Mill Improvement projects.

Project Description	Remaining Budget
21-37 Petworth Mill (Original budget $70,000)	$62,716.53
22-35 Bellrock Mill (Original budget $70,000)	$58,296.46

Relationship to Strategic Plans

☒ Not applicable to this report.

☐ This initiative is supported by the following priorities of the 2019-2022 Strategic Plan.

- Priority: Choose an item.

Climate Considerations

☒ Not applicable to this report.

Attachments

Appendix A – Bellrock Mill Site Photos
Appendix B – Petworth Mill Site Photos
Appendix C – Bellrock Mill Salvaged Artifact Inventory

Approvals

Submitted By:

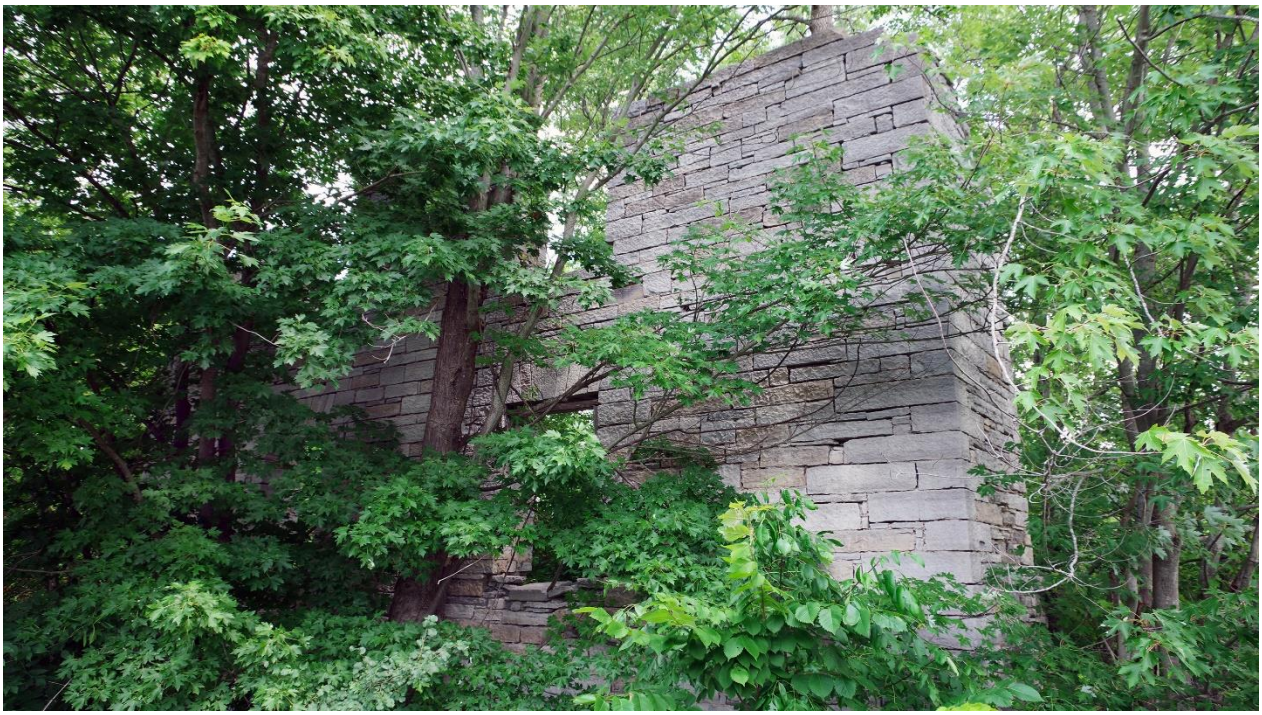
Kyle Bolton, C.E.T.
Director of Public Services

Approved By:

Louise Fragnito, CPA, CGA
Chief Administrative Officer

Appendix A – Bellrock Mill Site

Appendix B – Petworth Mill Site



Public Services Department
2490 Keeley Road, Box 100
Sydenham ON, K0H 2T0
613-376-3027 Ext 4331
pwsupport@southfrontenac.net

Bellrock Mill Salvaged Artifact Inventory

Item Number	Image
01.a	
01.b	

SOUTH FRONTENAC

Public Services Department
2490 Keeley Road, Box 100
Sydenham ON, K0H 2T0
613-376-3027 Ext 4331
pwsupport@southfrontenac.net

02.a	
02.b	

SOUTH FRONTENAC

Public Services Department
2490 Keeley Road, Box 100
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pwsupport@southfrontenac.net

03.a	
03.b	

Public Services Department
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04.a	
04.b	

SOUTH FRONTENAC

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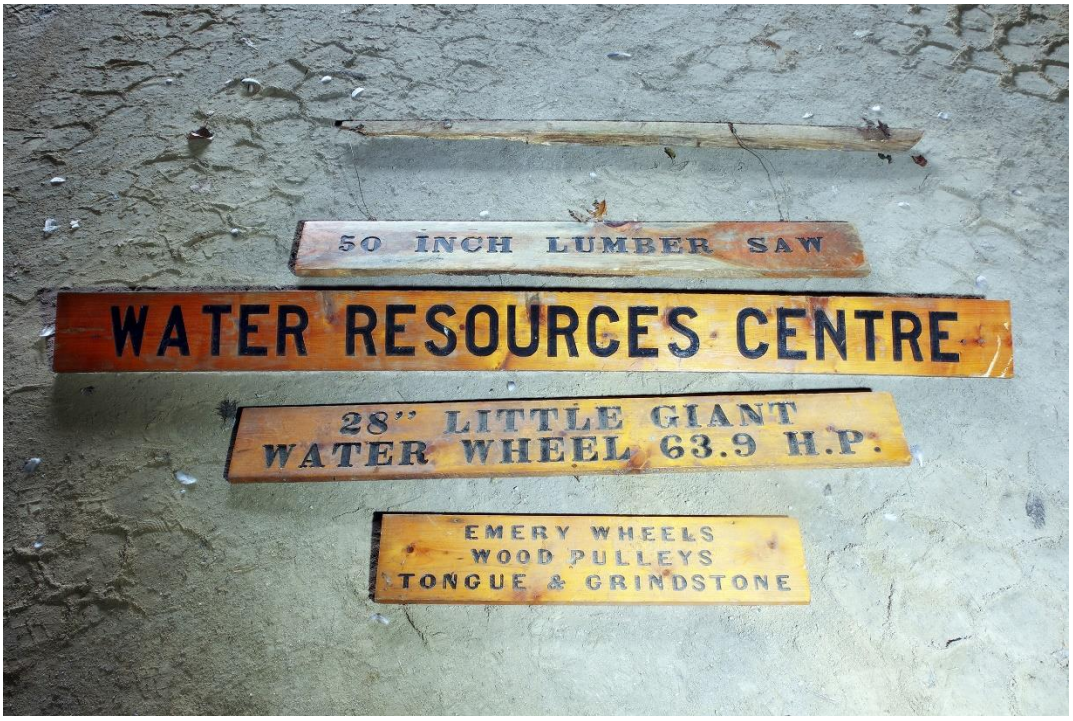
07	
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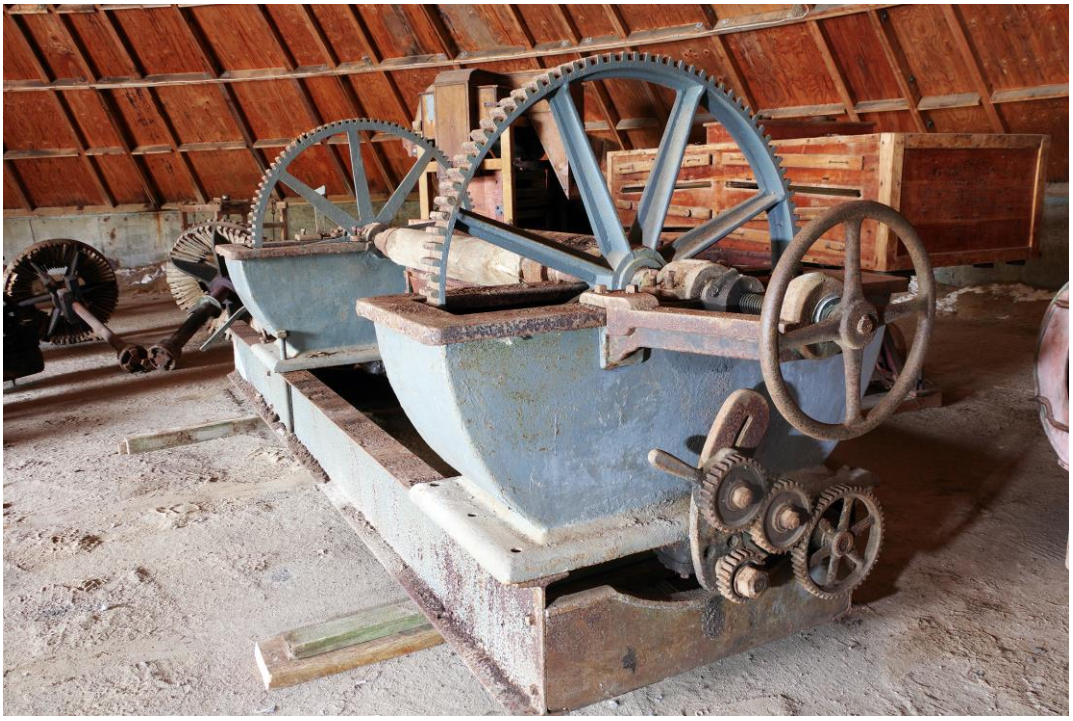
11	
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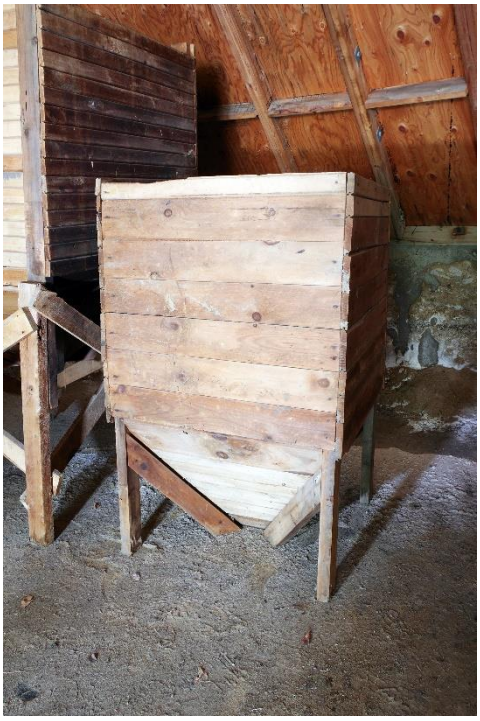
13	
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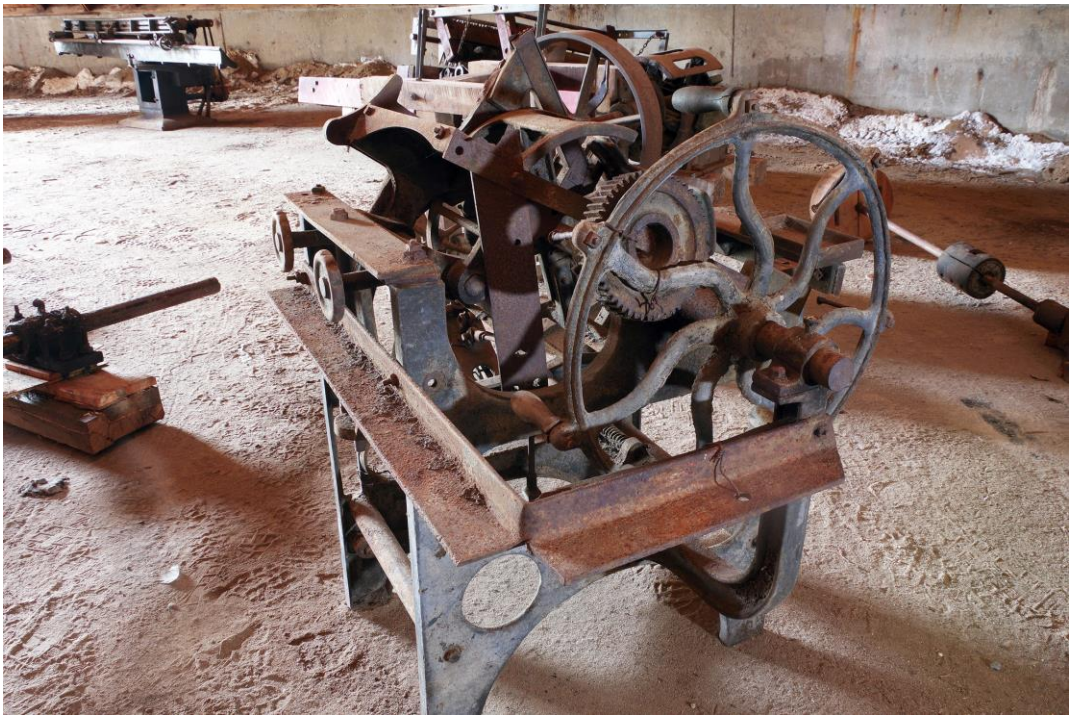
18	

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2490 Keeley Road, Box 100
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19.a	
19.b	

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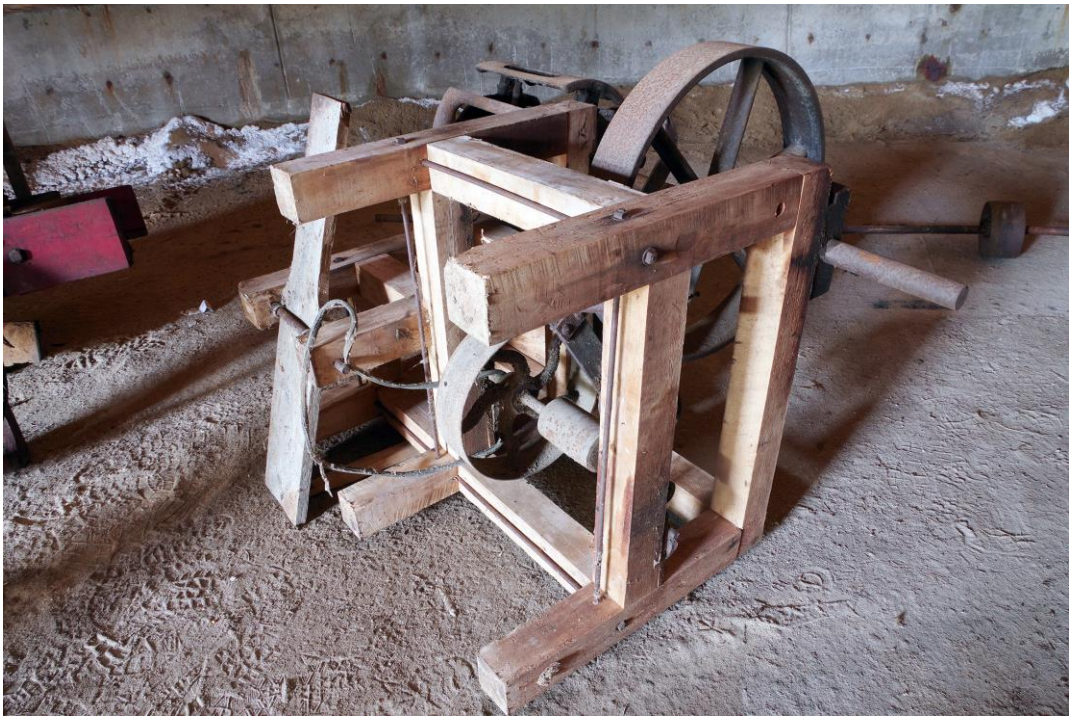
22	
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613-376-3027 Ext 4331
pwsupport@southfrontenac.net

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Township of South Frontenac
Staff Report

To:	Council
Prepared by:	Office of the Chief Administrative Officer
Date of Meeting:	December 5, 2023
Subject:	**Rural Economic Development Support**

Summary

This report provides a summary of the projects to date under the agreement with the City of Kingston for Rural Economic Development Support.

Recommendation

That the report be received for information.

Background

In the 2022 budget, an amount of $20,000 was budgeted under operating to contract with the City of Kingston to provide Rural Economic Development support. The agreement was for a 2-year period at $20,000 per year. The direction of the City's Rural Economic Development Office is to strengthen opportunities in business support, work with regional communities and partners to enable rural initiatives that include growth and support for new and existing businesses, provide business support for existing farms with new development in the agricultural industry and work towards a strategy for supporting smaller hamlet and business park development in rural communities.

Under the agreement signed December 2022, the initial support being provided would be directed towards:

a) The development of business support access from the Business Support Office
b) Equity, Diversity and Inclusion tools and resources
c) a community commercial kitchen business program
d) access and collection of various data sets including demographics, community, statistics Canada, housing, commuting information
e) Joint Rural Transportation Study

Discussion/Analysis

a) <u>The development of business support access from the Business Support Office</u>

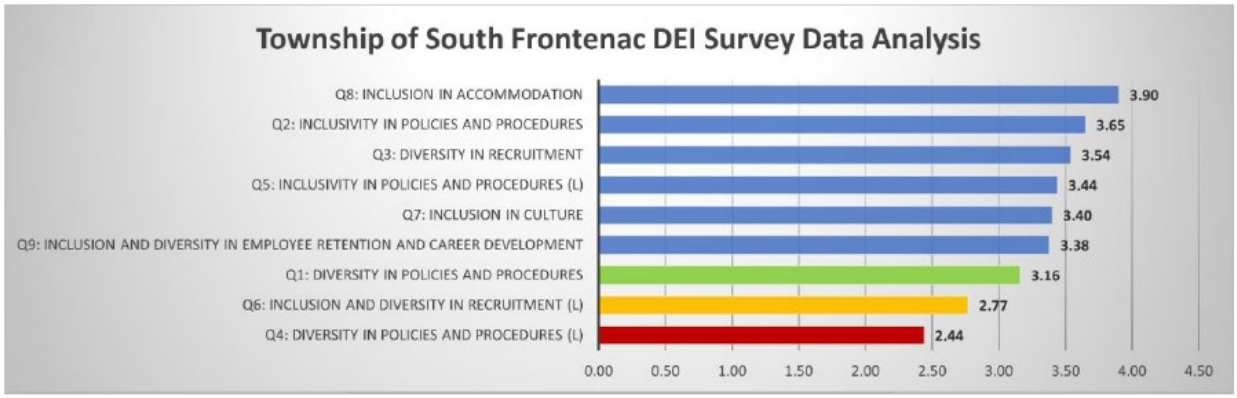
The concept under this item is for the City of Kingston to provide a business concierge service which would be a main point of contact for businesses whether existing or new.

Township staff have had discussion with the City of Kingston, Frontenac Business Services and the County of Frontenac to better understand what each organization provides and to avoid duplication. In building that understanding, the concierge service will be able to direct inquiries to the appropriate organization(s) but business do not need to try guess what is available and who to reach. For example, loans are available through Frontenac Business Services whereas grants are primarily available through Kingston Economic Development Corporation (KEDCO) while planning or building questions would be directed to the Township.

This portion of the project is still under development with the City. Once finalized, we would circulate public announcements through various channels such as social media, website and our banner ad.

b) <u>Equity, Diversity and Inclusion tools and resources</u>

Through our contract with the City of Kingston, we were provided the support of KEYS to use EDI tools and resources in a review of current practices. The lead on this project is our Manager of Human Resources, Jan Minaker. The first step undertaken was issuing a survey to all employees in July 2023 with 55 responses received. A summary of the response analysis is below:



Blue items indicate robust performance, while red, yellow, and green items identify areas with the highest level of need.

In reviewing the findings with KEYS, next steps and recommendations were developed. Recommendation included:

1. Policy Review (e.g., Diversity Statement, Anti-Discrimination and Anti-Harassment Policy, Performance Management Policy, Accommodation Policy)
2. Inclusive Hiring Practices Review (job postings, interview procedures and other hiring-related practices or documentation)
3. Development of Climate/Belonging and Satisfaction Survey

Work has begun to review recruitment practices with a lens on Inclusion and Diversity. This includes job descriptions, job postings and interview questions along with our Recruitment policy. Recommendations were received from KEYS in late November and are being reviewed for next steps.

c) a community commercial kitchen business program

Two sessions were held by the City of Kingston in 2023 (Spring and Fall) which focused on food production and access to commercial kitchens within the City and South Frontenac. Amanda Pantrey, Recreation and Event Coordinator was involved in this project. Currently, Glendower Hall is the only Township owned facility that provides a commercial kitchen. The two sessions looked to promote the locations in the City and South Frontenac but also provide education on available programs and supports in food production. The Fall session also included information on how to transition the food production so that it can be sold in retail stores (ie UPC/barcode requirements, etc) to provide business with critical information on requirements and processes. It is anticipated that this program will continue to run on a yearly basis with a similar format of two sessions with the first providing basic information and the second more advanced information.

d) access and collection of various data sets including demographics, community, statistics Canada, housing, commuting information

Through this collaboration, Laurie Swinton, our communications officer, was provided access to City staff to receive support and education on the various data sets available through them and tools to be able to access this data. This included statistics Canada information as well as information on commuting, housing, demographics just to name a few. Laurie now has been provided with direct access to data portals or software to be able to draw important statistical or baseline information on the Township. This type of data can be used to develop and public information set on the Township, supporting data in grant applications as well as provide Township staff with critical data when reviewing or developing business cases for Township initiatives. The City of Kingston staff also continue to be available as supports to the Township for any questions or support on data needs.

e) Joint Rural Transportation Study
A report is included within the December 5th agenda which summarizes this collaboration and next steps.

Beyond the current projects itemized within the agreement, meetings are taking place on a regular basis to bring together the City's rural economic development team along with the County's economic development, Frontenac Business Services and the Township to discuss ongoing initiatives to promote collaboration and avoid duplication. A great example of a recent collaboration is the Open Farms event that took place in the fall.

Financial Implications

None.

Relationship to Strategic Plans

☐ Not applicable to this report.

☒ This initiative is supported by the following priorities of the 2019-2022 Strategic Plan.

- Priority: 4. Be a catalyst for the creation of vibrant, complete communities.

Climate Considerations

☒ Not applicable to this report.

☐ This initiative supports climate change mitigation/adaption efforts in South Frontenac; and/or impacts the Township's resilience to climate change.

Attachments

None

Approvals

Approved By:

Louise Fragnito, CPA, CGA
Chief Administrative Officer

SYDENHAM HIGH SCHOOL
SHS
LUDUM FACITE
SPIRIT • HERITAGE • SUCCESS
150 YEARS

THANK YOU

We wish to thank you for your support of the SHS 150th reunion. After all expenses were paid, we ended the weekend with a little over $70,000. This money will be divided between the two funds that were created, The Lucky Spike Fund and the SHS 150 Legacy Fund. These funds have been created to help the students achieve a great school experience.

Again thank you from the SHS 150th Committee.

If you wish to get further information on our upcoming alumni events, please send your email to

shs150reunion@gmail.com

Boulton Septic/Larmon's o.b. 1622411 Ontario Ltd.

3806 Battersea Rd, Inverary, ON K0H 1X0 Phone: (613)-353-6939 Fax: (613) 353-6939 Email: service@boultonseptic.ca

November 24, 2023

Dear Council Members,

I am writing to you as both a concerned citizen and local business owner of South Frontenac Township. I am the owner of Boulton Septic Services, a local company that has been in business for 40+ years in our township.

On Friday, November 17 we received the attached letter from the City of Kingston regarding a rate increase for septage disposal. We understand that rates increase, but we expect gradual increases over time, not the drastic increase they are putting in place. The increase is almost double, and will hugely affect our septic/ holding tank customers since septic tanks are pumped every 3 – 4 years, but with holding tanks, they need to be pumped weekly, bi-weekly and monthly depending on the usage.

This is a list of just a few of our regular holding tank customers that will be greatly affected by this increase: Storrington Lions Hall, The Creekside Bar & Grill, Brian Quinns Meats, Sydenham Fire Hall, Storrington Fire Hall, Battersea and Inverary United Church, Sydenham United Church, Trousdale Foodland, Trousdale Funeral Home, The Junction Restaurant, Hogan's Campground, Rideau Breeze Campground, Sunny Acres Campground, Kingston KOA, Loughborough Inn, The General Wolfe Hotel, Wolfe Island Bakery, City of Kingston Creekford Rd Buildings, Pride Marine, Trident Marina, Anchor Concrete, Kingston Navy Vets.

Many of these places are already struggling to stay open, and with this increase they will never be able to afford to pay the rate we need to charge for pump outs. I am concerned with the fact that people will just stop pumping out their tanks as they cannot afford to do so.

This letter only gives us a month to come to an agreement on new rates, and to notify our customers of these changes. We are asking our local Municipality Leaders to come together and help our local septic companies fight this increase.

With Sincere Thanks,

Brian Larmon

Boulton Septic

From: Haulers <haulers@utilitieskingston.com>
Sent: November 17, 2023 10:31 AM
Subject: Septage Hauling Rate Increase - January 1, 2024

Importance: High

Attention Septage Haulers

RE: Septage Rate Increase – Effective January 1, 2024

Please be advised that effective January 1, 2024, Utilities Kingston's **septage** hauling charge will be increased to a rate of $20.00 per cubic meter for non-industrial septage and a rate of $26.07 per cubic meter for industrial septage, as approved by the Council of the Corporation of the City of Kingston. This charge is contained within the City of Kingston's By-Law 2012-22, to impose miscellaneous charges and appliance rental rates.

During the review of the costs of service for miscellaneous charges, it was identified that this charge needed to increase to ensure the continued cost recovery for this service and to ensure the competitiveness with neighbouring municipalities that also offer this service.

This increase was originally brought forth in the spring of 2023 but was deferred until January 1, 2024.

Sincerely,

Utilities Kingston

Bulk Water/Septage Hauling
Hauler Processing
P.O. Box 790, Kingston, ON K7L 4X7
P: 613-546-1181 x.2337
haulers@utilitieskingston.com

Emails & Voicemails are checked daily and will be answered within one business day, between the hours of 7:30 am and 4:00 pm.

Utilities Kingston acknowledges that we are situated on the ancestral and continuing unceded territory of the Huron-Wendat, Anishinaabe and Haudenosaunee Peoples. We thank these Peoples for their stewardship of the land. As we preserve and protect the land and water, we commit to delivering our services with care for the Earth.

Michelle Hannah

From: Helen Hill [redacted]
Sent: December 3, 2023 10:20 AM
To: Scott Trueman; Charlene Godfrey; Doug Morey; Norm Roberts; Randy Ruttan; Ray Leonard; Ron Vandewal; Ron Sleeth; Steven Pegrum
Cc: PATRICIA DAWSON; James Thompson
Subject: BESS Risk Management Issues from the Insurance Market

Follow Up Flag: Follow up
Flag Status: Flagged

Greetings Members of Council,

This is the fourth in a series of emails being sent to you over the next several days.

"High profile fire incidents in the BESS sector have started to affect insurers' appetite to provide energy storage insurance cover. The insurance market for BESS has seen a reduced capacity as a consequence of some key insurers exiting the insurance market or having a very narrow underwriting footprint. This has ultimately led to increased premiums, higher policy excesses and sometimes difficulties with obtaining 100% cover for larger projects."

https://www.marshcommercial.co.uk/articles/battery-energy-storage-fire-risks-explained/

.www.marshcommercial.co.uk/articles/battery-and-anaerobic-digestion-risk-management-issues/

Best regards,
Helen Hill
[redacted]

Michelle Hannah

From: Helen Hill [redacted]
Sent: December 3, 2023 2:01 PM
To: Scott Trueman; Charlene Godfrey; Doug Morey; Norm Roberts; Randy Ruttan; Ray Leonard; Ron Vandewal; Ron Sleeth; Steven Pegrum
Cc: PATRICIA DAWSON; James Thompson
Subject: BESS Proposal: Do you feel rushed? Who benefits?

Follow Up Flag: Follow up
Flag Status: Flagged

Greetings Members of Council,

This is the fifth in a series of emails being sent to you over the next several days.

What's been happening in other municipalities? Following are some reports concerning council and public engagement meetings in other municipalities including reports on Alectra/Convergent presentations made by Dave Anders representing Alectra and Tremor Temchin representing Convergent.

1. Reported in the Recorder and Times: concerning a BESS proposal near Toledo:

Township denies battery facility, bans future projects

Councillors and residents alike felt there were too many unanswered questions with some councilors and the Mayor expressing concern that the timeline for making an "evidence-based" decision was too rushed. Here's an excerpt but please read the full article.

> The deadline to submit proposals is on Dec. 12, two months after the company approached the municipality about the idea.Some members of council were not happy about having to make a decision in such a short time frame.
>
> “I have no respect for how they wanted to put us in a pressure point of having a deadline. I like to make evidence-based decisions,” Coun. Henry Oosterhof said.
>
> Mayor Brant Burrow shared similar concerns.
>
> Article content
>
> “Am I impressed with the path we’ve taken to get here? Absolutely not. I want to make that very clear. We really as a council deserve more respect from the people who approach us,” Burrow said.

2. Reported in the Hamilton Spectator Residents voice concerns about proposed battery electrical storage system facility in Cargill

> " Anders said the proposed storage facilities store electricity. There are no emissions produced to go into air or water. While there’s some noise, it’s at the level of "a quiet library" he said.

Although the proposed site is not on prime agricultural land, one person noted it is an industrial use; the right place for such uses is an industrial park, not a farming area.

"A fire would occur “only after a multi-system failure,” according to Temchin, and the strategy for dealing with it would be to cool it with water and prevent it from spreading to another cell. Peabody stressed the municipality would not “subsidize a private project;” any necessary fire training would be paid for by the company.

3. Reported in The Wellington Advertiser: Alectra Convergent Proposed BESS facility near Belwood

“This is one of the last areas in Ontario that has available capacity for new generation on the transmission grid,” Temchin said of Wellington County.

“That’s the reason you’re seeing this cluster of development in [the] area.”

Temchin explained that Hydro One, with available land and transmission lines, had been approached but was “unwilling to offer that land for this type of development.”

Why is Hydro One, with available land and transmission lines unwilling to offer their land for BESS development? It would seem that their land would be a logical location for BESS facilities. Is it the liability concerns due to potential fires? Would the lease be too costly for BESS companies?

As asked by a citizen at the recent Alectra/Convergent public engagement meeting in South Frontenac, "Why were these sites in South Frontenac chosen?" While I can't quote the exact answer, it was similar to the quote noted above in that these sites were somehow identified as some of the last areas that have available capacity. But how was that decision made and who made it?

Some relationships that may be of interest and may or may not provide some insight. Read into this what you may...

Alectra is a utility company based in Vaughan,Ontario, Canada, formed from the merger of several local electricity distribution companies. They focus on delivering electricity to homes and businesses in their service areas.

Alectra is partnering with U.S. based Convergent.

Convergent – has been acquired by Energy Capital Partners (“ECP”), a private equity and credit investment firm with ~$19 billion in capital commitments

MarketStep, is a company that provides software solutions for energy trading and risk management. Their platform is designed to assist businesses in managing energy procurement and risk. Why do I mention MarketStep? The MarketStep website lists Alectra as one of their clients.

The founder and CEO of MarketStep is Utilia Amaral. Some of you who were councilors during the Solar Energy proposal days may remember Ms. Amaral. She presented on behalf of SunEdison, a company that has since gone bankrupt, although if you do some research, it may have been resurrected in another form as is done in the magical world of high finance.

Ms. Amaral was managing director of SunEdison at the time. One of the sites proposed for a solar project at the time is the same Alton Rd. property currently being proposed for a BESS facility. Is this significant? Are the proposed BESS sites the best sites for projects or the easiest or perhaps most profitable to contract?

Most company websites will show executive team members. Since none can be found on the website it might be concluded that this is a one person organization. Ms Amaral has had an accomplished career. Having served as the director of policy for the Ministry of the Environment she then moved to the private sector as director of SunEdison. Since then she has served as consultant in various companies serving the energy sector. Also, interesting about Ms.Amaral is that she is the wife of Steven del Duca, former provincial opposition leader and now mayor of the city of Vaughan.

Steven del Duca serves on the Alectra Board of Directors in a compensated position. If you are curious about the compensation amount, the information is provided in the link.

Take what you may from this information as part of your consideration of how South Frontenac residents benefit from BESS facilities.

Best regards,
Helen Hill
[redacted]

Michelle Hannah

From: Helen Hill [redacted]
Sent: December 3, 2023 3:04 PM
To: Scott Trueman; Charlene Godfrey; Doug Morey; Norm Roberts; Randy Ruttan; Ray Leonard; Ron Vandewal; Ron Sleeth; Steven Pegrum
Cc: PATRICIA DAWSON; James Thompson
Subject: Addressing Firefighter Concerns: Lithium-Ion Battery Fire Research

Follow Up Flag: Follow up
Flag Status: Flagged

Greetings Members of Council,

This is a sixth in a series of emails being sent to you over the next several days.

Following is a synopsis of important BESS fire research being conducted at the University of Texas at Autin and funded through a FEMA grant:

Emerging Hazards of Battery Energy Storage System Fires
Grant Number: EMW-2016-FP-00833
Principle Investigator: Ofodike Ezekoye Ph.D., P.E.
University of Texas at Austin
In April 2019, an unexpected explosion of batteries on fire in an Arizona energy storage facility injured eight firefighters. More than a year before that fire, FEMA awarded a Fire Prevention and Safety (FP&S), Research and Development (R&D) grant to the University of Texas at Austin to address firefighter concerns about safety when responding to fires in battery energy storage systems of all sizes. Professor O.A. ('DK') Ezekoye is working with other engineers, firefighters, and industry partners to develop a better understanding of the magnitude of the fire hazards.
There has been a dramatic increase in the use of battery energy storage systems (BESS) in the United States. These systems are used in residential, commercial, and utility scale applications. Most of these systems consist of multiple lithium-ion battery cells. A single battery cell (7 x 5 x 2 inches) can store 350 Whr of energy. Unfortunately, these lithium cells can experience thermal runaway which causes them to release very hot flammable, toxic gases. In large storage systems, failure of one lithium cell can cascade to include hundreds of individual cells. The hot flammable gases can result in an explosion, or a very difficult to extinguish fire.
Although the fire service routinely responds to explosive scenarios, such as those associated with natural gas leaks, standard operating procedures do not exist for scenarios like a battery energy storage system for which there is no way to cut off the gas supply. The fire service is unaware and inexperienced with the fire and explosion hazards of BESS.
The FP&S R&D study started with a laboratory test in which a single cell failed in one commercial storage module containing a total of 14 cells. In one of the early tests, when a single cell failed, smoke and gases were released that ignited and burned intensely for 12 seconds. Toxic smoke and gases filled the test space.
The research team has subsequently connected small-scale battery failure test results to large scale fire and explosion consequences associated with these systems. Through this research, one of the biggest lessons learned for the fire service is that the utilities and commercial entities that own large battery systems are equally unfamiliar with the potential fire hazards. As well, there remain many questions about the toxicity of the battery vent gas.
From 2014 to 2018, residential BESS installations have increased by 200% annually. Further research into residential BESS hazards is essential as BESS hazards could eventually become a regular part of dwelling fires.
According to Professor Ezekoye, the results of this study will lead to wider awareness of the BESS hazards, a greater understanding of the underlying fire behavior of these systems, and eventually the development of safe standard operating guidelines and procedures for firefighters

Source: Emerging Hazards of Battery Energy Storage System Fires | FEMA.gov

More research on battery fires...

https://www.utfireresearch.com/battery-fires

Thank you for taking the time to read this research material.

Best regards,
Helen Hill
[redacted]

Michelle Hannah

From: Helen Hill [redacted]
Sent: December 3, 2023 3:50 PM
To: Scott Trueman; Charlene Godfrey; Doug Morey; Norm Roberts; Randy Ruttan; Ray Leonard; Ron Vandewal; Ron Sleeth; Steven Pegrum
Cc: PATRICIA DAWSON; James Thompson
Subject: I'm not an expert...

Follow Up Flag: Follow up
Flag Status: Flagged

Greetings Members of Council,

This is the sixth in a series of emails being sent to you over the next several days.

I am by no means an expert in BESS technology. Municipalities are being asked for support for BESS proposals with such a narrow window of opportunity for due-diligence. There are certainly experts who are doing good work to try to advance the technology and to find ways to reduce risk. Let's hear what experts have to say...

BESS Fire Safety Roadmap

> Owners of energy storage need to be sure that they can deploy systems safely. Over a recent 18-month period ending in early 2020, over two dozen large-scale battery energy storage sites around the world had experienced failures that resulted in destructive fires. In total, more than 180 MWh were involved in the fires. For context,Wood Mackenzie, which conducts power and renewable energy research, estimates 17.9 GWh of cumulative battery energy storage capacity was operating globally in that same period, implying that nearly 1 out of every 100 MWh had failed in this way.
> For up-to-date public data on energy storage failures, see the EPRI BESS Failure Event Database. The Energy Storage Integration Council (ESIC) Energy Storage Reference Fire Hazard Mitigation Analysis(ESIC Reference HMA),illustrates the complexity of achieving safe storage systems. It shows the large number of threats and failure pathways that may lead to the central hazard of thermal runaway as well as the large number of possible mitigations available in the pursuit of safe outcomes. To further compound the difficulty, codes and standards have provided new tools and procedures, but they are still trying to catch up with a fast-growing industry deploying multiple chemistries and exploring a multitude of configurations. How can operators of energy storage be certain that the systems they have deployed or will deploy are safe, considering today's best practices?

Best regards,
Helen Hill
[redacted]

Michelle Hannah

From: Helen Hill [redacted]
Sent: December 3, 2023 5:15 PM
To: Scott Trueman; Charlene Godfrey; Doug Morey; Norm Roberts; Randy Ruttan; Ray Leonard; Ron Vandewal; Ron Sleeth; Steven Pegrum
Cc: James Thompson; PATRICIA DAWSON
Subject: Evaluating Community Engagement/ Community Stakeholder Relations

Follow Up Flag: Follow up
Flag Status: Flagged

Greetings Members of Council,

This is the seventh in a series of emails being sent to you over the next several days.

Positive relationships can contribute to project success and mitigate potential opposition. Let's take a look at how Alectra/Convergent engaged with the local community and stakeholders. Did they build public trust?

- Two half hour meetings were scheduled back to back, the first beginning at 5 pm. Many concerned citizens could not make these times as they were still at work. The room in the library was not large enough for the audience with people spilling out into the hallways unable to hear the full discussion. Despite the bad weather evening, many made the commitment to attend.
- There were contradictory statements made by the representatives of Alectra/Convergent between the presentation made to the public and the presentation made to Council. The question was asked at the public engagement session if there were any incentives for the Township. The response was that there would be tax dollars for occupancy of the land.*(Just a side question - who pays that tax? The landowner or Alectra/Convergent?Would there be an increase in tax revenue to the Township? How much?)* In the presentation to council the Alectra/Convergent slide indicated that in fact incentive monies would be available depending on how much power would be needed. The dollar amount states “up to” the specified amounts.
- Several questions were raised concerning how to put out potential fires and the concern of availability of water. At the public engagement session the representatives spoke about a deluge water system. However, in just one week the plan changed when presented to council . The change was explained as a response to public concern over lack of water and environmental concerns. It appears that the plan is still fluid. Can the public be assured that council members have the detailed information they need to do their due-diligence when making their decision?
- At the engagement meeting, concerns were voiced over the potential drop in the value of neighbouring properties. The response was that property values would not decrease. However, there was no explanation provided as to where that determination came from.
- At least one neighbour sharing a property line with the proposed Alton Rd land proposed for BESS, shared with me that they did not receive any communication from Alectra/Convergent concerning the proposal.

Thank you again for your consideration.

Helen Hill
[redacted]

Michelle Hannah

From: Helen Hill [redacted]
Sent: December 3, 2023 5:33 PM
To: Scott Trueman; Charlene Godfrey; Doug Morey; Norm Roberts; Randy Ruttan; Ray Leonard; Ron Vandewal; Ron Sleeth; Steven Pegrum
Cc: PATRICIA DAWSON; James Thompson
Subject: Cyber Security & Supply Chain Risks

Follow Up Flag: Follow up
Flag Status: Flagged

Greetings Members of Council,

This is the eighth in a series of emails being sent to you over the next several days.

How often do we hear in the news media that cybersecurity threats and supply chain issues are real threats.

BESS projects depend on the supply chain for batteries and other components. Disruptions in the supply chain, whether due to geopolitical factors, trade disputes, or natural disasters, could potentially impact operational safety.

As BESS projects rely on sophisticated control systems and communication networks, there is a potential risk of cybersecurity threats. Malicious attacks on the control systems could disrupt operations and compromise the security and safety of the energy storage facility. The BESS proposed by Alectra/Convergent is said to be monitored remotely. How will security be maintained?

Best regards,
Helen Hill
[redacted]

Michelle Hannah

From: Helen Hill <[redacted]
Sent: December 3, 2023 6:45 PM
To: Scott Trueman; Charlene Godfrey; Doug Morey; Norm Roberts; Randy Ruttan; Ray Leonard; Ron Vandewal; Ron Sleeth; Steven Pegrum
Cc: PATRICIA DAWSON; James Thompson
Subject: Environmental Impact

Follow Up Flag: Follow up
Flag Status: Flagged

Greetings Members of Council,

This is the ninth and I believe final, in a series of emails that have been sent to you over the past several days.

Unfortunately, I have little to contribute in terms of research to inform on known environmental impacts. It appears assessments of recent fire related BESS disasters are on-going. You may want to consider looking at the waste disposal site requirements to mitigate leaching into the environment such as clay containment.

Concerns expressed by the public at the engagement meeting included environment impacts should a fire occur - the potential release of hazardous materials in the event of a fire, the risks to soil and water quality and the health risks to our volunteer firefighters and local residents.

If water is used to cool the system, what are the impacts of water containing lithium flowing through the fractured limestone? The proposed Alton Rd is at a high elevation compared to surrounding land. Water can flow through the fractured limestone in any number of directions, potentially affecting wells.

The manufacturing and disposal of lithium ion batteries (decommissioning), also raise environmental concerns.

I look forward to seeing everyone at the December 5th council meeting. I trust that the council will make decisions that prioritize the well-being of our community and safeguard our environment by voting no.

Best regards,
Helen Hill
[redacted]

Petition to South Frontenac Council

We, the residents of South Frontenac request that Council vote against the request from Alectra Energy Solutions/Convergent to provide a "municipal support resolution" for their proposed Battery Energy Storage System projects, to be located at 3562 Trousdale Rd. and 3891 Alton Rd. W. as part of the RFP requirement established by the Independent Electricity System Operator (IESO). We the undersigned feel that the proposed projects should not be supported for the following summarized reasons,

- Battery Energy Storage Systems are a relatively new technology and numerous facilities across the globe have had catastrophic failures. Currently there are many unknowns with these facilities and there are no established regulatory frameworks that operators are required to follow.

- Many sources cite that these facilities should be located near, and have a steady and stable access to a water supply. Neither proposed site has access to this.

- If failure event occurs, toxic fumes would contaminate lakes, streams, wells and farmland.

- Based on the size of the facilities proposed, the Township would not have the resources to be able to handle a catastrophic event, such as a fire.

- The proposed sites are large and would disrupt numerous species including some identified as Species at Risk.

- Noise pollution to property owners and wildlife

- Neighbouring properties will be devalued.

- Overall risk to the municipality will increased Insurance cost, for the municipality and for the rate payer.

- According to the company's website, they do not have experience managing facilities that are 300 and 400 MW; they only have experience managing 20 MW facilities.

Respectfully,

Name	Address	Phone Number	Signature
Trish Dyer	Sydenh	[redacted]	
Brendan Phillips	Sydenham		
Pierre Caron	Sydenham		
Brody Carroll	Sydenham		
Cole Cooper	Elginburg		
D. LAW	SYDENHAM		
D. NicHolson	Sydenha		
Alice Longtin	Inverary		
Nadine Thomp	Sydenh		
[illegible]	Sydenham		
[illegible]	Sydenham		
Jessica	Sydenham		
Barb Rogers	Sydenham		
CRAIG FOX	SYDENHAM		
Owen Pringle	Sydenham		
Herb Wilson	Sydenham		
Don BRENNAN	SYDENHAM		
Jeffrey Hamilton	Sydenham RD		
Tony Bromley	Sydenham		
Emma Morey	Harrowsmith		

Respectfully,

Name	Address	Phone Number	Signature
Brandi Teeple	5490 Hinchinbrook	[redacted]	
Brad mustard	5490 Hinchinbroo		
LINDA STEWART	5539 HWY 38		
Andrew Hooper	3745 Stage Coach Rd		
Amanda Applegate	5297 Hinchinbro		
Tyler Stewart	5297 Hinchinbrook		
Michelle Hannah	5357 Hinchinbrooke		
TERRY & LORI JEFFREY	5360 HINCHINB		
Rozanne Leonard-Stewart	5411 Hinchinbrooke		
Terry Harrington	5435 Hinchinbrooke Rd		
Corwin Sibourin	5442 Hinchinbrooke Rd		
Rebecca Evans	Hinchinbrooke Rd		
Mckenzie Campbell	5473 hinchinbrooke R		
Erin Woodcock	5476 Hinchinbrooke		
Brian Robert	5479 Hinchinbrooke		
Lori Hamilton	3430 Jamieson Rd Harrowsmith		
Orville Hamilton	3430 Jamieson Rd Harrowsmith		
Sarah Harrington	2631 CR14 Enterprise		
Jake Harrington	2631 CR14 Enterprise		
Maggie Taylor	399 Churchill Enterprise		

RUDY DIETRICH	5467 HINCHBROOKE RD
SONJA DIETRICH	5467 HINCHINBROOKE RD
Mary Ann Dietrich	5467 Hinchinbrooke
Laura Kehoe	3888 Wilton Rd
PAT HALONDE	3925 WILTON RD
MARK DELMOTT	3925 WILTON RD
Nichole Leonard	3925 Wilton Rd
Jamie Nichols	3923 Wilton Rd
Chantal Nichols	3923 Wilton Rd
JEAN-PIERRE LAFLEUR	3868 ALTOUR
Lauren Featherston	2801 Juniper
Pam Featherston	2801 Juniper
Shelley Udall	5000 Bradford Rd
John Vanhuwe	2934 Lakefield Pt
ADRIAN PASCULESCU	5455 Hinchinbro
BARB MACFARLANE	5102 BRADFORD RD
Kitty Van Alt	3710 Muskoka Rd
Lisa Roberts	4597 Petworth Rd
Heather Roberts	4597 Petworth Rd
JOSEF POPOVITS	2352 FREEMAN RD
Bob Clinton	4949 Bedford
Patricia Lawson	3758 alton RD

Respectfully,

Name	Address	Phone Number	Signature
Helen Hill	3769 Alton Rd	[redacted]	[redacted]
Kristy McCallum			
Barb Co[illegible]			
Kate Braithwaite			
Shawna Braithwa[illegible]			
Koren Coo[illegible]			
Michael Johnston			
Katie Arney	5743 Hinchinbrook		
Emily Leeman	4016 Graham Rd		
Kyle Labbett	5743 Hinchinb[illegible]		
SANDY HARRISON	4631 CLEARW[illegible]		
JHARON McCALLUM	3596A MOORE FARM LANE		
AMY RITCHIE	3552 Trousdale Rd		
Kirsti Siltanen	5506 Hinchinbrook Rd		
Kevin Yateman	" "		
Cheryl Babcock	5510 Hinchinbrook		
GREGORY JERKIEWICZ	19 COLLINS INVERARY		
Elaine Wilson			
M.L. Ross			
Jonathan Clarke	4989 Loughborough Portland Bdy Rd.		

Steve Mustard	2245 Keeley RD	[redacted]	
Mark McCauley	3098 A		
[illegible]	3098 Alton Rd		
JoAnn Bow	2907 Brewery St		
Gail Torres	3007 Jamieson Rd Harrowsmith		
Shazi Hasler	4560 Perry [illegible] Rd		
Paul Torres	3007 Jamieson Rd Harrowsmith		
Jennifer Eastman	2114 Hamby Lane		
Kyle Kelsey	3778 Alton Rd West		
GARY NEFF	RR3 HARROWSMITH		
Judy Neff	RR3 Harrowsmith		
WAYNE BRENNAN	3375 Scanlan		
Penney Brennan	3375 Scanlan..		
Chantal Lafrance	3844 Jamieson Rd		
MURRAY ATTKEN	3844 JAMIESON RD		
Lori Votary	1008 Hobbs		
PAUL VOTARY	1008 Hobbs		
Cathie Waugh	1004 Hobbs Ln		
David Waugh	1004 Hobbs Ln		

Respectfully,

Name	Address	Phone Number	Signature
Anna Koch	2972 Rutledge	[redacted]	
Barry Braithwaite	1169 Horizon		
Megan + Dave Kaye	5230 Wilmer Rd.		
Alberta Thompson	Sydenham		
Jeff Riddle	Perth Rd		
Nicole McMillan	3119 Alton RD E		
Ryan Carroll	2058 Railton Rd		
Karen Laidlaw	1734 Canada Blvd Kingston		
Kelly Dean	22B Mill st. Napanee		
Matt Smith	2800 Orser Rd		
Tyler Way	1798 Hogan Dr		
Alissa Allinson	Mill Street		
Geraldine Wilson	4361 William St Sydenham		
Denise Ford	2038 Vallaymeir Dr. Verona		

Name	City	State	Postal Code	Country	Signed On
Brandi Teeple	Sydenham			Canada	11/16/2023
Alexandra Clinton	Sydenham		K0h2t0	Canada	11/16/2023
Kait Dixon	Verona		K0H	Canada	11/16/2023
MICHELLE PERO	Hartington		K0H	Canada	11/16/2023
Crystal Plant	Perth road		K0H 2L0	Canada	11/16/2023
Rosemarie Thorne	Sydenham		K0H 2T0	Canada	11/16/2023
RICHARD DELVE	Kingston		K7M	Canada	11/16/2023
Tara Shire	Sydenham		K0H	Canada	11/16/2023
Ryan Rose	Montreal		H2L	Canada	11/16/2023
Michelle Watson	Sydenham		K0H	Canada	11/16/2023
Lori Votary	Sydenham		K0H	Canada	11/16/2023
Bayleigh Dwyer				Canada	11/16/2023
Amy Graham	Battersea		K0H	Canada	11/16/2023
Melissa Boyce	Kingston		KOH	Canada	11/16/2023
Marcy Moser	Star Corners		K0H 1V0	Canada	11/16/2023
Debra Hamilton	Verona		K0H2W0	Canada	11/16/2023
Natalie Seale	Harrowsmith		K0H1V0	Canada	11/16/2023
Bob Clinton	Sydenham		K0h2t0	Canada	11/16/2023
Jamie Seale	Harrowsmith		K0H 1V0	Canada	11/16/2023
Amanda Craig	Sydenham		K0H	Canada	11/16/2023
Sue Clinton	Sydenham		K0H	Canada	11/16/2023
Anna Majury	Harrowsmith		K0H	Canada	11/16/2023
April Godfrey	Harrowsmith		K0H 1V0	Canada	11/16/2023
Megan Carruthers	Sydenham		K0H	Canada	11/16/2023
Janice Smith	Inverary		K0H1X0	Canada	11/16/2023
Shawn Walker	Harrowsmith		K0H1V0	Canada	11/16/2023
Amy MacInnes	Harrowsmith		K0H1v0	Canada	11/16/2023
Jared Whalen	Hartington, Ontario		K0H	Canada	11/16/2023
Alison Treadgold	Harrowsmith		K0H 1V0	Canada	11/16/2023
Joanne Barr	Sydenham		K0H2T0	Canada	11/16/2023
Hannah Costa	Verona		K0H	Canada	11/16/2023
Mason Carr	Fredericton		E3A 1K7	Canada	11/16/2023
Allan Read	Harrowsmith		K0H	Canada	11/16/2023

June Winfrow	Sydenham	K0H	Canada	11/16/2023
Amelia Davis	Sydenham	K0H	Canada	11/16/2023
Tiffany Amos	Toronto	M5A	Canada	11/16/2023
Tarja Makinen-Potts	Harrowsmith	K0H-1V0	Canada	11/16/2023
Melissa Mazzeo	Sydenham	K0H	Canada	11/16/2023
Shawn Sicard	Inverary	K0H1X0	Canada	11/16/2023
Christina walton	Sydenham	K0H 2T0	Canada	11/16/2023
Lisa Holmes	Verona	K0H	Canada	11/16/2023
Katie Sims	Sydenham	K0h 2t0	Canada	11/16/2023
Arno van Alst	Verona	K0H	Canada	11/16/2023
Chelsea McGeachie	Battersea	K0h1h0	Canada	11/16/2023
Jennafer McGinn	Perth Road	K0H 2L0	Canada	11/16/2023
Ashley Deveau	Yarker	K0k3n0	Canada	11/16/2023
Krista Robertson	Harrowsmith	K0H1V0	Canada	11/16/2023
Chris Robinson	Sydenham	K0H	Canada	11/16/2023
Darrell Campbell	Lakefield	K0L	Canada	11/16/2023
Kimberly St-Onge	Hartington	K0H1W0	Canada	11/16/2023
Craig Fox	Sydenham	K0H 2T0	Canada	11/16/2023
Joe McInerney	Sydenham	K0H	Canada	11/16/2023
Terri-lyn piat	Harrowsmith	K0H 1V0	Canada	11/16/2023
Kayla Clinton	Sydenham	K0h2t0	Canada	11/16/2023
Michelle Oliveira	Sydenham	K0H	Canada	11/16/2023
Jeannie Davis	Sydenham	K0H	Canada	11/16/2023
Mike Read	Kingston	K7K	Canada	11/16/2023
Irene Johnston	Hartington	K0H1W0	Canada	11/16/2023
olivia fowler	Sydenham	K0H 2T0	Canada	11/16/2023
Eighren Majury	Sydenham	K0H	Canada	11/16/2023
Kristian Clinton	Sydenham	K0H2T0	Canada	11/16/2023
Rhonda Hodgson	Harrowsmith	K0H 1V0	Canada	11/16/2023
Michelle Clow	Verona	K0H 2W0	Canada	11/16/2023
Lorie Reed	Sydenham	K0H 2L0	Canada	11/16/2023
Lucas Clow	Toronto	M5A	Canada	11/16/2023
Craig Rundle	Harrowsmith	K0H 1V0	Canada	11/16/2023
Courtney Amos	Harrowsmith	K0H1V0	Canada	11/16/2023

Katie Huang	Richmond	V7C	Canada	11/16/2023
Andy Hollis	Sydenham	K0H	Canada	11/16/2023
Anne Madden	Perth	K7H	Canada	11/16/2023
Barbara Perry	Perth Road	K0H2L0	Canada	11/16/2023
Chris Doyle	Harrowsmith	K0H 1V0	Canada	11/16/2023
Susan Pauly	Godfrey	K0H 1T0	Canada	11/16/2023
Matt Madden	Montreal	H3J	Canada	11/16/2023
Natalie Doyle	Verona	K0H	Canada	11/16/2023
Anna Rider	Kingston	K7M	Canada	11/16/2023
Judy Compton	Picton	K0K	Canada	11/16/2023
Jodi Payne	Harrowsmith	K0H 1V0	Canada	11/16/2023
Louise Ouellet	Battersea	K0H 1H0	Canada	11/16/2023
David Dillman	Kingston	K7L	Canada	11/16/2023
Nancy MacMillan	Kingston	K7M2C5	Canada	11/16/2023
Kelsey Dawson	Kingston	K0H1V0	Canada	11/16/2023
Lorraine Adams	Harrowsmith	K0H 1V0	Canada	11/16/2023
Jean Conway	Corner Brook	A2H 1G6	Canada	11/16/2023
Stan Ritchie	Kingston	K7M	Canada	11/16/2023
Justin Treadgold	Harrowsmith	K0H 1V0	Canada	11/16/2023
Al Marlow	Peterborough	K9K	Canada	11/16/2023
Dr. Michael Hurley	Kingston	K7L	Canada	11/16/2023
John Turgoose	Kingston	K7M	Canada	11/16/2023
Ashley Baafa	Kingston	K7K	Canada	11/16/2023
Shaya Cameron	Kingston	K7M	Canada	11/16/2023
Marcel Morin	Harrowsmith	K0h 1v0	Canada	11/16/2023
Graziella Dipillo	Toronto	M5R	Canada	11/16/2023
brendan goff	Toronto	M7A	Canada	11/16/2023
Pablo Mellognio	Kingston	k7m2w2	Canada	11/16/2023
Kassandra Shane	Oshawa	L1J	Canada	11/16/2023
Lisa Mingay	Verona	K0H	Canada	11/16/2023
Linda Web	Kingston	K7L 5B6	Sweden	11/16/2023
Rhonda Freake	Montreal	H2K	Canada	11/16/2023
Mark Laprise	Inverary	K0H1X0	Canada	11/16/2023
Shelley Asselstine	Sydenham	K0H	Canada	11/16/2023

Jonathan Clarke	Harrowsmith		K0H1V0		Canada	11/16/2023
Melanie Beckwith	Sydenham		K0H		Canada	11/16/2023
Sheri Williams	Inverary		K0H 1X0		Canada	11/16/2023
Tina Marshall	Sydenham		K0H2T0		Canada	11/16/2023
Paula Silver	Sydenham		K0H		Canada	11/16/2023
Denise Millar	Sydenham		K0H		Canada	11/16/2023
Amey Cancian	Montreal		H1Y		Canada	11/16/2023
Lynn Thompson	Kingston		K7M		Canada	11/16/2023
Margaret Emmons	Harrowsmith		K0H1V0		Canada	11/16/2023
bathurst ashley	Sydenham		K0H		Canada	11/16/2023
Kassandra Teixeira	Kingston		K7L		Canada	11/16/2023
Leslie Roberts	Kingston		K7L		Canada	11/16/2023
Tracy Oliveira	Kingston		K7K		Canada	11/16/2023
Jim Madden	Perth		K7H		Canada	11/16/2023
Kim Harris	Sydenham		K0H		Canada	11/16/2023
Rozanne Leonard-Stew	Hartington		K0H		Canada	11/16/2023
Mikaela Read	Odessa		KOH 2H0		Canada	11/16/2023
William Pierce	Crystal Lake	IL		60014	US	11/16/2023
Sean Nesbitt	South Frontenac		K0H 1W0		Canada	11/16/2023
Joan Lake	Kingston		K7K		Canada	11/16/2023
Lindsey Furlong	Harrowsmith		K0H1V0		Canada	11/16/2023
Boutilier Candy	Sydenham		K0H		Canada	11/16/2023
Robert Cumming	Thornhill		L4J		Canada	11/16/2023
Adriana Oliveira	Kingston		K7k 2x3		Canada	11/16/2023
Susanna Oliveira	Kingston		K7L 4V4		Canada	11/16/2023
Cathy McDermott	Sydenham		K0H 2T0		Canada	11/16/2023
Lorna Knight	Kingston		K7L		Canada	11/16/2023
Lynda Trommelen	Sydenham		K0H		Canada	11/16/2023
Bonnie Sask	Collins Bay		K7L		Canada	11/16/2023
Kim Pretorius	Kingston		K0H1V0		Canada	11/16/2023
Maria De Oliveira	Kingston		K7L		Canada	11/16/2023
Jennifer Guild	Sydenham		KOH		Canada	11/16/2023
shelby peacock	Toronto		M4S		Canada	11/16/2023
Sylvie Jans	Cornwall		K6H 5R6		Canada	11/16/2023

rebekah wood	Mountain Grove	K0H	Canada	11/16/2023
Tom Kaemmer	Napanee	K7R	Canada	11/16/2023
Lorraine Mustard	Sydenham	k0h2t0	Canada	11/16/2023
Walter Tedman	Kingston	K7K	Canada	11/16/2023
Cory Hilton	Ottawa	K1N	Canada	11/16/2023
trista leaver	Kingston	k7p0c5	Canada	11/16/2023
elena vilela	Brampton	L6T	Canada	11/16/2023
Kayla Lieff	Kingston	K7M	Canada	11/16/2023
Macey McGrath	Kingston	K7N	Canada	11/16/2023
Destiny Vieira	Kingston	K7P1J7	Canada	11/16/2023
Donna Wood	Kingston	K7K	Canada	11/16/2023
tasia dowling	Kingston	K7M	Canada	11/16/2023
Eileen Harvey	Hartington	K0H 1W0	Canada	11/17/2023
Michael Kortschaga	Ottawa	K2B	Canada	11/17/2023
Heather Beattie	Sydenham	K0H	Canada	11/17/2023
Andrea Cumpson	Inverary	K0H 1X0	Canada	11/17/2023
Roy Ed	London	N6L0B8	Canada	11/17/2023
Lenore Black	Markham	L3S	Canada	11/17/2023
K Weir	Baden	N3A	Canada	11/17/2023
Adrienne Sabourin	Sydenham	K0H	Canada	11/17/2023
Corwin Sabourin	Hartington	K0H1W0	Canada	11/17/2023
Rietta Wadman Mills	Sydenham	K0h2t0	Canada	11/17/2023
Amanda Hartley	Newburgh	K0K	Canada	11/17/2023
Kym Garrah	Hartington	K0H	Canada	11/17/2023
Cynthia McCallum	Sydenham	K0H	Canada	11/17/2023
Robyn Gerard	Toronto	M4G	Canada	11/17/2023
Don Betz	Ottawa	K1T	Canada	11/17/2023
Wendy Bryant	Inverary	K0H 1X0	Canada	11/17/2023
Kallista Smith	Kingston	K7L	Canada	11/17/2023
Emy Basich	Kingston	K7M	Canada	11/17/2023
Helen Storms	Sydenham	K0H	Canada	11/17/2023
Lorraine Sims	Perth Road	K0H 2L0	Canada	11/17/2023
Andrea Ellefson	Regina	S4R	Canada	11/17/2023
Marylou Read	Parksville	V9P	Canada	11/17/2023

Sheldon Horse	Regina	S4R		Canada	11/17/2023
Maddy B	Kingston	K7M		Canada	11/17/2023
Robyn bay	Edmonton	T6T 6C0M5		Canada	11/17/2023
Don Pearson	Tichborne	K0H		Canada	11/17/2023
Kristen Vanderburgt	Sydenham	K0H		Canada	11/17/2023
Amy VanKoughnett	Hartington	K0H 1W0		Canada	11/17/2023
Meagan Davis	Kingston	K7K		Canada	11/17/2023
Jose Braga	South Frontenac	K7M		Canada	11/17/2023
Darlene Robinson	Kingston	K7L		Canada	11/17/2023
Karleen Knott	Sydenham	K0H		Canada	11/17/2023
Dale Pidgeon	Harrowsmith	K0K 1v0		Canada	11/17/2023
Stephanie Newman	Verona	K0H		Canada	11/17/2023
Tara Hrynyk	Edmonton	T5T 2Z4		Canada	11/17/2023
Kristin Mullin	Harrowsmith	K0H 1V0		Canada	11/17/2023
Tiegan Orser	Sydenham	K0H		Canada	11/17/2023
Morgan Greenslade	Sydenham	K0H 2T0		Canada	11/17/2023
Tina Lahaie	Inverary	K0H 1X0		Canada	11/17/2023
Shari Hasler	Sydenham	K0H		Canada	11/17/2023
Rebecca Young	Sydenham	K0H		Canada	11/17/2023
Roscher Sandra	Brossard	J4Z		Canada	11/17/2023
Paige Mallen	Trenton	K8V		Canada	11/17/2023
Ed Larocque	Brockville	K6V		Canada	11/17/2023
Stacey Turkeli	Inverary	K0H1X0		Canada	11/17/2023
Cheryl Thomas	Sydenham	K0H2T0		Canada	11/17/2023
Tim Robinson	Sydenham	K0H		Canada	11/17/2023
Blair Macfie	Inverary	K0H1X0		Canada	11/17/2023
Annette Broks	Sydenham	K0H		Canada	11/17/2023
grant thompson	Kingston		29566	Canada	11/17/2023
Susan Robertson	Sydenham	K0H		Canada	11/17/2023
Candace Hutton	Ottawa	K4B		Canada	11/17/2023
Havery Shultz	Verona	K0hw20		Canada	11/17/2023
Linda Kreick	Toronto	M5A		Canada	11/17/2023
Janice Belanger	Harrowsmith	K0H		Canada	11/17/2023
Todd Duffy	Verona	K0H		Canada	11/17/2023

Blair Freeman	RR2 Perth Road	K0H2L0	Canada	11/17/2023
Renay Loucaides	Perth	K0H1X0	Canada	11/17/2023
Erfan Desai	Toronto	m1g 1c5	Canada	11/17/2023
James Hutton	Hartington	K0H1W0	Canada	11/17/2023
Wooly Mammoth	Kitchener	N2M	Canada	11/17/2023
Shannon Goulet	Toronto	M4P	Canada	11/17/2023
Diana Hopkins-Rosseel	Kingston	K7K	Canada	11/17/2023
Emily Francis	Godfrey	K0H1T0	Canada	11/17/2023
Brandon Shepherd	Toronto	M4S	Canada	11/17/2023
Jim Robinson	Westport	K0G 1X0	Canada	11/17/2023
Haley Richardson	Napanee	K7M	Canada	11/17/2023
Patricia Mazzeo	Kingston	K7L	Canada	11/17/2023
Kelly Patchett	Sydenham	K0H 2T0	Canada	11/17/2023
Michelle Gordon	Brampton	L6S	Canada	11/17/2023
Amanda Orser	Sydenham	K0H	Canada	11/17/2023
Robyn Lindsay	Ottawa	K1T	Canada	11/17/2023
Sally VanLuven	Kingston	K7L 5H6	Canada	11/17/2023
K Lynda Hendrickson	Godfrey	K0H 1T0	Canada	11/17/2023
Robert Wolsey	Sydenham	K0H	Canada	11/17/2023
Ian Sudlow	Verona	K0H 2W0	Canada	11/17/2023
Lisa Pedersen	Verona	K0H	Canada	11/17/2023
Andrew Lloyd	Montreal	H3A	Canada	11/17/2023
Katrina Pedersen	Sydenham	K0H2T0	Canada	11/17/2023
Gerald Amey	Verona	K0H	Canada	11/17/2023
Irene Dobler	Kinburn	K0A	Canada	11/17/2023
Andrew Ray	Dartmouth	B3A 4K1	Canada	11/17/2023
Barb Martin	Sydenham	K0H	Canada	11/17/2023
Kathaleen Malloy	South Frontenac	K0H	Canada	11/17/2023
Dana Murray	Hartington	K0H 1w0	Canada	11/17/2023
Beckie Ponte	Sydenham	K0K	Canada	11/17/2023
Heather Caird	Harrowsmith	K0H 1V0	Canada	11/17/2023
Sonia Collin	Odessa	K0H	Canada	11/17/2023
Lisa Bridgeland	Sydenham	K0H 1V0	Canada	11/17/2023
Alex Bien	Kingston	K7K 1W4	Canada	11/17/2023

Rezgar Bazargan	Stoney Creek	L8J	Canada	11/17/2023
Donna Benedikt	Ottawa	K1H	Canada	11/17/2023
Logan Orser	Kingston	K7M	Canada	11/17/2023
Ashley Pritchard	Harrowsmith	K0H 1V0	Canada	11/17/2023
Valerie O'Connor	Winchester	K0C	Canada	11/17/2023
Holly WhiteKnight	Kingston	K7K 3V5	Canada	11/17/2023
Mary Wood	Inverary	K0H 1X0	Canada	11/17/2023
Fraser Murray	Sydenham	K0H	Canada	11/17/2023
Joel Orser	Sydenham	K0h2t0	Canada	11/17/2023
Shelly Eves	Montréal	H2H	Canada	11/17/2023
Rhonda Kristensen	Sydenham	K0H 2T0	Canada	11/17/2023
Alison Haylock	Napanee	K7R	Canada	11/17/2023
Evelyn Sideen	Perth Road	K0H 2L0	Canada	11/17/2023
Leanne Simpson	Keswick	L4P3E9	Canada	11/17/2023
Debbie Harris	Hartington	K0H 1W0	Canada	11/17/2023
Roland Belanger	Sherwood Park	T8C	Canada	11/17/2023
Kara Burns	Peterborough	K9K	Canada	11/17/2023
Davey Burns	Hartington	K0H1W0	Canada	11/17/2023
Krista Peters	Godfrey	K0H1T0	Canada	11/17/2023
Teresa Nagy	Verona	K0H2W0	Canada	11/17/2023
Caroline Bootland	Sydenham	K0H	Canada	11/17/2023
Ali Hosseini	Vancouver	V6B	Canada	11/18/2023
Brenda Repaye	Harrowsmith	K0H 1V0	Canada	11/18/2023
Becky Burke	Kingston	K7L	Canada	11/18/2023
Barbara Repaye	Toronto	M5A	Canada	11/18/2023
Shane Peters	Harrowsmith	K0H 1V0	Canada	11/18/2023
Noel Redmond	Inverary, Ontario	K0H1X0	Canada	11/18/2023
Anthony Green	Perth Road	K0H2L0	Canada	11/18/2023
Sheila Kidd	Harrowsmith	K0H	Canada	11/18/2023
Lisa Walton	Verona	K0H	Canada	11/18/2023
Joan Tremblay	Kingston	K7L	Canada	11/18/2023
Hoursa Soroush	Coquitlam	V5A	Canada	11/18/2023
Sara Rushton	Sydenham	K0H	Canada	11/18/2023
RAMANVIR KAUR	Sault Ste. Marie	P6B	Canada	11/18/2023

Rebecca Bender	Verona	K0H	Canada	11/18/2023
Thomas Warburton	Sydenham	K0H	Canada	11/18/2023
Wojtek Palczynski	Verona	K0H2W0	Canada	11/18/2023
Samantha Hutchison	Kingston	K7K	Canada	11/18/2023
Michelle MacLean	Hartington	K0H1W0	Canada	11/18/2023
Edna Malderis	Harrowsmith	K0H1V0	Canada	11/18/2023
Shari millard	Kingston	k7p 3h3	Canada	11/18/2023
Tim Lyon	Kingston	K7K	Canada	11/18/2023
Anousha Nikrou			Canada	11/18/2023
Christine McCallum	Sharbot Lake	K0H	Canada	11/18/2023
Darcie Cook	Gillam	R0B	Canada	11/18/2023
Michelle MErcier	Edmundston	E3V	Canada	11/18/2023
Janice Robertson	Grafton	K0K 2G0	Canada	11/18/2023
Lisa Ferguson	Toronto	M5A	Canada	11/18/2023
Patty Dudack	Hartington	K0H1W0	Canada	11/18/2023
Bri Stevenson	Verona	K0H	Canada	11/18/2023
Karen Whan	Perth	K7H	Canada	11/18/2023
Susan Stone	Odessa	K0h2h0	Canada	11/18/2023
Ann Struthers	Harrowsmith	K0H1V0	Canada	11/18/2023
Jen Thomasing	Kingston	K7K	Canada	11/18/2023
Patricia Dawson	Harrowsmith	K0H	Canada	11/18/2023
Kevin Watson	Harrowsmith	K0h1v0	Canada	11/18/2023
Mark Jaeger	Napanee	K7R	Canada	11/18/2023
Katie Babcook	Hartington	K0h1w0	Canada	11/18/2023
Marlena Murray	Vancouver	V6L 2Y2	Canada	11/18/2023
K. Shawn Armstrong	Hartington	K0H1W0	Canada	11/18/2023
Joe Ferguson	Hartington	K0H1W0	Canada	11/18/2023
Dani :)	Vancouver	V5P	Canada	11/18/2023
Nandini Kawall	Kingston, ON	K7M	Canada	11/18/2023
Kim Page	Sydenham	K0H 2T0	Canada	11/18/2023
emery clare	Ottawa	K1R	Canada	11/18/2023
Alexandra Fenton	Odessa	K0H	Canada	11/18/2023
Bev Carter	Battersea	K0H 1H0	Canada	11/18/2023
Sharlene Van Grunsver	Montreal	H4E	Canada	11/18/2023

Rachel Glaze	Sydenham	K0H 2T0	Canada	11/18/2023
Amanda Consack	Sydenham	K0h 2t0	Canada	11/18/2023
Ann Rider	St-Albert	K0A	Canada	11/19/2023
Melanie Hughes	Kingston	K7M	Canada	11/19/2023
Dorothy Fergus	Odessa	K0H	Canada	11/19/2023
Michael Williams	Kingston	K7M	Canada	11/19/2023
Cameron Robertson	Sydenham	K0H2T0	Canada	11/19/2023
Deb Moodie	Inverary	K0H 1X0	Canada	11/19/2023
Lisa Simkins	Harrowsmith	K0H	Canada	11/19/2023
Jane Roberts	Kingston	K7M	Canada	11/19/2023
Carolyn Keery	Waterloo	N2j4s4	Canada	11/19/2023
Janet Davison	Harrowsmith	K0G	Canada	11/19/2023
Pamela Blaikie	Kingston	K7M	Canada	11/19/2023
Dana Pople-McCord	South Frontenac	K0h	Canada	11/19/2023
Lyn Pople	Perth Road	K0H2L0	Canada	11/19/2023
Andrew McCord	Perth road	K0H2L0	Canada	11/19/2023
Dale Andrews	Kingston	K7P0K6	Canada	11/19/2023
Janan K	Edmonton	T5x	Canada	11/19/2023
Lynne Heron	Kingston	K7P	Canada	11/19/2023
Judith Kleffman	Kingston	K7M	Canada	11/19/2023
Doreen Morgan	Perth	K7H	Canada	11/19/2023
Marilyn Goodberry	Harrowsmith	K0H 1V0	Canada	11/19/2023
Paitton-Lei Hebert	Windsor	N8W	Canada	11/19/2023
Alan Cosford	Sydenham	K0H	Canada	11/19/2023
Brianna Ohl	Orillia	L3V	Canada	11/19/2023
Margaret Lecours	Kingston	K7M	Canada	11/19/2023
ali anderson	sal	V6B	Canada	11/19/2023
Rofyda Bassiouny	Toronto	M6R	Canada	11/19/2023
Haneen Kadhom	Brampton	L6S	Canada	11/19/2023
Momina Atif	Saskatoon	S7L	Canada	11/19/2023
Jack Donohue	Surrey	V4N	Canada	11/19/2023
Jamie Lee	Burnaby	V5C	Canada	11/19/2023
Karen White	Verona On	K0H 2W0	Canada	11/19/2023
Erik Alkenbrack	Kingston	K7K	Canada	11/19/2023

Sharon McComb	Almonte	K0A 1A0	Canada	11/19/2023
Susan Reaper	North Vancouver	V7M	Canada	11/19/2023
Sivanadian Jeeva	London	N6M 1J8	Canada	11/19/2023
Ahmed Ammar	Mississauga	L5M	Canada	11/19/2023
Jessie Caird	Peterborough	K9J	Canada	11/19/2023
Shir.ey Leighton	Orangeville	L9W	Canada	11/19/2023
Marwil Alaurin	Ottawa	K2G 6B4	Canada	11/19/2023
Roberta Bush	Quinte West	K8V 2C2	Canada	11/19/2023
anita alfoldi	Kitchener	n2e2e3	Canada	11/19/2023
Naglaa Mehrez	Saskatoon	S7W	Canada	11/19/2023
Michael Conlin	Ottawa	K1Z 8M3	Canada	11/20/2023
Ayaz Hussain Chandio	Sherwood park	T6	Canada	11/20/2023
Zainab Kadhem	London	N5Z	Canada	11/20/2023
Shirza Chughtai	Brampton	L6W0A9	Canada	11/20/2023
Evelin Go	Thornhill	L3T1Z8	Canada	11/20/2023
Barbara Szarek	Belleville	K8N	Canada	11/20/2023
KHALIFA BEN WAER	Hamilton	L8N 3V2	Canada	11/20/2023
Himanshu Sakhalkar	London	N6h5c9	Canada	11/20/2023
Evangeline Bone	Peterborough	K9A	Canada	11/20/2023
Sharon Davis	Whitehorse	Y1A	Canada	11/20/2023
Patrick Farnum	Calgary	T3B	Canada	11/20/2023
Emmanuel Edelifo	Ottawa	K1A	Canada	11/20/2023
Sina Zamansani	West Vancouver	V7S	Canada	11/20/2023
Marilyn Starr	Haisla	V0T 2B0	Canada	11/20/2023
Ashley Van Luven	Inverary	K0h	Canada	11/20/2023
Ibrahim Harake	Ottawa	K1P 4p4	Canada	11/20/2023
Carolyn Cotman-beaubi	Kingston	K7M1P3	Canada	11/20/2023
Sugar Bouche	Toronto	M9C5H5	Canada	11/20/2023
Paige Campbell	Kingston	K7N	Canada	11/20/2023
Robin Westphal	Ottawa	K1R	Canada	11/20/2023
Kyla Coyote	Red Deer	T4n6c1	Canada	11/20/2023
Gary Caird	Toronto	K0H1V0	Canada	11/20/2023
Kathleen Brady	Kingston	K7M 2G8	Canada	11/20/2023
Katie Harrington	Belleville	K8N	Canada	11/20/2023

Brittany Neadow	Calgary	T3G	Canada	11/20/2023
Chris Nicholls	Hartington	K0H	Canada	11/20/2023
Kory Melnick	Kingston	K7M	Canada	11/20/2023
Geoff Nickle	London	N6C	Canada	11/20/2023
Joshua Kenney	Sydenham	K0H	Canada	11/20/2023
Theresa Kenney	Toronto	M6E	Canada	11/20/2023
Mike Brooks	Granton	N0M	Canada	11/20/2023
Peter Vandenbrink	Toronto	M6E	Canada	11/20/2023
jim harrington	Napanee	K7r2h8	Canada	11/20/2023
Meghan Madden	Tichborne	K0H	Canada	11/20/2023
Brittany Lockwood	Kingston	K7L	Canada	11/20/2023
Robin Belliveau	Toronto	M5S	Canada	11/20/2023
Barbara Winter	Elginburg	K0H 1M0	Canada	11/20/2023
Denise Webster	Harrowsmith	K0H 1V0	Canada	11/20/2023
Terri McColman	Toronto	M5A	Canada	11/20/2023
Julia Veryzer	Verona	K0H 2W0	Canada	11/20/2023
Jennifer McNeill	Verona Ontario	KoH2W0	Canada	11/20/2023
Sarah Clarke	Harrowsmith	K0H	Canada	11/21/2023
Shelley Grant	Sharbot Lake	K0H	Canada	11/21/2023
Kyle Kelsey	Sydenham	K0H	Canada	11/21/2023
Christy Beech	Kingston	K7M	Canada	11/21/2023
Jo-Ann Kusters	Kingston	K7K	Canada	11/21/2023
Dan Ford	Verona	K0H 2W0	Canada	11/21/2023
Amy Rundle	Kingston	K7M	Canada	11/21/2023
Isaac Rundle	Harrowsmith	K0H 1V0	Canada	11/21/2023
Jason Mullin	Kingston	K7M 3Y8	Canada	11/21/2023
Keith Meteer	Plymouth	PL4	UK	11/21/2023
J Morrison	Ottawa	K1R	Canada	11/21/2023
Tessa Morrison	Sydenham	K0H	Canada	11/22/2023
Karen Forbes	Sydenham	K0H	Canada	11/22/2023
Catherine Godin	Napanee	K7R	Canada	11/22/2023
Sharon Mitchell	Hartington	K0H 1W0	Canada	11/22/2023
jim stimson stinson	Verona	K0H	Canada	11/22/2023
Cassandra Mol	Kingston	K7L	Canada	11/22/2023

Geoff Seymour	Kingston	K7L	Canada	11/22/2023
Angela Kent	Godfrey ontario	K0h1t0	Canada	11/22/2023
MariA Puopolo	Hartington	K0H	Canada	11/22/2023
Megan Toulouse	Yarker	K0K 3N0	Canada	11/22/2023
Jessica Hogan	Toronto	M5A	Canada	11/22/2023
Karen Brawley	Sydenham	K0h2t0	Canada	11/22/2023
Mary Jane Dempster	Inverary	K0H 1X0	Canada	11/22/2023
Sarah Mackenzie	Kingston	K7M6T2	Canada	11/22/2023
Lisa Goodsell	Sydenham	K0H	Canada	11/22/2023
Megan Kitto	Odessa	K0H2H0	Canada	11/22/2023
Dan Moore	Kingston	K7P	Canada	11/22/2023
Tammy Rose	Toronto	M5A	Canada	11/22/2023
Nicole Young	Harrowsmith,Ontario	K0H1V0	Canada	11/22/2023
Rozalyn Varty	Verona	K0H2W0	Canada	11/22/2023
Theresa Gribbon	Westport	K0G	Canada	11/22/2023
Angel Heijmans	Harrowsmith	K0H1V0	Canada	11/22/2023
Justin Chambo	Verona ontario	K4R	Canada	11/22/2023
Judy Miller	Westport	K0G	Canada	11/22/2023
Tristan Adams	Hartington	K0h 1W0	Canada	11/22/2023
Darrell Godin	Harrowsmith	K0H1V0	Canada	11/22/2023
Brenda Cox	Yarker	K0K 3N0	Canada	11/22/2023
Jackie Conrad	Glenburnie	K0H1S0	Canada	11/22/2023
Chris Davis	Kingston	K7M	Canada	11/22/2023
Jean Larmon	Sydenham	K0H	Canada	11/23/2023
Nicole Demerah	Kingston	K7K	Canada	11/23/2023
Megan Bosman	Sydenham	K0H	Canada	11/23/2023
Nicole Ruttan	Godfrey	K0H1T0	Canada	11/23/2023
Emily Leeman	Sydenham	K0H	Canada	11/23/2023
Sandy Smith	Perth Road	K0H2L0	Canada	11/23/2023
Fina Malakhi	Thornhill	L4J	Canada	11/23/2023
TYSON MOREY	Sydenham	K0H 2T0	Canada	11/23/2023
Roselina Levasseur	Winnipeg	R3G	Canada	11/24/2023
Annette Allan	Napanee	K7R	Canada	11/24/2023
Karen Smith	Sydenham	K0H 2T0	Canada	11/24/2023

Sharon Patterson	Kingston	K7M	Canada	11/24/2023
Kathie Dick	Bath	K0H	Canada	11/24/2023
Janeen Davis	Napanee	K7R	Canada	11/24/2023
Heather Grainger	Kingston	k7l5e1	Canada	11/24/2023
Chi Diep	Toronto	M5V 3N8	Canada	11/24/2023
Brooke Mayberry	Mount Forest	N0G2L0	Canada	11/24/2023
Stephen Kennedy	Bath	K0H	Canada	11/24/2023
Janeta Kobes	Kingston	K7L	Canada	11/24/2023
Ata Moghaddam	Toronto	m1w 1e8	Canada	11/24/2023
Zohall Aziz	Brampton	L6S	Canada	11/24/2023
Laura Green	South Frontenac	H2B	Canada	11/24/2023
Ed Nash	Bath	K0H 1G0	Canada	11/24/2023
Briann Jeffrey	Hartigton	K0H1W0	Canada	11/24/2023
esther quirt	Bath	K0H	Canada	11/24/2023
Janet Dudek	Kingston	K7M	Canada	11/24/2023
Michael Quirt	Bath	K0H	Canada	11/24/2023
Christine Downey	Bath, Ontario	K0H 1G0	Canada	11/24/2023
Brandon Whitfield	Toronto	M6M	Canada	11/24/2023
Kathryn Brown	Bath	K0H	Canada	11/24/2023
Dorothy Edwards	Kingston	K7L	Canada	11/24/2023
Kendra Shillington	Kingston	K7L	Canada	11/24/2023
Lisa Binnie	Odessa	K0H	Canada	11/24/2023
Crystal Lehtimaki	Kingston	K7M	Canada	11/25/2023
Jennifer Bryant	Kingston	K7M	Canada	11/25/2023
Shelby Eves	Sydenham	K0H	Canada	11/25/2023
Brandon Buckley	Hartington	K0h 2w0	Canada	11/25/2023
Taylor Currie	Kingston	K7M 1G1	Canada	11/25/2023
John Schwerdtfeger	Sydenham	K0H	Canada	11/25/2023
Susan Phillips	Ottawa	K2P	Canada	11/26/2023
Erika Cooper	Kingston	K7P	Canada	11/26/2023
Brittany Cloutier	Toronto	M6C	Canada	11/26/2023
Jacqueline Kennedy	Kingston	K7K	Canada	11/27/2023
Christy B	Toronto	M4Y	Canada	11/27/2023
Wendy Rose	Verona	K0H	Canada	11/27/2023

Kathleen Gibson	Harrowsmith	K0h 1v0	Canada	11/27/2023
Taylor Farrance	Harrowsmith	K0H	Canada	11/28/2023
james gibbs	Sydenham	K0H	Canada	11/28/2023
Will Holland	Verona	K0H	Canada	11/28/2023
Emily Vanalstine	Harrowsmith	K0H 1V0	Canada	11/29/2023

From: David Anders
To: Randy Ruttan
Cc: Kevin Whyte; Tremor Temchin
Subject: RE: South Frontenac and Harrowsmith Energy Storage Projects
Date: December 4, 2023 6:49:54 PM

Dear Councilor Rutan,

Thank you for your note. Regarding your questions, I'm happy to provide some additional information and comments below.

Q: How many energy storage installations are there worldwide?

- A: Due to the rapid, global growth of battery energy storage in the past six years, it is difficult to determine a precise figure, but according to leading analysts there are over 25,000 Lithium-Ion Battery Energy Storage Solutions operating globally (https://www.statista.com/statistics/1360532/number-of-electrochemical-energy-storage-projects-by-technology-worldwide/), and that figure is poised to increase rapidly.
- In 2021, there were **17 GW** (1 GW = 1000 MW) of BESS installed (https://www.iea.org/energy-system/electricity/grid-scale-storage)
- By the end of 2022, there were **28 GW** of BESS installed (https://www.iea.org/energy-system/electricity/grid-scale-storage_
- McKinsey estimates that there will be **93 GWh** of BESS operating by end of 2023. (https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/enabling-renewable-energy-with-battery-energy-storage-systems
- By 2030, Bloomberg forecasts that the deployment of BESS will expand by **15 times** the 2021 total (https://about.bnef.com/blog/global-energy-storage-market-to-grow-15-fold-by-2030/

Q: How many battery failures have there been?

- A: The Electrical Power Research Institute (EPRI) has built and maintains the most authoritative index of battery energy storage system failures. It can be found here: https://storagewiki.epri.com/index.php/BESS_Failure_Event_Database
- This database shows approximately **63 BESS failures** around the globe in the past decade. It is worth noting that the vast majority of these failures are related to smaller systems (only 12 of these are on systems 50MW and greater) and may not reflect the most current design standards in the industry (such as the latest versions of UL9540 and NFPA855 standards for fire protection)
- With over 25,000 battery energy storage systems operating worldwide, this would indicate a BESS installations have had a successful operating record of **99.75%**
- As another point of note, there have been **ZERO** BESS failures in Canada to-date. There is stringent regulation in place Provincially and Federally around BESS units we will abide by to ensure the highest standards of safety.

Please do not hesitate to reach out to me if you have any further questions.

Best Regards,
David Anders

From: Randy Ruttan <RRuttan@southfrontenac.net>
Sent: Monday, December 4, 2023 1:55 PM
To: David Anders <David.Anders@alectrasolutions.com>
Cc: Kevin Whyte <Kevin.Whyte@alectrautilities.com>; Tremor Temchin <ttemchin@convergentep.com>
Subject: Re: South Frontenac and Harrowsmith Energy Storage Projects

NOT FROM ALECTRA! Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Anders,
I appreciate your follow up. I do have a question for you.
How many installations, similar in nature to what you propose, are world-wide, and how many incidents have there been over the time of they have been in use?

Thank you,
Randy

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From: David Anders <David.Anders@alectrasolutions.com>
Sent: Friday, December 1, 2023 4:43:47 PM
To: Randy Ruttan <RRuttan@southfrontenac.net>
Cc: Kevin Whyte <Kevin.Whyte@alectrautilities.com>; Tremor Temchin <ttemchin@convergentep.com>
Subject: RE: South Frontenac and Harrowsmith Energy Storage Projects

Dear Councillor Ruttan,

My name is David Anders and I am with Alectra Energy Solutions. I was one of the presenters last week at Council regarding the proposed battery energy storage systems (BESS) for South Frontenac.

I wanted to reach out and thank you for listening to our presentation and subsequent answers to Council's questions.

South Frontenac staff have compiled a report on the proposed projects, which can be found here:

https://southfrontenac.civicweb.net/FileStorage/FC4AA3DCB1BD44708E48BEFB8CE1F80F-2023-12-05%20Council%20report%20-Battery%20Energy%20Storage%20.pdf

As a quick recap, the projects that are being proposed stem from the Independent Electricity System Operator's (IESO) RFP that is calling for proposals to procure thousands of MW of contracted energy supply capacity to help meet growing demand and ensure grid reliability over the coming years.

The proposed sites in South Frontenac are located at 3891 Alton Road West, Harrowsmith, and 3562 Trousdale Road, Hartington. These sites have supportive land-owners, Indigenous support, and were confirmed by the IESO to be suitable sites for capacity-related purposes.

As a recap as to who we are:

Alectra Inc. owns Alectra Energy Solutions and Alectra Utilities Corporation, Canada's largest municipally owned utility company by customer count, with nearly 1.1 million customers in 17 communities in Ontario. We oversee and maintain billions of dollars of electrical infrastructure and would transfer that experience and knowledge to these projects. As a municipally-owned company, we invest and give back to all the communities we serve, which would be no different for South Frontenac as shown through the proposed community benefit fund of $1,000 per MW awarded, or up to $400,000 and $300,000 annually ($700,000 total) should both projects be fully awarded. In fact, our investments back into the communities we serve has earned Alectra Imagine Canada's Caring Company designation. In short, we understand the importance of good relations with municipalities, community consultation, and listening to concerns and finding suitable solutions. Should either or both of these projects move forward, we will continue this core value and work closely with both the town and community throughout the entire development and operational process.

Given the high standards we abide by in all aspects of the company, we not only seek to ensure that we provide the best services through our own means, but also through those of companies we choose to partner with. This is why Convergent Energy & Power was chosen as our partner for these battery storage projects. They too hold themselves to a very high standard and have over a decade of experience of operating battery storage units across both the U.S. and Ontario. In fact, as a joint venture and due to our depth of experience, the Alectra – Convergent JV was awarded 3 additional urban BESS projects the last IESO RFP round; 1 site in Guelph, and 2 in Vaughan.

As for the municipal support resolutions we are seeking for these projects, I want to re-iterate that this does NOT represent a final approval for either project. We are still required to abide by all municipal, provincial, and federal permitting, site plan approvals, regulatory, environmental assessments, emergency preparedness, and any other pertinent by-law that these projects would fall under. However, council support is a critical factor in the highly competitive RFP process. Should either project be awarded, we would ensure we continue to consult with the community, Council, and staff on an on-going basis to address concerns, and work with the town to address infrastructure needs for the project(s).

We would be happy to schedule a call with you ahead of the Council meeting on Tuesday evening to answer any follow-up questions you may have. Please feel free to reach out to me at any time.

We sincerely appreciate your consideration of these projects and hope to see your support.

All the best,
David Anders

David Anders
Director, Distributed Energy Solutions
161 Cityview Boulevard. Vaughan, ON L4H 0A9
t 647.449.8423
alectraenergysolutions.com

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TOWNSHIP OF SOUTH FRONTENAC
BY-LAW 2023-97

A BY-LAW TO CONFIRM GENERALLY ALL ACTIONS AND PROCEEDINGS OF THE SPECIAL COUNCIL MEETING OF THE CORPORATION OF THE TOWNSHIP OF SOUTH FRONTENAC ON DECEMBER 5, 2023

Whereas Section 8 of the *Municipal Act*, S.O. 2001 c. 25 and amendments thereto provides that a municipality has the capacity, rights powers and privileges of a natural person for the purpose of exercising its authority under the *Municipal Act* of any other *Act;* and;

Whereas Subsection 2 of Section 11 of the *Municipal Act* S.O. 2001, c. 25 and amendments thereto provides that a lower-tier municipality and an upper-tier municipality may pass by-laws respecting matters within the spheres of the jurisdiction described in the Table to Subsection 2, subject to certain provisions, and;

Whereas Section 5 of the *Municipal Act*, S.O 2001 c. 25 and amendments thereto provides that a municipal power, including a municipality's capacity, rights, powers and privileges under Section 8 shall be exercised by its council and by by-law unless the municipality is specifically authorized to do otherwise, and

Whereas the Council of the Township of South Frontenac deems it expedient to confirm its actions and proceedings;

NOW THEREFORE BE IT RESOLVED THAT THE COUNCIL CORPORATION OF THE TOWNSHIP OF SOUTH FRONTENAC, HEREBY ENACTS AS FOLLOWS:

1. The all actions and proceedings of the Council of the Corporation of the Township of South Frontenac taken at its regular meeting held on December 5, 2023 be confirmed as actions for which the municipality has the capacity, rights, powers and privileges of a natural person.

2. That all actions and proceedings of the Council of the Corporation of the Township of South Frontenac held December 5, 2023 be confirmed as being matters within the spheres of jurisdiction described in Subsection 2 of Section 11 of the *Municipal Act*, S.O. 2001, c.25 and amendments thereto.

3. That all actions and proceedings of the Council of the Corporation of the Township of South Frontenac taken at its regular meeting held on December 5, 2023 except those taken by by-law and those required by bylaw to be done by resolution are hereby sanctioned, ratified and confirmed as though set out within and forming part of this by-law.

4. Execution by the Mayor and the Clerk of all Deeds, Instruments and other Documents necessary to give effect to any such Resolution, Motion or other action and the affixing of the Corporate Seal to any such Deed, Instruments or other Documents is hereby authorized and confirmed.

5. This By-law shall come into force and take effect on the date of its passage.

Read a first and second time this 5 day of December 2023.

Read a third time and finally passed this 5 day of December 2023.

THE CORPORATION OF THE TOWNSHIP OF SOUTH FRONTENAC

_____
Ron Vandewal, Mayor

_____
James Thompson, Clerk