



THE REGIONAL MUNICIPALITY OF NIAGARA
PUBLIC WORKS COMMITTEE
FINAL AGENDA

PWC 11-2019

Tuesday, November 5, 2019

9:30 a.m.

Council Chamber

Niagara Region Headquarters, Campbell West

1815 Sir Isaac Brock Way, Thorold, ON

	Pages
1. <u>CALL TO ORDER</u>	
2. <u>DISCLOSURES OF PECUNIARY INTEREST</u>	
3. <u>PRESENTATIONS</u>	
3.1 <u>Curbside Waste Diversion Container Distribution Options for Every- Other-Week Garbage Collection</u> Lucy McGovern, Program Manager, Collection and Diversion	3 - 23
4. <u>DELEGATIONS</u>	
5. <u>ITEMS FOR CONSIDERATION</u>	
5.1 <u>PW 64-2019</u> Vision Zero Road Safety Program A presentation will precede the discussion of this item.	24 - 42
5.2 <u>PW 60-2019</u> On-Demand Transit - Pilot Authorization (Simulation Results) A presentation will precede the discussion of this item.	43 - 76

Citizen Appointments to Humberstone Landfill Site Public Liaison
Committee and Niagara Road 12 Landfill Site Citizen's Liaison
Committee

6. CONSENT ITEMS FOR INFORMATION

7. OTHER BUSINESS

8. CLOSED SESSION

8.1 Confidential Presentation

A Matter of Commercial and Financial Information, supplied in confidence to the municipality, which, if disclosed, could reasonably be expected to prejudice significantly the competitive position or interfere significantly with the contractual or other negotiations of a person, group of persons, or organization - Financial Information Supporting Waste Management Collection Contract Procurement Process - Presentation

8.2 Confidential Appendix 1 to Report PW 66-2019

A Matter Respecting Personal Matters About Identifiable Individuals - Citizen Appointments to the Humberstone Landfill Site Public Liaison Committee and Niagara Road 12 Landfill Site Citizen's Liaison Committee

9. BUSINESS ARISING FROM CLOSED SESSION ITEMS

10. NEXT MEETING

The next meeting will be held on Tuesday, December 3, 2019 at 9:30 a.m. in the Council Chamber, Regional Headquarters.

11. ADJOURNMENT

If you require any accommodations for a disability in order to attend or participate in meetings or events, please contact the Accessibility Advisor at 905-980-6000 ext. 3252 (office), 289-929-8376 (cellphone) or accessibility@niagararegion.ca (email).

Curbside Waste Diversion Container Distribution Options for Every-Other-Week (EOW) Garbage Collection

Public Works Committee

November 5, 2019

Background

- On April 29, 2019, WMPSC requested a report on curbside waste diversion containers (containers) distribution options, once a final decision was made regarding service levels for the next collection contract.
- An expansion to Niagara's container distribution program was approved by Regional Council on May 16, 2019, which provides free containers to new homeowners and renters in Low-Density Residential (LDR) properties, within one (1) year of moving.
- With approval of EOW garbage collection, Niagara residents may require additional containers to place their recyclables and organics into, on a weekly basis.
- Staff analyzed seven (7) options for distribution of containers, for Committee's consideration.

Container Distribution Options

- 1) Free, One-Time, Door-to-Door Delivery to only those Low-Density Residential (LDR) Households without Waste Diversion Containers
- 2) Free, One-Time, Door-to-Door Delivery of Curbside Waste Diversion Containers to All of Niagara's 155,000 LDR Households
- 3A) One-time Trailer Distribution and On-going Delivery of Free Waste Diversion Containers from Humberstone Storage Warehouse
- 3B) One-time Trailer Distribution and Maintain Existing Container Distribution Program
- 4) Maintain Existing Container Distribution Program – Provide a 50% Subsidy on Selling Price of Containers, for a Period of **Six (6) Months Only**
- 5) Maintain Existing Container Distribution Program – Provide a 50% Subsidy on Selling Price of Containers, for a Period of **12 Months Only**
- 6) Maintain Existing Container Distribution Program – Provide **No Subsidy** on the Selling Price of the Containers (**Status Quo**)

Current Container Distribution Program

- Niagara Region currently partners with nine (9) municipal and retail locations to distribute its containers to residents. Four (4) additional Niagara Regional sites distribute these containers, for a total of 13 locations.
- Distribution locations are not paid a fee to distribute the containers to residents.
- Niagara Region currently pays a third-party company to deliver containers to these locations.
- Niagara Region currently sells its containers to residents, on a full-cost recovery basis (i.e. Blue and Grey Recycling Boxes - \$6; Green Bins - \$17; and Kitchen Catchers - \$4 each).

Option 1 – Free, One-Time, Door-to-Door Delivery to only those Households without Waste Diversion Containers

- Option 1 includes a free, one-time, door-to-door delivery of containers only to those LDR households (i.e. single-family up to six units) identified in Region's 2014 curbside survey as not participating in the diversion programs.
- Based on the 2014 curbside survey, approx. 50% of Niagara's 155,000 LDR households were not participating in the organics program, and approx. 15% were not participating in the recycling program.
- Option 1 would exclude delivery of free containers to LDR households which were identified as participating in these diversion programs.

Option 1 – Free, One-Time, Door-to-Door Delivery to only those Households without Waste Diversion Containers (cont'd)

- Estimated one-time net cost to provide containers only to these designated LDR households would be **\$1.34 million**.
- Door-to-door delivery costs are estimated to be **\$600,000**.
- The cost of this option has not been included in the draft 2020 or multi-year operating budgets.

Option 2 – Free, One-Time, Door-to-Door Delivery of Curbside Waste Diversion Containers to All 155,000 LDR Households

- Option 2 includes a free, one-time, door-to-door delivery of containers to all 155,000 LDR households.
- Distribution to all LDR households supports the likely need for additional recycling and composting capacity, due to EOW garbage collection, as well as supporting a sense of fairness in the distribution method across all households.
- Estimated one-time net cost of containers to provide to all LDR households would be **\$3.4 million**.
- Door-to-door delivery costs are estimated to be **\$1 million**.
- The cost of this option has not been included in the draft 2020 or multi-year operating budgets.

Option 3A – One-time Trailer Distribution and On-going Provision and Delivery of Free Waste Diversion Containers

- Option 3A includes a one-time trailer distribution of free containers.
 - Residents would be required to drive to a designated location, on the designated date, and provide their name and address, to avoid any duplication between the trailer distribution and door-to-door deliveries, prior to receiving containers.
 - Trailer distribution will be conducted over three (3) weekends, in various locations across the region, prior to commencement of Region's new collection contract in October 2020.
- Option 3A would also include door-to-door delivery of free containers to all new and existing LDR households, regardless of property type or ownership.
 - Delivery service would be provided on a request-basis after the new collection contract commences.

Option 3A – One-time Trailer Distribution and On-going Provision and Delivery of Free Waste Diversion Containers (cont'd)

- Option 3A requires the construction of a storage warehouse at Humberstone landfill. Delivery staff would coordinate all deliveries from this central location.
- This would eliminate need for existing partnerships with 13 smaller distribution locations (i.e. status quo).
 - The current distribution locations are not large enough to support free containers, which is why a storage warehouse and delivery is required.
 - There would be an increased demand on Regional resources to re-stock these small distribution locations with free containers.
- Niagara Region also has very limited storage space to receive new containers. At times, there are delays in the manufacturer's production schedules, which cascade from the manufacturer to the Region, and then to these multiple, small distribution locations.
 - A storage warehouse would resolve this issue by allowing the Region to stay ahead of any potential inventory shortages and support the program.

Option 3A – One-time Trailer Distribution and On-going Provision and Delivery of Free Waste Diversion Containers at Humberstone Warehouse (cont'd)

- One-time net cost for trailer distribution of free containers and construction of Humberstone storage warehouse would be approx. **\$1.35 million**.
- Ongoing annual net operating cost of approx. **\$768,000** for delivery of waste diversion containers.
 - Includes increased container purchases, staffing, and delivery-related costs
- The cost of this option has not been included in the draft 2020 or multi-year operating and capital budgets.

Option 3B – One-time Trailer Distribution and Maintain Existing Container Distribution Program

- Option 3B includes a one-time trailer distribution of free containers.
 - Residents would be required to drive to a designated location, on the designated date, and provide their name and address, to avoid any duplication between the trailer distributions.
 - Trailer distribution will be conducted over three (3) weekends, in various locations across the region, prior to commencement of Region's new collection contract in October 2020.
- The existing distribution locations for the waste diversion containers would be maintained (Status Quo).
 - There would be no subsidy provided to residents on the selling price of the waste diversion containers.

Option 3B – One-time Trailer Distribution and Maintain Existing Container Distribution Program (cont'd)

- One-time net cost for trailer distribution of free containers only would be approx. **\$252,000**.
- The cost of this option has not been included in the draft 2020 operating budget.

Option 4 – Maintain Existing Distribution Program and Provide 50% Subsidy for Containers, for Six (6) Months Only

- Option 4 would provide residents with a 50% subsidy on the price of waste diversion containers, under the current distribution program, for a period of **six (6) months only**, to align with start of communication campaign for the service level changes.
- It is estimated there would be a 50% increase in the demand for these containers, as a result of providing the 50% subsidy.
- There would be an incremental cost of **\$225,000**, which is anticipated to impact 2020 and 2021.
- The majority of the subsidy costs would be incurred in 2020 and have not been included in the 2020 operating budget.

Option 5 – Maintain Existing Distribution Program and Provide 50% Subsidy for Containers, for Twelve (12) Months Only

- Option 5 would provide residents with a 50% subsidy on the price of waste diversion containers, under the current distribution program, for a period of **12 months only**, to align with start of communication campaign for the service level changes.
- There would be an incremental cost of **\$251,000**, which is anticipated to impact 2020 and 2021.
- The majority of the subsidy costs would be incurred in 2020 and have not been included in the 2020 operating budget.

Option 6 – Maintain Existing Distribution Program and Provide No Subsidy for Containers (Status Quo)

- Option 6 would maintain the existing container distribution program, which requires residents to purchase the waste diversion containers, at their full selling price.
- Free containers are not currently provided, unless they are new homeowners or renters in LDR properties within 12 months of moving into their new home.
- There would be no additional net financial impact with Option 6, as this is the distribution program in place and the costs have been included in the base 2020 operating budget.

Analysis of Seven (7) Distribution Options

- The draft 2020 WM operating budget includes only the current distribution program costs (Option 6) – the increased costs of Options 1 through 5 have not been included.
- Significant pressures have been identified in the draft 2020 budget, without any of these additions. The 2020 budget also does not include any optional services which may or may not be elected by Council or Local Area Municipalities to implement.
- The total Resource Productivity Recovery Authority (RPRA) Blue Box (BB) funding would be received over a multi-year period, starting in 2022, due to reporting timelines and funding structure. This funding would offset those costs incurred for the various BB-related items.
- Options 1 and 2 incur the highest cost to implement and there is a lack of adequate assurance that the containers would be used for the required purpose of waste diversion.

Analysis of Seven (7) Distribution Options

- Niagara Region previously provided free recycling boxes and organics containers to residents in 2003/04, and organics bins only in 2008/2009, as part of its Green Bin Relaunch Program. Even after distribution of the organics containers, the participation rate remains at approximately 50%.
- Options 3A & 3B provide residents with the option to obtain free waste diversion containers, as part of a one-time trailer distribution. Option 3A includes ongoing delivery to their household by Niagara Region.
- Options 4 & 5 provide residents with a 50% subsidy on the selling price of waste diversion containers, for either a period of six (6) months or 12 months. This will allow residents time to adapt to the new service level change of EOW garbage collection, and its impact on their curbside recycling and organics programs.
- Option 6 is Niagara Region's current program, requiring residents to purchase waste diversion containers at full cost-recovery selling price.

Municipalities that Provide Free Waste Diversion Containers

- Barrie, Hamilton, London, Ottawa, Peterborough County, and Halton Region provide free recycling and organics containers to **all residents**.
- Richmond Hill, Simcoe County, Durham and Waterloo Regions provide free recycling and organics containers to **new homeowners** only.
- Barrie, Hamilton, London, Ottawa, Simcoe County, Durham and Waterloo Regions deliver recycling and organics containers to the resident's household, using the collection contractor or municipal staff.

Municipalities that Provide Free Waste Diversion Containers – EOW

- Waterloo Region gave out free waste diversion containers to all households, as part of three (3) trailer distributions or municipal facilities, six (6) months prior to start of EOW garbage collection.
- Durham Region and Richmond Hill gave out free organics containers as part of the implementation of EOW garbage collection, which coincided with their launch of Green Bin program.
- Barrie, Ottawa and Halton gave out free containers prior to implementation of EOW, and therefore no change was required in their distribution policy when they went to EOW collection.

Next Steps

- Finalize new collection contract costs.
- Determine funding mechanism and reserve fund balances.
- Niagara Region will be reporting back to Public Works Committee on December 3, 2019, with a recommendation on the preferred option for the curbside waste diversion container distribution.

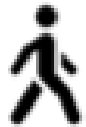
Questions?

Niagara Region Vision Zero Road Safety Program

**Transportation Services Division
Carolyn Ryall, Director
November 5, 2019**

Niagara Regional TMP

- Daily Trip Generation
- Regional Roads (2016)



pedestrians



drivers or passengers

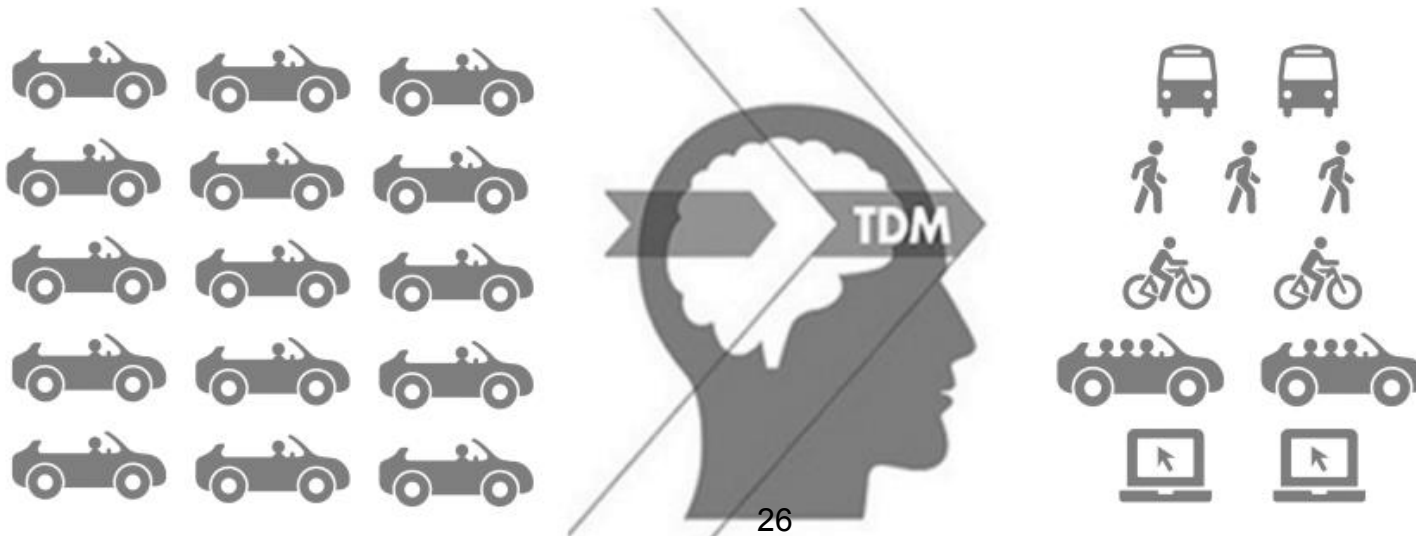


cyclists

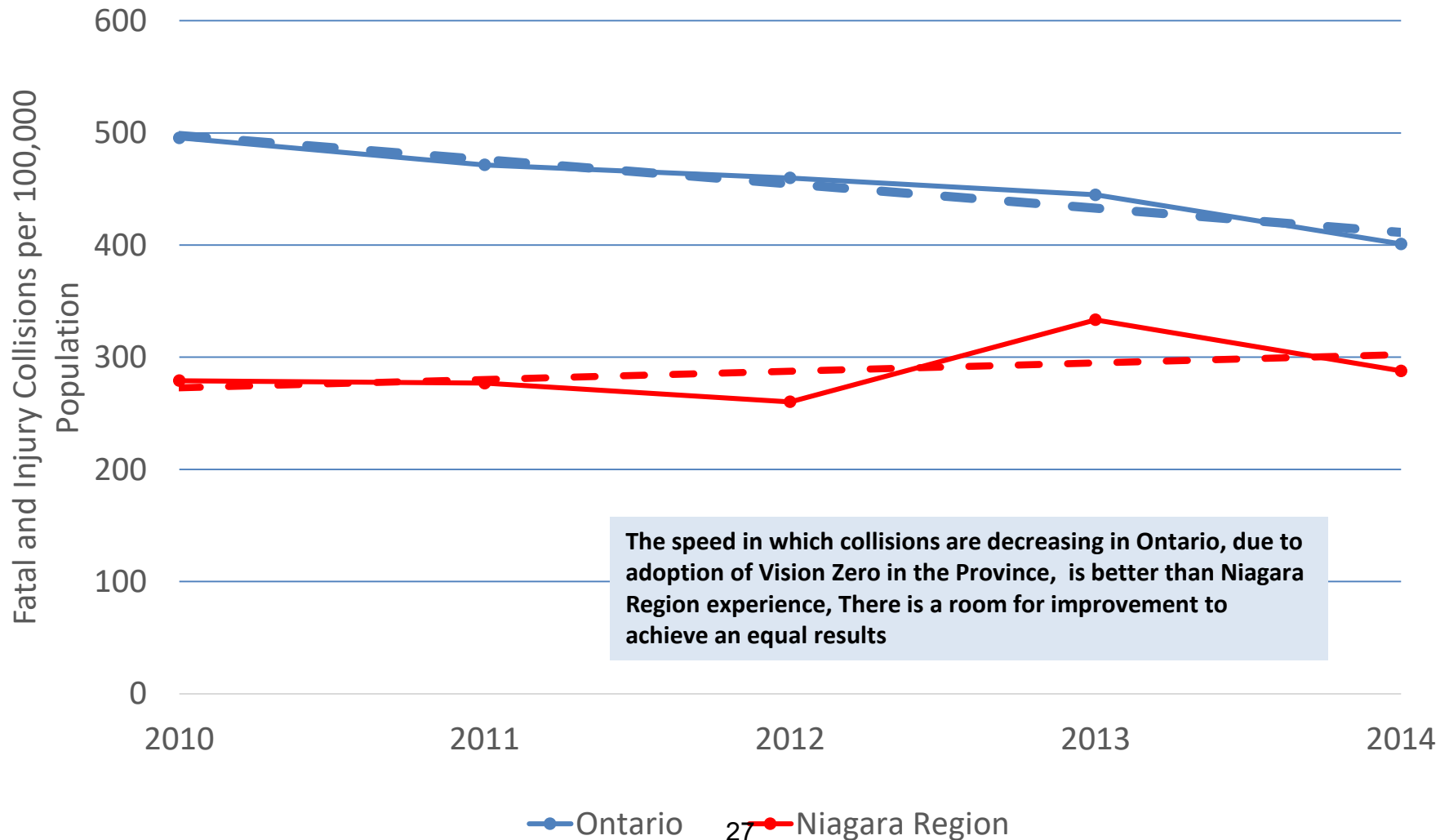
Type	Trips/day	%
Transit	16,524	1.80
Cycle	6,693	0.70
Auto Driver	711,759	75.70
Go Rail only	960	0.10
GO+ Local Transit	466	0.00
Motorcycle	1,318	0.10
Other	1,032	0.10
Auto Passenger	141,151	15.00
School Bus	28,919	3.10
Taxi Passenger	2,250	0.20
Paid Ridership	245	0.00
Walk	28,841	3.10
Total	940,158	100

Niagara Regional TMP

Transportation Demand and System Management



Ontario Fatal and Injury Rates

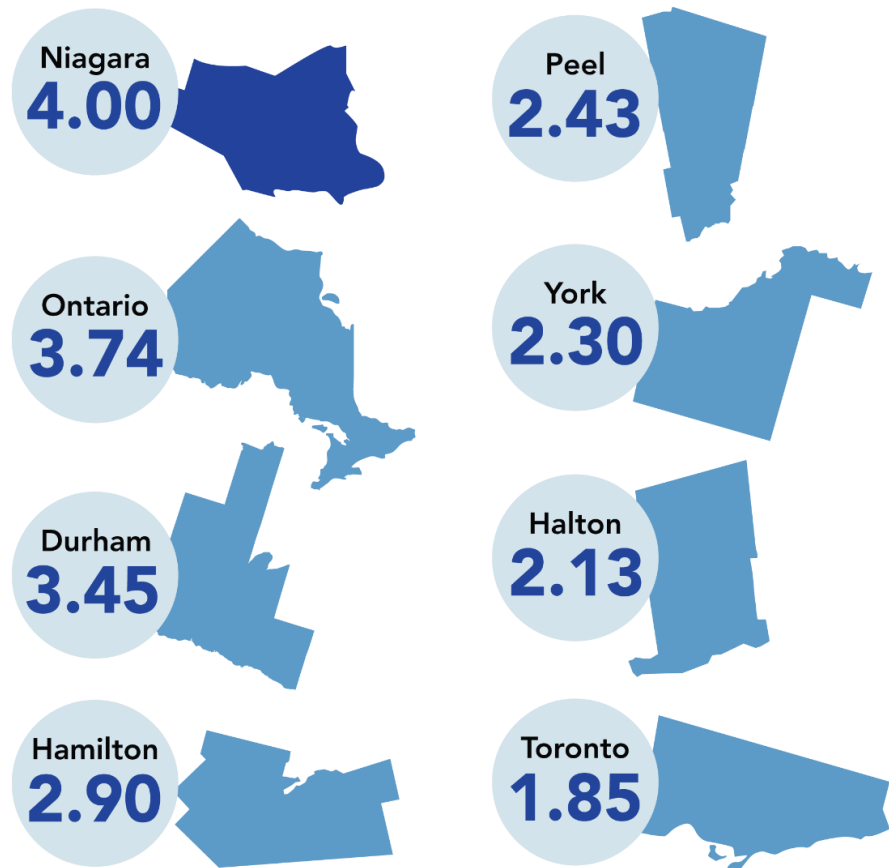


Niagara Region Among Others

Niagara Region's fatality collision
Rate is larger than that of Ontario

Based on 2010-2014 Average Fatal
Collisions per 100,000 Population

Motor Vehicle Fatalities per 100,000 population



VISION ZERO Overview

- Approved by parliament in Sweden in 1997 with one goal: ***Eliminate death and serious injury due to traffic collisions***
- No loss of life is acceptable

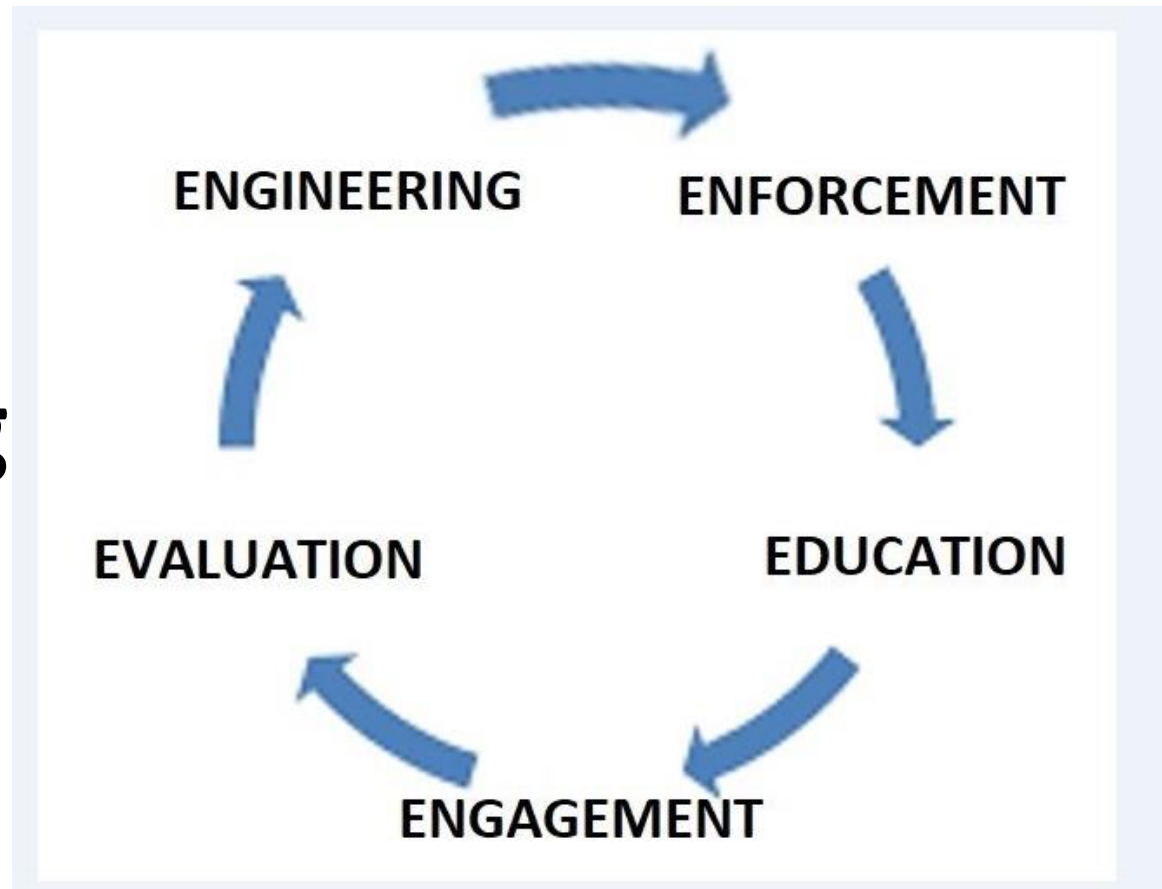


Why Implement Vision Zero Road Safety Program

- ***SAFETY is a PARAMOUNT***
- Focus on reducing traffic-related fatalities and serious injuries on our road network

Vision Zero Road Safety Program

5E's of Engineering



Community Safety Zones CSZs

- To modify driver behaviour and improve safety on certain sections of road, particularly vulnerable road users like children and seniors
- Implemented at two locations in Niagara Region in September 2019, under Bill 26 - An Act to promote public safety

A white rectangular sign with black text. It reads: 'COMMUNITY SAFETY ZONE' in a box, followed by 'FINES INCREASED' in a box.

A section of the Niagara Region Road in front of your school has been designated as a **Community Safety Zone**. The purpose of a **Community Safety Zone** is to modify driver behaviour and improve safety on certain sections of road, where public safety is of special concern.

Community Safety Zones let motorists know they are within a zone where fines are doubled through a special designation under the Highway Traffic Act for offences.

Community Safety Zone signs are posted at the limits of the zone with "Begins" and "Ends" tabs, clearly defining the legal limits of the zone.

The rules of the road do not change within the zone, only the penalties for offences are doubled.

Site selection for **Community Safety Zones** includes locations which have safety concerns, or complaints have been received, and are typically near sensitive areas such as schools, retirement homes and daycares.

For more info:
niagararegion.ca/living/roads/community-safety-zones

Niagara Region

Automated Speed Enforcement ASE

- Speeding is a primary crash factor and a leading road safety problem, often contributing to one-third of fatal crashes and serving as an aggravating factor in most crashes.
- Bill 65 amendments to the HTA will permit Municipalities to utilize ASE in school zones and in community safety zones.
- The Region is participating in the ASE Working Groups (established in 2017) to allow all municipalities, together with the province; facilitated by the Ontario Traffic Council and supported by technical experts to use a technology based solution as a tool to address vehicle speed concerns and collision patterns involving speeding



Automated
Speed Enforcement

Red Light Camera

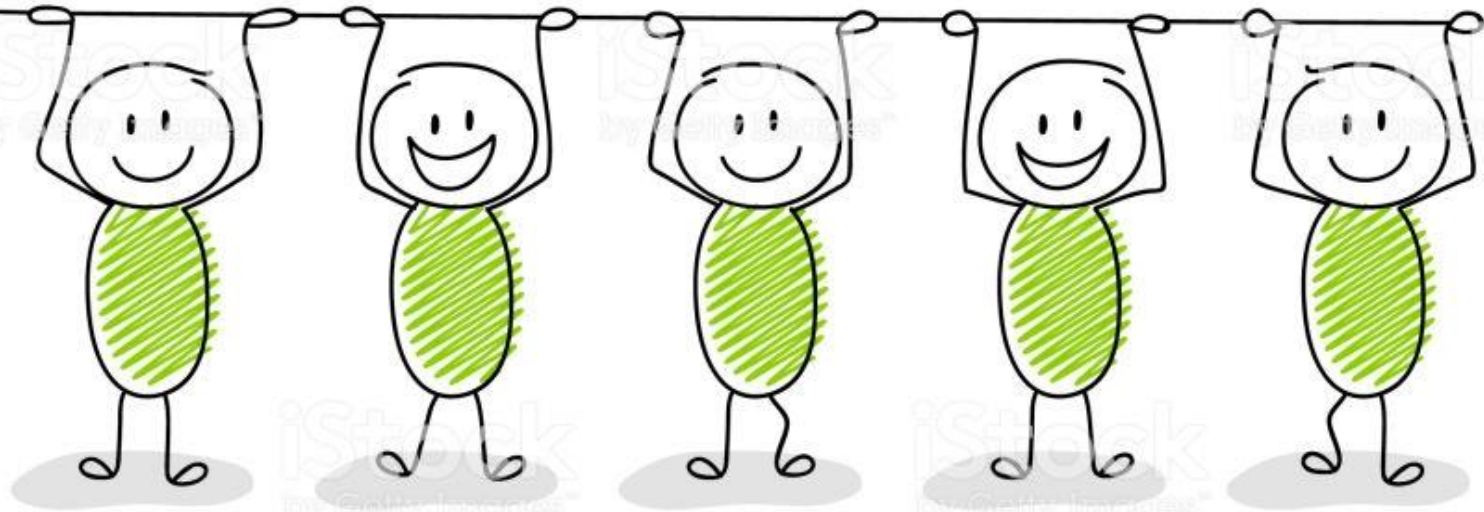
- Introduced in the Province in 2000, since then the cameras are proven to reduce right angle collisions by 25%
- The cameras are proven to be an effective means to reduce the incidences of red light infractions making streets safer for all users



Next Steps

- **Vision Zero Road Safety Program Initiatives & Implementation:**
 - Enhanced Signage, Pavement Markings, Road Geometrics / Design
 - Policy Framework Updates
 - Automated Speed Enforcement (ASE)
 - Red Light Cameras (RLCs)
 - Community Safety Zones
- **Success from a financial lens of the Vision Zero Road Safety Program is dependant upon:**
 - The ability of Niagara Region to recover its costs
 - An amendment to the Niagara Region Courts Intermunicipal Agreement net revenue sharing formula
- **The intent is to reinvest in the expansion of the program and/or investment in infrastructure deficit subject to annual budget decision of council**

TOGETHER WE CAN
MAKE A DIFFERENCE



Subject: Vision Zero Road Safety Program

Report to: Public Works Committee

Report date: Tuesday, November 5, 2019

Recommendations

1. That Regional Staff **BE AUTHORIZED** to implement initiatives under the Vision Zero Road Safety Program; including Automated Speed Enforcement (ASE), Red Light Cameras (RLCs), and Community Safety Zones; subject to successful negotiations with the LAMs with respect to the Niagara Region Courts Intermunicipal Agreement
2. That Regional Staff **BE AUTHORIZED** to initiate discussions with the Local Area Municipalities (LAMs) and amend the Niagara Region Courts Intermunicipal Agreement related to the Vision Zero Road Safety Program; and **DIRECTED** to report back to Council on the outcome of those discussions.
3. That the Vision Zero Road Safety Program **BE REFERRED** for consideration as part of the 2020 Budget Process.

Key Facts

- The purpose of the report is to seek Regional Council approval to adopt the Vision Zero Road Safety Program that strives to eliminate traffic fatalities and serious injuries on Niagara regional roads; while increasing safe, healthy, equitable mobility for all road users. An upcoming Niagara Road Safety Annual Report from 2013 – 2018 will be forthcoming in Q1 2020 which supports the need for the Vision Zero Road Safety Program.
- For many years, Niagara Regional Staff have been dealing with concerns raised by residents regarding speeding on Regional roads. Speeding is a primary crash factor and a leading road safety problem, often contributing to fatal crashes and serving as an aggravating factor in most crashes.
- A review of Niagara Region's collision data to-date shows that the total number of collisions are continuously increasing on Niagara regional roads. Niagara Region experiences a high collision fatality rate when compared to other jurisdictions in Southern Ontario.
- Vision Zero is a multi-national road traffic safety project that aims to achieve a road network with no fatalities or serious injuries involving road traffic.

- The implementation of the Vision Zero Road Safety Program will impact Regional Transportation, Business Licensing and Court Services Operating Budgets, which have been estimated at a gross cost of approximately \$5 – \$5.8 million per year dependant upon timing and duration of implementation. The costs are conservatively estimated to be fully recovered from fine infraction revenue, however this is dependant upon the ability of Niagara Region to recover its costs which would require an amendment to the Niagara Region Courts Intermunicipal Agreement net revenue sharing formula which is currently based on a 50/50 sharing between the Region and the LAMs. Therefore, negotiations with the LAMs are required.

Financial Considerations

Infractions issued under the Vision Zero Road Safety Program will be processed through Niagara Region Provincial Offences Court which is administered by Court Services. Under the current revenue sharing arrangement prescribed by the Niagara Region Courts Intermunicipal Agreement between the Region and the 12 local area municipalities (LAMs), 50% of net revenues are retained by Niagara Region and 50% of net revenues are shared with the LAMs.

Subject to Council approval, Staff will engage the LAMs to review the Niagara Region Courts Intermunicipal Agreement as it pertains to revenues from the Vision Zero Road Safety Program to ensure the program is fiscally sustainable to the Region. Currently, the revenue sharing formula provided in the Agreement would result in a negative cash flow unless significant increases in the number of tickets issued above the breakeven point noted below are realized.

Staff will report back to Committee/Council after consultation with the LAMs on the Niagara Region Courts Intermunicipal Agreement to ensure the program has long term financial sustainability to Niagara Region. It should be noted that the Vision Zero Road Safety Program will not proceed without an agreed upon formula that provides a positive cash flow to Niagara Region. It would be staff's recommendation that all infraction revenue in excess of all operating costs (Regional and Court Services) be to the benefit of the Region for potential reinvestment in the program, including consideration for local/municipal program elements.

Costs associated with administering the Vision Zero Road Safety Program will be incurred by other Regional departments in addition to Court Services. To obtain an annual break even (cost neutral) point before Intermunicipal cost sharing is considered, the following number of tickets will need to be issued under the program in the next three years:

Table 1 – Break-even Ticket Issuance

	2020	2021	2022
Number of Tickets Issued	31,000	32,500	27,000

This assumes a partial year operation in 2020 of the Vision Zero Road Safety Program (RLCs - six (6) months and ASE - nine (9) months). Subsequent years assume a full year operation of both RLCs and ASE. The field studies conducted in Q3 2019 indicated a number of speeding infractions within School Zones on Regional Roads in excess of 50,000 in support of a net positive cash flow for the Vision Zero Road Safety Program.

Transportation and Business Licensing Costs

Costs associated with administering the Vision Zero Road Safety Program include: equipment, ticket processing (Joint Processing Centre), MTO charges, consulting, staffing (2 FTEs) and administration estimated at approximately \$2.3 million per year. The anticipated cost for the partial 2020 year of operation of the program for Transportation and Business Licensing is \$1.7 million.

Court Services Costs

Costs associated with court administration, including processing tickets, prosecution, adjudication, and collection services associated with the Vision Zero Road Safety Program include: additional staffing (12 FTEs), call in (per diem) prosecutors, ticket processing charges, victim fine surcharges, and adjudication costs estimated at approximately \$2.7 – \$3.5 million per year. The anticipated cost of the partial 2020 year of operation of the program for Court Services is \$1.8 million. Note that the Court Services anticipated costs include a victim fine surcharge, which is a mandatory cost imposed for every ticket issued that is payable to the Province. This expense is anticipated to be between \$1 – \$1.4 million annualized.

The anticipated gross operating expenditure costs of the program from 2020 – 2022 are noted in Table 2 below (including victim fine surcharges). As mentioned previously, 2020 assumes six months of operation for RLCs and nine months of operation for ASE.

Table 2 – Three Year Operating Expense Budget Impacts (in millions)

	2020	2021	2022
Transportation and business licensing	\$ 1.7	\$ 2.3	\$ 2.3
Niagara Region Court Services	1.8	2.7	3.5
Total	\$ 3.5	\$ 5.0	\$ 5.8

Business cases will be included for consideration as part of the 2020 Operating Budget deliberations for Court Services as well as the Transportation and Business Licensing Divisions of Niagara Region on the Vision Zero Road Safety Program initiative.

The intent is to reinvest the Region's surplus, if any, in the expansion of the program and/or investment in the infrastructure deficit subject to the annual budget decision of council.

Analysis

With the implementation of the objectives outlined in the approved the Transportation Master Plan (TMP) and in support of Council's 2019 – 2022 Strategic Priorities, this report presents Transportation Services' implementation strategy for the Vision Zero Road Safety Program through the recommendation of a set of extensive, proactive and targeted initiatives, informed by data and aimed at eliminating serious injury and fatalities on Regional roads.

On average, approximately 2,650 collisions are reported annually on Niagara Regional roads between years 2013 – 2018. These injuries and deaths affect not only the victims and their families, but also impact healthcare, community, and social services. Many of these collisions can be prevented through strategic and effective road safety initiatives (Vision Zero Road Safety Program) that include: infrastructure planning and design changes; enforcement; and public education.

However, no loss of life as a result of traffic collisions is acceptable under the Vision Zero philosophy. The Vision Zero philosophy is a significant departure from the traditional approach to road safety. This transformative change will take several years to fully establish itself.

The Vision Zero Road Safety Program will draw solutions from the 5Es of engineering, enforcement, education, engagement and evaluation. The plan will focus the solutions on six (6) emphasis areas: pedestrians, cyclists, motorcyclists, school-aged children, older adults and aggressive and distracted driving. The Vision Zero Road Safety Program will focus on a set of the most effective actions including:

Speed management strategy: Higher speeds contribute to higher risk of serious injuries and fatalities by reducing driver reaction time, increasing the vehicle stopping distance, and inflicting more severe blunt force trauma on victims upon impact. The proposed speed management strategy is comprised of six integrated speed reduction tools aimed at mitigating risks associated with high speeds. These include: road design improvements, police partnership, deployment of speed signs, speed limit reductions, automated speed enforcement and public education.

Road design improvements: Geometric modifications to the design of the road are known to be one of the most effective ways of achieving the intended target speed for the context and improving road user behaviour. There will be a greater focus on this safety countermeasure, including integration of safety improvements, road realignments and enhanced road illumination.

Proactively addressing high-risk mid-block crossings: Mid-block crossings are prevalent with pedestrian collisions. Recommendations will be brought forward in staff reports on new traffic signals, pedestrian crossovers (PXOs) and enhanced signage.

Proactively addressing collisions at signalized intersection: angle collisions are high in Niagara Region. The implementation of Red Light Camera as a default safety feature will mitigate traffic fatalities and serious injuries.

Education and engagement plan: The overarching goals of the education and engagement component of the Vision Zero Road Safety Program are to inform and consult with the public, building support for infrastructure improvements, and instituting a shift in social norms and road user behaviour.

Next steps to initiate the work of the Vision Zero Road Safety Program will include: an analysis of statistic data collected on Regional Roads (collision data, speeds, volumes, classifications of vehicles); Regional Council priorities; and input from key road safety stakeholders and partner agencies including, local municipalities, Niagara Region Public Health, Niagara Regional Police, District School Board of Niagara (DSBN), Niagara Catholic District School Board (NCDSB) and Niagara Student Transportation Services.

Strategic Priorities

Alignment to Niagara Region Transportation Master Plan and Council's 2019-2022 Strategic Priorities

Niagara Region is undergoing significant change and by 2041 will have grown and evolved on economic, demographic, social and technological fronts. This recommendation will support growth and enhance Niagara globally by promoting an integrated network of roads and highways for the safe movement of people and goods.

Also, this is a step forward to adopting a Vision Zero Road Safety Plan in Niagara Region; helping to reduce aggressive driving and speeding in areas within Niagara Region that have higher concentrations of school children and families.

Other Pertinent Reports

PW 35-2019 Automated Speed Enforcement – Safer School Zones Act
PW 36-2019 Red Light Camera
PW 38-2019 Community Safety Zones

Prepared by:

Carolyn Ryall
Director, Transportation Services
Public Works Department

Recommended and Submitted by:

Ron Tripp, P.Eng.
Acting Chief Administrative Officer /
Commissioner of Public Works

This report was prepared in consultation with Brian McMahon, Program Financial Specialist, Sara Mota, Program Financial Specialist, Dan Ane, Manager Program Financial Support, Sulaf Alkarawi, Associate Director Transportation Planning and reviewed by Donna Gibbs, Director Legal Court Services and Helen Chamberlain, Director Financial Management and Planning / Deputy Treasurer.

Appendices

None.

Niagara Region On-Demand Transit

Public Works Committee – November 5, 2019

Matt Robinson – Director | GO Implementation Office, Niagara Region

Robert Salewytch – Program Manager | Transit Services, Niagara Region

**MOVING
TRANSIT
FORWARD**

CONNECTING MORE PEOPLE TO MORE POSSIBILITIES

43

Niagara  Region

Agenda

- Background
- Fixed-Route versus On-Demand
- Why Via?
- Niagara Feasibility Study
- Next Steps

Background

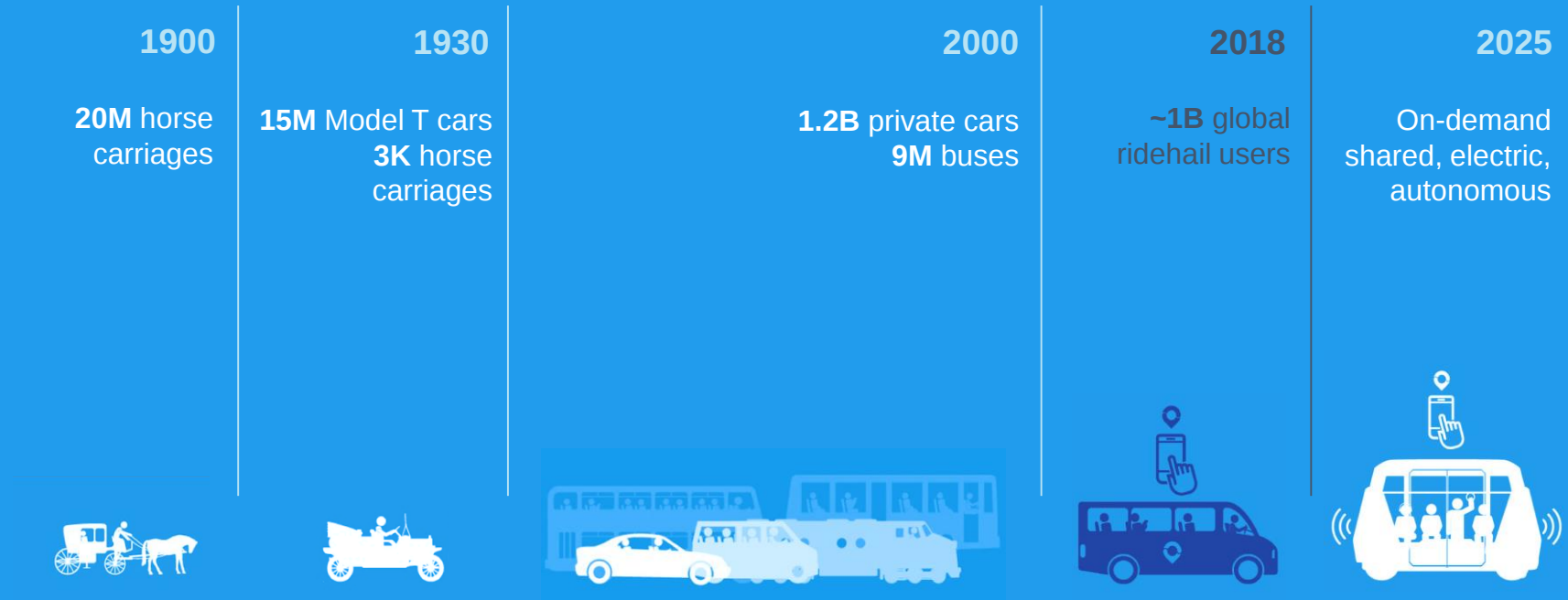
- IMT Service Enhancement Implementation Strategy (LNTC-C 21, 22, 23, 2018) identified NRT expansion pilot projects for Niagara West, as well as Pelham and Lincoln connections
- Niagara Transit Service Delivery and Governance Strategy (Dillion, 2017)
 - Crystal Beach and Sherkston connectivity
- NRT service expansions approved in 2019 Operating Budget
- Modelling simulation done in coordination with IMTWG
 - Part of IMTWG/LNTC workplan
- Jurisdictional challenges pushed Niagara West IMT implementation to 2020

Agenda

✓ Background

- Fixed-Route versus On-Demand
- Why Via?
- Niagara Feasibility Study
- Next Steps

Transportation is facing unprecedented transformation



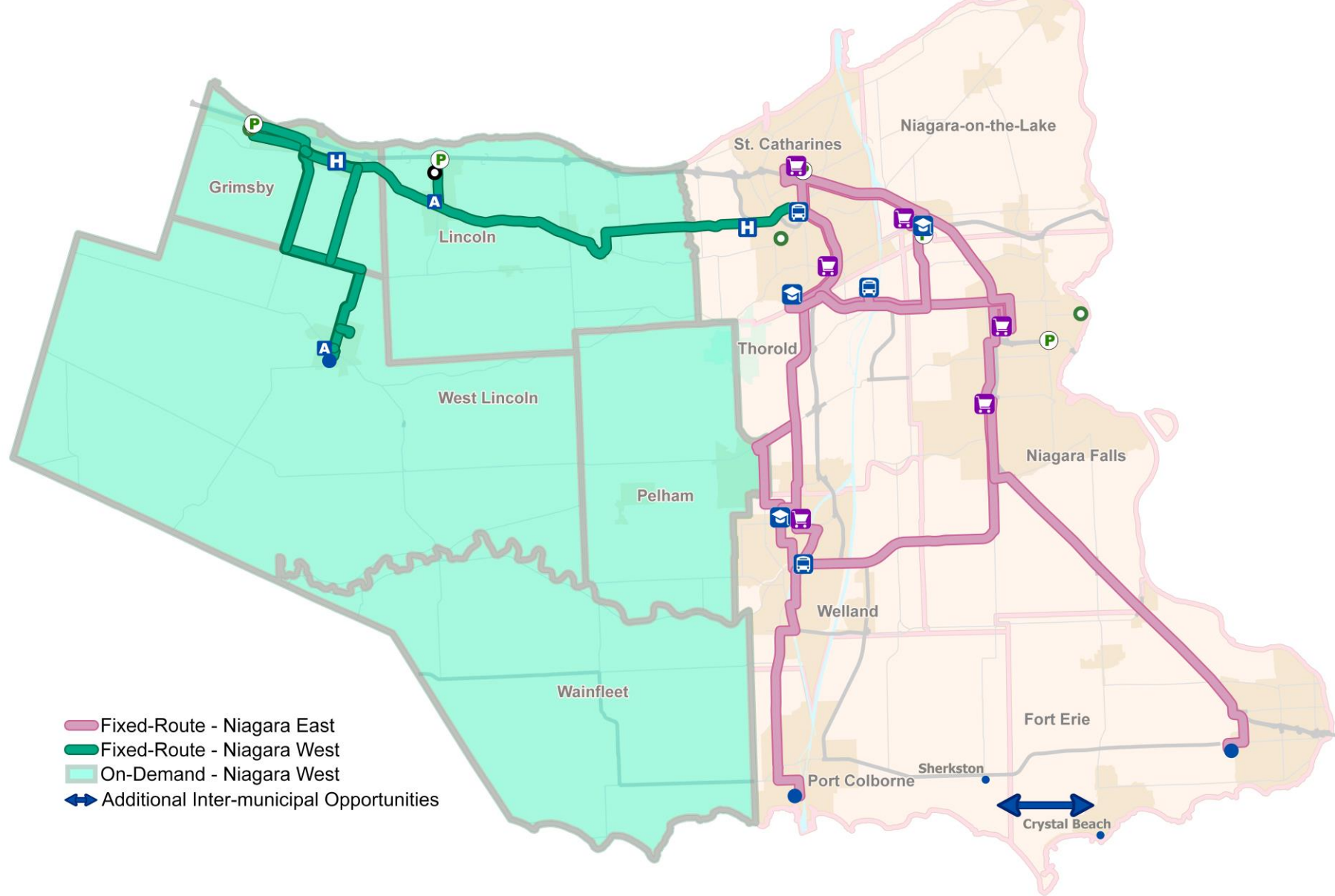
Fixed-Route versus On-Demand

Fixed-Route

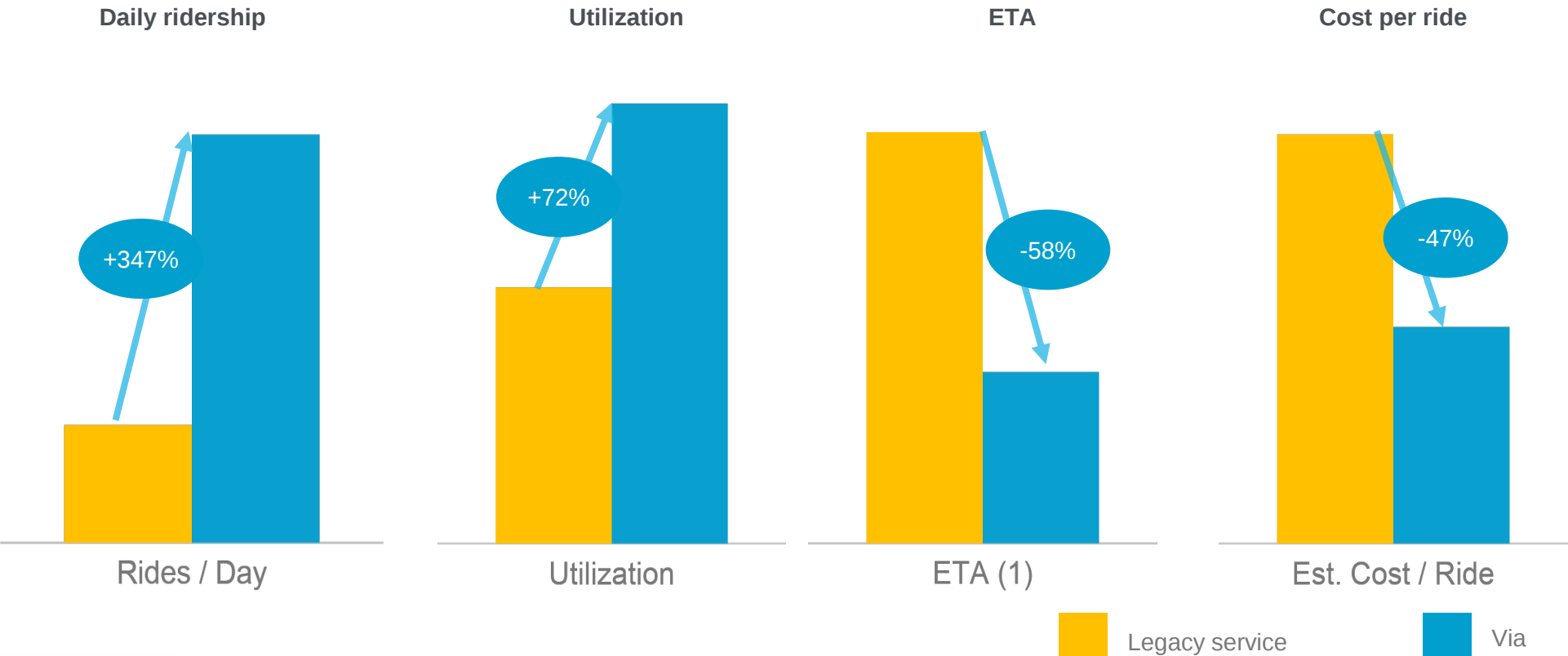
- Limited area coverage
- Relies on peak demand to maximize vehicle utilization = EMPTY BUSES
- Requires 4 months to adjust schedules and routing
- Requires a special license, limited driver pool
- Limited data

On-Demand

- Complete area coverage
- Vehicle utilization responds to demand in real-time
- Dynamically adjusts routing
- Requires standard G license, increases potential driver pool
- Significant data analytic potential



On-demand transit technology achieves significant improvement across multiple operational metrics



(1) Based on 60-min loop. Excludes 1-hour during AM/PM weekday peak with 30-min loop.
Note: Utilization and cost figures estimated based on best available information.

Agenda

- ✓ Background
- ✓ Fixed-Route versus On-Demand
- Why Via?
- Niagara Feasibility Study
- Next Steps

Why Use Via?

Consulting and Planning

In-depth analysis using proprietary approaches and tools to understand the potential for innovative mobility



Microtransit Platform (SaaS)

Licensing Via's on-demand shuttle system to transit agencies and operators who prefer to use their own vehicles and drivers



Microtransit Operations (TaaS)

Turnkey solution that includes technology plus drivers, vehicles, and operations management



New Mobility Solutions

Mobility-as-a-Service (MaaS) products, demand management tools, school bus platforms, and more...



**MOVING
TRANSIT
FORWARD**

CONNECTING MORE PEOPLE TO MORE POSSIBILITIES

Via's Global Presence: Via, ViaVan and Partners

Global Deployments

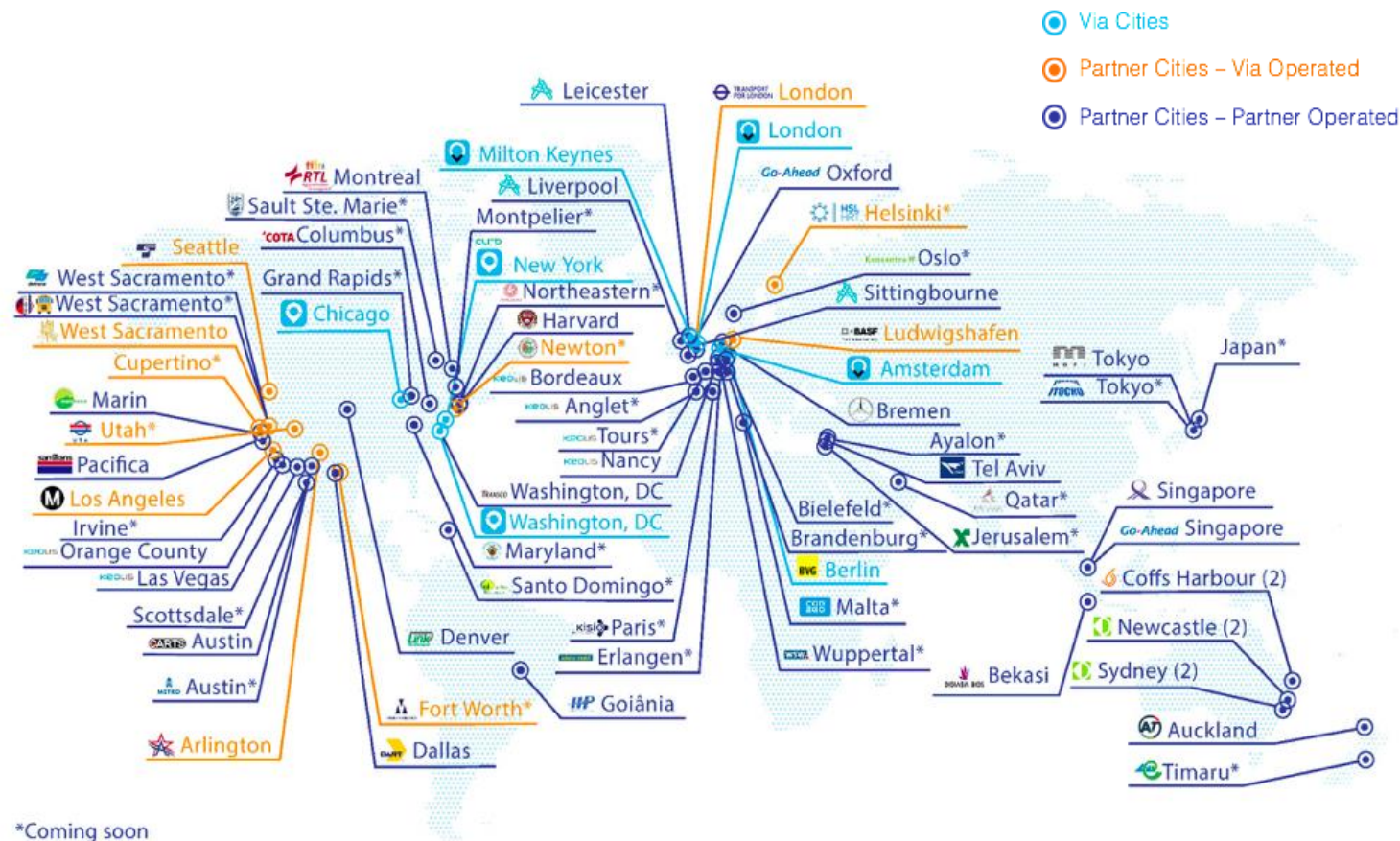
80+

Rides/Month

2m+

Engineers

225+



MOVING
TRANSIT
FORWARD

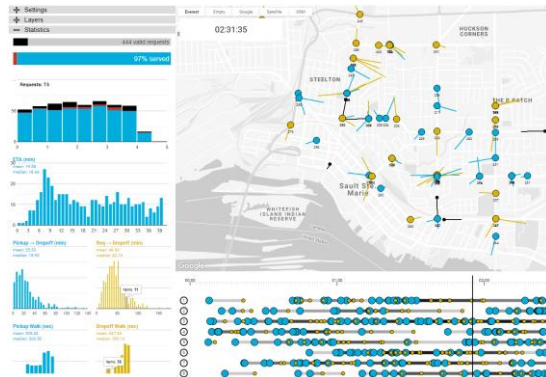
CONNECTING MORE PEOPLE TO MORE POSSIBILITIES

Niagara Region

Via in Canada

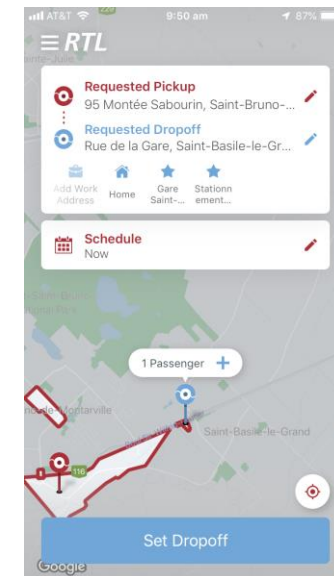
Sault Ste Marie, ON

- Launched **September 2019**
- Provide on-demand service on **Sunday evenings**
- Goal: **reduce the number of vehicles** in operation and **improve quality** of service for residents
- **Utilization** in first few weeks of service has been outstanding and **exceeded expectations**



Longueuil, QC

- Launched **October 2018**
- Provides **first mile, last mile** connection to **EXO stations** in St. Bruno de Montarville



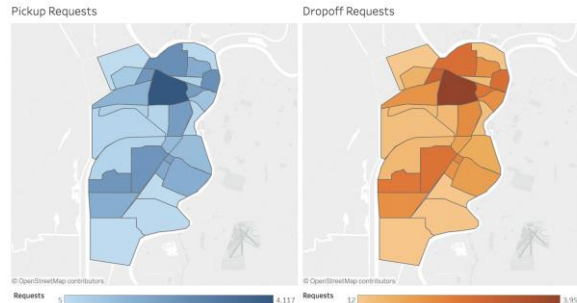


**MOVING
TRANSIT
FORWARD**

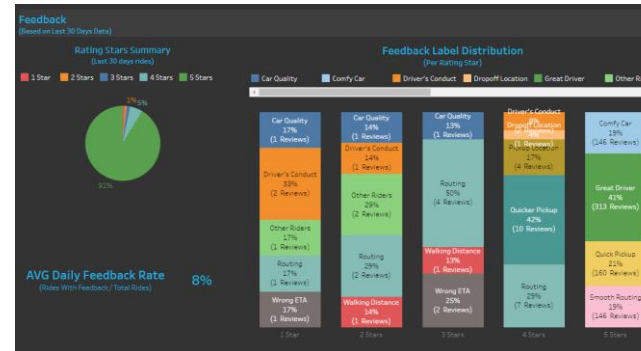
CONNECTING MORE PEOPLE TO MORE POSSIBILITIES

Reports and Shared Data

Destination



Customer Feedback Dashboard



And more including:

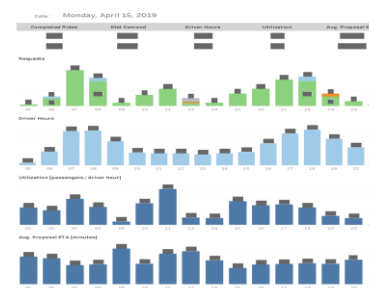
- Growth Dashboard
- Rides Table
- Daily Reports
- Bespoke reports

Via's experienced data science team will provide high-touch support and bespoke reports upon request

Dashboard



Report



Efficiency Dashboard



**MOVING
TRANSIT
FORWARD**

CONNECTING MORE PEOPLE TO MORE POSSIBILITIES

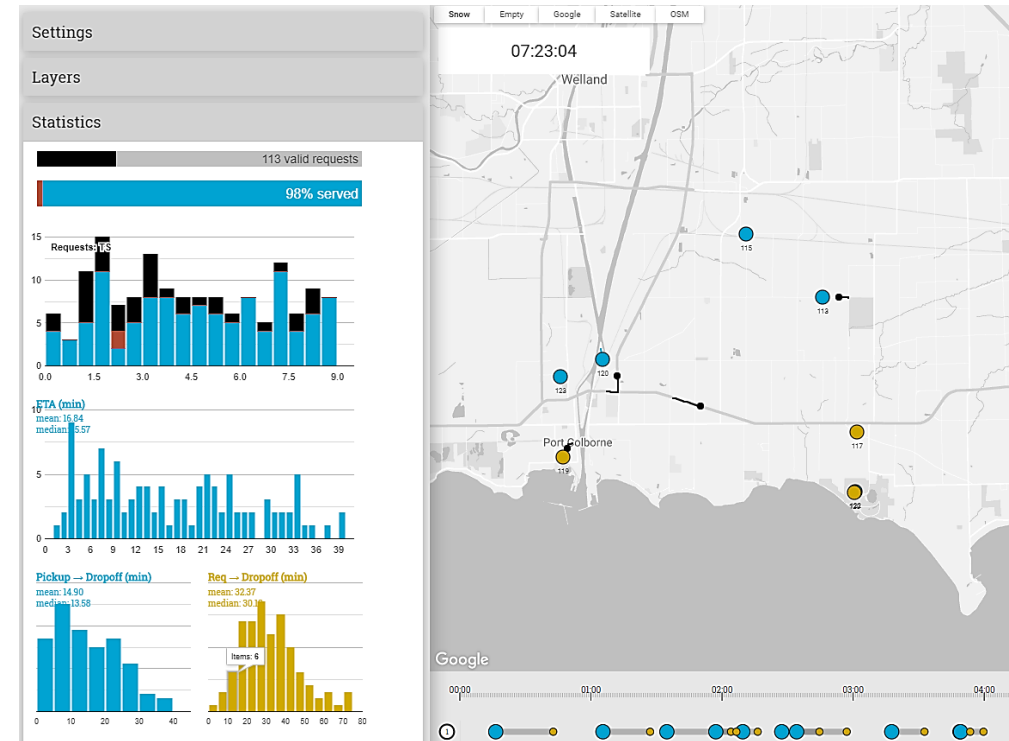
Niagara Region

Agenda

- ✓ Background
- ✓ Fixed-Route versus On-Demand
- ✓ Why Via?
- Niagara Feasibility Study
- Next Steps

Niagara Feasibility Study

- **Project Goal:** To understand how **on-demand transit** can best provide coverage in low-density and under-served areas of Niagara (e.g., Western Niagara)?
- **Consultant:** **Via** (an on-demand transit planner, technology provider, and operator).
- **Scope of Work:**
 - Understand **existing transit options** (bus ridership data, specialized transit data, Transportation Tomorrow Survey).
 - Develop potential service '**scenarios**' (see following slides)
 - **Simulate** each scenario — number of vehicles, utilization (passengers per vehicle hour), wait times, walking distance, etc.
 - Agree on an **optimal** solution for inter- and intra-municipal transit options

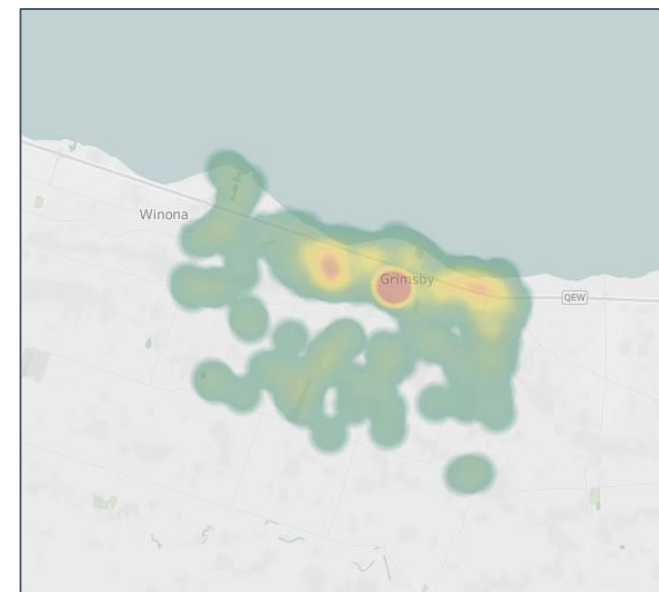


Screenshot of a simulation performed using Via's simulation tool. The map displays routing, pickups, and drop-offs, while the dashboard left of the map displays key performance indicators including the number of requests, wait time distributions, and pickup and drop-off walking distance.

Overview of Simulations

Assumptions

- Simulated **low**, **medium**, **high** demand scenarios
- Demand patterns were based on **Transportation Tomorrow Survey** and **specialized transit data** (see example demand heat map, upper right)
- **Wait times:** 20 - 30 min average, 60 min max.
- **Walking distances:** 100 - 200m average walk to pick up/drop-off, curb-to-curb where walking is unsafe or difficult.
- **Vehicles:** 6+ seat minivans recommended (see example vehicle, lower right).



Example demand heatmap for Grimsby



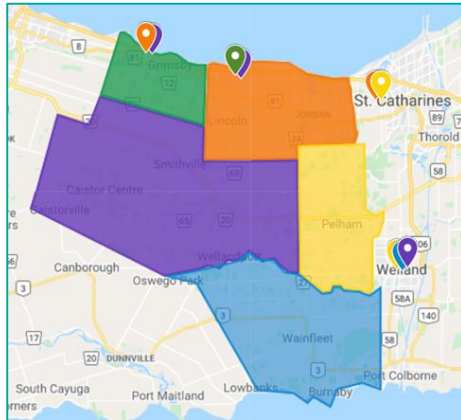
Example vehicle type

Inter-municipal Scenarios

Niagara Regional Transit can only provide **inter-municipal** trips. However, residents also want to travel **within** their municipality. 'First Mile, Last Mile' (FMLM) options:

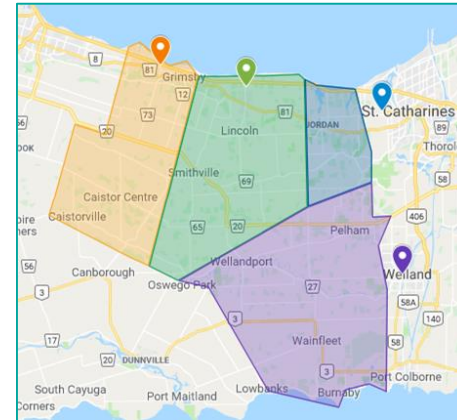
Compliant FMLM Option (least flexible):

- Travel to nearest transit hub in another municipality **ONLY** (e.g., Grimsby residents must travel to Lincoln to connect to a bus/train)
- Requires another option for intra-municipal trips



Non-compliant FMLM Option (more flexible):

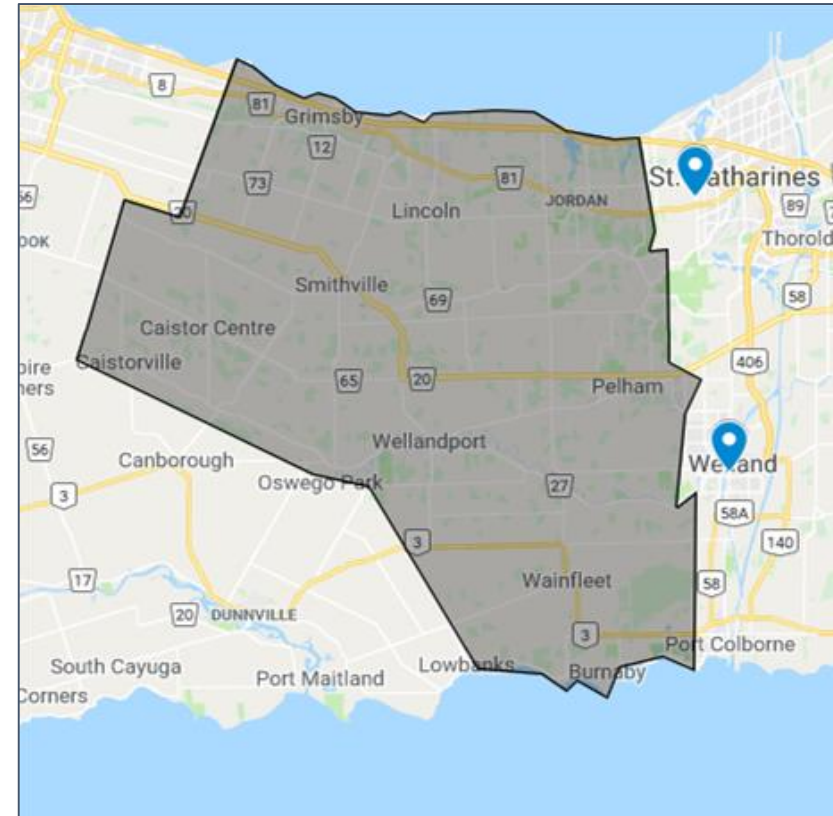
- Allow trips to nearest transit hub (even in same municipality)
- Based on their origin, each passenger will only have 1-2 possible destinations (transit hubs)



Inter-municipal Scenarios

Integrated / Most Flexible Option:

- All trips permitted (**between** or **within** municipalities)
- Most efficient option (\$)
- Connections to St. Catharines and Welland
- Requires partnership with each municipality in the defined zone.
- Zone boundary can be amended depending on local participation
- Separate municipal services **not required**

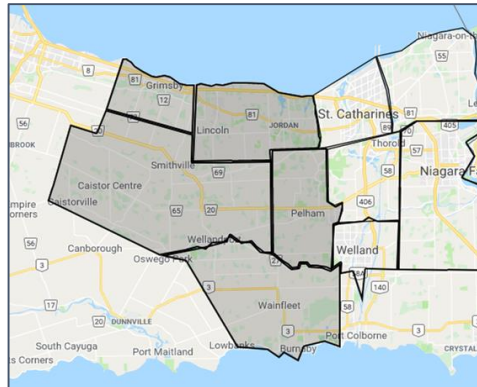


Comparison Between Medium Scenarios

Intra-municipal Scenarios

Zone	Zone Size (sq mi)	On-Demand (trips / day)	Vehicles (# of 6 seat vans)	Utilization (trips / vehicle hour)
Grimsby	29	60 - 138	3 - 4	2.2 - 3.8
Lincoln	60	46 - 108	3 - 4	1.7 - 3.0
West Lincoln	153	18 - 52	3 - 4	1.0 - 1.9
Wainfleet	89	4 - 23	1 - 2	0.5 - 1.3
Pelham	49	24 - 69	2 - 3	1.3 - 2.6
Total	380	151 - 390	12 - 17	1.5 - 2.5

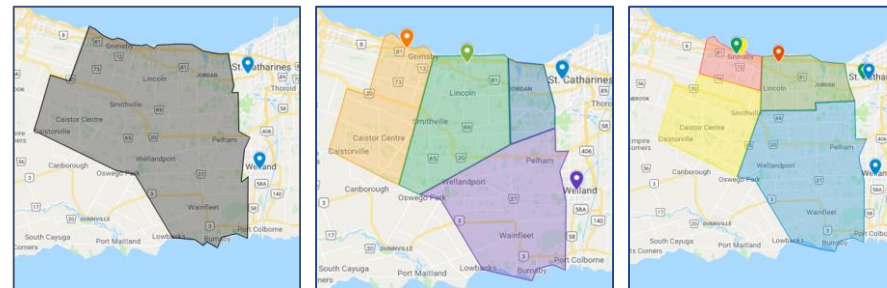
- **12 - 17 vehicles** required (medium scenario)
- Estimated **150 - 390 trips** across all zones
- **No** travel between zones (medium scenario would require 4-6 more vehicles)
- **No** connection to St. Catharines or Welland
- Confusing for riders



Inter-municipal Scenarios (3x options)

Zone	Zone Size (sq mi)	On-Demand (trips / day)	Vehicles (# of 6 seat vans)	Utilization (trips / vehicle hour)
<i>a) Integrated Western Zone (below, left)</i>	380+	270 - 470	12 - 17	2.5 - 3.1
<i>b) Nearest transit hub (below, center)</i>	380+	227 - 428	12 - 17	2.1 - 2.8
<i>c) Nearest inter-municipal transit hub (below, right)</i>	380+	205 - 413	12 - 17	1.9 - 2.7

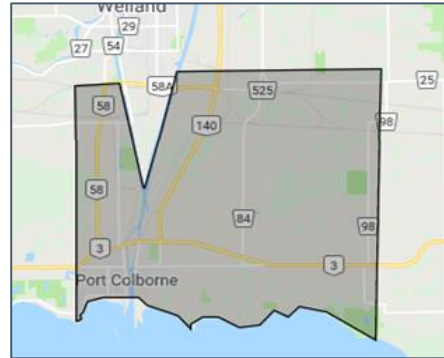
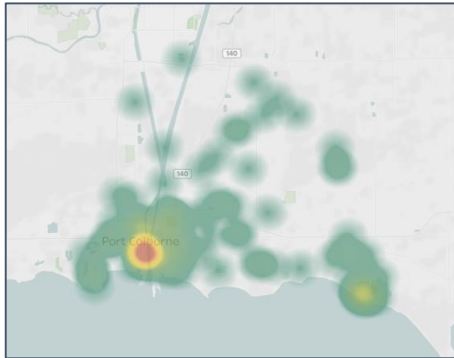
- Assuming 12 - 17 vehicles, more trips (**270 - 470 trips day**) could be completed (including intra- and inter-municipal trips)
- Less efficient if trips are restricted to transit hubs (b & c)



Additional Inter-municipal Opportunities

Port Colborne:

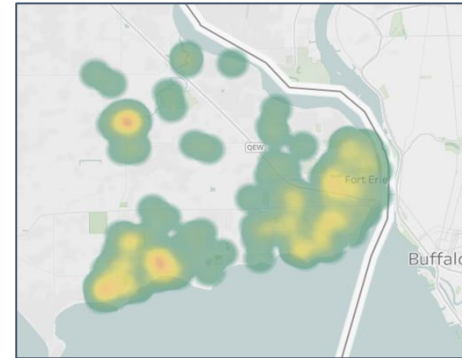
- Community bus completes **40 - 60 trips / day**
- On-demand service expected to complete **50 - 150 trips** per day across the entire municipality with 3-4 vehicles (medium scenario)
- Could complement community bus (during low demand periods)



Heat map and service area used to simulate on-demand transit

Fort Erie:

- Existing buses (#750, #760, #770) complete **100 - 150 trips / day**
- On-demand service expected to complete **70 - 150 trips** per day across the entire municipality with 3-4 vehicles (medium scenario)
- Could complement existing fixed-route services (or potentially replace one or more fixed routes)



Heat map and service area used to simulate on-demand transit

Agenda

- ✓ Background
- ✓ Fixed-Route versus On-Demand
- ✓ Why Via?
- ✓ Niagara Feasibility Study
- Next Steps

Next Steps

Service Model Design and Simulation ✓

Hours of operation,
number of vehicles,
zone identification

Advanced microtransit
simulation measuring
demand and expected
quality of service (wait
times, trip lengths, etc

01

Model Confirmation

Submit
Recommendations
Report to Public Works
Committee – Nov. 5

Confirm local
partnerships

02

Localization and Implementation

Finalize service design
and prepare for
implementation

Roll out applications and
service for testing in
preparation of launch

03

Continuous Optimization

Ongoing support to
ensure targets are
being reached

04

Questions?

Subject: On-Demand Transit – Pilot Authorization (Simulation Results)

Report to: Public Works Committee

Report date: Tuesday, November 5, 2019

Recommendations

1. That Regional Council **APPROVE** the on-demand transit concept for NRT service expansion pilots outlined in this report, subject to 2020 budget approval.
2. That the Chief Administrative Officer **BE AUTHORIZED** to execute an Agreement with Via Mobility LLC. for the deployment of turnkey, on-demand transit service pilots such that the Agreement meets the approval of the Commissioner of Corporate Services, and subject to 2020 budget approval.
3. That all pilot periods **BE DEFINED** in the Agreement as 1 year with an option to extend for a period of up to an additional 12 months at the discretion of the Chief Administrative Officer.
4. That pending approval of recommendations 1, 2 and 3, that staff **BE DIRECTED** to engage with the local municipalities to confirm partnership and service parameters of the pilot services.
5. That this report **BE CIRCULATED** to area municipalities.

Key Facts

- The purpose of this report is to seek authorization to deploy on-demand transit solutions for NRT pilot projects after confirming local participation.
- LNTC-C 21-22-23 2018 identified the need for inter-municipal transit services in Niagara West, as well as establishing connections for Lincoln and Pelham.
- CAO 8-2017 included recommendations for providing connectivity to the communities of Sherkston and Crystal Beach.
- The 2019 Operating Budget included provisions for the deployment of transit services in these aforementioned communities. Jurisdictional definitions combined with the desire for service integration and potential for partnership delayed the original deployment timeline, now tentatively set for April 2020.
- The 2019 approved transit operating budget included a one-time transfer from Reserve of \$3.0 million and therefore did not provide sufficient ongoing base level funding in 2020 to deploy the on-demand expansions into Niagara West, Crystal Beach and Pelham without the need for subsequent budget approval in 2020.

- Via Mobility, LLC (Via) was retained to conduct modeling and microsimulation work to identify preferred on-demand transit models, coverage and deployment options to enable Niagara Region to fulfill its planned expansions. The final recommendation for Niagara West was an integrated service model with an initial fleet size of approximately 7 to 10 vehicles. Secondary deployment opportunities in Port Colborne and Fort Erie require additional consultation with the respective local municipalities to confirm service design parameters.

Financial Considerations

The approved 2019 budget provided \$7.9 million towards a strategic two-year IMT investment strategy. The 2019 funding included a 1.4% separate transit levy of \$4.9 million plus a one-time transfer from Reserve of \$3.0 million (0.9% of the 2018 levy).

The proposed 2019 Budget strategy was to utilize \$2.2 million of the \$7.9 million as a one-time reserve transfer in 2019 to support the \$13.9 million of capital assets and reduce the annual debt over the next 10 years. According to the aforementioned strategy, \$2.2 million would be allocated to transit expansions connecting Niagara West, Crystal Beach and Pelham to existing transit services in 2020. The 2019 direction to use a one-time transfer from Reserve therefore did not include sufficient sustainable base funds to deploy the on-demand expansions into Niagara West, Crystal Beach and Pelham without subsequent base level budget approval in 2020.

To secure funding for the on-demand Pilot project and all previously implemented service enhancements, a separate general levy of 1.3%, will be considered along with the following budget items:

	Council Report	Levy Amount (M\$)	Levy Increase %
Previously identified reports			
Suicide Prevention Initiative	PHD 8-2019	0.200	0.05%
Waterfront Investment Program – Base funding	CSD 40-2019	1.000	0.27%
Smarter Niagara Incentive Program – Base funding	CSD 40-2019	0.600	0.16%
Brock LINC request for funding	ED 9-2019	1.500	0.41%
Niagara Regional Transit - phase in cost	PW 56-2019	4.754	1.30%
NRPS 2019 position hiring deferral	BRC-C 7-2019	0.706	0.19%
Long-Term Care Home Redevelopment capital funding	CSD 53-2019	5.620	1.54%
GO Project - Station Operations	CSD 17-2019	1.410	0.39%
Canadian Coalition for Municipalities Against Racism and Discrimination	CAO 14-2019	0.142	0.04%
EMS Central Hub capital funding	CSD 40-2019	0.390	0.11%
Potential request to-date		\$16.323	4.46%

Unlike the ‘per-trip’ pricing models of Niagara Specialized Transit and Innisfil’s partnership with Uber, the on-demand model proposed in this report operates on a fixed hourly rate within a fixed budget. This pricing structure provides significantly more certainty in terms of budget containment. Should the demand increase to the point where it outpaces the capacity of the service, two options are available. The first would be to decrease the quality of the service by altering the parameters of the service, thus increasing its capacity. For example, increasing the maximum wait time from 1 hour to 1.5 hours. The second option would be to seek additional funding approval and deploy additional vehicles to maintain the existing level of service.

Analysis

In September 2018, staff brought forward 3 related reports (LNTC-C 21-22-23-2018) jointly identified as the IMT Service Implementation Strategy. This strategy identified the need for inter-municipal transit services to be developed to connect the municipalities in Niagara West, including Pelham and Lincoln which already operated local transit services, to the NRT network. Thus for the purposes of this report, Niagara West refers to the geographic area of Grimsby, Lincoln, West Lincoln, Pelham and Wainfleet. In addition, CAO 8-2017 identified opportunities for IMT services to be piloted which would connect Crystal Beach and Sherkston with the larger transit network in Niagara.

After the initial IMT expansion Service Plan strategies were approved in late 2018, staff developed fixed-route options for consideration; however the operational and financial limitations of providing this type of fixed-route service in large geographical areas with low population density quickly became apparent. As such, staff began to research

alternative deployment strategies in an effort to make transit more sustainable and accessible in these areas.

In May 2019, Niagara Region retained Via to conduct a microtransit feasibility study to consider the practicality and optimal service design of an on-demand microtransit service covering the entire western area of Niagara. In addition to Niagara West, additional service areas were evaluated in Fort Erie and Port Colborne. The travel patterns defined in the simulation were modeled using data from the Niagara Specialized Transit (NST) database and the MTO's Transportation Tomorrow Survey. A presentation of the preliminary results of the microsimulation were shared with the IMTWG at its meeting on September 19, 2019. The final report was provided to the IMTWG for their reference in late October. Through the IMTWG, staff have completed preliminary engagements with the affected municipalities in order to gauge support from local staff. At the request its respective local staff, presentations were given to the Councils of Pelham and Lincoln which provided an overall update on the status of inter-municipal transit and a high level primer of on-demand transit.

Similar to conventional transit, on-demand solutions include wheelchair accessible vehicles (WAV's). It is worth noting that because trip planning software is capable of prioritizing and dynamically routing vehicles and when combined with unique user profiles, an entire fleet of WAVs is not required to ensure that all riders receive the same level of service.

Niagara West

Two main operating systems were considered when developing the service parameters. The first was a pre-scheduled, on-demand system that would require riders to pre-book their trips a day in advance. The second was a dynamic, on-demand system that would operate with a 30 minute average wait time with a maximum wait time of 1 hour. Although both were feasible options, staff determined that pursuing the dynamic, on-demand service would provide a significant boost to the quality of service by allowing riders to request a ride when they require it as opposed to planning 24 hours in advance.

The dynamic, on-demand system allowed for three potential deployment models to be developed. However, further evaluation resulted in the dismissal of two of the models due to the potential for rider confusion stemming from the jurisdictional realities which resulted from the triple majority process in 2017 granting the Region non-exclusive authority to operate IMT routes only. While staff from Via and Niagara Region both agree that an integrated deployment model is preferred (integrated includes both local and IMT routes within and outside of a municipality), this model requires partnership from local municipalities from both a financial and jurisdictional perspective. One additional note is that when the graphic below was developed, a connection to Port

Colborne had not been included however, this has been corrected from a service design perspective.

Integrated Services Model (Preferred)

In this preferred simulation, by removing the jurisdictional barriers, the integrated services model (Figure 2) eliminates many of the challenges that riders face when using an intra-municipal service. While this service continues to permit inter-municipal trips (trips between municipalities), it also permits intra-municipal trips (trips within municipalities). For the sake of clarity, this model would permit trips from any origin to any destination within Niagara West. It would also permit trips between Niagara West and the St. Catharines Bus Terminal, the Welland Bus Terminal, or Port Colborne City Hall where riders would then gain access to the NRT and other local transit networks.

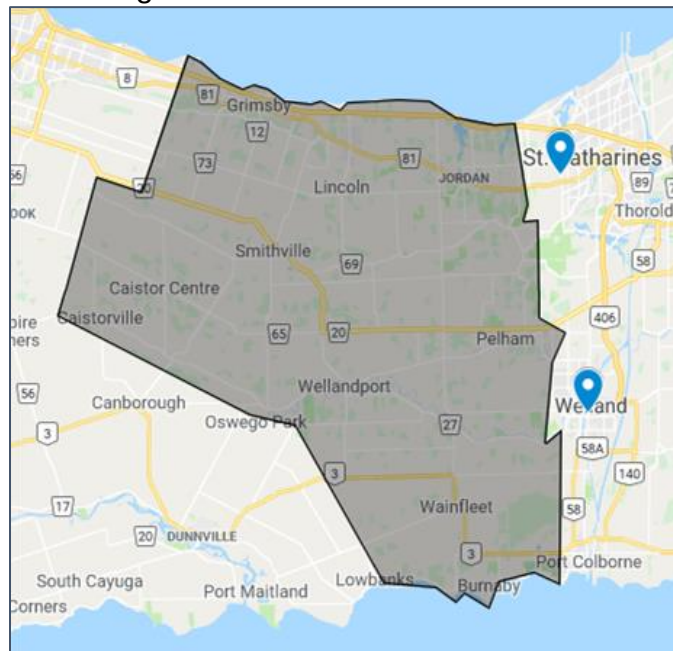


Figure 2 – Integrated Services Model

Niagara Region does not have the jurisdictional authority or adequate budget to independently operate the integrated services model and thus requires support from the local municipalities. That said, the benefits of this scenario are substantial from both a rider experience perspective and a cost-benefit perspective. Local municipalities would require significantly more funds to develop an independent localized on-demand service which would still require inter-municipal connections. More simply, by pooling resources, a higher level of service can be delivered for the riders without the need of coordinating travel across multiple systems. As previously stated, separate municipal transit services are not required under this integrated approach. This means that municipalities with small fixed route transit systems (i.e. Pelham and Lincoln), which only service a small portion of their geographical area, could feasibly choose to reallocate those transit

dollars into this integrated services model and significantly increase their ridership, coverage area, and level of service without an additional impact to their levy.

For those municipalities without existing transit dollars, full participation in the integrated model would require a net new impact on their levy. Should those municipalities not be able to commit new levy dollars to an integrated model, they would only be serviced by the on-demand system for inter-municipal trips. For example, residents in Grimsby, West Lincoln and Wainfleet would only be able to travel to a destination outside of their municipality.

For the various operating models, the trip demand was simulated at multiple levels to account for elements such as rider uptake, initiation of hourly GO rail service and continued population growth. Table 1 below provides some of the key indicators resulting from the microsimulation of the integrated services model where the maximum wait time was set at 1 hour.

Table 1 – Integrated Services Model Microsimulation Results

Trip Demand	Maximum Hourly Ridership	Recommended Fleet Size	Passengers per Vehicle Hour	Average Wait Times (Minutes)
Low	10 – 22	7 – 10	1.5 – 2.2	25 – 35
Medium	20 – 35	10 – 13	2.0 – 2.7	22 – 32
High	40 – 70	15 – 19	2.7 – 3.7	20 – 30

In an area where limited transit options exist such as Niagara West, a new deployment would expect to see a low initial trip demand. However, over the course of a 12 month pilot it is unlikely that a medium trip demand would be reached. That being said, factors such as initiation of hourly GO Train service would certainly affect that assessment.

Implementation

In order to implement the Integrated Services Model, a full service ‘turn key’ provider is required due to Niagara Region’s lack of staff, maintenance facilities and transit fleet. Staff is seeking authorization to formally procure Via for the deployment of the preferred option for the following reasons:

- Via is the only company known to the IMTWG which offers a full turnkey deployment. This includes:
 - Custom branded Mercedes vans (eliminates capital acquisition costs for Niagara Region)
 - Professional, background checked drivers
 - iOS and Android apps as well as dial-in capability for those without smartphones
 - Customer service and training
 - Marketing support prior to and after launch

- Via is willing to deploy a pilot for 1 year with an option to extend for up to an additional 12 months.
- Via values shared data – deployment includes a custom built dashboard and reports. All data collected is shared possession and access with Niagara Region.
- Via has over 80 deployments worldwide from North America to Europe and Asia
- Via integrates with major fare payment systems
- Via's software specializes in superior dynamic trip planning and dispatching which considers the following:
 - Combining trips by channeling ride requests to be accommodated by a nearby vehicle rather than dispatching a new car to the same area
 - Prioritizing the passenger per vehicle hour metric where feasible, allowing for a small fleet size relative to the service area
 - Encouraging 'corner-to-corner' service delivery, which means that the software directs the rider to a pickup location closer to a main intersection (roughly 100 – 200m average walk) except in cases where walking is unsafe like roads with a rural cross-section or where the rider requires wheelchair accessibility
 - Accessibility of service through user profiles to ensure that riders requiring a wheelchair can be serviced with the same average frequency as those who do not require one

Port Colborne and Fort Erie

Due to the recommendation included in the *Niagara Region Transit Service Delivery and Governance Strategy* by Dillon Consulting (CAO 8-2017), combined with interest from members of the IMTWG, staff elected to request Via assist in the design of potential solutions to connect the communities of Crystal Beach and Sherkston with the existing NRT network as part of the demand simulation exercise. The opportunities for these communities were developed with the same considerations and criteria as that of Niagara West. In similar fashion, the element of jurisdictional authority plays a major factor and creates significant barriers to providing a seamless, convenient rider experience. Without local involvement, Niagara Region would only have jurisdiction to deliver trips from Sherkston to Fort Erie or from Crystal Beach to Port Colborne, albeit counterintuitively. Therefore, it is imperative that any on-demand solution for these communities must involve the local municipalities of Port Colborne and/or Fort Erie.

Another component of the IMT Service Implementation Strategy was the upload of the Port Colborne Link and Fort Erie Link IMT routes to Niagara Region with the intent that the local municipalities would reinvest those savings into their local transit systems. These uploads are now complete and both Port Colborne and Fort Erie have both been paid retroactively to January 1, 2019.

Staff is seeking authorization to formally engage with the municipalities referenced in this report in an effort to improve connectivity for those residents who would benefit from

an on-demand model in rural or underserved areas. If in discussion, not all of the municipalities are interested or capable in partnering with Niagara Region, a smaller solution may be pursued which relies on connections to existing NRT service in the respective municipality to deliver the inter-municipal portion of the trip.

Alternatives Reviewed

Staff originally developed a fixed-route service plan for Niagara West that included routes which connected the municipalities of West Lincoln (Smithville), Grimsby (GO station and downtown), and Lincoln (Beamsville and Jordan) to the St. Catharines hospital. Completing this exercise helped to develop a scope and budget. However, this option is not recommended due to the high operating and capital costs and low level of service. This became especially evident when compared against on-demand solutions which found that for a similar budget commitment, a much higher level of service can be achieved through on-demand solutions. Two of the most prominent service parameters determining the level of service are coverage area (population served) and service frequency (average wait time).

Having no staff or transit vehicles of its own, Niagara Region sought to leverage its relationships with its local transit partners to determine if they could operate an on-demand system in Niagara West if provided with adequate software. Unfortunately, those partners also lacked the available staff, vehicles and training resources necessary to accommodate this request. As such, this option was deemed not viable.

Staff also considered utilizing its existing service provider of Niagara Specialized Transit to provide the service if Niagara Region provided the software. However, an operational review of the service provider conducted in 2019 concluded that significant elements of the contract and service were deficient (PW 39-2019 & PW 40-2019). These elements included inefficient trip scheduling software, poor on-time performance, not meeting the data reporting requirements, and vehicle branding. This lead senior staff to determine that expanding the service contract with the existing service provider was not a practical option at this time. In addition, PW 39-2019 recommended not restructuring the contract with service provider in light of the Specialized Transit Study recommendations coming in late 2019.

There are a number of companies with software capable of dynamically routing vehicles which they in turn lease to transit providers (often referred to as Software-as-a-Service, S-a-a-S) for an annual fee. Given the consideration of the two aforementioned options, Niagara Region requires a full service operator which can provide demand modeling, service design, as well as a fully turnkey solution by providing vehicles, drivers, and customer support – in addition to the dynamic routing technology. This full turnkey solution is often referred to as Transportation-as-a-Service (T-a-a-S). Via is the only company known to the IMTWG which offers this type of service. Having a T-a-a-S deployment model is an ideal solution for two additional reasons. One, Niagara Region

desires to pilot on-demand solutions for entirely new service expansions and this gives flexibility to test on-demand strategies without a corresponding capital commitment. Two, the LNTC and IMTWG have recently initiated the Transit Governance Study with recommendations due by the end of Q1 2020. By initiating services in the pilot areas while simultaneously avoiding a long-term service contract, any potential new future transit entity will have the flexibility to pursue revised deployment strategies or engage with Via to formalize the pilot into permanent service. Thus procurement of any company which only offers S-a-a-S is not recommended for deploying pilot services at this time.

While implementing a solution that solely delivers inter-municipal trips is possible, local transit services would still be required in each municipality to provide support and connectivity. This type of model also has a number of shortcomings which would be likely to limit demand and negatively impact rider experience. For example, when daily GO rail service becomes available in Grimsby (and potentially Lincoln), an 'inter-municipal trips only' model would require riders in these municipalities to counterintuitively travel to adjacent municipalities rather than traveling to their nearest station in order to meet the criteria of making an inter-municipal trip. By leveraging the relationships built through the IMTWG, an integrated deployment model allows for municipalities to benefit from the pooled resources and streamlines the rider experience by eliminating the confusion and challenges of coordinating travel between multiple systems in Niagara West. For this reason, staff supports pursuing partnerships with those interesting local municipalities to provide enhanced levels of service in an integrated model rather than an inter-municipal model built along municipal jurisdiction.

Staff also considered the option of integrating its existing specialized transit service with a dynamic, on-demand transit service. While simulation results indicate this option makes the most sense from both rider experience and financial efficiency perspectives, staff feels that it would be premature to make any substantive changes to its existing specialized transit service until the dynamic, on-demand model could be validated given the vulnerable segment of the population it serves.

Relationship to Council Strategic Priorities

The IMT Service Implementation Strategy directly aligns with the Council Strategic Priority: Responsible Growth and Infrastructure Planning (Objective 3.1) through advancing regional transit and GO rail services and facilitating the movement of people and goods.

Other Pertinent Reports

- LNTC-C 21-2018 Inter-Municipal Transit (IMT) Service Implementation Strategy
- LNTC-C 22-2018 Inter-Municipal Transit Financial Impact Analysis
- LNTC-C 23-2018 Inter-Municipal Transit Capital Plan, 2019
- CAO 8-2017 Niagara Region's Transit Service Delivery and Governance Strategy

Prepared by:

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Recommended and Submitted by:

Ron Tripp, P.Eng.
Acting Chief Administrative Officer

This report was prepared in consultation with Heather Talbot, Financial and Special Projects Consultant, and reviewed by Matt Robinson, Director, GO Implementation Office and Sterling Wood, Legal Counsel.

Subject: Citizen Appointments to Humberstone Landfill Site Public Liaison Committee and Niagara Road 12 Landfill Site Citizen's Liaison Committee

Report to: Public Works Committee

Report date: Tuesday, November 5, 2019

Recommendations

1. That the recommendations contained in Confidential Appendix I to Report PW 66-2019, **BE APPROVED**, confirming the citizen appointments for the remainder of this term of Council to the Humberstone Landfill Site Public Liaison Committee and the Niagara Road 12 Landfill Site Citizen's Liaison Committee.

Key Facts

The following are key points for consideration with respect to this report:

- On September 13, 2018, Council authorized the extension of existing sub-committee citizen appointments until no later than May 31, 2019, pending the completion of a committee review included in the independent external governance audit being conducted by Dr. Andrew Sancton.
- On December 6, 2018, Dr. Sancton provided recommendations resulting from the committee review as part of his First Report to Council (CL-C 72-2018).
- The practice has been for the staff representative(s) responsible for a sub-committee to meet with all or some of the Regional Councillors appointed to that sub-committee for the purpose of reviewing submitted applications and recommending candidates for appointment.
- This Report contains the recommended selection of candidates for appointment to the Humberstone Landfill Site Public Liaison Committee and the Niagara Road 12 Landfill Site Citizen's Liaison Committee.

Financial Considerations

The financial implications relating to the appointment process of advisory committee members include the use of administrative resources and staff and Councillors' time required to review applications for consideration.

Analysis

At the Council meeting of September 13, 2018, Council approved the following recommendations from Report GM 19-2018 with respect to the citizen appointments to sub-committees:

1. That the existing citizen appointments to Council's current sub-committees, **BE EXTENDED** until no later than May 31, 2019, pending completion of the Committee review and that where appointees are unable to continue, the quorum for the committees be adjusted accordingly to reflect the reduced number of members.

The practice has been for the staff representative(s) responsible for a sub-committee to meet with all or some of the Regional Councillors appointed to that sub-committee for the purpose of reviewing the submitted applications and recommending candidates for appointment.

The Niagara Road 12 Landfill Site Citizen's Liaison Committee, at its meeting held on October 16, 2019, passed a motion to appoint an additional citizen member to the committee.

The recommended citizen appointments for the Humberstone Landfill Site Public Liaison Committee and the Niagara Road 12 Landfill Site Citizen's Liaison Committee are attached as Confidential Appendix I to this report for consideration.

Alternatives Reviewed

None.

Relationship to Council Strategic Priorities

This Report aligns with Council Strategic Priority 4 – Sustainable and Engaging Government.

Other Pertinent Reports

- GM 19-2018, dated September 13, 2018, respecting Extension of Sub-Committee Citizen Appointments
- CL-C 72-2018, dated December 6, 2018, respecting Niagara Region Independent External Governance Auditor First Report
- CLK 05-2019, dated February 20, 2019, respecting Recommendations from Independent External Governance Auditor – First Report

Prepared and Recommended by:

Ann-Marie Norio
Administration
Regional Clerk

Submitted by:

Ron Tripp, P.Eng.
Acting Chief Administrative Officer

Appendices

Confidential
Appendix I

Recommended Citizen Appointments to the Humberstone Landfill
Site Public Liaison Committee and the Niagara Road 12 Landfill
Site Citizen's Liaison Committee