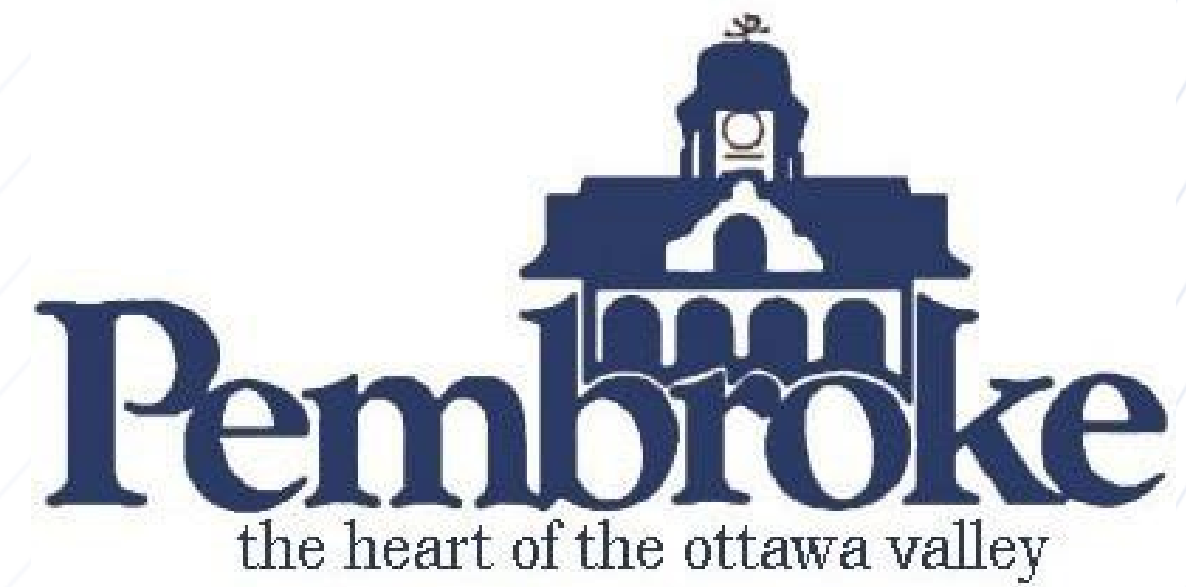


Welcome

Township of Laurentian Valley / City of Pembroke



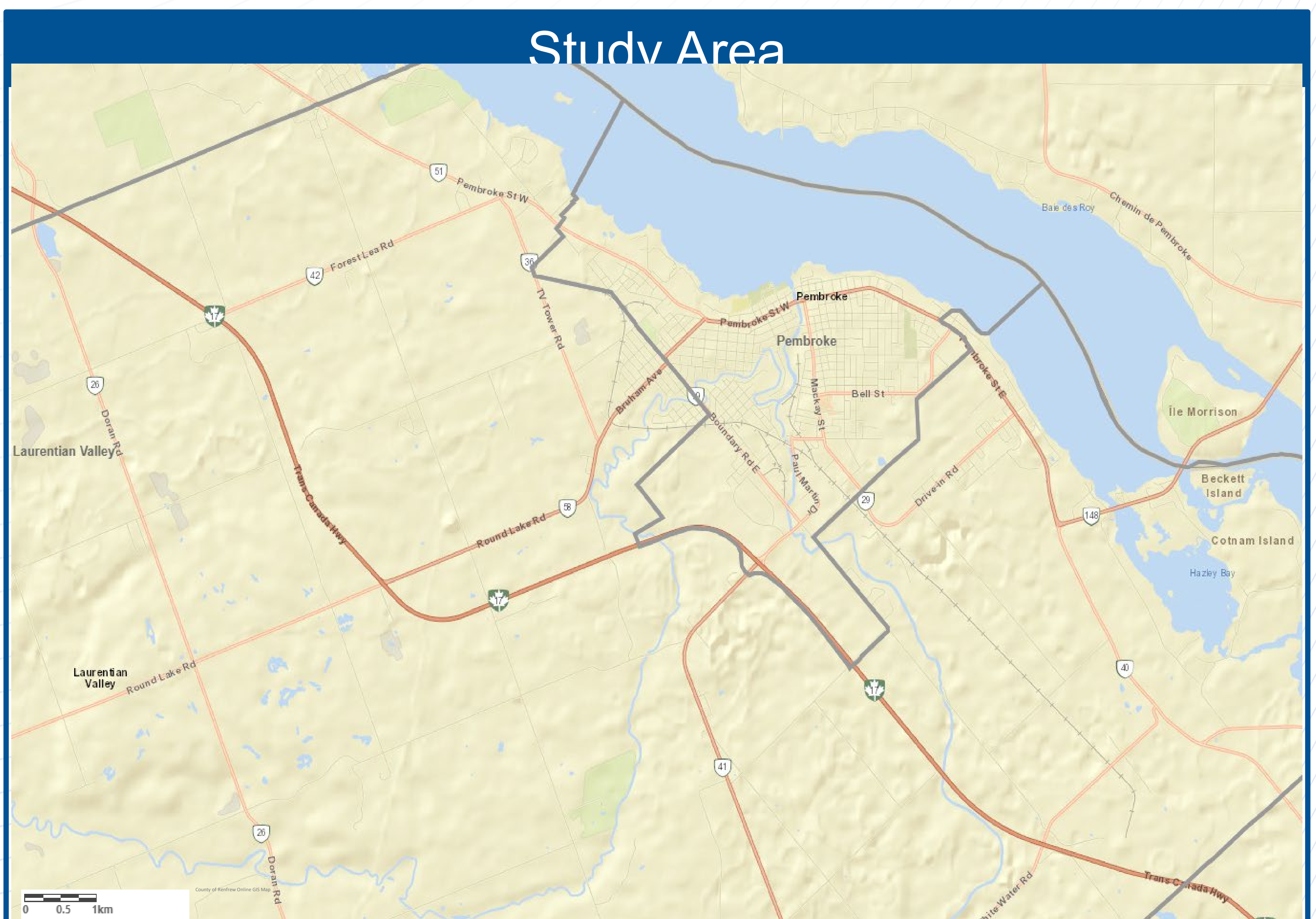
Transportation Master Plan for East-West Traffic

The *Transportation Master Plan for East-West Traffic* is being undertaken in accordance with the requirements of the Municipal Class Environmental Assessment (EA) (an approved process under Ontario's *Environmental Assessment Act*).

With the exception of personal information, all comments received will become part of the public record, in accordance with the *Municipal Freedom of Information and Protection of Privacy Act*.

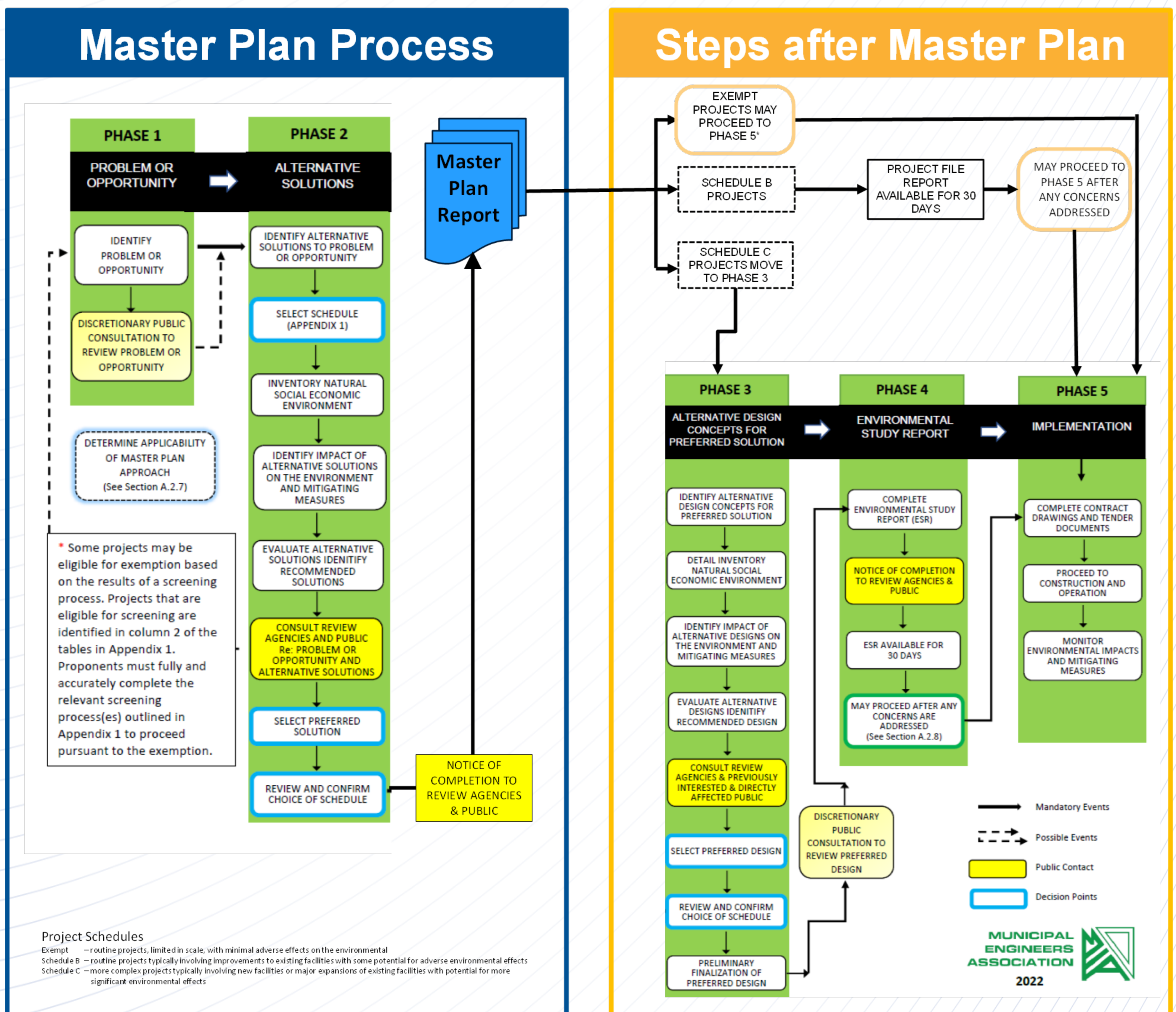
Key Problems / Objectives

- ▶ **Pembroke and Laurentian Valley are experiencing rapid growth**
 - Ongoing and expected development within and around City boundaries
- ▶ **East-west roads are particularly affected**
 - by local growth *and* by traffic passing through
- ▶ **The East-West Transportation Master Plan will:**
 - Examine the existing and future needs for roads, sidewalks and active transportation infrastructure in the study area
 - Address those needs by developing plans and policies that support future growth



Masterplan process

- ▶ Ontario requires municipalities to assess the environmental effects of major projects, including transportation using a common five phase process
- ▶ Master Plan process identifies problem, evaluates/recommends solutions – first two phases
- ▶ Major projects recommended by this study will get more detailed review



EXISTING CONDITIONS: Policies

▶ **Numerous transportation-related polices apply to the study area:**

Province of Ontario	County of Renfrew	Township of Laurentian Valley	City of Pembroke
<ul style="list-style-type: none"> ▶ Provincial Policy Statement ▶ Accessibility for Ontarians with Disabilities Act ▶ Ministry of Transportation Transit Supportive Guidelines ▶ #CycleON: Ontario's Cycling Strategy ▶ Ontario Trails Strategy 	<ul style="list-style-type: none"> ▶ Official Plan ▶ Strategic Plan ▶ Transportation Master Plan ▶ Trails Strategy ▶ Ottawa Valley Recreational Trail Management Plan 	<ul style="list-style-type: none"> ▶ Official Plan ▶ Strategic Plan ▶ Development Charges By-law ▶ Parks and Recreation Master Plan 	<ul style="list-style-type: none"> ▶ Official Plan ▶ Strategic Plan ▶ Transit Feasibility Study

▶ **Transportation and land use planning should be planned together to accommodate long term growth**

- Identify needs and protect future corridors

▶ **Policy environment promotes integrated planning, sustainable travel, and active transportation**

- Abandoned linear corridors should be protected for transportation uses
- Need for integrated facilities across boundaries
- Laurentian Valley has initiated Active Transportation and Trails Plan (ongoing project)

▶ **Opportunity to introduce transit in Pembroke/adjacent areas**

- Supported by Provincial policy direction, local policy objectives
- Longer-term expansion to rural areas / connecting communities

EXISTING CONDITIONS: Working and Commuting

▶ **Working from home has increased, but less than elsewhere in Ontario**

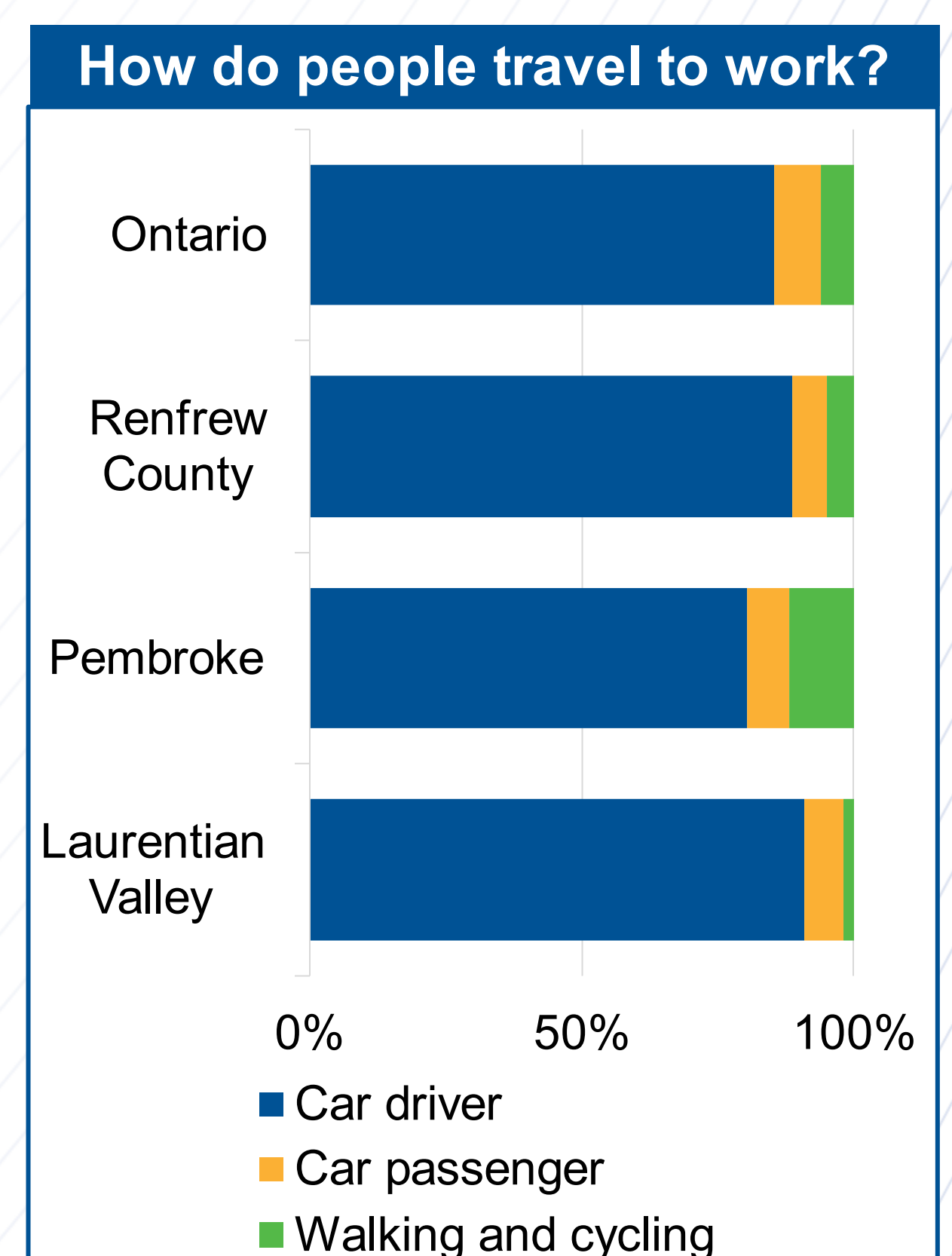
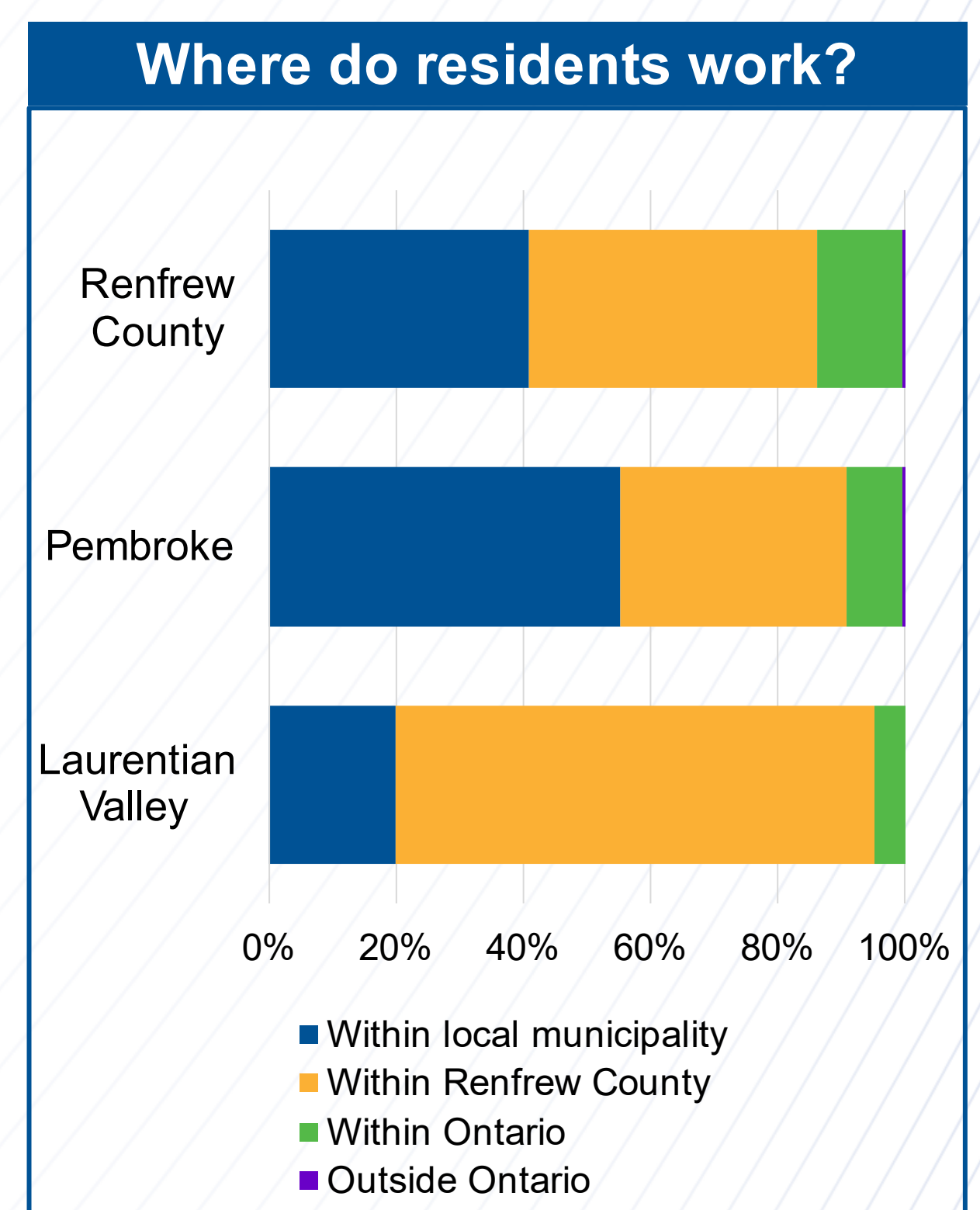
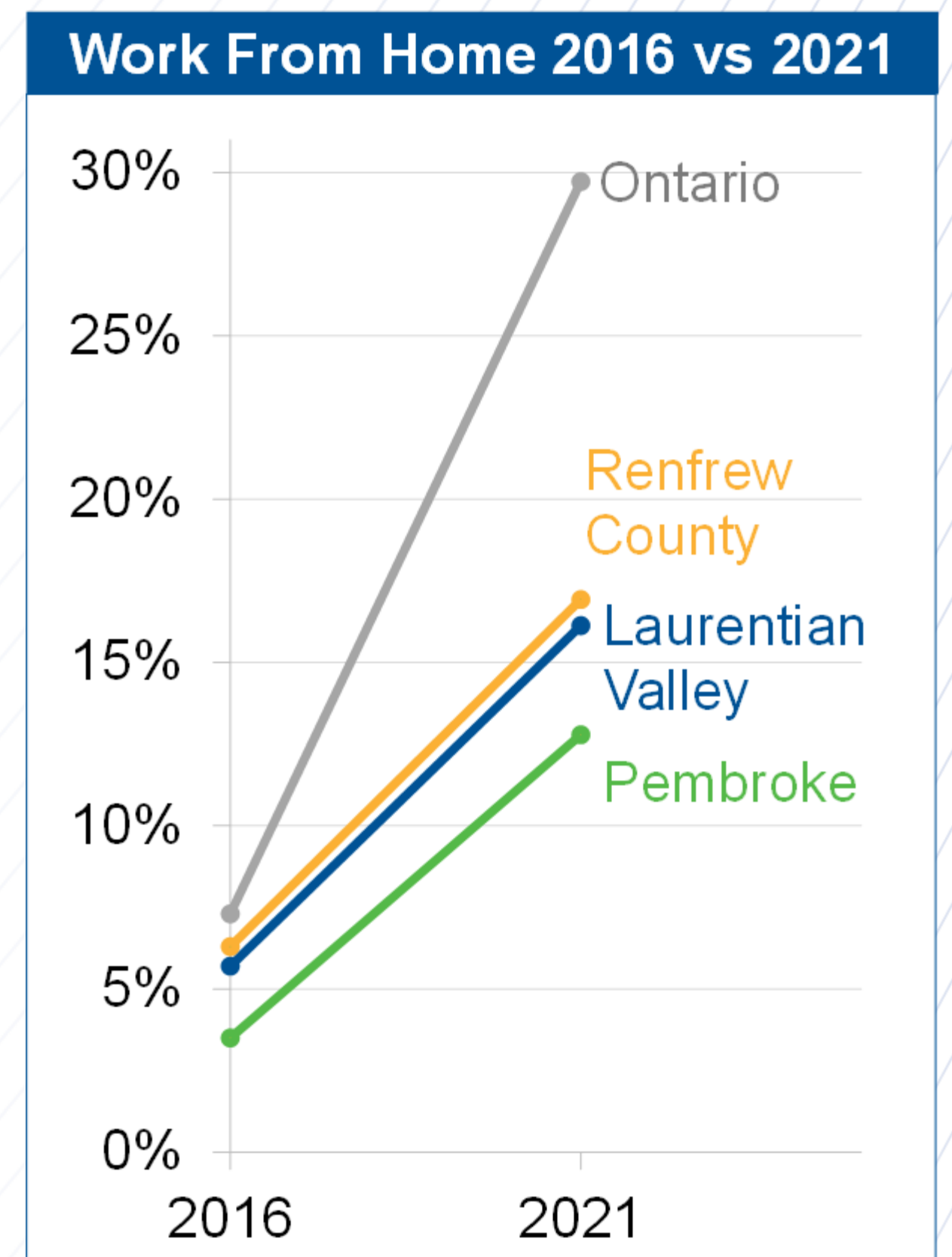
- Manufacturing, education, healthcare jobs are in-person
- Figures include people who attend workplace some days

▶ **High proportion of people work outside the local municipality they live in**

- But most work within County
- Also: 5% of Pembroke's and 8% of Laurentian Valley's workers live outside Ontario

▶ **Car is dominant mode for commuting to work**

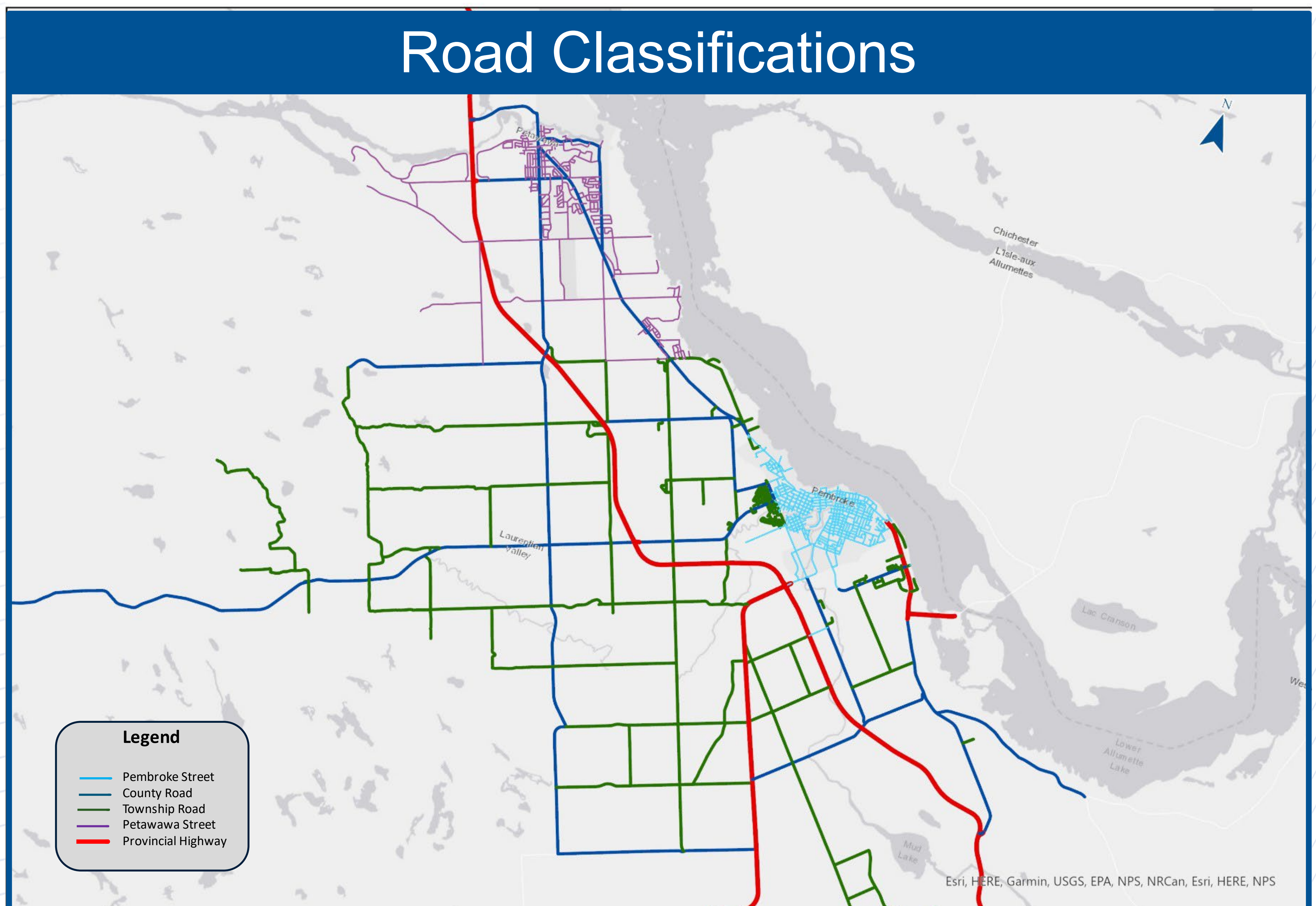
- Same for other trips
- Not likely to change significantly in the future
- However, a household owning a car does not mean it's available to all household members for all their all trips



Data source for charts: 2021 Census.

EXISTING CONDITIONS: Road network

- ▶ **Roads in study area are the responsibility of multiple governments**
- ▶ **Pembroke**
 - Province (Hwys 41 and 148)
 - Pembroke Street East – MacKay Street to Hwy 148 is a connecting highway link - partly funded by province
 - A grid network of local, collector and arterial roads (such as part of Boundary Road East, Angus Campbell Drive)
- ▶ **Laurentian Valley**
 - Province (Hwy 17, Hwy 41, Hwy 148/Pembroke St E)
 - County of Renfrew (e.g. Drive In Rd, part of Boundary Rd East, TV Tower Rd, Pembroke St West, Bruham Ave)
 - Township (e.g. B Line Road, Wilson Road, Robinson Ln, network of local, collector and arterials)



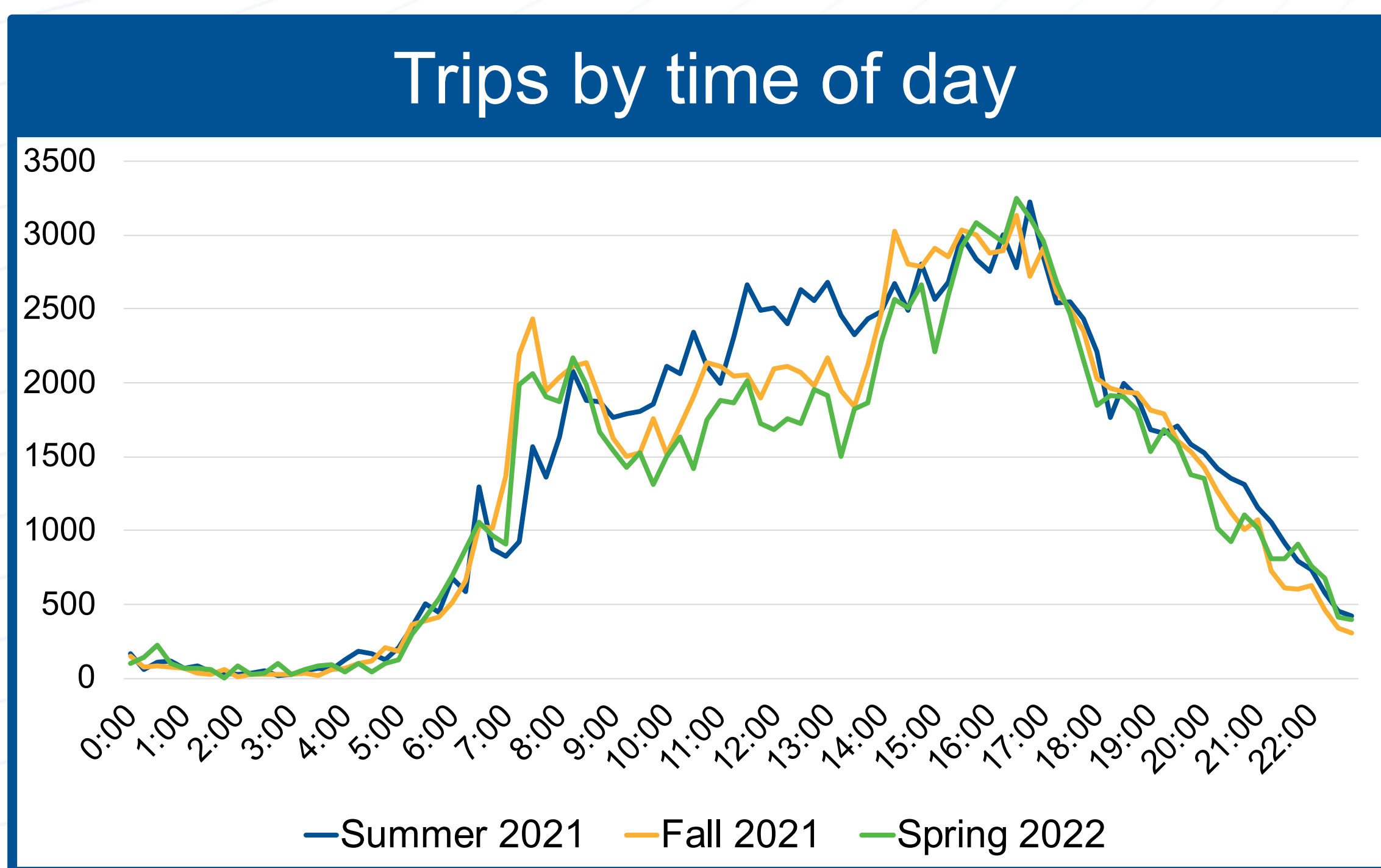
EXISTING CONDITIONS: Traffic Volumes

► Typical traffic conditions

- No significant congestion or problems at intersections

► Summer traffic

- Higher seasonal volumes creates congestion downtown and on Pembroke Street East / Highway 148
- Lower demand in morning – higher mid-day

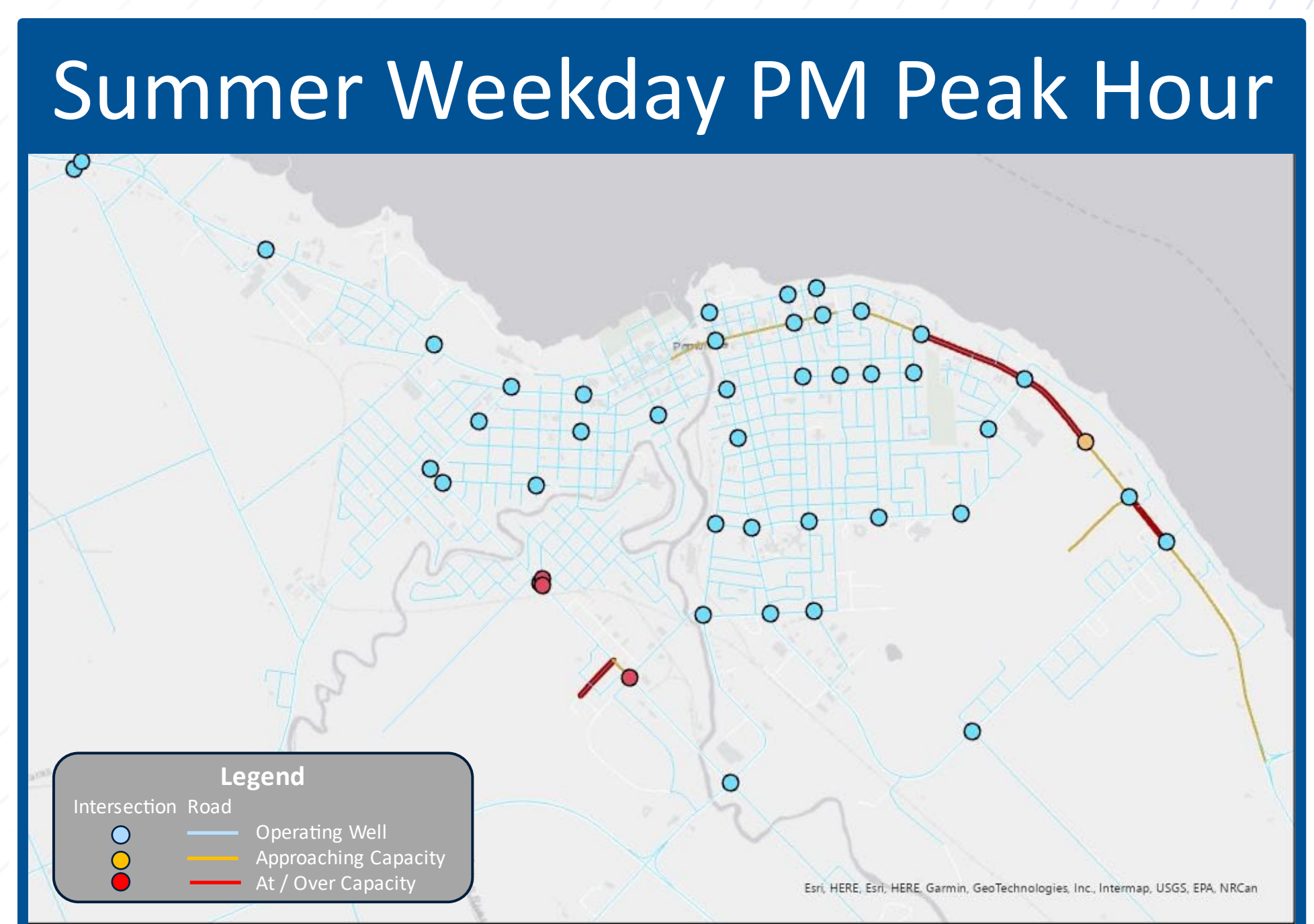
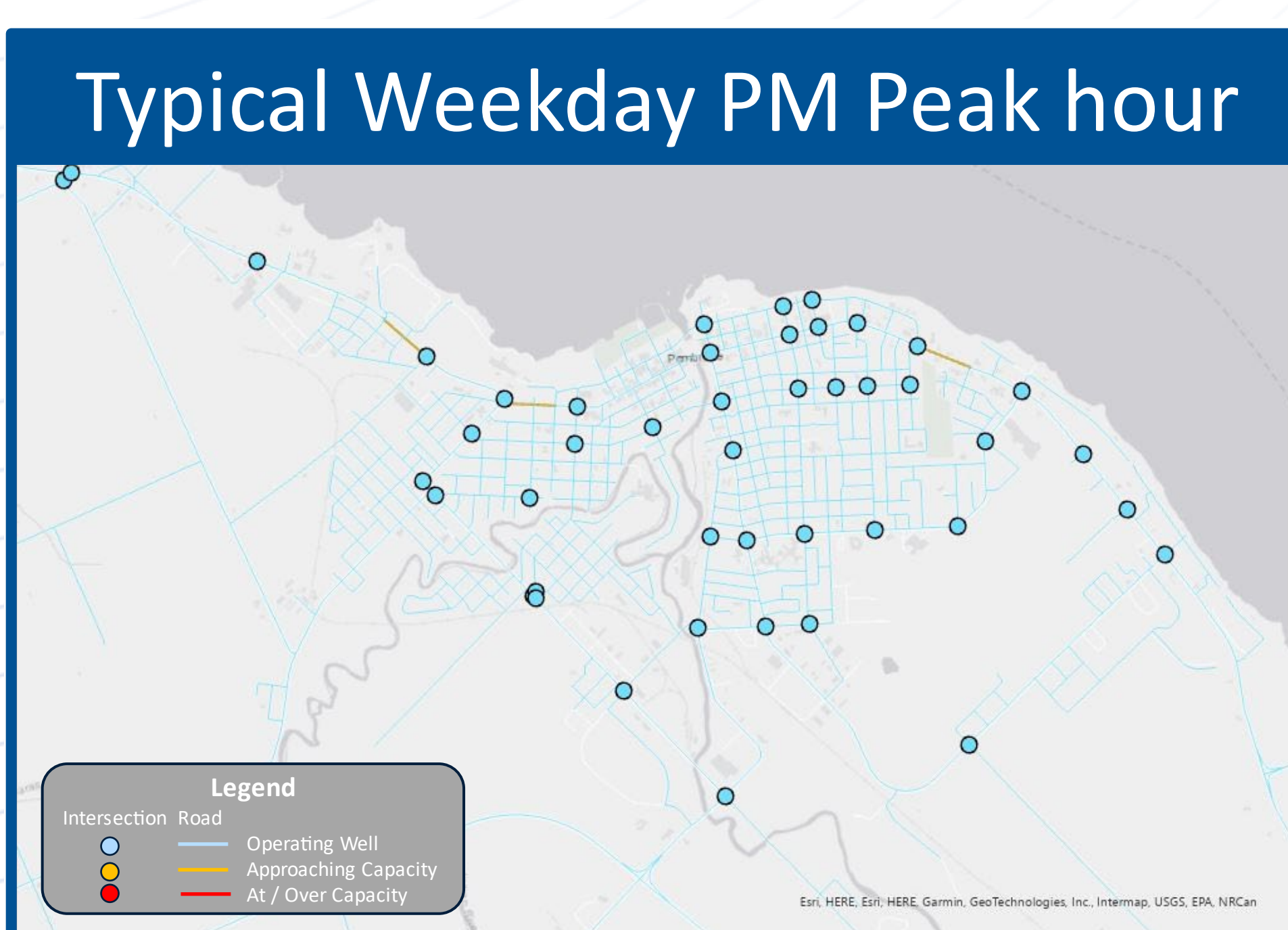


Travel During a Typical Day

Approximately 8,650 trips are made by car during the PM Peak Hour in the area covered by the traffic model. Of these:

- 36% of trips are within the study area (Pembroke / Laurentian Valley)
- 23% of trips are within Petawawa
- 12% of trips travel between Petawawa and the study area
- 27% travel to / from other areas
- 2% pass through the modelled area

► Should the road network be designed to accommodate need of summer traffic or typical levels at other times of year?



EXISTING CONDITIONS: Cycling Activity



Data source for map: Strava Metro

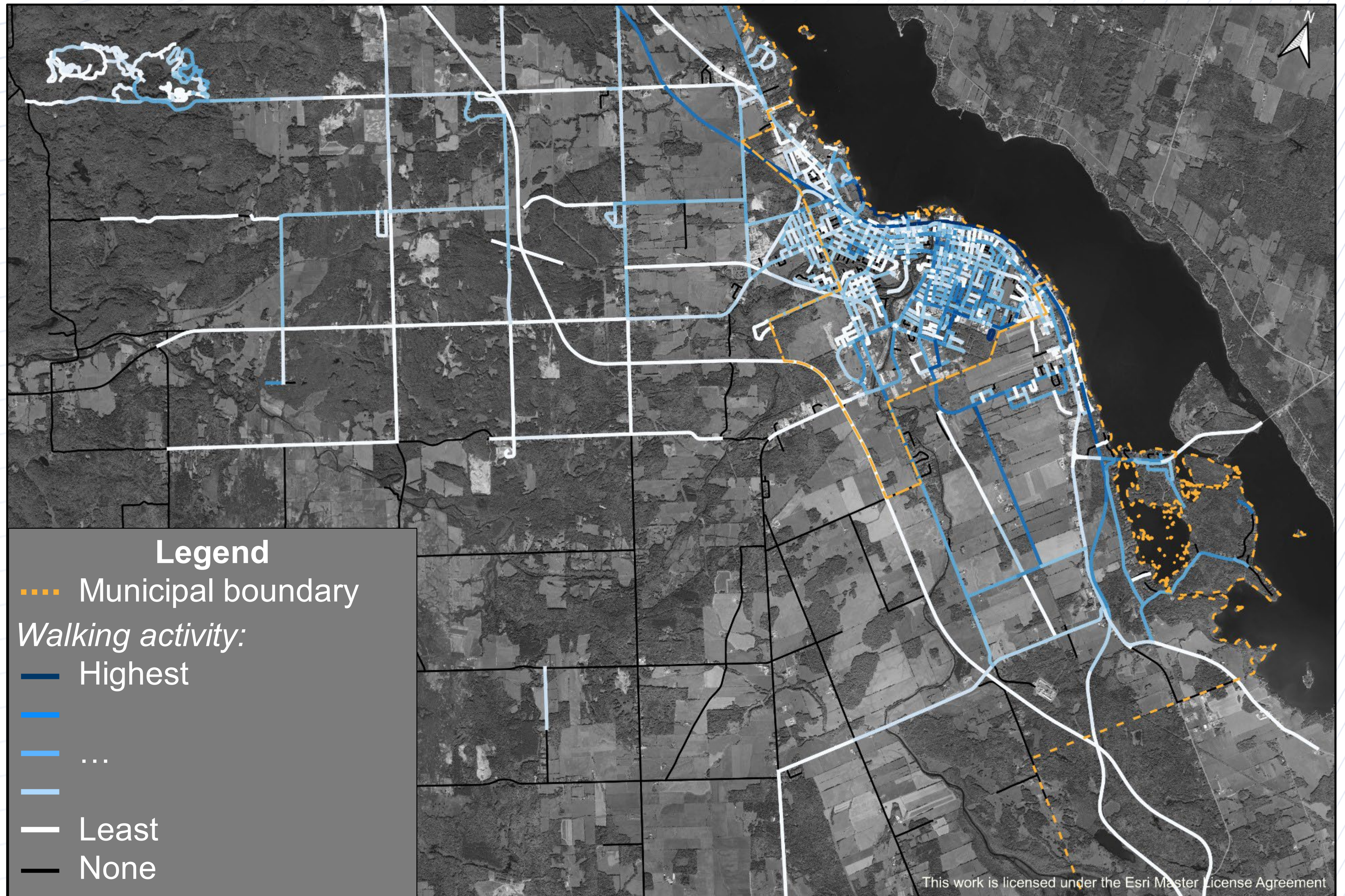
► Highest activity on quiet rural roads and off-road facilities

- Higher usage on Forest Lea Trails than nearby roads implies people aren't cycling to/from there.

► Low activity on streets in Pembroke

- Despite short distances between homes and destinations

EXISTING CONDITIONS: Walking Activity

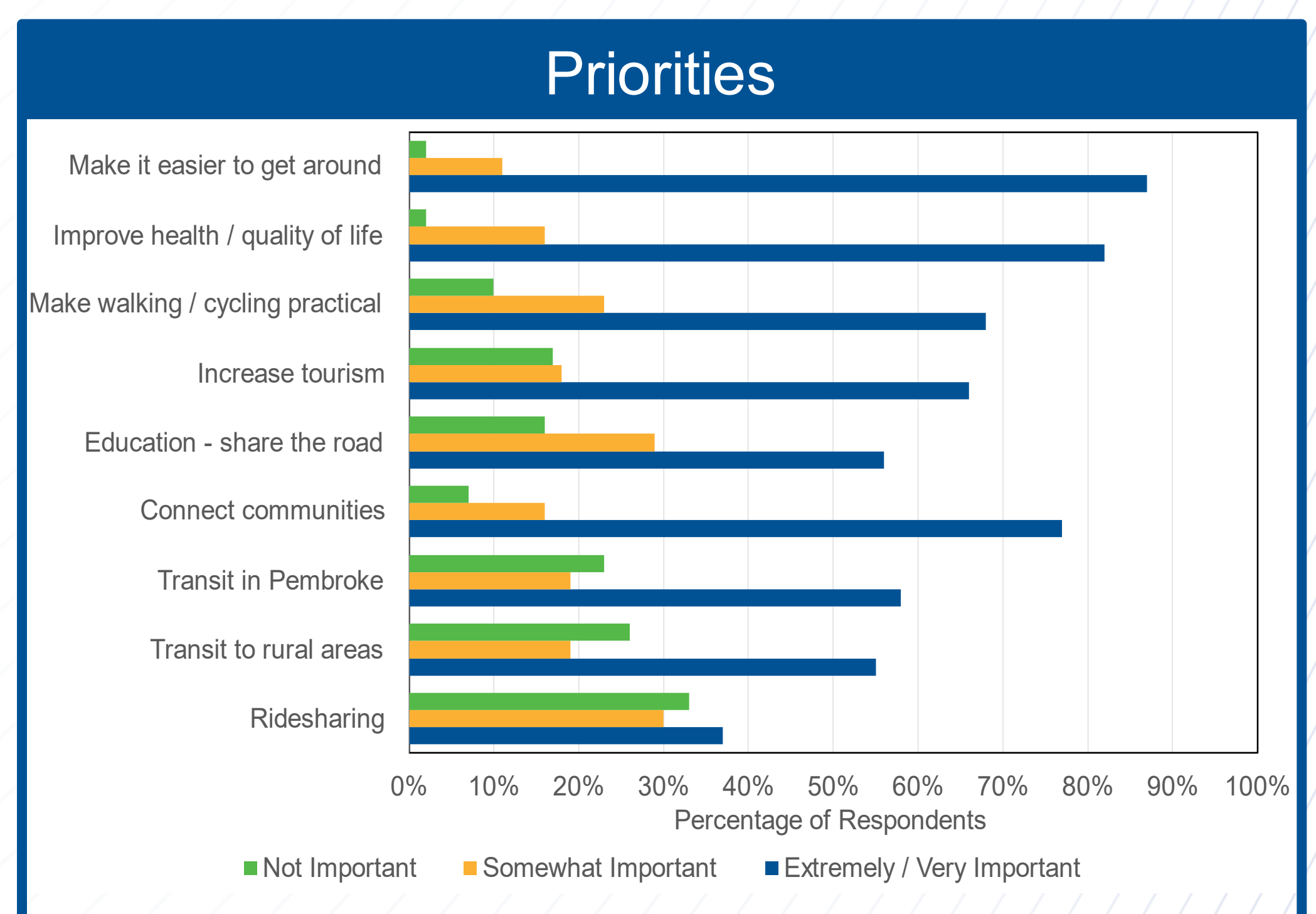
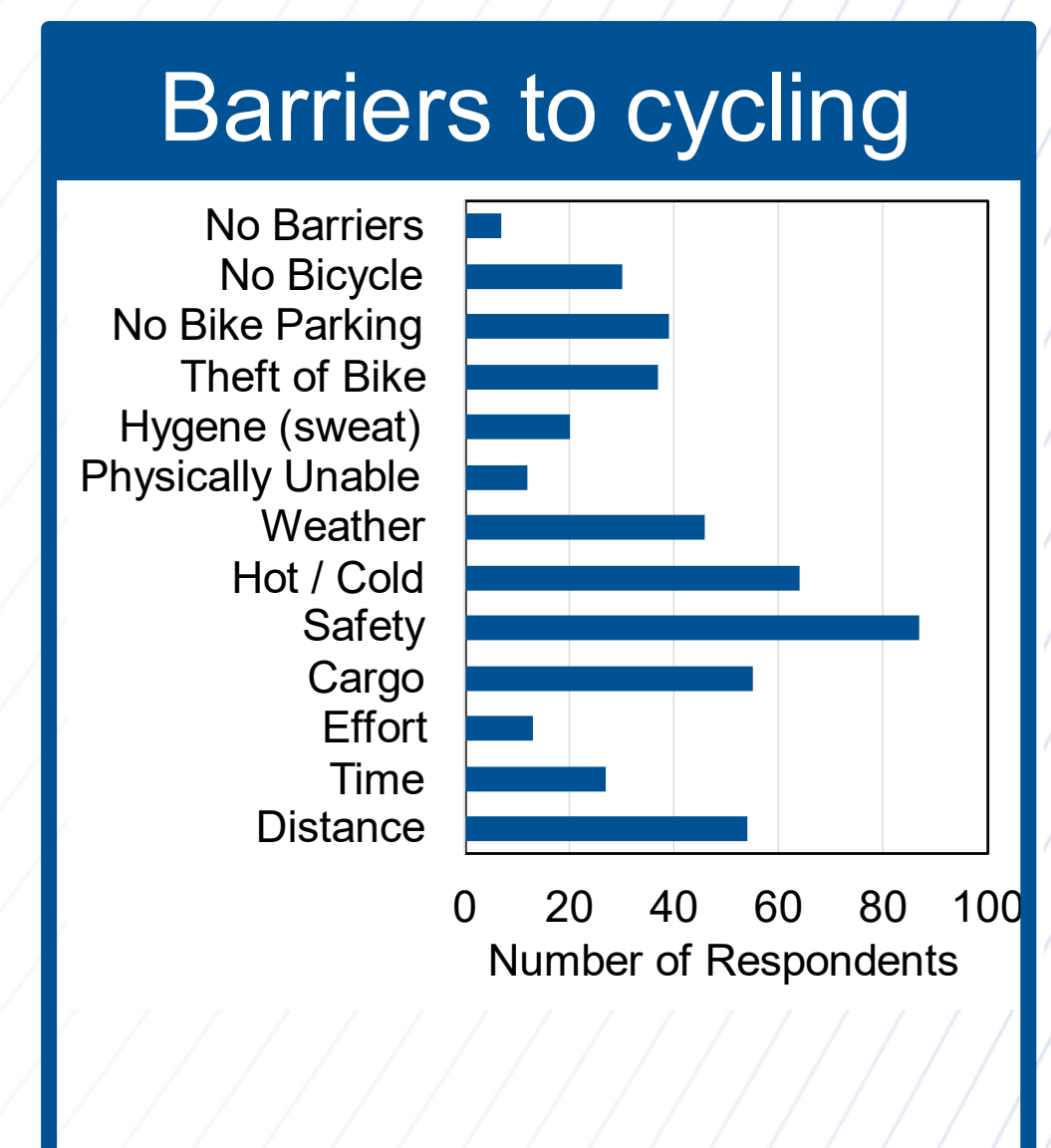
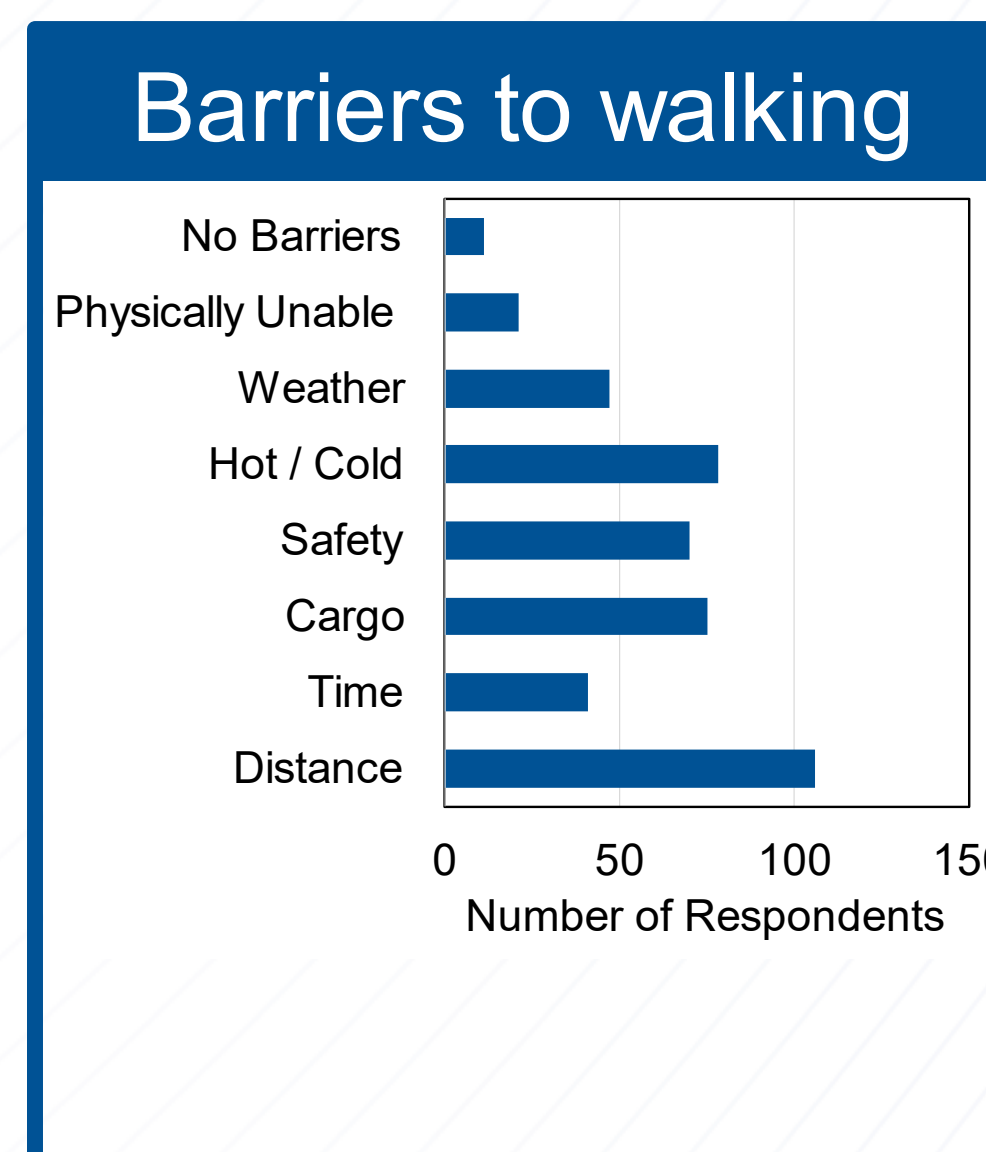
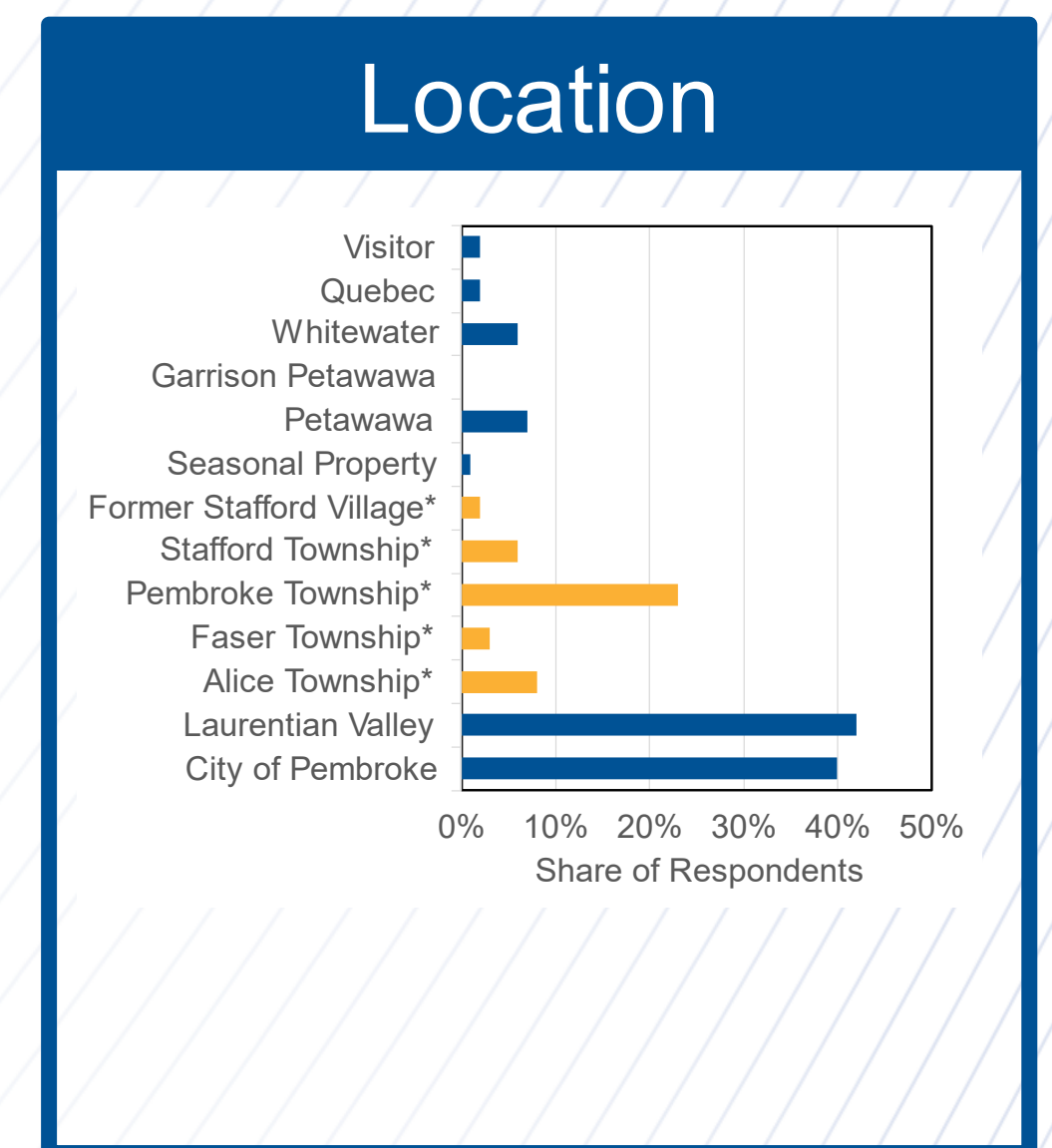
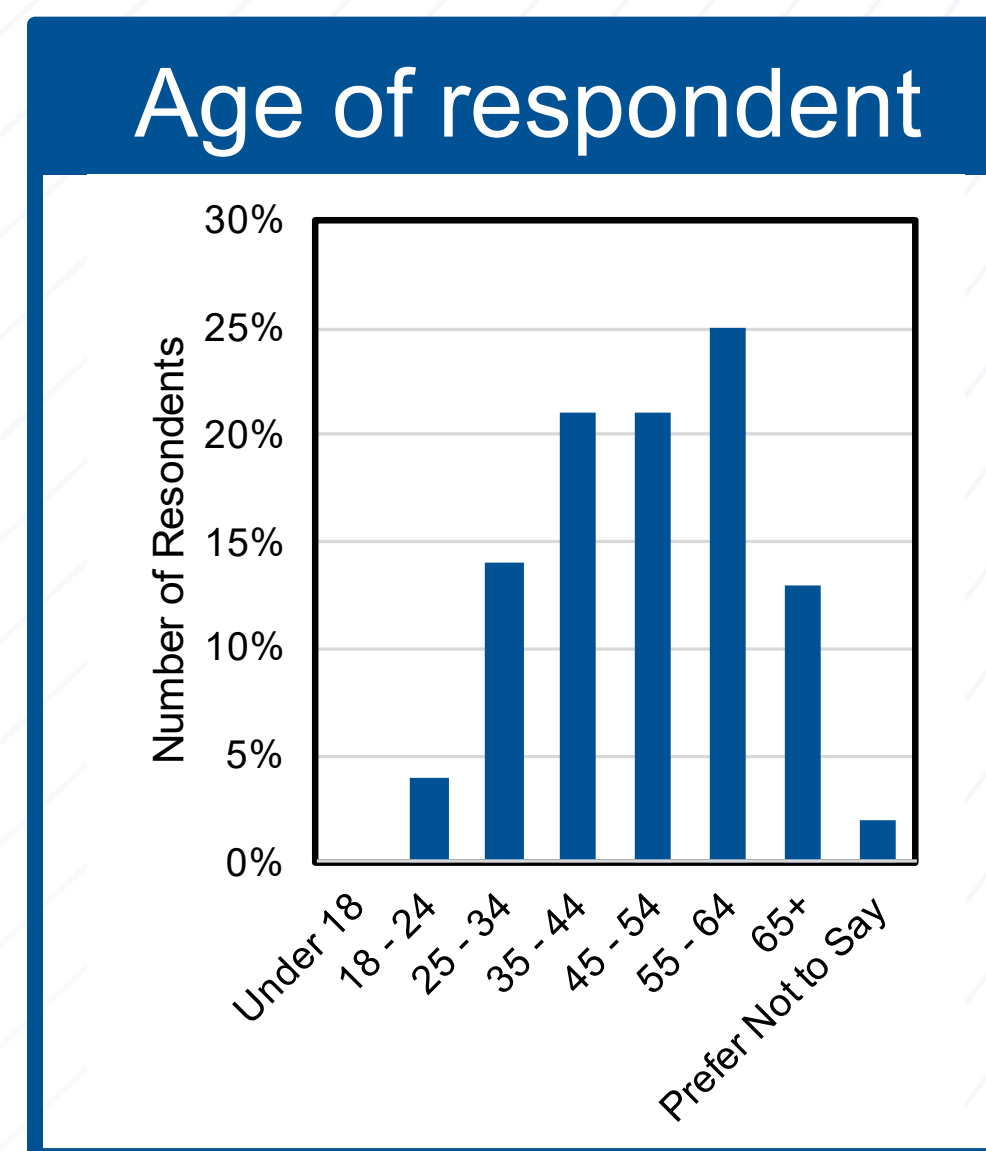


Data source for map: Strava Metro

- ▶ **Walking activity focused on urban areas**
 - Requires both infrastructure (sidewalks, crossings) *and* destinations within walking distance
- ▶ **Walking outside of urban areas associated with off-road recreation activity**
 - Example: Forest Lea Trails

EXISTING CONDITIONS: Online Survey Results

- ▶ **164 participants**
- ▶ **84% travel by auto**
 - 8% walk
 - 3% cycle
 - 3% are passengers
 - 2% other (school bus)
- ▶ **Distance traveled to work / school:**
 - 9% travel under 2 km
 - 19% travel 2–5 km
- ▶ **Barriers**
 - Safety a key barrier to cycling
 - Distance a key barrier to walking



- ▶ **Strong support for improving condition of roads**
- ▶ **Co-ordinating signals, adding turn lanes, and widening or building new roads supported to improve convenience**
- ▶ **Separating cyclists, adding pedestrian crossings, and traffic calming viewed as positive safety measures**

FUTURE CONDITIONS: Population Growth

▶ Planned growth to 2041 higher than historical growth rate

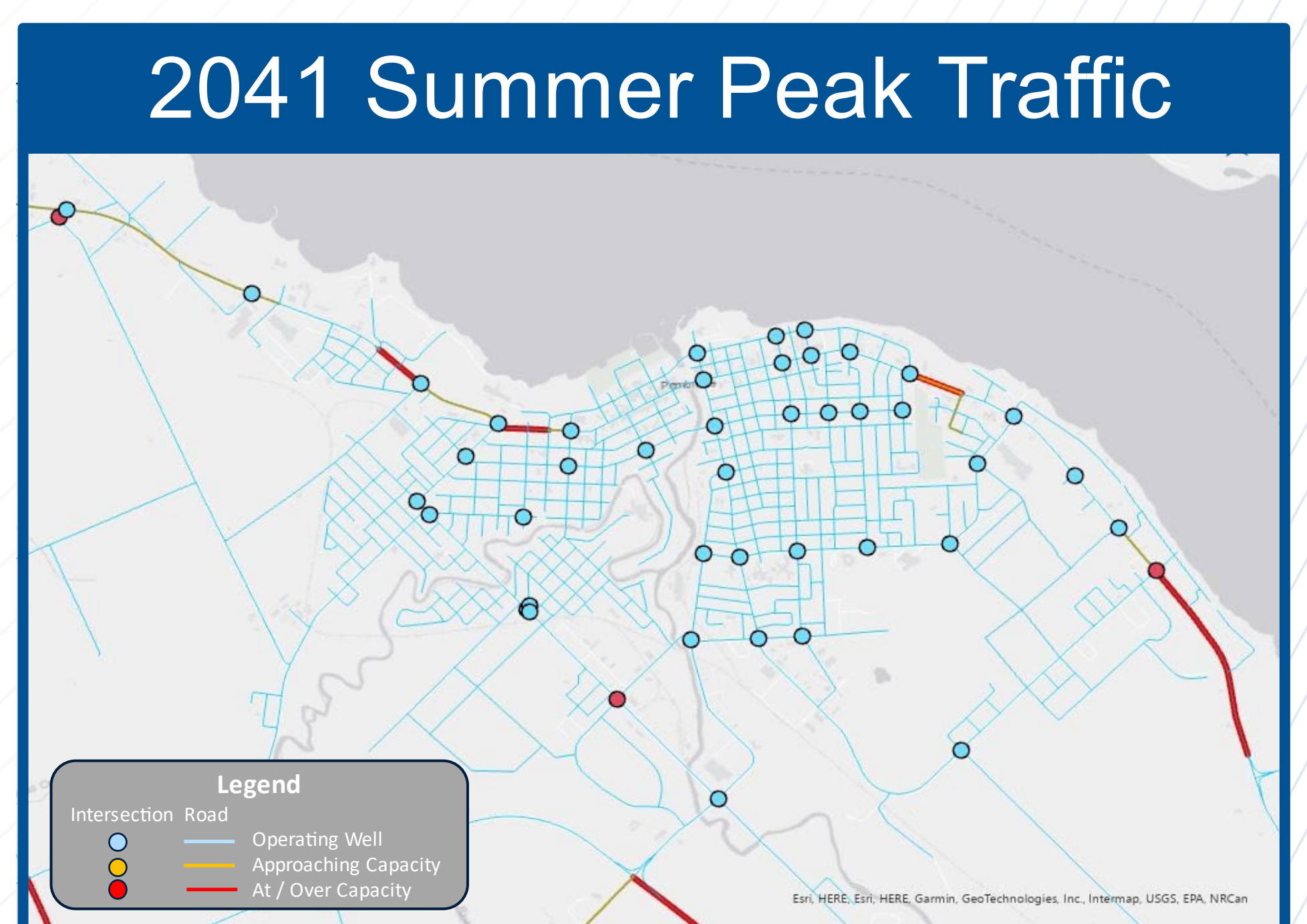
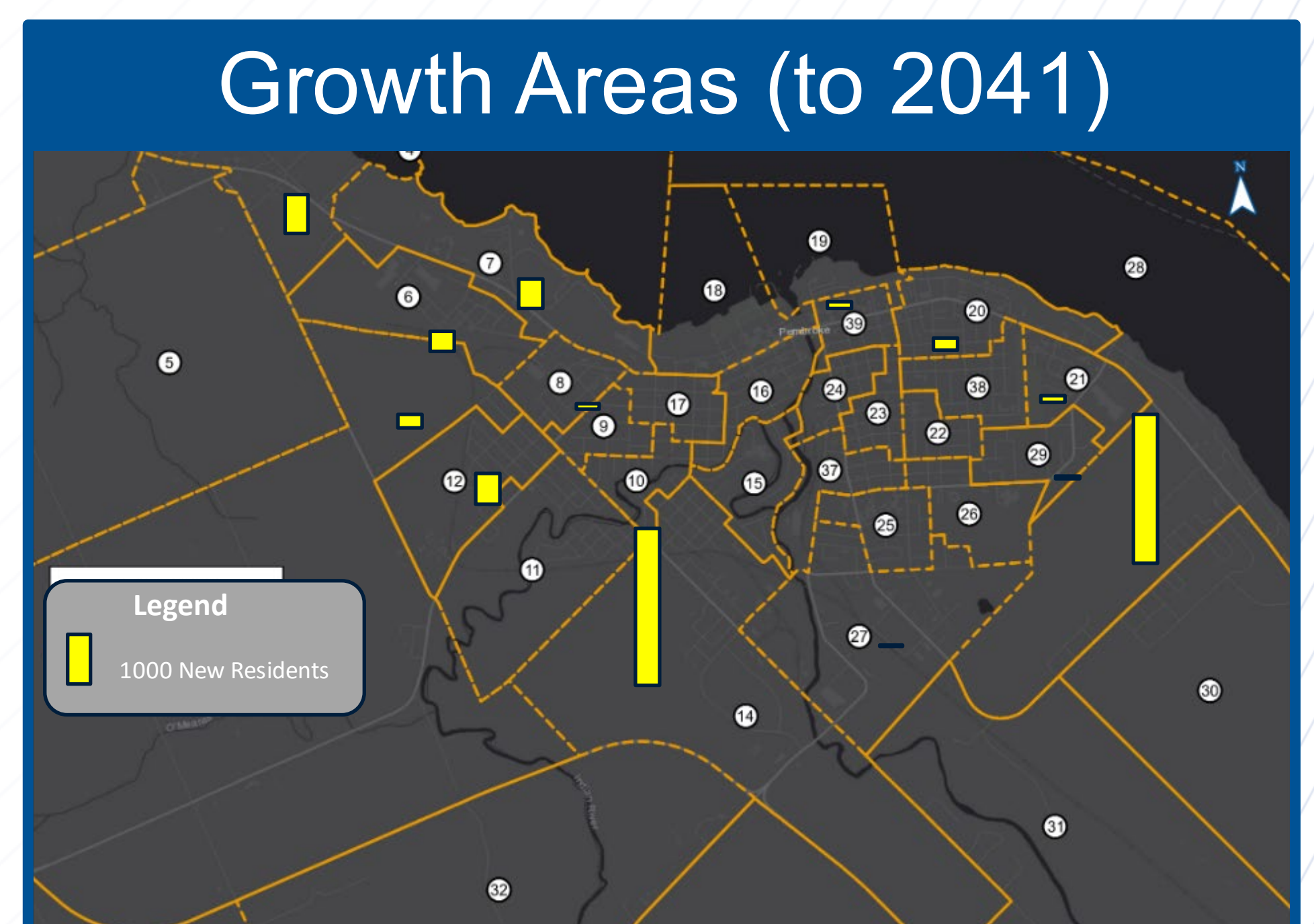
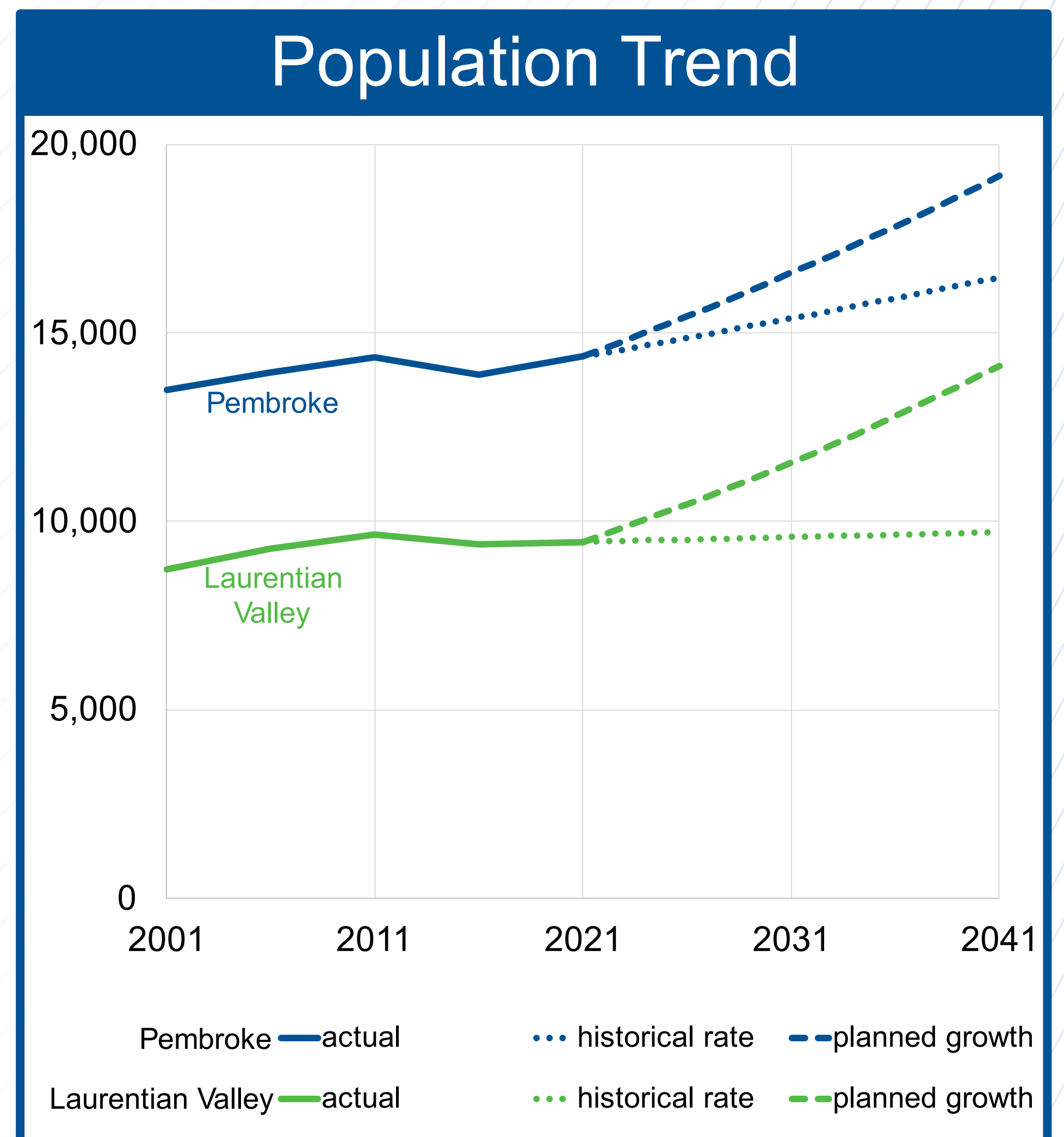
- Pembroke: 33% increase in population
- Laurentian Valley: 50% increase in population

▶ Growth will generate extra traffic

- Some growth will be accommodated by new road network in areas with new development

▶ Key issues:

- Pembroke St E / Hwy 148 will operate at/over capacity during summer peaks
- Limited crossings of Muskrat and Indian Rivers
- Added traffic on neighbourhood streets
- Better connections to river crossings can distribute traffic



FUTURE ROAD OPTIONS

Potential Road Network Improvements:

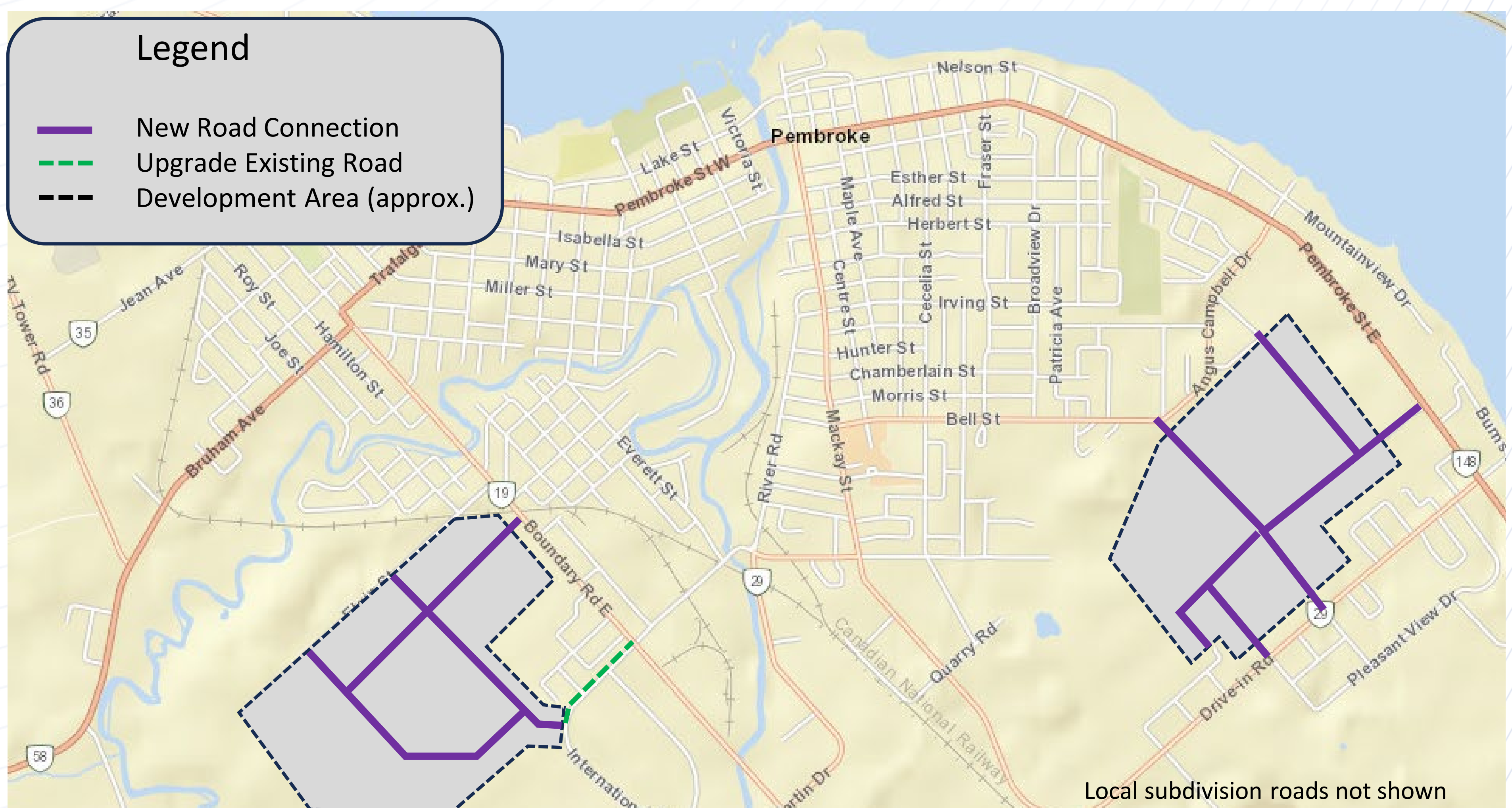
- ▶ **Base: New Roads in Growth Areas**
 - Local roads in growth areas to serve development
 - Assumed to be included in all options
- ▶ **Option 1: Enhance Mary Street / Alfred Street**
 - Alternative to Pembroke St through downtown
- ▶ **Option 2: D'Youville Drive connection to Drive In Road and Robinson Road**
 - Connect new development areas to MacKay Street / Townline Road and Highway 148
- ▶ **Option 3: Boundary Road Extension and Widening of Pembroke Street West**
 - Direct traffic away from downtown
- ▶ **Option 4: O'Brien Street Connection**
 - Complete O'Brien Street to connect to growth areas
- ▶ **Option 5: Local By-Pass Route**
 - Improve Drive In Rd and connect to Mud Lake Road or Paul Martin Drive to by-pass downtown
- ▶ **Option 6: New MTO bypass**
 - New road between Hwy 148 / County Road 40 and Hwy 17, to by-pass downtown area

FUTURE ROAD OPTIONS:

Base: New Roads in Growth Areas

► Potential Improvements

- Connect Matheson Drive to Robinson Lane through new development (traffic signals at Drive In Road / Hwy 148)
- Connect internal road network to Drive In Road and Angus Campbell Drive / Bell Street
- Connect internal road network to International Drive and Boundary Road East
- Upgrade International Drive



► Evaluation

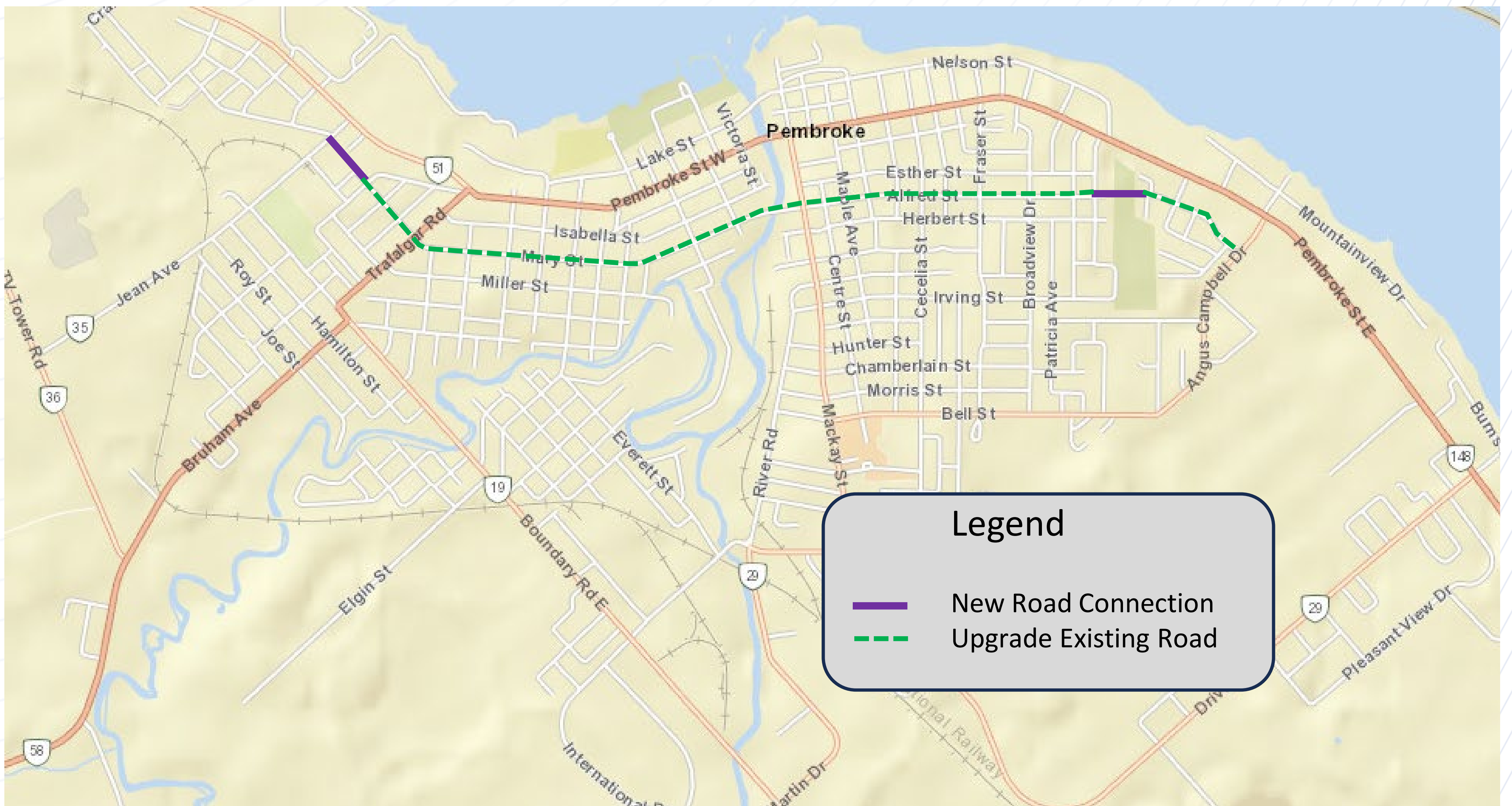
Criteria	Evaluation
Transportation	Congestion remains on Pembroke Street East and Hwy 48 Moderate Increase in traffic on Bell St / Angus Campbell Dr
Social	Neighbourhood impacts due to increased traffic (noise / safety)
Environmental	No additional disruption to natural areas
Economic	\$
Overall	RECOMMENDED – COMBINE WITH OTHER IMPROVEMENTS

FUTURE ROAD OPTIONS:

1) Enhance Mary St / Alfred St

► Potential Improvements

- Connect Mary Street to Forced Road
- Connect Alfred Street across park to Angus Campbell Drive
- Upgrade Mary Street / Alfred Street



► Evaluation

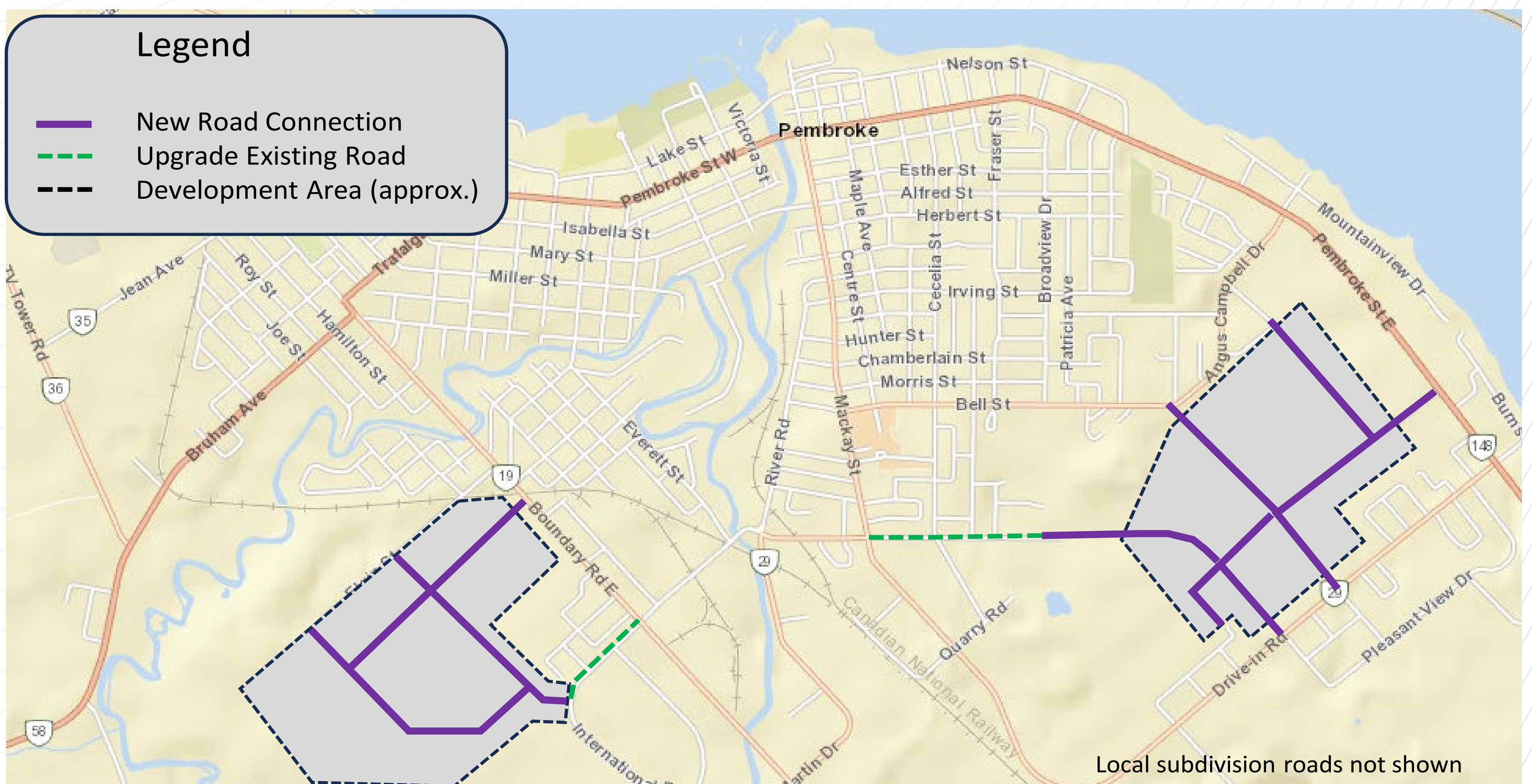
Criteria	Evaluation
Transportation	Does not fully address congestion on Pembroke Street Significant increase in traffic on Mary Street / Alfred Street
Social	Neighbourhood impacts due to increased traffic (noise / safety). Alfred St connection bi-sects open space area / park
Environmental	Mary Street connection disturbs natural area Increased emissions through residential area
Economic	\$\$\$
Overall	NOT RECOMMENDED

FUTURE ROAD OPTIONS:

2) D'Youville Dr connection to Drive In Rd / Robinson Ln

► Potential Improvements

- Connect D'Youville Drive to new subdivision roads
- Upgrade existing D'Youville Drive
- Upgrade International Drive
- New roads within new development areas



► Evaluation

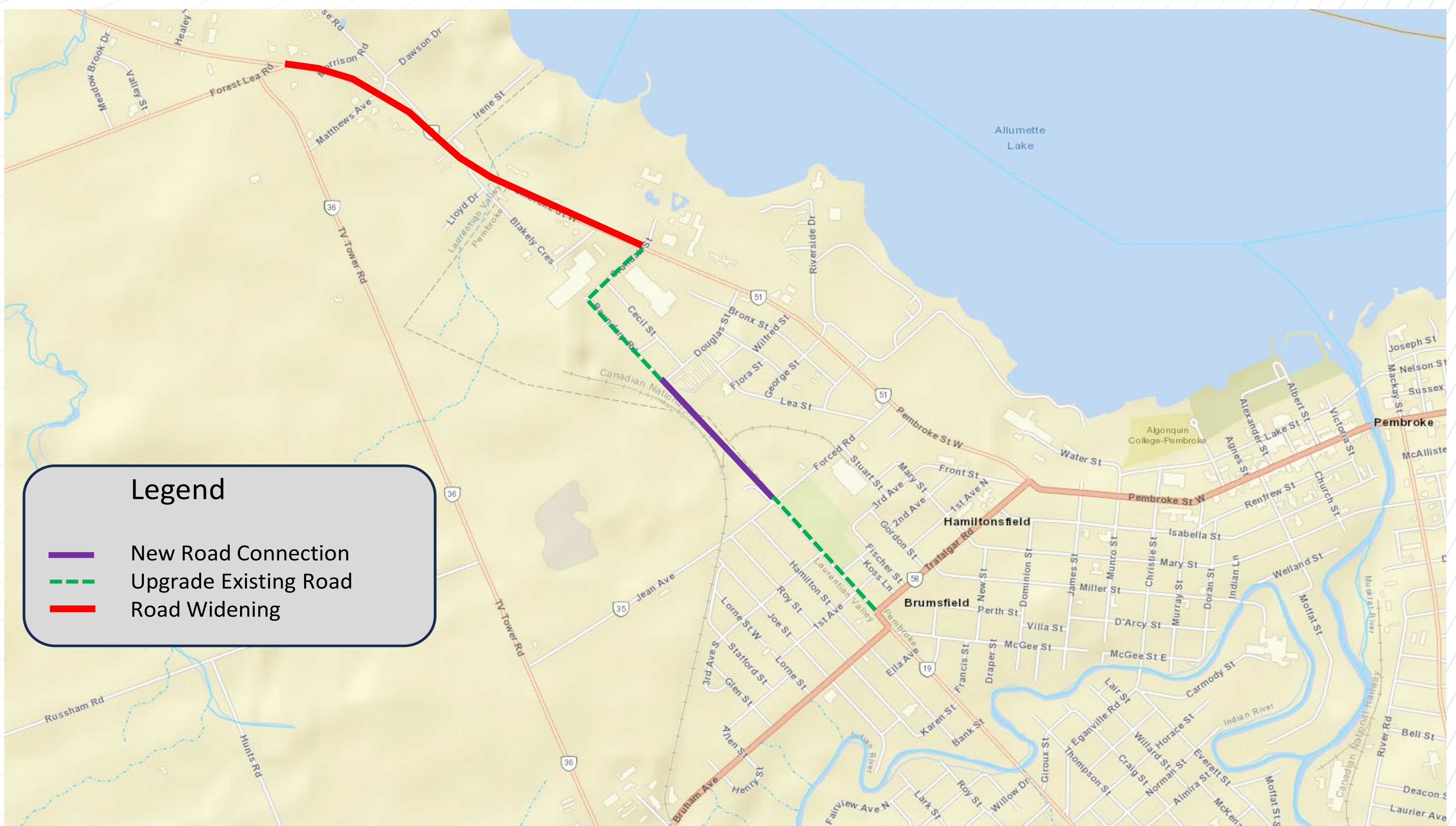
Criteria	Evaluation
Transportation	Improves congestion on Pembroke Street Significant increase in traffic on D'Youville Drive
Social	Neighbourhood impacts due to increased traffic (noise / safety)
Environmental	D'Youville Drive connection disturbs natural area Increased emissions through residential area
Economic	\$\$
Overall	RECOMMENDED - COMBINE WITH OTHER IMPROVEMENTS

FUTURE ROAD OPTIONS:

3) Boundary Rd Extension and Widening Pembroke St W

► Potential Improvements

- Extend Boundary Road East to connect to Boundary Road West
- Upgrade Boundary Rd West and Crandall Street to accommodate traffic
- Widen Pembroke St West to 4-5 lanes



► Evaluation

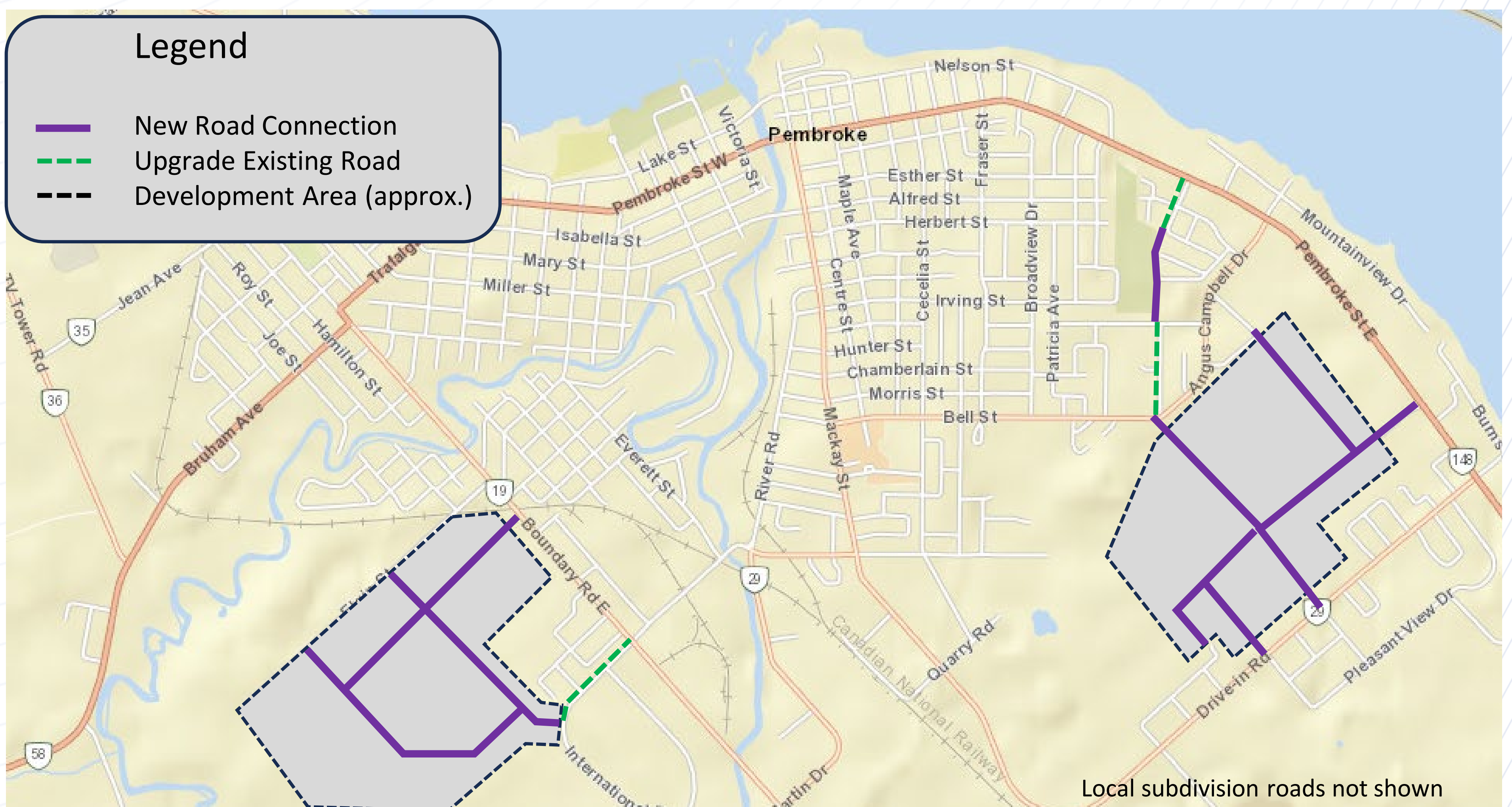
Criteria	Evaluation
Transportation	Draws traffic from TV Tower Road Congestion worse on Pembroke St W - east of Forced Road Increase in traffic on Boundary Road – may need widening
Social	Neighbourhood impacts due to increased traffic (noise / safety); Boundary Road extension impacts Algonquin Trail
Environmental	Boundary Road connection disturbs natural area Increased emissions through residential area
Economic	\$\$\$
Overall	NOT RECOMMENDED

FUTURE ROAD OPTIONS:

4) O'Brien St Connection

► Potential Improvements

- Connect O'Brien Street between Herbert Street and Melton Street
- Upgrade O'Brien Street
- Install new signals at Pembroke Street East
- New / upgraded roads in new development areas



► Evaluation

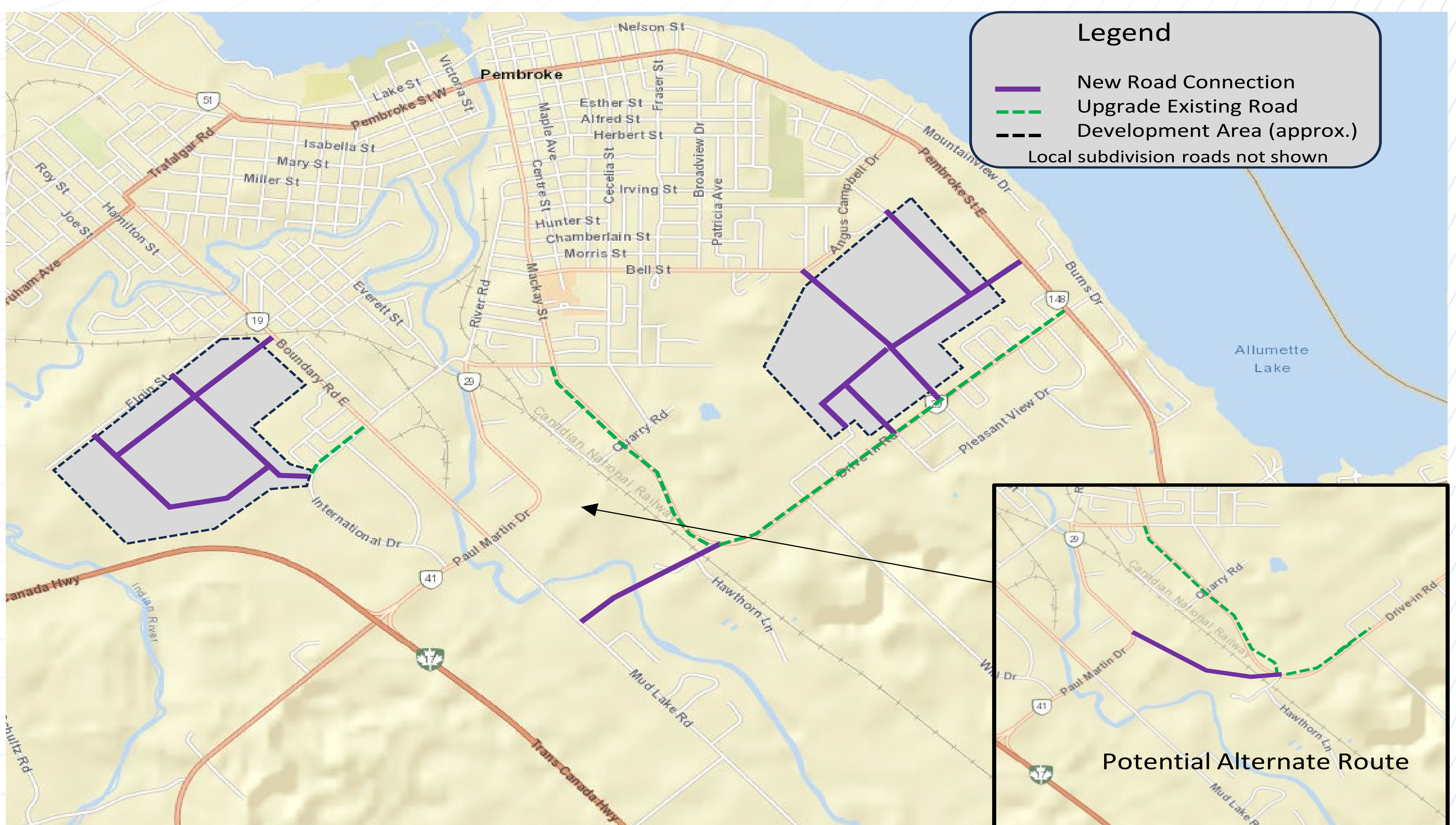
Criteria	Evaluation
Transportation	Provides alternate access to new development areas Limited benefit to Pembroke Street East
Social	Neighbourhood impacts due to increased traffic on O'Brien (noise / safety); Some reduction in traffic on Angus Campbell Drive / Bell Street
Environmental	O'Brien Street connection borders open space area Increased emissions through residential area
Economic	\$\$
Overall	NOT RECOMMENDED

FUTURE ROAD OPTIONS:

5) Local By-Pass Route

► Potential Improvements

- New County Road connection between Drive In Road and Mud Lake Road or Paul Martin Drive
- Upgrade Mackay Street and Drive In Road
- Install new signals at Hwy 148 (as planned by MTO)
- New / upgraded roads in new development areas
- Potential to act as local downtown by-pass



► Evaluation

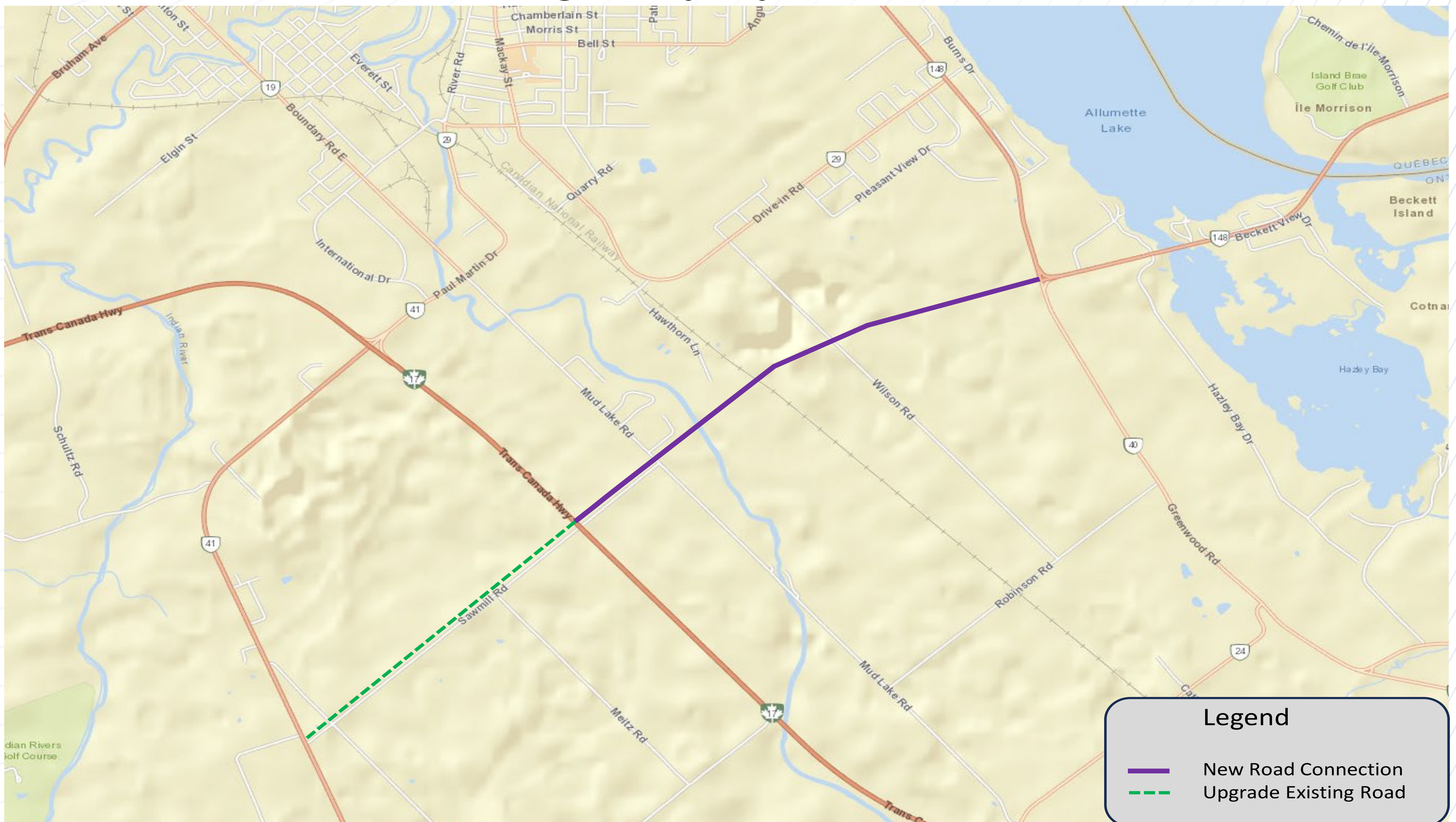
Criteria	Evaluation
Transportation	Provides alternate access to new development areas. Some minor benefit to Pembroke St East. Draws traffic away from Bell St / Angus Campbell Dr. Adds traffic to Boundary Rd E
Social	Requires crossing of CN Rail corridor (potential future trail) Reduction in traffic on Angus Campbell Drive / Bell Street
Environmental	New connection crosses open space area Potential new river crossing (depending on route)
Economic	\$\$ - \$\$\$ Potential impact to existing industrial lands (depending on route)
Overall	RECOMMENDED – COMBINE WITH OTHER IMPROVEMENTS

FUTURE ROAD OPTIONS:

6) MTO By-Pass Route

► Potential Improvements

- Upgrade Sawmill Road between Hwy 41 and Hwy 17
- New highway connection between Hwy 148 and Hwy 17 via Sawmill Rd
- New signals or roundabout at Hwy 17 and at Hwy 148
- Potential to act as highway by-pass



► Evaluation

Criteria	Evaluation
Transportation	Removes external through traffic / trucks from downtown; Modest benefit to Pembroke St E / Highway 148; Adds traffic to Mud Lake Rd and Boundary Rd – may need widening
Social	Requires crossing of CN Rail corridor (potential future trail) Reduction in traffic on local streets
Environmental	New connection crosses open space area Requires new river crossing (potential future interchange)
Economic	\$\$\$\$\$ By-pass of downtown may impact local businesses
Overall	NOT RECOMMENDED

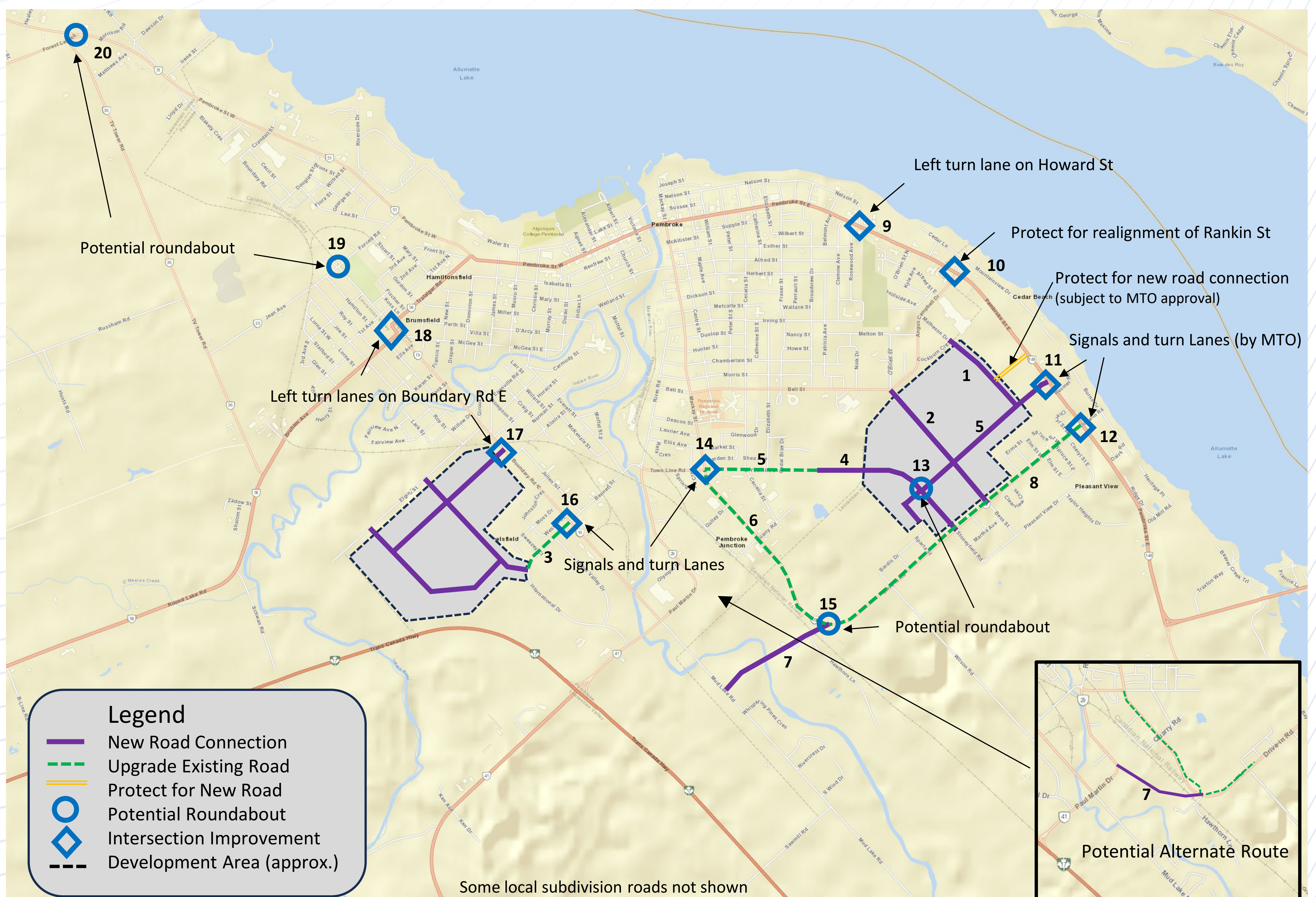
FUTURE ROAD NETWORK: Recommended Improvements

► Recommended Improvements

1. Connect Matheson Dr to Robinson Ln through development
2. Connect Drive In Rd and Angus Campbell Dr / Bell St to Drive In Road through development
3. Upgrade International Dr
4. Connect D'Youville Dr to Robinson Ln and Drive In Road through new subdivision road network
5. Upgrade D'Youville Dr and Robinson Ln to Collector Roads
6. Upgrade MacKay St (future traffic signals and turn lanes at D'Youville Dr)
7. New County Road connection from Drive In Rd to Mud Lake Rd / or Paul Martin Dr
8. Upgrade Drive In Rd – turn lanes at main intersections

► Intersection Improvements

9. Pembroke St E / Howard St – left turn lane on Howard St
10. Angus Campbell Dr / Rankin St – protect for future realignment of Rankin St
11. Highway 148 / Robinson Ln – Left turn lanes and upgrade signal (planned by MTO)
12. Highway 148 / Drive In Rd – Left turn lanes and new signal (planned by MTO)
13. D'Youville Dr / Robinson Ln – consider for future roundabout as part of development
14. D'Youville Dr / MacKay St – future signals and turn lanes
15. Drive In Road / MacKay St / New Road Connection – consider for roundabout
16. Boundary Rd E / International Dr – future turn lanes and new signals
17. Boundary Rd E at new subdivision access – left turn lane – potential future signals
18. Boundary Rd E at Bruham Ave / Trafalgar Rd – left turn lanes
19. Boundary Rd E / Forced Rd – consider potential roundabout
20. TV Tower Rd / Forest Lea Rd / Pembroke St W – consider potential roundabout



Transit and Active Transportation

Pembroke

- ▶ **City recently completed transit feasibility study**
 - Previous study recommended demand-responsive service covering whole city plus Walmart plaza
 - Council is considering financial implications
- ▶ **Walking and cycling :**
 - Compact nature of city means lots of trips are short enough for walking/cycling
 - City should prepare an Active Transportation Plan to identify new trail opportunities, potential cycling infrastructure and priorities for completing missing sidewalk links
 - The City should review and update existing trail crossing designs, pavement marking and signage

Laurentian Valley

- ▶ **Township is already developing an *Active Transportation and Trails Plan***
 - Examining infrastructure and policy needs for walking, cycling, trails, and related activities
 - Anticipated completion in early 2024
- ▶ **Consider partnership with Pembroke to provide transit beyond City boundary**

Policy Recommendations

▶ Roadway Classifications

- Laurentian Valley should adopt a refined roadway classification system and create design guidelines for township roads to better characterize their use and design parameters (such as Township Arterial, Township Collector, Township Local)
- Pembroke should consider the creation of design guidelines for City roads tied to the existing classification system

▶ Traffic Management

- New development will increase traffic on some existing roads
- Pembroke and Laurentian Valley should consider adopting policies and processes for reviewing requests for speed management / traffic calming on City and Township roads
- Pembroke and Laurentian Valley should develop a permissive truck route system to direct truck traffic to / from the provincial highway network and away from the downtown and local roads

▶ Highway 148 Corridor

- To facilitate future development approvals, the Township should investigate the feasibility of assuming Highway 148 from MTO under the connecting link program (Angus Campbell Drive to Drive In Road), after MTO has finished improvements

Next Steps

- ▶ **Consideration of feedback from public and stakeholders**
- ▶ **Prepare Study Report documenting:**
 - Study process
 - Analysis and findings
 - Option development and evaluation
 - Input received from consultation
 - Final recommendations
- ▶ **Draft recommendations presented to City and Township Councils for approval**

- ▶ **Interested in updates?** If you (or your agency or group) are interested in participating in the study or would like to be added to the contact list to receive future updates, please contact lvpembrokeTMP@ptsl.com or one of the Project Managers:

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Kevin Jones
Consultant Team Project Manager
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lvpembrokeTMP@ptsl.com

- ▶ **Visit the project web site**

www.lvtownship.ca/LVPembrokeTMP/

for additional information on the study and its progress