



AGENDA

Strategic Priorities Committee

August 17, 2021

9:00 am

Video Conference

Click the following link:

<https://www.youtube.com/channel/UCzuUpFqxcEl8OG-dOYKteFQ>

Pages

1. **CALL TO ORDER**
2. **DECLARATIONS OF PECUNIARY INTEREST**
3. **AMENDMENTS AND APPROVAL OF THE AGENDA**

RECOMMENDATION

THAT the August 17, 2021 Strategic Priorities Committee agenda be accepted as presented.

4. DELEGATIONS AND PRESENTATIONS

- 4.1. **Paradigm Transportation Solutions Ltd. re: Town of St. Marys
Comprehensive Parking Review**

4

Further details can be found in staff report DEV 32-2021 under "Strategic Priorities Review"

RECOMMENDATION

THAT the presentation from Paradigm Transportation Solutions Ltd. regarding the Town of St. Marys Comprehensive Parking Review be received.

5. STRATEGIC PRIORITIES REVIEW

5.1. DEV 32-2021 Recommendations: Comprehensive Parking Review Study

23

RECOMMENDATION

THAT DEV 32-2021 regarding Recommendations: Draft Comprehensive Parking Review Study be received;

THAT the Strategic Priorities Committee recommends to Council:

THAT Council direct staff to finalize the Comprehensive Parking Review with Paradigm Transportation Solutions Limited to be presented to Council for approval; and,

THAT Council direct staff to report back with an implementation plan, in particular showing how High Priority recommendations will be advanced and budgeted for.

5.2. PW 56-2021 Sidewalk Needs Assessment Update and Review

127

RECOMMENDATION

THAT PW 56-2021 Sidewalk Needs Assessment Update and Review report be received; and

THAT the Strategic Priorities Committee recommends to Council that:

THAT the 2020 Sidewalk Infrastructure Review be amended to change the “new sidewalk” prioritization approach to:

- Prefer “Large Scope” projects rather than annual “Small Scope Projects”;
- *(Council to include any other changes as they see fit and list below)*

THAT staff prepare the draft capital budget to show a large scope sidewalk project on Huron and Maxwell Streets within the 1-5 year priority window; and

THAT the 2021 Huron Street new sidewalk addition be included in the future large scope project.

5.3. PW 60-2021 East Ward Traffic Study

145

RECOMMENDATION

THAT PW 60-2021 East Ward Traffic Study report be received; and,

THAT the Strategic Priorities Committee Recommends to Council:

THAT Council direct staff to include a traffic study for the East Ward with a focus on Huron Street South, Waterloo Street South, and Maxwell Street to be considered in the 2022 budget deliberations.

5.4. PW 57-2021 Road Condition Assessment and Pavement Management Program

148

RECOMMENDATION

THAT PW 57-2021 Road Condition Assessment and Pavement Management Program be received; and

THAT the Strategic Priorities Committee recommends to Council:

THAT the following changes be proposed for the pavement management program, with a report back from staff on the implications of each:

- Service Level: The preferred Pavement Condition Index be targeted at _____.
- Funding Level:
- Prioritization Approach:

THAT the Town complete road condition assessments on a bi-annual basis to monitor condition trends and the effectiveness of investment strategies.

6. NEXT MEETING

All meetings of Council continue to be live streamed to the Town's YouTube channel until further notice.

September 21, 2021 - 9:00 am

7. ADJOURNMENT

RECOMMENDATION

THAT this meeting of the Strategic Priorities Committee adjourns at _____ pm.



Town of St. Marys

Comprehensive Parking Review

Presentation to Council
17 August 2021



Agenda

1. Study Purpose
2. Existing Conditions
3. Zoning By-law Review and Updates
4. Parking Permits
5. Enforcement
6. Municipal Parking Lots
7. Drive-Through Stacking
8. Design Guidelines
9. Official Plan Updates
10. Recommendations

Study Purpose



- ▶ Assess parking and loading standards relating to:
 - Supply requirements
 - Permitted exceptions
 - Contemporary specifications
- ▶ Review and update design guidelines and criteria for new development
- ▶ Assess and recommend changes to:
 - Permit parking system
 - Municipal parking lots

Existing Conditions

- ▶ Downtown Parking Inventory
 - 201 municipal on-street spaces
 - 109 municipal off-street (parking lot) spaces in 4 lots
- ▶ Overnight on-street parking is not permitted on any street within the Downtown Boundary
- ▶ Town does not have a formal parking cost recovery scheme, nor does it charge for parking



Existing Conditions



- ▶ Section 5 of Zoning By-law (ZBL) Z1-1997 outlines requirements related to:
 - Off-street parking and loading regulations
 - Parking location
 - Parking design
 - Parking space requirements for 45 land uses
 - Accessible parking space requirements
 - Loading space requirements

Zoning By-law Review



- ▶ Existing Zoning By-law (ZBL) is generally consistent with ZBLs of other Perth County Townships
- ▶ Townships' parking rates apply across the entire municipality
- ▶ Larger municipalities tend to have separate rates for different zones
- ▶ Larger municipalities can have lower parking rates due to alternate transportation options

Zoning By-law Updates

- ▶ The following are recommended:
 - Include/modify three land uses
 - Update two definitions
 - Update two rates
 - Amend visitor parking text
 - Include bicycle parking requirements
 - Clarify accessible parking locations



Parking Permit System



- ▶ Downtown Parking Permits:
 - Provides dedicated overnight parking for downtown residents
 - \$60 per year
- ▶ Opera House Parking Permits:
 - Reserved for residents of 6, 12, 26, 34 and 36 Water Street South
- ▶ Current parking lot time limit of 8 hours may not adequately accommodate longer-duration parking needs

Parking Permit System

► Recommendations

- Permanently relocate Farmer's Market to the Flats
- Maintain existing residential parking permit program
- Modify Town By-law to permit lot parking for up to 12 hours
- Explore opportunities for cash in lieu of parking
- Explore opportunities to increase permit parking supply





Enforcement

- ▶ On-street parking within the Town is enforced through two By-laws
- ▶ Dedicated enforcement officer formalized in early 2021
- ▶ Regular enforcement seeks to:
 - Deter and discourage parking beyond time limits
 - Improve parking supply efficiency

Enforcement



- ▶ Recommendations
 - Maintain a consistent enforcement program
 - Retain shorter on-street parking space time limits and longer municipal parking lot time limits
 - Ensure consistent and adequate time limit signage is installed throughout downtown core and in off-street lots
 - Consider a parking pricing strategy if enforcement is unsuccessful



Municipal Parking Lots

- ▶ 109 off-street spaces located within four lots
- ▶ Two lots offer permit parking with assigned spaces
- ▶ Minimal public parking is available at Opera House parking lot
- ▶ Opportunities exist for increasing supply
- ▶ Directional signage is a key component of a parking system

Parking Lot Upgrades:

1 - Jones St Lot

Future Municipal Lots:

2 – Millennium Park

3 – Lind Park

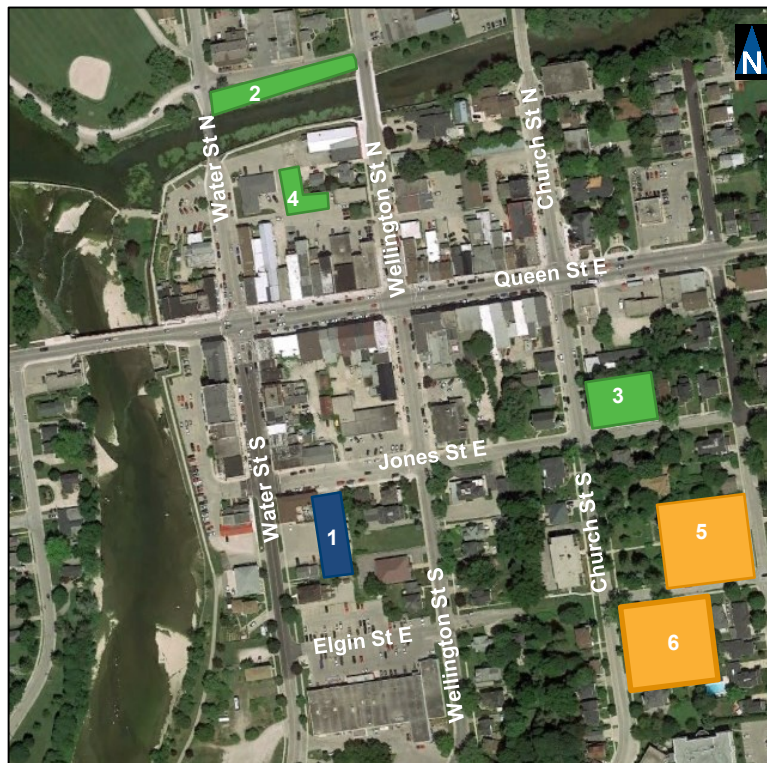
4 – Pump House /
Well #2

Private Agreements:

5 – St. James
Anglican Church

6 – St. Marys United
Church

Potential Future Parking Lots

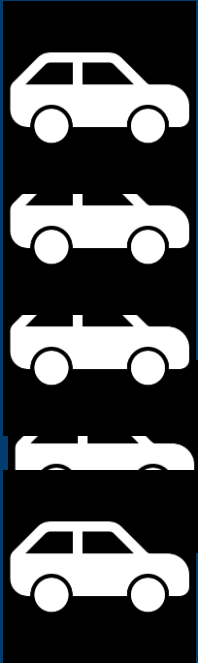


Municipal Parking Lots

► Main Recommendations

- Permanently relocate the Farmer's Market to the Flats
- Increase Jones Street Parking Lot time limit to 12 hours and complete upgrades
- Explore options to divest Opera House Parking Lot
- Formalize parking lot adjacent to pump house (Well #2)
- Provide "Green P" signage at key decision points
- Conduct yearly sign assessment





Drive-Through Stacking

- ▶ Most municipalities have stacking and queuing requirements outlined within the ZBL
- ▶ Town's ZBL should be updated to:
 - Adopt a minimum number of stacking spaces for select land uses
 - Adopt requirement for queuing study where needed
 - Adopt definitions for stacking lanes and stacking spaces
 - Adopt design guidelines to support drive-throughs
 - Reduce parking requirements at drive-throughs



Design Guidelines

- ▶ Driveway spacing can impact supply of on-street parking
- ▶ The Town's Engineering Guidelines provide information on driveway location, width and spacing
- ▶ Town's criteria are generally inline with Transportation Association of Canada (TAC) criteria
- ▶ Recommended updates:
 - Update driveway width to 8.0 metres (maximum)
 - Adopt driveway spacing of 6.0 metres where on-street parking is desired



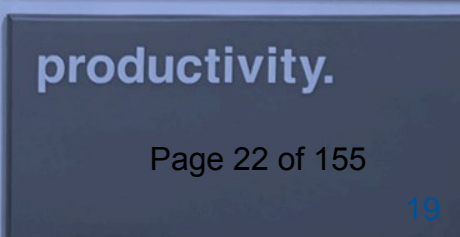
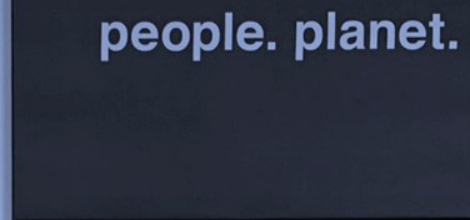
Official Plan Updates

- ▶ Official Plan (OP) provides adequate support for ZBL and outlines Town's parking policies
- ▶ OP should be amended to include requirement of a parking study as part of the Site Plan Application if the site will not comply with the ZBL requirements
- ▶ OP should be amended to require a queuing study as part of the Site Plan Application where:
 - The site will not comply with the ZBL stacking requirements, or
 - Where traffic volumes are ≥ 60 vehicles per hour

Recommendations



- ▶ Update the Official Plan, Zoning By-law and Design Guidelines to reflect the recommendations of the study
- ▶ Maintain a consistent enforcement program
- ▶ Monitor parking within the Downtown to ensure adequate parking supply and duration is provided
- ▶ Consider implementing a parking pricing strategy if time restrictions and enforcement are unsuccessful
- ▶ Officially set aside the identified future municipal parking locations



Questions

FORMAL REPORT

To:	Chair Stratthdee and Members of Strategic Priorities Committee
Prepared by:	Grant Brouwer, Director of Building and Development
Date of Meeting:	17 August 2021
Subject:	DEV 32-2021 Recommendations: Draft Comprehensive Parking Review

PURPOSE

On October 13, 2020 Council procured the services of Paradigm Transportation Solutions Limited to prepare a Comprehensive Parking Review. The purpose of this report is to provide Council with the findings of the draft Comprehensive Parking Review prepared by Paradigm Transportation Solutions and obtain feedback and direction from Council before finalizing the report.

RECOMMENDATION

THAT DEV 32-2021 regarding Recommendations: Draft Comprehensive Parking Review Study be received;

THAT the Strategic Priorities Committee recommends to Council:

THAT Council direct staff to finalize the Comprehensive Parking Review with Paradigm Transportation Solutions Limited to be presented to Council for approval; and,

THAT Council direct staff to report back with an implementation plan, in particular showing how High Priority recommendations will be advanced and budgeted for.

BACKGROUND

As the Town grows and development becomes more compact, there is a need to re-assess the Town's parking regulations and policies to ensure that sufficient parking is provided with new development and is designed in such a way to maintain public safety and minimize impacts on adjacent properties and neighbourhoods. Over the past few years, a variety of parking related issues have been identified by Council, Town committees and staff, the development industry and the community including:

- concerns with the parking space requirements in the Town's Zoning By-law (e.g., insufficient parking required for some uses);
- concerns with the supply and impact of on-street parking in residential areas;
- insufficient supply of parking in the downtown for businesses and new residential development (including for new accessory apartments in existing buildings); and,
- the need to review the Town's existing parking permit system and how parking regulations are enforced.

The Town's parking system is primarily regulated by the Zoning By-law, Traffic, Parking and Boulevard Maintenance By-law, and Engineering Design Guidelines. Given the range of issues identified, a review of each of these documents is required to address parking related issues in the Town.

REPORT

In 2020, the Town of St. Marys retained the services of Paradigm Transportation Solutions Limited (“Paradigm”) to complete a comprehensive parking review. The draft Comprehensive Parking Review is provided as Attachment 1 of this report and includes:

- An overview of the existing conditions;
- Best practice research;
- Zoning By-law Standards Revision;
- An assessment and recommendations for the following:
 - Parking permit system
 - Parking enforcement
 - Municipal Parking Lots
 - Drive-through stacking
 - Zoning By-law Definitions
 - Design Guidelines
 - Official Plan

The review is intended to address specific issues identified by the Town, including:

- Provision of adequate parking for all land uses, with a focus on residential uses and future needs;
- Enforcement practices;
- Employee parking accommodation;
- Insufficient drive-through stacking requirements; and,
- Official Plan updates required to support the study recommendations.

Paradigm has prepared its report and has provided thirty-six (36) recommendations for Council’s consideration. Please see **Attachment A: Comprehensive Parking Review Study**. The recommendations provided in the report are detailed below. Staff has indicated whether the recommendation is a:

- **High Priority** (2021-2022 implementation),
- **Moderate Priority** (2023-2025 implementation), and,
- **Low Priority** (Not recommended).

Table 1. Summarization of Study Recommendations and Proposed Priority Status

ITEM #	STUDY RECOMMENDATIONS	STAFF RECOMMENDATIONS
Section 1: Official Plan		
1.1	Amend Official Plan to add requirement of a parking study as part of the Site Plan Application if the site will not comply to the By-law parking requirements.	<p>High Priority</p> <p>Council should direct staff to include appropriate policies in the new Official Plan, as part of the ongoing Official Plan review project.</p>
1.2	Amend Official Plan to add requirement of a queuing study as part of the Site Plan Application if the site will not comply to the By-law stacking requirements.	<p>High Priority</p> <p>Council should direct staff to include appropriate policies in the new Official Plan, as part of the ongoing Official Plan review project.</p>
Section 2: Zoning By-law		
2.1	Update the Zoning By-law to include the new non-residential land uses and parking rates.	<p>High Priority</p> <p>Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.</p>
2.2	Adopt revised minimum vehicle parking rates.	<p>High Priority</p> <p>Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.</p>
2.3	Adopt the visitor parking rates.	<p>High Priority</p> <p>Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.</p>
2.4	Adopt minimum bicycle parking rates.	<p>High Priority</p> <p>Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.</p>
2.5	Adopt accessible parking requirements in accordance with the AODA.	<p>High Priority</p> <p>Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.</p>
2.6	Update the driveway definition in Section 5.21.4 of the Zoning By-law to permit parking on a driveway.	<p>High Priority</p> <p>Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.</p>
2.7	Amend the Zoning By-law to permit driveways up to 8.0 metres in width, or 60 percent of the lot width, in residential areas where lots are wider, higher parking ratios are required and tandem parking will not be permitted;	<p>High Priority</p> <p>Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.</p>
2.8	The Town adopt a minimum driveway spacing of 1.0 metre for residential driveways.	<p>High Priority</p> <p>Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.</p>
2.9	The Town adopt a minimum driveway spacing of 6.0 metres where on-street parking is desired.	<p>High Priority</p> <p>Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.</p>

ITEM #	STUDY RECOMMENDATIONS	STAFF RECOMMENDATIONS
Section 3: Permit Parking System		
3.1	Permanently relocate the Farmer's Market from the Jones Street lot to the Flats (Milt Dunnell Field).	<p>High Priority</p> <p>Collaborate with Farmer's Market and Corporate Services to finalize this relocation.</p> <p>2022 Capital Budget consideration to expand and improve surface area to accommodate additional parking.</p>
3.2	Reconstruct the Jones Street parking lot, install lighting, and provide pedestrian walkways connecting to the Elgin Street lot.	<p>High Priority</p> <p>2022 Capital Budget consideration to reconstruct Jones Street (including surface) install lighting and providing a pedestrian walkway connecting to Elgin Street Parking Lot.</p> <p>2022 Capital Budget consideration to improve surface condition of Elgin Street Parking Lot.</p>
3.3	Maintain the existing residential parking permit program and assign parking spaces in the Jones Street and Elgin Street lots.	<p>High Priority</p> <p>Permits are not being provided at the Jones Street Parking Lot, Jones Street permits to be offered in November of 2021.</p>
3.4	Modify the Town By-law to allow employees to use unassigned spaces in the Jones Street and Elgin Street lots for a period of up to 12 hours.	<p>High Priority</p> <p>Traffic and Parking By-law Amendment. Proposed Amendment is to be brought forward to Council for approval.</p>
3.5	Explore opportunities for cash in lieu of parking.	<p>Medium Priority</p> <p>Report back to Council regarding this matter to determine feasibility.</p>
3.6	Explore opportunities to increase the permit parking supply.	<p>Medium Priority</p> <p>Report back to council regarding this matter to determine feasibility and identify opportunities.</p> <p>Should the Jones Street Parking Lot expansion be approved, the Jones Street Parking Lot could accommodate existing and medium-term parking demands.</p>
Section 4: Parking Enforcement		
4.1	The Town install signs throughout the downtown core, indicating time restrictions, and user type (e.g., accessible, loading zone) for on-street parking spaces where not currently provided.	<p>High Priority</p> <p>Inventory of existing signage in the Downtown and then proceed with a plan for procuring additional signage as the operational budget permits.</p>
4.2	The Town clearly post time restrictions in off-street parking lots advertising the longer durations.	<p>High Priority</p> <p>Inventory of existing signage in the Downtown and then proceed with a plan for procuring additional signage as the operational budget permits.</p>
4.3	The Town maintain a consistent enforcement program to monitor parking in all areas.	<p>High Priority</p>

ITEM #	STUDY RECOMMENDATIONS	STAFF RECOMMENDATIONS
		<p>Collaboration between the Public Works Department By-law Enforcement Officers, and Stratford Police to create a parking enforcement program.</p> <p>Note: On page 10 of the report, the Consultant notes that prior to 2021 the Town did not have dedicated parking enforcement staff, and now does. For clarification, the Director of Public Works and Public Works Supervisor have been appointed By-law Enforcement Officers and can now enforce By-law 58-2018 Traffic and Parking By-law. The Town no longer solely relies on the Stratford Police for parking enforcement activities.</p>
4.4	The Town consider a parking pricing strategy if time restrictions and enforcement are not successful in mitigating identified downtown parking concerns.	<p>Medium Priority</p> <p>Address Items 4.1, 4.2 and 4.3 before considering 4.4.</p>
Section 5: Municipal Parking Lots		
5.1	The Town encourage the Canadian Tire/Foodland property to locate employee parking in the rear parking lot off Wellington Street South, to the rear of the building.	<p>Medium Priority</p> <p>Continue to monitor use of the Elgin Street Parking Lot. As required, engage with 84 Wellington Street re: employee parking.</p>
5.2	The Farmer's Market is permanently relocated from the Jones Street Lot to the Flats (Milt Dunnell Park). This would permit overnight parking in the Jones Street lot and create additional inventory.	<p>High Priority</p> <p>As provided in Item 3.1.</p>
5.3	Increase the Jones Street parking lot time limit to 12 hours to permit downtown employee and overnight resident parking.	<p>High Priority</p> <p>As provided in Item 3.4.</p>
5.4	The planned upgrades to the Jones Street lot are completed.	<p>High Priority</p> <p>As provided in 3.2.</p>
5.5	The Town explore options to divest the Opera House Parking Lot.	<p>Medium Priority</p> <p>Continue to work with relevant stakeholders.</p>
5.6	A parking lot is formalized in the area adjacent to the pump house known as Well #2. This lot could be included as part of the permit program.	<p>Medium Priority</p> <p>Increase capacity at Jones Street, and then re-evaluate supply and demand for parking permit program.</p>
5.7	Directional signage is installed at key decision points south of the Downtown Boundary.	<p>Medium Priority</p> <p>Use Wayfinding Study recommendations to achieve this recommendation. Dependent on costs, operational or capital funds will be required.</p>
5.8	The Town undertake yearly assessments of parking signage to ensure signs meet minimum standards for readability.	<p>High Priority</p> <p>Incorporate into annual sign reflectivity inspection.</p>
Section 6: Drive-Through Stacking		

ITEM #	STUDY RECOMMENDATIONS	STAFF RECOMMENDATIONS
6.1	Modify Section 3.13 (Automobile Washing Establishment) of the Town's existing Zoning By-law and remove the requirement for queuing spaces.	High Priority Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.
6.2	Adopt definitions for stacking lanes and stacking spaces.	High Priority Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.
6.3	Adopt a minimum number of stacking spaces for select land uses.	High Priority Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.
6.4	Adopt a requirement for a queuing study for all drive through applications.	High Priority Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.
6.5	Adopt design guidelines to support the design of drive-through facilities.	High Priority Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.
6.6	Consider a reduction in the number of required parking spaces for sites that include a drive through facility.	High Priority Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.
6.7	Update the Zoning By-law to adopt the recommended stacking provisions.	High Priority Council should initiate a Town-wide Amendment to the Zoning By-law to implement this recommendation.
Section 7: Staff Identified (Not Included in Report)		
7.1	The Town review cross sections to determine if additional informal parking could be achieved in residential driveways	Medium Priority Significant design review needs to be completed.
7.2	Work with the Finance Department to identify and track costs related to the Municipal Parking Lots to determine overall operational costs and reconsider the cost of a parking permit.	Medium Priority Begin tracking costs associated with Municipal Parking Lots, and then review existing permit fees.

FINANCIAL IMPLICATIONS

Various implications dependent on the recommendation.

SUMMARY

Following the Council's consideration of the preliminary recommendations in the draft Comprehensive Parking Review Study and the staff recommendations in this report, it is recommended that Council direct staff to work with Paradigm to finalize the report and an implementation plan for presentation to Council as soon as possible.

STRATEGIC PLAN

☒ Not applicable to this report.

OTHERS CONSULTED

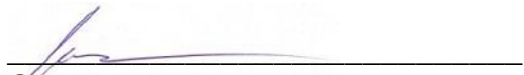
Town of St. Marys Development Team

ATTACHMENTS

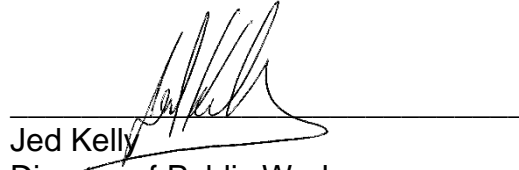
Attachment A: Comprehensive Parking Review by Paradigm Transportation Solutions Ltd.

REVIEWED BY

Recommended by the Department

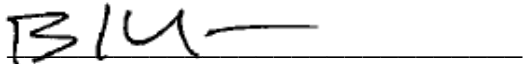


Grant Brouwer
Director of Building and Development



Jed Kelly
Director of Public Works

Recommended by the CAO



Brent Kittmer
Chief Administrative Officer



Town of St. Marys Comprehensive Parking Review

Paradigm Transportation Solutions Limited
July 2021
200428



DRAFT

Project Summary



Project Number
200428

Town of St. Marys Comprehensive Parking Review

July 2021

Client

Town of St. Marys
408 James Street South
P.O Box 998
St. Marys ON N4X 1B6

Client Contact

Grant Brouwer, CBCO
Director of Building and
Development (CBO)

Consultant Project Team

Jill Juhlke, C.E.T.
Andrew Steinsky, P.Eng.

A handwritten signature in dark ink, appearing to read "Juhlke", is placed over a large, light gray "DRAFT" watermark that is oriented diagonally across the page.

Jill Juhlke, C.E.T.

Disclaimer

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Paradigm Transportation Solutions Limited

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Version 1.0.0

Executive Summary

Content

Paradigm Transportation Solutions Limited (Paradigm) has been retained by the Town of St. Marys (the Town) to undertake a comprehensive review of its Zoning By-law parking requirements as well as permit parking, parking enforcement and the broader municipal parking supply. The review includes an assessment of parking and loading standards relating to supply and permitted exceptions and provide recommendations on more contemporary provisions.

Recommendations

Based on the reviews completed herein, the following is recommended:

Zoning By-law

- ▶ Update the Zoning By-law to include the new non-residential land uses and parking rates;
- ▶ Adopt revised minimum vehicle parking rates as contained herein;
- ▶ Adopt the visitor parking rates contained herein;
- ▶ Adopt minimum bicycle parking rates as contained herein; and
- ▶ Adopt accessible parking requirements in accordance with the AODA.

Permit Parking System

- ▶ Permanently relocate the Farmer's Market from the Jones Street lot to the Flats (Milt Dunnell Field);
- ▶ Reconstruct the Jones Street parking lot, install lighting, and provide pedestrian walkways connecting to the Elgin Street lot;
- ▶ Maintain the existing residential parking permit program and assign parking spaces in the Jones Street and Elgin Street lots;
- ▶ Modify the Town By-law to allow employees to use unassigned spaces in the Jones Street and Elgin Street lots for a period of up to 12 hours;
- ▶ Explore opportunities for cash in lieu of parking; and
- ▶ Explore opportunities to increase the permit parking supply.



Parking Enforcement

- ▶ The Town install signs throughout the downtown core, indicating time restrictions, and user type (e.g., accessible, loading zone) for on-street parking spaces where not currently provided;
- ▶ The Town clearly post time restrictions in off-street parking lots advertising the longer durations;
- ▶ The Town maintain a consistent enforcement program to monitor parking in all areas; and
- ▶ The Town consider a parking pricing strategy if time restrictions and enforcement are not successful in mitigating identified downtown parking concerns.

Municipal Parking Lots

- ▶ The Town encourage the Canadian Tire/Foodland property to locate employee parking in the rear parking lot off Wellington Street South, to the rear of the building;
- ▶ The Farmer's Market is permanently relocated from the Jones Street Lot to the Flats (Milt Dunnell Park). This would permit overnight parking in the Jones Street lot and create additional inventory;
- ▶ Increase the Jones Street parking lot time limit to 12 hours to permit downtown employee and overnight resident parking;
- ▶ The planned upgrades to the Jones Street lot are completed;
- ▶ The Town explore options to divest the Opera House Parking Lot;
- ▶ A parking lot is formalized in the area adjacent to the pump house known as Well #2. This lot could be included as part of the permit program;
- ▶ Directional signage is installed at key decision points south of the Downtown Boundary; and
- ▶ The Town undertake yearly assessments of parking signage to ensure signs meet minimum standards for readability.

Drive-Through Stacking

- ▶ Modify Section 3.13 (Automobile Washing Establishment) of the Town's existing Zoning By-law and remove the requirement for queuing spaces;
- ▶ Adopt definitions for stacking lanes and stacking spaces as contained herein;



- ▶ Adopt a minimum number of stacking spaces for select land uses as defined herein;
- ▶ Adopt a requirement for a queuing study for all drive through applications;
- ▶ Adopt design guidelines to support the design of drive-through facilities;
- ▶ Consider a reduction in the number of required parking spaces for sites that include a drive through facility; and
- ▶ Update the Zoning By-law to adopt the recommended stacking provisions.

Zoning By-law Definitions

- ▶ Update the driveway definition in Section 5.21.4 of the Zoning By-law to permit parking on a driveway.

Design Guidelines

- ▶ The Town amend the Zoning By-law to permit driveways up to 8.0 metres in width, or 60 percent of the lot width, in residential areas where lots are wider, higher parking ratios are required and tandem parking will not be permitted;
- ▶ The Town adopt a minimum driveway spacing of 1.0 metre for residential driveways; and
- ▶ The Town adopt a minimum driveway spacing of 6.0 metres where on-street parking is desired.

Official Plan Update

The Official Plan should be amended to include the following:

- ▶ Requirement of a parking study as part of the Site Plan Application if the site will not comply to the By-law parking requirements; and
- ▶ Requirement of a queuing study as part of the Site Plan Application if the site will not comply to the By-law stacking requirements.



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1 Introduction

1.1 Background and Scope

The Town of St. Marys (the Town) retained Paradigm Transportation Solutions Limited (Paradigm) to undertake a comprehensive review of parking within the Town and provide recommendations on supply rates, permitted exceptions, future parking opportunities and the permit parking program.

The review includes:

- ▶ An overview of the existing conditions;
- ▶ Best practice research;
- ▶ Zoning By-law Standards Revision;
- ▶ An assessment and recommendations for the following:
 - Parking permit system
 - Parking enforcement
 - Municipal Parking Lots
 - Drive-through stacking
 - Zoning By-law Definitions
 - Design Guidelines
 - Official Plan

1.2 Study Purpose

The review will address the specific challenges identified by the Town at the study outset, including:

- ▶ Provision of adequate parking for all land uses, with a focus on residential uses and future needs;
- ▶ Enforcement practices;
- ▶ Employee parking accommodation;
- ▶ Insufficient drive-through stacking requirements;
- ▶ Design guidelines that may not promote best practices; and
- ▶ Official Plan updates required to support the study recommendations



2 Existing Conditions

2.1 Downtown Parking Inventory

2.1.1 Municipal Parking (On-Street)

Paradigm staff completed a site visit in November 2020 to document the existing on-street parking supply in the Downtown Boundary area bounded by Jones Street, Peel Street South, and the Thames River. A total of 201 parking spaces are currently provided, including five accessible parking spaces.

Error! Reference source not found.1 illustrates the Downtown Boundary, as defined in Schedule 4 of By-law 58-2018. Parking is prohibited on any Town street between 2:00 AM and 6:00 AM between November 1 and April 30. Between May 1 and October 31, overnight parking is available on any street, except for the downtown area where overnight parking is prohibited year round.

2.1.2 Municipal Parking (Off-Street)

The Town owns and operates three municipal lots containing a total of 109 spaces:

- ▶ Water Street North (16 spaces);
- ▶ Jones Street East (32 spaces); and
- ▶ lot on the north side of Elgin Street East, across from the Canadian Tire (57 spaces).

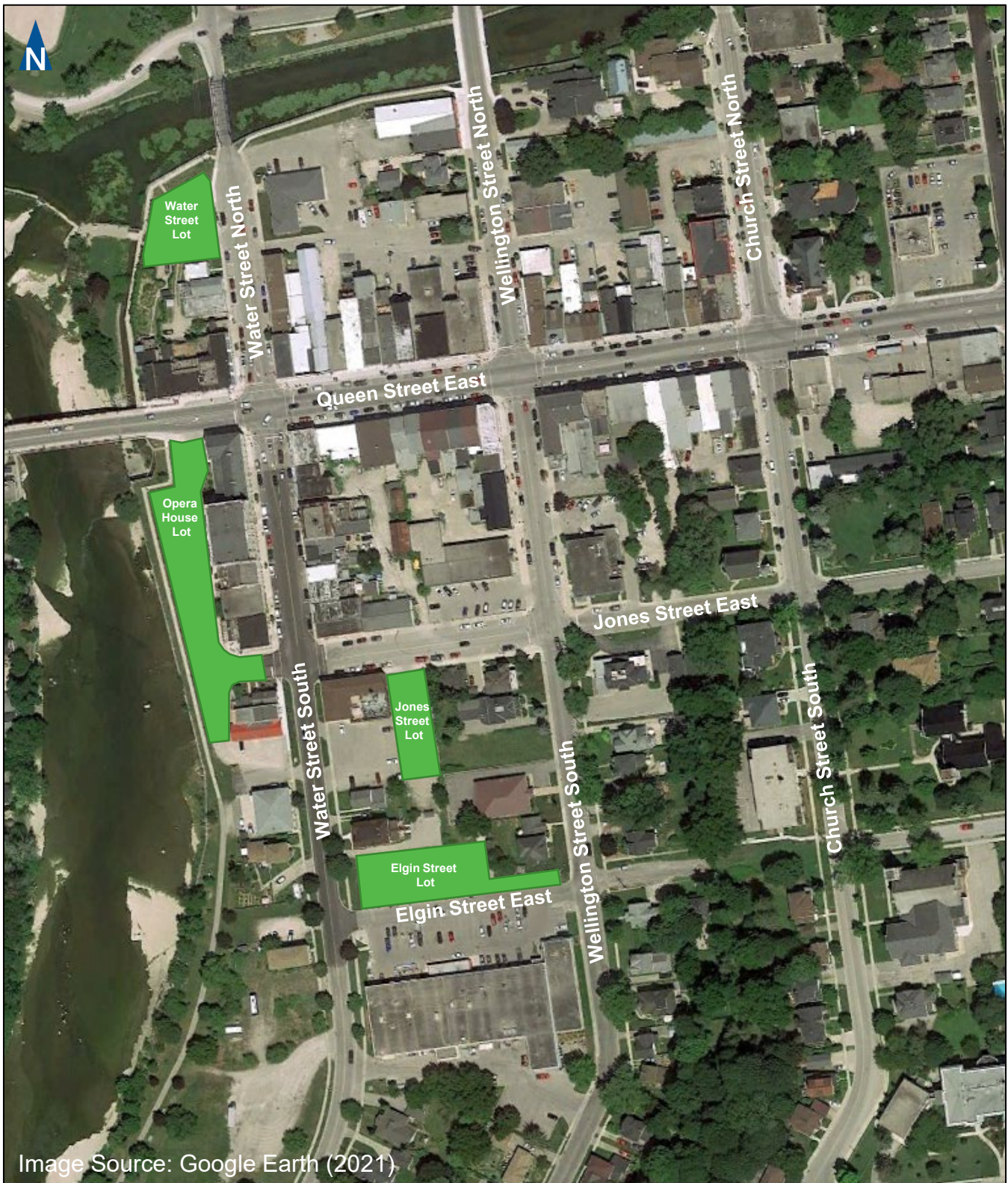
The Town also has four parking spaces in the Opera House parking lot on the southwest corner of Queen Street West and Water Street South.

Figure 2.2 illustrates the location of the municipal parking lots.





Town of St. Marys Downtown Boundary



Town of St. Marys Municipal Parking Lots

Town of St. Marys Comprehensive Parking Review
200428

Figure 2.2

2.2 Zoning By-law Parking Requirements

2.2.1 Off-Street Parking

Section 5 (General Provisions) of the Town's *Zoning By-law Z1-1997*¹ (ZBL) outlines the requirements related to all manners of off-street parking and loading including regulation, location, and design. The following sections are specifically related to this assignment:

- ▶ Section 5.21 (Parking Area and Space Requirements) states, "the owner of every building or structure erected or used for a purpose permitted by this By-law shall provide and maintain for the sole use of the owner, occupant, or other persons entering upon or making use of said premises from time to time parking areas and spaces in accordance with the following provisions:" (which are outlined in detail in the successive sections).
- ▶ Section 5.21.5 (Parking Space Access) states, "Tandem parking shall be permitted for a single detached dwelling, for one unit of a semi-detached dwelling, street front townhouse dwelling, and for bed and breakfast establishments."
- ▶ Section 5.21.1.1 (Parking Requirements) outlines the required minimum parking space provisions for land uses as identified by the Town (maximum provisions are not outlined). The rates are unique and specific to each land use. All rates are inclusive of the primary land use requirement and any visitor parking requirement.

Table 2.1 summarizes the Town's existing off-street parking requirements by land use.

Appendix A contains Section 5 of the Town's Zoning By-law.

¹ Town of St. Marys. *Zoning By-law No. Z1.1997*. Consolidated through to 14 December 2018.



TABLE 2.1: EXISTING (OFF-STREET) BY-LAW PARKING REQUIREMENTS

Type of Use	Number of Spaces
Single detached, semi-detached, duplex and converted	2 per dwelling unit
Fourplex, Row or Townhouse, and Triplex dwellings	1.5 per dwelling unit
Apartment dwelling unit and other multiple unit dwellings	1.25 per dwelling unit
Accessory dwellings, or accessory apartments	1 per dwelling unit
Bed and breakfast establishment	2 per dwelling unit plus 1 per guest room for rent
Group home dwellings	2 per dwelling unit plus 1 per 4 group home residents
Home for the aged	1 per 6 beds, plus 1 per 3 employees on the largest shift
Nursing home dwellings	1 per 4 beds plus 1 per 3 employees on the largest shift
Assembly Hall, Community Centre, Area, Theatre	1 per 5 seats or 3 metres of bench of maximum seating capacity, or 1 per 230 square metres of playing field area where no seating exists
Automobile repair establishment, automobile service station, automobile sales and service establishment	4 plus 1 per repair bay, plus 1 per 2 employees
Bowling establishment	3 per bowling lane
Business or Professional Office	1 per 20 m ² of gross floor area
Clinic, Animal Clinic, Medical	5 per practitioner
Church	1 per 4 persons of maximum designed capacity of the sanctuary



Type of Use	Number of Spaces
Day Nursery	1 per 40 m ² of gross floor area
Eating establishment, restaurant, tavern	1 per 4 persons of maximum designed capacity
Eating establishment, take-out	6 plus 1 per 4 persons of maximum designed capacity
Hospital	1 per four beds, plus 1 per three employees
Hotel or Motel	1 per 2 employees, plus 1 per guest room
Industrial establishment (largest shift, including office staff)	1.25 per employee
Retail store, department store, personal service shop	1 per 30 m ² of retail and/or customer service floor area
School, Elementary	The greater of 1.5 per classroom, or 1 per 3 square metres of auditorium assembly area
School, Secondary	The greater of 5 per classroom or 1 per 3 square metres of auditorium assembly area
Sport Field	The greater of: (i) 1 per 5 seats or 3 metres of bench space of maximum permanent seating capacity, or (ii) 1 per 250 m ² of gross field area where no seating exists
Supermarket, grocery store	1 per 10 m ² of retail floor area
Wholesale establishment	1 per 55 m ² of retail floor area
Other Uses	1 per 40 m ² of gross floor area



2.2.2 Accessible Parking

Section 5.21.1.2 (Accessible Requirements) outlines the design criteria for accessible spaces and provides the ratio of required accessible parking spaces which is based on the total number of required automobile parking spaces.

Section 5.21.5 (Parking Space Access) states that *“the parking requirements for person with disabilities as contained in Section 5.21.15 do not apply for single-detached dwellings, semi-detached dwellings, duplex dwellings, street front townhouse dwellings, and converted dwellings (to a maximum of two dwellings)”*.

For both off-street parking spaces and accessible parking spaces, the total number of parking spaces shall be rounded up to the nearest whole number, when the application of the parking requirements results in a fraction of a whole number.

Table 2.2 summarizes the accessible parking space requirements.

TABLE 2.2: ACCESSIBLE PARKING SPACE REQUIREMENTS

Number of Automobile Parking Spaces	Number of Designated Accessible Parking Spaces
1-25	1
26-50	2
51-100	3
101-150	4
151-200	6
201 or greater	6 plus 2% of the total number of spaces over 201

2.2.3 Loading Spaces

Section 5.12 Loading Space Requirements of the ZBL requires the provision of loading spaces *“where a building or structure is erected or used for a commercial or industrial use involving the receiving, shipping, loading, or unloading of goods, wares, merchandise, raw materials, or animals.”* The parking space requirements are based on gross floor area (in square metres).

Error! Reference source not found. **Table 2.3** summarizes the loading space requirements.

TABLE 2.3: LOADING SPACE REQUIREMENTS

Gross Floor Area (square metres)	Number of Spaces
Less than 500	0
500 to 4000	1
4001 to 10,000	2, Plus 1 for each additional 10,000 m ² of gross floor area or fraction thereof

2.3 Parking Practices and Strategies

2.3.1 Parking Permits

The Town provides residents with the option to purchase one of two parking permits:

- ▶ **Downtown Parking Permit:** intended for residents who reside in downtown St. Marys and do not have overnight parking. The Downtown Parking Permit provides the holder with a dedicated parking spot in the Water Street North or Elgin Street East parking lot. The cost of the permit is \$60.00 per year plus HST.
- ▶ **Opera House Parking Lot Permit:** reserved for residents at 6, 12, 26, 34 and 36 Water Street South. The Opera House Parking Lot Permit provides the holder with overnight parking in the lot on the southwest corner of Water Street South and Queen Street East.

2.3.2 Enforcement

On-street parking within the Town is enforced through By-laws 58-2018 and 59-2019. These By-laws dictate that:

- ▶ Parking is not permitted on any street between 2:00 AM and 6:00 AM from November 1 to April 30;
- ▶ Between May 1 and October 31, on-street parking is permitted on any street where existing parking restrictions are not in-force; and
- ▶ Overnight street parking is prohibited year-round within the Downtown Boundary (**Figure 2.1**).

Prior to 2021, the Town did not have dedicated parking enforcement staff. Instead, they responded on as-needed basis with occasional assistance from the Ontario Provincial Police. In early 2021, the Town formalized the program through provision of a dedicated enforcement officer.

2.3.3 Cost Recovery

The Town does not currently have a formal parking cost recovery scheme, nor does it charge for parking. The costs of supplying, maintaining and operating parking are offset through the sale of parking permits as described in **Section 2.3.1** and the issuance of parking tickets in accordance with By-laws 58-2018 and 59-2019.

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3 Research

3.1 Best Practice Research

The following sections describe the current parking and Transportation Demand Management (TDM) practices in other townships and cities in Ontario. They are presented as support for creative initiatives in the pursuit of reducing the overall supply of parking and the number of single occupancy vehicles on the transportation network. These best practices include changes in parking rates (minimums and/or maximums), shared parking opportunities, bicycle parking requirements, strategies such as pricing and enforcement, and considerations for electric vehicles (EVs) and autonomous vehicles (AVs).

3.1.1 Maximum Parking Requirements

Many of the parking requirements listed in municipal Zoning By-laws are based on minimums. The Urban Land Institute² notes a trend among some jurisdictions to forgo minimum parking requirements in favour of maximum parking requirements.

The implementation of parking maximums does not eliminate the need to provide a minimum number of parking spaces but rather is intended to provide the “right-sized” number of parking spaces. The City of Kitchener has recently removed most minimum requirements from their Zoning By-law and replaced them with maximum parking requirements for most land uses, especially in downtown areas of the City. For example, the City of Kitchener stipulates a minimum of 0.9 spaces per dwelling unit, and a maximum of 1.3 spaces per dwelling unit for multiple residential buildings in a MIX zone.

Maximum parking requirements also do not eliminate the provision of off-street parking spaces, but rather provide flexibility on the ultimate number of spaces. The shift to maximum parking requirements can also limit the amount of land required for parking needs, thus enabling more land to remain available for either additional development or public facilities such as parks.

3.1.2 Shared Parking

Data available from the Urban Land Institute provides an objective assessment of the temporal nature of parking demand in mixed-use

² Smith, Mary S. *Shared Parking (3rd Edition)*. Washington, D.C. Urban Land Institute, ICSC, and National Parking Association. 2020.



situations. These data show that throughout the typical day, each land use varies in the temporal peak demand for parking:

- ▶ Residential parking typically reduces during the daytime hours when residents are off-site;
- ▶ Visitor parking is generally very low throughout the day, peaking in the late evening; and
- ▶ Commercial parking demands are typically highest during business hours.

This information is important because it reflects the notion that certain user groups can share the same parking space, albeit at different times, without requiring separate parking for each cohort. Within the context of the Town of St. Marys, mixed land uses, such as apartments above stores, in the urban core may be capable of sharing parking if the peak demands of the land uses do not align with one another.

Existing Zoning By-laws, such as those in the City of Kitchener and in the City of Toronto, permit a reduction in the parking supply through shared parking. The City of Toronto's Zoning By-law provides peak AM, PM and evening occupancy rates. The parking requirement is calculated in two steps:

- ▶ Step 1: Calculate the minimum number of required parking spaces for each land use and respective occupancy rate; and
- ▶ Step 2: Calculate the total minimum required parking spaces for each period (e.g., AM, PM, and Evening); and
- ▶ Step 3: The minimum number of parking spaces for all uses on the lot is equal to the largest number of parking spaces required for any period (e.g., AM, PM, or evening).

Conversely, the City of Kitchener Zoning By-law includes a multi-unit parking rate for mixed-use developments where a minimum of three or more separate non-residential spaces (units) are for lease, in combination with residential uses on a lot. Under these circumstances, parking is provided for the non-residential uses and visitor parking spaces are not required for the residential uses. In addition, all parking spaces are shared between uses and unassigned.

3.1.3 Bicycle Parking

Although parking is generally only considered for personal vehicles, the provision of bicycle parking facilities can potentially increase the number of trips by bike, which can reduce the number of trips by personal vehicle, thereby reducing the demand for both on-street and off-street vehicle parking.

Several municipalities within Ontario include bicycle parking requirements in their Zoning By-law, including the City of Toronto, City of Hamilton, and City of Kitchener. None the municipalities nearby in Perth County or the City of Stratford include bicycle parking requirements in their respective Zoning By-laws.

Although bicycle parking spaces can reduce trips by personal vehicles, the provision of minimum bicycle parking requirements in these By-laws is not intended to replace vehicle parking requirements. Rather, their inclusion considers parking demands of alternate modes to and from a development. Additionally, some Zoning By-laws consider a reduction in vehicle parking spaces when the onsite bicycle parking provision meets or exceeds the By-law required amount.

Additionally, for bike parking to be successful, supporting cycling facilities such as bike lanes or multi-use trails located adjacent to or near bike parking are needed. At present, dedicated on-street cycling facilities are not provided within the Town of St. Marys; however, dedicated trails and many low-speed local streets provide fully separated and shared cycling and walking environments. It is important to include bicycle parking rates within the By-law update so when cycling facilities are provided in the future, the ratios are clearly outlined.

3.1.4 Pricing

Parking pricing strategies vary among municipalities with some providing dedicated municipal parking lots (paid or free), on-street parking (paid or free), or free parking at all times regardless of location. In general, a combination of pricing structures is in place to accommodate a larger user base.

The City of Stratford uses a combination of free parking lots, time limited parking lots, and metred or free on-street parking within its core (downtown) area. The parking strategy is partially dynamic such that spaces closest to the urban core offer the shortest time limits (i.e., 4-hour maximum) and require payment. The combination of payment and short time limits encourages turnover and seeks to prevent employees or visitors from tying up valuable parking spaces.

Parking spaces further from the downtown core have longer time limits (i.e., 12 hour) or no time limits altogether and is generally free.

This dynamic structure of the pricing system enables the municipal parking supply to respond to parking demands. It also lets users individually determine what value they place on parking near downtown destinations. Users who do not want to, or refuse to pay for

parking are provided free parking, but must forgo parking close to their destination. Other users may decide paying for parking is worth the cost of being closer to their destination.

Providing free parking near, but not in, the downtown core also provides a place for employees to park while saving the downtown parking spaces for customers and visitors.

In Stratford, on-street parking costs \$1.50 per hour and off-street parking costs \$1.25 per hour. Similar to the design of the time limits, the higher value is placed on the convenient on-street parking spaces. In addition, the hours when payment is required vary by day of week and time of year:

- ▶ April 1 to October 31: 9:00 AM to 8:00 PM; and
- ▶ November 1 to March 31: 9:00 AM to 6:00 PM.

Sundays and holidays are always excluded from payment. Overnight on-street parking is not permitted at any time.

3.1.5 Electric Vehicles

The onset and continued development of electric vehicles (EVs) will likely increase the demand for vehicle charging facilities across the Town. Although EV charging facilities can be provided at residential buildings, expansion of EV charging stations to non-residential locations (office, retail) can decrease concerns of limited driving range.

The City of Kitchener's Zoning By-law requires 15% of non-residential parking spaces to support the future installation of electric vehicle supply equipment. In addition, a minimum of 5% of non-residential parking spaces shall be electric vehicle parking spaces from the date of construction. For multiple dwelling units (not including street townhouses, mixed-use buildings, or cluster townhouse dwellings) a minimum of 20% of the parking spaces shall be designed to permit the future installation of electric vehicle supply equipment.

3.1.6 Autonomous Vehicles

Autonomous vehicles (AVs) represent a new type of vehicle which is becoming more predominant as automotive manufacturers introduce AVs in their lineup. The Society of Automotive Engineers (SAE) International defines six levels of vehicle automation from zero (no automation) to five (full automation). Levels 1 to 3 are considered steppingstones to automation, including such features as adaptive cruise control, lane keep assist, and parking with supervision. Many of these technologies are available in most vehicles produced in 2021. At

Level 4, the vehicle is designed to “*respond safely without human action to all situations, including when it reaches the limits of its operating environment.*” At Level 5, “*the vehicle performs all aspects of the dynamic driving task, including monitoring and responding to the driving environment, in all conditions*”.

The future automation of vehicles may impact parking demands by removing the need for a vehicle to park at a destination or enabling the shared utility of an AV fleet. Autonomous vehicles may provide users with the ability to complete trips in a pick-up/drop-off fashion, calling the vehicle on demand as needed.

However, the Urban Land Institute (ULI) projects that “*there will be little or no use of shared autonomous vehicles (SAV) rides in what the [U.S.] Census Bureau defines as Urban Clusters and Rural Areas. Parking may be slightly reduced if one privately owned autonomous vehicle (AV) will be able to drop the rider and go on to another trip or go back home until needed.*” The U.S. Census Bureau defines Urban Clusters as regions with a population of at least 2,500, but no greater than 50,000.

Given the limited market of AVs and long-term forecasts of their market share, the ULI concludes that “*the parking market in a downtown with multiple parking facilities will absorb the changes in demand over time.*” Thus, the impact of AVs on immediate parking facility requirements is likely limited and can be accommodated within existing requirements set out by local governments.

It is noted that none of the Zoning By-laws reviewed in **Section 3.2** include provisions for autonomous vehicles as it relates to parking rates. However, the removal of parking minimums, introduction of parking maximums or similar strategies to manage off-street parking supply may self-regulate future AV use by impacting how and if these vehicles require parking at a destination (i.e., do they remain at the destination or return home) or are used by the public (i.e., individual consumer behaviour on how they use AVs).

3.2 Municipal Zoning By-law Review

Parking requirements can vary across municipalities, especially if the presence of transit, ridesharing companies, or dense urban forms provide opportunities for trips to be completed without a personal vehicle. The review of existing Zoning By-laws has been divided into two categories:

- ▶ Municipalities within the geographic boundary of Perth County where a detailed review and rate comparison was undertaken; and
- ▶ Larger municipalities throughout Southwestern Ontario where a high-level review was completed and is intended to capture general trends (among the larger municipalities).

3.2.1 Perth County

Perth County comprises four municipalities:

- ▶ Township of North Perth;
- ▶ Township of Perth East;
- ▶ Township of Perth South;
- ▶ Township of West Perth;

As well, the City of Stratford and Town of St. Marys are within the County's geographic boundaries, but are separate municipalities.

A review of the Zoning By-laws for Perth County reveals:

- ▶ The City of Stratford provides 83 distinct parking rates, significantly more than the Town of St. Marys or the four townships;
- ▶ Parking rates across the four Perth County Townships are generally consistent with each other and the Town of St. Marys, both in terms of numerical value and land use categories;
- ▶ The Townships permit multiple uses of parking areas (shared parking) only when *"two or more uses utilize the same parking area and the periods of use for each of the uses do not occur at the same time,"*
- ▶ Parking rates in all Zoning By-laws apply across the entire municipality regardless of land use density or location;
- ▶ None of the Zoning By-laws include provisions for electric vehicle parking spaces or bicycle parking.

Appendix B outlines the minimum parking requirements among the City of Stratford and four Townships in Perth County.

3.2.2 Other Municipal Zoning By-laws

The jurisdictional scan was widened across Southwestern Ontario to review Zoning By-laws of larger urban centres. The intent of including these larger municipalities is to identify any attributes of their By-laws



generally absent from the Town's By-law or similar By-laws in Perth County.

The general review was undertaken for the By-laws of the City of London, City of Kitchener, and City of Guelph By-laws. A review of these Zoning By-laws reveals:

- ▶ The City of Kitchener and City of London provide specific parking rates for three general zones: downtown, near downtown and all other areas. Overall, these By-laws have lower parking requirements in more dense areas of the City;
- ▶ Minimum parking requirements are rarely listed for downtown areas, whereas maximum parking requirements are provided for most land uses across all three zones;
- ▶ The City of Kitchener includes minimum and maximum parking requirements for nearly all land uses and includes minimum stacking space requirements for car washes, banks, gas stations, restaurants, and retail land uses;
- ▶ The City of Kitchener includes land use specific long-term (Class A) and short-term (Class B) bicycle parking requirements for a wide variety of land uses. Class A bicycle parking may require shower and changing facilities depending on the number of bicycle parking spaces; and
- ▶ The City of Guelph includes refined parking requirements for malls depending on the regional capture (i.e., Neighbourhood Shopping Centre, Regional Shopping Centre) and type (i.e., commercial versus industrial malls). The City of London also includes multiple retail parking rates depending on the size of the building.

In these larger municipalities, access and proximity to transit and alternate transportation networks (i.e., cycling facilities, recreational trail networks) can result in reduced parking demands and requirements at a land use.



4 Zoning By-law Parking Standards Revision

The following sections outline the recommended standards revision for parking supply rates; and visitor, shared parking, and accessible parking requirements.

4.1 Supply Rates

4.1.1 Non-Residential Supply Rates

After review of the existing Town By-law and those of the neighbouring municipalities and larger urban areas, the following land uses, or modified definitions are recommended for inclusion into the Town's By-law:

- ▶ **Automobile Washing Establishment:** means a building or structure containing facilities used or intended to be used primarily for washing vehicles by the use of mechanical devices or by hand. Rate adopted from City of Stratford Zoning By-law 201-2000;
- ▶ **Service Trade:** means an establishment, other than an automotive use, that provides a non-personal service or craft to the public, including, but not necessarily restricted to, the shop of a printer, a plumber, a painter, a carpenter, an electrician, a welder, a furrier, an upholster, a custom engraver, a monument engraver, a merchandise service shop, a battery storage and recharging shop, a small engine repair shop, a workshop for the physically challenged, a catering establishment, a tool or small equipment rental establishment. Rate adopted from City of Stratford Zoning By-law 201-2000; and
- ▶ **Conference or Banquet Facility:** means a building or part thereof, used for the gathering of groups of persons for specific functions including the consumption of food and drink, Full kitchen facilities shall be provided on the premises. Rate adopted from the City of Burlington. Definition adopted from existing Town of St Marys Zoning By-law for Banquet Hall.

In addition, modification to existing definitions is also recommended as follows:

- ▶ **Assembly Hall** means a building or part thereof, in which facilities are provided for such purposes as meetings for civic, educational, political, religious, or social purposes. An Assembly Hall does not include a Conference or Banquet Facility.

- **Automobile Washing Establishment** is replaced with the previous noted definition.

4.1.2 Residential Supply Rates

Although consistent with neighbouring municipalities, the Town has identified issues with parking provisions for townhouse and apartment developments as outlined in **Section 2.5**.

Paradigm completed an assessment of auto ownership (and assumed parking demand) among ten similar municipalities in southern Ontario to determine if the townhouse and apartment rates should be updated. The data was extracted from the 2016 Transportation Tomorrow Survey (TTS). These municipalities represent similar planning practices to the Town of St. Marys (e.g., central downtown surrounded by low-density residential) as well as limited access to alternate modes of transportation (e.g., transit and active transportation). **Table 4.1** summarizes auto ownership, and assumed parking demand, across the ten municipalities for each dwelling unit type.

The assessment indicates an average of 1.42 vehicles per townhouse dwelling and 0.88 vehicles per apartment dwelling. These rates only reflect residential parking demands, and do not account for visitor parking demands. Based on the findings and after consultation with the Town, a parking rate of 2.0 spaces per dwelling unit (1.5 resident spaces and 0.5 visitor spaces) is recommended for townhouse and fourplex dwellings. For street townhouse dwellings, a parking rate of 2.0 spaces per dwelling unit is recommended without the need to provide dedicated visitor parking spaces.

Note that some Zoning By-laws provide parking rates for apartment buildings based on the number and type of each unit (e.g., one bedroom, two bedroom, or three bedroom). In these instances, parking rates generally increase as the number of bedrooms increases. The ULI publication *Shared Parking* notes that “*the ITE Parking Generation Manual finds that a ratio based on bedrooms is more statically reliable than a ratio per dwelling unit*”.³ Therefore, the ratios for apartment buildings have been updated to use the distribution of bedroom types (studio, one bedroom, two bedrooms and three-plus bedrooms). Therefore, parking rates for apartments retain a visitor parking rate of 0.5 spaces per unit, and residential parking rates depend on the apartment unit type (studio, one bedroom, two bedroom, three-plus bedroom).

³ Smith, Mary S. *Shared Parking (3rd Edition)*. Washington, D.C. ULI, ICSC, and National Parking Association. 2020. pg. 8.

Table 4.2 outlines the minimum recommended By-law parking ratios, including the proposed land use additions/modifications.

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TABLE 4.1: AUTO-OWNERSHIP CHARACTERISTICS

Municipality	Vehicles per Dwelling Unit			
	Apartment	House	Townhouse	All Dwelling Types
Alliston/New Tecumseth	0.78	2.01	1.38	1.77
Collingwood	0.77	1.83	1.49	1.61
Elmira	1.10	1.91	1.57	1.78
Elora	0.89	2.13	1.59	1.94
Fergus	0.92	2.11	1.38	1.79
Midland	0.66	1.77	1.46	1.45
New Hamburg	1.22	2.13	1.33	2.00
Orangeville	0.93	2.08	1.43	1.81
Penetanguishene	0.89	1.89	1.12	1.63
Shelburne	0.64	2.13	1.43	1.84
Average	0.88	2.00	1.42	1.76
Minimum	0.64	1.77	1.12	1.45
Maximum	1.22	2.13	1.59	2.00



TABLE 4.2: RECOMMENDED MINIMUM BY-LAW PARKING REQUIREMENTS

Category	Land Use	Rate
Care Facilities	Day Nursery	1 per 40 m ² gross floor area
	Hospital	1 per 4 beds, plus 1 per 3 employees
	Medical Clinic, Veterinary Clinic	5 per practitioner
	Nursing Home	1 per 4 beds, plus 1 per 3 employees on the largest shift
	Group Home	2 per dwelling unit plus 1 per 4 group home residents
	Long Term Care Home/Home for the Aged	1 per 6 beds, plus 1 per 3 employees on the largest shift
Commercial - Office	Business or Professional Office Support Office	1 per 20 m ² gross floor area
Commercial - Retail	Automobile Repair Establishment/Automobile Service Station/Automobile Sales and Service Establishment	4 plus 1 per repair bay, plus 1 per 2 employees
	Automobile Washing Establishment	1 plus 2 per wash bay, plus 1 per non-drive through car wash bay Automatic Car Wash: 5 per car wash bay, excluding the car wash bay
	Department Store	1 per 30 m ² gross floor area
	Golf Course and Miniature Golf Course	8 per hole
	Personal Service Shop	1 per 30 m ² gross floor area
	Bowling Establishment	3 per bowling lane



Category	Land Use	Rate
	Eating Establishment, Eat-in	1 per 4 persons of maximum designed capacity
	Eating Establishment, Take-out	6 plus 1 per 4 persons or maximum designed capacity (including exterior patio)
	Retail Store	1 per 30 m ² gross floor area
	Service Trade	1 per 30 m ² gross floor area
	Supermarket	1 per 15 m ² gross floor area
	Wholesale Establishment	1 per 55 m ² gross floor area
Industrial	Warehouse (including min-storage)	1 per 100 m ² gross floor area
Overnight Accommodations	Bed and Breakfast Establishment	2 per dwelling unit plus 1 per guest room for rent
	Hotel	1 per guest room
	Motel	1 per guest room
Place of Assembly	Church	1 per 4 persons of maximum designed capacity of the sanctuary
	Conference or Banquet Facility	10 spaces per 100 m ² gross floor area
	Funeral Home	4 plus 1 per 4 persons designed capacity
	Place of Assembly (Assembly Hall, Arena, Theatre)	1 per 5 seats (or 3 metres of bench) of maximum seating capacity; or 1 per 230 m ² of playing field area where no seating exists
	Sports Field	The greater of: - 1 per 5 seats (or 3 metres of bench); or - 1 per 250 m ² of gross field area where no seating exists



Category	Land Use	Rate
Residential	Dwelling, Single-detached Dwelling, Semi-detached Dwelling, Street Townhouse Dwelling, Duplex Dwelling, Triplex	2 per dwelling unit
	Dwelling (Row or Townhouse) Dwelling, Fourplex	Resident: 1.5 per dwelling unit Visitor: 0.5 per dwelling unit
	Dwelling, Apartment	Studio: 1 per dwelling unit; One Bedroom: 1.25 per dwelling unit; Two Bedroom: 1.5 per dwelling unit; Three Bedroom: 1.75 per dwelling unit Visitor: 0.5 per dwelling unit
	Dwelling, Accessory Dwelling, Converted	1 per dwelling unit
Schools	School, Elementary	The greater of: - 1.5 per classroom; or - 1 per 3 m ² of assembly area
	School, Secondary or Commercial	The greater of: - 5 per classroom; or - 1 per 3 m ² of assembly area
All Other Non-Residential/Non-Institutional Uses	All Other Non-Residential Uses	1 per 40 m ² gross floor area
All Other Institutional Uses	All Other Institutional Uses	1 per 30 m ² gross floor area



4.2 Visitor Parking

Dedicated visitor parking ensures visitors can park on-site and within proximity of their destination. Given the lack of alternate modes of transportation within the Town, provision of visitor parking seeks to reduce on-street parking in residential areas where alternate modes of transportation are largely unavailable.

Visitor parking demands for single detached, semi-detached, duplex, and triplex dwellings can usually be accommodated through existing driveway or on-street space. However, the denser nature of apartments, townhouses, and fourplexes, may result in an influx of on-street parking demands that cannot be accommodated within the surrounding street network or off-street parking spaces.

Therefore, it is recommended dedicated visitor parking be provided on the same site as the use for apartments, townhouses and fourplexes. The total number of resident parking spaces and visitor parking spaces should be calculated separately, and accessible parking spaces calculated independently for each parking supply. Visitor parking spaces should be clearly marked, and separated from residential parking spaces.

To support this recommendation, Section 5.21.1 (Number of Parking Spaces) of the Zoning By-law should be amended to include the following text:

- ▶ All required visitor parking spaces shall be provided and maintained for each use located on a lot and shall be located on the same lot as the uses requiring the visitor parking spaces; and
- ▶ All required visitor parking spaces shall be clearly identified, demarcated, and reserved at all times.

4.3 Bicycle Parking

It is recommended the Town adopt minimum bicycle parking requirements and ratios as follows:

- ▶ Short-term bicycle parking spaces shall be located within a bicycle parking area at-grade, and provided as follows:
 - Residential Uses (not including residential uses with exclusive garage(s)):
 - 0.05 per dwelling unit.
 - Non-Residential Uses:

- Commercial Uses: 5
 - Institutional Uses: 5
- ▶ Long-term bicycle parking spaces shall be located in a secure, enclosed bicycle parking area and provided as follows:
 - Residential Uses not including residential uses with exclusive garage(s):
 - 0.25 per dwelling unit
 - Non-Residential Uses:
 - 0 where less than 450 m² of gross floor area;
 - 2 per unit for those uses between 451 m² and 1,000 m² gross floor area;
 - 5 per unit for those uses between 1,000 m² and 10,001 m² of gross floor area; and
 - 7 per unit for those uses more than 10,001 m² of gross floor area.
- ▶ Bicycle parking spaces are not required for residential uses with exclusive garage(s).

4.4 Accessible Parking

It is recommended the Town of St. Marys adopt accessible parking standards based on those consistent with the Accessibility for Ontarians with Disabilities Act (AODA) (2005). Regulation 191/11: Integrated Accessibility Standards, Part 5: Design of Public Spaces of outlines the minimum requirements for accessible parking spaces. **Appendix C** contains the AODA accessible parking requirements.

It is also recommended the Town modify the Zoning By-law to specify accessible parking spaces are not required for single-detached, semi-detached, duplex, or triplex uses.

Table 4.3 summarizes the minimum number of required accessible parking spaces as outlined in Regulation 191/11.

TABLE 4.3: RECOMMENDED ACCESSIBLE PARKING SPACE REQUIREMENTS

Number of Automobile Parking Spaces	Number of Designated Accessible Parking Spaces ^b
1-12	1 Type A
13-100 ^a	4% of total number of automobile spaces:
101-200 ^a	1 plus 3% of the total number of automobile spaces
201-1,000 ^a	2 plus 2% of the total number of automobile spaces
1,000 or greater ^a	11 plus 1% of the total number of automobile spaces

a) If the calculation results in an even number of accessible parking spaces, an equal number of Type A and Type B parking spaces shall be provided. If the calculation results in an odd number of accessible parking spaces, an equal number of Type A and Type B parking spaces shall be provided. The odd-numbered space may be a Type B parking space.

b) Where the calculation of the accessible parking space requirements results in a number that is not a whole number, the number shall be rounded up to the next whole number (e.g. 7.3 spaces would be rounded-up to 8).



5 Parking Permit System

5.1 Current Practice

As discussed in **Section 21** the Town provides residents with the option to purchase one of two parking permits:

- ▶ **Downtown Parking Permit:** intended for residents who reside in downtown St. Marys and do not have overnight parking. The Downtown Parking Permit provides the holder with a dedicated parking spot in the Water Street North or Elgin Street East parking lots. The cost of the permit is \$60.00 per year plus HST.
- ▶ **Opera House Parking Lot Permit:** reserved for residents at 6, 12, 26, 34 and 36 Water Street South. The Opera House Parking Lot Permit provides the holder with overnight parking in the lot on the southwest corner of Water Street South and Queen Street East.

This permit system is operating effectively since residents are provided with a dedicated parking space in one of the off-street municipal lots. However, provision of dedicated parking spaces is limited by the multi-use nature of the municipal lots and the need to serve the various parking demand (visitors versus residents).

5.2 Jones Street Lot

The existing parking lots used by the Annual Downtown Parking Lot Permit program provide a limited number of spaces. This was further limited by the Farmer's Market which utilized the Jones Street Lot on Saturdays from 7:00 AM to 1:00 PM between May and October. However, in 2021, the Farmer's Market temporarily relocated to the Flats (Milt Dunnell Field).

Relocation of the Farmer's Market now enables full-time inclusion of this lot into the Town's permit program supply either as a fully permitted lot or as a shared use lot with assigned resident spaces and unassigned spaces for employees. Increasing the maximum time limit up to 12 hours will support use of this lot by both residents and employees which typically require parking for longer periods of time.

Furthermore, this lot has been identified for upgrades that include lighting installations, expansion of the paved surface and installation of a walkway between the lot and the Elgin Street lot.

5.3 Cash in Lieu of Parking

Town's *Official Plan*⁴ (OP) contains minimal information about parking. However, Section 7.18 of the OP permits the Town to accept cash-in-lieu of parking pursuant to Section 40 of the *Planning Act*. This permits the Town to reduce or eliminate parking for a specific development and to provide the required number of parking spaces in a municipal parking facility instead.

Overall, it is recommended the Town explore opportunities for cash in lieu of parking, especially within the Downtown Boundary where overnight on-street parking is not permitted.

5.4 Recommendations

- ▶ Permanently relocate the Farmer's Market from the Jones Street lot to the Flats (Milt Dunnell Field);
- ▶ Reconstruct the Jones Street parking lot, install lighting, and provide pedestrian walkways connecting to the Elgin Street lot;
- ▶ Maintain the existing residential parking permit program and assign parking spaces in the Jones Street and Elgin Street lots;
- ▶ Modify the Town By-law to allow employees to use unassigned spaces in the Jones Street and Elgin Street lots for a period of up to 12 hours;
- ▶ Explore opportunities for cash in lieu of parking; and
- ▶ Explore opportunities to increase the permit parking supply (**Section 7**).

⁴ Town of St. Marys Official Plan. Town of St. Marys, Ontario. Consolidated October 1, 2007.

6 Parking Enforcement

6.1 Current Practice

On-street parking within the Town is enforced through By-laws 58-2018 and 59-2019. Parking is not permitted on any street between 2:00 AM and 6:00 AM from November 1 to April 30. Between May 1 and October 31, on-street parking is permitted on any street where existing parking restrictions are not in-force. Overnight street parking is prohibited year-round in the downtown boundary. Error! Reference source not found. illustrates the downtown boundaries as defined in Schedule 4 of By-law 58-2018.

Without dedicated and consistent enforcement, motorists can disobey parking regulations, abuse time restrictions, or hoard parking spaces from other users. This can include employees and/or residents using on-street parking intended for visitor uses, or vice versa. These actions can increase frustration with finding a parking space and increase the perception of parking supply inadequacies. Effective enforcement, in combination with appropriate parking supply rates, signage, and incentives to use parking appropriately (e.g., time restrictions, pricing) can alleviate common parking concerns.

Regular enforcement of time restrictions seeks to:

- ▶ Deter and discourage the parking of vehicles beyond the time limits stipulated in the Town's By-laws and on signs, including employees' long term use of on-street spaces; and
- ▶ Improve parking supply efficiency by encouraging:
 - Encouraging and enabling employee parking in longer-term, off-street parking lots;
 - Encouraging longer-term visitor parking in off-street parking lots, and shorter-term visitor parking in on-street parking lots.

Prior to 2021, the Town did not have dedicated parking enforcement staff. Instead, they responded on as-needed basis with occasional assistance from the Ontario Provincial Police. In early 2021, the Town formalized the program through provision of a dedicated enforcement officer.

6.2 Alternatives

6.2.1 Time Based Restrictions

Although time based restrictions are outlined in the Town's By-laws, clear and consistent signage is not installed throughout the Downtown Boundary or in the public parking lots. It is recommended the Town install signs with posted time restrictions to ensure motorists are aware of time restrictions on each parking space.

Given the combination of municipal parking lots and on-street parking, it is also recommended the Town continue to enforce shorter time restrictions for on-street parking spaces (currently 3 hours), and longer time restrictions for municipal parking lots (currently 8 hours). Longer time restrictions within off-street parking lots can enable employees to use unassigned off-street parking spaces, as opposed to more valuable on-street parking spaces.

Variation in time limits between on-street and off-street parking spaces can also encourage motorists to seek off-street parking spaces prior to on-street parking spaces. This enables higher turnover among on-street parking spaces by encouraging shorter parking durations for motorists completing shorter trips in the downtown area.

Consistent with the recommendations of **Section 5**, longer time restrictions for off-street parking spaces would enable employees to use off-street parking. This would enable on-street parking spaces to serve short term visitors. No other changes to time restrictions are recommended.

6.2.2 Parking Pricing

As an alternative to time based restrictions, the Town could consider a downtown parking pricing strategy. This strategy would override existing time restrictions by requiring users to pay for parking for the duration of their stay. Revenue from the downtown parking pricing strategy could be used to maintain the municipal parking supply, and/or fund improvements to the downtown core.

As an incentive to use off-street municipal parking, parking fees for off-street lots could be lower than on-street spaces. Fees could also be designed to recognize proximity to destinations, with lots closer to downtown at a price premium.

Use of a pricing strategy would still require enforcement to ensure motorists have paid for parking. Although a pricing strategy may assist in distributing parking demands, or reducing overstaying of parking

spaces, motorists may park elsewhere in the Town where parking is free. Therefore, it is recommended the Town maintain time restrictions as set out in the existing By-laws, rather than instituting a parking pricing strategy.

Should the use of time restrictions and enforcement be unhelpful in mitigating downtown parking demands, it is recommended the Town consider a parking pricing strategy to ensure adequate parking is available for all users.

6.3 Recommendations

Based on the above it is recommended:

- ▶ The Town install signs throughout the downtown core, indicating time restrictions, and user type (e.g., accessible, loading zone) for on-street parking spaces where not currently provided;
- ▶ The Town clearly post time restrictions in off-street parking lots advertising the longer durations;
- ▶ The Town maintain a consistent enforcement program to monitor parking in all areas; and
- ▶ The Town consider a parking pricing strategy if time restrictions and enforcement are not successful in mitigating identified downtown parking concerns.

7 Municipal Parking Lots

7.1 Existing Locations and Supply

The Town of St. Marys provides a total of 109 municipal off-street parking spaces in four parking lots within the Downtown Boundary:

- ▶ The Elgin Street Parking Lot;
- ▶ The Jones Street Parking Lot;
- ▶ The Water Street North Parking Lot; and
- ▶ The Opera House Parking Lot.

7.1.1 Elgin Street Parking Lot

The Elgin Street parking lot is located on the north side of Elgin Street between Water Street South and Wellington Street South. The lot has 57 parking spaces. An existing parking lot on the south side of Elgin Street is owned and operated by the property owner at 84 Wellington Street South. The lands at 84 Wellington Street South are occupied by a Canadian Tire and Foodland grocery store.

The Town is responsible for maintenance of the lot on the north side of the Elgin Street road allowance. This includes snow removal, line painting and surface treatments. However, the property owner at 84 Wellington Street South continues to provide hydro to the lights in the north lot. As of November 2020, a total of 10 spaces are assigned to permit holders. The yearly permit costs \$60.00 plus HST.

The current design of the parking lot at 84 Wellington Street South results in vehicles encroaching onto the Elgin Street road allowance. This prevents the use of on-street parking to capture periods of excess parking demands between the two parking lots.

To reduce the impacts of employee parking demands, it is recommended the Town encourage the Canadian Tire/Foodland property to locate employee parking in the existing parking lot off Wellington Street South to the rear of the building.

7.1.2 Jones Street Parking Lot

The Jones Street parking lot is located on the south side of Jones Street between Water Street South and Wellington Street South. The lot has 32 parking spaces. Permits are not currently issued for this lot.

The Town plans to improve the lot to provide lighting, new pavement and 10 additional parking spaces, for a total of 42 spaces. As



previously outlined, these spaces could be assigned to both residents (via permits) and employees. To support this, the Farmer's Market should be permanently relocated to the Flats and the time limit should be increased to 12 hours.

7.1.3 Water Street North Parking Lot

The Water Street North parking lot is located on the west side of Water Street North between Queen Street and Parkview Drive. The lot has 16 parking spaces, of which six are permit spaces.

As of November 2020, permit holders are assigned a parking stall. The yearly permit costs \$60.00 plus HST.

7.1.4 Opera House Parking Lot

The Opera House parking lot is located to the rear of 6-34 Water Street South. The lot has 40 parking spaces, of which, about 34 are assigned to specific property owners on Water Street. To assign parking, property owners provide to the Town a list of tenants who require a parking spot, and allocations are determined based on demand. Spaces are allocated, not assigned, and there are not associated fees. The unallocated spaces are available for public parking.

Table 7.1 summarizes the parking allocation by address.

TABLE 7.1: OPERA HOUSE PARKING SPACE ALLOCATIONS

Property	Allocated Parking Spaces
6 Water Street	2
20 Water Street	23
26 Water Street	3
34 Water Street	3
36 Water Street	3
Total	34

The Town is currently responsible for the majority of the maintenance costs of this lot with minimal access to public parking due to existing written and verbal agreements. It is recommended the Town explore options to divest the Opera House Parking Lot. The maintenance costs

could then be diverted to creation of additional parking areas or maintenance of the existing lots within the Downtown Boundary.

7.2 Additional Parking Supply

7.2.1 Water Street North (Pump House/Well #2)

The Town owns a small portion of property between Water Street North and Wellington Street, behind the properties on the north side of Queen Street (at the pump house). It is recommended the Town install pavement markings to provide a total of nine spaces. These spaces should be added to the permit parking system as this is a convenient location to provide parking to support the residential units above the store fronts on Queen Street East.

7.2.2 Millennium Park and Lind Park

The Town has identified two existing parks that could be converted to parking areas when demand dictates:

- ▶ **Millennium Park** is located on the north side of Trout Creek, between Water Street North and Wellington Street North and south of Parkview Drive. Parking is not currently provided for this area.
- ▶ **Lind Park** is located on the west side of Emily Street north of Milt Dunnell Park “The Flats” and is access via the adjacent park.

Both areas are located within walking distance of the Downtown Boundary (400 metres or less).

It is recommended the Town set aside these lands as future parking areas. Additionally, both should be considered as part of the parking permit supply.

7.2.3 Downtown Churches

There are two churches within the Downtown Boundary that could be used as supplemental weekday and Saturday parking, assuming peak church parking demands occur on Sunday:

- ▶ St. Marys United Church is located on the southeast corner of Church Street South and Elgin Street East. Parking spaces are not demarcated; however, it is assumed the site could provide about 20 parking spaces; and

- ▶ St. James Anglican Church is located on the northwest corner of Peel Street South and Elgin Street East. The site has about 15 demarcated parking spaces.

It is recommended the Town explore the option to lease parking spaces within the church lots during the week and on Saturday to supplement the current supply. These spaces would form part of the standard supply and should not be considered for permits given the assumed Sunday parking limitation.

Figure 7.1 illustrates the potential parking lot locations.

7.3 Directional Signage

Directional signage is one of the key components of a successful parking system since it helps users find the parking that may not be readily apparent. This is especially important for visitors that are unfamiliar with the area.

At present, directional “Green P” signage is provided predominantly to guide vehicles from Queen Street to the municipal lots. It is recommended the Town install direction signage at key decision points south of the Downtown Boundary. Additionally, the Town should conduct a yearly assessment of all directional signs to ensure they meet minimum standards for readability.

7.4 Recommendations

Based on the review of the municipal parking supply, it is recommended:

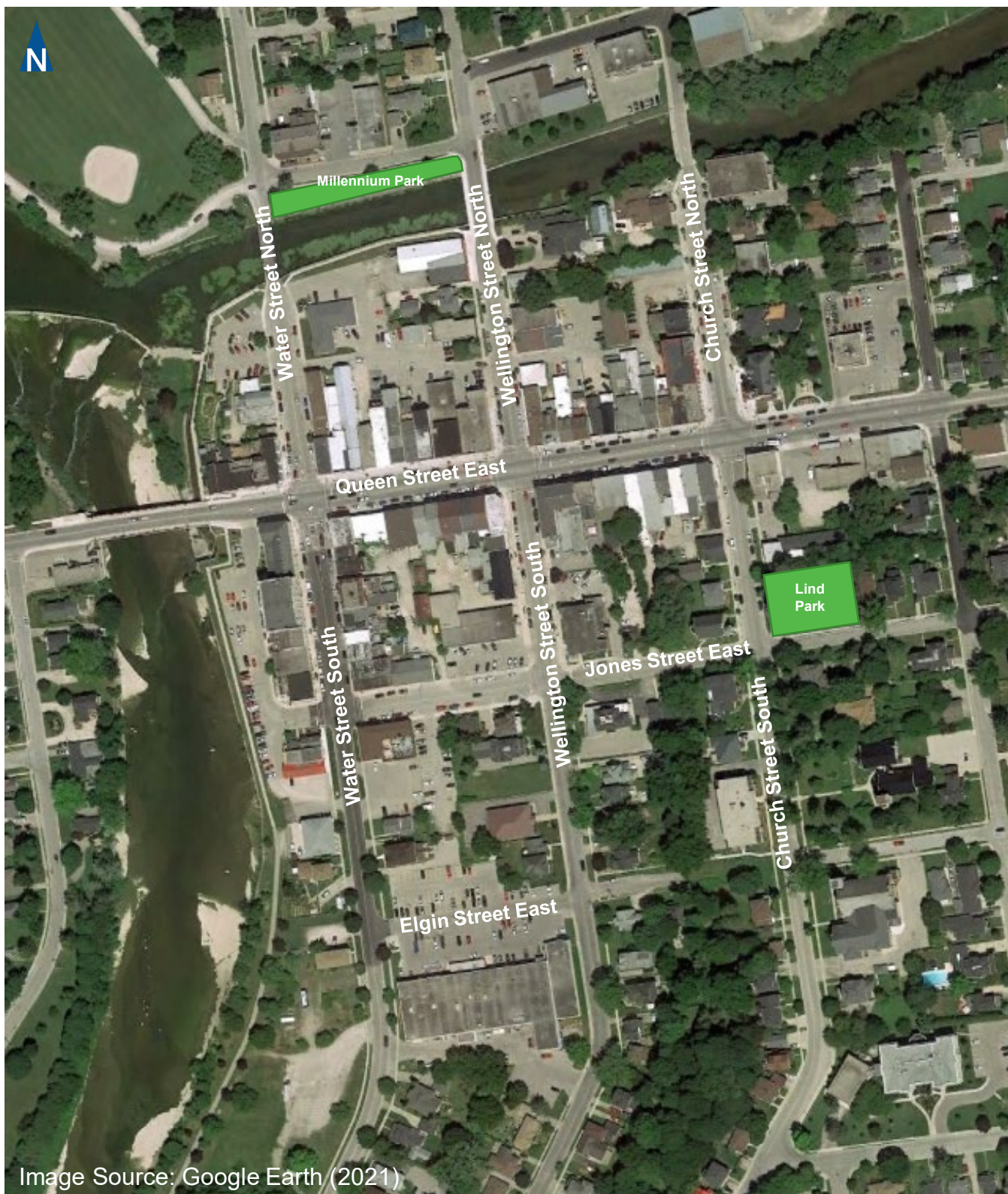
- ▶ The Town encourage the Canadian Tire/Foodland property to locate employee parking in the rear parking lot off Wellington Street South, to the rear of the building;
- ▶ The Farmer’s Market is permanently relocated from the Jones Street Lot to the Flats (Milt Dunnell Park). This would permit overnight parking in the Jones Street lot and create additional inventory;
- ▶ Increase the Jones Street parking lot time limit to 12 hours to permit downtown employee and overnight resident parking;
- ▶ The planned upgrades to the Jones Street lot are completed;
- ▶ The Town explore options to divest the Opera House Parking Lot;
- ▶ A parking lot is formalized in the area adjacent to the pump house known as Well #2. This lot could be included as part of the permit program;



- ▶ Directional signage is installed at key decision points south of the Downtown Boundary; and
- ▶ The Town undertake yearly assessments of parking signage to ensure signs meet minimum standards for readability.

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Town of St. Marys Potential Parking Lots

8 Drive-Through Stacking

8.1 Best Practice Research

Paradigm completed a jurisdictional scan of drive-through requirements among Perth County townships, the City of Stratford, and six other municipalities in Ontario.

Table 8.1 summarizes those Zoning By-laws that include stacking space provisions, such as number of stacking spaces or design requirements for stacking spaces.

TABLE 8.1: ZONING BY-LAW REVIEW - STACKING AND QUEUEING

Municipality	Stacking and Queuing Requirements
Township of North Perth	Yes
Township of Perth East	No
Township of Perth South	No
Township of West Perth	Yes
City of Stratford	Yes
City of London	Yes
City of Guelph	No
City of Kitchener	Yes
City of Sarnia	Yes
City of Hamilton	Yes
Town of Whitchurch-Stouffville	Yes

A summary of each Zoning By-law is as follows:

- ▶ The Township of North Perth requires a minimum number of stacking spaces for restaurants, automated car washes, and automated teller or other land uses;



- ▶ The Township of West Perth requires a minimum number of stacking spaces for automatic and self service car washes;
- ▶ The City of Stratford requires a minimum storage capacity of 10 parking spaces;
- ▶ The City of London requires a minimum number of stacking spaces for donut/coffee shops, fast-food/eat-in restaurant, financial institutions, and service stations with convenience sales. The Zoning By-law requires a Queueing Study for land uses that request lower stacking spaces then set out in the By-law;
- ▶ The City of Kitchener requires a minimum number of stacking spaces for car washes, financial establishments, gas stations, restaurants, and retail land uses. The Zoning By-law also includes design specifications such as stacking lane location, dimensions, and setback requirements.
- ▶ The City of Sarnia requires a minimum number of stacking spaces for restaurants. The Zoning By-law also includes design specifications such as setbacks, dimensions, and noise attenuation requirements.
- ▶ The City of Hamilton requires a minimum number of stacking spaces for restaurants, and all other uses. The Zoning By-law also includes design specifications such as setbacks, dimensions, and noise attenuation requirements.
- ▶ The Town of Whitchurch-Stouffville requires a minimum number of stacking spaces for financial institutions, restaurants, car washes, gas stations with convenience sales, and all other uses with a drive through. Similar to the City of London, a Queueing Study is required to determine the adequacy of the drive through. However, the queueing study is required for all applications, not just those requesting a lower number of spaces.

Appendix D contains the detailed Zoning By-law requirements from each municipality and a summary of stacking space requirements for various land uses.

8.2 Recommendations

Based on the jurisdictional review, the following is recommended:

- ▶ Modify Section 3.13 (Automobile Washing Establishment) of the Town's existing Zoning By-law and remove the requirement for queuing spaces;



- ▶ Adopt a minimum number of stacking spaces for select land uses as described in **Section 8.3** below;
- ▶ Adopt a requirement for a queuing study for all drive through applications not providing the minimum number of stacking spaces, or where projected traffic volumes are greater than 60 vehicles per hour;
- ▶ Adopt definitions for stacking lanes and stacking spaces as follows:
 - Stacking Lane: a continuous on-site queuing lane that includes stacking spaces for motor vehicles, which is separated from other vehicular traffic and pedestrian circulation by barriers, markings, or signs.
 - Stacking Space: a rectangular space that may be provided in succession and is designed to be used for the temporary queuing of motor vehicles in a stacking lane.
- ▶ Adopt design guidelines to support the design of drive-through facilities; and
- ▶ Consider a reduction in the number of required parking spaces for sites that include a drive through facility.

8.3 Recommended Drive Through Zoning By-law Text

It is recommended the Town of St. Marys adopt Stacking Provisions similar to those contained in the City of Kitchener's Zoning By-law, and the City of London's Zoning By-law (for queuing studies) as follows:

- a) Stacking lanes shall not be located within 3 metres of a street line.
- b) Stacking lanes for a drive-through facility shall not be located within a front yard or exterior side yard.
- c) Despite Subsection b), on a corner lot, stacking lanes for a drive through facility may locate in either a front yard, or exterior side yard, but not both.
- d) Entrance ways to stacking lanes shall be separated a minimum travelled distance of 16.5 metres from the closest driveway, measured from the centre point of the closest driveway at the lot line along the route travelled to the last required stacking space in the stacking lane.
- e) Stacking spaces must be wholly contained between the entrance to the stacking lane and the fueling area, service window, kiosk, or booth. If there are multiple service windows,

the stacking lane is measured from the stacking lane entrance to the last service window.

- f) A stacking space shall be a minimum of 2.6 metres in width and a minimum of 6.5 metres in length.
- g) A stacking space shall lead both to and from a fueling area, service window, kiosk, or booth in accordance with **Table 8.2**.
- h) Subsections a) through f) shall not apply to existing stacking lanes and existing stacking spaces.

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TABLE 8.2: REGULATIONS FOR STACKING SPACE REQUIREMENTS

Use	Minimum Number of Stacking Spaces
Automatic Washing Establishment (automatic)	10
Automobile Washing Establishment (self service)	2 per washing bay
Bank or Financial Institution	3
Automobile Gas Bar	2 per fueling area
Eating Establishment (Restaurant or Take-Out)	13
Retail Store	3

9 Zoning By-law Definitions

Under Section 3.45 of the Zoning By-law, a Driveway *“means an area of land used for access to a parking area”*.

Under Section 3.110 of the Zoning By-law, a parking area is defined as, *“an area or areas of land or a building or structure or part thereof which is provided and maintained for the purpose of temporary parking or storing of motor vehicles accessory to a permitted use”*.

Under Section 3.112 c) of the Zoning By-law, a parking space is defined as, *“an area on a lot on which a licensed motor vehicle may be parked, which had adequate access to permit ingress and egress of a motor vehicles from the street by means of driveways, aisles, maneuvering areas or similar areas, no part of which access is to be used as parking spaces defined herein”*.

As outlined above, the language in the current Zoning By-law is unclear as to whether a driveway can be used as parking. It is recommended the Town update Section 5.21.4 of the By-law to the following to permit parking on a driveway:

Nothing in this By-law shall apply to prevent the use of any part of a driveway accessory to a single detached dwelling, a semi-detached dwelling, a duplex, or triplex as a parking space for parking, provided that no parking space is within 1.5 metres of a lot line and the parking spaces and parking areas are not located in the daylight or sight triangle or within any required planting strip.



10 Design Guidelines

Roadway design can play a key role in providing on-street parking spaces to supplement the off-street parking supply in residential areas. However, in cases where driveways are not properly spaced, the supply of on-street parking can be very limited or non-existent. As outlined in **Section 2.5**, the Town is experiencing this issue at several locations.

The Design Guidelines and Zoning By-law were reviewed to determine what updates are recommended so future development is designed such that the maximum amount of on-site parking is permitted, and driveways are spaced to allow provision of on-street parking.

10.1 Existing Guidelines

The Town's *Engineering Design Guidelines*⁵ provide specifications for roadways design, watermains, sanitary sewers, storm sewer collection systems, stormwater management and grading. They also contain geometric design elements such as minimum safe stopping sight distance, minimum and maximum roadway grades, and intersection angles and design guidance for daylight triangles and locations of community mailboxes and hydro transformers. Additionally, Section 5.21 of the Zoning By-law includes information about driveway location, width and spacing.

Section 5.21.4 alternately notes that “notwithstanding any other provision of this By-law to the contrary, uncovered surface parking spaces shall be permitted in any required yard in the R1, R2, R3 and R4 zones and within 1.5 metres of a lot line provided the parking spaces and parking areas are not located in the daylight or sight triangle or within any required planting strip”.

10.2 Driveway Width

The Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads*⁶ (the TAC Guide) recommends driveway widths by land use type. In general, residential driveways should be between 2.0 and 7.3 metres wide.

⁵ Town of St. Marys. *Design Guidelines and Supplemental Specifications for Municipal Services*. 3 May 2017.

⁶ TAC. *Geometric Design Guide for Canadian Roads, Chapter 8 – Access*. June 2017.

Table 10.1 summarizes the recommended driveway widths and radii for residential, commercial and industrial land uses.

TABLE 10.1: TAC TYPICAL DRIVEWAY WIDTH

Dimension (metres)	Land Use		
	Residential	Commercial	Industrial
One way	3.0 – 4.3	4.5 – 7.5	5.0 – 9.0
Two way	2.0 – 7.3	7.2 – 12.0	9.0 – 15.0
Right Turn Radius	3.0 – 4.5	4.5 – 12.0	9.0 – 15.0

The Town's Zoning By-law permits the following driveway widths:

- ▶ a minimum driveway width of 3.0 metres;
- ▶ in non-residential zones (except M2 zones) the maximum driveway width is 10.0 metres;
- ▶ In non-residential zones, the maximum driveway width is 8.0 metres, or 60 percent of the width of the lot, whichever is less.

Overall, the Town's design criteria are generally inline with the TAC criteria. However, it is recommended the By-law, is amended to the 8.0 metre driveway width, or 60 percent of the lot width, in residential areas where lots are wider, higher parking ratios are required and tandem parking will not be provided.

10.3 Driveway Spacing

The TAC Guide Section 8.9.8 Spacing of Adjacent Driveways recommends minimum driveway spacing dependent on road classification and adjacent land use. In general, a minimum of 1.0 metres is recommended between residential driveways and 2.0 metres is recommended between a street corner and a driveway. However, spacing of 6.0 to 7.5 metres is suitable to provide parallel parking between driveways.

The Town's Zoning By-law requires the following dimensions for driveway locations:

- ▶ The minimum distance between driveway ramps where access to a lot is by means of more than 1 driveway shall be 7.5 metres; and

- ▶ The minimum distance between a driveway ramp and an intersection of street lines shall be 10.8 metres measured along the street line.

It is noted that the existing Zoning By-law does not specify minimum driveway spacing between two residential driveways. Therefore, the following By-law updates are recommended:

- ▶ Minimum driveway spacing of 1.0 metre is required where on-street parking will not be considered or provided; and
- ▶ Minimum spacing of 6.0 metres is required between driveways where on-street parking is desired.

10.4 Recommendations

Based on the assessment of the Town's *Engineering Design Guidelines* in conjunction with the Zoning By-law, it is recommended:

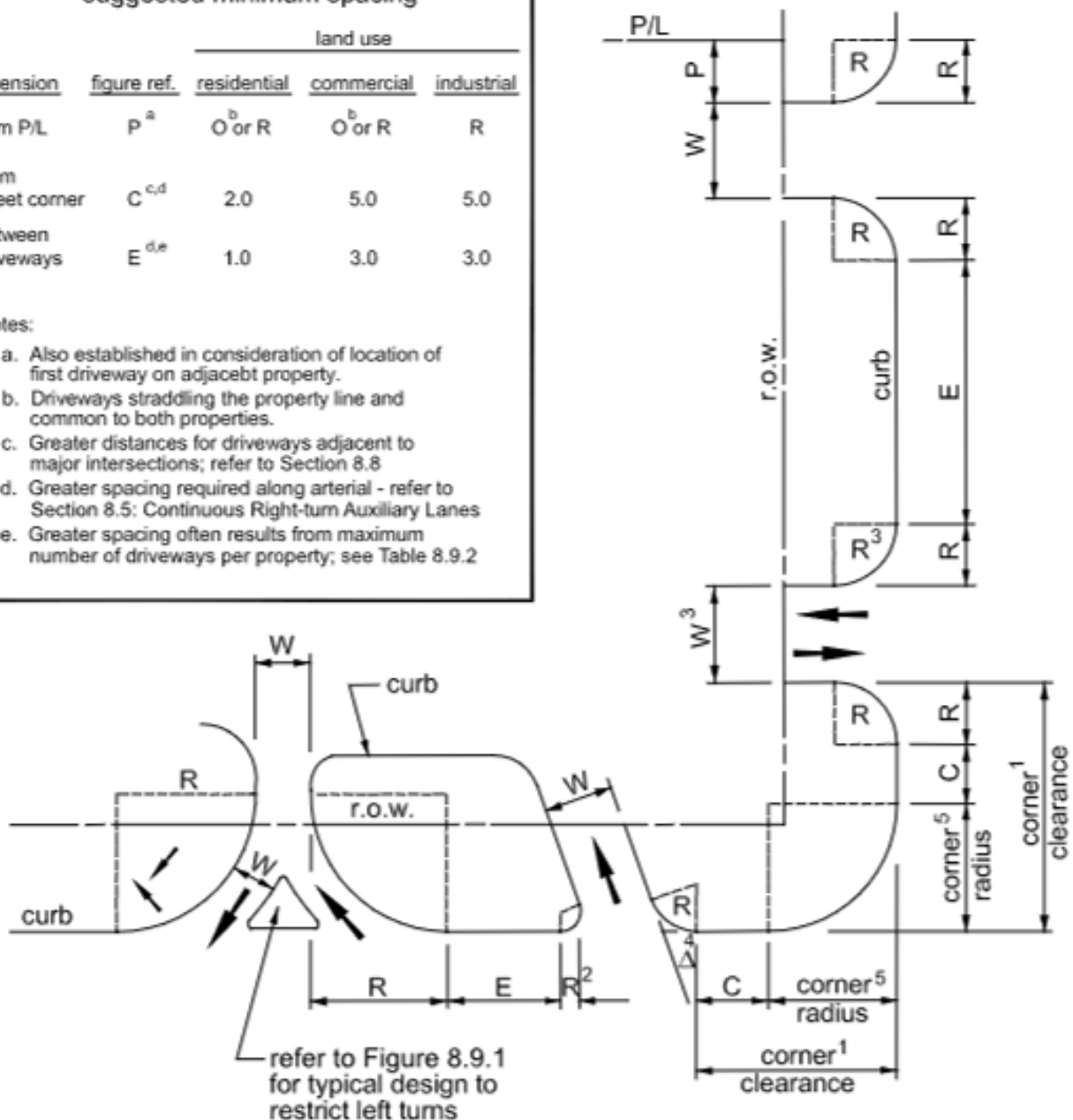
- ▶ The Town amend the Zoning By-law to permit driveways up to 8.0 metres in width, or 60 percent of the lot width, in residential areas where lots are wider, higher parking ratios are required and tandem parking will not be permitted; and
- ▶ The Town adopt a minimum driveway spacing of 1.0 metre for residential driveways; and
- ▶ The Town adopt a minimum driveway spacing of 6.0 metres where on-street parking is desired.



suggested minimum spacing				
dimension	figure ref.	land use		
		residential	commercial	industrial
from P/L	P ^a	O ^b or R	O ^b or R	R
from street corner	C ^{c,d}	2.0	5.0	5.0
between driveways	E ^{d,e}	1.0	3.0	3.0

Notes:

- Also established in consideration of location of first driveway on adjacent property.
- Driveways straddling the property line and common to both properties.
- Greater distances for driveways adjacent to major intersections; refer to Section 8.8
- Greater spacing required along arterial - refer to Section 8.5: Continuous Right-turn Auxiliary Lanes
- Greater spacing often results from maximum number of driveways per property; see Table 8.9.2



- Notes:
- For suggested minimum corner clearance at major intersections, see Figure 8.8.2
 - Where turns are not permitted, $R=1.5$ m assists in discouraging wrong-way movements.
 - For typical R and W dimensions, refer to Table 8.9.1
 - Minimum angle of 70° desirable where pedestrians routinely cross driveway, 45° minimum otherwise.

Source: TAC Geometric Design Guide for Canadian Roads (June 2017), Figure 8.9.2: Driveway Spacing Guidelines – Locals and Collectors



TAC Driveway Spacing Guidelines

11 Official Plan Updates

The Town's OP provides information regarding parking such as when a Zoning By-law amendment is required or what parking practices are permitted (e.g. cash in lieu). It also clearly states that parking is a factor when changing or adding land uses to a site, such as a garden apartment. In general, the OP provides adequate support for the Zoning By-law and clearly outlines the Town's parking policies. To ensure that adequate parking is provided for future development, the OP should be amended to include the requirement of a parking study as part of the Site Plan Application if the site will not comply to the By-law parking requirements.

The OP should also be amended to include a requirement of a queuing study as part of the Site Plan Application if the site will not comply to the By-law stacking requirements. A queueing study is also recommended for developments projected to generate traffic volumes greater than or equal to 60 vehicles per hour.

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12 Recommendations

Based on the reviews completed herein, the following is recommended:

Zoning By-law

- ▶ Update The Zoning By-law to include the new non-residential land uses and parking rates;
- ▶ Adopt revised minimum vehicle parking rates as contained herein;
- ▶ Adopt the visitor parking rates contained herein;
- ▶ Adopt minimum bicycle parking rates as contained herein; and
- ▶ Adopt accessible parking requirements in accordance with the AODA.

Permit Parking System

- ▶ Permanently relocate the Farmer's Market from the Jones Street lot to the Flats (Milt Dunnell Field);
- ▶ Reconstruct the Jones Street parking lot, install lighting, and provide pedestrian walkways connecting to the Elgin Street lot;
- ▶ Maintain the existing residential parking permit program and assign parking spaces in the Jones Street and Elgin Street lots;
- ▶ Modify the Town By-law to allow employees to use unassigned spaces in the Jones Street and Elgin Street lots for a period of up to 12 hours;
- ▶ Explore opportunities for cash in lieu of parking; and
- ▶ Explore opportunities to increase the permit parking supply.

Parking Enforcement

- ▶ The Town install signs throughout the downtown core, indicating time restrictions, and user type (e.g., accessible, loading zone) for on-street parking spaces where not currently provided;
- ▶ The Town clearly post time restrictions in off-street parking lots advertising the longer durations;
- ▶ The Town maintain a consistent enforcement program to monitor parking in all areas; and

- ▶ The Town consider a parking pricing strategy if time restrictions and enforcement are not successful in mitigating identified downtown parking concerns.

Municipal Parking Lots

- ▶ The Town encourage the Canadian Tire/Foodland property to locate employee parking in the rear parking lot off Wellington Street South, to the rear of the building;
- ▶ The Farmer's Market is permanently relocated from the Jones Street Lot to the Flats (Milt Dunnell Park). This would permit overnight parking in the Jones Street lot and create additional inventory;
- ▶ Increase the Jones Street parking lot time limit to 12 hours to permit downtown employee and overnight resident parking;
- ▶ The planned upgrades to the Jones Street lot are completed;
- ▶ The Town explore options to divest the Opera House Parking Lot;
- ▶ A parking lot is formalized in the area adjacent to the pump house known as Well #2. This lot could be included as part of the permit program;
- ▶ Directional signage is installed at key decision points south of the Downtown Boundary; and
- ▶ The Town undertake yearly assessments of parking signage to ensure signs meet minimum standards for readability.

Drive-Through Stacking

- ▶ Modify Section 3.13 (Automobile Washing Establishment) of the Town's existing Zoning By-law and remove the requirement for queuing spaces;
- ▶ Adopt definitions for stacking lanes and stacking spaces as contained herein;
- ▶ Adopt a minimum number of stacking spaces for select land uses as defined herein;
- ▶ Adopt a requirement for a queuing study for all drive through applications;
- ▶ Adopt design guidelines to support the design of drive-through facilities;
- ▶ Consider a reduction in the number of required parking spaces for sites that include a drive through facility; and
- ▶ Update the Zoning By-law to adopt the recommended stacking provisions.

Zoning By-law Definitions

- ▶ Update the driveway definition in Section 5.21.4 of the By-law to permit parking on a driveway.

Design Guidelines

- ▶ The Town amend the Zoning By-law to permit driveways up to 8.0 metres in width, or 60 percent of the lot width, in residential areas where lots are wider, higher parking ratios are required and tandem parking will not be permitted;
- ▶ The Town adopt a minimum driveway spacing of 1.0 metre for residential driveways; and
- ▶ The Town adopt a minimum driveway spacing of 6.0 metres where on-street parking is desired.

Official Plan Update

The Official Plan should be amended to include the following:

- ▶ Requirement of a parking study as part of the Site Plan Application if the site will not comply to the By-law parking requirements; and
- ▶ Requirement of a queuing study as part of the Site Plan Application if the site will not comply to the By-law stacking requirements.



Appendix A

Town of St. Marys Zoning By-law (Section 5)

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SECTION 5 - GENERAL PROVISIONS

The **zone** provisions contained in this Section of the By-law shall apply to all **zones** established by this By-law except as may be indicated in the applicable **zone** provision.

Amended by By-law No. Z130-2018

5.1 Accessory Apartments

5.1.1 In a Single-detached, Semi-detached or Row or Townhouse Dwelling

A maximum of one **accessory apartment** is permitted per **lot** in any **single-detached, semi-detached or row or townhouse dwelling** provided that:

- (a) The maximum **gross floor area** of the **accessory apartment** shall not exceed 40 percent of the **gross floor area** of the **main building** (including the **gross floor area** of the **accessory apartment**) and shall not exceed 100 square metres (1,076 ft²);
- (b) A **home occupation** is prohibited in any **accessory apartment**;
- (c) An **accessory apartment** is prohibited on any **lot** where a **garden suite dwelling** exists;
- (d) The **lot** is serviced by municipal water and sanitary sewer services; and,
- (e) The establishment of a new **accessory apartment** on any **lot** located east of the CNR tracks and north of Trout Creek is prohibited until a secondary means of access to these lands is available.

5.1.2 In an Accessory Building or Structure

Alternatively, the **accessory apartment** may be permitted in an **accessory building or structure** on the **lot** in accordance with Section 5.1.1 and provided that:

- (a) There is an existing **single-detached, semi-detached or row or townhouse dwelling** on the **lot**;
- (b) The size of the **lot** is a minimum of 1,000 m²;
- (c) The accessory building or structure complies with **minimum front, rear, interior side and exterior side yard** requirements for the **main building** in the applicable zone; and,
- (d) The **accessory building or structure** complies with the **building height** and **lot coverage** requirements of Sections 5.1.4 and 5.1.5.

5.1A Accessory Uses

5.1.1A Use

Where this By-law provides that a **lot** may be **used** or a **building** or **structure** may be **erected, altered, or used** for a purpose, that purpose shall include any **accessory building or structure** or **accessory use**, but shall not include:

- (a) any occupation or business for profit conducted within a **dwelling unit** except as may be specifically **permitted** by this By-law; and
- (b) any **building** or **structure** **used** for human habitation except as may be specifically **permitted** by this By-law.

5.1.2A Time of Establishment

No **accessory use, building, or structure** shall be **permitted** on any **lot** until such time as the main **use** to which it is **accessory** has been lawfully and physically established on the **lot**.

5.1.3A Location

- (a) all **accessory buildings** and **structures** shall comply with the **minimum front yard** requirement for the **main building** on the **lot** or be located to the **rear** of the front wall of the **existing main building** on the **lot**, whichever is greater;
- (b) all **accessory buildings** and **structures** shall be required to comply with the **side** and **rear yard** requirements for the **zone** in which they are located as set out in this By-law;

Amended by By-law Nos. Z31-2001 and Z113-2015

- (c) **accessory buildings** and **structures** shall not be structurally attached to a **main building** in any way and they shall be located at a distance of not less than 1.0 metres from the **main building**. The provisions of this Section shall not apply to standby generators or air conditioning/ventilation devices;
- (d) notwithstanding the foregoing, in any Residential Zone One (R1), Residential Zone Two (R2), Residential Zone Three (R3), or Residential Zone Four (R4) a **detached garage** or other **accessory building** may be **erected** and **used** in a **rear yard** provided it is located not less than 1.0 metres from any **lot line**;
- (e) where an **accessory building** or **structure** is built on a **corner lot**, it shall be no closer to the **front lot line** than **permitted** by Clause (a) above and no closer to the **exterior side lot line** than the **minimum exterior side yard** distance required for the **main building** under this By-law.

5.1.4A Height

Except as otherwise provided in this By-law, no **accessory building** or **structure** shall exceed 4.5 metres in **height** or be higher than the **main building** on the **lot**, whichever is the lessor. This provision shall not apply to the Agricultural Zone One (A1).

Amended by By-law No. Z107-2014

5.1.5A Coverage

- (a) The total **lot coverage** of all **accessory buildings** and **structures** on a **lot** shall not exceed 10 per cent of the **lot area**.
- (b) Notwithstanding the above paragraph (a), the total **lot coverage** of all **accessory buildings** and **structures** on a **lot** in any Residential Zone One (R1), Residential Zone Two (R2), Residential Zone Three (R3), or Residential Zone Four (R4) shall not exceed 10 per cent of the **lot area** or 50 square metres whichever is the lesser.
In a R1, R2, R3, or R4 **zone** with a **lot area** of 1,050 square metres or more, shall not exceed 5% of the **lot area** or 115 square metres, whichever is the lessor.

For the purpose of Section 5.1.5 (a) and 5.1.5 (b), the area of a **swimming pool** that is not enclosed by a **building** or **structure** shall not be included in the calculation of **lot coverage**.

5.2 Application of Other By-laws, Requirements, and Regulations

Nothing in this By-law shall operate or cause to relieve any **person** from the obligation to obtain any license, permit, authority or approval lawfully required by a government authority having the jurisdiction to make such requirements and/or regulations. This By-law shall not be effective to reduce or mitigate any regulations lawfully imposed by a government authority having the jurisdiction to make such requirements and/or regulations.

5.3 Bed and Breakfast Establishment

Where **bed and breakfast establishments** are **permitted** by this By-law, they shall be subject to the following criteria:

- (a) **a bed and breakfast establishment use** must be clearly secondary to the main residential **use** of the **dwelling**;
- (b) **a bed and breakfast establishment use** must not change the character of the **dwelling** as a private residence;
- (c) no more than three (3) guest rooms or fifty percent of the **gross floor area**, whichever is less, of the **single-detached dwelling** shall be used for **bed and breakfast establishment**;

Amended By-law No. Z17-2000

- (d) there shall be no external evidence of the **bed and breakfast establishment** with the exception of a single **sign** measuring not greater than 0.4 square metres in size. Such **sign** may be ground mounted with a setback of 4.0 metres from any **lot line**. The maximum height to the top of the **sign** shall not exceed 1.2 metres. Said **sign** shall not be internally illuminated;
- (e) **a bed and breakfast establishment** must meet all of the applicable requirements of this By-law, including parking requirements, and all other applicable laws;
Where a **bed and breakfast establishment** existed prior to September 24, 1996, it shall be subject to the criteria of Section 5.3, above.

However, if a **bed and breakfast establishment** that existed prior to the date of passing of this By-law does not satisfy one or more of the criteria of Section 5.3(a) thru 5.3(e), inclusive, it shall be deemed to be a **permitted use** under the provisions of this Section. Any addition or **alteration** to an **existing bed and breakfast establishment** shall be in accordance with the criteria of Section 5.3. This Section of the By-law does not relieve any **person** operating a **bed and breakfast establishment** from **complying** with all health, fire and safety standards and regulation established by the Federal, Provincial, or Local Government.

5.4 Building Repairs

Nothing in this By-law shall apply to prevent the strengthening or restoring to a safe condition any **non-conforming building** or **structure** or legal **non-complying building** or **structure** provided that the following provisions are met:

- (a) the strengthening or repairing does not increase the **gross floor area, height, or lot coverage** of the **building** or **structure**; and
- (b) the **use** of the **building** or **structure** is not changed and continues in the same manner as previously existed.

5.4A Community Gardens

Community Gardens shall be permitted in all zone classifications, unless specifically prohibited by the permitted uses on the respective zone classification.

5.5 Conflicting Regulations

Where the application of the provisions of this By-law results in a conflict between the provisions and/or requirements of this By-law, or any other By-law of the **Corporation**, the most restrictive provision and/or requirement shall apply.

Amended by By-law No. Z107-2014

5.5A Conservation Lands and Conservation Works

Conservation Lands and Conservation Works shall be **permitted** in all **zone** classifications.

5.6 Daylight or Sight Triangle

No **building** or **structure** shall be **permitted** on that portion of a **corner lot** which is within a **daylight triangle** or **sight triangle** as defined in Section 3.42 of this By-law where a distance of 10.8 metres measured along the **street lines** is **used** for the purpose of determining the location of the **daylight triangle** or **sight triangle**, except as specifically stated otherwise in this By-law.

The provisions of Section 5.24.8 of this By-law shall also apply.

5.7 Drainage

Suitable measures for surface and sub-surface drainage shall be required in respect to the **use** of all land and the **use** and/or **erection** of all **buildings** and **structures**.

Amended by By-law No. Z130-2018

5.8 Dwelling Units Below Grade

No **dwelling unit** shall, in its entirety, be located in a cellar. If any portion of a **dwelling unit** is located in a cellar, such portion of the **dwelling unit** shall be **used** only as a furnace room, laundry room, storage or utility room, recreation room, bedroom subject to applicable Building Code requirements, or for a similar **use**. However, a **dwelling unit**, in its entirety, may be located in a **basement** subject to applicable Building Code requirements.

This section shall not apply to an **accessory apartment**.

5.9 Exterior Lighting

The type, location, height, intensity, and direction of exterior lighting on a **lot** shall be designed so as to ensure illumination does not glare onto adjacent properties or onto an adjacent **street**.

Amended by By-law No Z17-2000 and By-law No. Z107-2014

5.10 Frontage Abutting a Street/Street Access

No **person** shall hereafter **erect** any **building** or **structure** on any **lot** in any **zone** unless such **lot** abuts an improved **public street** which is constructed to the current municipal standard for its **road** classification.

Notwithstanding the foregoing, infilling **development** may be **permitted** on **streets** which are not improved to the full municipal standard, if such **road** has a **road** base and **road** surface to its classification requirements.

In the case of a parcel of land for which a Development and/or Subdivision Agreement has been approved and registered against the title pursuant to the Planning Act, R.S.O. 1990, then the single parcel of land to which the Development and/or Subdivision Agreement applies shall be deemed to be a **lot** for application of this Section, notwithstanding that part of the parcel does not otherwise satisfy the definition of **lot**, or does not abut an improved **public street**.

Single detached, semi-detached, duplex or street townhouse dwellings shall be

permitted on **lots** without frontage on a **public street** provided that all such **dwellings** are located on Parcels of Tied Lands (POTL's) to a Common Elements Condominium (CEC) consisting of at least a private communal **driveway** connecting to a **public street**.

Amended by By-law No. Z107-2014

5.11 Home Occupation

Where a **home occupation** is **permitted** in a **zone** the following provisions shall apply:

- (a) such **home occupation** must be clearly secondary to the main **use** of the **dwelling** for residential purposes;
- (b) such **home occupation** must not change the character of the **dwelling** as a private residence;
- (c) such **home occupation** shall be conducted only by a **person** residing permanently in the **dwelling**;

Amended by By-law No Z17-2000

- (d) there shall be no external evidence of the **home occupation** from outside of the **dwelling**, including window displays, with the exception of a single **sign** measuring not greater than 0.4 square metres in size. Such **sign** shall not be internally illuminated and shall be affixed to the facade of the **building** or ground mounted with a minimum setback of 4.0 metres from any **lot line**. The maximum height to the top of the **sign** shall not exceed 1.2 metres;
- (e) there shall be no external display or storage of goods, materials, wares or merchandise on the **lot** on which the **dwelling** containing the **home occupation** is located;
- (f) no external **alteration** of the **dwelling** shall be **permitted** so as to accommodate a **home occupation**, such as the inclusion of any specialized **structure**, ramps, or oversize doorways which will tend to change the character of the **dwelling** as a private residence;
- (g) such **home occupation** shall not create nor become a nuisance or hazard to neighbours by reason of noise, vibration, dust, smoke, fumes, odour, heat, debris, refuse, fire, lighting interference, hours of operation, traffic, or parking;
- (h) no mechanical or other equipment shall be **used** in conjunction with a **home occupation** except that which is customarily **used** in **dwellings** for domestic or household purposes;
- (i) not more than one **home occupation** is **permitted** in a **dwelling unit** and no **home occupation** shall occupy more than 25.0 square metres of floor area or 25 per cent of the **gross floor area** of the **dwelling unit** (excluding an **attached garage**), whichever is lesser. The area of the **dwelling unit** not being **used** for **home occupation** must comply with the applicable **gross floor area** requirements of this By-law;
- (j) a **home occupation** shall be carried on only in the **dwelling unit** of a **single-detached dwelling** or in the **dwelling unit** of a **semi-detached dwelling**. No **home occupation** shall be carried on in an **accessory building** or **structure** or in an **attached garage**;
- (k) such **home occupation** shall meet all of the applicable requirements of this By-law, including parking requirements;
- (l) for greater clarity, a **home occupation** shall include but not be limited to an **office** or consulting room for a professional **person** or agent; an **office** for a trade such as a builder, a plumber, an electrician; an **office** for a charitable organization; a workroom for a dressmaker or a tailor; a hairdresser/barber; a dog groomer; a studio for a teacher of music, art, or academic subjects, a photographer or a commercial artist; and any other **use** of a similar nature which satisfies all of the criteria of this Section of the By-

law; but shall not include a **kennel**, a **boarding house**, a **medical clinic**, a **retail store**, or any workshop, or plant for any trade.

5.12 Loading Space Requirements

Where a **building** or **structure** is **erected** or **used** for a **commercial** or **industrial use** involving the receiving, shipping, loading, or unloading of goods, wares, merchandise, raw materials, or animals, the owner and/or occupant of the **building** or **structure** shall provide and maintain on the same **lot** on which such **building** or **structure** is located, and not on a **street** or **lane**, **loading spaces** and/or unloading spaces in accordance with the following requirements:

5.12.1 Number of Loading Spaces

The minimum number of **loading spaces** required shall be in accordance with the following provisions:

<u>Gross Floor Area</u> (square metres)	<u>Number of Spaces</u>
(i) less than 500	0
(ii) 500 to 4,000	1
(iii) 4,001 to 10,000	2 Plus 1 for each additional 10,000 m ² of gross floor area or fraction thereof.

5.12.2 Loading Space Location

The **loading space** or **spaces** required by this By-law shall be located in the **interior side yard** or **rear yard** of the **lot** unless such **loading space(s)** is located a distance of not less than 15 metres from the **street line** abutting the **lot**.

Amended by By-law No. Z107-2014

5.12.3 Loading Space Size

Every **loading space** required by this By-law shall have a minimum length of 18.0 metres, a minimum width of 3.5 metres, and a minimum vertical clearance of 4.25 metres.

5.12.4 Loading Space Access

Access to a **loading space** shall be by means of an unobstructed **driveway** at least 6.0 metres in width situated entirely on the **lot** upon which the **loading space(s)** are located leading to a **street** or **lane**.

5.12.5 Loading Space Surface

The **driveways** and **loading space(s)** required by this By-law shall be maintained with a stable surface so as to prevent the raising of dust or loose particles. The **driveways** and **loading spaces** shall, prior to being **used**, be constructed of crushed stone, slag, gravel, crushed brick or tile, paving stone or brick, asphalt, concrete, or cinders having a Portland cement binder, and shall have adequate drainage facilities.

5.12.6 Existing Buildings and Additions

The **loading space** provisions contained in Section 5.12.1 shall not apply to any **building** that lawfully existed prior to the date of adoption of this By-law so long as the **gross floor area** has not been increased.

If an addition is made to a lawfully **existing building** which has the effect of increasing the **gross floor area** after the date of adoption of this By-law, the regulations of Section 5.12 shall apply in respect to the area of such addition.

5.13 Mobile Homes Prohibited

It shall be prohibited to locate or **use** a **mobile home** in any **zone** established by this By-law either temporarily or permanently, unless the **use** of a **mobile home** is specifically **permitted** by other provisions of this By-law.

5.14 Multiple Uses

Notwithstanding any other provisions of this By-law, where the **use** of any land, **building**, or **structure** is composed of two or more **uses** which are classified as having separate and distinct **zone** provisions under this By-law, none of these **uses** shall be considered as being **accessory** to one another and therefore the provisions governing each **use** shall be applied to each **use** as if each **use** existed independently.

5.15 Non-Conforming Uses, Buildings, and Structures

The following provisions shall apply to **legal non-conforming uses, buildings, and structures**:

5.15.1 Existing Uses, Buildings, and Structures

Nothing in this By-law shall prevent a **legal non-conforming use, building, or structure** to continue being **used** for the same **use** and to the same **development** standards as existed prior to the passing of this By-law.

5.15.2 Building Permit Issued

Nothing in this By-law shall apply to prevent the **erection** of a **legal non-conforming building or structure**, where a building permit has been lawfully issued under the Building Code Act prior to the day of passing of this By-law, provided that the following are met:

- (a) the **building or structure**, when **erected**, is **used** and continues to be **used** for the purpose for which the permit was issued; and
- (b) the **erection** of such **building or structure** is commenced within one (1) year after the date of passing of this By-law and is completed within one (1) year of the date that the **erection** commenced.

5.15.3 Replacement of Non-Conforming Uses, Buildings, and Structures

Where a lawfully **existing building or structure** is **used** for a purpose not **permitted** in the **zone** in which such **building or structure** is located and such **building or structure** is partially or totally destroyed by fire or similar natural cause or peril, such **building or structure** may be replaced or repaired and the **non-conforming use** re-established provided that the following conditions are met:

- (a) the owner must make application to the **Corporation** for a building permit to replace the **building or structure** within one (1) year of the date on which the partial or total destruction occurred;
- (b) the replacement or repair of the **building or structure** must be completed within one (1) year of the date on the building permit for such replacement or repair was issued by the **Corporation**;
- (c) the replacement or repair of the **building or structure** occurs at approximately the

same location on the **lot**. In no case shall any encroachment into a required **yard**, other than that which **existed** on the date of passing of this By-law, be **permitted**. For the purpose of determining required **yards**, the most restrictive **yard** provision for that **zone** shall apply;

- (d) the replacement or repair does not increase the **gross floor area, height, and lot coverage** of the **building** or **structure** as it existed prior to the partial or total destruction; and
- (e) the **use** of the **building** or **structure** is not changed and continues in the same manner as previously **existed**.
- (f) the owner obtain approval from the Upper Thames River Conservation Authority prior to the replacement or repair of **buildings** and **structures** within the Flood Plain (FP) **Zone**.

5.16 Non-Complying Uses, Buildings, and Structures

The following provisions shall apply to **legal non-complying uses, buildings, and structures**:

5.16.1 Existing Uses, Buildings, and Structures

Nothing in this By-law shall prevent a **legal non-complying use, building, or structure** to continue being **used** for the same **use** and to the same **development** standards as existed prior to the passing of this By-law.

5.16.2 Building Permit Issued

Nothing in this By-law shall apply to prevent the **erection** or **use** of a **building** or **structure** that does not satisfy or fulfill the provisions of the **zone** in which such **building** or **structure** is located where a building permit has been lawfully issued under the Building Code Act, prior to the day of passing of this By-law, or where the **Town's Committee of Adjustment** has approved an application for relief from the requirements of the previous Zoning By-law No. 25-75 provided that the following are met:

- (a) the **building** or **structure**, when **erected**, is **used** and continues to be **used** for the purpose for which the permit was issued unless a new **use** is **permitted** within the **zone** and the extent of **non-conformity** to the provision(s) of this By-law will not increase as a result of the new **use**; and
- (b) the **erection** of such **building** or **structure** is commenced within one (1) year after the date of passing of this By-law and is completed within one (1) year of the date that the **erection** commenced.

5.16.3 Replacement of Non-Complying Uses, Buildings, and Structures

Where a **legal non-complying use, building or structure** is partially or totally destroyed by fire or similar natural cause or peril, such **use, building or structure** may be replaced or repaired and the **non-complying use, building or structure** re-established provided that the following conditions are met:

- (a) the owner must make application to the **Corporation** for a **building** permit to replace the **use, building or structure** within one (1) year of the date on which the partial or total destruction occurred;
- (b) the replacement or repair of the **use, building or structure** must be completed within one (1) year of the date on the building permit for such replacement or repair was issued by the **Corporation**;

- (c) the replacement or repair of the **use, building or structure** occurs at the same location on the **lot**. In no case shall any encroachment into a required **yard**, other than that which existed on the date of passing of this By-law, be **permitted**; and
- (d) the replacement or repair does not increase the **gross floor area, height, and lot coverage** of the **building or structure** as it existed prior to the partial or total destruction.

Amended by By-law No Z17-2000

5.16.4 Expansion of Non-Complying Buildings and Structures

The extension, enlargement or expansion of a **non-complying building or structure** shall be **permitted** provided that such extension, enlargement or expansion to the **non-complying building or structure** is located on the **lot** so that it is in compliance with the **zoning** provisions of this By-law for the **zone** classification for where it is located.

5.17 Occupancy of Completed Buildings

Notwithstanding any of the provisions contained in this By-law, no **person** shall occupy any **building or structure** unless the **Chief building official** has issued an occupancy permit in accordance with the Ontario Building Code.

Amended by By-law No. Z107-2014

5.18 One Dwelling on One Lot

Not more than one (1) **dwelling** unit shall be **permitted** on a lot, except as **permitted** specifically by other provisions of this By-law or other Provincial legislation.

5.18.1 Merged Lands

Two or more **dwellings** shall be **permitted** on one **lot** in cases where one **lot**, containing a **dwelling(s)**, legally merges with an adjoining **lot**, containing a **dwelling(s)**, to form one larger **lot** containing two or more **dwellings**.

5.18.2 Part Lot Control Exemption

On a **lot** or block against which a Part Lot Control Exemption By-law is registered, those parts on a reference plan which are intended to constitute a future parcel shall be deemed to be a **lot** for the purposes of this section of the By-law, provided that such parts are in compliance with all applicable regulations of this By-law, in which case, one **single detached dwelling**, one **dwelling unit** of a **semi-detached dwelling, duplex dwelling**, or one **dwelling unit** of a townhouse shall be **permitted** on each future parcel.

5.18.3 Condominiums

More than one **single detached, semi-detached, duplex or street townhouse dwelling** shall be **permitted** on a **lot** provided that each **dwelling** has direct access to an internal private communal **driveway or road** that is a common element in a registered **Condominium** connecting to a **public street** and that each **dwelling** is located on a 'unit' in a Vacant Land or Common Elements **Condominium**.

5.19 Outdoor Storage

Where outdoor storage is **permitted** by the **zone** provisions of this By-law, the outdoor storage of goods or materials shall be **permitted** only in the **interior side yard or rear yard** of the **main building** provided that the following provisions are satisfied:

- (a) the **outdoor storage** is **accessory** to the **use** of the **main building** on the **lot**;
- (b) such **outdoor storage** complies with the **yard** requirements for **accessory buildings** and **structures** as set out in Sections 3.1 and 5.1;
- (c) any portion of the **lot used** for **outdoor storage**, shall be completely concealed from view from the **street** or an abutting **lot** in a Residential **Zone** by a **planting strip, fence, decorative masonry wall, or existing building** on the **lot**, or a combination thereof.

5.20 Outdoor Display and Sales Area

Where **outdoor display and sale area** is **permitted** by the **zone** provisions of this By-law, it shall be **permitted** in any **yard** on a **lot** provided that the following provisions are satisfied:

- (a) such **outdoor display and sales area** is **accessory** to the main **use** on the **lot** and is for merchandise kept for sale, lease, or rent on the premises;
- (b) such **outdoor display and sales area** shall be set back a minimum distance of 3.0 metres from a **front** or **exterior side lot line** and a minimum distance of 1.0 metres from an **interior side** or **rear lot line**;
- (c) notwithstanding the provisions of Clause (b) above, no **outdoor display and sales area** shall be **permitted** in a required **daylight or sight triangle**;
- (d) such **outdoor display and sales area** shall not block-off or restrict access to the **lot**;
- (e) such **outdoor display and sales area** is kept in a neat and attractive manner.

5.21 Parking Area and Space Requirements

The owner of every **building** or **structure erected** or **used** for a purpose **permitted** by this By-law shall provide and maintain for the sole **use** of the owner, occupant, or other **persons** entering upon or making **use** of said premises from time to time **parking areas** and **spaces** in accordance with the following provisions:

Amended by By-law Nos. Z107-2014 and Z130-2018

5.21.1 Number of Parking Spaces

5.21.1.1 Parking Requirements

The minimum number of **parking spaces** required for the **uses** and purposes hereinafter set forth shall be as follows:

	Type of Use	Number of Spaces
A	Single-detached, Semi-detached, Duplex, and Converted	2 per dwelling unit
B	Fourplex, Row or Townhouse, and Triplex dwellings	1.5 per dwelling unit
C	Apartment dwelling and other multiple unit dwellings	1.25 per dwelling unit

	Type of Use	Number of Spaces
D	Accessory dwellings Accessory apartment	1 per dwelling unit
E	Bed and breakfast establishment	2 per dwelling unit plus 1 per guest room for rent
F	Group home dwellings	2 per dwelling unit plus 1 per 4 group home residents
G	Home for the aged	1 per 6 beds plus 1 per 3 employees on the largest shift
H	Nursing home dwellings	1 per 4 beds plus 1 per 3 employees on the largest shift
I	Assembly Hall , Community Centre, Arena, Theatre	1 per 5 seats or 3 metres of bench space of maximum seating capacity, or 1 per 230 square metres of playing field area where no seating exists
J	Automobile repair establishment, automobile service station, automobile sales and service establishment	4 plus 1 per repair bay plus 1 per 2 employees
K	Bowling establishment	3 per bowling lane
L	Business or Professional Office	1 per 20 square metres of gross floor area
M	Clinic, Animal Clinic, Medical	5 per practitioner
N	Church	1 per 4 persons of maximum designed capacity of the sanctuary
O	Day Nursery	1 per 40 square metres of gross floor area
P	Eating establishment, Restaurant, tavern	1 per 4 persons of maximum designed capacity
Q	Eating establishment, take-out	6 plus 1 per 4 persons of maximum designed capacity
R	Hospital	1 per 4 beds plus 1 per 3 employees
S	Hotel or Motel	1 per every 2 employees plus 1 per guest room
T	Industrial establishment Largest shift, including office staff	1.25 per employee
U	Retail store , department store, personal service shop	1 per 30 square metres of retail and/or customer service floor area
V	School , Elementary	the greater of 1.5 per classroom or 1 per 3 square metres of auditorium assembly area

	Type of Use	Number of Spaces
W	School, Secondary	the greater of 5 per classroom or 1 per 3 square metres of auditorium assembly area
X	Sports Field	the greater of: (i) 1 per 5 seats or 3 metres of bench space of maximum permanent seating capacity, or (ii) 1 per 250 m ² of gross field area where no seating exists
Y	Supermarket , grocery store	1 per 10 square metres of retail floor area
Z	Wholesale establishment	1 per 55 square metres of retail floor area
AA	Uses permitted by this by-law other than those referred to above	1 per 40 square metres of gross floor area

5.21.1.2 Accessible Requirements

Accessible **parking spaces** for **persons** with disabilities required by this By-law shall have a minimum width of 4.25 metres and a minimum length of 5.5 metres not including area used for access, maneuvering, **driveway**, or similar purpose. If there are two or more accessible **parking spaces** located beside each other in the same parking aisle, they may share the 2.0 metre aisle, resulting in a reduction in the size of every other such **parking space** (i.e. every second accessible **parking space**).

Accessible **parking spaces** shall be:

- (a) hard surfaced and a maximum running slope of 1.5 percent and a maximum crossing slope of 1 percent;
- (b) located near an accessible **building** entrance; and
- (c) identified for **use** by **persons** with disabilities by a sign, which is clearly posted and visible at all times, containing the International Symbol of Accessibility for Disabled Persons. Such **sign** shall be posted in a visible location other than on the parking surface.

The provisions for the number of accessible **parking spaces** are outlined in the following table.

Number of Automobile Parking Spaces	Number of Designated Accessible Parking Spaces
1-25	1
26-50	2
51-100	3
101-150	4
151-200	6
201 or greater	6 plus 2% of the total number of spaces over 201.

Where the application of the **parking space** requirements results in a number that is not a whole number, the number shall be rounded-up to the next whole number (e.g. 7.3 spaces would be rounded-up to 8).

5.21.2 Ingress and Egress

Amended by By-law No Z17-2000 and Z31-2001

Ingress and egress to **parking spaces** required by this By-law shall be provided by a sufficient number of unobstructed **driveways**. Each **driveway** shall have a minimum width of at least 3.0 metres. Each **driveway** in a Residential **Zone** shall have a maximum width of 8.0 metres or 60 percent of the width of the **lot**, whichever is less. Each **driveway** in a non residential **zone**, except a **driveway** located in the M2 **zone**, shall have a maximum width of 10.0 metres.

The number of **driveways** serving a **lot** shall be limited in accordance with the following:

- (a) up to the first 20.0 metres of **lot frontage** - not more than 1 **driveway**;
- (b) from 20.0 metres to 30.0 metres of **lot frontage** - not more than 2 **driveways**;
- (c) for each additional 30.0 metres of **lot frontage** - one additional **driveway** is permitted.

5.21.3 Driveway Location

Amended by By-law No Z17-2000

- (a) the minimum distance between **driveway** ramps where access to a **lot** is by means of more than 1 **driveway** shall be 7.5 metres.
- (b) the minimum distance between a **driveway** ramp and an intersection of **street lines** shall be 10.8 metres measured along the **street line**.

Amended by By-law No Z17-2000 and Z31-2001

5.21.4 Parking Area Location

All required **parking spaces** and **areas** shall be provided on the same **lot** as the **building** or **structure** is located, with the exception that the **Committee of Adjustment** may permit the required **parking spaces** and **areas** to be located on an adjacent **lot** provided that such **lot** is appropriately **zoned** so as to permit such parking **use** and provided that no part of such **parking space** or **area** is located further than 150.0 metres from the **lot** on which the **building** or **structure** requiring the parking is located. The above exception shall not apply in the case of **parking spaces** required for a **residential use** in a Residential **Zone**.

Notwithstanding any other provision of this By-law to the contrary, uncovered surface **parking spaces** shall be **permitted** in any required **yard** in the R1, R2, R3, and R4 **zones** and within 1.5 metres of a **lot line** in any other **zones** provided the **parking spaces** and **parking areas** are not located in the **daylight or sight triangle** or within any required **planting strip**.

Amended by By-law No Z17-2000 and Z31-2001 and Z107-2014

5.21.5 Parking Space Access

All required **parking spaces**, except those required for **single-detached dwellings**, **semi-detached dwellings**, **duplex dwellings**, **street front townhouse dwellings**, and **converted dwellings** (to a maximum of two dwellings) shall be accessed only by an internal **driveway** and no direct access from a **street** shall be **permitted**. Such internal **driveways** shall have a minimum width of 6.0 metres.

Tandem Parking shall be **permitted** for a single-detached dwelling, for one unit of a **semi-detached dwelling**, **street front townhouse dwelling**, and for **bed and breakfast establishments**.

The parking requirements for **persons** with disabilities as contained in Section 5.21.15 do not apply for **single-detached dwellings, semi-detached dwellings, duplex dwellings, street front townhouse dwellings, and converted dwellings** (to a maximum of two **dwellings**).

Amended by By-law No Z17-2000

5.21.6 Parking Area Surface

5.21.6.1 Residential Zones

Each **parking area** and **driveway** connecting the **parking area** with the **street line** shall be maintained with concrete, asphalt or other hard surface, however, crushed stone, gravel, or other dustless material shall be **permitted** for a **single detached dwelling, a duplex dwelling, a semi-detached dwelling, or an agricultural use**.

5.21.6.2 Commercial Zones

Each **parking area** and **driveway** connecting the **parking area** with the **street line** shall be maintained with concrete, asphalt or other hard surface and bounded with a barrier curb.

5.21.6.3 Industrial Zones

Each **parking area** and **driveway** connecting the **parking area** with the **street line** shall be maintained with concrete, asphalt or other hard surface, and bounded with a barrier curb provided however, crushed stone, crushed brick or tile, paving stones, or cinders having a Portland cement binder may be provided for the **parking area** and **driveways** which are located to the rear of the **front or exterior side yard building** line. No curbing shall be required for **parking** and **driveway areas** located to the rear of the **front or exterior side yard building** line.

5.21.7 Parking Area Drainage

All **parking areas** and **driveways** shall be graded and drained so as to ensure that surface water will not escape to neighbouring lands as a result of the construction or **use** of such **parking areas** and **driveways**.

Amended by By-law No. Z107-2014

5.21.8 Parking Space Size

Parking spaces required by this By-law shall have a minimum width of 2.7 metres, a minimum length of 5.5 metres, and a minimum height of 2.4 metres.

Parking spaces for **persons** with disabilities shall have a minimum width of 4.25 metres, a minimum length of 5.5 metres, and a minimum height of 2.4 metres.

5.21.9 Multiple Use of Buildings

Where a **building** or **structure** accommodates more than one type of **use** as set out in Section 5.21.1 above, the number of **parking spaces** required for the whole **building** shall be the sum of the number of **parking spaces** required for the separate parts of the **building** as occupied by the separate **uses**.

Where common space within a **building** serves more than one type of **use** as set out in Section 5.21.1 above, such common space shall be assessed against one **use** only and that **use** shall be the one with the more restrictive parking requirement.

5.21.10 Multiple Use of Parking Areas

Where two or more **uses** utilize the same **parking area** during the same or overlapping time period, the number of **parking spaces** required by this By-law shall be the sum of the **parking spaces** required for each **use**.

Where two or more **uses** utilize the same **parking area** and the periods of **use** for each of the **uses** do not occur at the same time, the parking requirements for the **use** requiring the greatest number of **spaces** shall apply.

5.21.11 Existing Buildings

The **parking space** provisions contained in Section 5.21.1 above shall not apply to any **building** that lawfully **existed** at the date of adoption of this By-law so long as the following provisions are met:

- (a) the **building** continues to be **used** for the **use** that **existed** in the **building** on the day this By-law was adopted or the **use** has changed to one which has the same or lesser parking requirements as the **use** that existed on the day this By-law was adopted;
- (b) the **gross floor area** of the **building** has not been increased since the date of adoption of this By-law so as to require additional **parking spaces**; and
- (c) all **parking spaces** that **existed** at the date of adoption of this By-law are retained.

5.21.12 Additions to Existing Buildings

Where an addition is made to a **building** that lawfully **existed** at the date of adoption of this By-law, additional **parking spaces** equal to the number required for the addition as determined by the application of the provisions of Section 5.21.1 of this By-law shall be provided.

5.21.13 Changes/Intensification of Use

Where a change of **use** is made to a **building** lawfully **existing** at the date of adoption of this By-law and where the new **use** requires a greater number of **parking spaces** than did the previously **existing use**, additional **parking spaces** equal to the difference in the number of parking **spaces** required for the new **use** and the previously **existing use** shall be provided.

5.22 Parking of Commercial Vehicles in Residential Zones

In any Residential **Zone**, one **commercial motor vehicle** may be parked on the same **lot** as a **dwelling unit** by the owner or occupant of the **dwelling unit**. This **commercial motor vehicle** shall not exceed either 6.0 metres in length or 2.5 metres in height, including any **trailer** which may be pulled by the cab of the vehicle. This provision shall not apply so as to prevent the stopping of any **commercial motor vehicle** making deliveries or collections or supplying services to the **dwelling unit** on the **lot**.

Any **commercial motor vehicle** parked in a Residential **Zone** shall not be parked so as to obstruct a **daylight triangle**.

Amended by By-law No. Z107-2014

5.23 Parking of Recreational Vehicles in Residential Zones

The parking of **recreational vehicles** as an **accessory use** to a residential use in any Residential **Zone** shall be subject to the following provisions:

- (a) not more than:

- (i) one **motor home**; or
 - (ii) one **travel trailer**; or
 - (iii) one boat with or without its boat **trailer**; or
 - (iv) two snow mobiles; or
 - (v) two all-terrain **vehicles**; or
 - (vi) one snow mobile and one all-terrain vehicle shall be parked or stored outside on a **lot** in a Residential Zone.
- (b) the location **recreational vehicles** shall be regulated as follows:
- (i) within a **carport**; or
 - (ii) within a **driveway** but outside of any **daylight triangle or sight triangle**; or
 - (iii) outside of any **building or structure** on the **lot** provided that no **motor home or travel trailer** is parked in the area on a **lot** no closer than 1.0 metres to an interior **side lot line** and/or a **rear lot line** and no closer to the **front lot line** and/or exterior **side lot line** than the **minimum front yard** and/or **exterior side yard** distance required for the **main building** under this By-law.

5.24 Permitted Encroachments Into Required Yards

Every part of any **yard** required to be provided in any **zone** under the provisions of this By-law shall be kept open and unobstructed by any **building, structure**, or thing from the ground to the sky except as provided for below:

Amended by By-law No. Z107-2014

5.24.1 Ornamental Structures

Sills, belt courses, cornices, eaves, gutters, chimneys, cantilevered fireplace exhaust inserts, parapets, bay or bow windows, pilasters, pillars or other ornamental **structures** may project into any required **yard** a distance of not more than 0.5 metres.

Amended by By-law No Z17-2000 and Z107-2014

5.24.2 Unenclosed Porches, Steps, and Patios

Steps, and **patios**, whether they be covered or uncovered, and unenclosed **porches** and verandas may project into any required **front yard, rear yard, exterior side yard**, a distance of not more than 1.8 metres, provided that in the case of steps, **patios, porches**, and verandas, the floor level of such **structures** are not greater than 1.2 metres above the **finished grade level** adjacent to such **structure**.

5.24.3 Accessory Structures

Frameworks such as drop awnings, flag poles, light standards, garden trellises, **fences**, retaining walls, and other similar devices shall be **permitted** in any required **yard**.

Amended by By-law No. Z31-2001

Clothes line poles and clothes trees shall be **permitted** in **interior side** and **rear yards** in accordance with the **zone** requirements for **accessory structures** in the respective **zones** and no closer to the **exterior side lot line** than the **minimum exterior side yard** distance required for the **main building** under this By-law.

Air conditioning/ventilation devices shall be **permitted**:

- (a) in the **interior side yard** but no closer than the **minimum side yard** requirement for the **zone** classification in which such device is located. In the case of the R1, R2, R3, and R4 **zones** no closer than 1.2 metres from the **interior lot line**;

- (b) in the **rear yard** but no closer than 5.0 metres from the **rear lot line**;
- (c) in the **exterior side yard** but no closer than 5.0 metres from the **street line** provided that such device is screened from view of the abutting **road** by fencing and/or landscaping.

5.24.4 Fire Escapes

Unenclosed fire escapes may project into required **side** or **rear yards** a distance of not more than 1.2 metres.

5.24.5 Signs

Signs may be **erected** in accordance with the provisions of any **sign** by-law passed by the **Corporation**. Notwithstanding this, the **bed and breakfast** and **home occupation** provisions relating to **signs** as set out in Section 5.3 and Section 5.11 of this By-law must be met.

5.24.6 Railway Spur Lines

A railway spur line shall be **permitted** in any **yard**.

5.24.7 Gate Houses

In any industrial **zone** a gate house shall be **permitted** in any **yard** provided that such gate house is located at a distance of not less than 1.5 metres to any **lot line**.

5.24.8 Obstructions on Corner Lots

On a **corner lot** no obstruction between a height of 750 mm and 3.0 metres above the grade of the centre line of the **street** or **streets** abutting a **daylight or sight triangle** shall be **permitted** to impede or obscure the vision of the operator of a **motor vehicle** travelling on the abutting **street(s)**.

Amended by By-law No. Z107-2014

5.24.9 Accessibility of Ontarians with Disabilities Act

Notwithstanding the **yard** and setback provisions of this By-law to the contrary, wheelchair ramps, or other apparatus for **persons** with disabilities as per "The Accessibility of Ontarians with Disabilities Act", may be **erected** within the required front, rear, **interior or exterior side yard**, provided that on **corner lots** these types of **structures** comply with the **sight triangle** requirements.

5.25 Planting Strip

A required **planting strip** shall be located in proximity to the **lot line** or portion thereof, on which such **planting strip** is required. A **planting strip** may be located in any **yard** except within a **daylight or sight triangle** or in such a manner as to impede or obscure the vision of the operator of a **motor vehicle** travelling on an adjacent **street**.

5.25.1 Requirements

The minimum height of trees, evergreens, and shrubs in a **planting strip** at the time of planting shall be 1.0 metres and they must be of such a species or type so as to achieve a minimum height of 2.0 metres at maturity and shall have a minimum width of 1.5 metres.

5.25.2 Driveways and Walkways

In all cases where ingress and egress **driveways** and walkways extend through a **planting**

strip, it shall be permissible to interrupt the **planting strip** within 3.0 metres of the edge of such **driveway** or within 1.5 metres of the edge of such walkway.

5.25.3 Alternatives

Subject to **site plan** approval and the registration of a **site plan** agreement, a solid **fence** may be considered as an alternative to a **planting strip**. Where a solid **fence** or wall is deemed appropriate and is approved by the **Corporation**, such **fence** or wall must have a minimum height of 2.0 metres, be of a type and/or construction as is set out in the **site plan** agreement, and the remaining portion of the 1.5 metres wide **planting strip** which is not **used** for the physical location of the **fence** shall be maintained as **landscaped open space**.

Amended by By-law No. Z107-2014

5.26 Prohibited Uses

- (a) Except as otherwise specifically **permitted** in this By-law, the following **uses** are prohibited in any **zone** established under this By-law:
- (i) a track for the racing of **motor vehicles**, motorcycles, go-carts, snowmobiles, or all-terrain **vehicles**;
 - (ii) a **trailer** camp as defined in Section 169(4) of the Municipal Act, S.O. 2001, as amended from time to time;
 - (iii) a junk yard, **salvage or wrecking yard** (excepted as **permitted** by Section 20.1 of this By-law), or the collection, storage, or sale of junk, scrap metal, salvage, partially or completely dismantled **motor vehicles** or **trailers**, or farm machinery and equipment;
 - (iv) locating or storing on any land for any purpose any disused and/or discarded railway car, bus, streetcar, shipping container, truck box or truck body, whether or not same is situated on a foundation. In an agricultural, commercial or industrial zone, shipping containers, truck bodies/boxes and truck **trailers** which are maintained in good condition and appearance may be used for storage accessory to a main **use** subject to the requirements for **accessory buildings**;
 - (v) keeping or raising any **livestock**, bees, or any reptile or wild animal, including any tamed or domesticated wild animal, on any **lot** or in any **building** or **structure** situated in any **zone** established by this By-law, except as may be specifically **permitted** with the **zone** provisions for a particular **zone** as set forth in this By-law
 - (vi) weigh scales in all **zones** except in an Industrial **Zone** or as a part of a public **use**;
 - (vii) video and/or amusement arcades. Notwithstanding the foregoing, the keeping of not more than 3 video machines or similar machines is **permitted** as an **accessory use** to a **permitted commercial use** (e.g. **accessory** to a **convenience store** in the "C" **zone**) in accordance with the Town's licensing procedures;
 - (viii) **adult entertainment parlours**;
 - (ix) **Mobile Home Parks**;
 - (x) billiard parlours. Notwithstanding the foregoing, the keeping of not more than 2 billiard/pool tables is **permitted** as an **accessory use** to a **permitted commercial use** (e.g. **accessory** to a **convenience store** in the "C" **zone**) in accordance with the Town's licensing procedures.
- (b) In addition to the **uses** prohibited by Clause (a) above, no land, **building**, or **structure**, except **automobile service stations** and duly licensed installations for bulk fuel storage of gasoline, lubricating and fuel oils, shall be **used** in the Municipality for

commercial or industrial purposes which are likely to cause or create a danger to health, or danger from fire or explosion, and which, without limiting the generality of the foregoing, shall include the industrial manufacture of coal oil, fuel oil, burning liquid gas, naphtha, benzene, gasoline, dynamite, dualine, nitro-glycerine, gunpowder, petroleum products, propane, and ammonia.

- (c) In addition to the **uses** prohibited by Clauses (a) and (b) above, all **uses** of land and the **erection** or **use** of any **building** or **structure** for a purpose not **permitted** under the "**Permitted Uses**" sections of the various **zones** established by this By-law or any **use permitted** as public **uses** in accordance with the provisions of Section 5.27 of this By-law are and shall be deemed to be prohibited **uses** under the provisions of this By-law.
- (d) In addition to the **uses** prohibited in Clauses (a), (b), and (c) above, those **uses** considered to be offensive trades under the provisions of the Health Protection and Promotion Act shall be prohibited.

5.27 Public Uses, Utilities, and Services

Amended by By-law No. Z107-2014

- (a) The provisions of this By-law shall not apply so as to prevent the **use** of any **lot** or the **erection** or **use** of any **building** or **structure** for the purpose of public service by the Corporation, the County, a public utility, or by any local board of the Corporation or the County as defined in the Municipal Affairs Act, any telephone or telegraph company, any television or internet service provided governed under the regulations of the CRTC, any natural gas distribution system serving lands within the Corporation and possessing all necessary powers, rights, licenses, and franchises, any Conservation Authority established in accordance with the Conservation Authorities Act, any department of the Province of Ontario or of the Government of Canada, provided that the following provisions are satisfied:
 - (i) any **building** or **structure erected** shall be in substantial compliance with the provisions for the **zone** in which such **building** or **structure** is situated;
 - (ii) no **open storage** of goods, materials, or equipment shall be **permitted** in any Residential **Zone**; and
 - (iii) any **building** or **structure erected** in a Residential **Zone** shall be designed, constructed, and maintained in general harmony, where possible, with the neighbouring residential **buildings permitted** in the **zone**.
- (b) The provisions of this By-law shall not apply so as to prevent any **use, building, or structure** of Ontario Hydro, subject to the limitations of control over Ontario Hydro imposed by Section 62 of the Planning Act, R.S.O. 1990. Any new electric power facilities, including all works as defined in the Power Corporation Act, shall be authorized pursuant to the Environmental Assessment Act, where such Act applies to undertakings of Ontario Hydro or other public authorities. Furthermore, the proponent of such facilities will be required to contact and consult with the **Council** prior to proceeding with plans involving such facilities.
- (c) Nothing in this By-law shall prevent the installation of a watermain, sanitary sewer main, storm sewer main, **street** lighting fixture, telephone or other supply line or communication line provided that **Council** is consulted prior to the proponent proceeding with the plans involving such facilities.
- (d) Nothing contained in Clauses (a), (b), and (c) above relieves any of the government bodies, agencies, and other authorities from the obligation of **complying** with all other applicable By-laws of the **Corporation**, and all applicable statutes, regulations, and

requirements of other government bodies.

5.28 Railway Crossings

Notwithstanding anything contained in this By-law, the following shall apply in respect to **buildings erected** in proximity to railways:

Amended by By-law No. Z107-2014

- (a) no **building** or **structure** shall be **erected** and no tree or shrub shall be planted within 15 metres of the point of intersection of the centre lines of a railway and a **street**.
- (b) The minimum distance from the boundary of a railway right-of-way and the nearest wall of a **dwelling unit** shall be 15 metres.

5.29 Reserves

Notwithstanding anything contained in this By-law, a **lot line** abutting a **reserve** shall be considered an **exterior side lot line** or a **front lot line** for the purpose of locating any **use, building** and/or **structure** on the **lot** abutting the **reserve**.

5.30 Satellite Dishes, Antennae, and Aerials

- (a) **Structures** such as **satellite dishes**, antennae, and aerials that are **used** for receiving or transmitting radio, television, telephone, or other similar communications in connection with a **permitted use** shall be subject to the following locational criteria:
 - (i) shall be **permitted** no closer to the **front lot line** and/or **exterior side lot line** than the **minimum front yard** and/or **exterior side yard** distance required for the **main building** under this By-law;
 - (ii) shall not have any supporting **structure** located closer than 2.0 metres from a **lot line**;
- (b) Notwithstanding any other provisions contained in this By-law in a Residential **Zone**, all **satellite dishes** with a dish radius greater than 0.61 metres or an antenna/aerial shall be fixed to or located on the ground and shall not be **permitted** to be mounted on a **dwelling** or **accessory building** in such **zone**; and

Amended by By-law No. Z107-2014

- (c) Notwithstanding any other provisions contained in this By-law, not more than 2 **satellite dishes** and 2 antenna/aerials per **dwelling unit** shall be **permitted** on a **lot** in a Residential Zone.

5.31 Setbacks of Buildings and Structures Along Watercourses and Municipal Drains

The following shall apply to **buildings** and **structures erected** in proximity to open **watercourses** and **municipal drains**:

- (a) no **building** or **structure** shall be **permitted** within an area regulated by the Conservation Authority's Fill, Construction, and Alteration to Waterways Regulation except as specifically **permitted** by the Conservation Authority.
- (b) no **building** or **structure** shall be **permitted** within 10 metres of the top-of-bank of an open **municipal drain**; and
- (c) no **building** or **structure** shall be **permitted** within 5.0 metres of the vertical projections of the edges of an enclosed **municipal drain**.

Amended by By-law No. Z107-2014

5.31.1 Services Requirement

5.31.1.1 Municipal Facilities

Notwithstanding any other provisions of this By-law, no land shall be used nor any **buildings** or **structures erected** or used unless, pursuant to an agreement made or condition imposed under Sections 41, 45, 50 or 53 of the Planning Act, R.S.O. 1990, c. P.13, or Section 50 of the Condominium Act, R.S.O. 1990, c. C.26, dealing with the provision of any of the municipal services as are set out in this By-law, the municipal services to be provided are available to service the land, **buildings** or **structures**, as the case may be.

5.31.1.2 Wells Private (Prohibition)

Notwithstanding any provision in this By-law, a private well shall not be **permitted** as a primary or **accessory structure** on any lands within the limits of the Town where a municipal water distribution system is accessible in the **road** right-of-way within 90 metres of the property. This regulation shall not apply to:

- (a) a well which legally existed prior to May 15, 2013;
- (b) a well which is installed for the purposes of environmental site remediation, water monitoring, or site de-watering;
- (c) a property used for non-residential purposes which, prior to May 15, 2013, relies upon a legally **existing** private well for purposes other than human consumption such as irrigation, cooling, or manufacturing purposes; or
- (d) a well used by the **Corporation**.

5.31.1.3 Individual Sanitary Facilities

Individual sanitary facilities are **permitted** for the **erection** or enlargement of any **building** or **structure** not serviced by municipal sanitary sewerage facilities within the Agriculture Zone (A), issuance of a building permit shall be subject to the following provisions:

- (a) the applicable requirements for the wastewater treatment system can be met and all approvals are obtained in writing from the authorities having jurisdiction; and,
- (b) if the quantity of effluent is projected to exceed 4500 litres per day, a hydrological study is required to demonstrate that the system can operate satisfactorily on the site.

5.32 Swimming Pools

A **swimming pool** is **permitted** as an **accessory use** in any **zone** provided that the following provisions are met:

5.32.1 Location

The **swimming pool** is located as follows:

- (a) in the **side yard** of a **lot**, where no part of the **swimming pool** is located closer to any **lot line** or **street line** than the minimum **yard** distance required by this By-law for the **main building** on the **lot**;

Amended by By-law No Z17-2000 and Z107-2014

- (b) in the **rear yard** of a **lot**, where no part of the **swimming pool** is located closer than 1.0 metre to any **rear lot line**.

Amended by By-law No. Z107-2014

5.32.2 Fencing

Every **swimming pool** shall be enclosed by a **fence** in accordance with the fencing By-law of the **Corporation**.

(Explanatory Note: The current Fencing By-law is the "**Swimming Pool By-law**" 26 of 2006)

Amended by By-law No. Z107-2014

5.32.3 Lot Coverage

A **Swimming pool** that is not enclosed by a **building** or **structure** shall not be included in the calculation of **lot coverage** but shall be included in the **landscaped open space** calculation. Any decking or platform which is 0.2 metres or greater above the **finished grade level** of the pool shall be included as part of the **lot coverage** calculation.

Amended by By-law No. Z107-2014

5.33 Temporary Uses

Notwithstanding the **permitted uses** in each **zone** of this By-law, temporary **uses** such as construction **offices**, storage or tool sheds, scaffolds, or other **buildings** and **structures** (excluding those used for human habitation) incidental to and necessary on location for the work in progress shall be **permitted** so long as same is necessary for the construction work which has neither been completed nor abandoned.

Notwithstanding the **permitted uses** in each **zone** of this By-law, on land subject to a Subdivision Agreement between the owner and the Town, a **model home(s)** may be **erected** in, accordance with the said Subdivision Agreement, a **lot** without full municipal services provided the owner has entered into a non-occupancy agreement with the Town.

Notwithstanding the **permitted uses** in each **zone** of this By-law, when an owner of land is replacing an **existing** detached **dwelling** with a new detached **dwelling**, two **dwellings** (i.e. the **existing dwelling** and the **dwelling** being constructed) may be located on one parcel of land for a maximum time limit of 9 months from the commencement of construction provided that the owner has entered into the required agreements with **Council**, and that the construction work has neither been completed nor abandoned (abandoned shall mean failure to proceed expeditiously with the construction work).

5.34 Undersized Lots

Notwithstanding anything contained in this By-law, a **lot** which is situated in the R1, R2, R3, or R4 Zones and which **lot** lacks the required **lot frontage**, **lot area** and/or **lot depth** for a **lot** in the respective **zone**, is and shall be deemed to be a **lot** that may be **used** for residential purposes and a **single-detached dwelling** may be **erected**, or **used** thereon provided that:

- (a) the description of such parcel is the same as in a deed, registered on or prior to the date of passing of this By-law;
- (b) such parcel could have been conveyed legally on the date of the passing of this By-law by way of deed, transfer, mortgage, charge or agreement of sale and purchase without consent under Section 50 of the Planning Act, R.S.O. 1990;
- (c) such parcel has a minimum **lot frontage** of 9.0 metres;
- (d) such parcel has a minimum **lot area** of 300.0 square metres;
- (e) all relevant regulations made under the Health Protection and Promotion Act, R.S.O. 1990, and all relevant requirements of the Perth District Health Unit or any other such

- authority are complied with;
- (f) suitable measures for the proper drainage of the parcel are completed; and
 - (g) all other requirements of the appropriate **zone** are complied with.

5.35 Wayside Pits

A **wayside pit** for the extraction and processing of **road** building materials for **use** in constructing public **roads** may be established in the A1 and A2 Zones provided that such operation complies with all other provisions of this By-law applicable thereto and further provided that this provision applies only to the **Council** or a designated agent thereof.

5.36 Yard and Setback Requirements for Land Without Buildings

Where a **use** is carried on, on any land or **lot**, and such **use** is not enclosed by any **building** or **structure**, the requirements for each **yard** of this By-law shall apply to such **use** in the same manner as if a **building** or **structure** existed.

Amended by By-law No. Z107-2014

5.37 Yard Sale, Residential

No **residential yard sales** shall be **permitted** except where a premise has a **dwelling unit**, and there shall not be more than four **residential yard sales** per annum at one location and no such sale shall exceed two days in duration

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Appendix B

Zoning By-law Parking Requirements for Municipalities in Perth County

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Category	Land Use	Town of St. Mary's Zoning By-Law Z1-1997	City of Stratford Zoning By-Law 201-2000	Township of North Perth Zoning By-Law 6-ZB-1999	Township of Perth East Zoning By-Law 30-1999	Township of Perth South Zoning By-Law 4-1999	Township of West Perth Zoning By-Law 100-1998
All Other Uses	All Other Uses	1 per 40 m ² gross floor area	1 per 30 m ² net floor area	1 per 30 m ² gross floor area	1 per 40 m ² gross floor area	1 per 37 m ² gross floor area	1 per 40 m ² gross floor area
Care Facilities	Day Nursery	1 per 40 m ² gross floor area	1 per 7 persons capacity	1 per 30 m ² gross floor area	Not Defined	Not Defined	Not Defined
Care Facilities	Hospital	1 per 4 beds, plus 1 per 3 employees	1 per 2 beds	Not Defined	Not Defined	Not Defined	Not Defined
Care Facilities	Medical Clinic	5 per practitioner	1 per 15 m ² net floor area	5 per practitioner	5 per practitioner	5 per practitioner	5 per practitioner
Care Facilities	Nursing Home	1 per 4 beds, plus 1 per 3 employees on the largest shift	1 per 3 beds	Not Defined	1 per 3 beds	1 per 4 beds plus 1 per 2 employees	1 per 3 beds
Care Facilities	Private Home Day Care	Not Defined	1 per 7 persons capacity	Not Defined	Not Defined	Not Defined	Not Defined
Care Facilities	Specialized Medical	Not Defined	1 per 15 m ² net floor area	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Office	Bank or Financial Institution	Not Defined	1 per 30 m ² net floor area	1 per 30 m ² gross floor area	Not Defined	Not Defined	Not Defined
Commercial - Office	Business Office	Not Defined	1 per 50 m ² of net floor area	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Office	Business or Professional Office	1 per 20 m ² gross floor area	Not Defined	Not Defined	1 per 20 m ² gross floor area	1 per 18.5 m ² of gross floor area	1 per 20 m ² gross floor area
Commercial - Office	Data Centre	Not Defined	1 per 50 m ² net floor area	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Office	Laboratory or Research Facility	Not Defined	1 per 80 m ² net floor area	1 per 20 m ² gross floor area	Not Defined	Not Defined	Not Defined
Commercial - Office	Offices	Not Defined	1 per 50 m ² net floor area	1 per 20 m ² gross floor area	1 per 20 m ² gross floor area	Not Defined	Not Defined
Commercial - Office	Professional Office	Not Defined	1 per 50 m ² net floor area	Not Defined	1 per 20 m ² gross floor area	Not Defined	Not Defined
Commercial - Retail	Adult Entertainment Establishment	Not Defined	1 per 4 persons seating capacity	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Amusement Arcade	Not Defined	1 per 15 m ² net floor area	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Animal Kennel or Shelter	Not Defined	1 per 30 m ² net floor area	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Auction Sales Establishment	Not Defined	The greater of: - 1 per 10 persons seating capacity; or - 1 per 15 m ² net floor area	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Automobile Repair/Service Establishment	4 plus 1 per repair bay, plus 1 per 2 employees	1 per 100 m ² gross floor area	4 plus 1 per repair bay	4 plus 1 per repair bay	4 plus 1 per repair bay	4 plus 1 per repair bay
Commercial - Retail	Building Materials Yard	Not Defined	1 per 100 m ²	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Candy Shop	Not Defined	1 per 30 m ² of net floor area	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Car Wash	Not Defined	1 plus 2 per wash bay, plus 1 per non-drive through car wash bay Automatic Car Wash: 5 per car wash bay, excluding the car wash bay	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Commercial Greenhouse or Garden Centre	Not Defined	1 per 30 m ² net floor area	1 per 55 m ² gross floor area	Not Defined	Not Defined	Not Defined
Commercial - Retail	Commercial Recreational Uses	Not Defined	Not Defined	1 per 20 m ² gross floor area	Not Defined	Not Defined	Not Defined
Commercial - Retail	Department Store	1 per 30 m ² gross floor area	Not Defined	1 per 30 m ² gross floor area	1 per 30 m ² of retail/customer service floor area	Not Defined	1 per 30 m ² of retail/customer service floor area
Commercial - Retail	Drive In Restaurant	Not Defined	1 per 30 m ² net floor area	Not Defined	see Restaurant (Eat-in), Restaurant (Take-out)	Not Defined	Not Defined
Commercial - Retail	Dry Cleaning Establishment	Not Defined	1 per 30 m ² of net floor area	1 per 30 m ² gross floor area	Not Defined	Not Defined	Not Defined
Commercial - Retail	Factory Store	Not Defined	1 per 30 m ² net floor area	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Gas Bar	Not Defined	2	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Golf Course	Not Defined	8 per hole	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Large Merchandise Outlet	Not Defined	1 per 100 m ² net floor area	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Laundromat	Not Defined	1 per 30 m ² net floor area	1 per 30 m ² gross floor area	Not Defined	Not Defined	Not Defined
Commercial - Retail	Liquor Licensed Establishment	Not Defined	1 per 4 persons licensed capacity	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Merchandise Rental Shop	Not Defined	1 per 15 m ² net floor area Equipment Rental: 1 per 30m ² net floor area	1 per 30 m ² gross floor area	Not Defined	Not Defined	Not Defined
Commercial - Retail	Merchandise Service Shop	Not Defined	1 per 30 m ² net floor area	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Motor Vehicle Sales or Rental Establishment	4 plus 1 per repair bay, plus 1 per 2 employees	1 per 100 m ² gross floor area	Not Defined	4 plus 1 per repair bay	4 plus 1 per repair employee	4 plus 1 per repair bay
Commercial - Retail	Neighbourhood Store	Not Defined	1 per 15 m ² net floor area	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Personal Care Establishment	Not Defined	1 per 30 m ² net floor area	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Personal Service Shop	1 per 30 m ² gross floor area	1 per 30 m ² net floor area	1 per 30 m ² gross floor area	1 per 30 m ² of retail/customer service floor area	1 per 30 m ² of ground floor area, plus 1 per 60 m ² of remaining gross floor area	1 per 30 m ² of retail/customer service floor area
Commercial - Retail	Recreational Entertainment Establishment	Bowling Establishment: 3 per bowling lane	The greater of: - 1 per 10 persons seating capacity; or - 1 per 15 m ² gross floor area	Not Defined	Bowling Establishment: 3 per bowling lane	Not Defined	Bowling Establishment: 3 per bowling lane
Commercial - Retail	Recreational Vehicle Sales/Rental	Not Defined	1 per 100 m ² gross floor area	Not Defined	Not Defined	Not Defined	Not Defined
Commercial - Retail	Restaurant		1 per 4 persons seating capacity	see Restaurant (Eat-in) or Restaurant (Take-out)		1 per 4 persons of maximum designed capacity	1 per 4 persons of maximum designed occupancy
Commercial - Retail	Restaurant, Eat-in	1 per 4 persons of maximum designed capacity	1 per 4 persons seating capacity	1 per 20 m ² gross floor area	1 per 4 persons of maximum designed capacity	Not Defined	Not Defined
Commercial - Retail	Restaurant, Outdoor Patio Area	Not Defined	Not Defined	1 per 20 m ² gross floor area	Not Defined	Not Defined	Not Defined

Category	Land Use	Town of St. Mary's Zoning By-Law Z1-1997	City of Stratford Zoning By-Law 201-2000	Township of North Perth Zoning By-Law 6-ZB-1999	Township of Perth East Zoning By-Law 30-1999	Township of Perth South Zoning By-Law 4-1999	Township of West Perth Zoning By-Law 100-1998
Commercial - Retail	Restaurant, Take-out	6 plus 1 per 4 persons or maximum designed capacity (including exterior patio)	1 per 30 m ² net floor area	1 per 4 persons of designed capacity	1 per 4 persons of maximum designed capacity	1 per 18.5 m ² of gross floor area	6 plus 1 per 4 persons of designed maximum occupancy
Commercial - Retail	Retail Store	1 per 30 m ² gross floor area	1 per 30 m ² net floor area	1 per 30 m ² gross floor area	1 per 30 m ² of retail/customer service floor area	1 per 30 m ² of ground floor area, plus 1 per 60 m ² of remaining gross floor area	1 per 30 m ² of retail/customer service floor area
Commercial - Retail	Service Trade	<i>Not Defined</i>	1 per 30 m ² net floor area	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Commercial - Retail	Shopping Centre	<i>Not Defined</i>	1 per 20 m ² net floor area	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Commercial - Retail	Speciality Shop	<i>Not Defined</i>	1 per 30 m ² net floor area	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Commercial - Retail	Studio (art, dance, music, photo)	<i>Not Defined</i>	The greater of: - 1 per 10 students of seating capacity; or - 1 per 15 m ² gross floor area	1 per 30 m ² gross floor area	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Commercial - Retail	Supermarket, Grocery Store	1 per 10 m ² of retail floor area	1 per 30 m ² net floor area	1 per 10 m ² gross floor area	1 per 15 m ² of retail floor area	1 per 10 m ² of retail floor area	1 per 15 m ² of retail floor area
Commercial - Retail	Veterinary Clinic	5 per practitioner	1 per 30 m ² net floor area	5 per practitioner	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Commercial - Retail	Video Rental Establishment	<i>Not Defined</i>	1 per 15 m ² net floor area	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Commercial - Retail	Wholesale Establishment	1 per 55 m ² gross floor area	1 per 100 m ² net floor area	1 per 55 m ² gross floor area	1 per 55 m ² of retail floor area	<i>Not Defined</i>	1 per 55 m ² of retail floor area
Industrial	Equipment Service Establishment	<i>Not Defined</i>	1 per 30 m ² net floor area	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Industrial	Farm equipment/implement sales/service	<i>Not Defined</i>	1 per 100 m ² gross floor area	1 per 30 m ² gross floor area	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Industrial	Food Processing Establishment	<i>Not Defined</i>	1 per 80 m ² net floor area	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Industrial	Fuel Storage Depot	<i>Not Defined</i>	1	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Industrial	Industrial Establishment	<i>Not Defined</i>	1 per 80 m ² net floor area	1 per 100 m ² gross floor area	<i>Not Defined</i>	3 for every 4 employees on the largest shift (including office staff)	1.25 per employee
Industrial	Industrial Mall	<i>Not Defined</i>	1 per 30 m ² net floor area	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Industrial	Livestock Auction	<i>Not Defined</i>	<i>Not Defined</i>	1 per 55 m ² gross floor area	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Industrial	Taxi Establishment	<i>Not Defined</i>	<i>Not Defined</i>	1 plus 1 per vehicle stored on site	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Industrial	Truck Terminal	<i>Not Defined</i>	1 per 100 m ² gross floor area	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Industrial	Warehouse (including min-storage)	<i>Not Defined</i>	1 per 100 m ² net floor area	1 per 100 m ² gross floor area	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Overnight Accommodations	Bed and Breakfast Establishment	2 per dwelling unit plus 1 per guest room for rent	1 plus 1 per guest room	2 per dwelling unit plus 1 per room for rent	1 per dwelling unit plus 1 per guest room for rent	2 per dwelling unit plus 1 per guest room for rent	2 per dwelling unit plus 1 per guest room for rent
Overnight Accommodations	Guest House	<i>Not Defined</i>	1 plus 1 per guest room	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Overnight Accommodations	Hostel	<i>Not Defined</i>	1 per 4 beds plus, either 1 additional parking space plus 1 loading space for the parking of a bus, or 4 additional parking spaces	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Overnight Accommodations	Hotel	1 per 2 employees, plus 1 per guest room	1 per guest room plus 1 per seating capacity of each refreshment room or dining room	1.25 per room for rent	2 plus 1 per guest room	1 per 2 employees plus 1 per guest room	2 plus 1 per guest room
Overnight Accommodations	Motel	1 per 2 employees, plus 1 per guest room	<i>Inn</i> : 1 per guest room plus 1 per dwelling unit	1.25 per room for rent	2 plus 1 per guest room	1 per 2 employees plus 1 per guest room	2 plus 1 per guest room
Place of Assembly	Amusement Park	<i>Not Defined</i>	1 per 10 m ²	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Place of Assembly	Church	1 per 4 persons of maximum designed capacity of the sanctuary	1 per 4 persons seating capacity	1 per 5 persons of designed capacity	1 per 4 persons of maximum designed capacity of the sanctuary	1 per 4 persons of maximum designed capacity of the sanctuary	1 per 4 persons of maximum designed capacity of the sanctuary
Place of Assembly	Fitness Club	<i>Not Defined</i>	1 per 30 m ² net floor area	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Place of Assembly	Funeral Home	<i>Not Defined</i>	1 plus 7 persons seating capacity	4 plus 1 per 4 persons designed capacity	<i>Not Defined</i>	4 plus 1 per 4 seats of maximum seating capacity	<i>Not Defined</i>
Place of Assembly	Museum	<i>Not Defined</i>	<i>Not Defined</i>	1 per 30 m ² gross floor area	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Place of Assembly	Place of Assembly (Assembly Hall, Church, Arena, Theatre)	1 per 5 seats (or 3 metres of bench) of maximum seating capacity; or 1 per 230 m ² of playing field area where no seating exists	<i>Auditorium</i> : 1 per 6 persons seating capacity <i>Theatre (Cinema)</i> : 1 per 6 persons seating capacity <i>Theatre (Performing Arts)</i> : 1 per 4 persons seating capacity	1 per 5 persons of designed capacity	1 per 5 seats (or 3 metres of bench) of maximum seating capacity; or 1 per 230 m ² of playing field area where no seating exists	1 per 5 persons of maximum designed capacity	The greater of: - 1 per 5 seats (or 3 metres of bench) of maximum seating capacity; or - 1 per 230 m ² of playing field area where no seating exists
Place of Assembly	Private Club	<i>Not Defined</i>	1 per 30 m ² net floor area	<i>Not Defined</i>	<i>Not Defined</i>	1 per 18.5 m ² of gross floor area	<i>Not Defined</i>
Place of Assembly	Sports Field	The greater of: - 1 per 5 seats (or 3 metres of bench); or - 1 per 250 m ² of gross field area where no seating exists	<i>Not Defined</i>	The greater of: - 1 per 5 seats (or 3 metres of bench); or - 1 per 230 m ² of gross field area where no seating exists	<i>Not Defined</i>	The greater of: - 1 per 5 seats (or 3 metres of bench); or - 1 per 250 m ² of gross field area where no seating exists	<i>Not Defined</i>
Residential Uses	Accessory	1 per dwelling	<i>Not Defined</i>	1 per dwelling unit	2 per dwelling unit	1 per dwelling unit	2 per dwelling unit
Residential Uses	Apartment	1.25 per dwelling	1.5 per dwelling unit	1.5 per dwelling unit	1.5 per dwelling unit	1.5 per dwelling unit	1.5 per dwelling unit
Residential Uses	Apartment (Senior's)	<i>Not Defined</i>	0.75 per dwelling unit	<i>Not Defined</i>	<i>Not Defined</i>	1 per dwelling unit, plus 1 visitor parking space per 5 dwelling units	<i>Not Defined</i>
Residential Uses	Boarding or Lodging House	<i>Not Defined</i>	1 plus 1 per 2 guest rooms	1 plus 1 per room for rent	<i>Not Defined</i>	1 per dwelling unit plus 1 per room for rent	<i>Not Defined</i>
Residential Uses	Converted	2 per dwelling unit	1 per dwelling unit	1.5 per dwelling unit	2 per dwelling unit	1.5 per dwelling unit	2 per dwelling unit
Residential Uses	Duplex	2 per dwelling unit	1 per dwelling unit	2 per dwelling unit	2 per dwelling unit	2 per dwelling unit	2 per dwelling unit
Residential Uses	Dwelling	<i>Not Defined</i>	1 per dwelling unit	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Residential Uses	Fourplex	1.5 per dwelling unit	1 per dwelling unit	1.5 per dwelling unit	1.5 per dwelling unit	1.5 per dwelling unit	1.5 per dwelling unit

Category	Land Use	Town of St. Mary's Zoning By-Law Z1-1997	City of Stratford Zoning By-Law 201-2000	Township of North Perth Zoning By-Law 6-ZB-1999	Township of Perth East Zoning By-Law 30-1999	Township of Perth South Zoning By-Law 4-1999	Township of West Perth Zoning By-Law 100-1998
Residential Uses	Group Home	2 per dwelling unit plus 1 per 4 group home residents	2	2 per dwelling unit	The greater of: - 1 per 3 residents; or - 2 per dwelling unit, plus 1 per 4 group home residents	2 per dwelling units plus 1 per 4 group home residents	1 per 3 residents or 2 per dwelling unit plus 1 per 4 group home residents
Residential Uses	Long-Term Care Home/Home for the Aged	1 per 6 beds, plus 1 per 3 employees on the largest shift	<i>Not Defined</i>	1 per 3 beds	1 per 3 beds	1 per 4 beds plus 1 per 2 employees	1 per 3 beds
Residential Uses	Second Dwelling Unit	1 per dwelling	<i>Not Defined</i>	1 per dwelling unit	<i>Not Defined</i>	<i>Not Defined</i>	1 per dwelling unit
Residential Uses	Semi-detached	2 per dwelling unit	1 per dwelling	2 per dwelling unit	2 per dwelling unit	2 per dwelling unit	2 per dwelling unit
Residential Uses	Semi-detached Link	<i>Not Defined</i>	1 per dwelling	2 per dwelling unit	2 per dwelling unit	2 per dwelling unit	2 per dwelling unit
Residential Uses	Single-detached	2 per dwelling unit	1 per dwelling unit	2 per dwelling unit	2 per dwelling unit	2 per dwelling unit	2 per dwelling unit
Residential Uses	Townhouse	1.5 per dwelling unit	<i>Street Townhouse</i> : 1 per dwelling unit <i>Townhouse</i> : 1.5 per dwelling unit	1.5 per dwelling unit	<i>Not Defined</i>	1.5 per dwelling unit	<i>Not Defined</i>
Residential Uses	Trailer Camp	<i>Not Defined</i>	1 per 4 camp sites	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Residential Uses	Triplex	1.5 per dwelling unit	1 per dwelling unit	1.5 per dwelling unit	<i>Not Defined</i>	1.5 per dwelling unit	1.5 per dwelling unit
Schools	Private School	<i>Not Defined</i>	4 per classroom	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>	<i>Not Defined</i>
Schools	School, Elementary	The greater of: - 1.5 per classroom; or - 1 per 3 m ² of assembly area	8 plus 1 per classroom	The greater of: - 1.5 per classroom; or - 1 per 2.7 m ² of assembly area	The greater of: - 1.5 per classroom; or - 1 per 10 m ² of assembly area	The greater of: - 1.5 per classroom; or - 1 per 2.7 m ² of assembly area	The greater of: - 1.5 per classroom; or - 1 per 10 m ² of assembly area
Schools	School, Secondary or Commercial	The greater of: - 5 per classroom; or - 1 per 3 m ² of assembly area	<i>Commercial School</i> : 1 per 50 m ² net floor area <i>Secondary</i> : 8 plus 8 per classroom <i>Post-Secondary</i> : 1 per 15 students, plus 1 per 100 m ² of net floor area	The greater of: - 1.5 per classroom; or - 1 per 2.7 m ² of assembly area	The greater of: - 5 per classroom; or - 1 per 7.5 m ² of assembly area	The greater of: - 5 per classroom; or - 1 per 3 m ² of assembly area	The greater of: - 5 per classroom; or - 1 per 7.5 m ² of assembly area

Appendix C

AODA Parking Requirements

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Ontario Regulation 191/11: INTEGRATED ACCESSIBILITY STANDARDS

Reproduced from: <https://www.ontario.ca/laws/regulation/110191#BK132>

Application, off-street parking

80.32 Obligated organizations shall ensure that when constructing new or redeveloping off-street parking facilities that they intend to maintain, the off-street parking facilities meet the requirements set out in this Part. O. Reg. 413/12, s. 6.

Exceptions

80.33 (1) The requirements in respect of off-street parking facilities do not apply to off-street parking facilities that are used exclusively for one of the following:

1. Parking for buses.
2. Parking for delivery vehicles.
3. Parking for law enforcement vehicles.
4. Parking for medical transportation vehicles, such as ambulances.
5. Parking used as a parking lot for impounded vehicles. O. Reg. 413/12, s. 6.

(2) The requirements in respect of off-street parking facilities do not apply to off-street parking facilities if,

- a) the off-street parking facilities are not located on a barrier-free path of travel, regulated under Ontario Regulation 350/06 (Building Code) made under the Building Code Act, 1992; and
- b) *the* obligated organization has multiple off-street parking facilities on a single site that serve a building or facility O. Reg. 413/12, s. 6.

Types of accessible parking spaces

80.34 Off-street parking facilities must provide the following two types of parking spaces for the use of persons with disabilities:

1. Type A, a wider parking space which has a minimum width of 3,400 mm and signage that identifies the space as “van accessible”.
2. Type B, a standard parking space which has a minimum width of 2,400 mm. O. Reg. 413/12, s. 6.

Access aisles

80.35 (1) Access aisles, that is the space between parking spaces that allows persons with disabilities to get in and out of their vehicles, must be provided for all parking spaces for the use of persons with disabilities in off-street parking facilities. O. Reg. 413/12, s. 6.

(2) Access aisles may be shared by two parking spaces for the use of persons with disabilities in an off-street parking facility and must meet the following requirements:

1. They must have a minimum width of 1,500 mm.
2. They must extend the full length of the parking space.
3. They must be marked with high tonal contrast diagonal lines, which discourages parking in them, where the surface is asphalt, concrete or some other hard surface. O. Reg. 413/12, s. 6.

Minimum number and type of accessible parking spaces

80.36 (1) Off-street parking facilities must have a minimum number of parking spaces for the use of persons with disabilities, in accordance with the following requirements:

1. One parking space for the use of persons with disabilities, which meets the requirements of a Type A parking space, where there are 12 parking spaces or fewer.
2. Four per cent of the total number of parking spaces for the use of persons with disabilities, where there are between 13 and 100 parking spaces in accordance with the following ratio, rounding up to the nearest whole number:
 - i. Where an even number of parking spaces for the use of persons with disabilities are provided in accordance with the requirements of this paragraph, an equal number of parking spaces that meet the requirements of a Type A parking space and a Type B parking space must be provided.
 - ii. Where an odd number of parking spaces for the use of persons with disabilities are provided in accordance with the requirements of this paragraph, the number of parking spaces must be divided equally between parking spaces that meet the requirements of a Type A parking space and a Type B parking space, but the additional parking space, the odd-numbered space, may be a Type B parking space.
3. One parking space for the use of persons with disabilities and an additional three per cent of parking spaces for the use of persons with disabilities, where there are between 101 and 200 parking spaces must be parking spaces for the use of persons with disabilities, calculated in accordance with ratios set out in subparagraphs 2 i and ii, rounding up to the nearest whole number.

4. Two parking spaces for the use of persons with disabilities and an additional two per cent of parking spaces for the use of persons with disabilities, where there are between 201 and 1,000 parking spaces must be parking spaces for the use of persons with disabilities in accordance with the ratio in subparagraphs 2 i and ii, rounding up to the nearest whole number.
5. Eleven parking spaces for the use of persons with disabilities and an additional one per cent of parking spaces for the use of persons with disabilities, where more than 1,000 parking spaces are provided must be parking spaces for the use of persons with disabilities in accordance with the ratio in subparagraphs 2 i and ii, rounding up to the nearest whole number. O. Reg. 413/12, s. 6.

(2) If an obligated organization provides more than one off-street parking facility at a site, the obligated organization shall calculate the number and type of parking spaces for the use of persons with disabilities according to the number and type of parking spaces required for each off-street parking facility. O. Reg. 413/12, s. 6.

(3) In determining the location of parking spaces for the use of persons with disabilities that must be provided where there is more than one off-street parking facility at a site, an obligated organization may distribute them among the off-street parking facilities in a manner that provides substantially equivalent or greater accessibility in terms of distance from an accessible entrance or user convenience. O. Reg. 413/12, s. 6.

(4) For the purposes of subsection (3), the following factors may be considered in determining user convenience:

1. Protection from the weather.
2. Security.
3. Lighting.
4. Comparative maintenance. O. Reg. 413/12, s. 6.

Signage

80.37 Obligated organizations shall ensure that parking spaces for the use of persons with disabilities as required under section 80.36 are distinctly indicated by erecting an accessible permit parking sign in accordance with section 11 of Regulation 581 of the Revised Regulations of Ontario, 1990 (Accessible Parking for Persons with Disabilities) made under the *Highway Traffic Act*. O. Reg. 413/12, s. 6.

Exception

80.38 (1) An exception to the required minimum number of parking spaces for the use of persons with disabilities is permitted where an obligated organization can

demonstrate that it is not practicable to comply with the requirement because existing physical or site constraints prevent it from meeting the required ratio, such as where the minimum width for parking spaces for persons with disabilities or access aisles cannot be met because of existing pay and display parking meters, surrounding curb edges, walkways, landscaping or the need to maintain a minimum drive aisle width. O. Reg. 413/12, s. 6.

(2) Where an obligated organization claims an exception to the minimum number of parking spaces for the use of persons with disabilities, it shall provide as close to as many parking spaces for the use of persons with disabilities that meet the requirements of this Part, as would otherwise be required under subsection 80.36 (1) or (2), as the case may be, that can be accommodated by the existing site and,

- a) where that number is an even number, the number of parking spaces must be divided equally between parking spaces that meet the requirements of a Type A parking space and a Type B parking space; and
- b) where that number is an odd number, the number of parking spaces must be divided equally between parking spaces that meet the requirements of a Type A parking space and a Type B parking space, but the additional parking space, the odd-numbered space, may be a Type B parking space. O. Reg. 413/12, s. 6.

On-street parking spaces

80.39 (1) When constructing or redeveloping existing on-street parking spaces, designated public sector organizations shall consult on the need, location and design of accessible on-street parking spaces and shall do so in the following manner:

1. Designated public sector organizations must consult with the public and persons with disabilities.
2. Municipalities must also consult with their municipal accessibility advisory committees, where one has been established in accordance with subsection 29 (1) or (2) of the Act. O. Reg. 413/12, s. 6.

(2) In this section and despite section 2,

“designated public sector organization” means every municipality and every person or organization described in Schedule 1 to this Regulation, but not persons or organizations listed in Column 1 of Table 1 to Ontario Regulation 146/10 (Public Bodies and Commission Public Bodies — Definitions) made under the *Public Service of Ontario Act, 2006*. O. Reg. 413/12, s. 6.

Appendix D

Drive-Through Zoning By-law Review

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TABLE E.1: DRIVE THROUGH STACKING SPACE REQUIREMENTS

Land Use	City of Kitchener	City of Hamilton	City of London	City of Stratford	Township of North Perth	Township of West Perth	Town of Whitchurch-Stouffville
	Zoning By-Law 2019-051	Zoning By-Law 05-200	Zoning By-Law Z.-1	Zoning By-Law 201-2000	Zoning By-Law 6-ZB-1999	Zoning By-Law 100-1998	Zoning By-law 2010-001-ZO
Car Wash (Automatic)	10	-	-	-	5	4	12
Car Wash (Self service)	2 per washing bay	-	-	-	-	4	5
Financial Establishment	3	-	4	-	3	-	5
Gas Station	2 per fueling area	-	9 ^a	-	-	-	2
Restaurant	13	12	12	-	10	-	12
Retail	3	-	-	-	-	-	-
All Other Facilities	-	3	-	10	3	-	4
Donut/Coffee Shop	See Restaurant	See Restaurant	15	-	See Restaurant	-	See Restaurant

a: Includes service stations with convenience sales.

FORMAL REPORT

To:	Chair Stratthdee and Members of Strategic Priorities Committee
Prepared by:	Jeff Wolfe, Asset Management Specialist
Date of Meeting:	17 August 2021
Subject:	PW 56-2021 Sidewalk Needs Assessment Update and Review

PURPOSE

This report presents a refresher on the May 2020 Sidewalk Infrastructure Review (Sidewalk Plan) adopted by Council. Recently, how the plan prioritizes additions of new sidewalks has become a question of Council and the Public. This report presents clarity on how the May 2020 Plan approached prioritization, along with updated information on staff's observations from implementing the plan for Council consideration.

Based on feedback from Council and residents, Council is asked to consider and give direction on the following strategic questions:

- Should the Town reconsider its prioritization approach identified in the May 2020 Plan?
 - If yes, what is Council's preferred prioritization method?
 - If no:
 - Does the current approach to priority remain (i.e. sections are assigned more general timelines of 1-5 years)? OR
 - Does the approach to priority become more specific to provide clarity in the capital plan (i.e. sections are assigned specific years that they will be addressed)?

RECOMMENDATION

THAT PW 56-2021 Sidewalk Needs Assessment Update and Review report be received; and

THAT the Strategic Priorities Committee recommends to Council that:

THAT the 2020 Sidewalk Infrastructure Review be amended to change the "new sidewalk" prioritization approach to:

- Prefer "Large Scope" projects rather than annual "Small Scope Projects";
- *(Council to include any other changes as they see fit and list below)*
-

THAT staff prepare the draft capital budget to show a large scope sidewalk project on Huron and Maxwell Streets within the 1-5 year priority window; and

THAT the 2021 Huron Street new sidewalk addition be included in the future large scope project.

BACKGROUND

At the Special Meeting of Council on March 19, 2019, Council received a report regarding a potential capital project to install new sidewalk on Maxwell Street. Council discussed the options presented and agreed that a more comprehensive review of the entire Town road network was needed prior to making a capital funding decision on Maxwell Street. Council then made the following motion:

Resolution 2019-03-19-04

Moved By Councillor Craigmile, Seconded By Councillor Hainer

THAT PW 18-2019 Maxwell St. Pedestrian Facility Review be received; **THAT** Council direct staff to review the entire road network and prepare a report back to Council comparing the existing road network and its pedestrian facilities to the Town design standards and bringing forward recommendations on ways to improve the overall safety of pedestrian crossings.

At the Special Meeting of Council on May 19, 2020, Council received the comprehensive report on the Town's existing sidewalk infrastructure and a corresponding plan to bring the sidewalk network up to point of meeting the Town design standards. Council made the following motion:

Resolution 2020-05-19-02

Moved By: Councillor Hainer, Seconded By: Councillor Edney

THAT PW 20-2020 Sidewalk Infrastructure Review report be received; and **THAT** Council direct staff to consider the proposed sidewalk plan when preparing future capital plans.

Attachment #6 shows the Plan adopted by Council in map form and shows the priority for sidewalk additions and deletions. For sidewalk additions, the general philosophy of the sidewalk plan adopted by Council was to increase the capital budget to allow for small sections of new sidewalk to be constructed each year, with priority areas defined as those where the Town was not meeting its design standards and where there were conditions leading to higher pedestrian traffic.

As shown in Attachment #6, the top priority areas selected for non-developer paid sidewalks were Huron Street and Maxwell Street. These sections were prioritized because both are collector roads that do not meet the standard of having sidewalks on both sides, and both roads are natural conduits for pedestrians accessing Little Falls School, DCVI, East Ward Park and the PRC.

The 2021 Capital Plan included a \$40,000 sidewalk project on Huron Street. The first section road selected for sidewalk was the east side of Huron Street, between Elgin St. and Rogers Ave. This section of road was selected because of the vicinity to DCVI and the East Ward Park and its relative lack of utility and driveway conflicts, allowing staff to refine an approach when tackling the other high priority areas with more challenging conflicts in future years. Flyers were provided to residents affected in July. After receiving the flyers, residents called both staff and Council to ask questions about the project and to express their concerns.

At their Regular Meeting on July 27, 2021, Council received a petition by local residents signed by 4 households for Council to reconsider the 2021 capital project for sidewalk on Huron Street. Council made the following motion:

Resolution 2021-07-27-20

Moved By Councillor Craigmile

Seconded By Councillor Hainer

THAT the 2021 sidewalk project on Huron Street be deferred to a future date; and

THAT staff report back to Council on the 2020 Sidewalk Plan to allow for a discussion on priority projects.

EXECUTIVE SUMMARY

The bulk of the “Report” section below is a carbon copy of the report Council received in May 2020 as it explains how the Sidewalk Infrastructure review was completed. Based on the conversations to date with residents and Council regarding the Huron Street project, this Executive Summary is presented to allow Council to focus in on the key questions being asked today, namely:

- How does the sidewalk plan prioritize sidewalk investment?
- Should the Town reconsider its prioritization approach?
 - If yes, information is presented below to allow Council to review the prioritization of their sidewalk infrastructure plan and potentially adjust based on past project experience and resident feedback.
 - If no:
 - Does the current approach to priority remain (i.e. sections are assigned more general timelines of 1-5 years)? OR
 - Does the approach to priority become more specific to provide clarity in the capital plan (i.e. sections are assigned specific years that they will be addressed)?

How does the sidewalk plan prioritize sidewalk investment?

The plan adopted by Council in May 2020 follows the Town sidewalk policy by prioritizing sidewalks with higher pedestrian volumes. The sidewalks were assigned classes based on these anticipated pedestrian volumes:

- **Class 1** - Highest Importance. These include the commercial district (ie. core area), school zones, church zones, homes for the elderly/senior centers, arenas, and community centers.
- **Class 2** - Moderate Importance. These are along arterial roads or along collector roads that have higher traffic volumes, where these are not already included in the Class 1 roads.
- **Class 3** - Average Importance. These are local roads Average Annual Daily Traffic (the “AADT”) equals or exceeds 50 vehicles per day (the “vpd”).
- **Class 4** – Least Importance. These are local roads with AADT less than 50 vpd. and include cul-de-sacs and dead ends.

Aggressively installing sidewalks as a stand-alone project is challenging and typically has higher unit rate costs than if completed as part of a road reconstruction project. In some cases, development will either be the driver for new sidewalk or be responsible for installing a new sidewalk. As a result, the plan adopted in May 2020 categorizes sidewalk construction or reconstruction into four options to ensure the plan is as cost effective as possible.

1. **Priority** – Construct or reconstruct as a stand-alone project, not dependent on other inputs. This approach addresses an existing concern or priority when a reconstruction and/or adjacent development is not anticipated.
2. **Road Reconstruction** – Construct or reconstruct in conjunction with an adjacent road reconstruction project. Sidewalk would not be constructed until the time of a planned road reconstruction project.
3. **Dependent on Development** – Construct or reconstruct at the time of development in the area. The plan attempts to minimize the financial burden by designating some potential sidewalk locations as “dependent on development”. These locations would either be paid directly by new development or by development charges in the future. This approach is

appropriate as pedestrian volumes in those locations typically would not warrant a sidewalk until development occurs.

4. **Non-Priority** – Sidewalk unlikely to be constructed based on available information at this time.

Lessons Learned from 2019 & 2021 Projects

Staff have made observations during the Brock Street project in 2019 and the work completed to date on Huron Street for 2021. These observations are presented below, and should be considered as the Town determines the recommended approach for completing future stand-alone sidewalk projects:

- **Driveway conflicts:** as expected, there are regular conflicts with driveways where residents view the impact of a new sidewalk to be detrimental to the use of their property because of the loss of parking they previously have enjoyed on the portion of the Town's road allowance their driveway occupies. This should not be a reason for Council to cancel a project that they consider important to public safety but finding an agreeable solution does typically increase the overall project cost and therefore higher unit rate budgets should be carried to address driveway conflicts.
- **Scope philosophy:** Staff's approach in the May 2020 Sidewalk Plan was to break the stand-alone sidewalk projects up so that they were smaller budget spends and could be accommodated alongside other reconstruction and bridge projects in any given budget year. In practice, from a time spent and capacity perspective, staff have found the smaller sidewalk projects quite time consuming and difficult to accommodate due to the level of effort spent on concern resolution with residents. This is making it difficult to balance the time spent on smaller sidewalk projects with the full capital calendar. As an alternative, Council could consider moving away from the smaller scope approach in the original plan and replacing it with a "large scope" approach. Under this philosophy, all sidewalk investments on one street proposed in the May 2020 plan would be grouped together to create a large scope project to be completed all in one year (similar to the approach used for road reconstruction projects).
- **Resources:** Residents impacted seem to be less receptive of new sidewalks as standalone projects compared to residents in areas where an older poor condition road is being reconstructed with new sidewalks. Staff suggest that if the "large scope" approach above is adopted, that including a public education campaign during the project to communicate design and construction drawings through public open houses and meetings (similar to a reconstruction project) would allow the local residents to feel more informed and less surprised when the time comes for construction. This may not change resident's minds about whether they like the sidewalk being installed but would be a more transparent process reflecting the Town's existing best practices.

Sidewalk Plan Update: Where are we at today with the projects outlines in the May 2020 Sidewalk Plan (see Attachment #6)

The Sidewalk Plan from 2020 is already underway. The following shows sidewalks that have already been completed from the Plan as well as the remaining stand-alone "priority" sidewalks and their schedule:

Complete:

- Wellington St. N. from Egan Ave. to the Grand Trunk Trail (E. side)
- Egan Ave. from Wellington St. N. to Peel St. N. (S. side)
- Waterloo St. S. from Elgin St. E to Sparling Bush (W. side)
- Elizabeth St. from Brock St. to Waterloo St. S. (S. side)
- James St. N. from Grand Trunk Trail to Glass St. (W. side)

1-5 Year Still Outstanding:

- Huron St. from Queen St. E. to Maxwell (sections of N. and S. side)
- Maxwell St. from James St. S. to Huron St. S. (N. side)
- Water St. S. from Quarry to CBHF Entrance (W. & E. side)
- James St. S. from PRC N. entrance to PRC S. entrance (W. side)

6-10 Year Still Outstanding:

- James St. S. from PRC. S. entrance to South Service Road (W. side)
- Waterloo St. S. from Elgin St. to Queen St. E. (W. side)
- Pelissier St. from Queen St. W to Elgin St. W (E. Side)
- Elgin St. W from Pelissier St. to Carrall St. (N. Side)

REPORT

Sidewalks are a designated space for pedestrians within the road allowance. They are an important aspect to a community's transportation system, allowing for a separated safe path of travel to the most vulnerable roadway users. Walking is healthy, environmentally friendly and can reduce the dependence on automobiles. Walking also increases the opportunity for socializing in the community, contributes to recreation, promotes independence, and facilitates economic activity. New sidewalks must be inclusive, meeting the requirements of the *Accessibility for Ontarians with Disabilities Act* (the "AODA"). While sidewalks act as an asset in many ways to the community, they can become a liability if not maintained properly. There is a high probability of litigation related to sidewalk networks as our society becomes more litigious. Most claims received by the Town are related to slip and falls, with a typical frequency of one claim per year from slips and falls in Town road allowances. Each claim costs the Town \$15,000 in deductible payments. As such, it is important to ensure proper pedestrian facilities are provided where necessary, and that the sidewalk network is maintained to an appropriate standard.

Engineering Design Guidelines and Sidewalk Policy

The Town publishes engineering design guidelines to consistently communicate the detailed infrastructure requirements for development and reconstruction projects within the Town. The guidelines are an amalgamation of the various Town infrastructure policies. From the pipe material specifications of watermain to the mix of concrete used in sidewalks, the guidelines provide almost all the details associated with municipal infrastructure construction. The guidelines (sidewalk excerpt Attachment 1) compliment the Town's Sidewalk Policy, which was adopted in 1996 and amended in 2005 (Attachment 2). Staff utilize the guidelines and sidewalk policy documents to assist in decision making related to sidewalk investments. The guidelines and sidewalk policy are designed to ensure the Town provides pedestrian facilities that consider community benefit, operational efficiencies, economic constraints, and engineering best practices. Decision making, such as prioritization of investment and determining which side of the street to install sidewalk is heavily influenced by these documents.

Some requirements from the guidelines and sidewalk policy that are relevant to this discussion include:

- Sidewalk required on both sides for arterial and collector streets. Sidewalk required on one side on local streets and cul-de-sacs with 12 or more lots.
- New sidewalks are preferred on downtown side of street or match existing configuration adjacent to construction zone (ie. on a consistent side of the street)
- Avoid building "curbface" sidewalk unless absolutely required
 - Boulevards provide improved pedestrian safety and winter snow storage
- Reconstruction of sidewalk should line up with adjacent road reconstruction projects unless road reconstruction is not contemplated in the following 5-year capital program

- Commercial establishments, schools, hospitals nursing homes, senior's complexes and recreation facilities generate a high volume of vulnerable pedestrians and should be prioritized.
- Single family homes generate a moderate volume of pedestrians and should be assigned medium prioritization.
- Industrial complexes generate low volumes of pedestrians with a low percentage of vulnerable users and should be assigned a low priority.

Council has made significant investment in recent years to improve the safety and accessibility of the Town's pedestrian network. These include Level 1 PED stop light crossing at St. John St. and Queen St. E., PXO buttons in the downtown, new PXO on James St. S. at DCVI, new accessible sidewalks on Waterloo St. S., Elizabeth St., Egan Ave, Victoria St., Warner St., Brock St., and St. George St. N, as well as numerous spot repair and ramp tactile plate installations throughout Town.

Existing Conditions and Maintenance Activities

The Town owns and maintains 48km of sidewalk within municipal right of ways. These sidewalks sometimes overlap with the Loop Trail, but this quantity does not include Town trail infrastructure outside of the road allowances. The sidewalk network was last inspected by a third-party consultant in 2014 by R.J. Burnside and Associates. The sidewalk network currently has an overall condition of "Fair", with an overall 2020 replacement cost of roughly \$5.7M. Sidewalks are assumed to have a 40-year useful life in the Town's Asset Management Plan. Attachment 3 shows the location of the Town's existing sidewalk network.

Public Works staff maintain the sidewalk network in the winter months with snow and ice clearing operations and in the summer months with various construction and maintenance activities. The Town's maintenance program is designed to maintain the sidewalk infrastructure to an acceptable level of service and to reduce the risk of pedestrian injury by following the provincial maintenance standards. Every year all municipal sidewalks are inspected by municipal staff for deficiencies. The findings assist staff with determining where maintenance activities should be focused. There are typically five (5) methods to sidewalk maintenance that the Town will utilize to address deficiencies. These include:

- Marking the deficiency with paint to make pedestrians more aware of hazards
- Grinding small trip hazards
- Lifting sunken sidewalk panels
- Filling spalls or cracks with cold patch asphalt
- Replacing damaged concrete panels with new concrete

Each hazard is documented and reviewed by staff to determine the most appropriate method of repair. When work occurs on ramps at intersections, they are upgraded with AODA compliant tactile plates. The Town spends \$60,000 on winter maintenance and \$70,000 on summer operational maintenance per year on the sidewalk network. The annual capital requirement for replacing a proportionate amount of sidewalk network on an annual basis is \$143,000. These capital and operational costs (total lifecycle costs) across the total length of sidewalk network results in an annual cost of approximately \$5,000/km/yr. To maintain the existing infrastructure deficit, Council theoretically needs to increase annual tax revenue by \$5,000 for every km of sidewalk added to the network.

"Excessive" Sidewalk Infrastructure

There have been times in the past where sidewalk was installed in excess of the Town's guidelines and sidewalk policy. These locations include local roads where sidewalk was installed on both sides. These locations are depicted in Attachment 4. Some of these sidewalks provide clear benefit even though

they do not fit perfectly into the sidewalk policy based on the road classification and are recommended to remain. Examples include sidewalk on the east side of Church St. S. adjacent to the churches or Peel Street S. adjacent to the food bank. The exact reason for the other extra sidewalks is unknown but likely related to pedestrian patterns in the past that have since changed. The Town incurs an unnecessary cost to continue owning and maintaining these additional sidewalks. In some cases, these extra sidewalks are in very poor condition, segmented or appear to provide little additional benefit. There are approximately 1.7km of these “excessive” sidewalks. Council adopted an approach to eliminate these additional sidewalks over time. This approach will allow existing operational budget to absorb installation of new sidewalk in areas where there is a sidewalk deficit. Some additional sidewalks that are either segmented or in poor condition will be removed immediately, while others could be removed as their condition degrades or the road is reconstructed. Attachment 4 depicts the approach to eliminating this excessive sidewalk infrastructure previously approved by Council.

“Deficient” Sidewalk Infrastructure

Sidewalk infrastructure is expensive to both construct and maintain. Additional investment in sidewalks typically results from public request or during changing conditions (ie. A neighbourhood changes demographics or a new high pedestrian-generating facility is introduced). Areas that do not meet the requirements of the design guidelines or sidewalk policy are considered “existing non-conforming” like the way buildings might be treated in the light of new zoning or planning requirements. The locations where sidewalks currently don’t exist but are theoretically required by the policy are shown in Attachment 5. Further details on the sidewalk class and prioritization are discussed later in this report. The total length of new sidewalk that would be required to meet the sidewalk policy is 28.7km. Much of this new sidewalk would be scarcely used and the expense would be difficult to justify in the foreseeable future.

From an asset management perspective, Council can consider the existing sidewalk network as the existing level of service provided to the community. The difference between the theoretical amount of sidewalk required by the Town’s sidewalk policy and the actual amount of sidewalk provided by the Town can be considered the sidewalk network deficit.

Addressing the Network Deficit

The Town does not enjoy the freedom of unlimited financial capacity, and in fact has a significant (\$670,000) annual infrastructure deficit. As such, a meticulous, financially responsible plan must be implemented to prioritize system improvements.

Utilizing the prioritization criteria from the Sidewalk Policy, staff have assigned classifications to the sidewalk network (depicted in Attachment 5) and developed a long-term plan for sidewalk network improvements. The plan is illustrated in Attachment 6.

The classifications were determined as follows:

- Class 1 - Highest Importance. These include the commercial district (ie. core area), school zones, church zones, homes for the elderly/senior centers, arenas, and community centers.
- Class 2 - Moderate Importance. These are along arterial roads or along collector roads that have higher traffic volumes, where these are not already included in the Class 1 roads.
- Class 3 - Average Importance. These are local roads AADT equals or exceeds 50vpd.
- Class 4 – Least Importance. These are local roads with AADT less than 50 vpd. and include cul-de-sacs and dead ends.

The plan categorizes sidewalk construction or reconstruction into four options.

Priority – Construct or reconstruct as a stand-alone project, not dependent on other inputs. This approach addresses an existing concern or priority when a reconstruction and/or adjacent development is not anticipated.

Road Reconstruction. – Construct or reconstruct in conjunction with an adjacent road reconstruction project. Sidewalk would not be constructed until the time of a planned road reconstruction project.

Dependent on Development – Construct or reconstruct at the time of development in the area. The plan attempts to minimize the financial burden by designating some potential sidewalk locations as “dependent on development”. These locations would either be paid directly by new development or by development charges in the future. This approach is appropriate as pedestrian volumes in those locations typically would not warrant a sidewalk until development occurs.

Non-Priority – Sidewalk unlikely to be constructed based on available information at this time.

The following is a summary of the proposed plan

	Short Term (1-5yr)	Medium Term (6-10yr)	Long Term (11-25yr)	Very Long Term (>25yr)
Priority Locations	2.0km, \$374,000	1.4km, \$247,000	1.4 km, \$248,000	0km, \$0
Road Reconstruction	0.0 km, \$0	0.3 km, \$35,000	1.9 km, \$226,000	0.1 km, \$15,000
Dependent on Development	0.6 km, \$75,000	0 km, \$0	6.1 km, \$740,000	4.1 km, \$487,000
Non- Priority	0 km, \$0	0 km, \$0	0 km, \$0	9.8 km, \$1,176,000
Complete	0.9 km	0	0	0
TOTAL	3.5 km, \$450,000	1.7 km, \$282,000	9.4 km, \$1,214,000	14.0 km, \$1,678,000

On average, the plan would require roughly \$62,000 per year for the first 10 years to address “priority” sidewalks where development and road reconstruction is not anticipated. In addition to the initial capital investment, this extra infrastructure would require roughly \$17,500 per year being collected in taxes to pay for the operating, maintenance, and replacement costs of the new assets. These values have been updated to reflect the higher costs staff are observing related to installing sidewalks as stand-alone projects.

Planned road reconstruction projects will incorporate an additional \$35,000 in new sidewalk investment over that 10-year period. This will result in an additional \$1,750 per year required from taxes.

Sidewalks to be constructed as part of development will result in another \$3,000 increase in tax revenue requirement over that time.

Trail Network Integration

The Town’s trail network and the Town’s sidewalk network work in conjunction to provide an active transportation network across the Town. Trails will at times augment the need for sidewalks and sidewalks will sometimes provide integral connecting links for the various sections of trail. The Town’s Green Committee is currently working through an Active Transportation Study that will categorize trails and prioritize active transportation network investments. Throughout this analysis, trails were sometimes utilized to augment the need for sidewalks in road allowances when for one reason or

another the road allowances did not allow for sidewalk. If a trail utilized a road allowance as a connecting link but the road allowance was without a sidewalk, this was considered during prioritization.

Construction Considerations

When the time comes for construction, there are issues that typically arise with local residents that Council should be aware of:

- *Tree Conflicts and Extra Costs Due to Utilities*

When a section of sidewalk is selected for construction or replacement, staff ensure that the location of the new sidewalk is in an optimal area of the road allowance to improve pedestrian safety, reduce future operational issues, and avoid existing obstacles. Existing obstacles such as hydro poles, fire hydrants, telecommunication pedestals and mature trees are all considered prior to locating the new sidewalk. Conflicts are often unavoidable and sometimes utilities must be moved, or trees must be cut down to accommodate the new sidewalk. Future considerations for potential road widening also play a factor in sidewalk location.

- *Driveway Conflicts*

Driveways are also impacted when sidewalks are constructed as residents cannot park across a sidewalk. This is less of an issue in newer sections of Town where zoning setback requirements theoretically result in suitable parking space on private property. However, many of the locations without sidewalk are in older areas of Town where houses may have been built with less stringent zoning requirements, resulting in a high probability of conflict.

It is also desirable from both a maintenance and accessibility perspective to maintain a consistent colour and texture for the area designated for pedestrians. As a result, sidewalks cross driveways rather than terminate at them. Some residents who are either very particular about their property or who have invested in an upgraded driveway material often are very unhappy about new sidewalks cutting through their driveways. Unfortunately, this is unavoidable when carrying out this type of work.

In some circumstances residents have not constructed a parking spot on their own property and solely use the road allowance for parking needs. In these circumstances, the cost of installation of sidewalk would increase as the Town accommodates the individuals with installation of parking on private property. This will at times require fencing to be moved.

- *Grading Conflicts*

Sidewalks are installed with a crossfall of 2-4%. This allows for positive drainage while maintaining a comfortable experience for the pedestrian using the facility. St. Marys has a lot of properties where front lawn grade changes exceed 4%. When the sidewalk is installed in these areas, it results in a steeper lawn adjacent to the sidewalk to make up for the minimal grade change across the width of the sidewalk. This sometimes requires cutting back into lawns to properly transition the change in grade. This issue also impacts driveways and can result in the need for more driveway replacement to recreate a somewhat comfortable ride in and out of the driveway.

FINANCIAL IMPLICATIONS

This report shows that there is the potential for unsustainable investment in the Town's sidewalk network. The Town is currently experiencing an infrastructure funding deficit and further network improvements without a financing strategy would further increase the Town's funding deficit. As part of the Town's Asset Management Program, a Financial Plan will be developed in the next year for Council to make decisions on how to narrow the funding gap while addressing aging infrastructure in the future.

The plan was designed to maintain the current operating expenses for the first two years and only install priority sidewalk quantities that replace “excessive sidewalks” that are to be removed. After that time, Council will have had an opportunity to adopt a financial plan to address sidewalk network improvements in the future.

SUMMARY

The Town of St. Marys owns and maintains 48 km of sidewalk. The Town’s Engineering Design Guidelines and Sidewalk Policy outline details of how and where sidewalk is to be prioritized and installed.

The Plan adopted by Council in May 2020 was designed to phase in corrections to address the shortcomings of the Town’s sidewalk network by establishing long-term plan for network improvements.

Overall, the May 2020 Plan includes the following:

- Future removal of 1.7km of “excessive” sidewalk when the condition of those sidewalks degrades
- \$62,000 per year (on average) for 10 years to invest in new sidewalks in locations where development and road reconstruction is not anticipated, totaling 2.0km in new sidewalk
- Require 0.6km of development driven sidewalk be constructed as part of anticipated developments
- For every kilometer of sidewalk added to the Town’s network, an additional \$5,000 in revenue is required on an annual basis to cover the new asset’s operating, maintenance, and replacement costs

As noted, the approach to prioritizing sidewalk additions has become a discussion point for Council and residents. Through this report staff is seeking strategic direction from Council as to if they wish to adopt a new approach to prioritization.

It is staff’s recommendation that “large scope” projects moving forward over the current approach of “annual small scope”. The advantages of large scope projects are that:

- They can be fully design engineered, including the collection topographical information to determine if or when driveway conflicts will occur. This allows solutions to be determined early in the process.
- They allow more time for public engagement before the project.
- It is clearer and more understandable for residents how a large scope project corrects issues (as compared to small scope iterative projects).

STRATEGIC PLAN

☒ This initiative is supported by the following priorities, outcomes, and tactics in the Plan.

- Pillar #1 Developing a Comprehensive and Progressive Infrastructure Plan:
 - Outcome: St. Marys is committed to developing a progressive and sustainable infrastructure plan that meets the infrastructure needs of today and tomorrow.
 - Tactic(s): Identify immediate needs in the community. When developing the Annual Capital Plan, have regard for infrastructure needs identified in the asset management plan before considering new builds or renovations that represent significant service level improvements.

OTHERS CONSULTED

Transportation Association of Canada – Geometric Design Guideline for Canadian Roads (2017)

Ontario Traffic Manual – Book 15 Pedestrian Crossing Treatments (2016)

Municipal Engineers Association – Municipal Works Design Manual (1984)

RJ Burnside & Associates – Town of St. Marys Sidewalk Assessment Study (2014)

ATTACHMENTS

Attachment 1 – Town of St. Marys Engineering Guidelines Excerpt

Attachment 2 – Town of St. Marys Sidewalk Policy

Attachment 3 – Existing Sidewalk Network Map

Attachment 4 – “Excessive” Sidewalk Map

Attachment 5 – Sidewalk “Deficit” Map

Attachment 6 – Sidewalk Plan Map

REVIEWED BY

Recommended by the Department



Jeff Wolfe

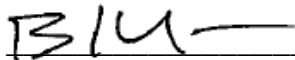
Asset Management Specialist



Jed Kelly

Director of Public Works

Recommended by the CAO



Brent Kittmer

Chief Administrative Officer

TOWN OF ST. MARYS ENGINEERING DESIGN GUIDELINES EXERPT

2.6 SIDEWALKS AND WALKWAYS

All sidewalks are to be with a minimum of 1.5 m wide 140 mm thick concrete (exposure class C-2), constructed in accordance with the appropriate OPS specifications. Wider Sidewalks may be required in high pedestrian areas and/or where required by the Town. The location of the sidewalk(s) shall be confirmed with the Town prior to commencing the detailed design and in general sidewalks shall be located on the "Downtown side of the street" and the exterior side for crescents. All local streets and cul-de-sacs (more than 12 lots) shall have a sidewalk on one side with all other streets requiring sidewalk on both sides and are to be continuous through all driveways including industrial, commercial and institutional driveways. Walkways are to extend through sidewalk and terminate at curb depression.

Sidewalk ramps are to be installed in accordance with the appropriate OPS drawings and all designs must satisfy the requirements of the applicable provincial legislation for accessibility. The crossfall for all sidewalks shall be a minimum of 2% and a maximum of 4%, with no steps allowed. Entrance tactile plates shall be clay red in colour and shall be cast iron. Tactile Walking Surface Indicators shall comply with O. Reg. 191/11 Accessibility for Ontarians with Disabilities Act, 2005, OPSD 310.039 and meet the following requirements.

Standard	Property	Minimum Result
ASTM A 8	Tensile Strength	Class 30B
ASTM C 1028	Slip Resistance	Dry 0.8 min, wet 0.65 min
ASTM C 501-84	Wear Resistance	Wear Index: >15

The truncated domes shall be of uniform size and shape. Units shall be uniform in texture, be free from pouring faults, sponginess, cracks, blowholes, and other defects, and have clean-cut and well-defined edges. All surfaces shall be uniform and free of flaking rust or mounts of rust or debris. Tactile walking surface indicators shall have ribs cast to the underside of the unit, have vent holes, and have a minimum plate thickness of 5 mm. Tactile Plate colour shall be "clay red".

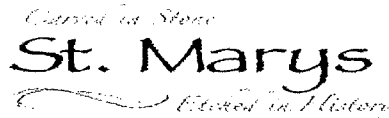
Installation

Tactile walking surface indicators shall be set and pressed into wet concrete to final elevation according to OPSD 310.033 and as per the manufacturer's recommendations. Remove any wet concrete that may spill onto tactile walking surface indicator surface.

Walkways as shown on the approved Engineering Drawings are to be constructed with concrete sidewalks on a compacted base, per the standards for sidewalks.

Walkways within park areas shall be located as directed by the Town.

The Town requires that all concrete walkways be constructed as indicated on the approved Engineering Drawings, prior to preliminary acceptance.



TOWN OF ST. MARYS AMENDED SIDEWALK POLICY

Purpose of the Policy is – To establish a standard method of setting clear and fair priorities for spending the annual sidewalk budget in the best interest of taxpayers.

Considerations for Policy

- Sidewalk is only necessary in areas of pedestrian traffic.
- Areas of larger volumes of pedestrians should be areas of higher priority for sidewalk expenditures.
- Generally, commercial establishments, schools, hospitals, nursing homes, senior's complexes and recreation facilities generate highest intensity pedestrian traffic. Large industrial complexes usually generate motor vehicle traffic and not much volume of pedestrians – certainly not young or infirm pedestrians.
- Single-family dwellings generate moderate concentrations of pedestrian traffic.
- Road classifications also affect sidewalk considerations. Roads with high traffic volumes (arterials and collectors) become difficult and even unsafe to cross, especially for children and handicapped pedestrians.
- Areas of both high pedestrian and high motor vehicle use are natural high priorities for sidewalks.
- Reconstruction of sidewalks should not take place in zones that are scheduled on the five-year forecast for road reconstruction.

Physical Standards/Policy

Sidewalk requirements

Sidewalk both sides for arterial and collector streets and one side for local streets and cul-de-sac of 12 lots and more.

Other general requirements

- Sidewalk to be 1.5 metres wide (5')
- Wider sidewalks may be required in high pedestrian areas

Sidewalk location placement

- New sidewalks location is preferred on the “downtown side of street”
- Match existing sidewalk configuration placement (sidewalks beyond the construction zone)
- New sidewalk construction conform to the Ontario Provincial Standards (OPS)
- Avoid building ‘curb faced’ sidewalk (walk adjacent to the traveled portion of road)
- Build barrier free ramps at all intersections where construction takes place

Facets of Work

1. Repair: By grinding in areas where walk is good or excellent but an elevation difference (maximum 1”) exists; or pad/patch where dangerous sidewalk exists where a road section is being totally rebuilt in near future.
2. Replace: Single panels for utility cuts, deep settlements/tree root heaves – more than 1” elevation difference.
3. Reconstruct: Full-length blocks of work with large percentage of broken, uneven or rough surfaced sidewalk.
4. Construct: Any area where sidewalk is required and future roadwork or underground work is not immediately planned.

Policy

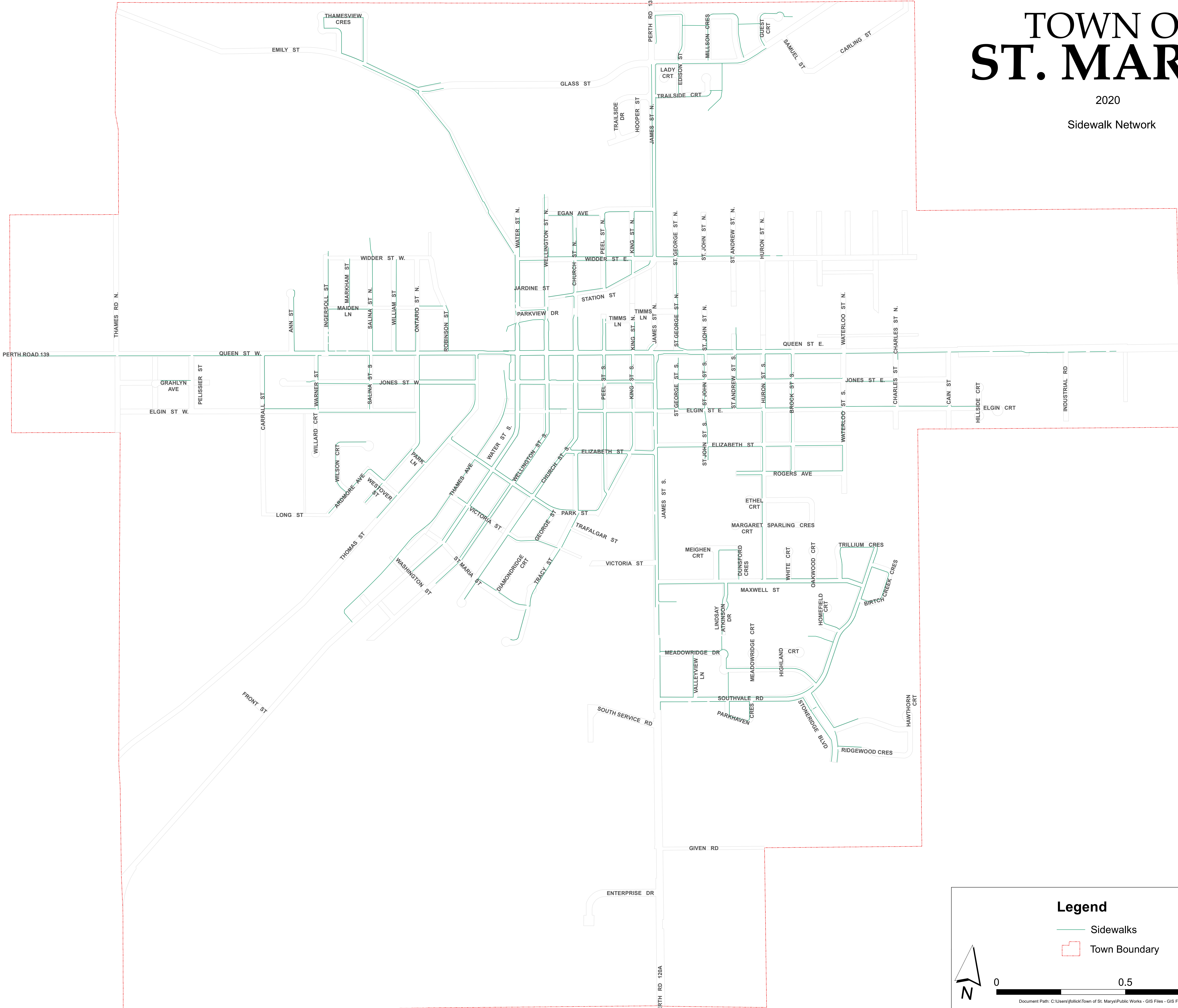
A comprehensive sidewalk policy will ensure that all categories – Repair, Replace, Reconstruct and Construct of work are included. It also gives consideration to pedestrian safety and where competing needs exist, and then the higher priority will be given to the section with a larger number of exposures to incidents. A slight priority should be given to reconstructing existing over constructing new.

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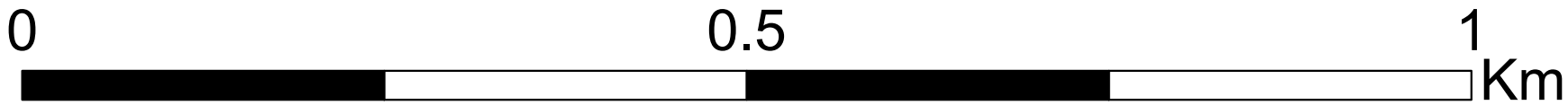
ⁱ June 28, 2005

TOWN OF ST. MARYS

2020
Sidewalk Network



- Legend**
- Sidewalks
 - Town Boundary

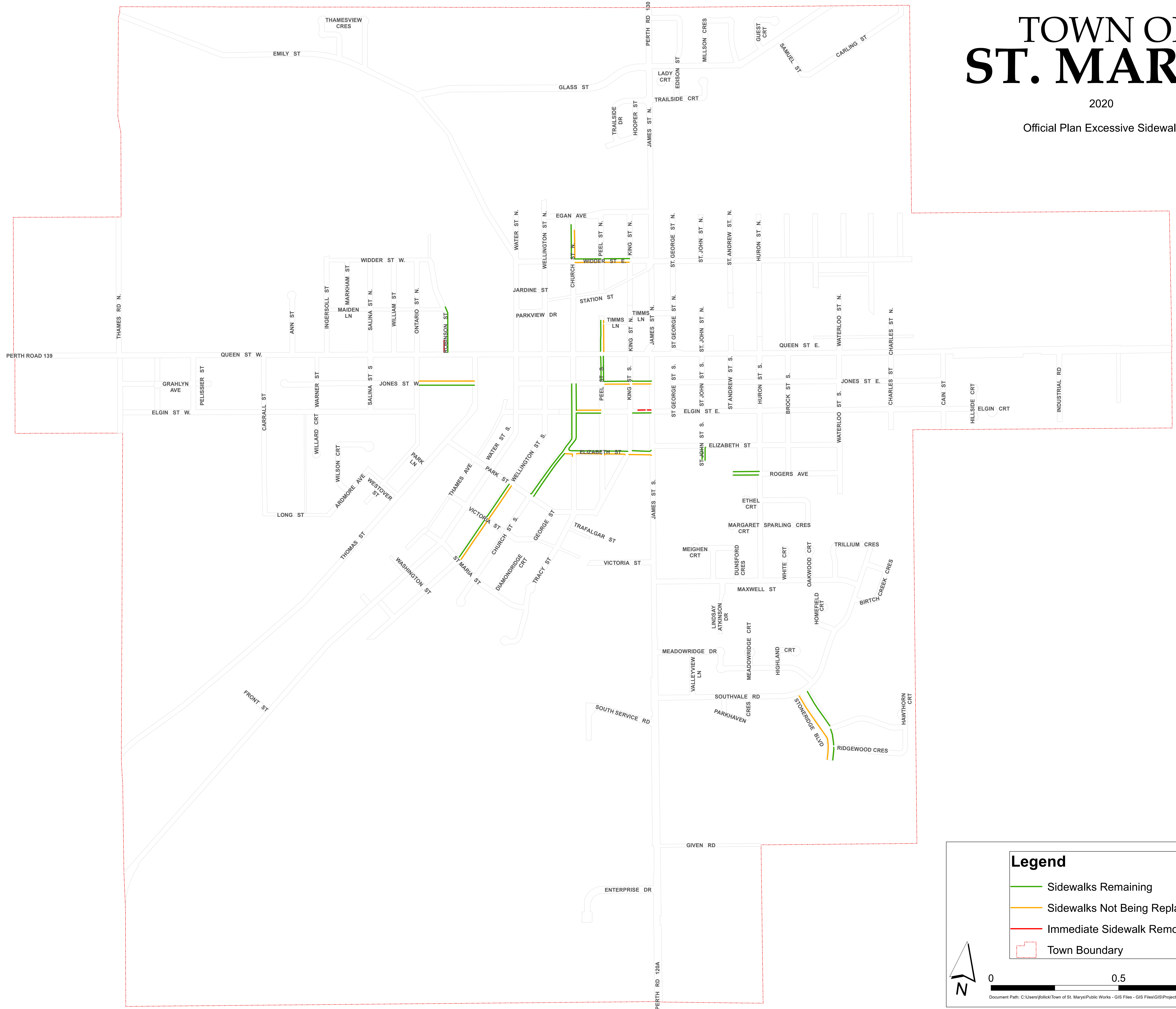


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TOWN OF ST. MARYS

2020

Official Plan Excessive Sidewalks



Legend

-  Sidewalks Remaining
 Sidewalks Not Being Replace
 Immediate Sidewalk Removal
 Town Boundary

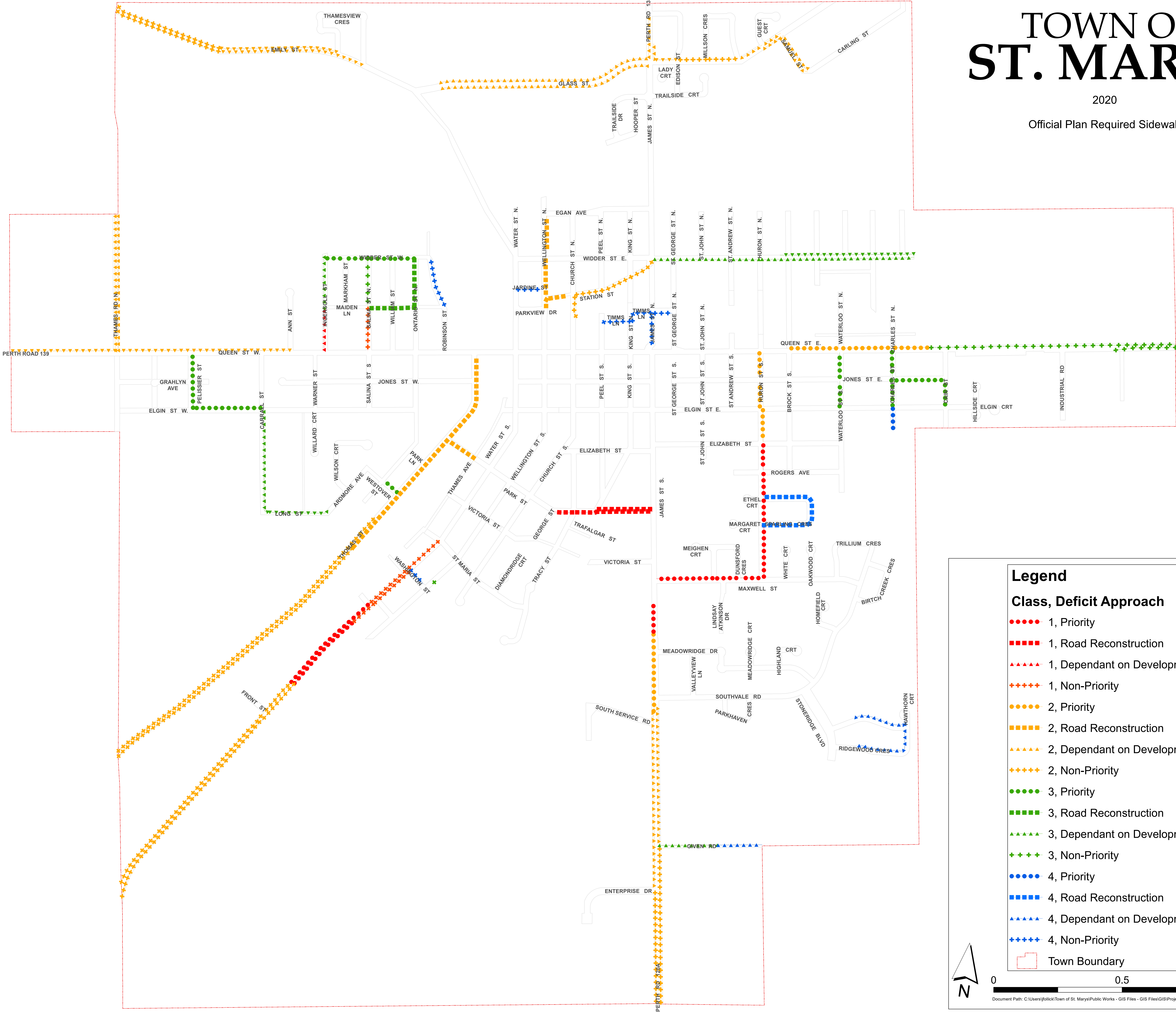


0 0.5 1 Km

TOWN OF ST. MARYS

2020

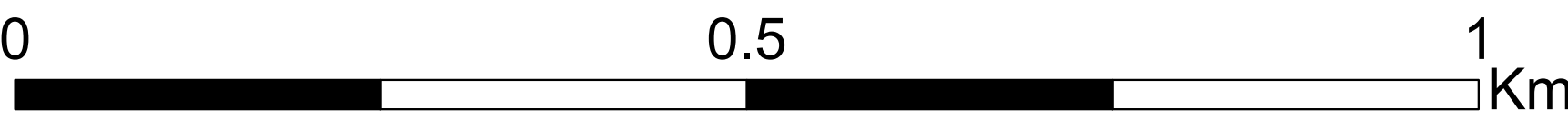
Official Plan Required Sidewalks



Legend

Class, Deficit Approach

- 1, Priority
- 1, Road Reconstruction
- ▲▲▲▲▲ 1, Dependant on Development
- +++++ 1, Non-Priority
- 2, Priority
- 2, Road Reconstruction
- ▲▲▲▲▲ 2, Dependant on Development
- +++++ 2, Non-Priority
- 3, Priority
- 3, Road Reconstruction
- ▲▲▲▲▲ 3, Dependant on Development
- +++++ 3, Non-Priority
- 4, Priority
- 4, Road Reconstruction
- ▲▲▲▲▲ 4, Dependant on Development
- +++++ 4, Non-Priority
- Town Boundary

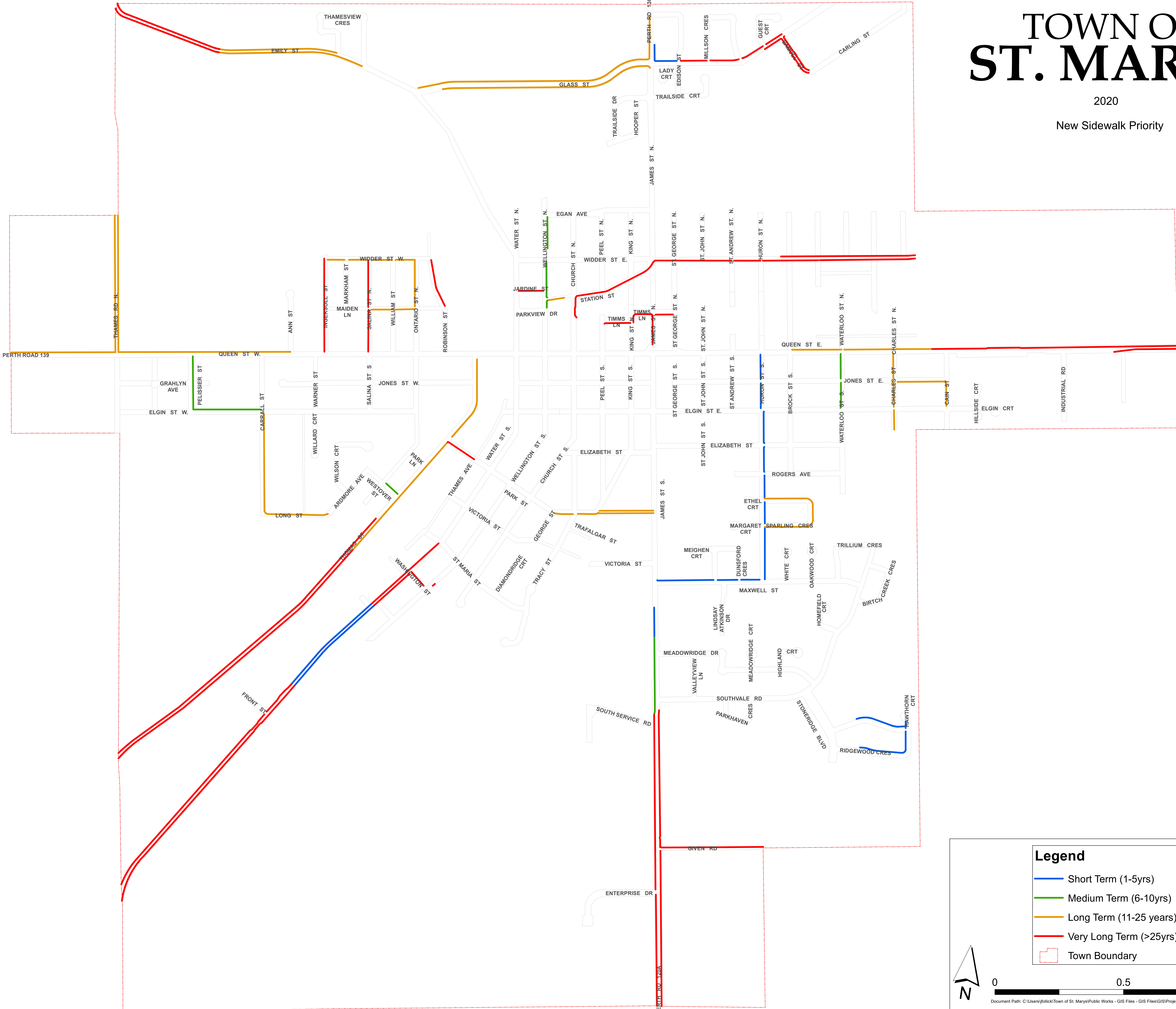


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TOWN OF ST. MARYS

2020

New Sidewalk Priority



Legend

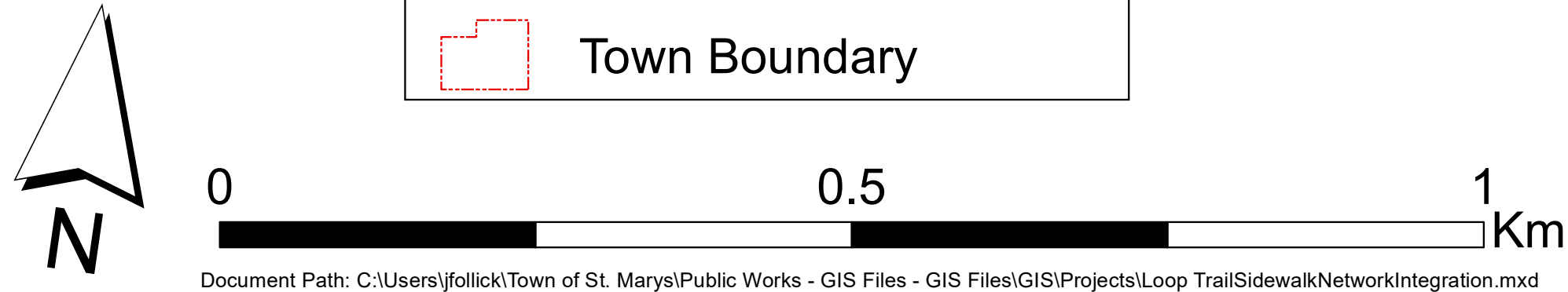
Short Term (1-5yrs)

Medium Term (6-10yrs)

Long Term (11-25 years)

Very Long Term (>25yrs)

Town Boundary



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FORMAL REPORT

To:	Chair Stratthdee and Members of Strategic Priorities Committee
Prepared by:	Jed Kelly, Director of Public Works
Date of Meeting:	17 August 2021
Subject:	PW 60-2021 East Ward Traffic Study

PURPOSE

To present information related to ongoing traffic concerns in the East Ward and for Council to consider a traffic study during the 2022 budget process. The study would review vehicle and pedestrian movements in the East Ward with a focus on Huron Street South, Waterloo Street South, and Maxwell Street.

RECOMMENDATION

THAT PW 60-2021 East Ward Traffic Study report be received; and,

THAT the Strategic Priorities Committee Recommends to Council:

THAT Council direct staff to include a traffic study for the East Ward with a focus on Huron Street South, Waterloo Street South, and Maxwell Street to be considered in the 2022 budget deliberations.

BACKGROUND

Since 2016 staff have been monitoring an ongoing situation in the Maxwell Street, Huron Street South, and Waterloo Street South area. Various complaints have originated from different locations in the area but appear to be connected from a traffic engineering standpoint.

Complaints or concerns received by staff include:

- Dunsford Crescent – Pedestrian patterns on Maxwell St. during school hours
- Maxwell St. - Parking Enforcement / Sightline
- Huron St. S. (North of Elgin) – Aggressive driving between stop signs
- Huron St. S. and Elgin St. E. – Non-compliance with stop signs, concerns over pedestrian safety
- Waterloo St S. – Aggressive driving and vehicular traffic volumes (pre-road reconstruction)
- Waterloo St S. – Future traffic volumes post reconstruction
- Rogers Ave. –Traffic volumes
- Rogers Ave. & Waterloo St. S.– Concerns over the Rogers Ave yield condition and pedestrians accessing Sparling Bush
- Huron St. S. - School bus traffic

Since 2016 several residential developments have been built in the southeast section of town, with additional development anticipated in the near future. This new development is expected to compound the existing traffic concerns with additional traffic volume.

The additional traffic volume from the recent developments is most likely using the collector roads in the area (Huron and Maxwell) to reach the arterial roads (Queen and James). Additional traffic volume is likely one cause of the complaints and concerns being raised. However, staff believe that there could be a mix of factors contributing to these issues, and that the root causes and solutions are best determined through a wholistic study of the area to understand traffic and pedestrian patterns in the area.

REPORT

Staff are recommending that a traffic study for Huron Street South, Waterloo Street South, and Maxwell Street be considered during the 2022 budget and be completed in 2022.

The study scope would include:

- Traffic volume & patterns on Huron Street South, Waterloo Street South, and Maxwell Street
 - Analysis of traffic volume in comparison to road classification
- Pedestrian traffic patterns around school accesses (DCVI and Little Falls)
 - Review of pedestrian crossing facilities and controls
- Review existing parking restrictions
- Consideration of all potential developable lands in the south in consideration to projected traffic patterns, revisit 2014 Master Servicing Study
- Present potential countermeasures for Council to consider for mitigating the vehicle and pedestrian traffic concerns

Outside expertise in the area is warranted due to the complexity of the problems at hand with several factors such as increased development, elementary school, high school, and multi-use community centre.

The report would present the findings and options for corrective measures for Council to consider. These measures could include actions such as alterations to the road network, traffic calming measures, or additional enforcement initiatives if warranted.

It should be noted that staff are hesitant to proceed with a traffic study in 2021 during the COVID pandemic as results may not be fully representative of post COVID traffic conditions due to a number of individuals still working from home or not participating in and travelling to activities outside of their home.

FINANCIAL IMPLICATIONS

Staff are recommending an allocation of \$25,000 be budgeted to complete the traffic study works outlined above. In order to optimize the budget, staff will utilize the Town's existing radar signs and work with the Stratford Police to utilize the "Speed Spy" to collect traffic speed data and counts. It is expected that pedestrian traffic and manual vehicle counts during peak hours will also be required.

SUMMARY

Staff are seeking consideration of a traffic study during the 2022 budget process due to several concerns from area residents that have been brought forward since 2016. The study would review vehicle and pedestrian movements in the east ward with a focus on Huron Street South, Waterloo Street South, and Maxwell Street. The total projected budget is \$25,000.

STRATEGIC PLAN

☒ Not applicable to this report.

OTHERS CONSULTED

Paradigm Transportation Solutions Ltd.

ATTACHMENTS

None.

REVIEWED BY

Recommended by the Department



Jed Kelly
Director of Public Works



Jeff Wolfe
Asset Management Specialist

Recommended by the CAO



Brent Kittmer
Chief Administrative Officer

FORMAL REPORT

To:	Chair Strathtdee and Members of Strategic Priorities Committee
Prepared by:	Jeff Wolfe, Asset Management Specialist
Date of Meeting:	17 August 2021
Subject:	PW 57-2021 Road Condition Assessment and Pavement Management Program

PURPOSE

This report presents information on the Town's pavement management program including past practices, current conditions, and future construction and funding considerations. Staff are seeking direction from Council on if there are any strategic changes that need to be made to the pavement management program in terms of how roads are prioritized for rehabilitation, and in terms of the funding levels assigned to the program.

RECOMMENDATION

THAT PW 57-2021 Road Condition Assessment and Pavement Management Program be received; and

THAT the Strategic Priorities Committee recommends to Council:

THAT the following changes be proposed for the pavement management program, with a report back from staff on the implications of each:

- Service Level: The preferred Pavement Condition Index be targeted at _____.
- Funding Level:
- Prioritization Approach:

THAT the Town complete road condition assessments on a bi-annual basis to monitor condition trends and the effectiveness of investment strategies.

BACKGROUND

The Town of St. Marys owns and maintains 58 km of public roadway made of gravel, asphalt and concrete pavement. The Town's 2020 capital plan included a condition assessment of the Town's road network to assist staff with pavement management and prioritization of road work. Streetscan was hired to complete a pavement condition assessment in late 2020 and delivered the results through the Streetlogix software platform in 2021.

REPORT

The Town's pavement management program has transformed over the past two decades as staff and Council change, and as the Town's strategic priorities evolve. At times there has been an emphasis on pavement preservation or reconstruction activities, while at other times there has been an emphasis on budget health. The past two terms of Council have viewed infrastructure investment as a strategic

priority and the Town’s operational and capital budgets have seen corresponding increases for road network maintenance.

However, financial capacity is still finite, and it is important to make the right infrastructure investments at the right time. Having accurate and up to date information is critical to ensure that staff and Council can make those timely investment decisions. The pavement condition assessment completed in 2020 not only provides quantitative data to assess the Town’s pavement management program, it also provides a benchmark to work from when assessing future trends. The road network represents the largest asset category in the Town’s asset management plan and therefore represents a significant portion of the operational and capital budgets.

Condition Assessment

The 2020 pavement condition assessment was completed in November by Streetscan who have developed an inspection process using vehicle mounted sensors and data processing algorithms to collect condition data and objectively assign pavement condition index (PCI) values. The cost of this condition assessment process was a fraction of the historical manual inspection process. PCI is a numerical index from 0-100 to indicate the condition of a segment of pavement. The index is standardized by the American Society for Testing Materials (ASTM) with the following inputs used to determine the numerical value: alligator cracking, ride quality, joint deflections, bleeding, block cracking, bumps, depressions, patching and utility cuts, potholes, rutting, shoving, polished aggregate, ravelling, longitudinal and transverse cracking. The index (shown below) is then split into grades from “Excellent” at 100 and “Failed” at 0.

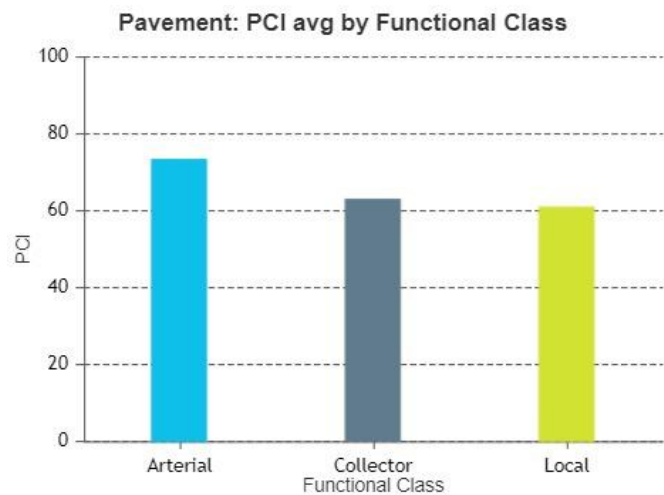


The Town’s overall road network at the time of inspection was found to have a PCI value of 64, which is a “Fair” condition. The Town’s higher-class roads were found to be in better condition than the lower-class roads. Arterial roads were found to have a PCI of 75 while Collector roads have a PCI of 63 and Local Roads are 61. This finding is consistent with what staff would expect as arterial and collector roads with the higher traffic volumes are typically prioritized in the resurfacing (mill and pave) activities which then substantially improve the PCI value. The condition assessment indicates that the overall condition of roads in Town is dropping over time, suggesting that funding levels and maintenance activities are not keeping up with degradation.

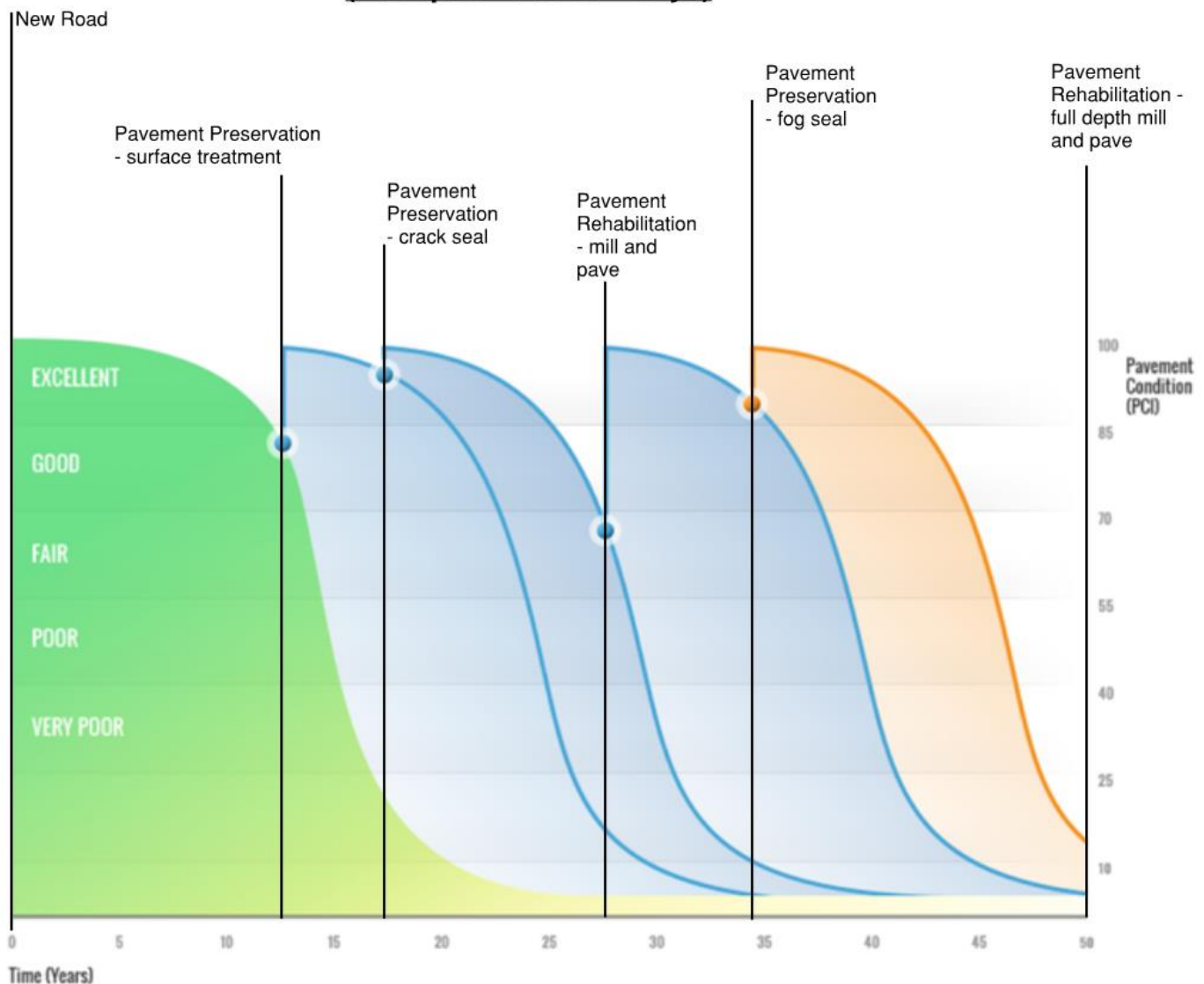


Pavement Average Condition PCI: 64
Total Length: 58 km

Asphalt degradation does not occur on a straight line but instead follows an S curve where deterioration happens slowly at first but accelerates rapidly mid-life. Over the first 75% of a road's life, the quality will drop 40%. Over the next 12% of a road's life, the quality will drop another 40%. The most cost-effective preservation techniques are only effective before the rapid deterioration sets in, so it is critical to time road work properly in order to stay ahead of that deterioration. The graph below shows a typical pavement deterioration curve with pavement preservation techniques applied before the rapid deterioration sets in.



**Example of Pavement Preservation and Rehab Techniques Utilized Through the Life of a Road
(Not specific to St. Marys)**



As asset management becomes more and more integrated in municipal decision making, road authorities are seeing a shift in the approach to pavement management. In the past, a worst-first

approach may have been employed where budgets were spent on improving the roads in the worst condition. This would mean a capital budget heavy on techniques such as reconstruction and resurfacing. However, the approach was often found to be unsustainable. The high cost of rehabilitation techniques meant there was little money left for preservation techniques designed to prevent good asphalt from entering the stage of rapid deterioration.

Pavement Preservation and Rehabilitation Techniques Toolbox

There are many pavement preservation techniques available to municipalities for pavement management. Each technique has its strengths and weaknesses, and each is typically meant to address a specific asphalt degradation concern. The Town of St. Marys is somewhat limited in the approaches available due to the nature of the Town's urban road network. Pavement preservation techniques with low unit rate costs in a rural setting become significantly more expensive when the contractors have to perform the work in an urban setting with maintenance holes, catch basins, short work areas and curb and gutter. The Town of St. Marys also has a relatively small quantity of road network so does not enjoy some of the lower unit rates and economy of scale that are typical of high quantity contracts in larger networks. The pavement preservation techniques currently employed by the Town include:

Crack Seal (PCI 70-100, \$0.50/m², 3 years of life)

Crack sealing involves the placement of an adhesive material into and/or over working cracks (i.e., those that open and close with temperature changes, such as transverse, thermal and reflective cracks, diagonal cracks, and certain longitudinal reflective cracks) at the pavement surface in order to prevent the infiltration of moisture into the pavement structure. Crack seal does not improve PCI rating of a road but instead helps postpone accelerated degradation. Depending on the road, this technique can be employed as early as year 3 after a reconstruction. Crack seal typically provides 3 years of life to pavement if done at the correct time. This is the most cost-effective process the Town uses on its roads to extend pavement life. However, it is not cost effective once the condition of the road degrades and the concentration of cracks increases. It is inappropriate for a road with block or alligator cracking.

Chip Seal (aka tar and chip, surface treatment, Fibermat) (PCI 60-90, \$7.25/m², 8 years of life)

A chip seal is a roadway surface treatment that consists of a layer of asphalt emulsion with a layer of embedded aggregate and sometimes a shredded fiber reinforcement. Chip seals provide a new skid resistant wearing surface, stops raveling, seals minor cracks, and delays further deterioration of the existing roadway. This process does not improve drive comfort and does not span cracks larger than ¼" so is best done in conjunction with crack seal and hot mix padding. Town staff have also utilized this approach as a stopgap for roads that are in poor condition when budget is not available for asphalt resurfacing. Chip seal was for some time the only pavement preservation technique employed by the Town. It has drawbacks at the time of installation as loose aggregate (aka float) sits on top of the emulsion for a couple weeks until it has properly set up. Dust and uncomfortable ride are common complaints from residents. Because of this, the Town switched to a more expensive proprietary process called "Fibermat" in 2018 which uses shredded fiber to increase durability as well as a more expensive washed trap rock that essentially eliminates dust complaints. PCI will improve from this treatment approach by a score of roughly 10. This technique does not perform well if the road is subject to higher volumes of truck or vehicle turning. Therefore, this technique is not utilized on arterial roads and is only used on collector roads with limited to no truck traffic. The estimated life gained on a road's life from this technique is 8 years.

Resurfacing (aka mill and pave, cold planing, mill and fill) (PCI 0-100, \$17/m², 15 years of life)

Resurfacing is the controlled removal of the surface of an existing pavement to the desired depth or cross-slope with specially designed milling equipment. Typically, Town contracts will require the removal and replacement of the top course of asphalt to a 40-50mm depth. This technique improves drivability, to a certain extent eliminates top-down cracking, resets oxidation and will often feel like a

new road once complete. Long term success will depend on the condition of the base and binder asphalt prior to construction and PCI can increase all the way back to 100. The estimated life gained on a road from this technique is 15 years.

Reconstruction (PCI 0-40, \$134/m², 30 years of life)

Reconstruction is the complete removal of the road structure including pavement and granular base. This technique is typically reserved for roads in a state of failure or poor condition that have drainage or underground infrastructure issues. This technique returns the PCI to 100 and the asphalt typically has a 30-year life. This is the costliest method for pavement management and is usually driven by underground infrastructure works rather than pavement condition.

Current Pavement Management Strategy

Council has been improving the pavement management budget since 2016 by 4-5% per year. The table below shows the annual expenditures for each of the Town's pavement management techniques. These costs represent pavement expenditures only and do not include costs expended on other road related assets such as curb and gutter, sidewalk or storm sewers. Road reconstruction costs have been averaged for the time period to better show trending.

	2016	2017	2018	2019	2020	2021
Crack Seal	0	0	\$10,000	\$17,000	0	\$15,000
Asphalt Patch	\$42,000	\$32,000	\$26,000	\$18,000	\$17,000	\$32,000
Surface Treatment	\$60,000	\$70,000	\$80,000	\$80,000	\$84,000	\$100,000
Single Lift Resurfacing	0	\$120,000	\$132,000	\$145,000	\$160,000	\$176,000
Full Depth Resurfacing	0	0	0	0	0	0
Reconstruction (6-year average)	\$572,000	\$572,000	\$572,000	\$572,000	\$572,000	\$572,000
TOTAL	\$674,000	\$794,000	\$820,000	\$832,000	\$833,000	\$895,000

The Town's current approach to prioritization utilizes the functional class (and corresponding traffic volume) of roads as well as direction from the Town's Official Plan and strategic priorities (which encourage investment along the main entrance corridors and within the downtown commercial district). Under this approach, arterial and collector roads with higher traffic volumes will at times be prioritized over local roads even if the local roads are in worse condition.

Surface treatment is not utilized on arterial roads or roads with heavy truck traffic but is utilized several times in a local roads' life cycle.

Equivalent Annualized Cost and Cost Benefit

It is important to understand that each preservation and rehabilitation technique has a different equivalent annualized cost (EAC). Crack seal for example costs \$0.50/m² and adds 3 years of life to pavement for an EAC value of \$0.17/m²/yr. Resurfacing the top layer of asphalt costs \$17/m² and provides 15 years of life, or \$1.55/m²/yr. The importance of this EAC becomes apparent when assessing the long-term sustainability of a road networks' pavement management program.

The Town of St. Marys owns and maintains 58 km of road. Every year, each kilometer of road ages and deteriorates by one year, so each year the network experiences 58km-yr of deterioration. As seen above, each of the preservation and rehabilitation techniques has a corresponding increase in the

anticipated life of a road. Over long periods of time, if the Town's pavement preservation and rehabilitation work results in adding more than 58km-yr of life, the network PCI will slowly improve.

As an example, let's compare the km-yr's achieved on an annual basis with reconstruction vs. crack seal. On average, the Town reconstructs 0.5km of road per year and achieves 30 years of life on that 0.5km, or 15km-yr. As seen above, from 2016-2021 that reconstruction consumed anywhere from 64%-84% of the annual pavement management budget. This leaves 43km-yr of pavement deterioration that the remaining budget must address with the other pavement management techniques or else the overall condition of the network will degrade. When completing crack sealing, the Town can cover roughly 4km of road with the current budget. Each km is provided 3 years of life which results in 12km-yr of life. This is achieved with only 2% of the pavement management budget.

Using the example above, it quickly becomes apparent that if the Town can properly utilize pavement preservation techniques, especially early in the life of the road, it is much easier to maintain or even improve the overall road network level of service than if the program only focussed on road rehabilitation techniques.

FINANCIAL IMPLICATIONS

Condition Assessment

The pavement condition assessment cost \$9,000. This is roughly 1% of the Town's annual pavement management budget and provides valuable information to assist Council and Staff with decision making related to the pavement management strategy. It is recommended that the Town complete future condition assessments on a bi-annual basis to monitor condition trends and the effectiveness of investment strategies. An upcoming financial plan to support the Town's asset management plan will be presented to Council and will help guide any desirable changes to the pavement management strategy.

Pavement Management – Funding Requirements

If the overall condition of Town roads was better than what it is, the Town's current pavement management funding levels are almost at a point of being sustainable long term. However, the condition of Town roads is currently too low to take advantage of the more cost-effective preservation approaches. With an average PCI of 64, the Town's road network is in the period of its life where rapid deterioration occurs. In addition, the network has many roads beyond the most cost-effective techniques.

Staff have run different funding scenarios to determine the funding necessary to achieve different PCI values at the end of a 10-year period assuming the current toolbox of pavement management techniques. It was determined that if the program funding was to remain constant at the 2021 level, that the overall PCI would drop to 52 over a 10-year period.

The Town's capital plan currently proposes annual increases in the pavement management program until 2027 when it plateaus at \$1,030,000. This plan is expected to still result in a lower overall PCI of 56 at the end of the 10-year period. If Council wanted to maintain the existing PCI of 64, it would require an average annual investment of \$1,130,982 over that period. This is an increase of approximately 15% from current funding levels.

SUMMARY

Pavement management is an important aspect of the Town's asset management plan. There are many different strategies and considerations when developing and executing a pavement management program. The Town's road network has an overall condition rating of "fair".

Overall, this report is presented so Council can consider and determine desired levels of service and future strategy for the road preservation and rehabilitation program.

- In the short term, from a strategy perspective, the key questions for Council to consider are:
 - Is Council satisfied with the current road network or would they like to see changes (increases or decreases) with PCI and corresponding investment?
 - ➔ If Council wishes to maintain or even improve on the existing level of service of “Fair” over the next few capital plans, the Town’s pavement management program will need to continue to have access to increased funding and properly utilize pavement preservation techniques to make the program sustainable.
 - Does Council wish to modify how the streets are prioritized for preservation and rehabilitation work?
 - ➔ i.e. Continue with the approach where arterial and collector roads with higher traffic volumes will at times be prioritized over local roads even if the local roads are in worse condition.
- In the long term, the upcoming asset management plan work over the next two years will engage citizens to measure their satisfaction with the current levels of service provided by Town infrastructure. This engagement process will be informative and will assist Council with setting long term service level goals, the corresponding funding levels, and developing a comprehensive long-term strategy for road maintenance.

STRATEGIC PLAN

- ☒ This initiative is supported by the following priorities, outcomes, and tactics in the Plan.
- Pillar #1 Developing a Comprehensive and Progressive Infrastructure Plan:
 - Outcome: St. Marys is committed to developing a progressive and sustainable infrastructure plan that meets the infrastructure needs of today and tomorrow.
 - Tactic(s): Identify immediate needs in the community. When developing the Annual Capital Plan, have regard for infrastructure needs identified in the asset management plan before considering new builds or renovations that represent significant service level improvements.

OTHERS CONSULTED

Pavement Preservation and Recycling Alliance
Streetlogix


ATTACHMENTS

None

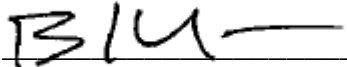
REVIEWED BY

Recommended by the Department


Jeff Wolfe
Asset Management Specialist


Jed Kelly
Director of Public Works

Recommended by the CAO

A handwritten signature in black ink, appearing to read "BK", followed by a horizontal line.

Brent Kittmer

Chief Administrative Officer