The Corporation of the City of Sault Ste. Marie

SSM Downtown Parking Study Technical Memorandum

Review of Off-Street Parking Requirements and On-Street/Public Parking Lots in the Downtown

B001600

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1. Introduction

CIMA+ was retained by the Corporation of the City of Sault Ste. Marie ("the City") to undertake a Review of Off-Street Parking Requirements and On-Street/Public Parking Lots in the Downtown. The main objective of this study is to review and consider the potential update to off-street parking policies and procedures currently in place for the study area. The study area is bounded by Wellington Street East to the north, St. Mary's River to the south, Church Street to the east, and Huron Street to the west, as shown in **Figure 1**.

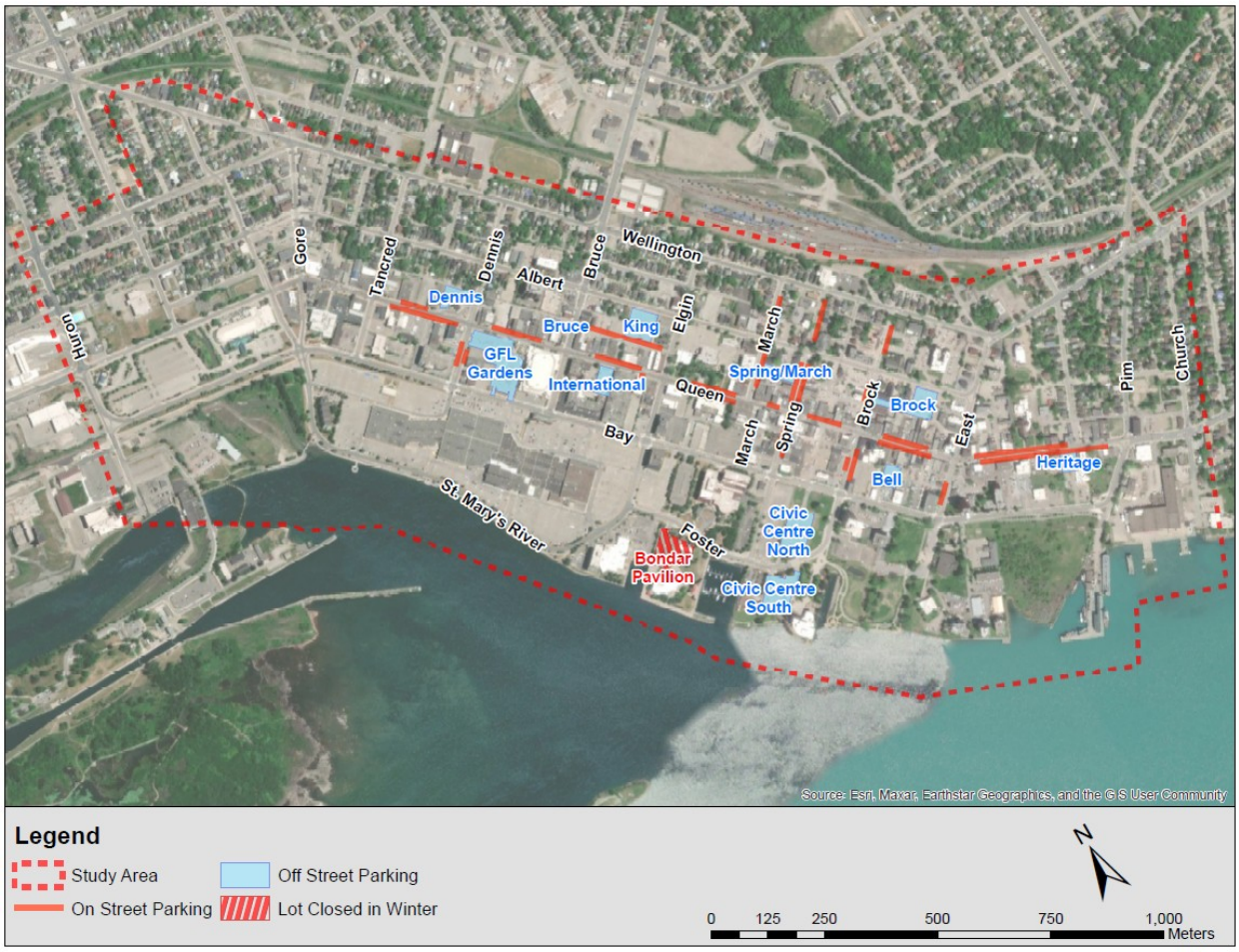

Figure 1: Study Area

The Parking Study is composed of the following subsections:

1. Analysis of Existing Parking Operations – Existing Parking Supply and Demand are evaluated to assess the current parking requirements within the study area.
2. Municipal Scan – A compilation and comparison of experiences, methodologies, and current practices regarding off-street parking policies at municipal level for various cities in North America.
3. Public Parking Cost Assessment – Discussion regarding overall costs associated with providing public parking and appropriate fees to charge for public parking.
4. Recommendations – Based on the analysis and findings, provide a set of recommendations for updating existing parking by-law requirements, potential implementation of commercial parking programs, and parking management strategies.

Section 4 as well as the results of Public Consultation are expected to be integrated/expanded after the completion of the Open Houses as part of the Final Report.

2. Analysis of Existing Parking Operations

2.1. Existing Public Parking Supply

The study area covers Downtown Sault Ste. Marie, which includes 11 off-street parking lots and on-street parking along Queen Street, Dennis Street, King Street, March Street, Brock Street, East Street, and Spring Street. **Figure 2** provides an overview of the parking supply available within the study area. The off-street parking lots within the study area contain 1,097 parking spaces across 11 lots, with highest parking supply provided at GFL Memorial Gardens (230). There are 254 on-street parking spaces provided, which are mainly unmarked. The total public parking supply in the downtown area is 1,351.

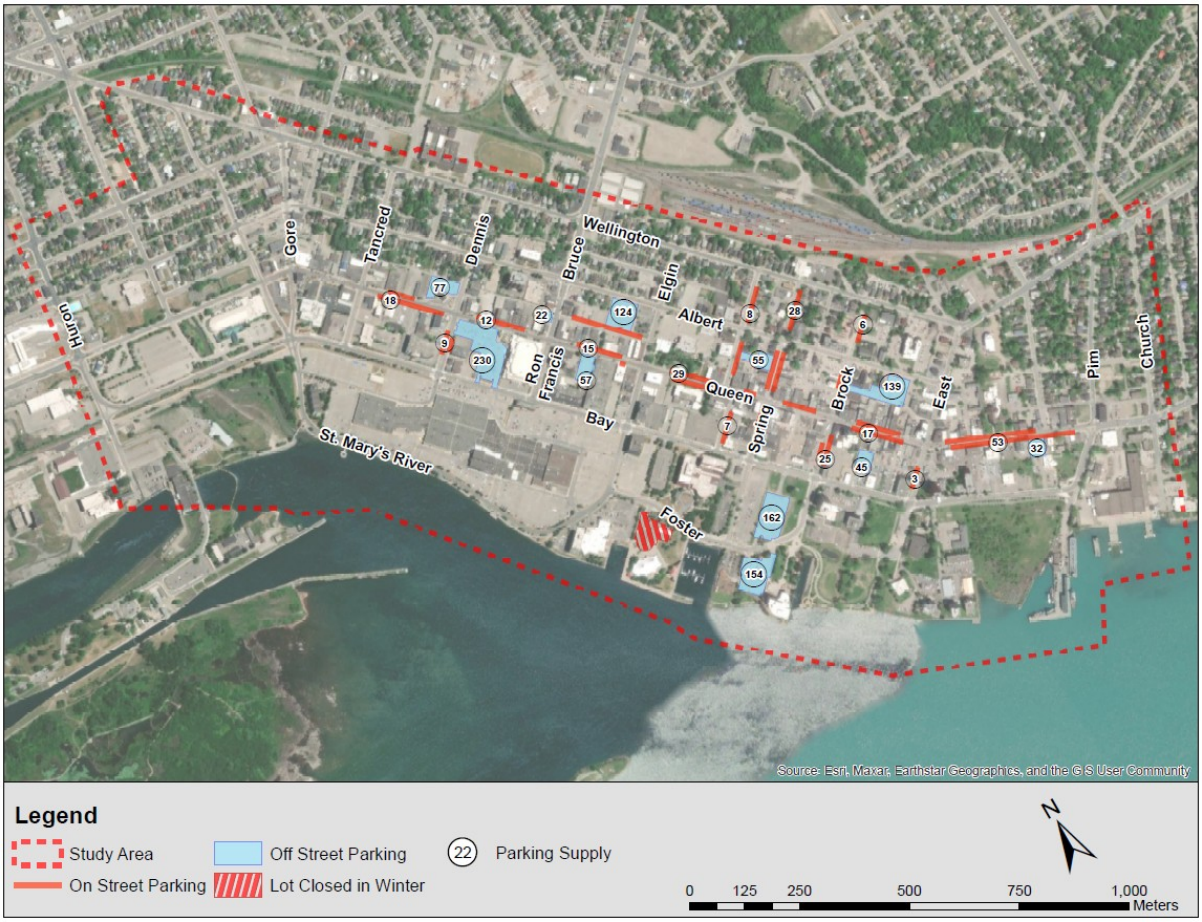

Figure 2: On- and Off-Street Parking Capacity

The following should be noted:

- Bondar Pavilion Parking Lot was not operational during the winter and was not included as part of the parking utilization survey conducted. However, the parking lot was considered as part of the total parking supply as it is available for the remainder of the year.

- Any other parking areas that may be available for use by the general public, outside of the ones listed in **Figure 2**, were not considered as part of the parking utilization survey and supply.

2.2. Parking Utilization Survey Results

The parking utilization surveys for the on and off-street parking areas were conducted on a weekday between January 30th and February 15th, 2023. The parking utilization was monitored for the public parking areas shown in **Figure 2**. The parking surveys were conducted between 9 AM to 4 PM, on a 30-minute interval[1].

Each of the parking areas was surveyed twice during this period. Due to the winter weather conditions, the parking survey was conducted using a video camera mounted on a vehicle. The surveys were conducted on days when there was minimal impact of adverse weather conditions (high snowfall events, extreme cold conditions, etc.). Since the parking survey was conducted during the winter, there were parts of the parking lots that had snow piles which restricted the access to a few parking spots. For the purposes of this analysis, these parking spots were included as part of the total supply as those spots would be available for majority of the year.

Out of the two days of collected data at each location, the day with the highest parking volume was used for this analysis. The collected data was then summarized for the following parking utilization statistics:

- Average and maximum parking accumulation (average and maximum number of parked vehicles);
- Average and maximum parking occupancy (ratio of the average and maximum number of parked vehicles to parking capacity, expressed as a percentage);
- Average duration (average length of time vehicles were parked); and
- Average space turnover (average number of times a parking space was used by a different vehicle within a given period of time).

To provide an adequate level of service it is important that the parking supply include a greater number of available spaces than the actual demand to allow for the dynamics of vehicles moving in and out of the parking spaces and to reduce the time needed to search for the last few available spaces. Typically, an 85% utilization threshold is considered adequate[2], which means that the effective capacity level is considered sufficient if the expected parking demand is 85% or below the available capacity. When the demand exceeds this effective capacity level, there may be delays and frustration in finding a parking space.

Rather than using the actual number of spaces or capacity, an effective parking supply should be used for analysis to ensure the adequacy of the parking system. The following levels of utilization were defined for this study:

- High Utilization: >85%;

[1] Note that the parking occupancy does not exactly follows the traffic peak hours. For example, if AM peak hour is between 7:30 to 8:30 our approach assumes that traffic volumes generated during that peak hour will be parked at 9:00. Similarly, during afternoon peak - 4:30 to 5:30, the final survey at 4:00 will catch those vehicles departing at peak hour.

[2] Parking occupancies of 85-90% are usually considered the highest acceptable target, since someone looking for a space will not find an empty one easily.

- Moderate Utilization (75%-85%); and
- Low Utilization (<75%).

The results of the parking survey for the on-street and off-street parking areas, including average accumulation & occupancy, maximum accumulation & occupancy, average parking duration, and average space turnover are summarized in the following tables and figure:

- **Table 1**: Off-Street Parking Utilization Summary
- **Table 2**: On-Street Parking Utilization Summary
- **Figure 4**: Average Parking Occupancy
- **Figure 5**: Maximum Parking Occupancy

A summary of the observed utilization is provided below:

- The survey was done during the Winter season.
- All of the off-street parking lots had an average occupancy of less than 70%, with an average parking duration ranging between 1.5 to 6 hours.
    - At International, GFL Gardens, Civic North, and Bell parking lots, the average parking duration exceeded 5 hours.
    - Spring/March, Civic South/North, Heritage, and King parking lots had the highest average occupancy, ranging between 50-70%. The rest of the parking lots had average occupancy of less than 40%.
- The maximum occupancy for all off-street parking lots was less than 80%, except for Spring/March (84%) and Heritage (88%) parking lot.
- All of the on-street parking areas had an average occupancy less than 55% with average parking duration being less than 2 hours, which is within the parking time limit of 2 hours within the study area for on-street parking during weekday.
- The maximum occupancy for all on-street parking areas was less than 80%, except for Queen Street between Spring & March (83%) and Queen Street between Elgin & Bruce (80%).
- The average space turnover does not exceed 5 for all parking lots and areas. As expected, the space turnover for on-street parking areas was generally higher than off-street parking lots, as indicated by the shorter parking duration.

Overall, based on the parking utilization survey, the parking supply within the study area is deemed adequate as the utilization rates for almost all on- and off-street parking areas is well below the 85% threshold of high utilization.

Table 1: Off-Street Parking Lots – Utilization Summary

Parking Lot	Parking Capacity	Average Accumulation (veh per hour)	Maximum Accumulation (veh per hour)	Average Occupancy (%)	Maximum Occupancy (%)	Average Parking Duration (hours)	Space Turnover (Average)
Spring/March	55	30	46	54%	84%	2.5	3
International	57	9	10	16%	18%	5.7	1
GFL Gardens	230	63	93	27%	40%	5.7	1
Dennis	77	13	24	17%	31%	2.9	1
Bruce	22	6	14	27%	64%	1.6	2
Civic South	154	80	96	52%	62%	4.6	1
Civic North	162	88	98	55%	62%	5.9	1
Bell	45	10	10	21%	22%	5.8	1
Heritage	32	21	28	67%	88%	2.8	3
Brock	139	54	82	39%	59%	2.7	2
King	124	71	82	57%	66%	3.0	2

Table 2: On-Street Parking Areas – Utilization Summary

Parking Area	Parking Capacity	Average Accumulation (veh per hour)	Maximum Accumulation (veh per hour)	Average Occupancy (%)	Maximum Occupancy (%)	Average Parking Duration (hours)	Space Turnover (Average)
Queen St from Pim to East	53	9	19	17%	36%	1.0	2
Queen St from East to Brock	17	6	12	37%	71%	1.6	4
Queen St from Brock to Spring	8	4	6	51%	75%	0.9	4
Queen St from Spring to March	6	3	5	44%	83%	0.8	4
Queen St from March to Elgin	29	10	15	35%	52%	1.8	3
Queen St from Elgin to Bruce	15	7	14	41%	80%	0.7	4
Queen St from Bruce to Dennis	12	5	6	42%	50%	0.8	4
Queen St from Dennis to Tancred	18	1	4	5%	22%	1.2	1
Dennis	9	0	0	0%	0%	0.0	0
King	10	1	4	5%	40%	0.8	1
March	8	1	2	7%	25%	1.0	1
Brock South of Queen	25	6	11	23%	44%	1.6	1
East	3	0	1	4%	33%	1.0	1
Brock North of Albert	6	0	0	0%	0%	0.0	0
March Lane	7	1	3	14%	43%	0.9	1
Spring	28	3	7	11%	25%	1.1	1

2.3. Parking Utilization Comparison

An independent review of a few jurisdictions' parking utilization was conducted to contextualize the parking utilization observed in the City. It should be noted that due to scarcity of the parking utilization data available, this analysis does not have the same exhaustive list of municipalities as Section 3. **Table 3** summarizes the downtown parking utilization rates for the following municipalities: Lindsay, Fenelon Falls, Bobcaygeon, Hamilton, Orangeville, and Oshawa.

Table 3: Average Parking Utilization Comparison

Municipalities	Average Utilization
Sault Ste. Marie	***37%***
Lindsay[3]	78%
Fenelon Falls[3]	50%
Bobcaygeon[3]	66%
Hamilton[4]	80%
Orangeville[5]	53%
Oshawa[6]	61%

As noticeable, the Sault Ste. Marie has lower observed utilization rate than the other municipalities. It should be noted that the parking utilization data was collected during the winter season, whereas for the other municipalities, the data was collected during the summer. Additionally, the City provided historical parking utilization data from 2014 to 2023, which is shown in below, compared to the parking utilization data collected for this study. Overall, the collected parking utilization data (yellow bars) is in-line with the historical utilization rate for all of the parking lots for which the historical data was available. Therefore, the surveyed parking utilization is deemed valid, as it is in-line with historical information.

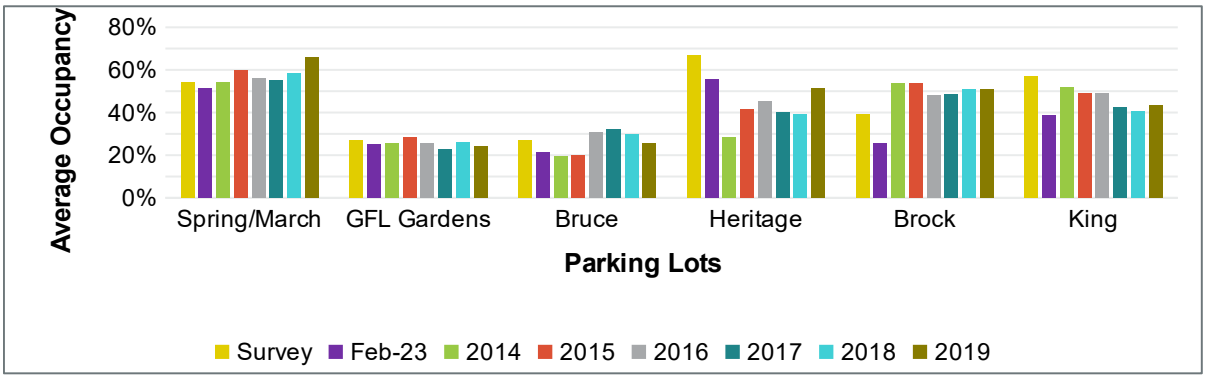

Figure 3: Historical Parking Utilization Rate Comparison

[3] City of Kawartha Lakes Downtown Parking Strategy, IBI Group
[4] City of Hamilton Parking Master Plan, IBI Group, April 2021
[5] Town of Orangeville Downtown Parking Study, Paradigm Transportation Solutions, March 2017
[6] City of Oshawa Parking Study, IBI Group, January 2021

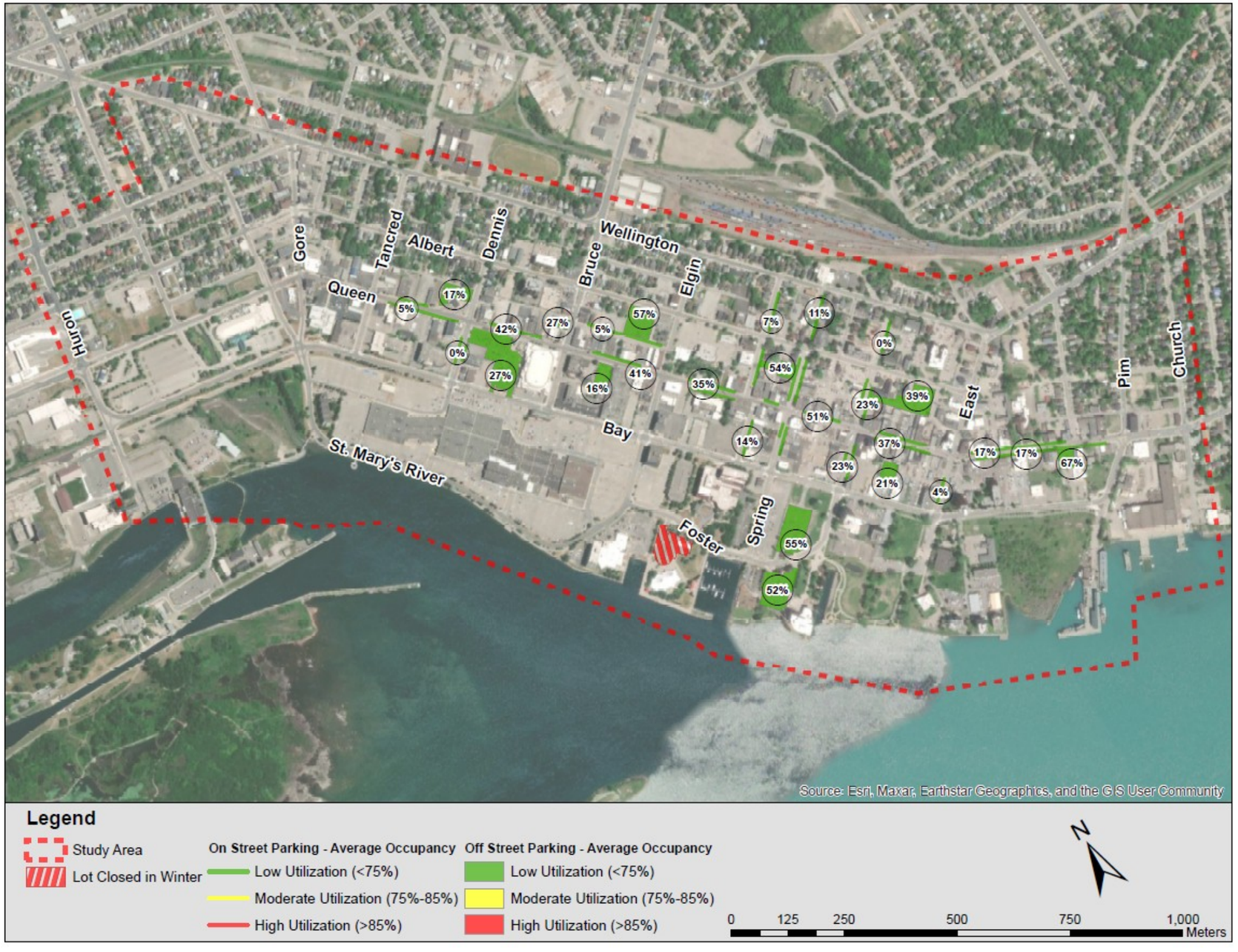

Figure 4: Average Parking Occupancy (%)

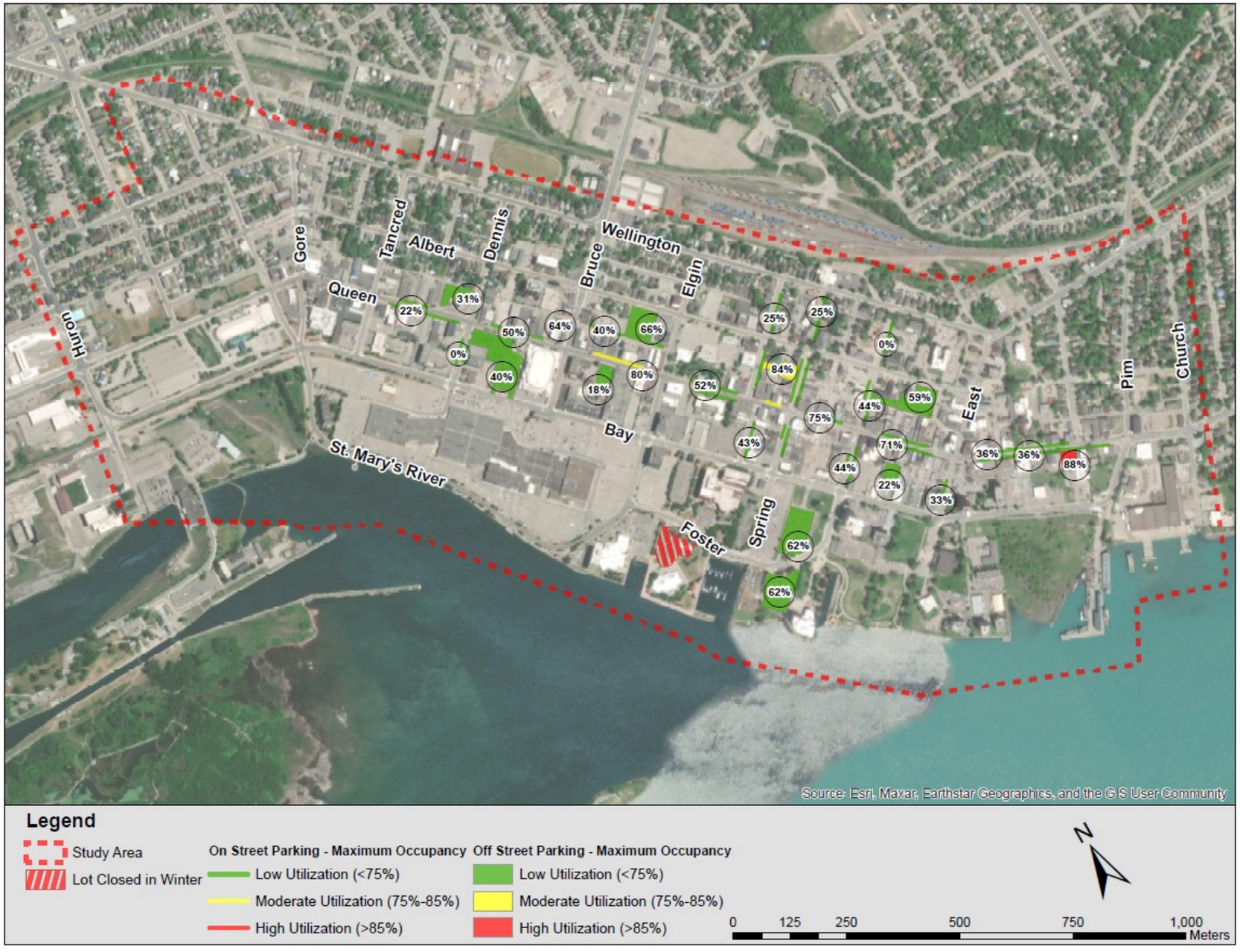

Figure 5: Maximum Parking Occupancy (%)

2.4. Existing Public Parking Demand Assessment

This sub-section summarizes the existing parking demand, based on the estimated land use, the City's Zoning Bylaw (2005-150) requirements, and the industry standard Institute of Transportation Engineers (ITE) Parking Generation Manual (5th Edition).

The City provided CIMA+ with land-use information data, based on the Municipal Property Assessment Corporation (MPAC) Property Codes. These classifications were used to estimate the land-use for each facility, which was used for the By-Law and ITE Parking Generation Manual assessment of required parking. **Figure 6** shows the land-use of facilities within the study area.

As shown in Figure 6, there are 321 facilities that are classified as Commercial, 27 classified as Special & Exempt, 9 classified as Industrial, 5 classified as Institutional, and 2 classified as Government. The residential and vacant-land land-uses were excluded from this analysis.

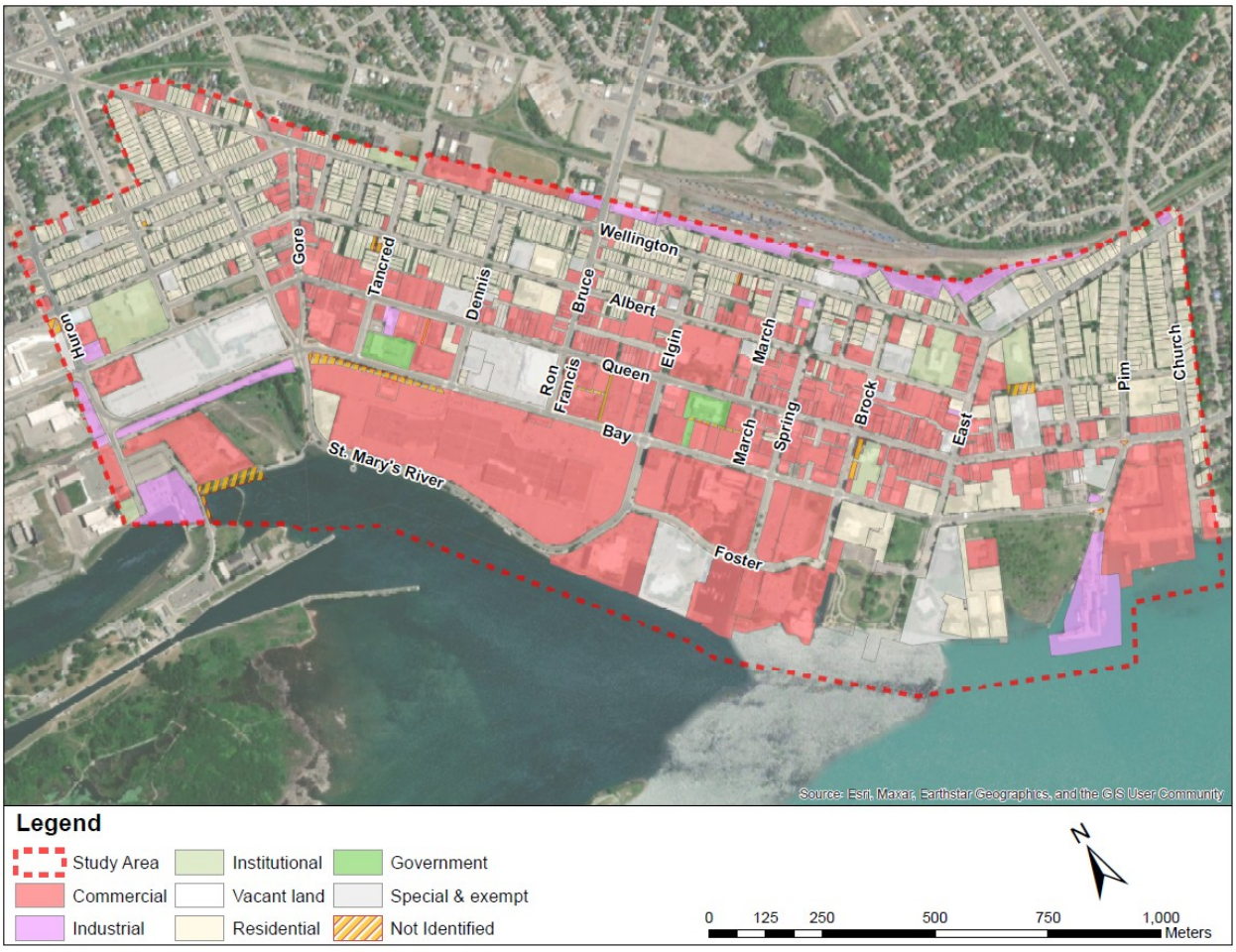

Figure 6: MPAC Land Use Classification

2.4.1. Methodology for Estimating Existing Public Parking Demand

Since the ITE Parking Generation Manual includes a variety of land use types and has historically been used in the transportation engineering industry for parking demand studies, it was deemed acceptable to use the ITE Parking Generation Manual to estimate the total existing parking demand.

It should be noted that the private parking data (i.e., number of parking spaces provided by the facilities within the downtown area) was not available. As such, CIMA+ calculated the minimum parking required for each non-residential building in the study area using the City's Zoning Bylaw (2005-150). Furthermore, the parking needs assessment is focused on non-residential land-uses as it is assumed that sufficient parking supply is provided for residential units within the study area, as per the Bylaw requirements.

The parking requirements calculated using the Bylaw requirements was deemed adequate for the private parking supply. Hence, the private parking supply was subtracted from the total existing parking demand to estimate the existing public parking demand. The existing public parking demand was then compared to the existing public parking supply within the study area.

2.4.2. Total Parking Demand - ITE Parking Generation Manual

Based on the ITE Parking Generation Manual, a total demand of 6,346 parking spaces was estimated, the majority of which were Commercial (4,985) and Special & Exempt (1,039) land-uses. The Special & Exempt land-uses include places of worship, banquet halls, casinos, and sports complexes. It should be noted that Casino and Shopping Mall parking were excluded from this analysis as it is assumed that sufficient parking is provided. This is based on large parking lot areas attached to these buildings, which provide ample parking for the patrons and is assumed to be within the City's requirements. **Table 4** summarizes the total parking demand within the downtown area.

Table 4: Total Parking Demand based on ITE Parking Generation Manual

Category	Number of Facilities	Area of Facilities (1000 sq. ft)	Total Parking Demand
Commercial	321	7,145	4,985*
Special & Exempt	27	1,482	1,039*
Industrial	9	4,932	91
Institutional	5	483	154
Government	2	141	77
Total	***364***	***14,183***	***6,346***

**Casino and Shopping Mall parking excluded from this analysis as it is assumed that sufficient parking is provided (based on Desktop Review of parking lot attached to the buildings))*

2.4.3. Private Parking Supply - By-Law Requirement

Based on the City's Zoning Bylaw (2005-150), a private parking supply of 6,086 parking spaces was estimated, the majority of which were Commercial (4,476) and Special & Exempt (1,105) land-uses. As noted earlier, the Casino and Shopping Mall parking were excluded from this analysis as it is assumed that sufficient parking is provided based on the large parking area

attached to the facilities. **Table 5** summarizes the private parking supply within the downtown area.

Table 5: Private Parking Supply based on City's Zoning Bylaw Requirements (2005-150)

Category	Number of Facilities	Area of Facilities (1000 sq. ft)	Private Parking Supply
Commercial	321	7,145	4,476*
Special & Exempt	27	1,482	1,105*
Industrial	9	4,932	219
Institutional	5	483	173
Government	2	141	113
Total	***364***	***14,183***	***6,086***
**Casino and Shopping Mall parking excluded from this analysis as it is assumed that sufficient parking is provided (based on Desktop Review of parking lot attached to the buildings))*			

2.4.4. Parking Demand & Supply Analysis

The public parking demand is the difference between total parking demand and the private parking supply, as shown in **Table 6**.

For Commercial land-uses, the total demand exceeds the private parking supply by 509. For the remaining land-uses the private parking supply is greater than the parking demand, hence no impact on public parking demand is anticipated. As such, the public parking demand is estimated to be 509 within the downtown area. As discussed in Section 2.1., the existing parking supply is 1,362. Hence, the public parking supply is considered to be at a surplus, as the existing parking supply is significantly higher than the estimated public parking demand within the downtown area.

This is in-line with the observed parking utilization shown in Section 2.2., where the overall parking utilization is well under the high-threshold of 85%.

Table 6: Existing Public Parking Demand

Category	Number of Facilities	Area of Facilities (1000 sq. ft)	Total Parking Demand	Private Parking Supply	Public Parking Demand
Commercial	321	7,145	4,985*	4,476*	509
Special & Exempt	27	1,482	1,039*	1,105*	-**
Industrial	9	4,932	91	219	-**
Institutional	5	483	154	173	-**
Government	2	141	77	113	-**
Total	***364***	***14,183***	***6,346***	***6,086***	***509***
**Casino and Shopping Mall parking excluded from this analysis as it is assumed that sufficient parking is provided (based on Desktop Review of parking lot attached to the buildings))* ***Private Parking Supply estimated to be higher than demand, hence no public parking demand is generated*					

Since parking demand can fluctuate based on time-of-day, depending on the land use and building type, it is important that the parking utilization be monitored by time-of-day to ensure that the peak hour parking demand is being met with the existing parking supply.

As shown in Section 2.2, the maximum parking occupancy at almost all parking areas is under the 85% threshold of total capacity. The ITE Parking Generation Manual lists peak parking periods for various building types.

The starting and ending hours of the peak periods for main categories used for the parking demand analysis for this study are shown in **Figure 7** below. As per the ITE Parking Generation Manual, the majority of building types experience peak parking demand between 9 AM and 3 PM. It should be noted that the data shown in **Figure 7** is the typical peak periods for various building types from ITE Parking Generation Manual.

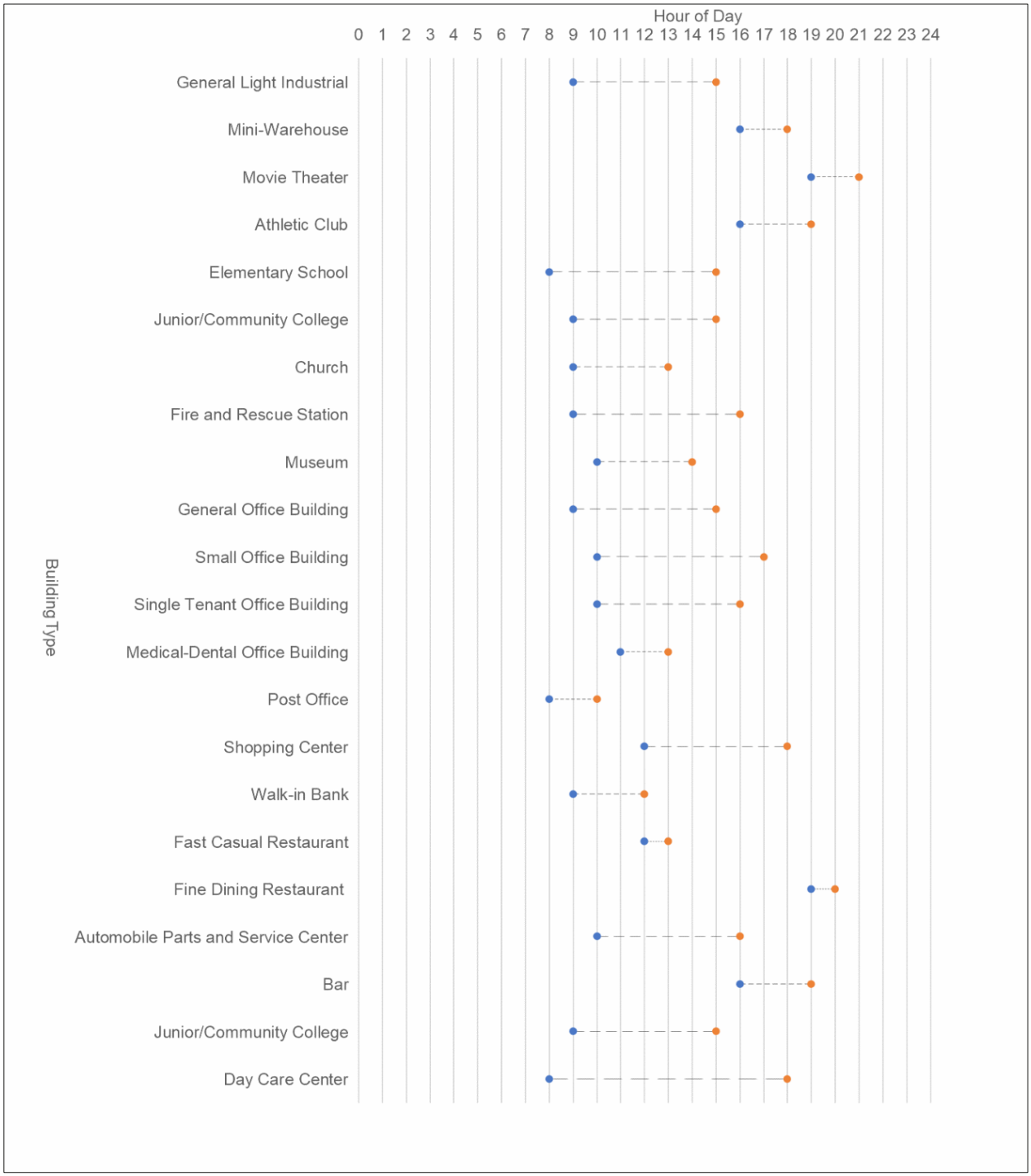

Figure 7: Peak Period for Most Common Building Type – ITE Parking Generation Manual

For the time-of-day parking utilization analysis, the overall parking supply and utilization was aggregated for the downtown area.

As shown in **Figure 8**, the overall utilization does not exceed 40% of the total available capacity. There is slight fluctuation in parking utilization, as the parking utilization between 10:30-11:30 AM is slightly higher than rest of the day, for both days for which the parking utilization was

observed. Overall, the parking utilization is well under the effective parking capacity (85% of the total capacity), meaning that there is generally a public parking surplus in Downtown Sault Ste. Marie.

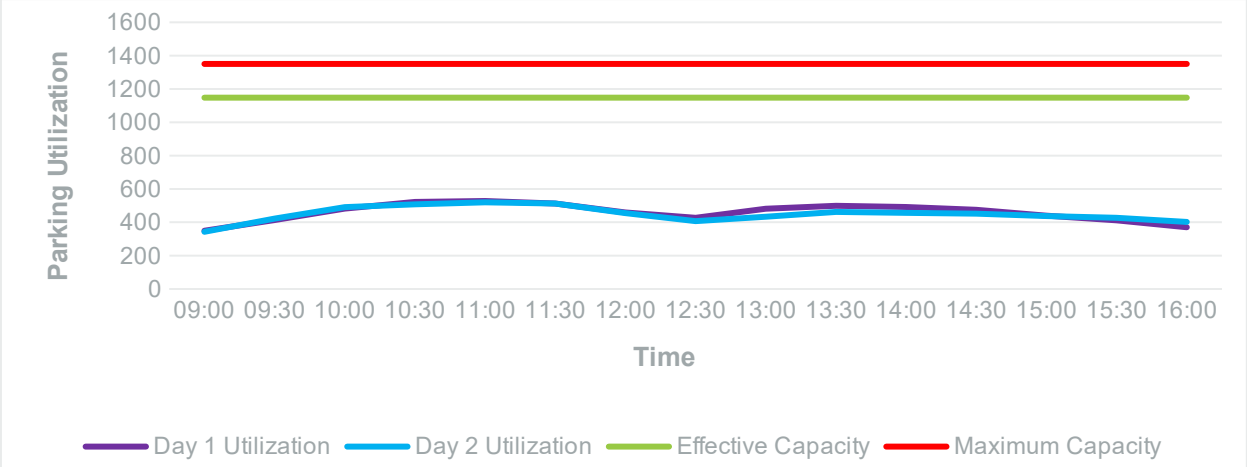

Figure 8: Observed Parking Utilization by Time-Of-Day

2.5. Parking Demand, Supply and Surplus Spatial Analysis

Overall, the existing parking supply exceeds the existing parking demand significantly, which means that there is a parking surplus within the City's downtown area. The spatial distribution of the parking areas and the associated catchment areas they serve is crucial in understanding how well the provided parking areas service the entirety of downtown.

Research indicates that the distance travellers are willing to park from their destination varies depending on factors such as establishment and parking facility type. Research by Victoria Transport Policy Institute[7] suggest the maximum walking distances and associated land-uses in **Table 7** and **Table 8**. As such, a 250-metre radius catchment area was used as an acceptable distance that drivers were willing to walk, as it corresponds to Level of Service (LOS) B/C for the outdoor & uncovered walking environment. LOS A is the best/ideal performance, LOS B/C refer to good/average performance, and LOS D is below average but minimally acceptable.

Table 7: Maximum Walking Distance (m)

Walking Environment	LOS A	LOS B	LOS C	LOS D
Climate Controlled	300	730	1,150	1,580
Outdoor / Covered	150	300	450	600
Outdoor / Uncovered	120	240	360	480
Through Surface Parking Lot	100	210	320	420
Inside Parking Facility	90	180	270	360

Table 8: Walking Distance Targets

Adjacent	Minimal (LOS A/B)	Median (LOS B/C)	Long (LOS C/D)
People with disabilities	Grocery Stores	General Retail	Airport Parking

[7] City of Oshawa Parking Study, January 2021, IBI Group

Adjacent	Minimal (LOS A/B)	Median (LOS B/C)	Long (LOS C/D)
Deliveries and Loading	Residents	Restaurant	Major Sport / Cultural Events
Emergency Services	Medical Clinics	Employees	Overflow Parking
Convenience Store	Professional Services	Entertainment Center	

Figure 9 provides an overview of the catchment areas for the downtown off-street parking areas. As noticeable, the existing parking supply catchment area covers the majority of the downtown area. The north-west and south-west corners that are not covered are primarily residential land-use, which are excluded from the public parking demand analysis.

The Casino and the Shopping Mall provide significant private parking supply. Furthermore, the on-street parking catchment area is encompassed in the off-street public parking area and is not shown for brevity.

To further understand the public parking surplus by location, CIMA+ divided the downtown area into 6 (six) zones, as shown in **Figure 10**. Zones 5 and 6 include the Casino and the Shopping Mall, respectively, As discussed earlier, the Casino and Shopping Mall parking was excluded from the analysis as it is assumed that sufficient parking is provided and is within the City's requirements.

Zones 1-3 are mixed land-use of primarily commercial and residential, Zone 4 is primarily commercial, and Zone 5 is primarily residential with the exception of the Casino.

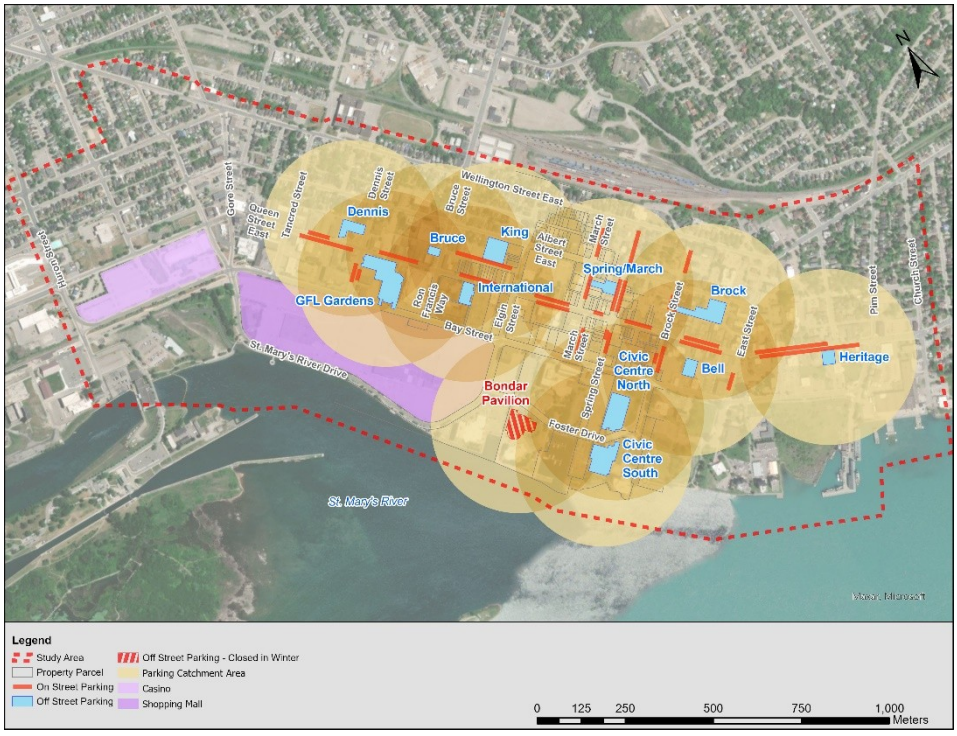

Figure 9: Public Parking Area Catchment Area

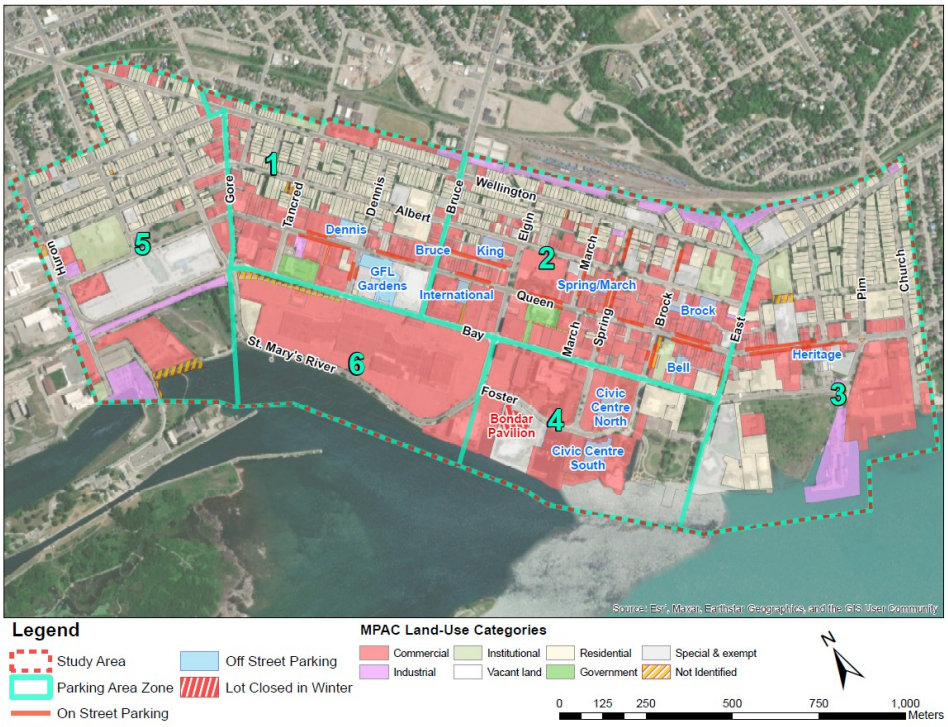

Figure 10: Parking Area Zones

Table 9 provides an overview of public parking supply, demand, and surplus per parking area zone defined. Overall, as expected, there is public parking surplus of 992 parking spaces in Zones 1 to 4.

Table 9: Public Parking Demand, Supply, and Surplus by Parking Area Zone

Parking Area Zone	Total Parking Demand	Estimated Private Parking Supply	Public Parking Demand	Public Parking Supply	Public Parking Surplus
1	1231	1050	181	368	187
2	2845	2559	286	582	296
3	815	815	-**	85	85
4	340	298	42	316	274
5	937*+	841*+	-*+	-*+	-*+
6	178*	274*	***-****	-*	-*
Total	***6346***	***5837***	***509***	***1351***	***842***

**Casino and Shopping Mall parking excluded from this analysis as it is assumed that sufficient parking is available for private use within Zones 5 & 6 (based on Desktop Review of parking lot attached to the buildings))*

***Private Parking Supply estimated to be higher than demand, hence no public parking demand is generated*

+The on-street parking supply not included as part of public parking supply since this area was outside of the study area. Based on desktop review, there is on-street parking available within this zone on Queen Street, Albert Street, and Central Park Avenue. As such, the public parking supply is available in this area for the public parking demand.

Figure 11 to Figure 13 visualize the public parking demand, supply, and surplus within the downtown area. As noticeable, Zones 1 and 2 have the highest public parking demand but also

have the highest public parking supply, which results in public parking surplus. Overall, the public parking supply is significantly higher than the public parking demands in Zones 1-4.

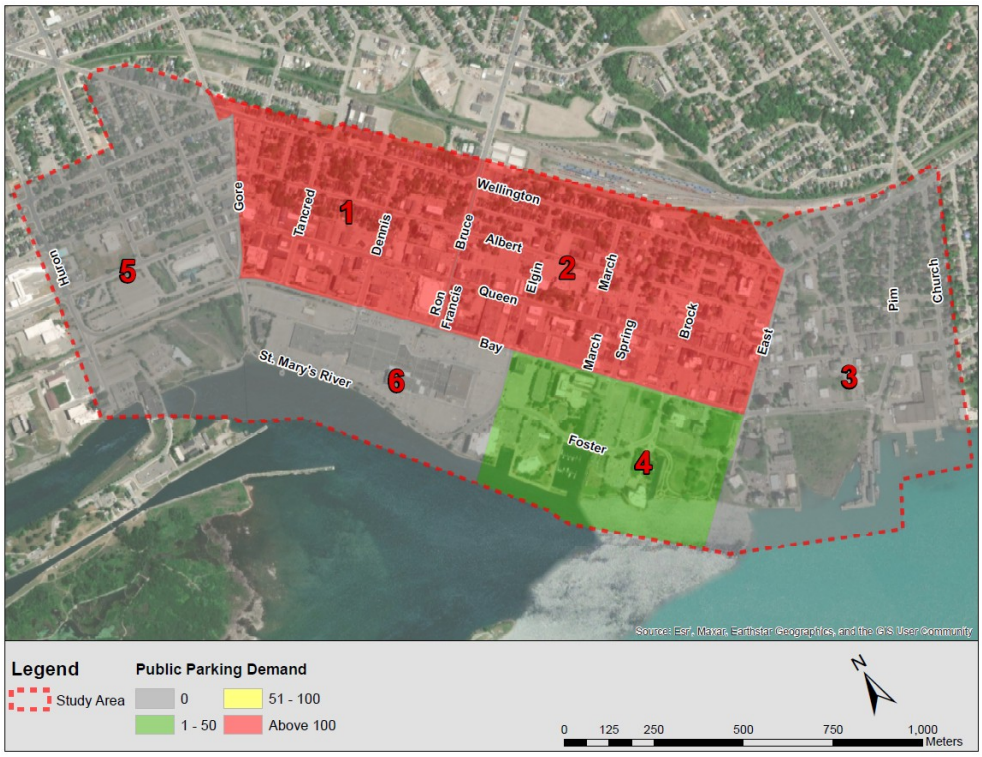

Figure 11: Public Parking Demand

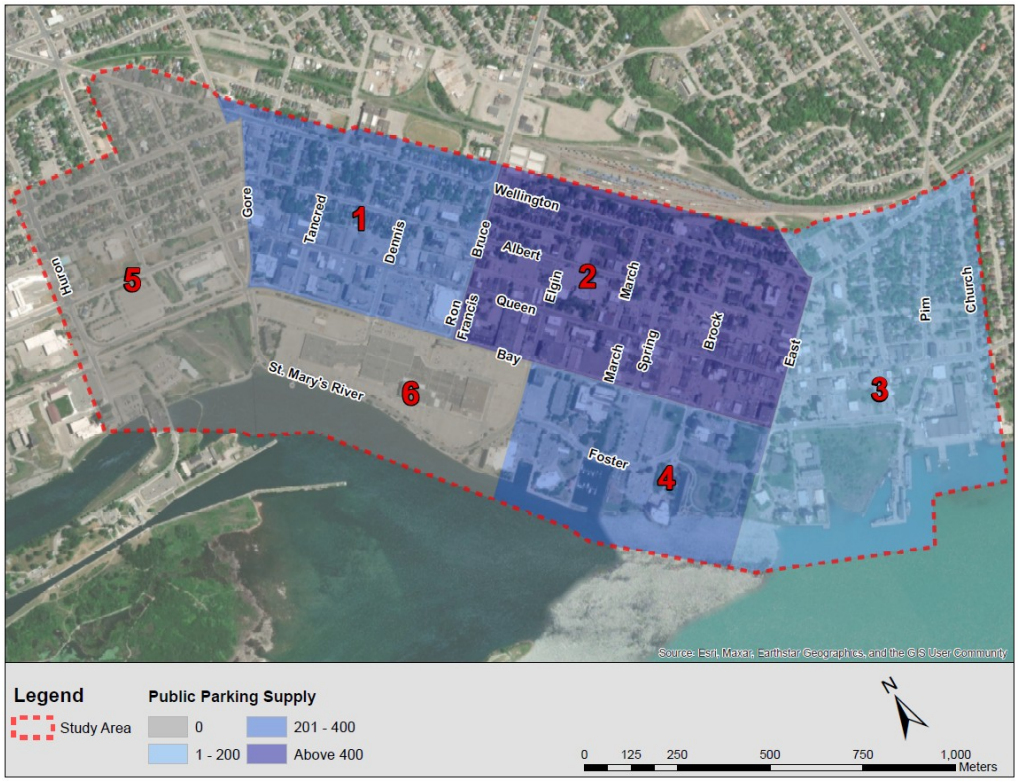

Figure 12: Public Parking Supply

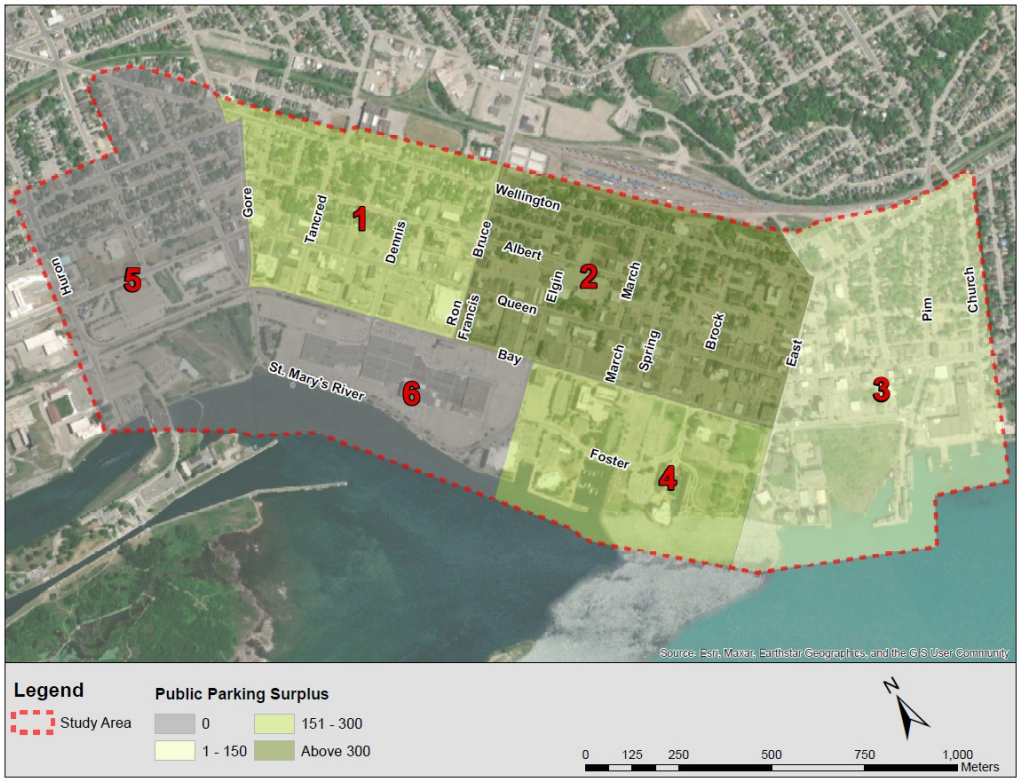

Figure 13: Public Parking Surplus

Table 10 to Table 13 provides a detailed breakdown of public parking for Zones 1-4. Public Parking demand for specific land-uses is assumed to be negligible if the estimated private parking supply for the land-use exceeds the total parking demand. The primary public parking demand generator are commercial land-uses, which is typical for a downtown area.

Table 10: Parking Area Zone 1 – Public Parking Analysis

Land-Use Type	Total Parking Demand	Estimated Private Parking Supply	Public Parking Demand	Public Parking Supply	Public Parking Surplus
Commercial	954	773	181	368	187
Special & exempt	191	194	-**		
Industrial	18	33	-**		
Institutional	45	45	-**		
Government	23	39	-**		
Total	***1231***	***1084***	***181***		
***Private Parking Supply estimated to be higher than demand, hence no public parking demand is generated*					

Table 11: Parking Area Zone 2 – Public Parking Analysis

Land-Use Type	Total Parking Demand	Estimated Private Parking Supply	Public Parking Demand	Public Parking Supply	Public Parking Surplus
Commercial	2237	1951	286	582	296
Special & exempt	512	525	-**		
Industrial	8	35	-**		
Institutional	34	47	-**		
Government	54	74	-**		
Total	2845	2632	286		
***Private Parking Supply estimated to be higher than demand, hence no public parking demand is generated*					

Table 12: Parking Area Zone 3 – Public Parking Analysis

Land-Use Type	Total Parking Demand	Estimated Private Parking Supply	Public Parking Demand	Public Parking Supply	Public Parking Surplus
Commercial	562	575	-**	85	85
Special & exempt	217	266	-**		
Industrial	6	13	-**		
Institutional	30	30	-**		
Government	0	0	-		
Total	***815***	***885***	-**		
***Private Parking Supply estimated to be higher than demand, hence no public parking demand is generated*					

Table 13: Parking Area Zone 4 – Public Parking Analysis

Land-Use Type	Total Parking Demand	Estimated Private Parking Supply	Public Parking Demand	Public Parking Supply	Public Parking Surplus
Commercial	340	298	42	316	274
Special & exempt	0	0	-		
Industrial	0	0	-		
Institutional	0	0	-		
Government	0	0	-		
Total	***340***	***298***	***42***		
***Private Parking Supply estimated to be higher than demand, hence no public parking demand is generated*					

3. Municipal Scan

This section of the report provides a compilation and comparison of experiences, methodologies and current practices regarding off-street parking policies at municipal level for various cities in North America. The following municipalities were reviewed, which are illustrated in **Figure 14**:

1. Sudbury, Ontario
2. Thunder Bay, Ontario
3. North Bay, Ontario
4. Kingston, Ontario
5. Barrie, Ontario
6. Sarnia, Ontario
7. Windsor, Ontario
8. Oshawa, Ontario
9. Kitchener, Ontario
10. Guelph, Ontario
11. Marquette, Michigan
12. Traverse City, Michigan
13. Brainerd, Minnesota

Figure 14: Cities included in the Municipal Scan

The municipal scan included the following categories:

- Are there different parking requirements for downtown versus non-downtown areas? How are the parking requirements classified based on area type?
- Did the municipality reduce or remove the minimum parking requirements?
- Did the municipality establish maximum parking requirements?
- Did the municipality implement minimum bicycle, electric vehicle (EV), and/or micro-mobility (scooters and e-bikes) parking requirements?
- Minimum barrier-free parking required
- Minimum parking requirement rates for common permitted uses
- Parking Fees

Based on the municipal scan review, Kitchener and Kingston were selected, on the basis of their progressive parking requirements, to provide more insight into their parking policies via an online questionnaire.

3.1. City's Current Practices

Section 5 in the City's Zoning Bylaw (2005-150) provides an overview of the parking regulations and requirements. The Zoning Bylaw provides specifications for parking areas design, access requirements, barrier-free parking space requirements, and minimum parking requirements for permitted uses. The minimum parking requirements are based on permitted use and whether the location of building is in downtown or not. Generally, the minimum parking requirements for buildings in downtown is lower than the rest of the city.

As shown in subsequent sections, the City's minimum parking requirement thresholds are generally higher than other municipalities for residential, institutional, and commercial land-uses.

Criteria	Thresholds
How are parking requirements classified based on location?	Downtown versus not in Downtown
Minimum Parking Requirements?	Minimum parking requirements for commercial and residential land-uses within the City
Established Maximum Parking Requirements?	No
Minimum EV Parking Requirements?	No
Minimum micro-mobility Parking Requirements?	No
Minimum Bicycle Parking Requirements?	No
Minimum Barrier-Free Parking Requirements?	1-3: 1 (no need to mark as barrier-free parking) 4-10: 1 11-35: 2 36-50: 3 >50: 3 + Additional 1 space per 50 spaces after 50

Furthermore, many of the other municipalities have no minimum parking requirements for any land-use in the downtown area, whereas the City has minimum parking requirements for all land-uses.

The City currently does not have any maximum parking requirements in the Zoning Bylaw.

The City currently has no minimum EV, micro-mobility, and bicycle parking requirements.

The City's requirements for Barrier-Free Parking are one of the highest amongst the municipalities evaluated. Majority of the municipalities require 4% of the parking provided (up-to 50 parking spaces) to be barrier-free. The City's requirements for 50 parking spaces are 3, which is 6% of the total parking spaces. However, there is no requirement for marking barrier free parking if the total parking provided is less than 4.

3.2. Sudbury

No minimum non-residential parking requirements within Sudbury's downtown commercial area.

Sudbury faces similar weather-related challenges as Sault Ste. Marie

Sudbury, Ontario is 300 kilometres east of Sault Ste. Marie, with a population of 165,000, which is approximately twice the size of Sault Ste. Marie. Sudbury's Zoning Bylaw (2010-100Z) includes the parking requirement thresholds. Sudbury classifies parking requirements based on whether the facility is located in Zone C6, which is the commercial downtown area.

Sudbury has no minimum parking requirements for non-residential land-uses in the Commercial Downtown Area. However, there are minimum parking requirements for non-residential land-uses for the other zones within Sudbury. There is minimum residential parking requirements for all zones.

Sudbury does not have any maximum parking requirements in the Zoning Bylaw.

Sudbury currently has no minimum EV and micro-mobility parking requirements. However, Sudbury does have minimum bicycle parking requirements for all zones.

Sudbury has no minimum barrier-free parking requirements for parking areas with less than 10 parking spaces.

Criteria	Thresholds
How are parking requirements classified based on location?	Downtown Commercial Zone (C6) versus all other zones
Minimum Parking Requirements?	No minimum parking requirements for non-residential land uses in the Commercial Downtown Area. Minimum non-residential parking requirements for all other zones Minimum residential parking requirements for all zones
Established Maximum Parking Requirements?	No
Minimum EV Parking Requirements?	No
Minimum micro-mobility Parking Requirements?	No
Minimum Bicycle Parking Requirements?	Minimum bicycle parking requirements for all zones
Minimum Barrier-Free Parking Requirements?	1-9: 0 10-50: 1 51-100: 2 >100: 2 + Additional 1 space per 50 spaces after 100

3.3. Thunder Bay

No minimum non-residential parking requirements within Thunder Bay's Pedestrian Commercial (downtown) Area

Thunder Bay has parking requirements specific for each of their land-use areas

Thunder Bay, Ontario is 700 kilometres west of Sault Ste. Marie, with a population of 110,000, which is higher than Sault Ste. Marie. Thunder Bay's Zoning Bylaw (1-2022) includes the parking requirement thresholds. Thunder Bay classifies the zones based on following land-use categories: Rural Area, Rural Settlements, Urban Neighbourhoods, Pedestrian Commercial, Commuter Commercial, Business Areas, Major Industrial, Institutional & Commercial and Natural Heritage.

Criteria	Thresholds
How are parking requirements classified based on location?	Zones based on land-use categories
Minimum Parking Requirements?	No minimum parking requirements for rural, institutional & commercial, and natural heritage land-use No minimum parking requirements for non-residential land uses in the Pedestrian Commercial and most of Major Industrial land-uses Minimum parking required for other zones
Established Maximum Parking Requirements?	No
Minimum EV Parking Requirements?	No
Minimum micro-mobility Parking Requirements?	No
Minimum Bicycle Parking Requirements?	No minimum bicycle parking requirements for rural, institutional & commercial, and natural heritage land-use Minimum bicycle parking requirements for all other zones (short and/or long-term)
Minimum Barrier-Free Parking Requirements?	0-4: 0 5-12: 1 Type A 13-100: 4% of total parking spaces be accessible 101-200: 1 + 3% of total parking spaces be accessible 201-1000: 2 + 2% of total parking spaces accessible >1000: 11 + 1% of total parking spaces accessible

Thunder Bay has no minimum parking requirements for rural, institutional & commercial, and natural heritage land-use.

For Pedestrian Commercial (downtown) and most of Major Industrial land-uses, Thunder Bay has no minimum parking for non-residential land-uses.

Thunder Bay does not have any maximum parking requirements in the Zoning Bylaw.

Thunder Bay currently has no minimum EV and micro-mobility parking requirements. However, Thunder Bay does have minimum bicycle parking requirements for some of the zones.

Thunder Bay has no minimum barrier-free parking requirements for parking areas with less than 5 parking spaces.

3.4. North Bay

Minimum parking required for residential and non-residential facilities within North Bay, similar to Sault Ste. Marie

North Bay generally has lower parking requirements for Commercial Core Zones

North Bay, Ontario is 450 kilometres east of Sault Ste. Marie, with a population of 52,000, which is slightly lower than Sault Ste. Marie. North Bay's Zoning Bylaw (2015-30) includes the parking requirement thresholds. North Bay provides lower parking thresholds for facilities in Core Commercial Zones (C1 or C2) than the rest of the City.

North Bay has minimum parking requirements for all zones and land-uses, except for few permitted uses in the C1/C2 zone.

Criteria	Thresholds
How are parking requirements classified based on location?	Based on whether facility is in Core Commercial (C1 or C2) Zone or not
Minimum Parking Requirements?	Minimum parking required for all zones and land-uses except for a few permitted uses in C1/C2 Zone
Established Maximum Parking Requirements?	No
Minimum EV Parking Requirements?	No
Minimum micro-mobility Parking Requirements?	No
Minimum Bicycle Parking Requirements?	No
Minimum Barrier-Free Parking Requirements?	0-9: 0 10-30: 1 31-60: 2 61-90: 3

North Bay does not have any maximum parking requirements in the Zoning Bylaw.

North Bay currently has no minimum EV, micro-mobility, and bicycle parking requirements.

North Bay has no minimum barrier-free parking requirements for parking areas with less than 10 parking spaces.

Overall, the North Bay parking requirements resemble fairly closely to the City's parking requirements.

3.5. Kingston

Kingston was 1 of 3 municipalities that introduced maximum parking requirements

Kingston removed all minimum parking thresholds for non-residential facilities in the city

Kingston is the 12th largest city in Ontario, with a population of greater than 125,000. Kingston has some of the most progressive parking requirements in Ontario, as they have completely removed all minimum parking thresholds for non-residential facilities and introduced maximum parking thresholds for the residential land-uses.

Additionally, Kingston utilizes Parking Areas to distinguish residential parking requirements within the City.

Criteria	Thresholds
How are parking requirements classified based on location?	City developed 5 Parking Areas that were used for residential parking requirements
Minimum Parking Requirements?	No minimum parking requirements for any non-residential land-use in the city.
Established Maximum Parking Requirements?	Maximum number of parking spaces in all Parking Areas for residential land-use
Minimum EV Parking Requirements?	No minimum EV parking requirements, however, maximum number of parking spaces may be increased from under 1 to 1.25 if all parking spaces provided above max ratio are EV-ready. Additionally,1 car-share space that is EV-ready must be provided for every 4 spaces provided above the maximum ratio
Minimum micro-mobility Parking Requirements?	No
Minimum Bicycle Parking Requirements?	Minimum long and short-term bicycle parking requirement for all Parking Areas for residential, retail, schools, and majority of commercial uses
Minimum Barrier-Free Parking Requirements?	1-12: 1 Type A 13-100: 4% of total parking spaces 101-200: 1 + 3% of total parking spaces 201-1000: 2 + 2% of total parking spaces >1000: 11 + 1% of total parking spaces

Although Kingston has no minimum EV parking requirements, there is a clause in the Zoning Bylaw (2022-62) that allows for an increase in maximum parking thresholds if the parking spaces above the maximum thresholds are EV-ready. Furthermore, the Bylaw states that 1 car-share space must be EV-ready for every 4 parking spaces provided above the maximum ratio.

Like all municipalities that were included in this municipal scan, Kingston does not have any minimum micro-mobility parking facilities requirement. Kingston does have minimum long- and short-term bicycle parking requirements for all the Parking Areas, for residential, retail, schools, and majority of commercial uses.

Kingston has minimum barrier-free parking requirements for all types of parking lots, with 4% of parking spaces must be barrier-free for parking areas with 13 to 100 total parking spaces. Kingston is one of the few municipalities that has minimum requirement for barrier-free parking spaces for parking areas with less than 5 total parking spaces.

3.6. Barrie

Barrie was 1 of 3 municipalities that did not differentiate the parking thresholds based on location

Barrie is currently in the process of updating their Zoning Bylaw

Barrie is the 9th largest city in Ontario, with a population of greater than 150,000. Barrie is currently in the process of updating their Zoning Bylaw (2009-141). As such, the parking requirements may be different in the near future for Barrie.

Barrie currently has minimum parking requirements for all land-uses.

Criteria	Thresholds
How are parking requirements classified based on location?	No differentiation based on location
Minimum Parking Requirements?	Minimum parking required for all land-uses
Established Maximum Parking Requirements?	No
Minimum EV Parking Requirements?	No
Minimum micro-mobility Parking Requirements?	No
Minimum Bicycle Parking Requirements?	No
Minimum Barrier-Free Parking Requirements?	0-4: 0 5-12: 1 Type A 26-50: 1 Type A and 1 Type B 51-75: 1 Type A and 2 Type B 76-100: 2 Type A and 2 Type B >100: 1 + 3% of total parking spaces accessible

Barrie currently does not have any maximum parking requirements in the Zoning Bylaw.

Barrie currently has no minimum EV, micro-mobility, and bicycle parking requirements.

Barrie has no minimum barrier-free parking requirements for parking areas with less than 5 parking spaces.

Overall, the current Barrie parking requirements resemble fairly closely to the City's parking requirements, except for the fact that the City differentiates parking thresholds based on whether the facility is located in downtown.

However, as Barrie is currently in the process of updating their Zoning Bylaw, the updated Bylaw may have different parking requirements than the existing one.

3.7. Sarnia

In Downtown Zones, no minimum parking requirements except for multi-use apartment dwellings

Sarnia and Sault Ste. Marie are similar in size and are both located close to the Canada-USA border

Sarnia is located near the US-border, with a population of 75,000, which is similar to Sault Ste. Marie. Sarnia's Zoning Bylaw (2002-85) includes the parking requirement thresholds. Sarnia classifies the zones based on following land-use categories: Rural, Residential, Commercial, Downtown, Industrial, Institutional & Open Spaces, and other miscellaneous zones. However, for parking requirements, all of the zones have similar parking thresholds except for Downtown Zones and certain parts of Commercial Zones.

Criteria	Thresholds
How are parking requirements classified based on location?	Exceptions to the minimum parking threshold provided for certain zones. Majority of the zones have same thresholds
Minimum Parking Requirements?	In Downtown Zones, no minimum parking requirement for all permitted uses except multi-use apartment dwellings In certain parts of Commercial Zones, no minimum parking requirements as a result of an exception Minimum parking required for other zones
Established Maximum Parking Requirements?	No
Minimum EV Parking Requirements?	No
Minimum micro-mobility Parking Requirements?	No
Minimum Bicycle Parking Requirements?	No
Minimum Barrier-Free Parking Requirements?	1-25: 1 Type A 26-50: 1 Type A and 1 Type B 51-75: 1 Type A and 2 Type B 76-100: 2 Type A and 2 Type B 101-1000: 2-11 Type A and Type B, based on total parking spaces provided >1000: 11 + 1% of total parking spaces equally divided between Type A and B

Sarnia has no minimum parking requirements for Downtown Zone, except for multi-use apartment dwellings. Certain parts of the commercial zones also don't have any minimum parking requirements. The rest of the zones have similar minimum parking thresholds for all permitted uses.

Sarnia does not have any maximum parking requirements in the Zoning Bylaw.

Sarnia currently has no minimum EV, micro-mobility, and bicycle parking requirements.

Sarnia has minimum barrier-free parking requirements for all parking area sizes.

3.8. Windsor

Windsor removed minimum parking thresholds for most uses in the Central Business District and Business Improvement Areas

Windsor updated the parking requirements in the Zoning Bylaw in 2021

Windsor is the 7th largest city in Ontario, with a population of greater than 300,000. Windsor completed an update to their parking requirements for Central Business District (CBD) in 2021.

Windsor removed the minimum parking requirements for most permitted uses in CBD and Business Improvement Areas (BIAs). The minimum parking thresholds remain in place for hotels, residential dwelling units, micro-brewery, residential care facility, restaurant, and medical offices within CBD and BIAs.

Criteria	Thresholds
How are parking requirements classified based on location?	Parking requirements differentiated based on whether facility is in Central Business District (CBD) or Business Improvement Areas (BIAs)
Minimum Parking Requirements?	Removed minimum parking spaces required for most uses in CBD and BIA. All other areas have minimum parking requirements based on land use
Established Maximum Parking Requirements?	No
Minimum EV Parking Requirements?	No
Minimum micro-mobility Parking Requirements?	No
Minimum Bicycle Parking Requirements?	Minimum bicycle parking is required if total car parking spaces provided exceeds 10
Minimum Barrier-Free Parking Requirements?	1-25: 1 Type A 26-100: 2% of parking spaces for Type A & B 101-200: 1.5% for Type A + 0.5 + 1.5% for Type B 201-1000: 0.5+1% for Type A + 1 + 1% for Type B >1000: 5+0.5% for Type A + 5.5 + 0.5% for Type B

All other areas within Windsor have minimum parking requirements.

Windsor currently has no minimum EV and micro-mobility parking requirements. However, if the total car parking spaces exceed 10, there is minimum bicycle parking spaces that are required to be provided.

Windsor has minimum barrier-free parking requirements for all parking area sizes.

3.9. Oshawa

Oshawa was 1 of 3 municipalities that did not differentiate the parking thresholds based on location and 1 of 3 municipalities to not include minimum barrier-free parking requirements in the Zoning Bylaw

Oshawa has minimum parking thresholds for all permitted uses

Oshawa is the 6th largest city in Ontario, with a population of greater than 300,000. Oshawa's Zoning Bylaw (60-94) establishes and regulates parking requirements and was last updated in 2022. Oshawa currently has minimum parking requirements for all land-uses and does not differentiate parking thresholds based on location (i.e. downtown versus non-downtown areas).

Oshawa currently does not have any maximum parking requirements in the Zoning Bylaw.

Criteria	Thresholds
How are parking requirements classified based on location?	No differentiation based on location
Minimum Parking Requirements?	Minimum parking required for all land-uses
Established Maximum Parking Requirements?	No
Minimum EV Parking Requirements?	No
Minimum micro-mobility Parking Requirements?	No
Minimum Bicycle Parking Requirements?	No
Minimum Barrier-Free Parking Requirements?	-

Oshawa currently has no minimum EV, micro-mobility, and bicycle parking requirements.

Oshawa's Zoning Bylaw did not include any information about the thresholds for providing barrier-free parking spaces.

Overall, the current Oshawa parking requirements resemble fairly closely to the City's parking requirements, except for the fact that the City differentiates parking thresholds based on whether the facility is located in downtown. Another key difference between Oshawa and Sault Ste. Marie's parking regulation is that Sault Ste. Marie has minimum barrier-free parking thresholds in the Zoning Bylaw whereas Oshawa does not provide any requirements for barrier-free parking in the Zoning Bylaw.

3.10. Kitchener

Kitchener was 1 of 3 municipalities that introduced maximum parking requirements

1 of 2 municipalities to introduce some level of EV parking requirements

Kitchener currently has 2 Zoning Bylaws (85-1 and 2019-051). The 2019-051 Zoning Bylaw is the newer of the two and is expected to gradually replace the older one. Kitchener has some of the most progressive parking requirements in Ontario, as they have introduced minimum EV parking thresholds and introduced maximum parking thresholds for the residential land-uses. Kitchener utilizes Urban Growth Centres (UGCs) and MIX land-uses to differentiate minimum and maximum parking requirements.

Criteria	Thresholds
How are parking requirements classified based on location?	City uses UGC, MIX, and all other zones to differentiate minimum and maximum parking requirements
Minimum Parking Requirements?	UGC Zones have no minimum parking required for all uses except for office/office-related MIX Zones have equal or lower minimum parking requirement than all other zones for all use cases .
Established Maximum Parking Requirements?	All permitted use cases have maximum parking spaces requirements associated, similar to the minimum parking requirements
Minimum EV Parking Requirements?	A minimum of 20% of the parking spaces required for future *multiple dwellings* shall be designed to permit the future installation of electric vehicle supply equipment
Minimum micro-mobility Parking Requirements?	No
Minimum Bicycle Parking Requirements?	Minimum bicycle parking requirements for all Zones and majority of use-cases
Minimum Barrier-Free Parking Requirements?	1-12: 1 13-100: 4% of total parking spaces 101-200: 1 + 3% of total parking spaces 201-1000: 2 + 2% of total parking spaces >1000: 11 + 1% of total parking spaces

The UGC Zones have no minimum parking required except for office-related uses. The MIX Zones has equal or lower minimum parking requirements than all other zones for all permitted uses.

Kitchener has introduced minimum EV parking requirements that require future multiple dwelling buildings to have a minimum of 20% of total parking spaces provided be designed for EVs.

Like all municipalities that were included in this municipal scan, Kitchener does not have any minimum micro-mobility parking facilities requirement.

Kitchener has minimum bicycle parking requirements for majority of permitted uses.

Kitchener has minimum barrier-free parking requirements for all types of parking lots, with 4% of parking spaces must be barrier-free for parking areas with 13 to 100 total parking spaces. Kitchener is one of the few

municipalities that has minimum requirement for barrier-free parking spaces for parking areas with less than 5 total parking spaces.

3.11. Guelph

Minimum parking required for residential and non-residential facilities within Guelph, similar to Sault Ste. Marie

Guelph has a few exceptions to minimum parking threshold requirement for shopping malls in various commercial zones

Guelph is the 10th largest city in Ontario, with a population of 150,000, which is higher than Sault Ste. Marie. Guelph's Zoning Bylaw (1995-14864) includes the parking requirement thresholds. There is no differentiation in residential and most commercial uses by different zones except for shopping malls in certain locations within the city.

Guelph has minimum parking requirements for all zones and land-uses.

Criteria	Thresholds
How are parking requirements classified based on location?	No differentiation in residential and most commercial uses by different zones. Only difference is for shopping malls in certain locations within the city.
Minimum Parking Requirements?	Minimum parking required for all zones and land-uses
Established Maximum Parking Requirements?	No
Minimum EV Parking Requirements?	No
Minimum micro-mobility Parking Requirements?	No
Minimum Bicycle Parking Requirements?	No
Minimum Barrier-Free Parking Requirements?	2-50: 1 51-200: 2 201-300: 3 301-400: 4 >400: 4 + 1 per 100 spaces

Guelph does not have any maximum parking requirements in the Zoning Bylaw.

Guelph currently has no minimum EV, micro-mobility, and bicycle parking requirements.

Guelph is one of the few municipalities that has minimum requirement for barrier-free parking spaces for parking areas with less than 5 total parking spaces.

Overall, the Guelph's parking requirements resemble fairly closely to the City's parking requirements except for the fact that the City differentiates parking thresholds based on whether the facility is located in downtown.

3.12. Marquette, Michigan

Marquette, Michigan was 1 of 3 municipalities that introduced maximum parking requirements

No minimum non-residential parking requirements within the CBD and minimum parking threshold reduction available based on number of parking spaces calculated

Marquette is small city in the upper peninsula in Michigan, USA and currently has a population of 20,000. Despite its small size, Marquette has some of the most progressive parking requirements amongst the municipalities reviewed. They have introduced no minimum non-residential parking requirements within the CBD and provided means to reduce the minimum parking required, based on total parking calculated.

Criteria	Thresholds
How are parking requirements classified based on location?	City uses Residential, Central Business District (CBD), Commercial, Mixed-Use, and Industrial
Minimum Parking Requirements?	CBD have no minimum parking required for all uses except for residential. Lower minimum residential parking threshold in CBD than other zones. Reduction in parking required can be applied based on number of parking spaces required.
Established Maximum Parking Requirements?	Maximum number of parking provided cannot exceed 120% of the minimum parking thresholds for all land uses.
Minimum EV Parking Requirements?	No
Minimum micro-mobility Parking Requirements?	No
Minimum Bicycle Parking Requirements?	Minimum short- and long-term bicycle parking requirement for one of the corridors and a few land-uses
Minimum Barrier-Free Parking Requirements?	1-25: 1 26-50: 2 51-75: 3 76-100: 4 101-150: 5 151-200: 6 201-300: 7 301-400: 8 401-500: 9 501-1000: 2% >1000: 20 + 1 per 100 additional spaces over 1000

Additionally, Marquette may also approve reduction in parking spaces required based on a professional parking study.

Marquette has established maximum parking thresholds, which is 120% of the minimum parking thresholds.

Marquette has no minimum EVs and micro-mobility parking facilities requirement.

Marquette has minimum bicycle parking requirements along a single corridor and a few land-uses.

Marquette has minimum barrier-free parking requirements for all types of parking lots.

3.13. Traverse City, Michigan

Traverse City, Michigan has a subset of parking requirements based on proximity to existing transit and/or public parking infrastructure

No minimum parking requirement for residential land uses in all zones

Traverse City is small city in Michigan, USA and currently has a population of 16,000. Despite its small size, Traverse City has some of the most progressive parking requirements amongst the municipalities reviewed. They have introduced parking threshold requirements based on proximity to an existing transit center or an existing public parking area and provided means to reduce the minimum parking requirements for buildings and restaurants by exempting 2,000 square feet and 15 seats from the parking space requirements calculations.

Criteria	Thresholds
How are parking requirements classified based on location?	City uses Residential, Commercial, Regional Centre, Industrial, Development, University and Mixed Use. Parking requirements are similar for all classifications except Regional Centre (C-4) zone.
Minimum Parking Requirements?	Regional Centre (C-4) has no minimum parking required for all uses No minimum parking requirement for residential uses in all zones No minimum parking requirement for properties within 500 ft of transit centre or public parking structure Other zones had minimum parking requirements
Established Maximum Parking Requirements?	No
Minimum EV Parking Requirements?	No
Minimum micro-mobility Parking Requirements?	No
Minimum Bicycle Parking Requirements?	Minimum bicycle parking requirements wherever the off-street parking is required for vehicles. Furthermore, a bicycle rack may replace 1 vehicle parking space requirement.
Minimum Barrier-Free Parking Requirements?	-

Traverse City has no minimum parking requirement for residential uses in all zones. For properties that are located with 500 feet of public parking structure or transit centre, there is no off-street parking requirement. Lastly, there is no minimum parking requirement within Regional Centre (C-4) zone.

Traverse City has no maximum parking requirements, no minimum EVs and micro-mobility parking facilities requirement.

Traverse City has minimum bicycle parking requirements wherever the off-street parking is required for vehicles. Furthermore, a bicycle rack may replace 1 vehicle parking space requirement.

Traverse City's Zoning Bylaw did not include any information about the thresholds for providing barrier-free parking spaces.

3.14. Brainerd, Minnesota

Brainerd, Minnesota exempts commercial and downtown areas from off-street minimum parking requirements

Minimum parking required for all other zones

Brainerd is small city in Minnesota, USA and currently has a population of 15,000. Brainerd, Minnesota has similar climate to Sault Ste. Marie, as it is located on the other side of Lake Superior.

Brainerd has no minimum parking requirement for all uses in Commercial Corridor, General Commercial, Town Center, Main Street, and General Industrial Zoning Districts. For all the uses in remaining zoning districts, there are minimum parking thresholds.

Brainerd as no maximum parking requirements, no minimum EVs, micro-mobility, and bicycle parking facilities requirement.

Brainerd's Zoning Bylaw did not include any information about the thresholds for providing barrier-free parking spaces.

Criteria	Thresholds
How are parking requirements classified based on location?	City uses Rural, Garden, Contemporary Neighbourhoods, Commercial, Traditional Neighbourhoods, Town Center, Main Street, Industrial, Employment, and Public zoning districts.
Minimum Parking Requirements?	No minimum parking requirements for Commercial Corridor, General Commercial, Town Center, Main Street, and General Industrial Zoning Districts. Other zones had minimum parking requirements
Established Maximum Parking Requirements?	No
Minimum EV Parking Requirements?	No
Minimum micro-mobility Parking Requirements?	No
Minimum Bicycle Parking Requirements?	No
Minimum Barrier-Free Parking Requirements?	-

3.15. Municipal Scan Comparison

Table 14 summarizes the findings from the Municipal Scan. The following observations can be made.

- The following municipalities had no Minimum Parking Requirements for at least some land-uses for the downtown area: Sudbury, Thunder Bay, Kingston, Sarnia, Windsor, Kitchener, Marquette, Traverse City, and Brainerd
- The following municipalities established Maximum Parking Requirements: Kingston, Kitchener, and Marquette
- The following municipalities established EV Parking Requirements: Kingston and Kitchener
- None of the municipalities established Minimum Micro-Mobility (e-bike and scooters) Parking Requirements
- The following municipalities established Minimum Bicycle Parking Requirements for at least one of their land uses zones: Sudbury, Thunder Bay, Kingston, Windsor, Kitchener, Marquette, and Traverse City
- All of the municipalities stated minimum requirements for Barrier Free Parking spaces except for Oshawa, Traverse City, and Brainerd.
- Kitchener and Kingston were the only municipalities that have implemented no minimum parking requirements, maximum parking requirements, some level of EV parking requirement, and minimum bicycle parking requirements.

Table 14: Municipal Scan Summary

Criteria	Sault. Ste Marie	Sudbury	Thunder Bay	North Bay	Kingston
How are parking requirements classified based on location?	Downtown versus not in Downtown	Downtown Commercial Zone (C6) versus all other zones	Zones based on land-use categories	Based on whether facility is in Core Commercial (C1 or C2) Zone or not	City developed 5 Parking Areas that were used for residential parking requirements
Minimum Parking Requirements?	Minimum parking requirements for commercial and residential land-uses within the City	No minimum parking requirements for non-residential land uses in the Commercial Downtown Area. Minimum non-residential parking requirements for all other zones Minimum residential parking requirements for all zones	No minimum parking requirements for rural, institutional & commercial, and natural heritage land-use No minimum parking requirements for non-residential land uses in the Pedestrian Commercial and most of Major Industrial land-uses Minimum parking required for other zones	Minimum parking required for all zones and land-uses except for a few permitted uses in C1/C2 Zone	No minimum parking requirements for any non-residential land-use in the city.
Established Maximum Parking Requirements?	No	No	No	No	Maximum number of parking spaces in all Parking Areas for residential land-use
Minimum EV Parking Requirements?	No	No	No	No	No minimum EV parking requirements, however, maximum number of parking spaces may be increased from under 1 to 1.25 if all parking spaces provided above max ratio are EV-ready. Additionally,1 car-share space that is EV-ready must be provided for every 4 spaces provided above the maximum ratio
Minimum micro-mobility Parking Requirements?	No	No	No	No	No
Minimum Bicycle Parking Requirements?	No	Minimum bicycle parking requirements for all zones	No minimum bicycle parking requirements for rural, institutional & commercial, and natural heritage land-use Minimum bicycle parking requirements for all other zones (short and/or long-term)	No	Minimum long and short-term bicycle parking requirement for all Parking Areas for residential, retail, schools, and majority of commercial uses
Minimum Barrier-Free Parking Requirements?	1-3: 1 (no need to mark as barrier-free parking) 4-10: 1 11-35: 2 36-50: 3 >50: 3 + Additional 1 space per 50 spaces after 50	1-9: 0 10-50: 1 51-100: 2 >100: 2 + Additional 1 space per 50 spaces after 100	0-4: 0 5-12: 1 Type A 13-100: 4% of total parking spaces be accessible 101-200: 1 + 3% of total parking spaces be accessible 201-1000: 2 + 2% of total parking spaces accessible >1000: 11 + 1% of total parking spaces accessible	0-9: 0 10-30: 1 31-60: 2 61-90: 3	1-12: 1 Type A 13-100: 4% of total parking spaces 101-200: 1 + 3% of total parking spaces 201-1000: 2 + 2% of total parking spaces >1000: 11 + 1% of total parking spaces

Criteria	Sault. Ste Marie	Barrie	Sarnia	Windsor	Oshawa	Kitchener
How are parking requirements classified based on location?	Downtown versus not in Downtown	No differentiation based on location	Exceptions to the minimum parking threshold provided for certain zones. Majority of the zones have same thresholds	Parking requirements differentiated based on whether facility is in Central Business District (CBD) or Business Improvement Areas (BIAs)	No differentiation based on location	City uses UGC, MIX, and all other zones to differentiate minimum and maximum parking requirements
Minimum Parking Requirements?	Minimum parking requirements for commercial and residential land-uses within the City	Minimum parking required for all land-uses	In Downtown Zones, no minimum parking requirement for all permitted uses except multi-use apartment dwellings In certain parts of Commercial Zones, no minimum parking requirements as a result of an exception Minimum parking required for other zones	Removed minimum parking spaces required for most uses in CBD and BIA. All other areas have minimum parking requirements based on land use	Minimum parking required for all land-uses	UGC Zones have no minimum parking required for all uses except for office/office-related MIX Zones have equal or lower minimum parking requirement than all other zones for all use cases .
Established Maximum Parking Requirements?	No	No	No	No	No	All permitted use cases have maximum parking spaces requirements associated, similar to the minimum parking requirements
Minimum EV Parking Requirements?	No	No	No	No	No	A minimum of 20% of the parking spaces required for future *multiple dwellings* shall be designed to permit the future installation of electric vehicle supply equipment
Minimum micro-mobility Parking Requirements?	No	No	No	No	No	No
Minimum Bicycle Parking Requirements?	No	No	No	Minimum bicycle parking is required if total car parking spaces provided exceeds 10	No	Minimum bicycle parking requirements for all Zones and majority of use-cases
Minimum Barrier-Free Parking Requirements?	1-3: 1 (no need to mark as barrier-free parking) 4-10: 1 11-35: 2 36-50: 3 >50: 3 + Additional 1 space per 50 spaces after 50	0-4: 0 5-12: 1 Type A 26-50: 1 Type A and 1 Type B 51-75: 1 Type A and 2 Type B 76-100: 2 Type A and 2 Type B >100: 1 + 3% of total parking spaces accessible	1-25: 1 Type A 26-50: 1 Type A and 1 Type B 51-75: 1 Type A and 2 Type B 76-100: 2 Type A and 2 Type B 101-1000: 2-11 Type A and Type B, based on total parking spaces provided >1000: 11 + 1% of total parking spaces equally divided between Type A and B	1-25: 1 Type A 26-100: 2% of parking spaces for Type A & B 101-200: 1.5% for Type A + 0.5 + 1.5% for Type B 201-1000: 0.5+1% for Type A + 1 + 1% for Type B >1000: 5+0.5% for Type A + 5.5 + 0.5% for Type B	-	1-12: 1 13-100: 4% of total parking spaces 101-200: 1 + 3% of total parking spaces 201-1000: 2 + 2% of total parking spaces >1000: 11 + 1% of total parking spaces

Criteria	Sault. Ste Marie	Guelph	Marquette, Michigan	Traverse City, Michigan	Brainerd, Minnesota
How are parking requirements classified based on location?	Downtown versus not in Downtown	No differentiation in residential and most commercial uses by different zones. Only difference is for shopping malls in certain locations within the city.	City uses Residential, Central Business District (CBD), Commercial, Mixed-Use, and Industrial	City uses Residential, Commercial, Regional Centre, Industrial, Development, University and Mixed Use. Parking requirements are similar for all classifications except Regional Centre (C-4) zone.	City uses Rural, Garden, Contemporary Neighbourhoods, Commercial, Traditional Neighbourhoods, Town Center, Main Street, Industrial, Employment, and Public zoning districts.
Minimum Parking Requirements?	Minimum parking requirements for commercial and residential land-uses within the City	Minimum parking required for all zones and land-uses	CBD have no minimum parking required for all uses except for residential. Lower minimum residential parking threshold in CBD than other zones. Reduction in parking required can be applied based on number of parking spaces required.	Regional Centre (C-4) has no minimum parking required for all uses No minimum parking requirement for residential uses in all zones No minimum parking requirement for properties within 500 ft of transit centre or public parking structure Other zones had minimum parking requirements	No minimum parking requirements for Commercial Corridor, General Commercial, Town Center, Main Street, and General Industrial Zoning Districts. Other zones had minimum parking requirements
Established Maximum Parking Requirements?	No	No	Maximum number of parking provided cannot exceed 120% of the minimum parking thresholds for all land uses.	No	No
Minimum EV Parking Requirements?	No	No	No	No	No
Minimum micro-mobility Parking Requirements?	No	No	No	No	No
Minimum Bicycle Parking Requirements?	No	No	Minimum short- and long-term bicycle parking requirement for one of the corridors and a few land-uses	Minimum bicycle parking requirements wherever the off-street parking is required for vehicles. Furthermore, a bicycle rack may replace 1 vehicle parking space requirement.	No
Minimum Barrier-Free Parking Requirements?	1-3: 1 (no need to mark as barrier-free parking) 4-10: 1 11-35: 2 36-50: 3 >50: 3 + Additional 1 space per 50 spaces after 50	2-50: 1 51-200: 2 201-300: 3 301-400: 4 >400: 4 + 1 per 100 spaces	1-25: 1 26-50: 2 51-75: 3 76-100: 4 101-150: 5 151-200: 6 201-300: 7 301-400: 8 401-500: 9 501-1000: 2% >1000: 20 + 1 per 100 additional spaces over 1000	-	-

3.16. Permitted Uses – Minimum Threshold Comparison

In addition to the overall parking policy, CIMA+ also compared the minimum parking thresholds for key permitted uses across various municipalities. This was done to evaluate whether there is possibility of reducing minimum parking thresholds for certain permitted uses within the City. **Table 15** summarizes the comparison of thresholds. It should be noted that the comparison was completed for downtown areas, where possible. The following observations can be made:

- 10 of the 13 municipalities had at least one land-use case where no minimum parking was required whereas the City had none
- For residential land use, 8 of the 13 municipalities had lower minimum parking requirement rate than the City
- For convenience stores, all of the municipalities had lower minimum parking requirement rate than the City
- Generally, majority of the municipalities either had lower parking requirements or different unit of measure than the City

Based on this comparison, the City can consider either reducing and/or removing minimum parking thresholds for majority of the permitted uses within the downtown area. For example, the City may consider reducing the requirements for residential uses from 1.25 to 1.

Furthermore, for strip plazas, the City may consider removing the minimum parking requirements as the current minimum requirement of 3.5 spaces per 100 m^2 was amongst the highest.

Table 15: Permitted Use – Minimum Thresholds Comparison

Permitted Use	Sault Ste. Marie	Sudbury (Outside of C6)	Thunder Bay (DN)	North Bay (C1)	Kingston	Barrie	Sarnia (D)	Windsor (CBD and BIA)	Oshawa	Kitchener (UCG and MIX)	Guelph	Marquette, MI	Traverse City, MI	Brainerd, MN
Residential Uses (per dwelling unit)	1.25	1	0.2	1-4 units:0 >4 units: 0.5	PA1, PA2: 0.4 PA3: 0.6 PA4: 0.8 PA5: 1	1.5 In Urban Centre: 1	multiple use apartment dwellings: 1.5	CBD: >6 units: 1	single/semi detached: 2 apartment (rental): 1+0.33 apartment (condo): 1.45+0.3	UCG: no min multiple residential building in MIX: 0.9	single/semi detached: 1 apartment: 0-20 units: 1.5, >20 units: 1.25	single/semi detached: 1.25 3-4 units: 1.125 5+ units: 1	no min	no min
College /University	1/2 employees + 1 space/10 students with full time enrolment	1/100 m^2 net floor area + 1/5 students	no min	1/50m^2	no min	1/classroom + 1/10 students	no min	no min	15/class	no min	no min	no min	no min	no min
Convenience Stores	3.5 for 1st 1000m^2; 1/200m2 for rest	1/33m^2	no min	no min	no min	1/30m^2	no min	no min	1/24m^2	UGC: no min MIX: 1/40 m^2	1/16.5m^2	no min	no min	no min
Elementary School	1.25/ classroom	2/classroom	no min	2/classroom	no min	1/classroom and office	no min	1.5/ classroom or teaching area	1.5/class	no min	1/class + 4 visitor spaces	no min	no min	no min
Secondary School	5/classroom	6.5/ classroom	no min	5/classroom	no min	1/classroom and office +1/per 10 students	no min	1/classroom or teaching area AND 1/22.5 m^2 of cafeteria, auditorium, gymnasium and other area of assembly	3/class	no min	3/class	no min	no min	no min
Food Services	0.1/persons	1/12.5m^2	no min	no min	no min	1/ 4 persons	no min	restaurant: 0 for the first 90 m^2 AND 1 for each additional 15 m^2	1/11m^2	UGC: no min MIX: 1/7.5m^2	tavern: 1/7.5m^2 take-out: 1/9m^2	no min	no min	no min
Hospitals	2/100m^2	2/bed	no min	1/two beds or per every 40m2 of floor area, whichever is greater.	no min	1/50m^2	no min	1/bed	1.8/bed + 1/90m2 GFA of outpatient clinic space	no min	1.25/bed	no min	no min	no min
Industrial Plazas	2/100m^2	1/90m^2 + 1/30m^2 net floor of accessory	no min	1/100m^2	no min	1/70m^2 2 spaces min	no min	1/45 m^2	1/45m^2	UGC: no min MIX: 1/40 m^2	1/100m^2	no min	no min	no min

Permitted Use	Sault Ste. Marie	Sudbury (Outside of C6)	Thunder Bay (DN)	North Bay (C1)	Kingston	Barrie	Sarnia (D)	Windsor (CBD and BIA)	Oshawa	Kitchener (UCG and MIX)	Guelph	Marquette, MI	Traverse City, MI	Brainerd, MN
		office												
Manufacturing	1/employee	1/20m²	no min	1/100m²	no min	1/70m² of gross floor area	no min	1/45 m² GFA for the first 2,700 m² GFA AND 1/additional 180 m² GFA	1/45m²	UGC: no min MIX: 1/90 m2 GFA	1/100m²	no min	no min	no min
Office Uses	3.5/100m²	1/20m²	no min	1/30m²	no min	1/30m² of gross floor area with a min. 2 spaces	no min	1/27m²	1/28m²	UGC: 1/50m² MIX: 1/33m²	1/33m²	no min	no min	no min
Shopping Centres	3.5/100m²	1/25 m²	no min	no min	no min	1/18.6m²	no min	no min	1/21m²	UGC: no min MIX: 1/40 m²	1/18m²	no min	no min	no min
Strip Plazas	3.5/100m²	1/33 m²	no min	no min	no min	1/30m² 2 spaces min	no min	no min	1/24m²	UGC: no min MIX: 1/40 m²	1/18m²	no min	no min	no min
Warehousing, Wholesaling and Distribution Centres	1 /employee on the largest shift	1/90 m², plus 1/30 m² of accessory office	no min	1/ 100m²	no min	Warehouse:1 /1,000m² of gross floor area Wholesale: 1/50m² of gross floor area	no min	1/200 m²	1/90m²	no min	1/200m²	no min	no min	no min

LEGEND

same as SSM
less than SSM
more than SSM
different unit than SSM
no minimum requirement

3.17. Public Parking Cost

3.17.1. Current Public Parking Pricing Strategy

The City currently operates several two-hour free parking lots, which offer both short- and long-term parking options. In addition, the City also operates and maintains electronic parking meters (2–3-hour limit) in the downtown core, which provides on-street parking for the visitors within the downtown area. The City currently utilizes Passport Parking Canada mobile application for parking booking and payment.

The city has implemented a hybrid approach, where certain parking lots have free 2-hour parking period but any period of parking beyond the 2-hour limit is charged. However, for the on-street parking, there is a 2–3-hour time restriction for the parking duration and the entirety of the parking duration is chargeable. This approach monetizes the more in-demand on-street parking locations and longer-term parking.

Based on the 2017 Downtown Parking Public Consultation, Study Options & Recommendations Report, the cost of providing 2-hour free parking was $190,000. The public sentiment was strongly against discontinuing the 2-hour free parking, with the main reason being that the 2-hour free parking incentivizes people to visit downtown businesses. There were four options evaluated as part of this study:

1. Status Quo – Keep 2-hour free parking
2. Retain 2-hour free parking & charge for parking after 2-hour window
3. Re-introduce 2005 “Downtown Levy” to pay for 2-hour free parking
4. Transfer responsibility of the entire downtown parking operation & relate costs/revenues to the Downtown Association

The recommendation from this study was to retain 2-hour free parking and charge for parking after the 2-hour window, which was expected to reduce the shortfall of providing free parking from $190,000 to $83,000.

3.17.2. Public Parking Rates – Municipal Scan

Table 16 summarizes the public parking rates and the level of free parking provided during the weekday within the municipalities reviewed in Section 3.. CIMA+ reviewed the hourly and monthly parking rates to compare the fees charged for short-term and long-term parking. Overall, the hourly parking rate in downtown areas of municipalities reviewed is between $1 - $3, with an average of $1.72. The City’s hourly parking rate is $1.45, which is slightly below the average. The average monthly parking rate for municipalities is $151.00, which is significantly higher than the City’s monthly parking rate of $51.05. The City’s monthly parking rate is the fourth lowest out of the 13 municipalities that monthly parking rates were available.

The City is one of the eight municipalities that provide some level of free parking during the weekday at certain locations within the downtown area. Moreover, the City provides the highest free parking period (tied with Sudbury, Sarnia, Kitchener, Guelph, and Brainerd) amongst the municipalities reviewed.

Table 16: Parking Rate Comparison

Municipalities	Free Parking During Weekday	Hourly Public Parking Rate	Monthly Public Parking Rate
Sault St. Marie	**2-hour free**	**$1.45**	**$51.05**
Sudbury	2-hour free	$1.30	$82.00
Thunder Bay	None Provided	$1.50	$65.00
North Bay	1-hour free on street (2HR Lot)	$1.00-$1.50	$201.87-$352.45 QT
Kingston	None Provided	$1.50 - $2.00	$86.75 - $149.25
Barrie	None Provided	$1.50	$66-82.50
Sarnia	2-hour free	$1.00	$22-$50
Windsor	None Provided	$2.00	$74.58-$124.30
Oshawa	None Provided	$1.25	$73.00 - $87.00
Kitchener	2-hour free	$2.40	$140.35
Guelph	2-hour free	$3.00	$77.77-184.48
Marquette, MI	15-minute free	$1.00	$30.00-$65.00
Traverse City, MI	30-minute free	$1.50	$50.00
Brainerd, MN	3-hour parking	N/A	$15-$40

4. Main Findings and Preliminary Recommendations

As presented in detail in **Section 2** of this document, the maximum occupancy for all off-street parking lots was less than 80% with the exception of Spring/March (84%) and Heritage (88%) parking lots. With respect of on-street parking areas the maximum occupancy was also less than 80%, except for Queen Street between Spring & March (83%) and Queen Street between Elgin & Bruce (80%).

Although this particular behaviour can be explained due to the relatively small number of parking spaces available at these locations as well as the location of these parking areas, the observed parking behaviour cannot be extended to the rest of the parking areas servicing the area under study.

As such, from the analysis presented in **Section 2** of this document the following elements can be highlighted for further discussion:

- **Parking Demand and Supply are not evenly distributed along the Study Area**. As previously stated, the parking supply exceeds the exciting demand. Although this trend is more visible on areas near the Downtown Core (Parking Areas 1 and 2), it was possible to observe that areas east and south of the Downtown Core are less “attractive” from a parking perspective.
- **Demand for parking is not dependent on time-of-day**. Although the area under study includes a variety of land uses – each one with a different demand for parking, the results of the parking survey does not reflect a significant variation of parking demands along the day.
- **Demand for parking cannot be directly linked to walking distance**. As presented in **Figure 8**, the majority of the area under study provide access to a parking location under a 250-metre radius. From that perspective, it can be considered that drivers will be able to find a parking space near their final destination – and as such, walking distance is less relevant.
- **Parking occupancy is highly affected by parking limits**. The results of the parking survey shows that the average occupancy of on-street parking areas is less than 2 hours – which is within the parking time limit of 2 hours within the study area. These results align with the findings of the 2017 Downtown Parking Public Consultation, Study Options & Recommendations Report.

With respect of the current content of the Zoning By-Law 2005-150, the results of the Jurisdictional Scan described in detail in Section 3 of this document provides the basis for the following elements for discussion:

- **Minimum Parking Requirements**. Although the parking analysis completed as part of this phase of the assignment focused on the City’s Downtown area, it was observed that The City’s existing public parking supply exceeds the demand, as shown in **Section 2**. Furthermore, the current public parking utilization is well below the high threshold of 85%. Many of the jurisdictions that were included in the municipal scan have no minimum parking requirements for variety of non-residential permitted uses in the downtown area.
- **Maximum Parking Requirements**. Only 3 of the 13 municipalities (Kingston, Kitchener, and Marquette) included in the Jurisdictional Scan have introduced maximum parking requirements within the downtown area. In should be noted that these three municipalities do not have minimum parking requirements in the downtown area.

- **Minimum Barrier Free Parking Requirements**. The City's existing barrier-free parking requirements were one of the highest amongst the municipalities evaluated.
- **Electric Vehicles (EV) Parking Requirements**. Kitchener and Kingston are the only municipalities that had EV parking requirements, with Kitchener being the only one to include minimum EV parking requirements for future multi-dwelling buildings. None of the Northern Ontario municipalities had any EV parking requirements.
- **Bicycle Parking Requirements**. 7 of the 13 municipalities (Sudbury, Thunder Bay, Kingston, Windsor, Kitchener, Marquette, and Traverse City) have minimum bicycle parking requirements. The City currently has no minimum bicycle parking requirements.
- **Micro-mobility Parking Requirements**. None of the municipalities reviewed had micro-mobility parking requirements in their by-laws.
- **Parking Fees**. The City's current hourly parking rate seem reasonable as they are fairly close to the average hourly parking rate of comparable municipalities. Additionally, the City's strategy for providing free-parking areas within the downtown is also in-line with majority of the municipalities reviewed. It was noticed that the current monthly parking rates are lower than comparable municipalities.

Based on these preliminary findings it is possible to introduce the following recommendations for review and comments. It is expected that this section of the document will be refined as part of the completion of the Final Report.

4.1. Updates to the existing Zoning By-Law (2005-150)

4.1.1. Minimum Parking Requirements

It is recommended that the City introduce no minimum parking requirements for at least non-residential permitted uses within the downtown area. If no minimum parking requirements for non-residential permitted uses is not feasible, the City should consider lowering the minimum parking requirements in the downtown area, as the existing parking supply is deemed reasonable for the estimated public parking demand.

4.1.2. Maximum Parking Requirements

It is recommended that the City consider introducing Maximum Parking Requirements in conjunction with no minimum parking requirements to ensure that the parking supply is controlled and does not result in a significant surplus.

4.1.3. Minimum Barrier Free Parking Requirements

No adjustments to the City's current requirements are recommended.

4.1.4. Electric Vehicles (EV) Parking Requirements

EV parking requirements are not recommended in the short-term. In the long term, the City may consider that the Government of Canada has introduced regulations that would require at least 20% of new vehicles solid in Canada be zero emission by 2026, 60% by 2030, and 100% by 2035.

Although as of 2022, only 8% of all new vehicles sold in first quarter of 2022 was electric vehicles this trend may change in the following years. As such, it is recommended that the City monitor the sales/registration of EVs within the City to evaluate whether EV parking requirements are currently necessary within the City.

4.1.5. Bicycle Parking Requirements

Active Transportation infrastructure (i.e., painted bicycle lanes, grade-separated multi-use pathways) plays an important role in promoting active transportation modal use. The more well-connected the active transportation infrastructure is within the City; the cyclists are more likely to use it. As such, the bicycle parking requirements should be considered in conjunction with the existing and/or proposed active transportation infrastructure.

It is recommended that the City introduce bicycle parking requirements, in areas where there is existing and/or proposed active transportation infrastructure will support bicycle use. It is recommendable that this should be evaluated initially at a corridor-by-corridor basis, before developing an area-wide policy regarding bicycle parking requirements.

4.1.6. Micro-mobility Parking Requirements

Similar to the minimum bicycle parking requirements, the active transportation infrastructure plays a key role in the micro-mobility usage within the City. The need to micro-mobility parking would be highly dependent on the demand for micro-mobility vehicles such as scooters and e-bikes in the City. Subsequently, the demand for micro-mobility vehicles is highly dependent on the existing and proposed infrastructure (i.e., dedicated multi-use pathways, charging stations) that would support micro-mobility within the City.

As such, it is recommended that the City should consider the demand (i.e., registration, sales) in conjunction with the infrastructure before implementing micro-mobility parking requirements in the future.

4.2. Modifications to Current Parking Supply

The results of the Spatial Analysis presented in detail in **Section 2.5** of this document suggested that there is an opportunity to reduce the amount of parking spaces servicing the Study Area without having an impact on the availability of parking.

Although this surplus on available parking was identified for all zones included in the Spatial Analysis, it can be recommended that the potential reconfiguration of parking areas in Zone 2 can be the most adequate subject for further discussion.

To this purpose it is recommended that the Average Occupancy can be used as the main measure of performance to determine those locations in which a change on the current use will cause the less effect on parking availability.

For example, a primary candidate for this potential reutilization is the Parking Lot located in Queen Street (between Bruce Street and Elgin Street) due to the fact that the Average Parking Occupancy is 16% - almost 4 times less than the occupancy of the nearest parking lot in Albert Street.[8]

[8] The presence of a telecommunications tower in the vicinity of the parking lot should be also a item for consi

4.3. Modifications to Current Parking Fees

Similar to the 2017 Report, the parking occupancy results do not support the need for changes on the current parking fees framework. However, it can be recommendable to modify the current parking data collection technology to support a parking rate differentiation between the different zones presented in Section 2 of this document.

The City currently utilizes the Passport Inc to manage parking payment solutions within the downtown area. The Passport Inc provides the City with raw parking data on a monthly basis, which is classified per off-street parking area and aggregated for on-street parking areas. To monitor the parking utilization and trends on an on-going basis, it is recommended that the City integrate the Passport parking data with the existing GIS data to create a *Public Parking Dashboard.*

Based on the review of the Passport sample data provided, it is recommended that the City consider geo-coding the on-street parking data (the data provided was not geo-coded) to monitor the on-street parking utilization.

The City can use the geo-coded Public Parking Dashboard to make public parking decisions such as mitigation strategies for areas of high-utilization, longer-term parking requirements, review of parking duration limits, etc.

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