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36 Years

246 Gilmour Street

Transportation Impact Assessment Screening and Parking Review

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246 Gilmour Street

Transportation Impact Assessment
Screening and Parking Review

Prepared By:

NOVATECH
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario
K2M 1P6

November 2019

Novatech File: 119153
Ref: R-2019-154

NOVATECH
Engineers, Planners & Landscape Architects

November 26th, 2019

City of Ottawa
Planning and Growth Management Department
110 Laurier Ave. W., 4th Floor,
Ottawa, Ontario K1P 1J1

Attention: Mr. Wally Dubyk
Project Manager, Infrastructure Approvals

Dear Mr. Dubyk:

Reference: 246 Gilmour Street
Transportation Impact Assessment Screening and Parking Review
Novatech File No. 119153

We are pleased to submit the following Transportation Impact Assessment Screening Form and Parking Review has been prepared in support of Zoning By-Law Amendment and Site Plan Control applications for 246 Gilmour Street.

If you have any questions or comments regarding this report, please feel free to contact the undersigned.

Yours truly,

NOVATECH

Joshua Audia, B.Sc.
E.I.T. | Transportation/Traffic

Suite 200, 240 Michael Cowpland Drive, Ottawa ON K2M 1P6 Tel: 613.254.9643 Fax: 613.254.5867 www.novatech-eng.com

TABLE OF CONTENTS

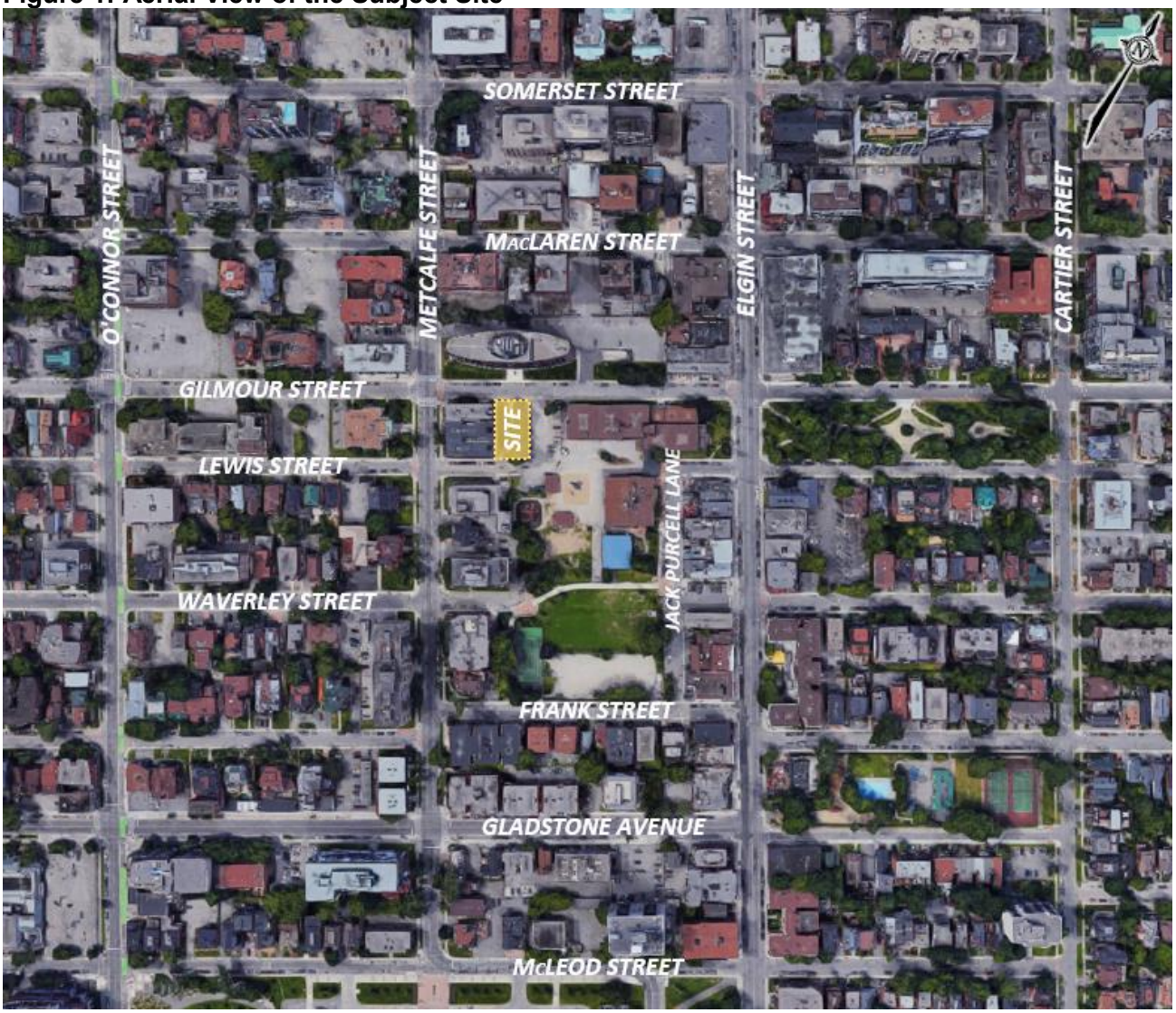
1.0 INTRODUCTION

This TIA Screening Form and Parking Review has been prepared in support of Zoning By-Law Amendment and Site Plan Control applications for 246 Gilmour Street. The subject property is currently vacant. The subject site is surrounded by the following:

- Gilmour Street, followed by commercial development to the north;
- Lewis Street, followed by the Nigerian High Commission to the south;
- Elgin Street Public School to the east; and
- Residential development to the west.

An aerial view of the subject site is provided in **Figure 1**.

Figure 1: Aerial View of the Subject Site



2.0 PROPOSED DEVELOPMENT

The proposed development consists of a six-storey building with 22 residential units. A new driveway on Lewis Street to one parking space is proposed. This parking space is anticipated to be used for visitors. However, consideration is being given to using the parking space for carshare. The proposed development also includes 17 bicycle spaces in the basement.

A copy of the proposed site plan is included in **Appendix A**.

3.0 TIA SCREENING

A Transportation Impact Assessment (TIA) Screening form was filled out for the proposed development. The City's 2017 TIA Guidelines identify three triggers for completing a TIA report, including trip generation, location, and safety. The criteria for each trigger are outlined in the City's TIA Screening Form. A copy of the TIA screening form is included in **Appendix B**.

The trigger results are as follows:

- Trip Generation Trigger – The development is not anticipated to generate over 60 peak hour person trips; further assessment is not required based on this trigger.

- Location Triggers – The development is not located in a Transit Oriented Development (TOD) zone or Design Priority Area (DPA), and does not propose a driveway to a boundary street that is designated as part of the Rapid Transit, Transit Priority, or Spine Cycling Networks; further assessment is not required based on this trigger.

- Safety Triggers – No safety triggers outlined in the TIA Screening Form are met; further assessment is not required based on this trigger.

The proposed development does not satisfy any triggers for completing a TIA. While the proposed development does not require a TIA, City staff have requested a parking review letter addressing the parking requirements and estimating the parking supply in the vicinity of the subject site.

4.0 PARKING REQUIREMENTS

The subject site is located in Area B on Schedule 1 and in Area X on Schedule 1A of the City of Ottawa's Zoning By-Law (ZBL). Vehicular and bicycle parking rates for the proposed uses are identified in the ZBL and are summarized in the following table. For a residential building, no off-street motor vehicle parking is required for the first twelve residential units for residents or visitors.

Table 1: Parking Requirements

Land Use	Rate	Units	Required	Proposed
Vehicle Parking				
Dwelling, Mid-Rise Apartment	0.5 resident spaces and 0.1 visitor spaces per dwelling unit after the first 12 units	22 units	5 resident 1 visitor	1
Bicycle Parking				
Apartment Building	0.5 per dwelling unit	22 units	11	17

Based on the foregoing, the vehicle parking will not meet the minimum parking requirement of the ZBL. A total of 17 bicycle parking spaces will be accommodated on site and will exceed the requirements of the ZBL.

It is acknowledged that one parking space is currently proposed for this development, however it is not known whether the space will be used for visitors or for carshare, such as VRTUCAR. Therefore, the proposed zoning amendment seeks to propose zero parking spaces for residents and zero parking spaces for visitors, and this parking review will evaluate the scenario where no parking spaces are provided on-site (i.e. a shortfall of six spaces).

5.0 PARKING SUPPLY

As of September 30, 2019, Elgin Street has been fully closed between Gloucester Street and Catherine Street, due to the ongoing Elgin Street Renewal project. Therefore, a review of parking utilization in the area cannot be conducted, as the results will not reflect parking availability once the Elgin Street Renewal is complete. The renewal is anticipated to be completed in fall 2020.

For the purposes of this study, a review has been conducted of the *Centretown Local Area Parking Study (LAPS)*, prepared by the City of Ottawa's Public Works Department in March 2016, and the *Elgin Street and Hawthorne Avenue Functional Design Study (Elgin Street FD Study)*, approved by City Council in May 2017. Relevant excerpts of the *Centretown LAPS* and the *Elgin Street FD Study* are included in **Appendix C**.

Considering a 400m radius around the subject site as the immediate vicinity, the study area falls in Areas B and C of the *Centretown LAPS*, where:

- Area B is bound by Laurier Avenue, Metcalfe Street, Catherine Street, and Kent Street; and
- Area C is bound by Laurier Avenue, Cartier Street, Gladstone Avenue, and Metcalfe Street.

Figure 2 below shows the location of the subject site with respect to the parking areas defined in the *Centretown LAPS*.

The study area overlaps with approximately one-third of Area B and two-thirds of Area C. It is therefore estimated that one-third of all parking spaces from Area B and two-thirds of all parking spaces from Area C are within the study area. The number of parking spaces in each area, as well as the study area, are shown in the following table.

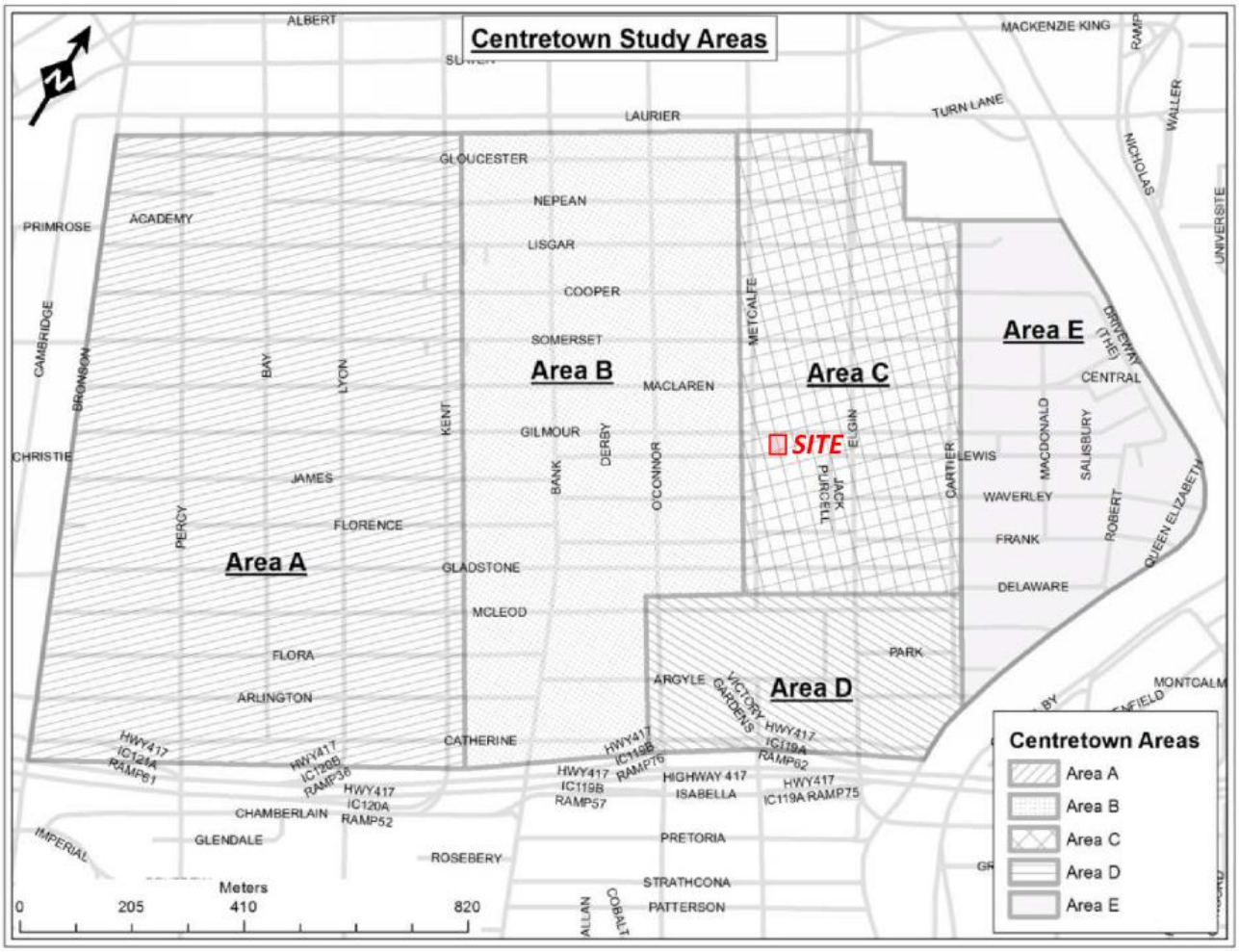
Table 2: Parking Inventory

Area	On-Street Parking Spaces			Off-Street Parking Spaces			Overall Total
	Paid	Unpaid	Total	Public	Private	Total	
Area B	708	82	790	2,852	1,384	4,236	5,026
Area C	370	174	544	2,067	896	2,963	3,507
Study Area[(1)]	**483**	**143**	**626**	**2,329**	**1,058**	**3,387**	**4,013**

1. Assumed to include one-third of Area B inventory and two-thirds of Area C inventory.

Practical capacity is considered to be 85% of the total parking capacity, as rates above 85% may generate additional traffic due to drivers searching for available parking. All areas included in the *Centretown LAPS* were surveyed during four time intervals on a weekday (Thursday), Saturday, and Sunday. These intervals were classified as morning (9:30am-11:30am), midday (12:00pm-2:00pm), afternoon (2:00pm-4:00pm), and evening (6:00pm-8:00pm).

Figure 2: Centretown LAPS Study Areas



Off-Street Parking

The highest off-street parking occupancy rates for Area B are 81% for public parking and 58% for private parking, both during the weekday midday interval. An occupancy rate of 81% for public parking and 58% for private parking equates to approximately 488 parking spaces available before reaching practical capacity.

The highest off-street parking occupancy rates for Area C are 76% for public parking during the weekday morning interval, and 63% for private parking during the weekday midday interval. An occupancy rate of 76% for public parking and 63% for private parking equates to approximately 383 parking spaces available before reaching practical capacity.

Consistent with the calculations in **Table 2**, it is assumed that the study area includes one-third of the remaining off-street parking supply of Area B and two-thirds of the remaining off-street parking supply of Area C. This equates to a total of approximately 418 off-street parking spaces being available before reaching practical capacity.

On-Street Parking

The occupancy findings for Area B indicated that the highest on-street parking occupancy rate is 84%, during the Sunday afternoon interval. This rate falls just shy of practical capacity. Based on a total of 790 on-street spaces in Area B, an occupancy rate of 84% equates to approximately eight parking spaces available before reaching practical capacity. It should be noted that between Gilmour Street and Gladstone Avenue, the highest on-street parking occupancy rate on the side streets (i.e. not Bank Street) is 79%, during the Sunday afternoon interval.

The occupancy findings for Area C indicated that the highest on-street parking occupancy rate is 91%, during the Saturday evening interval. The practical capacity was also found to be exceeded during the weekday evening (90%), Saturday midday (87%), and Sunday midday (89%) intervals.

Between Gilmour Street and Gladstone Avenue, on-street parking on Elgin Street and the side streets approach or exceed practical capacity during the weekday evening interval and the weekend morning, midday, and evening intervals. The *Centretown LAPS* notes that 'parking demand in the immediate vicinity of Elgin Street is the highest in the entire Centretown study area… parking only becomes readily available at all times south of Gladstone Avenue.'

The *Elgin Street FD Study* identifies that the number of on-street parking spaces along Elgin Street will be halved from 122 spaces to 61 spaces. While this represents a 50% decrease in spaces on Elgin Street, it represents a decrease of approximately 5% of all on-street parking spaces within two blocks of Elgin Street and a decrease of approximately 1.6% of all parking spaces within two blocks of Elgin Street. If all 61 parking spaces to be removed are from within the study area, this would decrease the on-street parking inventory from 626 spaces to 565 spaces (an approximate decrease of 10%), and the overall parking inventory from 4,013 spaces to 3,952 spaces (an approximate decrease of 1.5%).

On-Street Parking Permits

The immediate vicinity of the subject site falls within the Centretown Central and Centretown East parking permit zones. From the *Centretown LAPS*, 480 permits are available in this zone, with 209 permits active and 271 permits remaining. This equates to approximately 56% of permits remaining are available for residents. The decision to issue on-street residential parking permits ultimately rests with the City.

6.0 CONCLUSIONS

- The proposed development will not meet the minimum parking requirements of the ZBL. A parking shortfall of six vehicular spaces is proposed. Bicycle parking will be accommodated on-site and will exceed the requirements of the ZBL.

- Based on a document review of the *Centretown LAPS* and the *Elgin Street FD Study*, it has been estimated that a total of approximately 626 on-street parking spaces and 3,387 off-street parking spaces are located within a 400m walking distance of the subject site.

- It is estimated that a minimum of 418 off-street parking spaces are available during all time periods within the study area.

- Approximately eight on-street parking spaces are available in Area B (west of Metcalfe Street), and on-street parking in Area C (Metcalfe Street to Elgin Street) is shown to exceed practical capacity during critical periods.

- During time periods where on-street parking exceeds practical capacity, sufficient off-street parking is available within the study area to accommodate the anticipated demand by the proposed development.

- It is recommended that a clause specifying that on-site parking is not provided be included in lease agreements at 246 Gilmour Street. The decision to issue on-street residential parking permits ultimately rests with the City.

Yours truly,

NOVATECH

Prepared by:

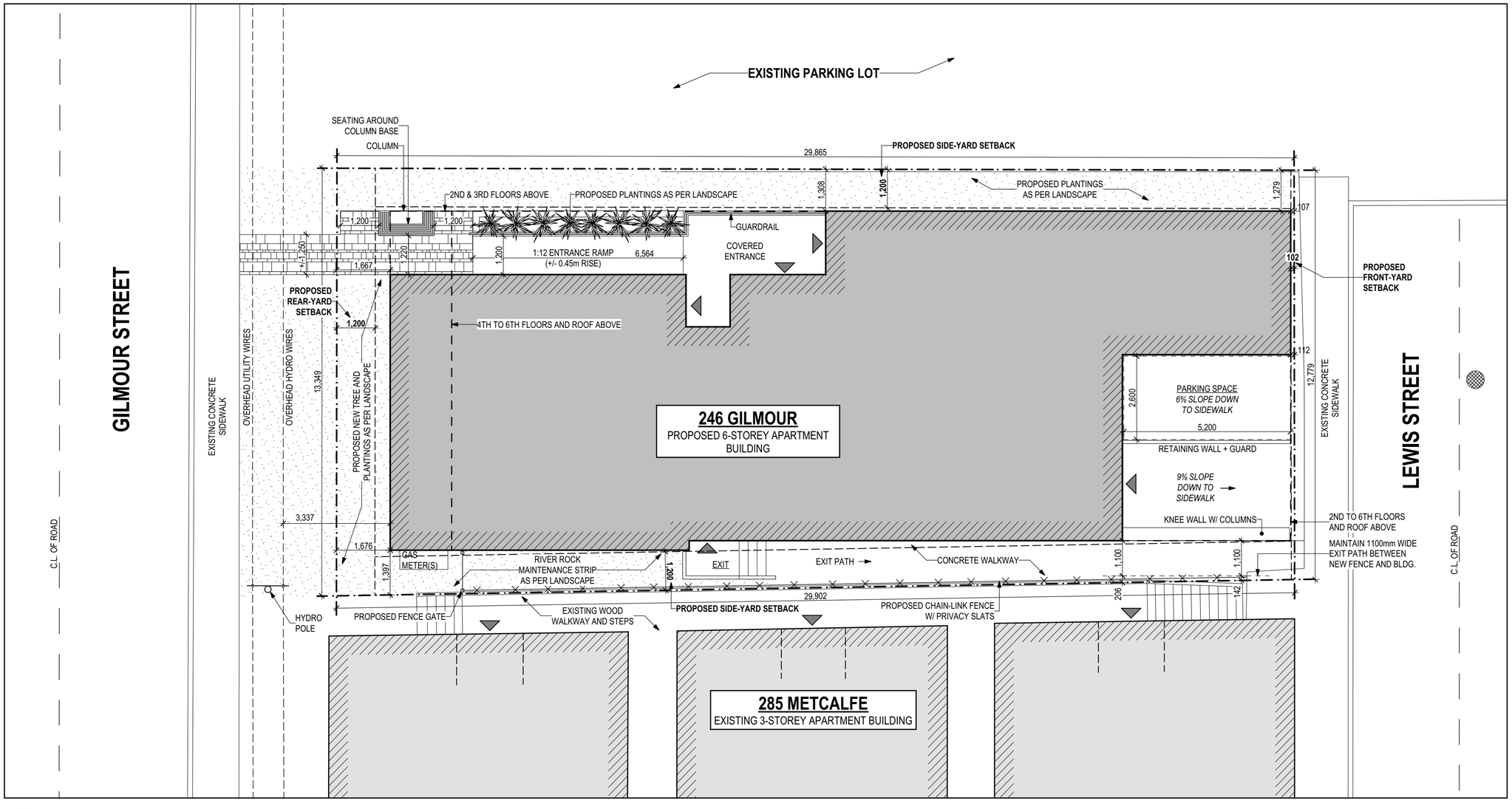
Joshua Audia, B.Sc.
E.I.T. | Transportation/Traffic

Reviewed by:

Brad Byvelds, P.Eng.
Project Coordinator | Transportation/Traffic

APPENDIX A

Site Plan



1 / A100 SITE PLAN

SCALE: 1:100

A2 19046_246Gilmour_DesignDevelopment_2019_11_12.pln

ROBERTSON MARTIN ARCHITECTS

STAMP:

CLIENT:

REVISIONS:

No.	DESCRIPTION	DATE
03	ISSUED FOR SITE PLAN CONTROL	2019-11-19
02	ISSUED FOR COORDINATION	2019-11-13
01	ISSUED FOR COORDINATION	2019-11-05

NORTH:

PROJECT:

246 GILMOUR STREET

246 Gilmour Street

DRAWING:

SITE PLAN

DESIGNED BY:	APPROVED BY:
SD + NSB	RM
DRAWN BY:	
NSB	
DATE:	**SCALE:**
2019-11-25	AS SHOWN
RMA PROJECT NUMBER	**SHEET NUMBER:**
19046	**A100**

APPENDIX B

TIA Screening Form

City of Ottawa 2017 TIA Guidelines Screening Form

1. Description of Proposed Development

Municipal Address	**246 Gilmour Street**
Description of Location	**40m east of Metcalfe Street**
Land Use Classification	**Residential**
Development Size (units)	**22 dwellings**
Development Size (m^2)	**-**
Number of Accesses and Locations	**One access to Lewis Street**
Phase of Development	**1**
Buildout Year	

If available, please attach a sketch of the development or site plan to this form.

2. Trip Generation Trigger

Considering the Development's Land Use type and Size (as filled out in the previous section), please refer to the Trip Generation Trigger checks below.

Land Use Type	Minimum Development Size
Single-family homes	40 units
Townhomes or apartments	90 units
Office	3,500 m^2
Industrial	5,000 m^2
Fast-food restaurant or coffee shop	100 m^2
Destination retail	1,000 m^2
Gas station or convenience market	75 m^2

** If the development has a land use type other than what is presented in the table above, estimates of person-trip generation may be made based on average trip generation characteristics represented in the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual.*

If the proposed development size is greater than the sizes identified above, the Trip Generation Trigger is satisfied.

3. Location Triggers

	Yes	No
Does the development propose a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit or Spine Bicycle Networks?		✓
Is the development in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone?*		✓

**DPA and TOD are identified in the City of Ottawa Official Plan (DPA in Section 2.5.1 and Schedules A and B; TOD in Annex 6). See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA).*

If any of the above questions were answered with 'Yes,' the Location Trigger is satisfied.

4. Safety Triggers

	Yes	No
Are posted speed limits on a boundary street are 80 km/hr or greater?		✓
Are there any horizontal/vertical curvatures on a boundary street limiting sight lines at a proposed driveway?		✓
Is the proposed driveway within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/suburban conditions)?		✓
Is the proposed driveway within auxiliary lanes of an intersection?		✓
Does the proposed driveway make use of an existing median break that serves an existing site?		✓
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?		✓
Does the development include a drive-thru facility?		✓

If any of the above questions were answered with 'Yes,' the Safety Trigger is satisfied.

5. Summary

	Yes	No
Does the development satisfy the Trip Generation Trigger?		✓
Does the development satisfy the Location Trigger?		✓
Does the development satisfy the Safety Trigger?		✓

If none of the triggers are satisfied, the TIA Study is complete. If one or more of the triggers is satisfied, the TIA Study must continue into the next stage (Screening and Scoping).

APPENDIX C

Relevant Excerpts from Local Area Studies

1.2 Study Area

The study area is bounded by Gloucester Street / Lisgar Street in the north, Highway 417 in the south, the Rideau Canal in the east, and Bronson Avenue in the west. The Centretown study area is consistent with the study area used within the *Centretown Community Design Plan*. Please see *Map 1 –Centretown Study Area* for more information.

An inventory of all parking within the study area and occupancy counts was completed for all on-street parking and off-street parking including public and private lots. Private off-street residential parking lots were not included in the parking inventory or in the occupancy data. There are currently 3,042 total on-street spaces in the study area (1,408 are paid parking). There are a total of 9,426 off-street parking spaces within the study area that are available for public use which includes parking for commercial, office, institutional, and open space uses for customers, employees, and the general public. Of these, 5,842 are paid parking spaces (1,057 municipally-owned and 4,785 privately-owned).

There are two off-street City-owned parking garages within the study area:

- 210 Gloucester Street (Lot 3) contains 206 parking spaces (69 public parking spaces and 137 reserved parking spaces located on the upper floors).
- 114 Laurier Avenue West (City Hall, Lot 6) contains 850 parking spaces (794 public parking spaces and 56 reserved parking spaces).

Due to the large size of the study area, the study area was separated into five different areas (See *Map 1 – Centretown Study Areas*). Areas A and E consist primarily of residential land uses, Areas B and C are centered around commercial mainstreets (Bank Street and Elgin Street respectively) and Area D is located in the south-east portion of the study area and contains institutional uses such as the Museum of Nature and the Ottawa Police Station. *Table 1 – Parking Inventory by Section* shows the on-street and off-street parking inventory for each area.

Map 1 –Centretown Study Areas

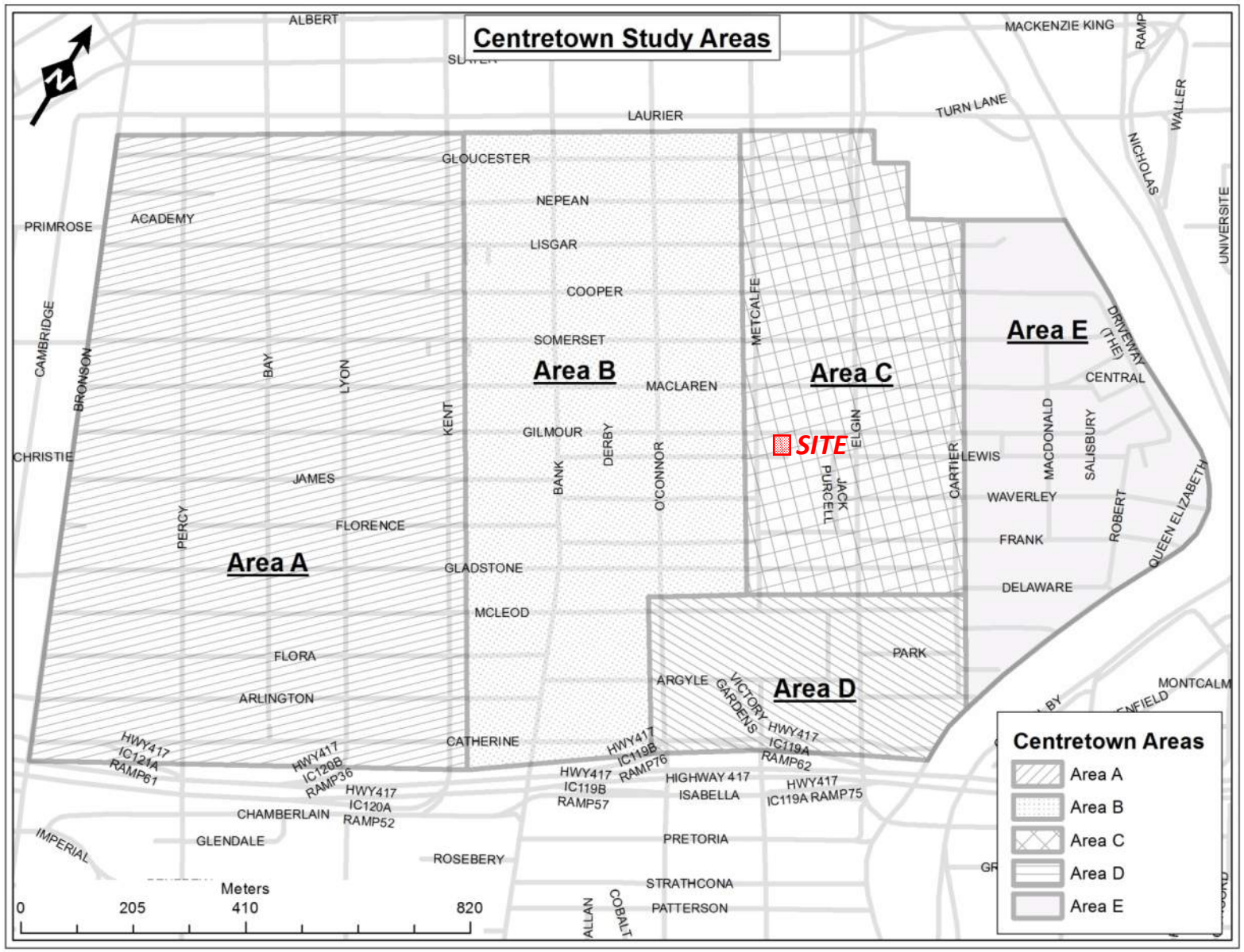


Table 1 –Parking Inventory by Section

Area	On-Street	Off-Street	Total
Area A	1,118	1,638	**2,756**
Area B	790	4,236	**5,026**
Area C	544	2,963	**3,507**
Area D	178	435	**613**
Area E	412	154	**566**
Total	**3,042**	**9,426**	**12,468**

There are currently three residential parking permit zones located within the Centretown study area (See *Map 2 – Residential Parking Permit Zones*):

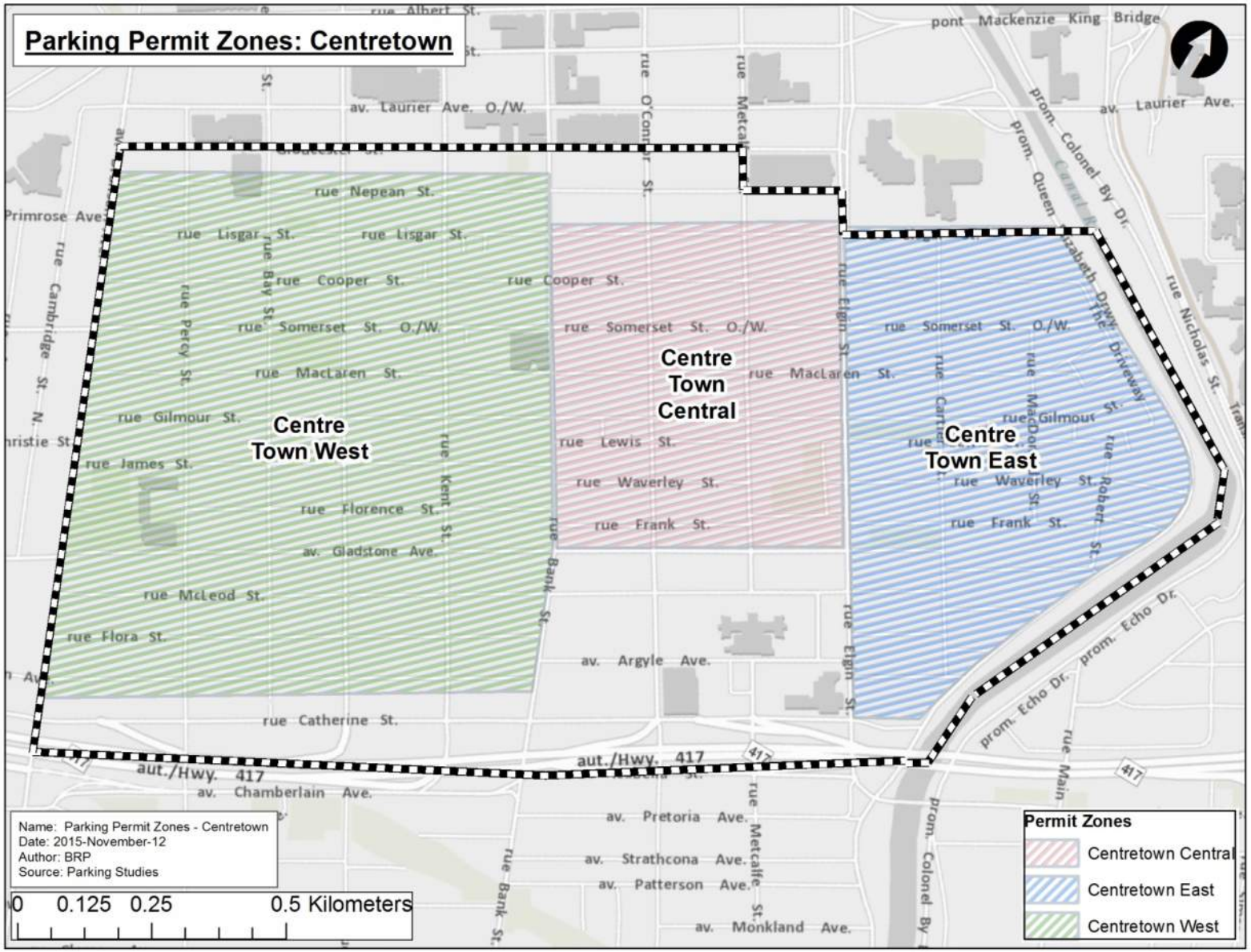
- Zone 5 – Centretown West
- Zone 6 – Centretown Central
- Zone 7 – Centretown East

The table below shows the number of active and available residential on-street parking permits by zone as of March 17th, 2016.

Table 2 – Number of On-Street Residential Parking Permits

Area	Available	Active	Remaining
Centretown West (Zone 5)	320	124 (39%)	196 (61%)
Centretown Central (Zone 6)	212	54 (25%)	158 (75%)
Centretown East (Zone 7)	268	155 (58%)	113 (42%)

Map 2 – Residential Parking Permit Zones (2016)



1.3 Definitions

A number of terms related to parking are used throughout this report. A glossary of key terms is provided below.

- **Parking Occupancy -** The ratio of the number of vehicles parked divided by the number of spaces provided. The chance that a customer to the area will be able to find convenient, available parking on a particular street or parking lot is a function of occupancy. Achieving an occupancy rate between 75% and 85% is considered to be an industry “best practice”, representing the level at which the spaces are optimized, while there is still a reasonable opportunity for a customer to find convenient parking. Above this rate (85%), additional traffic can be generated as drivers search for available parking.
- **Practical Capacity -** 85% of the total parking capacity.
- **Maximum Capacity -** 100% of total parking capacity.
- **Short-Term Parking -** Parking with a duration less than three hours, generally provided for commercial and institutional uses.
- **Long-Term Parking -** Parking with a duration of three hours or greater, such as for residential or office type land uses.
- **On-Street Parking -** Curb paid and unpaid parking used by the general public.
- **Off-Street Parking -** Parking located in dedicated parking lots or structures (above, at, or below ground), located off the roadway. These facilities can be available by general use by the public (public parking) or unavailable for general use by the public (private parking), or a combination of both (public and private). Private off-street residential parking lots were not included in the parking inventory or in the occupancy data.
- **Peak Period -** Time at which demand for parking is at its highest.

1.4 Types of Parking

Virtually all parking spaces can be classified according to *Table 3 – Types of Parking*. In section 3.1 – Total Parking Inventory, *Map 14 – Off-Street Lots by Type* illustrates the types of parking described below and provides an inventory of all the off-street lots by type within the study area. Note that public parking connotes public usage, not necessarily public ownership.

Table 3 - Types of Parking

Description	Public On-Street Short-Term (On-Street)	Public Off-Street Short-Term	Public Off-Street Long-Term	Private Off-Street Customer/Employee	Private Off-Street Residential*
Function	Parking for any number of purposes.	Parking for any number of purposes.	Parking for any number of purposes.	Parking for a specific establishment or workplace.	Parking for a specific residential building or residence.
Usage	Available for general use by the public - anyone may park.	Available for general use by the public - anyone may park.	Available for general use by the public - anyone may park.	Available only to customers or employees of a specific establishment or workplace.	Available only to residents or visitors of a specific residential building or residence.
Location	Along the sides of City streets.	Parking lots or parking structures.	Parking lots or parking structures.	Parking lots or parking structures.	Parking lots or parking structures.

Description	Public On-Street Short-Term (On-Street)	Public Off-Street Short-Term	Public Off-Street Long-Term	Private Off-Street Customer/Employee	Private Off-Street Residential*
Pricing	Free or priced by the hour or minute.	Usually priced by the hour or minute; sometimes free during certain times of day.	Priced by the day or month.	Varies (but often free for customers).	Varies (but often priced by the month).
Examples	Metered/pay & display parking in the commercial core and along mainstreets; unmetered on-street parking in residential areas.	Privately owned parking lots that allow the public to park for a fee (or for free); municipally owned parking lots that allow the public to park for a fee.	Privately owned parking lots that allow the public to park for a fee (or for free); municipally owned parking lots that allow the public to park for a fee.	Employee/customer only parking; a restaurant parking lot; a shopping mall parking lot; a school or church parking lot.	A parking garage in an apartment building or condominium; the driveway of a house.

*Private off-street residential parking was not included in the parking inventory or data collection (occupancy counts) for the *Centretown Local Area Parking Study*.

1.5.2 Area B

1. Bank Street Parking Study (1998)

The *Bank Street Parking Study* was conducted in October 1998 by Delcan. The study area included Bank Street from Gloucester Street to Catherine Street and some of the side streets (see map below). The study was conducted for on-street and off-street parking on weekdays Thursday, May 29, 1997 from 9:30am to 3:00pm and from 7:00pm to 9:00pm. The study was also conducted on Saturday, May 31, 1997 from 11:00am to 3:00pm.

Exhibit 1: Study Area

The results showed that there is high demand for on-street parking along Bank Street north of Gladstone Avenue. During the time of the survey, this stretch of Bank Street was a no-parking zone. Both customers and business owners have indicated that on-street parking would be highly desirable along this stretch of Bank Street. The findings also indicated that there was heavy demand for on-street parking on the streets crossing Bank Street.

The parking surveys showed that occupancy was highest in the evenings and that off-street parking was in very low demand. It was suggested that this result was due to the on-street parking in the evenings being unpaid, whereas the off-street parking lots continue to charge a fee. The table below shows the results of the occupancy surveys and travel surveys.

The study also noted that demand for parking would increase in the near future due to changes in provincial legislation that would permit retail stores to remain open later during the evenings. It was recommended that the City of Ottawa should consider charging for parking at meters in the evenings to encourage the

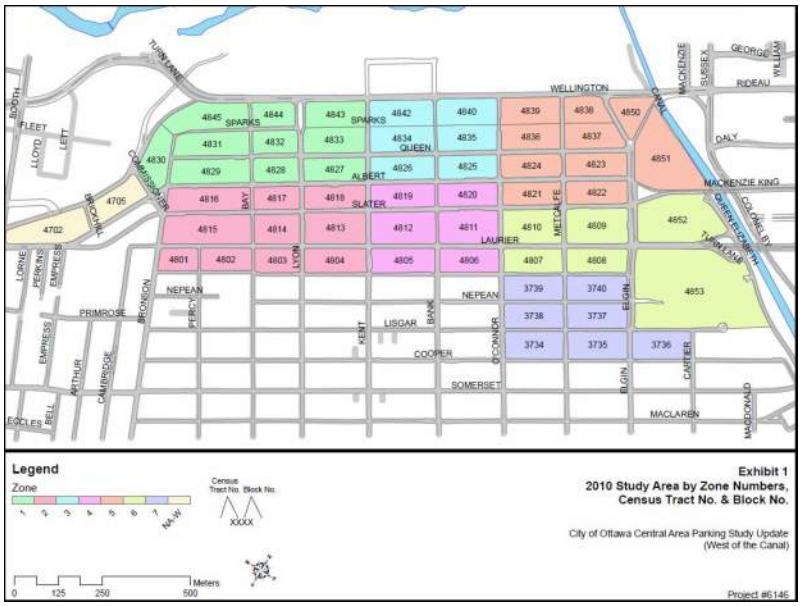
Street Location	Weekdays	Evenings	Saturdays
Bank Street north of Gladstone	✔	✔	✔
Gloucester Street	✔	✔	✔
Nepean Street	✔	✔	✔
Somerset Street	✔	✔	✔
Argyle Street	✔	✔	✔
MacLaren Street	✔	✔	✔
McLeod Street between Bank and O'Connor	✔	✔	
Lewis Street		✔	✔
Flora Street		✔	✔
Gladstone Avenue between Bank and Kent		✔	✔
Lisgar Street		✔	✔
Cooper Street		✔	✔
Gilmour Street		✔	
James Street		✔	
Waverly Street			✔

use of on-street parking for shorter-term uses (i.e. less than one or two hours) and to encourage the use of off-street lots for longer-term parking (i.e. more than two hours).

1.5.3 Area B and C

1. Central Area Parking Study Update – West of Rideau Canal (2010)

The Central Area Parking Study Update – West of Rideau Canal was completed in February 2013 by the HDR Corporation for the City of Ottawa. The data collection for this parking study update occurred in the fall of 2010. An on-street and off-street parking survey was conducted on Thursday, September 23rd and Wednesday, November 10th, 2010 from 11:30am to 2:30pm. On-street parking surveys were also conducted on Friday September 24th, 2010 from 6:30pm to 9:30pm and on Saturday, September 25th and Sunday, 26th, 2010 from 10:30am to 2:30pm.

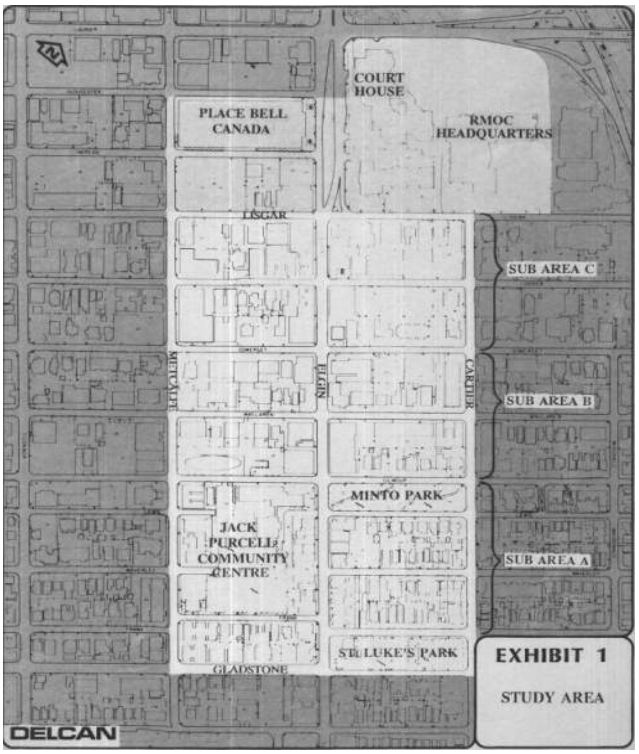


Zone 7 as seen on the study area map (blocks 3734 - 3740 inclusive), is the only part that is within the Centretown study area. The results showed that during the weekday, the on-street parking utilization was above practical capacity (90%) for the majority of blocks in Zone 7. More than half of the blocks exceeded 90% on weekdays from 11:30am to 2:30pm and from 6:30pm to 9:30pm. During the weekend (Saturday and Sunday), it was found that the on-street parking utilization was above practical capacity for the majority of blocks in Zone 7. The peak parking demand period for both Saturday and Sunday was from 11:30am to 2:30pm where parking utilization exceeded 90% for most of the blocks.

1.5.4 Area C

1. Elgin Street Parking Study (1988)

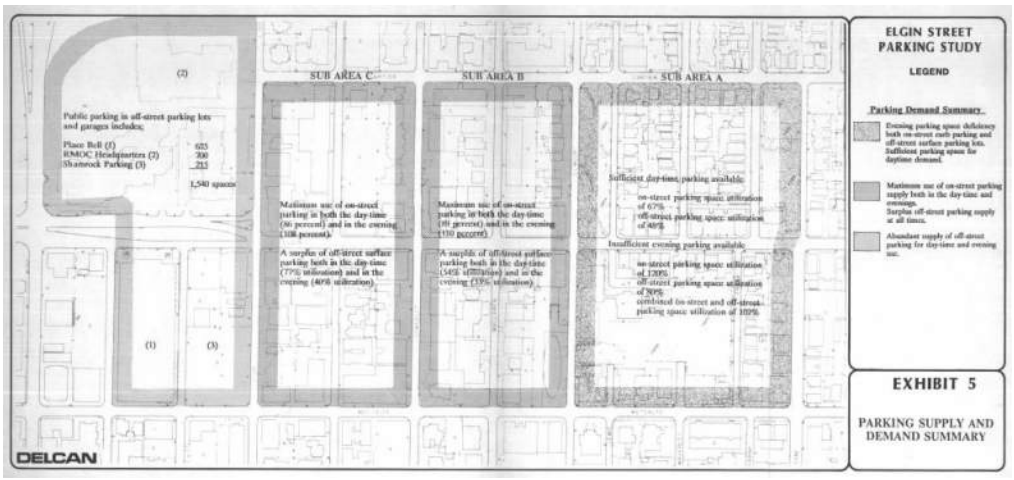
A parking study was completed by Delcan in November 1989 for Elgin Street and the surrounding area. The *Elgin Street Parking Study* was divided into three sub-areas: A, B, and C due to the large size of the study area (see map for boundaries). The parking study was conducted in July, August, and September 1988 and supplementary data was collected in March 1989 for on-street and off-street parking. Parking surveys were conducted at 30 minute intervals on a Thursday, Friday, and Saturday from 9:00am to 6:00pm and 6:00pm to 11:00pm. The findings of the study for the separate sub-areas include:



In sub-area A, the results showed that there is sufficient on-street and off-street parking during the daytime peak period. However, it was found that there was a parking space deficiency in the evenings due to the total on-street and off-street occupancy exceeding maximum capacity.

In sub-area B, the results showed very high utilization of on-street parking during the daytime and evening peak periods. The off-street parking lots however, were underutilized during the daytime and evening peak periods.

In sub-area C, the results showed that the utilization is very similar to sub-area B. The on-street parking utilization during the daytime and evening peak were very high and there was a surplus of off-street parking during the daytime and evening peak periods.



Overall, the results showed that the weekday parking demand was greater than the weekend parking demand. The study concludes that the study area as a whole has sufficient on-street and off-street parking. Once the study area was divided into the three sub-areas, it was found that in sub-areas A and B, an additional 70 and 100 parking spaces was needed in order to satisfy the evening parking demand due to a high amount of illegal parking. In sub-area C, it was found that the on-street parking was extensively utilized at all times during the day however, the off-street parking supply was substantial and significantly exceeded the daytime and evening parking demand.

2. Elgin Street Parking Review (1991)

The *Elgin Street Parking Review* was completed in April 1993 by Delcan. Parking surveys were conducted for on-street and off-street parking during the weekday (Thursday, August 22nd and 29th, 1991 and Friday, August 23rd, 1991) from 10:00am to 2:00pm and from 8:00pm to 11:00pm and on Saturday, August 24th, 1991 from 10:00am to 2:00pm. Similar to the *1989 Elgin Street Parking Study*, the study area was divided into 3 sub-areas (A, B, and C).

YEAR, TIME AND LOCATION OF PARKING SURVEY				PARKING SPACE UTILIZATION IN PEAK OCCUPANCY PERIOD			
				Area A	Area B	Area C	Total
WEEKDAY	On-street	Daytime	1988	67%	89%	86%	78%
			1991	79%	99%	99%	91%
		Evening	1988	120%	110%	108%	114%
			1991	117%	107%	86%	106%
	Off-street	Daytime	1988	48%	54%	77%	60%
			1991	62%	64%	69%	65%
		Evening	1988	80%	33%	40%	47%
			1991	62%	41%	36%	44%
	All Parking	Daytime	1988	57%	59%	79%	65%
			1991	68%	74%	78%	73%
		Evening	1988	102%	57%	64%	73%
			1991	87%	60%	54%	68%
SATURDAY	On-street	Daytime	1988	64%	77%	95%	77%
			1991	62%	74%	82%	71%
	Off-street	Daytime	1988	44%	25%	37%	34%
			1991	38%	29%	32%	32%
	All Parking	Daytime	1988	55%	42%	55%	50%
			1991	52%	41%	49%	47%

The results of the parking survey show that there is little difference between the key results of the 1988 and 1991 surveys. It was found that some types of parking at some times of day increased or decreased, the changes were not significant in most cases. The only parking category where the

difference was significant was for on-street parking during the weekday daytime. The on-street parking space occupancy in all sub-areas increased by 10% to 13% and for the whole study area increased by 13%.

The study concluded that the 1991 review found that the volume of illegal on-street parking during the weekday evenings was slightly less than in 1988. Therefore, the 1991 parking space deficiency in Area A and B is the same as the 1988 deficiency (70 and 100 parking spaces). It was also noted that due to potential future changes in land use within buildings in Areas A and B, another 50 additional parking spaces (total 150) could be needed to accommodate the weekday evening parking demands.

3. Elgin Street Parking Review (1994)

The *Elgin Street Parking Review* was completed in January 1995 by Delcan. Parking surveys were conducted for on-street and off-street parking during the weekday (Thursday, September 15th, 1994 and Friday, September 16th, 1994) from 10:00am to 2:00pm and from 8:00pm to 11:00pm and on Saturday, September 17th, 1994 from 10:00am to 2:00pm. Similar to the *1989 Elgin Street Parking Study and the 1993 Elgin Street Parking Review*, the study area was divided into 3 sub-areas (A, B, and C) (see previous *Elgin Street Parking Study (1988)* map).

The 1994 parking review concluded that the parking space occupancy survey results reveal that the parking demand in the study area was approximately constant between 1991 and 1994. The most significant change was an increase in on-street parking demand during the mid-day peak period on Saturdays. The on-street parking rates in sub-areas A, B, and C all increased by 17% to 21% and for the whole study area increased by 19%. For the study area as a whole, other comparisons between 1988 and 1991 indicated little change. See table to the right.

YEAR, TIME AND LOCATION OF PARKING SURVEY				PARKING SPACE UTILIZATION IN PEAK OCCUPANCY PERIOD			
				Area A	Area B	Area C	Total
WEEKDAY	On-street	Daytime	1988	67%	89%	86%	78%
			1991	79%	99%	99%	91%
			1994	84%	86%	100%	89%
		Evening	1988	120%	110%	108%	114%
			1991	117%	107%	86%	106%
			1994	118%	104%	88%	106%
	Off-street	Daytime	1988	48%	54%	77%	60%
			1991	62%	64%	69%	65%
			1994	75%	60%	72%	68%
		Evening	1988	80%	33%	40%	47%
			1991	62%	41%	36%	44%
			1994	83%	58%	28%	54%
	All Parking	Daytime	1988	57%	59%	79%	65%
			1991	68%	74%	78%	73%
			1994	80%	67%	78%	75%
		Evening	1988	102%	57%	64%	73%
			1991	87%	60%	54%	68%
			1994	100%	71%	46%	72%
SATURDAY	On-street	Daytime	1988	64%	77%	95%	77%
			1991	62%	74%	82%	71%
			1994	83%	91%	101%	90%
	Off-street	Daytime	1988	44%	25%	37%	34%
			1991	38%	29%	32%	32%
			1994	36%	32%	32%	33%
	All Parking	Daytime	1988	55%	42%	55%	50%
			1991	52%	41%	49%	47%
			1994	60%	50%	54%	55%

The critical parking deficiency noted following the 1991 survey was in the supply of on-street parking spaces during weekday evenings in sub-areas A and B. The 1994 survey revealed that this deficiency has not likely

changed magnitude since 1991, and remains the critical deficiency in the study area. The study also concluded that there was no need to revise the assessment of need for additional parking in the study area which was included in the *1991 Elgin Street Parking Review*.

1.5.5 Area D

1. **Museum of Nature Parking Study (2003)**

The *Museum of Nature Parking Study* was conducted in February 2003 by the City of Ottawa, Traffic and Parking Operations Branch. The study area included a 1 km radius surrounding the Museum of Nature and included occupancy counts of both on-street and off-street parking facilities. The survey was conducted during the weekday from 10:30am to 2:30pm and from 5:45pm to 9:00pm.

The results showed that during the daytime count, on-street parking was underutilized and during the evening count, the majority of block faces within were at full capacity. However, it was noted that there is a sufficient amount of off-street parking available to accommodate the evening parking demand. The Police Central Headquarters parking lot and the Museum of Nature parking lot were mentioned as potential solutions.

3.1.1 Inventory – Area-Wide Results

The on-street and off-street parking space inventory by Area is also shown in *Table 15 - On-Street Parking Inventory by Section* and in *Table 16 - Off-Street Parking Inventory by Section.*

Table 15 – On-Street Parking Inventory by Section

On-Street	Paid Spaces	Unpaid Spaces	Total
Area A	233	885	**1,118**
Area B	708	82	**790**
Area C	370	174	**544**
Area D	72	106	**178**
Area E	25	387	**412**

Table 16 – Off-Street Parking Inventory by Section

Off-Street	Public (Paid) Parking	Private Parking	Total
Area A	619	1,019	**1,638**
Area B	2,852	1,384	**4,236**
Area C	2,067	896	**2,963**
Area D	292	143	**435**
Area E	90	64	**154**

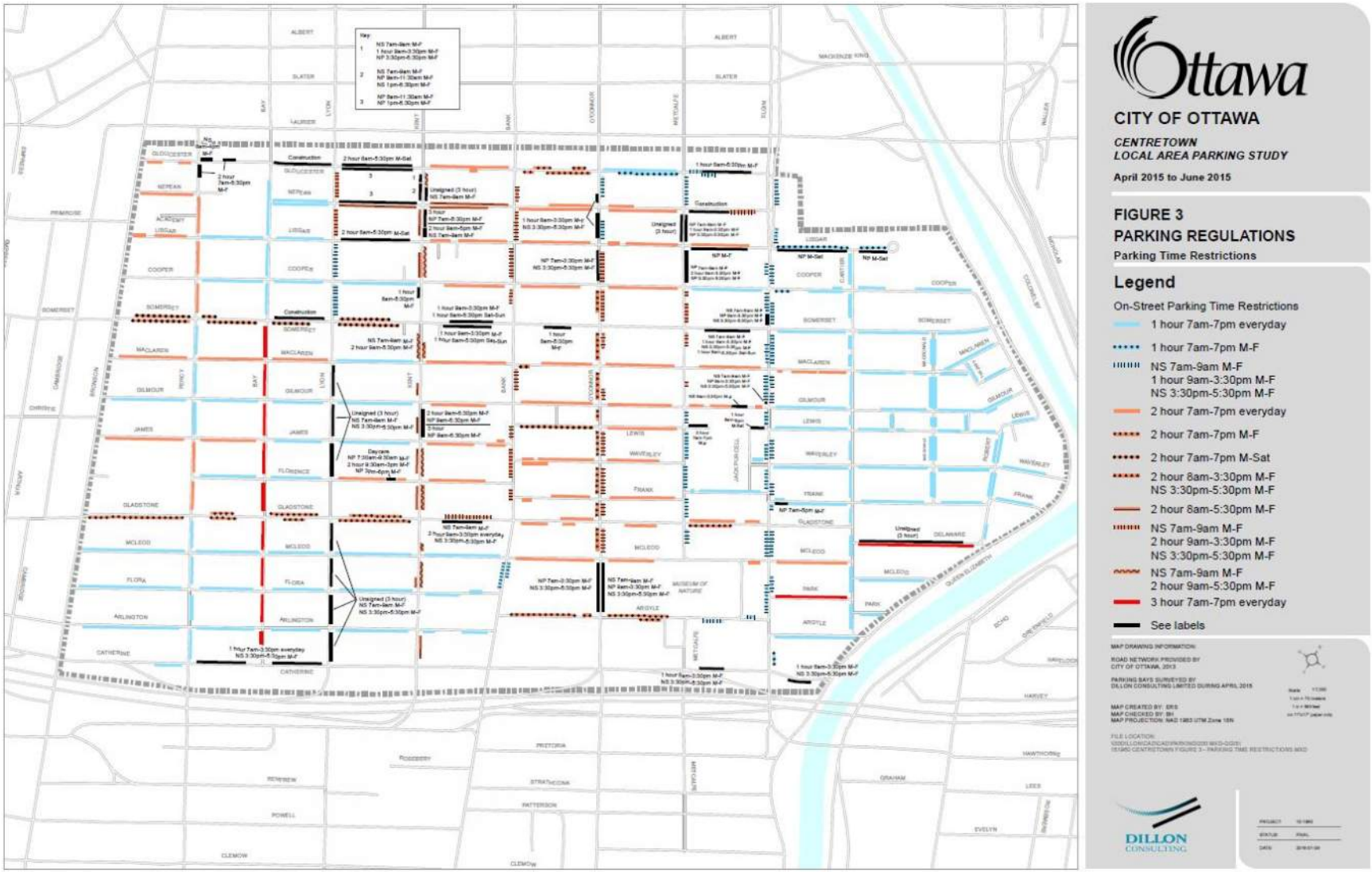
* Note: Off-street paid spaces include parking lots offering monthly permits

The following maps illustrate the complete parking inventory of the Centretown study area:

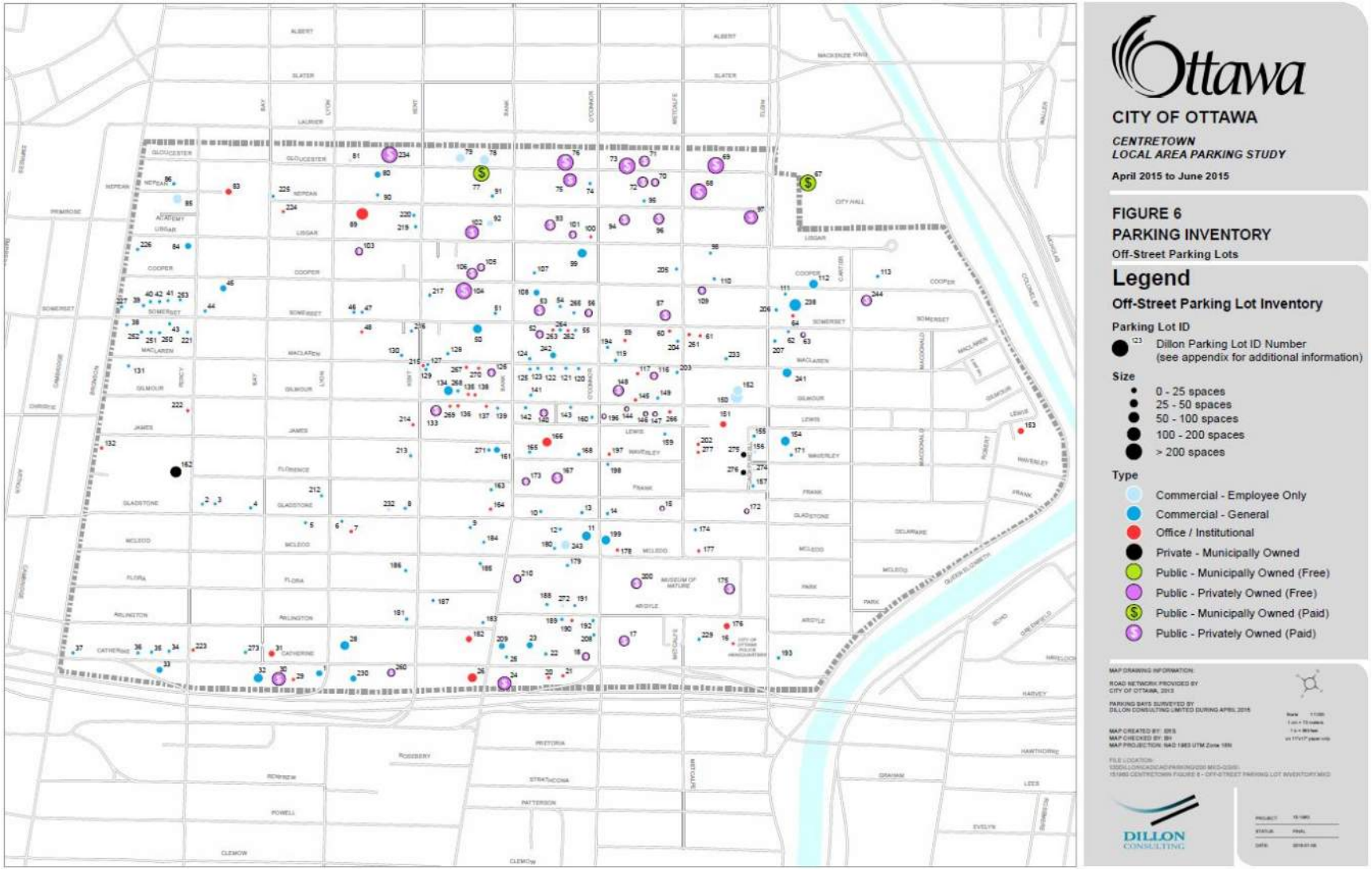
- *Map 12* illustrates the location of paid and unpaid on-street parking within the Centretown study area.
- *Map 13* illustrates the parking regulations within the Centretown study area.
- *Map 14* illustrates the off-street lots within the Centretown study area including public, customer, employee and institutional.

Map 12 - On-Street Parking (Paid and Unpaid) in Centretown

Map 13 - Parking Regulations



Map 14 - Off-Street Parking Lots by Type



4.2 Findings Area B - Primarily Commercial Area

Map 21 – Area B

4.2.1 Occupancy Findings for Area B

The findings for Area B – primarily commercial area including Bank Street show that:

- On-street parking demand is high at times during the weekend but only reaches a maximum of 84% on Sunday afternoon.
- The on-street parking demand is consistent on weekdays when paid parking is in effect and ranges from 45% to 56%.
- Off-street parking (public and private) is at its highest when on-street paid parking is in effect.
- Utilization of off-street public and private parking decreases to very low levels when on-street parking is unpaid.

Table 24 - Area B Occupancy Findings

Day	Time	On-Street Occupancy Rate	Off-Street Occupancy Rate (Public Parking)	Off-Street Occupancy Rate (Private Parking)
Weekday	Morning	48%	72%	54%
Weekday	Midday	56%	81%	58%
Weekday	Afternoon	45%	78%	57%
Weekday	Evening	68%	17%	22%
Saturday	Morning	77%	7%	17%
Saturday	Midday	80%	9%	19%
Saturday	Afternoon	77%	8%	17%
Saturday	Evening	81%	8%	16%
Sunday	Morning	72%	6%	15%
Sunday	Midday	82%	8%	14%
Sunday	Afternoon	84%	7%	16%
Sunday	Evening	68%	6%	12%

4.2.2 Occupancy Findings for 210 Gloucester Street

The municipally-owned parking garage located at 210 Gloucester Street is located in Area B. The occupancy rates for the Gloucester Street parking garage are provided in *Table 25 – 210 Gloucester Street Occupancy Findings*. Please note that the occupancy results do not include the reserved monthly parking spaces. The occupancy results show that the occupancy is extremely high during the weekday in the morning at a rate of 90% and at midday at a rate of 92%. The occupancy is extremely low during the weekday evening and during the weekend. Over the weekend, the occupancy peaks on Saturday afternoon at a rate of 37%.

Table 25 – 210 Gloucester Street Occupancy Findings

Day	Time	Supply	Off-Street Occupancy Rate Gloucester Lot
Weekday	Morning	69	90%
Weekday	Midday	69	92%
Weekday	Afternoon	69	81%
Weekday	Evening	69	14%
Saturday	Morning	69	22%
Saturday	Midday	69	34%
Saturday	Afternoon	69	37%
Saturday	Evening	69	21%
Sunday	Morning	69	16%
Sunday	Midday	69	29%
Sunday	Afternoon	69	27%
Sunday	Evening	69	21%

4.2.3 Summary of Findings for Area B

The following provides a general overview of the findings and issues that were identified for Area B:

- Area-wide, when paid parking is in effect the level of parking demand is moderate (45-56% full).
- Demand for on-street parking is much higher during weekday evenings and weekends.
- The municipal parking garage at 210 Gloucester Street has limited available supply during weekdays in the daytime and is heavily used by long-term parkers.
- There are some large pockets of expected future growth, particularly north of Cooper Street and along Bank Street south of Gilmour Street.
- Some concerns were expressed about the availability of parking on Gladstone Avenue which has been impacted by recent developments. Currently, there is an availability of parking at all times, although demand is approaching 'practical capacity', particularly east of Bank Street.
- There are 760 bike parking spaces in this portion of the study area on the public right-of-way (including 234 along Bank Street). In addition to Bank Street, there are some side streets that have a high demand for bike parking, including Cooper Street, Frank Street, Gladstone Avenue and Argyle Street.

4.2.4 Occupancy Findings for Bank Street and its Surrounding Streets

The findings for Bank Street and its surrounding streets show that:

- The on-street parking along the side streets surrounding Bank Street are more utilized than Bank Street on all days and during all times surveyed.
- The on-street occupancy along Bank Street is high during Saturday but only reaches a maximum of 82% on Saturday morning.
- The on-street occupancy along the side streets surrounding Bank Street is high during weekday evenings and during the weekend. These side streets are especially busy on Saturday at midday and on Sunday in the afternoon. The occupancy exceeds practical capacity (85%) on Saturday midday at a rate of 86% and on Sunday afternoon at a rate of 88%. On-street parking along the side streets is also in high demand during Saturday evenings when occupancy is at practical capacity 85%.

- The occupancy for on-street paid parking is similar along Bank Street and the streets surrounding Bank Street during weekday paid parking hours. The average occupancy rate is slightly lower along Bank Street compared to the average occupancy along the streets surrounding Bank Street.
- The off-street public parking lots are well utilized during the weekday when on-street paid parking is in effect. Off-street public parking is especially high during the weekday at midday when the occupancy exceeds practical capacity at a rate of 87%.
- Utilization of off-street public parking decreases to very low levels when on-street parking is unpaid.

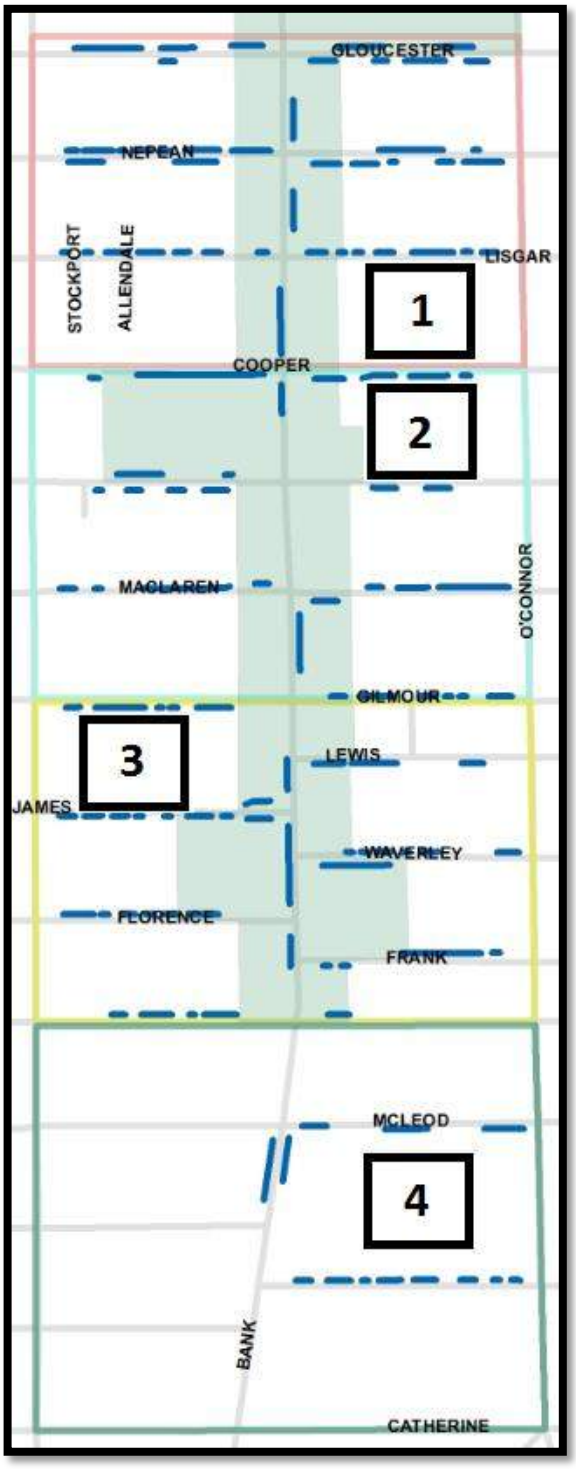
Table 26 - Bank Street Occupancy Findings

Day	Time	On-Street Occupancy Rate Bank Street	On-Street Occupancy Rate Side Streets	Off-Street Occupancy Rate (Public Parking)
Weekday	Morning	39%	51%	70%
Weekday	Midday	39%	60%	87%
Weekday	Afternoon	28%	51%	80%
Weekday	Evening	60%	73%	23%
Saturday	Morning	82%	84%	14%
Saturday	Midday	81%	86%	19%
Saturday	Afternoon	81%	82%	13%
Saturday	Evening	74%	85%	10%
Sunday	Morning	48%	76%	6%
Sunday	Midday	63%	84%	13%
Sunday	Afternoon	69%	88%	11%
Sunday	Evening	61%	73%	7%

4.2.5 An Occupancy Comparison of Bank Street and its Side Streets, Subsections 1-4

The findings along Bank Street and its side streets show that:

Map 22 – Bank Street Sub-Sections 1-4



- The on-street parking along Bank Street and its side streets is the busiest in sub-sections 1 and 2 (north of Gilmour).
- In sub-section 1, the occupancy exceeds practical capacity on Saturday from morning until evening along Bank Street. There is no available parking along the side streets during this time. The occupancy along the side streets exceeds practical capacity all day.
- In sub-section 1, the occupancy on Sunday is either approaching practical capacity or exceeding practical capacity for both Elgin Street and its surrounding streets. The afternoon is the busiest time of day on Sunday, the occupancy exceeds practical capacity for both Elgin Street and its surrounding streets.
- In sub-section 2, there is no available weekday evening parking along Bank Street. Occupancy reaches 100%. However, there is some available parking along the side streets during this time.
- In sub-section 2, on Saturday there is no available parking along Bank Street or the side streets from morning until the afternoon. Occupancy is at maximum capacity along Bank Street and exceeds practical capacity along the side streets. In the afternoon and evening, there is no available parking along side streets and limited parking available

along Bank Street. The occupancy is exceeding practical capacity along the side street and is at 82% along Bank Street.

- In sub-section 2, with the exception Bank Street on Sunday mornings the occupancy is high at all times on both Bank Street and the surrounding streets. The occupancy is exceeding practical capacity along Bank Street during the afternoon and in evening and along the side streets at midday and in the afternoon.
- In sub-section 3, the occupancy never reaches practical capacity. The maximum occupancy it reaches is 83% on Bank Street during Saturday afternoon and 77% on the streets surrounding Bank Street during Saturday midday.
- In sub-section 4, there is available parking along Bank Street on Saturday. The on-street parking along Bank Street on Saturday (except for the afternoon) is approaching practical capacity. On Saturday, the side streets are busier than Bank Street especially at midday when the occupancy exceeds practical capacity at a rate of 87%.
- In sub-section 4, there is lots of available parking along Bank Street at all times on Sunday. However, the side streets are very busy with occupancy exceeding practical capacity from morning until evening.

When paid parking is in effect during the weekday, the occupancy for both Bank Street and its surrounding streets never reach practical capacity (85%) for any of the sub-sections. The maximum occupancy for the weekday during paid parking hours along Bank Street is 73% in sub-section 2 in the morning and for its surrounding streets is 73% in sub-section 1 in the midday.

Table 27 - Bank Street, Sub-Sections 1-4 Occupancy Findings

Day	Time	Bank Street Sub-Section 1	Bank Street Sub-Section 2	Bank Street Sub-Section 3	Bank Street Sub-Section 4
Weekday	Morning	33%	73%	22%	43%
Weekday	Midday	61%	45%	22%	29%
Weekday	Afternoon	56%	27%	17%	7%
Weekday	Evening	39%	100%	67%	47%
Saturday	Morning	94%	100%	61%	80%
Saturday	Midday	100%	100%	56%	73%
Saturday	Afternoon	89%	82%	83%	67%
Saturday	Evening	61%	82%	78%	80%
Sunday	Morning	83%	64%	11%	40%
Sunday	Midday	83%	73%	67%	27%
Sunday	Afternoon	89%	91%	72%	27%
Sunday	Evening	78%	91%	50%	33%

Table 28 - Side Streets Off of Bank Street, Sub-Sections 1-4 Occupancy Findings

Day	Time	Side Streets Sub-Section 1	Side Streets Sub-Section 2	Side Streets Sub-Section 3	Side Streets Sub-Section 4
Weekday	Morning	59%	49%	38%	60%
Weekday	Midday	73%	63%	40%	60%
Weekday	Afternoon	62%	48%	37%	55%
Weekday	Evening	82%	72%	64%	74%
Saturday	Morning	95%	88%	69%	80%
Saturday	Midday	95%	86%	77%	87%
Saturday	Afternoon	88%	90%	75%	73%
Saturday	Evening	92%	91%	71%	82%
Sunday	Morning	78%	81%	58%	91%
Sunday	Midday	89%	93%	66%	88%
Sunday	Afternoon	89%	90%	79%	94%
Sunday	Evening	75%	81%	62%	72%

4.2.6 Bank Street Parking Turnover Data

Overall along Bank Street, the turnover results show that the majority of vehicles (74%) parked for 30 minutes (see *Graph 10 and Table 29 – Bank Street Turnover Findings*). 96% of vehicles were parked for 1.5 hours or less and only 4% of vehicles were parked longer than the 2 hour maximum time limit.

Graph 10 – Bank Street Turnover Findings

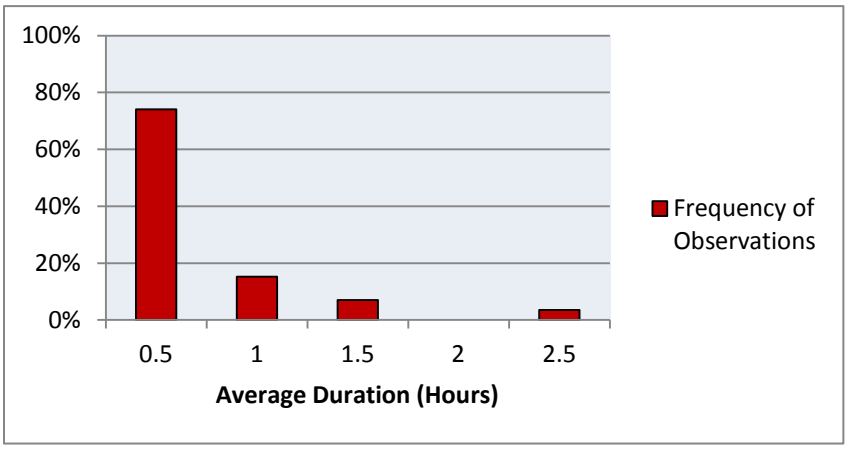


Table 29 – Bank Street Turnover Findings

Time Stayed (Hours)	Frequency of Observations	Frequency as a Percentage
0.5	63	74.12%
1	13	15.29%
1.5	6	7.06%
2	0	0.00%
2.5	3	3.53%

4.2.7 Summary of Findings and Issues for Bank Street

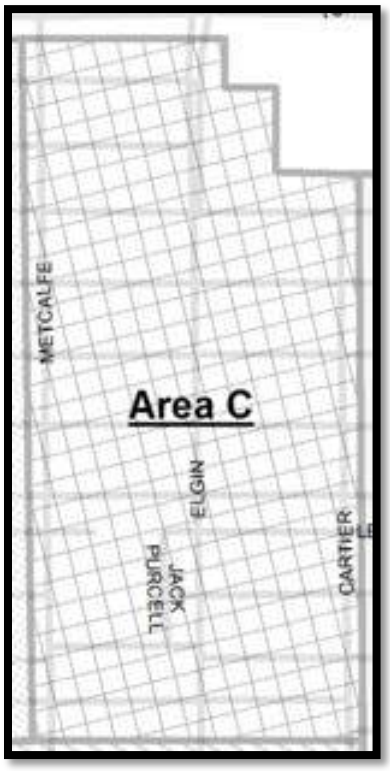
The following provides a general overview of the findings and issues that were identified for Bank Street:

- Demand for parking along Bank Street and O'Connor Street (and side streets) is highest north of Gilmour Street (full for parts of the weekend), but there is available space at all times south of Gilmour Street.
- Turnover along Bank Street is frequent with 89% of vehicles staying an average of 1-hour or less and only 4% of vehicles staying beyond the 2-hour time limit.

- 34% of people surveyed on Bank Street and Gladstone Avenue drove to the area while 11% cycled, 39% walked and 13% took transit.

4.3 Findings Area C - Primarily Commercial Area

Map 23 – Area C



4.3.1 Occupancy Findings for Area C

The findings for Area C – primarily commercial area including Elgin Street show that:

- On-street occupancy is high at all times during the weekend especially on weekday and Saturday evenings. The occupancy exceeds practical capacity (85%) at a rate of 90% during the weekday evening and at a rate of 91% during the Saturday evening. The occupancy also exceeds practical capacity at midday on Sunday at a rate of 89%.
- The on-street parking demand is consistent on weekdays when paid parking is in effect.
- The off-street parking (public and private) is at its highest when on-street paid parking is in effect.
- Utilization of off-street public parking decreases to very low levels when on-street parking is unpaid.

Table 30 - Area C Occupancy Findings

Day	Time	On-Street Occupancy Rate	Off-Street Occupancy Rate (Public Parking)	Off-Street Occupancy Rate (Private Parking)
Weekday	Morning	54%	76%	62%
Weekday	Midday	61%	74%	63%
Weekday	Afternoon	46%	63%	61%
Weekday	Evening	90%	13%	33%
Saturday	Morning	80%	6%	34%
Saturday	Midday	87%	9%	27%
Saturday	Afternoon	80%	9%	25%
Saturday	Evening	91%	6%	40%
Sunday	Morning	84%	9%	34%
Sunday	Midday	89%	17%	31%
Sunday	Afternoon	80%	18%	30%
Sunday	Evening	80%	5%	36%

4.3.2 Occupancy Findings for 114 Laurier Avenue West (City Hall)

The municipally-owned parking garage located at City Hall (110 Laurier Avenue West) is located right outside of Area C. The occupancy rates for City Hall are provided in *Table 31 – 114 Laurier Avenue West Occupancy Findings*. The occupancy results show that the occupancy is highest during the weekday morning at a rate of 82%. The occupancy is extremely low during weekday evenings and during the weekend. Over the weekend, the occupancy peaks on Sunday afternoon at a rate of 33%.

Table 31 – 114 Laurier Avenue West Occupancy Findings

Day	Time	Supply	Off-Street Occupancy Rate City Hall
Weekday	Morning	844	82%
Weekday	Midday	844	69%
Weekday	Afternoon	844	49%
Weekday	Evening	844	12%
Saturday	Morning	844	7%
Saturday	Midday	844	13%
Saturday	Afternoon	844	12%
Saturday	Evening	844	8%
Sunday	Morning	844	15%
Sunday	Midday	844	32%
Sunday	Afternoon	844	33%
Sunday	Evening	844	6%

4.3.3 Summary of Findings for Area C

The following provides a general overview of the findings and issues that were identified for Area C:

- Area-wide, there are different periods where occupancy exceeds ‘practical capacity’ (>85% full).
- When surveyed, 29% of drivers visiting Elgin Street indicated that they, “frequently have difficulty finding a parking space”.
- The City Hall parking garage is underutilized when on-street parking in the area is in greatest demand.
- There are 495 bike parking spaces on the public right-of-way in this portion of the area (including 120 along Elgin Street). A number of streets experience a high demand for bike parking, including Elgin Street and the north part of Metcalfe Street.

4.3.4 Occupancy Findings for Elgin Street and its Surrounding Streets

The findings for Elgin Street and its surrounding streets show that:

- The on-street parking occupancy along Elgin Street and the surrounding streets is very high during weekday evenings and during the weekend. The on-street occupancy along Elgin Street is at or exceeds practical capacity (85%) on the weekend at all times except in the afternoon.
- The on-street occupancy along the side streets surrounding Elgin Street is also high, especially during weekends at midday and Saturday evenings when the occupancy exceeds practical capacity.
- The occupancy for on-street paid parking is similar along Elgin Street and the streets surrounding Elgin Street during weekday paid parking hours. The average occupancy rate is slightly lower along Elgin Street compared to the average occupancy rate along the streets surrounding Elgin Street.
- The off-street public parking is at its highest when on-street paid parking is in effect.
- Utilization of off-street public parking decreases to very low levels when on-street parking is unpaid.

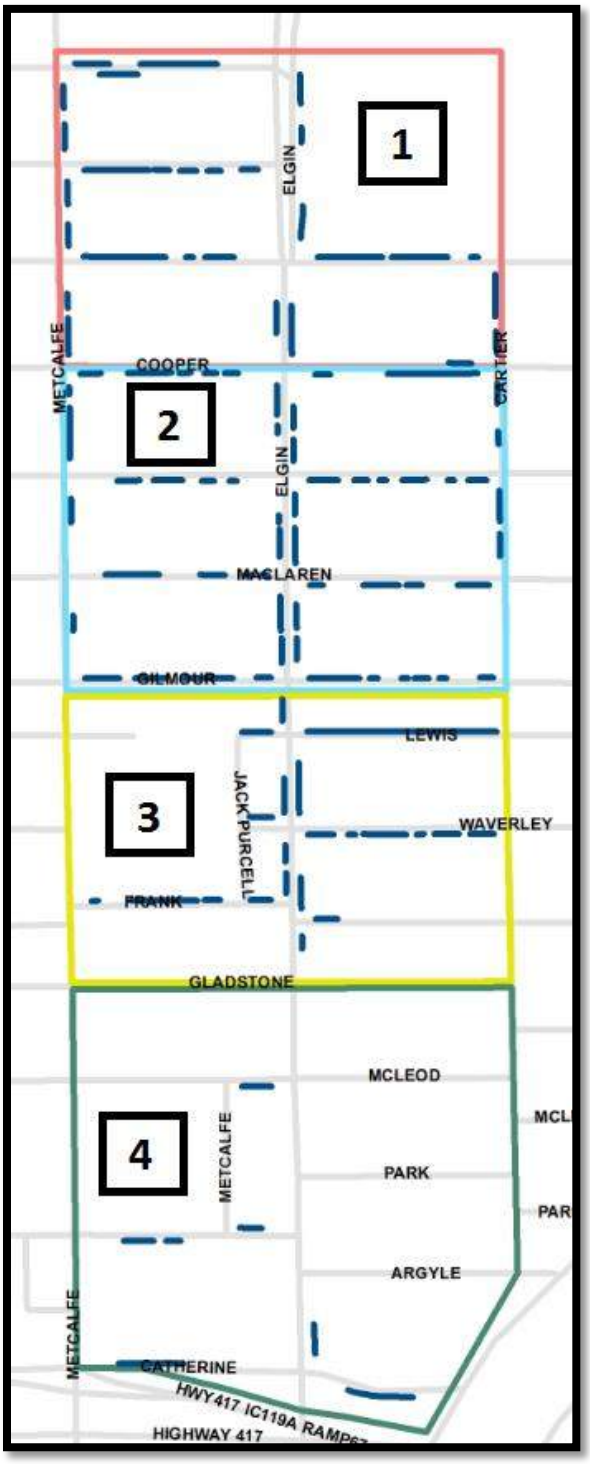
Table 32 - Elgin Street Occupancy Findings

Day	Time	On-Street Occupancy Rate Elgin Street	On-Street Occupancy Rate Side Streets	Off-Street Occupancy Rate (Public Parking)
Weekday	Morning	40%	56%	77%
Weekday	Midday	64%	63%	74%
Weekday	Afternoon	22%	61%	63%
Weekday	Evening	82%	85%	12%
Saturday	Morning	89%	77%	5%
Saturday	Midday	85%	88%	8%
Saturday	Afternoon	74%	79%	8%
Saturday	Evening	88%	90%	5%
Sunday	Morning	97%	81%	9%
Sunday	Midday	88%	89%	17%
Sunday	Afternoon	77%	82%	17%
Sunday	Evening	86%	77%	4%

4.3.5 An Occupancy Comparison of Elgin Street and its Side Streets, Subsections 1-4

The findings along Elgin Street and its side streets show that:

Map 24 – Elgin Street Sub-Sections 1-4



- The on-street parking along Elgin Street and its side streets is the busiest in sub-section 1 (north of Cooper). Sub-sections 2 and 3 are also extremely busy.
- The on-street parking along Elgin Street during the weekends is extremely busy in sub-sections 1 and 2.
- In sub-section 1, along Elgin Street the occupancy is at or exceeds maximum capacity (100%) at all times surveyed during the weekend except for Sunday afternoon when the occupancy exceeds practical capacity at a rate of 95%. There is no available parking along the side streets during the weekend. The side streets are at practical capacity, exceeding practical capacity, or exceeding maximum capacity at all times surveyed except for Sunday evening when the occupancy rate is at 72%.
- There is a lot of illegal parking occurring in sub-section 1 during the weekends.
- In sub-section 2, the on-street parking along Elgin Street is extremely busy at all times on Saturday. The occupancy exceeds practical capacity at all times. There is no available parking along the side streets at midday or during the evening. Occupancy exceeds practical capacity during these times. In the morning and in the afternoon there is very limited parking

available. Occupancy is approaching practical capacity during these times.

- In sub-section 2, the occupancy on Sunday is also very busy. The occupancy is at maximum capacity in the morning and then stays around the practical capacity mark for the rest of the day. There is no available parking along the side streets at midday and in the afternoon. Occupancy exceeds practical capacity. There is also limited parking available in the morning and evening. Occupancy is approaching practical capacity at these times.
- In sub-section 3, weekday evenings are very busy for both Elgin Street and its surrounding streets. The occupancy exceeds maximum capacity along Elgin Street and exceeds practical capacity along the side streets.
- In sub-section3, on Saturday the occupancy along Elgin Street exceeds maximum capacity in the morning and approaches practical capacity at midday and in the evening. The opposite is true for the side streets, the occupancy approached practical capacity in the morning and exceeds practical capacity at midday and in the evening. Regardless if there is some available space along Elgin Street or along the side streets, there is a lack of available parking on Saturday.
- In sub-section 3, on Sunday the occupancy is extremely high along Elgin Street in the morning, midday, and in the evening. The occupancy exceeds maximum capacity at all three of these times periods. There is some available parking along the side streets however, availability of parking is limited. The occupancy is approaching practical capacity at all three of these time periods.
- There is a fair amount of illegal parking occurring in sub-section 3 along Elgin Street especially on Sunday.

In sub-section 4, there is available parking along Elgin Street and its surrounding streets during the weekday and on Saturday. On Sunday, the occupancy is slightly higher along Elgin Street and its surrounding streets than during the weekday and on Saturday. The only time the occupancy exceeds practical capacity is on Sunday at midday along the side streets. However, there is available parking along Bank Street at this time.

Table 33 - Elgin Street, Sub-Sections 1-4 Occupancy Findings

Day	Time	Elgin Street Sub-Section 1	Elgin Street Sub-Section 2	Elgin Street Sub-Section 3	Elgin Street Sub-Section 4
Weekday	Morning	65%	59%	27%	15%
Weekday	Midday	60%	68%	69%	59%
Weekday	Afternoon	25%	24%	27%	15%
Weekday	Evening	85%	80%	104%	65%
Saturday	Morning	120%	98%	95%	56%
Saturday	Midday	100%	93%	84%	68%
Saturday	Afternoon	100%	95%	58%	41%
Saturday	Evening	110%	98%	79%	68%
Sunday	Morning	105%	100%	108%	79%
Sunday	Midday	100%	85%	104%	74%
Sunday	Afternoon	95%	80%	62%	74%
Sunday	Evening	100%	85%	104%	65%

Table 34 - Side Streets Off of Elgin Street, Sub-Sections 1-4

Day	Time	Side Streets Sub-Section 1	Side Streets Sub-Section 2	Side Streets Sub-Section 3	Side Streets Sub-Section 4
Weekday	Morning	93%	50%	35%	68%
Weekday	Midday	96%	61%	45%	69%
Weekday	Afternoon	115%	54%	36%	70%
Weekday	Evening	111%	83%	91%	66%
Saturday	Morning	85%	77%	79%	67%
Saturday	Midday	103%	86%	90%	78%
Saturday	Afternoon	92%	82%	78%	67%
Saturday	Evening	102%	95%	91%	76%
Sunday	Morning	85%	77%	79%	84%
Sunday	Midday	92%	95%	83%	88%
Sunday	Afternoon	90%	91%	69%	81%
Sunday	Evening	72%	82%	79%	70%

4.3.6 Elgin Street Parking Turnover Data

Overall along Elgin Street, the turnover results show that the majority of vehicles (53%) parked for 30 minutes (see *Graph 11 and Table 35 – Elgin Street Turnover Findings*). 76% of vehicles were parked for 1 hours or less and 24% of vehicles were parked longer than the 1 hour maximum time limit.

Graph 11 – Elgin Street Turnover Findings

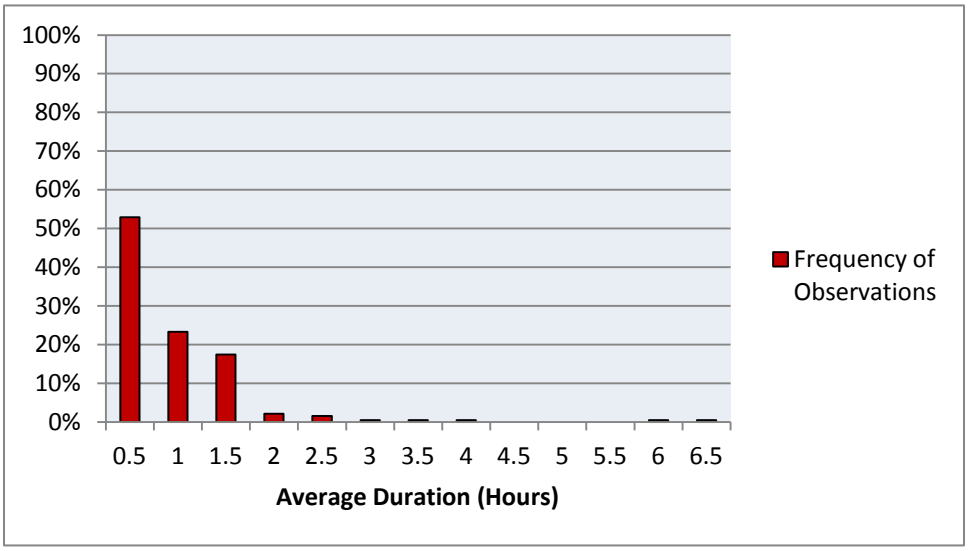


Table 35 – Elgin Street Turnover Findings

Time Stayed (Hours)	Frequency of Observations	Frequency as a Percentage
0.5	100	52.91%
1	44	23.28%
1.5	33	17.46%
2	4	2.12%
2.5	3	1.59%
3	1	0.53%
3.5	1	0.53%
4	1	0.53%
4.5	0	0.00%
5	0	0.00%
5.5	0	0.00%
6	1	0.53%
6.5	1	0.53%

4.3.7 Summary of Findings and Issues for Elgin Street

The following provides a general overview of the findings and issues that were identified for Elgin Street:

- Parking demand in the immediate vicinity of Elgin Street is the highest in the entire Centretown study area.
  - While there is generally capacity during the day on weekdays, Elgin Street becomes full at most other times.
  - While not as full, the side streets also experience high demand over the weekend, particularly during lunch time and in the evenings
  - This is particularly an issue for the north part of Elgin Street in the study area with occupancy rates generally decreasing moving south. Parking only becomes readily available at all times when south of Gladstone Avenue.
- Turnover along Elgin Street occurs less frequently compared to Bank Street, despite the shorter time limits. 24% of vehicles stay for longer than one hour on average, but only 5% stay for longer than two hours on average.
- The time limits along and in the immediate vicinity of Elgin Street were raised as an issue during the study as 1-hour was considered to be ‘insufficient’ for visitors.
- 29% of people surveyed on Elgin Street drove to the area while 5% cycled, 51% walked and 12% took transit.

Elgin Street as a Complete Street

Rue Elgin - rue complète

Elgin Street is to be renewed as a *Complete Street* with the following characteristics:
Larue Elgin serare construite en rue complète et présentera les caractéristiques suivantes :

- Wide sidewalks and pedestrian clear zone */Trottoirs élargis etzone dégagée pour les piétons*
- Shorter crosswalks and raised intersections, and narrow travel lanes to enhance the pedestrian experience and slow vehicular traffic */Passages pour piétons raccourcis et intersections surélevées, voies de circulation étroites afin d'améliorer l'expérience piétonnière et de ralentir la circulation automobile;*
- Opportunities for outdoor patio space; and */Possibilités d'aménager des terrasses extérieures;*
- Flexible streetspace providing for potential seating or additional walking space */Chaussée flexible afin de permettre l'installation de sièges ou l'élargissement de l'espace réservé aux piétons;*

- Ample bicycle parking/*Stationnement pour vélos en quantité suffisante;*
- Slower vehicle speeds that are conducive to cycling in a shared lane environment */La vitesse réduite de la circulation facilite les déplacements à vélosur des voies partagées;*
- Super sharrow markings as a visual cue to encourage single file travelling */Super chevrons peints sur la chaussée afin d'encourager la circulation sur une seule voie;*

- Priority given to transit vehicles to stop in the travel lane */Priorité accordée aux autobus qui s'arrêtent dans les voies de circulation;*
- Additional transit shelters #*Nombre accru d'abribus;*
- Bus stop area amenities/*Commodités aux arrêts d'autobus;*
- Queue jumps / *Voies d'évitement de la file d'attente*

- One travel lane in each direction, north of Argyle Street to Lisgar Street */Une voie de circulation dans chaque direction, au nord de la rue Argyle jusqu'à la rue Lisgar;*
- One or two travel lanes in each direction south of Argyle Avenue/*Une ou deux voies de circulation dans chaque direction au sud de l'avenue Argyle ;*
- Left-turn lanes at key intersections */Voies de virage à gauche aux principales intersections;*
- Flexible street space providing the choice for on-street parking */Chaussée flexible pour permettre le stationnement de rue;*
- Appropriate vehicle capacity to continue to function as an Arterial Road */Capacité de véhicules suffisante pour conservers a fonction d'artère;*

- Additional street trees, bike racks, waste bins, benches */Ajout d'arbres de rue, de supports à vélo, de poubelles, de bancs;*
- Bulb-outs at intersections/ *Saillies de trottoir aux intersections;*
- Public realm opportunity areas at intersections /*Possibilité d'aménager des espaces publics aux intersections;*
- *Opportunities for* public art */Possibilités d'installer de l'art public*

Ottawa

The Result – Statistics

Les résultats - données

The following key statistics help understand the anticipated street renewal result of Elgin Street:

Les principales données suivantes permettent de comprendre les résultats attendus des changements sur la rue Elgin:

Design Feature *Éléments de conception*	**Result** *Résultats*
Permanent Public Realm Space (including pre-existing patio space) *Espace public permanent (y compris l'espace actuel consacré aux terrasses)*	43% increase *Augmentation de 43 %*
Permanent Public Realm Space, (including pre-existing patio space) and Flexible Street Space *Espace public permanent (y compris l'espace actuel consacré aux terrasses) et chaussée flexible*	56% increase *Augmentation de 56 %*
Average Sidewalk Clear Zone *Dégagement moyen de trottoir*	East Side: 54% increase *Côté est: augmentation de 54 %*
	West Side: 6% increase *Côté ouest: augmentation de 6 %*
Crosswalk Length Reduction *Passages pour piétons raccourcis*	14% reduction across side streets *Raccourcis de 14 % aux rues secondaires*
	21% reduction across Elgin Street *Raccourcis de 21 % sur la rue Elgin*
Crosswalk Width Increase *Passages pour piétons élargis*	From 3m to 4m *De 3 m à 4 m*
Number of Bicycle Parking Spaces *Nombre de places de stationnement pour vélos*	Approximately 450+ spaces *Environ 450 places et +*
Number of Street Trees *Nombre d'arbres de rue*	As many as possible *Autan que possible*
Number of Benches *Nombre de bancs*	From 2 to 10 *De 2 à 10 bancs*
Number of Bus Shelters *Nombre d'abribus*	From 4 to 8 *De 4 à 8 abribus*
Parking Space Reduction *Réductionde l'espace de stationnement*	From 529 to 468, an 11.5% reduction *De 529 à 468, une baisse de 11,5%*

[1] Note: The ability to plant new street trees in the sidewalk zone can only be determined during detailed design, in consideration of the complex and congested arrangement of underground services and utilities. The location and species of trees will be informed by utility conflicts.

La capacité de planter de nouveaux arbres nepeut être déterminée qu'à l'étape de la conception détaillée considérant la complexité et l'exiguïté de la configuration des services d'utilité publique souterrains. L'emplacement et l'essence des arbres seront déterminés en fonction des contraintes liés aux services d'utilité publique.

On-Street Parking – Elgin Street

- Approximately 60 fewer parking spaces are provided along Elgin Street
- However, the new flex parking areas will enable 24/7 availability (no peak period restrictions)
- The space will be used for wider sidewalks and public realm enhancements

Stationnement sur rue – Rue Elgin

- *On prévoit une soixantaine de places de stationnement en moins le long de la rue Elgin.*
- *Néanmoins, les nouvelles places de stationnement flexibles seront disponibles 24 h sur 24 et 7 jours sur 7 (aucune restriction aux heures de pointe).*
- *L'espace ainsi gagné permettra d'élargir les trottoirs et d'améliorer le domaine public.*

Parking Scenario *Scénario de stationnement*	**Existing Supply** *Offre existante*	**Remaining Supply** *Offre restante*	**Percentage Decrease** *Baisse, en pourcentage*
Within Centretown *Dans le Centre-Ville*	12468	12408	-0.5%
Within 2 Blocks – All Parking *À moins de 2 blocs – tout stationnement*	3749	3688	-1.6%
Within 2 Blocks – On Street Parking *À moins de 2 blocs – stationnement sur la rue*	1209	1148	-5%
Within 1 Block – On Street *À moins de 1 bloc – sur la rue*	529	468	-11.5%
Along Elgin Street *Le long de la rue Elgin*	122	61	-50%

Source: Centretown Local Area Parking Study, March 2016
Source: Étude sur le stationnement local au centre-ville