



# 114 & 118 19 Street NW

## Transportation Impact Statement

Final Report

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Prepared for  
RNDSQR

Date  
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Project Number  
02-23-0184

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APEGA Company Permit to Practice

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Engineer's Stamp

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## 1. EXECUTIVE SUMMARY

A land use redesignation is proposed to accommodate 16 residential units, 121 m<sup>2</sup> of commercial, and 8 vehicle stalls (6 resident + 2 visitor) at 114 & 118 19 Street NW. A Transportation Impact Statement (TIS) was prepared to provide a transportation overview of the proposal. Study findings are identified below.

### Development

- **Trip Generation** – The development will generate 10 new peak hour trips, which is below the 100 trips per hour threshold for requiring a Transportation Impact Assessment (TIA).
- **Lane Impacts** – Vehicle stalls will be accessed from the Lane. Daily traffic in the Lane will remain within City guidelines.
- **Mode Splits** – 40% of trips are expected to be completed by non-auto modes.

### Active Transportation

- **Pedestrians** – The site is within a walkable mixed-use community.
- **Cycling** – The *19 Street NW Streetscape Improvement* project proposes bike lanes adjacent to the site.
- **Transit** – Route #1 operates on Kensington Road NW.

### Parking

- **Bylaw** – Vehicle and bicycle parking requirements will be met. A commercial loading stall relaxation will be requested with loading to be accommodated through the shared use of 1 of the 2 visitor stalls.
- **On-Street** – 2-hour parking restrictions are in place along the site frontage.
- **Resident** – The proposed resident parking supply (6 stalls) is bylaw compliant (0.375 per unit).
- **Visitor** – The second shared stall will accommodate commercial loading demand during the day (when visitor demand is low) and visitor parking during the evening (when loading demand is low).
- **Commercial** – Zero commercial parking supply is proposed, which is permitted by the current bylaw. Expected commercial demand (2 stalls) can be accommodated by the development's on-street frontage (4 stalls). The proposed zero supply is also consistent with the previously applicable bylaw requirement (no minimum was applied to the first 150 m<sup>2</sup> of ground floor commercial).

## 2. INTRODUCTION

### 2.1 Scope of Work

The scope of this study is below.

#### Traffic

- **Trip Generation** – Calculate anticipated new development trips and compare with Transportation Impact Assessment (TIA) guidelines.
- **Lane Impacts** – Review daily traffic impacts on the Lane.
- **Mode Split** – Identify anticipated mode splits.

#### Active Transportation

- **Pedestrians** – Review sidewalk connectivity and crossing controls near the site.
- **Cyclists** – Review connectivity to cycling facilities.
- **Transit** – Review service levels and connectivity to transit stops.

#### Parking

- **Bylaw Requirement** – Calculate vehicle and bicycle parking requirements.
- **On-Street Parking** – Identify area parking restrictions and recent demand.
- **Resident** – Review resident parking supply.
- **Visitor** – Review visitor parking supply.
- **Commercial** – Review appropriateness of proposed zero commercial parking.

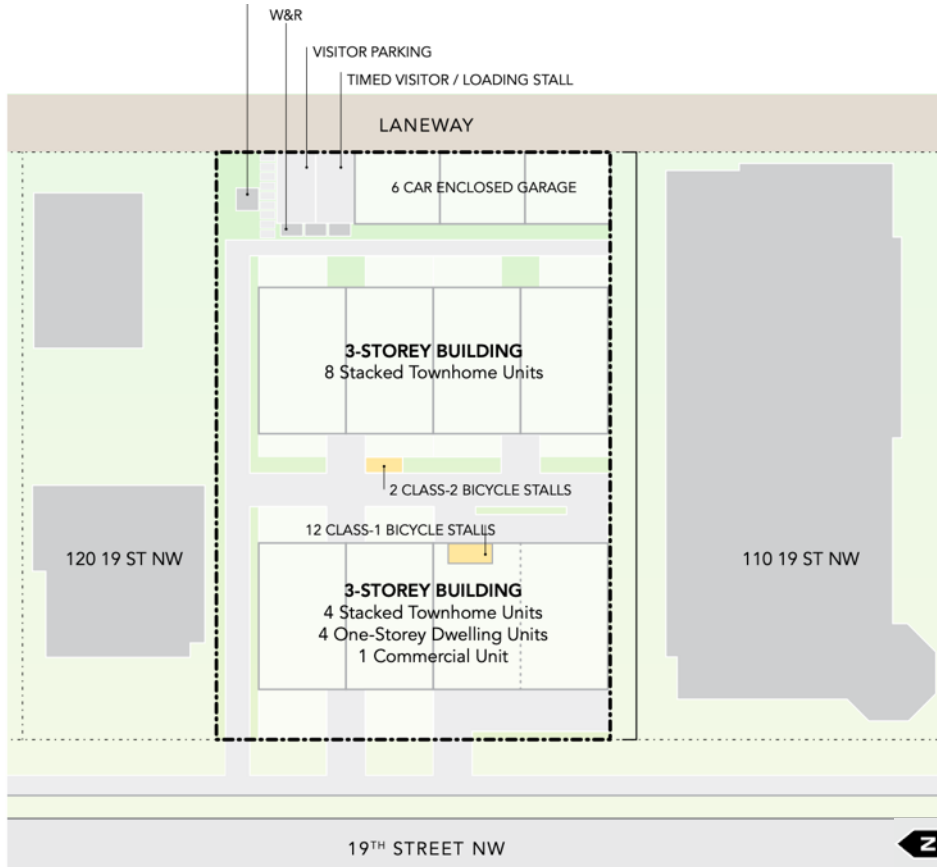
### 2.2 Site Context

The site is in the community of West Hillhurst and bounded by residential dwellings to the north, a Lane to the east, a commercial development to the south, and 19 Street NW to the west. The proposed site zoning is MU-1. The site context is illustrated in **Figure 2.1**. The site plan is illustrated in **Figure 2.2**.

Figure 2.1: Site Context



Figure 2.2: Site Plan



## 3. TRAFFIC

### 3.1 Trip Generation

The City of Calgary's *Transportation Impact Assessment (TIA) Guidelines* states a TIA will be required if a development has the potential for generating more than 100 new hourly trips.

#### Density

The proposed change in site densities is summarized in **Table 3.1**.

**Table 3.1: Proposed Densities**

LAND USE	DENSITY		
	Existing	Proposed	Net Change
Dwelling Units	2 units	16 units	+14 units
Commercial	-	121 m <sup>2</sup> (1,300 ft <sup>2</sup> )	+121 m <sup>2</sup> (1,300 ft <sup>2</sup> )

#### Trips

The expected increase in vehicle trips is summarized in **Table 3.2** based on the Institute of Transportation Engineers (ITE) *Trip Generation Manual (11<sup>th</sup> Edition)* and City of Calgary standards.

**Table 3.2: Trip Generation (Vehicle)**

USE	DENSITY	TRIP GENERATION RATES		TRIP GENERATION	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Residential	+14 units	0.30 per unit	0.35 per unit	4	5
Commercial	1,300 ft <sup>2</sup>	1.00 per 1,000 ft <sup>2</sup>	3.50 per 1,000 ft <sup>2</sup>	1	5
<b>TOTAL NEW TRIPS</b>				<b>5</b>	<b>10</b>

\* Trip Generation Source - ITE #221 (Multi-Family Low-Rise - Urban) & City of Calgary Commercial standards (Urban).

#### Conclusion

The development will generate up to 10 new hourly trips, which is well below the 100 trips per hour threshold identified by the City of Calgary for requiring a TIA. This level of trip generation is not significant enough to result in network operational impacts.

### 3.2 Lane Impact

Anticipated daily vehicle volumes on the Lane are compared with City guidelines in **Table 3.3**. The review confirms daily traffic volumes on the Lane will remain below City guidelines.

**Table 3.3: Lane Daily Volumes**

SECTION	DAILY VOLUMES		
	Guidelines	Background	After Development
Lane at 2 Avenue NW	1,500	1,000	1,025
Lane at Kensington Road NW		650	725

\* 19 Street NW Land Assemblies TIA (March 2021) volumes used to identify Background Volumes (Existing + 19/2 + Hillhurst Boutique + Innürskape Sisu). Development daily volumes generated by PM peak hour x standard factor of 10.

### 3.3 Mode Splits

Anticipated site mode splits are summarized in **Table 3.4** based on the following assumptions:

- *City Average* – City of Calgary My Travel Log (2015) data. All purpose (work, school, shopping, social, personal, other) weekday trips.
- *Site Anticipated* – City average mode data modified based on civic census community commuting (mode to work) data.

**Table 3.4: Mode Splits**

MODE	CITY AVERAGE	SITE (WEST HILLHURST)
Auto (Driver)	50%	45%
Auto (Passenger)	19%	15%
Transit	9%	10%
Walk	20%	25%
Cycle	2%	5%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>



## 4. ACTIVE TRANSPORTATION

### 4.1 Walking

Pedestrian infrastructure within the study area is illustrated in **Figure 4.1**. A review identifies:

- **Sidewalks** - There are no missing links impacting site connectivity.
- **Crossings** - Controlled crossings of 19 Street NW and Kensington Road NW are provided. A new signed & painted crosswalk on 19 Street NW at 1 Avenue NW would improve connectivity and is identified in the City’s *19 Street NW Streetscape Improvements* concept.

**Figure 4.1: Pedestrian Network**



## 4.2 Cycling

Cycling facilities near the site are illustrated in **Figure 4.2**. The site is within cycling distance of the Centre City. The *19 Street NW Streetscape Improvements* project proposes new bike lanes on 19 Street NW while maintaining on-street parking as illustrated in **Figure 4.3**.

**Figure 4.2: Cycling Network**

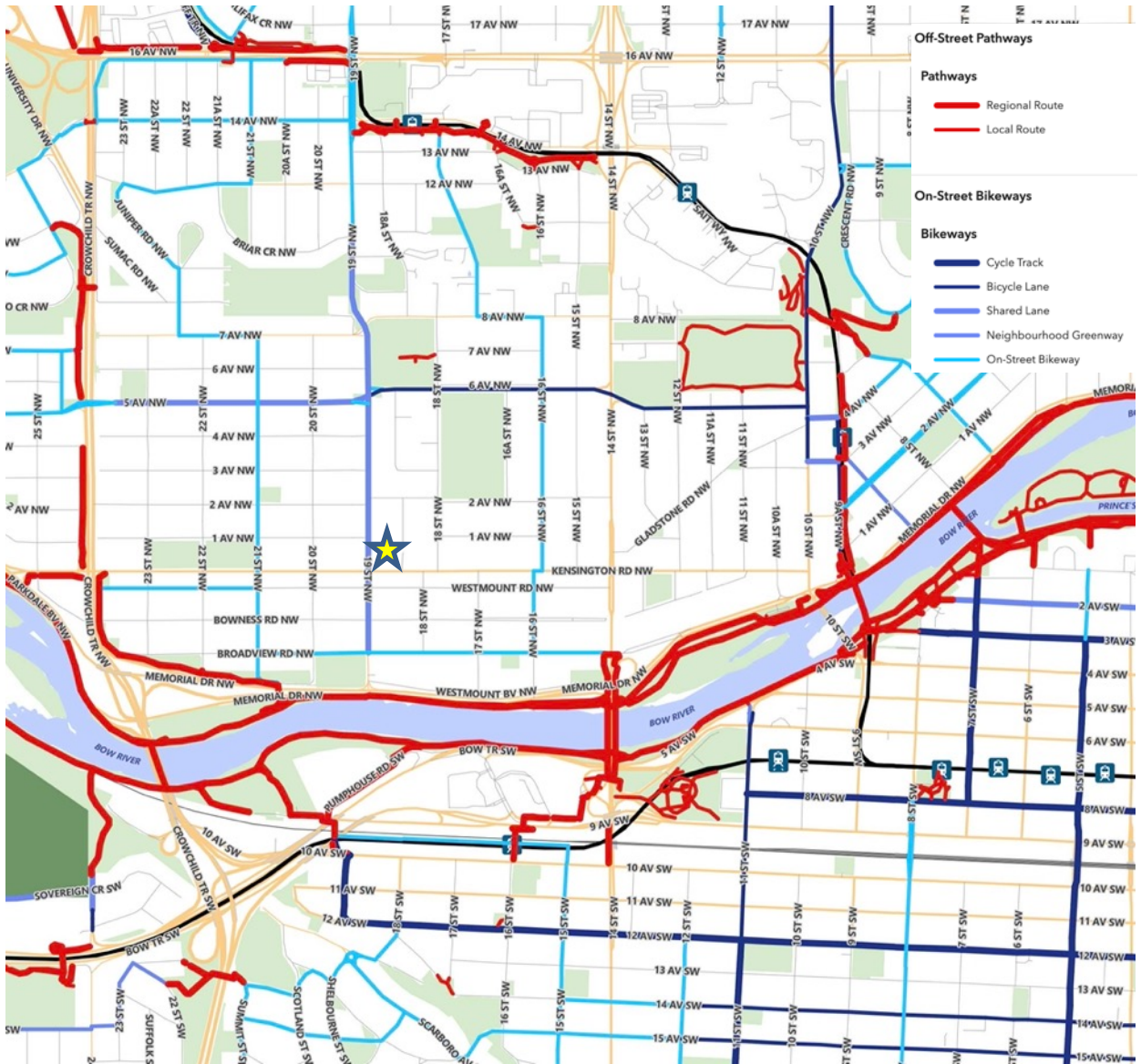
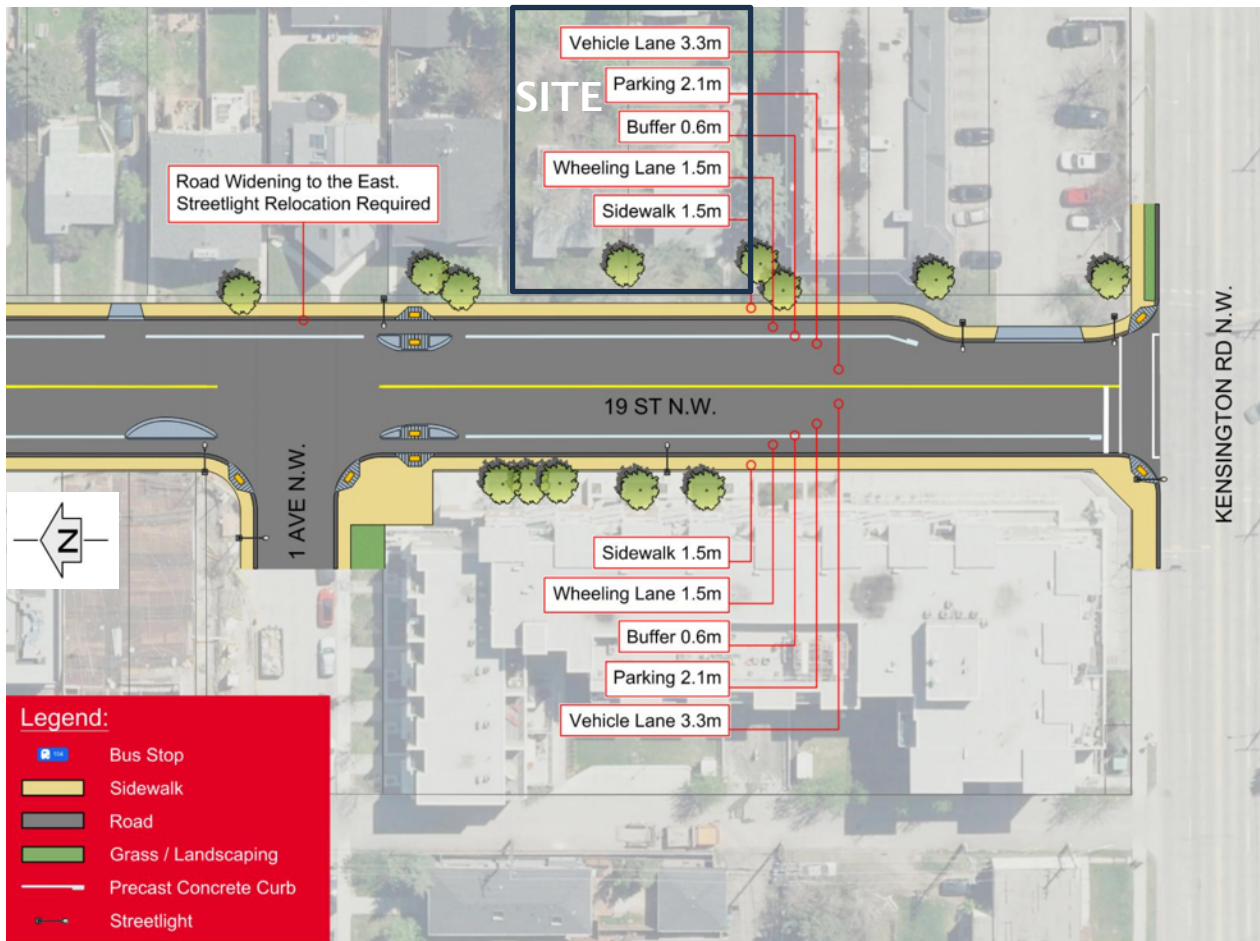


Figure 4.3: 19 Street NW Streetscape Improvements Concept







## 5. PARKING

### 5.1 Bylaw

Bylaw parking requirements for the development are calculated in **Table 5.1** in accordance with Land Use Bylaw 1P2007 (MU-1 zoning district).

**Table 5.1: Bylaw Parking Requirements**

STALL TYPE		DENSITY	BYLAW RATIO	STALLS		
				Bylaw	Proposed	Difference
Vehicle	Resident	16 units	0.75 stalls per unit -25% transit supportive reduction -25% bicycle supportive reduction	6	6	-
	Visitor		0.10 stalls per unit -25% transit supportive reduction	2 (1.2)	2	-
	Commercial	121 m <sup>2</sup>	No requirement	0	0	-
	<b>TOTAL</b>			<b>8</b>	<b>8</b>	<b>-</b>
Bicycle	Class 1	16 units	No requirement if ≤ 20 units	0	12	+12
	Class 2		2 stalls if ≤ 20 units	2	2	-
	<b>TOTAL</b>			<b>2</b>	<b>14</b>	<b>+12</b>
Loading	Resident	16 units	No requirement	0		
	Commercial	121 m <sup>2</sup>	1.00 stalls per 9,300 m <sup>2</sup> GFA if >930 m <sup>2</sup>	1 (0.01)		
	<b>TOTAL</b>			<b>1</b>	<b>*0</b>	<b>-1</b>

\*1 of the visitor stalls proposed to accommodate commercial loading during specific time periods.

#### Bylaw Reductions

The following automatic bylaw vehicle parking reductions apply and are included in the calculations:

- **Transit Supportive** (Part 14 Division 1 Section 1352) – The Bylaw identifies a 25% transit supportive parking reduction is applicable to any parcel located within 200 metres of bus service operating on a roadway identified in the Calgary Transportation Plan as part of the primary transit network. The parcel is located within 200 metres of Kensington Road NW (Route #1). This reduction is not impacted by current bus frequencies.
- **Bicycle Supportive** (Part 14 Division 1 Section 1354) – A vehicle parking reduction of 0.25 stalls per surplus Class 1 bicycle stall applies up to a maximum 25% reduction.

#### Loading

The loading stall requirement is 1 stall due to rounding. In most land use districts, the proposed commercial use would not require a loading stall as the commercial gross floor area is less than 930 m<sup>2</sup>. However, uniquely to mixed-use districts, dwelling units are counted towards the overall building GFA to determine if the loading stall requirement applies, but not to the actual requirement calculation.

The shared visitor/loading stall will be timed indicating controlled access periods for loading vehicles. Outside of these restricted times, the stall can be used by visitor vehicles. Loading is intended to occur during the day when residential visitor parking demand is low.

## 5.2 On-Street

### Restrictions

On-street parking restrictions are illustrated in **Figure 5.1**.

**Figure 5.1: On-Street Parking Restrictions**



\*Temporary public parking (2-hour) added to the south side of Kensington Road (19-18 Street) to mitigate construction impacts.



### Supply & Demand

The site on-street frontage on 19 Street NW is 28 metres, which can accommodate 4 vehicles. The parking restriction along this frontage was recently converted from residential permit parking to 2-hour time restriction. On-street parking data collected during June 2023 (Thursday & Saturday 12:00-18:00) is included in **Appendix A**. This data identified low occupancy along the site frontage with the previous permit parking restriction.

## 5.3 Resident Parking

The proposed resident parking supply is bylaw compliant.

### Rental

The development is intended to be operated as a rental building. Studies completed in Canadian cities<sup>1</sup> confirm that rental units have lower parking demand when compared to owner occupied units due to demographic differences (age, disposable income, family type).

### Zero Parking Demand

Calgary auto ownership data was collected as part of the City of Calgary's *My Travel Log* (2015-2017). This data found that 33% of apartment residents in the inner city reside in zero-car households. As a comparison, only 2-4% of inner city duplex/single-family dwelling residents reside in zero-car households. This data does not differentiate between rental and strata condo units; however, the data does confirm there is a market for rental multi-family units without parking.

## 5.4 Visitor Parking

The Bylaw visitor parking requirement is 2 stalls due to rounding. This is being accommodated by 1 dedicated visitor stall and 1 shared loading/visitor stall.

### Observed Demand

Visitor parking counts previously conducted by Bunt & Associates observed an on-site peak visitor parking demand of 0.07 stalls per unit in the Beltline and 0.08 stalls per unit in Dalhousie. These ratios are consistent with the bylaw requirement of 0.075 stalls per unit. This results in an anticipated peak visitor parking demand of 1 to 2 stalls.

### Shared Visitor/Loading Stall

Bunt & Associates observations confirm visitor parking demand occurs primarily during weekday evenings and weekend afternoon/evenings whereas commercial loading occurs primarily during the day on weekdays. Therefore, 1 dedicated visitor stall is sufficient to accommodate demand during the day and the 1 shared stall can accommodate additional peak visitor demand that occurs on evenings/weekends.

<sup>1</sup> *The 2018 Regional Parking Study Technical Report*, TransLink & Metro Vancouver, March 2019.  
*Parking Standards Review - Phase Two, New Zoning By-Law Project*. CANSULT, February 2007.

## 5.5 Commercial Parking

### Current Bylaw

No minimum commercial parking requirements are identified in Bylaw 1P2007. An administration report presented to Council in 2020 identified the following regarding commercial parking requirements:

Eliminating parking minimums for commercial uses will have an impact on application approvals, allowing Administration to refocus their review on getting quality designed buildings without the need for that design to be impacted by parking requirements. While the minimum parking requirements in the Bylaw increase cost to a development (often significantly depending on the need for underground parking) and add time to applications for change of use (depending on the need for a relaxation of stalls and potential for appeal), they can also negatively impact quality design and built form and are often a way to create exclusivity, decreasing affordability and limiting choice. Eliminating required parking minimums for commercial uses will eliminate the need for parking relaxations, also reducing an applicant's risk of appeal, making it easier and more certain to invest in development in Calgary.

### Previous Bylaw

Prior to 2020, the MU-1 district included a base commercial parking requirement of 2.00 stalls per 100 m<sup>2</sup>. This requirement was reduced to zero for the first 150 m<sup>2</sup> of ground floor commercial. The proposed zero commercial parking supply is therefore also consistent with the previously applicable bylaw requirement.

### Demand & On-Street Impact

Using the previous Bylaw base commercial parking ratio (2.00 stalls per 100 m<sup>2</sup>), expected commercial parking demand associated with the development is minimal (2 stalls). This demand can be accommodated by the development's on-street frontage (4 stalls).



# APPENDIX A

## On-Street Parking Demand Data

# On-Street Parking Count Summary

Project Number: 02-21-0057

Count Times: 12:00 to 18:00



## THURSDAY 2023-06-22

Street	From	To	Block Face	Parking Supply	Time of Day								Max Demand	Occupancy		
					12:00	13:00	14:00	15:00	16:00	17:00	18:00	Max		Peak Hour	Average	
19 Street NW	Kensington Rd	1 Avenue NW	West	12	9	8	9	11	7	10	8	11	92%	92%	74%	
	Kensington Rd	Permit Parking	East	4	4	4	0	2	0	0	2	4	100%	50%	43%	
	1 Avenue NW	2 Avenue NW	West	13	9	10	9	9	11	11	11	11	85%	69%	77%	
	2 Avenue NW	3 Avenue NW	East	6	5	6	4	4	3	4	4	6	100%	67%	71%	
			West	8	5	6	6	7	4	5	4	7	88%	88%	66%	
	3 Avenue NW	4 Avenue NW	East	9	5	1	2	2	3	3	5	5	56%	22%	33%	
		West	11	5	7	6	5	4	4	4	7	64%	45%	45%		
1 Avenue NW	19 Street NW	Laneway	North	5	3	3	3	4	4	3	3	4	80%	80%	66%	
		South	5	5	5	5	5	5	5	4	5	100%	100%	97%		
2 Avenue NW (West)	19 Street NW	Laneway	North	4	3	4	3	4	4	4	2	4	100%	100%	86%	
		South	5	5	3	4	4	4	4	4	5	100%	80%	80%		
	Laneway	20 Street SW	North	16	8	9	9	12	12	9	10	12	75%	75%	62%	
		South	16	11	11	12	11	10	10	11	12	75%	69%	68%		
3 Avenue NW	19 Street NW	Laneway	North	4	3	2	3	1	1	0	3	3	75%	25%	46%	
		South	4	2	3	2	2	3	2	3	3	75%	50%	61%		
2 Avenue NW (East)	19 Street NW	18a Street NW	North	10	9	9	7	8	6	6	6	9	90%	80%	73%	
	18a Street NW	18 Street NW	North	10	3	2	4	4	2	2	2	4	40%	40%	27%	
	19 Street NW	Laneway	South	6	6	6	6	5	5	6	6	6	100%	100%	95%	
	18a Street NW	18 Street NW	South	8	3	3	5	5	2	2	1	5	63%	63%	38%	
TOTAL				156	103	102	99	106	90	89	93					
UTILIZATION				-	66%	65%	63%	68%	58%	57%	60%					

Permit Parking (19 Street NW - South of Site)	East	17	9	6	2	3	5	4	3	9	53%	18%	27%
Private Parking (19+2 Surface Stalls - Lane)		8	4	3	3	3	5	2	3	5	63%	38%	41%

## SATURDAY 2023-06-24

Street	From	To	Block Face	Parking Supply	Time of Day								Max Demand	Occupancy		
					12:00	13:00	14:00	15:00	16:00	17:00	18:00	Max		Peak Hour	Average	
19 Street NW	Kensington Rd	1 Avenue NW	West	12	8	9	6	7	7	6	6	9	75%	75%	58%	
	Kensington Rd	Permit Parking	East	4	0	0	0	0	1	0	0	1	25%	0%	4%	
	1 Avenue NW	2 Avenue NW	West	13	10	12	9	10	7	7	7	12	92%	92%	68%	
	2 Avenue NW	3 Avenue NW	East	6	4	5	4	3	3	1	1	5	83%	83%	50%	
			West	8	7	7	7	5	4	4	4	7	88%	88%	68%	
	3 Avenue NW	4 Avenue NW	East	9	3	3	4	2	1	1	2	4	44%	33%	25%	
		West	11	8	6	6	7	4	6	7	8	73%	55%	57%		
1 Avenue NW	19 Street NW	Laneway	North	5	3	3	2	3	1	3	3	3	60%	60%	51%	
		South	5	2	4	3	4	4	4	4	4	4	80%	80%	71%	
2 Avenue NW (West)	19 Street NW	Laneway	North	4	1	3	3	3	3	3	2	3	75%	75%	64%	
		South	5	3	4	4	3	3	0	1	4	80%	80%	51%		
	Laneway	20 Street SW	North	16	10	9	11	13	11	9	10	13	81%	56%	65%	
		South	16	11	9	9	12	10	9	13	13	81%	56%	65%		
3 Avenue NW	19 Street NW	Laneway	North	4	1	3	3	3	3	3	3	3	75%	75%	68%	
		South	4	4	3	3	2	2	3	3	4	100%	75%	71%		
2 Avenue NW (East)	19 Street NW	18a Street NW	North	10	7	7	8	9	9	7	7	9	90%	70%	77%	
	18a Street NW	18 Street NW	North	10	2	2	1	3	3	4	4	4	40%	20%	27%	
	19 Street NW	Laneway	South	6	6	6	6	5	6	6	6	6	100%	100%	98%	
	18a Street NW	18 Street NW	South	8	2	2	2	2	2	1	2	2	25%	25%	23%	
Total (Public - On-Street)				156	92	97	91	96	84	77	85					
Occupancy				-	59%	62%	58%	62%	54%	49%	54%					

Permit Parking (19 Street NW - South of Site)	East	17	3	2	4	4	4	4	3	4	24%	12%	20%
Private Parking (19+2 Surface Stalls - Lane)		8	2	1	3	3	4	6	5	6	75%	13%	43%