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October 20, 2022

17 Ewen (Hamilton) Corp.
c/o Michael Hendrie
1418 Ontario Street
Burlington, ON · L7S 1G4

**Re: Transportation Overview and Parking Assessment
17 Ewen Road, Hamilton**

Dear Michael,

This transportation overview and parking assessment has been prepared in support of a zoning by-law amendment application for a revised concept on the site at 17 Ewen Road in Hamilton.

In 2015, the proposed development was the subject of an Ontario Municipal Board (OMB) settlement hearing with Mondelez Canada Inc. (adjacent industrial owners), the City of Hamilton, and the Owner. The hearing resulted in the approval of an Urban Hamilton Official Plan Amendment (UHOPA) (by both Decision and Order) and a Decision (no Order) of a Zoning By-law Amendment. The UHOPA that was approved by the OMB in 2015 designated the Site as Mixed Use – Medium density, Site Specific Policy Area D in the Ainslie Wood Westdale – Land Use Plan. The Order for the Zoning By-law Amendment was to follow pending confirmation, per the Settlement Agreement, that Mondelez was satisfied that a future Site Plan Control Application is satisfactory, and they can continue to obtain Ministry of Environment Certificate of Approval for their operations. The Zoning By-law Amendment which was the subject of the OMB Decision (but no Order yet) forms the basis of the subject Planning Act applications.

The previous applications were to permit purpose-built student housing, but the concept at the time included student housing units with predominantly four- and five-bedrooms. As part of the zoning on the site, a parking rate of 1.3 spaces per student housing unit (inclusive of visitor parking) was agreed to and reflected in the Zoning By-law approved by the OMB (by Decision but not Order).

The proposal has since been modified to include a different unit mix with more student housing units but fewer overall bedrooms. The units in the current proposal are predominantly one- and two-bedroom student housing units.

The current proposal includes 359 student housing units with a total of 545 bedrooms and 137 parking spaces. The proposed parking provision represents a parking rate of 0.38 spaces per unit or 0.25 spaces per bedroom. Transportation demand management measures have been incorporated in the site design to support travel activity by students by walking, cycling and

taking transit. Although the parking rate per unit is lower than previously, that is a direct result of the units being smaller by having fewer bedrooms.

This transportation overview and parking assessment provides a review of the transportation context of the site, the proposed TDM measures, the anticipated traffic generation and a justification for the proposed parking provision.

Transportation Context

The Site is located at 17 Ewen Road with frontage on both Ewen Road and Rifle Range Road (see attached Site Location Plan and Site Plan). Ewen Road and Rifle Range Road are both classified as local roads in the City of Hamilton Official Plan. Vehicular access to the Site will be provided solely from Rifle Range Road, as required in the draft Zoning By-law.

The Site is located about 800 metres from McMaster University and is well-served by public transit and active transportation infrastructure (see attached Area Transit Plan and Area Cycling Map).

Several local transit routes provide options for travelling within Hamilton to McMaster University, to commercial centres where students may shop or work, to recreational amenities, and to GO Transit terminals where students can connect to regional transit. The local transit services are summarized in Table 1 below.

Table 1: Local Transit Service

Routes		Frequency (minutes)		
		Weekday	Evening	Weekend/Holiday
Along Main	1A (King)	15 or better	-	-
	10 (B Line Express)	12 or better	12	15 (Sat)
	5 (Delaware)	10-20	10-20	15-25
Along Whitney	51 (University)	10-30	15-30	30
	5 (Delaware)	15-30	30	30-40

GO Transit provides all day train and bus service from both the West Harbour GO Station and Hamilton GO Centre. In addition, GO buses arrive and depart regularly throughout the day at the McMaster University GO Bus Terminal connecting students to the GTA and beyond.

Bicycle parking for the project is proposed at 190 spaces – 10 spaces will be provided for short term parking at grade and 180 spaces (0.5 spaces per unit) will be provided in a secure, weather protected format for longer term parking. In addition, Hamilton Bike Share hubs are located at the Fortinos driveway to Rifle Range Road very close to the site (about 100 metres away) and at 1686 Main Street West (about 250m away) providing additional access to bikes for students living in the building. There are many other Hamilton Bike Share hubs located beyond 250 metres, but within comfortable walking distance of the Site.



A number of significant cycling facilities are available in the area to facilitate and encourage cycling. Ewen Road, Rifle Range Road, West Park Avenue, Westbourne Road and Whitney Avenue are all designated cycling routes. At the north end of Westbourne Road, Sanders Boulevard provides dedicated bike lanes with direct access into the University lands through the Cootes Drive Trail.

The Hamilton-Brantford Rail Trail is located immediately adjacent to the Site; it is an interurban multi-use trail that provides direct access to key destinations within Hamilton along with connecting to several municipalities in Southern Ontario over its 80-kilometre length. The University Plaza on Osler Drive is less than one kilometre away from the Site via the Trail, providing access to a number of commercial amenities, including a grocery store, for students in a right of way that is entirely protected for cyclists and pedestrians with the exception of crossing Ewen Road.

For pedestrian access within the local area, sidewalks are generally provided on both sides of all the area roads and protected crossing opportunities of Main Street are available in a number of locations, including at the Rifle Range Road signalized intersection.

Proposed Transportation Demand Management Measures

The following transportation demand management (TDM) measures are being incorporated in the site:

Planning and Design: The building has been oriented to Ewen and Rifle Range Roads with a single point of vehicular access on Rifle Range Road. Pedestrian connections will be available to both Ewen and Rifle Range Roads.

Walking and Cycling: Bicycle parking for the site is proposed in both a short-term at-grade format for visitors (10 spaces) and a longer-term secure format for residents (180 spaces). Sidewalks and landscaping around the site are planned to be retained or enhanced with multiple pedestrian connections to the adjacent pedestrian network.

Transit: The pedestrian connections from the building will provide the opportunity for access to the bus stops at the southwest corner of Main/Ewen, the northeast corner of Main/Westbourne and the southeast corner of Main/Rifle Range. There are also sidewalks connecting the site to the bus stops on Whitney Avenue on the northeast and southwest corners of the intersection with Rifle Range Road less than 400 metres from the site. Transit information will be provided in the management office on the site. McMaster University students receive a transit pass with their registration.

Parking: A vehicle parking rate is proposed with this application to address the lower demand generated at purpose-built student apartments as compared to traditional apartments. Parking spaces will be sold separately from student housing units.



Bikeshare: Bikeshare is available through Hamilton Bike Share. Two bike share hubs are located within 250 metres of the site on Rifle Range Road near the rail trail and near the Main/Osler intersection just west of the site. Beyond 250 metres there are several hubs available in the area.

Wayfinding and Trip Planning: Wayfinding information will be provided throughout the site to ensure pedestrians find the best connections to and from the building and that the bicycle parking (both short-term and longer-term) is easily located. In addition, travel planning resources for transit and active transportation will be made available through the management office on-site.

Education/Promotion: The site's location relative to commercial amenities and McMaster University will be highlighted in the marketing materials for the building as well as the transportation options provided by nearby transit services and active transportation infrastructure.

The many TDM measures that have been incorporated into the proposal will serve to encourage travel options by transit, walking and cycling for residents and visitors of the building. There is likely to be a reduction in the number of trips generated by the proposal along with a reduction in the parking demand as a direct result of the TDM measures.

Traffic Generation

The amount of traffic generated by the site was estimated based on data collected by Salvini Consulting at purpose-built student apartment buildings in Waterloo along with a review of information from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition.

The two ITE land use categories that were reviewed for the residential uses were Multifamily Housing (Mid-Rise) (land use code 221) and Off-Campus Student Apartment (land use code 225).

Student housing located close to colleges and universities tends to generate traffic at lower levels than more typical residential apartments for two reasons:

1. Students living close to campus are less likely to own cars for, among other things, financial reasons, and
2. The use of cars by students living close to campus does not follow a typical residential pattern where drivers leave the site and go to work in the morning, returning in the afternoon. These students do not typically use cars to drive to school, since school is so close, rather, the students might have cars for other purposes, like shopping, visiting and travelling out of town on weekends. Even in these cases, however, students can and do use public transit to return to family and friends.



The low weekday peak hour traffic generation is particularly pronounced in student housing that is very close to campus. It would be reasonable to expect peak hour residential traffic volumes from the proposed building to be low.

The table below summarizes the review of the residential traffic generation data from ITE along with the survey data from three buildings on Lester Street in Waterloo, located about 500 metres from both the University of Waterloo and Wilfred Laurier University, similar to the subject site. The Waterloo data was collected by Salvini Consulting in 2015 but is still considered relevant. The data was collected before the Ion LRT was operational and reflects pre-LRT conditions.

Table 2: Residential Traffic Generation Estimates for Proposed Building

Description		AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Off-Campus Student Housing (ITE land use code 225)*	Rate (trips/bdrm)	0.05	0.07	0.12	0.13	0.13	0.25
	Trips (545 bdrm)	27	38	65	68	68	136
Multi-family Mid-Rise (ITE land use code 221)*	Rate (trips/unit)	0.09	0.27	0.36	0.27	0.17	0.44
	Trips (359 units)	32	97	129	97	61	158
201 Lester	Rate (trips/100 bdrm)	1.2	0.6	1.8	1.8	0.9	2.6
202 Lester	Rate (trips/100 bdrm)	0.9	1.8	2.7	3.3	3.3	6.7
203 Lester	Rate (trips/100 bdrm)	0.5	0.9	1.4	1.2	0.9	2.1
Chosen	Rate (trips/100 bdrm)	1.3	1.7	3.0	3.8	3.2	7.0
	Trips (545 bdrm)	7	9	16	21	17	38

*NOTE: ITE data from 10th Edition of the Trip Generation Manual

The resulting estimated site traffic is 16 and 38 vehicle trips in the weekday morning and afternoon peak hours, respectively.

The site traffic trips were distributed in accordance with local traffic patterns through the study area in the following manner:

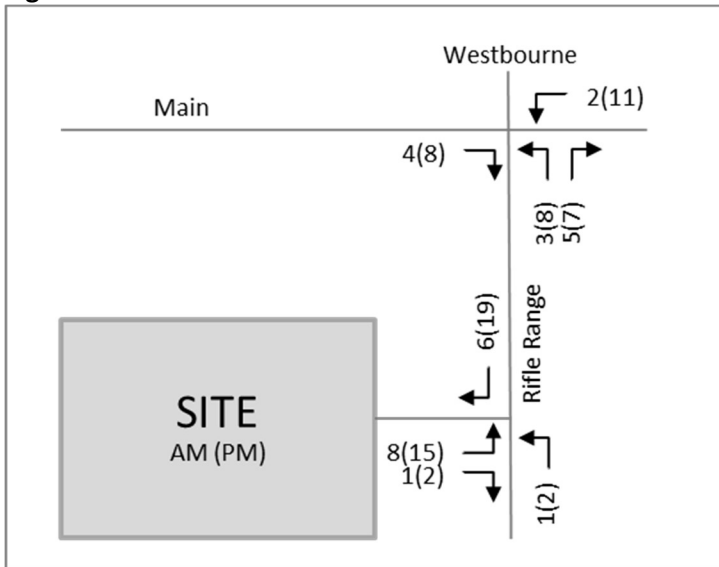
Table 3: Site Trip Distribution

Direction	Peak Hour	
	AM	PM
Westbound on Main Street	30%	50%
Eastbound on Main Street	60%	40%
To and from the south on Rifle Range Road	10%	10%
Total	100%	100%



Site traffic volumes are included in the figure below.

Figure 1: Site Traffic



Residential Parking Reduction Justification

Salvini Consulting Inc. has collected parking use data at a number of comparable purpose-built student apartment buildings in London and Waterloo in order to understand the demand for parking in these types of buildings. We know from discussion with clients who operate the buildings that students who live close to campus (within walking distance) primarily have cars to travel locally for groceries and other errands and to travel on weekends home or to other destinations.

The transportation context for students in Hamilton is considered most comparable to Waterloo given access to local transit, cycling infrastructure and GO Transit. Transit access in Hamilton both locally and regionally is as good as or better than Waterloo; in particular, there are better connections to the GTA from Hamilton for students travelling on weekends via GO buses and all-day GO Rail service. In Waterloo, GO Rail is only available in the peak direction in the peak periods during the week. At other times, GO buses offer service to the GTA via Mississauga on an hourly basis. In London, local transit is available for in-town trips, but there is no GO Transit Service. Regional travel is available using VIA rail or private bus services.

Extensive surveys were undertaken on Thursday to Sunday, February 25 to 28 of 2016 at three comparable student apartment buildings from 7:00 AM until 2:00 AM each day. The surveyor recorded the number of cars parked on-site every half hour over the course of the survey. Two of the buildings are located in Waterloo near the University of Waterloo and Wilfred Laurier University and the third is located in London, near the University of Western Ontario. The surveys were undertaken when school was in session and the owners confirmed that all three



buildings were fully occupied at the time. The parking data was collected before the Ion LRT was operational in Waterloo.

The parking rates measured during the surveys are reported in spaces per bedroom and include visitor parking (which is free in all three buildings). The peak parking use for each building occurred overnight during the week. The peak data is summarized in Table 4 below and the more detailed profiles are attached.

Table 4: February 25-28, 2016 Surveyed Parking Use (including visitors)

Location	Peak Parking Rate (spaces/bedroom)			
	Thursday	Friday	Saturday	Sunday
201 Lester, Waterloo	0.12	0.11	0.09	0.11
202 Lester, Waterloo	0.14	0.14	0.13	0.13
1235 Richmond, London	0.22	0.21	0.20	0.22

The profiles are relatively flat with no pronounced peaks because the need to use a car is minimal even for those who have them and there is not a time when students would all generally be away in their cars. By contrast, in a typical apartment building, many of the residents use their cars to drive to work, so that there is a pronounced drop in parking occupancy during the weekday when most people work.

Students who have cars at University tend to use them to run short errands (which they can do any time they are not in class, including during the weekday) or to travel on weekends. But when they are travelling on the weekend, other students in the building have visitors who arrive by car for the weekend and can use available spaces by way of a permit system.

Additional data was gathered at multiple sites in Waterloo near the University of Waterloo and Wilfred Laurier University as a follow-up to the February 2016 parking surveys. The data was collected overnight on the morning of March 15, 2016, during the March Break, minimizing the influence of commercial parking; some of the buildings have commercial space. Information from the owner/operator of the properties confirms that parking levels are high during March Break; University students are still in school at that time, but many will request additional parking passes so that siblings and friends that are still high school students and are on March Break can visit and stay overnight.

The data, which also includes visitor parking (visitor parking is free), is reported in spaces per bedroom. The owner/operator of the buildings (one owner) confirmed that they were all fully occupied at the time of the survey. On-street parking is not permitted overnight on any of the local streets.

A summary of the data is included in Table 5 below. All of the parking data was collected before the Ion LRT was operational in Waterloo.



Table 5: March 15, 2016 Surveyed Parking Use

Property	Distance to UW/WLU (m)	Units	Bedrooms (Bdrm)	Parking use	
				Spc/unit	Spc/Bdrm
208 Sunview	600/160	57	285	0.75	0.15
202 Lester	500/300	66	330	0.64	0.13
201 Lester	550/350	68	340	0.54	0.11
203 Lester	500/300	85	425	0.59	0.12
251-253 Lester	550/350	52	257	0.65	0.13
261 Lester	600/450	19	95	0.37	0.07
269-271 Lester	700/500	20	100	0.10	0.02
250 Lester	550/350	44	80	0.32	0.18
110 Columbia	700/700	18	87	0.61	0.13
392 Albert	1000/900	15	75	0.87	0.17

The highest parking demand rate in the Waterloo surveys was 0.17 spaces per bedroom at 392 Albert Street; this building is located furthest from campus at 900 to 1000 metres. The subject site is closer to campus at 800 metres. In London, the peak parking demand was 0.22 spaces per bedroom. The demand in every case was less than the proposed parking provision of 0.25 spaces per bedroom.

Zoning By-law Requirements

As part of the zoning on the site, a parking rate of 1.3 spaces per unit (inclusive of visitor parking) was reflected in the OMB Decision. At 1.3 parking spaces per unit, 468 parking spaces would be required for the 359 proposed student housing units.

The City's general Zoning By-law requirements for parking vary by number of units and by the size of units. For the subject site, the general Zoning By-law provisions would require 206 parking spaces for a traditional apartment building. A calculation of the general Zoning By-law requirements for parking is included in Table 6 below.

Table 6: General Zoning By-law Requirements for Parking

ZBL requirement	Units	Spaces
0.3 s/u for units <50 sm	205	61.5
0.7 s/u for 1-14 units >50 sm	14	9.8
0.85 s/u for 15-50 units >50 sm	36	30.6
1.0 s/u for 51+ units >50 sm	104	104
Total	359	206 (0.57 s/u)

As a comparison, the City of Waterloo has a general Zoning By-law requirement of 0.25 parking spaces per bedroom for sites located in the Northdale area near both the University of Waterloo and Wilfred Laurier University.



Conclusion

This study provides an overview of the transportation context and estimated traffic generation for the revised proposal at 17 Ewen Road. The site is attractive for travel by walking, cycling and transit and transportation demand management measures have been incorporated to encourage travel by modes other than by car. The weekday peak hour traffic generation is estimated to be between 16 and 38 two-way trips.

In addition, this study supports the requested variance in parking of 0.25 spaces per bedroom on the following basis:

- The Site is located close to the McMaster University campus – approximately 800 metres away.
- The Site is well served by both transit and active transportation infrastructure. There is, in particular, good connections to the GTA via GO Transit buses at McMaster University and GO Trains and buses out of the West Harbour GO Station and Hamilton GO Centre.
- A number of transportation demand management measures are proposed for the site to encourage travel by modes other than by car.
- Extensive survey data collected at student apartment buildings in London and Waterloo (pre-LRT) indicated peak parking demand at the eleven properties varied between 0.02 and 0.22 spaces per bedroom - all less than the proposed provision of 0.25 spaces per bedroom.
- The proposed requirement is consistent with requirements in the City of Waterloo for student housing near the University of Waterloo and Wilfred Laurier University.

If you have any questions about the analysis presented in this letter, please contact me to discuss.

Sincerely,



Julia Salvini, MEng, PEng
President

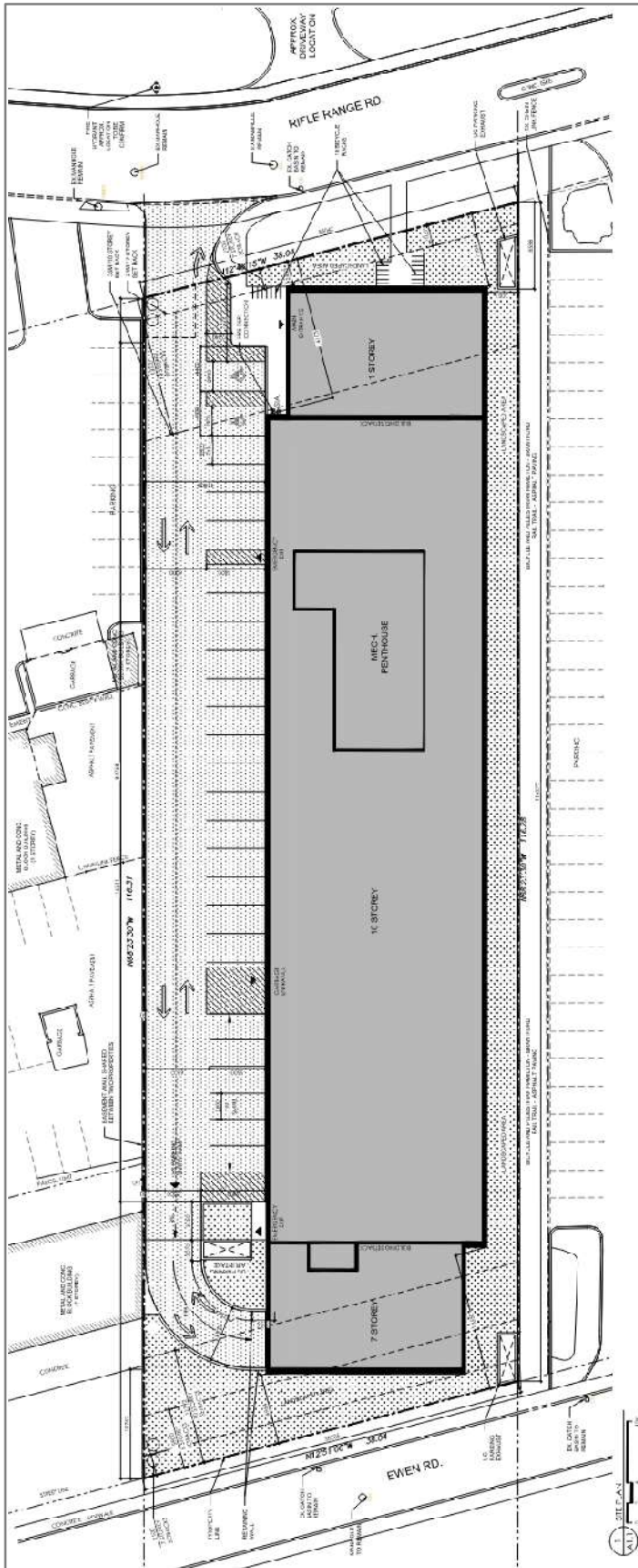
Attach: Site Location Plan
 Site Plan
 Area Transit Plan
 Area Cycling Map
 Parking Profiles – London and Waterloo



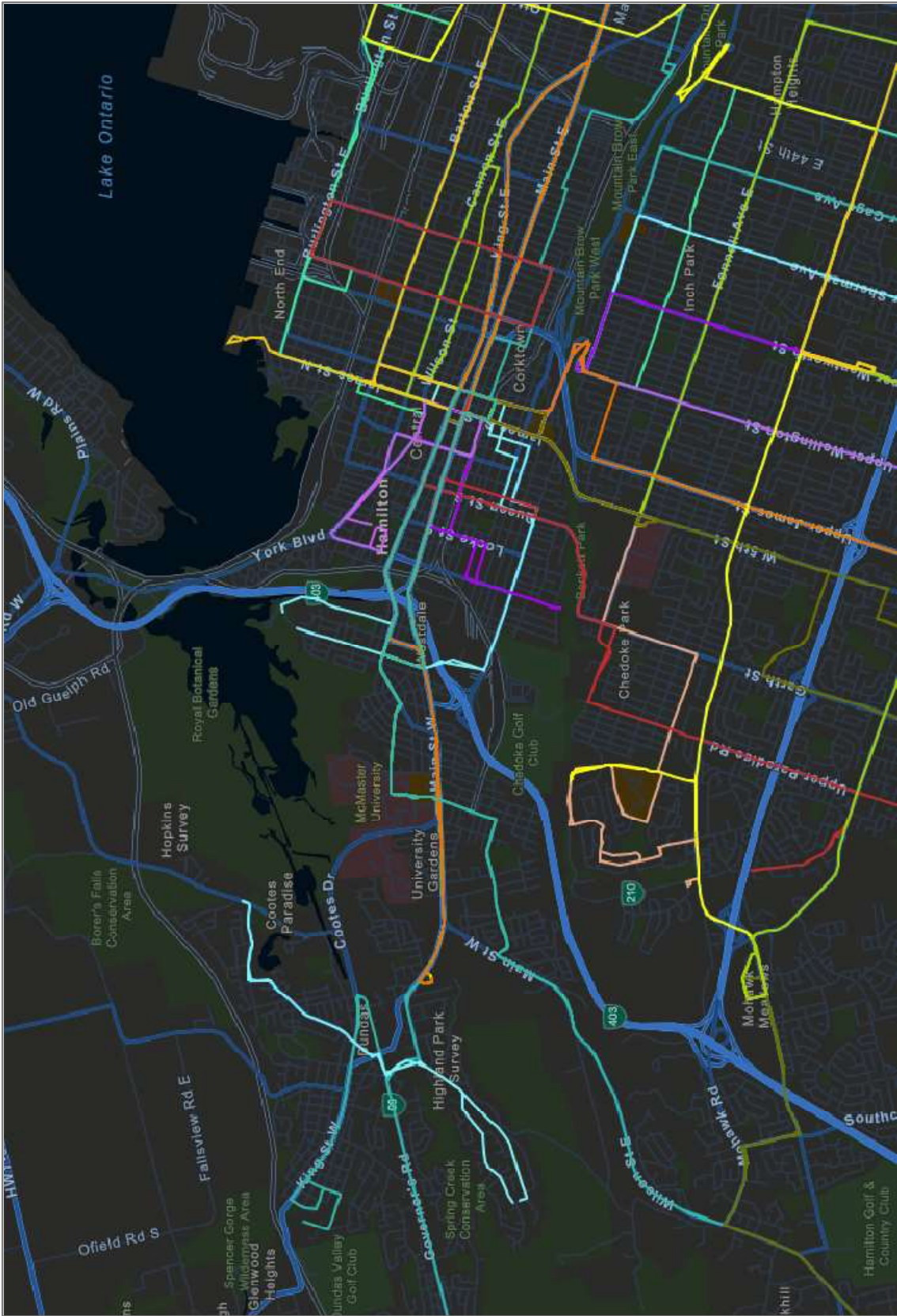


Site Location Plan

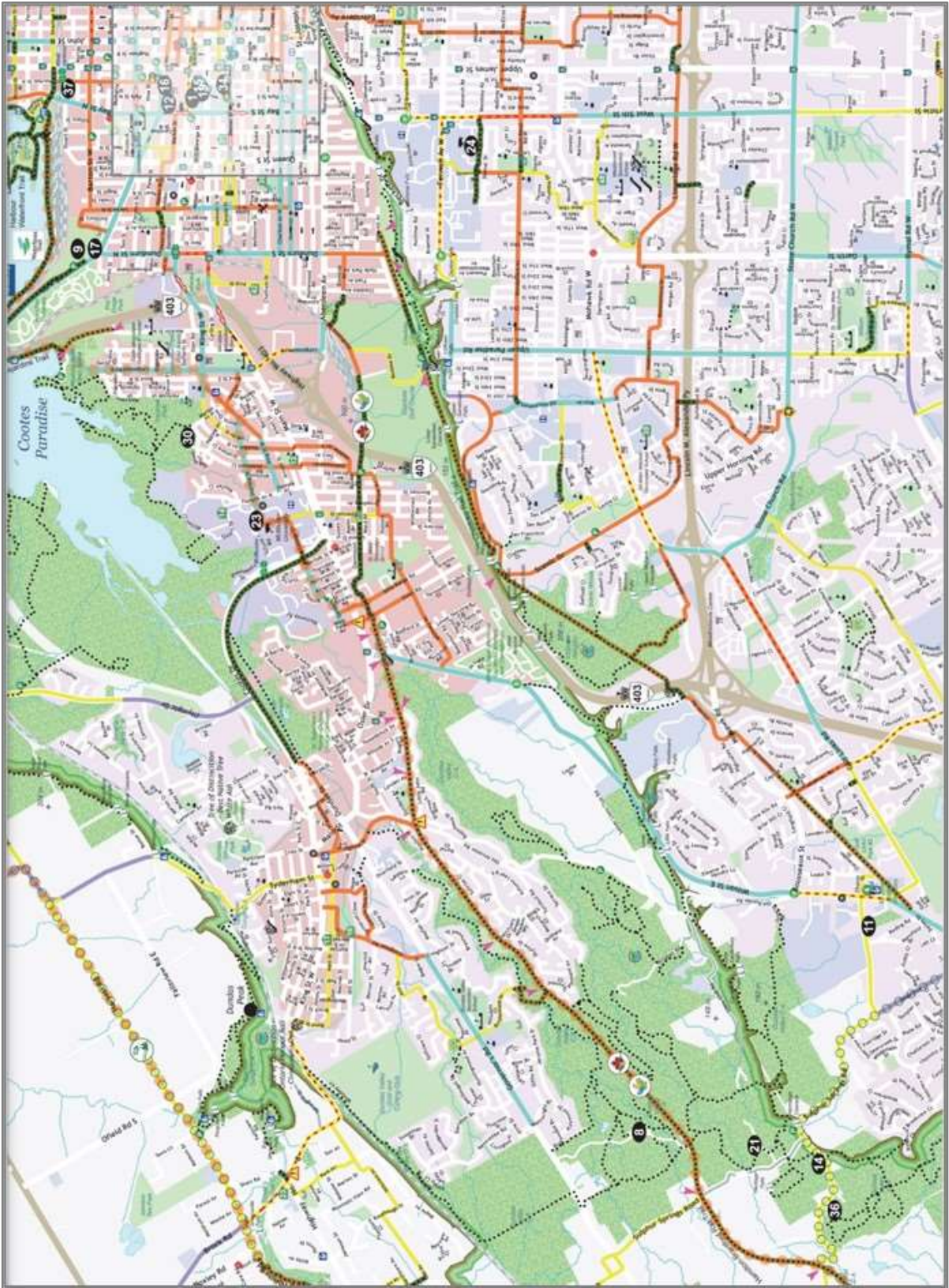
Source: openstreemap.org



Site Plan (prepared by +VG Architects)



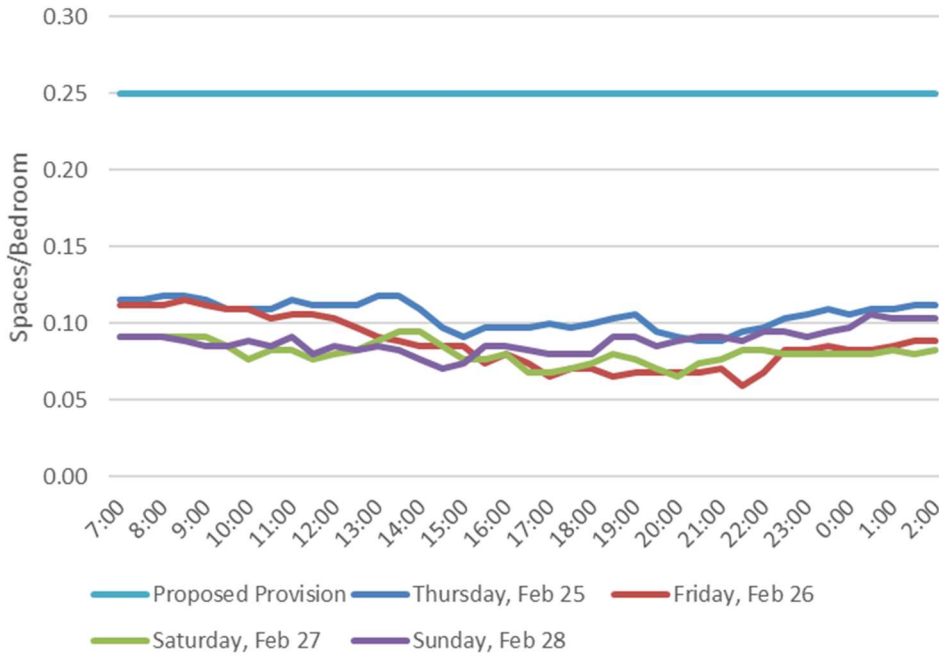
Area Transit Plan
Source: hamilton.ca



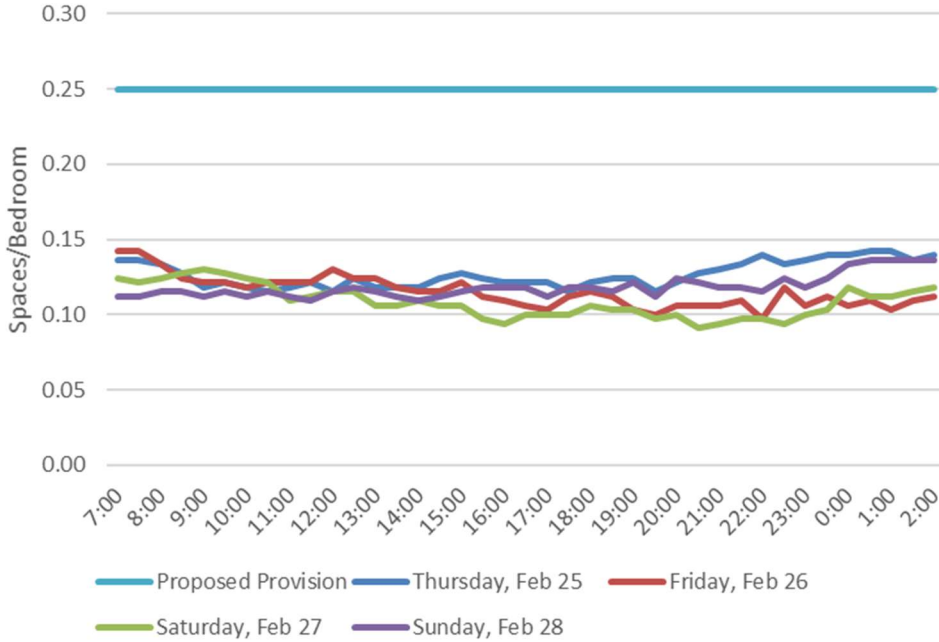
Area Cycling Map (Cycling Routes Map)

Source: hamilton.ca

Parking Demand at 201 Lester Street, Waterloo



Parking Demand at 202 Lester Street, Waterloo



Parking Demand at 1235 Richmond Street, London

