Dymon Group of Companies 5210 Innes Road



Transportation
Impact
Assessment



5210 Innes Road Scoped Transportation Impact Assessment

Prepared for:

Dymon Group of Companies 2-1830 Walkey Road Ottawa, ON, K1H 8K3

Prepared by:



December 2022

PN: 2021-024

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1 Screening

This scoped TIA has been prepared to support the proposed development at 5210 Innes Road in the City of Ottawa and will include Design Review component of the City of Ottawa Transportation Impact Assessment (TIA) Guidelines. The scope of this TIA has been confirmed with transportation staff from the City of Ottawa during an online meeting on December 1, 2020. Additionally, a Step 1 TIA Screening Form has been prepared and is included in Appendix A, along with the Certification Form for the Study PM.

2 Existing and Planned Conditions

2.1 Proposed Development

The subject property, located at 5210 Innes Road, is zoned as Rural Commercial Zone (RC[36r]) and is currently undeveloped. The GFA of the proposed Dymon self-storage facility is 17,000 square metres (182,981 square feet), including an interior loading and parking area of 919 square metres (9,893 square metres), and a reception area of 981 square metres (10,560 square feet). A total of 62 parking spaces are proposed, 55 are exterior while 7 are in the loading bay area. The site will also include one exterior loading dock and an interior drive-thru area for loading / parking.

Access to the site will be accommodated via Trim Road, approximately 75 metres (Site Access #1) south of Innes Road, and Innes Road (Site Access #2), approximately 80 metres east of Trim Road, measured from centreline to centreline. Both site accesses will be restricted to right-in / right-out only due to the centreline medians along the frontage of the site. Trucks will enter the site by via Access #1 and leave the site though the Site Access #2.

Figure 1: Area Context Plan

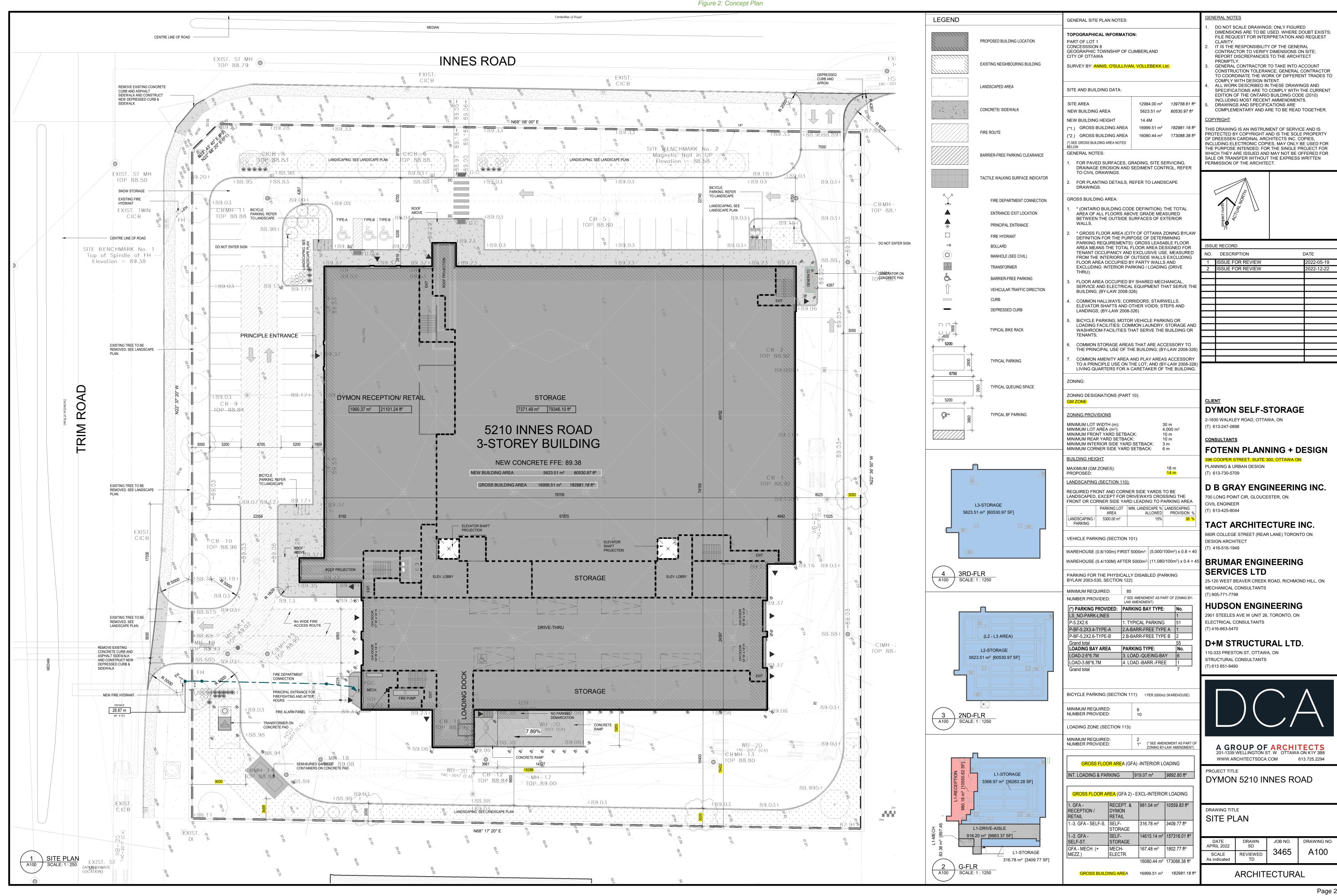
Things Road

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Figure 1 illustrates the Study Area Context. Figure 2 illustrates the proposed concept plan.

Source: http://maps.ottawa.ca/geoOttawa/ Accessed: February 22, 2021





2.2 Dymon Business Model and Site Context

Dymon offers a unique customer-centric storage solution unlike anything else in the marketplace. Unlike traditional self storage operations, Dymon facilities are located along arterial corridors, in very prominent locations within close proximity to its residential and business customers. With its high level of security, total humidity and climate control environment, and relentless focus on customer service, Dymon offers a reliable extension to people's homes and businesses. The primary access to Dymon's facilities is via an interior loading area (with secure access 24 hours a day) that protects customers from the weather while loading/unloading their possessions. By providing this interior area the reliance on surface parking is significantly reduced, as up to 75% of visitors to the site during any period use the interior loading bay, rather than the provided parking lot. In fact, any visit after the initial visit uses the interior loading area as this is the direct access to the storage lockers. Dymon sites include a reception and a retail area that is not used directly for self-storage. This space has several functions, including allowing space for new customers to come in and rent a storage locker or purchase storage supplies (boxes, tape, bubble wrap, etc.). In Spring 2019 Dymon has expanded the services available in this space to include home storage solutions including closet organizers, under counter shelving, and storage bins. This service is now offered at several Ottawa Dymon locations.

2.3 Existing Conditions

2.3.1 Area Road Network

Innes Road:

Innes Road is a City of Ottawa arterial road with a four-lane cross-section including sidewalks, curbside bike lanes, a centreline median, and auxiliary lanes at major intersections. The posted speed limit on Innes Road within the Study Area is 60km/h and the City of Ottawa reserves a 37.5 metre right of way.

Trim Road:

Trim Road is a City of Ottawa arterial road with a four-lane cross-section including a sidewalk on the west side, a multi-use path on the east side, south of Innes Road, and sidewalk on both sides north of Innes Road. Trim Road also includes curbside bike lanes, a centreline median, and auxiliary lanes at major intersections. The posted speed on Trim Road within the Study Area is 60km/h and the City of Ottawa reserves a 37.5 metre right of way.

2.3.2 Intersections

Innes Road at Trim Road

The intersection of Innes Road at Trim Road is a signalized intersection with auxiliary left turn lanes and right turn channels on each approach. Crosswalks are present on all legs with pedestrian signal heads and call buttons. No turn restrictions were noted.



2.3.3 Cycling and Pedestrian Facilities

Figure 3 illustrates the pedestrian facilities in the study area and Figure 4 illustrates the cycling facilities.



Sidewalks are provided along both sides of Innes Road and Trim Road, with the exception of east side of Trim Road, south of Innes Road, where a multi-use pathway is provided. Cycling facilities include curbside bike lanes along both Innes Road and Trim Road.



Figure 3: Study Area Pedestrian Facilities

Source: http://maps.ottawa.ca/geoOttawa/ Accessed: December 22, 2022

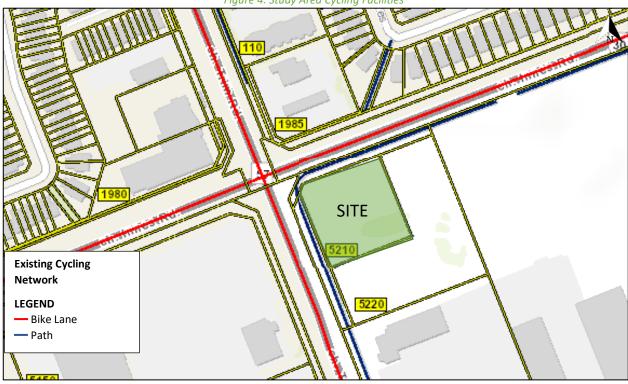


Figure 4: Study Area Cycling Facilities





3 Exemption Review

Based on discussions with the City of Ottawa staff, the magnitude of this development, and the anticipated access locations, a reduced scope TIA has been prepared documenting the trip generation, accesses, site circulation, and parking.

4 Development-Generated Travel Demand

4.1 Trip Generation

To better understand the trip generation of the proposed development, a proxy site trip generation survey has been undertaken at three established, comparable Dymon sites in Ottawa. These sites have been selected as they are similar in size to the proposed development and have similar features (GFA, Land Uses, Arterial Road Access). The selected sites include the new Dymon retail functions and sell the home storage solutions discussed previously. These will operate in the same manner as the proposed site plan at 5210 Innes Road and are appropriate proxy sites for comparison. Table 1 summarizes the site statistics for the surveyed and proposed sites. The number of parking stalls per the approved Site Plan have been documented in Table 1, however the parking provisions will be discussed further in later sections of this letter.

Table 1: Site Statistics Comparison

Table 1. Site Statistics comparison									
Site	Reception/Retail GFA(m ²)	Self-Storage GFA (m ²)	Total GFA (m ²)	Parking Stalls (SPA)					
1554 Carling Avenue	2,714	18,204	21,685	59 Exterior (4 Loading Area)					
323 Coventry Road	867	11,484	12,351	44 Exterior ¹					
300 Greenbank Road	~700	8,495	9,195	9 Exterior (4 Loading Area)					
5210 Innes Road	981	16,019	17,000	55 Exterior (7 Loading Area)					

Note 1: some of these parking stalls are restricted due to truck movements. This will be discussed further below.

Table 2 summarizes the surveyed trip generation for 1554 Carling Avenue, 323 Coventry Road (two survey dates), and 300 Greenbank Road.

Table 2: Proxy Site Trip Generation

Cito	А	M Peak Hoւ	ır	PM Peak Hour			Sat Peak Hour		
Site	In	Out	Total	In	Out	Total	In	Out	Total
1554 Carling	6	2	8	13	9	22	-	-	-
323 Coventry (May Counts)	14	9	23	17	19	36	-	-	-
323 Coventry (June Counts)	7	5	12	11	15	26	11	15	26
300 Greenbank	7	4	11	10	10	20	14	18	32

The selected sites have a wide range of gross floor areas. To accurately compare these sites to the proposed site, the trip generation rate has been determined for each survey in terms of vehicle trips generated per 1000 square metres. Table 3 summarizes the trip generation rates for each site. Appendix B includes the trip generation proxy counts and site plans for each surveyed site.



Table 3: Proxy Site Trip Generation Rates

Site			eak Hour Rate 000 sm gfa)		PM Peak Hour Rate (/1000 sm gfa)			Sat Peak Hour Rate (/1000 sm gfa)		
		In	Out	Total	In	Out	Total	In	Out	Total
1554 Carling	21,685	0.28	0.09	0.37	0.60	0.42	1.01	N/A	N/A	N/A
323 Coventry										
(May)	12,351	1.13	0.73	1.86	1.38	1.54	2.91	N/A	N/A	N/A
323 Coventry										
(June)	12,351	0.57	0.40	0.97	0.89	1.21	2.11	0.89	1.21	2.11
300										
Greenbank	9,195	0.76	0.44	1.20	1.09	1.09	2.18	1.52	1.96	3.48
Average Rate	-	0.68	0.42	1.10	0.99	1.06	2.05	1.21	1.59	2.79

The trip generation rates above have been examined and these sites do not have a strong correlation between increased gross floor area and increased trip generation. Figure 5 is a graph illustrating the relationship between trip generation and gross floor area. A linear trendline has been added to the graph to illustrate the correlation.

Figure 5: Trip Generation vs. Gross Floor Area Trip Generation vs. Gross Floor Area Trip Generation (# trips) Gross Floor Area (sq. m)

Given the number of sites surveyed, and the various survey dates, an average of the trip generation rates has been calculated. The average trip generation rate has been applied to the proposed site to determine the anticipated trip generation of the subject development. Table 4 summarizes the projected trip generation for the proposed development of a Dymon storage facility at 5210 Innes Road.

Table 4: Projected 5210 Innes Road Site Trip Generation

C:L-	А	AM Peak Hour			PM Peak Hour			Sat Peak Hour		
Site	In	Out	Total	In	Out	Total	In	Out	Total	
5210 Innes Road	12	7	19	17	18	35	21	27	47	

For comparison ITE Trip Generation Rates for ITE Land Use Code (LUC) 151 Mini Warehouse have also been used to calculate the trip generation. It should be noted that the ITE 10th Edition Trip Generation Manual only has a single sample for the Saturday, Peak Hour of Generator data set. This data set has been documented herein but is not reliable and should not be used in traffic analysis. Table 5 summarizes the ITE Trip Generation rates for LUC 151 Mini-Warehouse. Appendix C includes a summary of the description of LUC 151. Table 6 summarizes the trip generation for the proposed site based on the ITE LUC 151 rates.



Table 5: ITE Trip Generation LUC 151 Mini-Warehouse

	AM Peak	PM Peak	Sat Peak*
Average Rate (/1000 sf gfa)	0.10	0.17	0.31*
In/Out	60%/40%	47%/53%	59%/41%*

^{*}Small Sample Size, Data should be used with caution. Single data set provided in ITE Trip Generation Manual 10th Edition.

Table 6: ITE LUC 151 Trip Generation

Lored Hee	А	AM Peak Hour			PM Peak Hour			Sat Peak Hour		
Land Use	In	Out	Total	In	Out	Total	In	Out	Total	
LUC 151 Trip Gen	11	7	18	15	16	31	33	24	57	

The proxy site trip generation results are similar to the projections created using ITE trip rates. The Saturday peak hour should not be relied on as the ITE 10th Edition Trip Generation Manual contains a single sample for this LUC.

Based on the proxy site trip generation exercise there is no need to undertake a TIA for the proposed development, as the total number of trips generated is less than 60 in any peak hour which is the threshold for undertaking a TIS in the City of Ottawa TIA Guidelines.

5 Development Design

5.1 Circulation and Access

The proposed site plan and access configuration have been reviewed using two design vehicles including an HSU (standard delivery truck) and WB-20 tractor trailer (infrequent delivery truck). It is assumed that the HSU trucks will access the interior and exterior loading areas as well as the garbage bins at the rear of the property, and the WB-20 will utilize the exterior loading dock. Appendix D includes two drawings illustrating the turning paths for all design vehicles. All turning paths are accommodated by the proposed curbs and driveways.

6 Parking

6.1 Parking Generation / Supply

The proposed development will include 62 interior and exterior parking stalls, one exterior loading dock, and space in the interior loading area for additional overflow unloading vehicles. The zoning requirements and parking provisions are summarized in Table 7.

Table 7: Vehicle Parkina Requirement Zonina By-Law Approach

Land Use	GFA (s.m.)	Parking Rate (Required)	Parking Spaces (Required)	Parking Spaces (Provided)	Difference
Self-Storage Warehouse	16,019	N95: 0.8 per 100 m ² for the first 5,000 m ² of GFA and 0.4 per 100 m ² above 5,000 m ² GFA	84	62	-56
Reception & Retail	981	N79: 3.4 per 100 m ² of GFA	34		
Total			118	62	-56

As noted above the proposed site does not include the number of parking stalls prescribed by the zoning by-law. The proposed site includes 62 parking spaces, where as the requirement is 118 parking spaces.

To support the proposed parking variance, a parking survey has been undertaken at two of the proxy sites used for the Trip Generation. The Parking Surveys were undertaken on the same dates, and locations as the Trip



Generation Proxy Surveys. Appendix E contains the proxy parking generation counts and calculation sheets for 323 Coventry Road and 300 Greenbank Road.

323 Coventry includes parking operations that will not be present on the proposed 1370 Neilson Road site. 323 Coventry currently has parking stalls reserved for long term parking. While these are reserved for this use it is possible for vehicles to park in these stalls throughout the day. To ensure that the daily, short-term, high turnover parking requirements are accurately captured the parking survey for this site was undertaken starting 30 minutes prior to the opening of the site and ending 30 minutes after the site closed for business. This was done for both the weekday and weekend survey periods. The minimum number of parking stalls occupied throughout the entirety of each survey period was noted. This was then subtracted from the maximum total parking demand. This represents the maximum short-term demand. Additionally, as noted on the approved site plan there are 11 parking stalls that are not in use to accommodate truck turning movements. Through the site survey it was determined that eight parking stalls are not in use in this area and are signed to prohibit parking. Table 8 below summarizes the total parking provisions for 323 Coventry Road.

Table 8: 323 Coventry Road Parking Provisions

Total Parking Stalls	Unsecured Parking Stalls	Secured Parking Stalls	Restricted to Accommodate Truck Movements
44	18	26	8

The 18 unsecured parking stalls noted above are potentially available for short-term parking (the secured parking is reserved for long-term parking). However, the survey found that four of the unsecured parking stalls were occupied at the start / end of the survey and are therefore not available for use as short-term parking stalls. The remaining 14 parking stalls were assumed to be available for short-term parking use.

300 Greenbank Road does not accommodate long term parking, as a result there was no need to account for the impact in the counts, and the peak periods were surveyed to capture a relevant data set.

Table 9 summarizes the parking supply and parking demand for the two sites as well as the calculated parking supply rate and parking demand rate. The exterior parking supply has been included. For 323 Coventry Road this supply has been calculated based on the number of parking stalls not in use for long-term parking.

As Dymon's business model makes use of an interior loading space, that can accommodate more vehicles than the defined parking stalls, the interior parking supply has been tabulated based on the maximum demand for interior parking observed at each site.

Table 9: Parking Survey Summary

Site	GFA Storage & Retail (m²)	Parking Supply (Exterior)	Parking Supply (Max Interior Usage)	Parking Demand	Parking Demand Rate
323 Coventry	12,351	14	7	11	0.09 / 100 m ²
300 Greenbank	9,195	9	5	11	0.12 / 100 m ²

Similar to the trip generation it was found that an increase in parking demand is not strongly correlated to an increase in gross floor area. Based on the proposed site plan for 5210 Innes Road the gross floor area, and parking stall provisions, the parking rate provided for the proposed development has been calculated. Table 10 summarizes the 5210 Innes Road parking provisions.



Table 10: 5210 Innes Road Parking Provisions – Dymon

Use	GFA (m²)	Parking Provided	Parking Rate (Provided)
Self-Storage Warehouse, Reception & Retail	17,000	62	0.36/ 100 m ²

It has been calculated that parking is proposed to be provided at a rate of 0.36 per each 100 square metres of gross floor area. While this is less than the parking rate requested by the City of Ottawa, this demand rate is much higher than the surveyed parking rates at comparable Dymon sites.

In addition to the above, patrons will utilize the interior loading space more efficiently than other areas of the site as they will park within the interior loading area to facilitate loading and unloading. On the surveyed sites more than 40% of all parked vehicles utilized the interior loading area for parking.

As a supplementary analysis, the number of vehicles entering the interior loading area, versus the rest of the site was counted. Table 11 summarizes the interior loading bay usage.

Table 11: Interior Loading Bay Usage

C:+-	Wee	kday	Saturday		
Site	Exterior%	Interior%	Exterior%	Interior%	
323 Coventry	57%	43%	58%	42%	
300 Greenbank	42%	58%	54%	46%	

As shown above the interior loading area is of critical importance to the parking operations of the site.

In summary the parking provisions for the Dymon self-storage use is adequate. Table 12 summarizes the total parking demand based on the proxy site surveys.

Table 12: Parking Requirement – Demand Approach

Land Use	GFA (s.m.)	Parking Rate (Required)	Parking Spaces (Required)	Parking Spaces (Provided)	Difference
Self-Storage Warehouse, Reception & Retail	17,000	0.12/100 m ²	21	62	41

As shown above, the parking provided on the site will satisfy the projected parking demand, based on the proxy site surveys. Therefore, based on the provided interior and exterior parking the site will provide adequate parking to support the proposed use.

Among the 62 provided parking spaces, 1 has been designated as a Type 'A' accessible parking space in accordance with the Traffic and Parking By-law as shown in Table 13. Two extra Type 'B' accessible parking spaces will be provided beside the Type 'A' parking space.

Table 13: Accessible Parking Requirement

Capacity of Public Parking Area (Number of Parking Spaces)	Minimum Number of Spaces to be Reserved for Persons with Disabilities	Accessible Parking Spaces Provided	Difference
20-99	1 Type 'A'	3 (1 Type 'A', 2 Type 'B')	2

6.2 Bicycle Parking

Bicycle parking requirements and provisions are summarized in Table 14.



Table 14: Bicycle Parking Requirement - Zoning By-Law Approach

Land Use	GFA (s.m.)	Parking Rate (Required)	Parking Spaces (Required)	Parking Spaces (Provided)	Difference
Self-Storage Warehouse	17,000	1 per 2000 square metres of gross floor area	9	10	1

As shown above, the zoning by-law requirement for bicycle parking are 9 spaces, where the bicycle parking provisions are 10 spaces exceeding the requirement.

7 Conclusion

Based on the key requirements of the agreed to scope, the following conclusions are made for this site:

- The trip generation analysis demonstrates that this site will not trigger the need for a TIS.
- Based on the proxy site parking surveys the provided parking will adequately serve the proposed Dymon self-storage facility.
- Truck turning templates have been performed to ensure that the site access and drive aisles can be
 navigated by the design vehicles for the site. All turning paths are accommodated by the proposed curbs
 and driveways.

Based on this Transportation and Parking Summary, the proposed development should be approved, from a transportation perspective.

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Appendix A

TIA Screening Form and PM Certification Form





City of Ottawa 2017 TIA Guidelines Step 1 - Screening Form Date: 09-Nov-22
Project Number: 2021-024
Project Reference: Dymon 5210 Innes Road

1.1 Description of Proposed Development		
Municipal Address 5210 Innes Road		
Description of Location	Located at the southeast corner of Innes Road and	
Description of Location	Trim Road	
Land Use Classification	RC[36r]	
Development Size	18,910 Square Metres	
	One access on Trim Road and one access on Innes	
Accesses	Road, both restricted to right-in / right-out	
Phase of Development	Assumed 1 Phase for TIA	
Buildout Year	2023	
TIA Requirement	Design Review Component	

1.2 Trip Generation Trigger		
Land Use Type	Self-Storage Warehouse	
Development Size	18,910.00 G.F.A	
Trip Generation Trigger	Fewer than 60 total peak hour trips will be generated by the proposed development. The trip generation will be further discussed in detail as part of a Scoped TIA report.	

1.3 Location Triggers	
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	Yes
Networks?	
Is the development in a Design Priority Area (DPA) or Transit-oriented	No
Development (TOD) zone?	INO
Location Trigger	Yes

1.4. Safety Triggers	
Are posted speed limits on a boundary street 80 km/hr or greater?	No
Are there any horizontal/vertical curvatures on a boundary street limits sight	No
lines at a proposed driveway?	No
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	Yes
within 150 m of intersection in urban/ suburban conditions)?	
Is the proposed driveway within auxiliary lanes of an intersection?	Yes
Does the proposed driveway make use of an existing median break that	No
serves an existing site?	NO
Is there is a documented history of traffic operations or safety concerns on	No
the boundary streets within 500 m of the development?	No
Does the development include a drive-thru facility?	No
Safety Trigger	Yes



TIA Plan Reports

On 14 June 2017, the Council of the City of Ottawa adopted new Transportation Impact Assessment (TIA) Guidelines. In adopting the guidelines, Council established a requirement for those preparing and delivering transportation impact assessments and reports to sign a letter of certification.

Individuals submitting TIA reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Ottawa's Official Plan, the Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines.

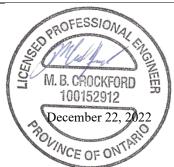
By submitting the attached TIA report (and any associated documents) and signing this document, the individual acknowledges that s/he meets the four criteria listed below.

CERTIFICATION

- 1. I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines;
- 2. I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;
- 3. I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and
- 4. I am either a licensed¹ or registered² professional in good standing, whose field of expertise [check $\sqrt{\text{appropriate field(s)}}$] is either transportation engineering $\sqrt{\text{or}}$ or transportation planning \square .
- License of registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works.

Dated at	<u>Newmarket</u>	this <u>2</u>	<u>28</u> day of	<u>June</u> .	, 2018.
	(City)				
Name:		Mark Cro	ockford (Please Print)		
Professiona	l Title:	Professiona	l Engineer		
	1	Madfin			
_	Signature of Indiv	idual certifier t	hat s/he meets tl	ne above four cr	iteria

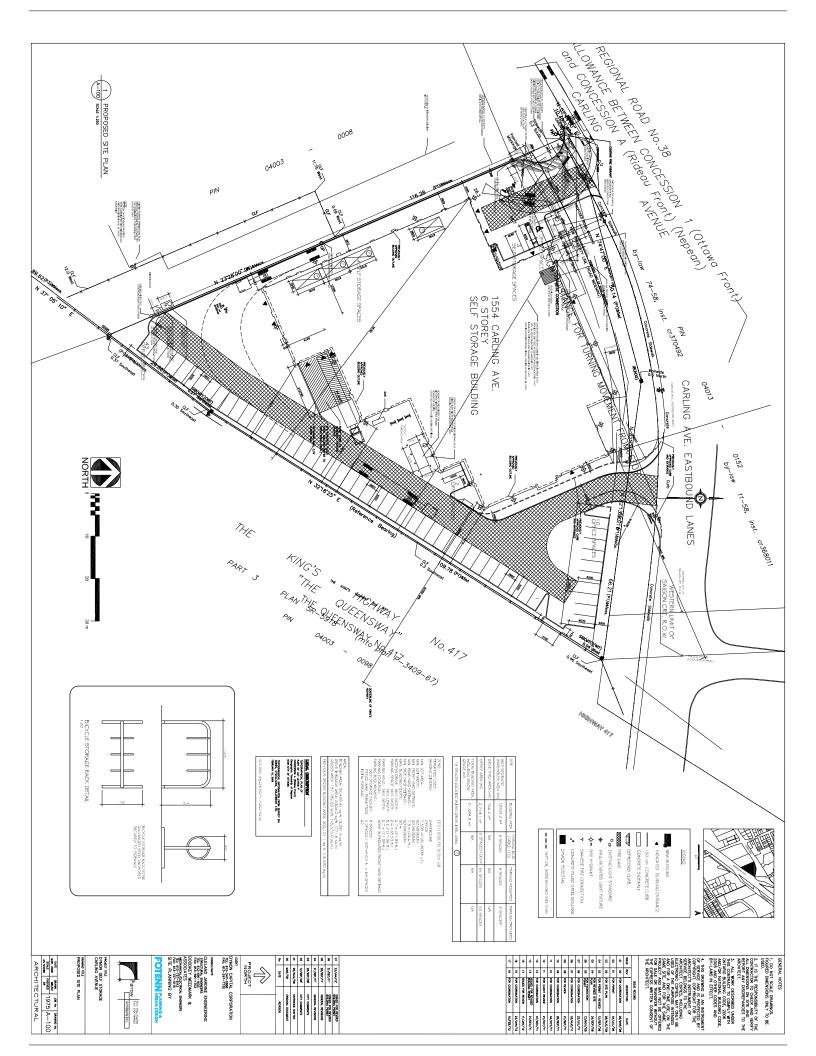
Office Contact Information (Please Print)
Address: 628 Haines Road
City / Postal Code: Newmarket / L3Y 6V5
Telephone / Extension: (905) 251-4070
E-Mail Address: Mark.Crockford@CGHTransportation.com



Appendix B

Proxy Site Trip Generation Data and Site Plans

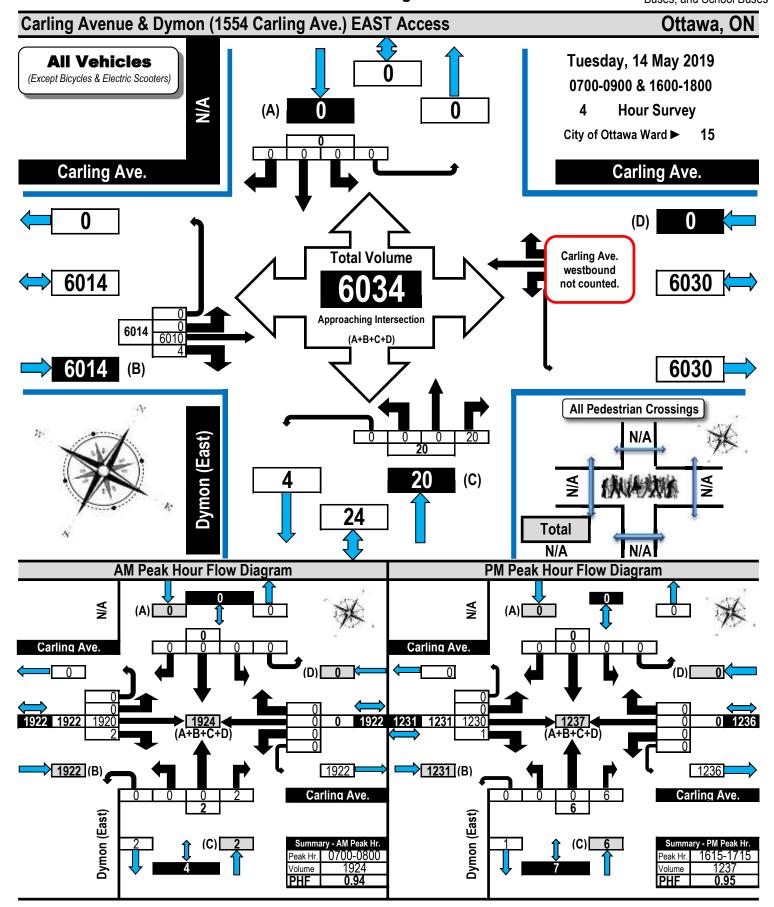






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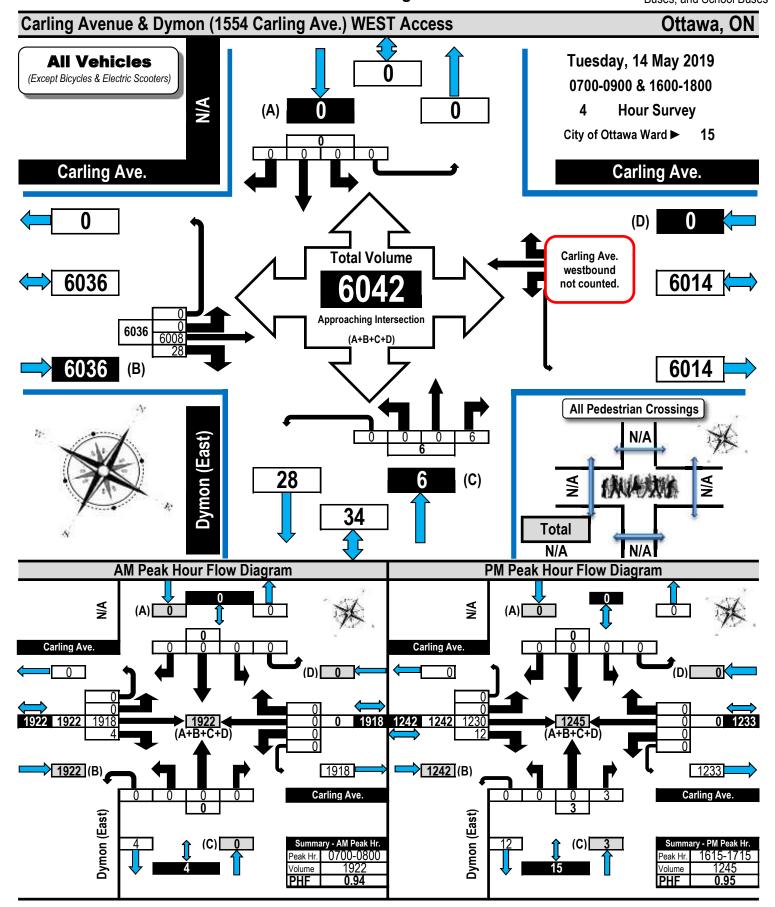
Turning Movement Count Summary, AM and PM Peak Hour Flow Diagrams

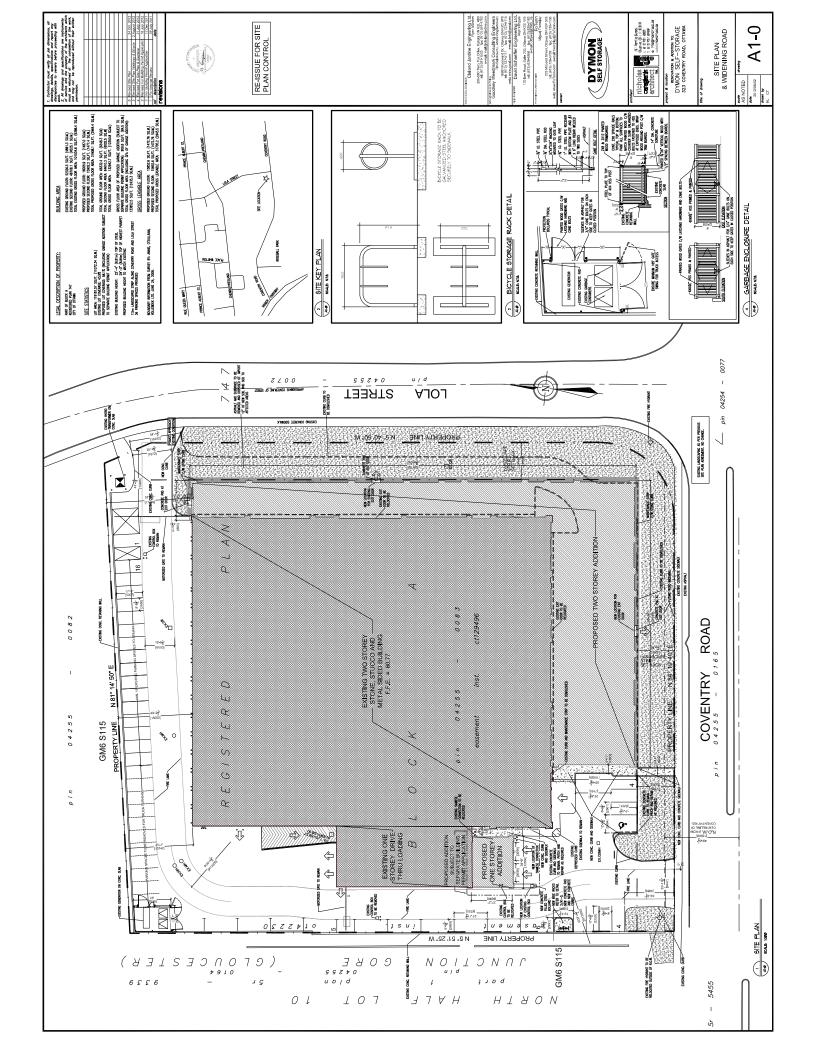




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Turning Movement Count Summary, AM and PM Peak Hour Flow Diagrams

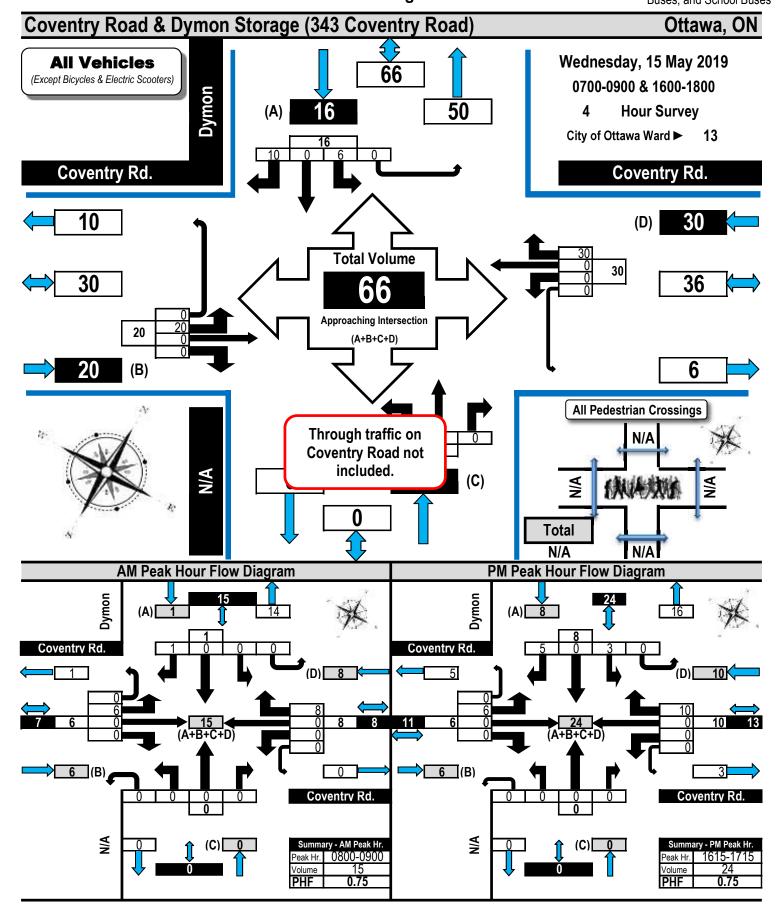






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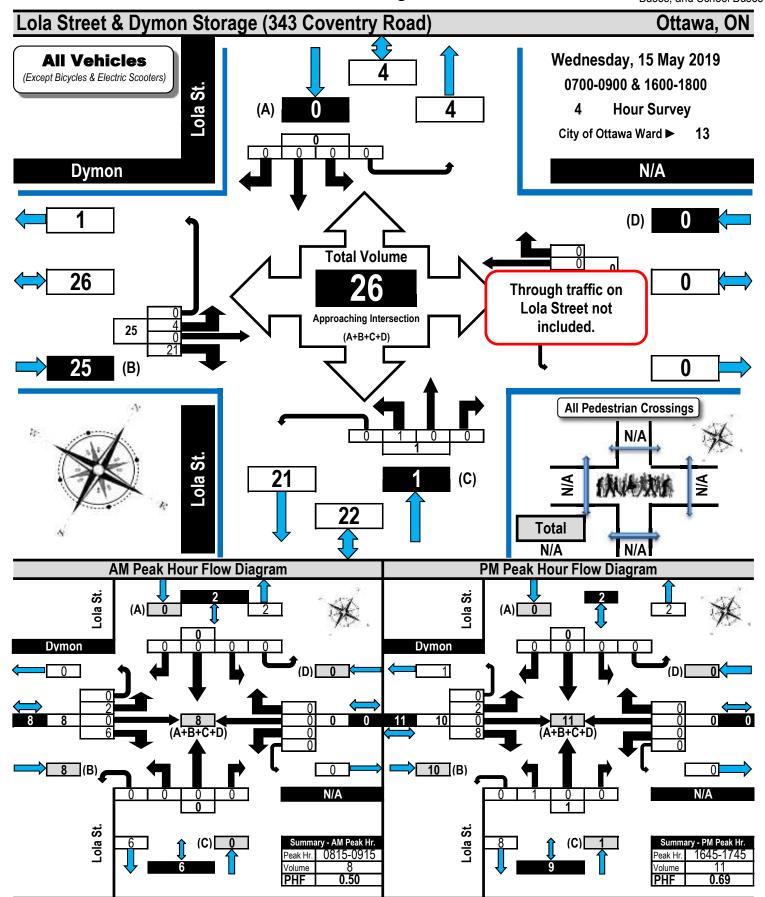
Turning Movement Count Summary, AM and PM Peak Hour Flow Diagrams





Printed on: 5/17/2019

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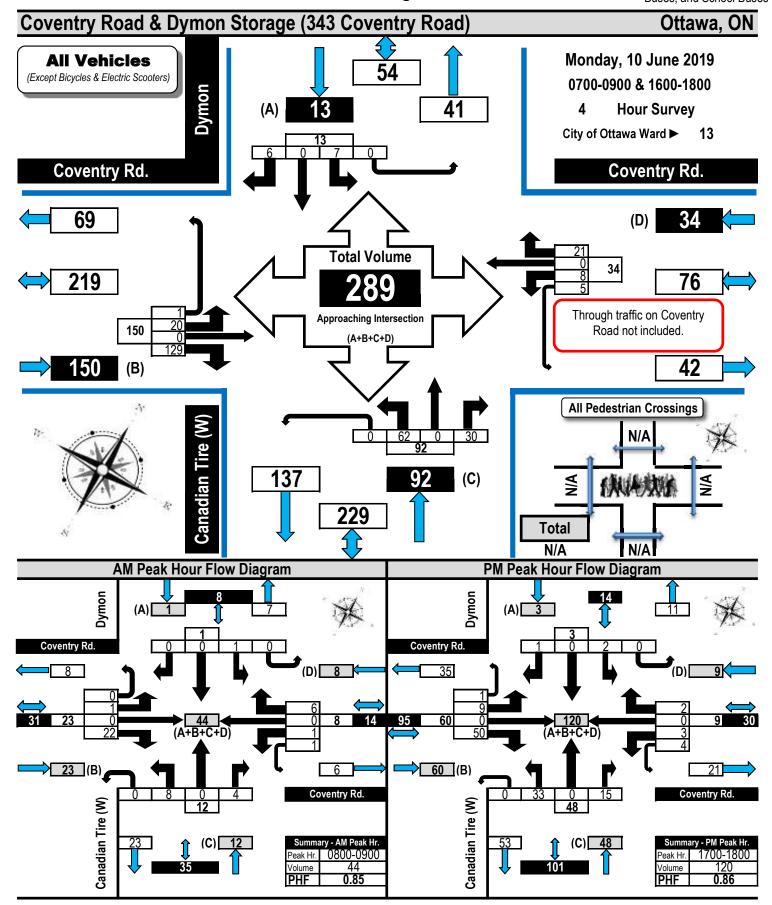




Turning Movement Count Summary, AM and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

Flow Diagrams: AM PM Peak

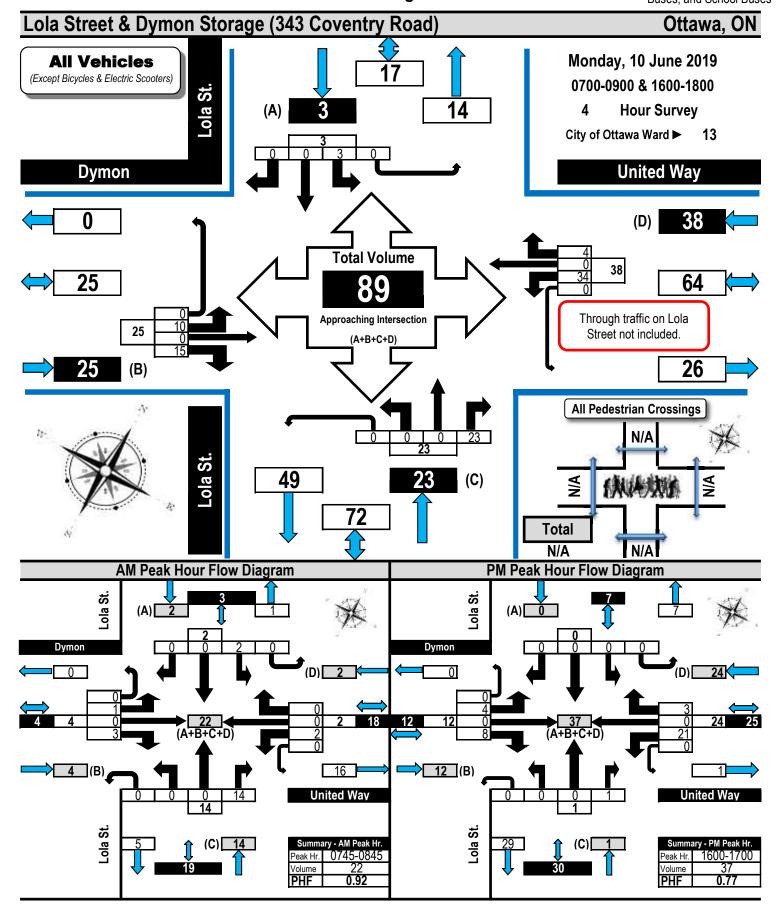




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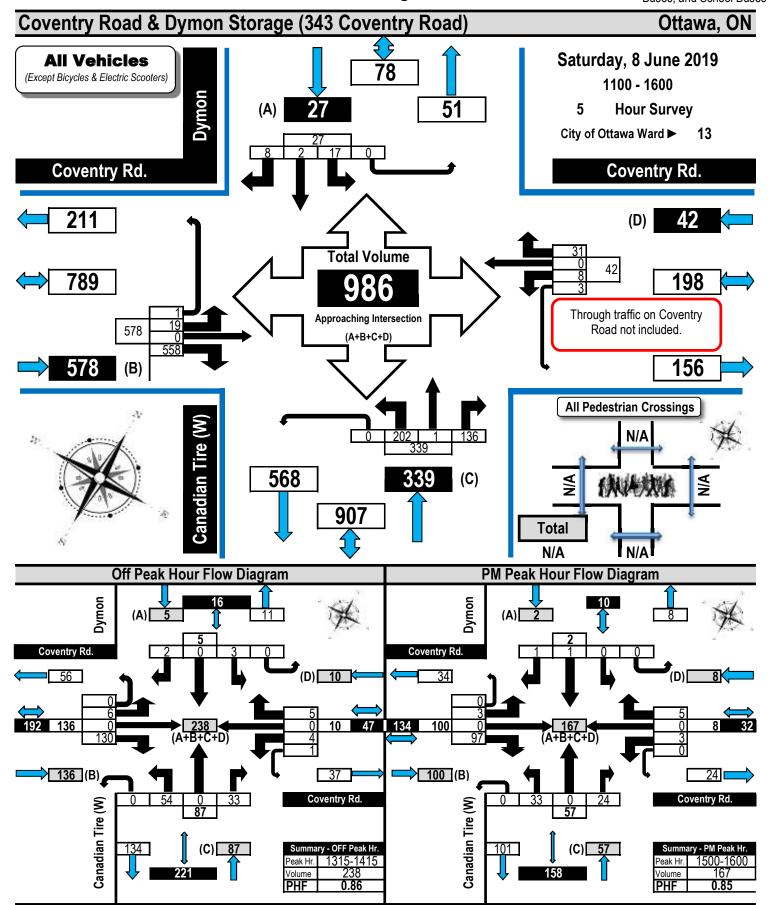




Turning Movement Count Summary, OFF and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

Flow Diagrams: OFF PM Peak

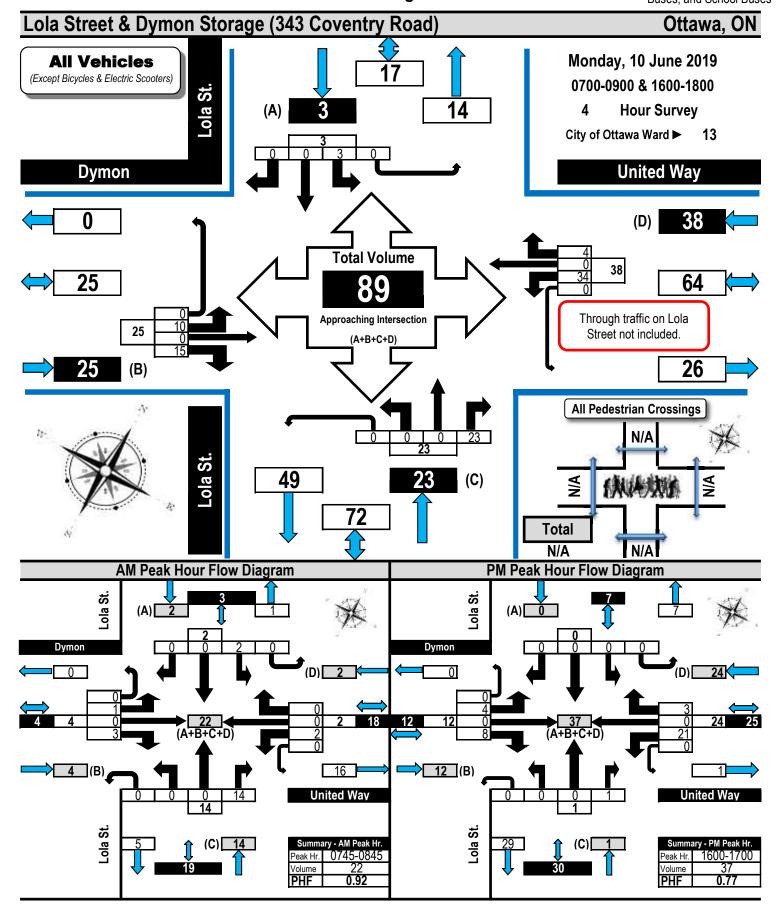


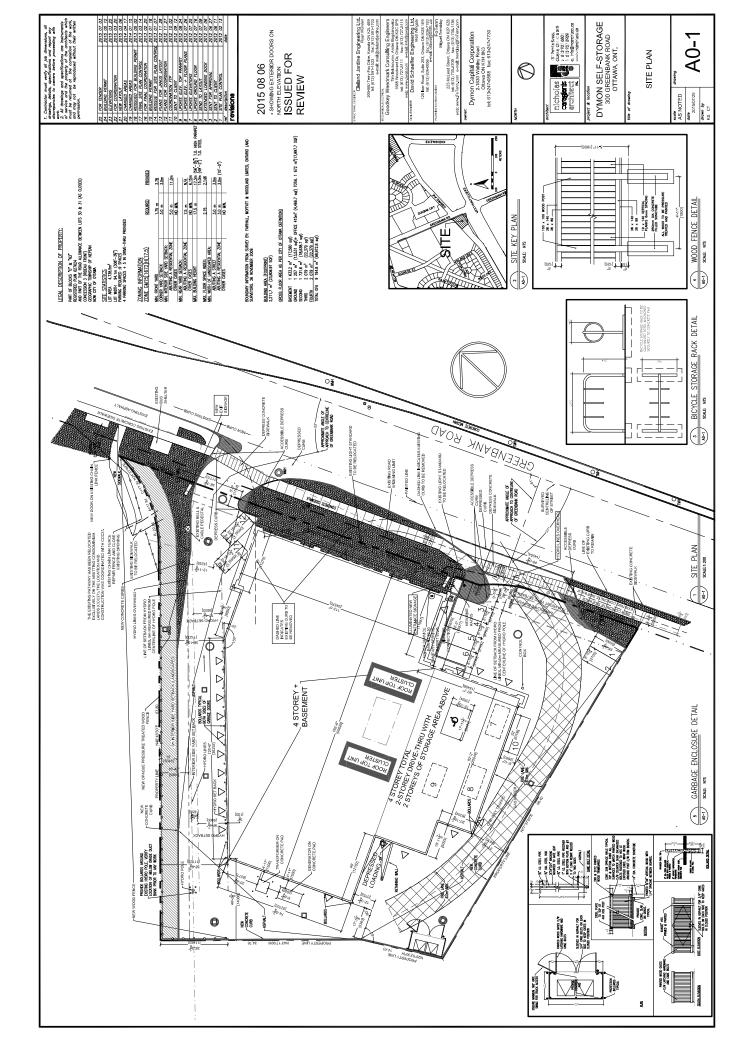


Turning Movement Count Summary, AM and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

Flow Diagrams: AM PM Peak



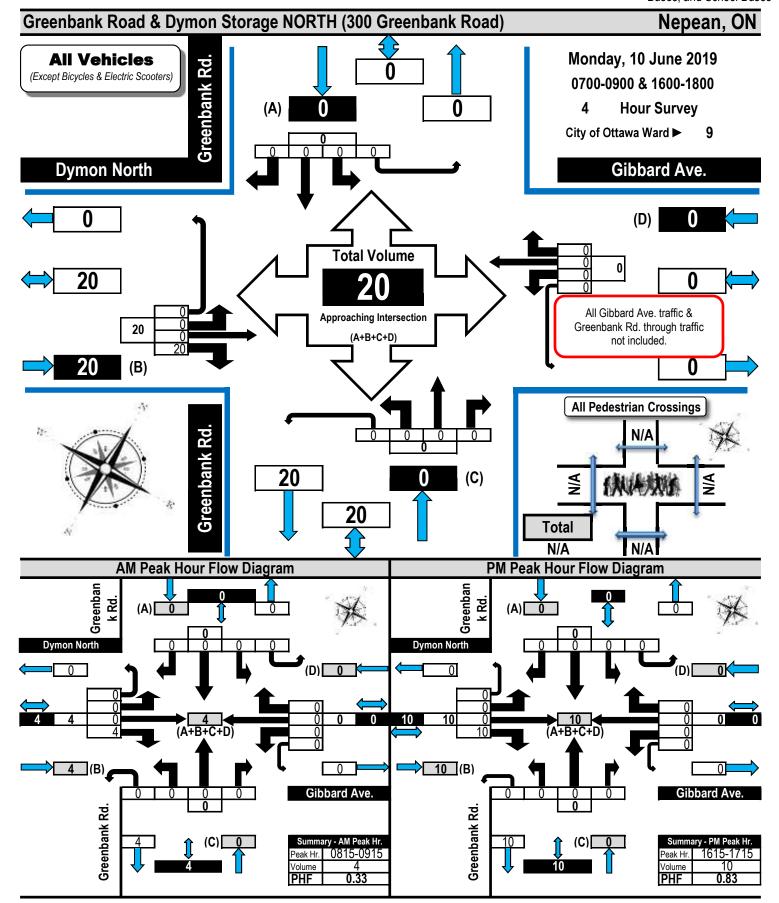




Turning Movement Count Summary, AM and PM Peak Hour Flow Diagrams

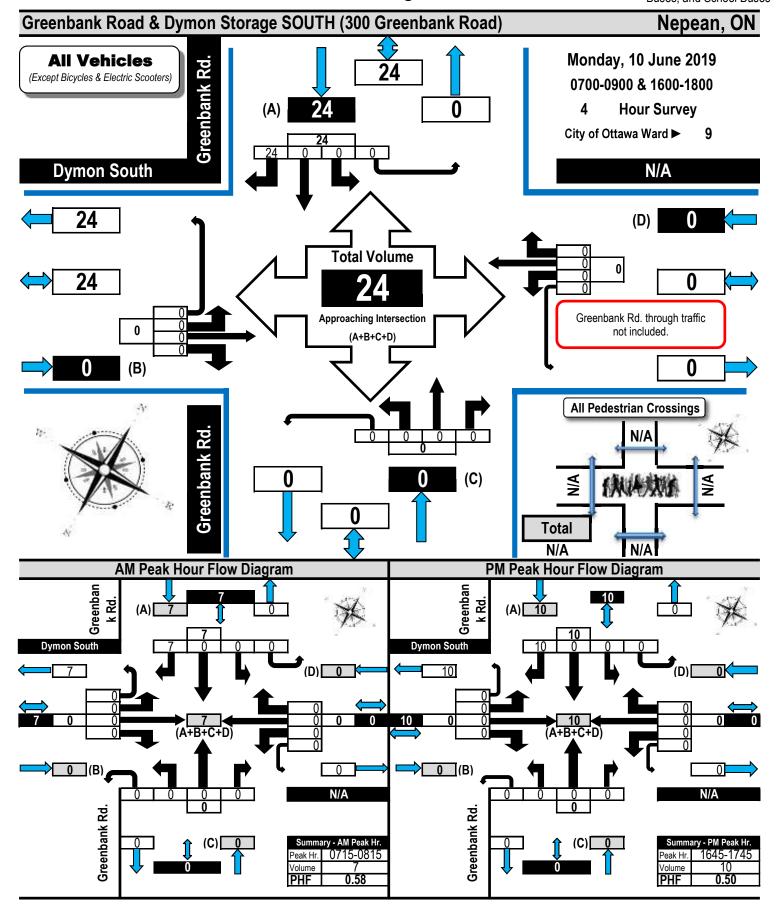
Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

Flow Diagrams: AM PM Peak





Turning Movement Count Summary, AM and PM Peak Hour Flow Diagrams

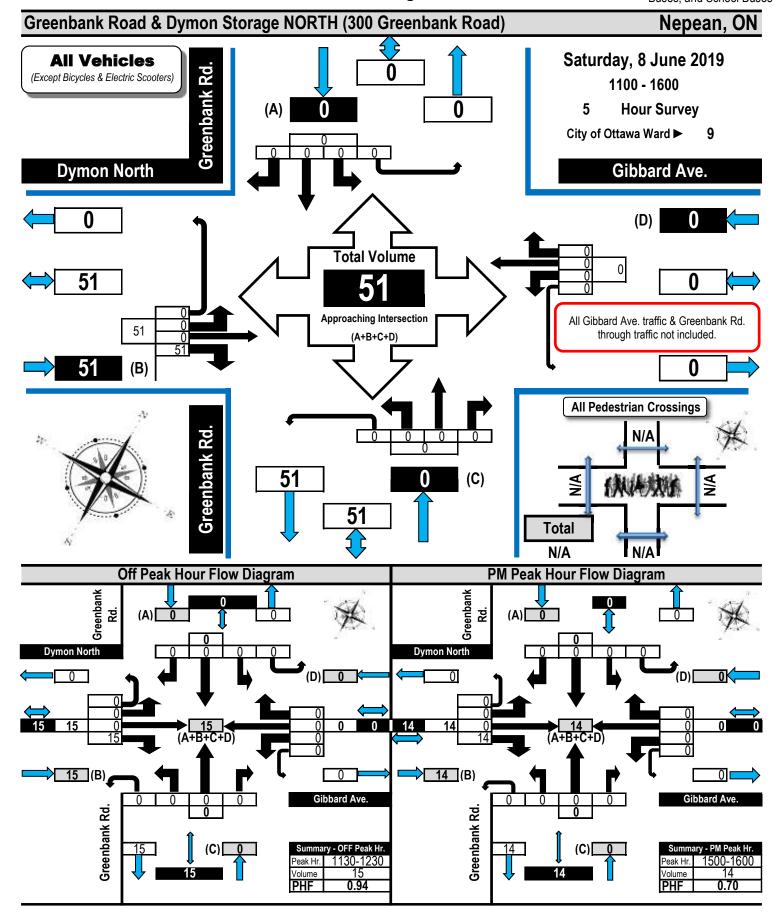




Turning Movement Count Summary, OFF and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

Flow Diagrams: OFF PM Peak

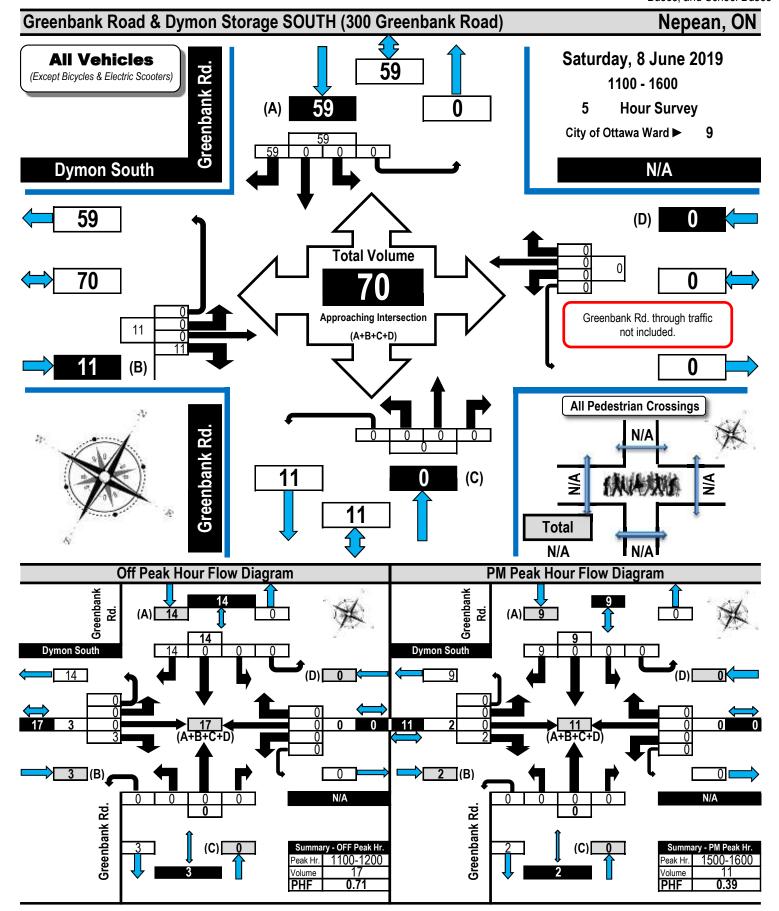




Turning Movement Count Summary, OFF and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light Trucks, Vans, SUV's, Motorcycles, Heavy Trucks, Buses, and School Buses

Flow Diagrams: OFF PM Peak



Appendix C

ITE LUC 151 Mini Warehouse Description



Land Use: 151 Mini-Warehouse

Description

A mini-warehouse is a building in which a number of storage units or vaults are rented for the storage of goods. They are typically referred to as "self-storage" facilities. Each unit is physically separated from other units, and access is usually provided through an overhead door or other common access point.

Additional Data

Time-of-day distribution data for this land use are presented in Appendix A. For the 10 general urban/ suburban sites with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 10:30 and 11:30 a.m. and 1:15 and 2:15 p.m., respectively.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in California, Colorado, Massachusetts, Minnesota, New Jersey, Texas, and Utah.

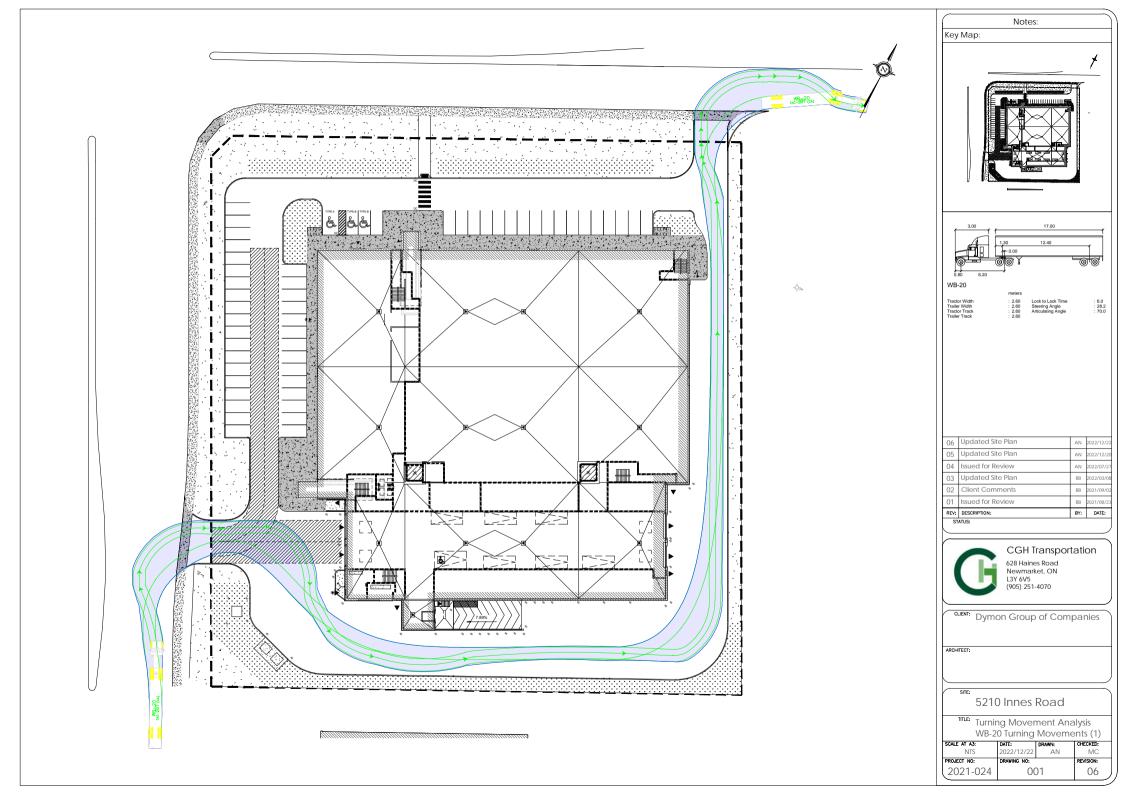
Source Numbers

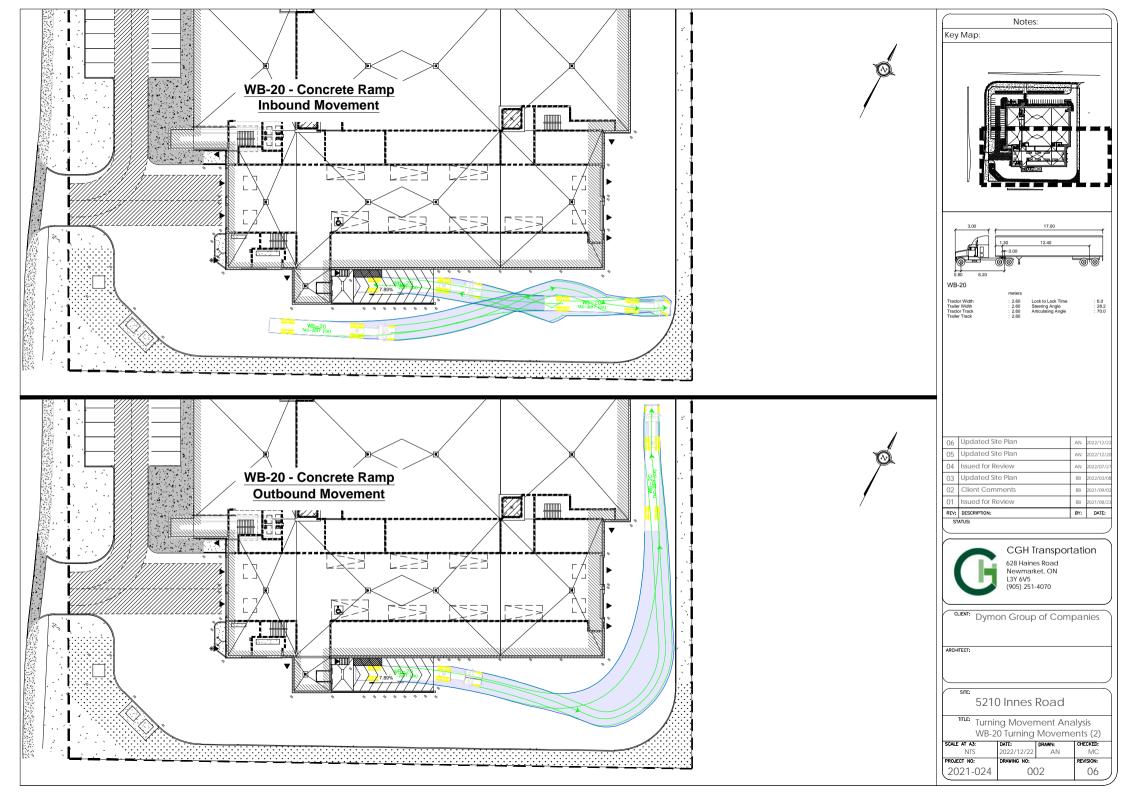
212, 403, 551, 568, 642, 708, 724, 850, 868, 876

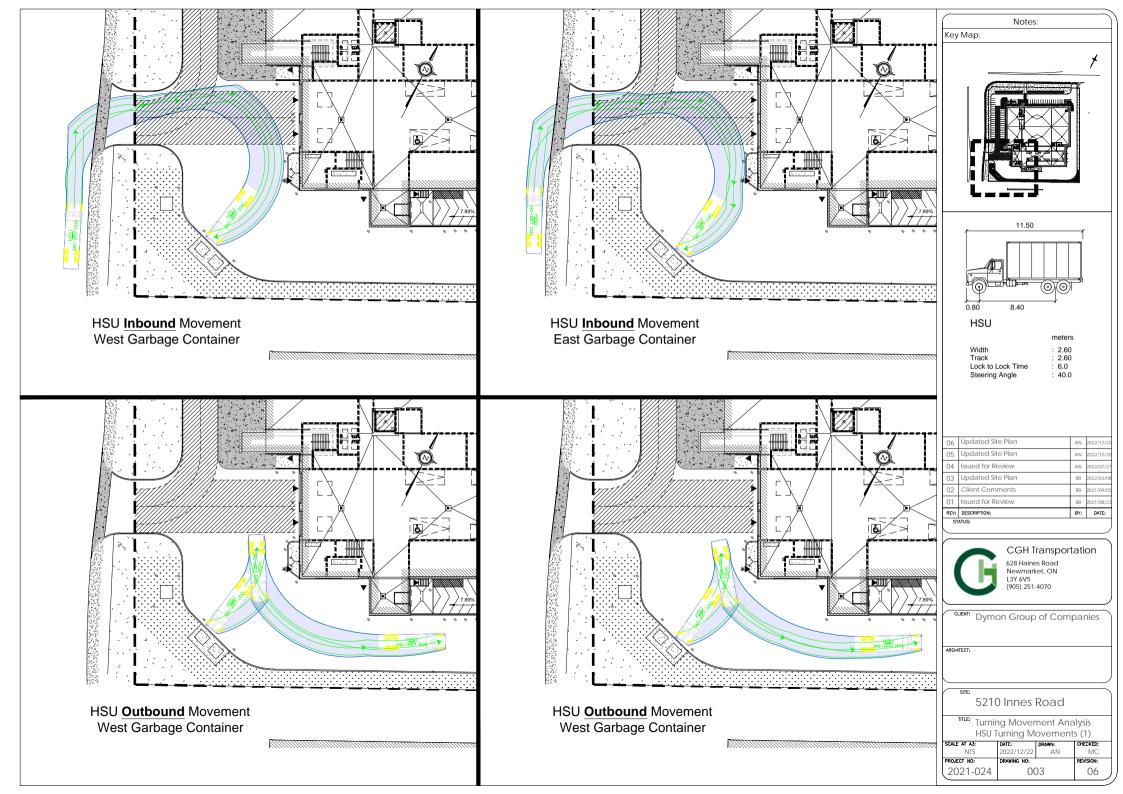
Appendix D

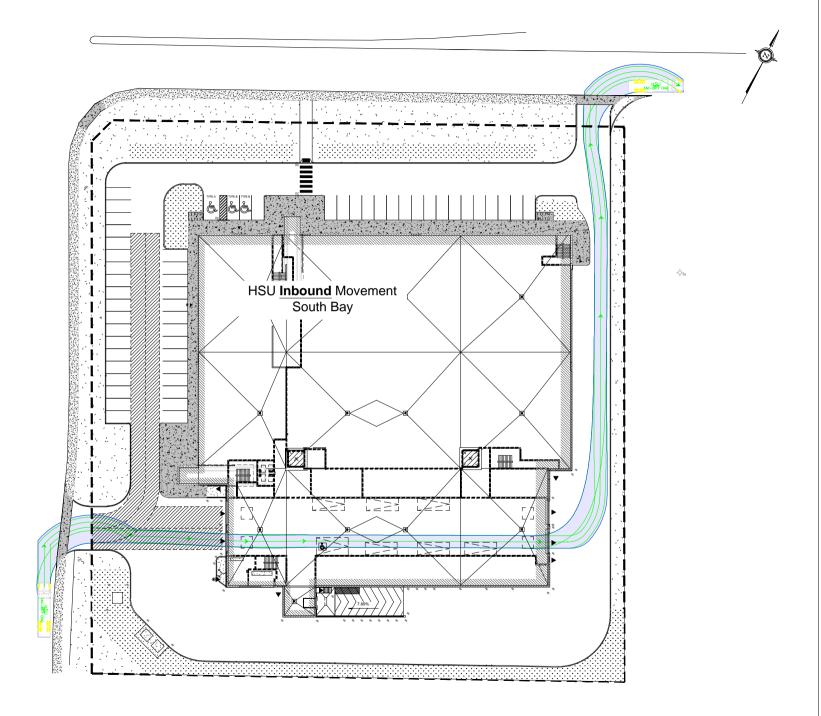
Turning Template Drawings



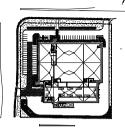


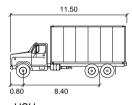






Notes:
Key Map:





HSU

 Width
 : 2.60

 Track
 : 2.60

 Lock to Lock Time
 : 6.0

 Steering Angle
 : 40.0

meters

REV:	DESCRIPTION:	BY:	DATE:
01	Issued for Review	BB	2021/08/2
02	Client Comments	BB	2021/09/0
03	Updated Site Plan	BB	2022/03/08
04	Issued for Review	AN	2022/07/2
05	Updated Site Plan	AN	2022/12/2
06	Updated Site Plan	AN	2022/12/22



CGH Transportation

628 Haines Road Newmarket, ON L3Y 6V5 (905) 251-4070

CLIENT: Dymon Group of Companies

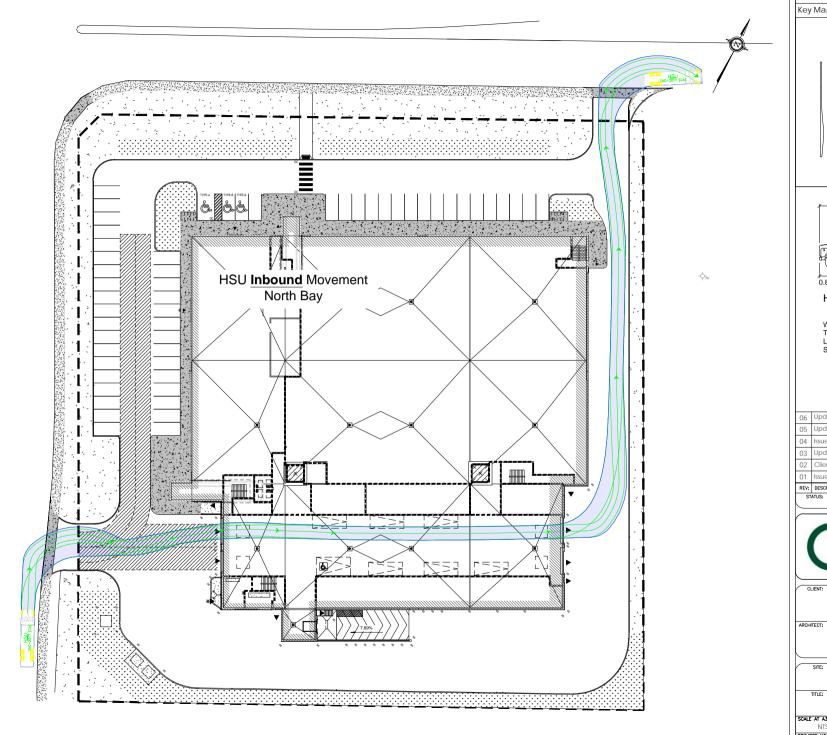
ARCHITECT:

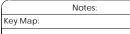
SITE:

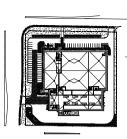
5210 Innes Road

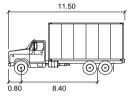
Turning Movement Analysis
HSU Turning Movements (2)

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
NTS	2022/12/22	AN	MC
PROJECT NO:	DRAWING NO:		REVISION:
2021-024	00)4	06









HSU

Width	: 2.60
Track	: 2.60
Lock to Lock Time	: 6.0
Steering Angle	: 40.0

meters

01 REV:	Issued for Review DESCRIPTION:	BB BY:	2021/08/23 DATE:
01	Issued for Review	BB	2021/08/23
02	Client Comments	BB	2021/09/02
03	Updated Site Plan	BB	2022/03/08
04	Issued for Review	AN	2022/07/27
05	Updated Site Plan	AN	2022/12/20
06	Updated Site Plan	AN	2022/12/22
	05 04 03	05 Updated Site Plan 04 Issued for Review 03 Updated Site Plan 02 Client Comments	05 Updated Site Plan AN 04 Issued for Review AN 03 Updated Site Plan BB 02 Client Comments BB



CGH Transportation

628 Haines Road Newmarket, ON L3Y 6V5 (905) 251-4070

CLIENT: Dymon Group of Companies

5210 Innes Road

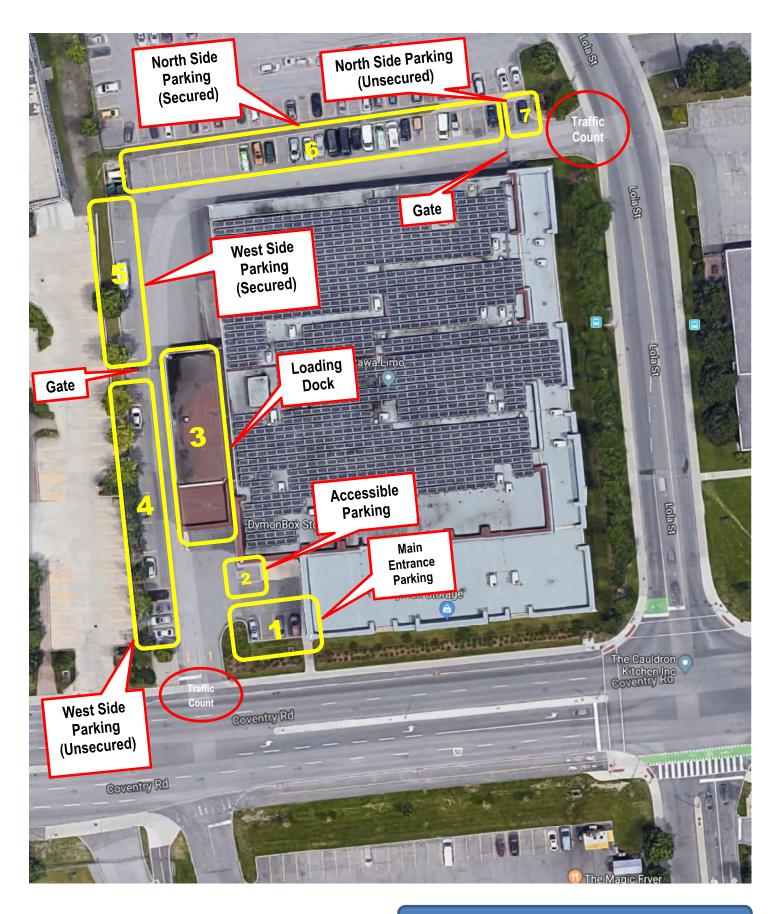
Turning Movement Analysis
HSU Turning Movements (3)

NTS	2022/12/22		MC:	
		AN	1010	
PROJECT NO:	DRAWING NO:		REVISION:	
2021-024	00)5	06	J
				٠.

Appendix E

Proxy Site Parking Data

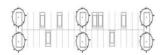






Revised: 07 June 2019

Off-Street Parking Usage



Dymon Storage - Off Street Parking Inventory

Dymon Storage

323 Coventry Road, Ottawa, ON K1K 3X6

Day: MONDAY Date: 10 June 2019 Survey Hours: 0730-2130 Weather: Partly cloudy +16C/Overcast Light Rain after 1900 +23C Surveyor (s): Brazeau/Carmody

		Numbe	er of Pa	rked Ve	hicles b	y Area			
Time	Area 1 Main Entrance	Area 2 Accessible	Area 3 Loading Dock	Area 4 West Side Unsecured	Area 5 West Side Secured	Area 6 North Side Secured	Area 7 North Side Unsecured		
0700									
0730	0	0	1	3	3	15	2		
0800	1	0	0	3	3	15			
0830	1	0	2	3	3	15	2		
0900	1	0	2 2 3	3	3	15	2		
0930	1	0		3	3	15	2		
1000	1	0	4	3	3	15	2		
1030	2	0	0	3 3 3 3 5 6	3 3 3 3 3 3 3 4 3 3 4	15	2 2 2 2 2 2 2 2 2		
1100	2 2 2	0	5	6	3	15	2		
1130 1200	2	0	6	5	3	14	2		
1200		0	7	6	3	14	2		
1230	1	0	7	4	3	14	2 2 2		
1300	1	0	1	4 3 5 4 5 4	4	15	2		
1330	0	0	1	3	3	15	2		
1400	0	0	1	5	3	15	2		
1430	1	0	5	4	3	14	2		
1500	3	0	3	5	3	14	2		
1530	4	0	1	4		14	2		
1600	2	0	3	4	4	14	2		
1630	1	0	1	4	3	16	2 2		
1700	1	0	0	3	3	16	2		
1730	2	0	1	3	3	16	2		
1800	3	0	2	3 3 3 4	ვ ვ ვ	16	2		
1830	3	0	3	4	3	16	2		
1900	3	0	0	2	3	17	2		
1930	2	0	1	2	3	16	2		
2000	3	0	1	2	3	16	2		
2030	3	0	1	2	3	16	2		
2100	3	0	0	2	3	16	2		
2130	2	0	0	2	3	16	2		
of Pkg Spaces ⇒	4	1	N/A	11	4	22	2		

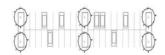
Comments
Area 4 - west side parking area, one
of the vehicles was a trailer parked for
every time period.
← Area 5 - one truck parked in middle
← Area 3 - truck in loading dock
← Area 5 - landscaping truck in middle
Area 3 - landscaping truck in middle
← Area 2 - truck parked beside accessible spot
← Area 5 - truck parked in middle of lot
← Area 3 - truck in loading dock
◆ Area 3 - truck in loading dock
← Area 5 - pickup truck loading
Area 6 - north side parking area. Although
there are 30 spaces, parking is prohibited
in 8 of them to permit tractor trailers to
manoeuvre into the loading dock.
Accordingly, only 22 spaces are available

for long term parking.

				П	П	3	3	4	2	4	10	6	11	∞	4	\vdash	3	9	_	9	9	4	2	4	9	∞	4	3	4	4	3	2
	Short																															
	Total (Short	Term)																														
	-	_		24	24	56	26	27	28	27	33	32	34	31	27	24	56	59	30	29	29	27	25	27	29	31	27	26	27	27	56	25
		Total																														
				1	0	2	2	3	4	0	5	9	7	7	П	1	\vdash	2	3	1	3	1	0	\vdash	2	3	0	1	\vdash	⊢	0	0
	-	(Interior)																														
	Total	(Int		0	\vdash	1	\vdash	1	\vdash	4	2	m	4	T	2	0	2	_	4	2	3	3	2	m	4	2	4	2	3	m	3	2
	hort																															
	Total (Short	Term)																														
	ĭ	Ĭ	44	23	24	24	24	24	24	27	28	56	27	24	56	23	25	24	27	28	26	56	25	56	27	28	27	25	56	56	56	25
	_	(Exterior)																														
	Total	(Ext		0.1		0.1	0.1	0.1		0.1	21	0.1	0.1	61	-	0.1	-	0.1	0.1	0.1		0.1		0.1	0.1	0.1		0.1	-	0.1	61	0.1
	Side	nred	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Area 7	North Side	Unsecured																														
A		\supset	22	15	15	15	15	15	15	15	15	14	14	14	15	15	15	14	14	14	14	16	16	16	16	16	17	16	16	16	16	16
a 6	North Side	Secured																														
Area 6			4	3	3	3	3	3	3	3	3	3	3	3	4	3	3	c	3	4	4	3	3	3	3	3	3	3	3	2	3	3
	West	ecure																														
	Area 5	Side Secured																														
/est			11	c	m	m	m	3	æ	2	9	2	9	4	4	m	2	4	2	4	4	4	က	m	က	4	2	2	2	2	2	2
Area 4 West	ө	Unsecured																														
Are	Side	U		1	0	2	2	3	4	0	2	9	7	7	П		\vdash	2	3	1	3	1	0	\vdash	2	3	0		\vdash	₽	0	0
3	ng																															
Area 3	Loading	Dock	1 N/A																													
		ple	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	rea 2	Accessible																														
	in A	Ă	4	0	\leftarrow	\vdash	\leftarrow	\vdash	\leftarrow	2	2	2	2	\vdash	Н	0	0	\vdash	3	4	2	\leftarrow	\vdash	2	3	3	3	2	3	m	3	2
	1 Ma	Entrance																														
	Area	Entr											_		_				_										_		_	
	entry	>		730	800	830	900	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600	1630	1700	1730	1800	1830	1900	1930	2000	2030	2100	2130
	323 Coventry Area 1 Main Area 2	Weekday	IIIs																													
	323	We	Stalls																													



Off-Street Parking Usage



Dymon Storage - Off Street Parking Inventory

Dymon Storage

323 Coventry Road, Ottawa, ON K1K 3X6

Day: SATURDAY Date: 8 June 2019 Survey Hours: 0830 -1830 Weather: AM Clear +10°C PM Clear +23°C Surveyor (s): Morgan/Carmody

		AIII OI	Jul - 10 0	i ili Olcui	- 20 0		oui veyo
		Numbe	er of Pa	rked Ve	hicles b	y Area	
Time	Area 1 Main Entrance	Area 2 Accessible	Area 3 Loading Dock	Area 4 West Side Unsecured	Area 5 West Side Secured	Area 6 North Side Secured	Area 7 North Side Unsecured
0700							
0730 0800							
0800							
0830	1	0	1	3	2	14	2
0900	2	0	4	3 2 2	3	14	2
0930	3	1	5 4	2	3	14	2
1000	3	0	4	2	3	14	2
1030	2 3 3 3 3 4	0	4 2	2 3 3 5 5 2 2	2 3 3 3 4	14	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
1100 1130 1200	3	0	2	3		14	2
1130	3	0	0	5	4	14	2
1200		0		5	3	14	2
1230 1300	4	0	1	2	3	14	2
1300	3	0	2	2	3	14	2
1330		0		2	3	14	2
1400	3	0	2	2	3	13	2
1430		0	1	3	3	14	2
1500	3 3 4	0	6 2 2	3	3	14	2
1530 1600	3	0	2	3	3	15	2
1600		0		3	3	15	
1630	3 4	0	2	3 3 3 3	3 3 3 3 3 3 3	15	2 2 2 2
1700	3	0	1	2	3	15	2
1730		0	1	2	3	15	2
1800	3	0	3	2	3	15	2
1830	2	0	1	2	3	15	2
1900							
1930							
2000							
2030							
2100							
2130							
Spaces ⇒	4	1	N/A	11	4	22	2

Comments

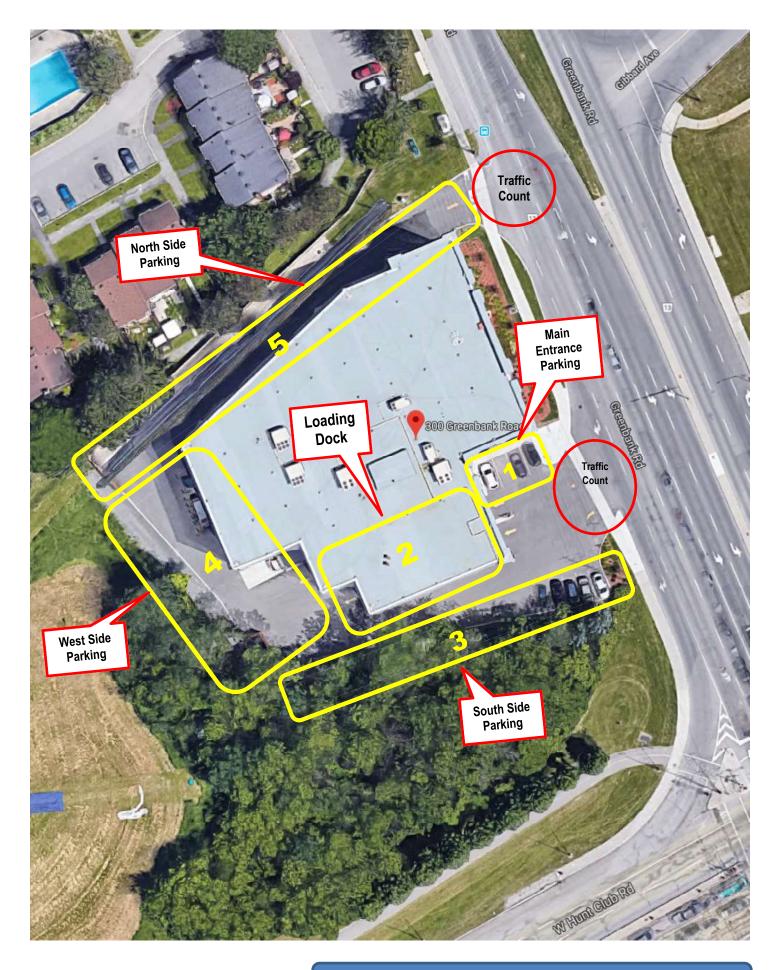
Area 4 - west side parking area one of the vehicles was a trailer parked for every time period.

Area 5 - west side parking area at 1100 and at 1130, one of the vehicles was a tractor trailer in the loading dock.

Area 6 - north side parking area 2 vehicles were trailers from 0830-1500 and after 1500-1830 3 of the vehicles were trailers.

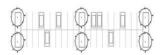
Area 6 - north side parking area Although there are 30 spaces, parking is prohibited in 8 of them to permit tractor trailers to manoeuvre into the loading dock. Accordingly, only 22 spaces are available for long term parking.

						00		_		10	_	_	_	0.1		10	•	.0	_	10	_			
	ŗ				ш,	∞	9	1	W	9	-	7	7	(7	(1)	ш,	6	9	1	0	7	ш,	9	3
	Total (Short	<u> </u>																						
	Tota	Term)																						
	'	'		23	27	30	28	29	28	28	29	26	26	24	25	27	31	28	29	28	26	27	28	25
		Total																						
		L		T	4	2	4	4	2	0	П	⊣	2	┰	2	T	9	2	2	2	T	┰	3	\vdash
	_	(Interior)																						
	Total	(Int																						
	ť			0	1	3	2	3	4	9	9	3	2	1	1	4	3	4	2	4	3	4	3	2
	Total (Short																							
	otal	Term)																						
	_	_	44	22	23	25	24	25	26	28	28	25	24	23	23	56	25	56	27	56	25	26	25	24
		ior)																						
	Total	(Exterior)																						
			7	2	2	2	2	2	7	7	7	2	7	2	7	2	7	7	2	2	7	2	7	2
	North Side	Unsecured																						
Area 7	orth	ısecı																						
Ā	ž	Ď	22	14	14	14	14	14	14	14	14	14	14	14	13	14	14	15	15	15	15	15	15	15
	side	0	7				1	\vdash	Т	1	П	1	П		1		1	1	1	\vdash	1	\vdash	1	1
Area 6	rth 9	cure																						
Ar	Area 5 West North Side	cured Secured	4	7	33	23	2	3	4	4	2	3	3	3	3	3	3	3	3	3	3	3	3	3
	West	cure												. ,										
	a 5	Side Se																						
	Are	Sid	_	~	0.1	2	0.1	~~				0.1	0.1	2	0.1	3	~	2	8	8	2	2	2	2
Area 4 West		pə.	11	3	2	()	(1	3	c	5	2	2	2	()	2	(1)	3	(1)	(1)	(1)	()	()	()	(7
a 4 \	a)	Unsecured																						
Are	Side	Uns																						
					4	2	4	4	2	0	1	_	2	1	2	1	9	2	2	2	T	1	3	1
3 3	Loading	~																						
Area 3	Loa	Dock	1 N/A																					
		<u>e</u>	\leftarrow	0	0	\leftarrow	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2	Accessible																						
	Area	Acce																						
	ain		4	\vdash	7	3	3	3	က	3	4	4	3	2	3	4	3	3	4	3	3	4	n	2
	1 M	nce																						
	Area 1 Main Area 2	Entrance																						
		Ш		830	006	930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	1530	1600	1630	1700	1730	1800	1830
	entry	_		00	U)	O)	10	10	11	11	12	12	13	13	14	14	15	15	16	16	17	17	18	18
	323 Coventry	Saturday	S																					
	323	Satu	Stalls																					





Off-Street Parking Usage



Dymon Storage - Off Street Parking Inventory

Dymon Storage

300 Greenbank Road, Ottawa, ON K2H 0B6

Day: MONDAY Date: 10 June 2019 Survey Hours: 0700-0900 & 1600-1800

Weather: Partly Cloudy +16C/Overcast Light Rain after 1900 +23C Surveyor (s): Mousseau

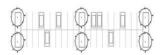
		Numbe	er of Pa	rked Ve	hicles b	y Area	
Time	Area 1 Main Entrance	Area 2 Loading Dock	Area 3 South Side Parking	Area 4 West Side Parking	Area 5 North Side Parking		
0700	0	0	0	0	0		
0730	0	0	2	0	0		
0800	0	0	3	1	0		
0830	0	1	3 3	0	0		
0900	0	1	3	0	0		
0930 1000 1030 1100 1130 1200 1230							
1000							
1030							
1100							
1130							
1200							
1230							
1300 1330 1400							
1330							
1400							
1430							
1500							
1530	4		•	•	•		
1600	1	2	<u>2</u> 1	0	0		
1600 1630 1700	0	2 3 2 2 3		0	0		
1700	0	2	1	0	0		
1/30	<u>0</u> 1	2	4	0	0		
1730 1800 1830	1	3	4	0	0		
1030							
1900 1930							
2000							
2030							
2100							
2130							
Z 130		NI/A	-	0	0		

Comments
1 employee parked 1 employee Dymon van parked near gargage bin
BFG van parked next to building
Jordash van parked in fire lane
Accessible parking area is
located within the loading dock.

	Area 2						
in.		Area 3 South	Area 4 West	Area 3 South Area 4 West Area 5 North Total			
Entrance Dock		Side Parking	Side Parking	Side Parking Side Parking Side Parking (Exterior)	r) (Interior)	or) Total	
4 N/A		5	0	0	6		
0	_	0 0	0	0	0	0	0
0 0	0	2	0	0	0	2	2
0 0	0	3	1	0	1	3	4
0 1	\vdash	3	0	0	1	က	4
0 1	\vdash	3	0	0	1	3	4
1 2	2	2	0	0	က	2	5
0 3	3	1	0	0	3	1	4
0 2	2	\vdash	0	0	2	1	3
0 2	2	4	0	0	2	4	9
1 3	က	4	0	0	4	4	∞



Off-Street Parking Usage



Dymon Storage - Off Street Parking Inventory

Dymon Storage

300 Greenbank Road, Ottawa, ON K2H 0B6

Day: SATURDAY Date: 8 June 2019 Survey Hours: 1100 - 1600 Weather: Clear +10°C Clear +23°C Surveyor (s): Mousseau

		Numbe	er of Pa	rked Ve	hicles b	y Area	
Time	Area 1 Main Entrance	Area 2 Loading Dock	Area 3 South Side Parking	Area 4 West Side Parking	Area 5 North Side Parking		
0700							
0730							
0800							
0830							
0900							
0930							
1000							
1030							
1100	1	4	4	0	0		
1100 1130	2	6	3 3 3 4	0	0		
1200	1	4	3	0	0		
1230	1	1	3	0	1		
1300	1	2	3	0	0		
1330	1	1		0	0		
1400	0	2	5	0	1		
1430	0	2	3 4	0	0		
1500	0	7		0	0		
1530	1	6	4	0	0		
1600	0	2	4	0	0		
1630							
1630 1700 1730							
1730							
1800							
1830							
1900							
1930							
2000							
2030							
2100							
2130		N1/A	-				
g Spaces 🖈	4	N/A	5	0	0		

Comments
At 1100 and at 1500 a van
parked in the fire lane.
Employee parking takes place
in Area #3 (3 vehicles)
Accessible parking area is located within the loading dock.
Todated Willim the loading door.

	Area 2	1 2							
300 Greenbank	300 Greenbank Area 1 Main Loading	ling	Area 3 Soutl	Area 3 South Area 4 West Area 5 North Total	Area 5 North	Total	Total		
Saturday	Entrance Dock	~	Side Parking	Side Parking Side Parking (Exterior)	Side Parking	(Exterior)	(Interior)	Total	
Stalls	4 N/A		1,	5 0	0		6		
1100	1	4		4 0	0		5	4	6
1130	2	9		3 0	0		∞	3	11
1200	1	4	,	3 0	0		5	3	∞
1230	1	1		3 0	1		3	3	9
1300	1	2		3 0	0		3	3	9
1330	1	Т		4 0	0		2	4	9
1400	0	2		5 0	1		3	5	∞
1430	0	2	,	3 0	0		2	3	2
1500	0	7		4 0	0		7	4	11
1530	1	9	,	4 0	0		7	4	11
1600	0	2		4	0		2	4	9