

City of Ottawa 2017 TIA Guidelines
TIA Screening Form

Date 4-Oct-17
Project 851 Industrial Avenue
Project Number

Results of Screening	Yes/No
Development Satisfies the Trip Generation Trigger	No
Development Satisfies the Location Trigger	No
Development Satisfies the Safety Trigger	No

Module 1.1 - Description of Proposed Development	
Municipal Address	851 Industrial Avenue
Description of location	J G P T E P T LOT 14 AS PARTS;1 & 2 5R8804
Land Use	Self Storage / Small Retail
Development Size	167,000 ft ²
Number of Accesses and Locations	2; Site Frontage on Industrial Ave
Development Phasing	n/a
Buildout Year	estimated 2020
Sketch Plan / Site Plan	See attached

Module 1.2 - Trip Generation Trigger	
Land Use Type	Industrial
Development Size	N/A sq. m
Trip Generation Trigger Met?	No, <60 person trips during weekday peak hour, see attached

Module 1.3 - Location Triggers	
Development Proposes a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit, or Spine Bicycle Networks	No
Development is in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone.	No
Location Trigger Met?	No

Module 1.4 - Safety Triggers	
Posted Speed Limit on any boundary road	<60 km/h
Horizontal / Vertical Curvature on a boundary street limits sight lines at a proposed driveway	No
A proposed driveway is 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) or within auxiliary lanes of an intersection;	No
A proposed driveway makes use of an existing median break that serves an existing site	No
There is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development	No
The development includes a drive-thru facility	No
Safety Trigger Met?	No



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 ☒ appropriate field(s)] is either transportation engineering ☐ or transportation planning ☐.

^{1,2} **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.**

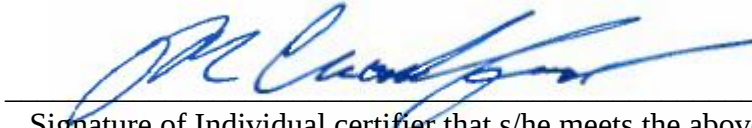
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Sustainability
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Urbanisme et Gestion de la croissance
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Tél. : 613-580-2424
Télécopieur: 613-560-6006

Dated at Markham this 4 day of October, 2017.
(City)

Name: Mark Crockford
(Please Print)

Professional Title: Professional Engineer


Signature of Individual certifier that s/he meets the above four criteria

Office Contact Information (Please Print)
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October 2, 2017

Dymon Group of Companies
2-1830 Walkley Road
Ottawa, Ontario, K1H 8K3

Attention: Bliss Edwards, MCIP RPP

Subject: Dymon Storage – 851 Industrial Avenue Transportation Overview Letter

Dear Ms. Edwards,

The following letter is being submitted to provide the City of Ottawa with an inventory of transportation impacts associated with the development of 851 Industrial Avenue. The proposed 167,000 ft² storage facility will replace an existing auto-rental facility with a large parking lot and several service bays. The south portion of the main floor of the proposed building will be an 8,000 ft² retail store. Adjacent to the access to the interior loading bay there is a Dymon Reception / retail area (approximately 4,400 ft²), supporting the self-storage facility.

The purpose of this letter is to support the Site Plan Application for 851 Industrial Avenue by addressing the key transportation issues including:

- Trip Generation – the proposed site will generate a minimal number of new trips.
- Parking Requirements – there are differences between the proposed parking supply and zoning requirements.
- Site Access - the proposed site plan includes connections on to the adjacent street (Industrial Avenue).

Dymon Storage Transportation Context

Trip Generation

The Dymon Self-Storage concept has been well established in the National Capital Region for almost a decade. Dymon currently has eight self-storage facilities in Ottawa, and has plans for up to 10 more in the National Capital Region in the coming years. Parsons (formerly Delcan) has completed the transportation planning for almost all of these facilities and has a very good understanding of the trip generation and parking behaviour for these types of facilities.

There is no comparable land use to a self-storage facility within the ITE Trip Generation Manual. The Self- Storage Almanac (USA), however, does contain information on daily traffic flow entering self-storage facilities based on experience in the US. The total number of daily trips entering self-storage facilities is found to range between 10 trips for the most basic, smallest facilities to approximately 30 trips for the largest facilities. Variables include location, number of units, rentable square footage, facility age, etc. For the subject Dymon Storage facility, the estimated number of daily entering trips is assumed to be approximately 30, which equates to 60 daily two-way trips. Field observations of two existing self-storage facilities in Ottawa revealed actual peak hour traffic volumes of 5 to 6 two-way trips per hour.

As such, the expected traffic generation to/from the Dymon Storage facility, as proposed, should be considered relatively benign compared to the existing traffic volume on the adjacent arterial roadway (Industrial Avenue).

At some of the Dymon self-storage facilities in Ottawa, the site also accommodates a variety of retail land uses ranging from complementary sales of moving boxes and other supplies to completely unrelated retailers. For example, the facility located at 2420 Bank Street in Ottawa is integrated with a third party store. The Site Plan for the subject development shows a 2,500 ft² Dymon retail area, as well as 10,000 ft² of retail space. Generally, the retail uses associated with

Dymon Storage Facilities are not considered typical retail establishments such as a coffee shop or florist, but rather small storefront areas with connected storage needs (which the Dymon facility would provide).

In addition to examining the potential number of trips that would be generated, a survey of large truck trips was carried out over the course of one week at seven different Dymon Storage facilities. No trucks visited five of the seven sites. At the other two sites, a total of 11 trucks were counted. The proposed site will have a loading area specifically for trucks and as such will generate some truck traffic. However, based on the previously noted observations, large trucks will have no impact on the adjacent roadway network, except for access design.

Parking Requirements

Similar to trip generation rates, it is unlikely that the applicable parking By-law requirement in the City of Ottawa for self-storage facilities is suitable, and to supply the site with the amount of parking consistent with the designated zoning would be wasteful. With regards to parking demand, users of the self-storage facility will typically drive directly into the interior loading bay and therefore do not require traditional on-site parking. Those patrons visiting the retail portion of the site would require on-site parking. Employee parking requirements for Dymon are also considered minimal. A parking survey completed in 2012 for a Dymon site in Ottawa indicated a maximum number of four occupied stalls of the available 10 designated for Dymon patrons. The parking requirements for the retail areas are also considered very modest, and therefore the 57 total proposed parking spaces for the entire site are considered adequate.

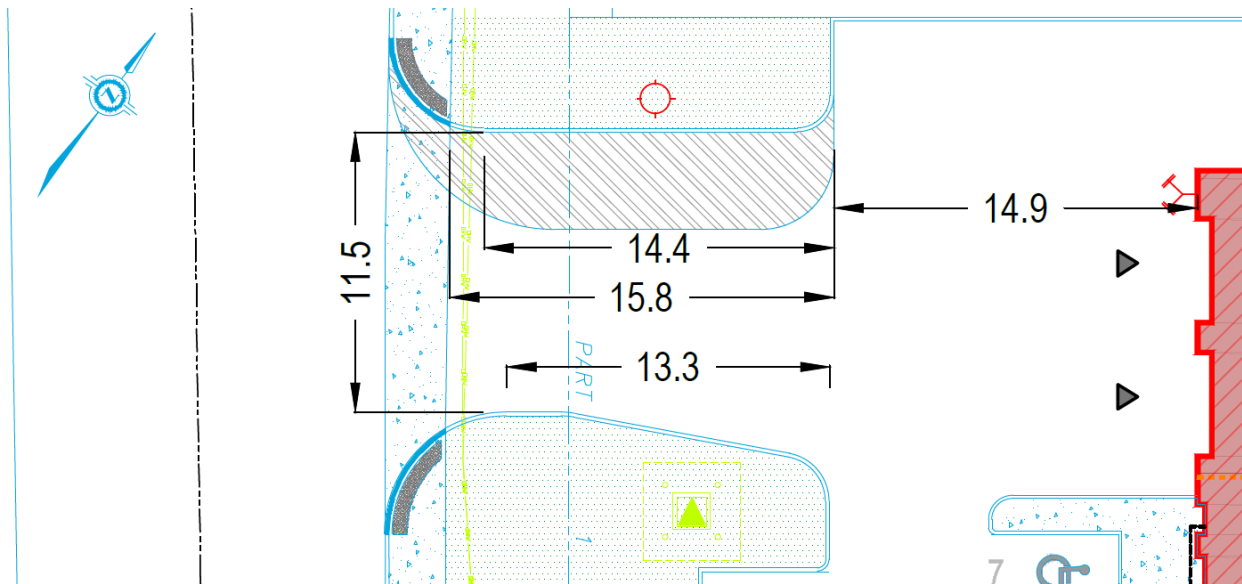
Site Access

The site plan proposes two accesses onto Industrial Avenue. At the south access, the curb radii have been designed to accommodate an outbound WB-20 truck turning template. At the north access a mountable concrete apron has been provided to accommodate the inbound WB-20 truck turning template. Included as Attachment 1 is the site plan including the relevant turning templates.

A clear throat length is provided at major driveways in order to create a no conflict and storage zone within the driveway. This is to prevent frequent blocking of on-site circulation roads, which could cause vehicles entering the site to queue onto the adjacent roads. For this site, a 15m clear throat length is required.

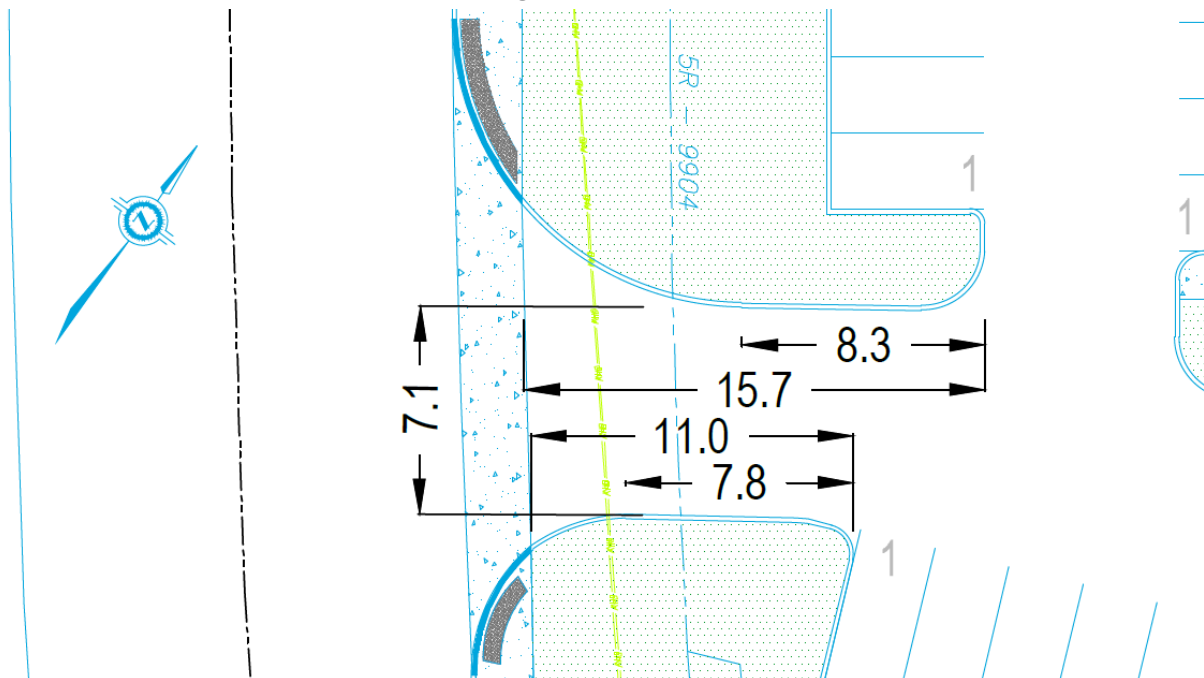
At the north access a 14.4m clear throat length is provided on the north side of the access and 13.3m on the south side of the access. While this is slightly less than the requirement of 15m, large curb radii are provided on the access to accommodate the truck turning templates. However, if the throat length is measured from the back of the sidewalk there is approximately 16m of throat length. Therefore, there is adequate space on the site to provide storage for inbound vehicles without blocking the sidewalk, or the adjacent roadway. Additionally, the inbound vehicles to this access are not likely to stop at the end of the curb, but would stop at the entrance to the drive-through, which is a further 15m into the site. Figure 1 below shows the northern access and the relevant dimensions.

Figure 1: North Access



At the south access, an 8m clear throat length is provided on the north side of the access and 8m on the south side of the access. This is less than the required 15m. Similar to the north access, large curb radii are provided to accommodate truck turning movements. When measuring the throat length from the back of the sidewalk there is approximately 16m on the north side of the access and 11m on the south side of the access. While this does not meet the requirement of 15m, it is important to understand the operations of the proposed accesses with respect to large trucks. WB-20 trucks will enter through the north access and circulate through the site in a clockwise direction, exiting at the southern access. From an access operations perspective, this means that WB-20 trucks will not be entering at the southern access. Therefore, the throat length requirements are not the same as they would be at a location where WB-20 trucks would be entering. A TAC HSU design vehicle is the largest vehicle that is anticipated to enter at the southern access, an 11.5m truck. This can be accommodated within the throat length without the truck interfering with traffic on the adjacent roadway. Figure 2 below illustrates the southern access and the relevant dimensions.

Figure 2: South Access



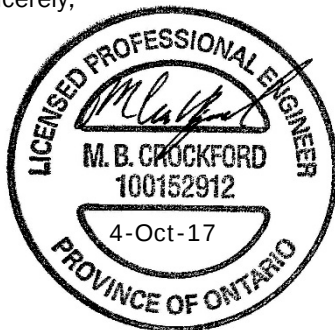
Also dimensioned on both Figure 1 and Figure 2 is the access width. The northern access has an access width of 11.5m. As this is greater than the typically accepted access width (9.0m) a concrete apron has been provided that is 4m wide in order to narrow the access, while still allowing WB-20 trucks to access the site. The southern access is 7.1m wide.

Conclusions

Based on the foregoing, the proposed site will generate a minimal number of peak hour trips, and as a result will have a negligible impact on the adjacent road network. The very low demands generated by a Dymon Storage facility translates into the need for minimal parking, and as a result, the proposed 57 parking spaces would adequately serve the needs of the proposed site. The proposed access configuration supports the proposed interior loading bay, and is appropriate given the nature and size of the proposed development.

Therefore, development of the proposed Dymon Storage facility is recommended from a transportation perspective.

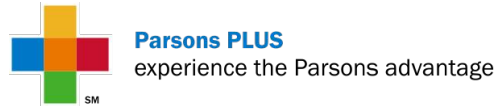
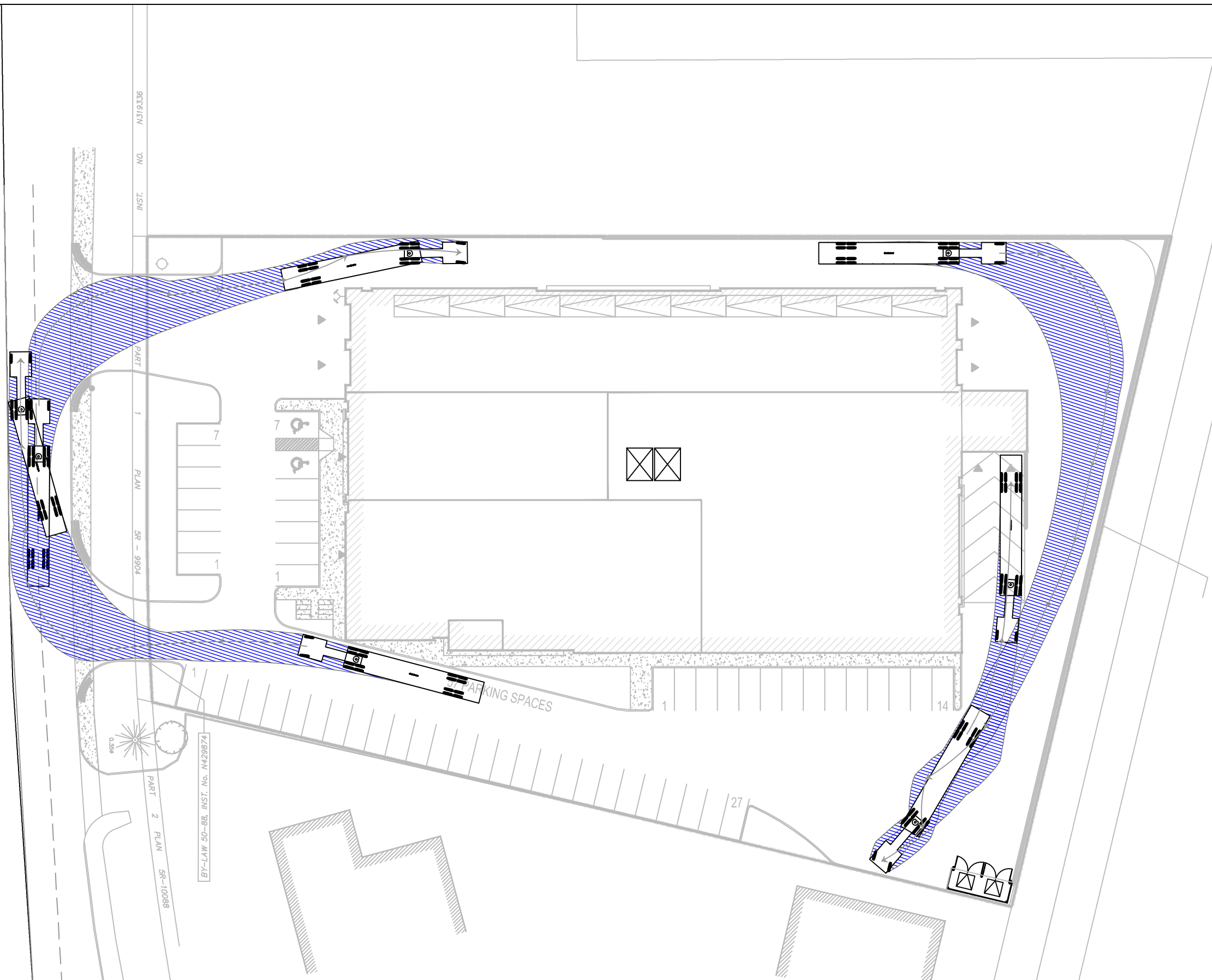
Sincerely,



Mark Crockford, P. Eng.
Transportation Engineer

Attachments:

Attachment 1 – Site Plan



Legend

Drawing Description			WB-20 Truck Turning Template	
Client		Date	Oct. 4, 2017	Figure Number
Project Number		Project Description		
476478		851 Industrial Avenue Development		
Attachment 1				

NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

Not to Scale