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**Reply Attention:**  
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## MEMORANDUM

**TO:** Allen Appleby, Director  
Community Planning, North York District  
**Attention: Steve Forrester**

**FROM:** Frank Clarizio, P. Eng.  
Manager, Development Engineering, North York District

**DATE:** October 30, 2012

**SUBJECT:** Official Plan / Zoning Bylaw Amendment Application No:11 264854 NNY 26 OZ  
Your Memorandum Dated: September 26, 2012  
Applicant: Paula Bustard (On behalf of Wicksteed Developments LI)  
Location: 70 Wicksteed Ave Ward: 26  
Existing Equivalent Population: 35 persons  
Proposed Equivalent Population: 165 persons  
Increase in Equivalent Population: 130 persons

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### APPLICATION DESCRIPTION

The subject site is located east of Laird Drive, south of Vanderhoof Avenue and north of Wicksteed Avenue. The existing site is mostly vacant.

The applicant is proposing to construct a retail and commercial development with a total of 14,029 m<sup>2</sup> gross floor area (GFA).

The following comments and conditions are provided based on the following submissions:

- Traffic Impact Study revised report#2, by Transtech, revised dated August 2012, stamped as received by Planning on August 18 2012
- Functional Servicing & Stage-1 Stormwater management Report, prepared by Sernas Associates, revised dated September 2012, not stamped by Planning.
- Conceptual Site Servicing Plan no. CSP-1, prepared by Sernas Associates, revised dated Sep 2012, stamped as received by Planning on September 14 2012
- Draft Plan of Subdivision, dated August 27, 2012, prepared by MHBC, stamped by planning September 14, 2012.

- Rendered conceptual Plan drawing no. A101, by Diamond and Schmitt Architects, revised dated March 21 2012, stamped as received by Planning on September 24 2012
- Conceptual Servicing Plan no. CSP-1, by Sernas Associates, dated September 12, 2012, stamped as received by Planning on September 14 2012
- Other associated drawings and reports.

**Please advise me if any changes or modifications are required to the comments or conditions identified in this memorandum.**

**A. REVISIONS AND ADDITIONAL INFORMATION REQUIRED PRIOR TO THE ENACTMENT OF ZONING BY-LAW AMENDMENT.**

**The owner is required to amend and/or provide reports and/or Studies and/or Drawings to address the following comments and resubmit for the review and acceptance by the Executive Director of Technical Services prior to the enactment of Zoning By-law Amendment.**

**1. Transportation Services**

- Provide a functional drawing for Vaughan Street from Vanderhoof Avenue to Wicksteed Avenue;
- Provide a functional drawing for Parkhurst Boulevard from Laird Drive to Wicksteed Avenue;
- The loading space for Building B cannot occur in the lane or be accessed from the lane (shown on concept plan A101) as the future use of the lane may change and winter maintenance of the lane cannot be relied upon. The applicant can start the road closure process to purchase the lane or find an alternate loading strategy for Building B.
- Building B is 2,396 m<sup>2</sup> and therefore requires 2 loading spaces under Leaside Zoning By-law 1916. Two loading spaces must be provided or the new zoning by-law must be revised. The repealed zoning by-law can be used as a guide supported with further justification.
- Satisfy all requirements (revisions numbered 1 through 6 in the background section titled Traffic Impact Assessment) related to the August 2012 Traffic Impact Study that was prepared by Transtech in support of the development proposal, as further discussed in this report.
- Buildings D and E each require a loading space. Revised plans must show these spaces.
- Align the driveway adjacent to Building F with the driveway to the south;
- Revise the draft plan of subdivision by splitting Block 3 along the face of the building. The interim Street A / Parkhurst Boulevard will need the extra right-of-way to achieve as close to a normal cross section as possible;

2. **Draft Plan of Subdivision drawing no. 1, by MHBC Planning Urban Design & Landscape Architecture, dated August 27 2012, stamped as received by Planning on September 14 2012, and  
Rendered conceptual Plan drawing no. A101, by Diamond and Schmitt Architects, revised dated March 21, 2012, stamped as received by Planning on September 24 2012**

2.1 Technical Services

- a) **The recently submitted Draft Plan of Subdivision shows that the site includes "easements" and "Reserved Rights to Maintain" of existing utilities and easement for existing sewers, watermain, Hydro, and Parking for other properties. These new information which had not been shown on the survey drawing no. 01-322TP04, prepared by KRCMAR , dated May 28, 2011, stamped as received to the City Planning on August 29, 2011 will lead us to a major concern . Therefore, please address the following comments:**

- **The Draft Plan of subdivision shows proposed 9 meter easement at west of Vaughan St overlaying existing approximately 24 meters wide "Reserved rights to maintain". The existing easement shown on the Draft Plan of subdivision at east of Vaughan street is about 12 m wide, but the engineering drawing only shows 4.0 m proposed easement. Since there is a wide existing easement on the site for Hydro, sewers, railway spur, and watermain, the applicant must conduct detail field investigations supported by CCTV, and field tests and contact other agencies regarding existing utilities to ensure that the above easements are not longer necessary before proposing any new easement, and buildings overlaying above easements.**
- **Parts of above existing easement are for other utilities which relates to other agencies or private properties. Please contact them directly to ensure that the easement(s) is required or not and submit their written release confirmation to the City as part of revised submission.**
- **The easement shown on the Draft Plan of subdivision in favour of the lands at pin 10369-0244(LT) for use of parking must be released prior proceeding with re-zoning as it conflicts with proposed Building F.**
- **Since this information on the Draft Plan is different than original survey plan please submit a revised Legal survey.**
- **In addition of above comments, the proposed easement on commercial Block 5 was not properly shown. Please note that the proposed easement shown with different widths through the Block. In the meantime existing municipal watermain crosses the above noted Block and as per Servicing Drawing # CSP-1 has not**

**been shown to be removed, but it is located outside of the proposed easement.**

- **In the meantime the above noted Block has been shown as commercial site on Draft Plan of Subdivision but there is no building has been proposed in Rendered conceptual Plan Please revise/clarify.**
  - **Please submit a drawing including proposed buildings and revised legal survey drawing to ensure that there is no conflict with proposed structures, and easements.**
  - The lanes extending easterly from Laird Drive and westerly from Vaughan Street have uniform widths of 6.10 metres (note that the plan shows the lane extending westerly from Vaughan Street as being closed, but our records indicate that this lane is a public lane under the jurisdiction of the City of Toronto)
- b) As stated in our previous memorandums, please show 6.1 meter corner rounding on all the engineering and architectural drawings. The above noted corner roundings must be shown at the intersection of Street "B" and Wicksteed Ave, intersection of Street "A" and Wicksteed Ave, Intersection of Parkhurst Blvd and Laird Dr( Proposed two storey Building "B" )
- c) In regards to the encroachment of the existing building within the Parkhurst extension, as was discussed before, the applicant must provide us with a NON- STANDARD road alignment and cross section at this location. The City does not require an encroachment to the right-of-way at this location, however we may include a clause in the Subdivision Agreement requiring conveyance of necessary lands if / when the existing building is demolished and it is included in the M-Plan. Therefore, please show the cross section of the **non-standard** right-of-way at the connection of Street "A" and Parkhurst Blvd. The cross section must be in a way to accommodate a 8 meter wide traveled portion plus a non-standard width of sidewalk on one side of the road (minimum 2.2 m top of curb and sidewalk)to connect the sidewalk on Parkhurst Blvd to sidewalk on Street "A". There may be a need to provide more than one cross sections. Please contact Pezhman Imani at 416-395-6181 for detail consultant when you preparing the cross section. Please note that the above cross section(s) must also show how the utilities too.
- d) The proposed 4.5 m easements for the storm sewer at east side of the site has not been shown on the above noted drawings. As per Servicing drawing a proposed 4.0 meter wide easement has been proposed at east side of Vaughan St extension at north limit of the site for the existing 975 mm storm pipe which is located at the north boundary of the site. As per the dimensions indicated in recently submitted drawing CSP-1 it appears that the proposed easement conflicts with building F. Please revise.

3. As stated in our previous memorandums, there is currently no application for a Draft Plan of Subdivision. As part of the requirements for the Zoning application a Draft Plan of Subdivision application must be submitted for review that deals with the municipal infrastructure aspects of the site.

4. Functional Servicing & Stage-1 Stormwater management Report, prepared by Sernas Associates, revised dated September 2012, not stamped by Planning.

4.1 Technical Services

- a) The report must be stamped by a registered professional engineer qualified in municipal engineering. (The report has been signed, signature only is not sufficient)
- b) In addition of above comment, please note that the report has been signed by two professional engineers. As per attached guideline from PEO, one engineer must seal the document only.
- c) **In response to our previous comment** (6.1.g.2<sup>nd</sup> bullet) to evaluate the non-fire scenario, the consultant has used 191 litre/capita/day on Page 3 of the report, Section 3.1 watermain. Please note that the above consumption is only for residential buildings not commercial sites. If there is no criteria noted in the City Design Criteria you may use MOE criteria accordingly. Also it must be noted that when we asked for non-fire scenario of the system it must be evaluated based on "*The minimum pressure under any non-fire demand scenario will not be less than 275 kilopascals.*"(Please see the City Design Criteria for more info). Please revise.
- d) **In response to our previous memorandum** regarding Fire Flow calculations, Page3, Section 3.1 Watermain, **is not as per the latest revised Site Plan.** It has considered 7,530 m<sup>2</sup> of the area for building A1; please revise the area of building A1 to 7,569 m<sup>2</sup> as per latest Site Plan which is slightly different than the area used by the consultant. In the meantime, it is not clear why 25% of adjoining floor has not been added to A1 as per FUS.
- e) Page 4, Total Demand Section, has noted "*the Total demand for the proposed development is approximately 10,024 liters per minute (approximately 84 liters per second or 1,327 U.S gallons per minutes)*". Please revise as the units conversion are not correct:
  - i. 10,024 l/min~167 l/sec
  - ii. 10,024 l/min~2,648USGPM
- f) **As stated in previous memorandums,** the report has indicated that there is 3,162 U.S.gallons /min at 20psi available in the municipal system as per the guideline provided by the "national Fire Protection Association (NFPA) on **Wicksteed Ave** Watermain. However as per submitted Flow test there is only 2173 USGPM available at 20psi (**as per the orifice size of 1 3/4**). Please see the below table and attached NFPA equation to better understand our comment:

As per the test results on the submitted report by the consultant engineer on the watermain on Wicksteed Ave:

Number of outlets	Pitot pressure	Flow(USGPM)	Residual Pressure(USGPM)	Flow at 20 psi(USGPM)
1 x 1 3/4	65	732	72	2173(Governs)
1 x 2 1/2	46	1135	71	3162
2 x 2 1/2	22	1570	68	3744

- g) **In response to our previous memorandum**, (comment 6.1.g), the consultant engineer has used FUS model for evaluation of Fire demand requirements for building A, and the consultant engineer then concluded that "given the above, we are satisfied that there is sufficient pressure and capacity in the existing water distribution system to accommodate the proposed development". Please note that the FUS procedure has been conducted only for building "A", however other buildings such as F, E, and D which are connected to Watermain on Wicksteed Ave, and Building "B" connected to Parkhurst Blvd have not been conducted. Please note that only Building A will be connected to Vanderhoof watermain. The consultant engineer must demonstrate the calculations to show that the existing flows on those aforementioned watermains are sufficient For Fire and non-fire scenarios. Please submit the supportive analysis.
- h) **In response to our previous comment** (6.1.f), the consultant engineer conducted Fire Flow Tests on watermains on Vanderhoof and Parkhurst Ave and concluded in the report that 3,540 USGPM and 5,060 USGPM flow are available respectively. The same errors as the above comment "f" occurred. The flow has not been calculated in worst case scenario. Please see below calculations:

**As per test results on the submitted report by the consultant engineer on Vanderhoof Ave:**

Number of outlets	Pitot pressure	Flow(USGPM)	Residual Pressure(USGPM)	Flow at 20 psi(USGPM)
2.5" x1	51	1,195	65	3,529
2.5x2	22	1,570	53	2,704(Governs)

**As per test results on the submitted report by the consultant engineer on Parkhurst Ave:**

Number of outlets	Pitot pressure	Flow(USGPM)	Residual Pressure(USGPM)	Flow at 20 psi(USGPM)
1 x 2 1/2	57	1263	68	5,046
2 x 2 1/2	18	1420	62	3,459(Governs)

**If as a result of above comments(c-h) improvements on the existing watermain are required, the consultant engineer is to identify required improvements including a cost estimate to the existing watermain system to support this official plan and zoning by-law amendment application. (Please note that we have eliminated our requirements for skeleton model as a result**

of short service connection from municipal watermain to buildings. It is obvious that any change in the design which results the pressure loss in the internal system as a result of longer services requires water distribution modeling by a skeleton model.)

- i) **In response to our previous memorandum** regarding evaluation of downstream sanitary system, on Page 12, proposed sanitary servicing, the consultant has considered 240 liters/ person/day. Please revise to 250 litres/capita/day—industrial/commercial/institutional as per the City Design Criteria.
- j) **In response to our previous memorandum,** the report has indicated that a *"Downstream sanitary sewer analysis will be undertaken to verify capacity of within the downstream sanitary/combined sewer system to service the proposed development"*. Please ensure that the sanitary sewer analysis (drainage plans, flow sheets and hydraulic analysis including HGL calculations) for the existing conditions and also with the proposed flows from your development for all the connections to identify how much this development has impacted the system up to the Trunk connection point, to provide for peak sanitary flows generated by this development and any extraneous wet weather flow, and any other known developments which are to be served by the same sanitary sewer system.(Please ensure that the revised FSR report explains about existing sanitary drainage pattern)
- k) **In response to our previous memorandum** regarding basement flooding area#2 ,Page 13 of the report has indicated that *"in accordance with City of Toronto standards, backflow preventers will be provided for the proposed sanitary service connections .In addition to the above, we will also provide for a sanitary holding tank for a minimum of a 12 hour period"*. As we have already indicated to the consultant engineer and provided them with the sizing requirements of the tank on our email dated August 31, 2012, the above noted holding tank(s) must be sized at this point as per the equation already sent to the consultant, and the reason for considering the tank. The detail hydraulic analysis (HGL analysis must be provided as part of Subdivision detail design however the and the location must be identified at zoning stage in the revised FSR report. The equation for sizing the holding tank(s) is follows:

Storage Tank for Development with Proposed or Existing basement(s) to protect the site

Size<sup>1</sup> of tank= total site population x 240 L/cap/day x 12 (hour) x 2  
(peaking factor)

Cap: is the total population of development site.

*Size<sup>1</sup> storage tanks - the elevation of the inside top of tank shall be at least 1 m below the Finished Floor Elevation of the lowest building on the proposed development site to prevent potential sewage backup rising above building drains*

**Please note that since these developments include various blocks for each block one tank must be considered. Therefore, please provide the above information for each block.**

l) **As stated in our previous memorandum,** the consultant engineer has proposed future extension of sanitary sewer on Wicksteed Ave for the proposed buildings D, E, and F as part of previous submission and this submission. Please note that:

- The consultant engineer contacted City verbally and they have provided with some explanations to support above noted sanitary sewer extension on Wicksteed Ave. As we stated to the consultant the supportive explanations must be included in the revised Functional Servicing Report, however the revised report does not indicate anything about the extension of sanitary sewer on Wicksteed Ave. Please include a cost estimate in the revised report to the city for review and acceptance for above extension. (Please note that as stated in advisory section of this memorandum and previous memorandum the proposed sanitary pipe extension are not as per the City standard

m) The submitted drawings and a response dated September 14, 2012 from GHD have proposed to remove the existing municipal watermain and sanitary sewer within the site, and has demonstrated 9 meter wide proposed easement for existing 975 mm storm sewer within the site. **Please note that the revised report must clearly explain what are the existing utilities in the site, what utilities are proposed by the consultant engineer to be removed. In summary, a section in the revised FSR report must include all the findings of the consultant engineer regarding existing utilities, what is the proposal including supportive information.** In response to the consultant engineer letter:

- **As stated in our previous memorandums,** the submitted drawing has proposed to remove existing sanitary within the site, however no CCTV has been submitted to verify that no other properties are connected to the above noted sanitary or not. Please clarify. The consultant in their response has noted that *"The existing sanitary sewer on Parkhurst will be retained to the east boundary of Parkhurst and .....The City undertook the sanitary videoing of these lines. There are no known connections to the sanitary sewer to be removed. As the City has the videos of the sewer and requested verification by video, the City can sign off on this item now"*. Please note that we disagree with the consultant response because it is responsibility of the applicant's engineer to seal the studies. The submitted material (including plans, reports,...) all must be verified by the engineer conducting the design. **Please include the findings in the revised report including above noted CCTV result, and verification that removing above sanitary has no negative impact on adjacent properties.**
- In regards to rerouting the existing watermain which is traversing the site to Parkhurst Blvd and Vaughan extensions to avoid dead end watermain; please note that this approach is acceptable to the City in principal, however a section in the report must explain this



approach and the consultant engineer must verify that there is no negative impact on adjacent watermains. Please note that the consultant must submit an approved model to evaluate the influences of rerouting watermain on existing system.

- In regard to Storm sewer easement, as we have indicated to the consultant engineer please provide a section and accurate survey (it must be supported by CCTV) to evaluate the exact location of Storm sewer versus to the site boundary.

5. Please ensure that the subdivision Blocks will not change as a result of our comments on Section "C" of this memorandum.

6. **Traffic Impact Study Update(Cost estimate)#2,by Transtech consultant, revised dated August 2012, stamped as received by Planning on August 18 2012;  
Laird Drive East Side Widening Functional Design drawing no. FD-1, dated February 1 2012, by Transtech consultant, not stamped by the City Planning  
Leftv –Turn Lane re-stroing Wicksteed Ave drawing no FD-2A, dated June 26 2012, by Transtech consultant, not stamped by the City Planning**

6.1 Technical services

**Subject to approval of proposed roadwork by the City Traffic Operation on Laird Dr and Wicksteed Ave, the cost estimate must be revised as per below:**

- a) As it stated in our previous memorandum, since some portions of roadwork is in the vicinity of signalized intersection please include the cost of Pay Duty Officer and Traffic control to the submitted estimate
- b) Please include the cost of traffic signal relocation if any.
- c) The cost estimate shows the construction of sidewalks but the drawing does not show the proposed location of the sidewalks frontage of the site on Laird Dr, Wicksteed Ave, Vanderhoof Ave, and Parkhurst Blvd. Please include cross sections of the widened areas as part of revised drawings.

**B. OFFICIAL PLAN / ZONING BY-LAW AMENDMENT CONDITIONS**

**The owner is required, as conditions of approval of the Official Plan Amendment / Rezoning Application, to:**

**1. Transportation**

**1.1 The applicant shall provide parking at:**

- a) **A minimum ratio of 1.5 parking space per 100m<sup>2</sup> of retail floor area;**
- b) **A minimum ratio of 1.5 parking space per 100m<sup>2</sup> of general office floor area;**
- c) **A minimum ratio of 2.5 parking spaces per 100m<sup>2</sup> of grocery floor area;**
- d) **A minimum ratio of 4.0 parking spaces per 100m<sup>2</sup> of bank floor area;**

- e) **A minimum ratio of 3.0 parking spaces per 100m<sup>2</sup> of restaurant floor area.**

## **2. Technical Services**

**No conditions provided at this time until the additional information mentioned in Section A is provided for the review and acceptance by the Executive Director of Technical Services.**

## **C. ADVISORY OF OTHER CITY APPROVALS AND REQUIREMENTS**

**The owner is advised that the following approvals and additional conditions are required at the site plan stage. These comments are preliminary and are subject to change based on submissions for subsequent planning approval applications. They are provided for the owner's information only.**

- 1. As stated in our previous memorandum, there is no Site Plan Control Application at this time. Any relevant issues will be reviewed in detail upon receipt of future site plan control application.**
- 2. As stated in our previous memorandum, there is no Draft Plan of Subdivision Application at this time. Any relevant issues will be reviewed in detail upon receipt of future Draft Plan of Subdivision Application.**
- 3. Transportation Services supports the sale of Parkhurst Boulevard subject to the road closure process and 197 Laird Drive. If the sale of Parkhurst Boulevard is not possible Transportation supports the continuation of Parkhurst Boulevard to Wicksteed Avenue or Vaughan Street.**
- 4. The City is currently reviewing the location of medians along Laird Drive which may impact the site. A review of existing and future access along Laird Drive must be undertaken before a median can be approved.**
- 5. The loading for Building C must be revised as loading vehicles must enter and exit the site in a forward direction.**
- 6. Parkhurst Avenue on both sides of Laird Drive may have restricted turning movements subject to a review by Transportation Services.**
- 7. Due to possible conflicts of existing utilities and infrastructures on this area, we strongly recommend the applicant to provide field investigations such as test pits to ensure the location of existing utilities in order to avoid any future conflicts.**
- 8. As stated in previous memorandum, the applicant is required to submit prior to Site Plan Approval; a revised landscape plan showing locations and dimensions of all existing and proposed development related underground and above ground utility services and structures including all municipal infrastructure within the City Right-of-Way.**

9. As stated in previous memorandum, if the above plan shows any conflicts with existing or proposed utilities therefore relocation of the above utilities are required at owner expense. Please submit a cost estimate for relocation of above facilities to the City for review and approval.

10. **Functional Servicing & Stage-1 Stormwater management Report, prepared by Sernas Associates, revised dated September 2012, not stamped by Planning.**

10.1 Technical Services

a) As stated in our previous memorandums and indicated in our meeting with the applicant, the loading study shall be submitted to the City for review and approval to ensure that there is no adverse impacts on the existing infrastructure as a result of the proposed structures.

b) As stated in previous memorandums, Page 6, Stormwater Management Criteria, has mentioned that the site post development allowable release rate is 327.5 L/sec, but as it noted on the page 5 of the report for the pre-development scenario "*surface flows from the site are captured by internal catchbasins, and are directed to the aforementioned storm sewer systems*". as per the same page of the report the sewers that the consultant engineer refers to are located in Vanderhoof Ave, Wicksteed Ave, and existing storm sewer traversing the site. Moreover, page 10, proposed storm servicing, has noted that "*Post –development storm flows from the site are to be directed to the existing Parkhurst Boulevard 975 mm diameter storm sewer located within the site*". As per above information, therefore the allowable release rate must be revised based on the portion of the site which is currently draining to each sewer in pre-development scenario. Please revise or address the following comments:

- Submit an existing and revised proposed drainage pattern including any **external** drainage to the site for the site as part of the revised Stormwater Management. The above patterns must show the area was draining to each storm-shed.
- Calculate the allowable release rate for the portion of the site that is currently draining to the proposed storm sewer in pre-development situation.
- Please show the existing and proposed overland flow routes on both drawings.
- Please note, if the subject development causes an increase in storm drainage (minor or major system) as a result of changing the drainage pattern, a comprehensive storm analysis (for minor and major systems ) must be submitted as part of the Stormwater Management Report **PRIOR TO REZONING APPROVAL** to ensure that there won't be any adverse impacts on the existing and proposed properties.

- To address our previous memorandum, to address the "Flood Flow Management" criteria the consultant has included the result of VO2 model by using 12 hour SCS, 24 hour Chicago Storm, and 20 min Chicago storm. Please note that:
  - i. As we noted in our previous memorandum, if Flood Flow management criteria dictates more restricted flow control than Discharge Criteria the allowable release rate must be revised accordingly. The report does not indicate that the Unit flow rate and restriction criteria provided by TRCA have been considered or not. Please see Appendix C.1 on WWFM guideline for the criteria for each river-shed.
  - ii. We are not clear why the consultant engineer has used 24 hour and 20 min Chicago Design storm. To address the Flow Flow management criteria of WWFM guideline the same design storm distribution as used in the approved hydrology model for the specific watershed shall be used which is in this case 12 hour SCS. In addition to the above (Flood Flow / Runoff Attenuation) criteria, as stated in our previous memorandum, WHERE HYDROLOGIC MODELS ARE USED TO DESIGN CONVEYANCE WORKS; a 4 hour Chicago Design Storm with 10 minute time step, and 0.333 to peak, based on Toronto IDF, (please contact City of Toronto for Design Storm distribution), shall be used to determine design flows; use of alternative design storms must be approved by Toronto Water. The consultant has noted as per Section 2.2.1. on WWFM guideline, but the above section talks about Water Balance not Flood Flow Management! But the report has used Rational method, therefore Discharge criteria to municipal system must be evaluated based on Rational method and then must be compared by Flood Flow management criteria. Whichever is more conservative governs the allowable release rate.
  - iii. In addition of above, the Hydrology model input and output information must be included in the report. The report must also include a section to indicate a summary of parameters used in the model such as DPSI, IA, LG, the command which have been used, CN values, City of Toronto IDF curve parameters, schematic, and etc for further review by Toronto Water.
  - iv. We asked in our previous memorandum that if the "Flood Flow Management" criteria dictate more restricted flow control the allowable release rate must be revised accordingly. Therefore, the consultant must show a table to show what is the allowable release rate per Discharge Criteria to municipal sewer, and Flood Flow Management.

**Therefore, we disagree with the allowable release rate provided by the consultant based on the information provided in the report.**

- c) As stated in our previous memorandum, Page 5, Existing Conditions, the consultant engineer has noted that *"Based on the pre-development land use, the 2-year, 5-year and 100-year pre-development storm flows were determined to be approximately 590.2 l/s, 882.0 l/s and 1675l/s respectively. Our calculations are presented in Appendix 'B'".* Please note that the City disagrees with this approach, because it has considered the pre-development "C" factor as 0.9. The consultant engineer must provide detailed background calculations to verify that the combined runoff coefficient for the existing site. Our site inspection indicates that the site is currently vacant with a few hard surfaces. The consultant must obtain all the information regarding the site coverage and provide detail background calculations. If the existing Runoff Coefficient is less than 0.5, the allowable release rate must be calculated by "C" factor which is less than 0.5. Please revise.
- d) As stated in our previous memorandum, page 6, Quantity Control Section, has divided the site in post development scenario to six drainage areas. Please address below comments:

1. **Block 1 Drainage Area-6,058 m<sup>2</sup>, and Block2 Drainage Area-7,362 m<sup>2</sup>,Block 3 Drainage Area-8,495 m<sup>2</sup>,**
  - i. Before applying any stormwater management approach, the existing drainage pattern including **external drainage area**, the sewer-shed area, and uncontrolled areas must be verified and shown on a plan, and then we can comment on allowable release rate, storage requirements, and etc. Therefore, we defer our comment after we receive these detail information.
  - ii. As per Drainage Act any and all the external drainage must be accounted for and addressed as per the overall Stormwater Management for the entire site.
  - iii. We defer our comment on the required storage after our comments noted in our previous memorandum and this memorandum is addressed.
  - iv. The pre-development Runoff Coefficient factor must be evaluated and indicated for the blocks. The stormwater management must be revised accordingly based on the "C" factor.
  - v. We defer our comments on the orifice discharge rate provided in page 6 until we receive more information regarding the spill-over elevation, sketch and cross section of the storage tank including the inverts.

- vi. The consultant has proposed connections to the future municipal storm within the site. It is a City guideline not to permit service connections to City infrastructures within easements. Please revise. If the intention is only to connect the portion of storm sewer within proposed public roads, the City has no objection on this approach subject to address the requirements of WWFM guidelines.

**2. Vaughan Street Extension Drainage Area-440 m<sup>2</sup>, and Parkhurst Boulevard Extension Drainage Area-1,963 m<sup>2</sup>**

- i. Before applying any stormwater management approach, the existing drainage pattern including **external drainage area**, the sewer-shed area, and uncontrolled areas must be verified and shown on a plan, and then we can comment on allowable release rate, storage requirements, and etc. Therefore, we defer our comment after we receive these detail information.
- ii. As per Drainage Act any and all the external drainage must be accounted for and addressed as per the overall Stormwater Management for the entire site.
- iii. The consultant considered commercial Block#5 in the Parkhurst Blvd drainage area. Please provide clarification why the commercial block is not able to address the requirements of WWFM guideline in its property.
- iv. The consultant engineer has considered the area of Vaughan Street Extension as 440 m<sup>2</sup>, however total area of the street is more than above number. Please revise.
- v. The consultant engineer has noted that " Post-Development flows for this drainage area will sheet drain uncontrolled onto the proposed extension of Vaughan Street..." The consultant also noted that 100-year post development flow from Vaughan Street extension is only 7.0 l/s. The Vaughan Street extension is about 1110 m<sup>2</sup> including paved and unpaved areas. If we consider the APPROXIMATE "C" value of 0.7 the 100-year post development runoff is about 54 l/s which is more than 7 l/s. the same thing for Parkhurst Blvd the 100-year storm in post-development is about 96 l/s which is more than 26 l/s. Please revise.
- vi. We do not have any issue for uncontrolled flow draining to the proposed public roads **subject** to over-controlling the private blocks. If this approach is not feasible please contact City of Toronto for more detail discussion.

### 3. **Block 4 Drainage Area-2,450 m2**

- i. Page 8 of the report has indicated that the post development runoff from this area will be uncontrolled to the Parkhurst Blvd and it has indicated that the 100-year post development flow for Block 4 is approximately 18 l/s. Based on the information on the report by using rational method the 100-year runoff from this area is about 140 l/s.
  - Please provide background information as to why the consultant engineer is not able to address quantity control on this block utilizing roof storage, or other techniques. In addition of quantity control, Please explain in detail how the quality control of runoff is being addressed.
  - The model info as per above comment 10.1.b must be submitted for evaluation why there is huge difference between rational method and hydrologic model
- ii. Before applying any stormwater management approach, the existing drainage pattern including **external drainage area**, the sewer-shed area, and uncontrolled areas must be verified and shown on a plan, and then we can comment on allowable release rate, storage requirements, and etc. Therefore, we defer our comment after we receive these detail information.
- iii. Please show the existing service connections on the drawing. A CCTV from the existing services must be provided as part of the revised submission. The consultant engineer should propose utilizing the existing connections unless the existing services are substandard or not adequate. In this case the existing connections must be decommissioned at the owner's expense. Please note that if the proposed building in Block 1, which is proposed to connect to existing building in Block 1, is an addition to existing building and both buildings will be one entity under one ownership, then one set of connections (Sanitary, storm, and water) are allowed only for one building. Please provide a written confirmation in the revised submission to clarify.

### 4. **Block 5 Drainage**

- i. There is no stormwater management strategy has been proposed for this commercial block. Please revise.
- e) The thickness and the slope of the proposed Green Roof must be indicated in the report and the drawings and the runoff coefficient factor must be revised as per above.

- f) As stated in our previous memorandum, the following acceptable criteria for Initial Abstraction, and TSS removal must be applied to Stormwater Water Management, please revise Table 1 on Page 8 of the report accordingly:

Surface Type	Initial Abstraction	TSS Removal	Runoff Coefficient
Impervious roof	1mm	80%	0.90
Asphalt pavement	1mm	0%	0.90
Landscape	5mm	80%	0.25
Green Roof	7mm max for intensive roofs otherwise 5mm	80%	0.45-0.5
Permeable Pavers	5mm	80% with storage bed otherwise 50%	0.40
Concrete pavers	1mm	0%	0.9
Grassed swale	5mm	50% for a min length of 16m	0.25

**When using any other numbers, all pertinent backup information is required and will be reviewed on a case by case basis.**

- g) As stated in our previous memorandum, Page8 and 9, Water balance Section, has indicated that 134 m3 of total site storage toward on-site specific water retention measures will likely be required. Please note that if infiltration system is proposed then an **In-Situ** infiltration test by a qualified geotechnical company must be submitted to support the assumptions. Please include drawdown time calculations, and the MOE and OBC requirements for proposed infiltration system. We defer our detailed comments after we receive the detailed design of the above system including the cross section and plan of the system.
- h) In conjunction with above comment and as stated in our previous memorandum, if any re-use for irrigation or other reuse is proposed to address Water Balance, the supportive calculation per **annual** base must be submitted and must be compared to corresponding annual volume as per WWFM guideline.. For landscape irrigation consumption, the detail confirmation form landscape company must be submitted.
- i) The consultant engineer has chosen a different approach compared to previous submission regarding quality control of Storm runoff for the site. It has been indicated that on page 10" *it is likely that specific on-site water quality control measures will be required for this development to achieve the City of Toronto's requirement for 80% T.S.S. removal*". We do not comment on quality control at this point, since there is no detail approach regarding above requirement of WWFM guideline provided. We defer our comments after we receive the detail approach for above noted WWFM guideline criteria.



- j) As stated in previous memorandum, Page 10 has indicated that post-development storm flows from the site are to be directed to the existing Parkhurst Boulevard 975 mm diameter storm sewer located within the site. Please note that the connections to the easement are not permitted unless there are no other options, subject to approval from Toronto Water. If the intention is only to connect the portion of storm sewer within proposed public roads, the City has no objection on this approach subject to address the requirements of WWFM guidelines.
- k) As stated in previous memorandum, please note that the water and fire servicing and metering shall be as per the recent City of Toronto "Water Servicing and Metering manual", 1st edition.
- l) As stated in previous memorandum, the following statements are to be included in the Stormwater Management report:
  - There may be runoff from rain storms that exceeds the capacity of the City's storm service connections. Therefore, the owner shall be responsible to provide flood protection or a safe overland flow route for the proposed development without causing damage to the proposed and adjacent public and private properties.
  - Existing drainage patterns on adjacent properties shall not be altered and stormwater runoff from the subject development shall not be directed to drain onto adjacent properties

**11. Conceptual Site Servicing Plan no. CSP-1, prepared by Sernas Associates , revised dated Sep 2012, stamped as received by Planning on September 14 2012**

11.1 Technical Services

- a) As stated in our previous memorandum, please include the signature of professional engineer who stamped the drawings.
- b) As stated in our previous memorandum, the consultant engineer has proposed future extension of sanitary sewer on Wicksteed Ave for the proposed buildings D, E, and F. Please note that:
  - Subject to future review and approval of the proposed sanitary extension on Wiksteed Ave and Vaughan St, the following comments must be addressed:
    - 1) The minimum allowable size for a sanitary sewer will be 250 mm diameter. Please revise.
    - 2) The first leg of the top end of sanitary sewer will be sized at with a minimum grade of one percent. Please revise.

- c) As stated in our previous memorandum, please include the latest City of Toronto General notes. For further information or to obtain a digital copy of the revised map, please contact Pezhman Imani, 416-395-6181
- d) As stated in our previous memorandum, the submitted servicing drawings do not show control maintenance holes for the proposed Sanitary and Storm connections. Please revise.
- e) The submitted drawings and report have proposed to remove the existing municipal watermain and sanitary sewer within the site, and have proposed 9 meter easement for existing storm sewer within the site. Please note that:
  - The submitted drawing has proposed to remove existing sanitary within the site, however no CCTV been submitted to verify that no other properties been connected to the above noted sanitary at east of Vaughan St.
- f) As stated in our previous memorandum, please show the approximate location of existing sanitary service for the existing building at Block 2.
- g) In addition of above comment please note that if the proposed building in Block 1, which is proposed to connected to existing building in Block 1, is an addition to existing building and both buildings will be one entity under one ownership ,then one set of connections(Sanitary, storm, and water) are allowed for one building. Please provide a written confirmation in the revised submission to clarify.
- h) As stated in our previous memorandum, 6.1 meter corner rounding must be shown at the intersection of public streets.
- i) As stated in our previous memorandum, it seems the difference in invert elevations at storm MH#1 is more than 1.22 metres. Please show the drop structure.
- j) As stated in previous memorandum, in addition of above comment, please show the proposed 1.7 m width sidewalk at standard location of 1.0m from the property line frontage of the site on Vanderhoof Ave.
- k) As stated in previous memorandum, in addition of above comment, please show the proposed 1.7 m width sidewalk frontage of the site on Vaughan Street.(the location of the sidewalk will be based on the proposed road cross on the Vaughan St extension)
- l) As stated in previous memorandum, in addition of above comment please show the proposed 1.7 m width sidewalk at standard location of 1.0m from the property line frontage of the site on Laird Dr.

- m) In addition of above comment, as stated in previous memorandum, please show the proposed 2.0 m width sidewalk (in addition of the curb width) adjacent to the curb frontage of the site on Wicksteed Ave.
- n) Please include a cross section of storage tank(s) in the revised report.
- o) The drawing has proposed a 150mm watermain connection for each building. Our understanding from FSR report is that the buildings have sprinkler systems and therefore as "h" connection is required as per the City standard T-1105.02-1
- p) Please note that proposed water service shut off valves must be located within the City's road allowance at the property line. Please note that meter chamber is required whenever building mechanical room setback is greater than 30.0m from the streetline where water service connection is located;
- q) The City requires a control maintenance hole located on the property of the owner, as close to the property line as possible as per Section 681-10-A.(1) of the Toronto Municipal Code. This requirement will apply to all multi-family, commercial, industrial and institutional developments.
- r) Please note that for connection of storm sewer main to storm sewer main an appropriate size maintenance hole must be used. Please propose a MH to north end of storm pipe between MH1 to 975 mm storm sewer.
- s) Please submit cross section of all the service connections within municipal right-of-way to ensure that there is no conflicts with existing and proposed utilities and there is proper clearance as per the City of Toronto Design Criteria and MOE.
- t) Please show the proposed sidewalks along the site frontages on Wicksteed Ave, Vanderhoof Ave, Laird Dr, and Parkhurst Blvd as per below:
- Please show a proposed 2.0 m width sidewalk (in addition of top of the curb width) adjacent to the curb frontage of the site on entire site frontage Wicksteed Ave.
  - The drawing must show a proposed 1.7 m wide sidewalk at standard location of 1.0 m from property line at entire site frontage on Vanderhoof Ave.
  - The drawing must show a proposed 1.7 m wide sidewalk at entire site frontage on Vaughan St (the location of the sidewalk will be based on the proposed road cross on the Vaughan St extension)
  - Please show a proposed 2.0 m width sidewalk (in addition of top of the curb width) adjacent to the curb frontage of the site on entire site frontage Parkhurst Blvd (the location of the sidewalk will be based on the proposed road cross on the Parkhurst Blvd extension)

- a) The consultant engineer has shown the arrows which may represent the overland flow routs on the drawing on some portion of the development. Please note that overland flow routes must be shown on entire site and also the must show the overland flow routes from external areas toward site too.

**12. Rendered conceptual Plan drawing no. A101, by Diamond and Schmitt Architects, revised dated March 21, 2012, stamped as received by Planning on September 24 2012**

12.1 Fire Services

- a) As per Ontario Building Code Fire Access Route must be within 3 to 15 meters of the "principal entrance". Please revise.
- b) As per Ontario Building Code Fire Access Route width shall be at least 6 meters wide throughout. Please revise.
- c) Fire access route shall have a centerline radius of not less than 12 meters. Please revise.
- d) Fire access routes shall have a change of gradient not more than 1 in 12.5 over a minimum distance of 15 meters (i.e. 8%). Please clarify.
- e) Load support shall be sufficient to support the expected loads imposed by fire fighting equipments and shall be surfaced in order to be accessible under all climatic conditions. Please revise.
- f) Hydrant is located more than 45 meters from a fire department Siamese connection. Please revise.
- g) As established by Toronto By-Law ,Chapter 880, it is required that an approved fire access route be provided.(Application shall be submitted to Toronto Fire Services prior to occupancy)
- h) Please provide site plan drawing showing the principal Entrances for each building ,location of fire department connections, and fire access route(s)

12.2 Technical Services

- a) Please revise the private entrances from public roads to private driveways including Parkhurst Blvd extension, from Vaughan St and its extension as per the City standard T-350.01

**13. Draft Plan of Subdivision drawing no. 1, by MHBC Planning Urban Design & Landscape Architecture, dated August 27 2012, stamped as received by Planning on September 14 2012, and**

13.1 Surveying and Mapping

- a) The plan does not comply with the City's requirement for integration with the Ontario Co-ordinate System.
- b) The proposed streets must be named in accordance with the City of Toronto Street Naming Policy and labels "Street A", "Street B" and "Street B1" must be replaced with the approved names prior to the plan being registered. The applicant should contact Brian Hall (416-338-5034) at the earliest convenience to initiate the naming process.
- c) For assessment and Official Record municipal numbering purposes the applicant should be required to apply for revised municipal numbering.
- d) If applicable, the applicant should be required to provide certification to the Executive Director of Technical Services and/or the General Manager of Transportation Services accurately indicating the as-built location of any equipment, plant or structure constructed and/or installed within a City street as required by Chapter 743 of the City of Toronto Municipal Code.
- e) Please note that that this draft plan of subdivision plan is incomplete and it is not in a form acceptable for registration. We will comment in greater detail upon receiving a finalized copy of the plan

**14. Regardless of size for all development sites, temporary erosion and sediment control for construction must be provided on-site.**

**All erosion and sediment control BMPs shall be designed, constructed and maintained in all development sites in accordance with the GTA CA's Erosion & Sediment Control Guidelines for Urban Construction (2006) and/or other City of Toronto requirements on a site-by-site basis.**

15. The owner is required to submit a Site Grading Plan prepared by registered professional engineer qualified in municipal engineering to the Executive Director of Technical Services for review and acceptance. We defer our comments in this regard after we receive the above noted plan.

16. As stated in previous memorandum, the applicant shall submit a draft Reference Plan of Survey, in metric units and integrated with the Ontario Co-ordinate System, showing the lands to be conveyed to the City to the Executive Director of Technical Services, for review and approval.

**17. Easements Conveyed to City of Toronto**

17.1 As stated in previous memorandum, convey to the City, at nominal cost, the following:

- a) Municipal easement(s) for the existing sewers and watermain traversing inside the subject property.

Such easements are to be free and clear of all physical and title encumbrances, all to the satisfaction to the Executive Director of Technical Services in consultation with the City Solicitor.

Submit a draft Reference Plan of Survey, in metric units and integrated with the Ontario Co-ordinate System, showing the easement lands as separate PARTS, to the Executive Director of Technical Services, for review and approval.

- 17.2 Submit all environmental site assessment reports prepared in accordance with the Record of Site Condition Regulation (O. Reg. 153/04) describing the current conditions of the easement lands and the proposed remedial action plan based on the site condition standards approach, to the Executive Director, Technical Services, for peer review and concurrence.
- 17.3 Pay all costs associated with the City retaining a third-party peer reviewer including a 7% administrative cost to the City, and submit a certified cheque payable to the City of Toronto in the amount of \$3,000.00, as an initial deposit towards the cost of the peer review to the Executive Director; Technical Services. Submit further deposits when requested to cover all costs of retaining a third-party peer reviewer.
- 17.4 At the completion of the site remediation process, submit a Statement from the Qualified Person, to the Executive Director, Technical Services, for peer review and concurrence, that is based on all necessary supporting environmental documents, the easement lands meets the Site Condition Standards of the most environmentally sensitive adjacent land use.
- 17.5 As per recently submitted Draft Plan of Subdivision the sites includes easement for Hydro and Parking for other properties. Please contact other agencies regarding requirements for other utilities.

## **18. Facilities to Provide Access To and From the Land**

- 18.1 Prior to approval, submit a financial guarantee in the form of an irrevocable letter of credit or certified cheque in an amount to be determined by the City of Toronto for a potential traffic signal at Vanderhoof Avenue and Laird Drive;
- 18.2 Make satisfactory arrangements with Technical Services for Work on the City's Right of Way to provide access to development. Please submit a cost estimate of relocation and construction of **sidewalks, curbs, and private driveways** frontage of the site on Wickssteed Ave, Laird Dr, Parkhurst Blvd, and Vanderhoof Ave to the City for review and acceptance as part of subdivision cost estimate.

## **19. SOLID WASTE & RECYCLING**

- 19.1 The City does not collect trade waste, which is defined as any solid waste originating

from any one or more industrial process or business, industry or commercial establishment. Therefore, the owner must arrange for private waste collection.

- 19.2 **The owner should be aware that the access route and loading platform must be designed in such a way to allow a collection vehicle to enter the site, collect the garbage and exit without the need to backup onto a public road**

## **20. Municipal Numbering**

- 20.1 The applicant is advised to contact Mr. John House, Property Records Supervisor, Survey and Utility Mapping Services, at 416-392-8338 to obtain or verify new municipal addresses prior to submitting a building permit application. It should be noted that all addressed parcels and structures must have the correct municipal addresses posted. Please see <http://www.toronto.ca/mapping/numbers/index.htm> for details.

## **21. Street Naming Requirements**

- 21.1 The applicant is advised to contact Mr. Kerry Ferguson, Titles and Status Supervisor, at 416-392-7757 to initiate the street naming process. The applicant will be required to follow the City of Toronto's Street Naming Policy which can be found at <http://www.toronto.ca/mapping/streetnaming/index.htm>. It should be noted that all public streets, private access roads and private walkways should be named in order to facilitate access to the units fronting these streets, roads and walkways.

## **22. Road Allowance Permits.**

- 22.1. The applicant must obtain the necessary authorizations and permits from our Right-of-Way Management Section before excavating or encroaching into municipal road allowance. The applicant is advised to contact our Right-of-Way Management Section at (416) 394-8422 regarding site-specific permit and licensing requirements.

## **23. Construction Management Plans.**

- 23.1 The Owner will be required to provide the City with a Construction Management Plan outlining the following:
- a) Dust/mud control on and offsite;
  - b) Location of truck loading points, trailer parking;
  - c) Location of temporary material storage areas;
  - d) Access/truck routing;
  - e) Provision of hoarding, temporary fencing & covered walkways;
  - f) Location and extent of aerial crane operations; and
  - g) Parking for construction trades;

for any work within the public right-of-way. For further information, please contact the Right-of-Way Management Section, North York District, at 416-395-6221.

## **24. Encroachments.**

- 24.1. Any encroachments within Municipal Road Allowances will not be permitted unless they are explicitly approved by the Right-of-Way Management section of Transportation Services. The applicant is required to contact the section through the permit approval process to obtain the exact particulars of these requirements. For further information, please contact the Right-of-Way Management Section, North York District at (416) 395-7112.

## **25. Toronto Hydro Approval.**

- 25.1. The applicant must obtain approval from Toronto Hydro Street Lighting Incorporated before removing and/or relocating any utility with attached municipal street lighting.

## **D. BACKGROUND**

### **TRAFFIC IMPACT ASSESSMENT**

The revised Traffic Impact Study noted above estimates in this study that the project will respectively generate 115, 531 and 744 new two-way trips during the AM, PM and Saturday peak hours. Based on these trip generation levels, the consultant concludes that site traffic can be accommodated on the adjacent road network subject to implementation of the following road improvements:

#### ***Laird Drive at Vanderhoof Avenue***

- Widen Laird Drive in order to implement a 40 metre southbound left-turn storage at the intersection;
- Install a new traffic control signal at the intersection;

#### ***Eglinton Avenue East***

- Alter the existing pavement markings on Eglinton Avenue East, between Laird Drive and Don Avon Drive, in order to transition the westbound left-turn lane at Laird Drive into the adjacent two-way left-turn lane;

#### ***Wicksteed Avenue***

- Modify the existing pavement markings on Wicksteed Avenue, between Laird Drive and Brentcliffe Road, to create dedicated left-turn lanes at the intersections west of Driveway "C" and a short centre two-way left-turn lane transitioning into a dedicated left-turn lane at the Brentcliffe Road intersection;

#### ***Laird Drive at Wicksteed Avenue/McRae Drive***

- Lengthen the traffic signal cycle length to add a protected westbound left-turn phase for the weekday PM and Saturday peak periods; and

#### ***Wicksteed Avenue at Vaughan Street***

- Install a new traffic control signal at the intersection.

Despite the above conclusion from the consultant, revisions are required to the study in order to address the following issues:



## **1. Existing Conditions**

In our comments for the previous study, we noted that some movements were operating above capacity under existing conditions and that the analyses would have to be calibrated to reflect actual operating conditions. While it is acknowledged that field surveys were completed for the revised study to address this issue, the analyses still show some movements operating above capacity. As a result, it appears that this issue has not been satisfied.

## **2. Site Trip Generation**

As noted in section 5.1.1, the estimated gross site trips for the proposal are based on a total gross floor area of 148,025 square feet or 13,752 square metres. However, the most recent site plan drawing that was received indicates that the total gross floor area is slightly higher (151,007 square feet or 14,029 square metres).

## **3. Site Traffic Route Assignment**

There are some inconsistencies between the trip generation data shown in Table 1 and the site traffic volumes shown in Figure 6. For example, according to Table 1, the site is expected to generate 259 new inbound trips during the AM Peak Hour. However, Figure 6 shows a total of 331 inbound trips at the site access driveways. Other similar discrepancies exist between the data in Table 1 and the volumes in Figure 6 for other peak hours (albeit lower in magnitude).

The site traffic volumes shown in Figure 6 for some intersections do not match the corresponding upstream/downstream volumes for all cases. For example, 93 inbound site trips are shown in Figure 6 as making a southbound left-turn at Laird/Vanderhoof during the Saturday Peak Hour. No other inbound trips are shown during this time period as passing through the intersection to proceed east on Vanderhoof Avenue. However, only 83 vehicles are shown entering the site by making an eastbound right-turn at Driveway "B" with no corresponding eastbound through movement. Other similar discrepancies exist at other study area intersections.

Figure 6, and all corresponding traffic analyses must be revised to address the above-noted concerns.

## **4. Proposed Signal At Vanderhoof and Laird Drive**

The revised study continues to recommend that a signal be installed at the above-noted intersection, even though it does not meet the technical warrants. Nonetheless, we continue to note that the proposed signal is located approximately 160 metres north of the existing signal at Laird Drive/McRae Drive/Wicksteed Avenue. We typically require that signals be located approximately 215 metres apart. Given this spacing issue, and in keeping with our previous comments, the study must provide an analysis of vehicular progression and vehicular coordination. A discussion on any sight-line issues related to the closely spaced signals is also required.

## 5. Future Traffic Operations

According to the traffic analyses in the study, some movements are projected to operate above capacity or with excessive delays under future total conditions. Examples in this regard, include but are not limited to:

- The northbound left-turn movement at Laird Drive/Eglinton Avenue East during the PM Peak Hour;
- The southbound left-turn movement at Laird Drive/Wicksteed Avenue/McRae Drive during the PM Peak Hour; and
- The northbound left-turn movement at Wicksteed Avenue/Driveway "B" during the Saturday Peak Hour.

In order to address the above-noted conditions, in some cases the report states that drivers will adjust their travel routes by diverting to adjacent intersections. This does not seem reasonable since many other movements at nearby intersections will also experience operational issues in the future. In any case, typically separate scenarios must be provided which assess how the area road network will operate given the traffic diversion.

## 6. As-of-Right-Trip Generation Analysis

Section 8.0 of the study provides a discussion on the as-of-right trip generation for the site. It states that the site is defined by M1 Zoning on Laird Drive at Parkhurst Boulevard and M2 Zoning for the remaining portion. For ease of reference a graphic/map should be provided which shows the limits of the M1 and M2 zones, along with their approximate areas.

The as-of-right trip generation assessment assumes a building footprint of 732.27 square metres and a maximum re-developed GFA of 1,830.67 square metres for the M1 Zone. Details must be provided on how these assumptions were derived given that the size of this zone is approximately 2,441 square metres.

The trips estimated for the as-of-right development do not take into account a Medical-Dental Office building. According to the ITE Trip Generation Manual, this use has significantly higher trip rates per square foot when compared to the Single Tenant Office or Multi-Tenant Office uses. In order to reflect the worst case scenario in terms of trip generation, the as-of-right trip assessment must consider the Medical-Dental Office Building use, unless this use is not allowed under existing zoning permissions.

In addition to the text provided in section 8.0, tables (similar to the one shown on page 18 of the study) should also be provided which show, step by step, how the as-of-right trip generation estimates were derived. All assumptions used in deriving the trip generation estimates (e.g. maximum Gross Floor Area, non-auto trip percentages etc.) must be explicitly justified in the study.

### **MEDIAN**

A median may be required along Laird Drive. The locations of any potential medians are currently being determined by the City. The median is not required for Transportation purposes. A review of existing accesses from Laird Drive must be completed before implementation of the median.

## **EGLINTON LRT**

The Eglinton Avenue LRT is scheduled for construction between 2011 and 2020 from Jane/Black Creek to Scarborough Centre based on Metrolinx/Toronto Transit Plan dated April 28, 2011. The Laird Drive station is proposed to be underground.

## **BOULEVARDS/STREETSCAPING**

The applicant must restore those sections of municipal boulevard where they propose to close existing driveway(s), replacing the access point(s) with appropriate landscaping and continuous poured raised concrete curb.

The applicant must ensure that any streetscape designs proposed within municipal right-of-way comply with the requirements of this Division. We emphasise that anything other than municipal sidewalks, street trees and sod are encroachments that the property owner must recognise in either a site plan or encroachment agreement that is registered on-title to the property. The property owner is responsible for designing, constructing and maintaining these encroachments.

## **PARKING**

The applicant is proposing to use the parking rates from the Repealed By-law 1156-2010 for the Rest of City policy area. It is not clear what the specific use of each building is and therefore the minimum parking requirements cannot be calculated. The applicant is proposing 494 parking spaces both at grade and below grade. If the applicant is proposing a use not in the above zoning by-law it should be added to the zoning by-law or the parking requirements of Leaside Zoning By-law 1916 will be in effect.

## **LOADING**

The applicant is proposing to satisfy the loading as per the existing Leaside Zoning By-law 1916. This by-law requires 1 loading space for commercial uses between 191 m<sup>2</sup> and 930 m<sup>2</sup> of GFA. Two loading spaces are required for buildings with a GFA greater than 930 m<sup>2</sup>. Please see the loading comment regarding Building B, D and E in the revision section of the memo. Please see the loading comment regarding Building C in the advisory section of the memo.

Frank Clarizio, P. Eng.  
Manager, Development Engineering, North York District

PI/pi

Copy to: Director, Transportation Services, North York District