



Report to: Development Services Committee

Report Date: November 7, 2016

SUBJECT: RECOMMENDATION REPORT
1659139 Ontario Inc. (HBNG Holborn Group)
Blocks 299, 300 and 301, Plan 65M-4026
North of Elgin Mills Road, west of Woodbine Avenue
Applications for Official Plan and Zoning By-law
amendments, and Draft Plan of Subdivision Approval
File No.'s: OP 13 116651 and ZA/SU 15 116651

PREPARED BY: Gary Sellars, MCIP, RPP, ext. 2960
Senior Planner, West District

REVIEWED BY: Dave Miller, MCIP, RPP, ext. 4960
Manager, West District

RECOMMENDATION:

- 1) That the report dated November 7, 2016 titled, "RECOMMENDATION REPORT, 1659139 Ontario Inc. (HBNG Holborn Group), Blocks 299, 300 and 301, Plan 65M-4026, North of Elgin Mills Road, west of Woodbine Avenue, Applications for Official Plan and Zoning By-law amendments, and Draft Plan of Subdivision Approval", be received;
- 2) THAT Draft Plan of Subdivision 19TM-15003, prepared by Gagnon and Law, Urban Planners Ltd., revision dated October 13, 2016, be approved subject to conditions of draft plan approval set out in Appendix 'A' to this report;
- 3) THAT servicing allocation for 178 townhouse units be assigned to Draft Plan of Subdivision 19TM-15003;
- 4) THAT the draft plan approval for plan of subdivision 19TM-15003 will lapse after a period of three years commencing on the date of issuance of draft plan approval, in the event that a subdivision agreement is not executed within that period;
- 5) THAT the City reserves the right to revoke or reallocate the servicing allocation should the development not proceed in a timely manner;
- 6) THAT the Region of York be advised that servicing allocation for 178 units has been confirmed;
- 7) THAT the draft amendments to the 1987 Official Plan and the Cathedral Community Secondary Plan, and the 2014 Official Plan, attached to this report as Appendix 'B', be finalized prior to being enacted by Council;

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- 8) THAT the draft amendment to Zoning By-law 177-96, as amended, attached to this report as Appendix 'C', be finalized prior to being enacted by Council;
- 9) AND THAT Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

This report provides an overview, evaluation and recommendation for Official Plan amendments, draft plan of subdivision and an implementing Zoning By-law amendment, to permit the development of a 178 unit townhouse development.

BACKGROUND:**Property and Area Context**

The subject lands, three blocks on a registered plan of subdivision, consist of 5.7 ha. (14 acres) located north of Elgin Mills Road, west of Woodbine Avenue (see Figure 1). There is a small shed located near the southwest corner of the lands. Lord Melbourne Street (a public road), which is currently closed to traffic, bisects the lands.

The surrounding context is as follows:

- To the north is a woodlot which is owned by the City
- To the south is an existing stormwater management pond and two single detached residential lots each containing designated heritage buildings
- To the west are vacant employment lands adjacent to Highway 404
- To the east are existing open space blocks adjacent to Woodbine Avenue which are owned by the City, and to the east of Woodbine Avenue is a low density residential subdivision

Markham Official Plan and Zoning By-law

The 1987 Official Plan (Revised 1987), as amended, and Cathedral Community Secondary Plan designate the subject lands 'Industrial' – 'Business Park Area' and 'Business Corridor Area'. The 2014 Official Plan (as partially approved on October 30, 2015 and May 26, 2016) designates the lands 'Business Park Employment' and 'Service Employment' and Deferral Area (Policy 9.5.14). None of these designations provide for residential uses.

The Official Plan Amendment application was one of a number of employment land conversion applications considered by Markham Council prior to the adoption of the new Official Plan. In accordance with Council direction, the 'Business Park Employment' and 'Service Employment' designations on the subject lands were deferred pending Council approval of an Official Plan Amendment application. A site specific policy was included, which provides for non-employment uses to be considered for the subject lands subject to conformity with the Growth Plan, and all other policies of the Markham Official Plan 2014, and having regard for the following criteria prescribed by Council, as applicable:

- Compatibility to adjacent uses;
- Achieving an increase in the number of jobs that would otherwise be provided under the 'Employment Lands' designation on the site, or at a minimum, no net reduction in jobs on the site;
- Proximity to transit;
- Provision of lands for a VIVA terminal;
- Achieving better public amenities, including but not limited to public art, Section 37 community benefits and publicly accessible private amenity spaces; and
- Where the location is appropriate, provide for affordable or seniors housing.

The lands located north of Lord Melbourne Street are presently zoned "Business Park (BP)" and the lands located south of Lord Melbourne Street are zoned "Business Corridor (BC)" by By-law 177-96, as amended (see Figure 2). Residential uses are not permitted in the current zoning designations.

Proposal

The applicant has applied to amend both the 1987 Official Plan (Revised 1987), as amended, and the 2014 Official Plan to redesignate the subject employment lands to allow for a residential townhouse development with public roads and lanes.

Draft plan of subdivision and implementing zoning by-law amendment applications have also been submitted. The plan of subdivision is comprised of the following (see Figure 4):

Land Use	Units	Hectares	Acres
Street Townhouses (7m)	25	0.537	1.33
Lane Based Townhouses (5.8m and 6.4m)	153	2.28	5.63
Park		0.464	1.15
Environmental Buffer (adjacent to woodlot)		0.175	0.43
Open Space		0.053	0.13
Roads and Lanes		1.9	4.69
Other (walkways, etc.)		0.241	0.6
Total Units	178		
Total Area of Subdivision		5.65	13.96
Net Density (units per hectare/per acre)		63	

Public Consultation

A Statutory Public Meeting, to consider the proposed Official Plan and Zoning By-law amendment and Draft Plan of Subdivision applications, was held on November 16, 2015. Twenty eight written submissions and one deputation were received. All written submissions objected to the development proposal on the basis of increases to traffic congestion, noise and air pollution, overcrowded schools and the loss of the opportunity for commercial uses to serve the community and loss of employment opportunities.

The deputation was in opposition to the applicant's proposal to acquire the City owned open space blocks adjacent to Woodbine Avenue and to incorporate them into their plan of subdivision for residential development

A Transportation Impact Study submitted by the applicant has been reviewed by staff and the proposed development is considered to be acceptable. The School Boards have advised that future student populations generated by the proposed development can be accommodated within existing schools in the area, and that a new public elementary school will be built in close proximity to the proposed development within the next 2 years. Enhanced opportunities for home occupations within this proposed development are being proposed. The applicant has withdrawn their proposal to acquire the City owned open space blocks adjacent to Woodbine Avenue.

DISCUSSION:

Official Plan - Employment Land Conversion Criteria

Staff have encouraged the applicant to have regard for the employment land conversion criteria prescribed by Council

As directed by Markham Council, staff have worked with the applicant to finalize a plan of subdivision for the subject lands, and in this process have encouraged the applicant to have regard for the employment land conversion criteria prescribed by Council:

- Compatibility to adjacent uses
As outlined later in this report, staff are of the opinion that the applicant has addressed compatibility with adjacent land uses in the design of the proposed draft plan of subdivision, to the satisfaction of staff. Planning staff did not support the applicant's earlier request to acquire the adjacent City owned open space blocks, which request has now been withdrawn.
- Achieving an increase in the number of jobs that would otherwise be provided under the 'Employment Lands' designation on the site, or at a minimum, no net reduction in jobs on the site
The applicant has previously outlined their position to Development Services Committee that they do not consider the subject lands suitable for employment uses due to its small size and isolation from the other employment lands in the area. Their attempt to market the lands for employment uses has not been successful. They are of the opinion that the overall impact on the City's employment land inventory will be small if the lands are converted to residential use. The applicant is also of the opinion that a neighbourhood retail use and mixed use live work units are not viable within this development.

The zoning by-law amendment will include enhanced provisions for home occupations in the townhouse units on the north side of Lord Melborne Street (maximum 40% versus the typical 25% of the units gross floor area and permission

for medical offices as a home occupation). The proposal includes grade related designs to facilitate the home occupations and is providing a road widening to accommodate lay-by parking on Lord Melbourne Street to serve the home occupation uses.

- Proximity to transit
The area is currently served by York Region bus transit routes on Woodbine Avenue and Elgin Mills Road East.
- Provision of lands for a VIVA terminal
The Region of York does not require a VIVA terminal at this location.
- Achieving better public amenities, including but not limited to public art, Section 37 community benefits and publicly accessible private amenity spaces
The applicant has agreed to provide a financial contribution to the City for Section 37 community benefits, in accordance with City public art policies and Section 37 of the Planning Act.
The applicant will dedicate to the City the parkland required to serve the needs of the future residents of this community. The applicant has also expressed an interest in up fronting the cost of constructing the park to ensure that it is available for use at an earlier date than would otherwise be achievable through the normal capital budget cycle process.
- Where the location is appropriate, provide for affordable or seniors housing.
The applicant was encouraged to consider providing opportunities for affordable or seniors housing, but has chosen not to provide such opportunities. Development Services Committee or Council may wish to comment on this criterion relative to the employment land conversion.

Draft Plan of Subdivision

An environmental buffer adjacent to the woodlot will be conveyed to the City

An environmental buffer adjacent to the City owned woodlot on the abutting lands to the north is being provided by the applicant. The buffer is to be combined with lands already owned by the City between the property line and the woodlot drip line. Details with respect to the configuration of the buffer are still under review by the City and TRCA staff. Draft Approval of the plan of subdivision will be conditional upon resolution of this matter to the satisfaction of the City and the TRCA.

A parkland block will be conveyed to the City.

The subdivision proposal includes a 0.464 hectare (1.15 acre) park block that will be dedicated to the City. The proposed park block fulfills 78% of the parkland dedication requirement for this medium density development; it is recommended that the balance be taken as cash-in-lieu. Although it is desirable to achieve 100% park dedication in land, the site conditions of this development have restricted the ability to achieve this objective in a meaningful way.

The proposed park fulfills a number of planning objectives. It is centrally located within the new community to optimize walkability, has frontage on three roads and fits in well with the overall design of the community, including connectivity to the existing adjacent stormwater management pond to the south. A larger parkland block in the preferred location would be difficult to achieve for the following reasons:

- Existing services in the Street E road allowance preclude the park block expanding to the west
- Street D is required to provide a second road connection to Woodbine Ave, thus preventing any expansion of the park block to the south
- Any expansion of the park block to the east would affect the preferred design of the lane based product, which fronts on to the park block and the existing open space blocks adjacent to Woodbine Avenue

The park design and program will be dealt with through a separate process.

The proposed road and lane network is acceptable

There are two road connections to the proposed subdivision from Woodbine Avenue; the existing Lord Melbourne Street and a new Street D. The Transportation Department has advised that Street D, in combination with the existing Lord Melbourne Street, will provide adequate ingress to and egress from the proposed development. Due to the proximity of Street D from the Elgin Mills Road and Woodbine Avenue intersection, Street D will be limited to a right-in/right out intersection with Woodbine Avenue in accordance with Regional requirements. The applicant will be required, as a condition of draft approval, to enter into an agreement with the City to allow for Street D to connect to Woodbine Avenue across the City owned open space blocks adjacent to Woodbine Avenue, and for Street D's small encroachment into the northwest corner of the existing stormwater management pond block. Street D, in combination with an open space block, will provide views into the abutting stormwater management pond.

Street B includes a one foot reserve adjacent to the employment lands to the west; this will prevent future traffic generated by the employment land uses to the west accessing streets within the development other than Lord Melbourne Street.

The applicant is currently in discussions with the Region to acquire surplus lands to allow Street B to be extended in the future. This will provide the adjacent lands to the south fronting on Elgin Mills Road, and proposed residential units at the south end of the applicant's lands, to have access to Street B. Until these arrangements with the Region are complete, a Holding provision in the zoning by-law amendment will apply to Blocks 27 and 28 within this development. A temporary cul-de-sac on Lane C is also proposed to provide access to Blocks 19 and 20 fronting Street D.

A road widening along the north side of Lord Melbourne Street to accommodate lay-by parking is also being provided. This parking will serve potential home occupation uses on Lord Melbourne Street.

As the land use for the subject lands is proposed to be changed from non-residential to residential, the City and the Region of York have determined that the proposed future Highway 404 north bound ramp extension (road) in the vicinity of the western boundary of the subject lands will no longer be required and will not be pursued.

The applicant has incorporated many community design features into the plan in response to staff requests

All of the residential units south of Lord Melborne Street are lane based. Some of the lane based product will front on the park and the existing open space blocks adjacent to Woodbine Avenue with 3 metre wide walkways between the townhouse blocks. Units fronting on the north side of Lord Melborne Street will have double frontages with the garages on Street A. As a result, there will be no driveways or garages fronting on the majority of the roads. The lane based townhouse units include attached garages with outdoor amenity space above the garages.

Street B and units flanking onto its east side will provide an acceptable interface with the employment lands to the west; back lotting and the need for noise attenuation fencing is no longer being proposed.

A sanitary sewer upgrade will be required to support the proposed development

The sanitary sewer flow rate exceeds the allowable release rate for this development. The applicant will be required to provide a financial contribution for a sanitary sewer upgrade.

Both School Boards have no objections to the residential development proposal

Both School Boards have advised that they will not require school sites within the proposed plan and that the additional student population that may be generated by this development can be accommodated within existing facilities. The York Region District School Board has also advised that they plan to build a new elementary school (Cathedral North) east of Woodbine Avenue at the northwest corner of Prince of Wales Drive and Helford Street and have received Provincial funding for this school. This school is planned to be open in September 2018.

A Community Design Plan update is being prepared by the applicant

The applicant will be required to finalize an update to the Cathedral Community Design Plan as a condition of draft approval, to the satisfaction of staff and approval by Development Services Committee. This update will include, but not be limited to, requirements with respect to:

- lotting configurations and townhouse model types;
- provision for units with accessible at-grade design (i.e., senior friendly units commercial adaptable units)
- sustainability measures (see Appendix 'D' – proposed measures)
- resident parking and visitor parking

FINANCIAL CONSIDERATIONS:

Not applicable.

HUMAN RESOURCES CONSIDERATIONS:

Not applicable.

ALIGNMENT WITH STRATEGIC PRIORITIES:

The proposed applications will align with the City's strategic priorities of Growth Management, Transportation, Municipal Services and the Environment and will implement the proposed development in coordination with available servicing allocation.

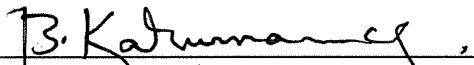
BUSINESS UNITS CONSULTED AND AFFECTED:


The applications have been reviewed by various City departments and external agencies. Requirements of the City and external agencies have been reflected in the conditions of draft plan of subdivision approval and the implementing zoning by-law amendments.

CONCLUSION:

Staff are of the opinion that the proposed Official Plan and Zoning By-law amendments and draft plan of subdivision are acceptable. The applicant has addressed the concerns that staff had with their original plan of subdivision submission. Should Council wish to proceed with the necessary Official Plan and Zoning By-law amendment approvals for the proposed employment land conversion to residential use, staff will continue to work closely with the applicant to finalize the required Official Plan and Zoning By-law amendments prior to the amending documents being sent to Council for approval.

RECOMMENDED BY:


Biju Karumanchery, M.C.I.P., R.P.P.
Director of Planning and Urban Design

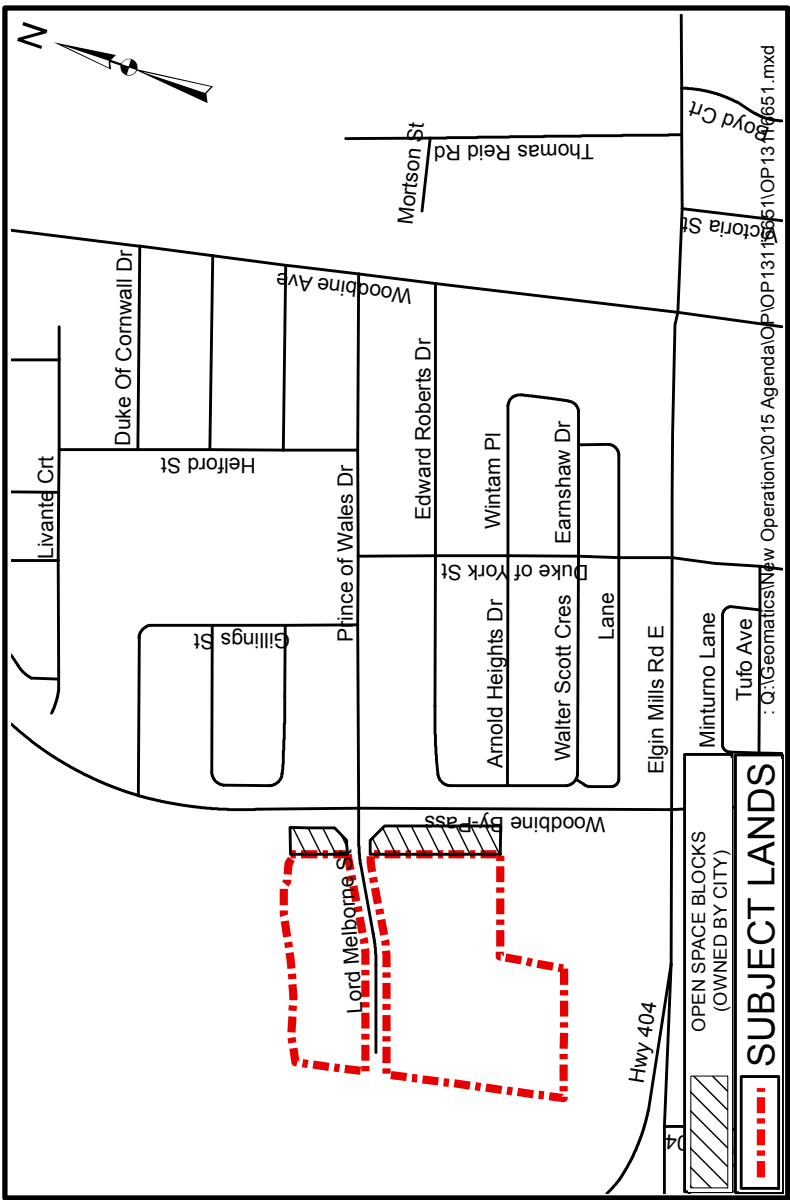

Jim Baird, M.C.I.P., R.P.P.
Commissioner of Development Services

ATTACHMENTS:

- Figure 1: Location Map
- Figure 2: Area Context/Zoning
- Figure 3: Air Photo
- Figure 4: Proposed Draft Plan of Subdivision

APPENDICIES:

- Appendix 'A' – Conditions of Draft Plan Approval
- Appendix 'B' – Draft Official Plan Amendment
- Appendix 'C' – Draft Zoning By-law Amendment
- Appendix 'D' - Proposed Sustainability Measures





AREA CONTEXT/ZONING

APPLICANT: 1659139 ONT. INC.(HBNG HOLBORN GROUP)

NORTH OF ELGIN MILLS RD, WEST OF WOODBINE AVE. BY-PASS

BLOCKS 299,300 AND 301 PLAN 65M-4026

DATE:04/01/15

FIGURE No. 2

SUBJECT LANDS

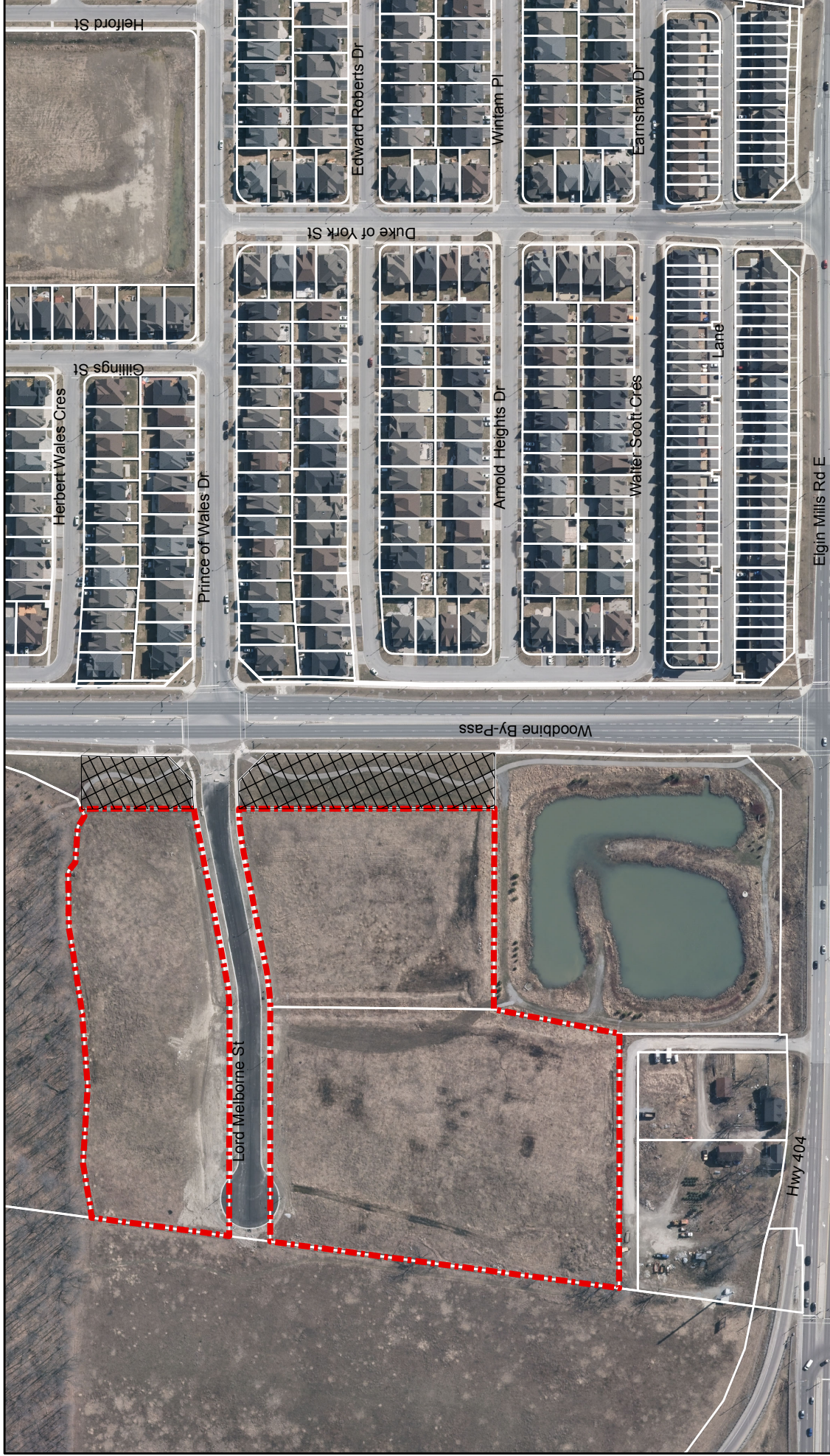
OPEN SPACE BLOCKS
(OWNED BY CITY)

FILE No: OP 13116651,SU/ZA15116651(GS)

MARKHAM DEVELOPMENT SERVICES COMMISSION

Drawn By:DD

Checked By:GS



AIR PHOTO 2014

APPLICANT: 1659139 ONT. INC.(HBNG HOLBORN GROUP)

NORTH OF ELGIN MILLS RD, WEST OF WOODBINE AVE. BY-PASS

BLOCKS 299,300 AND 301 PLAN 65M-4026

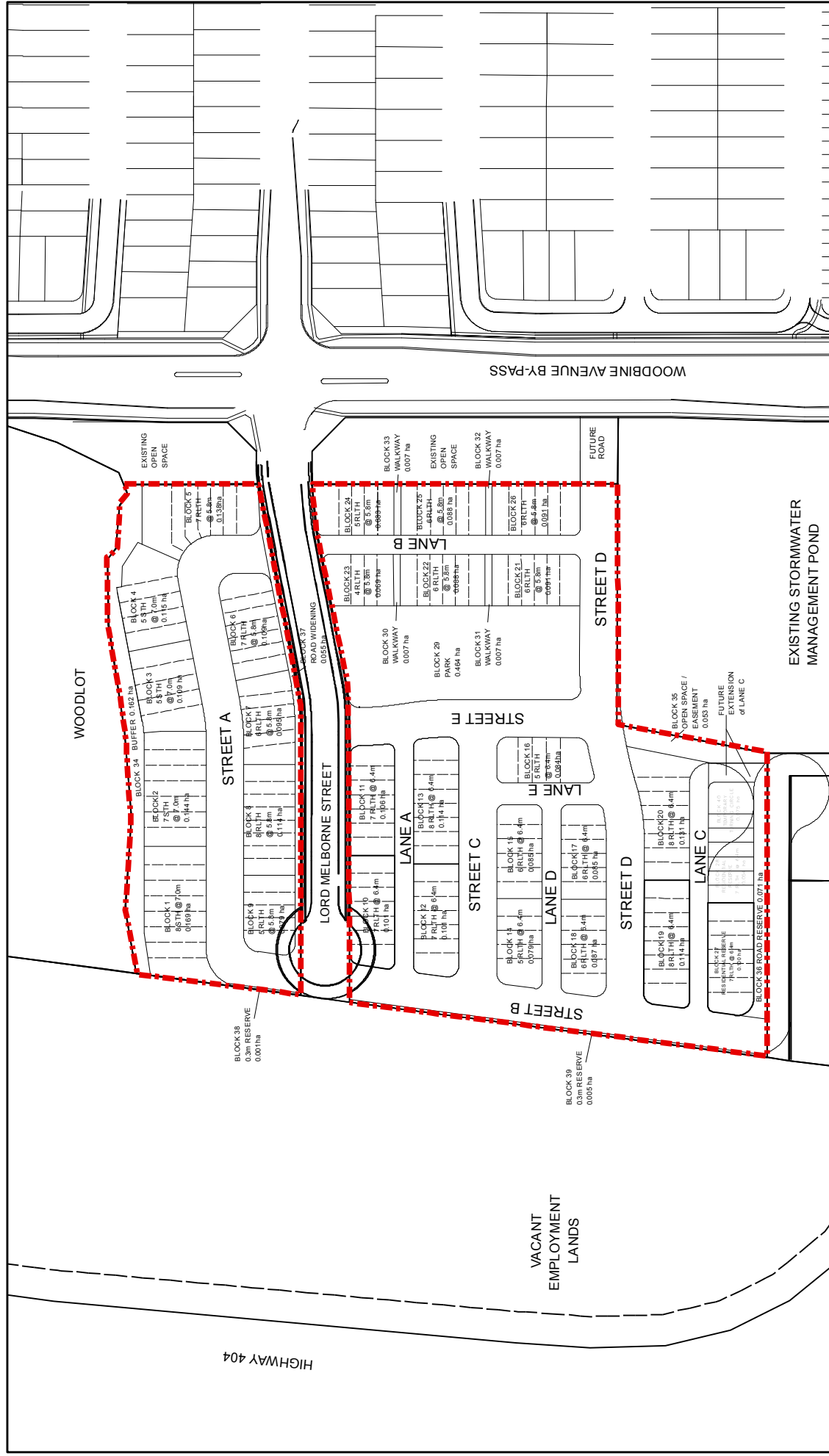
 SUBJECT LANDS
 OPEN SPACE BLOCKS
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DATE:04/01/15



PROPOSED DRAFT PLAN OF SUBDIVISION

APPLICANT: 1659139 ONT. INC.(HBNG HOLBORN GROUP)

NORTH OF ELGIN MILLS RD, WEST OF WOODBINE AVE. BY-PASS

BLOCKS 299,300 AND 301 PLAN 65M-4026



SUBJECT LANDS

FILE No: OP 13116651, SU/ZA15116651(GS)

IVARKHAM DEVELOPMENT SERVICES COMMISSION

Drawn By:DD

Checked By:GS

DATE:10/19/16

FIGURE No. 4

Appendix 'A'

CONDITIONS OF THE CITY OF MARKHAM TO BE SATISFIED PRIOR TO RELEASE FOR REGISTRATION OF PLAN OF SUBDIVISION 19TM-15003 (1659139 ONTARIO INC. [HBNG HOLBORN GROUP]) ARE AS FOLLOWS:

1. General

1.1 Approval shall relate to a draft plan of subdivision prepared by Gagnon & Law urban Planners Ltd., identified as Project Number 13.1947.00, Drawing No. 13.1947.00, dated October 13, 2016, subject to the following redline revisions:

- show ROW centerline curve radius along all roadways, including cul-de-sacs.

1.2 This draft approval shall apply for a maximum period of three (3) years from date of issuance by the City, and shall accordingly lapse on ----- unless extended by the City upon application by the Owner.

1.3 The Owner shall enter into a subdivision agreement with the City agreeing to satisfy all conditions of the City and Agencies, financial and otherwise, prior to final approval.

1.4 The Owner covenants and agrees to enter into a construction agreement and/or encroachment agreement or any other agreement deemed necessary to permit construction of services, roads, stormwater management facilities or any other services that are required external to the plan of subdivision (or site plan) and that are required to service the proposed development, to the satisfaction of the Director of Engineering and the City Solicitor.

1.5 The Owner acknowledges and agrees that the draft plan of subdivision and associated conditions of draft approval may require revisions, to the satisfaction of the City, to implement or integrate any recommendations from studies required as a condition of draft approval, including, but not limited to, Municipal Class Environment Assessment, Traffic Impact Study, Internal Functional Traffic Design Study, Transportation Demand Management Plan, Stormwater Management Study (Environmental Master Drainage Plan), Functional Servicing Study, Noise Impact Study, confirmation of alignment of roads with the locations shown in the draft approved plan, as well as any comments and conditions received from municipal departments and external agencies after draft approval is granted.

2. Roads

2.1 The road allowances within the draft plan shall be named to the satisfaction of the City and York Region.

- 2.2 The road allowances within the draft plan shall be dedicated as public highway, free of all costs and encumbrances.
- 2.3 The Owner shall covenant and agree in the subdivision agreement that the public highways shall be designed and constructed in accordance with established municipal standards to the satisfaction of the City (Commissioner of Development Services).
- 2.4 The Owner shall convey 0.3m reserves at the side of Street 'A', and Street 'B', road widening Block 37, and road reserve Block 36 to the City, free of all costs and encumbrances, upon registration of the plan of subdivision.
- 2.5 The Owner shall covenant and agree in the subdivision agreement to provide temporary turning circles where required at their cost and remove them and restore the streets to their normal condition at their cost when required by the City, to the satisfaction of the City (Commissioner of Development Services). The design of the temporary turning circles, and any implications on surrounding land use, shall be addressed in the subdivision agreement to the satisfaction of the City.
- 2.6 Prior to the final approval of the Plan, the Owner shall provide temporary turning circles at the end of Lane 'C' and shall grant required easements upon registration of the plan of subdivision.
- 2.7 Prior to final approval of the draft plan, the Owner shall acquire from York Region and Tuccirone Land, or subsequent owner, the additional 10.8 metres of land required to complete the Street 'B' road allowance, or convey to the City an easement over these lands so as to complete the Street 'B' road allowance, to the satisfaction of the City (Commissioner of Development Services). A Holding Provision will be imposed on Blocks 27 and 28 until the additional right-of-way is acquired from York Region and Tuccirone Land.
- 2.8 The Owner shall covenant and agree in the subdivision agreement to maintain access or provide alternate arrangements for access to the satisfaction of Director of Engineering for the existing residences to the south (Tuccirone Land) during construction and local traffic and driveways shall be accessible at all times.
- 2.9 Prior to final approval of the draft plan, the Owner shall acquire from the City additional 22.5 metres in length of road allowance required to complete the Street 'D' road allowance, to the satisfaction of the City.
- 2.10 The Owner shall covenant and agree in the subdivision agreement to implement the traffic calming measures identified in the Internal Functional Traffic Study. The Owner shall further covenant and agree to implement additional traffic calming measures, prior to assumption of the plan of subdivision, if it is determined by the City that additional traffic calming measures are required.

3. Noise Impact Study

- 3.1 Prior to final approval of the draft plan, the Owner shall submit a Noise Impact Study, prepared by a qualified noise consultant, with recommended mitigation measures for noise generated by road traffic and by any other identified noise sources, to the satisfaction of the City, in consultation with the Region of York. The Owner further agrees to make any revisions to the draft plan that may be required to achieve the recommendations of the Noise Impact Study.
- 3.2 The Owner shall covenant and agree in the subdivision agreement to implement noise control measures and warning clauses as recommended by the approved Noise Impact Study, to the satisfaction of the City (Commissioner of Development Services), in consultation with the Region of York.

4. Stormwater Management

- 4.1 Prior to final approval of the draft plan, the Owner shall submit a stormwater management study, prepared by a qualified engineer, detailing the provision of water quality and quantity management facilities, hydraulic gradelines, overland flow routes, and erosion and siltation controls for the draft plan for approval by the City and the Toronto and Region Conservation Authority. The Owner acknowledges and agrees that they will be required to construct the proposed stormwater management facilities and overland routes, provide any easements or lands for stormwater and overland flow purposes, and to revise the draft plan accordingly, as may ultimately be required.
- 4.2 The Owner shall covenant and agree in the subdivision agreement to undertake the monitoring of watercourse temperatures which may be affected by storm drainage from its development, subject to consultation with, and to the satisfaction of the City.
- 4.3 The Owner shall covenant and agree in the subdivision agreement to obtain approval of Site Alteration Plans in accordance with the City's Standards prior to proceeding with any on-site works and more particularly topsoil stripping.

5. Municipal Services

- 5.1 Prior to final approval of the draft plan, the Owner shall prepare, to the satisfaction of the City (Commissioner of Development Services), a Functional Servicing Report to determine the infrastructure required for all municipal services internal to the subdivision and potential upgrades to municipal infrastructure downstream of the subdivision resulted from this development. Any requirements resulting from this Report shall be incorporated into the draft plan and provided for in the subdivision agreement. The owner shall covenant and

agree in the subdivision agreement to pay for all external municipal infrastructure upgrades.

- 5.2 Prior to final approval of the draft plan, the Owner shall covenant and agree in the subdivision agreement to pay for external sanitary sewer upgrades. The proposed sanitary design flow exceeds the original allocated flow, therefore; a financial contribution from the proposed development for the proportionate share towards downstream system upgrade will be determined upon finalizing the Master Servicing Study results by the City.

In the event that the Master Servicing Study is not completed by the City, the Owner shall make alternative arrangements in the subdivision agreement to secure this obligation.

- 5.3 The Owner shall covenant and agree in the subdivision agreement that they shall be required to construct, or pay for the construction of, roads, bicycle lanes, curbs, gutters, sidewalks (in accordance with the applicable Council policy and City's Design Criteria and Standards), underground and above ground services, street lights, street signs, utilities, stormwater management facilities, etc., to the satisfaction of the City (Commissioner of Development Services).
- 5.4 Prior to final approval of the draft plan, detailed engineering drawings shall be provided in accordance with the City's Design Criteria, by the Owner which will include, but not be limited to grading control plans, plan and profile drawings of all underground and aboveground services, general plans, drainage plans, composite utility plans, streetlighting design drawings, stormwater management detail plans, etc. to the satisfaction of the City (Commissioner of Development Services).
- 5.5 The Owner shall acknowledge and agree in the subdivision agreement that building permits will not be issued for lands in any stage of development within the draft plan of subdivision until the Director of Building Services has been advised by the Fire Chief that there is an adequate water supply for firefighting operations and acceptable access for firefighting equipment is available.

6. Traffic Impact Study / Internal Functional Traffic Design Study

- 6.1 Prior to final approval of the draft plan, the Owner shall prepare, in consultation with the Owners of other lands within the Cathedral Secondary Plan area, a Traffic Impact Study / Internal Functional Traffic Design Study to the satisfaction of the City and the Region of York. The Owner shall incorporate the requirements and criteria of the Traffic Impact Study into the draft approved plan and subdivision agreement.

7. Easements

- 7.1 The Owner shall grant required easements to the appropriate authority for public utilities, drainage purposes or turning circles, upon registration of the plan of subdivision. Any off-site easements and works necessary to connect watermain, storm and sanitary sewers to outfall trunks and stormwater management facilities shall be satisfactory to, and dedicated to, the City.

8. Utilities

- 8.1 The Owner shall covenant and agree in the subdivision agreement that hydro electric, telephone, gas and television cable services, and any other form of telecommunication services shall be constructed at no cost to the City as underground facilities within the public road allowances or within other appropriate easements, as approved on the Composite Utility Plan, to the satisfaction of the City (Commissioner of Development Services) and authorized agencies.
- 8.2 The Owner shall covenant and agree in the subdivision agreement to enter into any agreement or agreements required by any applicable utility companies, including PowerStream, Enbridge, telecommunications companies, etc.
- 8.3 The Owner shall covenant and agree in the subdivision agreement to facilitate the construction of Canada Post facilities at locations and in manners agreeable to the City of Markham in consultation with Canada Post, and that where such facilities are to be located within public rights-of-way they shall be approved on the Composite Utility Plan and be in accordance with the Community Design Plan.
- 8.4 The Owner shall covenant and agree in the subdivision agreement to include on all offers of purchase and sale a statement that advises prospective purchasers that mail delivery will be from a designated Community Mailbox. The Owners will further be responsible for notifying the purchasers of the exact Community Mailbox locations prior to the closing of any home sale.
- 8.5 The Owner shall covenant and agree in the subdivision agreement to provide a suitable temporary Community Mailbox location(s), which may be utilized by Canada Post until the curbs, sidewalks and final grading have been completed at the permanent Community Mailbox locations. This will enable Canada Post to provide mail delivery to new residents as soon as homes are occupied.
- 8.6 Standard Community Mailbox installations are to be done by Canada Post at locations approved by the municipality and shown on the Composite Utility Plan. Should the developer propose an enhanced Community Mailbox installation, any costs over and above the standard installation must be borne by the developer, and be subject to approval by the City in consultation with Canada Post.

- 8.7 The Owner covenants and agrees that it will permit any telephone or telecommunication service provider to locate its plant in a common trench within the proposed subdivision prior to registration provided the telephone or telecommunications services provider has executed a Municipal Access Agreement with the City. The Owner shall ensure that any such service provider will be permitted to install its plant so as to permit connection to individual dwelling units within the subdivision as and when each dwelling unit is constructed.

9. Environmental Clearance:

- 9.1 The Owner covenants and agrees to retain a “Qualified Person” as defined by the *Environmental Protection Act* and its regulations, to carry out all necessary environmental testing, evaluation and remediation and pay to the City for third party peer review. The Owner acknowledges that a “Qualified Person” will be retained for the execution of the Owner’s obligation hereunder. The Owner agrees that it shall not substitute the Qualified Person without the prior written consent of the Director of Engineering.
- 9.2 The Owner covenants and agrees that, prior to execution of Subdivision Agreement, an environmental clearance shall be provided to the City for all lands or interests in lands to be conveyed to the City to the satisfaction of the Director of Engineering. The City shall be satisfied that the lands are environmentally suitable for their proposed use and be certified as such by the “Qualified Person” as defined in Ontario Regulation 153/04, all of which shall be in accordance with the *Environmental Protection Act* and its regulations. The “Qualified Person” shall file a Record of Site Conditions on the Provincial Environmental Site Registry for all lands to be conveyed to the City.
- 9.3 The Owner covenants and agrees that if, during construction of the Works, contaminated soils or materials are discovered, the Owner shall inform the Director of Engineering immediately, and undertake, at its own expense, the necessary measures to identify and remediate the contaminated soils or groundwater, all in accordance with the *Environmental Protection Act* and its regulations, to the satisfaction of the Director of Engineering and the Ministry of Environment. After remediation, the “Qualified Person” shall file an updated Record of Site Condition on the Provincial Environmental Site Registry, in accordance with Ontario Regulation 153/04, for all lands to be conveyed to the City.
- 9.4 The Owner covenants and agrees to assume full responsibility for the environmental condition of the Lands and agrees to indemnify and save harmless the City, its directors, officers, Mayor, councilors, employees and agents from any and all actions, causes of action, suite, claims, demands, losses, expenses and damages whatsoever that may arise either directly or indirectly from the approval

and Assumption by the City of the Works, the construction and use of the Works or anything done or neglected to be done in connection with the use or any environmental condition on or under the Lands, including any work undertaken by or on behalf of the City in respect of the Lands and the execution of this Agreement.

10. Well Monitoring Program and Mitigation Plan

Prior to any site alteration activities, the Owner shall check if there are any active wells within 500 meters of the Zone of Influence (ZOI). If any active wells are found within the ZOI, the Owner shall prepare and implement a Well Monitoring Program and Mitigation Plan, in accordance with the City's requirements to the satisfaction of the Director of Engineering.

11. Municipal Infrastructure:

The Owner and the City acknowledge that this subdivision, when fully constructed, will tentatively have the following City's municipal infrastructure:

- Lanes: 495 m
- Local Roads: 927 m
- Sidewalks: 1873 m
- Streetlights: 90 (Approx.)
- Watermain: 1353 m
- Sanitary Sewers: 1010 m
- Storm Sewers: 1175 m

12. Streetlight Types:

The Owner agrees to contact the City staff prior to commencing the design for Streetlighting to confirm the type(s) of poles and luminaires to be provided for different streets and/or lanes.

13.0 Tree Inventory and Tree Preservation Plans

- 13.1 The Owner shall submit for approval a tree inventory and tree preservation plan to the satisfaction of the Director of Planning and Urban Design in accordance with the City of Markham Streetscape Manual dated 2009, as amended from time to time.
- 13.2 The Owner shall submit a site grading plan showing the trees to be preserved based on the approved Tree Preservation Plan prior to the issuance of a Top Soil Stripping Permit to the satisfaction of the Director of Planning and Urban Design.

- 13.3 The Owner shall obtain written approval from the Director of Planning and Urban Design prior to the removal of any trees or destruction or injury to any part of a tree within the area of the draft plan.
- 13.4 The Owner shall submit for approval, as part of the tree inventory and tree preservation plan, in accordance with the City of Markham Streetscape Manual a tree compensation schedule detailing replacement and enhancement planting or the replacement value based on the following:
- a) Trees between 20cm and 40cm diameter at breast height (DBH) shall be replaced at a ratio of 2:1
 - b) All trees over 40cm DBH shall have an individual valuation submitted to the City by an ISA certified Arborist in accordance with the Council of Tree and Landscape Appraisers (CTLA) Guide for Plant Appraisal (2000)
 - c) Where a site does not allow for the 2:1 replacement, the City will negotiate a credit for tree planting on alternate sites
 - d) The requirement for the replacement or equivalent economic value following unauthorized tree removal or damage shall be determined by the City.

14. Community Design

- 14.1 The Owner shall implement and incorporate all requirements of the approved *Cathedral Community Blocks 299, 300, 301, 303 and Part of 304 Urban Design Brief* (“Community Design Plan”) into all landscape plans, architectural control guidelines, engineering plans and any other required design documents.
- 14.2 The Owner shall retain a design consultant to prepare architectural control guidelines to be submitted to the Director of Planning and Urban Design for approval prior to execution of the subdivision agreement
- 14.3 The Owner shall retain a design consultant to implement the Architectural Control Guidelines.
- 14.4 Plans submitted for model home permits for any building within the plan of subdivision shall bear an approval stamp identifying the architectural company retained for architectural control and the signature of the control architect. The approval stamp shall certify that the floor plans, building elevations and site plans are designed in accordance with the approved architectural control guidelines.
- 14.5 The Owner shall ensure that the design architect for any buildings within the plan of subdivision shall not also assume the role of control architect for the plan of subdivision.

15.0 Parks and Open Space

- 15.1 The Owner shall retain an ISA certified Arborist to prepare a Woodlot Management Plan to be submitted to the Director of Planning and Urban Design for approval prior to execution of the subdivision agreement.
- 15.2 The Owner shall retain a certified Landscape Architect to prepare an Open Space Corridor Restoration Plan for lands abutting Woodbine By-Pass to be submitted to the Director of Planning and Urban Design for approval prior to execution of the subdivision agreement.
- 15.3 The Owner shall implement and incorporate all requirements of the approved Woodlot Management Plan and Open Space Corridor Restoration Plan into all landscape plans, architectural control guidelines, engineering plans and any other required design documents.
- 15.4 The Owner shall provide a specialized depth of topsoil in the entire municipal boulevard to appropriately plant boulevard trees to the satisfaction of the Director of Planning and Urban Design.
- 15.5 The Owner shall post approved copies of any Open Space Plans, Conceptual Park Development Master Plans and Conceptual Facility Fit Plans for the park and school campus in all sales offices for dwelling units within the draft plan of subdivision.
- 15.6 The Owner shall convey the below blocks without encumbrances to the satisfaction of the City, upon registration of this plan of subdivision:
 - a) Block 34 for environmental buffer;
 - b) Block 29 for public park purpose; and
 - c) Block 30, 31, 32, 33, and 35 for open space and walkway purposes.

16.0 Landscape Works

- 16.1 Prior to execution of the subdivision agreement, the Owner shall submit landscape plans based on the approved *Cathedral Community Blocks 299, 300, 301, 303 and Part of 304 Urban Design Brief* (“Community Design Plan”) into all landscape works, to the satisfaction of the Director of Planning and Urban Design
 - a) street tree planting in accordance with the City of Markham Streetscape Manual dated June 2009.
 - b) 1.8m high wood screen corner lot fencing
 - c) 1.8m high metal chainlink fence at the perimeter of environmental buffer
 - d) noise attenuation fencing as required by the City

- e) any other landscaping as determined by the Community Design Plan, Environmental Master Servicing Plan, Woodlot Management Plan, and Open Space Corridor Restoration Plan

- 16.2 The Owner shall construct all landscaping in accordance with the approved plans at no cost to the City.
- 16.3 The Owner shall not permit their builders to charge home purchasers for the items listed in Condition 16.1.
- 16.4 The Owner shall include in all agreements of purchase and sale the following clause:

“PURCHASERS ARE ADVISED THAT AS A CONDITION OF APPROVAL OF THE SUBDIVISION WITHIN WHICH THIS LOT IS LOCATED, THE CITY OF MARKHAM HAS REQUIRED THE DEVELOPER TO UNDERTAKE AND BEAR THE COST OF THE FOLLOWING ITEMS:

- STREET TREES (TREES PLANTED IN THE CITY BOULEVARD, IN ADJACENT PUBLIC LANDS OR PRIVATE LOTS)
- CORNER LOT FENCING
- CHAIN LINK FENCE AT ENVIRONMENTAL BUFFER
- TREE PLANTING IN REAR YARDS ADJOINING THE LANES (IF SPECIFICALLY REQUIRED BY THE CITY)
- NOISE ATTENUATION FENCING AS IDENTIFIED IN THE NOISE IMPACT STUDY
- FENCING OF SCHOOL, PARK, WALKWAY AND STORM WATER MANAGEMENT POND BLOCKS
- BUFFER PLANTING FOR OPEN SPACE, WALKWAY AND STORM WATER MANAGEMENT POND BLOCKS AND SINGLE LOADED STREET ALLOWANCES
- SUBDIVISION ENTRY FEATURES AND DECORATIVE FENCING AS IDENTIFIED ON LANDSCAPE PLANS APPROVED BY THE CITY.

THE DEVELOPER HAS BORNE THE COST OF THESE ITEMS AND THE HOME PURCHASER IS NOT REQUIRED TO REIMBURSE THIS EXPENSE.”

17.0 Financial

- 17.1 Prior to execution of the subdivision agreement the Owner shall provide a letter of credit, in an amount to be determined by the Director of Planning and Urban Design, to ensure compliance with applicable tree preservation, fencing, streetscape, buffer and other landscaping requirements.

17.2 The Owner shall provide a Land Appraisal Report to the Manager of Real Property for the purpose of determining the required cash-in-lieu contribution for the under-dedicated portion of the required parkland dedication. The Land Appraisal Report is subject to the City's terms of reference and conformance with the *Parkland Dedication By-law 195-90* and with the *Planning Act*.

17.3 The Owner shall provide public art contribution to the satisfaction of the Director of Planning and Urban Design prior to the prior to execution of the subdivision agreement.

18. Development Charges

18.1 The Owner covenants and agrees to provide written notice of all development charges related to the subdivision development, including payments made and any amounts owing, to all first purchasers of lands within the plan of subdivision at the time the lands are transferred to the first purchasers.

18.2 The Owner shall pay all fees and development charges as set out in the subdivision agreement.

19. Other City Requirements

19.1 Prior to final approval of the draft plan or any phase thereof, the Owner shall enter into a Developers Group Agreement(s) to ensure the provision of community and common facilities such as school sites, municipal services, parks and public roads in the Cathedral Community Secondary Plan area, to the satisfaction of the City (Commissioner of Development Services and City Solicitor), and a certificate confirming completion of such agreement(s) shall be provided to the City by the Developers Group Trustee to the satisfaction of the City Solicitor.

19.2 Prior to final approval, the Trustee of the Cathedral Community Developers' Group agreement shall deliver a release to the City indicating the Owner has satisfied all conditions of the Group agreement and the Trustee has no objection to the registration of this draft plan of subdivision.

19.3 The Owner acknowledges and agrees that firebreak lots within the draft plan shall be designated in the subdivision agreement, to the satisfaction of the Fire Chief. The Owner shall provide a letter of credit in an amount to be determined by the Fire Chief at the subdivision agreement stage to ensure compliance with this condition.

19.4 The Owner shall covenant and agree in the subdivision agreement to include warning clauses in agreements of purchase and sale for all units with single car garages advising purchasers of the following:

- the City's parking by-law requires a minimum of two parking spaces, one in the driveway and one in the garage
- the City's zoning by-law restricts the width of the driveway, this width does not allow two cars to park side by side
- overnight street parking will not be permitted unless an overnight street parking permit system is implemented by the City

19.5 The Owner shall provide and post display plans in all sales offices which clearly indicate the location of the following facilities in relation to the lot being purchased, prior to any Agreements of Purchase and Sale being executed by the Owner, a builder, or their real estate agents:

Parks by type, including Park and Open Space Concept Plans and Streetscape Plans; stormwater management ponds and related facilities; schools by type; place of worship sites; other institutional sites by type; commercial sites by type; other surrounding land uses and facilities as specified by the City; existing or future: rail facilities, provincial highways, arterial and collector roads, transit routes and stops; City approved sidewalk, walkway and bike route locations; City approved postal box and utility furniture locations or possible locations if prior to approval; City lot grading standards.

All display plans shall be reviewed and approved at the sales office by City staff, prior to the opening of the sales office.

20. Region of York

Prior to final approval, the owner shall satisfy all Region of York requirements, as outlined in the Region of York letter to the City dated June 29, 2016.

21. Toronto and Region Conservation Authority

Prior to final approval, the owner shall satisfy all TRCA requirements, as outlined in the TRCA letter to the City dated July 28, 2016.

22. Ministry of Transportation Ontario

Prior to final approval, the owner shall submit to the Ministry of Transportation for review and approval a copy of a Stormwater Management Report, Site Grading and Servicing Plan, addressing the intended treatment of the calculated run off.

Prior to final approval, the owner shall submit to the Ministry of Transportation for review and approval a copy of a detailed Traffic Impact Study prepared in accordance to the Ministry guidelines, addressing the anticipated traffic volumes and their impact on the Highway 404/Elgin Mills Road interchange.

23. External Clearances

23.1 Prior to final approval of the draft plan of subdivision, clearance letters, containing a brief statement detailing how conditions have been met, will be required from authorized agencies as follows:

- a) The Regional Municipality of York Transportation and Community Planning Department shall advise that Condition 20 has been satisfied.
- b) The Toronto and Region Conservation Authority (TRCA) shall advise that Conditions 21 has been satisfied.
- b) The Ministry of Transportation Ontario (MTO) shall advise that Condition 22 has been satisfied.

Appendix ‘C’
DRAFT

To amend By-law 177-96, as amended

The Council of the Corporation of the City of Markham ENACTS as follows:

1. By-law 177-96, as amended, is hereby further amended by changing the zoning designation of the lands as shown outlined on Schedule A to this by-law:

From:	To:
BUSINESS PARK (BP) and BUSINESS CORRIDOR (BC)	RESIDENTIAL TWO (R2*AAA), RESIDENTIAL TWO (R2*BBB), RESIDENTIAL TWO – LANE ACCESS (R2-LA*CCC), RESIDENTIAL TWO – LANE ACCESS (R2-LA*DDD), RESIDENTIAL TWO – LANE ACCESS (HOLD) (R2-LA*DDD(H)), RESIDENTIAL TWO – LANE ACCESS (R2-LA*EEE), OPEN SPACE 1 (OS1), OPEN SPACE 2 (OS2)

- 2.AAA Notwithstanding any other provisions of this By-Law, the following provisions in this section shall apply to the lands denoted by the symbol *AAA on the Schedules to this By-Law. All other provisions, unless specifically modified/amended by this section, continue to apply to the lands subject to this section.

2.AAA.1 **Only Uses Permitted**

The following are the only uses permitted:

- a) *Townhouse dwellings*

2.AAA.2 **Zone Standards**

The following specific zone standards apply:

- a) Minimum Rear Yard Setback – 6.0 metres
- b) A *private garage* may be attached to the main building
- c) Maximum Height – 12.0 metres

- 3.BBB Notwithstanding any other provisions of this By-Law, the following provisions in this section shall apply to the lands denoted by the symbol *BBB on the Schedules to this By-Law. All other provisions, unless specifically modified/amended by this section, continue to apply to the lands subject to this section.

3.BBB.1 **Only Uses Permitted**

The following are the only uses permitted:

- a) *Townhouse dwellings*

3.BBB.2 **Zone Standards**

The following specific zone standards apply:

- a) Minimum Rear Yard Setback – 5.0 metres
- b) A *private garage* may be attached to the main building
- c) Maximum Height – 12.0 metres

4.CCC Notwithstanding any other provisions of this By-Law, the following provisions in this section shall apply to the lands denoted by the symbol *CCC on the Schedules to this By-Law. For the purposes of this By-Law, the front yard for lands denoted by the symbol *CCC on the Schedules to this By-Law shall be deemed to be adjacent to the Open Space lands. All other provisions, unless specifically modified/amended by this section, continue to apply to the lands subject to this section.

4.CCC.1 Only Uses Permitted

The following are the only uses permitted:

- a) *Townhouse dwellings*

4.CCC.2 Zone Standards

The following specific zone standards apply:

- a) Minimum Lot Frontage – Townhouse building – 5.8 m per unit on an interior lot, 7.15 m for an end unit on an interior lot and 8.35 m for an end unit on a corner lot.
- b) Minimum Exterior Side Yard – 2.4 metres or 1.2 metres to a Lane
- c) A *private garage* may be attached to the main building
- d) Minimum Garage Setback – 4.7 metres
- e) Rear yard provision for main building with attached *private garage* – no requirement
- f) Maximum Height – 12.0 metres
- g) Provisions for *Outdoor Amenity Space*:
 - i) A flat roof of an attached private garage may be used as the *outdoor amenity space*
 - ii) An *outdoor amenity space* may include a deck and/or balcony

5.DDD Notwithstanding any other provisions of this By-Law, the following provisions in this section shall apply to the lands denoted by the symbol *DDD on the Schedules to this By-Law. All other provisions, unless specifically modified/amended by this section, continue to apply to the lands subject to this section.

5.DDD.1 Only Uses Permitted

The following are the only uses permitted:

- a) *Townhouse dwellings*

5.DDD.2 Zone Standards

The following specific zone standards apply:

- a) Minimum Lot Frontage – Townhouse building – 6.39 m per unit on an interior lot, 7.74 m for an end unit on an interior lot and 8.94 m for an end unit on a corner lot.
- b) Minimum Exterior Side Yard – 2.4 metres or 1.2 metres to a Lane

- c) A *private garage* may be attached to the main building
- d) Minimum Garage Setback – 4.7 metres
- e) Rear yard provision for main building with attached *private garage* – no requirement
- f) Maximum Height – 12.0 metres
- g) Provisions for *Outdoor Amenity Space*:
 - i) A flat roof of an attached private garage may be used as the *outdoor amenity space*
 - ii) An *outdoor amenity space* may include a deck and/or balcony

6.EEE Notwithstanding any other provisions of this By-Law, the following provisions in this section shall apply to the lands denoted by the symbol *EEE on the Schedules to this By-Law. All other provisions, unless specifically modified/amended by this section, continue to apply to the lands subject to this section.

6.EEE.1 Only Uses Permitted

The following are the only uses permitted:

- a) *Townhouse dwellings*
- b) *Home occupations*

6.EEE.2 Zone Standards

The following specific zone standards apply:

- a) Minimum Lot Frontage – Townhouse building – 5.8 m per unit on an interior lot, 7.15 m for an end unit on an interior lot and 8.35 m for an end unit on a corner lot.
- b) Minimum Exterior Side Yard – 2.4 metres or 1.2 metres to a Lane
- c) A *private garage* may be attached to the main building
- d) Minimum Garage Setback – 4.7 metres
- e) Rear yard provision for main building with attached *private garage* – no requirement
- f) Maximum Height – 14.0 metres
- g) Provisions for *Outdoor Amenity Space*:
 - i) A flat roof of an attached private garage may be used as the *outdoor amenity space*
 - ii) An *outdoor amenity space* may include a deck and/or balcony

6.EEE.3 Home Occupations

Notwithstanding any other provisions of this By-Law, for lands denoted by the symbol *EEE on the Schedules to this By-Law, with respect to Home Occupations:

- a) Home Occupations may be permitted up to a maximum of 40% of the Building GFA
- b) Private Home Daycares are permitted on the ground floor
- c) Medical Offices are permitted as a permitted Home Occupation use.

ENACTED and PASSED this _____ day of _____, 2016

Mayor Frank Scarpitti

Kimberly Kitteringham, City Clerk

2.2 SUSTAINABILITY DESIGN FEATURES

Sustainable development practices balance the health and well-being of the environment and related resources with the pressure of urbanization, bringing forward strategies to better manage increased population densities, resource and energy consumption, and vehicular traffic volumes.

The Cathedral Community shall be designed with a strong emphasis on the integration of sustainable practices and techniques that will result in a transit-focused, walkable and cyclist friendly community. The principles and objectives of sustainability have applications in all areas of the proposed development. The community's context and the prominent existing Regional Woodlot to the north makes sustainable development and low-impact design a key priority.

Utilizing the Regional Council endorsed **York Region New Communities Guidelines, 2013** as a basis for assessing compliance with recommended and required sustainability initiatives, the following references the key features that will help deliver a sustainable development:

2.2.1 HARDSCAPING

Objectives for hardscaping should balance functional requirements of vehicular and pedestrian circulation with sustainability, accessibility, maintenance and aesthetic considerations. As a general rule, select paving materials that allow for increased permeability and infiltration, while accommodating circulation and maintenance requirements.

- Preference shall be given to the selection of permeable or porous paving materials, such as open joint pavers, porous concrete or asphalt and/or precast turf-grid products.
- Paved areas used for snow storage are encouraged to integrate permeable paving to absorb snow melt on site.
- Where possible, utilize surface materials that contain recycled or sustainable materials.
- The use of light coloured surface materials, such as concrete, white asphalt or light-coloured unit pavers is encouraged to decrease heat absorption and ambient surface temperatures (urban heat island effect).
- All paving materials and installation to be selected and designed to withstand traffic impacts and maintenance requirements.

2.2.2 SOFTSCAPING

- Naturalized, low maintenance planting shall be specified where appropriate.
- A priority shall be placed on utilizing xeriscape planting techniques, selecting drought-tolerant species to conserve water.
- Landscape features, such as berms, tree and shrub groupings, and 'green' walls shall be utilized to screen undesirable views to adjacent or nearby uses (traffic, buildings) and on-site servicing areas (future employment lands).
- Develop a long term tree canopy coverage percentage target that will encourage extensive tree planting in growing conditions that will promote long term tree growth.
- Provide landscaping that increases the urban canopy, creates comfortable micro-climate conditions, mitigates negative seasonal effects (wind breaks or shade canopy) and contributes to overall biodiversity.
- Strategically place dense deciduous canopy trees to let sunlight and warmth into dwellings and public open spaces and sidewalks during winter, while in summer creating a canopy that shields people and buildings from sun, glare and heat, and allows breezes to flow through.
- To mitigate the impact of wind on a site, evergreens should be used as a windscreen for undesirable wind exposures.
- Use only organic or biological fertilizers and weed and pest controls, without potentially toxic contaminants.

2.2.3 WATER CONSERVATION AND MANAGEMENT

- Achieve a 10% greater water conservation objective than the Ontario Building Code (as amended O.Reg 315/11, January 1, 2012)
- Utilize xeriscape planting techniques, selecting drought-tolerant plant species to conserve water and avoid the need for irrigation systems;
- If irrigation is required, water should be provided by non potable sources (roof, grey water) where feasible;
- Utilize rainwater harvesting techniques to use stormwater resources for irrigation;
- Utilize techniques and measures to divert rainwater away from a previously connected sewer line. These techniques allow the water to be used for planting and groundwater recharge and reduce outflow to overburdened sewage and storm systems;
- Implement roof downspout disconnection to prevent water from reaching the sewer system and allow it to be managed on site, whether through a storage device, permeable surfaces or an infiltration system;

- Where feasible, consideration should be given to the use of soakaway pits, whereby a roof downspout is connected to an underground pit lined with gravel or coarse aggregate, temporarily storing the water until it is absorbed into the ground;
- Where feasible, integrate bio-retention swales as an effective technique for managing stormwater within expansive areas of runoff, such as the park. These may include swales, vegetated islands, rain gardens, etc.;
- Composition of swale components shall be designed to ensure surface water is fully drained within 48 hours of the end of any rainfall event;
- Undertake soil amendments to increase topsoil depths and restructure compacted soils for improved infiltration;
- The degradation of slopes leading to erosion and sedimentation control problems results from the effects of rain and wind on unprotected slopes, with potential negative impacts for water quality and stormwater management infrastructure. As such, developers and contractors shall be diligent in preventing erosion on site, both, during the construction phase and following construction completion.

2.2.4 WALKABILITY / TRANSPORTATION ALTERNATIVES

Walkability is one of the primary tenets of The Cathedral Community neighbourhood, as an extension of the greater City of Markham sustainability strategy.

- Open spaces and amenities within the development shall be located within comfortable walking distance of the majority of residents.
- Proposed trails associated with natural features in surrounding neighbourhoods have been linked with the proposed sidewalk and path network, offering convenient and enjoyable pedestrian connections.
- To encourage a reduction in automobile usage, ensure bicycle parking and public transit connections are integrated into the design of major community facilities or gathering areas.
- As an alternative to automobile use, encourage cycling through an emphasis on safe, efficient cycling connections and the integration of appropriate bicycle storage and locking facilities with options for weather protected storage.
- Similar to cycling, encourage public transit use through incentive programs that allow for a decrease in car usage and enables a reduction in parking facility capacity.

2.2.5 LIGHTING

- Achieve a balance between safety and security and a reduction in energy consumption;
- Utilize energy efficient luminaires and bulbs to satisfy lighting requirements;
- Select lighting poles, luminaires and light levels that are appropriate to the site and function to avoid excessive illumination and light pollution.

2.2.6 BUILT FORM

- Electrical conduit will be installed to allow for the future installation and connection of solar panels, where feasible.
- Each residential dwelling will include Low E windows throughout (including basements) with Energy Star Zone B Rating.
- Provide high efficiency, integrated heating systems with efficient domestic hot water system.
- Equip homes with low-flow flush high efficiency toilets and low-flow aerators for kitchen and bathroom faucets for water conservation.
- Utilize low-VOC finishes to mitigate chemical emissions within indoor air.
- Ensure garage steel roll-up doors are adequately insulated with an equivalent R-9 value.

2.2.7 MATERIALS

- Encourage the use of local materials to avoid unnecessary long distance transport of building materials;
- Encourage the use of materials that have been sustainably harvested.
- Develop a waste reduction strategy that will divert significant construction waste from landfills.