COMMITTEE OF THE WHOLE APRIL 7, 2003

BLOCK 18 BLOCK PLAN FILE BL.18.98 CARRVILLE - URBAN VILLAGE 2

Recommendation

The Commissioner of Planning recommends:

- 1) That the Block 18 Plan, dated March, 2003, as red-line revised, BE APPROVED subject to the following conditions:
 - a) That the Block 18 Plan be revised to address the following matters:
 - to add road links to improve internal connectivity;
 - to address lotting at primary/arterial intersections to minimize driveways adjacent to the medians;
 - to widen the primary roads, particularly in front of the elementary school sites, to accommodate traffic management measures;
 - the block along the southerly part of the woodlot fronting onto Staffern Drive be developed comprehensively with a single access point opposite to an intersection;
 - to provide a mid-block pedestrian crossing over the CN railway to the residential neighbourhood to the west, and a pedestrian bridge over Major Mackenzie Drive to the Maple GO Train Station, where feasible;
 - to ensure that the property at the northwest corner of the block can be integrated into the final lotting and road configuration;
 - to adjust the lots/blocks adjacent to the valley and stream corridor, stormwater management pond facilities and woodlots once preliminary grading plans are submitted and the limits and buffers of open space features are determined;
 - to finalize the size and configuration for all Storm Water Management Ponds:
 - to provide for 4m planted medians at the primary road entrances from the arterial roads:
 - to indicate the Oak Ridges Moraine boundary;
 - to delete reference to "Study Area for SWM Ponds" and "Plantation Woodlot";
 - to defer land use approval for lands where Planning Act applications are submitted after November 16, 2001 until it is demonstrated that the proposed land uses conform to the Oak Ridges Moraine Conservation Plan:
 - to defer development of the lands within the Pond "C" drainage area pending resolution of stormwater and related issues.
 - b) That the Block 18 Transportation Analysis update be revised to include a Sensitivity Analysis, which addresses traffic volume and management along the westerly north-south primary road (Staffern Drive), and traffic calming and internal traffic controls, for approval by the Vaughan Engineering Department.
 - c) That Transportation Management and Sidewalk/Walkway Plans, as described in this report, shall be submitted once the road network has been finalized, for approval by the Vaughan Engineering and Urban Design Departments.

- d) That a Terrestrial Resources Technical Report be included in the MESP as part of the Environmental Impact Statement, to address the limits/buffers at the edge of environmental features and describe an impact mitigation strategy for terrestrial resources, which shall be approved by the Vaughan Engineering, Urban Design and Planning Departments, and Toronto and Region Conservation Authority.
- e) That preliminary designs for the stormwater management pond facilities be submitted for approval by the Vaughan Engineering and Urban Design Departments, and TRCA.
- f) That a Development and Infrastructure Phasing Plan as described in this report, that includes the timing of construction of Regional transportation and servicing improvements essential for the development of the Block 18 Plan, established and coordinated with the phasing plan, to the satisfaction of the City, and Region of York.
- g) That the Urban Design Guidelines for the Block 18 Plan as described in this report shall be submitted for approval by Council, and shall comply with the City's Urban Design Standards.
- h) That all outstanding issues with respect to the proposed servicing and phasing of the Block 18 Plan, including water supply, sanitary sewers, stormwater management pond facilities, overall grading and landform conservation, and hydrogeological and geotechnical issues, be addressed through revisions and finalization of the Master Environmental Servicing Plan to the satisfaction of the Vaughan Engineering, Urban Design and Planning Departments, and TRCA.
- i) For any lands subject to the Oak Ridges Moraine Conservation Plan, addendums to the Master Environmental Servicing Plan shall be prepared demonstrating conformity of the Block Plan with the Oak Ridges Moraine Conservation Plan to the satisfaction of the City of Vaughan, Region of York and TRCA.
- j) That the water budget analysis and the specific design measures to maintain groundwater recharge, and any other outstanding hydrogeological issues as identified by the City's peer review, be finalized to the satisfaction of the City and TRCA.
- k) That a Cultural Heritage Resource Assessment, as described in this report shall be submitted for approval by Vaughan Cultural Services.
- That the applicant prepare preliminary grading plans and establish the limits/buffers of lots and blocks adjacent to valleys and woodlots for approval by the Vaughan Engineering, Urban Design and Planning Departments, and TRCA.
- 2) That the final Block Plan be revised, together with submission of the required supporting reports, to reflect the resolution of all conditions identified in Condition 1) of this report, to the satisfaction of the City, Region of York and TRCA; and that Staff will submit a revised version of the Block Plan to Council.
- 3) That the following conditions shall be fulfilled prior to the approval of any draft plans of subdivision or site plans within the Block 18 Plan:

- a) That in accordance with the provisions of OPA #600, the City shall confirm the availability of servicing capacity for the subject lands.
- b) That the applicant shall demonstrate to the satisfaction of the Vaughan Engineering Department, that the necessary provisions of the Environmental Assessment Act, and the Municipal Class Environmental Assessment for Municipal Roads, Water and Waste Water Projects, as they may apply to proposed primary roads and related infrastructure matters, have been fulfilled.
- c) That the applicant shall submit a Phase 1 Environmental Site Assessment Report for lands subject to a development application, and shall have fulfilled the requirements of the City of Vaughan's May 2001 Policy and Procedures for Dealing with Contaminated or Potentially Contaminated Sites.
- d) That the applicant shall submit a Woodlot Edge Protection and Management Plan as described in this report, for approval by the City.
- e) That the applicant prepare detailed vegetation preservation plans concerning the hedgerows in the Block that have been assessed for possible preservation in the MESP.
- f) That the noise attenuation measures that are to be proposed by the Regional Municipality of York in its Noise Policy/Guideline Update Study be considered to the satisfaction of the City, and TRCA.
- g) That a Landscape Master Plan as described in this report shall be submitted to the satisfaction of the Vaughan Urban Design Department.
- h) That Architectural Design Guidelines for residential, institutional, commercial and employment buildings/structures be prepared and approved to the satisfaction of the Vaughan Urban Design and Planning Departments, and a control architect be retained at the cost of the applicant for approval by Council.

Purpose of this Report

This report describes the proposed Block 18 Block Plan, analyses and comments upon its content in the context of the City's planning and development requirements, and discusses the outstanding matters to be addressed to finalize the Block Plan's approval.

Background

On February 13, 1998, the Block 18 land owners submitted their initial Block 18 Block Plan in response to the requirements of OPA #600.

Subsequent to submission of the Block Plan application, the Province froze development on the Oak Ridges Moraine which impacts upon a significant part of Block 18, delaying the processing of the Block Plan application. In June, 2002, Council approved an Interim Control By-law to provide a period of one year to complete the Carrville District Centre Study and to prepare a tertiary plan for the Study Area.

The current Block 18 Block Plan is dated March 2003, and reflects the results of a very intensive and co-operative process involving City staff and the landowners' consultants, to address and resolve the relevant planning and development issues. The Block 18 submission includes the Block Plan and the following supporting documentation:

- Dufferin Woods Community Block Plan Report (November 1997) by KLM Planning Partners Inc.:
- Urban Design Guidelines and updated Reports (December 2002) and (January 2003) by Terraplan Landscape Architects;
- Master Environmental Servicing Plan Report (August 1997) and Master Environmental Servicing Plan Report Response To Comments (December 2002) by Schaeffer & Associates Ltd., Dillon Consulting Ltd., and KLM Planning Partners Inc.;
- Traffic Analysis Report (April 1998) and Traffic Analysis/Capacity Analysis Appendix (April 1998) by RGP Transtech Inc.;
- Traffic Analysis Update (January 31, 2003) by Dillon Consulting Ltd.;
- Environmental Noise Analysis Report (November 24, 1997) and updated Report (January 31, 2003) by Jade Acoustics Inc.; and,
- Archaeological Assessment (October 1997) by Archaeological Services Inc.

Block Plan Approval Process

The Block Plan process provides for an ecosystem approach to the development of the Block, which considers infrastructure such as roads, sanitary sewers, water, parks and schools to provide for managed growth, in consultation with various public agencies, stakeholders and ratepayers. The Block Plan process is to provide technical details on land uses, housing mixes and densities, environmental protection, servicing infrastructure, transportation (road) network, public transit, urban design and phasing for the Block.

To provide servicing infrastructure (i.e., sanitary sewers, water, roads) and community services (i.e., parks, schools), the Block Plan land owners are required to enter into an agreement to address the financial requirements for the development of the Block.

A Block Plan is required to be approved by Council. Lands within the Block that have not been approved through the Block Plan process will be required, upon receipt of development applications, to prepare the technical reports to support their developments in accordance with the Development Process/Block Plan policies of OPA #600.

Neighbourhood Circulation/Meetings

On April 23, 1999, a notice of public hearing was circulated to all property owners and tenants within the Block and within 120m of the subject lands, the Block Plan representatives, Concord West Ratepayers Association, Maple Sherwood Ratepayers Association, Maple Landing Ratepayers Association, Maple Ratepayers Association, Gates of Maple Ratepayers Association, Maple Glen Homeowners Association, Crestwood Springfarm Yorkhill Ratepayers Association, Westmount-Wilshire Ratepayers Association, and Coulters Mill Residents Association.

Letters were received concerning the Block Plan proposal. Peter White, a non-participating property owner at 2057 Major Mackenzie Drive, submitted correspondence dated May 11,1999, and the Maple Ratepayers Association, submitted correspondence dated May 15,1999, both concerning the impact of the Block development on the heritage house at 2057 Major Mackenzie Drive at the northwest corner of the Block. Weston Consulting Group Inc., representing Mrs. Manning, a non-participating property owner at 9550 Dufferin Street, submitted correspondence dated May 11,1999, outlining concerns with the amount of school and park uses proposed for her property in the Block Plan. The Manning lands are now owned by Century Grove Homes, which is a participating land owner in the Block.

At the hearing, correspondence and concerns received were generally representative of the correspondence previously discussed above, as well as land use designations, and pedestrian connections to the Maple Go Train Station. The May 17, 1999, recommendation of Committee of

the Whole to receive the public hearing and forward a comprehensive report to a future Committee of the Whole meeting, was ratified by Council on May 25, 1999.

Analysis and Options

Site Description

The subject lands, identified as Block 18, are bounded by Major Mackenzie Drive to the north, Rutherford Road to the south, Dufferin Street to the east, and the CN railway to the west, within Carrville Urban Village 2, in Parts of Lots 16 to 20, Concession 3, City of Vaughan. The Block Plan, including the lands within the Carrville Village District Centre, and lands of both participating and non-participating land owners, totals 273.20ha. The lands within the Block have been used primarily as either active or vacant farmland, and rural residential.

The lands in the Block are located within the Oak Ridges Moraine, except for a small parcel at the southwest corner of the block. The lands range from relatively flat to gently rolling in the southern portion, to rolling and hilly towards the northern end. The Block is located within two subwatersheds of the Don River, and drains downstream to the main branches of the Upper East Don and Upper West Don Rivers. The two valley and stream systems that are part of the Upper East Don Southern Tributary, are located near Dufferin Street at the north and south ends of the Block. The tableland woodlot that is part of the Upland Forest is located in the southwest portion of the Block. The surrounding land uses are:

- North Major Mackenzie Drive; industrial, future golf course, future commercial, (M1(H) Restricted Commercial, M2 General Industrial, OS2 and OS2(H) Open Space Park, and C1(H) Restricted Commercial Zones);
- South Rutherford Road; residential, commercial, vacant agricultural, (RV4, RVM1(A)(B), RVM1(A), RVM1(B) and RVM1(WS-B) Residential Urban Village, C3 Local Commercial, and A Agricultural Zones);
- East Dufferin Street; agricultural, valley lands, (A Agricultural and OS1 Open Space Conservation Zones);
- West CN railway, residential, institutional, open space. (R1, R3 and R4 Residential, A Agricultural, and OS2 Open Space Park Zones).

Oak Ridges Moraine

The majority of the Block 18 lands, except for some lands in the southwest portion of the Block, are located within the Oak Ridges Moraine, as defined by the Boundary of the Oak Ridges Moraine Area in Ontario Regulation 1/02, and further regulated by the Oak Ridges Moraine Conservation Plan (ORMCP), Ontario Regulation 140/02. Block 18 is designated "Settlement Area" by the ORMCP. The ORMCP has no prescribed provisions for applications under the Planning Act or Condominium Act submitted to the City prior to November 16, 2001.

In Block 18, Planning Act applications were submitted after November 16, 2001, for the lands owned by N. Betti (Zoning Application Z.02.057 and Draft Plan Application 19T-02V03) and Century Grove Homes (Zoning Application Z.02.084 and Draft Plan Application 19T-02V10), and are subject to the ORMCP.

To date, no Planning Act applications have been filed on lands owned by A. and R. Comegna, Senang Investments Ltd., M. and M. Rego, P. and A. Cancelli, 688205 Ontario Ltd., L. Appugliesi, A. and P. Corsetti, P. White, E. and I. Iacobelli, and Cornbury Construction Ltd. Any applications filed on these lands will be subject to the ORMCP.

The Block Plan and MESP are to be updated to identify the boundary of the Oak Ridges Moraine from Ontario Regulation1/02 and to acknowledge that lands subject to the ORMCP, may require

a higher level of environmental protection and further studies to support the Plan. Also, the Block Plan may have to be revised to conform to the ORM Act and Plan and any applications subject to the ORMCP will be required to demonstrate conformity with the ORMCP, prior to approval.

The MESP is to clearly identify how the proposal will conform to the ORMCP or how it has been revised to conform to the ORMCP, in accordance with Subsections 19(3) and 31(4) which apply to the Settlement Area. The ORMCP technical guidelines have not yet been finalized by the Province. These will assist in the implementation of applicable sections of the ORMCP respecting key natural heritage features, hydrologically sensitive features and other matters, which may apply to the Block. As the timing for finalizing the technical guidelines are uncertain, an addendum to the MESP will be required to address conformity with the ORMCP.

Land Ownership

The Block 18 Plan, including the lands within the Carrville Village District Centre, has 21 land owners, of which 11 are participating in the Block Plan process with land holdings comprising 249.41 ha. The 10 non-participating properties are primarily located along Dufferin Street, with lands abutting the valley and open space lands, comprising 24.02ha. The uses for the non-participating lands are shown in accordance with the Official Plan. The Plan has been red-lined to delineate that the lands uses and limits/buffers from the valley land open space lands, have to be determined and demonstrate conformity to the Oak Ridges Moraine Conservation Plan.

Three participating properties are within the Carrville Village District Centre Study Area. The Block Plan identifies the Carrville Village District Centre as the "District Commercial Centre". As the land uses for the District Centre have not yet been established, the Plan shows the lands as a block which allows for high density residential/commercial uses in accordance with the Official Plan.

Official Plan Status/Designations

The Block 18 area is designated "Low Density Residential", "Low Density Residential" with "District Park", "Neighbourhood Park", "Elementary School", "Secondary School", "Stormwater Management" and "Greenway System" overlay, "Medium Density Residential/Commercial", "Medium Density Residential/ Commercial" with "Neighbourhood Commercial Centre" and "Stormwater Management" overlay, "Carrville Village Centre", "Valley Lands", "Tableland Woodlots" and "Tableland Woodlots with a "Stormwater Management" overlay, by OPA #600.

The Official Plan provides policies to allow a mix of housing unit types for low and medium density residential development, with high density residential contemplated for the Carrville Village District Centre.

The Official Plan contains an interpretation policy that allows for minor adjustments to the location and boundaries of land use designations, except where the designations coincide with arterial roads, railway lines and other clearly defined features, and the location of by-pass, arterial, collector and primary roads, as long as the intent of the Official Plan is maintained. The Official Plan also provides for a variance of 5% for all statistics, as long as the intent of the Official Plan is maintained, except for density requirements.

The "Low Density Residential" designation permits a maximum net residential density on a site of 22 units per ha. The maximum average net density across the entire Block for the low density area, shall be between 16 to 18 units per ha. The area used to calculate density for both the "Low Density Residential" and "Medium Density Residential/Commercial" designations, includes the lands used for local and primary roads, and the dwelling units, and excludes all other lands. The population is calculated at 3.49 persons per unit (ppu) for low density residential and 2.77 ppu for medium density residential.

The "Low Density Residential" designation provides for a range of uses, such as detached and semi-detached dwelling units, and street townhouse dwelling units, subject to conditions such as serving as a transitional use between a more intensive use (i.e., shopping plaza) and less intensive use (i.e., detached and semi-detached dwelling units), mitigating noise, and addressing topographical constraints. The "Low Density Residential" designation also permits schools, parks/open spaces, small-scale community facilities, small-scale places of worship, institutional and local convenience commercial uses.

The "Medium Density Residential/Commercial" designation permits detached, semi-detached, and street/duplex/triplex/fourplex/en bloc townhouse dwelling units. The designation also permits schools, parks/open space, community facilities, places of worship, institutional and commercial uses. The medium density residential/commercial area permits a net residential density on a site of 17 to 40 units per ha. In a Block Plan, the average net density permitted across the entire Block is 25 to 35 units per ha.

The "Medium Density Residential/Commercial" designation allows small-scale retail and office commercial uses, provided that these uses face the primary or arterial roads. It is intended that the commercial uses be integrated with the residential uses and located at grade. The commercial component of a development is limited to 0.25 times the area of the lot abutting a primary street, and 0.5 times the area of the lot abutting an arterial road, in addition to the residential density permitted on the lot.

The "Medium Density Residential/Commercial" designation, which includes the "Neighbourhood Commercial Centre" overlay, allows food stores, retail stores, pharmacies, bank and financial institutional, business and professional office, personal service store, restaurants, and service station/gas bar uses with the commercial center located at or near the intersection of arterial roads, in addition to permitted residential uses. A Neighbourhood Commercial Center is to provide approximately 5000m² to 15,000m² of gross leasable area, to a maximum of 20,000m².

The "Carrville District Centre" designation permits commercial uses such as a department store, supermarket, retail store including pharmacy, places of entertainment, business and professional office, personal and business service, eating establishment and service station/gas bar uses in a shopping center or mixed use development within the District Centre. The District Centre also permits a net residential density on a site of between 50 to 150 units per ha. The area used to calculate residential density for the District Centre includes the lands used for the buildings, private roads and driveways, parking areas, and landscaping and amenity areas, and excludes all other lands. The population is calculated at 2.03 persons per unit (ppu) for high density residential.

The Block 18 Block Plan

The Block Plan land area which includes both participating and non-participating land owners, including the Carrville Village District Centre lands, is 273.40ha. Separately, the Block Plan land area is approximately 245.691ha and District Centre land area is approximately 27.709 ha. The District Centre is expected to include a variety of residential, retail, office and public uses, and a local road network. The proposed distribution of Block Plan land uses, including the Carrville Village District Centre lands and non-participating land owners, are as follows:

Land Use	Net Area(ha)
Low Density Residential	100.840
Medium Density Residential/Commercial	18.800
High Density Residential/Commercial	4.630

Local Convenience Commercial (Major Mackenzie Drive) Local Convenience Commercial (North on Dufferin Street) Local Convenience Commercial (South on Dufferin Street) Neighbourhood Commercial	0.429 0.638 0.464 1.405
District Centre-Residential/Commercial	6.880
North-East Neighbourhood Park North-West Neighbourhood Park South Neighbourhood Park District Park Community Centre	1.582 2.498 1.952 5.509 6.000
North-East Elementary School Site North-West Elementary School Site South-East Elementary School Site South-West Elementary School Site Secondary School Site	2.226 2.626 1.864 2.480 5.950
Stormwater Management Pond Facilities Table Land Woodlot Plantation/Woodlot Valley/Open Space Greenway Buffers	18.340 20.272 4.298 8.620 0.030 3.000
Primary Roads Local Roads <u>Widenings (Weston Road/Major Mackenzie Drive)</u> Total	15.910 36.080 <u>0.270</u> 273.400
Residential Units	<u>Units</u>
Low Density Residential Medium Density Residential/Commercial High Density Residential/Commercial Total	2400 870 <u>556</u> 3826

The Block 18 Plan provides primarily low density residential development over most of the Block, with medium density development focused mainly along Major Mackenzie Drive, Dufferin Street and Rutherford Road. The 27.709 ha of lands that comprise the Carrville Village District Centre are located at the southeast corner of the Block and are to provide a range of residential and commercial uses, whose final acreage and distribution of land uses will be determined through the Carrville District Centre Study currently in process.

There is a 1.405 ha mixed-use, medium density residential/neighbourhood commercial site at the southwest corner of Major Mackenzie Drive and Dufferin Street, which is proposed to be developed for a Neighbourhood Commercial use. There are three Local Convenience Commercial sites proposed for the Block: 1) a 0.429ha site at the southwest corner of Major Mackenzie Drive and Staffern Drive; 2) a 0.638ha site at the southwest corner of Dufferin Street and a primary road; and 3) a 0.464ha site at the northwest corner of Dufferin Street and a primary road

There are four elementary schools and neighbourhood parks proposed, with two of the school and park sites forming campuses at the north end of the Block. An 11.509ha district

park/community center site is proposed in the southwest portion of the Block, adjacent to a 5.95ha public secondary school site, although the community center could be relocated to the Carrville Village District Centre pending the findings of the Study. A 20.272ha tableland woodlot is located at the southwest part of the Block, to the north of the district park/community center site.

The two valley and stream systems that are part of the Upper East Don Southern Tributary are located near Dufferin Street, at the north and south ends of the Block. Five stormwater management pond facilities are proposed for the Block. Two of the ponds (Ponds "B1" and "B2") are located adjacent to the valley at the north end of the Block. Two ponds (Ponds "A" and "E") are located next to the CN railway, with one west of the tableland woodlot and the other along Rutherford Road. The fifth pond (Pond D) is currently proposed for the northwest corner of Rutherford Road and the north-south primary road. The final limits and configuration of this fifth pond need to be determined, as it is possible that it could be split between the Block and District Centre.

The southeast portion of the Plan indicates that valley and open space lands of participating and non-participating land owners are subject to a study to determine the location of the storm water management pond(s). As these lands are subject to the Oak Ridges Moraine Conservation Plan, any Planning Act application submitted after November 16, 2001, is required to demonstrate that any proposed land use, including a storm water management pond, conforms to the Oak Ridges Moraine Conservation Plan. The Plan has been red-lined to delete the "Study Area for SWM Ponds", and indicate that the lands in the mid portion of the Block near Dufferin Street cannot be developed until storm water management issues are addressed, and that no uses have been approved for these lands.

Residential Land Uses and Densities

The Official Plan generally provides for low density residential development within the interior of the Block with the medium density residential/commercial uses facing or flanking Major Mackenzie Drive, Dufferin Street and Rutherford Road. The Block consultant has not provided information on the number of residential units by type and therefore, the densities and numbers are estimated. The area and location of densities proposed in the Plan are generally consistent with the Official Plan.

The Block 18 Plan, including Carrville Village District Centre, would accommodate a total of 3826 dwelling units, comprised of 2400 (62.7%) low density units, 870 (22.7%) medium density units, and 556 (14.6%) high density units. The Official Plan encourages mixed use development combining residential and retail commercial uses in both the "Medium Density Residential/Commercial" and "District Centre" designations, with high density residential uses permitted only within the District Centre. The following table provides the details of the Block Plan proposal:

Residential Land Uses

Land Use	Area(ha)	<u>Units</u>	<u>Density</u>	
Block & District Centre Density (gross)				
Block & District Centre OPA #600	237.40	3826 4190	16.12upha 16-18upha	
Low Density Residential (net includes roads)				
Block Plan OPA #600	141.20	2400 1850	17upha 16-18upha	
Medium Density Residential (net includes roads)				
Block Plan OPA #600	29.00	870 1140	30upha 25-35upha	
Carrville District Centre High Density Residential (net includes roads)				
Block Plan OPA #600	4.63	556 1200	120upha 50-150upha	

OPA #600 provides that on an overall basis, a gross density of 16 to 18 units per hectare is to be achieved within the new communities, exclusive of lands included in valleys, major woodlots or existing development. The proposed block plan has an overall gross density of 16.12 units per hecare, in conformity with OPA #600.

The average net density provided for the low density residential area across Block 18, is 17 units per ha, which is within the range of 16 to 18 units per ha as per OPA #600. The average net density provided for the medium density residential/commercial area across Block 18, is 30 units per ha, which is within the range of 25 to 35 units per ha as per OPA #600. The average net high density of 120 units per hectare for the Carrvile District Cente is also within the OPA #600 policy of 50 to 150 units per ha.

The total number of residential units proposed for the overall Block Plan is below the OPA #600 estimate by 364 units. This is a result of an increased number (+550) of low density units, and decreased medium density(-270) and high density(-644) units, in comparison with the estimates in OPA #600. The Region has expressed concern that the number of medium and high density residential units proposed for the Block is lower than the estimates provided in OPA #600, resulting in a higher number of low density residential dwelling units. The Plan conforms with the overall gross density, and the low, medium and high net density ranges in OPA #600, despite the redistribution of the residential densities. Also, the concentration of medium and high density units along the arterial road network where transit services will be focused, and in the District Centre, is also consistent with the spatial distribution of density in OPA #600.

Zoning

The lands are currently zoned A Agricultural and RR Rural Residential Zones. The zoning will be amended to implement the approved Block 18 Plan through the processing of the draft plans of subdivision or site plan applications. The zoning will include requirements associated with limits and buffers to open spaces and valleys, as well as any other standards as determined through Block Plan review. In the Fall of 2000, the City initiated a Design Standards Review, which included a review of residential zoning, urban design, landscaping, street profiles,

sidewalks/walkways and storm water management facilities requirements. The new standards resulting from the Design Standards Study are to be applied to the Block 18 Plan.

The residential lands are to be rezoned in accordance with the new zoning standards established as part of the Urban Design Standards Review Study. The RD1, RD2, RD3 and RD4 Residential Detached Zones allow detached dwelling units and RS1 Residential Semi-Detached Zone allows semi-detached dwelling units on lots not accessed by a lane. The RT1 Residential Townhouse Zone allows townhouse dwelling units, with up to 6 units in a block, on lots not accessed by a lane. The Plan is proposing street townhouses with the driveways and garages in the rear of the lots. The City's By-law does not provide standards for this housing form and therefore, new standards will have to be established for this housing form. The Zones are to be in accordance with the standards on Schedule "A3" in By-law 1-88, which provides, as follows:

<u>Zone</u>	Minimum Lot Frontage	Minimum Lot Area	Minimum Lot Depth
RD1	18m	540m ²	30m
RD2	15m	450m ²	30m
RD3	12m	324m²	27m
RD4	9m	243m ²	27m
RS1	7.5m/unit	202m ²	27m
RT1	6m/unit	162m²	27m

Commercial and Mixed Residential/Commercial Uses

OPA #600 provides a "Medium Density Residential/Commercial" designation, which allows small-scale retail and office commercial uses. The Plan provides 3 local convenience commercial sites, with a 0.429ha site for the southwest corner of Major Mackenzie Drive and Staffern Drive, a 0.638ha site for the southwest corner of Dufferin Street and a primary road, and a 0.464ha site for the northwest corner of Dufferin Street and a primary road. The By-law permits a maximum lot area of 0.809ha for local convenience sites.

The Official Plan also provides a "Medium Density Residential/Commercial" designation with a "Neighbourhood Commercial Centre" overlay, at the southwest corner of Major Mackenzie Drive and Dufferin Street. The Plan shows a 1.405ha mixed-use, residential/commercial site at the southwest corner of Major Mackenzie Drive and Dufferin Street, which the Block consultant advises is for commercial use. The site area does not exceed the By-law's permitted area of 2.49ha.

Carrville Village District Centre

OPA #600 provides for more intense residential and commercial uses within the District Centre. Prior to the development of any land within the District Centre, a tertiary plan is required to determine the uses and densities, as well as to incorporate urban design criteria to promote an attractive pedestrian-oriented environment for a diverse range of commercial and residential uses. On February 26, 2001, Council approved the terms of reference to undertake the tertiary plan studies for the District Centres.

The terms of reference to undertake the tertiary plan study for the Carrville Village Centre Study, was approved by Council on August 26, 2002, once applications within the Oak Ridges Moraine could proceed. The District Centre Study Area is broader than the "Carrville District Centre" designation to enable transportation and land use integration. As the Study is still in progress, the resulting tertiary plan will be brought forward to a Committee of the Whole Public Hearing in the near future.

School Sites

The Official Plan provides for a secondary school site in the southern mid-block section of the Block near Rutherford Road, in which the Catholic District School Board has expressed an interest. The Official Plan provides for three elementary school/park campuses. The Block Plan shows the schools spatially distributed throughout the Block to provide convenient access for the students who will attend them.

Both School Boards have indicated several requirements for the school sites. These requirements include that each school site must be on the lands of a participating land owner, and preferably on the land of a single owner or development application site, that at least one school site for each School Board be in the first phase of development, and that there are roads and services for each site. The elementary school sites need to be approximately 2.42 ha in area, and 140 m in depth, with frontage on no more than 2 streets for safety purposes. The lot frontage should be adequate to achieve separation between the school bus and parent drop-offs. Also, to address vehicular traffic concerns, it is preferable to have flankage lots facing the school frontage and the opposite roads aligning with the school driveways.

York Region Public District School Board

In the Block, the School Board has secured two sites. The first is a 2.226ha site in the northeast part of the Block, with 150m frontage on the easterly north-south primary road and 80m frontage on a local road. The frontages face the front of the residential lots, with the westerly frontage opposite the intersection of a local and primary road. The north lot line abuts the neighbourhood park and the east lot line abuts valley lands.

The second is a 2.480ha site in the southwest part of the Block, with frontages of 170m onto Staffern Drive and 100m onto a local road. The frontages on the north and east sides of the property will face the front of the residential lots and the intersections. The west and south lot lines abut the rear of residential lots. A preliminary facility fit prepared with the Block land owners and School Board indicates that the sites function to meet their needs. The site is located diagonally opposite a neighbourhood park located on the east side of Staffern Drive to secure a continuous east/west open space/public use corridor across the block.

York Region Catholic District School Board

The Catholic District School Board requires one secondary school and two elementary school sites within Block 18. The School Board advised that the 5.64ha secondary school site at the northwest corner of Rutherford Road and Staffern Drive is adequate. However, there is a 0.31ha lot of a non-participating land owner with a dwelling in the middle of the site fronting Rutherford Road, as well as another heritage building. There may also be ground water concerns which may require the site to be de-watered. Prior to acquiring the site, the School Board will require the removal of the residential dwelling and heritage building, and testing to determine the ground water/de-watering situation, at no expense to the School Board.

A 2.62ha elementary school site is in the northwest portion of the Block, with frontages of 160m onto Staffern Drive and 100m onto the local road. Both frontages face the front of the residential lots, and the easterly frontage faces the intersection of a local road and Staffern Drive. The south lot line abuts the rear of residential lots and the west abuts the neighbourhood park.

The second school site of 1.864ha is located in the mid-east portion of the Block, with frontages of 100m on the easterly north-south primary road and 150m on the local road. The frontages face the front of the residential lots, and the westerly frontage faces the intersection of a local and primary road. The north and east lot lines abut the rear of residential lots. A preliminary facility fit

prepared with the Block land owners and School Board indicate that the sites function to meet their needs. No neighbourhood park is associated with this elementary school site.

Parks and Parkland Dedication

The Official Plan designates a 12 to 15ha "District Park" at the south end of the Block, which is to be linked to a valley/open space/greenway system, adjacent to secondary school sites, and include community center, arena, pool and public cultural facilities. The Block Plan proposes a combined 5.509ha district park and 6.00ha community center site at the southwest end of the Block. However, as consideration is being given to the community center being relocated in the Carrville Village District Centre, the final size, location and configuration of the district park/community center site will be determined in conjunction with the District Centre Study.

The Official Plan designates three "Neighbourhood Parks", which are to have areas of 0.8ha to 2.5ha, be square or rectangular, with 50% of the park having frontage on a street. The Block Plan proposes three neighbourhood park sites, which range in size from 1.582ha to 2.498ha, with at least 50% frontage on to the street. Two of the three parks are adjoined with school sites to form a campus. The Urban Design and Parks Departments are satisfied with the amount, location, size and configuration of the parkland throughout the Block. Detailed park facility fits will be required as part of the Landscape Master Plan for the Block.

The Urban Design Department has prepared the preliminary parkland dedication calculations for the Blocks, which includes the lands of the non-participating land owners, as follows:

Parkland Dedication	Area (ha)/Units
Total Block Area	273.400ha
Minus Credits: Open Space (includes valley lands) Tableland Woodlot Medium Density Residential/Commercial Commercial Lands Carrville Village District Centre Total	8.620ha 24.570ha 18.800ha 2.940ha <u>11.510ha</u> 66.440ha
Total Lands Subject to 5% Dedication: Total Parkland Dedication at 5%:	206.960ha 10.348ha
Calculations Based on 1ha per 300 Units: Medium Density Residential/Commercial Units Total Parkland Dedication at 1ha per 300 Units:	870 Units 2.900ha
Calculations Based on 2% Commercial Lands: Commercial Lands Total Parkland Dedication at 2%:	2.940ha 0.059ha
Total Required Parkland: Total Provided Parkland: Total Parkland Underdedicated:	13.307ha 11.510ha 1.797ha

The calculations indicate that the Block needs to provide 1.797ha of parkland to meet the required parkland dedication. The undedicated parkland is to be addressed in association with determining the final size, location and configuration of the district park/community center site as part of the District Centre Study. The calculations above do not include the required park

dedication attributable to high density residential and commercial development in the 11.51 hectare Carrville District Centre area, which will be determined through the currently ongoing study.

Greenways/Pedestrian System

The Official Plan provides for a greenway and/or linear park system for the purpose of providing a continuous network of open space (i.e., stormwater management ponds, woodlots and valleys) and institutional uses (schools and community centers) throughout the new community, and accommodating a public trail system of pedestrian walkways and bicycle paths. The Official Plan designates the greenway system along the easterly north-south primary road, passing school and park sites and connecting to the valley and open space lands. The Block Plan provides a greenway system along all of Straffern Drive, and the northerly and southerly east-west primary roads. To improve accessibility between neighbourhoods and the Maple GO Station, pedestrian connections across the rail line at the mid block point, to the Maple Community should be provided. Also, a pedestrian bridge across Major Mackenzie Drive to the Maple GO Station should be provided adjacent to the railway bridge.

The designs for the greenway systems in the Block are to include the following:

- location along primary roads, connecting into the open space pedestrian path system and the local street system to transit bus stops;
- pedestrian and cycling trails through stormwater management pond areas that interconnect with the valley;
- high quality streetscape elements (i.e., street furniture) as meeting places.
- an appropriate transition and protection of environmentally sensitive areas, where they abut natural features; and,
- minimal private driveway crossings.

Further detail is required concerning the secondary pedestrian trails with respect to safety, conflicts between the public street sidewalks, and setbacks from the rear yards of dwelling units. The designs for the greenway and pedestrian trails will have to be approved prior to any draft approval of any subdivisions or site plans.

Landscape Master Plan/Streetscape Designs

A Landscape Master Plan is required for the purpose of establishing the overall landscape treatment of the public areas (i.e., parks, stormwater management ponds and gateway entry features) and creating an attractive pedestrian environment. The Landscape Master Plan is to include, the following:

- landscape and streetscape treatments for the community edges, including the parallel window streets and pedestrian access to arterial roads for public transit;
- hard and soft landscape elements to define significant street vistas and generate a pleasing public realm street character;
- entry and special landscape features, which express and enhance the community identity;
- landscape treatment of open space lands including stormwater management pond facilities, pedestrian/biking trails, bridge crossings, pedestrian access points, seating areas and erosion repair sites;
- special furniture, including benches, waste receptacles, bicycle racks and tree grates; and,
- preliminary park facility fits that demonstrate the park blocks are of sufficient size and configuration to accommodate the required park facilities.

The Landscape Master Plan must also address the concerns associated with the streetscape, which includes the following:

- linking the adjacent communities by pedestrian connections along the arterial roads with continuous sidewalks;
- integrating decorative fencing and appropriate landscape planting buffers to create a high quality urban streetscape, where fencing is required along the highly exposed community edges;
- locating noise attenuation walls in the private residential lots, with the appropriate landscape buffers along the arterial roads;
- providing 4m wide landscaped medians on all primary road entrances into the Block; and,
- locating all entry feature structures such as walls, columns, piers and ornamental fencing within dedicated public entrance feature blocks, to maintain a clear connection of private front walks to the public sidewalk.

The Block consultants are working with the City on the Landscape Master Plan and Streetscape Designs. The City is currently undertaking policy reviews regarding standards for the landscape treatment of primary roads stormwater management ponds, including those near to arterial roads and visible to the community which will be required to integrate appropriate urban design and grading treatment. The new requirements will be incorporated into the final Landscape Master Plan. The Landscape Master Plan must be prepared and approved prior to draft approval of any subdivision or site plans.

Stormwater Management Pond Facilities Designs

The Urban Design Department advises that the number of stormwater management pond facilities in the Block provides an opportunity to integrate pedestrian and cycling pathways. The detailed designs for the stormwater management pond facilities are to include the following criteria:

- incorporating planting in all ponds with species that are suitable to water fluctuation and sediment deposition, both during and after subdivision development
- designing all ponds to be curvilinear and natural form, which are to include natural elements such as ledgerock/armour stone around headwalls and on side slopes;
- providing 15m setbacks from high water line (first flush) to all residential property lines;
 and,
- varying pond slopes from a maximum of 3:1 to 5:1.

If a stormwater management pond facility is located within a designated open space or environmental feature, the total area will be subject to the 5% parkland dedication requirements under the Planning Act. The designs for the stormwater management pond facilities are to be addressed as a condition of Block Plan approval.

<u>Urban Design</u>

In the Fall of 2000, the City undertook the Design Standards Review Study, to review development standards, such as building setbacks, sidewalk locations and road cross-sections to address concerns relating to monotonous and inadequately functioning streetscapes. On November 26, 2001, Council approved the Design Standards Review Study, establishing a development framework that would encourage more innovative forms of housing to meet community urban design objectives and market expectations. The Study has been implemented through modifications to City development standards, such as zoning requirements and development infrastructure, such as stormwater management pond facilities and sidewalk

locations. The Block's urban design guidelines also have to include reference to the Carrville Village District Centre.

The Block's urban design guidelines must comply with the approved Design Standards, which include such criteria as:

- gateway entry feature designs and placements;
- boulevard and sidewalk/bike path designs;
- tree locations;
- above and below grade utility locations;
- stormwater management pond facilities designs;
- built form design guidelines for the residential and window streets facing the arterial roads and for the residential uses;
- street lighting and pathway illumination details with respect to style, colour and design; and,
- road standards.

Review of the City's design requirements for commercial development is currently in process. The Block's urban design guidelines will need to incorporate any new design standards, which are approved by Council.

Architectural Guidelines

All residential, institutional, commercial and employment buildings/structures for new community areas, including Block 18, are subject to architectural control, whereby matters such as built form, massing, and elevations are addressed to create a visually pleasing community. Architectural design guidelines will be required for the Block prior to the approval of any draft plans or site plans, to the satisfaction of the Vaughan Urban Design and Planning Departments. A control architect approved by Council, is to be retained at the cost of the applicant.

Archaeological Assessment/Cultural Heritage Resource Assessment

A Stage 1 Archaeological Assessment report for the Block recommends that further field work (i.e., establishing the limits and mapping of artifacts) is required for some lands. The Cultural Services and Archives Section requires that prior to the final approval of any subdivision or site plan agreement and prior to the initiation of any grading of lands, an archaeological evaluation is to be undertaken in accordance with the Ministry of Citizenship, Culture and Recreation's approved Archaeological Assessment Technical Guidelines for approval by the City and Ministry.

There are several buildings within Block 18 that are listed in the City's Inventory of Significant Heritage Structures. The Cultural Services and Archives Section recommends that the buildings at 9434 and 9980 Dufferin Street, 1820 and 1850 Rutherford Road, and 2057 Major Mackenzie Drive, be preserved in their present location. Not all of these buildings are on lands of participating land owners. The Official Plan requires that a Cultural Heritage Impact Resource Assessment be undertaken by a qualified heritage consultant prior to approval of the Block Plan. An Assessment would include an archaeological and historical evaluation of structures, photographic documentation of the interior and exterior of the buildings, and a feasibility study on the preservation of the significant heritage structures within the Block. A condition to this effect is include in the recommendation.

Natural Systems and Environment

Valley/Stream Corridor/Natural Feature Development Limits

The ME/SP has been reviewed by the City and TRCA and peer reviewed by LGL Ltd. At the northeast part of the Block, near Dufferin Street are the Upper East Don River Northern Tributary and valley lands, and the Cedar and Deciduous Northeast Wet Forests. Near the southeast part of the Block are the Upper East Don River Southern Tributary and valley lands. In the western mid-block of the Plan are the Upper West Don Central and South Tributaries and the Southwest Upland Forest. The TRCA has advised that buffers are needed to protect valleys and forested lands to avoid negative impacts of development. TRCA is recommending a 3-tiered approach defining required buffers, to be located outside of the property line of a lot or block, as follows:

- a 2.5m buffer, where there is no adjacent significant natural vegetation and relatively gentle slopes or an engineered line (i.e., floodline);
- a 5m buffer adjacent to natural areas of moderate significance; and,
- a 10m buffer adjacent to natural areas of high significance or sensitivity.

The TRCA requires submission of a plan identifying the limits/buffers for the proposed lots/blocks adjacent to valley and stream corridor, storm water management ponds, and open spaces, based on the significance and sensitivity of the features, for approval by the City and TRCA. The final buffer plan may result in modifications to the lotting and block design within the plan, such as wider flankage lots to provide increased sideyards adjacent to an OS Zone.

MESP Terrestrial Resources

The Terrestrial Resources Technical Report included in the MESP outlines that the individual vegetation units for the tableland woodlots have been inventoried and assessed for health and capacity, to sustain the impact of development. The report has not identified the limits/buffers to the edge of an environmental feature, which is defined as 1m outside the established dripline, as required by the Official Plan.

A mitigation strategy for the terrestrial resources is to be included as part of the Environmental Impact Statement, and is to include the following:

- recommendations for remedial and mitigation measures within designated impact zones, including any edge management planting or maintenance programs;
- assessments of the effectiveness of the proposed/selected mitigation techniques
- conceptual monitoring program specific to identified effects;
- identification of proposed limits of clearing; and.
- restoration opportunities.

The MESP has identified approximately 35 hedgerows in the Block that have been assessed for possible preservation. Some of the hedgerows are in healthy condition, highly diverse and traverse the entire width of the Block, and could serve as an important link to the Southwest Uplands Forest, and the Cedar and Deciduous Northeast Wet Forests. These hedgerows include deep rooted, native species, such as Bur Oak, Sugar Maple, Black Walnut, Butternut and Hickory Trees, and shallow rooted Ash, White Pine, Scots Pine and White Cedar Trees. A detailed vegetation preservation plan, which includes an analysis of the hedgerows, identifying those of greater significance and function, to determine the opportunities for retaining and creating linkages, is to be submitted to the City and TRCA.

The MESP must be revised to address the above concerns related to limit/buffers and mitigation strategy for terrestrial resources, and hedgerows, for approval by the City and TRCA. Any

modifications to the Block Plan design resulting from the required information will be incorporated into the final Block Plan.

Woodlots

There is a 20.272ha tableland woodlot at the southwest part of the Block, identified as the Southwest Upland Forest. TRCA has advised that a Natural Heritage System approach should be used for evaluating this feature, as it is part of the Region of York's Greenlands System. TRCA further advises that the final configuration of the woodlot should consider future, rather than current communities, and that any intrusion into the edge of the woodlot, especially the proposed development (i.e., residential lots/blocks and road) into the north and northeast portion of the woodlot, be considered for rehabilitation. The woodlot, notwithstanding the intrusion of the north-south primary road along its eastern limit, together with the hedgerows, provide an opportunity to create an east-west linkage to the Upper East Don River Southern Tributary, and valley lands at the east end of the Plan.

The City, TRCA and Peer Reviewer have reviewed the MESP and applicable documents and have concluded that the size of this woodlot is sufficient to support future vegetation, and wildlife habitats and communities within the proposed development. Consequently, the limits of the woodlot, as staked in the field, should be retained, especially the north and northeast portion. To protect the edge of the woodlot, it is recommended that less intense urban uses, such as community uses, stormwater management ponds and single-loaded roads, flank the woodlot. Furthermore, the limits of development (i.e., grading, lot lines, road right-of-ways, etc.) should not extend any further than the staked limits of the woodlot. As such, the rear property lines for the lots/block must be modified to respect the staked northern edge of the woodlot.

The revised Block Plan and MESP addressing these issues must be submitted to the City and TRCA for final Block Plan approval. At the draft plan or site plan stage, a Woodlot Edge Protection and Management Plan will be required, which is to include the following:

- woodlot edge protection during site clearing, earthworks and construction;
- maintenance of pre-development drainage conditions;
- grading and drainage control measures;
- hazard tree identification and removal:
- trail access, location and maintenance;
- environmental stewardship/awareness; and,
- permanent fencing.

A former treed area west of the Upper East Don River Southern Tributary, mid block near Dufferin Street on lands belonging to E. and I. lacobelli, is designated "Tableland Woodlots" and "Valley Lands" by OPA #600. The trees were cut and the lands are the subject of a charge under the Region of York Tree By-law and this matter is still before the courts. While the Block Plan contains the words "Plantation Woodlot" in respect of the woodlot in this area, they are to be relabeled as Woodlot, as there is no distinction in the types of woodlots in the City and Regional Official Plans.

Transportation

Road Network/Sidewalk Plan

The Official Plan designates three north-south, 23m wide primary roads, 2 of which traverse the block between Major Mackenzie Drive and Rutherford Road, and one partial length parallel to the CN track. The westerly primary road (Staffern Drive) is to align with the future McNaughton Road on the north side of Major Mackenzie Drive, and with Confederation Parkway on the south side of

Rutherford Road. The easterly primary road is to align with Forest Run Boulevard on the south side of Rutherford Road. The Official Plan also provides for 4 east-west, 23m wide primary roads, 3 of which are between Dufferin Street and the CN Rail, and a fourth one between Dufferin Street and the easterly north-south primary road.

The Block Plan reflects the primary road system of the Official Plan, with the exceptions of the primary road loop to the west of Staffern Drive and along the railway line, which have been altered to a local road standard. The red-lined plan (Attachment #4), which has been reduced, shows 3 additional road links to improve connectivity, to break up long stretches of local roads, and to eliminate road links where lots are shown opposite the termination of primary or local roads. Provided the links are added as shown, the intent of the Official Plan regarding primary roads is addressed through the grid design of the network.

The Vaughan Engineering Department advises that traffic volumes along the future Staffern Drive (the western north-south primary road) are forecast to be over the primary road threshold of 500 vehicles per hour (two-way). Experience has shown that volumes in this range or higher lead to complaints from residents fronting the street. As it is preferred that Staffern Drive remain a primary road, residential frontage along it must be minimized wherever possible. In this respect, the clearing at the south part of the woodlot fronting onto Staffern Drive should be developed on a comprehensive basis, with a single access to Staffern Drive, to allow for better traffic operations.

The Vaughan Engineering Department comments that, given the poor traffic operations forecast for the arterial road intersections surrounding the block, many motorists may choose to use the primary roads to travel through the block. This could add to the already-high traffic volumes forecast. A sensitivity analysis should be conducted that assumes a certain degree of traffic infiltration along Staffern Drive.

The Region advises that the neighbourhood commercial site at the southwest corner of Major Mackenzie Drive and Dufferin Street, based on its size, will have right-in/right-out access only onto these arterial roads. The Transportation Management/Sidewalk Report/Plan is to address the traffic that is expected to be generated from the Carrville Village District Centre, following completion of its tertiary plan.

A Transportation Management/Sidewalk Report/Plan must be submitted to include the City's traffic calming measures, all-way stop controls, parking restrictions, transit routes, bus stops and greenways, to the satisfaction of the City. The Vaughan Engineering Department is currently reviewing the City's sidewalk location policy and changes that arise due to this policy review are to be implemented in the Block Plan.

Public Transit

The Region, in reviewing the transportation reports, advises that sidewalks are to be provided on all surrounding arterial roads (i.e., Major Mackenzie Drive, Dufferin Street and Rutherford Road), on both sides of roads planned for transit, and on roads in the vicinity of schools, as per the "York Region Safety and Traffic Circulation at School Sites Guidelines Study". Also, all single loaded roads are to have sidewalks connecting to the arterial roads. These matters are to be included in the Transportation Management/Sidewalk Report/Plan.

The Region advises that the Block Plan should include pedestrian connections from internal roads, where the road does not intersect with the arterial roads, to reduce the walking distance to future transit service on Major Mackenzie Drive, Dufferin Street and Rutherford Road. The transit bus stops indicated in the Block 18 Transportation Report need to be revised to provide a bus stop every 250m to 300m, as per the Region of York Transit requirements.

The Region has noted that, to advise potential purchasers of transit service in the community, any offer of purchase and sale or lease for all lots and/or blocks, should contain warning clauses concerning transit routes and locations of bus stops and pads/shelter.

Grading

The Vaughan Engineering Department, in reviewing the grading, advises that preliminary grading plans should be provided that demonstrate landform conservation, according to the policies of OPA #600 and the Oak Ridges Moraine Plan, as it may apply. The majority of the Block is within the southern lobe of the Oak Ridges Moraine. The typical hummocky features of the Moraine - rolling hills - are evident in the northern portions of the Block.

The MESP Addendum includes profile drawings of the primary streets within the Block. Based on these profiles, the primary streets can be constructed at grades that meet City design standards. However, to achieve these road grades, substantial grading will be required in some locations within the Block, in particular along parts of Streets 1, 2, 3 and 4. Until the preliminary grading plans have been submitted and reviewed, comments on the impact which this grading may have on overall lot/block grading or landform conservation cannot be provided.

Therefore, prior to Block Plan approval, the Block consultant team is required to prepare a preliminary grading plan for the Block, which identifies how City grading criteria can be met, while respecting land form conservation, for approval by the Vaughan Engineering Department.

Contaminated/Potentially Contaminated Sites

Phase 1 Environmental Site Assessment (ESA) Reports, which are required to be peer reviewed to determine if there are any contaminated or potentially contaminated sites within the Block Plan, were prepared for the Ivy Glen Developments Inc., East Maple Creek Lands Ltd. and Great Gulf Holdings Inc. properties in the Block. The peer reviewer advised that the ESA Report prepared by Great Gulf Holdings Inc. did not have sufficient information to allow for a proper review. Therefore, Great Gulf Holdings Inc. and the remaining properties in the Block will be required to submit ESA Reports with the submission the draft plan of subdivision or site plan application stage.

Water Distribution System

The Vaughan Engineering Department advises that the main source of water supply to the Block will be from the Maple Pressure District Seven (PD7) Interconnection Trunk Watermain on Major Mackenzie Drive, recently constructed by the Region. Looping of the system can be accomplished by the extension of a watermain along Rutherford Road, from the Maple Neighbourhood 2 area, west of the CN Railway.

The Vaughan Engineering Department, in reviewing the MESP Addendum, advises that the water supply/distribution concerns for the Block have not been adequately and comprehensively addressed. The Block consultants are required to provide the following information:

1. The MESP shall identify the opportunities and constraints of the existing water distribution system, and describe the proposed water system required to service the individual phases and the full build out of the development in the Block. To this end, the MESP should include a comprehensive water network analysis of the relevant water distribution systems, preferably based on the WaterCAD modeling software, that demonstrates adequate water supply is available to service the proposed development in the Block, and identifies the need and timing for system improvements. All model input parameters including Regional and City boundary conditions, supply sources, pump and reservoir data, system demands, etc., must be included in the MESP.

- 2. A comprehensive plan that identifies the proposed primary watermain network within the Block including all connections to the external water supply network and how a looped supply scheme will be implemented.
- 3. A development phasing and infrastructure staging plan.
- 4. The MESP shall reflect the conclusions and recommendations of the Region's current Long Term Water Project Master Plan.
- 5. The MESP shall include peak hour contour maps identifying the 45psi (310kPa) contour line under both interim and ultimate servicing scenarios.
- 6. The MESP should consider the impact that development may have on any existing private wells in the area. Monitoring of the existing wells before, during and after construction is required.
- 7. Allowances shall be made in the design of the Block 18 water distribution system to accommodate external lands (ie. Blocks 11, 12 and 19) under the ultimate build out conditions as established by the City and Region of York.

Prior to draft plan approval, the Region of York must confirm the availability of the water supply, with allocation by Vaughan Council. The MESP is to be revised to address the water supply/distribution, for approval by the Vaughan Engineering Department prior to approval of the Block Plan.

Sanitary Servicing

The Region is proposing to construct the Bathurst and Langstaff Trunk Sewers, as there are sanitary trunk/treatment capacity constraints within the Regional Maple Collector Sewer, which are required to provide the ultimate servicing needs for the Block. The Bathurst and Langstaff Trunk Sewers have been identified in the 2001 York Durham Servicing Scheme Master Plan Update as Strategic projects, which are required within a 10-year time period to service predicted development.

The Blocks 18 and 33 West land owners groups are expecting to execute a Development Charge Credit Agreement with the Region, for up-front financing to provide for the design and construction of the Langstaff Collector Sewer. The construction of both the Regional Langstaff and Bathurst Trunk Sewers should commence in June 2003, and be in service by December 2005.

Based on the above commitment, Council passed the following resolution on June 24, 2002, with respect to the reservation of sanitary servicing capacity for the planned developments in Blocks 18 and 33 West:

"That subject to the Region of York confirming that satisfactory arrangements are in place with the Block 18 and 33 West land owners groups for the up-front financing of the design and construction of the proposed Langstaff Sanitary Trunk Sewer, and that interim servicing capacity is available in the Maple Collector for an additional 12,800 person:

 Sewage servicing capacity for 2,800 persons equivalent (about 800 units) be reserved from the additional interim capacity in the Maple Service Area for residential development within OPA #332, OPA #350 and the Block Plans approved to date in OPA #400, which may be allocated by Council at the site plan or draft plan of subdivision approval stage; and, 2. Sewage servicing capacity for 10,000 persons equivalent (about 2,860 units) be reserved from the additional interim capacity in the Maple Service Area for residential development in Blocks 18 and 33 West in OPA #600, which may be allocated by Council at the draft plan of subdivision approval stage."

The Vaughan Engineering Department, in reviewing the MESP Addendum, advises that the issue of wastewater treatment/collection for the Block has not been adequately and comprehensively addressed. The Block consultants are required to provide the following information:

- 1. An up to date and comprehensive description of the proposed sanitary servicing scheme for the Block.
- 2. A hydraulic capacity analysis of the outlet sanitary sewer for the Block (Basaltic Subtrunk) that confirms the City's existing sewer system leading to the Maple Collector has adequate conveyance capacity for the proposed development in Block 18.
- 3. A development phasing and infrastructure staging plan
- 4. An internal sanitary skeleton servicing and drainage plan complete with tributary population and areas, outlets and all external areas that have the potential for servicing through Block 18 (Note: with the proposed extension of McNaughton Road north of Major Mackenzie Drive East, there may be an opportunity to drain a portion of the lands within OPA 535.). All lands within the Block shall be accommodated within the design of the sanitary collection system including non-participating landowners.
- 5. A plan that identifies all segments of the proposed trunk sanitary sewer system within the Block that are expected to be in excess of 6.0 metres in depth.

The Vaughan Engineering Department further advises that, despite the missing information noted above, the Block engineering consultant advises that the most appropriate outlet for Block 18 is the Basaltic Sub-trunk. This proposal is acceptable, subject to the Block consultant adequately demonstrating, through a thorough analysis of the downstream sanitary system, that this outlet has sufficient depth and conveyance capacity to service the proposed development within the Block.

Prior to draft plan of subdivision approval, the Region of York shall confirm the release of interim servicing allocation capacity in the Maple Service Area, which must be allocated by Vaughan Council. The MESP is to be revised to address the sanitary servicing issues discussed and submitted for approval by the Vaughan Engineering Department.

Stormwater Management

The Vaughan Engineering Department advises that the Block is bisected by the watershed divide between the East Don River and West Don River (New Westminster Creek). The western portion of the Block drains to the West Don River via New Westminster Creek, while the eastern portion of the Block drains to the East Don River. The MESP for the Block proposes six stormwater management pond facilities for the Block, to treat and control post development drainage. Five of the six stormwater management pond facilities are on property of land owners participating in the Block Plan process.

Stormwater Management Pond "A" is located mid-block adjacent to the CN Railway. Two stormwater management ponds (Ponds "B1" and "B2") are located at the northeast portion of the Block, adjacent to the north and south sides of the valley and Upper East Don River Northern

Tributary. Two stormwater management ponds are located along Rutherford Road, with Pond "D" adjacent to the Carrville Village District Centre and Pond "E" adjacent to the CN Railway.

The TRCA and Vaughan Engineering have advised that the location, size and/or configuration for all Ponds in Block 18 could change (i.e., increase in pond block size). Pond "A" abuts the rail line and will require reconfiguration to accommodate screening and noise attenuation measures. An additional increased setback may be required in order to protect the edge of the existing Cedar and Deciduous Northeast Wet Forests from the intrusion of the Pond. The details of the limits/buffers will be required at the draft plan of subdivision or site plan stage. There have been discussions with the Block land owners, consultants and City, concerning the possible relocation of part of Pond "D" to the Carrville Village District Centre. Therefore, the final limits, size, and configuration of Stormwater Management Pond "D" need to be determined in conjunction with the Carrville Village District Centre Study.

Stormwater management pond facilities (Pond "C") were proposed for the tablelands and southerly valley lands near Dufferin Street, on the land of a participating and non-participating property owners. The TRCA has verified that a tributary in proximity to a stormwater management pond, such as Pond C, is a defineable watercourse using TRCA criteria. These lands are located within the Oak Ridges Moraine, and are therefore subject to the ORMCP, where Planning Act applications are, or will be submitted after November 16, 2001, and must demonstrate that the land uses conform to the ORMCP.

The ORMCP does not allow for stormwater management ponds to be located in key natural heritage or hydrologically sensitive features, as defined in the ORMCP, which includes significant valleylands and woodlots. As such, land uses, including stormwater management ponds cannot be approved for these lands, until the requirements of the Oak Ridges Moraine Conservation Plan have been determined.

The TRCA also requires the submission of restoration plans for valley lands and Upper East Don River Southern Tributary, when the final limits and location have been determined for Pond "C". Therefore, the City and TRCA both recommend that the Plan be red-line revised, to indicate that the boundary that delineates the "Study Area for SWM Ponds" and the lands in the mid portion of the Block near Dufferin Street, cannot be developed until the stormwater management issues and conformity to the Oak Ridges Moraine Conservation Plan have been addressed.

The Vaughan Engineering Department and TRCA, in reviewing the MESP's stormwater management analysis for the Block, advise that there are a number of design issues that have been identified concerning the stormwater management pond facilities, for which additional detailed information is required, including the following:

- confirmation that the downstream outlets have been sized for the expected post development flows for Pond "A";
- details indicating how the flows from the pond are going to be apportioned between Culverts C4 and C5, and if the limited capacity of Culvert C4 is a constraint to the system for Pond "A";
- details and assessment describing the routing, capacity and any necessary design
 modification of the existing ditch along the east side of the CN Railway tracks, that is
 proposed to be used as the major system outlet for Pond "A"; as a minimum, the
 assessment should extend from the pond outlet to the point where flows enter the
 Westminster Creek;
- confirmation of the condition of the receiving tributary, and that downstream erosion potential is eliminated for Pond "B1";
- confirmation that the base elevation of the pond is consistent with the conclusions of Terraprobe's peer review of the Hydrogeological Addendum to the MESP for Pond "B1";
- a revised drainage area plan is required to confirm the area draining for Pond "B2";

- the submission of a profile/section drawing for Pond "B2";
- the confirmation of the water quantity/quality criteria for all the stormwater management ponds;
- a streambank erosion assessment, to confirm the extended detention volumes and release rates for all the stormwater management ponds draining to the East Don Subwatershed; and,
- confirmation of current groundwater conditions for all the stormwater management ponds (i.e., additional borehole testing), and identification of required mitigation measures to ensure proper pond function, while minimizing impacts to the natural environment (e.g., pond liner, sub-surface by-pass drainage system, etc.).

The Vaughan Engineering and Urban Design Departments have provided a list of additional detailed information, required to address issues concerning the stormwater management pond facilities, which includes as follows:

- side slopes to be varied and shown on the drawings;
- grading around ponds to promote safety (terracing); min. 5:1 slope at edge of the normal permanent pool, for a distance of 3m into pond and 3m up the slope; use of guide rail for fall protection/vehicular protection is discouraged;
- contributing drainage area to pond to be shown on pond drawing;
- a minimum length to width ratio of 3:1 for the ponds where possible, in accordance with TRCA requirements;
- permanent pool depth to be 1 to 2 m; maximum (100 yr) depth to be maximum 3 m;
- show extended detention depth (to be 1 to 1.5 m);
- the provision of side slope details on all stormwater management pond plan/profile drawings to ensure minimum slopes are incorporated at the permanent pool elevation;
- a minimum setback of 15m from the 5-Year water level or 3m from the 100-Year water level, whichever is greater, is required from all neighboring residential property limits;
- maintenance access roads shall be a minimum of 4m wide, have a maximum grade of 12%; and,
- landscape/streetscape buffers, mow strips and preliminary landscaping information according to Urban Design requirements.

The City is currently undertaking a policy review regarding standards for proposed stormwater management ponds. The stormwater management ponds in the Block will be subject to the standards resulting from the policy. In the interim, the stormwater management pond facilities will be reviewed based on the current City standards. Additionally, prior to Block Plan approval, the detailed designs for the storm water management facilities must be approved by the Vaughan Engineering and Urban Design Departments and TRCA.

Hydrogeological/Soil Analysis

The City and TRCA have had the Hydrogeological Addendum to the MESP peer reviewed. The information from the peer reviewer will respond to the Hydrogeological Addendum to address any issues that may arise, and determine whether any modifications to the stormwater management ponds are required. Prior to final approval of the Block Plan, the Hydrogeological Addendum is to be finalized and peer reviewed, to the satisfaction of the City and TRCA to ensure that the high groundwater table will not have an impact on the functionality of the stormwater management facilities, and that groundwater infiltration is appropriately addressed.

The Vaughan Engineering Department advises that a Soil Investigation was carried out on Block 18 by Soil-Eng Limited, to reveal the general subsurface conditions for a Hydrogeological Study, and for a preliminary geotechnical assessment of the area. The Investigation identifies that the site is generally underlain by strata of soft to hard silty clay till, and compact to very dense sandy

silt till, overlying strata of loose to very dense fine sand, compact to very dense fine to coarse sand, loose to compact fine to medium sand, and compact to very dense silty fine sand at various depths and locations. In some of the boreholes, the sand deposits were found to occur immediately below the topsoil, and extend to the investigated depths in these boreholes. At the time of the investigation, the groundwater lay at depths ranging from 0.9m to 10.0m from the prevailing ground surface in the sand and silt deposits, which are water-bearing and appear to be part of the regional aquifer; they are likely under subterranean artesian pressure.

The Vaughan Engineering Department further advises that a detailed geotechnical investigation must be carried out for each proposed subdivision, following draft plan approval. The investigation shall provide detailed information, with respect to the construction of foundations, engineered fill, underground services, trench backfilling, road pavement and excavations. The investigation must also provide information on soil corrosivity, storm water infiltration, and soil parameters.

Water Budget Analysis

Block 18 lies almost entirely within the Oak Ridges Moraine, which provides a wide range of environmental functions that are critical to the maintenance of healthy water resources and natural heritage values in the Greater Toronto Area. In accordance with OPA #600, and in conjunction with the TRCA's mandate to promote environmentally sound land use planning, including the protection of the hydrogeological functions on the Oak Ridges Moraine, the MESP is to address the role of the ground water regime in the functions of the terrestrial/aquatic ecosystems, and identify the impact of the proposed development on these functions, and any mitigating measures to be implemented.

A Water Budget Analysis has been provided in the MESP Addendum, that assesses the impact that development will have on the groundwater recharge function, by comparing the predevelopment recharge volume with the post-development recharge volume, based on certain criteria as identified in the analysis. The Block 18 Water Budget Analysis, prepared by Schaeffers Consulting Engineers, concludes that there will be a total recharge surplus following the development of the Block, based on the principle that "disconnected areas (i.e., residential rooftops) will discharge to rear yards and side yard swales, where water surplus during warm weather will infiltrate and/or be stored in the soil".

The Vaughan Engineering Department further advises that the City's current Lot Grading Criteria recommends that roof leaders be directed to the front of the dwelling where possible, to reduce the volume of water discharged to side yard swales. This policy was adopted by Council and has been in place since April 1991. This criterion was adopted in part, to address lot grading complaints received by the City concerning the accumulation of stormwater in rear and side yards. Once a homeowner has control of their property, activities such as landscaping, gardening, terracing, retaining walls, pool construction, paving etc., can have a dramatic effect on the drainage of a property and adjacent properties. Therefore, with the roof leaders directed to the front of the dwelling and the implementation of rear yard catchbasins, stormwater is conveyed from the lot to the storm system as efficiently as possible. A review of a number of recent plot plans for dwellings in Block 10 revealed that, in fact, roof leaders are only located at the front of the dwelling, regardless of the type of grading on the lot, i.e., rear-to-front draining or split draining. If the criterion of directing roof runoff to the front of the lot is maintained in Block 18, then it is quite possible that a theoretical deficit in ground water recharge will occur under a post development condition.

At this stage, the issue of ground water balance still requires further study and review. Accordingly, prior to final approval of the Block Plan, the water budget analysis and the specific design measures to maintain groundwater recharge (i.e., clean water collection system) are to be finalized to the satisfaction of the City and TRCA.

Noise/Mitigation Measures

The Block land owners undertook an Environmental Noise Report (dated November 24, 1997 and revised to January 31, 2003), prepared by Jade Acoustics for the Block Plan, which examined the noise and vibration from GO Train passenger train and freight traffic on the CN Railway, the noise levels from arterial road traffic sources, industrial uses, GO Transit Stations, City Works Yard, in accordance with the Ministry of the Environment Environmental Noise Assessment and Land Use Planning Guidelines for residential outdoor amenity and indoor living areas, GO Transit noise criteria, and the City and Region environmental noise guidelines.

The CN Railway, which is owned by GO Transit, is operating as a principal main line and has requirements to address noise and vibration issues for this line, which include the following:

- minimum 30m building setback from the railway right-of-way, with a safety berm adjoining and parallel to the railway, with returns at the ends that is 2.5m above the grade at the property line and has side slopes not steeper than 2.5 to 1;
- minimum 5.5m noise attenuation barrier adjoining and parallel to the railway with returns at the ends;
- vibration mitigation measures for residential dwellings within 75m of the railway right-ofway where vibration measures exceed 0.14mm/sec RMS between 4Hz and 200Hz; and,
- warning clauses for all residential units within 300m of the railway right-of-way be included in all draft plan of subdivision or site plan agreements advising all purchasers and/or tenants in any offer of purchase and sale or lease for all lots and/or blocks advising of the railway.

The Noise Report recommends the implementation of sound attenuation barriers ranging between 2.0m to 4.1m in height to mitigate the noise for lots/blocks that are exposed to arterial and primary road traffic and the CN Railway. Additionally, for residential lots that are adjacent to the arterial road and the CN Railway, the installation of central air conditioning will be mandatory, with brick veneer required for the residential buildings near the railway.

The Engineering Department advises that noise attenuation barriers shall comprise fencing (2.4m in height maximum), berming, or a combination of the aforementioned. The maximum side slope acceptable on a berm is 3:1. Based on the above criteria and the recommendations in the Noise Report, buffer blocks ranging from 1.2m to 10.2m in width are required to accommodate the noise attenuation barriers. Proposed acoustic fences greater than 1.8m in height must be examined in more detail, to determine the aesthetic and urban design impacts associated with them.

The Noise Report for the Plan also concluded that, due to the separation distance of the industrial areas to the north and south of the Block from the proposed development, noise attenuation measures were not warranted. Further, the required 5.5m noise attenuation barrier along the railway right-of-way was sufficient to mitigate any noise from the City's Works Yard

The Vaughan Engineering, Urban Design and Planning Departments have identified the need to extend the noise attenuation barrier for the railway along the west edge of Stormwater Management Pond "A", to provide noise attenuation and screening of the railway for the lots on the east side of the Pond. This matter requires further review prior to block plan approval as it may affect the size and configuration of the Pond.

The Engineering Department advised that, at the draft plan of subdivision or site plan stage, the detailed noise analysis is to be undertaken, when the residential lotting pattern and grading has been determined, to establish the required noise attenuation measures, and the need to upgrade privacy fencing around proposed commercial blocks. Noise warning clauses will be required in all offers of purchase and sale for the required lots/blocks. The required noise mitigation measures

are to be approved to the satisfaction of the Vaughan Engineering, Urban Design and Planning Departments, and TRCA.

The Region has initiated its Noise Policy/Guideline Update Study that is to include a review of current and proposed criteria and/or options for noise assessment in new developments, installation of noise attenuation facilities, acceptable noise assessment levels on lands abutting Regional capital works projects, and "greening" noise attenuation measures which should be considered when processing the draft plans of subdivisions and site plans.

Phasing/MESP Details

In accordance with OPA #600, a development and infrastructure phasing plan is required as part of the Block Plan approval process. This plan should identify the infrastructure required to adequately service all phases of the Block 18 development, including sanitary, water, stormwater management facilities and road network and Regional infrastructure, such as road widening, and water and wastewater system improvements. The timing for construction of all required Regional infrastructure improvements, including the widening of Dufferin Street between Major Mackenzie Drive and Rutherford Road, shall be to the satisfaction of the City. A phasing plan outlining the residential areas that will be in the first phase will be required, based on the OPA #600 policy that limits each phase to 5000-7500 population. Also, the criteria for proceeding from the first to second phase of development needs to be determined. The phasing plan should also address how the servicing of non-participating lands will be addressed within the overall servicing of the Block, and what interim servicing measures will be required.

The Development and Infrastructure Phasing Plan shall provide for the following, to the satisfaction of the City:

- the two north-south primary roads, and the three northerly east-west primary roads; within the first phase;
- the distribution of interim servicing for the residential lots/blocks and phasing of the residential lots/blocks;
- the grading plan ensuring adequate runoff, erosion and dust control throughout development, to the satisfaction of the Engineering Department and Toronto and Region Conservation Authority;
- two elementary school sites in the first phase, one for each School Board, together with the appropriate road and service infrastructure; and
- any other infrastructure that is required for the first phase of development.

The Vaughan Engineering Department also requires that the MESP should identify any potential City development charge projects associated with the servicing of the Block. The MESP should clearly identify how the proposed development will conform to the Oak Ridges Moraine Conservation Plan. The MESP should address the implications of the new Municipal Class Environmental Assessment process as it relates to the proposed works (i.e., roads, bridges, etc.) in the Block.

Conclusion

Staff supports approval of the Block 18 Plan, subject to addressing the conditions described in the "Recommendation" section of this report. Modifications to the Block Plan will be required upon resolving the outstanding issues discussed in this report, including, but not limited to, land use, unit yield and lot/block configuration, servicing, phasing, and public infrastructure and facilities (i.e., stormwater management ponds, parks and roads). Further, lands where Planning Act applications were filed after November 16, 2001, or have yet to be filed need to demonstrate that the proposed land use(s) conform to the Oak Ridges Moraine Conservation Plan.

The Block land owners and consultants are in the process of addressing concerns raised and submitting revised reports. Staff will continue to work closely with the proponents to address the remaining issues. Upon matters in Part 1 of this report being addressed, and the submission of the revised Block 18 Block Plan and supporting revised reports, approved to the satisfaction of the Vaughan Engineering, Urban Design and Planning Departments, Region of York, Toronto and Region Conservation Authority, and GO Transit, a revised Block Plan and "Recommendation" outlining issues that have been addressed will be submitted to Council in a further report.

Attachments

- 1. Location Map
- 2. OPA #600 Schedule "C" Carrville Urban Village 2
- 3. Block 18 Plan
- 4. Block 18 Plan Red-line Revised
- Block 18 Block Plan Ownership

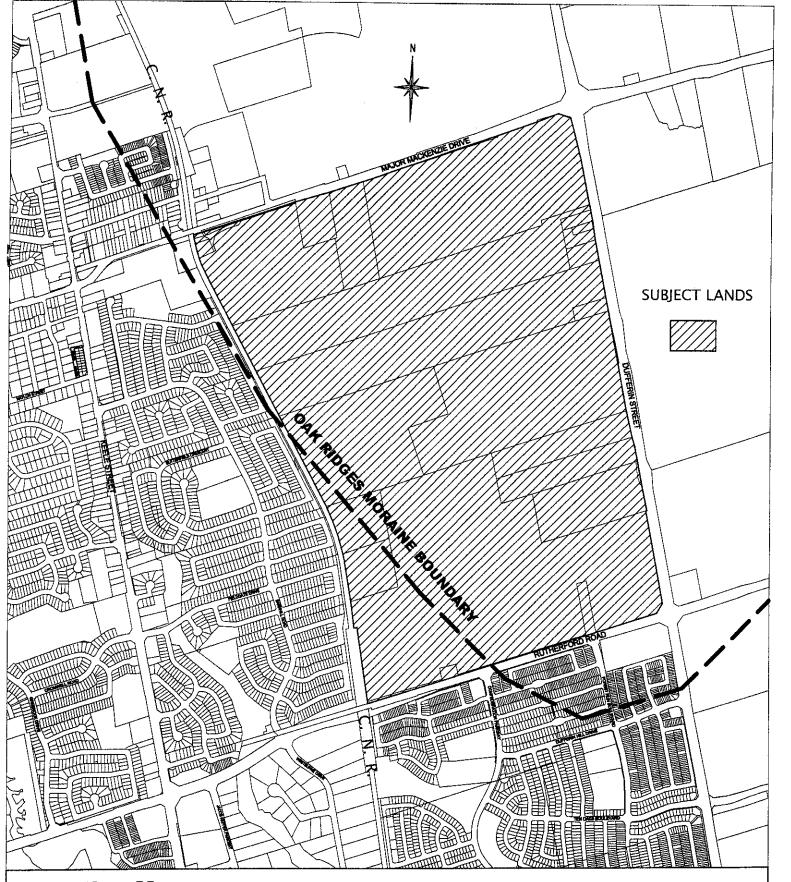
Report prepared by:

J. Jeffers, Planner, ext. 8645
Paul Robinson, Senior Planner, Policy, ext. 8410
Wayne McEachern, Manager of Policy Planning, ext. 8026

Respectfully submitted,

MICHAEL DeANGELIS Commissioner of Planning JOANNE R. ARBOUR
Director of Community Planning

/CM



Location Map Block 18

Part of Lots 16 - 20, Concession 3

APPLICANT: DUFFERIN WOODS COMMUNITY



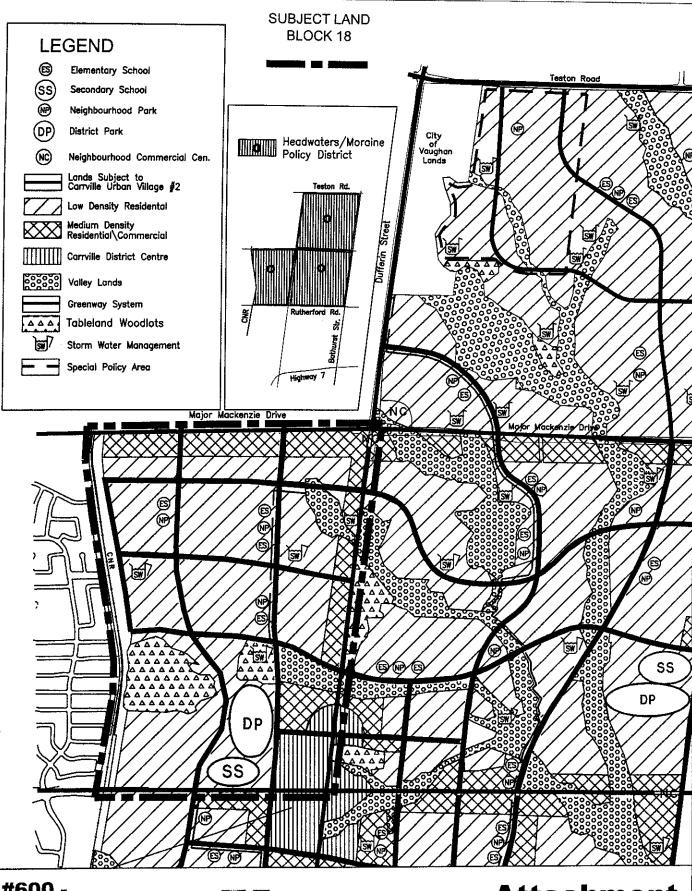
Community Planning Department

Attachment

FILE No.: BL.18.98

Not to Scale

March 28, 2003



OPA #600 -SCHEDULE `C'

Part of Lots 16 - 20, Concession 3

APPLICANT: DUFFERIN WOODS COMMUNITY

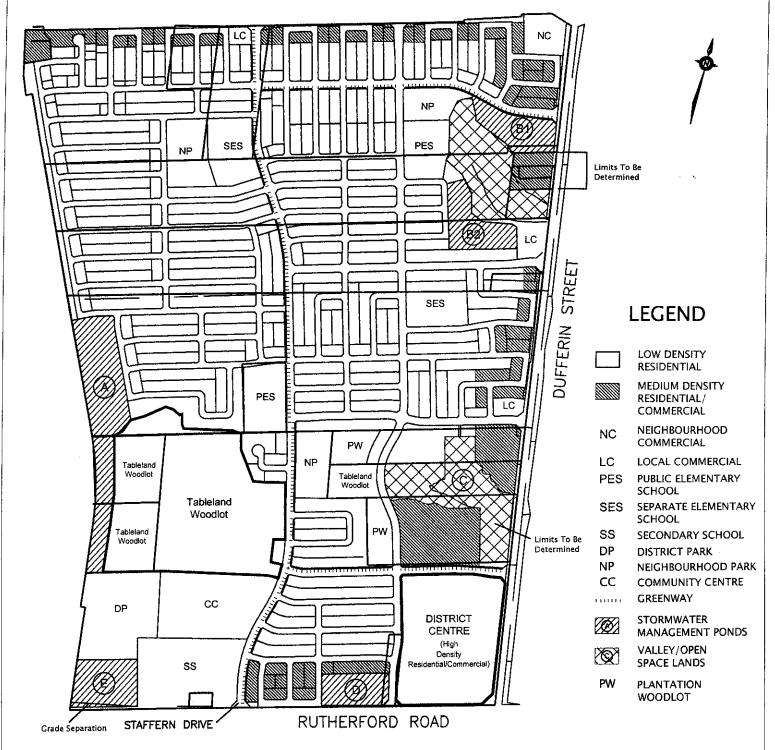


Community Planning Department

Attachment

FILE No.: BL.18.98 Not to Scale March 28, 2003





BLOCK 18 PLAN

Part of Lots 16 - 20, Concession 3

APPLICANT: DUFFERIN WOODS COMMUNITY



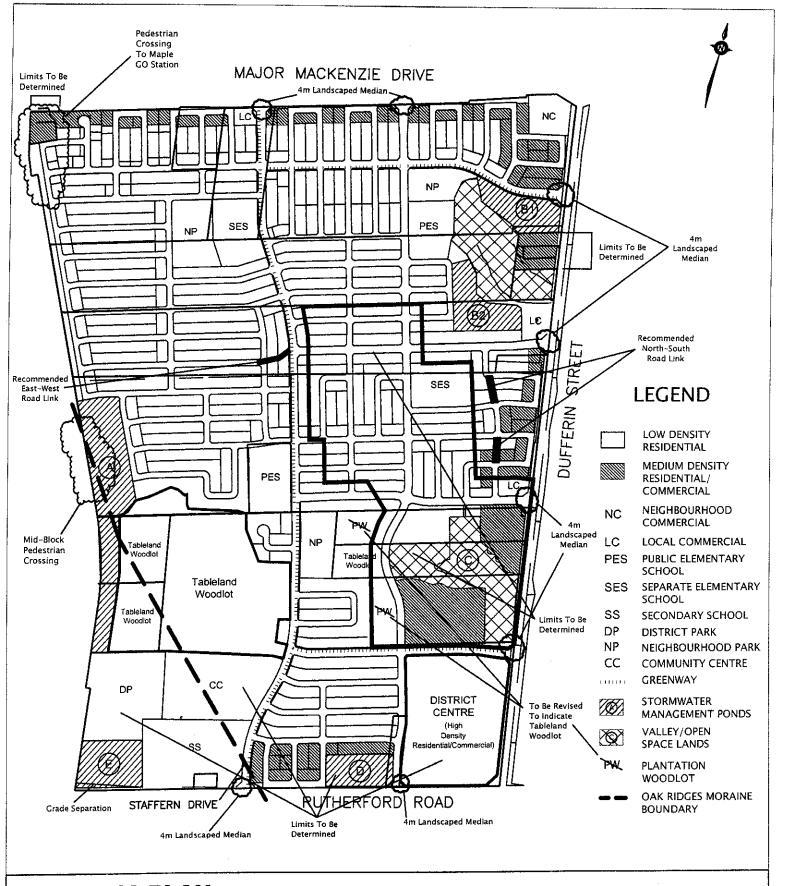
Community Planning Department

Attachment

FILE No.: BL.18.98

Not to Scale

March 28, 2003



BLOCK 18 PLAN RED-LINE REVISED

Part of Lots 16 - 20, Concession 3

APPLICANT: DUFFERIN WOODS COMMUNITY



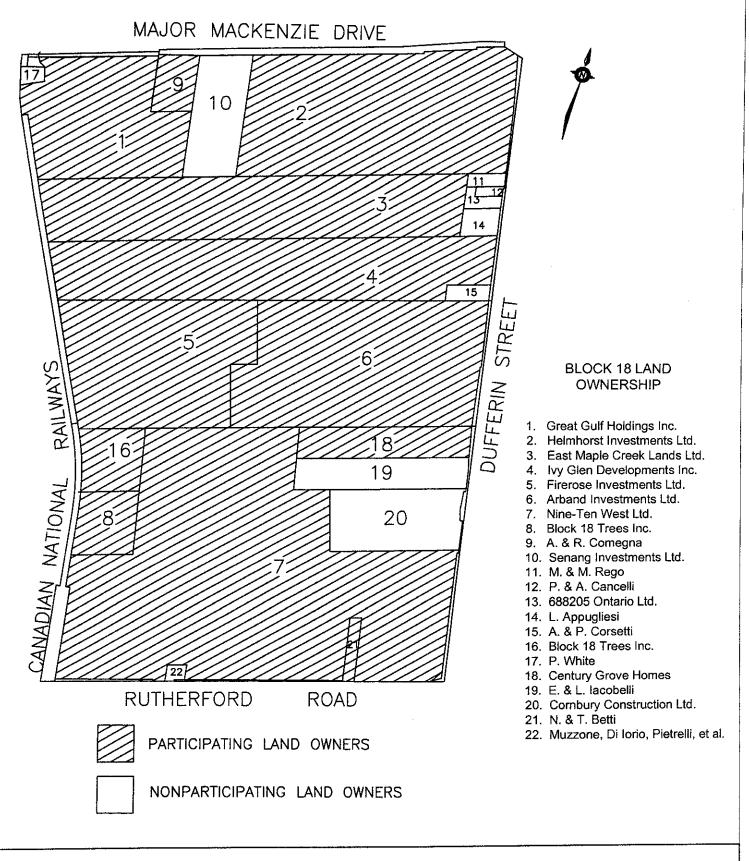
Community Planning Department

Attachment

FILE No.: BL.18.98

Not to Scale

March 28, 2003



BLOCK 18 LAND OWNERSHIP

Part of Lots 16 - 20, Concession 3

APPLICANT: DUFFERIN WOODS COMMUNITY



Community Planning Department

Attachment

FILE No.: BL.18.98 Not to Scale March 28, 2003

