Attachment 3: Transportation Master Plan

YORK UNIVERSITY

SECONDARY PLAN UPDATE BACKGROUND DOCUMENT AND TRANSPORTATION MASTER PLAN

Brook McIlroy Inc.

Artistic Representation of Potential Road Intensification along The Pond Road -- view looking west along the south side of The Pond Road

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1.1 STUDY PURPOSE

A Secondary Plan adapts and implements the objectives, policies, land use designations and overall planning approach of the Official Plan to fit local contexts. A Secondary Plan also establishes local development policies to guide growth and change in a defined area of the City, stimulates and guides development, promotes a desired type and form of physical development in a specific area and guides public and private investment.

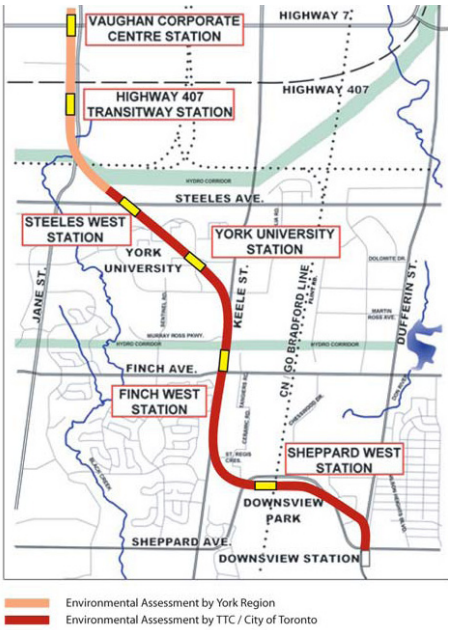
In 1991 a Secondary Plan was adopted for York University. The 1991 Secondary Plan established a framework to allow non-university uses organized around the University. Many of the principles and guidelines in the current Secondary Plan remain relevant and applicable; however, there have been significant changes to the planning context for the land in and around York University. In 2005 the City determined that the existing Secondary Plan would need to be updated. York University will also be updating their Master Plan, which guides planning decisions for the campus, following adoption of the updated Secondary Plan. The key initiatives warranting the review of the Secondary Plan include:

- City Council approved a new Official Plan in November, 2002, which outlines new directions regarding new growth in the City. The York University Secondary Plan update is intended to reflect these changes and provide a framework to test future development as it comes forward.

- The City of Toronto and the Toronto Transit Commission have conducted an Individual Environmental Assessment, for a 6.2 kilometre, 6-station underground extension of the Spadina Subway from Downsview Station to Vaughan Corporate Centre. There will be two stations within the study area and one station in close proximity to the study area. With the introduction of subway service to the study area opportunities for creating a higher density, sustainable, pedestrian-friendly and mixed-use community surrounding the University campus is greatly increased. The Spadina Subway Extension will also benefit the University in providing higher-order transit for students, staff and faculty of the University. The extension of the subway is anticipated to service the York University area by 2015. In the interim, bus only lanes are being introduced to respond to the need for a more reliable transit system until such time that the subway is constructed.

- York University has sustained considerable and significant development since the 1991 Secondary Plan was adopted and an updated planning framework is needed.

Existing York University Student Residence



Route Map for the future subway extension to Vaughan Corporate Centre

Figure 1: Study Area Boundary

1.2 KEY OBJECTIVES

Six objectives for the Secondary Plan update were developed to guide the process. They are:

Academic Core
Recognize, protect and enhance the University as an institutional district within the context of the larger urban community.

Distinctive Landscape and Built Form
Preserve, protect and enhance the heritage resources, high quality built form and landscape character of the University.

Transit-Supportive Development
Provide a planning framework for the development of lands in the study area that is transit-supportive.

Natural Environment and Sustainability
Protect, restore and enhance the form, features and functions of the natural heritage system as well as advance environmental stewardship and sustainable site and building design.

Connections
Ensure strong physical and social connections between the University and the surrounding communities.

Flexible Implementation
Provide a planning framework that is flexible to meet changing program, technological and funding contexts for the University and that provides opportunities for innovative, progressive and high quality development.

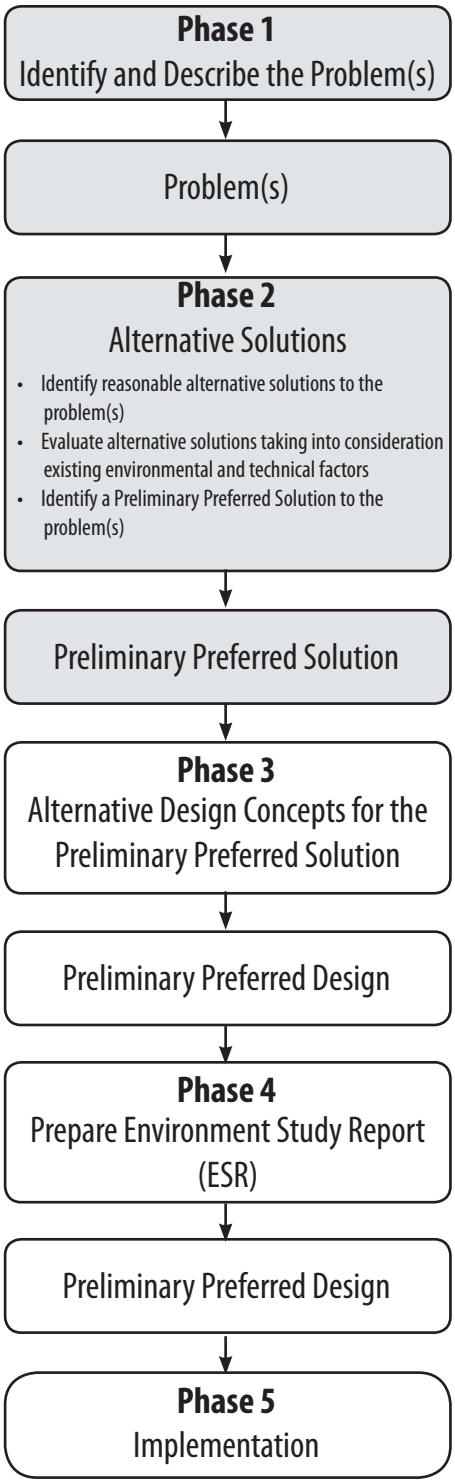
1.3 TRANSPORTATION MASTER PLANNING

The Municipal Class Environmental Assessment (MCEA) process recognizes the importance of Master Plans as the basis for sound planning of public transportation infrastructure, complying with the requirements of the Province of Ontario's *Environmental Assessment Act*. The MCEA process defines a Master Plan as:

> "A long-range plan, integrating infrastructure requirements for present and future land use with environmental planning principles. The plan examines the whole infrastructure system in order to outline a framework for planning subsequent projects and/or developments (Class EA, 2000)."

Existing York University green space within the central campus area

Municipal Class Environmental Assessment Process



Master Plans have distinguishing features that set them apart from project specific studies. These features include the following:

- Master Plans are broad in scope and focus on the analysis of a system for the purpose of outlining a framework for the provision of future works and developments; and
- Specific projects recommended in a Master Plan are part of a larger management system and are distributed geographically throughout the study area. The implementation of specific projects occurs over an extended time frame.

This document, which is also a Transportation Master Plan, follows the Class Environmental Assessment process for Master Plans and will satisfy Phases 1 and 2 of the Class EA process. As part of the process, public and agency consultation will be undertaken and detailed development and evaluation of alternative transportation strategies will be examined.

1.4 STUDY AREA

The existing York University Secondary Plan area is bounded by Keele Street to the east, Steeles Avenue to the north, Murray Ross Parkway to the south and the Black Creek valley to the west. The study area for the update of the Secondary Plan (Figure 1) includes this area as well as a previously excluded parcel to the southwest. Although these lands are already developed, it was determined that due to their adjacency and relationship to the study area, they should be considered within the study area boundary.

1.5 STUDY PROCESS

The York University Secondary Plan Update is occurring over three phases.

Phase 1: Research and Investigation
The first phase is complete and involved developing an understanding of the study area, gathering relevant background information and documenting existing conditions in order to identify and explore issues and opportunities.

Phase 2: Analysis and Testing
The second phase involved identifying and developing different options for the study area, testing those options, developing a preferred option and refining the vision for the study area.

Phase 3: Recommendations
The third phase involves generating recommendations for the update to the Secondary Plan as well as identifying any required By-law amendments. Recommendations provided within this report will inform the development of appropriate Secondary Plan policies and By-law amendments. A report will go to

City Council making final recommendations for the updated Secondary Plan. This report is anticipated for winter 2008.

1.5.1 CONSULTATION

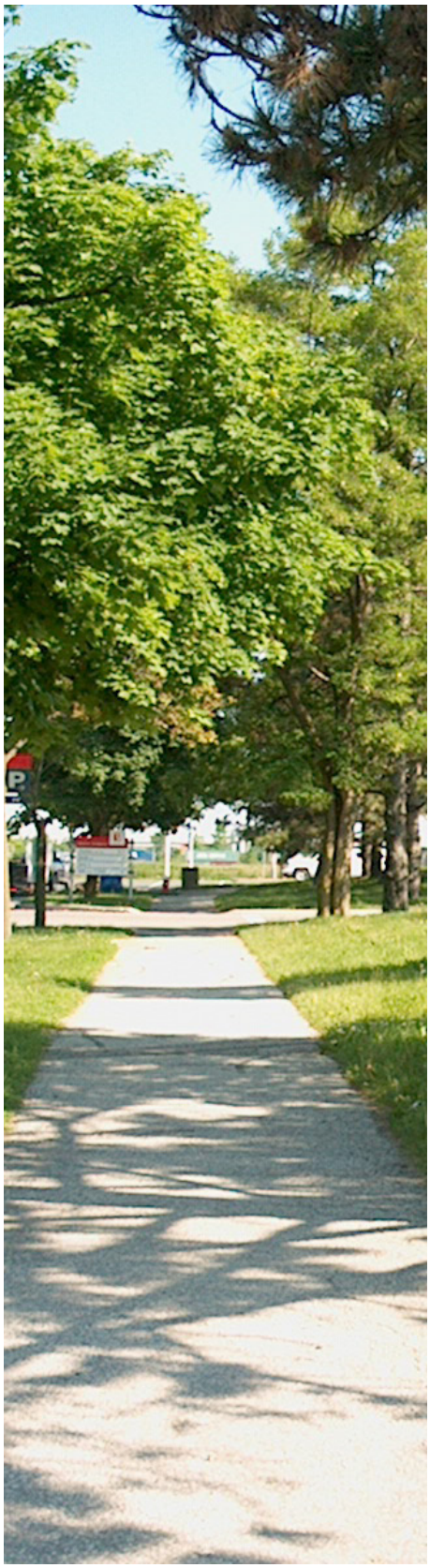
Consultation was a key element of the process and a variety of meetings have been held throughout the process, including:

- Four meetings with the Local Advisory Committee established to represent broad community goals and provide regular input in the study process. The Local Advisory Committee was made up of area stakeholders from the University (staff and students), the surrounding residential neighbourhoods and the local agencies;
- Three community consultation meetings to gain community input into the study process. Summaries of the community consultation meetings are included in the appendix;
- One design workshop;
- Regular meetings between City staff, the consultant team, staff from various City Divisions, representatives from adjacent municipalities and other relevant agencies and commissions; and
- City staff has also had ongoing consultation with York University Development Corporation, representatives acting on behalf of York University, the University's Land and Property Committee and the University Board of Governors.

1.6 STUDY TEAM

To assist the City with the completion of this Secondary Plan update a multidisciplinary team was assembled to undertake the analysis and testing of options. This team includes:

- Brook McIlroy Planning and Urban Design/Pace Architects – Project Lead and Urban Design Planning;
- ENTRA Consultants – Transportation Planning;
- Philips Engineering – Servicing and Stormwater Management;
- Duggan and Associates – Environmental and Ecological Planning; and
- Macaulay Shiomi Howson – Planning Policy.



Existing York University sidewalk at Founders Gate

1.7 OVERVIEW OF THIS DOCUMENT AND HOW IT IS USED

This document provides the analysis and testing of options which lead to recommendations for the update of the Secondary Plan. This document also forms the Transportation Master Plan to support the York University Secondary Plan. It satisfies Phases 1 and 2 of the Municipal Class Environmental Assessment planning process described in Section 1.3.

The analysis and testing focused on lands identified for non-university development. The City has indicated that the Secondary Plan will provide general policies and planning framework to preserve and protect University lands needed for academic purposes over the long-term. A more detailed planning framework for the University lands will be guided by a Master Plan prepared by York University. The current Master Plan was developed in 1988. The University will be revisiting this Master Plan following adoption of the updated Secondary Plan.

This document is structured as follows:

- Section 1 provides an introduction and overview of the study and document;
- Section 2 summarizes the policy framework;
- Section 3 provides an overview of existing conditions;
- Section 4 provides an overview of the testing process and a summary of the testing results;
- Section 5 contains the recommendations for the update of the Secondary Plan; and
- Section 6 contains the key implementation recommendations.

Existing York University roof terrace within the original campus buildings

2.1 GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE

On June 16, 2006 the Province's Growth Plan for the Greater Golden Horseshoe came into effect. The Plan contains population and employment projections for the Toronto area, including the Regions of Niagara, Hamilton, Waterloo and Simcoe County, and prescribes policies to accommodate growth.

The Growth Plan aims to:

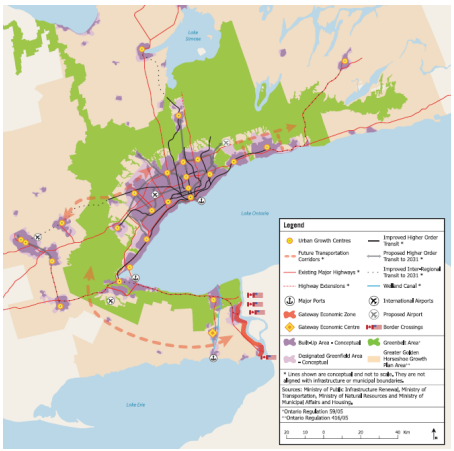
- Intensify land use;
- Coordinate regional planning and infrastructure investment;
- Encourage mixed-use and sustainable development;
- Promote public transit use;
- Prioritize roads for good transportation;
- Ensure a sufficient supply of land for industry;
- Accommodate local services, including recreational, cultural and entertainment uses; and
- Protect and conserve rural land and natural resources.

To achieve these goals, the Growth Plan focuses growth in Urban Growth Centres, Major Transit Station Areas, Intensification Corridors, Employment Areas and Designated Greenfield Areas. It requires municipalities to define these areas and incorporate them in Official Plans within three years. Specific growth targets in terms of the location of residential development and the number of people and jobs per hectare are to be achieved by 2015 and 2031, respectively.

The Growth Plan also outlines an approach to phasing, financing and using public infrastructure. Urban development must be contiguous, water and wastewater systems must be provided on a full-cost recovery basis and transportation demand management must be implemented. Alternatively, capital investment in natural and rural areas is severely restricted.

The Growth Plan complements other recent provincial policy reforms including amendments to the *Planning Act*, the *City of Toronto Act, 2006*, the Provincial Policy Statement, 2005 and other Provincial initiatives. The Secondary Plan update will be required to conform to the Growth Plan.

Existing walkway connecting the northern portion of the campus from east to west



Map showing the extent of the Greater Golden Horseshoe as referenced to in the Places to Grow Act

2.2 THE PROVINCIAL POLICY STATEMENT

Issued under the authority of Section 3 of the *Planning Act*, the Provincial Policy Statement (PPS) provides policy direction on matters of provincial interest related to land use planning and development in Ontario. The PPS provides for appropriate development while protecting resources of provincial interest, public health and safety and the quality of the natural environment. It supports improved land use planning and management, contributing to a more effective and efficient land use

planning system. Policies that are relevant to the review of the Secondary Plan include, but are not limited to:

- Land use patterns that are based on densities and a mix of land uses which efficiently use land and resources. Land use patterns also need to be appropriate for and efficiently use infrastructure and public service facilities, as well as minimize negative impacts to air quality and climate change;

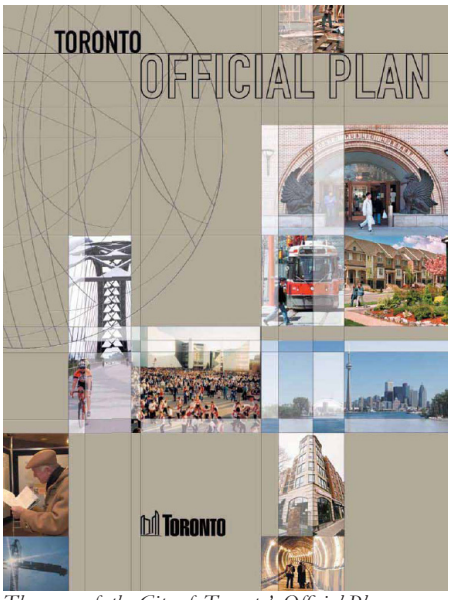
- Opportunities for intensification should be identified and promoted in appropriate locations, taking into account the existing building stock and the availability of suitable infrastructure and public service facilities;

- Public streets, spaces and facilities should be planned to be safe, meet the needs of pedestrians and facilitate both pedestrian and non-motorized movement;

- Corridors and rights-of-ways for transportation, transit and infrastructure facilities should be planned for and protected; and

- Energy efficiency and improved air quality should be supported by planning for compact urban form, promoting public transit and promoting design and orientation which maximizes the use of alternative/renewable energy.

2.3 THE OFFICIAL PLAN



The cover of the City of Toronto's Official Plan

The Official Plan is both visionary and strategic. It departs from the traditional land use approach, focusing on opportunities for renewal and reinvestment, and finding new ways to direct and manage physical, social, and economic development for the City. The purpose of the City's Official Plan is to direct physical growth by:

- Identifying areas where the City wishes to see growth occur (Downtown, Centres and Avenues, and job growth in Employment Districts);
- Focusing civic resources to ignite that change; and,
- Creating a new regulatory framework (i.e. zoning by-law and design guidelines) that allows development to proceed in a timely manner with a degree of design flexibility while continuing to provide the broader community with a level of certainty about the character and form of development.

While one of the key city-building priorities of the Official Plan is to ensure that future growth is directed to areas well served by transit, the Official Plan also requires does creating viable and complete communities. The Official Plan has policies that look at development not in its own right but as part of a broader approach to community building, which requires ensuring that everyone has access to housing, parks and community services and integrating community building with other city building priorities.

The substantial amount of vacant lands available for non-university development within the study area necessitates that a community building approach be taken. The new neighbourhoods' policies of the Official Plan speak to developing a comprehensive planning framework to ensure that new neighbourhoods are developed as viable communities. This includes providing the infrastructure, streets, parks and local services to support new development while connecting the new neighbourhood with the surrounding fabric of the City. The Official Plan states that new neighbourhoods will have:

- good access to transit and good connections to the surrounding streets and open spaces;
- uses and building scales that are compatible with surrounding development;
- community services and parks that fit within the wider system; and
- a housing mix that contributes to the full range of housing.

The Toronto Official Plan, Map 16 (Land Use Plan) designates the York University study area as *Institutional Areas, Apartment Neighbourhoods*, *Mixed Use Areas* and *Parks and Open Space Areas*. The *Institutional Areas* policies recognize the importance of universities and their relationship to the larger community. The *Apartment Neighbourhoods* policies allow for apartment buildings, small scale institutional, cultural and recreational facilities, small-scale retail and service and office uses. The *Mixed Use Areas* designation provides for a broad range of commercial, residential and institutional uses, as well as parks and open space.

When the City adopted the new Official Plan in 2002, York University appealed the Official Plan in its entirety. As such, the Official Plan is not in-force as it applies to the York University lands and the Official Plan for the former City of North York applies. The resolution of York University's appeal is occurring through the update to the Secondary Plan.

2.4 1991 YORK UNIVERSITY SECONDARY PLAN

The former City of North York approved the first York University Secondary Plan (YUSP) in 1991. The Plan was completed with significant input from the University's 1988 Master Plan process and with extensive consultation with the broader community. The Secondary Plan, similar to the University's Master Plan, establishes precincts generally organized around a campus precinct and establishes a framework and process for future growth and development within the Secondary Plan area. Specific aspects of the Secondary Plan, as they relate to the testing of land use, height, density and the transportation network, are summarized below. More detailed summaries of the existing Secondary Plan policies are provided in the background reports prepared for the update in Phase 1.

Land use:

Four Precincts were created to guide land use permissions for the 1991 York University Secondary Plan (Figure 2). University uses were permitted throughout the Secondary Plan area. The University Core Precinct was intended to be developed primarily with University Uses, including student housing. The North Precinct could be developed with both institutional and commercial uses. Commercial uses were permitted in this precinct to take advantage of the visibility, accessibility and traffic characteristics of the Steeles Avenue frontage. The Southwest Precinct was intended to be developed for residential purposes to take advantage of recreational opportunities and the linkage to existing residential neighbourhoods. The Southeast Precinct can be developed with a mix of commercial, office and residential uses to create a land use and built form transition between the University Core and the residential neighbourhoods to the south.

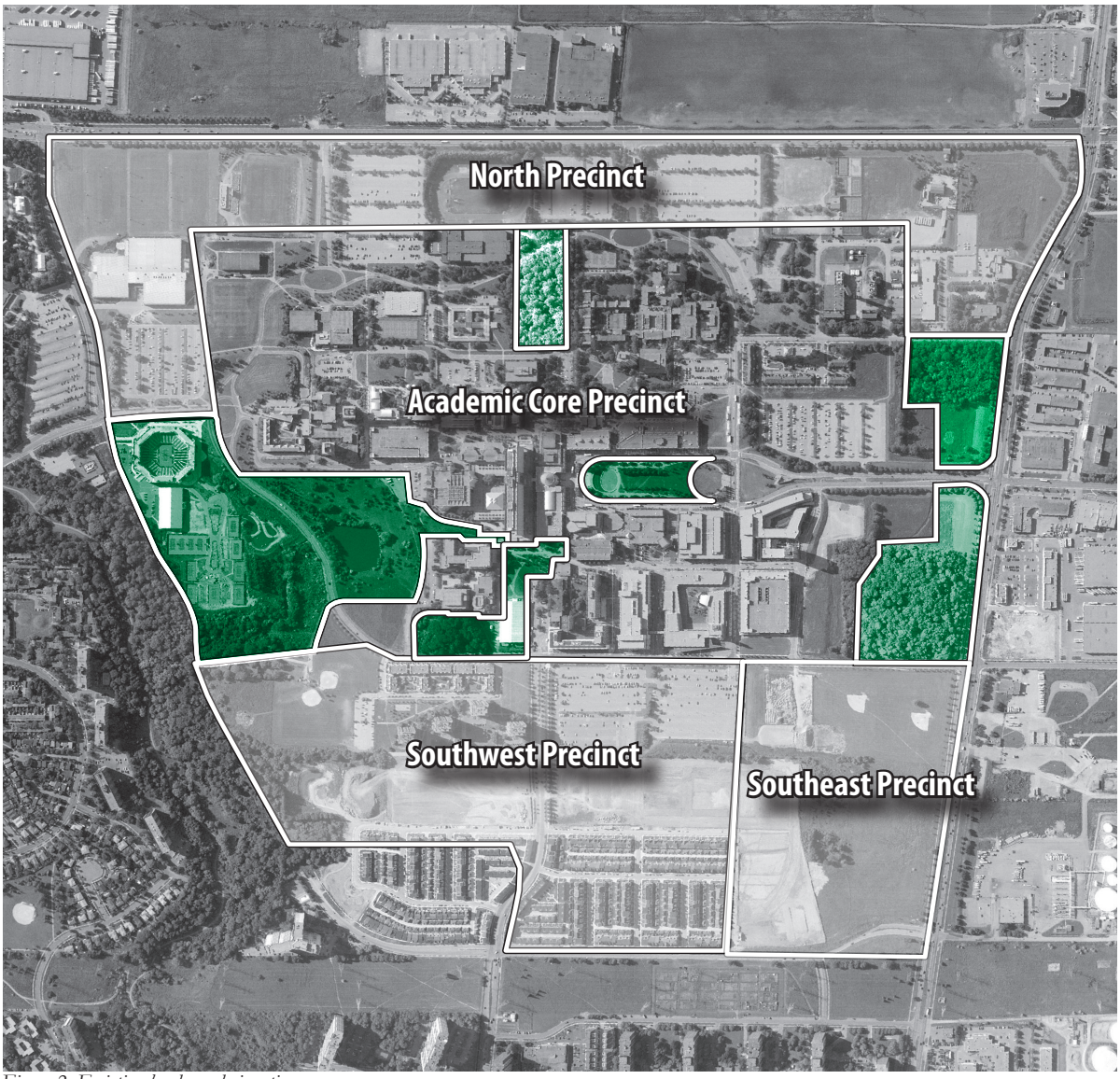


Figure 2: Existing land use designations

Density:

The existing Secondary Plan established a two-tiered approach to densities. The first tier includes density permissions that apply on a gross basis to each individual precinct, followed by a maximum site density. The density permissions for the Precincts in the Plan are:

- 1.7 F.S.I for all uses in the University Core Precinct, plus an additional 0.8 F.S.I exclusively for student housing;
- 0.85 F.S.I in the Southwest Precinct for all uses, plus an additional 1.0 F.S.I exclusively for student housing;
- 0.85 F.S.I in the Southeast Precinct for all uses, plus an additional 1.0 F.S.I exclusively for student housing; and
- A maximum 1.0 F.S.I applies in the North Precinct.

The additional F.S.I exclusively for student housing was included in the University Core and south precincts as an incentive for the development of student housing within the Secondary Plan area. The existing Secondary Plan also establishes a maximum site density of 2.5 F.S.I. This maximum site density applies on net development sites within each of the Precincts and does not constitute a density limit that applies across the Secondary Plan area. As such, individual sites could be developed at a net density of 2.5 F.S.I, but development within the entire precinct would have to be maintained at the maximum aggregate density for the individual precinct.

Height:

The existing Secondary Plan established that taller buildings should be located along Finch Avenue and Keele Street. The Plan also required buildings located adjacent to the Black Creek Pioneer Village be no more than 4 storeys.

Transportation:

The 1991 York University Secondary Plan established a network of public collector roads to provide transportation capacity serving through traffic, development of the York University lands and the needs of the surrounding community. The public collector roads identified for the Secondary Plan included an east-west collector street south of Steeles Avenue that bisected the existing Track and Field Centre, a north-south collector street to the west of Keele Street, a series of collector streets leading to the major arterials and a network of local streets. The public streets were intended to provide the primary means for the identification of and pedestrian and vehicular access to buildings developed in the areas identified for non-University development.

The Secondary Plan required that The Pond Road between Keele Street and Shoreham Drive, and Shoreham Drive between The Pond Road and Murray Ross Parkway be conveyed to the City. Upon transfer of ownership, the Secondary Plan identified that the City would no longer need to complete the unbuilt portion of Murray Ross Parkway as The Pond Road as a public street would provide a northwest to southeast connection through the University lands.

2.5 ZONING BY-LAW

There are four mixed use zones and an open space zone that apply within study area (Figure 3). The York Downsview Mixed Use 1 (YDMU-1) Zone permits university uses, recreational uses, parks and open spaces, as well as uses accessory to these uses. The remaining three mixed use zones within the Secondary Plan area permit the same uses as the YDMU-1 zone, but also permits student housing.

All of the applicable YDMU zones permit a height of 34 metres or 9 storeys and a gross floor area of 250 percent for individual sites. Each respective zone has different provisions for maximum aggregate gross floor area for all of the uses in the particular zone. Setbacks also vary for each respective zone. The Open Space Zone (01) permits a wide variety of recreational uses, including public parks, public playgrounds, playlots and golf courses. Refreshment pavilions/booths owned or operated by a public authority are also permitted.

Schedule D to the North York Zoning By-law – the Airport Hazard Map – imposes additional height restrictions in the Secondary Plan area.

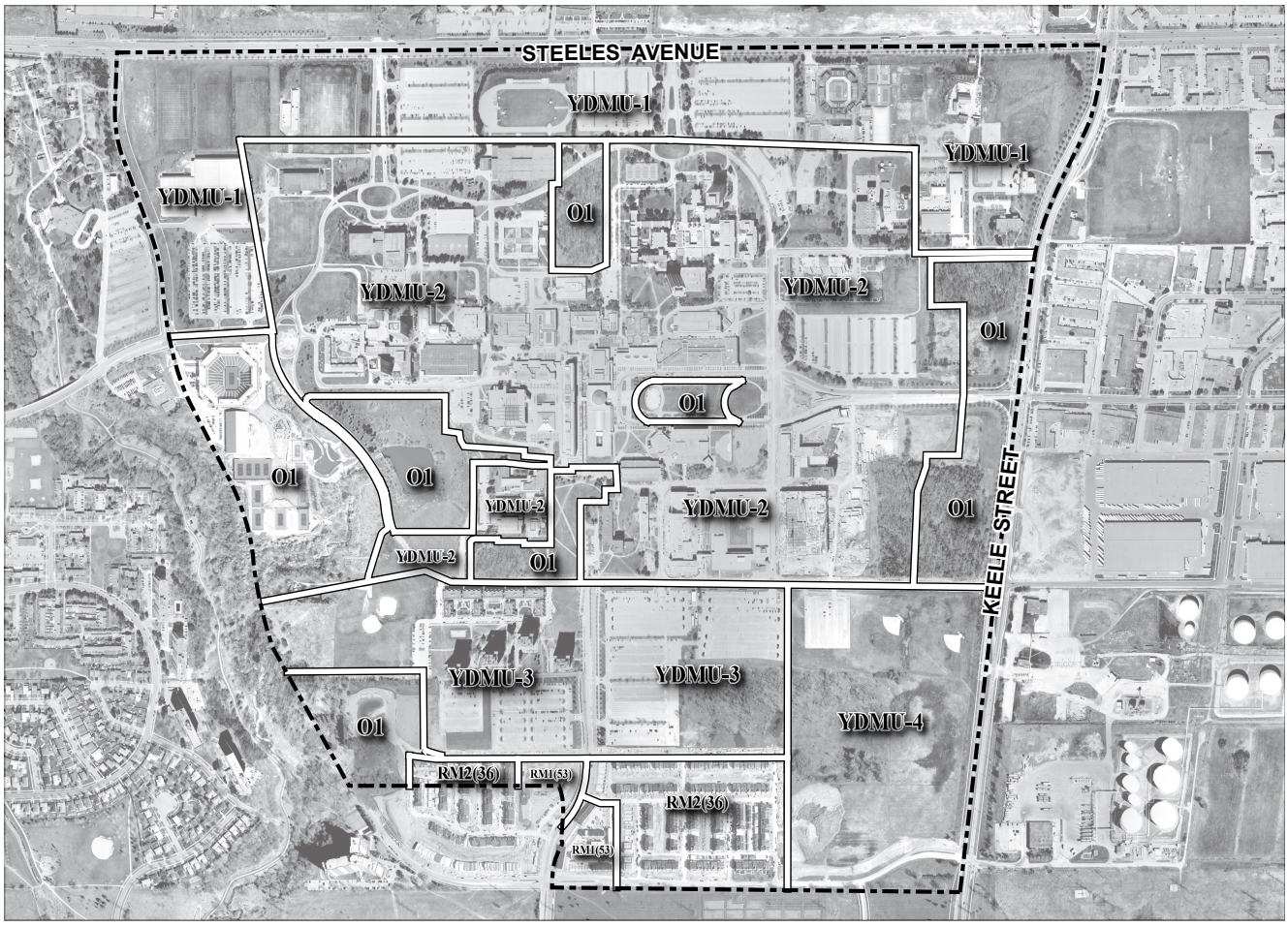


Figure 3: Existing Zoning

2.7 CITY OF VAUGHAN - OPA 620, STEELES AVENUE CORRIDOR

The aim of the City of Vaughan's Official Plan Amendment (OPA) 620 is to create a pedestrian and transit oriented high density node which takes advantage of transit improvements, including the Spadina Subway extension, the planned busway on Highway 407 and Viva transit. The OPA establishes a grid of public streets and development scenarios for the north side of Steeles Avenue West, adjacent to the York University lands.

Specific directions of the OPA include:

- Higher densities near the site of the Steeles West subway station, and a gradient of decreasing density as distance from the station increases. The OPA contains an expectation that higher density development will also occur on the south side of Steeles Avenue (on the York University Campus) near the station;
- Buildings located on Steeles Avenue must have their entrances oriented towards the street;
- The tallest buildings are located at the corners nearest the subway station and fronting onto Steeles Avenue. Buildings fronting Steeles Avenue should also be a minimum of 13 metre (4 storeys) in height;
- Build-to lines and frontage minimums are established for buildings on Steeles Avenue;
- Buildings at corners are considered especially important in defining the street, and help to create comfortable pedestrian connections south to the York University Campus;
- Development is structured on a new east-west collector connecting Jane Street to Keele Street and an EA is currently in process; and
- The plan proposes a fine grain of north-south public streets. The location of these street will be determined based on locations of north-south streets south of Steeles Avenue West.

Aerial Image of the Vaughan OPA 620 Lands


Massing models undertake in the completion of the Vaughan OPA 620

3.1 BACKGROUND STUDIES

A number of background studies were prepared by the City, York University and York University's consulting team as part of the research and investigation phase of this process. These background studies provide an overview of issues and opportunities related to land use, urban design, heritage and archaeology, natural heritage, open space, transportation, and site servicing and stormwater management. The reports include analyses of the 1963 and 1988 York University Master Plans, the 1991 City of Toronto Secondary Plan, current campus conditions and planning initiatives in the surrounding neighbourhoods. The reports also describe the key issues to be addressed in the update of the Secondary Plan.

The background studies are:

- Natural Feature Review and Summary, prepared by LGL Ltd (2007);
- Transportation Background Study (City of Toronto, the Planning Partnership and BA Group, 2007);
- Land Use Background Study (City of Toronto and the Planning Partnership, 2007);
- Campus Heritage Background Study (Unterman McPhail, 2007);
- Storm Water Management and Servicing Infrastructure Review (RV Anderson, 2007);
- Phase 1 Archeological Review of the Secondary Plan area (Archeological Services Inc.);
- Natural Heritage and Open Space (City of Toronto, 2007); and
- Community Services and Facilities.

Additional studies, By-laws and documents that have informed the development and testing of options include:

- 1963 York University Campus Master Plan;
- 1988 York University Campus Mater Plan; and
- The draft Airport Hazards By-Law and Mapping

3.2 EXISTING STREET NETWORK

This section describes the characteristics of the existing City of Toronto public streets and York University 'private' streets that are located within or close to the study area. The existing street network is conceptually shown in Figure 4.

3.2.1 City of Toronto Public Streets

Steeles Avenue West is an east-west public street on the north boundary of the study area. According to the City of Toronto Official Plan, it is a Major Street and it has a planned right-of-way width of more than 45 metres. The vehicle travel portion of the right-of-way currently has six traffic lanes and a centre median, interrupted

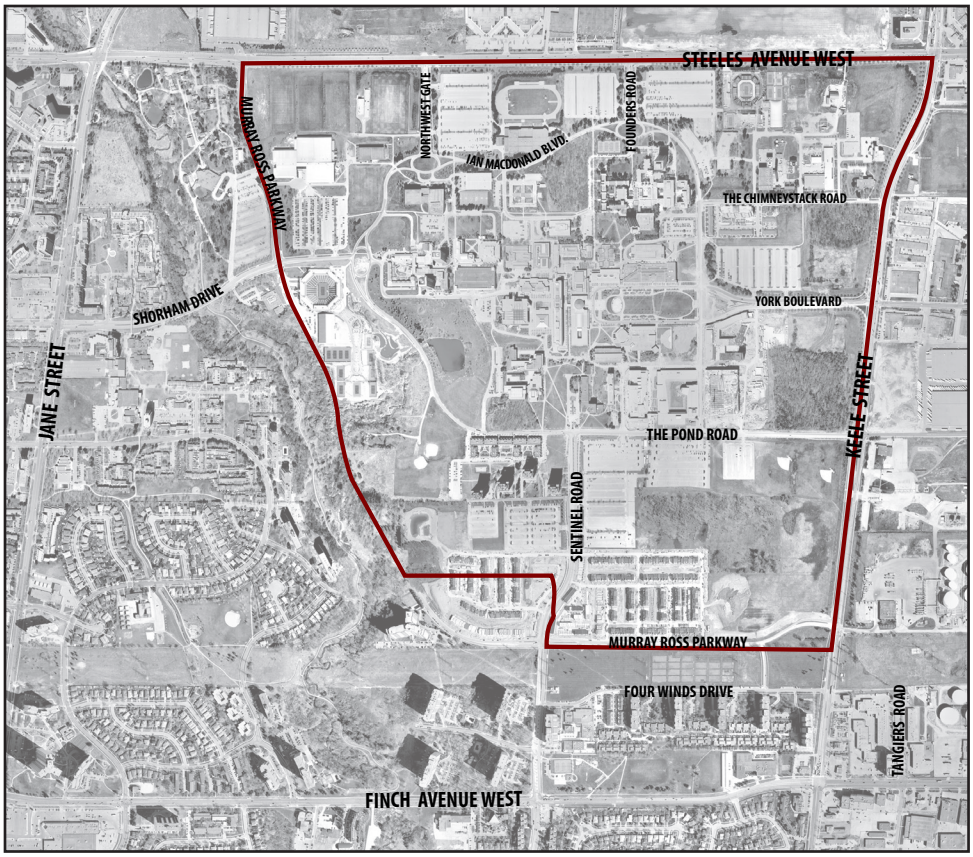


Figure 4: Existing Street Network

with occasional dedicated left turn lanes. There is a continuous boulevard sidewalk on the south side of street, but only short stretches of a boulevard sidewalk on the north side.

Keele Street is a north-south public street on the east boundary of the study area. According to the Official Plan, it is a Major Street and it has a planned right-of-way width of more than 45 metres. Keele Street generally consists of four vehicle travel lanes with additional turn lanes at signalized intersections. There is a generous treed median along the centre of the street and boulevard sidewalks are provided on both sides of the street. There is also a double-row planting of mature street trees along the west side of the street.

Jane Street is a north-south public street under the jurisdiction of the City of Toronto. According to the Official Plan, it is a Major Street and it has a planned right-of-way width of 36 metres. Jane Street generally consists of four vehicle travel lanes with additional turn lanes at signalized intersections. Boulevard sidewalks are provided on both sides of the street.

Finch Avenue West is an east-west public street under the jurisdiction of the City of Toronto. According to the Official Plan, it is a Major Street and it has a planned right-of-way width of 36 metres. The vehicle travel portion of the right-of-way currently has four traffic lanes with some additional turning lanes at signalized intersection. There are boulevard sidewalks on both sides of street.

Tangiers Road is a north-south public street located just east of Keele Street. Tangiers Road is a wide two-lane road that provides access for employment lands north and south of Finch Avenue West. Tangiers Road terminates as a cul-de-sac a block north of Finch Avenue West. The intersection with Finch Avenue West is signalized. Additional turn lanes are provided.

Sentinel Road is a City of Toronto north-south minor arterial road located between Finch Avenue West and The Pond Road. From Finch Avenue West to Murray Ross Parkway, Sentinel Road is four lanes plus a centre median. North of Murray Ross Parkway it comprises 4 lanes only. Bicycle lanes are planned on Sentinel Road between Finch Avenue West and The Pond Road. The intersections with Finch Avenue West, Murray Ross Parkway and The Pond Road are signalized. Additional turn lanes are provided at some locations.

Murray Ross Parkway is a discontinuous collector road under the jurisdiction of the City of Toronto. It is a two-lane road between Keele Street and Sentinel Road. The intersection at Keele Street is signalized. Additional turn lanes are provided. Murray Ross Parkway is a four-lane road to the west of Sentinel Road. Murray Ross Parkway terminates at the Black Creek which resumes at Shoreham Drive and Steeles Avenue West. The intersections with Shoreham Drive and Steeles Avenue West are signalized. Additional turn lanes are provided at some locations.

Shoreham Drive is a four-lane roadway under the jurisdiction of the City of Toronto. It runs east-west, from The Pond Road to west of Jane Street. The intersection with Jane Street is signalized. Additional turn lanes are provided. The Pond Road is a two-lane collector road. The Pond Road runs east-west along the southern limit of the campus core. West of Sentinel Road, The Pond Road gradually turns north to terminate at Shoreham Drive. It becomes Ian McDonald Boulevard north of the signalized intersection with Shoreham Drive. East of Sentinel Road and west of Keele Street, The Pond Road intersects with Nelson Road, Atkinson Road, Seneca Lane, Ian McDonald Boulevard and James Gilles Road. All these roads are private roads providing access to various campus facilities within the core of the University. The Pond Road intersects Keele Street at a signalized intersection. Additional turn lanes are provided.

Four Winds Drive is a City of Toronto two-lane road running in the east-west direction from Keele Street to Sentinel Road. The intersection with Keele Street is unsignalized.

3.2.2 York University Streets

North West Gate is located along the northern boundary of York University. North West Gate and Founder's Road run north-south and consist of four travel lanes with a centre median. In the southbound direction, the roads narrow to one travel lane as they approach Ian McDonald Boulevard. The existing intersections with Ian MacDonald Boulevard are designed as roundabouts. The intersection of North West Gate with Steeles Avenue West is unsignalized. The intersection of Founder's Road with Steeles Avenue West is signalized. Additional turn lanes are provided.

Founder's Road is located along the northern boundary of York University. North West Gate and Founder's Road run north-south and consist of four travel lanes with a centre median. In the southbound direction, the roads narrow to one travel lane as they approach Ian McDonald Boulevard. The existing intersections with Ian MacDonald Boulevard are designed as roundabouts. The intersection of North West Gate with Steeles Avenue West is unsignalized. The intersection of Founder's Road with Steeles Avenue West is signalized. Additional turn lanes are provided.

York Boulevard is a four-lane private road with a centre median. West of Ian McDonald Boulevard, York Boulevard splits into one-way loops to frame the campus common and is restricted to transit buses only. The north section of the loop is one-way in the westbound direction and the south section of the loop is restricted to eastbound travel. The intersection with Keele Street is signalized. Additional turn lanes are provided.

The Pond Road is a two-lane collector road. The Pond Road runs east-west along the southern limit of the campus core. West of Sentinel Road, The Pond Road gradually turns north to terminate at Shoreham Drive. It becomes Ian McDonald Boulevard north of the signalized intersection with Shoreham Drive. East of Sentinel Road and west of Keele Street, The Pond Road intersects with Nelson Road, Atkinson Road, Seneca Lane, Ian McDonald Boulevard and James Gilles Road. All these roads are private roads providing access to various campus facilities within the core of the University. The Pond Road intersects Keele Street at a signalized intersection. Additional turn lanes are provided.

Ian McDonald Boulevard is part of a private road network throughout the campus core of the University. Ian McDonald Boulevard intersects Shoreham Drive at a signalized intersection.

Chimneystack Road runs in an east-west direction from Keele Street to Ian McDonald Boulevard. The intersection with Keele Street is unsignalized.

3.3 HERITAGE AND ARCHAEOLOGY

The study area has many heritage and archeological resources as shown in Figure 5. Many of these assets precede the creation of the University itself and are essential in providing important cultural context for the study area. Recognizing and incorporating the heritage and archaeological resources within the area will provide a framework for future development and will assist in connecting the new neighbourhoods to the surrounding communities and the University. Opportunities to conserve these resources should be considered a priority.

More detailed reviews of the existing heritage and archaeological resources have been completed and are found in the Land Use Background Study prepared by the City of Toronto and the Planning Partnership, and in the Stage 1 Archaeological Assessment prepared Archaeological Services Inc. and the Campus Heritage Background Study prepared by Unterman McPhail Associates.

3.3.1 ARCHAEOLOGY

The Stage 1 Archaeological Assessment determined that four archaeological sites had been registered within the study area and that eleven more were registered within a two kilometre radius of the study area. The archaeological sites registered within the campus have been appropriately investigated and have been cleared of archaeological concern.

A review of the general physiography of the study area and local nineteenth century land uses suggest that the study area encompasses areas that would generally be considered to exhibit potential for the presence of precontact and Euro-Canadian archaeological resources in areas that have not been disturbed by recent land uses.

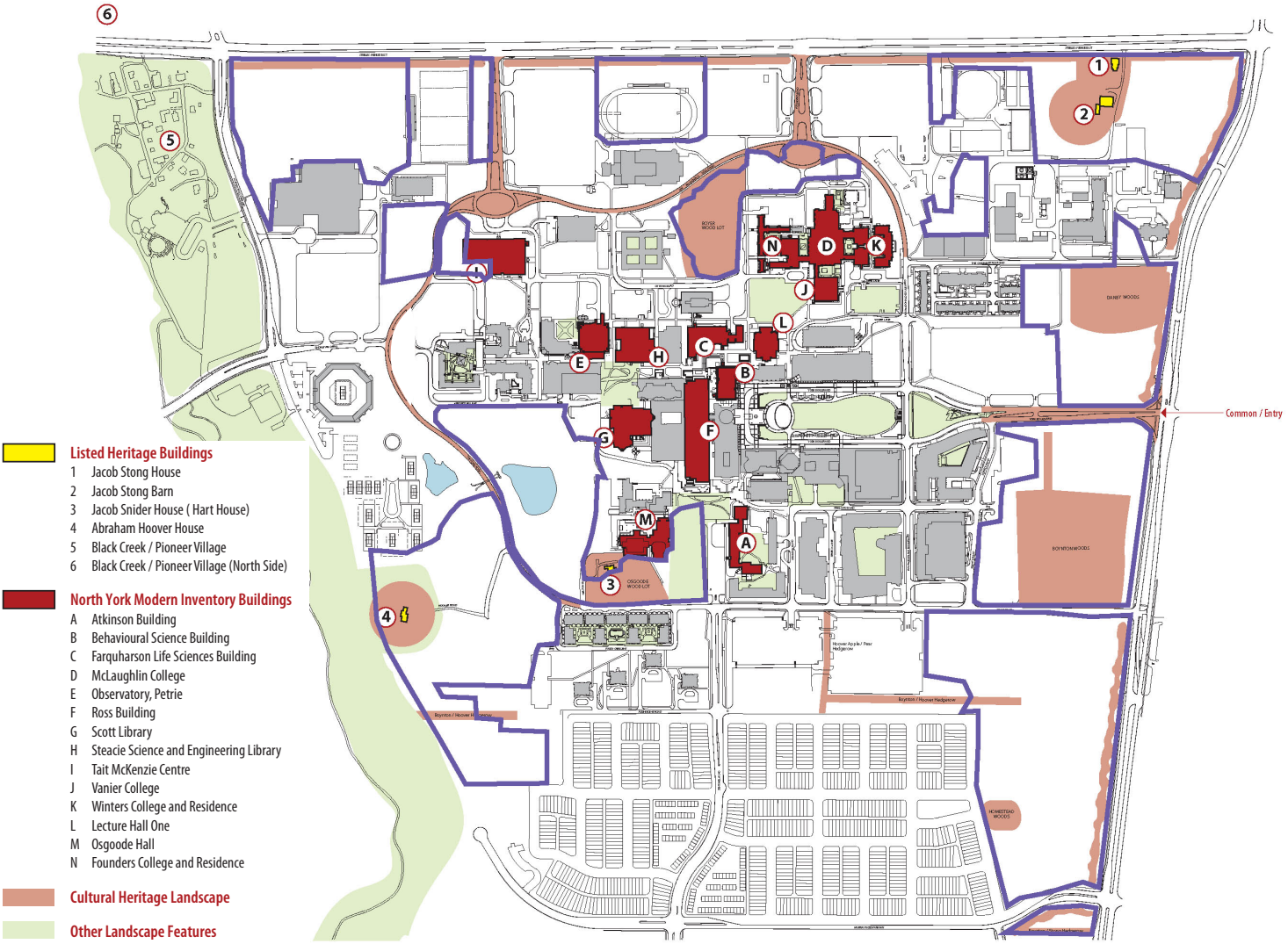


Figure 5: Existing heritage and archaeological resources

3.3.2 HERITAGE

The study area has a number of important heritage resources, including buildings of architectural and/or historic interest and cultural heritage landscapes. The area resources include nineteenth century heritage buildings and associated cultural heritage landscapes such as hedgerows. More contemporary heritage resources include the original surviving elements of the 1963 Master Plan, such as the ring road. Some of the modern buildings within the Academic Precincts also exhibit architectural interest. The heritage resources include:

Pre-university

The area that made up the original York University campus was cleared and settled by four families on farm lots that ran from Keele Street to Jane Street. Of the original farmhouses built in the study area, the Stong House and Barn and the Hoover House remain. The Jacob Snider House (now called the Hart House) is a circa 1830 log cabin. It was moved to the Osgoode woodlot on the campus from a nearby farmstead.

In addition to the farmhouses, other vestiges of the agricultural landscape remain and include:

- The Danby and Boynton woodlots;
- The Osgoode and Saywell woodlots;
- Residual tree lines and drives; and
- The York Pond on the east side of the former Boynton Woodlot.

1963 Master Plan

The University campus has been identified as a cultural heritage landscape. Further refinement and definition of the features will be undertaken when the Unviersity updates it's Master Plan. Features that have been identified include the ring road and gateway entrances, the allees of trees on Steeles Avenue and Keele Street which reflect the 1960's landscape plan, views from Keele Street to the Ross Building are likely part of the original design intent and the Campus Walk area and Colleges also show good design and combinations of built and open spaces.

Modern Buildings and Landscapes

The York University campus contains 14 buildings that have been recorded on an inventory of North York's Modernist Architecture, prepared in 1997 by the former City of North York Planning Department. Covering projects completed between 1945 and 1981, the Modernist inventory identified about 160 buildings, 20 of which were added to North York's heritage inventory. The modern buildings on the North York Modern Inventory are:

- Atkinson College (1966);
- Behavioural Sciences Building (1966);
- Farquarson Life Sciences Building (1970);
- Founders College (1965);

- Lecture Hall One (1966) -(note confirm whether this is Stedman or Curtis);
- McLaughlin College (1969);
- Osgoode Hall Law School (1968);
- Petrie Sciences (1968);
- Ross Building (1970);
- Scott Library (1970);
- Staecie Science Library (1966);
- Tait McKenzie Physical Education (1966);
- Vanier College (1967); and
- Winter's College (1967).

3.4 NATURAL HERITAGE AND OPEN SPACES

The existing natural heritage system in the study area comprises four core woodlots (Boynton, Boyer, Danby and Osgoode Woodlots), the Black Creek and Hoover Creek valley corridor and several cultural meadows and meadow marshes. Hedgerows, tree canopies and green roofs/walls also contribute to the York University natural heritage system. Currently the Secondary Plan area has approximately 8 percent canopy coverage.

More detailed reviews of the existing natural heritage system within the study area has been prepared by LGL Ltd.

Black Creek/Hoover Creek Valleylands:

The Black Creek watershed is the smallest of the five sub watersheds of the Humber River. The Black Creek Valley is considered one of the most significant natural landscape features on and adjacent to the campus. A variety of natural habitats can be found here, including wildflower meadows, the Hoover and Black Creeks, wooded areas, successional fields, hedgerows and homestead plantings.

A portion of Hoover Creek, a tributary of Black Creek originating on campus, is being restored as part of the development of the Rexall Centre using natural channel design. A stormwater management pond was constructed to improve the water quality and reduce downstream erosion resulting from development.
Two areas within the Black Creek Valley system are large enough to contain forest interior providing sheltered habitat for species of concern, in particular, avian species that have specialized nesting requirements. Species of concern were noted in the Black Creek Valley near York University, by the TRCA, in a 2001 natural heritage inventory.

Woodlots

- Four woodlots are formally recognized in the study area and are:
- Boynton Woods located in the northwest quadrant of the Keele Street/The Pond Road intersection;
- Danby Woods, located in the southwest quadrant of The Chimneystack Road/ Keele Street intersection;

- Boyer Woodlot which is surrounded by Ian MacDonald Boulevard and Ottawa Road; and
- Osgoode Woodlot located on the north side of The Pond Road, west of Sentinel Road.

A fifth woodlot, Saywell Woods, located west of The Pond Road along Hoover Creek is recognized as an extension of the Black Creek Valley. These remnant woodlots pre-date development of the campus.

Under existing conditions the woodlots are relatively static and stable as there has not been a lot of change in their vicinity for a few years. The Osgoode woodlot is currently the only feature that has a building adjacent to it. The placement of new buildings or roads close to woodlots will result in local micro-climate changes.

Boynton Woods is the largest intact woodlot on campus, with an approximate area of 5.1 ha. The diversity and habitat structure of the woodlot was found to be threatened by drainage alterations, invasion by exotic species and other development related effects. Danby Woods has an approximate area of 2.6 ha. Boyer Woods and Osgoode Woods have approximate areas of 2.2 ha and 0.86 ha, respectively. Maintenance of these woodlots is low to none, with minor interventions to maintain or enhance ecological function.

Fish Habitat

There are five principle fish habitats in the study area. They are:

- Black Creek along the west boundary of York University is classified as intermediate riverine warmwater fish habitat by TRCA, which targets darter species (Humber River Fisheries Management Plan 1998). A total of 18 fish species have been recorded from Black Creek historically, 16 of which are considered native.

- Hoover Creek originates at Stong Pond and flows westerly to Black Creek. The channel has been heavily modified in the east section with concrete spillways, concrete channels and steep vertical drops. Downstream of The Pond Road, the channel becomes more naturalized, but subject to severe erosion. Hoover Creek is classified as small riverine warmwater fish habitat by TRCA.
- Stong Pond is located east of The Pond Road between Nelson Road and Arboretum Lane. This open, constructed pond has a surface area of 0.71 ha and functions as a stormwater management facility. The pond and surrounding lands serve as parklands, with manicured lawns comprising approximately 80 % of shoreline areas and planted willows comprising the remainder.

  The University is currently enhancing this pond to provide stormwater quality and quantity control, and has the capacity to create two additional stormwater management facilities in the Arboretum Complex area.

- A small pond is located approximately 130 metres west of Keele Street between Murray Ross Parkway and The Pond Road. This shallow pond, which

dries out completely during the summer, is heavily congested with cattails and reed canary grass and does not support fish. However, the pond does support a population of Digger Crayfish and is considered fish habitat and subject to the requirements of the Fisheries Act.

Cultural Meadows/Thickets and Meadow Marshes

There are four major cultural meadows located on campus. Cultural meadows typically consist of grass and forb species that are regenerating following disturbance by humans. Two cultural meadows are located at the entrance to York University; one in the northwest quadrant; and one in the southwest quadrant of the Keele Street/York Boulevard intersection. Another cultural meadow is located in the vicinity of the York University Pond between Murray Ross Parkway and The Pond Road. Remnants of the fourth cultural meadow are located west of The Pond Road across from the Arboretum and Stong Pond. Most of this cultural meadow was removed to develop the Rexall Tennis Centre.

3.5 EVALUATION OF EXISTING CONDITIONS AND OPPORTUNITIES BY AREA

15 development areas have been identified for non-university uses. These development areas are illustrated on Figure 6. In order to better understand the potential development lands, a summary of the development areas' characteristics, their potential land use issues and key opportunities and constraints were identified.

Area A:

- Area A is bounded by Murray Ross Parkway to the north and Keele Street to the east and is 0.64 hectares in size;
- It is currently a vacant piece of land with mature trees;
- It is a small block adjacent to potential future development lands across Murray Ross Parkway and existing apartment buildings along Four Winds Drive (on the opposite side of the Hydro Corridor);
- There is a corner connection to the low-rise residential neighbourhood currently under construction;
- The area is located within a 500 metre radius of the a proposed Finch West subway station;
- The area could be a potential site for a stormwater management pond. The pond would serve to cut off the development sites to the north with the proposed subway station to the south;
- The area has been identified as having potential archeological significance; and
- A new north-south natural features corridor could connect this area to the hydro corridor to the south.

Area B1:

- Area B1 is bounded by Keele Street to the east and Murray Ross Parkway to the south and is 7.36 hectares in size;
- The area is adjacent to potential future development lands across Murray Ross Parkway and to the north as well as the low-rise residential neighbourhood

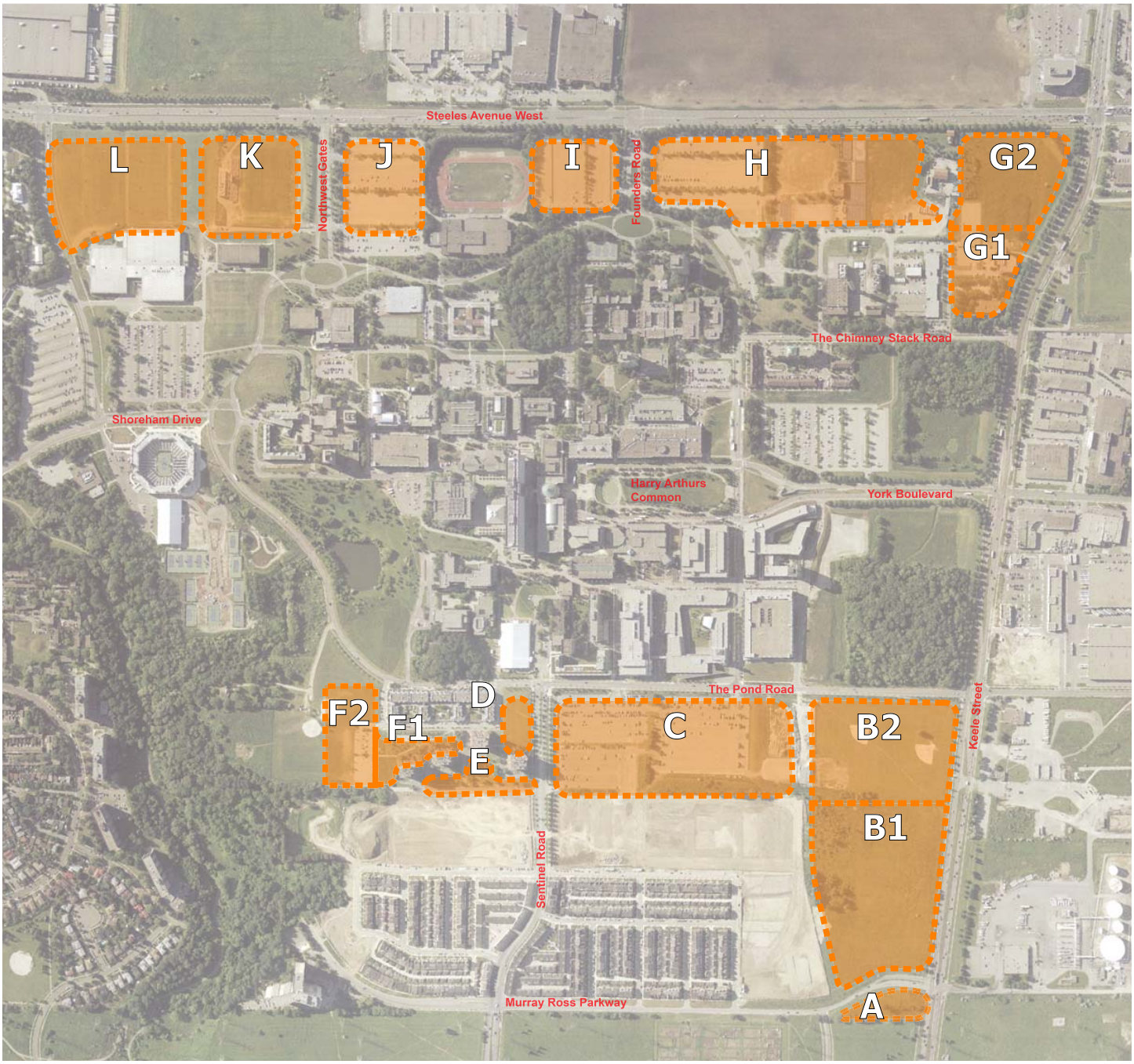
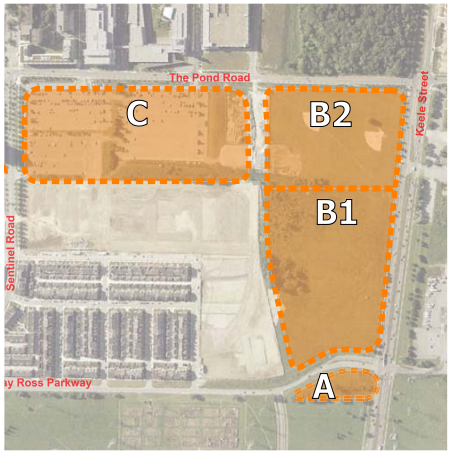


Figure 6: Non-university development areas

currently under construction to the west;
- The area is partially located within a 500 metre radius of two proposed subway stations;
- The land is presently vacant with a small woodlot on the western edge of the area and an existing naturalized pond (due to water runoff from the adjacent parking lots) that has a chimneystack crayfish population located within an existing wetland. The crayfish could be subject to the *Fisheries Act* and would require further study;
- The area could contain the most favourable site for a new primary school. A school community facility and associated open space could act as a buffer for larger development along Keele Street and low-rise residential to the west;
- Area B1 has been identified as having potential archeological significance; and
- A new north-south natural features corridor may be needed to provide connection from the woodlots to the north to the hydro corridor to the south.



Portion of study area showing areas A, B1 and B2


Intersection of Murray Ross Parkway and Keele Street


View looking south across B1, B2 and A towards Murray Ross Parkway from The Pond Road

Area B2:

- Area B2 is bounded by The Pond Road to the north and Keele Street to the east and is 5.03 hectares;
- The area is adjacent to potential future development lands to the south and west;
- There is a corner connection across The Pond Road to the campus and southwest to the low-rise residential neighbourhood currently under construction. This could be a potential gateway site to the campus;
- The area is located within a 500 - 700 metre radius of a proposed subway station;
- There are two existing baseball diamonds;
- There is a view of the Boynton Woodlot to the north;
- The area has been identified as having potential archeological significance; and
- A new north-south natural features corridor may be needed to provide connection from the woodlots to the north to the hydro corridor to the south.

Area C:

- Area C is bounded by The Pond Road to the north and Sentinel Road to the west and is 8.09 hectares in size;
- The area is adjacent to the campus to the north across The Pond Road, potential development site to the east, the low-rise residential neighbourhood currently under construction to the south and potential future development lands as well as graduate housing to the west across Sentinel Road;
- It is partially located within a 500 metre radius of a proposed subway station;
- The site is comprised of various parking lots with a remnant hedge on the southern edge;
- Concern has been raised by local resident about impacts on the surrounding community with the elimination of parking lots;
- This area is a key transitional piece of land that would connect the residential community with the University. New midblock connections should be established to facilitate an interconnected pedestrian and cycling network between the campus core development south of The Pond Road;
- The intersection of Sentinel Road and The Pond Road could be established as

a gateway to the campus, with street oriented development framing both the east and west corner; and
- A portion of the area has been identified as having potential archeological significance.

Area D:

- Area D is bounded by The Pond Road to the north and Sentinel Road to the east and is 0.57 hectares in size;
- The area is adjacent to the core Campus to the north across The Pond Road, potential future development lands to the east across Sentinel Road and graduate housing to the south and west;
- The area is within a 1000 metre radius of a proposed subway station;
- The site is currently vacant; and
- Street oriented development along The Pond Road and Sentinel Road would help to improve the pedestrian realm of the area.

Area E:

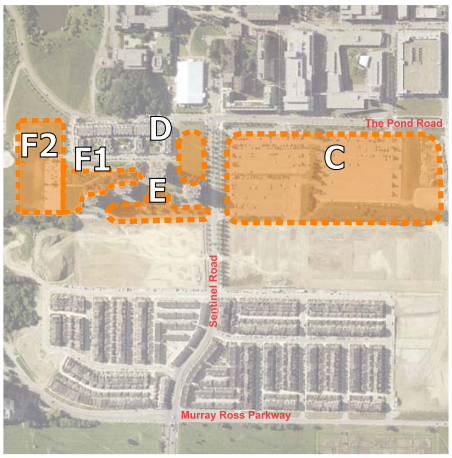
- Area E is bounded by Sentinel Road to the east and Assiniboine Road to the south and is 0.86 hectares in size;
- The area is surrounded by existing graduate housing;
- The area is located within a 1000 metre radius of a proposed subway station;
- The area is vacant with mature trees;
- The size and location of the area between the graduate housing is a potential constraint for development; and
- There are opportunities to use new development to pedestrianize the grade conditions surrounding the existing buildings.

Area F1:

- Area F1 is bounded by Passy Crescent to the north and Assiniboine Road to the south and is 0.63 hectares in size;
- The area is surrounded by graduate housing to the north, east and south and new development to the west;
- The area falls within a 1000 metre radius of a proposed subway station;
- This site is vacant with the exception of some mature trees that may need to be retained; and
- The area is constrained due to the existing development, including the size of the area and because the area is located between graduate housing.

Area F2:

- Area F2 is bounded by The Pond Road to the north, Nelson Road to the east and Hoover Road to the west and is 1.79 hectares in size;
- It is adjacent to the campus to the north across The Pond Road as well as graduate housing and potential future development lands to the east;
- The area is located partially within a 1000 metre radius of a proposed subway station;
- There is a view of the Saywell Woodlot to the northwest and the Osgoode Woodlot and Stong Pond to the north;

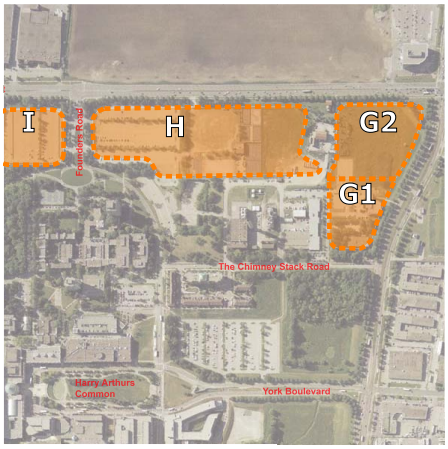


Portion of study area showing areas C, D, E, F1 and F2


View looking west along The Pond Road towards Sentinel Road


View looking north along Sentinel Road towards The Pond Road


View looking south towards the Assiniboine Apartments from the Stong Pond



Portion of study area showing areas G1, G2 and H


View looking west from Keele Street towards the Stong House and Barn


View looking east along Chimneystack Road towards the Harry Sherman Crowe Co-op


View looking southwest from the Stong Barn to the Main Campus

- Current uses include a parking lot and baseball diamonds;
- The potential development site is constrained due to adjacent natural areas and potential stormwater management requirements; and
- A portion of the area has been identified as having potential archeological significance.

Area G1:

- Area G1 is bounded by Keele Street to the east and Chimneystack Road to the south and is 2.34 hectares in size;
- The area is adjacent to potential future development lands to the north and campus facilities to the west;
- It is located within a 1000 metre radius of a proposed subway station;
- There is a view of Danby Woodlot to the south; and
- The Computer Methods Building and the Kinsmen Building currently occupy the site.

Area G2:

- Area G2 is bounded by Steeles Avenue to the north and Keele Street to the east and is 3.84 hectares;
- It is adjacent to potential future development lands to the south and two listed heritage buildings, the Stong House and Barn, to the west as well as Vaughan OPA 620 lands north of Steeles Avenue;
- The area is within an 1000 metre radius of a proposed subway station;
- The site is currently empty with the exception of some mature trees; and
- A portion of the area has been identified as having potential archeological significance.

Area H:

- Area H is bounded by Steeles Avenue to the north and Founders Road to the west and is 9.44 hectares;
- Adjacent to the campus south and potential future development lands across Founders Road and across from the Vaughn OPA 620 lands north of Steeles Avenue West;
- The area is within a 1000 metre radius of a proposed subway station;
- The area is located to the west of the existing heritage Stong House and Barn;
- The area currently has the YUDC office buildings, tennis courts and student/staff parking; and
- A portion of the area has been identified as having potential archeological significance.

Area I:

- Area I is bounded by Steeles Avenue to the north, Founders Road to the east and Ian McDonald Boulevard to the south and is 2.48 hectares;
- The area is adjacent to potential future development lands across Founders Road, the campus to the south, university facilities to the west and Vaughan OPA 620 lands north of Steeles Avenue;
- It is within a 1000 metre radius of a proposed subway station;

- The site is currently used for parking; and
- For development to occur the status of the woodlots on the northern side of Ian McDonald Boulevard will have to be determined as well as its relationship to the woodlot directly to the south.

Area J:

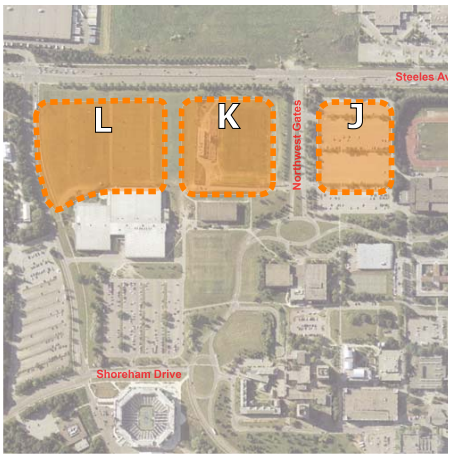
- This area is Bounded by Steeles Avenue to the north and Northwest Gate to the west and is 4.06 hectares in size;
- The area is adjacent to potential future development lands across Northwest Gate, the campus to the south and university facilities to the east as well as the Vaughan OPA 620 lands north of Steeles Avenue;
- It is within a 500 metre radius of a proposed subway station;
- The area is currently being considered for a TTC bus terminal on the parcel north of Ian McDonald Boulevard; and
- The site is currently used for parking.

Area K:

- Area K is bounded by Steeles Avenue to the north and Northwest Gate to the east and is 3.92 hectares;
- It is adjacent to potential future development lands west and east across Northwest Gate, campus lands to the south as well as Vaughan OPA 620 lands north of Steeles Avenue;
- It is within a 500 metre radius of a proposed subway station;
- This site is currently used as the home field for the York Lions Football team and is the location of York Stadium; and
- A portion of the area has been identified as having potential archeological significance.

Area L:

- Area L is bounded by Steeles Avenue to the north and Murray Ross Parkway to the west and is 4.73 hectares;
- It is adjacent to Black Creek Pioneer Village to the west, university facilities (the Ice Gardens) to the south and Vaughan OPA 620 lands north of Steeles Avenue;
- There is an existing employment use on the north side of Steeles Avenue (UPS) which is assumed to remain in the long-term;
- There is a corner connection to the campus;
- The entire area is located within a 1000 metre radius from the subway station;
- There are views of natural space and Black Creek Pioneer Village to the west; and
- The area has been identified as having potential archeological significance.



Portion of study area showing areas J, K and L


View looking south along the sidewalk at Northwest Gate


View looking south east towards Northwest Gate and the campus beyond


View of York Stadium

4.1 INTRODUCTION

The City, in co-operation with York University, identified and developed four options for the purposes of testing in Phase 1. All of the options illustrated existing buildings that will remain in the long-term such as the Track and Field Centre and the Physical Plant. The options also highlighted the existing heritage resources and natural heritage features. These options were presented to the public at the June 14, 2007 community consultation meeting. The four options are shown on page 3 were:

Option 1 - Existing Conditions:

This option outlined the existing conditions of study area and the existing public street network as built.

Option 2 - Existing Secondary Plan:

This option summarized the land use designations and roads plan of the 1991 York University Secondary Plan.

Option 3 - Horseshoe Ring Road:

This option proposed a possible public primary street network premised on using existing public and private street infrastructure. The secondary street network perpendicular to Steeles Avenue provided a fine grain network of linkages to Steeles Avenue from potential development areas, as well as fine grain network south of The Pond Road. This option identified a potential revised Academic Core and development parcels.

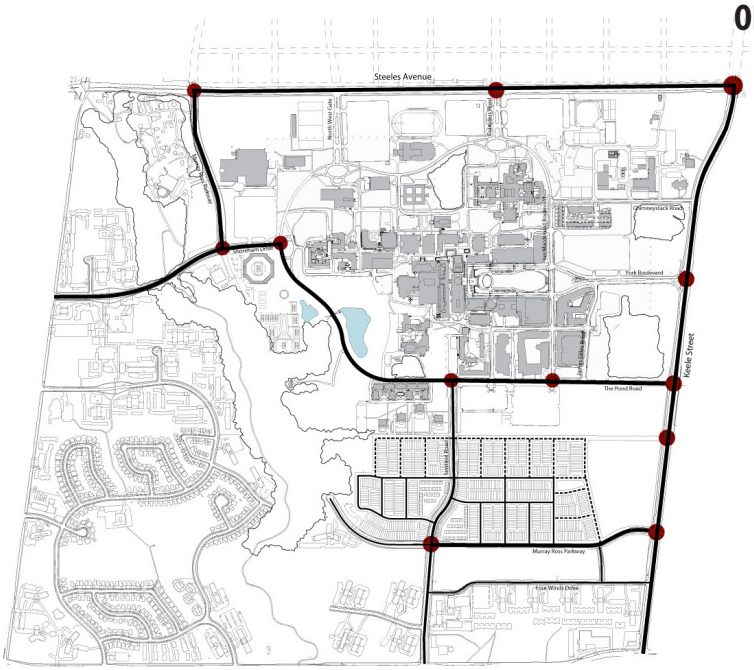
Option 4 - Horseshoe Ring Road with a North-South Link:

This option also outlined a possible public street network. The main difference between this option and option 3 was a north-south primary street linking The Chimneystack Road and The Pond Road. The secondary street network also varied from Option 3. The secondary streets in this option extended from Steeles Avenue to connect to the proposed public collector street along Ian MacDonald Boulevard and The Chimneystack Road. This option also identified a fine grain network of secondary streets south of The Pond Road. This option identified a possible Academic Core and development parcels premised on the notion that the central university within the ring road comprised the Academic Core.

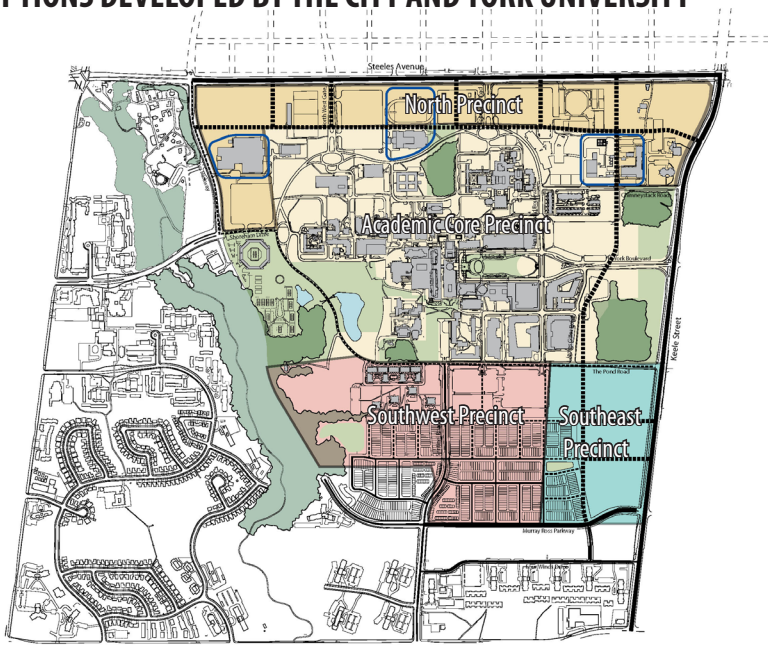
It was the primary task of the consulting team to refine and test these options, review and develop a concept plan for built form and block layout and develop a preferred option. The key criteria that needed to be addressed included:

- appropriateness and integration with surrounding development or proposed development;
- development yields comparison;
- appropriateness of the parks and open spaces network;
- environmental sustainability;
- community services and facilities;

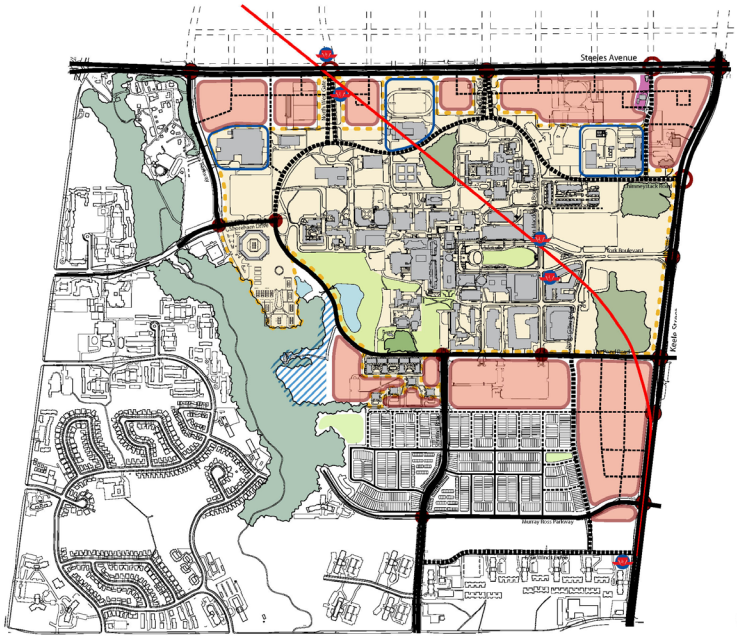
OPTIONS DEVELOPED BY THE CITY AND YORK UNIVERSITY



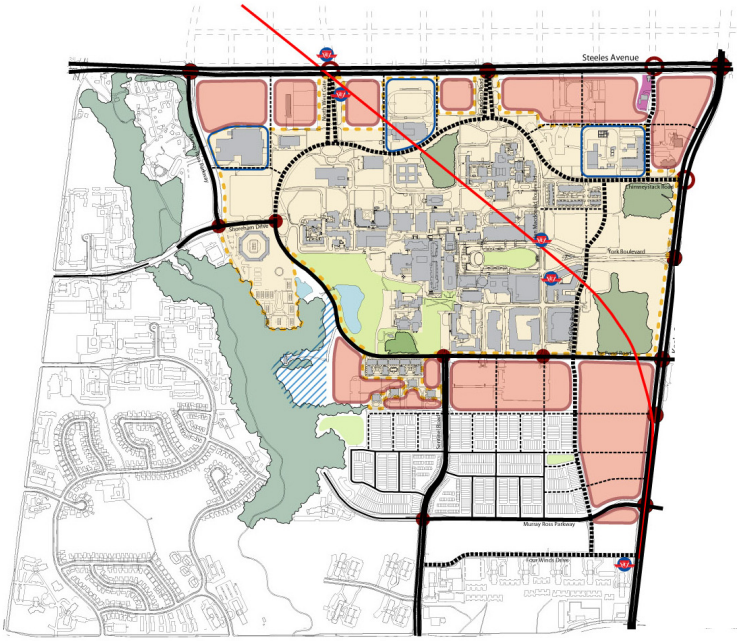
Option 1



Option 2



Option 3



Option 4

LEGEND

- existing collector road
- proposed collector road
- existing local road
- proposed local road
- proposed subway alignment
- proposed subway entrance
- traffic signals
- new traffic signals
- facilities that will remain in the long term
- public open space
- natural features
- lands for possible non academic use
- heritage
- natural heritage open space to be evaluated

- relationship to future development north of Steeles Avenue (OPA 620);
- support of transit initiatives; and
- capacity of the public street networks, servicing and stormwater management facilities.

4.1.1 PROCESS

The process for refining and testing the options and developing the concept plan included:

- An analysis of the heights, densities and site coverages of existing buildings and recent developments within the study area, which involved gathering background information on a sample of existing buildings, including building square footages, parcel sizes and determining their resulting density;
- Establishing possible site coverages;
- Applying a density allocation to the potential development areas that would provide transit-supportive densities;
- Determining possible building heights;
- Determining a plausible land use mix within the development areas that would represent an appropriate mix of uses for a transit-supportive community;
- Establishing assumptions to determine the resulting population generated from the proposed densities, land uses and building heights. The land uses and population in turn enabled the transportation, servicing and stormwater management testing; and
- Developing 3D modeling to demonstrate the resulting built form and block layout.

The testing process also required:

- Confirming the heritage and archaeological resources that are to be conserved;
- Identifying the natural heritage features that are to be protected, restored and enhanced;
- Identifying sites ideal for possible parks and community services and facilities.

4.2 LAND USE, DENSITY AND BUILDING HEIGHTS

A good new compact community should have a mix of land uses, density, built form and a range of building heights to encourage the use of alternative modes of transportation such as walking, cycling and transit and to provide a high-quality built form. The testing of land uses, density and building heights focused on creating new mixed-use communities that would protect and enhance the campus, support growth and affect positive change throughout the entire community.

Land uses, densities and height testing has only been applied to the lands identified for non-academic growth for the purposes of this study. The University differs from the sites identified for non-academic development and as such the same tests

would not be applicable to the University. The University's academic lands will continue to be protected over the long-term for university uses. The University is a unique destination, whereby 50,000 students and 7,500 staff and faculty frequent the University on a daily basis during the school year. As a result, using a density measurement would not be an effective means to guide academic development. The City has indicated that it will be using different standards to ensure high-quality development for the University. These standards will be established when the University updates its Master Plan.

To test land use, densities and height several key assumptions were adhered to throughout the process. These assumptions are:

- Target growth or higher density areas around subway stations;
- 5 per cent for parkland dedication was applied uniformly to all potential development areas. The parkland dedication for future development will have to conform to the City's policies and By-laws;
- Natural heritage features are to be protected;
- The Draft Downsview Airport Height Constraints dictated the maximum allowable heights for any development within the Secondary Plan area;
- Lands for future community services will be required within the Secondary Plan area. Some lands would need to be allocated to community services and facilities for the purpose of testing. The City is undertaking a review to fully assess the community service and facility needs for the study area. This review will inform the updated Secondary Plan; and
- Maximize opportunities for through block conditions, open space connections and connections to the existing campus pedestrian network.

4.2.1 LOT COVERAGE AND BUILT FORM

Lot coverage provided the tool to translate heights and densities into an appropriate built form for the study area that are complete with amenity areas and open spaces. In order to determine lot coverage and the resulting built form, four sites within the study area were examined to establish a consistent and appropriate range for site coverage and density and to maintain the existing character of the study area. The sites are identified on Figure 7 and are:

- Founders College and Residence, Vanier College and Winters College and Residence complex which consists of modern heritage courtyard buildings. The complex of colleges and residences have a 32.4 per cent gross coverage and a 2.75 FSI;
- The Schulich Building is a new courtyard building with a low-base building and an eleven-storey storey point tower with a 43.4 per cent net coverage and a 4 FSI;
- Seneca @ York is a low-rise courtyard building with a 48.6 per cent net coverage and 3 FSI; and
- The low-rise residential neighbourhood south of the campus is a lane-based, low-density housing development with a 42 per cent gross coverage. The

subdivision was designed to reflect new urbanist principles and includes laneways with secondary suites over garages. The subdivision does not include a town centre or a commercial retail strip as would typically be found within a new urbanist community.

Low-density residential housing south of the campus

Courtyard buildings are associated with the historical character of building types found within the University. As such courtyard buildings with low- to mid-rise base buildings and point towers were determined as an appropriate built form for the development areas within the study area for the purposes of testing. These buildings provide an urban street edge and at-grade landscaped amenity areas.

Seneca @ York

A range of lot coverages for the development areas were also investigated, ranging from between 30 per cent and 50 per cent, to determine an appropriate built form for the study area that would be consistent with existing lot coverages within the study area. Using a range of lot coverages would provide variation for the built form within the study area as different lot coverages result in different built form relationships.

Student housing

Schulich School of Business

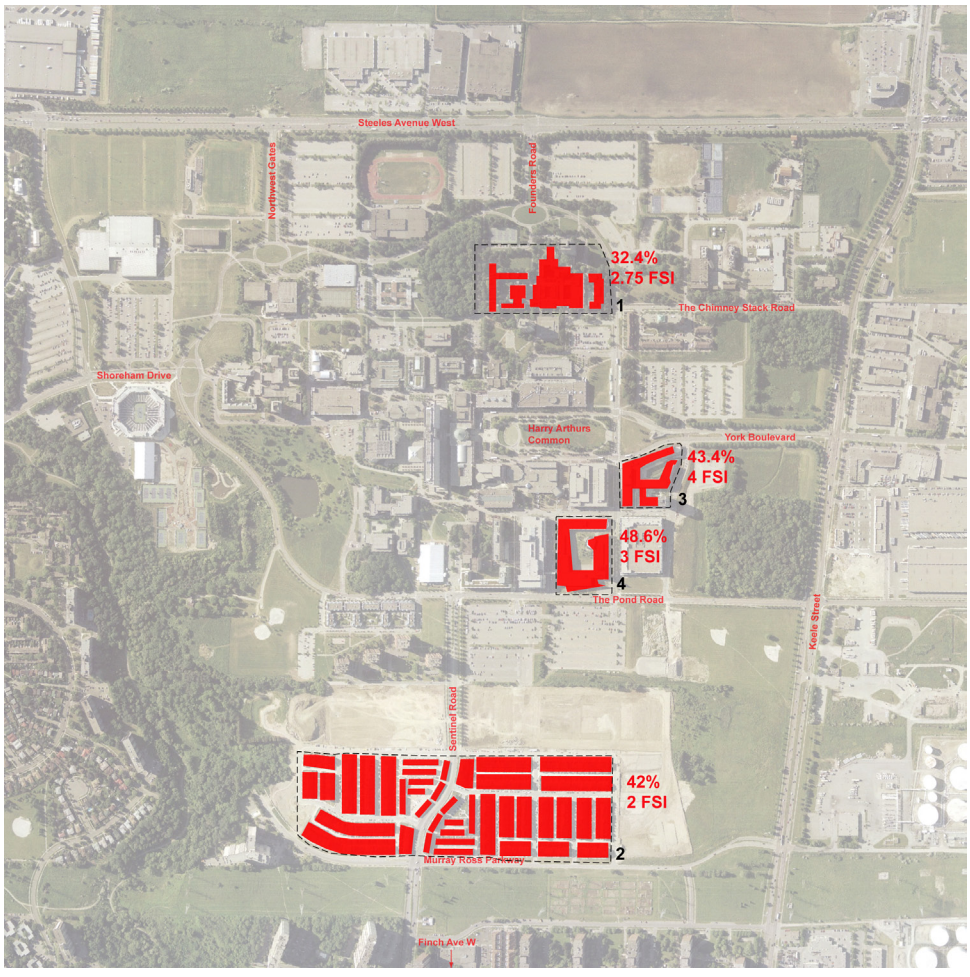
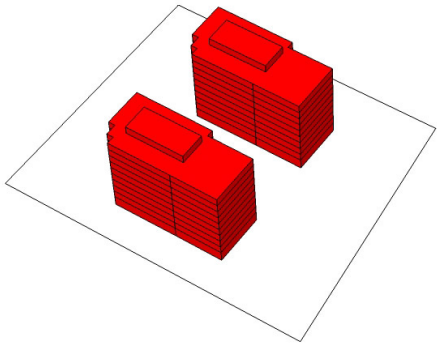
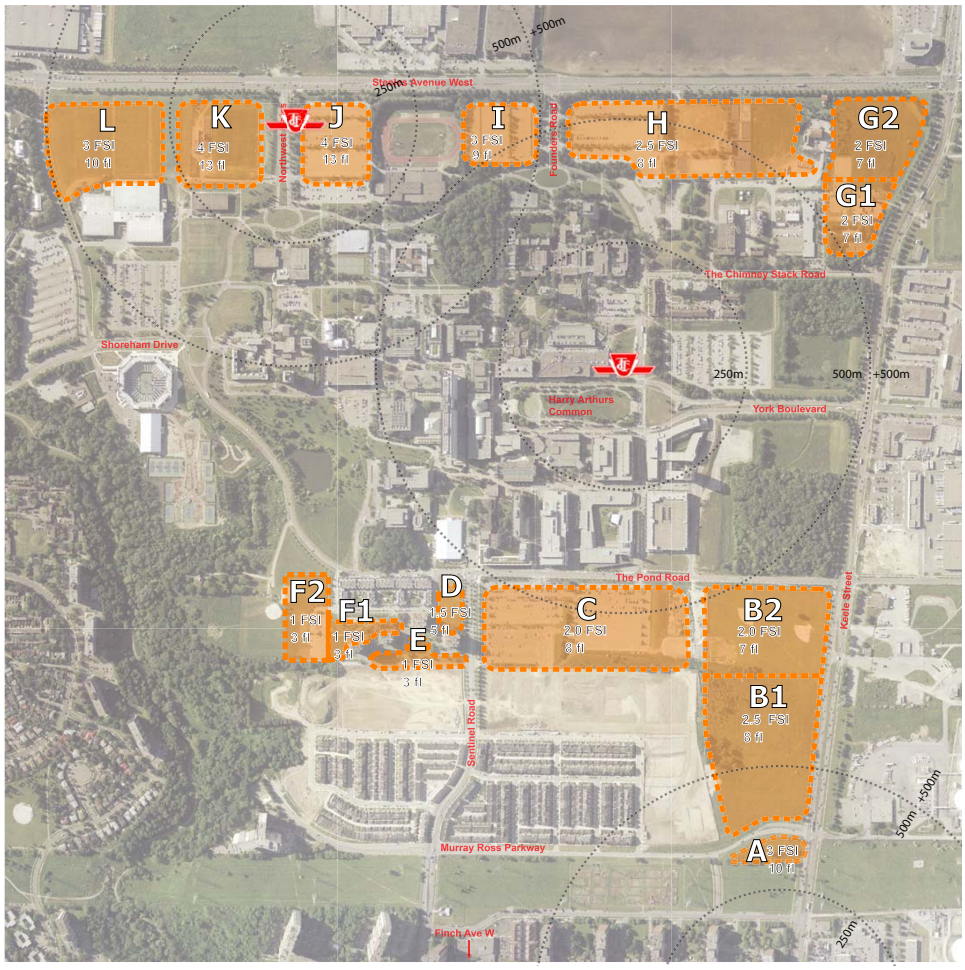


Figure 7: Buildings and areas reviewed for density and lot coverages

30% Coverage

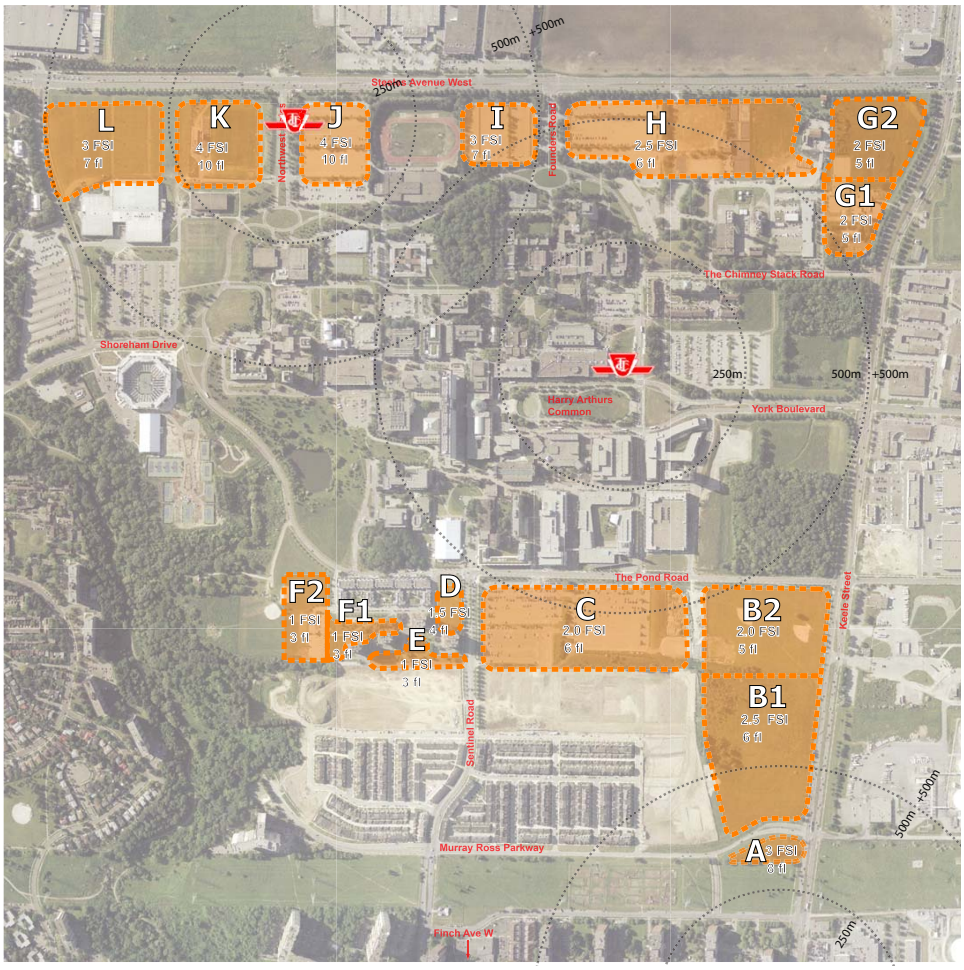
30% coverage can result in taller, more slender buildings with the greatest amount of potential surrounding open space but has the potential to create voids along the streets.





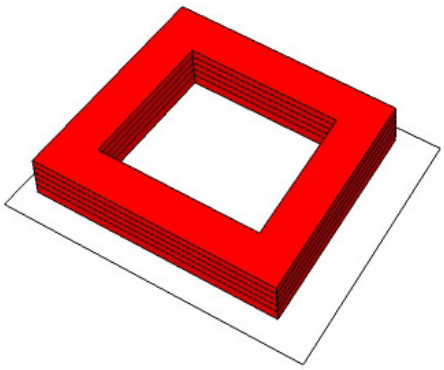
30% Site Coverage

Site	Proposed FSI	Walking Distance to Subway (m)	Block Area (h)	Open Space Area 5% (m^2)	Development Area (m2)	GROSS GFA (m^2)	Building Ground Floor Area (m^2)	Average Building Heights
A	3.0	250-500	0.64	320	6,400	19,200	1,920	10
B1	2.4	250-500+	7.36	3,680	73,600	172,960	22,080	8
B2	2.1	250-500+	5.03	2,515	50,300	103,115	15,090	7
C	2.3	250-500+	8.09	4,045	80,900	182,753	24,270	8
D	1.5	500+	0.57	285	5,700	8,550	1,710	5
E	1.0	500+	0.86	430	8,600	8,600	2,580	3
F1	1.0	500+	0.96	315	9,600	9,600	2,880	3
F2	1.0	500+	1.79	945	17,900	17,900	5,370	3
G1	2.1	250-500+	2.34	1,170	23,400	49,070	7,020	7
G2	2.0	500+	3.84	1,920	38,400	76,800	11,520	7
H	2.3	250-500	9.44	4,720	94,400	221,651	28,320	8
I	2.8	250-500+	2.48	1,240	24,800	70,308	7,440	9
J	4.0	0-500	4.06	2,030	40,600	162,197	12,180	13
K	4.0	0-500	3.92	1,960	39,200	155,271	11,760	13
L	3.0	250-500+	4.73	2,365	47,300	140,055	14,190	10
Total			**56.11**	**27,940**	**561,100**	**1,398,031**	**168,330**	**8.3**



40% Coverage

40% coverage would result in lower building heights with less potential open spaces but provides additional opportunity for street oriented buildings.

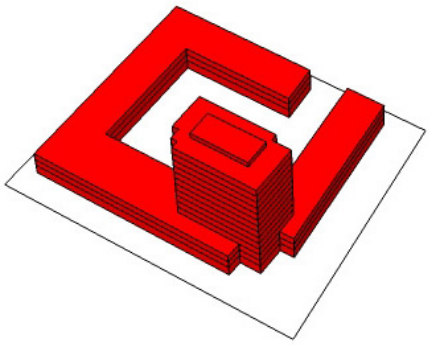


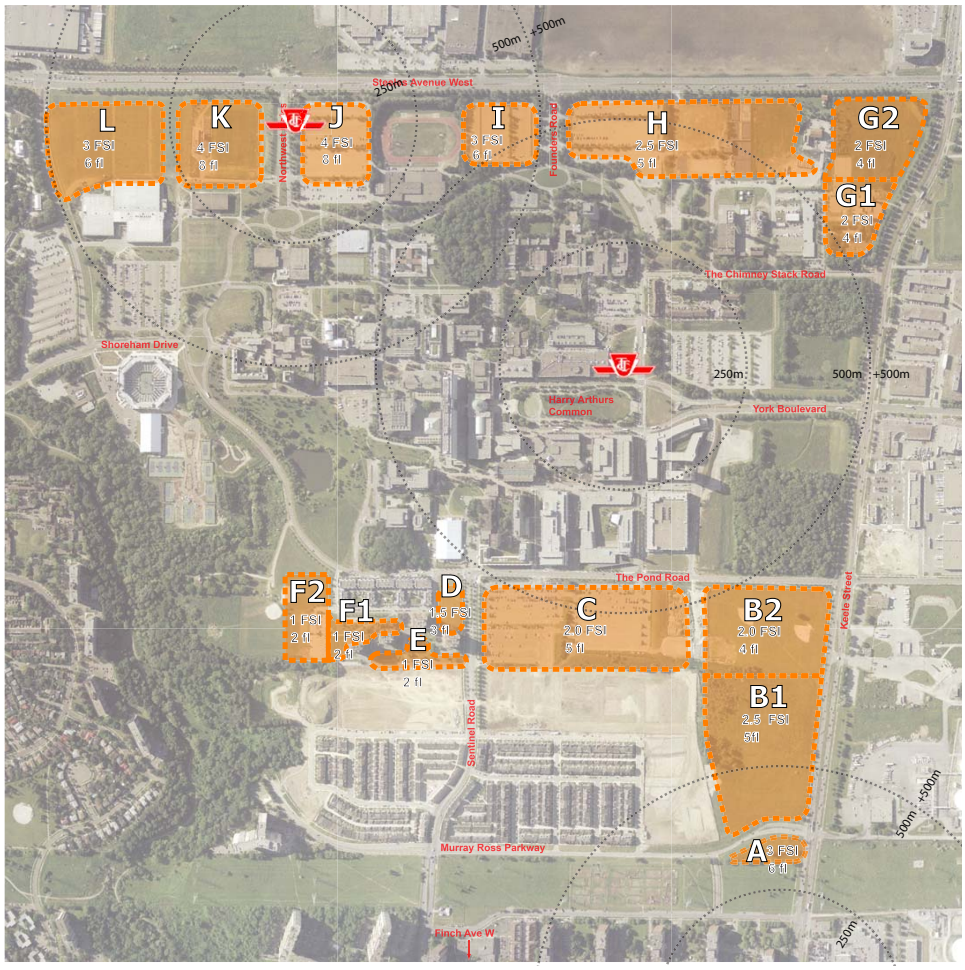
40% Site Coverage

Site	Proposed FSI	Walking Distance to Subway (m)	Block Area (h)	Open Space Area 5% (m^2)	Development Area (m2)	GROSS GFA (m^2)	Building Ground Floor Area (m^2)	Average Building Heights
A	3.0	250-500	0.64	320	6,400	19,200	2,560	8
B1	2.4	250-500	7.36	3,680	73,600	172,960	29,440	6
B2	2.1	250-500+	5.03	2,515	50,300	103,115	20,120	5
C	2.3	250-500+	8.09	4,045	80,900	182,753	32,360	6
D	1.5	500+	0.57	285	5,700	8,550	2,280	4
E	1.0	500+	0.86	430	8,600	8,600	3,440	3
F1	1.0	500+	0.96	315	9,600	9,600	3,840	3
F2	1.0	500+	1.79	945	17,900	17,900	7,160	3
G1	2.1	250-500+	2.34	1,170	23,400	49,070	9,360	5
G2	2.0	500+	3.84	1,920	38,400	76,800	15,360	5
H	2.3	250-500	9.44	4,720	94,400	221,651	37,760	6
I	2.8	250-500+	2.48	1,240	24,800	70,308	9,920	7
J	4.0	0-500	4.06	2,030	40,600	162,197	16,240	10
K	4.0	0-500	3.92	1,960	39,200	155,271	15,680	10
L	3.0	250-500+	4.73	2,365	47,300	140,055	18,920	7
Total			**56.11**	**27,940**	**561,100**	**1,398,031**	**224,440**	**6.2**

50% Coverage

50% coverage would produce the lowest average building heights but has the opportunity to establish a strong street wall.





50% Site Coverage

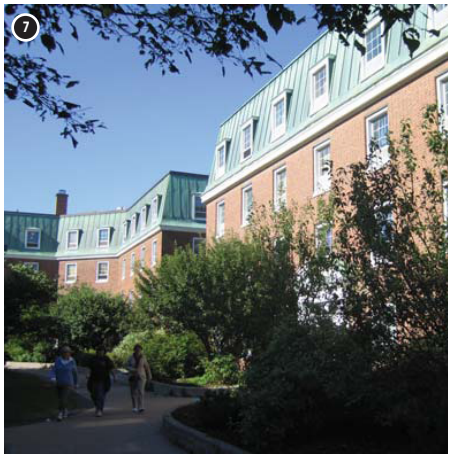
Site	Proposed FSI	Walking Distance to Subway (m)	Block Area (h)	Open Space Area 5% (m^2)	Development Area (m2)	GROSS GFA (m^2)	Building Ground Floor Area (m^2)	Average Building Heights
A	3.0	250-500	0.64	320	6,400	19,200	3,200	6
B1	2.4	250-500	7.36	3,680	73,600	172,960	36,800	5
B2	2.1	250-500+	5.03	2,515	50,300	103,115	25,150	4
C	2.3	250-500+	8.09	4,045	80,900	182,753	40,450	5
D	1.5	500+	0.57	285	5,700	8,550	2,850	3
E	1.0	500+	0.86	430	8,600	8,600	4,300	2
F1	1.0	500+	0.96	315	9,600	9,600	4,800	2
F2	1.0	500+	1.79	945	17,900	17,900	8,950	2
G1	2.1	250-500+	2.34	1,170	23,400	49,070	11,700	4
G2	2.0	500+	3.84	1,920	38,400	76,800	19,200	4
H	2.3	250-500	9.44	4,720	94,400	221,651	47,200	5
I	2.8	250-500+	2.48	1,240	24,800	70,308	12,400	6
J	4.0	0-500	4.06	2,030	40,600	162,197	20,300	8
K	4.0	0-500	3.92	1,960	39,200	155,271	19,600	8
L	3.0	250-500+	4.73	2,365	47,300	140,055	23,650	6
Total			**56.11**	**27,940**	**561,100**	**1,398,031**	**280,550**	**5.0**

4.2.1.1 PRECEDENT IMAGERY

Throughout the public consultation events, precedent photos were used:

- To inspire participants to construct an engaging vision for the study area and to consider various possibilities for redevelopment; and
- To illustrate examples of other developments and to convey elements of built form, open space, the public realm, laneways, access and character that have been integrated into other areas.

The precedents below were accepted by the Local Advisory Committee and the community and represent development that is both attractive and suitable for development in the study area.



4.2.2 DENSITY

The 1991 York University Secondary Plan had density permissions for the lands within the Secondary Plan area. The existing density permissions were determined based on a number of criteria, including transportation capacity. It was recognized that the Spadina Subway Extension would provide opportunities for higher densities in the study area, particularly in areas within walking distance to a subway station. As such, a detailed review of the density permissions for the Secondary Plan was warranted. Densities were also tested to ensure that they result in appropriately scaled building envelopes that reflected the surrounding conditions, site constraints and opportunities.

4.2.2.1 DENSITY PRECEDENTS AND EXAMPLES

There is no one-size fits all target for what appropriate densities are to meet transit-supportive objectives since determining appropriate densities for a particular area is context dependent and dependent on a variety of other land use planning considerations. Nevertheless, a review of targets and guidelines for transit-supportive densities was undertaken to see what others areas and jurisdictions provide in the way of transit-supportive density targets as a starting point for determining densities for the study area.

Vaughan OPA 620

The City of Vaughan's Official Plan Amendment (OPA) 620 established higher densities within the Transit Core area of the corridor which is located within 250 metres of the Steeles West subway station. Densities transition out as distance from the subway station increases. Maximum permitted densities within the Transit Core is 4.0 FSI. Maximum densities within the Transit Transition area is 2.5 FSI and 1.6 FSI within the Corridor areas.

Minimum densities were also established in the Official Plan Amendment that reflected the idea of having higher densities closer to the subway stations. Within the Transit Core areas, minimum densities are 2.0 FSI. In the Transit Transition areas, a minimum density of 1.5 FSI was established and within the Corridor areas the minimum density is generally 0.8 FSI.

Sheppard East Subway Corridor Secondary Plan

The Sheppard East Subway Corridor Secondary Plan provides a framework for development to manage, direct and ensure quality development in support of rapid transit investments. Permitted maximum densities range from 1.4 FSI to 3.6 FSI depending on proximity to a subway station.

Metrolinx

The Governement of Ontario created Metrolinx with the aim of improving the coordination and integration of all modes of transportation within the Greater Toronto and Hamilton area by developing a Regional Transportation Plan (RTP).

Metrolinx has developed discussion papers to help guide the development of the RTP. One concept that has been identified by Metrolinx as needed to help connect the entire transportation network are "mobility hubs". A mobility hub encompasses more than just providing co-ordinated, alternative modes of transportation. It is also about creating places where there is intensive concentrations of employment, living, shopping and other activities around transit stations.

Metrolinx suggests that mobility hubs should have density targets ranging from 200 to 400 people/jobs per hectare around the transit stations. The Metrolinx document provides targets for different types of mobility hubs such as Subway Centres, Emerging Centres and Unique destinations. The lands surrounding the campus are located within walking distance to the Finch West and Steeles West subway stations. These lands would meet the criteria for the Emerging Centres: First or Second Tier as there is more than one transit station, there is inter-modal capability and development capability and there is a key destination – York University. The density target suggested for Emerging Centres is 200 people per hectare. The academic core would be considered as a Unique Destination. There are approximately 50,000 students and 7,500 faculty and staff at the University. This would generate sufficient critical mass to support the subway station located at York Boulevard.

4.2.2.2 DENSITY ALLOCATION

The principle adopted for the review of density permissions for the study area was that higher densities should be located in areas located in close proximity or within walking distance to subway stations and that the densities would transition out as areas are located farther away from a subway station. Densities were also applied to each development area based on adjacent land uses and relative locations within the surrounding community (i.e. at a major intersection, adjacent to existing residential communities, etc). Densities were measured using Floor Space Index (FSI) which is calculated using the gross floor area of all buildings on a site divided by the area of the block. To determine the most suitable densities for the study area, density was allocated (Figure 8) based on:

- 4 FSI within 250 metres of a subway station;
- 3 FSI within 500 metres of a subway station; and
- Density outside of 500 metres of a subway stations does not exceed 2 FSI and is to be reviewed individually, based on existing land use adjacencies to determine a suitable density.

4.2.3 HEIGHT

The 1991 York University Secondary Plan established the following height limits for the Secondary Plan area:

- 9 storeys or 34 metres; and
- 4 storeys for sites adjacent to the Black Creek Pioneer Village.

The Airport Hazard Map contained within the former City of North York By-law establishes additional height restrictions for areas that are within the flight paths of airplanes flying into the Downsview Airport. These height restrictions are currently under review. A draft Airport Hazard Map has been prepared. This Map establishes potential revised height limits for areas located within the flight paths of the Downsview Airport. These are the height limits that have been assumed for the lands where non-university development can occur. Height limits for the academic core will be determined when the University updates its Master Plan and testing of heights within the academic lands has not occurred through this process.

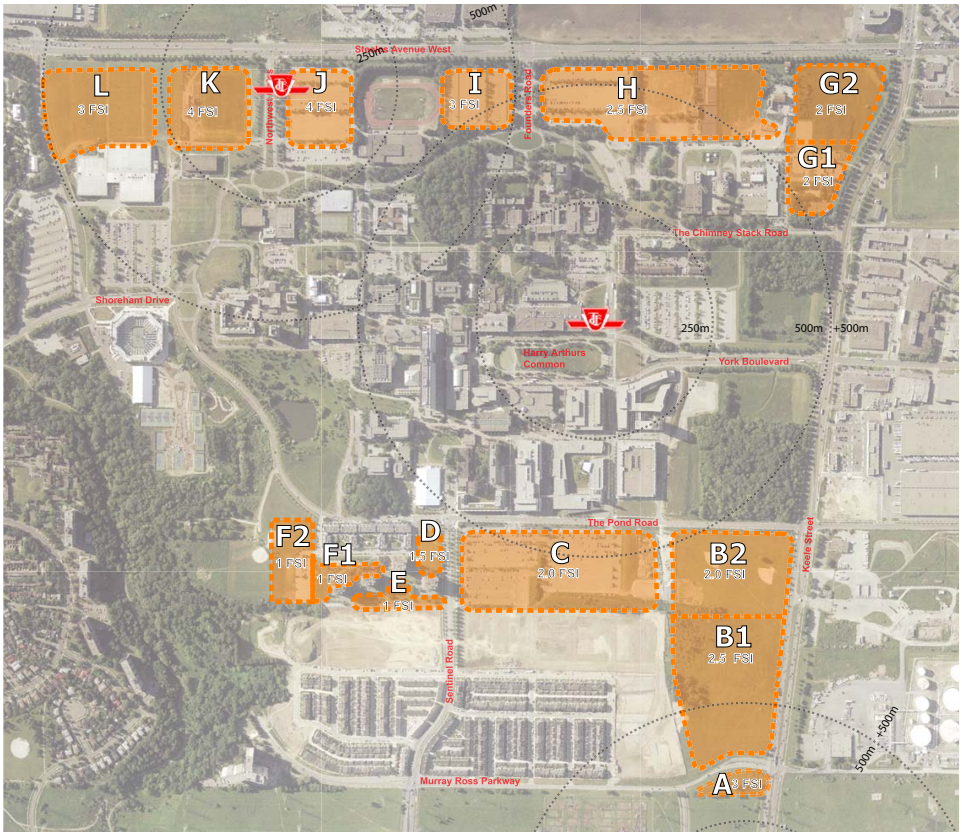
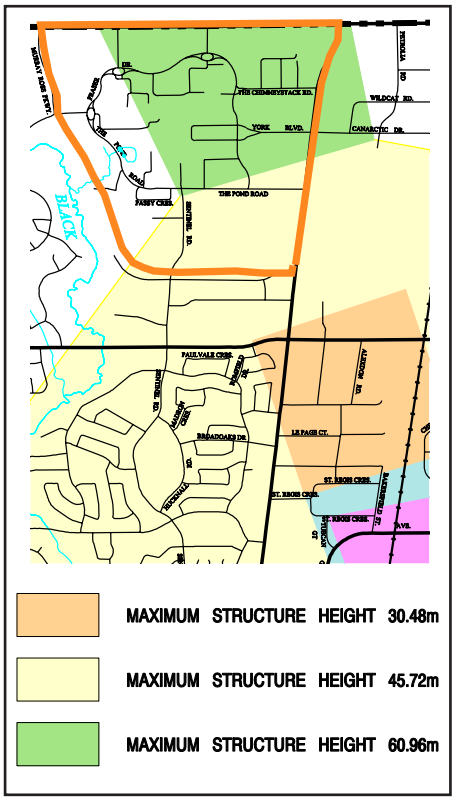


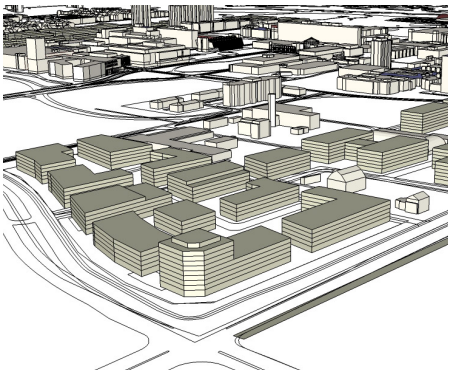
Figure 8: Density allocation



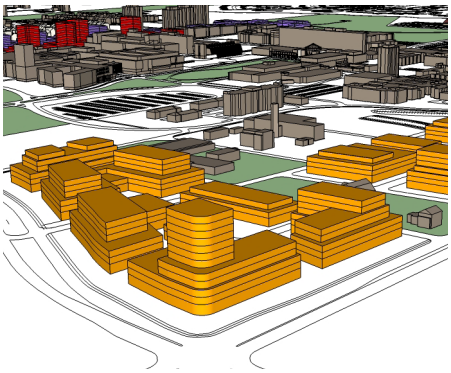
Proposed Airport Hazards By-Law

Block	4 FSI area within 250m	3 FSI area 250m - 500m	2 FSI area +500m - non Residential	1.5 FSI area +500m - Mixed-Use	1.0 FSI area +500m - Residential	FSI Average	Block Area (hectares)
A		100.0%				3.000	0.64
B1		35.0%	65.0%			2.350	7.36
B2		5.0%	95.0%			2.050	5.03
C		25.9%	74.1%			2.259	8.09
D				100.0%		1.500	0.57
E					100.0%	1.000	0.86
F1					100.0%	1.000	0.63
F2					100.0%	1.000	1.79
G1		9.7%	90.3%			2.097	2.34
G2			100.0%			2.000	3.84
H		34.8%	65.2%			2.348	9.44
I		86.0%	9.0%	5.0%		2.835	2.48
J	99.5%	0.5%				3.995	4.06
K	96.1%	3.9%				3.961	3.92
L		96.1%	3.9%			2.961	4.73
					Total Block Area		55.78

Table 1 Summary of block areas by density allocation



Density model #1: Building blocks representing density allocation



Density model #2: Integration of building setbacks and step-back

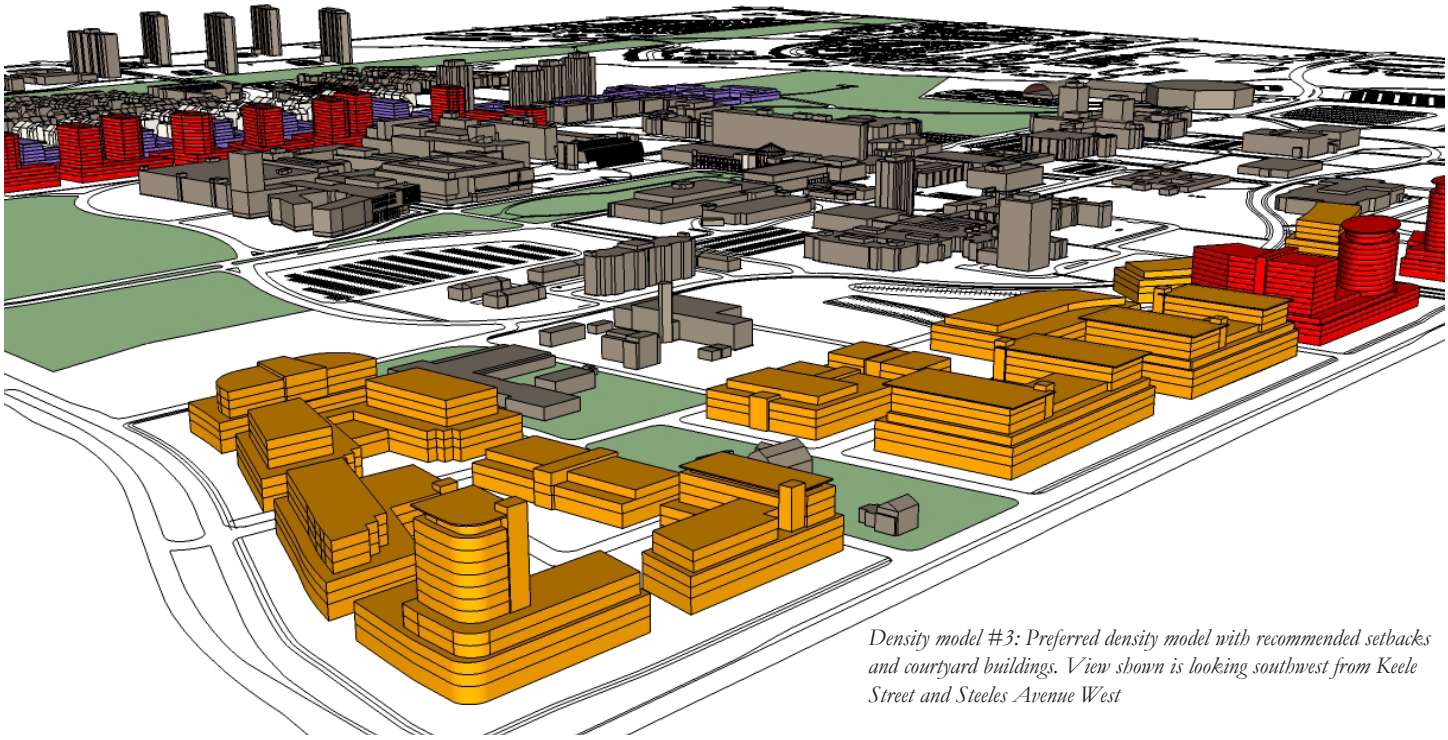
4.2.3.1 3D HEIGHT AND MASSING STUDIES

The applied densities provided an average resulting building height based on the lot coverage and open spaces of individual sites. The building heights did not exceed the proposed airport height limits. Once the average building heights were determined, a 3D massing model of the potential built form and building envelopes resulting from the building heights and lots coverages was created.

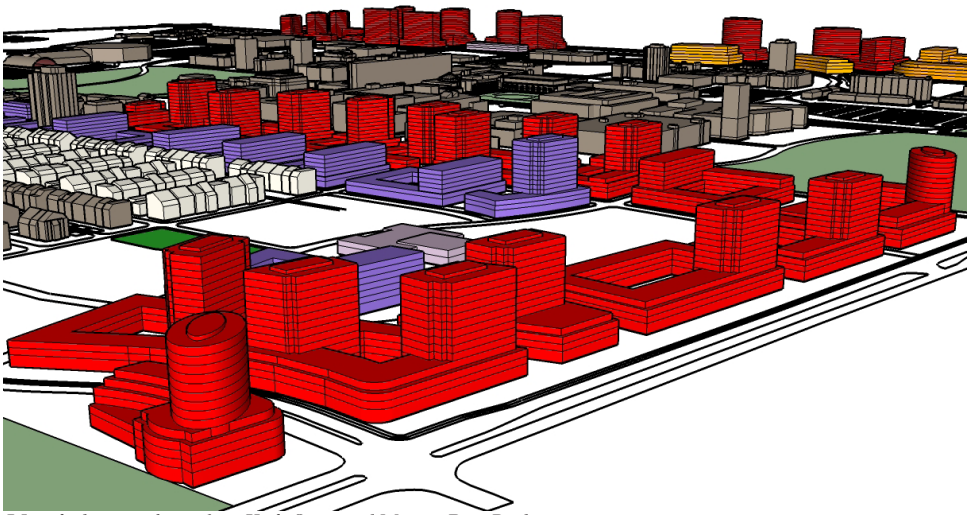
Densities were adjusted, but within the proposed limits, to ensure that adequate building articulation was possible within the building height limits and to provide variation in building heights. Images of the 3D modelling are shown on the adjacent page with vantage points from the major intersections including:

- The Pond Road and Keele Street;
- Keele Street and Steeles Avenue;
- Murray Ross Parkway and Keele Street; and
- The Pond Road and Shoreham Drive.

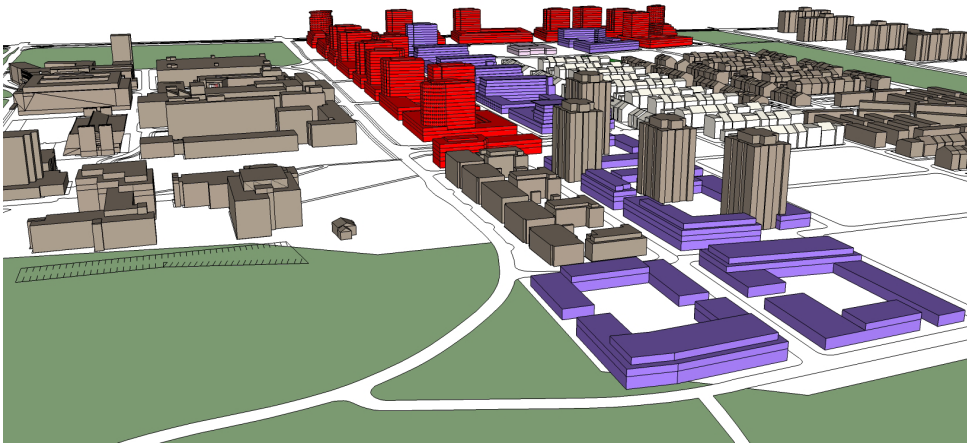
The 3D modelling was completed for illustration purposes only and does not represent the actual built form for the study area. These would be determined at a more detailed planning stage or when development is proposed within the study area.



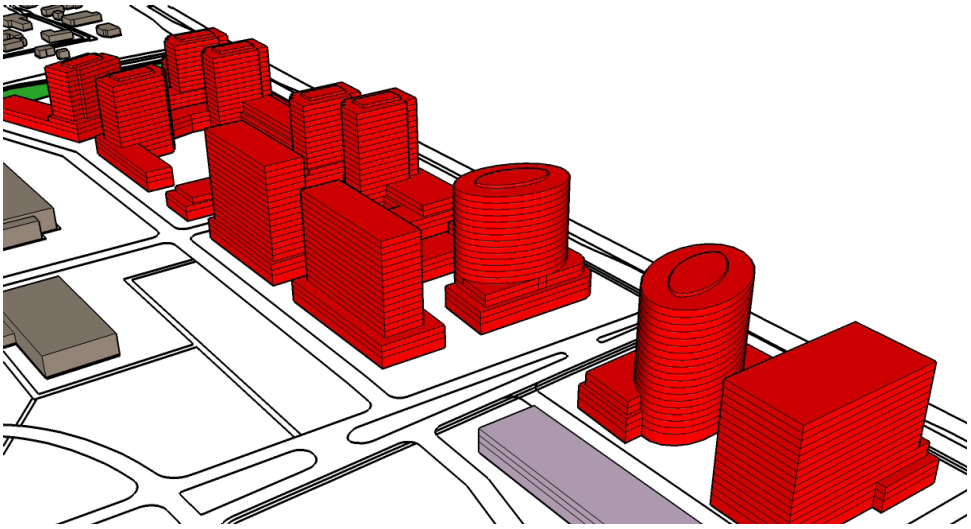
Density model #3: Preferred density model with recommended setbacks and courtyard buildings. View shown is looking southwest from Keele Street and Steeles Avenue West



View looking northwest from Keele Street and Murray Ross Parkway



View looking east from Sentinel road along The Pond Road towards Keele Street.



View looking west along Steeles Avenue at Northwest Gate towards Murray Ross Parkway.

4.2.4 LAND USE

The existing 1991 York University Secondary Plan provided a land use framework that allowed non-University uses to be located within the Secondary Plan area. Residential uses were permitted in the Southwest Precinct, mixed-uses were permitted in the Southeast Precinct and institutional and commercial uses were permitted in the North Precinct. The Academic Core Precinct was reserved for university uses.

The Spadina Subway Extension also warrants the review of land uses within the study area. Transit is more viable and more convenient if a wide variety of uses are located along a transit route or adjacent to transit facilities because one transit trip can serve a wide variety of purposes. Moreover, shorter walking distances to major trip generators such as, office buildings, recreational facilities, or high density residential uses, provides an incentive for people to take transit. To address this need to provide a mix of uses, four land uses were applied to the study area as illustrated on Figure 9.

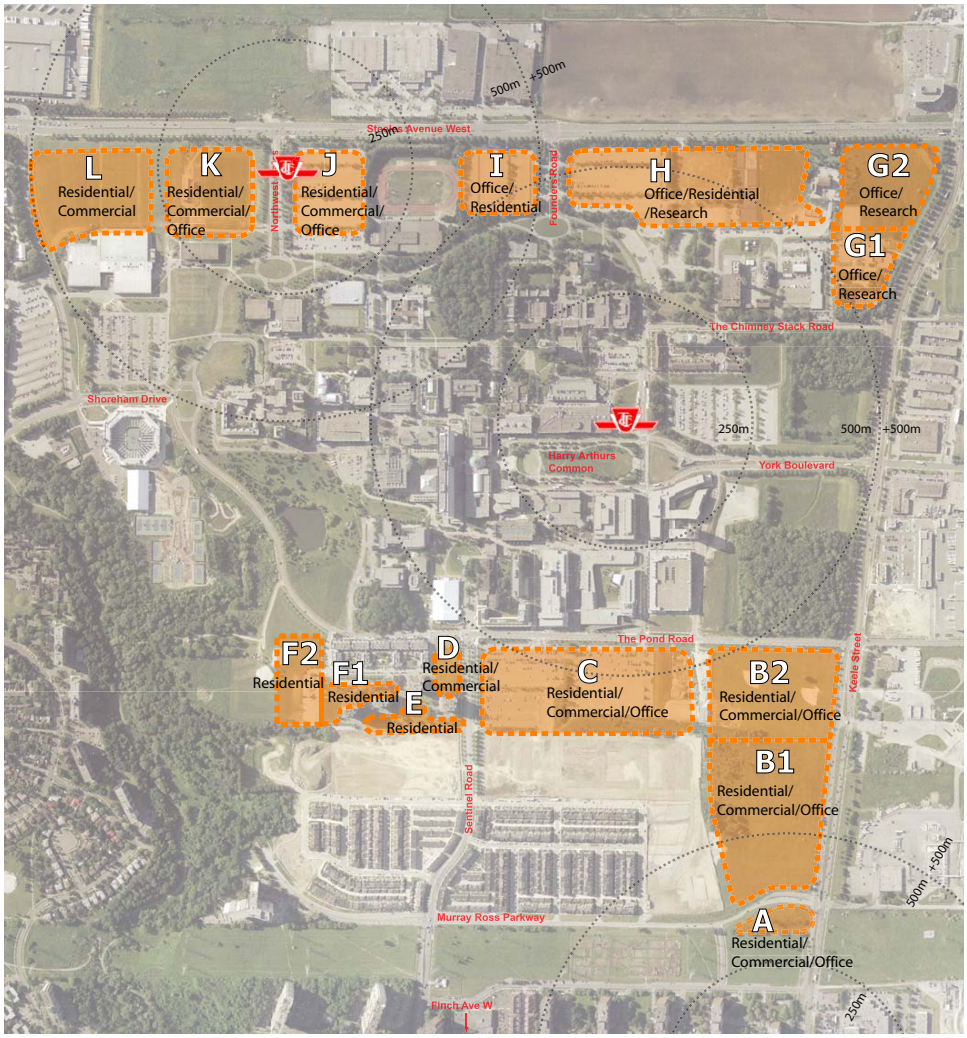


Figure 9: Proposed land uses

Institutional Uses

Institutional uses were applied to the lands identified by the University as needed for academic purposes and were not tested.

Mixed - Uses

Mixed-use areas are focused around transit stations and in areas with land use transitions, such as along The Pond Road and in the northwest area of the campus. Within these areas a ratio of different land uses was utilized to provide for a variety of land uses. This ratio was based on providing uses oriented toward pedestrian traffic within the ground floors of buildings with residential uses on the remaining floors.

The sites located directly adjacent to the Steeles West Subway station were provided with more office space as office uses are considered to be major trip generators and are well-suited at sites adjacent to a subway station. This also reflects the direction provided for in the City of Vaughan's OPA 620.

Office / Research Uses

Office and research uses were applied to the northeast corner of Steeles Avenue and Keele Street. Research and office uses are a common use found within or near university campuses. They provide opportunities for Universities to partner with the business community or other government agencies in advancing research and development. Office and research uses consisted of a split between the office and research uses.

Residential Uses

Single residential uses have been applied to areas adjacent to existing low-density residential uses and graduate housing.

Parks and Open Spaces

Additional parks and open space areas have been identified. The identification of these sites were based on proximity to existing and proposed residential areas and natural areas. The City will be providing further direction for parks and open space requirements required for the update to the Secondary Plan in a separate report and the ultimate requirement would be determined when development is porposed.

Community Services and Facilities

A site for a community facility and elementary school has been co-located on a site identified for a public park. This site was chosen as it is located adjacent to residential uses and is in close proximity to transit stations. The site is also a site identified for parkland. The City is currently completing a review of community service and facility needs for the Secondary Plan area. This review may identify additional community service and facility and schools needs.

4.2.5 CONCEPT PLAN

Based on the detailed review of the options developed by the City and York University, public consultation and as a result of the land use, density and height analysis, a concept plan was created that illustrated that the proposed densities could be achieved within an appropriate built form. The concept plan (Figure 10) also refined the existing natural heritage features to be preserved, provided a connected open space system and ensured that heritage resources could be conserved.

The concept plan is a result of:

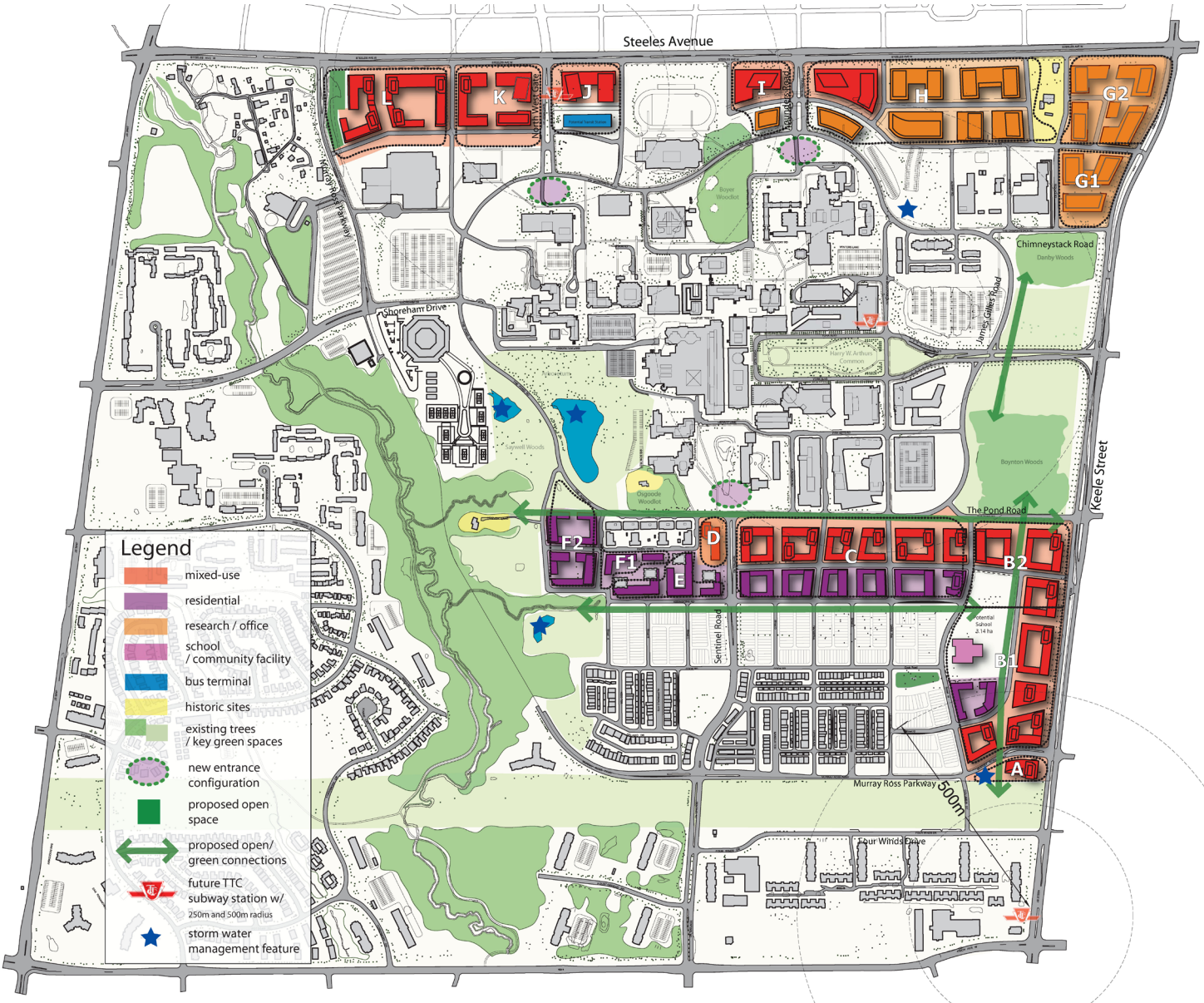
- The density allocation;
- Average building heights;
- The proposed land uses;
- A mix of site coverages;
- A courtyard style building design has been used as a typical building typology found with the study area;
- A mix of building heights within the maximum allowed by the Draft Airport Hazard. The height restrictions placed limitations on the density allocation. Exceeding the proposed densities would likely result in an undesirable built form; and
- Identification of a site for a potential joint school and community facility, as well as sites for public parks and potential green connections.

The concept plan also provides a revised public street network, which consists of a similar network of primary and secondary streets as in options 3 and 4, but it completes the ring road as originally envisioned in the 1963 Master Plan for the University. The concept plan has been included as an additional option for the purposes of testing the street network and servicing and stormwater management which is discussed in more detail in Section 4.3 Public Street Network Options and Section 5.1 Stormwater Management and Infrastructure Servicing.

4.2.4.1 POPULATION PROJECTIONS

Based on the proposed densities, land uses and building heights, potential population projections were determined for testing using the following key assumptions:

- 80 m^2 was used to establish the size of residential units with 1.85 people per unit;
- Land allocated for retail uses would generate 1 job per 80 m^2 of retail space; and
- Land allocated for office and research uses would generate 1 job per 30 m^2 of space.



Site	Base FSI	Walking Distance to Subway (m)	Block Area (h)	Block Area (m^2)	% Site Coverage	GROSS GFA (m^2)[1]	Ground Floor Area (m^2)[2]	Average Building Heights	Residential GFA (m^2)	Office GFA (m^2)	Commercial GFA (m^2)	Research GFA (m^2)
A	3.0	250-500	0.64	6,400	41%	19,200	2,522	8	16,678	1,261	1,261	0
B1	2.5	250-500	7.36	73,600	33%	184,000	23,046	8	160,954	11,523	11,523	0
B2	2.0	250-500+	5.03	50,300	39%	100,600	18,549	5	82,051	9,274	9,274	0
C	2.0	250-500+	8.09	80,900	48%	161,800	36,964	4	62,418	62,418	36,964	0
D	1.5	500+	0.57	5,700	40%	8,550	2,186	4	6,364	0	2,186	0
E	1.0	500+	0.86	8,600	48%	8,600	3,936	2	4,664	0	3,936	0
F1	1.0	500+	0.96	9,600	48%	9,600	4,496	2	5,104	0	4,496	0
F2	1.0	500+	1.79	17,900	53%	17,900	8,968	2	8,932	0	8,968	0
G1	2.0	250-500+	2.34	23,400	48%	46,800	10,592	4	0	23,400	0	23,400
G2	2.5	500+	3.84	38,400	46%	96,000	16,894	6	0	48,000	0	48,000
H	2.5	250-500+	9.44	94,400	56%	236,000	50,184	5	0	118,000	0	118,000
I	3.0	250-500	2.48	24,800	40%	74,400	9,468	8	0	37,200	0	37,200
J	4.0	0-250	4.06	40,600	25%	162,400	9,485	17	145,658	12,000	4,743	0
K	4.0	0-250	3.92	39,200	29%	156,800	10,979	14	139,311	12,000	5,489	0
L	3.0	250-500	4.73	47,300	37%	141,900	16,416	9	136,975	0	4,925	0
TOTAL	**2.33**		**56.11**	**561,100**	**42%**	**1,424,550**	**224,685**	**7**	**769,108**	**335,076**	**93,765**	**226,600**

Figure 10: Concept plan and potential development yields

The resulting population and employment for the development areas woulc be approximately:

- 9,600 residential units and 17,800 residents;
- 1,200 retail jobs; and
- 18,800 office and research jobs.

This results in approximately 800 people per hectare within 500 metres of a subway station for the development areas.

4.2.6 LAND USE TESTING RESULTS

The testing results indicate that the proposed densities can be accommodated within the Secondary Plan area while still providing an appropriate built form and protecting and enhancing natural heritage features, conserving heritage resources and providing parkland and community services and facilities.

The land use mix that has been tested represents a land use mix consistent with transit-supportive development objectives, providing for a mix of uses in and around transit stations areas. The assumptions used for testing purposes provided ground-related commercial uses with residential or office uses on the upper floors. Research and office uses were identified in the northeast quadrant of the study area. These types of uses are commonly found in or near universities and compliments the prestige office uses on the north side of Steeles Avenue.

The built form, heights and densities that are proposed in the concept plan and potential build-out used for testing purposes concentrates the tallest buildings on sites within close proximity to a transit station and provides for a variation in building heights. The testing for heights and density also took into consideration existing conditions, providing appropriate height and density transitions to lower-density development. The height restrictions and existing conditions would restrict taller buildings within the area which in turn affects the ability of attaining higher densities within the study area.

4.3 PUBLIC STREET NETWORK TESTING

Although the focus of the Secondary Plan will be to get people out of their cars and onto the subway, public streets are still a fundamental element of community building and they are key element needed to attain transit supportive development. Streets provide pedestrian and cycling access. They provide frontage for buildings that are designed with uses oriented toward pedestrian traffic. Streets also provide pedestrian and transit user amenities, such as sidewalks, street trees and landscaping and canopies or arcades along buildings which increase the attractiveness of walking.

Five public street network options were identified and developed for testing. The testing of these options focused on the primary streets or collector streets. These options were identified and developed through consultation with the community, the City, and through discussions with York University. Options 1 through 4 were identified and developed in Phase 1 and Option 5 was developed as a result of the land use and density analysis, natural and heritage directions and a review of Options 1-4. Options 1 through 4 are shown on page 30. This option is shown on the opposite page. The street network in Option 5 consists of the network developed for the concept plan discussed in Section 4.2.5.

Each option recommends a potential street network. Options 3, 4, and 5 have similar public street networks that are based on converting existing private University streets such as North West Gate, Founders Road, The Chimneystack Road, and Ian McDonald Boulevard into public streets. The options also extend some existing public streets, such as Jack Evelyn Wiggins Way. Key differences in the options are the introduction of new public streets in two of the options. The 5 options that were evaluated and tested from a transportation perspective are:

OPTION 1 – DO NOTHING

This option is the existing public street network, but does include some already-approved and planned new public streets that are outside the study area, which include the Tangiers Road Extension, the Murray Ross Parkway Extension and the new public streets that are part of the City of Vaughan's OPA 620.

OPTION 2 – 1991 SECONDARY PLAN

This option is based on the 1991 Secondary Plan public street network, which consists of a grid pattern of public streets running parallel to the major arterials of Keele Street and Steeles Avenue West. At the time, the choice for a strong grid pattern of public streets reflected recommendations of the York University Campus Master Plan, which was last updated in 1988. Some of the proposed new public streets in the 1991 Secondary Plan are problematic as they bisect through existing buildings that are to remain in the long-term such as the Track and Field Centre south of Steeles Avenue West.

OPTION 3 – HORSESHOE RING ROAD

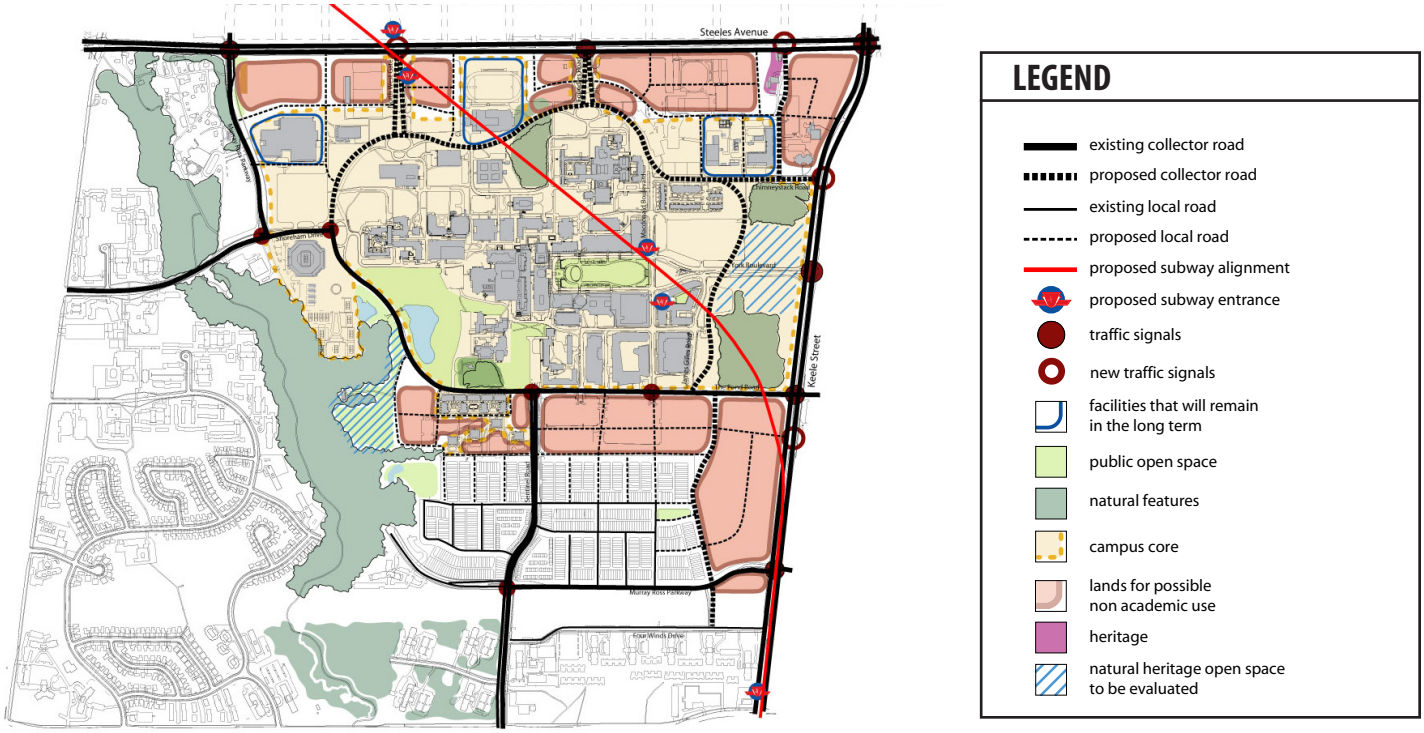
Option 3 was developed through a visioning exercise undertaken by the City and York University in Phase 1. It converts existing private University streets - North West Gate, Founders Gate, Chimneystack Road and portions of Ian McDonald Boulevard - into primary public streets. It also extends Jack Evelyn Wiggins Way to The Pond Road and introduces a new public primary street west of Keele Street from The Chimneystack Road to Steeles Avenue. The main identifying feature of this option is the horseshoe ring road comprised of The Pond Road and the portion of Ian MacDonald Boulevard to The Chimneystack Road.

OPTION 4 – HORSESHOE RING ROAD WITH NORTH-SOUTH LINK

Option 4 was also developed through the visioning exercise and the public street network for Option 4 has one key difference from option 3 - the introduction of a new north-south public street connection between Chimneystack Road and The Pond Road. This new connection would align with the public street to the north of The Chimneystack Road and align with the public street to the south of The Pond Road, creating a longer, continuous north-south public street between Steeles Avenue and Murray Ross Parkway.

OPTION 5 – COMPLETED CURVILINEAR RING ROAD

The public street network for Option 5 provides the same public primary streets as Option 4, however the new north-south public street connection between Chimneystack Road and The Pond Road is not aligned with the other north-south public streets, but instead is more curvilinear in nature, connecting with the rest of the ring road to provide a completed ring road that surrounds the historic pedestrian area of the campus.



Option 5 - Completed Curvilinear Ring Road

4.3.2 PRELIMINARY EVALUATION OF PUBLIC STREET NETWORKS

A preliminary evaluation of the public street network options was undertaken to identify which options should be carried forward for more detailed transportation testing and evaluation. Each of the five public street network options was evaluated against the core goals and principles that were developed for the update of the Secondary Plan. Each public collector street network option was then ranked based on how well it achieved the criteria, with each of the six main Secondary Plan goals weighted equally.

TABLE 2: PRELIMINARY EVALUATION OF PUBLIC STREET NETWORKS

OBJECTIVE	Option1	Option 2	Option 3	Option 4	Option 5
Academic Core	●	◒	●	●	●
Distinct Landscape and Built Form Character	◒	○	●	◒	●
Transit-Supportive Development	○	○	◒	●	●
Natural Environment and Sustainability	◒	○	◒	◒	●
Connections	○	●	◒	●	●
Flexible Implementation	●	○	●	●	●
TOTALS	6	3	9	10	12

Weighting

●	2 points
◒	1 point
○	No points

The results of this preliminary evaluation indicate that:

- Option 1 does not meet the goals and principles developed for the York University Secondary Plan. However, this option will be carried forward for detailed testing and analysis of street networks as it represents the base case to be used for comparison purposes;
- Option 2 does not meet the goals and guiding principles developed for the Secondary Plan and should not be carried forward for more detailed testing and analysis; and
- Options 3, 4, and 5 meet or partially meet all of the goals and guiding principles developed for the Secondary Plan and should be carried forward for further detailed testing and analysis.

4.3.3 PROBLEM AND OPPORTUNITY STATEMENT

The evaluation process of analyzing and testing the public street network options forms an important part of the Transportation Master Plan and helps satisfy the first two phases of the EA process. In Phase 1 of the EA process, an Opportunity Statement must be outlined which describes the general reasons for undertaking the Master Plan:

The 1991 York University Secondary Plan provides a planning framework for the development of the York University area and includes a Roads Plan for a proposed public street network to support the Plan. The Roads Plan is comprised of primarily a grid-like pattern of public streets generally parallel to Keele Street and to Steeles Avenue West. The 1991 Secondary Plan public street network is no longer ideal or appropriate, for the following key reasons:

> *City of Toronto attitudes, policies, and guidelines have evolved regarding the role of the public street network, and now focus more on the holistic role of public streets as important part of the city fabric. The 1991 street network was planned with mostly auto-oriented development in mind. Today, it is stressed that public streets are no longer just for moving cars.*
>
> *A piece of major public transit infrastructure, the Spadina Subway Extension, is planned to be the significant element of the area's transportation system. Since 1991, the York University area has experienced significant change and growth, an increased demand for transit and a reduced demand for automobiles.*
>
> *The proposed east-west street south of Steeles Avenue West in the 1991 Plan bisects the existing Track and Field Centre that is currently on a long-term 99-year lease to the City of Toronto. The proposed east-west street is also too close to the portion of Ian Macdonald Boulevard parallel to the east-west street which would affect the integrity of York University's campus ring road.*
>
> *The proposed north-south street parallel to Keele Street in the 1991 Plan bisects the existing York University Physical Plant buildings, which are critical to the operations of the University and cannot feasibly be relocated.*

All these factors identify that there is a basic need and opportunity to create a new public street network to serve the York University Secondary Plan Area in the long-term, as it develops in the future.

4.3.4 DETAILED EVALUATION OF THE PUBLIC STREET NETWORK OPTIONS

This section evaluates the four public street network options in more detail and selects a recommended public street network option to carry forward to support the update to the Secondary Plan. The analysis and testing of the proposed public street network options was based mainly upon achieving the six goals and principles developed for the update of the Secondary Plan.

TABLE 3:EVALUATION MATRIX

	#	EVALUATION CRITERIA	Option1	Option 3	Option 4	Option 5
Academic Core	1	Preserves the University's historic pedestrian environment	◒	◒	◒	●
	2	Provides opportunities for University intensification	●	●	●	●
Distinct Landscape and Built Form Character	3	Preserves and enhances pre-settlement heritage landscapes and buildings	◒	●	●	●
	4	Preserves and enhances elements of the 1963 Master Plan	◒	◒	◒	●
	5	Provides opportunities to physically and visually connect important landmarks and views	◒	◒	◒	●
	6	Maintains and creates new view corridors	◒	◒	●	●
	7	Provides frontage and access and egress opportunities for development	○	◒	●	●
Transit Supportive Development	8	Supports a future fine grain network of public local streets	○	●	●	●
	9	Provides appropriate auto traffic capacity for transit-supportive development	○	◒	●	●
	10	Provides an appropriate network for surface transit routes	○	◒	●	●
Natural Environment and Sustainability	11	Minimize disturbance to natural heritage features	●	●	●	●
	12	Frames, protects and connects natural heritage features	◒	◒	◒	●
	13	Provides accessibility to and preserves views to natural heritage features	◒	◒	◒	●
Connections	14	Provides an appropriate hierarchy of public streets	○	●	●	●
	15	Provides appropriate internal and external connectivity	○	◒	●	●
	16	Provides a well-connected public pedestrian and cycling network	○	◒	●	●
Implementation	17	Ability of the public collector street network to respond to constraints associated with and arising from design considerations	○	●	●	◒
	18	Ability to co-ordinate the implementation of the public collector street network with the future development	●	◒	◒	◒
	19	Ability of public collector street network to facilitate servicing requirements	○	◒	●	●
TOTALS			13	25	32	36

The detailed evaluation matrix was developed to analyze and rank the different street network options according to the objectives identified for the update of the Secondary Plan and according to various multi-disciplinary criteria to attain those objectives. One of the criteria, providing appropriate auto capacity, gauged the ability and performance of the street network options in supporting and accommodating vehicular based demand associated with potential development. A separate detailed testing and analysis process to determine this criteria and its ranking in the matrix is documented in Appendix B.

As noted earlier, the 1991 Secondary Plan street network (Option 2) was dismissed and not appropriate for detailed testing and analysis and was not examined in the detailed evaluation matrix.

4.3.5 RESULTS

The results from the detailed evaluation matrix was weighted evenly among each of the objectives developed for the Secondary Plan update.

Weighting

4 points

3 points

2 points

1 point

No points

TABLE 4: SUMMARY OF PUBLIC STREET NETWORK TESTING

OBJECTIVE	Option1	Option 3	Option 4	Option 5
Academic Core	◕	◕	◕	●
Distinct Landscape and Built Form Character	◔	◕	◕	●
Transit-Supportive Development	○	◕	●	●
Natural Environment and Sustainability	◕	◕	◕	●
Connections	○	◕	●	●
Flexible Implementation	◔	◒	◕	◒
TOTALS	**8**	**17**	**19**	**22**

The Evaluation Matrix identified Option 5 – Completed Curvlinear Ring Road – as the preferred public street network. It emerged from an evaluation that considered a set of criteria rooted in the objectives of the Secondary Plan update process and were founded on an integrated approach to planning and environmental considerations. Option 5 best represents a public street network that will fulfill it's role and function as supporting primary collector street network that is unique to the study area.

4.4 STORMWATER MANAGEMENT AND INFRASTRUCTURE SERVICING

A key principle for the York University Secondary Plan Update is to ensure sustainable stormwater management and infrastructure practices and strategies. The key tasks of the consulting team in this regard was to estimate requirements and effects of anticipated future land use development, identify any servicing challenges within the Secondary Plan area related to existing conditions and/or possible development, identify approaches for on-site stormwater management and develop a comprehensive on-site stormwater management program complementary to the open space and park system.

The core criteria for developing a sustainable infrastructure and stormwater system include:

- Ensuring that minimal runoff is directed to Black Creek;
- Mitigate stormwater management impacts;
- Identify new infrastructure improvements; and
- Provide priority for sustainable planning and infrastructure techniques

R.V Anderson and Associates undertook a review of the existing Secondary Plan stormwater management (SWM) and infrastructure servicing. Their report informed the testing of the options for servicing and stormwater management undertaken by Phillips Engineering. The work undertaken by Phillips provides information requirements for servicing, including any land required for stormwater storage or treatment.

The concept plan provided the basis for the analysis and testing for stormwater management and infrastructure testing. The concept plan provided a built form concept for the Secondary Plan area that identified existing natural heritage features, heritage resources and existing and proposed open spaces. The concept plan includes a range of uses including mixed-use, residential, research/office for the development areas and recognized the University as Institutional. The potential development contemplated by the concept plan would be significantly more intensive then the existing institutional and residential permissions. A summary of the findings is presented in this section.

4.4.1 WATER AND WASTEWATER SERVICING

The York University water distribution system is located in the City of Toronto Pressure District 6. A 400 mm diameter municipal water main is located on Steeles Avenue and Keele Street, and a 300 mm diameter municipal water main is located on The Pond Road and Sentinel Road. These municipal water mains are connected to the University's private water distribution system at the following locations:

- North West Gate / Steeles Avenue intersection;
- Founders Road / Steeles Avenue intersection;

Precedent image of a sustainable streetscape design with natural stormwater management techniques

- The Chimneystack Road / Keele Street intersection;
- Ian Macdonald Boulevard / The Pond Road intersection;
- Sentinel Road / The Pond Road intersection (two water meters);
- Passy Crescent (east end) / The Pond Road intersection; and
- Passy Crescent (west end) / The Pond Road intersection.

The sanitary sewer system includes two outfalls into the North York Sanitary Sub-Trunk Sewer located along the Black Creek. The first outfall is at MH0, which is located west of the Hoover Homestead, and the second outfall is at MH14B which is located at the southwest corner of the Campus at the west end of the Murray Ross Parkway. These trunks have sufficient capacity to service the York University Campus and surrounding areas.

4.4.1.1 APPROACH

Water and wastewater servicing guidelines are well established and have been used to ensure adequate servicing through a variety of conditions. The requirements are:

Design criteria were established based on City of Toronto and Ministry of the Environment engineering design guidelines, and the Fire Underwriters Survey. Fire flow requirements, a minimum fire flow of 183 L/s for institutional buildings was used. The design criteria are summarized in the following table:

TABLE 5: DESIGN CRITERIA	Value
Average daily demand	450 L/c/d
Maximum day peaking factor	1.90
Peak rate factor	2.85
Normal operating pressure	350 and 550 kPa
Maximum normal operating pressure	700 kPa
Minimum pressure during peak hour demand	275 kPa
Minimum pressure during simultaneous maximum day and fire flow demand	140 kPa
Minimum fire flow during maximum day	34 L/s
Minimum fire flow for institutional buildings during maximum day	183 L/s

The "York University Secondary Plan Update Servicing" report was used to set the average flow rate of 450 L/p/d. A sewer infiltration rate of 0.26L/s/ha and a Harmon peaking factor that was also used in assessing the system.

In an effort to evaluate the impact of the proposed development, industry recognized evaluation tools were used. The water distribution system was modelled using H2ONet. This is the same model employed in previous work undertaken by York University in the 2007 study. The Sanitary sewer system was evaluated using Sanitary Sewer Design Sheets developed by Philips Engineering Ltd.

4.4.1.2 RESULTS

For water serving conditions at the ultimate development potential, the available fire flow during maximum day conditions will exceed the minimum requirement of 34 L/s in all areas, as set by the Fire Underwriters Survey. However, areas where institutional buildings were located and fire flow will not exceed 183 L/s which is a standard for institutional buildings. To increase fire flow to an acceptable level (>183 L/s), the following private distribution system improvements would be required:

- 300m 250mm-diameter watermain along Ian MacDonald Boulevard running from Shoreham Drive to north of the Tait McKenzie Centre;
- 100m 200mm-diameter watermain running between the Health, Nursing and Environmental Studies Building and the Joan & Martin Goldfarb Centre for the Arts; and
- 210m 150mm-diameter watermain running between the Petrie Science and Engineering Building and the Leonard G. Lumbers Building.

The results of the wastewater analysis indicate that the existing on-campus trunk wastewater mains are unable to handle the increase in peak flows generated by the proposed future development along Steeles Avenue. There is approximately 1,342 metres of private wastewater trunk mains that would be required to be upgraded to a larger diameter pipe or twinning in order to accommodate the increase in flows.

4.4.2 STORMWATER MANAGEMENT

The key principles for stormwater management (SWM) servicing are based on developing a management system that is compatible with both the existing system, and the recently planned modifications to the existing system, in particular the changes recommended in the approved Hoover Creek Watershed Stormwater Management Plan, 2005, while meeting the current criteria and standards for design that have been developed by the TRCA, City and Ministry of the Environment (MOE). Stormwater management objectives include:

- maintaining the natural hydrologic cycle;
- preventing increased risk of flooding and stream erosion; and
- protecting groundwater and water quality.

Stormwater management systems must be designed to meet all Municipal, Provincial (MOE, TRCA) and Federal policy and criteria. The approach to stormwater and environmental management for the study area has been developed by the governing environmental agencies. This has been documented through previous guidelines, and a watershed-level review of the Hoover Creek and Black Creek/Humber River system.

There are five existing main minor systems and outlets to Black Creek (Tennis Canada Pond, Strong Pond, The Pond Road storm sewer, and the South Precinct

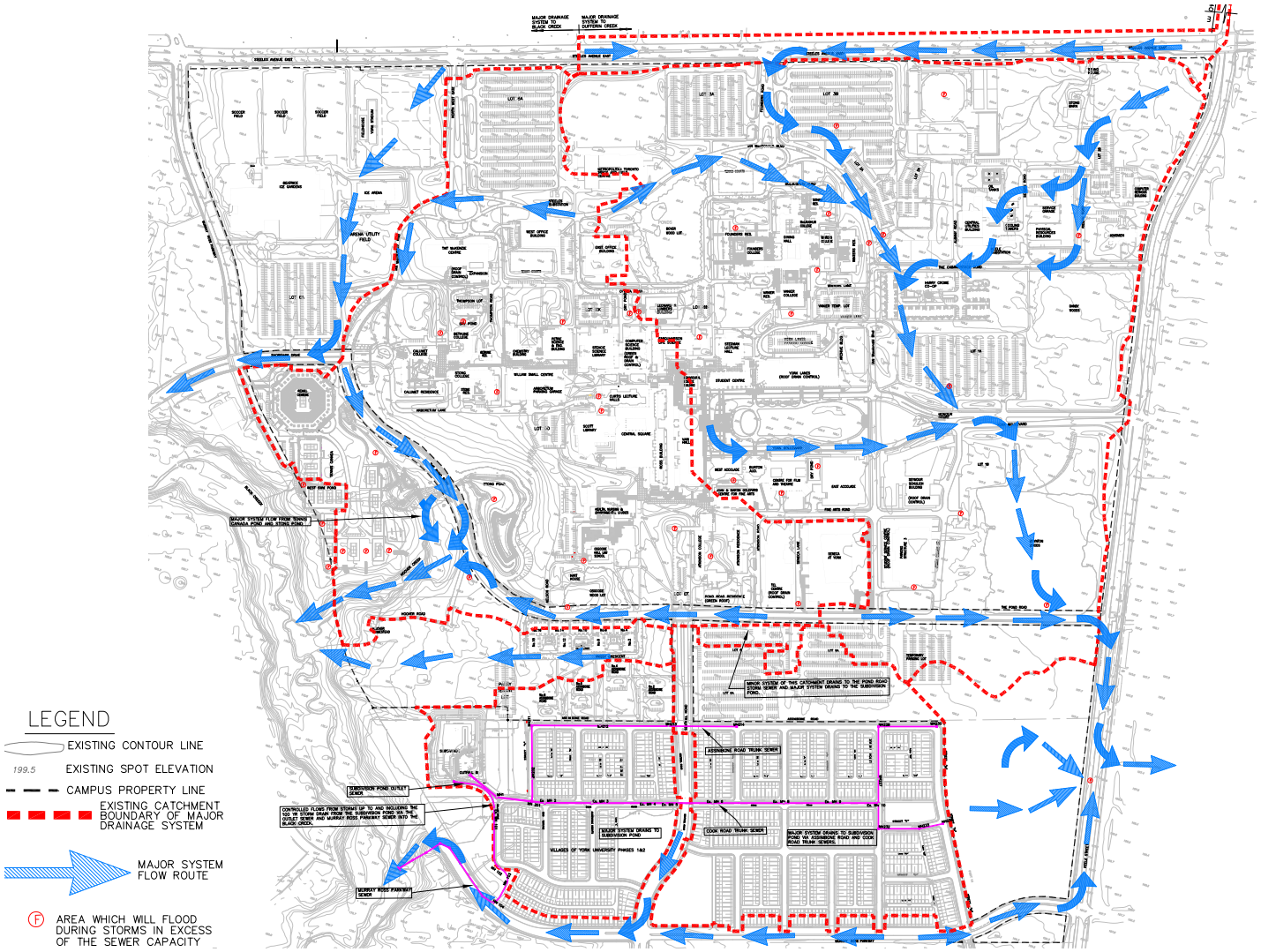


Figure 11: Existing Major System Catchments and Flow Routes - prepared by RV Anderson 2007

subdivision pond); as well as the six overland flow routes (five to the Black Creek: Shoreham Road, Tennis Canada Pond/Strong Pond combined, The Pond Road, Passy Crescent, and Murray Ross Parkway, plus one to the Don River at Keele Street in the southeast). These are shown on Figure 11. The existing systems have been evaluated through a confirmation of the topographic information and drainage boundaries for the site, as well as the hydrologic modeling prepared for the different drainage areas and the stormwater management facilities.

4.4.2.1 APPROACH

The existing hydrologic models were reviewed and all of the drainage boundaries, and storm sewer sizes were checked. The existing and proposed stormwater management facility models were also checked to confirm the land use assumptions, volumes, sizes, slopes and functionality. Future testing will be required as development plans are finalized, to confirm the functionality of all of the facilities.

A summary of the design criteria for stormwater management practices in the study area that was used for testing purposes includes:

Stormwater Quantity Management

- Storm sewers are required to be designed using the 2 year design storm;
- Overland flow and major drainage systems are to be designed using the 100 year design storm;
- Post- to pre-development controls required for the 2 year through 100 year design rainfall-runoff events;
- Target peak flows have been determined using the TRCA and City approved unit flow equations (Humber River Watershed study) and would ultimately need to be confirmed based on future land use changes; and
- Frequent (2-year) surface ponding is not allowed on paved and landscaped areas.

Stormwater Quality Management

- The Black Creek and its tributaries, as well as the Don River watershed in the southeast, are all considered critical Type 1 fish habitat, as defined by the Ministry of Natural Resources. Therefore, MOE enhanced water quality protection would be required as a minimum.
- Twenty-seven SWM techniques, discussed in the Wet Weather Flow Management Master Plan, have been determined to be applicable to the study area, and are summarized in Hoover Creek Watershed SWM Plan (R.V. Anderson, 2005). These measures are required to be investigated at the detailed design stages.

Erosion and Sediment Control

- The TRCA has confirmed that the runoff from a 25 mm design storm is to be detained for 24 to 48 hours within the SWM facilities. The implementation of erosion and sediment control measures will be required during construction.

4.4.2.2 RESULTS

The previous hydrologic modeling, and subsequent design of the stormwater management systems, adequately address the criteria for management that has been established by the applicable agencies. The works recommended in the watershed study have been developed with the long-term development of the study area in mind.

The proposed future development and redevelopment of portions of the study area are currently within the previously assumed impervious coverage for which the storm sewer and stormwater management system has been designed. The proposed development/redevelopment provides the opportunity to apply additional lot-level and conveyance SWM practices to further optimize the system.

The proposed development and redevelopment will offer the opportunity to incorporate lot-level and conveyance stormwater management practices, such as green roofs, rain gardens, and other vegetative best management practices. This would potentially reduce some of the stormwater runoff volume that would normally be conveyed to the SWM facilities, which would in turn help optimize the performance of those facilities.

The proposed development will also offer the opportunity to make minor modifications to the drainage boundaries, and to optimize the current system that is operating. The improvements to the system would offer a potential improvement to the downstream receiving watercourses (Black Creek, Don River), in terms of potential water quality and erosion impacts.

5.1 VISION

The Secondary Plan should be updated to provide a transit-supportive planning framework for the areas available for non-university development within the study area. The transit-supportive development framework should take the form of a compact, vibrant and connected mixed-use community surrounding, protecting and enhancing the campus lands. The recommended densities, mix of land uses and heights proposed are strategically located to focus new development around three new subway stations. Development will provide new services for the academic community as well as the surrounding community and improved connections between the University and surrounding areas.

To create connections between the study areas's new mixed-use community and the surrounding community, a new interconnected, fine-grain street network is required. To achieve improved connectivity, recommendations to shape future development to establish strong physical and visual connections with the surrounding areas have been developed.

Artistic Representation of Potential Road Intensification along The Pond Road -- view looking west along the south side of The Pond Road

5.2 OBJECTIVES

Six objectives were developed to guide the Secondary Plan update process. These principles were presented to the public and refined through discussions with key stakeholders and as the process progressed. These principles should guide the policy directions of the Secondary Plan update and form the key objectives of the Secondary Plan. They should be fundamental to any development activities proposed within the study area. The six objectives are:

ACADEMIC CORE

Recognize, protect and enhance the University as an institutional district within the context of the larger urban community.

DISTINCT LANDSCAPE AND BUILT FORM CHARACTER

Preserve, protect and enhance the heritage resources, high quality built form and landscape character of the University.

TRANSIT-SUPPORTIVE DEVELOPMENT

Provide a framework for the development of York University lands that have the potential to be developed for non-university uses to take advantage of the opportunities of future transit improvements while ensuring the development of complete communities.

NATURAL ENVIRONMENT AND SUSTAINABILITY

Protect, restore and enhance the form, features and functions of the natural heritage system as well as advance environmental stewardship and sustainable site and building design in the Secondary Plan area.

CONNECTIONS
Ensure strong physical and social connections between the University and the surrounding areas.

FLEXIBLE IMPLEMENTATION
Provide a planning framework that is flexible to meet changing program, technological and funding contexts for the University.

5.3 STRUCTURE PLAN

A structure plan (Figure 12) has been developed to summarize the primary recommendations resulting from the testing and analysis. The structure plan identifies and illustrates the preferred street network, the findings of the archeology and heritage reviews, natural heritage and environmental principles, stormwater management and servicing recommendations and preferred locations for community services and facilities. Key elements of the structure plan include:

- An interconnected network of existing natural features and proposed naturalizing features that enhance and protect the existing natural environment system;
- A connected network of open spaces, in and around the campus, to facilitate both active and passive recreational activities, and provide linkages;
- A high quality pedestrian and cycling environment consisting of both on-street and off-street routes;
- A fine grain network of collector and local streets to interconnect the new community and facilitate connections to the surrounding areas;
- A centrally located community gathering space or other community focus feature on the south east portion of the study area;
- A natural features and open space framework to connect and enhance the existing natural features and ecosystems within the study area and within the region as a whole;
- Intensification of development around future subway stations Keele Street and Steeles Avenue West frontages;
- A built form premised on building footprints fronting onto streets and open spaces;
- An urban streetscape with a pedestrian friendly environment that transitions the area from suburban to urban; and
- A widened naturalized boulevard or linear park on the south side of The Pond Road to enable an open space link between the Black Creek Ravine and Keele Street.

Figure 12: Recommended Structure Plan

5.4 PRECINCTS

To ensure that the objectives of the Secondary Plan are met, it is recommended that precinct planning be utilized to provide more detailed plans for discrete areas within the study area. Seven precincts are recommended. Seven precincts have been identified and are shown on Figure 13. The following criteria was used to determine precinct boundaries:

- Precinct boundaries are defined by existing campus elements wherever possible such as roads, natural areas, topography, land uses, etc.
- Precincts consist of development areas that have similar adjacencies and design considerations e.g. major roads, intersections, existing land uses, heritage features, recreational features, existing neighbourhoods, development constraints, etc.
- Precincts group together development areas adjacent to campus entrances to ensure an overall gateway entrance design and treatment.
- Precincts combine development areas of similar anticipated land use.
- Boundaries between precincts mark potential land use and built form transition zones.

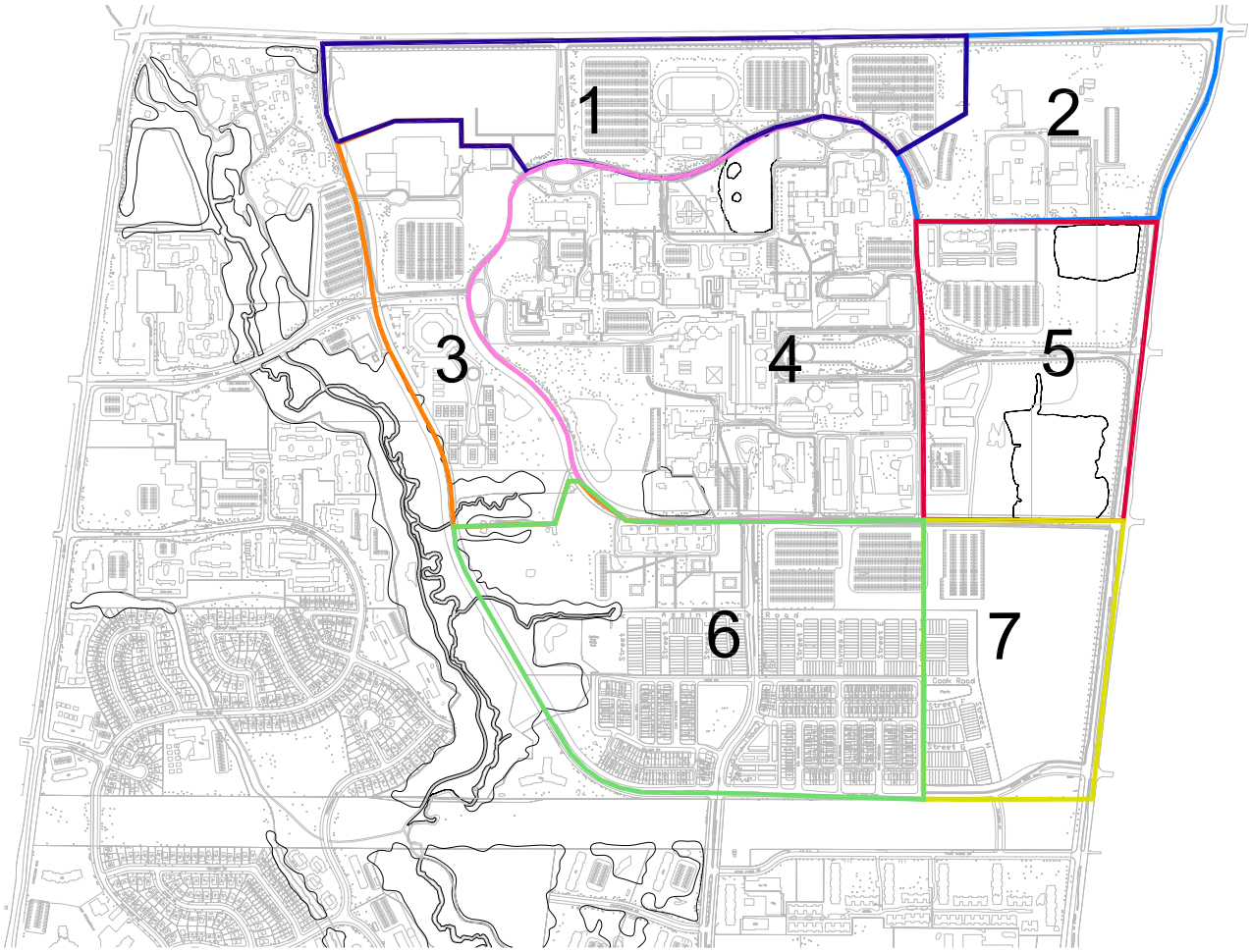


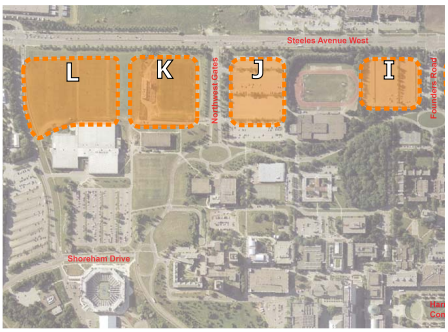
Figure 13: Recommended precincts

5.4.1 PRECINCT 1 – WESTERN PORTION OF STEELES CORRIDOR

This area encompasses four complete development blocks, L,K,J and I, and part of development block H totaling an approximate developable area of 15.19 ha. The proposed densities for this area are either 3 FSI or 4 FSI depending on proximity to the Steeles West Subway Station. The land uses are predominately residential uses with commercial ground floor along Steeles Avenue. At the intersections of Northwest Gate and Steeles Avenue. Two employment area sites are recommended adjacent to the new subway station.

- There will be a new subway station on southeastern corner of Northwest Gate and the TTC is currently completing an exercise to determine the location of a bus station. One possible location is south of subway station. An integrated subway station design should be investigated that accommodates residential or office uses above the station. The same should be considered for the potential bus terminal;
- Precinct Plans will have to resolve the berm conditions along Steeles Avenue as well as the heritage value of the existing double row of trees and how these features may be incorporated, as appropriate, to create a vibrant Steeles Avenue streetscape;
- Introduce transit-supportive densities and a mix of uses with a pedestrian-friendly ground floor and streetscape design along Steeles Avenue. An improved pedestrian realm along the Steeles Avenue corridor should be developed;
- Vehicular entrances to new buildings should be from secondary streets and not Steeles Avenue;
- A well-connected public street network and adequate services and stormwater management facilities will be required to enable non-university private sector development;
- Transitioning building heights should be implemented from the Black Creek Pioneer Village to the west to minimize views of the new buildings from this site;
- The precinct currently has soccer fields that are part of the University's existing Athletic Precinct. The University should revisit its Athletic Precinct to determine and establish future sports fields needs;
- All parking requirements for new development should be supplied within developments and preferably within underground structures to minimize the impact of parking structures on the public realm;
- An existing track and field centre is located directly adjacent to the proposed subway station at Northwest Gate, it is anticipated to remain for the long term;
- The two blocks adjacent to Northwest Gate are the only development zones that fall within the 500 metre radius of a proposed subway station along Steeles Avenue West; this area has the potential to attract a number of pedestrians and should be developed accordingly;
- A new, more pedestrian-friendly entrance to the campus should be created at Northwest Gate and should be well connected to the campus; and
- Office uses should be clustered around the subway station to balance the

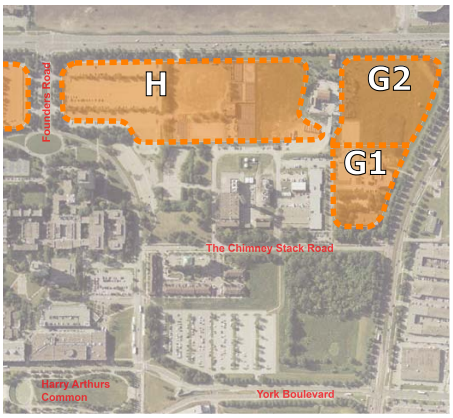
Precedent image showing courtyard buildings with transitions in height



Existing area map showing Precinct 1 areas L, K, J and I

Existing image of the campus entrance at the Northwest Gate

Precedent image of building creating a strong corner condition



Existing area map showing Precinct 1 areas H, G2 and G1

Existing image of pedestrian conditionals along Steeles Avenue West

adjacent residential uses and to encourage and support a mix of land-uses directly adjacent to the subway station.

5.4.2 PRECINCT 2 – EASTERN PORTION OF STEELES CORRIDOR

This area has three development blocks including a portion of block H and all of blocks G2 and G1 totaling an approximate developable area of 15.62 ha. The proposed densities for this area range from 2 to 2.5 FSI with predominately research/office uses and ground floor commercial uses along Steeles Avenue.

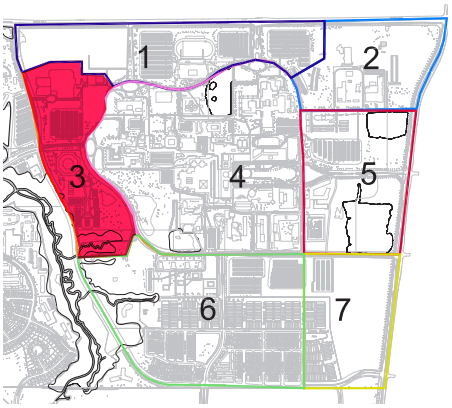
- This precinct contains two buildings, the Stong House and Barn, that are listed on the City's Inventory of Heritage Properties that should be conserved;
- The impact of any development in this area will require an Environmental Impact Assessment that considers the long-term health of the Danby Woodlot located to the south of this precinct. Development areas that are located adjacent to the Danby Woodlot will need to be investigated for water balance and environmental impacts on the woodlot;
- Introduce transit-supportive densities and a mix of uses with a pedestrian-friendly ground floor and streetscape design along Steeles Avenue. An improved pedestrian realm along the Steeles Avenue corridor should be developed;
- Precinct Plans will have to address the heritage value of the berm and double row of trees along Steeles Avenue and how these features may be incorporated to create a vibrant Steeles Avenue streetscape;
- The design of buildings located at the intersection of Keele Street and Steeles Avenue West should appropriately reflect the University at the gateway intersection
- A more pedestrian-friendly entrance to the campus should be created at Founders Road and should be well connected to the campus;
- All parking requirements for new development should be supplied within developments and preferably within underground structures to minimize the impact of parking structures on the public realm;
- The design of Founders Road should be coordinated between the development of Precinct 1 and 2;
- A well-connected public street network and adequate services and stormwater management facilities will be required to enable non-university private sector development; and
- Vehicular entrances to new buildings should be from secondary streets and not Steeles Avenue.

5.4.3 PRECINCT 3 – WEST CENTRAL CAMPUS AREA

Precinct 3 consists predominately of University sport facilities and student parking areas. There are no private development opportunities identified within this precinct. All new university-related development will be subject to a precinct plan or an updated Campus Master Plan. These plans should identify appropriate heights and massing for new university uses and address other aspects of anticipated

development based on the precinct's proximity to Black Creek, development lands to the north and south and The Pond Road to the east.

- The original Hoover Farm House still stands within this precinct south of Tennis Canada along the Black Creek Ravine. It should be conserved;
- With the proximity to the Black Creek, this area has extensive natural features that should be protected - especially the lands below the top of bank and the Saywell Woodlot;
- The stormwater management pond located to the west of this precinct would need to be carefully assessed prior to any development or revisions to existing grades and landscaping; and
- New pedestrian and alternate transportation connections to the campus and the surrounding areas should be established where possible.



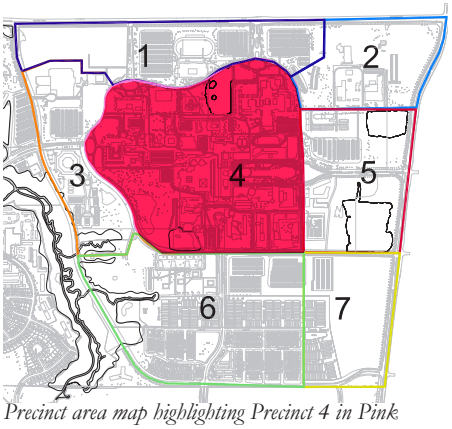
Precinct area map highlighting Precinct 3 in Pink

5.4.4 PRECINCT 4 – CENTRAL CORE CAMPUS

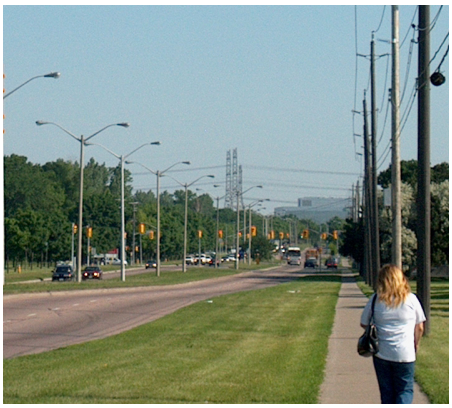
Precinct 4 is bounded by Ian MacDonald Boulevard to the east and north and The Pond Road to the south and west and is a pedestrian area with university streets providing access and servicing for the campus. A new subway station will be located at Ian McDonald Boulevard and York Boulevard that will be integrated into existing buildings and buildings currently under construction. There are no private development opportunities identified within this precinct. All new university-related development should be subject to a precinct plan or an updated Campus Master Plan. These plans should identify appropriate heights and massing for new university uses and address other aspects of anticipated development.


Precedent image of institutional building with glass facade facing green spaces

- New pedestrian connections within the Central Core Campus to the subway and the surrounding areas should be created and reinforced;
- Appropriate stormwater management studies and plans should be prepared at the precinct planning or Master planning stage to ensure the health and vigor of the Black Creek valley.
- A detailed evaluation of the existing heritage landscapes and buildings within the precinct should be undertaken. The evaluation should include an inventory and assessment of the buildings and cultural heritage landscapes located within the Precinct;
- The design of The Pond Road should reflect the adjacent University uses and the transition into a new mixed-use development. This may be achieved through a widened sidewalk condition on the south side and by maintaining complementary building massing and materiality on both sides of the street;
- New pedestrian and alternate transportation connections to the Campus and the surrounding areas should be established when possible;
- The intersection of Sentinel Road and The Pond Road needs to be established as a gateway to the campus. The redevelopment of the parking lot on the north side of The Pond Road should be considered due to its prominent location and proximity to the residential neighbourhood south of the campus; and
- The configuration of the Campus clearly reflects the two Campus Master Plans.

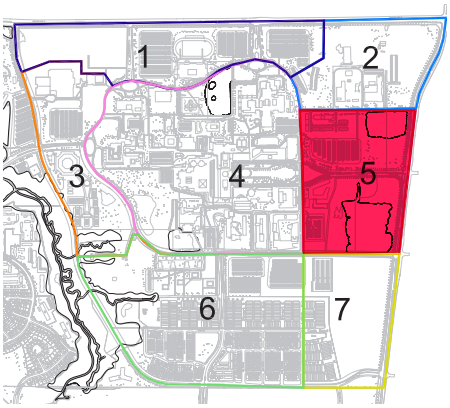


Precinct area map highlighting Precinct 4 in Pink



Existing image pedestrian conditions along Keele Street

Existing image looking west towards the Harry W. Arthurs Common



Precinct area map highlighting Precinct 5 in Pink

The original 1963 Campus Master Plan established the curvilinear pattern of roads and the 1988 Master Plan introduced a more formalized grid structure for new building development. As the University moves forward with a vision for this precinct, elements and concepts from both Master Plans should be retained where appropriate to maintain and enhance the unique campus environment.

5.4.5 PRECINCT 5 – EAST CENTRAL KEELE STREET FRONTAGE

Precinct 5 is framed by Keele Street to the east, Chimneystack Road to the north, Ian MacDonald Boulevard to the west and The Pond Road to the south. There are no private development opportunities identified within this precinct. All new university-related development should be subject to a precinct plan or an updated Campus Master Plan. These plans should identify appropriate heights and massing for new university uses and address other aspects of anticipated development.

- A new north-south public collector street parallel to Keele Street is recommended. The new street alignment should define the edge of the existing woodlots at an appropriate distance from the woodlots to provide for a sufficient buffer and set back. Re-naturalization of the buffer and setback should take place. The street should be curvilinear in alignment and should complete the ring road as originally envisioned in the 1963 Master Plan. New development is not encouraged between the new street and the woodlot;
- The lands directly adjacent to Keele Street on the north and south of York Boulevard are considered key University development sites. The lands are currently zoned Open Space but could be rezoned as institutional provided the woodlots are adequately protected. Wildlife corridors should be provided and natural functions should be maintained and, where appropriate, enhanced;
- Development proposed adjacent to woodlots will require a comprehensive environmental analysis that considers the long-term health of two woodlots, the Danby Woodlot to the north and Boynton to the south located within this precinct. A natural corridor will be required to permanently link the woodlots across York Boulevard. The characteristic of this connection requires further study but should be a minimum of 50 metres in width;
- A table land overflow and water balance study for both woodlots and the entire precinct should be required prior to any development as part of the environmental analysis required;
- The design of The Pond Road must reflect the adjacent University uses and the transition into a new mixed-use development; this can be achieved through a widened sidewalk condition on the south side and maintaining complementary building massing and materiality to the existing woodlot;
- New pedestrian and cycling connections within the Campus and to surrounding areas should be established where appropriate;
- New development along York Boulevard should frame the Commons, preserve important views into the campus and build on the existing formal structure of the roadway and streetscape design;
- A more pedestrian-friendly entrance to the Campus should be established

consisting of signage, gateway features, landscaping, widened sidewalks, lighting etc.; and

- The existing double row of trees planted along Keele Street should be maintained and enhanced, where appropriate, to provide a landscape transition between Keele Street, pedestrians and potential new development and to maintain the treed edge as an essential component of York University's well established image.

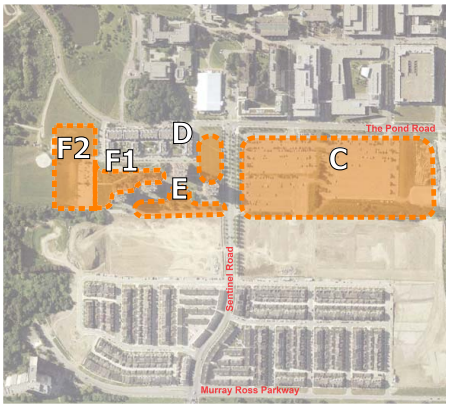
5.4.6 PRECINCT 6 – SOUTHWESTERN PRECINCT

This area has five development blocks including blocks F2, F1, E, D and a portion of block C, totaling an approximate developable area of 11.94 ha. The recommended densities for this area range from 1 to 2.25 FSI with predominately residential uses surrounding the existing residential towers on the eastern side of the precinct and mixed-use residential uses centering on Sentinel Road. New development will require public street access.

- Introduction of a new compact residential community model and a mix of uses with a pedestrian-friendly ground floor and streetscape design along The Pond Road is recommended;
- Vehicular entrances to new buildings should be from secondary streets;
- New development is to blend with and provide transition from existing development such as the low-density residential development south of the campus and the existing graduate housing towers on the west side of Sentinel Road;
- Development on the south side of Block C will share a street with single-detached dwellings and townhouses on the south and existing University developments on the north. Appropriate transitions to mitigate the impact of new development to this low-density residential development should be addressed within the Precinct Plan;
- A well-connected public street network and adequate services and stormwater management facilities will be required to enable non-university private sector development;
- Community feedback identified the need for a community gathering place that could take the form of a public square, piazza, urban parkette or promenade to provide a centre for social activities and promote community identity. Community feedback also identified the need for a grocery store. Area C or area D are recommended as the preferred locations for a grocery store and community gathering space;
- A new linear tree-lined pedestrian corridor should be established along the south side of The Pond Road with a widened sidewalk in front of new development with pedestrian-friendly ground floor uses.
- Locating new 2-3 storey residential development within the area where existing residential/student housing is located to improve the pedestrian realm and frame the existing street to enhance the pedestrian environment
- Vehicular entrances to new buildings should be from minor streets and not Sentinel Road or The Pond Road;

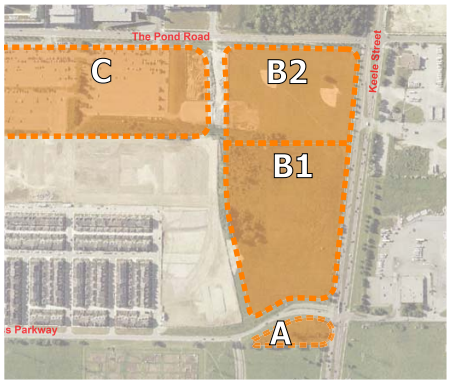
Precedent image of student residence in a courtyard style

Existing image of The Pond Road looking west



Existing area map showing Precinct 6 areas C, E, D, F1 and F2

Existing image of the low-density residential development to the south of the University



Existing area map showing Precinct 7 areas A, B1 and B2

Existing image of area B2 looking towards the Schulich building

- All parking requirements for new development should be supplied within developments and preferably within underground structures to minimize the impact of parking structures on the public realm;
- A new, more pedestrian-friendly entrance to the campus should be created at Sentinel Road; and
- A new green connection between the Boynton Woodlots and the Ravine should be established to improve the interconnected nature of the existing natural features and to encourage terrestrial movement. The exact size, location and configuration of the green connection will need to be investigated.

5.4.7 PRECINCT 7 – SOUTHEASTERN PRECINCT

This area has three development blocks including blocks A, B1 and B2 and a portion of block C, totaling an approximate developable area of 13.03 ha. The proposed densities for this area range from 2 to 3 FSI. Recommended land uses consist of mixed-uses, with pedestrian-friendly ground floor uses and residential or office uses above. New development will require public street access.

- Introduction of a new compact residential community model and a mix of uses with a pedestrian-friendly ground floor and streetscape design along The Pond Road is recommended;
- New development will require appropriate transitions to mitigate the impact of new development to the low-density residential development to the south and the proposed higher density uses along the Keele Street frontage;
- A well-connected public street network and adequate services and stormwater management facilities will be required to enable non-university private sector development;
- Vehicular entrances to new buildings should be from secondary streets;
- A new tree-lined open space corridor is to be established along the south side of Pond Road with a widened sidewalk in front of new development with pedestrian-friendly ground floor uses;
- Community feedback identified the need for more public open space, a public park is recommended in area B1;
- All parking requirements for new development should be supplied within developments and preferably within underground structures to minimize the impact of parking structures on the public realm;
- A more pedestrian-friendly entrance to the Campus should be created at The Pond Road. A double row of trees along Keele Street should be established in a tree planting pattern established in Precinct 5;
- A new green connection between the Boynton Woodlot and the Hydro Corridor should be established to support and enhance connections and linkages to existing natural features and to encourage terrestrial movement;
- A storm water management facility such as a storm water pond may be required and could be located in the south east portion of the precinct; and
- The impact of any development in this area will require an Environmental Impact Assessment that considers the long-term health of the Boynton Woodlot located to the north of this precinct as well as other natural features

located within this Precinct that would also require protection and/or connection to the Finch hydro corridor.

5.5 LAND USE, DENSITY AND HEIGHT RECOMMENDATIONS

The recommended maximum heights and land uses for non-university development areas are highlighted on Figure 14.

5.5.1 HEIGHT RECOMMENDATIONS

The key height recommendations include:

- Buildings that are in excess of 4 to 6 storeys should be designed to include a base building that does not exceed 4 to 6 storeys to provide definition for the building, to support an appropriate scale for adjacent streets, parks and open spaces and to integrate with adjacent buildings;
- Where tall buildings are not provided with a base building condition, the façade and articulation of the building should fulfill a special design condition to mitigate potential impacts of tall buildings. This could include entrance courtyards, ground floor plaza, primary building entrance, etc.;
- Building massing should transition in height and scale from existing low-scale residential areas other low-intensity or sensitive land uses. The base building and overall building height should be lower in these instances;
- Additional criteria for locating and designing tall buildings from the Official Plan and applicable guidelines should be employed. The height and massing of buildings within individual Precincts should be resolved at the precinct planning or campus master plan process; and
- All new buildings and developments should be a minimum of two storeys within central areas and should be a minimum of 4 storeys along Keele Street and Steeles Avenue West.

Precedent image of an institutional building with innovation materials, high lever of glazing and a clear functional organization

Precedent image of sustainable solar shading and a pedestrian friendly grade transition

5.5.2 DENSITY RECOMMENDATIONS

The recommended maximum density limits range from 1 to 4 FSI depending on walking distances from proposed TTC transit stations and adjacent land uses. The densities were tested with 4 FSI within 250 metres of the new stations main entrance, 3 FSI from 250 to 500 metres, and 1-2 FSI in areas that are located greater than 500 metres from a station to ensure an appropriate built form could be achieved, that there is sufficient transportation, servicing and stormwater management capacity.

Given the constrained building heights resulting from the Downsview Airport Height Restrictions, these are the recommended maximum allowable densities by site. With these projected densities and the existing building height limitations limited density transfers can be accommodated. Any proposed density transfers should only be permitted in return for securing a public benefit and will have to demonstrate that an appropriate built form can still be achieved.

Figure 14: Recommended land uses and densities

5.5.3 LAND USE RECOMMENDATIONS

Specific land uses were identified for the purposes of testing. These land uses are the recommended land uses for the lands identified for non-university development. To allow for both the recommended land uses and institutional uses there must be flexibility within the Secondary Plan. Key land use recommendations include:

Institutional Areas
The University precincts and other lands identified as needed by the University for university purposes should be designated as an institutional area to protect these lands for academic purposes over the long-term. University uses should also be permitted throughout the study area. New institutional development on sites identified for non-university development should conform to the general guidelines outlined in this document.

Mixed - Use
Mixed-use areas are typically considered to have ground floor retail, restaurants, community facilities, doctor's office, etc., with residential, research or employment/ office above. Mixed-use areas should be focused around transit stations and in areas with land use transitions, such as along The Pond Road or along Steeles Avenue West.

The sites located directly adjacent to the Steeles West Subway station should be encouraged to have office uses as these uses are considered major trip generators and are well-suited at sites adjacent to a subway station. This also reflects the direction provided for in the City of Vaughan's OPA 620.

Office / Research Areas
Office / Research uses are recommended on the northwestern corner of the campus and at Steeles Avenue West and Keele Street. Other pockets of employment uses are recommended through out the study area to support a mixed-use community where people can live and work in the same community.

Residential Areas
Residential uses are recommended throughout the study area, in a diversity of building forms and typologies. It is recommended that new development should be predominately residential if located adjacent to existing residential uses.

Parks and Open Space Areas
Opportunities exist to create new public and private open spaces within the study area. These should be incorporated in a variety of manners including, private open spaces such as paved plazas, green spaces, hardscaped courtyards, public neighbourhood parks, etc. Within the open spaces there should be a priority for pedestrian and cyclist connections through out the entire Secondary Plan area and to the surrounding communities.

Provision of a new open space on the east side of Murray Ross Parkway to allow

for a built form setback from the Black Creek Pioneer Village to the west and parkland amenity for residents and employees.

5.6 TRANSPORTATION PLAN

The recommended Transportation Plan addresses the various aspects of mobility required for the study area.

Four key aspects of the Transportation Plan are:

- The public street network;
- Designing streets for people;
- Walking and Cycling; and
- Transit.

5.6.1 PUBLIC STREET NETWORK

Streets connect people to the places and destinations of an area, but the public street network is more than just a utilitarian system of connections. Public streets are components of the public realm. Public street networks are owned and controlled by the public and as such they are designed, developed and maintained by the City for multiple users and as civic open spaces, while providing connections within and between an area.

5.6.1.1 PRIMARY STREETS

The primary street network within the study area is important due to their traffic and circulation function, their role in connecting the University to surrounding areas and their role in establishing a front door or primary address and identity for future development. The primary streets will be the most important pedestrian corridors and can accommodate more intensive forms of urban development. Primary streets should enhance the appearance and urban character of an area.

The recommended public primary street network to support the York University Secondary Plan is Option 5 – Completed Curvilinear Ring Road. The sections of new public streets that comprise the preferred public collector street network are listed below and are shown in Figure 15:

A) Converting North West Gate to a public street between Steeles Avenue West and Ian McDonald Road;
B) Converting Founders Gate to a public street between Steeles Avenue West and Ian McDonald Road;
C) Converting Ian McDonald Road to a public street between The Pond Road and Chimneystack Road;
D) A new north-south public street extension of Evelyn Wiggins Drive, between

The Pond Road and Murray Ross Parkway;

E) A new north-south public street in the northeast corner of the Plan area, between Steeles Avenue West and Chimneystack Road;

F) A new north-south public street between Chimneystack Road and The Pond Road; and

G) Converting The Chimneystack Raod from Keele Street to Ian MacDonald Boulevard to a public street.

The completed curvilinear ring road provides the additional benefit of visually and physically framing the woodlots and natural feature. The ring road also connects all the woodlots, meadows and valley lands. The design and orientation of the ring road should reflect the importance of the natural features within and surrounding the Campus and protect their long-term viability. Reconfiguration of the existing Campus entrances (roundabouts) to better reflect the transition into a more urban, pedestrian friendly Campus and replace with new generously scaled open spaces that provide identity, access and address, and maintain a large-scaled open space element to re-inforce the University's and Secondary Plan's "green" image.

New traffic signals will need to be introduced at the following primary street and arterial street intersections:

- Steeles Avenue West and Northwest Gate;
- Steeles Avenue West and new north-south road west of Keele Street; and
- Keele Street and the Chimneystack Road.
- Other signals will need to be determined as warranted and as development proceeds over time.

This document satisfies the first two phase of the Municipal Class EA process and forms the Transportation Master Plan. The continuation of the planning and design of the new public primary /collector street network The new public streets that have been identified are expected to be Schedule C projects, as required by the Class Environment Assessment process.

Refinement of the Preferred Public Primary Street Network

Upon completion of the evaluation and selection of the preferred public street network, further work was undertaken on the design, alignment, and configuration of the primary public street network with input from various stakeholders, including York University.

This additional work is not technically part of Phase 2 of the Municipal Class EA process, and relates more to Phase 3, but it was undertaken in a preliminary sense as part of this Transportation Master Plan work to help provide clarity on a number of issues, including the following:

- It was identified that impacts to potential University development sites along

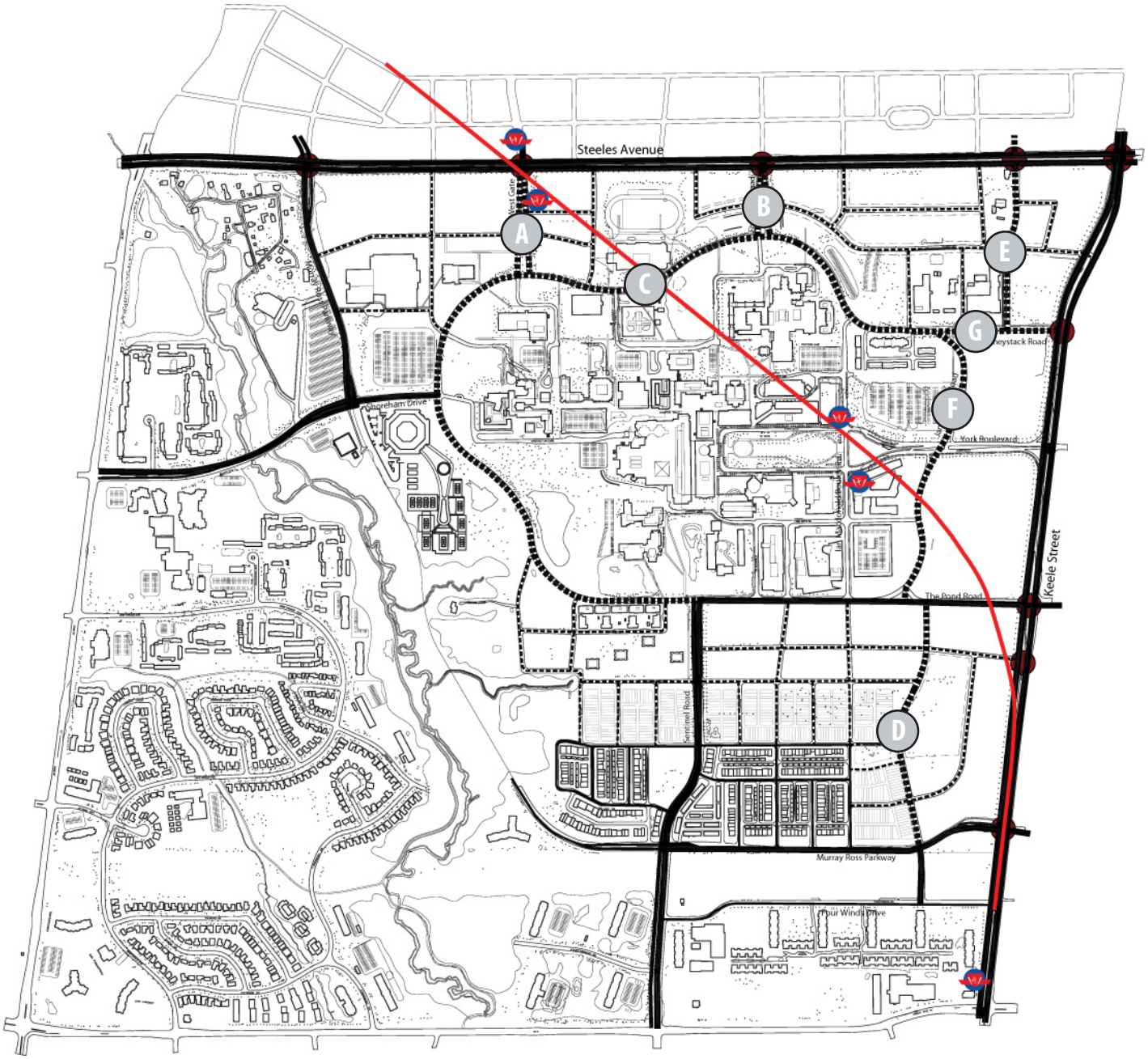


Figure 15: Initial Preferred Public Street Network

the new north-south primary street between The Chimneystack Road and The Pond Road needed to be minimized.

- There was the need to refine the location of the north-south primary street intersecting Steeles Avenue west of Keele Street due to constraints on the north side of Steeles Avenue in the City of Vaughan. To ensure the appropriate conservation of the Stong house, barn and associated landscape in this area, a further assessment of the heritage property was undertaken to assist in determining where this primary street could be located. This assessment identified the heritage significance of the property and the need locate the street to the west of the former orchard located on the site. More detailed analysis of existing site conditions, such as grade relationships, will need to be resolved in determining the exact alignment for this street.
- There were concerns about operational issues around some atypical intersection configurations, so possible configurations were developed to explore possible intersection controls and designs.

As a result of this additional work, a refined public primary street network is being carried forward to support the Secondary Plan and will form the basis for future work when the remaining phases of the Class EA are initiated. The refined preferred public street network is shown below in Figure 16.

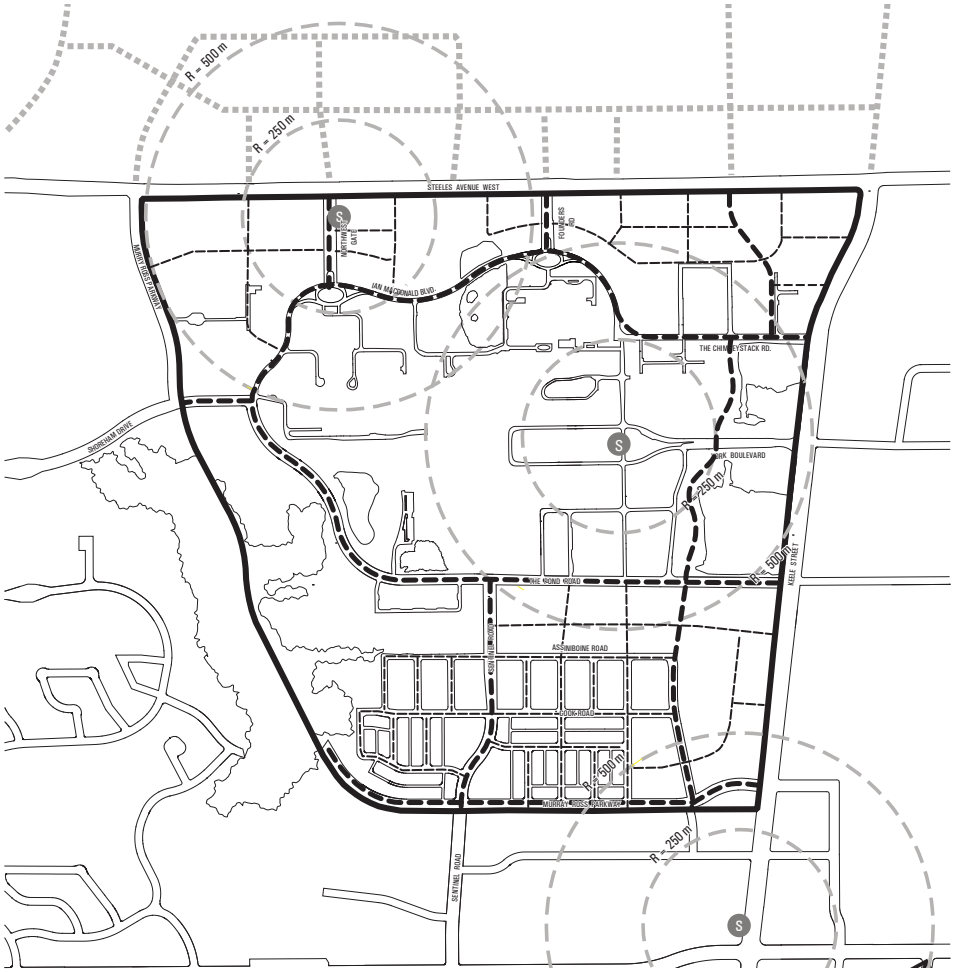


Figure 16: Refined Preferred Public Street Network

Precedent image highlighting the importance of bike parking and storage areas within the Secondary Plan Area

5.6.1.1 SECONDARY STREETS

Secondary streets or local streets have a supporting function to primary streets, both from a transportation and an urban design perspective. Secondary streets are important elements in the overall system of circulation and will provide much needed connectivity within the study area. A fine grain of secondary public streets is recommended.

5.6.2 DESIGNING STREETS FOR PEOPLE

The proposed street network in the study area will be shared by a variety of users, including pedestrians, bicycles, private and commercial vehicles and transit vehicles. The needs of all of these users need to be accommodated within the public right-of-way. Conceptual street sections for key streets within the study area are outlined on the following pages. These street sections identify the spatial requirements for various elements required within the public right-of-way, such as vehicle lane widths, bike lane widths, sidewalk widths, street tree requirements, median treatments, alternative design standards, bus vehicle clearances and emergency vehicle clearances.
The ultimate detailed design of the public primary streets will be determined through future phases of Environmental Assessment process and the ultimate design of local streets would be determined at the Precinct Planning stage.
The recommended minimum right-of-way widths for key public streets are:

- Northwest Gate, with its proximity adjacent to a subway station, will be the second most important gateway entrance into the University. The design of this street should be a minimum of 33 metres;
- Founders Road consists of a gateway entrance into the University and should be designed accordingly. The minimum ROW width should be 27 metres;
- Ian MacDonald Road should have a minimum ROW of 23 metres;
- The Chimneystack Drive should be have a minimum ROW of 23 metres;
- The new north-south connection between The Chimneystack Road and The Pond Road should be a minimum of 20 metres and should include alternative design standards such as permeable paving and bio-swales;
- Evelyn Wiggins Drive should be a minimum of 23 metres; and
- Local streets should be a minimum of 18.5 metres.

5.6.3 WALKING AND CYCLING

A vibrant and active pedestrian- and cyclist-friendly streetscape is a crucial requirement for new public streets within the Secondary Plan area.

- An integrated cycling network is recommended for the study area and it should be connected where appropriate to the City's larger system;
- Pedestrian friendly streetscapes should have clearly defined pedestrian routes separate from vehicular traffic areas, such as easily navigated, barrier-free

sidewalks, open spaces, walkways and well-marked crosswalks. Cyclist-friendly routes should have clearly defined cycling routes along streets and in mid-block connections;

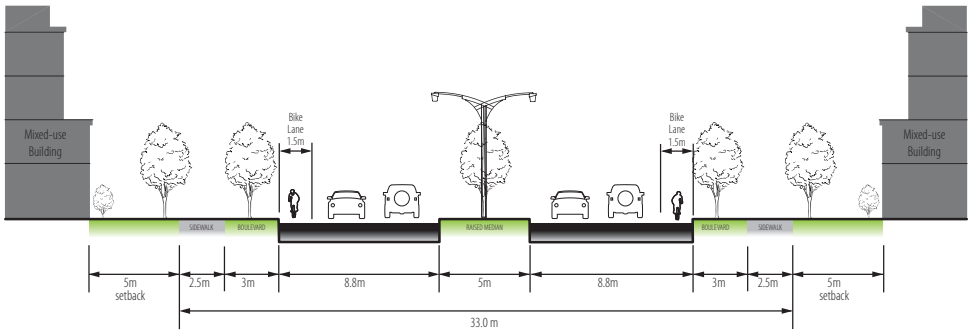
- Key pedestrian and cycling areas should be identified in the Precinct Plans. The cycling routes should be buffered from vehicular traffic through means such as on-street parking and street trees, and cycling amenity should be enhanced with high quality streetscape design that includes decorative paving, landscaping and street furniture;
- All new buildings and developments should include sidewalks adjacent to all streets and walkway connections to public building entrances;
- All new and existing buildings and developments should maximize opportunities to create, define and enhance streets and pedestrian areas. This can be achieved through the consistent use of design elements, materials and other cues for safe, legible and comfortable pedestrian movement;
- In an effort to reduce pedestrian-vehicular conflict, curb cuts and vehicular access points should be consolidated wherever possible, especially along main streets;
- Pedestrian access to new and existing open spaces should be reinforced with strong pedestrian linkages;
- There should be a seamless and connected transition from public pedestrian to private pedestrian connections; this transition can be identified with changes in paving material, planting or other design means;
- Vehicular traffic through new residential areas should be slowed with regulations that prioritize the right-of-way for pedestrians and cyclists;
- All sidewalks and pedestrian routes should be continuous and should always be designed with proper separation and relationship to abutting or adjacent private uses. Relationships and transitions can be facilitated by changes in grade, low fencing, plantings, or a combination of these;
- Pedestrian amenities such as seating, waste receptacles and lighting should be sourced locally and coordinated throughout the Precinct Areas; and
- All new and existing buildings and developments should maximize opportunities to incorporate high-quality and well-designed pedestrian amenities within publicly accessible areas on-site, or on the street boulevard adjacent to the site.

5.6.4 TRANSIT

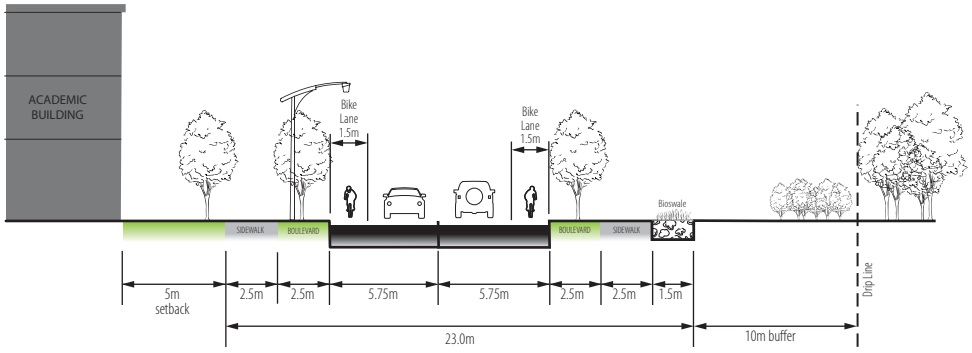
Convenient access for transit riders should be facilitated with appropriate wayfinding, included but not limited to signage to transit stations and subway stations.

5.6.5 PARKING

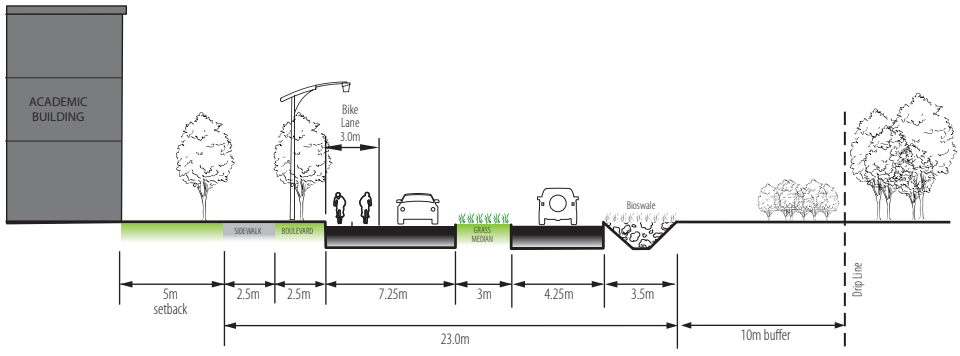
Parking regimes in the study area will also need to reflect transit-supportive development objectives. The parking requirements for the University are being dealt with by the City, but will reflect transit-supportive objectives.



NORTHWEST GATE



NORTH-SOUTH CONNECTION (VERSION 1)



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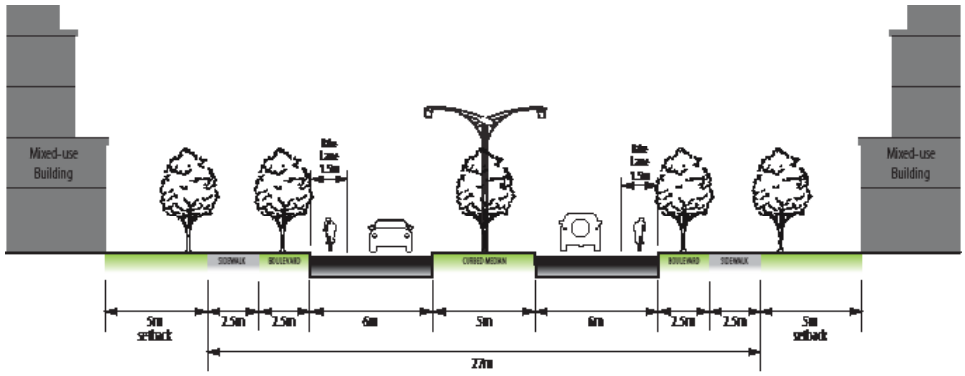
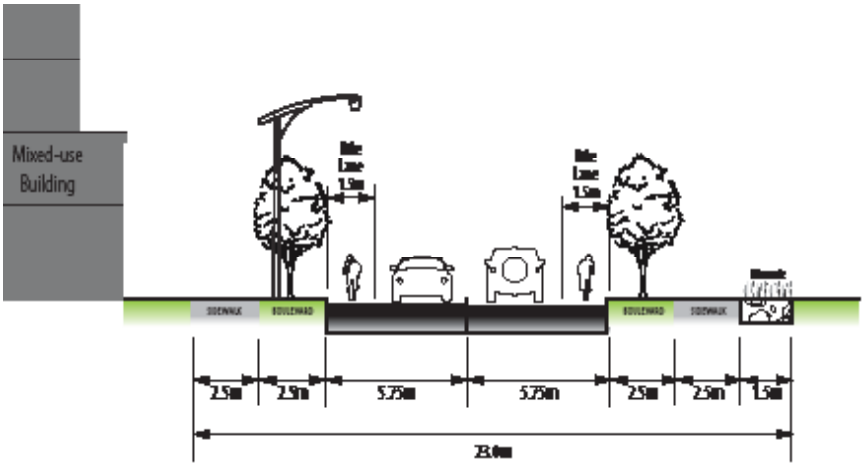


FOUNDERS ROAD



IAN MACDONALD BOULEVARD AND THE CHIMNEYSTACK ROAD

Current practice for establishing non-residential parking requirements in the City of Toronto and other jurisdictions is to accomodate peak parking demand. Parking requirements for residential uses tend to not take into account proximity to transit and other areas accessible by walking or cycling. As a result, parking tends to be oversupplied. Moreover, minimum standards are typically the only requirement which does not prevent a developer from providing excessive parking. This has lead to situations where vast expanses of surface parking are provided for a particular development which is not an efficient use of land or resources and is not transit-supportive.

It is recommended that both a minimum and maximum parking standard be applied for the areas available for non-university development. Maximum parking standards limits the number of spaces that can be provided for a particular development. This in turn:

- Provides for more efficient use of land;
- Enhances urban form;
- Encourages the use of alternative modes of travel; and
- Provides for better pedestrian movement.

The North York Centre Secondary Plan establishes minimum and maximum parking standards for residential and office uses. Other municipalities, such as Portland Oregon and San Francisco, are implementing maximum parking standards for near transit stations. Some municipalities have even gone so far as to not require a minimum parking requirement for sites within 150 metres of a transit station.

In addition to establishing maximum parking standards, other recommendations to ensure a transit-supportive parking regime include:

- Reducing parking requirements in general that are typical suburban parking standards while ensuring the residents, retail and office uses are still provided with adequate parking for visitors and clientele;
- Using partnerships with the University and City parking authorities to meet some off-peak parking demands;
- Providing on-street parking where appropriate;
- Reducing parking requirements by up to 25 per cent for providing an excess of bicycle parking and facilities over minimum requirements;
- Providing opportunities for shared parking in transit station areas for uses such as entertainment, retail, office and residential;
- Providing a decreased parking requirement for affordable housing; and
- Requiring a certain amount of ride-sharing parking and offering reductions in parking requirements for developments that include ride-sharing programs.

5.7 ARCHAEOLOGY AND HERITAGE

The conservation of heritage resources in the study area should be central to any future plans for development. There are two types of heritage resources in the area. First, there are several heritage buildings and cultural heritage landscapes and there are areas with archeological potential that will require a Stage 2 Archeological Assessment prior to any development. The City is currently investigating some existing buildings as candidates for listing on the City's inventory of Heritage Buildings or for designation under the *Ontario Heritage Act*.

Key recommendations for conserving the archeological and heritage resources includes:

- All areas identified as having archaeological potential on the adjacent map should be required to complete a Stage 2 Archaeological Assessment prior to development or soil disturbance;
- Archaeological resources found through the Stage 2 archaeological assessment will require appropriate preservation of the resources. This is typically determined through public consultation;
- Significant archaeological deposits should be conserved by on-site preservation where appropriate and as determined through community consultation. Where archaeological features are preserved on-site, any development or site alteration would need to maintain the heritage integrity of the site;
- All new buildings located adjacent to heritage features or structures will need to respect the heritage attributes of the particular feature; and
- Modern cultural landscapes should be conserved wherever possible and/or when they are positively contributing to the overall natural, visual and physical qualities of the study area.

5.8 NATURAL HERITAGE AND ENVIRONMENTAL PRINCIPLES

To protect the existing natural features found within the study area, a more interconnected natural network should be established. The overall goal should be to ensure a net environmental gain of natural features within the study area. This network would connect the existing natural features provide an organizing system for future development. This structure would also serve to better connect new communities to the surrounding area and establish essential green corridors throughout the entire study area.

It is recommended that a landscape master plan and/or a landscape management plan for the individual precincts be developed. The plans should address forest and natural areas management and the ongoing viability of the linkages/connections throughout the study area. The landscape master plans should be done on a precinct wide basis acknowledging features extending beyond precinct boundaries.

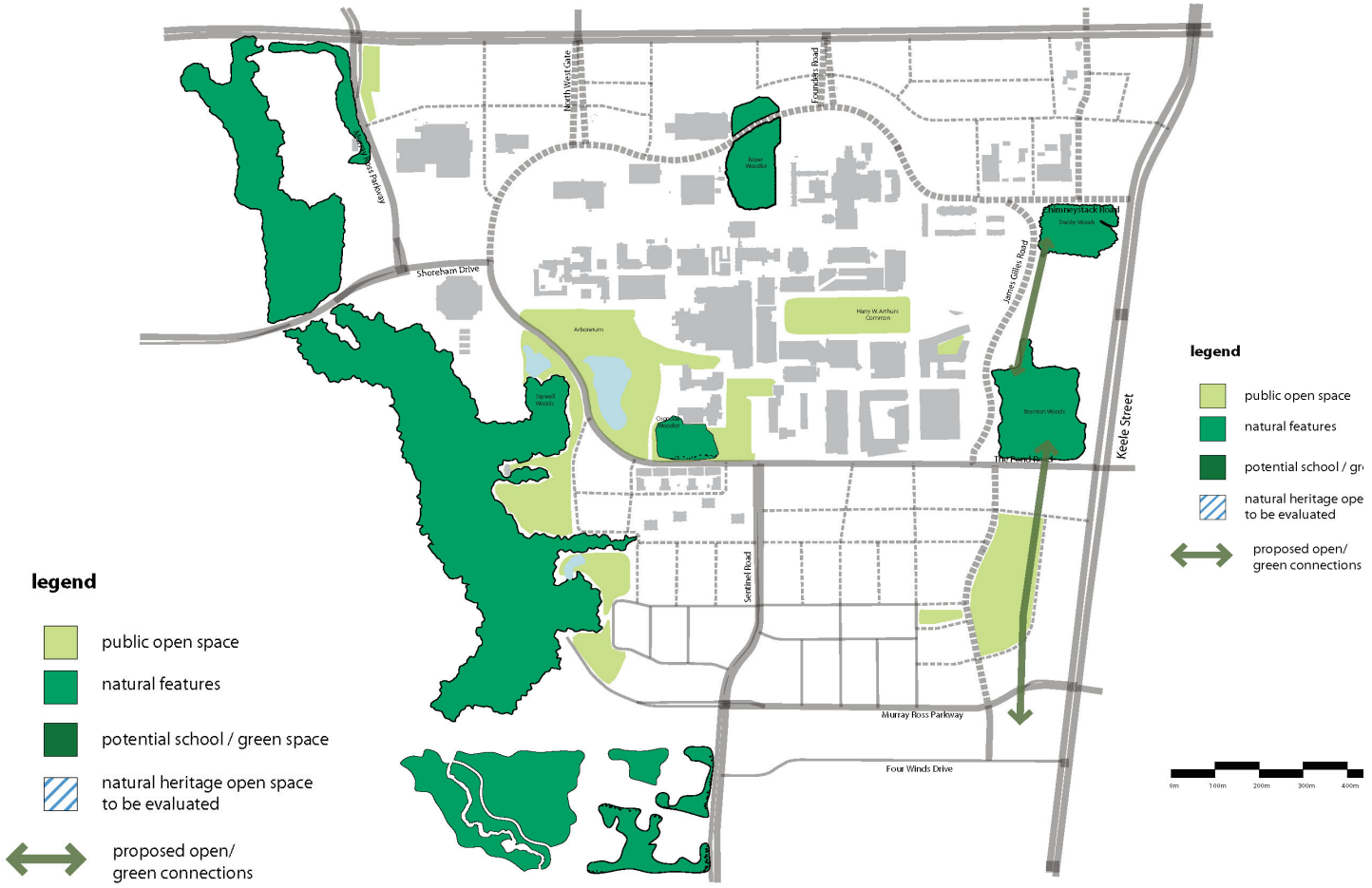


Figure 17: Recommended natural heritage and open space network

Precedent image showing hardscaped areas combined with naturalized planting

The recommended interconnected natural heritage and open space system is shown on Figure 17. This figure identifies the natural heritage areas and features that should be protected, restored and enhanced. Two green connecting corridors area shown and should be created to connect the Danby and Boynton Woodlots, and to connect the Boynton Woodlot to the existing Finch Hydro Corridor. These corridors will require future study to determine their width, location and design characteristics. Additional recommendations include:

- The natural heritage components should provide the underlying framework for developing the community. The preservation of the natural heritage system will require careful integration of adjacent development including buildings, streets, trails and public open spaces;
- Development adjacent to the natural heritage features must be sensitive to the preservation and sustainability of natural features and systems;
- Management plans should be prepared for the woodlots to ensure their long term sustainability. The management approach prepared by Duggan & Associates recommends active canopy management of hazard trees, diversification of plantings, an aggressive exotic species control program, garbage and pedestrian management, localized adjustments to site hydrology

and establishing linkages with other natural heritage features;
- Visual and physical connections should be created and/or enhanced to existing and/or new open spaces and green connections. This will encourage pedestrian access and use of mid-block private and public open spaces;
- New green corridors should be established to connect the area's existing natural features. The optimal location, width and design of these corridors must be determined through further study and should maximize benefits to the existing wildlife and natural features; and
- Proposed neighbourhood parks are generally located at the centre of neighbourhoods and are accessible within a five minute walk. The design of parks should reflect the needs of surrounding residents including places to sit and socialize, play areas for children of all ages, gardens that could be maintained by local residents and a significant tree canopy for shade and drainage benefits. These parks provide passive open space areas which are intended to serve as focal points within sub-areas of each neighbourhood.

Sustainable techniques to enhance natural features could include but are not limited to:

- Sustainable landscape design;
- Urban heat island mitigation;
- Stormwater management;
- Renewable energy;
- Green roofs;
- Dark sky design;
- Water use reduction and waste water technologies, and,
- Bird friendly guidelines.

5.9 WATER /WASTE WATER AND STORMWATER MANAGEMENT

Effectively managing stormwater run-off and ensuring appropriate infrastructure is in place when development occurs within the study area are critical in ensuring the success of the area. Figure 18 identifies key improvements to the existing private infrastructure that would be needed to accommodate potential development. However, non-unviersity development should be connected to public infrastructure and co-ordinated within the public street network.

5.9.1 WATER/WASTEWATER RECOMMENDATIONS

The water and wastewater servicing for the lands within the York University Community are well developed and the municipal system water and wastewater systems have sufficient capacity for the ultimate development of the study area. However, water system improvements will be required as a result of development and servicing should be co-ordinated with the public street system.

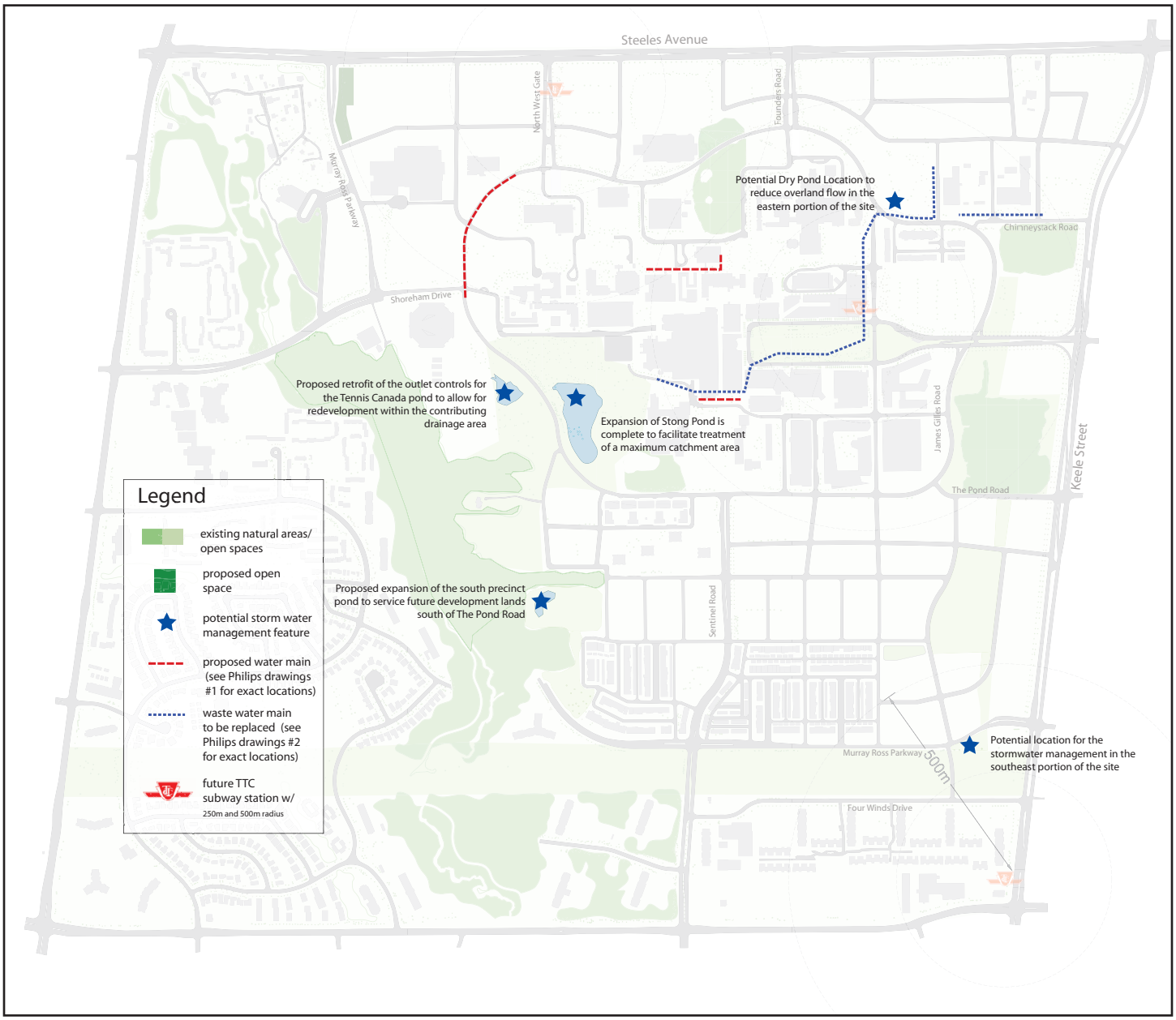


Figure 18: Servicing and stormwater management recommendations

The wastewater system will also require capacity upgrades to accommodate the additional flows expected due to intensification. The upgrades can be accomplished by replacing existing wastewater mains. The Secondary Plan should make reference to these general guidelines in the body of the policy document and should indicate that the general guidelines should be clearly demonstrated in the Precinct Plans.

5.9.2 STORMWATER MANAGEMENT RECOMMENDATIONS

The possible development is a combination of new development on greenfield lands and redevelopment of existing lands, such as on existing parking lots. There is therefore a variety of scenarios between a net increase in imperviousness and a net decrease in some instances. The majority of the previous design work has allowed for an ultimate level of imperviousness in the hydrologic modeling, and therefore this will need to be confirmed, to ensure that the stormwater management facilities are designed to achieve optimum performance, and to determine if there are locations that are not receiving full stormwater quantity, quality and erosion control.

A system of two or three new facilities, and modifications to two existing distributed stormwater management facilities will need to be implemented for the study area. All facilities will be verified as to their regional performance and subsequently designed to greater detail during future levels of study. Environmentally responsible and/or sustainable design approaches for reducing stormwater flows at the source and managing stormwater run-off, such as the use of green roofs, rainwater gardens, recycling of the rainwater and pervious pavement combined with underground storage, should be encouraged.

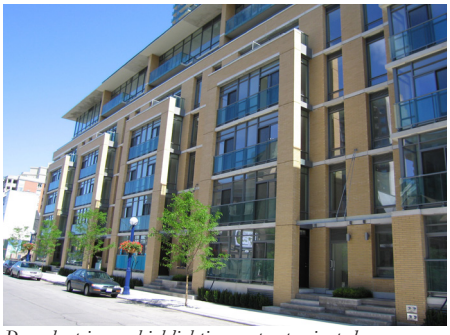
New technologies and techniques should also be investigated as they become available. To-date, the MOE and TRCA have not been in a position to credit development for implementation of these practices. They are accepted as good practice as it is difficult to demonstrate that implementing the systems has a measurable impact on the stormwater runoff and as a result the end-of-pipe SWM facilities are required to be the same size regardless of whether you implement the sustainable practices or not.

Stong Pond, Tennis Canada Pond, and The Pond Road Catchments

The proposed redevelopment along Steeles Avenue is within the area serviced by the Tennis Canada and Strong Pond. The proposed redevelopment south of The Pond Road will be split between The Pond Road outfall and the South Precinct Pond.

A key exercise to be undertaken at the functional design stage, once the proposed land use is finalized, is to confirm the previous calculations and assumptions for diverting drainage areas to, and maximizing the performance of, the Strong Pond. This includes proposed diversions from both the Tennis Canada Pond and The Pond Road catchments. A secondary benefit of the diversions is an increase in the capacity of the existing systems, which may potentially allow for more redevelopment within those catchments.

Precedent image highlighting mid-block green connections between buildings



Precedent image highlighting a street oriented development

Precedent image highlighting a mixed-use building with ground floor retail and residential above

The proposed redevelopment is also in the northeast section of the campus which drains overland to the southeast. This will therefore require a check of the proposed dry pond at Chimneystack Road and the downstream overland flow route.

Summary:

- Maximize the Stong Pond volume and simultaneously increase the drainage area contributing to the pond;
- Decrease the area contributing to the Tennis Canada Pond, by diverting runoff to the Stong Pond;
- Decrease the area draining to The Pond Road outfall, by diverting runoff to the Stong Pond; and
- Create an additional facility at the intersection of Ian MacDonald Boulevard and Chimneystack Road, to control peak flows and reduce flooding downstream.

South Precinct Pond Catchment

As noted above, redevelopment south of The Pond Road is partly within the area serviced by storm sewers that drain to the South Precinct facility, including the lands that front on Keele Street.

A recommended future exercise for this area will be to determine the exact drainage areas, and therefore the volumes for the proposed expansion of the South Precinct facility. As was the case for the Stong Pond, one objective will be to reduce the stormwater discharging to The Pond Road outfall.

Summary:

- Proposed expansion of the existing facility northerly to accommodate all flows from the South Precinct lands; and
- Potential creation of a storm sewer outlet from existing development on Passy Crescent, and future lands west of Passy Gardens (note that this would reduce the flows in The Pond Road storm sewer and outfall).

Southeast Catchment.

At the conceptual level, all of the minor drainage from the redevelopment in the southeast is proposed to be conveyed to the South Precinct facility. The major overland flow route remains to the southeast corner, to the Don River. Should grading constraints arise during detailed design, there is an opportunity to have a small stormwater management facility in the southeast corner of the campus. The total drainage area will determine what type of stormwater management will be the most applicable, e.g. an oil and grit separator may be sufficient if the drainage area is small, or a forebay-style dry depression area may be considered.

Additional Recommendations

It should be noted that opportunities for distributed local and conveyance best management practices will need to be examined once a land use plan is finalized. The City of Toronto Wet Weather Management Master Plan outlines numerous alternative stormwater management practices which, if employed, will reduce peak flows and pollutant loading to both the end-of-pipe facilities and to the receiving

waters of either Black Creek or the Don River. Alternative measures such as green roof technologies, rainwater recycling, and rainwater gardens should be explored. Other infiltration-based alternatives such as permeable pavement, and infiltration galleries do not offer as high a level of treatment on account of the native soils in the study area.

5.10 BUILT FORM GUIDELINES

The following urban design guidelines are recommended guidelines for the study area. The urban design guidelines provide criteria to guide the evolution of new development within the study area, as well as forr enhancements and additions to existing buildings. They should be included in the City's District or Area Based Guidelines or they could be attached as an appendix to the Secondary Plan to give them formal status as a guide to the review of future rezoning applications and Site Plan Control applications.

Precedent image highlighting how structured parking garages can be designed to fit with surrounding development

5.10.1 MID-BLOCK CONNECTIONS AND COURTYARDS

The mid-block connection and the landscaped courtyard are built forms characteristic to existing development within the Secondary Plan area and strong place-making elements contributing to the unique image of the Secondary Plan area. As the Secondary Plan area develops opportunities for creating shared courtyards and mid-block connections between buildings will present themselves. Mid-block connections and courtyards should have a high quality of design and construction, and be visually and physically connected to the adjacent streets and open spaces, Their siting, organization and design will be key to creating complementary/co-ordinated relationships between adjacent buildings and developments.

Precedent image highlighting landscaping and naturalized paving in surface parking lots

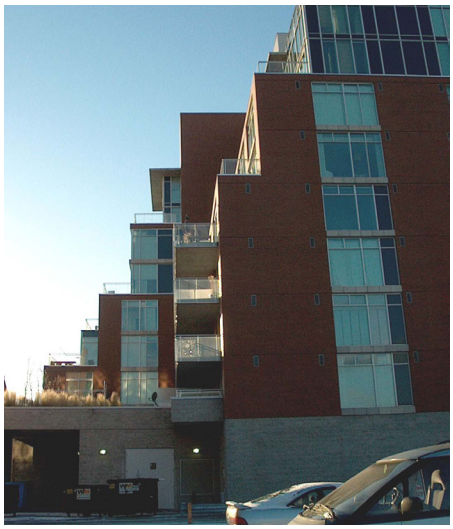
Private open space, including courtyards and mid-block connections, should be designed to be publicly accessible and should provide well-defined and attractive public-private transition areas. Shared courtyards should have a coordinated design that is seamless between adjoining developments. Courtyards can be a combination of hard and soft landscaped areas and should include building entrances features as an important program element.

5.10.2 BUILDING ORIENTATION AND LAYOUT

The orientation and organization of buildings and overall site layout will support city-building objectives. Buildings will be located and organized to frame and support adjacent streets, parks and open spaces to improve safety, pedestrian interest and casual views into these spaces. This is achieved by locating building along edges of streets and open spaces, creating prominent built form features at corners and view terminus locations, locating main building entrances along sidewalks, and providing ground floor uses with views and access to adjacent streets, parks and open spaces.

Precedent image highlighting high quality building design and mixed-use development to generate an active public realm

Precedent image highlighting high quality building design and mixed-use development to generate an active public realm



Precedent image highlighting a transition in building heights from mid rise to low rise

Precedent images of potential high quality building materials

Building setbacks should be set to align buildings consistently along streets and to create a continuous street wall allowing for direct relationships between sidewalks and ground floor uses. In locations where the street wall is deliberately disrupted, the setback will be designed to create memorable public space amenities such as gathering spaces, plazas, parkettes or recessed entranceways. Openings in the street wall will be publicly accessible and have high-quality urban design. Parking areas should not be located between the sidewalk and the building façade.

5.10.3 PARKING

Many design solutions are available to ensure the provision of adequate parking facilities without creating surface parking areas that are visible from the street, undermining the pedestrian character.

Structured Parking

- Below-grade parking structures are the recommended alternative to surface parking;
- All new below-grade or above-grade structured parking should locate vehicle entrance/exit access points on the least busy of the surrounding streets and/or off rear lanes to minimize curb cuts and reduce conflicts with pedestrians. Vehicular entrances should not be located directly off Keele Street, Steeles Avenue, The Pond Road or Ian MacDonald Boulevard. Pedestrian access to all new structured parking should be clearly demarcated, highly visible and be incorporated into the overall design of the building. and
- All above-grade parking structures associated with new development should be integrated into the buildings on-site, and form part of the overall development scheme to 'blend-in' with the surrounding buildings and not 'read' as a parking facility.

Surface Parking

- All new buildings and developments will locate all surface parking areas at the rear or sides of buildings to ensure the sidewalks/pathways and building façades effectively define the street edge. In situations where it is impossible to accommodate surface parking behind buildings, parking areas may be provided along the side(s) of buildings. In both scenarios, the parking areas should be appropriately screened from view;
- All new and existing buildings and developments at corner sites should not locate surface parking lots facing onto or visible from the street corner/intersection and pedestrian routes; and
- Surface parking should never be located between a building and a street.

5.10.4 BUILT FORM & MASSING

A range of different building forms and massing are recommended throughout the study area. The form of the building should respond to its surrounding context and when taller buildings are proposed, their bulk should be minimzed through setbacks,

stepbacks, courtyards or other design elements. High quality building design, public realm and open space is encouraged.

- All new buildings and developments that occupy a corner site should acknowledge the corner condition through architectural expression and should feature fully developed façades along both frontages including glazing and entrances located at the corner of the building
- Buildings should not have blank façades. Where buildings are prohibited from incorporating windows, (e.g. where future adjacent development is anticipated, where OBC limiting distance applies) the side façades should still incorporate an acceptable level of detail and articulation. This may include detailed brick work, ornamentation, murals or similar architectural treatment.

Precedent image of an established local street design with street tree trees, planted boulevards and mid-rise buildings

5.10.5 BUILDING BASE DESIGN

A well designed building adds visual interest to a street and responds to the existing streetscape conditions through its architectural expression. It is recommended that a variety of building base conditions be created with clearly defined semi-private transition zones. Outlined below are guidelines that contribute to the creation of a vibrant public realm through a well designed building base.

- All building façades facing onto streets and public spaces should incorporate vestibules, frequent building entrances, covered walkways, canopies and awnings at the ground floor level to provide weather protection and to add life to adjacent pedestrian areas;
- All new buildings and developments should be designed with continuous street façades that incorporate well-designed articulations and 'breaks' featuring opportunities for public open space, mid-block pedestrian walkways and/or central entranceways;
- New buildings and developments should maximize opportunities to create new public pedestrian routes throughout the site to connect with the public sidewalk network and with transit stations and the proposed green space connections. These connections will help to achieve greater connectivity and encourage pedestrian actively throughout the area; and
- Windows should be provided at grade to promote the safe use of sidewalks, walkways and open spaces.

Precedent image of a mid-block public open space

Precedent image of a mid-block public open space

5.10.6 TALL BUILDINGS

Buildings whose height is greater than the width of the adjacent streets should address the City of Toronto Tall Building Guidelines.

5.10.7 BUILDING MATERIALS

The choice of building material is integral to the design of new buildings. The material selected should respond to the design and style of the proposed building.

The use of high-quality and durable building materials for new developments will promote an image of permanence and quality construction. Wherever appropriate, new buildings should reflect the building materials used in the existing heritage buildings.

- All new buildings and developments should utilize building materials chosen for their functional and aesthetic qualities. All exterior building finishes should demonstrate a high-quality of workmanship, durability and ease of maintenance;
- Building materials and finishes/accents that are incorporated onto building facades facing onto or visible from streets and public spaces should not include synthetic siding systems, mirrored/heavily tinted glass panels and/or unadorned concrete block;
- All new buildings and developments should have well-considered building materials at the ground floor that is of a pedestrian scale and responds to the existing surrounding buildings; and
- Wherever possible, locally sourced building materials, durable materials, environmentally –friendly construction technique and material manufacture should be used.

5.10.8 BUILDING SHADOWING AND SHADOW STUDIES

Shadows cast by taller buildings greatly influence the spaces that surround the building. Determining building heights based on predetermined shadowing goals will ensure the surrounding buildings get an adequate amount of sun exposure. The following conditions should be considered in the Precinct Plan when siting taller buildings within the precinct.

- Tall buildings should be oriented in a manner that minimizes cast shadows;
- Building mass should be located to avoid casting shadows on public open space and, where possible, sunlight should be maintained on open spaces between 10 am and 2 pm;
- All buildings should receive direct sunlight at some time during the day;
- The interior courtyards of buildings should be sited, organized and designed to receive the maximum amount of sun exposure possible; and
- The smallest possible floor plate for taller building should be used to allow more sunlight to reach the ground plane and the public realm.

5.10.9 PEDESTRIAN AND CYCLIST AMENITY

Easy and accessible pedestrian and cyclist circulation routes are a key recommendation and should be considered as a primary consideration in all new development. Within the study area there are multiple possible pedestrian zones. These include the sidewalks along main and minor streets, mid-block connections and potential trails though natural areas. The design and treatment of these sidewalks should be consistent with the adjacent uses. The creation of new pedestrian and cyclist-friendly connections throughout the area should be established to connect to the surrounding community.

5.10.10 LANDSCAPE

The central image for the Secondary Plan area is that of wide open green spaces and attractively designed pedestrian spaces that together create a park-like setting for both academic and non-academic buildings. Natural features such as the upland woodlots along Keele Street and the heavily treed Black Creek ravine along the west edge, as well as the hard and soft cultural landscape design features of the academic campus, parks and streets support the image. The combination of large-scale landscaped open areas such as The Commons and recreational sports fields along with smaller intimate landscape spaces that include courtyards and squares create a strong landscaped image.

The Structure Plan identifies the essential landscape features both natural and cultural that define and give character to the study area. As the area develops, the essential landscape character will be enhanced through mindful consideration of scale, function, variety, cohesiveness and sustainability. Important landscape features, networks and systems will need to be maintained, and new landscapes will need to be created as this area develops.

Landscaping, both hard and soft, should contribute to broader environmental objectives such as heat island reduction, storm water management, naturalization, food production, wildlife habitat and corridors, soil enhancement, slope retention,, erosion control, for example, by contributing to physical improvements. New landscaping should be provided in ways that have the least impact on the environment by using environmentally sustainable construction methods, techniques and wherever possible local and durable materials (and labour).

The following planting strategies are recommended:

- Landscaping and plant material which maintains a desirable appearance throughout the year, such as evergreen trees and tall grasses should be encouraged;
- Plant material should be selected to minimize maintenance costs. Often, these results in the selection of native plant materials that are well-adapted to the local climate or species that are proven to withstand salt and other chemicals introduced through clearing of snow and ice;
- Ornamental plantings are also useful to signify main entrances, transition between different neighbourhoods or community areas and can be employed as wayfinding tools;
- Tree planting should vary in species, age and size to ensure a consistent tree canopy throughout the lifecycle of trees;
- Native species are encouraged and may be required to be used on particular portions of the site, especially near natural features such as woodlots, ravines and natural restoration areas; and
- Planting and landscape construction should be undertaken using environmentally responsible techniques, materials and be locally sourced, wherever possible.

Precedent image highlighting potential sustainable building design practices

Precedent image highlighting potential sustainable parking lot design practices

5.10.11 SUSTAINABLE DESIGN

Sustainability, as an overarching principle for the planning of the study area, needs to be fundamental to all development, construction and operational decisions affecting the Secondary Plan area. The principles of sustainability will be integrated into the higher level Master Plans, Precimct Plans and Transportation Studies as well as the detailed project implementation and construction plans for the development and management of buildings, parks, roads and other infrastructure.. A sustainable approach for the Secondary Plan area maybe specifically supported by encouraging centralized district heating and cooling with geothermal, geo-exchange or solar technology, green roofs, bio-swales, surface storm water management features and permeable paving for all on-street and at-grade parking.

All new development and redevelopment should incorporate the highest standard of sustainable environmentally responsible design strategies, construction methods and operational performance measures. Regard should be had for the City of Toronto's policies and guidelines for sustainability, including the Green Development Standard.

The reconstruction of the remaining ring road should be a model of sustainability with innovated stormwater management design standards and high-quality plantings, similar to the portion of The Pond Road that is already completed.

To be effective, sustainable planning and construction approaches that integrate environmental sustainability principles from the early design phase through to implementation need to be included in all development. Key considerations for the design of new buildings include water quality, consumption and runoff, the preservation of natural and built features, the reduction of impermeable paving surfaces, and reduction of the building footprint to create public open spaces and landscaped areas. Other key considerations for achieving sustainable designs are outlined in the City's Green Development Standard and include:

- Building orientation;
- Sustainable landscape design and landscape management plans;
- Urban heat island mitigation;
- Alternate transportation options;
- Renewable energy;
- Green roofs;
- Building envelope design;
- Natural ventilation;
- Day light design;
- Dark sky design;
- Waste management; and
- Water use reduction and waste water technologies.

The objectives developed for the study area will take many years to achieve and are in part dependent upon the ability of York University to sell the lands identified for non-University development and the completion of the Spadina Subway Extension. It would be desirable for transit-supportive development to occur in advance of the completion of the Spadina Subway Extension, despite the fact that University is already a major destination that currently has a large student and employee population.

The implementation framework for achieving the objectives for the study area will require a holistic process that considers all of the key issues identified in this study, other background reports and from community consultation. It will require implementation through a series of legislated planning tools and processes, other planning documents, the University's Master Plan and collaboration between the City, York University and the development community.

The ongoing testing, best practices and review processes that were undertaken within this study will need to continue throughout the implementation to ensure that the best possible community development philosophies and technologies are employed. Outlined below are a summary of the key implementation steps that will be required.

6.1 OFFICIAL PLAN AMENDMENT

The first step is to amend the City's Official Plan as it applies to the York University lands. Many of the existing land use policies of the 1991 Secondary Plan can be maintained, while others will need to be brought into closer conformity with the vision for the City and for the lands. At a minimum, the new OPA should incorporate the following outcomes of this study:

- The objectives for the study area are a critical piece of any Secondary Plan as they provide the basis for the Plan's policies and will establish the key criteria that development applications will be reviewed;
- A high quality public realm and built form should be a key component of the policy framework in the Official Plan Amendment. Integrating a structure plan highlighting the key public realm objectives should be a priority for the Secondary Plan. The general built form guidelines and recommendations identified in this document should form the basis for built form policies of the Secondary Plan to ensure a high quality built form;
- The Secondary Plan should be updated to incorporate the density and height recommendations identified in this study to provide for appropriate development levels and built form for the study area.
- Transit-supportive development is more than just providing higher densities; it is also about providing a mix of land uses. The Secondary Plan should include a land use framework within the Secondary Plan that is based on a mix of land uses, especially for development areas located within 500 metres of a subway station.

- A public street network based on the preferred street network identified in this study should replace the existing Roads Plan in the 1991 York University Secondary Plan. A framework for the implementation of the public street network should ensure that the street sections are constructed, or will be constructed, to City standards in advance of or at the same time as development in an individual Precinct;
- Ensuring that appropriate pedestrian and cycling connections are established;
- The conservation of heritage buildings within the Secondary Plan Area should be a priority for all new development. New development that is directly adjacent to and/or influencing view corridors towards heritage features must be sensitive to the design and scale of the heritage buildings. Precincts that contain built heritage and cultural heritage landscapes will have to address the relationship between existing and new built form with a series of principles and guidelines as to how the two will interrelate; and
- A net environmental gain for natural heritage features is recommended for the Secondary Plan and establishing a connected system of natural heritage features and open spaces.

6.2 SCHEDULE "C" ENVIRONMENTAL ASSESSMENT PROCESS

Within the study area many of the existing streets are currently private, but will be required to be primary public streets to support future development. New primary public streets will also be required. These streets are identified within the preferred street network option.

The Transportation Master Plan contained within this document addresses Phase 1 and 2 of the Municipal Class Environmental Assessment (EA). The Transportation Master Plan has determined where the needs for new primary public streets are as well as the form and function of those primary public streets. Phase 3, 4 and 5 of the EA process will need to determine the functional design of those primary public streets and their exact location.

Following the approval of the updated Secondary Plan Council and resolution of York University's appeals of the City's Official Plan, the completion of the Schedule C Environment Assessment process should be undertaken.

6.3 INFRASTRUCTURE IMPROVEMENTS

Necessary improvements have been identified for the private water/waster water and storm water infrastructure for the study area. These improvements are based on the potential development yields. However, non-university development should be serviced by municipal infrastructure and should be co-ordinated with the public street system. Servicing for non-University development should be addressed when the Schedule "C" EA is undertaken, at the Precinct planning stage or through Plans

of Subdivision. As Precinct Plans are submitted for the city to review it is essential that the ultimate build-out of the entire study area is considered.

Stormwater management and site servicing for a precinct should be addressed comprehensively at the precinct planning stage. This will ensure that the entire stormwater management context and any alternative practices for managing stormwater management are identified during the detailed design of a particular precinct. It is also essential that sustainable water management technique (with close to source solutions for stormwater management) be included in all precinct detailed design. The following should be demonstrated within a precinct plan:

- Minimal runoff is directed to Black Creek;
- Relationship to the entire Secondary Plan Area;
- Mitigate stormwater management impacts;
- Identify new infrastructure improvements; and
- Priority for sustainable planning and infrastructure techniques.

6.4 PRECINCT PLANNING

A precinct planning approach should be adopted for the study area. There are vast tracks of vacant land available for non-university development. A precinct planning approach will ensure that these tracts of land are developed in a coordinated and comprehensive manner. Applications for future non-academic development should be preceded by a Precinct Plan for the entire precinct area. Precinct Plans will establish the standards by which the City will review development applications for that Precinct.

York University and/or the development industry should prepare the Precinct Plans in co-operation with the City and other agencies and commissions. Once a Precinct Plan has been developed, it should be adopted by City Council and used in conjunction with the Secondary Plan for reviewing development applications. The Precinct planning process should include:

- Developing an open space and green connections master plan that connects and integrates with the overall parks and open space system of the study area;
- Establishing a set of environmental performance standards or developing a sustainability plan for the Precinct which identifies sustainable features for the Precinct area such as district heating and cooling, green roofs, green building design and alternative design standards for public streets;
- Providing a community services and facilities implementation strategy to ensure that future employees and residents will have adequate access to basic community amenities, such as schools, parkland and recreation centres;
- Developing an affordable housing strategy to provide for a full range and mix of housing types and tenures;
- Completing Natural Heritage Impact Statements for development/ redevelopment adjacent to natural heritage features within a precinct;

- Submitting the relevant transportation studies that may be required to ensure that the precinct will have an appropriate public street network when development is initially proposed;
- Providing a functional design for stormwater and infrastructure systems that integrates into the existing natural heritage and open space system. Alternative stormwater and infrastructure systems should be investigated and implemented where appropriate;
- Completing Stage 2 Archaeological Assessments and Heritage Impact Statements for precinct areas that have been identified as having heritage and archaeological resources.

The form and content of the precinct plans should consist of:

- a vision for the precinct area;
- a streets and block structure that supports a broad range of development and provides appropriate pedestrian, cycling and vehicular connections to adjacent communities;
- identification of pedestrian and cycling connections including connections to public transit facilities;
- the conceptual location and massing of buildings;
- identifying an appropriate land use mix;
- a landscaping and open space master plan; and
- urban design standards and guidelines.

York University has a Master Plan which guides the University's development over the long-term. The existing Master Plan was developed in 1988 and should be revisited following approval of the Secondary Plan. To provide flexibility for the University, the University lands have also been divided into a number of functional precincts so that the University could proceed with development in a timely fashion without having to revisit their entire Master Plan. The City should play a key role in reviewing and providing input into the Master Plan or precinct plans for the University lands and the Master Plan or precinct plans should be used by the City to review development applications.

6.5 PUBLIC STREET NETWORK

The implementation of the primary streets and new traffic control signals required to support non-university development within the study area should be implemented as development proceeds within an individual Edge Precinct.

The primary street network and the associated traffic controls should be completed together with the required municipal servicing as follows:

- the completion of Northwest Gate with the construction of the Steeles West subway station. This will ensure that the subway and any associated bus stations can be accessed via a public street;
- the completion of the portion of Ian MacDonald Boulevard in the Steeles

West Precinct when initial non-university development is proposed in that precinct;
- the completion of the portion of Ian MacDonald Boulevard in the Steeles East Precinct, The Chimneystack Road, Founders Gate and the north-south connection between The Pond Road and The Chimneystack Road when initial non-university development is proposed in the Steeles East Precinct;
- the completion of the north-street between The Chimneystack Road and Steeles Avenue when initial non-university development is proposed in that quadrant of the Steeles East Precinct; and
- the completion of Evelyn Wiggins Drive when initial non-university development is proposed in the South Keele Street Precinct.

Notwithstanding the above, a staged implementation of the primary streets and municipal servicing could be permitted if it is determined at the precinct planning stage that a staged implementation framework is feasible in accordance with the following criteria:

- identifying the functional segments of the primary streets that are required to accommodate development traffic within a particular precinct and to provide for a connected and continuous street network;
- identifying municipal servicing requirements for development within a particular precinct;
- identifying the functional segments of the primary streets that are needed to provide vehicular, pedestrian and bicycle access and building address within a particular precinct; and
- providing a phasing plan for the construction of the primary streets and municipal servicing in association with potential phasing of non-university development within a particular precinct.

Secondary Streets

Secondary public streets should have a minimum right-of-way width of 18.5 metres and should be implemented as part of the Precinct Plans to ensure that the streets and block structure supports a broad range of development and provides appropriate pedestrian, cycling and vehicular connections to adjacent communities.

There may be a need to construct some secondary public streets as part of the construction of the Steeles West subway station, in particular, a new north-south public street adjacent to the track and field centre.

6.6 ZONING

Implementing zoning for the individual precinct areas should be completed at the Precinct planning stage rather than after the Secondary Plan is adopted. This will ensure that zoning standards are adopted that will reflect the intended development for each Precinct area as the detail planning for each individual Precinct is

undertaken. The Zoning By-laws should not be overly restrictive to allow for changes to building design that are in keeping with the applicable Precinct Plans without having to seek relief through the Committee of Adjustment or Council. The new requirements of the Planning Act regarding adopting Zoning By-laws within 3 years of adopting an Official Plan or Official Plan Amendment will have to be resolved.

6.7 PLANS OF SUBDIVISION

Plans of subdivision should be required for all future development to ensure orderly development of the individual Precincts, ensuring an appropriate lot and building layout, the location and size of secondary or local streets and finalizing the locations for schools, community facilities and parks and adequacy of vehicular access, water supply and sewage disposal.

6.8 TRANSPORTATION DEMAND MANAGEMENT PLANS

Future non-residential applications for development in the study area should be accompanied by a transportation demand management (TDM) plan, subject to review by the appropriate review agencies, including the Smart Commute Association of Black Creek. The TDM plans should describe the measures that will be implemented to encourage transit use, cycling and walking and discourage automobile use, particularly for commuting.

6.9 COMMUNITY IMPROVEMENT PLANS

The Community Improvement provisions of the *Planning Act* give the City tools to actively stimulate reinvestment and revitalization. In designated Community Improvement Project Areas, a Community Improvement Plan can be prepared providing the City with various powers some of which would be otherwise unavailable to address deficiencies or facilitate improvements. This includes incentives to stimulate or leverage private and/or public investment where they advance the community interest and objectives of the Plan.