

March 2015

City of Thorold

DRAFT BROCK BUSINESS PARK SECONDARY PLAN

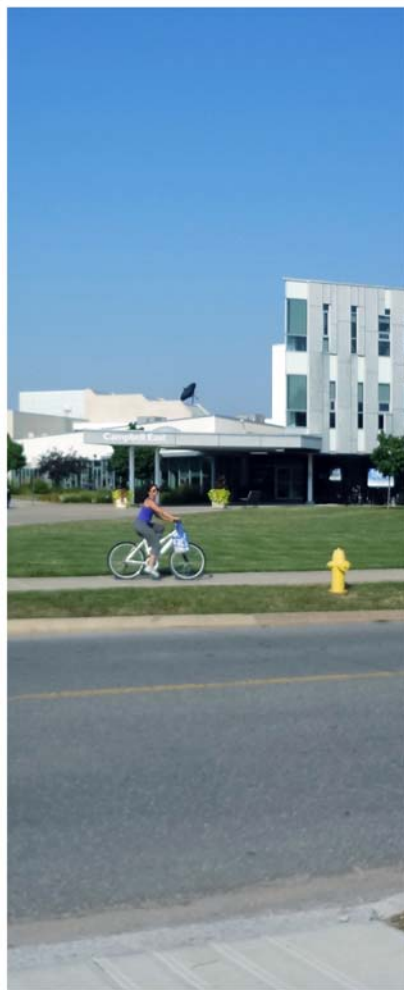


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APPENDICES

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APPENDIX B: BROCK BUSINESS PARK MASTER PLAN (2013)

1 BASIS FOR THE PLAN

The planned function and design of business parks is evolving. The traditional approach of separating employment uses from other uses such as residential and commercial is being challenged in a number of communities, as governments and private sector land developers are looking to be more competitive and respond to emerging market demands. Increased interest in mixed-use



development and sustainability has opened up the possibility of re-designing and improving traditional business parks to meet both civic and market-oriented objectives. Furthermore, some members of labour force have increased flexibility and are choosing to live and work in more dynamic places. In order to attract top talent, businesses are seeking out competitive advantages and are recognizing the importance of dynamic working environments. The development industry is looking to capitalize on these new trends and, as a result, the suburban models of development, including those for traditional business parks, are evolving. The City of Thorold has undertaken a secondary planning exercise for the Brock Business Park to guide the revitalization of the Park in a manner that supports and enhances the employment uses while providing opportunities for new uses that integrate surrounding areas, encourage mixed use and improved urban design, and meet the current market demands.

1 | INTRODUCTION

1.1. POLICY CONTEXT

The Brock Business Park was originally contemplated as a traditional greenfield business park in the mid-1980s. The first plan for developing the Business Park was prepared in 1988. The plan recognized that, due to its location, the Brock Business Park was well suited to develop as a key employment area in Niagara Region. The existing Business Park is approximately 43 gross hectares, is visible and accessible from Highway 406, and is situated across from Brock University.

In 2009, the City completed its *Employment Lands Comprehensive Review*¹. The Review examined the City's overall employment land needs and provided recommendations for improving Thorold's competitiveness. One of the key findings of the Review was a recommendation for balancing the demand for conversion within the Brock Business Park. In response to an individual application for new student housing in the Business Park, the Review suggested that the conversion could be warranted, but that the City prepare a new plan to proactively deal with the potential long term implications of introducing housing into what was supposed to be an employment area.

Following the *Employment Lands Comprehensive Review*, the Region of Niagara (the Region) completed the *Niagara Economic Gateway Strategy* in 2011. The Gateway Strategy built upon the recommendations of the City's *Employment Lands Comprehensive Review* and provided stronger direction for redevelopment within the Brock



Looking north across parking lot and two storey office building off of Schmon Parkway.

¹ *Employment Lands Comprehensive Review*, Dillon Consulting, 2009.

1 | INTRODUCTION

Business Park. The *Gateway Strategy* identified a number of opportunities for revitalizing the Brock Business Park in order to re-energize the area, balance potential residential uses with the need for employment uses, and attract new investment. The *Gateway Strategy* was implemented through Regional Official Plan Amendment 1-2012.

Policy 3.A.3.4 speaks directly to the Brock Business Park and provides the following direction:

- “The concept for the Brock Business Park Revitalization is to capitalize on market opportunities for research and development and the close proximity to Brock University and Highway 406 by transforming the area into an integrated, mixed use, campus-style setting which caters to incubators, innovators, limited office uses, and related uses.
- In order to address the challenges, capitalize on opportunities and transform the concept into reality, the following tools will be utilized:
 - a) Preparation of a joint secondary plan to coordinate development and refine the concept;
 - b) Preparation of a public realm improvement program to re-energize the area and attract new investment;
 - c) Preparation of supporting plans for servicing and transportation (including active transportation and transit);
 - d) Preparation of urban design guidelines; and,
 - e) Updating relevant local plans, policies, and zoning by-laws”².

NIAGARA ECONOMIC GATEWAY VISION

The vision for the Niagara Economic Gateway employment lands is to attract investment and promote employment growth in strategic locations. By addressing the challenges in a strategic and coordinated manner and by taking advantage of the unique locational opportunities and linking them with Niagara’s market opportunities, Niagara will attract new investment to support its existing employment base and further develop its emerging employment clusters. The vision is to transform the collection of vacant lands into a diversified mix of vibrant, attractively designed, accessible and sustainable employment areas.

² Consolidated Official Plan, Region of Niagara, August 2013

1.2. BROCK BUSINESS PARK MASTER PLAN

In 2013, the City of Thorold completed a comprehensive master planning exercise to address a number of aspects related to the previously-noted items. The Brock Business Park Master Plan³ examined several alternative land use and physical design alternatives for revitalizing the Park. Through a collaborative exercise which included engagement with the public, as well as a number of agencies and stakeholders, a recommended land use plan was presented to Council in December 2013. Council adopted the recommended land use concept, along with the key recommendations of the Master Plan Study report. Key recommendations included:

- The need to prepare a formal Secondary Plan for the Park (statutory plan under the Planning Act);
- The need to confirm municipal servicing requirements based on the recommended land use concept; and,
- The need to prepare a financial strategy to implement the plan.

In 2014, the City of Thorold launched the statutory planning process under the *Planning Act* to prepare a formal secondary plan for the Brock Business Park. In parallel to the secondary plan process, the City also completed a municipal servicing study and financial strategy. Aspects of the financial strategy and the servicing study have been considered in the finalization of the Secondary Plan. In addition to above, several details related land use,



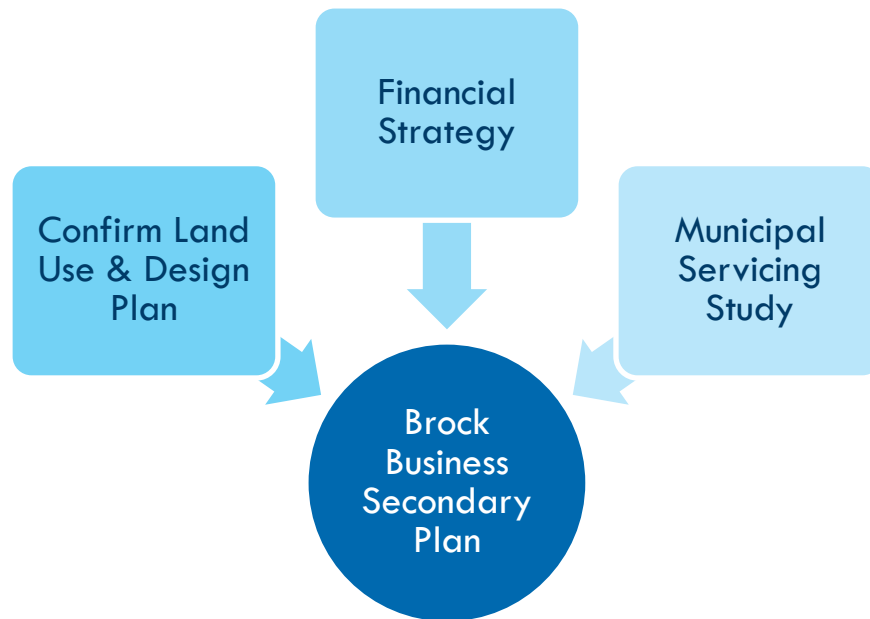
Workshops were held as part of the Master Plan process (August 2013 workshop with public and stakeholders)

³ Brock Business Park Master Plan, Dillon Consulting, 2013

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urban design and public realm improvement have also been addressed, including:

- Potential alignment for the linear park feature;
- Incorporation of latest environmental data from Niagara Peninsula Conservation Authority; and,
- Confirmation and incorporation of various site specific permissions.



1.3. Conversion Context

The Regional Official Plan, along with the Growth Plan for Greater Golden Horseshoe provide six key tests for evaluating potential conversions. The following summarizes the collective results of the conversion analysis prepared for the Employment Lands Comprehensive Review (2009), the subsequent Conversion Justification memo prepared by the Altus Group (2009) and the Brock Business Park Master Plan (2013) and Secondary Plan (2014). The proposed Secondary includes 22 hectares of land which are to be converted from an employment designation to a non-employment designation (including several uses which have been developed as “non-employment” uses).

Conversion Criteria	Commentary
a) There is a need for the conversion.	<ul style="list-style-type: none">• There is demand for student housing in Thorold• Allocation of lands for mixed uses resolves neighbourhood conflicts elsewhere in the City, and more efficiently locates student housing within walking distance to the campus• The re-designation formally recognizes a number of non-employment uses already in the Brock Business Park, including institutional and existing student housing located in the north end of the Park

1 | INTRODUCTION

Conversion Criteria	Commentary
	<ul style="list-style-type: none"> Provides opportunities for denser forms of development which will help to support transit and public realm enhancements
b) The municipality will meet the employment targets allocated to the municipality pursuant to this Plan.	<ul style="list-style-type: none"> Thorold will meet its employment land targets <ul style="list-style-type: none"> 2031 Demand for Employment Land = 34 ha. 2011 Estimated Vacant Supply = 433 ha.
c) The conversion will not adversely affect the overall viability of the employment area and the achievement of the municipal intensification target, density targets and other policies of this Plan.	<ul style="list-style-type: none"> The conversion should not adversely affect the overall viability of the employment areas, provided the conversion maintains a distinct division between mixed use areas and stable employment areas (refer to Land Use and Urban Design policies of the Secondary Plan) The associated public realm enhancements should improve the viability of the Business Park as a whole The conversion supports the intensification target and increases overall densities throughout the Business Park
d) There is existing or planned infrastructure in place to accommodate the proposed use.	<ul style="list-style-type: none"> There is planned infrastructure to accommodate the growth (refer to Servicing Section of Secondary Plan)
e) The lands are not required over the long term for employment purposes for which they are designated.	<ul style="list-style-type: none"> The lands to be converted are not required over the long term. The amount of vacant land which is being converted is less than 3 hectares – the remaining 19 hectares is presently occupied with a mixture of institutional and commercial uses. These lands are targeted for intensification.
f) Cross jurisdictional issues have been considered.	<ul style="list-style-type: none"> Cross jurisdictional issues have been addressed and are covered in the Secondary Plan (see Implementation policies for more detail).

1.4. PURPOSE OF THE SECONDARY PLAN

The purpose of this Secondary Plan is to provide a planning framework that will guide future development and redevelopment in the Brock Business Park and respond to the recommendations of previous studies/amendments completed by the City and the Region. The Secondary Plan provides a vision for revitalizing the Park and sets out recommendations for the appropriate land uses. The Plan provides direction on four key areas:

1. Future land use and opportunities for intensification;
2. Public realm and urban design improvements;
3. Transportation and infrastructure improvements, including pedestrian connections and circulation; and,
4. Balancing the needs for employment and non-employment uses.

1.5. ORGANIZATION OF THE PLAN

The Secondary Plan document is organized into four main sections:

- Chapter 1 provides the basis and context for the Secondary Plan (Chapter 1 is not considered to be a formal part of the plan and is provided for explanatory purposes only);
- Chapter 2 contains the formal Secondary Plan;
- Chapter 3 contains the Schedules for the Plan; and,
- Chapter 4 provides descriptions of relevant definitions.

Footnotes, graphics and images are provided for explanatory purposes only. Alterations to policies of Chapter 2, the Schedules in Chapter 3 and/or the Definitions in Chapter 4 will require an Official Plan Amendment. Alteration of the content in Chapter 1 and/or any graphics, images or footnotes are not subject to an Official Plan Amendment.

1.6. AUTHORITY OF THE PLAN

This Secondary Plan has been prepared under the Planning Act and aligns with the policies of the City of Thorold Official Plan, the Niagara Region Official Plan and the 2014 Provincial Policy Statement.

2 SECONDARY PLAN POLICIES

2 | SECONDARY PLAN POLICIES

2.1. VISION & OBJECTIVES

2.1.1. Vision

The Brock Park is an attractive, dynamic, high quality mixed use area that is home to some of the City's premier employers. The area houses a collection of live-work activities, which help to support innovation and business incubation associated with Brock University. The Brock Park's campus-like setting, along with its attractive and accessible public spaces and streetscapes, provide a unique sense of place that makes the Brock Park one of the most innovative and interesting mixed use areas in the GGH.



Visualization of integrated live-work development on vacant parcels in Brock Park (looking north-west)

2 | SECONDARY PLAN POLICIES

2.1.2. Objectives

The objectives of the Brock Park Secondary Plan are to:

1. Promote economic development.
2. Provide a framework for mixed-use development and redevelopment.
3. Protect and enhance the employment function for the Brock Park.
4. Improve pedestrian safety & connectivity within the Park and adjacent areas.
5. Introduce basic amenities which support revitalization and economic investment.
6. Maintain and enhance the campus-like setting.
7. Balance the needs of all users.
8. Make best use of existing infrastructure.
9. Provide opportunities for transit supportive development.
10. Promote sustainable development and redevelopment throughout the Brock Park.

2 | SECONDARY PLAN POLICIES

2.2. PLAN LIMITS

The limits for this Secondary Plan extend west of Highway 406 and south-east of Brock University in the City of Thorold. The Plan area is bounded by St. David's Road to the north, to Decew Road to the south, Merrittville Highway to the west and Highway 406 to east. **Schedule 1** illustrates the limits of the Secondary Plan.

2.3. LAND USE

2.3.1. Land Use Plan

The land use plan for the Brock Park is illustrated on **Schedule 2** and is organized around four major land use designations:

- Mixed use areas;
- Employment areas;
- Residential; and,
- Environmental Protection & Conservation Areas.

2.3.2. Mixed Use Areas

Planned Function

Mixed use areas are intended to provide a location for a range of complementary uses that are dynamic, vibrant and have a high degree of integration, such as business incubators and certain types of R&D facilities. This designation is also intended to recognize a number of existing uses and also provides a framework for future redevelopment and intensification.

Permitted Uses

Permitted uses within the mixed use designation include office, commercial, medium and high density residential and hospitality uses. Existing institutional uses are permitted, as well as new smaller scale institutional uses which are complementary and supportive to overall planned function of the Park, such as day-cares, government offices, etc. Uses are encouraged to be mixed within a single building, whereby ground-level uses include commercial uses and upper stories accommodate complementary uses – such as residential or office activities.

Scale

The maximum building height for buildings within in the mixed use area is six stories. The minimum height for new development is three stories.



2 | SECONDARY PLAN POLICIES

Commercial Uses

Commercial uses permitted within the Mixed Use designation are limited to those activities which serve the employees and residents of the Brock Park and should include, but are not limited to, cafes, restaurants, banks, food stores and a range of personal services, such as fitness clubs, pharmacies, hair salons and convenience stores. Large scale, destination retail commercial activities, such as “big box”, highway commercial activities, such as auto repair and auto sales businesses, drive-throughs and night-clubs are not permitted.

Maximum Thresholds for New Residential Development

Where new residential uses are proposed within a mixed use designation, the ground floor areas of buildings which front onto a public street shall be comprised of non-residential uses, such as commercial or employment uses. The intent of this policy is to ensure that new development which is located in highly visible areas contributes to a vibrant and dynamic street environment.

New additional residential uses that are proposed within the mixed use designation will require a market study to confirm market demand for the proposed activity.

2.3.3. Employment Areas

Planned Function

Employment Areas are intended to provide a location for stand-alone, stable employment uses which are distinct from the more dynamic formats located in the Mixed Use designation. The Employment Area designation will ensure that the basic and original employment function of the Brock Park is maintained over the longer term (for a portion of the Park).



2 | SECONDARY PLAN POLICIES

Permitted Uses

Permitted uses within the Employment Area designation include office, research and development, laboratories and other knowledge-based businesses. A limited range of light manufacturing and assembly uses are also permitted, whereby the activity has no adverse impacts on any adjacent or nearby sensitive uses. No outdoor storage is permitted. New institutional uses are not permitted, except those uses which are ancillary or associated with a proposed or existing development (such as a day care which is part of a larger office development).

Scale

The maximum height for buildings within the Employment Area designation is four stories. Buildings which are immediately adjacent to Gateway Areas are permitted up to six stories. The minimum height for new development is one storey, except for redevelopment in Gateway Areas, where the minimum height is three stories.

2.3.4. Residential Area

Planned Function

The Residential Area designation is intended to recognize the approved permissions for Part Lots 37, 38 and 39 located at the southern limits of the Plan Area. These lands have historically not been considered to be part of the Brock Business Park.

Permitted Uses

On the lands located in Part Lots 37, 38 and 39, a senior's retirement home and long term care facility shall be a permitted.

Scale

The maximum height for new development is four stories. The minimum height is one storey.

2.3.5. Environmental Protection and Conservation Areas

Planned Function

The Environmental Protection and Conservation Areas are intended to recognize the limits of lands which have significant environmental features and functions. The limits of these areas have been delineated based on mapping provided by the Region of Niagara and the Niagara Peninsula Conservation Authority. Refer to Regional Policy Plan and/or the City's Official Plan for additional details.



2.4. URBAN DESIGN

2.4.1. Urban Design Plan

The recommended urban design plan for the Brock Park is illustrated on **Schedule 3**.

2.4.2. Gateways

Planned Function

Gateways are intended to function as formal entranceways into Brock Park and should create a strong sense of place and arrival.

Location of Gateway Areas

There are three main Gateway Areas in the Brock Park:

- Schmon Parkway & St. David's Road (north)
- Schmon Parkway & Merrittville Highway (south)
- Merrittville Highway & St. David's Road (north)

Urban Design Elements

Gateway areas should be designed to include a range of elements, including but not limited to:

- Intensive planting and landscaping that uses a mixture of native and ornamental species and, where possible, incorporate other natural elements, such as stone;
- Seasonal floral displays;
- Enhanced streetscaping;
- Public art;
- Lighting; and,
- Flags, banners and signage.

Adjacent Development

Where possible, gateways should be designed to incorporate surrounding buildings. Where new development or redevelopment is planned near a Gateway Area, the proposed development/redevelopment should be designed in a manner which complements the function of the Gateway Area, through:

- Architectural detailing;
- Use of colour and materials;
- External site landscaping and lighting; and,
- Building heights, massing and scale.

2 | SECONDARY PLAN POLICIES

2.4.3. Streetscape Improvement Areas

Planned Function

Streetscape improvement areas are intended to provide direction for future streetscape works. Two general types of streetscaping improvements are proposed for the Brock Park:

- Major Streetscaping Improvements; and,
- Minor Streetscaping Improvements.

Major Streetscape Improvement Area

The Major Streetscape Improvement Area is proposed for St. David's Road. Major Streetscaping is intended to enhance the attractiveness of the exterior limits of the Brock Park (and the overall entranceway to Brock University) on both sides of St. David's Road and address opportunities for cross-jurisdictional collaboration. Major Streetscaping elements should include, but are not limited to:

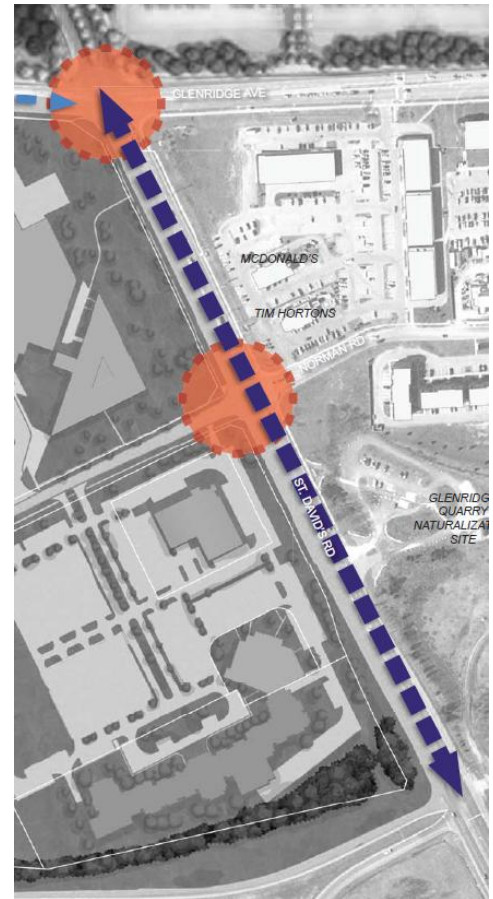
- Shade tree plantings on both sides of the street;
- Urban design improvements at the three major intersections;
- Consistent landscaping treatments on both sides of the street;
- Improved active transportation infrastructure;
- Street furniture such as benches/seating and improved/upgraded transit shelters; and,
- Signage and way-finding cues.

The City also encourages the Province to consider active transportation improvements on the St. David's Road/Highway 406 overpass which will improve network connectivity and safety. Improvements should consider both cyclists and pedestrians.

Minor Streetscape Improvement Areas

Minor Streetscape Improvement Areas are proposed for portions of Schmon Parkway, Merrittville Highway and any new local roads. Minor streetscaping elements should include, but are not limited to:

- Active transportation infrastructure, such as shared lane markings (painted bike iconography for shared spaces), bike parking, painted/textured crosswalks and lighting;
- Consistent tree plantings on both sides of the street;
- Continuous sidewalks on at least one side of the street; and,
- Enhanced lighting and street furniture which builds upon the campus themes.



2 | SECONDARY PLAN POLICIES

A sample of minor streetscape improvements are shown below (provided for illustrative purposes).

Minor Streetscape Improvement: Before



Minor Streetscape Improvement: After



2 | SECONDARY PLAN POLICIES

2.4.4. Linear Park & Connectivity

Planned Function

The linear park illustrated on Schedule 3 is intended to fulfill two functions:

- Provide improved internal pedestrian connectivity within the Park and to Brock University; and,
- Provide a formal location for leisure and recreational space.

Location of the Linear Park

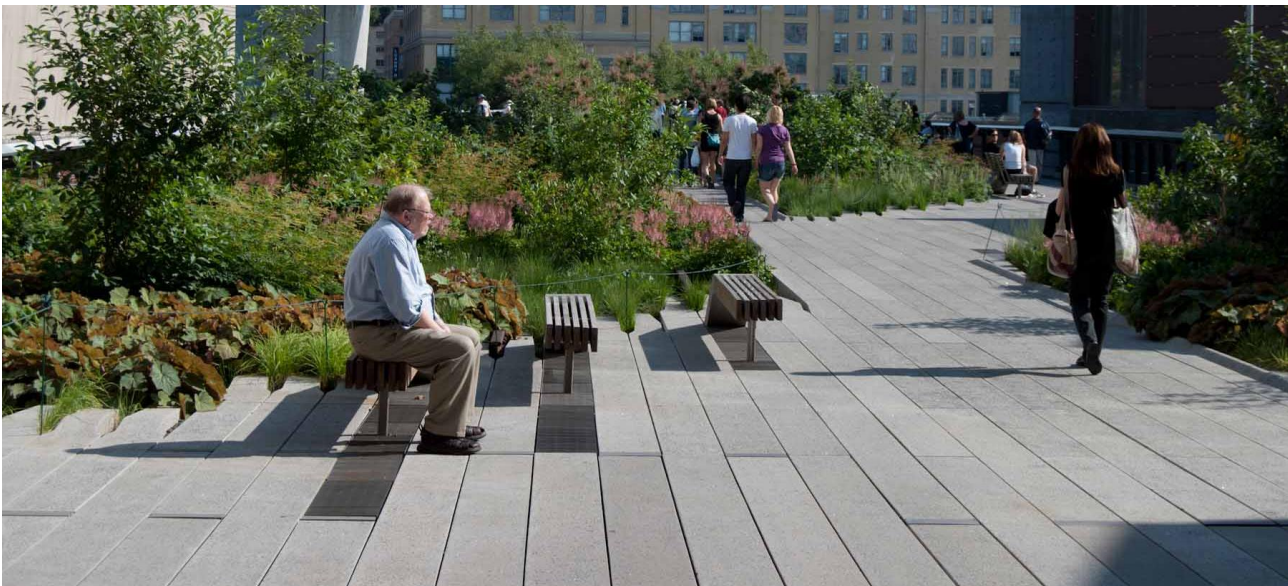
The location illustrated on Schedule 3 is intended to be conceptual. The actual alignment may alter slightly than the one presented, provided the connection is at least 10 metres wide includes the design elements outlined below.

Design Elements

The Linear Park should be designed to include the following key elements:

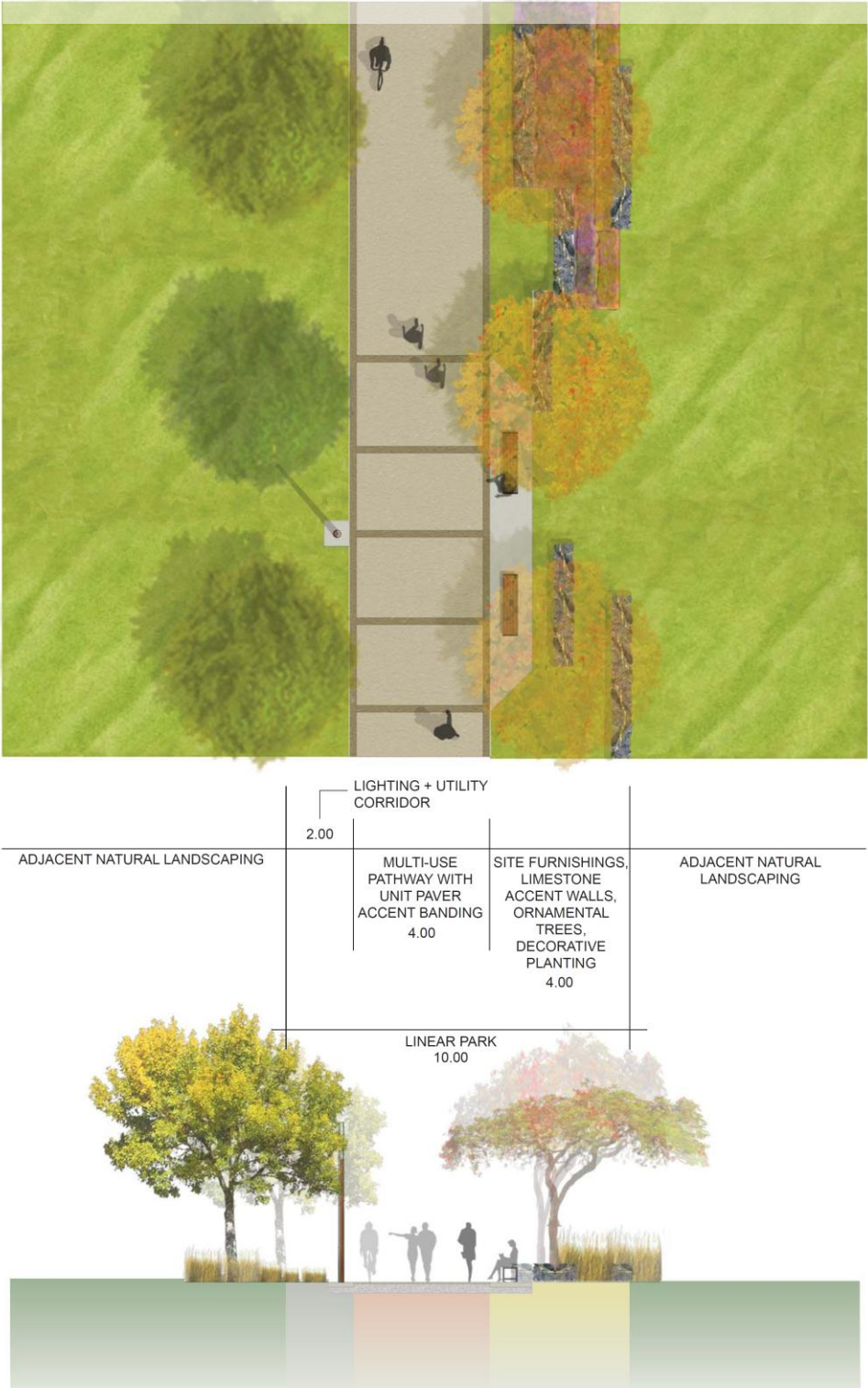
- Occasional locations for sitting and gathering (both large and smaller seating areas)
- Adjacent natural landscaped area, including trees, shrubs, grasses, etc;
- A multi-use pathway and active transportation infrastructure;
- Public art; and,
- Lighting.

Four sample cross sections are provided for illustration purposes and show how the various elements could be organized.



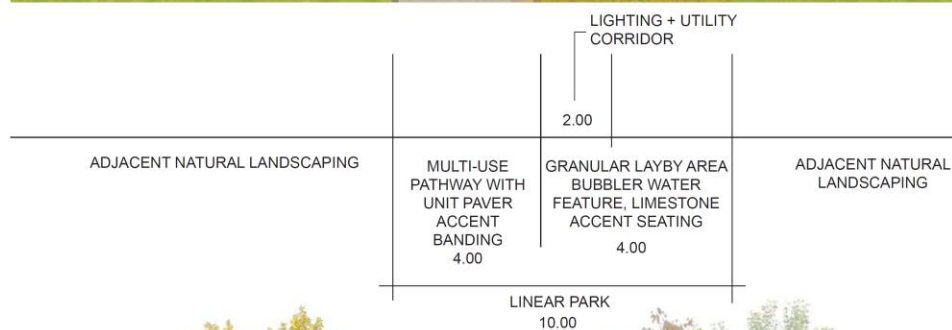
2 | SECONDARY PLAN POLICIES

Linear Park Concept, Small Seating and Gathering Area



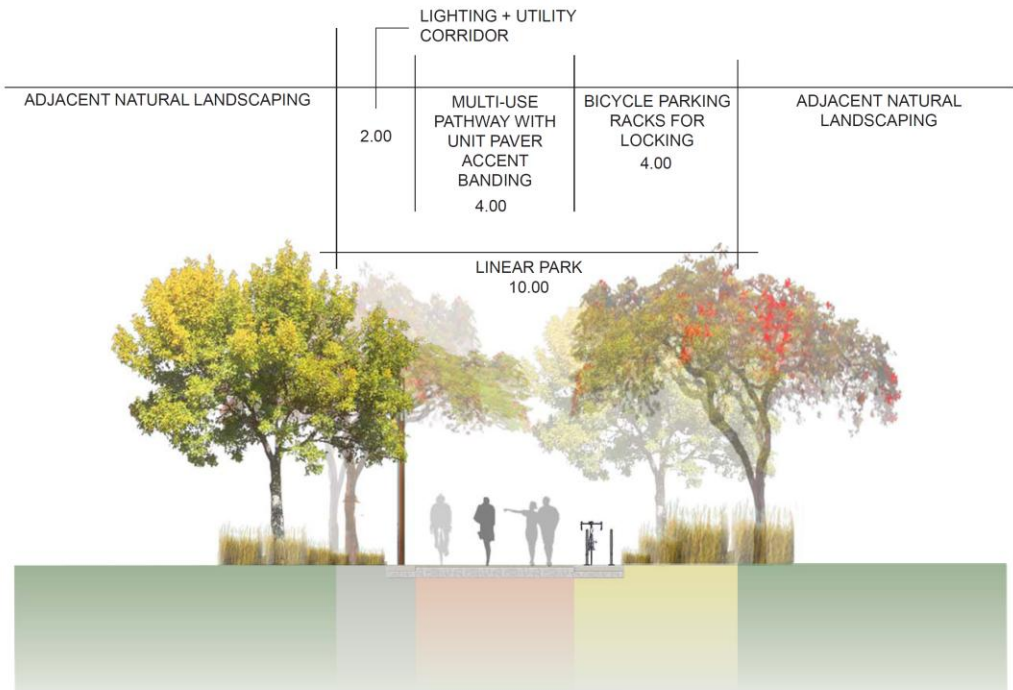
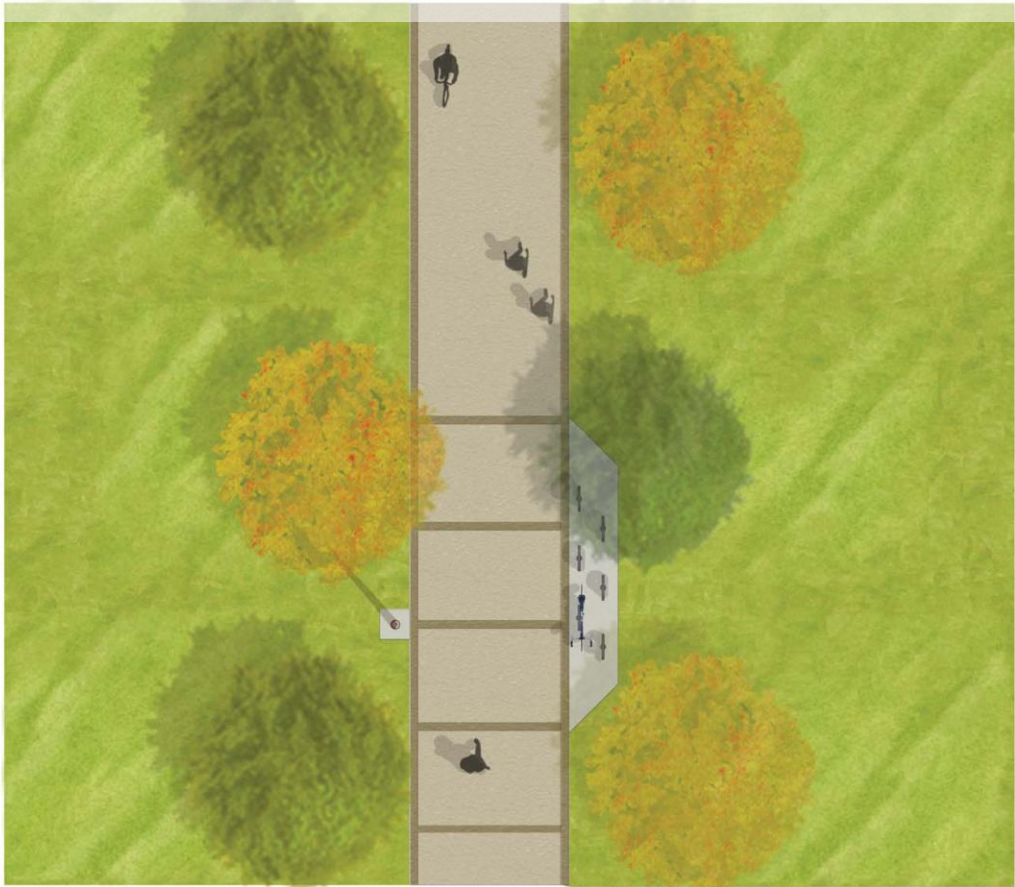
2 | SECONDARY PLAN POLICIES

Linear Park Concept, Large Seating and Gathering Area



2 | SECONDARY PLAN POLICIES

Linear Park Concept, Active Transportation Infrastructure

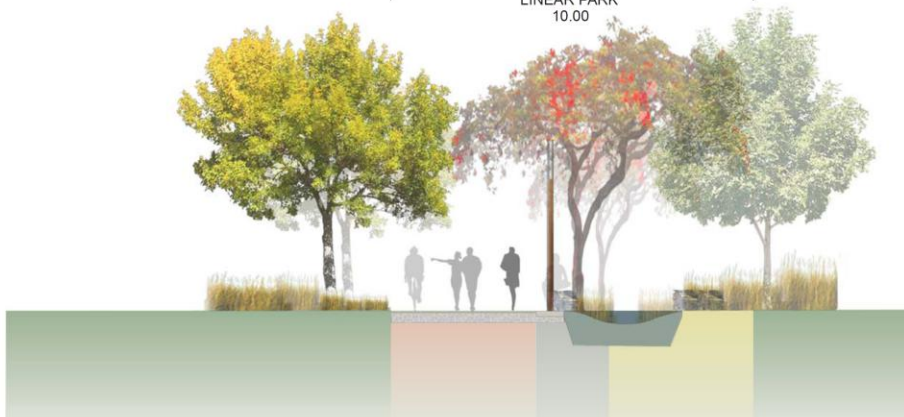


2 | SECONDARY PLAN POLICIES

Linear Park Concept, Public Art



		LIGHTING + UTILITY CORRIDOR			
		2.00			
ADJACENT NATURAL LANDSCAPING	MULTI-USE PATHWAY WITH UNIT PAVER ACCENT BANDING	NATURALIZED SWALE / RAIN GARDEN ZONE WITH LIMESTONE ACCENTS		ADJACENT NATURAL LANDSCAPING	
	4.00	6.00			
LINEAR PARK					
10.00					



2 | SECONDARY PLAN POLICIES

2.4.5. Private Realm Urban Design Guidelines

Private Realm Guidelines

The private realm urban design guidelines allow for two alternative approaches for new development and redevelopment which are intended to:

- Provide flexibility for site development; and,
- Ensure a consistent treatment of the overall campus theme through architecture and landscaping.

Two Approaches

Two alternative approaches include:

- Traditional campus style layout
- Street-oriented campus style layout



Traditional Campus Style Layout

Generally, new buildings should be set-back from the street-edge and include a landscaped strip separating the building from the sidewalk. The majority of parking should be located at the side or rear of the building(s). A small amount of parking (10% of the total number of spaces) may be provided in the front, provided that the landscaped treatments provide sufficient buffering and screening from the street. In this instance, the landscaped area should be designed to provide elements which help to activate the street area, such as seating, water features, public art, etc.

Street-Oriented Campus Style Layout

Where buildings are proposed to be closer to the street-edge, all parking should be located at the side or rear of the building(s). The building façade should cover no more than 75% of the lot frontage, to ensure that adequate space is provided for access and some landscaping treatments. Buildings which are located close to the street should have a high degree of glazing and have a primary building access should front onto the sidewalk/street. A secondary access may be provided at the side or rear of the building for convenience purposes.

Building Materials & Architectural Styles

Development and redevelopment within the Brock Park should feature a variety of architectural styles - from traditional, to modern and post-modern. Buildings should attempt to incorporate materials which help to reinforce the campus theme, including, but not limited to:

2 | SECONDARY PLAN POLICIES



- Limestone and masonry;
- Red brick;
- High degree of glazing; and,
- Other natural elements.

The use of corrugated steel as a finishing material should be avoided. Buildings should also avoid the use of dark, non-reflective surfaces for roofs (to reduce potential for urban heat island effect).

Blank Facades

Visible components of buildings should be treated with a high degree of design. Blank facades which front onto a public street, private laneway or are visible from a Highway are not permitted.

Building Rooftops

Rooftop mechanical systems should be incorporated into the overall building's architecture and should be screened from view. Planted or green roofs are encouraged.

2 | SECONDARY PLAN POLICIES

Building Landscaping

Landscaped areas should use a variety of local elements, including native trees, shrubs, grasses, flowers, stones and other materials. Landscaped areas should also include a mixture of formal and informal seating areas for employees, visitors and residents (as the case may be). Seating areas should be shaded and include lighting (where appropriate).

Green Building & Site Layout Elements

Buildings are encouraged to promote sustainable design practices and could include a variety of “green” building elements, including but not limited to:

- Green roofs and green/planted walls;
- Community gardens (as appropriate);
- Energy efficient thermal and energy systems, such as metering, passive and active solar gain, etc.;
- Potable water conservation techniques such as efficient fixtures, water reuse systems (e.g. irrigation), metering, etc.; and,
- Other elements derived from best practices or LEED certified program.



2 | SECONDARY PLAN POLICIES

Exterior Building Lighting

Landscape and exterior building lighting should be used to highlight architectural accents. Accent lighting should be designed to avoid any unnecessary spill-over.

Landscape Buffers

Areas which are adjacent to internal paths or the Linear Park should include a 3 metre landscape zone to ensure a smooth transition between public and private realm. Where appropriate and required, enhanced landscaped buffer areas which are beyond the 3 metres may be required to provide for transition between different types of lands use. Transitional areas identified on Schedule 3 which are located between the Mixed Use areas and Employment Areas shall include enhanced landscaping treatments.

Parking Areas

Parking areas should be safe, well lit, and include clear paths for pedestrians. Parking areas should also be designed to reduce their environmental footprint and include landscaping around the periphery and the interior of the site. Landscaped areas should include trees, shrubs and, where appropriate, bio-swales and permeable surfaces. Barrier free parking should be located in convenient and accessible locations. Where parking structures are provided, the architectural detailing should be attractive and consistent with the overall site design. Inter-connected parking areas and shared parking areas are also encouraged (where appropriate and feasible).

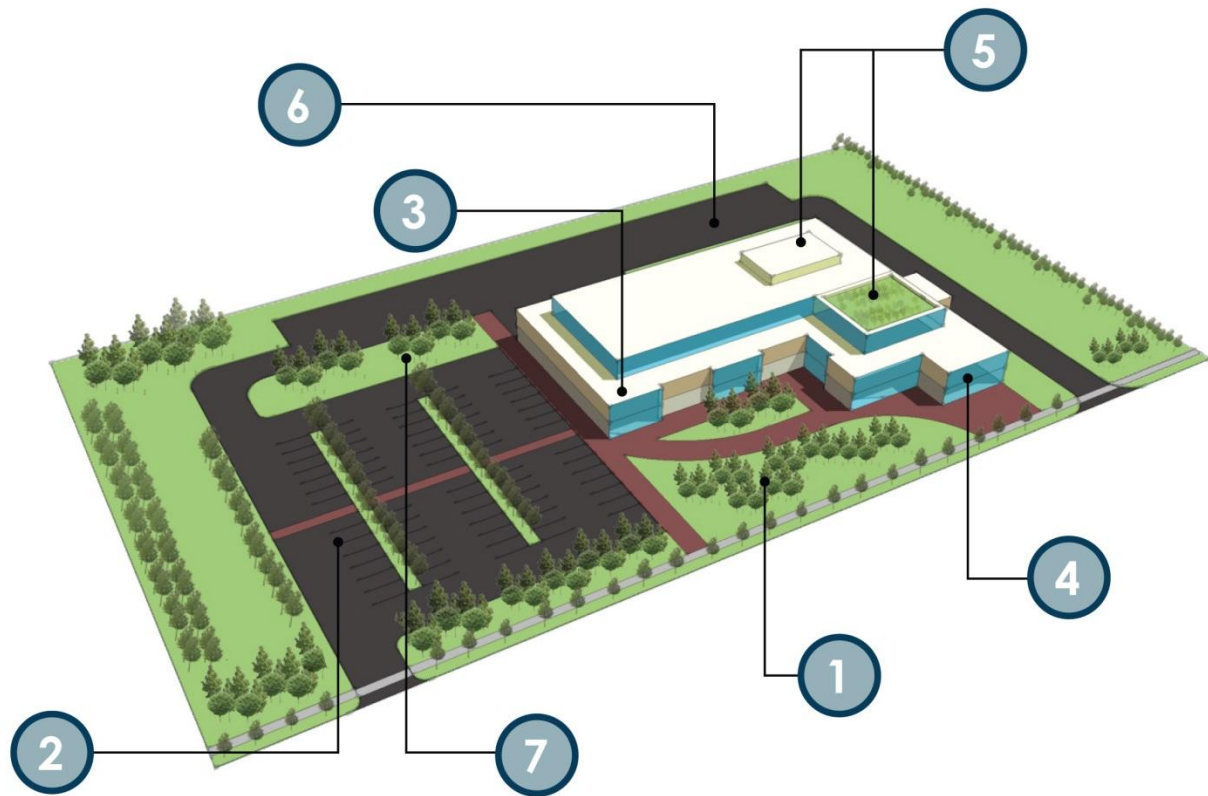
Loading and Outdoor Storage

No outdoor storage of raw materials or finished products is permitted. Loading and garbage enclosures should be located at the rear of the building. Garbage enclosures should also be screened with landscaping.



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Employment Area Example

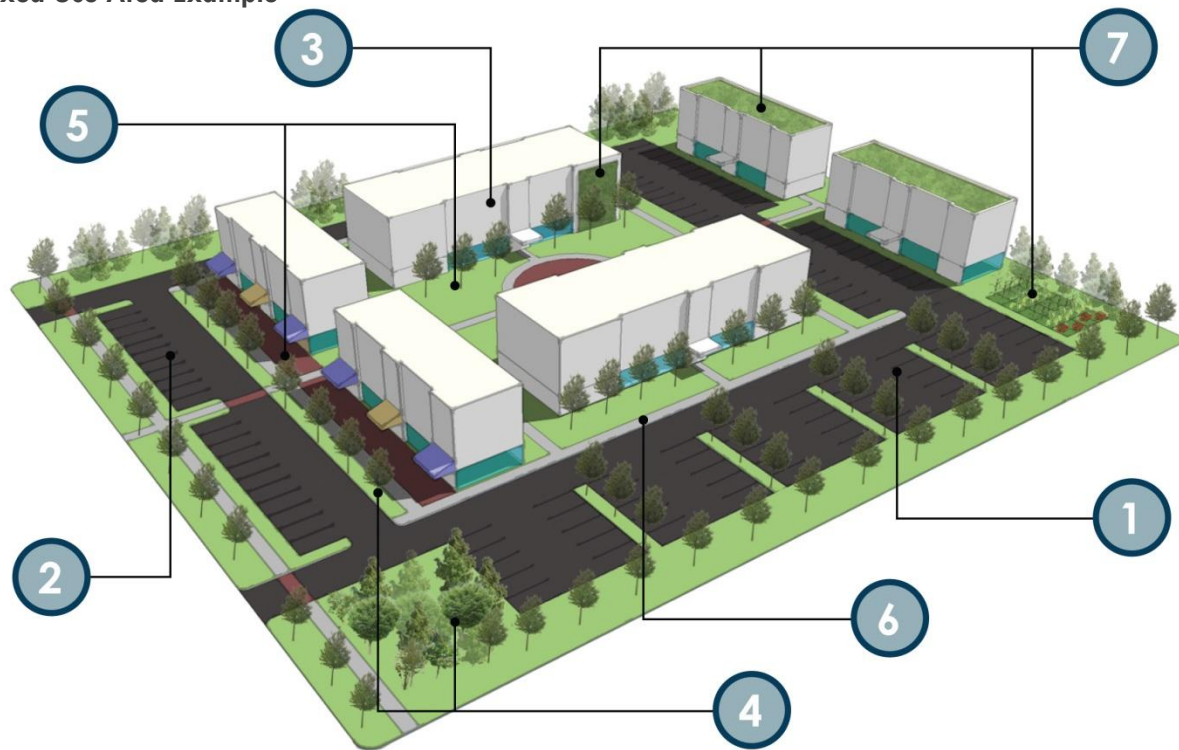


LEGEND

1. New buildings should be set back from the street-edge and include a landscaped strip separating the building from the sidewalk.
2. Majority of the parking should be located at the side or rear of the building(s).
3. Buildings should attempt to incorporate materials which help to reinforce the campus theme, including but are not limited to: limestone & masonry, red brick, high degree of glazing and, other natural elements.
4. Visible components of buildings should be treated with a high degree of design. Blank façades which front onto a public street, private laneway or are visible from a Highway are not permitted.
5. Rooftop mechanical systems should be incorporated into the overall building's architecture and should be screened from view. Planted or green roofs are encouraged.
6. Loading and outdoor storage to be located in the rear, and be screened from street views.
7. Parking areas should be designed to reduce their environmental footprint and include landscaping around the periphery and the interior of the site.

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Mixed Use Area Example



LEGEND

1. Majority of the parking should be located at the side or rear of the building(s).
2. A small amount of parking (10% of the total number of spaces) may be provided in the front, provided that the landscaped treatments provide sufficient buffering and screening from the street.
3. Buildings should attempt to incorporate materials which help to reinforce the campus theme, including but are not limited to: limestone & masonry, red brick, high degree of glazing and, other natural elements.
4. Landscaped areas should be designed to reinforce the campus setting and use a variety of local elements, including native trees, shrubs, grasses, flowers, stones and other materials.
5. Amenity areas should also include a mixture of formal and informal seating areas for employees, visitors and residents (as the case may be). Seating areas should be shaded and include lighting (where appropriate).
6. Parking areas should be safe, well lit, and include clear paths for pedestrians. They should also be designed to reduce their environmental footprint and include landscaping around the periphery and the interior of the site. Treatments could include: trees, shrubs and where appropriate bio-swales and permeable surfaces.
7. Buildings are encouraged to promote sustainable design practices and could include a variety of "green" building elements including but not limited to: green roofs/walls; community gardens; energy efficient thermal and energy systems; potable water conservation techniques; and, other elements derived from best practices or LEED certified program.

2.5. TRANSPORTATION & INFRASTRUCTURE

2.5.1. Transportation

Proposed Transportation Network

The proposed transportation network for the Brock Park is designed to accommodate all modes of transportation, including automobiles, transit, cycling and pedestrians.

Proposed Improvements & Enhancements to Transportation Network

The existing road infrastructure is expected to be sufficient to accommodate the proposed land use plan within the existing built-up area of the Park. A new local road extension may be required to integrate the vacant lands at the south end of the Park (depending on where access is provided). As the Park matures and approaches build-out, improvements to the active transportation network should include, but are not limited to:

- Completion of a continuous sidewalk network along Schmon Parkway, St. David's and Merrittville Highway
- Cycling infrastructure to promote improved internal circulation and external connectivity; and,
- Increased transit services in-line with development pattern and user needs (along with transit supportive infrastructure such as bus shelters, lay-bys, etc.).

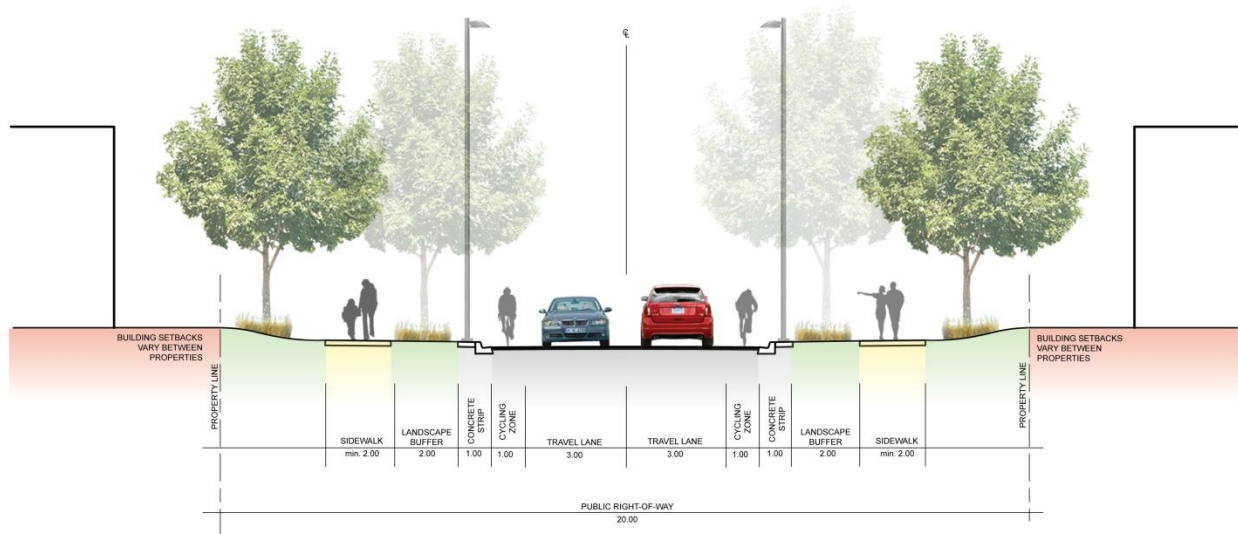
Transit Supportive Development

The proposed land use plan promotes infilling and intensification at a scale which would support increased transit ridership throughout the Brock Park.

Complete Streets

The urban design improvements presented in this Plan are intended to support complete streets and are targeted to areas which are deficient, namely pedestrian and cycling infrastructure. An illustrative example is shown on the following page.

2 | SECONDARY PLAN POLICIES



Sample cross section of Schmon Parkway (north end)

2.5.2. Infrastructure

Sanitary Sewer

To allow for future, and potentially intensified development in the Brock Park, the sanitary sewer system needs to be upgraded. The system downstream of the Highway 406 crossing, in the Confederation Heights development must be up-sized, as well as the crossing under Highway 406. A number of sections of sanitary sewer within the Brock Business Park also require up sizing.

The anticipated infrastructure required to service the redevelopment of the Brock Park is illustrated on Schedule 4.

The Confederation Heights pumping station is expected to require upgrading to handle the increased flows associated with intensification within the Brock Park. The pumping station is not currently at capacity and contribution from development (development charges) to the Region will be needed to fund future upgrades to the pumping station.

Water conservation and other sustainable design considerations should be included as part of development criteria for any future developments to reduce the increase in flows to the Brock Park sanitary sewer infrastructure.

Any proposed development on Decew Road or south of the existing business park needs to be reviewed with respect to the ability to service the proposed development by the construction of new infrastructure. A review of existing topography is needed to confirm if pumping of the sanitary sewage is required.

Water Supply

A 900mm trunk watermain exists on St. David's Road adjacent to the business park and upgrades to Regional infrastructure are not expected associated with intensification in the business park. Following the determination of

2 | SECONDARY PLAN POLICIES

future water demand associated with planned intensification in the business park, confirmation of available capacity with the existing Regional water infrastructure should be undertaken.

Based on infrastructure records that were available that do not show a connection from the watermain on Merrittville Highway to St. David's Road it is recommended that the existing watermain stub on Merrittville Highway south of St. David's Road be extended and connected to the existing watermain at the intersection of Merrittville Highway and St. David's Road.

Hydrant flow testing should be undertaken in the park to confirm the availability of fire flows once the business park revised planning densities have been confirmed.

Storm Water

Storm water management design criteria for storm water quality should be reviewed and / or developed for new development.

The proposed area of impermeability needs to be reviewed with the proposed development plan. If the area of impermeability increases with the proposed plan, then, storm sewer sizing will need to be reviewed and a storm water servicing plan developed for the business park.

Redevelopment or development of vacant and existing lots will need to produce a storm water management plan which may include on site storage to address any increased storm flows to the existing storm sewer system.

Any proposed development on Decew Road or south of the existing business park needs to be reviewed with respect to the ability to service the proposed development for storm water by the construction of new infrastructure. A review of existing topography is needed to confirm available outlets that may not be the storm sewers in the existing business park. Existing drainage channels and road side ditches would be included in this review

2 | SECONDARY PLAN POLICIES

2.6. IMPLEMENTATION

2.6.1. Financing Improvements

The City will identify capital planning requirements for the proposed improvements for the Brock Park and develop a financial strategy for implementing the improvements. The financial strategy should consider:

- Cost-sharing opportunities for the implementing improvements;
- The eligibility of proposed improvements as potential “growth-related” projects which can be incorporated in the City’s Development Charges program;
- Opportunities to leverage provincial and federal funding programs to implement sustainable design practices;
- Opportunities to harmonize the City’s Gateway Community Improvement Plan with the Brock Park Secondary Plan; and,
- The timing and potential phasing for proposed improvements.

2.6.2. Other Supporting Studies

Other supporting studies may be requested in support of individual development applications within the Brock Park. Supporting studies may include, but are not limited to:

- Transportation and Active Transportation;
- Natural environment;
- Urban design;
- Land use planning;
- Infrastructure; and,
- Market and economics.

2.6.3. Zoning

The City will update its zoning by law to align the zoning regulations within the Brock Park with the policies of the Secondary Plan. The City should also consider the use of a Holding designation to address any interim issues.

2.6.4. Site Plan Control

The urban design guidelines are intended to be flexible and should be implemented through site plan control.

2.6.5. Coordination with Brock University & City of St. Catharines

The City will work closely with Brock University as it prepares a new Campus-wide Master Plan to ensure that alignment between this Secondary Plan and the new Campus Master Plan. Through this process, the City of Thorold will also work closely with the City of St. Catharines to ensure alignment. The City of Thorold supports

2 | SECONDARY PLAN POLICIES

opportunities for more comprehensive and collaborative district-wide planning of the broader area (Brock Park, Brock University and the lands around the Hotel Dieu Shaver), including opportunities for:

- Linking active transportation networks;
- Improving way-finding, lighting and pedestrian safety; and,
- Integrated long range transportation and infrastructure planning.

2.6.6. Coordination with Region of Niagara

The City will work closely with the Region of Niagara to implement the policies of the Secondary Plan. The City encourages the Region to also consider leveraging ongoing and future environmental assessment (EA) projects to implement the transportation and urban design objectives of this plan. The City further encourages the Region to prepare a Site Plan for the Regional Headquarters site to address opportunities for intensification, infilling, active transportation and urban design improvements. The location of the linear park should be addressed through this planning exercise.

2.6.7. Additional Tools

Upon adoption and approval of the Secondary Plan, the City will consider the need for additional implementation tools, including but not limited to:

- A development permit program;
- Comprehensive urban design guidelines for the Brock Park;
- The use of the Environmental Assessment process as a means of addressing and implementing urban design and active transportation solutions for St. David's Road (and other areas where appropriate);
- Where a development permit system is not undertaken, the City will also consider opportunities for the use of Section 37 of the Planning Act ("bonusing" and community benefits) as a means of implementing the various Park-wide public improvements recommended in the Secondary Plan, such as:
 - Enhancements to planned active transportation network;
 - Enhancement to planned transit infrastructure;
 - Enhancements to gateway areas, including signage, public art and landscaping;
 - Other community or public benefits deemed appropriate by the City; and,
- A business incubator/research and development sector feasibility study should be conducted in cooperation with Brock University and the Region of Niagara.

3 SCHEDULES













**BROCK BUSINESS
PARK SECONDARY
PLAN**

SCHEDULE 1 : SECONDARY PLAN
LIMITS



LAND USE, LANDSCAPE & URBAN DESIGN ELEMENTS LEGEND

 MAJOR INSTITUTIONAL	 OPEN SPACE
 MEDIUM DENSITY RESIDENTIAL	 EXISTING TREES
 LOW DENSITY RESIDENTIAL	 PAVED AREAS
 TOURIST COMMERCIAL	 SECONDARY PLAN LIMITS
 EMPLOYMENT	
 COMMUNITY COMMERCIAL	

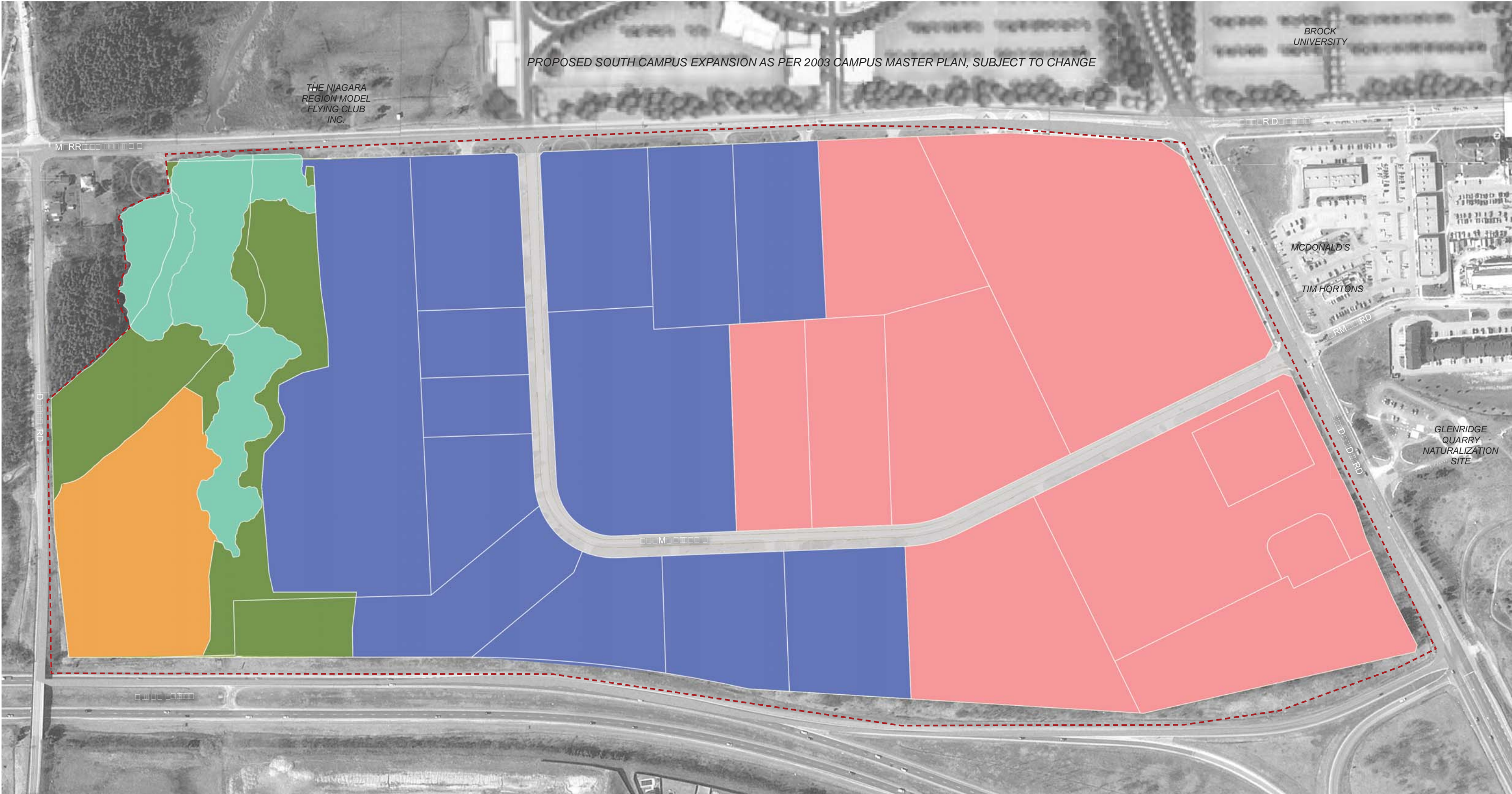
NOTE: LIMITS OF SURROUNDING USES WHICH ARE ADJACENT
TO THE BROCK PARK ARE PROVIDED FOR CONTEXT ONLY, AND
ARE NOT PART OF THIS PLAN.

NOT TO SCALE



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PADDY KENNEDY

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DATE: 9/16/2013



**BROCK BUSINESS
PARK SECONDARY
PLAN**

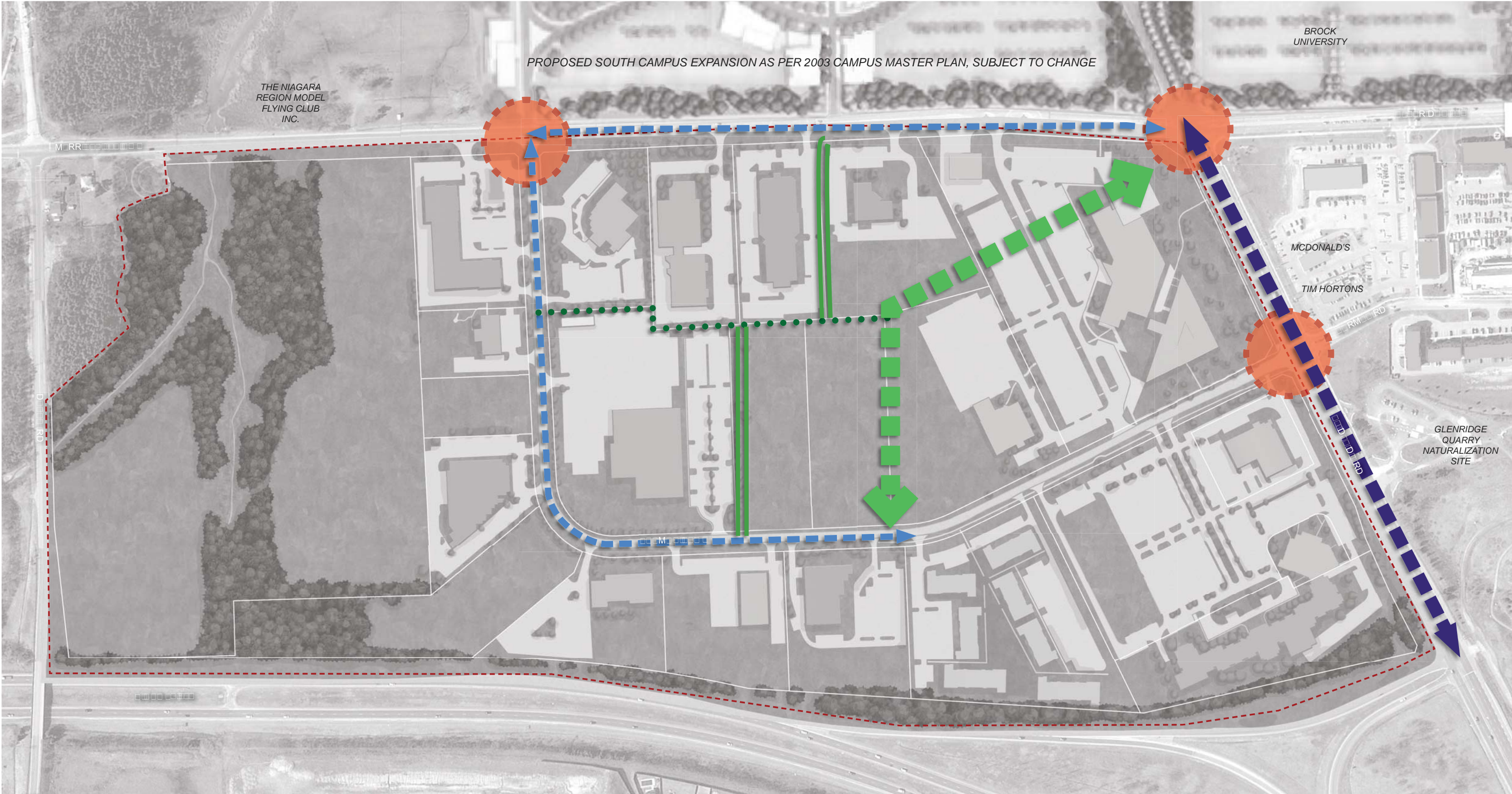
SCHEDULE 2: LAND USE



LAND USE	
■	MIXED USE
■	EMPLOYMENT
■	RESIDENTIAL
■	ENVIRONMENTAL CONSERVATION AREA SIGNIFICANT WOODLANDS
■	ENVIRONMENTAL PROTECTION AREA SIGNIFICANT WETLANDS
---	PLAN AREA



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BROCK BUSINESS PARK SECONDARY PLAN

SCHEDULE 3: URBAN DESIGN AND PUBLIC
REALM IMPROVEMENTS



LEGEND

- GATEWAY IMPROVEMENT AREA
- MINOR STREETSCAPE IMPROVEMENTS
- MAJOR STREETSCAPE IMPROVEMENTS
- LINEAR PARK
- TRAIL/ACTIVE TRANSPORTATION CONNECTION

- LANDSCAPE BUFFER
- PLAN AREA

SCALE

0 25 75 175m



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DATE: 3/12/2015

4 DEFINITIONS

4 | DEFINITIONS

All definitions provided in the City's Official Plan apply. Additional, plan specific definitions are provided below.

Long Term Care Facility: Means a building or portion thereof providing accommodation for those individuals requiring extensive medical/nursing care where each private bedroom or living unit has a separate entrance from a common hall.

Seniors Retirement Home: Means a building or portion thereof providing accommodation primarily for persons or couples with limited physical disabilities brought on by age for which some degree of physical assistance is required where each private bedroom or living unit has a separate private bathroom and separate entrance from a common hall but where common facilities for the preparation and consumption of food are provided, and such things, as common lounges, recreation rooms and medical care may also be provided.