  

CITY OF BRANTFORD
OFFICIAL PLAN
ENVISIONING OUR CITY: 2041

Envisioning Brantford - Municipal Comprehensive Review

Part 1: Employment Strategy, Intensification Strategy, Housing Strategy and Land Needs

DRAFT - December 2018

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EXECUTIVE SUMMARY

The City of Brantford started its Official Plan Review in 2013. To date, the City has hosted visioning sessions, prepared technical background papers and created a Draft Official Plan (Version 1, issued in July 2016). In 2016, the Official Plan process was put on hold while the Municipal Boundary Adjustment Agreement between the City and Brant County was finalized and pending updates to the Growth Plan for the Greater Golden Horseshoe. The lands transferred to the City are referred to, in this report, as the Boundary Adjustment Lands.

The City of Brantford's Official Plan Review process was resumed in 2017 and includes a Municipal Comprehensive Review (MCR) as input to the City's new Official Plan. An MCR is a new Official Plan or an Official Plan amendment initiated by the City, which comprehensively applies the policies of the Growth Plan for the Greater Golden Horseshoe. Certain matters are only to be considered through an MCR. These matters include conversion of employment lands to non-employment uses, determining appropriate employment densities through an employment strategy, establishing alternative intensification targets through an intensification strategy, establishing alternative Designated Greenfield Area (DGA) density targets and expanding a Settlement Area boundary. These matters must be assessed and determined before the City can adopt a new Official Plan.

The purpose of this MCR Part 1 Report is to document the first components of the MCR. Key outcomes and findings described in this report include:

- the recommended density of employment lands;
- the identification of employment lands to be converted to non-employment uses;
- the amount of employment lands needed to accommodate the 2041 forecasts;
- the recommended alternative Built-up Area intensification target;
- the recommended refinement of the boundary of the Downtown Brantford Urban Growth Centre;
- the recommended Designated Greenfield Area density target;
- the amount of additional community lands (which includes residential, commercial, institutional and open space) needed to accommodate the 2041 forecasts; and
- the amount of the Boundary Adjustment Lands that need to be brought into Brantford's Settlement Area boundary to accommodate forecast population and employment growth to the year 2041.

The MCR Part 2 Report will identify what part of the Boundary Adjustment Lands will be included in the Settlement Area boundary expansion to accommodate the identified need for urban lands.

Later stages of the Official Plan Review process will determine the land uses within the expanded Settlement Area boundary, as well as the transportation infrastructure, servicing infrastructure, environmental management and urban design guidelines necessary to implement the new urban land uses.

This report contains an Employment Strategy. The first part of the Employment Strategy in Section 3 assesses the characteristics of the City's employment sector and the type of Employment Lands Employment anticipated in the future. The strategy divides the existing and future employment into four categories: Employment Lands Employment, Population-Related Employment, Major Office and Rural employment. Employment Lands Employment is anticipated to remain as the largest category to 2041, making up 54% of the employment growth. Employment Lands Employment is allocated to the City's Employment Areas. Population-Related Employment growth is proposed to be divided between the Built-up Area and the Designated Greenfield Area (DGA), with 30% being allocated exclusively to the Built-up Area and 60% allocated to where the future population growth is directed within the Built-up Area or DGA. A small portion of the Population-Related Employment growth (10%) is allocated to the Employment Areas to serve the businesses and employees in industrial areas. Major Office Employment is anticipated to be located in the City's Downtown Urban Growth Centre, which is part of the Built-up Area.

The Employment Strategy also forecasts an employment density for Employment Lands Employment at 23 jobs per hectare based on current site coverage, an allowance for long-term vacancy due to site configuration and ownership issues, and the evolving nature of Employment Areas in Brantford. Population-Related Employment in Employment Areas is forecast at a density of 64 jobs per hectare.

Section 4 discusses the commercial sector component of the Employment Strategy. It assesses the trends in the retail commercial sector, reviews the current built supply and the supply of vacant commercial lands in Brantford, and forecasts the need for additional commercial space. For the Designated Greenfield Area, the report recommends that the City plan for approximately 23 hectares of commercial lands as part of the Master Plan/Secondary Plan for the new Community Areas.

Section 5 summarizes the employment land conversion component of the Employment Strategy. The Employment Strategy recommends the protection of the two large, newly developing Employment Areas – Braneida Industrial Park and the Northwest Industrial Park. In addition, five smaller, older built industrial areas are to be protected, along with two areas within the Boundary Adjustment Lands that were already designated for employment uses by Brant County – Hopewell (east of Garden Avenue, north of Highway 403), and Paris Road at Powerline Road.

The Employment Strategy also recommends conversion of lands along Wayne Gretzky Parkway to permit a mixture of land uses including higher density forms of housing and a full spectrum of retail and service commercial uses. These lands are currently designated as Mixed Industrial Commercial, serve a commercial function based on existing uses, and have potential as future mixed-use sites. The report also recommends conversions of some scattered older industrial sites that are embedded within historic stable residential neighbourhoods and are unlikely to be used for employment purposes in the future. Other lands are recommended for conversion to recognize existing parks and natural heritage features. In total, 66 hectares of land are recommended for conversion.

Section 6 calculates the Employment Area land needs following the Province's Land Needs Assessment Methodology. The draft land needs assessment determined that an additional 336 hectares of land beyond that currently located within the City's existing Settlement Area boundary are required to meet the 2041 employment forecasts.

Sections 7 through 9 form a Housing Strategy. Section 7 sets the basis for the Housing and Intensification Strategies with background on housing conditions and trends in the City. This section describes the amount and type of housing construction in the past eleven years with detail on the small size typical of previous apartment and townhouse developments in Brantford. Section 7 also describes the rate of development in the Designated Greenfield Area versus the Built-up Area and the characteristics of Brantford's current development applications and approvals. It also includes forecasts of the average number of residents in different types dwelling units (referred to as persons per unit (PPU) and in each policy area (i.e., rural area, DGA and Built-up Area).

Section 8 sets out the Intensification Strategy. It assesses the capacity for intensification within the City's Downtown Urban Growth Centre, the Intensification Corridors, the mixed-use Major Commercial Centres and existing residential neighbourhoods. It applies different assumptions for intensification opportunities and assumes a density range of potential development. The report also assesses transportation and servicing constraints to intensification within the various intensification areas. The scenarios identify a large capacity range for intensification within the City, which is not significantly different from the high-end intensification range of the 2012 Intensification Strategy.

However, based on the characteristics of the housing stock that has been constructed in the past eleven years, the very slow rate of apartment growth in the Downtown Urban Growth Centre, and the need to achieve the minimum density target in the Urban Growth Centre, the report recommends an alternative graduated intensification target for the Built-up Area to that set out in the Growth Plan. An intensification target is the proportion of total new units each year which are constructed within the Built-up Area of the City. The alternative intensification target maintains the current 40% intensification target to 2021, increases it to 45% between 2021 and 2031, and further increases it to 50% between 2031 and 2041. The Intensification Strategy also recommends that apartments be focused into the Downtown Urban Growth Centre to achieve the minimum density required there, with townhouse forms of intensification primarily focused in the Intensification Corridors, Major Commercial sites and infill sites in the

Neighbourhoods. Some apartments are also anticipated in the Intensification Corridors and Major Commercial sites. Second units in existing neighbourhoods are also planned to help achieve the intensification target.

The Intensification Strategy also recommends that the boundary of the Downtown Urban Growth Centre be adjusted. The adjusted boundary reduces the total area of the Urban Growth Centre from 130 hectares to 104 hectares. This results in a total, existing population of 1,779 people and 4,300 jobs. The adjusted Urban Growth Centre boundary would reduce the number of additional residents and jobs required by 2031 in order to achieve the overall density target of 150 residents and jobs combined per hectare within the Urban Growth Centre, from 12,290 to 9,520.

Section 9 sets out the final component of the Housing Strategy with a review of the housing stock proposed and anticipated in the existing Designated Greenfield Area (DGA). The anticipated density of these developments is determined including both residents and jobs. The jobs include Population-Related Employment on commercial sites, school sites and in Home-Based Employment. The Housing Strategy calculated the size of the existing Designated Greenfield Area at 664 hectares after take-outs allowed by the Growth Plan. Based on existing built developments, registered and draft approved plans, current development applications and vacant site potential, the existing DGA could accommodate 25,700 persons in 9,150 units and 1,415 jobs at build out, which achieves a density of only 41 residents and jobs combined per hectare. When the existing built portion of the DGA including the built portion of Tutela Heights are excluded from the density calculation, the planned density on the unbuilt portion of the DGA increases to 48 residents and jobs combined per hectare.

The Provincial guidelines encourage municipalities to explore opportunities to increase the density in their existing DGA. The assessment looked at increasing the density on current vacant lands without an active development application and found that an additional 890 units could be accommodated, increasing the DGA density on the unbuilt portion of the DGA to 55 residents and jobs combined per hectare from 48 residents and jobs combined per hectare. These additional units would also increase the overall DGA density within the current Settlement Area boundary to 47 residents and jobs combined per hectare from 41 residential and jobs combined per hectare. Due to servicing constraints and the interface with existing estate lot development in Tutela Heights, increasing the density on current vacant lands any higher than noted above would be a significant challenge.

The Housing Strategy recommends an alternative Designated Greenfield Area (DGA) density target of 52 residents and jobs combined per hectare, to be measured over the entire DGA, accounting for take-outs in accordance with the Growth Plan. It also recommends that area specific targets within the DGA be established in the Official Plan to help achieve the overall target. These targets include the DGA within the current Settlement Area boundary (i.e. the Existing DGA), to be planned to meet a density 47 residents and jobs combined per hectare, while the remaining unbuilt lands within the current Settlement Area boundary are to be planned for a density of 55 residents and jobs combined per hectare. The new Community Area DGA, within the municipal Boundary Adjustment Lands (i.e. the New DGA), is recommended to achieve a minimum density of 60 residents and jobs combined per hectare.

These targets recognize that in Outer Ring municipalities such as Brantford, the overall DGA density target of 52 residents and jobs combined per hectare would represent an average density to be achieved over the entire area to which the target applies. There may be areas of lower and higher density within it; however, they must be balanced to achieve the minimum overall target. These targets also recognize the legacy of low density development already built in the DGA, particularly in Tutela Heights, which brings down the Existing DGA density measurement, and impacts the City's ability to reach a higher density target across the entire DGA.

Section 10 calculates the Community Area land needs following the Province's Land Needs Assessment Methodology. The land needs assessment determined that an additional 460 hectares are required to meet the 2041 population forecasts. These additional lands are beyond those vacant lands currently located within the City's existing Settlement Area boundary.

To accommodate the additional Employment Area land needs identified in Section 6 (363 hectares) and the additional Community Area land needs identified in Section 10 (460 hectares), a Settlement Area boundary expansion is required. The potential locations of that Settlement Area boundary expansion are evaluated in the MCR Part 2 Report.

1 INTRODUCTION

1.1 BACKGROUND

The City of Brantford started its Official Plan Review in 2013. Between 2013 and 2016, much work was accomplished, including the hosting of visioning sessions, the preparation of technical background papers and the creation of a new Draft Official Plan (Version 1, issued in July 2016). The Official Plan Review was put on hold while the Municipal Boundary Adjustment Agreement between the City of Brantford and County of Brant was being finalized and approved by the Province, and pending updates to the Growth Plan for the Greater Golden Horseshoe to which the new Official Plan must conform.

In 2016, the municipal boundary between the City of Brantford and the County of Brant was adjusted in order to secure additional lands in the City for future growth, effective January 1, 2017. These lands are known as the Boundary Adjustment Lands.

The boundary adjustment brought new lands into Brantford's municipal boundary. However, that does not automatically bring the lands into the urban area boundary, also referred to as a Settlement Area boundary. To bring additional lands into the City's Settlement Area boundary, the Province requires municipalities to conduct a Municipal Comprehensive Review (MCR) as input into their new or amended Official Plan. The MCR is to determine the extent that the Settlement Area boundary is to be expanded. Once that is done, the new or amended Official Plan can designate urban land uses within the expanded Settlement Area boundary.

The City is now embarking on a Municipal Comprehensive Review and revisions to the 2016 Draft Official Plan to include the Boundary Adjustment Lands. The City of Brantford has established an eight stage study process to complete the Municipal Comprehensive Review and finalize the new Official Plan – entitled Envisioning Brantford. To complete this work, the City has retained a consulting team led by SGL Planning & Design Inc., which includes The Planning Partnership, Cushman Wakefield, Hemson Consulting, AgPlan Limited, ASI (Archaeological Services Inc.), Ecosystem Recovery Inc., GM BluePlan Engineering, Plan B Natural Heritage, and Dillon Consulting.

Stages 2 and 3 of the study, which are documented in this report, identified appropriate intensification and Designated Greenfield Area (DGA) density targets, lands to convert from employment use, and whether there is a need for a Settlement Area boundary expansion and the extent of that need.

The next stage of the study (Stage 4) will identify what part of the Boundary Adjustment Lands should be included in the Settlement Area boundary to accommodate the identified need for additional urban lands.

The final stages of the study will determine the land uses within a preferred Settlement Area boundary, as well as the transportation infrastructure, servicing infrastructure, environmental management and urban design guidelines necessary to implement the land uses.

1.2 REPORT PURPOSE

The purpose of this report is to document the work undertaken in Stages 2 and 3 of the study process, which encompasses the first components of the Municipal Comprehensive Review (MCR). Key outcomes and findings described in this report include:

- the recommended density of employment lands;
- the identification of employment lands to be converted to non-employment uses;
- the amount of employment lands needed to accommodate the 2041 forecasts;
- the recommended alternative Built-up Area intensification target;
- the recommended refinement of the boundary of the Downtown Brantford Urban Growth Centre;
- the recommended Designated Greenfield Area density target;
- the amount of additional community lands (which includes residential, commercial, institutional and open space) needed to accommodate the 2041 forecasts; and
- the amount of the Boundary Adjustment Lands that need to be brought into Brantford's Settlement Area boundary to accommodate forecast population and employment growth to the year 2041.

1.3 COMPONENTS OF THE MUNICIPAL COMPREHENSIVE REVIEW

An MCR requires specific analyses be undertaken to determine the amount of land required to accommodate the City's forecast population and job growth to 2041. The 2041 forecasts are set out in Schedule 3 of the Growth Plan for the Greater Golden Horseshoe, 2017 (Growth Plan). As required by the Growth Plan, input into the MCR includes an Employment Strategy, an Intensification Strategy, a Housing Strategy and a Land Needs Assessment; all of which are documented in this report. The MCR is a key input to the Official Plan Review process and will be implemented through the adoption of the City's new Official Plan.

The Land Needs Assessment is required to follow new Provincial guidelines entitled "Land Needs Assessment Methodology for the Greater Golden Horseshoe" released on May 4, 2018.

The main steps to be taken in an MCR and where the steps are addressed in this report are as follows:

1. Prepare an Employment Strategy including identifying existing employment supply, employment densities and the proportion of employment allocated to different employment types including Employment Lands Employment, Population-Related

Employment, Major Office Employment and Rural Employment (see Section 3), and an employment strategy for the commercial sector (see Section 4);

2. Determine the lands that should be converted, if any, from an Employment Area to other land use designations (see Section 5);
3. Prepare a Housing Strategy which reviews the existing housing supply and densities in Brantford, assesses the ability to accommodate different housing forms as set out in Section 7, identifies an appropriate housing mix for the City including affordable housing, and recommends an appropriate DGA density target in Section 9;
4. Prepare an Intensification Strategy which reviews the existing intensification rates and identifies realistic intensification opportunities and capacities in the City including an alternative intensification target (see Section 8); and
5. Undertake a Land Needs Assessment to identify the land area required to accommodate the 2041 population and employment forecasts and determine the amount of additional land within the Boundary Adjustment Lands that is to be added to the City's Settlement Area (see Section 6 for Employment Area land needs and Section 10 for Community Area land needs).

In addition to those sections of the report, Section 2 outlines the growth forecasts and applicable Provincial policies, and Section 11 contains a conclusion of the report's key findings and recommendations.

2 GROWTH FORECASTS AND POLICY UNDERSTANDING

2.1 POPULATION AND EMPLOYMENT GROWTH FORECASTS

The most recent Statistics Canada 2016 Census population (people) figure for the City of Brantford was 97,510. The Census Net Under-coverage for the Province of Ontario in 2011 was 3.0%. Taking this Under-coverage into account, the 2016 population was actually 100,525. In addition, the 2016 Census population for Brantford did not include the Boundary Adjustment Lands. The population of the Boundary Adjustment Lands including Tutela Heights and lands north of the City was determined by Statistics Canada to be 1,150 in 2016, plus the Census Net Under-coverage equals 1,185. As a result, the total 2016 population in the current municipal boundary of the City of Brantford was 101,710 as shown below,

- 2016 Brantford Census Population: 97,510 people
    - Census Net Under-coverage: 3,015 people
- 2016 Boundary Adjustment Lands Census Population: 1,150 people
    - Census Net Under-coverage: 35 people
- Total 2016 Population: 101,710 people

The most recent Statistics Canada 2016 Census employment (jobs) figure for the City of Brantford was 44,375 jobs. Within the Boundary Adjustment Lands, Statistics Canada found 455 jobs in Usual Place of Work employment and Home-Based Employment, with additional employment in No Fixed Place of Work employment. Adding the Boundary Adjustment Lands employment results in a total 2016 employment in the current municipal boundary of the City of Brantford of 44,890.

- 2016 Brantford Employment: 44,375 jobs
- 2016 Boundary Adjustment Lands Employment: 455 jobs
    - additional No Fixed Place of Work: 60 jobs
- Total 2016 Employment 44,890 jobs

According to the Growth Plan, by the year 2041, the City of Brantford is forecast to accommodate:

- 163,000 people; and
- 79,000 jobs.

This forecast represents growth of approximately 61,290 people and 34,110 jobs between 2016 and 2041. These additional people and jobs will be accommodated within the existing Settlement Area of the City of Brantford, as well as within the Boundary Adjustment Lands. As stated previously in Section 1, the purpose of this report is to determine how much of the Boundary Adjustment Lands will be required to accommodate this population and employment growth.

2.2 POLICY UNDERSTANDING

2.2.1 Provincial Policy Statement, 2014

The Provincial Policy Statement, 2014 (PPS) provides direction to the land use planning process. Planning decisions by municipal councils and other decision-makers are required to be consistent with the PPS.

The PPS requires that healthy, livable and safe communities are sustained by:

a) promoting efficient development and land use patterns which sustain the financial well-being of the Province and municipalities over the long term;
b) accommodating an appropriate range and mix of residential and other uses to meet long-term needs;
c) avoiding development and land use patterns which may cause environmental or public health and safety concerns;
d) promoting cost-effective development standards to minimize land consumption and servicing costs; and,
e) ensuring the necessary infrastructure and public service facilities are or will be available to meet current and projected needs (Policy 1.1.1, in part).

Land Needs and Land Use Patterns

The PPS further directs that sufficient land shall be made available through “intensification” and “redevelopment” and, if necessary, “designated growth areas”, to accommodate an appropriate range and mix of housing and other land uses, to meet projected needs for a time horizon of up to 20 years unless an alternative time period has been established by the Province. For the Greater Golden Horseshoe area including Brantford, that time period is 2041 (Policy 1.1.2).

The PPS provides that settlement areas are to be the focus of growth, and their vitality and regeneration promoted. Land use patterns within settlement areas shall be based on densities and a mix of land uses that:

a) efficiently use land and resources;
b) are appropriate for and efficiently use infrastructure and public service facilities which are planned or available, and avoid the need for their unjustified and/or uneconomical expansion;
c) minimize negative impacts to air quality and climate change, and promote energy efficiency;
d) support active transportation and are transit-supportive; and
e) are freight-supportive (Policies 1.1.3.1 & 1.1.3.2 a)).

These policies are overarching principles that need to be considered when determining appropriate intensification and density targets.

Intensification
Policy 1.1.3.3 requires planning authorities to identify appropriate locations and promote opportunities for intensification taking into account the existing building stock, brownfield sites and availability of suitable existing or planned infrastructure. This analysis is conducted in Section 8 of this report.

Policy 1.1.3.4 further directs that appropriate development standards should be promoted to facilitate intensification, redevelopment and compact form, while maintaining appropriate levels of public health and safety. This report is addressing appropriate densities and housing mix to achieve intensification and compact form. The current City of Brantford Official Plan designates intensification areas, and the new Official Plan will continue to do so while setting out appropriate density requirements and other policies to promote intensification.

Housing
The PPS also contains policies aimed at providing for an appropriate range of housing types and densities. Included are policies requiring that planning authorities provide for an appropriate range of housing types and densities to meet projected requirements by permitting and facilitating, among other matters:

- minimum targets for housing that is affordable to low and moderate income households;
- all forms of residential intensification and redevelopment including second suites;
- directing the development of new housing towards locations where appropriate levels of infrastructure and public service facilities are available;
- promoting densities for new housing which efficiently use land, resources, infrastructure and public service facilities; and
- establishing development standards for residential intensification, redevelopment and new residential development, which minimize the cost of housing and facilitate compact form (Policy 1.4.3).

Settlement Area Boundary Expansions
Policy 1.1.3.8 requires that planning authorities only allow an expansion of a Settlement Area boundary where it has been demonstrated that sufficient opportunities for growth are not available through intensification, redevelopment and designated growth areas to accommodate the projected needs to 2041.

The matter of sufficient opportunities and additional land needs is assessed in Sections 6 and 10 of this report.

Further criteria in Policy 1.1.3.8 regarding where Settlement Area boundary expansions should be directed will be considered in the next phase of the study as described in Section 1.1 of this report.

Employment
Policy 1.3.2.1 requires planning authorities to plan for, protect and preserve Employment Areas for current and future uses. Further, Policy 1.3.2.3 requires planning authorities to protect Employment Areas in proximity to major goods movement facilities and corridors for employment uses. In Brantford, Highway 403 would be considered a major goods movement corridor and lands in proximity to it will need to be protected for employment use.

Despite that direction, planning authorities may permit conversion of land within Employment Areas to a non-employment use (Policy 1.3.2.2). That analysis of potential conversions is contained in Section 5 of this report.

Energy Conservation, Air Quality and Climate Change
Section 1.8 of the PPS requires that planning authorities support energy efficiency and improved air quality through land use and development patterns that are compact, promote the use of public transit and alternate forms of transportation, and improve the mix of employment and housing to shorten commute times. These policy directions are overarching principles that will be considered in the Municipal Comprehensive Review and further implemented through the new Official Plan.

In summary, land use planning recommendations and decisions made through the Municipal Comprehensive Review process must be consistent with the policies of the PPS. Following the completion of the Municipal Comprehensive Review, the City's new Official Plan and Master Plan/Secondary Plan for the lands in the expanded Settlement Area must also be consistent with the policies of the PPS.

2.2.2 Growth Plan for the Greater Golden Horseshoe, 2017

The Province recently issued an updated Growth Plan for the Greater Golden Horseshoe (Growth Plan, effective July 1, 2017). This new Growth Plan further reinforces the importance of the PPS policies requiring that, as a first priority wherever possible, growth be directed to locations where intensification and redevelopment can be transit-supportive and make efficient use of land, infrastructure and public service facilities.

Schedule 3 of the Growth Plan sets out specific population and employment forecasts for upper-tier and single-tier municipalities, such as Brantford, to the year 2041. The Growth Plan requires that municipalities plan for growth in accordance with these forecasts, directing the vast majority of growth to Settlement Areas that:

- have a delineated built boundary;
- have existing or planned municipal water and wastewater systems; and
- can support the achievement of complete communities.

The City of Brantford is a municipality that meets all of these criteria.

Built-up Area

The term "built boundary" refers to what the Province has delineated as the Built-up Area. The Built-up Area is the area within a Settlement Area that has been "built-up" as of 2006, when the first version of the Growth Plan came into effect. Generally, the type of development occurring within the Built-up Area is referred to as "intensification" and includes redevelopment (including the reuse of brownfield sites), the development of vacant and/or underutilized lots, infill development and the expansion or conversion of existing buildings. **Figure 1** of this report illustrates the City's Built-up Area as delineated by the Province. There is a small area on the north side of Powerline Road at Paris Road that is now included in the City's Built-up Area that was formerly in Brant County as part of the Paris Built-up Area.

Intensification Target

The previous Growth Plan required a minimum of 40% of all residential development to occur within the City's Built-up Area. This target is commonly referred to as the intensification target. The 2017 Growth Plan requires 60% of all residential development to occur within the City's delineated Built-up Area until 2041. Until the new Official Plan is approved and in effect to implement the Municipal Comprehensive Review (MCR), the current intensification target of 40% continues to apply. However, Council may request an alternative to the new 60% target through the MCR process.

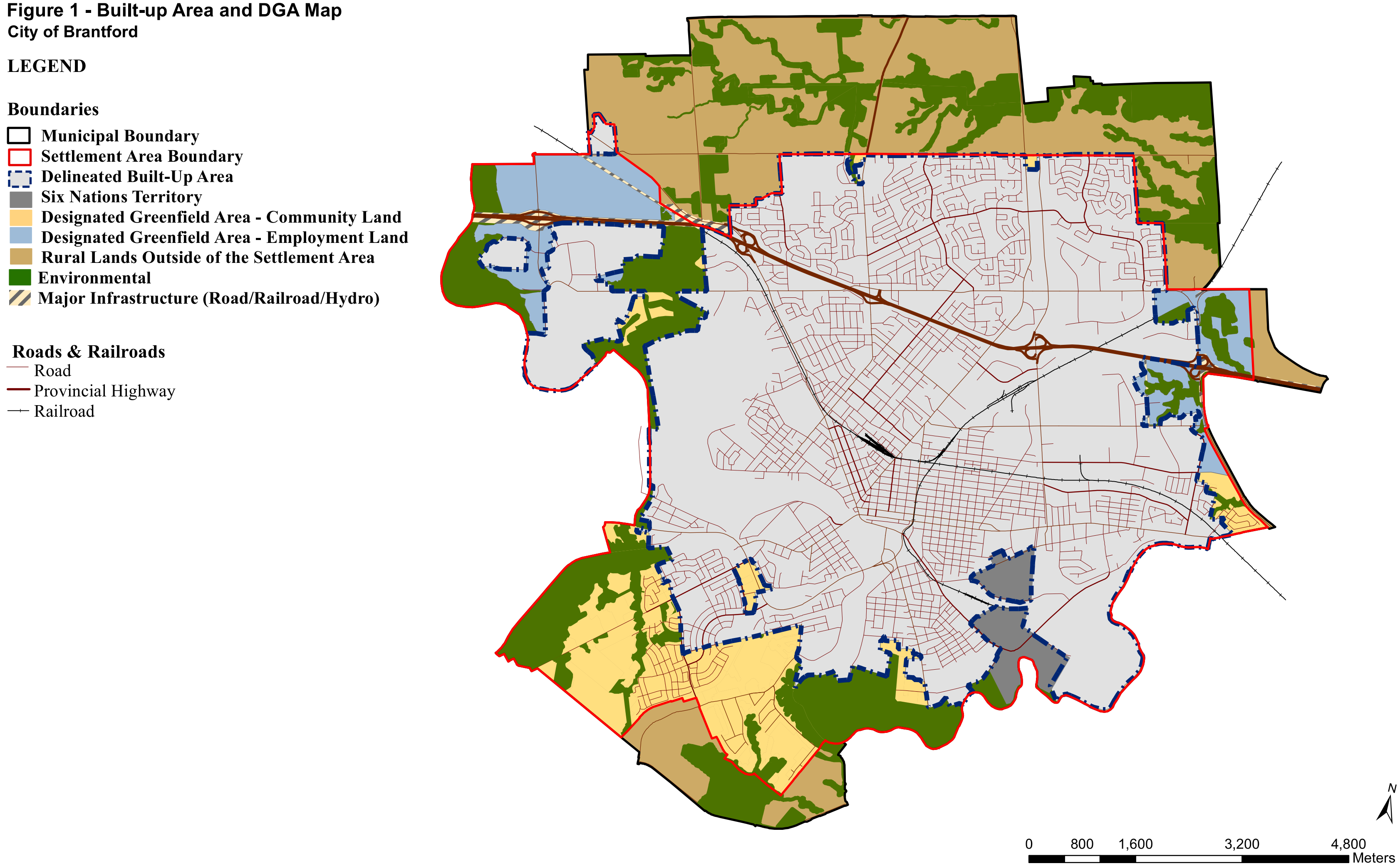
The Growth Plan also identifies Urban Growth Centres within major urban areas in the Greater Golden Horseshoe. The City of Brantford has an Urban Growth Centre, which largely encompasses the City's downtown. Urban Growth Centres are regional focal points for accommodating population and employment growth, recognized as meeting places, locations for cultural facilities, public institutions, and transit hubs. The Growth Plan requires a minimum density of 150 residents and jobs combined per hectare, in the Downtown Brantford Urban Growth Centre, to be achieved by the year 2031 or earlier. There is no opportunity to seek an alternative density target in an Urban Growth Centre.

The current density of the Downtown Brantford Urban Growth Centre is estimated to be approximately 55 residents and jobs combined per hectare.

Designated Greenfield Area

The area that is outside of the Built-up Area, but inside a municipality's Settlement Area boundary, is known as the Designated Greenfield Area (DGA). As shown in **Figure 1**, the extent of the existing DGA in Brantford includes the lands outside of the Built-up Area that were already part of the Brantford Settlement Area, prior to the municipal boundary adjustment. In addition, there are some lands that are now located within the new Brantford municipal boundary that were already part of the DGA in Brant County, and are now considered to be part of Brantford's DGA. They include land south of Powerline Road and Paris Road that was previously part of the Paris Settlement Area, and land at the northeast quadrant of the Garden Avenue/Highway 403 interchange.

Figure 1 - Built-up Area and DGA Map
City of Brantford



As the City's Settlement Area boundary is expanded, the additional lands will also form part of the DGA.

DGA Density Target

For the DGA in single-tier municipalities in the Outer Ring such as Brantford, the Growth Plan (2017) establishes a minimum density target of 80 residents and jobs combined per hectare. The current DGA density target of 50 residents and jobs combined per hectare will remain in effect until the new Brantford Official Plan is approved and in effect.

For purposes of calculating the DGA density target, the DGA does not include lands identified as part of a natural heritage system, floodplains, cemeteries, rights-of-way for highways, railways, transmission lines and pipelines or Employment Areas. The DGA density target is therefore measured on the lands identified on **Figure 1** as Designated Greenfield Area – Community Land.

Undelineated Built-up Area

Tutela Heights, in the south portion of the Boundary Adjustment Lands, is identified as a Secondary Settlement Area in the Brant County Official Plan. It contains an undelineated Built-up Area, for which the Province has not delineated a built boundary. Under the "Land Needs Assessment Methodology for the Greater Golden Horseshoe", the entirety of undelineated Built-up Areas counts towards the DGA density target.

Alternative Targets

The current Official Plan for Brantford requires that a minimum of 40% of all residential units built each year to the year 2031 be located within the Built-up Area (including the Urban Growth Centre). The Official Plan also establishes a minimum density target for the DGA of 50 residents and jobs combined per hectare. These intensification and density targets are based on the policies of the previous Growth Plan, 2013. The Growth Plan, 2017 establishes new intensification and density targets, as noted above.

However, the Growth Plan, 2017 allows municipalities, such as Brantford, to explore an alternative intensification target and alternative greenfield density target through an MCR process, to which this report is a key input. In order to request an alternative target, it must be demonstrated that the minimum targets in the Growth Plan cannot be achieved and that the alternative target will achieve specific criteria.

As it relates to intensification, it must be demonstrated that the alternative target will:

"a) maintain or improve on the minimum intensification target in the official plan that is approved and in effect;

b) be appropriate given the size of the delineated Built-up Area;

c) account for existing infrastructure, public service facilities, and capital planning;

d) account for existing planning approvals and other related planning studies;

e) consider the actual rate of intensification being achieved annually across the upper- or single-tier municipality;

f) support diversification of the total range and mix of housing options in delineated Built-up Areas to the horizon of [the Growth] Plan, while considering anticipated demand;

g) account for lands where development is prohibited or severely restricted; and

h) support the achievement of complete communities" (Policy 2.2.2.5).

As it relates to the minimum density of the DGA, it must be demonstrated that the alternative target will:

a) maintain or improve on the minimum density target in the official plan that is approved and in effect as of July 1, 2017;

b) achieve a more compact built form to the horizon of the Growth Plan that is appropriate given the characteristics of the municipality and adjacent communities;

c) reflect documented actions taken to increase planned densities;

d) achieve a more compact built form that supports existing or planned transit and active transportation to the horizon of the Growth Plan;

e) account for existing and planned infrastructure, public service facilities, and capital planning;

f) account for lands built and planning matters that are approved and in effect;

g) support the diversification of the total range and mix of housing options in designated greenfield areas to the horizon of the Growth Plan, while considering the community character (Policies 2.2.7.6 and 2.2.7.4 c)).

This report addresses these matters in the consideration of alternative targets in Sections 8 and 9.

Employment Areas
Similar to policies for Settlement Areas, Policy 2.2.5.1 of the Growth Plan requires economic development to be promoted by making more efficient use of existing Employment Areas and increasing employment densities. The matter of employment densities is discussed in Section 3 of this report.

Policy 2.2.5.1 also requires economic development to be promoted by ensuring availability of sufficient land, in appropriate locations for a variety of employment to accommodate forecasted employment growth to 2041. The matter of how much additional land is required to accommodate the forecasts is addressed in Section 6 of this report.

Policy 2.2.5.2 directs major office development to the Downtown Urban Growth Centre and other strategic growth areas. As noted in Section 3, it is assumed that Major Office

Employment in Brantford will be located in the Downtown Urban Growth Centre.

Employment Strategy

Policy 2.2.5.5 requires single-tier municipalities, such as Brantford, to develop an employment strategy that:

“a) establishes a minimum density target for all employment areas, measured in jobs per hectare, that reflects the current and anticipated type and scale of employment that characterizes the employment areas and aligns with policy 2.2.5.1;

b) identifies opportunities for the intensification of employment areas on sites that support active transportation and are served by existing or planned transit; and

c) will be implemented through a municipal comprehensive review, including official plan policies and designations and zoning by-laws.”

Section 3 of this report establishes a minimum density target for the City’s Employment Areas. Through the completion of the new Official Plan, opportunities and policies for intensification of Employment Areas will be identified.

Policy 2.2.5.9 requires that the conversion of lands within employment areas or prime employment areas to non-employment uses may only be permitted through a Municipal Comprehensive Review. The Municipal Comprehensive Review, which is the subject of this report, must demonstrate that:

“a) there is a need for the conversion;

b) the lands are not required over the horizon of [the Growth] Plan for the employment purposes for which they are designated;

c) the municipality will maintain sufficient employment lands to accommodate forecasted employment growth to the horizon of [the Growth] Plan;

d) the proposed uses would not adversely affect the overall viability of the employment area or prime employment area or the achievement of the minimum intensification and density targets in [the Growth] Plan, as well as the other policies of [the Growth] Plan; and

e) there are existing or planned infrastructure and public service facilities to accommodate the proposed uses.”

The potential conversion of employment lands is addressed in Section 5 of this report.

Housing Strategy

Policies 2.2.6.1 and 2.2.6.2 require single-tier municipalities to develop a housing strategy that:

- supports the achievement of the minimum intensification and density targets;
- supports the achievement of complete communities;

- identifies a diverse range and mix of housing options including second units and affordable housing;
- establishes targets for affordable ownership housing and rental housing;
- identifies mechanisms including planning and financial tools to achieve the intensification and density targets with a diverse range of housing options;
- aligns with applicable housing and homelessness plans required under the Housing Services Act, 2011;
- considers the range and mix of housing options and densities of the existing housing stock;
- plans to diversify the overall housing stock across the municipality; and
- is implemented through official plan policies and designations.

This report undertakes the background analysis of housing mix required to achieve the targets and to diversify the housing stock while considering the range and mix of housing stock within the City. The Official Plan will set out the detail of the housing strategy.

Settlement Area Boundary Expansions

Policy 2.2.8.2 requires that a Settlement Area boundary expansion may only occur through a Municipal Comprehensive Review where it is demonstrated that:

a) sufficient opportunities to accommodate forecasted growth to 2041 are not available through intensification and in the existing designated greenfield area based on the minimum intensification and density targets;

b) the proposed expansion will make available sufficient lands up to but not exceeding the year 2041, based on the analysis provided for in policy 2.2.8.2a), while minimizing land consumption; and

c) the timing of the proposed expansion and the phasing of development within the designated greenfield area will not adversely affect the achievement of the minimum intensification and density targets.

A land needs assessment to determine whether additional Employment Area lands are required is set out in Section 6 of this report, and a land needs assessment to determine whether additional Community lands (including residential) are required is set out in Section 10.

2.2.3 Methodology for Land Needs Assessment

The Province released the Land Needs Assessment Methodology for the Greater Golden Horseshoe in May 2018. The methodology sets out a 6-step process for identifying Employment Area land needs and a separate 6-step process for identifying Community Area land needs. This report follows those steps in Sections 6 and 10 respectively.

2.2.4 City of Brantford 2015 MCR

As part of Brantford's earlier Official Plan Review process that led to the Draft Official Plan (Version 1, July 2016), a Municipal Comprehensive Review study was carried out in 2015 (2015 MCR), consisting of a land supply and demand analysis of the City's commercial and employment lands. In summary, that work concluded that the City of Brantford had a shortage of vacant retail-commercial and employment lands. Other analyses identified a shortage of greenfield residential lands as well. In part, these results led to the Municipal Boundary Adjustment Agreement with the County of Brant and the area identified as the Boundary Adjustment Lands that are now included within Brantford's municipal boundary.

The 2015 MCR was undertaken under the policy direction of the 2013 Growth Plan. The 2015 MCR was divided into three parts, addressing the retail-commercial lands analysis, addressing the employment lands analysis, and addressing potential employment conversions similar to the Employment Strategy in this report. The employment lands analysis was completed using two demand scenarios with differing assumptions regarding site coverage and employment density. This analysis identified an employment lands shortage of approximately 300 to 450 net hectares, based on a current (at the time) unconstrained vacant land supply of 285 net hectares. Based on the projected Employment Land Employment growth, it was anticipated that the employment land supply at the time would be exhausted by 2027. With the addition of the Boundary Adjustment Lands, the supply of vacant designated employment land has increased to 350 net hectares (or 430 gross hectares as per Table 3.9).

Considering the recognized long-term shortage of employment lands, and in accordance with Provincial policy, the conclusions of the 2015 MCR emphasized that the new Brantford Official Plan must establish protections from conversion for its Employment Areas, although a need for review criteria to facilitate smaller-scale employment land conversions was also identified. However, a common theme was that while there was a long-term shortage of employment lands, the short-term supply was adequate (i.e. to 2027) and therefore, it was not considered an imperative to add to the inventory immediately.

Further, the analysis grappled with the competing need for retail-commercial lands, especially for large properties, and employment lands. Again, it is important to note that greenfield residential lands were also insufficient to accommodate projected growth. The employment lands analysis in the 2015 MCR concluded that some conversions from employment lands to retail-commercial lands were appropriate along the Wayne Gretzky Parkway in order to:

- Recognize that some of these sites are currently being used for retail-commercial purposes;
- Respond to the need for additional large scale commercial sites to build upon the retail agglomeration along this corridor; and
- Recognize that these sites are not ideal for Employment Land Employment generating land uses due to their accessibility and visibility attributes, and the adjacent uses.

Significantly, the analysis also included a discussion that suggested that through redevelopment and intensification, it was anticipated that these conversion sites would still continue to accommodate significant employment-generating uses – although Population-Related Employment rather than Employment Land Employment.

2.2.5 Policy Basis of the 2016 Draft Official Plan

Brantford's 2016 Draft Official Plan recognized that there was a land shortage within the City for employment lands, retail commercial opportunities as well as greenfield residential lands, so the focus was on establishing an appropriate urban structure based on higher intensity mixed-use centres and corridors. The 2016 Draft Official Plan was also partly based on the findings of the 2015 MCR, and therefore it incorporated much of the underlying themes of intensification, more urban forms of development and the preservation of existing retail-commercial and employment lands, balanced with some conversions. The 2016 Draft Official Plan portrays and implements a clear urban structure of urban centres and corridors, supporting all of the Provincial policy directives that promote that approach to long-term planning.

More specifically, in Section 3: "Growth Management" of the 2016 Draft Official Plan, the establishment of an efficient urban structure and promoting intensification in the Built-up Area are important policy directions which are repeated throughout the document. While the 2016 Draft Official Plan acknowledges that accommodating growth will include the development of Brantford's remaining greenfield areas and potentially future growth areas in an annexed area, it also identifies that a substantial amount of development will need to be accommodated through intensification, especially within Brantford's urban centres and corridors. Development of Employment Land Employment opportunities through intensification of employment lands and areas is also encouraged. Major Office Employment opportunities are identified for the Downtown Urban Growth Centre and are strongly encouraged.

Section 6.2: "A Strong and Healthy Economy" in the 2016 Draft Official Plan outlines economic development policies for the City and provides direction for the evolution of the City's economy. Of particular note, the opening of this section emphasizes the transition of the economy to a more post-industrial economy, with a stronger focus on technology and knowledge-based industries. While it is also stated that industrial activities are vital to the local economy, it is clear that the direction of the 2016 Draft Official Plan is towards employment opportunities, which can be more flexibly accommodated on a wide range of sites, rather than on the limited supply of employment lands in defined Employment Areas. Nevertheless, the recognized long- term shortage of employment lands is also considered, with policy 6.2.3 stating that, *"the policies of this Plan address the long-term need for new Employment Areas outside of the current Municipal Boundary and the protection of existing Employment Areas from conversion to non-employment uses."*

In the Mixed-Use Areas, the 2016 Draft Official Plan includes policies, which prioritize redevelopment with more intense and mixed uses, and further, generally includes minimum heights of 2 storeys to make more efficient use of the land.

The Employment Areas designation recognizes the limited supply of Employment Areas and encourages intensified development on these lands. Protections from conversion and the requirement for an MCR are also included in Section 8.5 of the 2016 Draft Official Plan.

2.2.6 Relationship of the 2018 MCR to the 2015 MCR

With the addition of the Boundary Adjustment Lands, the updated 2018 MCR can provide a greater focus on achieving a desired urban structure while also providing land based opportunities for Employment Areas, retail commercial development opportunities and for greenfield residential neighbourhoods. Before the municipal boundary adjustment, those goals were not possible. It is also important to note that Brantford can now fully achieve complete community objectives, rather than dealing with issues of insufficient residential, employment and retail-commercial lands.

While the 2018 MCR proceeds on the basis of the urban structure envisioned by the 2016 Draft Official Plan - an intensified Downtown Urban Growth Centre and a system of mixed-use Intensification Corridors linking the various Mixed Use Centres, Employment Areas and residential neighbourhoods - the 2018 MCR can now also consider accommodating new residential neighbourhoods and new and expanded Employment Areas. These opportunities are a departure from the 2015 MCR, which focused primarily on effectively utilizing the land base within the municipal boundary of the day. In effect, the 2016 Draft Official Plan relied upon primarily intensified development opportunities, supported by minor elements of greenfield development opportunity. Despite this approach, the City would not have been able to meet the Growth Plan population and employment forecasts for 2041 within its previous boundaries. With the municipal boundary adjustment, a much more balanced approach to growth management can be considered.

Another significant departure from the 2015 MCR is that the 2018 MCR does not predict a substantial land need for new retail-commercial development as described in Section 4. However, the 2018 MCR recommends focusing less on the numerical impacts of retail sector changes and more on promoting a mixture of uses, including higher intensity residential uses, retail-commercial uses and institutional uses in proximity to each other, in a structure of urban centres and corridors to be served by a robust transit system, along with neighbourhood-serving retail centres in new greenfield areas. Further, and while some employment lands along the Wayne Gretzky Parkway are still recommended for conversion in the 2018 MCR, the discussion has shifted from the competing needs of more employment lands and more large scale retail-commercial lands, to one which is much more focused on the appropriate use for these lands based on the urban structure, and the accommodation of residential intensification opportunities in these locations.

As a result of the Boundary Adjustment Lands, there is no longer an issue with respect to accommodating Employment Land Employment or finding sufficient and appropriate sites for retail-commercial uses. While the conclusion is generally the same for both MCRs - that the Wayne Gretzky Parkway lands are most appropriate for continuing to build up this mixed-use corridor - the issue now suggests that the 2018 MCR has the opportunity to be more forward thinking and consider other broad opportunities in the evolution of the City with respect to a balanced approach to growth management (a balance of intensification opportunities and greenfield development opportunities).

Beyond the above differences between the 2015 and 2018 MCRs, the significant policy recommendations remain fairly consistent. Therefore, a number of the 2018 MCR recommendations will inform strategic revisions to the 2016 Draft Official Plan. In general, future revisions to the 2016 Draft Official Plan to ensure that it reflects the 2018 MCR could include:

- Further mapping adjustments to correct some existing inconsistencies;
- Recognition that not all of the Boundary Adjustment Lands will be required to accommodate growth to 2041, and to identify priorities where greenfield growth should be directed;
- Changing some designation names to be more reflective of their mixed-use focus (i.e. from Commercial Centres to Mixed-Use Centres);
- Designating “Employment Areas” and “Prime Employment Areas” rather than “Employment Areas” and “Employment Lands”;
- Removing language which identifies the shortage of employment lands (i.e. Policy 6.2.3), although the importance of their protection should still be acknowledged;
- Removing references to the Future Urban Growth Area, in conjunction with the completion of the associated studies (i.e., the Master Plan/Secondary Plan) and fully incorporating these lands within the Official Plan policies; and
- Shifting the language to acknowledge that the industrial sector is likely to continue to play a strong role in Brantford’s future economy in addition to new knowledge-based sectors.

3 EMPLOYMENT STRATEGY: OVERALL EMPLOYMENT SECTOR

The Employment Strategy comprises three components:

- First, a review of the City's total employment, employment densities, vacancies and breakdown by employment type – contained in this section;
- Second, a review of the City's commercial lands, vacancies and future demands – contained in Section 4;
- Third, a review of the traditional employment lands to determine if any areas should be converted to non-employment use – contained in Section 5.

3.1 IMPORTANCE OF EMPLOYMENT AREAS

Brantford's Employment Areas consist of traditional industrial areas and more modern business parks and are similar to established industrial/employment areas in most Ontario municipalities. Brantford's Employment Areas have been constructed over a period of several decades, with a mixture of heavy and light industrial land uses, along with supporting commercial/retail establishments. The individual Employment Areas exhibit their own character and mix of uses. For the most part, the Employment Areas are not physically attractive, apart from the more modern properties found in the Northwest Industrial Area and near the Highway 403/ Garden Avenue interchange in the Braneida Industrial Area, but they are functional and generally remain successful. Our site visits and discussions with local real estate brokers indicate a healthy level of building vacancy today, compared to conditions just a few years ago. There is no evidence of an excess of undeveloped land among the City's mature Employment Areas.

In general, employment activities on employment land continue to be critical to the economic health of cities. There are a number of reasons, as follows:

- The industrial sector is Brantford's predominant generator of employment, and it is projected to continue to grow, and remain the largest category of employment.
- Industrial-type jobs provide relatively good employment opportunities for workers with lower levels of formal education compared to the services sector, including positions that often pay higher wages.
- Established Employment Areas are an important component of the municipal tax base, helping to maintain and improve local infrastructure and investment.
- The industrial sector – particularly manufacturing jobs – has a high "multiplier effect", creating growth in other sectors of the local economy (such as construction activity, and demand for other business services).

- Employment Areas can provide small, cost-effective, flexible space that is critical for start-ups and incubators for innovation in high technology sectors, making older, industrially zoned areas important to a healthy and vital economy.
- After years of industrial activity, sites may carry a legacy of contamination (on-site and off-site). Under current economic conditions and existing remediation techniques, some of these parcels are often unsuitable for residential and commercial developments. For such properties, ongoing industrial activity remains the highest and best use.
- These areas provide employment opportunities for residents of Brantford and beyond. Having jobs in proximity to desirable residential communities creates an advantageous live-work relationship within the City, reducing travel trips and times. Providing opportunities to accommodate a full range and mixture of employment types – including Employment Land Employment – is a fundamental principle of Provincial policy directives, and a crucial element of an economically sustainable city.
- Provincial policy directives also promote the concept of a "complete community", where residents can fulfill all or most of their daily requirements within city boundaries. Having a full range of opportunities for employment is fundamental to the "complete community" concept.

3.2 MARKET OVERVIEW

This market overview is informed by discussions with Brantford's Economic Development staff, as well as active local real estate brokers, along with third-party real estate data sources.

Brantford's two main industrial Employment Areas are the Northwest Industrial Area and the Braneida Industrial Area. Each is favorably located at an interchange with Highway 403. The Northwest Industrial Area is home to much of the newer industrial stock in Brantford, including large warehouse and distribution facilities, as well as manufacturing operations. The Braneida Industrial Area is more mature, with a mix of building sizes and functions. Other generally older Employment Areas are located in the Holmedale neighbourhood (Webster Street) and Colborne Street West area (Spalding Drive) in the southwest part of the City, and at the east end of Mary Street in the southeast part of the City.

Our discussions with local real estate market participants revealed a perceived stability in the level of industrial vacancy in the market, along with continued interest in industrial buildings for sale. The City's Economic Development staff indicated that building vacancy is estimated to be in the range of 5% - 5.5%, and that vacancy is concentrated among the older properties, with newer buildings having a very low level of vacancy.

Lower land costs, compared to other markets west of the Greater Toronto Area (GTA), continue to have a competitive advantage. Brantford's Economic Development staff indicate that availabilities of older properties are in the range of $3.00 per sq.ft. net ($32.30 per sq.m.), while newer industrial facilities are leased in the range of $5.00 - $5.50 per sq.ft. net ($53.80 - $59.20

per sq.m.). This range of rental rates for available space has reportedly been fairly stable in recent years. Notably, local brokerage professionals indicated that rents in Brantford were generally more affordable compared to similar space in other Southern Ontario markets such as Cambridge, Kitchener, Waterloo and the Hamilton area. There was generally a sense of optimism regarding near-term prospects for the industrial market.

3.3 EMPLOYMENT GROWTH BY SECTOR

In comparing industrial-type employment in the manufacturing sector (NAICS categories 31-33) and the transportation and warehousing sector (NAICS categories 48-49) versus total employment growth for Canada, it is apparent that 2004 represents an important transition point. From 1987, the start of the Statistics Canada Labour Force survey, through 1989, industrial-type employment increased on par with total employment. Beginning in 1990, both the transportation and warehousing sector and the manufacturing sector saw employment losses at a greater rate than the overall employment market, and then a resumption in employment growth in 1993 (post-recession). From 1993 through 2004, the manufacturing sector saw employment gains comparable to the overall economy (but coming off a smaller base); the spread in growth rates remains fairly constant as shown in Exhibit 1. However, beginning in 2004, manufacturing sector employment declined sharply, while transportation and warehousing continued to see employment gains at a similar rate to the broader jobs market as shown in Exhibit 2.

EXHIBIT 1:

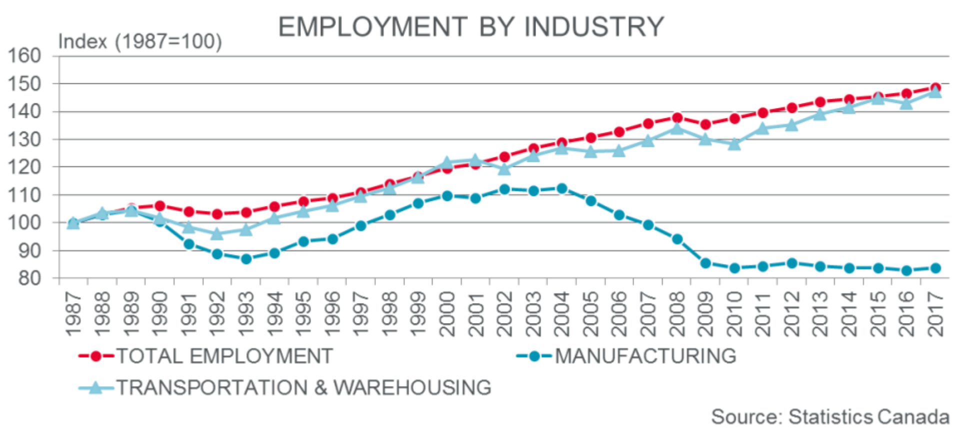
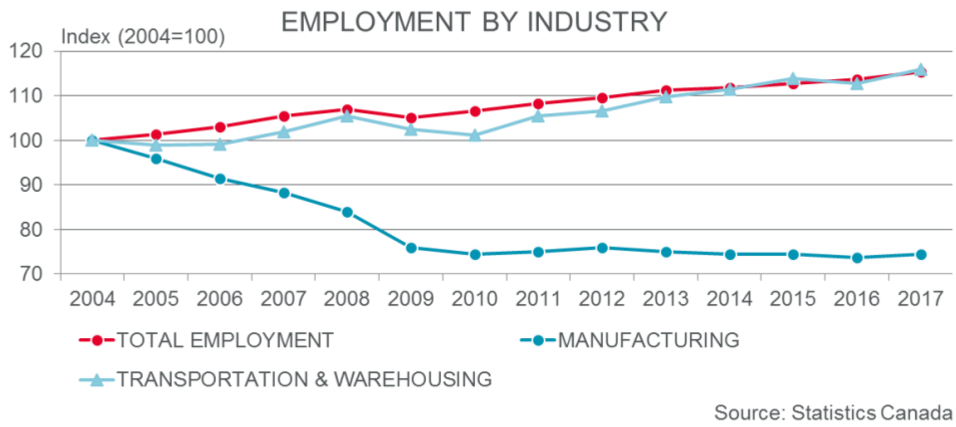


EXHIBIT 2:



Implications for Industrial Space Demand

On the ground, this employment shift by industry has translated to significant new warehousing and distribution facilities to accommodate occupier demand, while "traditional" manufacturing-type facilities have become a smaller component of new supply. The lower employment densities associated with warehousing and distribution facilities mean that more land is required to accommodate the same number of industrial-type jobs than in the past, as manufacturing densities are higher. This mix of industrial-type employment densities is incorporated in our demand modeling.

3.4 CHARACTERISTICS OF BRANTFORD'S EMPLOYMENT

The City of Brantford had total employment of 44,890 jobs in 2016 including within the Boundary Adjustment Lands. These jobs are broken down in Table 3.1 by place of work.

TABLE 3.1: TOTAL EMPLOYMENT – 2016

Place of Work Category	Jobs	% Share
Usual Place of Work (UPOW)	37,350	83.2%
Home-Based Employment (HBE)	2,115	4.7%
No Fixed Place of Employment (NFPE)	5,425	12.1%
Total	44,890	100%

Source: Cushman & Wakefield

In 2016, 37,350 people (with a "usual place of work other than in their home or outside Canada") worked within the City of Brantford, accounting for an 83.2% share of the total jobs in the City (2016 Census).

Table 3.2 provides a projection of population and employment. In the table, population and employment figures for 2011 and 2016 are drawn from the Census. Population and employment projections for 2031, 2036, and 2041 are drawn from the Growth Plan. All other population and employment figures are imputed on a straight-line basis, from which the activity rate is then calculated.

Table 3.2 also illustrates an activity rate for each time period. Activity rate is the ratio of population to employment. A ratio of one means that there is one job for every resident. Since children and retirees do not work, a ratio of one would mean that there are more jobs than resident workers in the City. Most municipalities strive for a ratio of two residents for every job, which generally reflects the labour force.

With a 2016 population of 101,710 (adjusted to include the Boundary Adjustment Lands) and employment of 44,890, the City had an activity rate of 2.27 residents per job. This activity rate is a significant change from 2011 and demonstrates that the employment is not keeping pace with population growth. However, the activity rate is anticipated to slightly improve to 2.06 by 2041, as shown in Table 3.2.

TABLE 3.2: GROWTH FORECAST

Year	Population	Employment	Activity Rate
2011	93,650	45,062	2.08
2016	101,710	44,890	2.27
2021	111,331	53,609	2.08
2026	125,165	60,304	2.08
2031	139,000	67,000	2.07
2036	152,000	72,000	2.11
2041	163,000	79,000	2.06

Source: 2016 Census, 2017 Growth Plan and Cushman & Wakefield

Usual Place of Work Employment is the proportion of employment used to determine land needs. However, it is influenced by growth in non-traditional forms of work – including precarious employment, and an increased share of Home-Based Employment. Tables 3.3 and 3.4 identify the current (2016) and anticipated future employment mix (2031 and 2041) by place of work.

TABLE 3.3: MIX OF JOBS BY PLACE OF WORK		
Place of Work Category	**% Share (2016)**	**% Share (2031 and 2041)**
Usual Place of Work (UPOW)	83.2%	80.0%
Home-Based Employment (HBE)	4.7%	5.0%
No Fixed Place of Employment (NFPE)	12.1%	15.0%
Total	**100.0%**	**100.0%**

Source: Cushman & Wakefield

Table 3.4 presents the employment growth by place of work and illustrates the increased shares of Home-Based Employment (HBE) and No Fixed Place of Employment (NFPE).

TABLE 3.4: EMPLOYMENT GROWTH – BY PLACE OF WORK

Year	UPOW		HBE		NFPE		Total	
	#	%	#	%	#	%	#	%
2016	37,350	83.2%	2,115	4.7%	5,425	12.1%	44,890	100.0%
2021	44,031	82.1%	2,144	4.0%	7,434	13.9%	53,609	100.0%
2031	53,600	80.0%	3,350	5.0%	10,050	15.0%	67,000	100.0%
2041	63,200	80.0%	3,950	5.0%	11,850	15.0%	79,000	100.0%
Growth 2016-2041	25,850	75.8%	1,835	5.4%	6,425	18.8%	34,110	100.0%

Source: Cushman & Wakefield

3.5 VACANT EMPLOYMENT AREA LAND SUPPLY

City staff have identified 24 vacant industrial sites totaling 430 gross hectares[1] (or an estimated 350 net hectares) City-wide as shown on **Figure 2**, Map of Vacant Employment Lands, and in Tables 3.5 – 3.9. Each of the vacant sites is numbered both in the tables and on **Figure 2**. Inventories of vacant employment lands in this section, as well as commercial lands in Section 4 and residential lands in Section 9 are based on data compiled to the end of 2017.

From a servicing perspective, approximately 18% of the gross vacant land is currently serviced. Geographically, 70% of the gross vacant land (304 hectares) is located in the North West Industrial Area (which includes the Paris Road lands formerly within Brant County), 14% (58 hectares) is situated in Braneida Industrial Area – South of 403, 6% (24 hectares) is situated in

[1] Gross hectares refers to the employment parcels plus land for roads and stormwater management facilities but excluding natural heritage features and areas. Net hectare refers to the employment parcels only. It is generally assumed that 80% of a gross hectare is the employment parcel and 20% is comprised of roads and stormwater management ponds.

Braneida Industrial Area – North of 403, and 10% (44 hectares) is located on the Hopewell Lands, which are within the Boundary Adjustment Lands.

TABLE 3.5: VACANT EMPLOYMENT LAND – NORTHWEST INDUSTRIAL AREA

Site	Gross Hectares	Net Hectares	Ownership	Servicing
1	45.7	38.0	Private	General Capability
2	102.6	83.8	Private	General Capability
3	18.2	12.1	Private	General Capability
4	7.3	7.3	Private	Serviced
5	1.6	0.0	Private	General Capability
6	6.6	6.6	Private	General Capability
7	5.0	5.0	Private	Serviced
8	24.5	12.8	Private	General Capability
9	37.3	34.7	Private	General Capability
10	39.5	31.3	Private	General Capability
24	15.9	12.7	Private	General Capability
Total	**304.2**	**244.3**		

Source: City of Brantford Planning Department

TABLE 3.6: VACANT EMPLOYMENT LAND – BRANEIDA INDUSTRIAL AREA (SOUTH OF 403)

Site	Gross Hectares	Net Hectares	Ownership	Servicing
11	1.9	1.9	Private	Serviced
12	3.0	3.0	Private	Serviced
13	2.4	0.0	Private	General Capability
14	0.2	0.2	Private	Serviced
15	2.8	1.6	Private	Serviced
16	8.0	8.0	Private	Serviced
17	4.1	4.1	Private	Serviced
18	17.1	17.1	Private	Serviced
19	18.7	18.7	Private	Serviced
Total	**58.2**	**54.6**		

Source: City of Brantford Planning Department

Figure 2 - Map of Vacant Employment Lands
City of Brantford

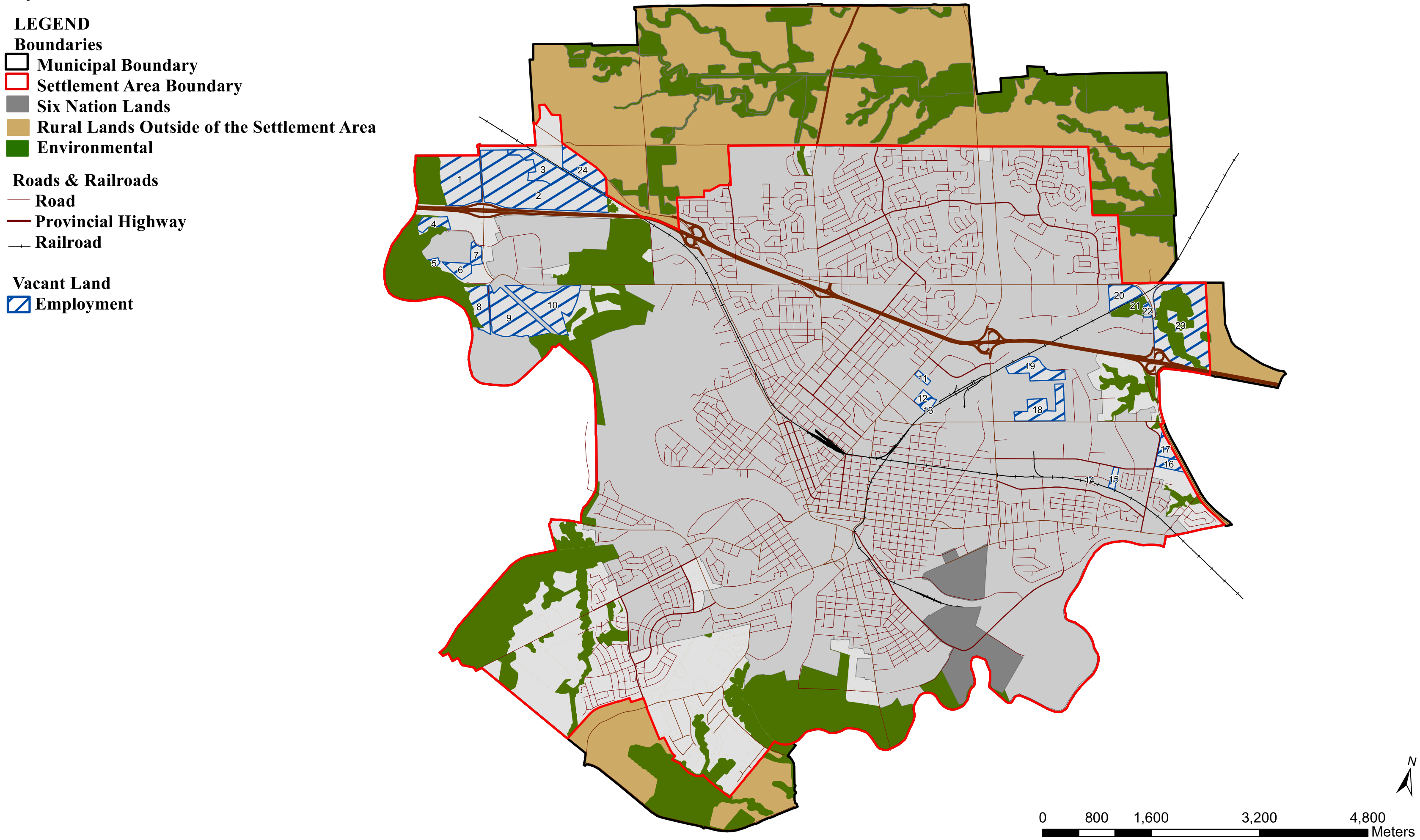


TABLE 3.7: VACANT EMPLOYMENT LAND – BRANEIDA INDUSTRIAL AREA (NORTH OF 403)

Site	Gross Hectares	Net Hectares	Ownership	Servicing
20	12.0	5.7	Private	Serviced
21	9.6	3.3	City	General Capability
22	2.3	2.3	Private	General Capability
Total	**23.9**	**11.3**		

Source: City of Brantford Planning Department

TABLE 3.8: VACANT EMPLOYMENT LAND – HOPEWELL LANDS

Site	Gross Hectares	Net Hectares	Ownership	Servicing
23	43.6	39.3	Private	General Capability

Source: City of Brantford Planning Department

TABLE 3.9: VACANT EMPLOYMENT LAND – TOTAL CITY

Location	Gross Hectares	Net Hectares
Northwest Industrial Area	304.2	244.3
Braneida Industrial Area (South of 403)	58.2	54.6
Braneida Industrial Area (North of 403)	23.9	11.3
Hopewell Lands	43.6	39.3
Total	**429.9**	**349.5**

Source: City of Brantford Planning Department

3.6 EMPLOYMENT CATEGORIES

When forecasting employment land needs, it is typical to divide employment into four broad categories of employment: Employment Land Employment (ELE), Major Office Employment (MOE), and Population-Related Employment (PRE). Rural Employment in the Boundary Adjustment Lands is also now a component of Brantford's total employment. These categories are described as follows:

- **Employment Land Employment:** refers to industrial-type jobs, and includes: manufacturing; research and development; warehousing and distribution; and wholesale trade. These jobs are typically located in single storey buildings, with a small front office component that may be multi-storey. Small-sale office-type employment can also be considered Employment Land Employment.

- **Major Office Employment:** refers to "freestanding office buildings of approximately 4,000 square metres of floor space or greater, or with approximately 200 jobs or more", as per the 2017 Growth Plan definition. Typical categories of Major Office Employment include the following NAICS code sectors (North American Industry Classification System): Finance, Insurance and Real Estate; Professional, Scientific and Technical Services; Other Business Services (some segments); and Information, Culture and Recreation (some segments). Office functions typically concentrate in downtown areas or established suburban office parks. Small-scale office buildings that may be accommodated in industrial parks on employment lands, often in the form of space within multi-tenant commercial strip properties, are not considered Major Office. The City of Brantford is not home to a significant Major Office presence.

- **Population-Related Employment:** refers to employment that exists in response to a resident population and is not primarily located in Employment Areas. These land uses are generally accommodated within existing neighbourhoods, downtowns and commercial areas. The range of Population-Related Employment sectors includes: Retail Trade; Educational Services; Health Care and Social Assistance; Accommodation and Food Services; and Government (referenced by NAICS codes). However, some commercial, institutional, and accessory retail uses may be found on employment lands. The extent of population-related land uses in Employment Areas varies among municipalities, and contributes to the mix of land uses and amenities within Employment Areas. In smaller and mid-sized communities, often industrial areas are very "pure" in terms of land uses being segregated, while in larger cities, there may be a blurring of related land uses in Employment Areas – including population-related functions.

- **Rural Employment**: refers to employment that exists in the City of Brantford outside of the City's current Settlement Area boundary. This employment currently includes both farm related employment and employment in existing rural industries and rural commercial businesses. These rural commercial businesses include car dealerships and other retail stores and are largely considered Population-Related Employment but are located in a rural area. As the Settlement Area boundary expands into the Boundary Adjustment Lands, the proportion of Rural Employment is anticipated to decrease and the existing commercial businesses will count towards Population-Related Employment.

3.7 FORECAST EMPLOYMENT BY EMPLOYMENT CATEGORY

3.7.1 Alternative Distribution by Employment Category

The current mix of Usual Place of Work (UPOW) employment in Brantford by the four broad categories of employment is understood to be approximately 56% Employment Land

Employment (ELE), 44% Population-Related Employment (PRE), 0.1% Rural Employment, and no Major Office Employment (MOE)[2]. The following forecast demand scenarios were prepared assuming different employment mixes. The mix of employment is varied by:

- Introducing MOE gradually, and as a modest share of total;
- Altering the proportion of ELE and PRE, with the scenarios reflecting more of a focus on one category of employment versus another. In Scenario 2, the PRE employment proportion is increased. In Scenario 3, the ELE employment proportion is increased; and
- Reducing the proportion of Rural Employment as the Settlement Area boundary is increased and the Boundary Adjustment Lands are urbanized.

The shares of employment in the three scenarios are illustrated in Table 3.10:

TABLE 3.10: EMPLOYMENT GROWTH – % SHARES BY CATEGORY

Scenario	Category	2016	2021	2031	2041
1 – Baseline	ELE	56%	55%	55%	55%
	PRE	43.9%	44%	43%	42%
	MOE	0%	1%	2%	3%
	Rural	0.1%	0%	0%	0%
	Total	**100%**	**100%**	**100%**	**100%**
2 – PRE-Focused Growth	ELE	56%	52%	52%	52%
	PRE	43.9%	47%	46%	45%
	MOE	0%	1%	2%	3%
	Rural	0.1%	0%	0%	0%
	Total	**100%**	**100%**	**100%**	**100%**
3 – ELE-Focused Growth	ELE	56%	58%	58%	58%
	PRE	43.9%	41%	40%	39%
	MOE	0%	1%	2%	3%
	Rural	0.1%	0%	0%	0%
	Total	**100%**	**100%**	**100%**	**100%**

Source: Cushman & Wakefield

[2] Source: Hemson Consulting Inc.

The employment in each category, by scenario, is illustrated on Table 3.11:

TABLE 3.11: EMPLOYMENT GROWTH – JOBS BY CATEGORY

Scenario	Category	2016	2021	2031	2041
1 – Baseline	ELE	23,713	28,306	35,008	41,278
	PRE	18,632	22,444	27,219	31,450
	MOE	0	515	1,273	2,252
	Rural	430	200	150	70
	Total	**42,775**	**51,465**	**63,650**	**75,050**
2 – PRE-Focused Growth	ELE	23,713	26,762	33,098	38,956
	PRE	18,632	23,988	29,129	33,772
	MOE	0	515	1,273	2,252
	Rural	430	200	150	70
	Total	**42,775**	**51,465**	**63,650**	**75,050**
3 – ELE-Focused Growth	ELE	23,713	29,849	36,917	43,529
	PRE	18,632	20,901	25,310	29,199
	MOE	0	515	1,273	2,252
	Rural	430	200	150	70
	Total	**42,775**	**51,465**	**63,650**	**75,050**

Note: Figures above include Usual Place of Work (UPOW) and No Fixed Place of Employment (NFPE), but exclude Home-Based Employment (HBE).

Source: Cushman & Wakefield

Home-Based Employment (HBE) is not include in the allocation to the four geographical areas as HBE is not an employment category that generates a land need as it occurs within dwelling units. However, for employment within Designated Greenfield Areas, it is included in that allocation as noted in Section 3.8.

The 2016-2041 employment growth forecast in each category, by scenario, is illustrated on Table 3.12:

TABLE 3.12: EMPLOYMENT GROWTH – JOBS BY CATEGORY

Scenario	Category	2016-2041	% Share
1 – Baseline	ELE	17,564	54.4%
	PRE	12,819	39.7%
	MOE	2,252	7%
	Rural	-360	-1.1%
	Total	**32,275**	**100%**
2 – PRE-Focused Growth	ELE	15,243	47.2%
	PRE	15,141	46.9%
	MOE	2,252	7%
	Rural	-360	-1.1%
	Total	**32,275**	**100%**
3 – ELE-Focused Growth	ELE	19,816	61.4%
	PRE	10,568	32.7%
	MOE	2,252	7%
	Rural	-360	-1.1%
	Total	**32,275**	**100%**

Note: Figures above include Usual Place of Work (UPOW) and No Fixed Place of Employment (NFPE), but exclude Home-Based Employment (HBE).

Source: Cushman & Wakefield

3.7.2 Recommended Distribution of Employment by Employment Category

The Baseline employment growth scenario reflects a continuation of the current distribution of employment by category, i.e., Employment Land Employment, Population-Related Employment, and Major Office Employment, within the City of Brantford. It is expected that this distribution would remain fairly stable over time.

Alternative scenarios were developed to test the impact on employment with varying results. Although there may be a declining level of growth for retail employment, the same will not hold true for convenience and service commercial space, particularly in the new greenfield areas, as well as government and institutional employment as the community grows. It is therefore recommended, from a planning perspective, to ensure that adequate lands are planned for to achieve the distribution of employment in the Baseline scenario (Scenario 1).

However, there is some risk that declining employment densities, and higher industrial-type employment growth, could lead to a long-term shortfall of lands. This issue will need to be monitored over the medium term.

3.8 DISTRIBUTION OF POPULATION-RELATED EMPLOYMENT

It is estimated that only 10% of Population-Related Employment (PRE) jobs would be located on employment lands. These are jobs in establishments such as restaurants, personal services and businesses services that serve the employees and businesses that occupy Employment Areas. The other 90% of PRE jobs are distributed throughout the Downtown, residential, mixed-use, and commercial areas.

The types of Population-Related jobs and the extent to which they are situated within Employment Areas vary among municipalities. There are certain PRE type jobs that are incompatible with industrial uses, such as hospitals and nursing homes, while other types may be appropriately sited within industrial parks, such as ancillary retail and business support services and automobile services. Our visits to the City's industrial parks revealed that while there were commercial and retail service uses along the edges of these areas on major arterial roads, the interior streets were predominantly traditional industrial-type buildings, with a modest front office component and rear manufacturing, assembly, and warehousing spaces.

In a City the size of Brantford, there is less pressure for competing land uses, compared to markets with larger land value disparities for industrial and commercial lands, and markets with a shortage of prime development lands in general.

Once the 10% of PRE job growth allocation is accounted for on employment lands, the remaining forecast PRE job growth (90%) should be added in proportion to where the new population is added, although it will be skewed higher to the Built-up Area, since that is where established infrastructure and community services exist.

It is recommended that 30% of the PRE job growth be allocated to the Built-up Area in recognition that much of the growth in government and institutional jobs will occur where the institutions are already located (i.e. the hospital, university, local government, etc.), despite where the population growth will be located. The balance (60%) will be divided proportionately to where the rest of the population growth occurs, whether through intensification within the Built-up Area, or as new development within the Designated Greenfield Area.

Retail and service commercial space is a significant component of PRE. As the discussion in Section 4 on the retail sector shows, retail employment growth will not be as significant in the past and consolidation is likely to occur in the current major retail nodes, which reinforces the proposed distribution of PRE growth recommended above. This slow growth is further demonstrated in the forecast of retail space requirements in Section 4.3.

Home-Based Employment (HBE) should also be allocated based on where the new population will occur, as it is anticipated that growth in Home-Based Employment will largely be in new dwellings, recognizing that existing dwellings already have a similar rate of HBE.

Resulting Population Related Employment Distribution

The Population-Related Employment growth forecast of 12,819, as set out in Scenario 1 in Table 3.12, is to be allocated as follows:

- 10% to employment lands;
- 30% to the existing Built-up Area (BUA); and
- 60% to the location of population growth. As described in Section 10, 64%[3] of the forecast population growth to 2041 will be directed to the DGA and 36% to the Built-up Area. The same percentages are used to allocate the Population-Related Employment as shown in Table 3.13.

Home-Based Employment (HBE), which is a form of Population-Related Employment, but is not included in the employment growth in Table 3.12, is forecast to grow by 1,835 jobs to 2041, as noted in Table 3.4. The allocation of HBE is similar to the PRE allocation related to population growth, with 64% allocated to the DGA and 36% to the Built-up Area.

Table 3.13 provides the proposed breakdown of PRE employment and HBE employment.

TABLE 3.13: DISTRIBUTION OF POPULATION-RELATED AND HOME-BASED EMPLOYMENT GROWTH		
Total PRE	12,819	100%
PRE to employment lands	1,282	10%
PRE to existing BUA	3,846	30%
PRE to DGA as per pop'n growth	4,922	38% (64% of 60%)
PRE to BUA as per pop'n growth	2,769	22% (36% of 60%)
TOTAL HBE	1,835	100%
HBE to DGA as per pop'n growth	1,174	64%
HBE to BUA as per pop'n growth	661	36%

Based on the data in Table 3.13, 6,096 Population-Related Employment jobs, including Home-Based Employment, are allocated to the DGA. 7,276 jobs are allocated to the Built-up Area, including 6,615 Population-Related Employment jobs and 661 Home-Based Employment Jobs.

[3] 14,250 new households are anticipated in the DGA by 2041. At a PPU of 3.10, the total population in the new DGA households will be 44,175, which equals 64% of the total new population of 68,630 (see Table 10.13).

The Population-Related Employment figures are used in the Employment Area land needs assessment in Section 6, Step E4.

3.9 EMPLOYMENT DENSITIES

Employment densities were determined for three categories of employment based on key inputs, which are evaluated first, including site coverage and long-term vacancy.

Site Coverage and Long-Term Vacancy

A key component of Employment Land Employment density is site coverage. An analysis of the site coverage of the existing industrial building stock in Brantford indicates an average of approximately 30%. This is considered relatively low compared to modern development norms, and is likely due to historically low land costs in this market. For the purposes of a land demand analysis, it is necessary to consider more modern development to gain insight into construction trends, including site coverage. Many of the recently developed industrial properties (2005 onwards) have a site coverage in the range of +/- 35%, which is typical of efficient, modern industrial developments. As a result, we have utilized 35% as a benchmark for our land demand projections.

However, the figure of 35% site coverage must be seen as an ultimate build-out benchmark. Some industrial properties or a portion of some properties will remain vacant over the long term for a variety of reasons. These may include:

- **Ownership** – the site may be controlled by a business that is using the land for outside storage, additional parking, or preserving a portion of the site for a future expansion, if ever warranted;
- **Site configuration** – orientation of the site does not allow for efficient development, due to easements, setbacks, road access, visibility, etc.; and
- **Contamination** – prior land use or nearby land use has caused soils to be contaminated, preventing the site from being developed economically.

Our team has analyzed 536 industrial properties completed across the Greater Golden Horseshoe since 2000. Applying a benchmark site coverage of 35% to these properties means that 117 buildings (22% share of the total) would require less than 2 acres of land, but these buildings are situated on parcels of greater size. This analysis indicates that it is common for new buildings to reserve a portion of their sites for future expansion.

Our projections allow for the initial building size to be less than 35% site coverage, and for the property to intensify as the user or landlord expands the building in the future, within the forecast horizon. As indicated by our analysis, it is often the case that a user will acquire a development site and build a smaller building than could be physically accommodated, in order to permit future expansion when warranted by business conditions. This long term expansion potential and other factors affecting vacant lands have been considered in the employment density.

Employment Land Employment (ELE): Our demand modeling assumes an ELE density of 23 jobs per gross hectare (29 jobs per net hectare). City of Brantford staff provided employment data from its industrial building directory. There were 220 records for which the size of the building and the number of employees was provided (for buildings in excess of 465 sq.m. (5,000 sq.ft.)). This inventory of buildings totaled almost 1.15 million sq.m. (12.5 million sq.ft.). Over 11,000 employees were included in this sample. An analysis of this data indicated that the weighted average floor area per employee was just over 102 sq.m. per employee (1,100 sq.ft. per employee), while the median figure was 107 sq.m. per employee (1,150 sq.ft. per employee). When this space per employee is translated into a land requirement, based on a benchmark industrial site coverage of 35%, it indicates an employment density of approximately 32.5 jobs per net hectare (13.2 jobs per net acre) when considering the median floor space per employee, and an employment density of approximately 34.0 jobs per net hectare (13.8 jobs per net acre) when considering the weighted average floor area per employee. Given the transition from a traditional manufacturing industrial economy and a greater role for warehousing and logistics, as well as to account for long term expansion potential, we have adjusted the ELE density figure downward to 29 jobs per net hectare or 23 jobs per gross hectare.

Major Office Employment (MOE): Given the higher employment densities associated with office space (compared with industrial [ELE] and population-related [PRE] jobs), the future Major Office growth can readily be accommodated on existing/planned commercial sites within the Downtown Urban Growth Centre or within mixed-use developments. Accordingly, no specific land allocation will be made for MOE growth.

Population-Related Employment (PRE): Our demand modeling assumes a Population-Related Employment (PRE) density of 64 jobs per gross hectare (80 jobs per net hectare). The employment density benchmark that applies to PRE varies depending on the land use. Small office-type users (such as real estate offices, accounting, financial services) and medical offices (doctors, dentists), that may locate in small professional business spaces in commercial units within Employment Areas, have a higher employment density compared to ancillary retail operations, which have a higher proportion of showroom/merchandise space and inventory storage requirements. We consider a range of 70 to 90 jobs per net hectare to be an appropriate benchmark for Population-Related Employment density for the types of jobs that would locate within Brantford's Employment Areas, and have selected 80 jobs per net hectare for modeling purposes, or 64 jobs per gross hectare based on a gross to net factor of 0.8.

4 EMPLOYMENT STRATEGY: COMMERCIAL SECTOR

4.1 EMPLOYMENT IN RETAIL TRADE

In comparing employment in the retail trade sector (NAICS categories 44-45) versus total employment growth for Canada, it is clear that 2010 marks an important transition point as shown in Exhibits 3 and 4. From 1987, which was the start of the Statistics Canada Labour Force survey, through 1993, employment growth in retail trade mirrored that for the broader economy. From 1994 to 2010, employment growth in retail trade lagged behind the overall economy, but at a fairly constant margin. However, in 2010, this spread broadened.

EXHIBIT 3:

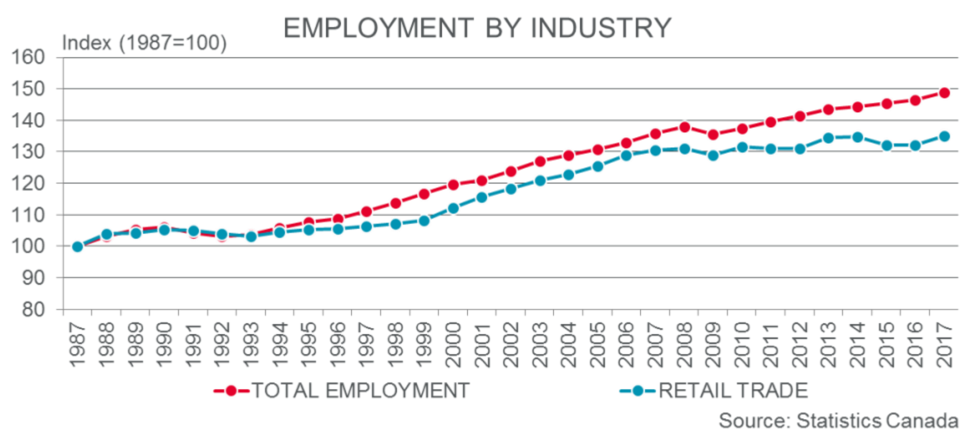
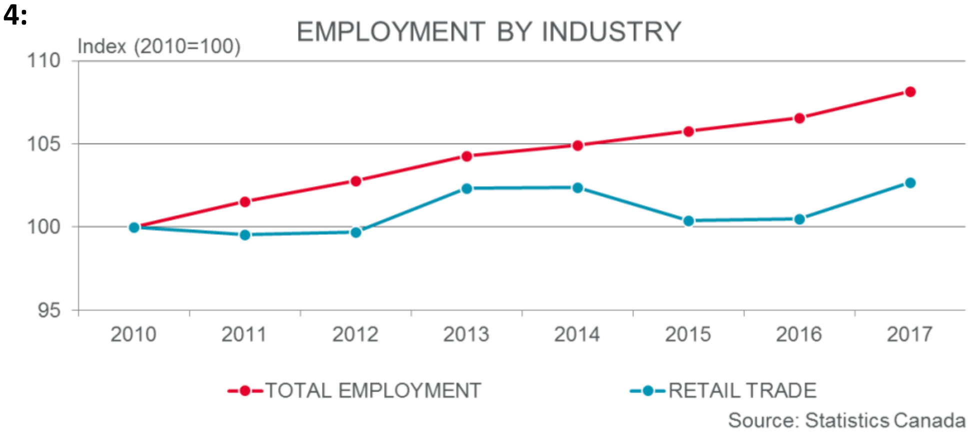


EXHIBIT 4:



From 2010 to 2016, employment in the retail trade sector (NAICS categories 44-45) across Canada increased by around 9,700 jobs, or roughly 0.5%, while Canada's population increased by 6.7%. If employment in retail trade, which is Population-Related Employment (as discussed in Section 3), had grown at the same rate as the population, there would have been 138,000 jobs added during that same period. This emerging disparity can be attributed at least in part to the acceleration of e-commerce as a component of overall consumer activity.

Increasing Acceptance of E-Commerce

While Canada has lagged behind the U.S. and U.K. in e-commerce, it is now catching up, as double-digit annual gains drive what growth there is in Canada's retail sector. According to eMarketer's latest forecast, e-commerce will account for 10% of total retail sales by 2020 – up from 5.8% in 2015. Consumers and retailers are embracing innovative strategies like "click and collect", in which shoppers order online, then pick up items later. This service sidesteps delivery expenses, substantial in Canada, in which 85% of distribution costs are in the last mile of delivery.

Even though Canada's biggest online retailers are growing faster than their U.S. counterparts, competition is at an all-time high, given that close to half of Canadian consumers' online purchases are made at foreign retail sites. A recent report from E-Tail Canada also found that 62% of Canadian retailers surveyed saw the value of their online orders rise between 2015 and 2016, and 71% saw their conversion rate grow – the number of initial customer clicks that result in an actual purchase, as opposed to browsing. Canadians are expected to spend $39 billion a year online by 2019, accounting for about 9.5% of all retail purchases, according to estimates from Forrester Research. With double-digit percentage increases in online sales year on year since 2010, Canadian retailers are having to adapt to remain competitive.

Impacts on Commercial Space Demand

A key implication of increased e-commerce spending – aside from an impact on retail employment – is reduced demand for retail space. This trend is particularly apparent in certain segments such as books, travel services and home electronics to name a few. Various retail chains are evaluating their store "footprint", and scaling back space needs where feasible.

Large format/big box "category killer" retailers are faced with increased competition as their goods are widely available online. In response, some stores are converting to showrooms for prospective customers who end up purchasing the same goods (or comparable goods) online. As a result, "Omni-channel retailing" or multiple format retailing is becoming the new normal, as retailers seek to provide uniform customer experience and branding – from the design of the website, to the mobile app, to the physical store. Thus, consumers can shop the same way through in-store, website, mobile app, and telephone – regardless of the customers' location and time. Ultimately, the shopper's order can either be delivered to the address directly, collected at the store, or collected from a retail partner. As a result of these trends, it is anticipated that the amount of retail space per capita will decline over time as the retail industry continues to evolve. This assumption is built into our demand modeling. E-commerce, however, will result in increasing demand for warehouse and distribution facilities, which locate within traditional Employment Areas.

Despite the potential decline in retail space per capita, other sectors will continue to see growth in demand for personal services, health services, entertainment and food services, as population grows. These types of services are difficult or impossible to replicate/replace online. Shopping centres have increased their personal and food service offering in order to provide the consumer another reason to visit the centre, and to spend more time and more "share of wallet". Some retailers, such as Lululemon, are opening mini cafes and community spaces within their stores, blurring the lines of what the space is all about – with the intent of causing customers to linger.

Restaurants and entertainment continue to be strong commercial sectors and their location in mixed-use areas and vibrant main streets can attract other specialty retailers that cater to the walk-by trade rather than e-commerce.

4.2 CHARACTERISTICS OF BRANTFORD'S COMMERCIAL SECTOR

4.2.1 Existing Inventory

The Canadian Directory of Shopping Centres provides information on shopping centres and mixed-use centres with at least 2,300 sq.m. (25,000 sq.ft.) of gross leasable area and with three or more commercial retail units. As a result, freestanding retail properties are not tracked. Our team has supplemented this data with additional market intelligence. As illustrated in Table 4.1, there are 13 shopping centres identified in Brantford, comprising a total area of almost 174,150 sq.m. (1.9 million sq.ft.). There are a range of formats and shopping centre sizes to meet the retail-commercial needs of Brantford's residents.

TABLE 4.1: SHOPPING CENTRE INVENTORY

Centre Name	Type	Year Opened	GLA (sq.m.)	GLA (sq.ft.)	Total Stores	Major Tenants
Lynden Park Mall	Community	1974	34,900	376,000	77	Food Basics, Winners
Brantford Commons	Community	1962	30,500	328,000	30	Walmart, Zehrs
Brantford Bell Centre 215-225 Henry Street	Power Centre	2008	25,500	274,000	5	Lowe's (*Note 1*), Michaels, PetSmart
Fairview Crossing	Power Centre	-	18,800	202,000	13	The Brick, Toys 'R' Us, Zehrs
Brantford Commons Plaza 50 Market Street	Grocery-Anchored	2008	10,600	114,000	19	FreshCo
Colborne Commons 300-340 Colborne St West at Shellard Lane/VM Parkway	Grocery-Anchored	2006	8,700	95,400	19	Sobeys, Shoppers Drug Mart
Northridge Plaza	Grocery-Anchored	1983	8,600	93,000	25	Food Basics
The Shops on Henry 218 Henry Street	Power Centre	-	7,350	79,000	10	Leon’s
175-181 Lynden Road	Neighbourhood	1990	6,800	73,000	14	King’s Buffet, Lococo’s supermarket
Colborne Place 603 Colborne Street	Grocery-Anchored	1990	6,500	70,000	11	Frank’s No Frills
King George Square	Neighbourhood	1988	6,200	67,000	16	Shoppers Drug Mart, Dollarama
North Park Shopping Centre	Neighbourhood	1980	5,500	59,000	17	Shoppers Drug Mart
Wyndham Place	Neighbourhood	1973	4,200	45,000	6	PartSource
Total (13 properties)			174,150	1,874,535	262	

Note 1: Lowe’s is an adjacent property, and is considered a “shadow anchor” for this shopping centre and included in the floor area.

Source: Canadian Directory of Shopping Centres

In addition to the larger shopping centres identified above, there are other smaller centres, along with freestanding retail stores, that contribute to the retail-commercial mix in Brantford. Other prominent retail-commercial sites contribute an additional 65,403 sq.m. (703,980 sq.ft.) of floor space as shown in Table 4.2.

TABLE 4.2: OTHER PROMINENT RETAIL-COMMERCIAL SITES

Centre Name	Type	GLA (sq.m.)	GLA (sq.ft.)	Total Stores	Major Tenants
Home Depot 25 Holiday Drive	Big Box	11,074	119,200	-	Home Depot
Canadian Tire 30 Lynden Road	Big Box	10,925	117,600	-	Canadian Tire
Staples Plaza 595 West Street	Community	8,919	96,000	-	Staples, Athletic Club, M&M Meats
639-673 Colborne Street	Neighbourhood	5,853	63,000	-	Brantford Surplus
61 Lynden Road	Community	4,506	48,500	-	Best Buy, The Keg, Moore's
39 King George Road	Community	3,242	34,900	-	
Dunsdon Plaza	Neighbourhood	3,187	34,300	-	
84 King George Road	Community	3,029	32,600	-	Giant Tiger, Dollarama
240 King George Road	Community	1,869	20,120	-	Farm Boy
230 Shellard Lane	Community	1,879	20,225	-	TD Canada Trust and Shellard Lane Animal Hospital
108 Colborne Street West	Community	3,060	32,935	-	No Frills, Dollarama
Metro (St. Paul Avenue)	Grocery-Anchored	2,806	30,200	-	Metro
2-10 King George Road	Community	2,694	29,000	-	Home Hardware
Brantwood Park Plaza	Neighbourhood	2,360	25,400	-	
Total (14 properties)		65,402	703,980		

In total, in Tables 4.1 and 4.2, existing retail sites provide 239,552 sq.m. (2,578,516 sq.ft.) of commercial space.

4.2.2 Retail Space Per Capita

Considering the total retail space in Tables 4.1 and 4.2, Brantford had a retail space per capita of 2.4 sq.m. (25.7 sq.ft.) based on the 2016 population. This latter figure will be used for modeling purposes in Section 4.3 of this report.

Notably, this figure does not include street-front retail (such as retail stores in the Downtown) or small-scale/freestanding retail properties located throughout the community. These properties are modest in size compared to the shopping centre inventory, and future lands for these typologies are intended to be accommodated within the mixed-use component of lands planned for the overall urban structure of the City. Further, it is anticipated that retail demand for new retail space will be focused on sites outside of the Downtown area, while infilling, take-up of existing vacant space and new mixed-use developments in the Downtown and the intensification corridors will also play a role.

4.2.3 Site Coverage

Site Coverage - Existing Conditions

We have analyzed the site coverage of the existing shopping centres as shown in Table 4.3. The building data was drawn from the Canadian Directory of Shopping Centres, and supplemented with our own local research. The land area data was obtained from GeoWarehouse (GeoWarehouse is a product offered by Teranet; Teranet built and manages Ontario's Electronic Land Registration System).

TABLE 4.3: SHOPPING CENTRE SITE COVERAGE IN BRANTFORD

Centre Name	Building GLA (sq.ft.)	Building GLA (sq.m.)	Land Area (acres)	Land Area (hectares)	Site Coverage
Lynden Park Mall	376,000	34,900	62.0	25.1	14%
Brantford Commons	328,000	30,500	37.2	15.1	20%
Brantford Bell Centre [1]	274,000	25,500	24.6	9.5	27%
The Shops on Henry [2]	225,000	20,900	21.9	8.9	24%
Fairview Crossing	202,000	18,800	16.3	6.6	28%
Brantford Commons Plaza	114,000	10,600	10.5	4.2	25%
Colborne Commons	95,400	8,900	10.4	4.2	21%
Northridge Plaza	93,000	8,600	9.3	3.8	23%
Brantford Mall	73,000	6,800	7.6	3.1	22%
Colborne Place	70,000	6,500	6.7	2.7	24%
King George Square	67,000	6,200	5.8	2.3	27%
North Park Shopping Centre	59,000	5,500	4.8	2.0	28%
Wyndham Place	45,000	4,200	4.1	1.7	25%
Total	**1,926,000**	**187,900**			

1. Land Area and GLA includes the adjacent Lowe's and excludes the vacant portion identified as site E4 in Table 3.5.

2. GLA and land area includes the portion of the site that was originally planned to accommodate the Real Canadian Superstore (measuring – 13,500 sq.m. (145,000 sq.ft.)).

Sources: Canadian Directory of Shopping Centres and GeoWarehouse

While the 13 shopping centres in Brantford include a range of formats (power centre, community shopping centre, and grocery-anchored), they fall within a fairly narrow range of site coverage percentage, from the low to upper 20% range as illustrated in Table 4.3.

There is one notable exception: Lynden Park Mall is an enclosed shopping centre with a site coverage of just 14%. While the average site coverage figure for these sites is 23% (due in part to Lynden Park Mall), the average figure of 25% site coverage will be used in our land demand modeling, as it is a benchmark site coverage for retail developments.

Site Coverage – Future Conditions
The benchmark site coverage figure of 25% is consistent with existing market conditions. However, future commercial development may be expected to achieve a more compact built form that reflects policies on compact built form and urban design objectives under the Provincial and local planning frameworks. Within this context, an alternative site coverage figure of 40% is considered as one option in the demand forecast in Section 4.3 as a potential target for more compact commercial development. However, achieving this level of site coverage would require reduced parking standards, setbacks, landscaping, and/or structured parking, as compared to current commercial requirements and is considered an aggressive target.

4.2.4 Vacant Commercial Land Supply

City staff identified 31 vacant commercial sites totaling an estimated 26.30 hectares (65.06 acres) as shown on **Figure 3** and documented in Table 4.4. One of the sites, L12, contains a vacant building but is included within the vacant land supply in Table 4.4. In addition, major commercial expansion opportunities are identified at four sites, which total 15.53 net hectares (38.36 net acres) as shown in Table 4.5.

Despite the change in retail trends, there may still be a need for large retailers or agglomerations of retailers. There are three vacant land parcels within the Built-up Area that can accommodate in excess of 10,000 sq.m. of development (based on a 25% site coverage). In addition, undeveloped lands at Lynden Park Mall have the potential to accommodate significant additional density, depending upon the orientation on the site. These sites could accommodate a single large retailer, or a multi-tenanted shopping centre or power centre development format.

Together, the vacant and expansion opportunities in Tables 4.4 and 4.5 represent an inventory of 41.83 hectares (103.42 acres) of vacant/developable commercial land City-wide. However, the analysis focuses on those lands in excess of 0.8 hectares (2 acres) in size, as sites smaller than this cannot accommodate a 2,300 sq.m. (25,000 sq.ft.) single-storey retail-commercial development, at a typical 25% site coverage ratio. This size threshold aligns with our retail-commercial inventory review. This threshold criterion adjusts the number of sites downward to 12, and the inventory of vacant commercial lands, buildings, and major expansion opportunities that are greater than 0.8 hectares (2 acres) in size downward to 36.2 hectares (89.5 acres).

Figure 3: Map of Vacant Commercial Lands, City of Brantford

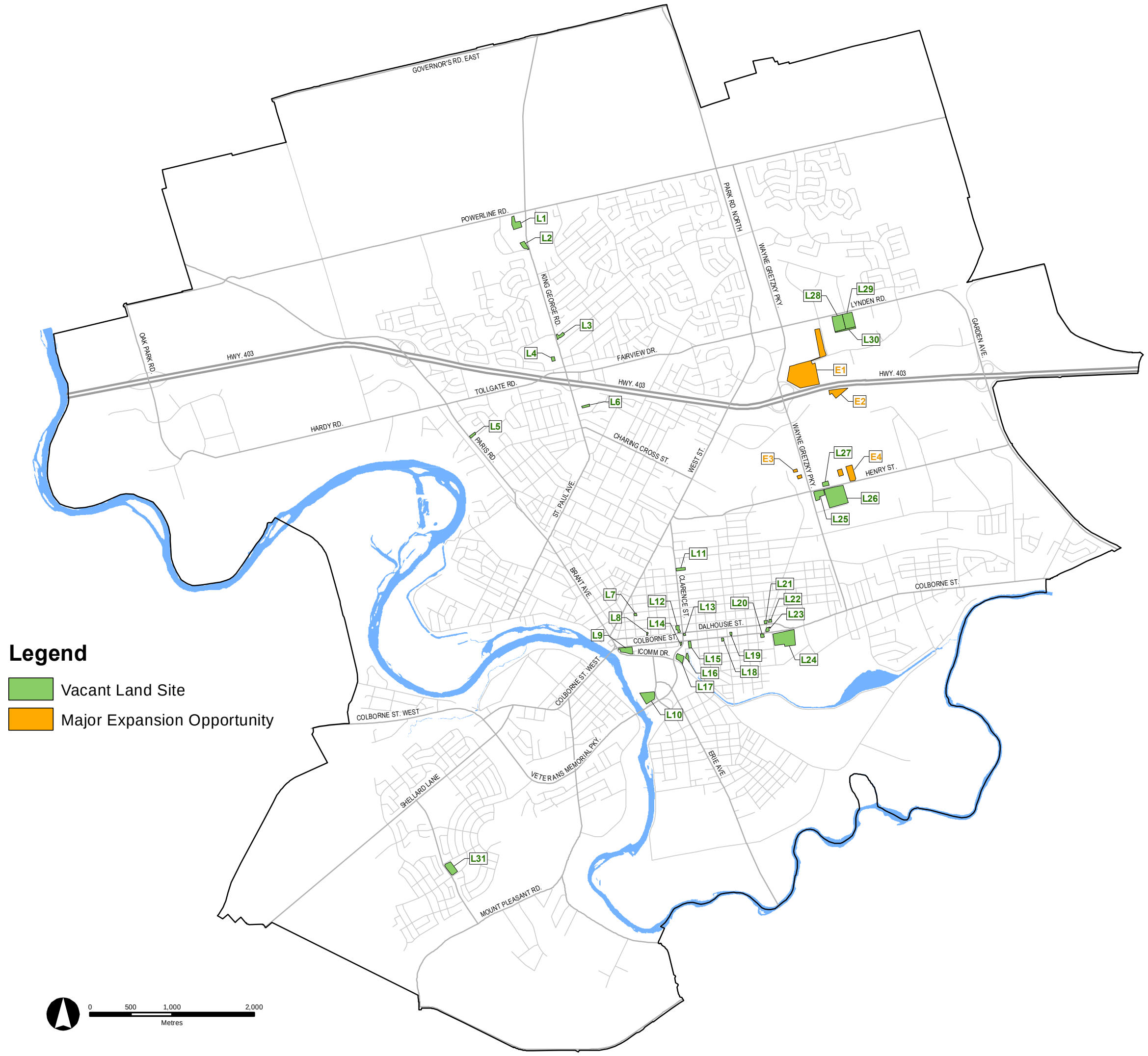


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TABLE 4.4: VACANT COMMERCIAL LAND

Site	Address	Site Area (hectares)	Site Area (acres)	Former Use
L1	333 King George Rd.	1.14	2.82	
L2	319 King George Rd.	0.52	1.28	
L3	164 King George Rd.	0.39	0.97	Single Family
L4	129 King George Rd.	0.25	0.61	Vacant back lot
L5	106 Paris Rd.	0.20	0.50	Single Family
L6	64-68 King George Rd.	0.23	0.57	Vacant back lot
L7	27 Nelson St	0.09	0.23	Parking Lot
L8	100 Dalhousie St.	0.04	0.11	Dempster's Furs
L9	Colborne Street	1.09	2.70	
L10	101 Market St. South	1.73	4.28	Go kart track
L11	151 Clarence St.	0.33	0.82	Wreck Yard
L12	188 Dalhousie St	0.29	0.71	McKerlie Automotive
L13	13-17 Clarence St.	0.06	0.16	PUC lot
L14	281 Colborne St.	0.07	0.17	Pioneer Gas
L15	315 Colborne St.	0.26	0.65	Union Gas Office
L16 a	27 Newport St.	0.06	0.15	
L16 b	33 Newport St.	0.18	0.44	
L17	166-176 Greenwich St.	0.70	1.74	Fire Hall
L18	415-417 Colborne St.	0.10	0.24	Residential/Commercial
L19	446-450 Colborne St.	0.10	0.24	Various Commercial
L20	547-549 Colborne St.	0.17	0.42	Golden Gas/AutoGlass
L21	20 Stanley St.	0.14	0.35	Brant Dairy
L22	384 Dalhousie St.	0.09	0.23	Gas Station
L23	7 Stanley St.	0.19	0.47	Gulf Self-Serve Gas
L24	573-585 Colborne St.	4.29	10.60	Canadian Tire Plaza
L25	218 Henry St.	1.07	2.65	
L26	234 Henry St.	5.36	13.25	
L27	225 Henry St.	0.36	0.90	
L28	Lynden Rd.	2.39	5.90	
L29	Lynden Rd.	2.27	5.60	
L30	Lynden Rd.	0.38	0.95	
L31	304 Conklin Rd.	1.76	4.35	
TOTAL		**26.30**	**65.06**	

Source: City of Brantford Planning Department

TABLE 4.5: MAJOR COMMERCIAL EXPANSION OPPORTUNITIES

Site	Address	Site Area (hectares)	Site Area (acres)	Existing Use
E1	84 Lynden Rd.	11.9	29.4	Lynden Park Mall
E2	25 Holiday Dr.	1.30	3.22	Home Depot
E3	195 Henry St.	0.4	0.98	Strip retail plaza
E4	221 Henry St.	1.93	4.76	Leon's Furniture
TOTAL		**15.53**	**38.36**	

Source: City of Brantford and Cushman & Wakefield

4.3 FORECAST RETAIL SPACE REQUIREMENTS

For land needs assessment purposes, it is not necessary to estimate the amount of retail and service commercial employment separately from the Population-Related Employment (PRE) total. However, in considering the appropriate densities for Designated Greenfield Areas, and in an effort to assist Master Planning/Secondary Planning for the new DGA in the Boundary Adjustment Lands, forecasts of potential retail space requirements were undertaken.

Scenario 1 is a continuation of current baseline trends of space per capita and site coverage. Scenario 2 alters the per capita rates due to the growth of e-commerce. Future commercial development may also be expected to achieve a more compact built form particularly through increased mixed-use development, and as such, Scenario 3 introduces an alternative site coverage figure of 40%.

4.3.1 Scenario 1 – Baseline

Scenario 1 assumes that in the future, retail-commercial development will continue at a rate consistent with the current ratio of retail space per capita of 2.4 sq.m. (25.7 sq.ft.). This ratio includes shopping centre space, plus other prominent retail-commercial sites in the City. With the total population projected to increase to 163,000 by 2041, there will be an additional 61,290 residents. This population growth indicates demand for an additional 151,647 sq.m. (1,632,315 sq.ft.) of retail-commercial space. At a benchmark site coverage of 25%, the new population will require an estimated 60.7 hectares (150 acres) of additional retail-commercial space as shown in Table 4.6.

Continuation of the baseline per capita space assumes the same type and amount of retail and service commercial space would be required for new residents to the City. However, as the City grows, it may be able to attract new retailers who require a larger population base. These new retailers are often large scale retailers servicing a "regional" market. As such, the baseline scenario can be considered a conservative space need.

TABLE 4.6: SCENARIO 1 – BASELINE			
Variable	**2016**	**2041**	**Change 2016-2041**
Population	101,710	163,000	61,290
Present Retail-Commercial Inventory (sq.m.)	239,552		
Retail-Commercial Space per Capita (sq.m.)	2.4	2.4	
Projected Retail-Commercial Inventory (sq.m.)		391,200	
Site Coverage	25%	25%	
Required New Retail-Commercial Space (sq.m.)			151,647
Land Required for New Development (ha)			60.7
Land Required for New Development (acres)			150

4.3.2 Scenario 2 – Reduced Retail-Commercial Space per Capita

Emerging retail trends, including smaller store formats being tested by various retailers, as well as increasing sales through online shopping, are anticipated to translate to a reduced amount of shopping centre and other retail space per capita in the future. In this scenario, we examine the impact of a reduction in the amount of retail-commercial space demanded per capita by 2041. Present levels of demand are reduced by a factor of 20% as an estimate of the influence of online shopping by 2041. With other model inputs unchanged, this scenario results in a requirement for some 28 hectares (69 acres) of land to accommodate projected demand as shown in Table 4.7.

TABLE 4.7: SCENARIO 2 – REDUCED RETAIL-COMMERCIAL SPACE PER CAPITA			
Variable	**2016**	**2041**	**Change 2016-2041**
Population	101,710	163,000	61,290
Present Retail-Commercial Inventory (sq.m.)	239,553		
Retail-Commercial Space per Capita (sq.m.)	2.4	1.9	
Projected Retail-Commercial Inventory (sq.m.)		309,700	
Site Coverage	25%	25%	
Required New Retail-Commercial Space (sq.m.)			70,147
Land Required for New Development (ha)			28
Land Required for New Development (acres)			69

4.3.3 Scenario 3 – Reduced Retail-Commercial Space per Capita at Higher Density

In addition to retail trends pointing to a reduced requirement for retail space per capita, current policies call for more compact development forms for new development, particularly in areas cited for intensification. This third land use demand scenario explores the impact of a higher site coverage compared to the status quo (i.e. a site coverage of 40% versus the 25% that is the average for Brantford's existing shopping centres). In Scenario 3, the required land to accommodate new retail demand totals 17.5 hectares (43.2 acres) as shown in Table 4.8. The only variation in the modeling assumptions between Scenario 2 and Scenario 3 is the site coverage.

TABLE 4.8: SCENARIO 3 – REDUCED RETAIL-COMMERCIAL SPACE PER CAPITA AT A HIGHER DENSITY

Variable	2016	2041	Change 2016-2041
Population	101,710	163,000	61,290
Present Retail-Commercial Inventory (sq.m.)	239,553		
Retail-Commercial Space per Capita (sq.m.)	2.4	1.9	
Projected Retail-Commercial Inventory (sq.m.)		309,700	
Site Coverage	25%	40%	
Required New Retail-Commercial Space (sq.m.)			70,147
Land Required for New Development (ha)			17.5
Land Required for New Development (acres)			43.2

4.3.4 Scenario Comparison

The preceding three retail-commercial demand scenarios generate a range of land requirements. Using the vacant commercial land supply determined in Section 4.2.4, Scenario 1 identifies a deficit of retail-commercial land supply of 24.5 hectares as illustrated in Table 4.9. Scenario 2 identifies a modest surplus of 8.2 hectares and Scenario 3 results in a surplus of land of 18.7 hectares.

However, these three scenarios assume that there will be no vacant commercial sites left and that all current vacant sites will be used for commercial purposes. These two assumptions are unlikely to occur as all healthy commercial markets contain some vacant lands, and with much of the commercial areas designated for mixed-use, some of the current vacant sites will redevelop for residential and mixed-use development.

TABLE 4.9: LAND SUPPLY AND DEMAND

Scenario	Vacant Land Supply	Land Demand	Surplus/ [Deficit]
Scenario 1			
Hectares	36.2	60.7	[24.5]
Acres	89.5	150	[60.5]
Scenario 2			
Hectares	36.2	28	8.2
Acres	89.5	69	20.5
Scenario 3			
Hectares	36.2	17.5	18.7
Acres	89.5	43.2	46.3

4.3.5 Recommended Commercial Land Needs

A range of retail-commercial land needs has been prepared, based on assumptions around shopping centre space per capita, and building densities. The rapid pace of change in the retail market must be acknowledged, and monitored over the medium term. Scenario 1 was developed to explore a continuation of the status quo, which may overstate future land needs if the current trends for the growth of online shopping continue.

Scenario 2 tests the effect of a reduced amount of shopping centre space per capita based on a continued growth of online shopping. However, the extent of this reduction can only be estimated with a high level of potential deviation. What is assured is that service commercial space, entertainment, convenience retail, food retailing and certain types of specialty retail will not be impacted by online shopping and will continue to be required at current or potentially increased levels.

Scenario 3 assumes increased growth of online shopping as well as a denser form of commercial development. That denser form of commercial development is beginning to be found in parts of the Inner Ring of the Greater Golden Horseshoe (GGH) (i.e. the Greater Toronto Area and Hamilton). However, it is not likely to be found in Brantford during the planning period without significant increases in land prices and/or significant reductions in parking requirements through implementation of higher order transit.

Based on the models prepared, there is not a need to plan for significant additional lands for major retail beyond what is already available on vacant lands. However, given the uncertainty in the future retail market environment, it would be prudent, from a planning perspective, to ensure that an adequate supply of lands is permitted to accommodate future retail-commercial land needs.

As well, many of the vacant commercial sites and buildings within the Built-Up Area are appropriate candidates for residential and mixed-use intensification, particularly the scattered stand-alone sites not adjacent to major commercial developments. The commercial development that occurs as part of these mixed-use developments would not factor into the supply and demand numbers noted above. Neither would small-scale convenience retail and service commercial stores serving local residents. Both of these forms of retail and service commercial will continue to be required and likely grow in importance as intensification occurs, but do not form part of the per capita space needs discussed in the above analysis.

Conversely, it is also likely that a number of the vacant commercial sites identified in Tables 4.4 and 4.5 will be redeveloped for residential and mixed-use development, potentially lessening the overall commercial supply of vacant lands.

As noted earlier, the baseline per capita space analysis is a conservative analysis that doesn't take into account new regional serving retailers who are attracted to the City by its larger population base. It is envisioned that these predominantly large scale retailers could be accommodated through redevelopment within the intensification corridors or on vacant lands in the mixed-use centres.

In addition, within the new DGA in the Boundary Adjustment Lands, additional commercial development will be required for day to day shopping needs in neighbourhood and community oriented retail centres. It is also appropriate to plan for small convenience commercial sites and sites for stand-alone commercial development that does not normally locate within shopping centres, such as car dealerships, furniture and home improvement, within new greenfield areas. These convenience retail needs are typically in the range of 1.5 sq.m. (16 sq.ft.) to 1.9 sq.m. (20 sq.ft.) per person.

As such, it is prudent to plan conservatively for approximately 1.5 sq.m. (16 sq.ft.) per capita of commercial space for the additional population to be accommodated in the DGA in Brantford. The DGA population growth from 2016 to 2041 is estimated in Table 10.13 of this report to be 44,175, which results in a need for 26.5 hectares[4] of commercial space. Subtracting current vacant lands in the DGA comprising 3.42 hectares[5] results in the need for approximately 23 hectares of commercial land. This figure is larger than the surplus/deficit figures in Table 4.9, as those figures do not account for small convenience commercial sites and stand-alone commercial sites. As indicated before, Table 4.9 also does not account for redevelopment for residential and mixed-use, ongoing vacancies or new regional serving retailers not currently established in Brantford.

[4] Based on 25% coverage

[5] Includes sites L1, L2 and L31 from Table 4.4

5 EMPLOYMENT STRATEGY: EMPLOYMENT CONVERSIONS

5.1 PLANNING CONTEXT

As discussed in Sections 2 and 3 of this report, Provincial policy and good planning dictate the need to ensure an adequate supply of land for Employment Areas and for other employment-generating land uses in the long term.

At the same time, Brantford's urban structure is evolving. Historically, Brantford has been characterized by:

- a strong Downtown;
- surrounding stable neighbourhoods; and,
- geographically distinct industrial districts, some of which are close to, and sometimes intermingled with, the residential neighbourhoods.

Brantford is evolving from this historic structure to a more urbanized City, with an urban structure that is based on an intensified Downtown Urban Growth Centre, with an interconnected system of mixed-use Intensification Corridors that link more modern community commercial centres, Employment Areas and stable residential neighbourhoods.

This evolving urban structure will provide substantial opportunities in the Downtown Urban Growth Centre, the Intensification Corridors and within the Major Commercial Centres for the production of a significant supply of higher density housing and Population-Related Employment, including major office, institutional, retail and service commercial uses. Within these mixed-use, higher intensity areas within Brantford, the differentiation among various land use types will become less distinct, and it will become a significant planning challenge to manage or recognize the growth and evolution of specific single-use land use categories.

Notwithstanding Brantford's evolving urban structure, and the intensified and mixed-use development opportunities that it presents, the City will continue to accommodate large and contiguous Employment Areas. It is these Employment Areas that have defined Brantford's historic development character, and more recently, have made it both economically successful and a desirable place to live, and to locate a business.

The Boundary Adjustment Lands provide the most obvious and greatest opportunity for the City to accommodate new Employment Areas, as well as new Community Areas, that will provide new opportunities for retail, service commercial and institutional uses. The opportunity to expand the City into the Boundary Adjustment Lands is fundamental to growth management to

2041, and beyond.

5.2 KEY CONSIDERATIONS FOR LAND CONVERSIONS

The establishment of a new Official Plan provides an opportunity to take a look at the historic development pattern, and to make adjustments that will provide improved functional relationships among various land uses, to reflect the reality of development as it has occurred on the ground, and to facilitate the desired evolution of the City's urban structure. Part of that consideration includes the issue of employment land conversion. More specifically, with respect to the issue of the conversion of currently designated Employment Areas, four considerations are of importance:

1) Existing Employment Areas are a Resource

The land needs assessment in Section 6 identifies the need for the designation of new Employment Areas within the Boundary Adjustment Lands to accommodate economic growth in the Employment Land Employment category. These lands must build upon the locational attributes (visibility and accessibility) provided by Highway 403 and its related interchanges. The City must also remain aware that the existing designated Employment Areas are a resource that, once converted to another use, are very unlikely to ever be regained or expanded.

2) Decisions Made Today will Effect Economic Development in the Future

The growth and development of Brantford will continue to evolve, and will not end in 2041. The City must remain cognizant that decisions made today about economic development and the long-term Employment Area land supply will have a dramatic impact on long-term planning in Brantford, beyond the current planning horizon.

3) Changes Need to Reflect New Urban Structures

The evolution of the City must consider and appropriately manage change, as the City moves toward a new, more intensified, more mixed-use urban structure based on transit-supportive forms of development, within a system of defined centres and corridors. This evolution requires that land use decisions made decades ago may need to be adjusted to properly facilitate the new urban structure.

4) Balance is Required

It must remain an objective of the City to maintain a balance between community and employment opportunities over the long term. In addition, the City must also maintain the appropriate balance among the various types of employment – from major office uses to traditional business park and industrial uses, to major institutional uses, as well as a whole host of types and scales of retail and service commercial uses. The City must remain diligent in achieving this "balance" objective, and not facilitate development and redevelopment or conversion activities that jeopardize its achievement. Balance is also required when looking at scattered, small older industrial sites. Some of these sites will likely not be redeveloped for future industrial purposes once the current operations cease, and are therefore considered for conversion at this time.

5.3 CRITERIA FOR EMPLOYMENT AREA CONVERSIONS

Land use conversion describes the redesignation of lands from one use category to another. The conversion of Employment Areas is given special consideration in Provincial policy. The philosophy behind this focused approach to Employment Area conversion lies in the premise that Employment Areas accommodate generally lower value land uses than commercial or residential designations, and therefore pressure will emerge to convert the lower value employment lands to higher value commercial or residential land use categories, notwithstanding the importance of Employment Areas to the economic health of the municipality. To stem the proliferation of Employment Area conversions, the Province has provided strong language that provides substantial protection to Employment Area designations, as described in Section 2.2.2 of this report. This strong language must be carried forward in the new Brantford Official Plan.

Generally, the City may permit the conversion of Employment Areas to non- employment uses only through a Municipal Comprehensive Review where a number of key criteria are met including:

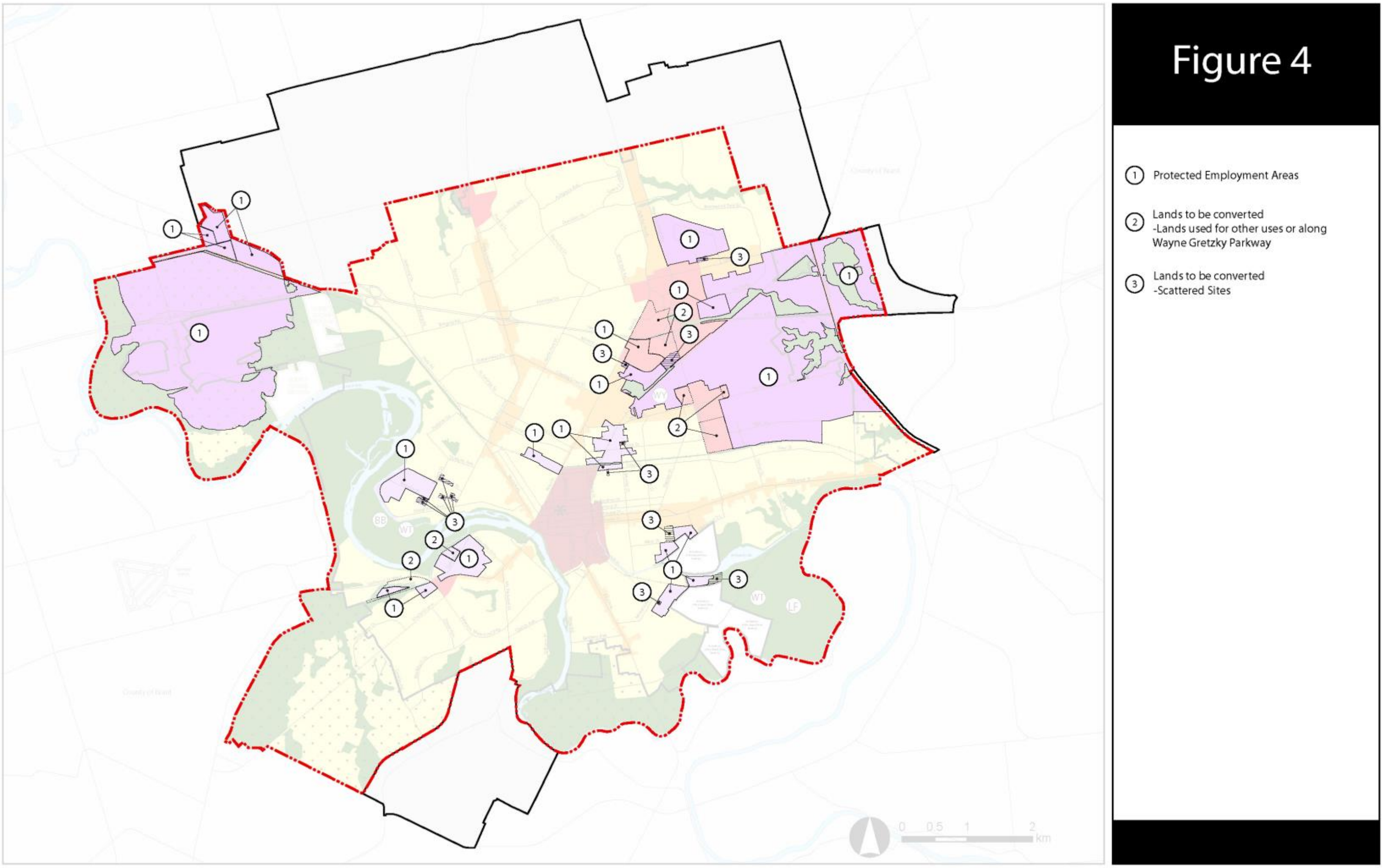
- There is a need for the conversion;
- The lands are not required by 2041 for the employment purposes for which they are designated;
- The municipality will maintain sufficient employment lands to accommodate forecasted employment growth to 2041;
- The proposed uses would not adversely affect the overall viability of the Employment Area or the achievement of the minimum intensification target and density target in the Growth Plan, as well as other policies of the Growth Plan; and
- There are existing or planned infrastructure and public service facilities to accommodate the proposed uses.

5.4 CONVERSION RECOMMENDATIONS

This section identifies a set of recommendations on the approach to long-term planning for Employment Areas that will also facilitate the achievement of the urban structure and the other growth management objectives of the City.

Applying the conversion criteria, the existing employment lands were categorized into three strategic categories of employment lands based on the 2015 employment conversion analysis (Envisioning Brantford Official Plan Review, Municipal Comprehensive Review of Commercial & Employment Lands, Feb 2015). These three categories of employment lands are illustrated on **Figure 4**.

Figure 4 – Employment Protection and Conversion Areas



Category 1 - Well functioning and existing Employment Areas must be protected from conversion.

Figure 4 identifies a number of Employment Areas that are identified as Category 1 - Protected Employment Areas. These areas are proposed to be subject to the Employment Area policies in the 2016 Draft Official Plan. That policy framework is intended to protect the existing Employment Area land supply in Brantford as well as within the future Employment Areas in the Boundary Adjustment Lands. It was previously recommended that the following established industrial areas be identified as Employment Areas on Schedule 1: Growth Management in the 2016 Draft Official Plan:

- Braneida Industrial Park; and
- Northwest Industrial Park.

The City also contains five smaller, older industrial areas that are generally surrounded by stable residential neighbourhoods. It was previously recommended in the 2015 MCR that these lands be identified as Employment Lands and be subject to potential future conversion through a site specific Official Plan Amendment. These industrial areas have undergone further scrutiny by the City to determine which areas remain viable Employment Areas and should be retained for employment use during the planning period. The areas determined to be viable Employment Areas are now to be protected from conversion during the planning period and are illustrated on **Figure 4** as Category 1 areas.

In addition, and as identified on the attached **Figure 4**, the lands within the Boundary Adjustment Lands along Paris Road at Powerline Road, as well as the Hopewell Lands on the east side of Garden Avenue, north of Highway 403 that are both currently designated Employment in the Brant County Official Plan, should be also identified as Employment Areas on Schedule 1: Growth Management in the next Draft of the new Official Plan.

The land area within these Employment Areas is indicated in Table 5.1.

TABLE 5.1 EMPLOYMENT AREA	
Employment Area	**Area (ha)**
Braneida Industrial Park	635.29
Northwest Industrial Park	524.87
Holmedale Employment Area	26.51
West Brant Employment Area	40.09
Egin Street near Murray Street	26.80
Iroquois Park Industrial Area	28.66
Hopewell / Garden Ave	106.38
Paris Road at Powerline Road	53.70
Usher Street Rail Yard	9.19
Total	**1,451.49**

All of these identified Employment Areas must be protected from land use conversion, and potentially expanded and/or intensified for their Employment Land Employment generating function over the long term.

Category 2 - Some Employment Areas are currently used for non-employment uses or are appropriate for intensification to accommodate a broader range of uses and should be converted through the ongoing Official Plan Review process.

Figure 4 identifies some land as Category 2 – non-employment uses on lands to be converted. In the 2016 Draft Official Plan, a number of existing industrial uses/areas were proposed to be converted through the work carried out in the 2015 MCR. There are two sub-categories within Category 2:

- Lands adjacent to the Wayne Gretzky Parkway; and
- Other scattered sites that are currently used for public open space or commercial purposes.

The Wayne Gretzky Parkway corridor has unique physical and access-related attributes that suggest that it is best utilized for ongoing higher intensity mixed-use development, including Population-Related Employment rather than for Employment Land Employment generating land uses. Lot size, land use adjacencies (residential and existing retail commercial uses), access to transit and the potential to improve the retail critical mass of the corridor, indicate that a range and mix of higher intensity, transit supportive land uses are the most appropriate in this location.

As such, lands identified on **Figure 4** are within the Wayne Gretzky Parkway corridor and are considered for conversion to a mixture of land uses, including higher density forms of housing, institutional uses, including major institutional uses, and a full spectrum of retail and service commercial uses, for a number of reasons as follows:

- Some of the sites identified on **Figure 4** are designated in the current Official Plan as Mixed Industrial Commercial. This land use designation is no longer considered appropriate in the context of up-to-date Provincial planning policy. Most of these sites have developed over time with retail-commercial uses that are not appropriately recognized in a planning policy regime that aims to separate Population-Related Employment (retail and service commercial and institutional development) from Employment Land Employment generating land uses. It is appropriate to recognize these specific sites for their appropriate retail-commercial use that exists on the ground today. This is, in effect, not actually considered a conversion, but rather a recognition of existing appropriate development and a land use designation anomaly. The amount of lands to be converted is noted in Table 5.2.
- Other lands along the Wayne Gretzky Parkway are designated General Industrial in the current Official Plan, but are developed with non-industrial uses. Again, it is the intent of this exercise to recognize the reality of what is built on the ground, and to facilitate

their coverage with an appropriate land use designation going forward. The amount of lands to be converted is noted in Table 5.2.

- The commercial growth scenarios discussed in Section 4 of this report do not predict a substantial land need for new retail-commercial development, based on assumptions related to a decreasing retail-commercial space per capita and increasing site coverage. However, notwithstanding the variability inherent to the retail-commercial sector of the economy, it will be important for the new Official Plan to focus less on the numerical impacts of retail sector changes, and more on providing a broader spectrum of land use alternatives within a structure of mixed-use centres and corridors. The appropriate approach is to focus on the opportunities for development inherent to the planned urban structure, and less on the variables that will determine the ultimate mixture of land uses within those centres and corridors. For example, the planned evolution of existing industrial/commercial sites that are located within a centre or corridor identified for intensification will result in three outcomes, from a retail-commercial land supply/demand perspective:

  1. The existing retail-commercial space will be demolished, and replaced by another land use. This may trigger a need for additional retail-commercial lands elsewhere in the City to fulfill this space demand;
  2. The existing retail-commercial space will be demolished, and partially replaced as part of a mixed-use redevelopment. This replacement may trigger a need for some additional retail-commercial lands elsewhere in the City to fulfill this space demand (i.e. the amount of the existing retail-commercial space that is not replaced on the mixed-use redevelopment site); or
  3. The existing retail-commercial space will be demolished, and fully replaced by a new retail-commercial development on site. In this case, no demand for retail-commercial land elsewhere is generated by the redevelopment activity. In fact, if the new development exceeds the size of the prior development, this will result in a decrease in retail-commercial lands required elsewhere in the City.

Overall, there is no accurate way to predict the actual impact of the desired mixed-use, intensified redevelopment within the urban structure's defined centres and corridors. It is anticipated, however, that the focus on centres and corridors will provide substantial development opportunities for higher density residential housing, for the full spectrum of retail formats, as well as for other major or minor institutional development, all in support of an appropriate long-term urban structure. As such, a number of the sites identified as potential conversion lands on **Figure 4** are intended to promote the ongoing evolution of the Wayne Gretzky Parkway corridor as a crucial element to the planned urban structure and the primary location for larger format retail uses in Brantford, achieving a variety of urban structure and market-based development objectives.

There are a few other sites along other intensification corridors that are also proposed for conversion, as well as other scattered sites currently occupied by public parks and existing residential uses that should also be converted to recognize their existing use. These are also illustrated on **Figure 4** and documented in Table 5.2.

Category 3 – Scattered older industrial sites may be converted through the ongoing Official Plan Review process.

The study has considered a number of important physical and market-based parameters that recognize that the Employment Areas in Brantford include lands with different physical and locational attributes, and that some of those lands may have the potential to be converted to other land uses in recognition of their unique context at some point in the future.

As identified on **Figure 4** as Category 3 - scattered older industrial sites to be converted, there are some small-scale, older industrial sites embedded within the historic stable residential neighbourhoods of the City. Although historically designated for industrial land uses, they no longer perform an industrial function and/or are currently being considered for other land uses. In addition, if the industries on these sites were to close or relocate, the property would not likely be used for employment purposes. These industrial sites/areas are not well located within the City's urban structure to attract appropriate urban employment uses; further, they are embedded within existing stable neighbourhoods, and the introduction of new industrial uses would create undue, adverse impact on the adjacent residential neighbourhoods. These sites could be considered for land uses that are more compatible with the surrounding stable residential neighbourhoods.

It is recommended that these sites be converted through the current Official Plan Review. The amount of lands to be converted is shown on Table 5.2.

TABLE 5.2: EMPLOYMENT LANDS TO BE CONVERTED		
Land Use Designation - Existing	**Land Use Designation - Conversion**	**Area (ha)**
General Industrial	Major Commercial	36.77
General Industrial	Intensification Corridor	0.76
General Industrial	Neighbourhood	10.51
General Industrial	Parks and Open Space	3.87
Mixed Industrial Commercial	Major Commercial	14.13
TOTAL		**66.04**

5.5 JUSTIFICATION FOR THE CONVERSIONS

Lands identified as potential conversion lands on **Figure 4** should be appropriately recognized and converted through the ongoing Official Plan Review process, based on the following reasons:

1) There is a need for the conversion.

The issue of need is a complex one. On one hand, analysis of demand for Employment Area land in this MCR has indicated the long-term protection of the Braneida Industrial Park and Northwest Industrial Park is crucial, and that a significant new Employment Area can be identified within the Boundary Adjustment Lands.

Further, the commercial and intensification analyses have suggested that the ongoing evolution of the Wayne Gretzky Parkway corridor is a good location for additional large scale commercial sites to build upon the existing retail agglomeration along Wayne Gretzky Parkway, as well as higher density housing forms and institutional uses, including major institutional uses, to create a mixed-use intensification corridor.

For the proposed conversions of scattered sites and those near the existing older industrial areas, these sites are either not currently being used for Employment Area uses or are smaller in scale, poorly located within the City's urban structure, are adjacent to residential use and are not very accessible in terms of the attributes of a more modern business/industrial park. As such, they will have difficulty attracting new Employment Land Employment generators in the future.

The issue is less about accommodating the demand for Employment Area land, because there are adequate and appropriate opportunities to do that. The issue is that these potential conversion lands are needed to recognize the developed, on the ground land use reality, and to facilitate the appropriate evolution of Wayne Gretzky Parkway as a mixed-use intensification corridor that will be transit-supportive, make efficient and cost-effective use of infrastructure, and accommodate a whole host of higher intensity residential, retail and service commercial, and institutional land uses. These proposed conversions are appropriate because they:

- are in an appropriate location that will not impair the City's objective of accommodating Employment Land Employment in appropriate locations elsewhere in the City, in conformity with all of the relevant land needs and related growth management objectives of the City;
- will promote the planned urban structure of neighbourhoods for the scattered sites, and new, higher density and mixed-use development along the corridors, including retail-commercial, institutional and higher density residential development, supports the planned urban structure including support for developing intensified mixed-use corridors, in proximity to existing or planned transit facilities;
- will enhance the character/condition of the adjacent community. Land uses in proximity to Wayne Gretzky Parkway form the largest retail-commercial agglomeration in the City. Other

industrial land uses in the corridor are in transition, and with broadened land use permissions, comprehensive planning can occur over the broader community, substantially mitigating any existing, or potential undue, adverse impact from the currently designated Employment Areas and any abutting or nearby sensitive land use; and

- will facilitate appropriate long-term planning.

2) The lands are not required by 2041 for the employment purposes for which they are designated.

The proposed conversion lands within the Wayne Gretzky Parkway corridor, as shown in **Figure 4**, constitute about 50 hectares of developable land as indicated in Table 5.2. In balancing the market demand for Employment Areas with the market demand for well-located retail-commercial land, and in consideration of the emerging urban structure of the City, the proposed conversion lands within the Wayne Gretzky Parkway corridor are considered to be best utilized for retail-commercial/mixed-use opportunities. Further, it is anticipated that intensification along the Wayne Gretzky Parkway corridor would continue to accommodate significant employment generating land uses, in the form of Population-Related Employment through intensified retail and office uses, or as part of mixed-use buildings.

For the proposed conversions of scattered sites and those near the existing older industrial areas, these sites are either not currently being used for Employment Area uses or are will have difficulty attracting new Employment Land Employment generators in the future due to their size, location and adjacent residential land uses.

Further, lands adjacent to Highway 403 within the Boundary Adjustment Lands have substantially better locational attributes for new Employment Areas than those along the Wayne Gretzky Parkway or the other scattered older industrial sites.

3) The municipality will maintain sufficient employment lands to accommodate forecasted employment growth to 2041.

Similar to the conclusion above, the proposed conversions, and the anticipation that the Wayne Gretzky Parkway corridor would continue to accommodate significant Population-Related Employment generating land uses, will have no significant negative impact on the City's ability to meet the employment forecasts, particularly with the opportunity for additional employment lands in the Boundary Adjustment Lands.

4) The proposed uses would not adversely affect the overall viability of the Employment Area or the achievement of the minimum intensification target and density targets in the Growth Plan, as well as other policies of the Growth Plan.

Fundamentally, it is the conclusion of this report that the Wayne Gretzky Parkway corridor is a better location for higher intensity, mixed-use development, including retail-commercial development, than it is for Employment Land Employment generating land uses, and should consequently be appropriately converted. As a mixed-use corridor, it is expected that redevelopment will contribute to the achievement of the City's intensification target by introducing residential development in a mixed-use intensification corridor within the Built-up Area. These proposed conversion lands are within the Built Boundary, and there is, therefore, no applicable density target, although the Official Plan review may establish an appropriate density target for the intensification corridor along the Wayne Gretzky Parkway.

For the other scattered sites, a number of sites are not currently used for employment purposes and are being used for parkland, existing residential or as natural areas. These ongoing uses will not adversely affect the overall viability of adjacent Employment Areas.

Other scattered sites are surrounded by residential or other sensitive land uses where the potential for conflict, or actual impacts are tolerated, but are not ideal. Further, these sites are smaller in scale, are poorly located within the City's urban structure, and are not very accessible in terms of the attributes of a more modern business/industrial park. Conversion of these sites will not adversely affect the overall viability of the Employment Area and may reduce current land use conflicts.

5) There are existing or planned infrastructure and public service facilities to accommodate the proposed uses.

The proposed conversion sites are fully developed and have existing infrastructure/services that will accommodate future redevelopment and intensification. Although fully developed, it is envisioned that the low-density employment and commercial uses will redevelop to more intensified retail uses, office uses, medium and high density residential use and mixed-use buildings. The Transportation Master Plan and Servicing Master Plan are exploring what infrastructure if any needs to be planned to accommodate the future intensification.

5.6 SUMMARY OF RECOMMENDATIONS FOR THE EMPLOYMENT STRATEGY

This section summarizes the recommendations contained in Sections 3, 4 and 5 that together form the Employment Strategy.

5.6.1 Approach to Land Uses

It is recommended that Schedule 1: Growth Management in the 2016 Draft Official Plan be revised to identify Employment Areas and Prime Employment Areas. Employment Areas are those areas designated for clusters of business and economic activity and are where the majority of future economic growth and development will be directed through greenfield development and infill on vacant parcels. Prime Employment Areas are a subset of Employment Areas that are protected for land extensive uses or that require locations adjacent to or near major goods movement corridors such as Highway 403.

Applications for non-employment uses within the Employment Areas or Prime Employment Areas will require a City-wide Municipal Comprehensive Review.

These two categories are further designated either Prestige Employment, which generally applies to those lands adjacent or near Highway 403, or General Employment, which applies to the remainder of the Employment Area.

Major office development should be directed largely to the Downtown Urban Growth Centre with smaller scale office development also encouraged in the Intensification Corridors.

Retail and service commercial development will be accommodated and intensified where feasible within the Downtown Urban Growth Centre, the Intensification Corridors and the existing Major Commercial Centres, through both stand-alone and mixed-use forms. Smaller scale local retail and service commercial uses will also be accommodated in the Neighbourhoods.

5.6.2 Employment Densities

It is recommended that the Employment Area should be planned at an average density of 23 jobs per gross hectare for Employment Lands Employment, and 64 jobs per gross hectare for Population-Related Employment. Major offices in the Downtown Urban Growth Centre should help to achieve the minimum density target of 150 residents and jobs combined per hectare in the Downtown Brantford Urban Growth Centre.

It is probable that retail space per capita will decline over the planning period due to e-commerce, but the need for food, entertainment and service commercial uses will increase. However, it is unlikely that the employment density per hectare will decline. As well, there will be a need for additional neighbourhood and community-serving retail in any new Designated Greenfield Areas. It is recommended that the City plan to achieve a per capita target of 1.5 sq.m. per capita in those new areas.

5.6.3 Employment Distribution

Based on the analysis undertaken in Section 3.7 and Table 3.12 Scenario 1, the City should plan for 54% of employment growth to 2041 to be located on employment lands; 40% of employment growth to be allocated to Population-Related Employment within the Intensification Corridors, Major Commercial Centres, the Downtown Urban Growth Centre, and Neighbourhoods, with a small proportion to Employment Areas; and 7% of employment growth to be allocated to Major Office Employment in the Downtown Urban Growth Centre.

5.6.4 Employment Intensification

Within Employment Areas, additional intensification of vacant and underutilized properties is anticipated and incorporated into both the employment lands density figure and the absorption of vacant lands in the land needs assessment. Mixed use intensification is also anticipated in the Intensification Corridors and retail, service commercial and Major Office Employment intensification is anticipated in the Downtown Urban Growth Centre. As described in the Intensification Strategy in Section 8, an additional 3,252 jobs are forecast to be accommodated in the Downtown Urban Growth Centre by 2041 in order to achieve the target of 150 residents and jobs combined per hectare.

5.6.5 Employment Conversions

It is recommended that the draft Official Plan implement the following conversions:

1. Remove the Mixed Industrial Commercial designation in the current Official Plan, along the Wayne Gretzky Parkway, and recognize and designate existing commercial development to a major commercial or mixed-use designation based on actual use characteristics – approximately 14 ha.;
2. Convert additional General Industrial lands along Wayne Gretzky Parkway as part of the Intensification corridor – approximately 36 ha.;
3. Convert other scattered General Industrial sites along the Intensification Corridors – approximately 1 ha.;
4. Convert scattered General Industrial designated sites and redesignate as neighbourhood or residential designations to recognize their limited future potential for employment use – approximately 10.5 ha.; and
5. Recognize public parks and existing residential uses and designate accordingly – approximately 4 ha.

6 EMPLOYMENT AREA LAND NEEDS

The Employment Area land needs assessment incorporates information and targets set out in the Employment Strategy in Section 3 of this report. It follows the steps set out in the "Land Needs Assessment Methodology for the Greater Golden Horseshoe", which municipalities are required to follow as noted in the Growth Plan, Policies 2.2.1.5 and 5.2.2.1c).

STEP E1 CALCULATE TOTAL EMPLOYMENT GROWTH TO THE GROWTH PLAN HORIZON

The first step is to calculate the growth of total employment between 2016 and the Growth Plan planning horizon of 2041. Total employment includes Usual Place of Work, work at home or Home-Based Employment, and No Fixed Place of Employment. This information is documented in Table 3.4. Table 6.1 summarizes the total employment for the City of Brantford, including the employment in the Boundary Adjustment Lands, indicating anticipated growth of 34,110 jobs from 2016 to 2041.

TABLE 6.1: TOTAL EMPLOYMENT GROWTH 2016-2041

Planning Period	Total Employment	Planning Period	Total Employment Growth
2016	44,890		
2041	79,000	2016 - 2041	34,110

STEP E2: CATEGORIZE EMPLOYMENT GROWTH

The second step is to categorize the employment growth according to the four land use based employment categories of Employment Land Employment, Population-Related Employment, Major Office Employment and Rural-Based Employment. The recommended distribution of employment growth by job type is set out in Scenario 1 of Tables 3.10 and 3.11, and the 2016-2041 growth is shown in Scenario 1 of Table 3.12. This growth is summarized in Tables 6.2 through 6.4.

The employment growth in Tables 3.11, 3.12 and 6.2 through 6.4 excludes Home-Based Employment because it is not an employment category that generates a land need. In Step E3, Home-Based Employment is added back into Population-Related Employment in Table 6.12 for the purposes of contributing to the DGA density in the Community Area land needs calculations in Section 10 of this report.

TABLE 6.2: EMPLOYMENT BY CATEGORY					
Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	0	18,632	23,713	430	**42,775**
2041	2,252	31,450	41,278	70	**75,050**

TABLE 6.3: SHARE OF GROWTH BY CATEGORY					
Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016-2041	7%	40%	54%	-1%	100%

TABLE 6.4: EMPLOYMENT GROWTH BY CATEGORY					
Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016 - 2041	2,252	12,818	17,565	-360	32,275

STEP E3: ALLOCATE CATEGORIZED EMPLOYMENT GROWTH TO THE RURAL AREAS, EMPLOYMENT AREAS, AND COMMUNITY AREAS

The distribution of employment growth by the four land use categories is summarized in Table 6.5. In Step E3, this employment is then distributed among three geographic areas: Rural Area, Employment Areas and Community Areas, as shown in Tables 6.6 through 6.11.

TABLE 6.5: DISTRIBUTION OF EMPLOYMENT BY TYPE					
Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	0	18,632	23,713	430	**42,775**
2016-2041	2,252	12,818	17,565	-360	**32,275**
2041	2,252	31,450	41,278	70	**75,050**

The Rural Area employment is currently comprised primarily of Population-Related Employment and to a lesser extent farm-based employment. However, it is anticipated that the majority of existing population-related businesses in the current Rural Area will be brought into a revised Settlement Area through a Settlement Area boundary expansion resulting in a net decline of Rural-Based Employment.

TABLE 6.6: EMPLOYMENT IN RURAL AREA – SHARE OF EMPLOYMENT AND TYPE					
Planning Period (%)	Major Office (%)	Population Related (%)	Employment Land (%)	Other Rural Based (%)	Total (%)
2016	0%	0%	0%	100%	1%
2016-2041	0%	0%	0%	100%	
2041	0%	0%	0%	100%	0.1%

TABLE 6.7: EMPLOYMENT IN RURAL AREA – EMPLOYMENT BY TYPE					
Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	0	0	0	430	430
2016 - 2041	0	0	0	-360	-360
2041	0	0	0	70	70

All of the Employment Land Employment growth is allocated to the Employment Areas. As well, 10% of the Population-Related Employment is allocated to the Employment Areas as shown in Tables 6.8 and 6.9.

TABLE 6.8: EMPLOYMENT IN EMPLOYMENT AREAS – SHARE OF EMPLOYMENT AND TYPE					
Planning Period (%)	Major Office (%)	Population Related (%)	Employment Land (%)	Other Rural Based (%)	Total (%)
2016	0%	10%	100%	0%	60%
2016 - 2041	0%	10%	100%	0%	
2041	0%	10%	100%	0%	59%

TABLE 6.9: EMPLOYMENT IN EMPLOYMENT AREAS – EMPLOYMENT BY TYPE					
Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	0	1,863	23,713	0	25,576
2016 - 2041	0	1,282	17,565	0	18,847
2041	0	3,145	41,278	0	44,423

The remaining 90% of the Population-Related Employment and all of the Major Office Employment are allocated to the Community Areas as shown in Tables 6.10 and 6.11.

TABLE 6.10: EMPLOYMENT IN COMMUNITY AREAS – SHARE OF EMPLOYMENT AND TYPE					
Planning Period (%)	Major Office (%)	Population Related (%)	Employment Land (%)	Other Rural Based (%)	Total (%)
2016	100%	90%	0%	0%	39%
2016 - 2041	100%	90%	0%	0%	
2041	100%	90%	0%	0%	41%

TABLE 6.11: EMPLOYMENT IN COMMUNITY AREAS – EMPLOYMENT BY TYPE					
Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	0	16,769	0	0	16,769
2016 - 2041	2,252	11,536	0	0	13,788
2041	2,252	28,305	0	0	30,557

The Home-Based Employment, from Table 3.4, needs to be added back into the employment in Community Areas as discussed in Section 3.8. Table 6.12 includes the Home-Based Employment in the Population-Related employment category.

TABLE 6.12: EMPLOYMENT IN COMMUNITY AREAS – EMPLOYMENT BY TYPE INCLUDING HOME-BASED EMPLOYMENT					
Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	0	18,884	0	0	18,884
2016 - 2041	2,252	13,371	0	0	15,623
2041	2,252	32,255	0	0	34,507

STEP E4: ALLOCATE COMMUNITY AREA EMPLOYMENT GROWTH IN THE POLICY AREAS - DELINEATED BUILT-UP AREA AND THE DESIGNATED GREENFIELD AREA

The fourth step is to allocate the Community Area employment growth between two policy areas: the DGA and the delineated Built-up Area. The recommended means of allocating this job growth is described in Section 3.8.

As set out in Section 3.8, once 10% of the Population-Related Employment (PRE) growth is accounted for on employment lands, it is recommended that 30% of the PRE growth be allocated to the Built-up Area in recognition that much of the growth in government and institutional jobs will be located where the institutions are currently situated (i.e. the hospital, university, local government, etc.), despite where the population growth is directed. The balance (60%) will be divided proportionately to where the rest of the population growth will occur, whether within the Built-up Area, or within the DGA.

As set out further in Section 3.8, it is anticipated that 36% of the population growth would be directed to the Built-up Area and 64% will be directed to the DGA. As such, the remaining 60% of the Population-Related Employment is divided by those proportions. In addition, all of the Major Office Employment is allocated to the Built-up Area and is assumed to be located within the Downtown Urban Growth Centre. Lastly the Home-Based Employment, which is added in Table 6.12, is also allocated based on the proportion of the population growth in the two policy areas: Built-up Area and DGA.

Table 6.13 summarizes the employment growth in the Community Area consisting of the Population-Related Employment and Major Office Employment from Table 6.12. Table 6.14 illustrates the breakdown to the DGA and Built-up Area.

TABLE 6.13: EMPLOYMENT IN COMMUNITY AREAS

Planning Period	Employment in Community Areas
2016	18,884
2016 - 2041	15,624
2041	34,508

TABLE 6.14: DISTRIBUTION OF EMPLOYMENT IN COMMUNITY AREAS BY POLICY AREA

Planning Period	DGA	BUA
2016	355[6]	18,529
2016-2041	6,096	9,528
2041	6,451	28,057

STEP E5: CALCULATE THE MINIMUM NUMBER OF JOBS TO BE ACCOMMODATED IN EXISTING EMPLOYMENT AREAS

Step E5 calculates the number of jobs in existing Employment Areas. The Land Needs Assessment Methodology requires the municipality to identify "Built Employment Areas" separately from "Newly Developing Employment Areas". The Built Employment Areas are assumed to be the older Employment Areas in Brantford which include:

[6] Existing DGA employment in 2016 is extracted from Table 9.11, and includes Built commercial, Built institutional (school and place of worship) and Home-Based Employment in Built residential units.

- Holmedale Employment Area,
- West Brant Employment Area,
- Elgin Street near Murray Street,
- Iroquois Park Industrial Area, and
- Usher Street Rail Yard.

The Newly Developing Employment Areas are considered to be the newer business park areas in the City and the new Employment Areas within the Boundary Adjustment Lands that were formerly in the County of Brant. These employment areas include:

- Braneida Industrial Park,
- Northwest Industrial Park including Paris Road, and
- Hopewell / Garden Avenue.

The land areas for each of these Built and Newly Developing Employment Areas are shown in Table 5.1.

Table 6.15 summarizes the total land area in these two categories that were built up in 2016 and that would be built up in 2041, with the difference being the current vacant lands identified in Table 3.9.

TABLE 6.15: EMPLOYMENT AREA LAND BY CATEGORY

Employment Area Land	2016 Land (ha.)	2016-2041 Land (ha.)	2041 Land (ha.)
Built Employment Areas	131.25	0	131.25
Newly Developing Employment Areas	890.34	429.9	1,320.24
Total Existing Employment Area	**1,021.59**	**429.9**	**1,451.49**

Table 6.16 sets out the corresponding employment that occurs within these two areas and the anticipated growth to 2041. The employment is based on the density targets for the Employment Lands Employment and Population-Related Employment in the Employment Areas that were established through the analysis in the Employment Strategy in Section 3. Section 3.9 sets out the recommended employment densities. The recommended Employment Lands Employment density of 23 jobs per hectare is greater than what was originally recommended in the 2016 Draft Official Plan, which recommended 20 jobs per hectare. For Population-Related Employment in the Employment Area, a density of 64 jobs per hectare is recommended.

No differentiation was made in the Employment Lands Employment density for Built Employment Areas verses Newly Developing Employment Areas in Section 3.9. Some of the older industrial properties may have higher densities due to large manufacturing operations but these areas are not homogeneous and other properties have lost their manufacturing operations and are being used for a mix of employment uses including storage. The Built Employment Areas are not well suited to office employment due to their locations surrounded by neighbourhoods. As such, it is not anticipated that significant employment intensification will occur in these areas.

In the older Built Employment Areas, no Population-Related Employment is assumed. In the Newly Developing Employment Areas, it is assumed that 10% of the employment would be Population-Related Employment, which requires a higher employment density. The resulting combined employment density in the Newly Developing Employment Areas is estimated to be 25 jobs per hectare.

TABLE 6.16: EMPLOYMENT AREA LAND BY CATEGORY

Employment Area Jobs	Jobs 2016	Job Growth 2016-2041	Jobs 2041
Built Employment Areas	3,019	0	3,019
Newly Developing Employment Areas	22,259	10,748	33,007
Total Jobs in Existing Employment Areas	**25,278**	**10,748**	**36,026**

STEP E6: ESTABLISH EMPLOYMENT AREA LAND NEED

The final step in the Employment Area land needs assessment is to subtract the total jobs in Employment Areas at 2041 (Table 6.9) from the total jobs in existing Employment Areas (Table 6.16). The residual or unallocated employment is shown in Table 6.17. This unallocated employment is then divided by the combined employment density of 25 jobs per hectare, which leads to need for an additional 336 hectares of Employment Area lands beyond what is currently within the City's Settlement Area boundary.

TABLE 6.17: EMPLOYMENT AREA LAND NEEDS – ADDITIONAL LAND AREA

Job Type	
Total Jobs forecast in Employment Areas at 2041 (Step E3)	44,423
Total Jobs in Existing Employment Areas at 2041 (Step E5)	36,026
Remaining Unallocated Employment	8,397
Density in Newly Developing Employment Areas (jobs/ha.)	25
Additional Employment Area Land Needs (ha.)	336

7 HOUSING STRATEGY – BACKGROUND CONDITIONS

7.1 CURRENT HOUSING STOCK

Table 7.1 provides the current housing mix in Brantford, by type of dwelling. The types of dwellings included in each density category are described as follows:

- Low Density – Single-detached house, Semi-detached house, Apartment or flat in a duplex, Other single-attached house, Movable dwelling;
- Medium Density – Townhouses or rowhouses; and
- High Density – Dwelling units in an Apartment building.

TABLE 7.1: DWELLINGS BY TYPE (2016)

Metric	Low Density	Medium Density	High Density	Total
Units	27,580	3,715	7,935	39,230
% Share	70%	9%	20%	100.0%

Source: 2016 Census, total private dwellings by type

Table 7.2 sets out the housing units by age of construction and the average persons per household for each time period. This table demonstrates that the older the house and neighbourhood, the lower the number of residents in the dwelling. It also shows that the newest dwellings have a lower household size, which increases over 10 years as families grow. Based on this data, it can be determined that over 75% of the housing stock in Brantford is older than 25 years.

TABLE 7.2: HOUSING UNITS BY AGE OF CONSTRUCTION AND PERSONS PER UNIT

Period of Construction	Occupied private dwellings	Average Household Size
1960 or before	13,950	2.2
1961 to 1980	11,835	2.35
1981 to 1990	4,280	2.5
1991 to 2000	3,485	2.65
2001 to 2005	2,065	2.8
2006 to 2010	2,050	2.7
2011 to 2016	1,560	2.6
Total	**39,225**	**-**

Source: 2016 Census

7.2 HOUSING STARTS BY TYPE

Single-detached dwellings have been the predominant form of housing in the City of Brantford over the past ten years. Single and semi-detached units accounted for a 56% share of all housing starts from 2007-2016, as shown in Table 7.3. Notably, however, the proportion of single-detached housing starts has been on a downward trend, as the proportion of apartment units has increased. However, as seen in the analysis of the characteristics of new apartment construction, two large projects in one year can significantly sway the overall proportion of apartments. Other than in 2015, the number of apartments built has been a small proportion of the housing starts in most years. In 2015, there were two rental apartment buildings constructed totaling 305 units (153 and 152 units respectively). The share of townhouse units has remained fairly constant over the ten year period (approaching 30%).

TABLE 7.3: HOUSING STARTS BY TYPE

Year	Single	Semi	Townhouse	Apartment	Total
2007	300	16	101	0	417
2008	174	4	103	8	289
2009	186	14	36	2	238
2010	197	10	124	71	402
2011	129	4	111	61	305
2012	176	10	89	0	275
2013	169	8	99	0	276
2014	164	0	43	60	267
2015	182	2	133	305	622
2016	95	10	89	15	209
Total	**1,772**	**78**	**928**	**522**	**3,300**
Avg. Past 10 Years	177	8	93	52	330
Avg. Past 5 Years	157	6	91	76	330
% Share Past 10 Years	54%	2%	28%	16%	100%
% Share Past 5 Years	48%	2%	27%	23%	100%

Source: Canada Mortgage and Housing Corporation (CMHC)

Exhibit 5 presents a 100% stacked distribution of housing starts for the City of Brantford (identifying the shares for each year, always totaling 100%).

EXHIBIT 5:

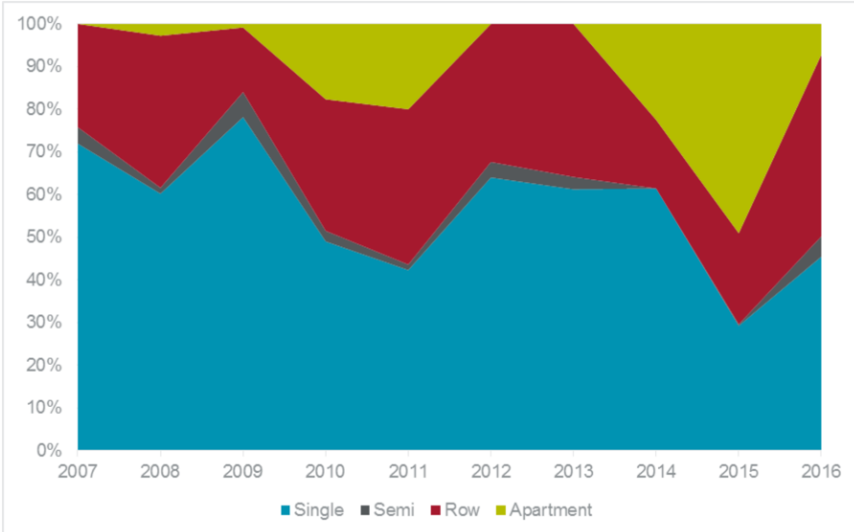


Table 7.4 provides a slightly different accounting over the past 11 years based on building permit data from the City. Based on this data, single and semi-detached dwellings have comprised 50% of the units while townhouses and apartments have each comprised 25% of the units.

TABLE 7.4: BUILDING PERMITS ISSUED BY THE CITY OF BRANTFORD FROM 2007 – 2017

City Wide	Single Detached Dwellings	Semi Detached, Duplex, 2nd Dwellings	Townhouse Dwellings	Apartment Units	Total
2007	337	21	87	71	**516**
2008	203	12	72	143	**430**
2009	143	15	52	70	**280**
2010	188	11	101	91	**391**
2011	129	7	118	82	**336**
2012	182	9	64	64	**319**
2013	168	16	122	9	**315**
2014	187	11	47	60	**305**
2015	160	14	114	320	**608**
2016	96	23	97	16	**232**
2017	134	11	153	128	**426**
Total	**1,927**	**150**	**1,027**	**1,054**	**4,158**
Percentage	**46%**	**4%**	**25%**	**25%**	**100%**

When looking at the building permits issued just in the DGA, single and semi-detached dwellings have comprised 67% of the building permits whereas townhouses comprised 28%, as shown in Table 7.5.

TABLE 7.5: BUILDING PERMITS ISSUED IN THE DGA BY THE CITY OF BRANTFORD FROM 2007 – 2017					
Greenfield	**Single Detached Dwellings**	**Semi Detached, Duplex, 2nd Dwellings**	**Townhouse Dwellings**	**Apartment Units**	**Total**
2007	268	0	37	0	**305**
2008	159	0	16	120	**295**
2009	102	0	32	0	**134**
2010	165	0	24	0	**189**
2011	92	0	84	0	**176**
2012	114	0	32	0	**146**
2013	118	0	51	0	**169**
2014	157	0	44	0	**201**
2015	130	1	74	0	**205**
2016	85	0	78	0	**163**
2017	87	1	141	0	**229**
Total	**1,477**	**2**	**613**	**120**	**2,212**
Percentage	**67%**	**0%**	**28%**	**5%**	**100%**

In the Built-up Area (BUA), the mix of units was much different with nearly 50% of the units comprised of apartment units and 22% comprised of townhouses as shown in Table 7.6. However, 30% of the units were still comprised of single and semi-detached units as remaining undeveloped lands in the Built-up Area were developed.

TABLE 7.6: BUILDING PERMITS ISSUED IN THE BUA BY THE CITY OF BRANTFORD FROM 2007 – 2017					
Built-up Area	**Single Detached Dwellings**	**Semi Detached, Duplex, 2nd Dwellings**	**Townhouse Dwellings**	**Apartment Units**	**Total**
2007	69	21	50	71	**211**
2008	44	12	56	23	**135**
2009	41	15	20	70	**146**
2010	23	11	77	91	**202**
2011	37	7	34	82	**160**
2012	68	9	32	64	**173**
2013	50	16	71	9	**146**
2014	30	11	3	60	**104**
2015	30	13	40	320	**403**
2016	11	23	19	16	**69**
2017	23	10	12	128	**173**
Total	**426**	**148**	**414**	**934**	**1,922**
Percentage	**22%**	**8%**	**22%**	**49%**	**100%**

Characteristics of New Apartment Units

The City's building permit data was also analyzed in greater detail to better understand the nature of the apartment units that have been constructed in the past 11 years. **Appendix A** documents all new apartment units built by property in the Built-up Area since 2007 and sets out the number of units in each project and whether the units were new or converted. Table 7.7 summarizes the apartment units by size and type of building.

The total number of units is greater than shown in CMHC housing starts largely because most of the conversions would have been classified as "other housing type" and because 2017 data has been added.

Of the 934 apartment units constructed in the Built-up Area in the past 11 years, half are contained in four new buildings, three of them north of Dunsdon Street between Park Road and Wayne Gretzky Parkway: 153 units in a 7 storey building at 555 Park Road North and 152 units in a 7 storey building at 335 Dunsdon Street, known as Harris Place Apartments; and 49 units in a 4 storey building at 575 Park Road North, known as Counsel Park Road Place. The fourth building containing 57 units in a 4 storey building is under construction at 97 Mount Pleasant Street as part of the John Noble Home seniors complex.

In total, only 12 buildings with over 10 units each have been constructed in the Built-up Area in the past 10 years. The other eight new buildings ranged from 12 to 40 units, in 2 to 5 storey buildings. Together, all of the units in the 12 new buildings account for 608 units, which comprises 65% of all of the new Built-up Area apartment units.

Of the remaining units, 25% were conversion/alteration of existing buildings containing 10 or more units (235 units). These comprised nine projects, including the Expositor Place (56 units), McHutchion Lofts (34 units), 115 Sherwood Drive (28 units), 172 Market St (15 units), 85 Morell Street (54 units) and 10 units added to the ground floor of the Uptown Downtown Suites.

TABLE 7.7: APARTMENT CONSTRUCTION IN THE BUA BY BUILDING SIZE AND TYPE

Project	Buildings	Units	%
Units in New Apartment Buildings (10 or more units)	12	608	65.1%
Units in New Triplex and Fourplex	11	41	4.4%
Units in Larger conversions (5 or more units)	9	235	25.2%
Units in Smaller conversions (4 or less units)	36	50	5.4%
Total		**934**	**100%**

Another 5% were small scale conversions of 1 to 2 units in existing multiple dwellings. In addition, 41 units (4%) were developed as triplex or fourplex apartments that ranged from 2 to 3 storeys with 3 to 4 units.

Only one apartment building was built in the Designated Greenfield Area over the past 11 years, which is the 120 unit Seasons Bell Lane retirement home at 55 Diana Avenue, constructed in 2008.

This data indicates that achieving 60% intensification through apartment buildings will be a challenge, particularly since only two buildings contained over 100 apartment units and a number of the developments were part of seniors residential developments. Similar challenges exist for increasing density significantly in the Designated Greenfield Area when only one apartment building has been constructed in the past 11 years.

Characteristics of New Townhouse Developments

The City's building permit data between 2007 and 2017 was also reviewed to gain a better understanding of the nature of townhouse development in the City.

This data shows a combination of street and block townhouse developments in both the Built-up Area and the Designated Greenfield Area. **Appendix B** documents all new townhouse projects built by property each year since 2007, in the Built-up Area and Designated Greenfield Area. Of note is the slow rate of construction of most townhouse developments with building permits obtained over the course of multiple years for individual projects. The maximum number of building permits obtained in any given year for a project was 52. In total, only 414 building permits for townhouses in the Built-up Area, and 613 building permits for townhouses in the Designated Greenfield Area, have been issued over an 11 year period between 2007 and 2017, as shown in Table 7.8.

TABLE 7.8: TOTAL TOWNHOUSE CONSTRUCTION IN BRANTFORD (2007 – 2017)

	Block townhouses	Street townhouses	Total townhouses in Brantford
Built Boundary	261	153	414
Average / year	24	14	38
Largest / (year) by building permit	33 (2010)	22 (2013)	33
Greenfield	214	399	613
Average / year	20	36	56
Largest / (year) by building permit	37 (2015)	52 (2017)	52
Total	**475**	**552**	**1,027**

7.3 HOUSING STARTS IN COMPARABLE CITIES

To provide some perspective, we analyzed housing starts by type over the past five years in Brantford versus six comparative sized cities in Ontario. The comparative cities have been selected based upon population size, as well as distance from another major market, which could influence the housing market dynamics.

Housing starts by type, shown in descending order by total number of housing starts, are presented below in Table 7.9 for the 2012-2016 period. The data indicates the number of units and percentage share of units in each city.

TABLE 7.9: HOUSING STARTS BY TYPE (2012-2016)

City	Population (2016)	Single/ Semi	Townhouses	Apartment/ Other	Total
Guelph	131,800	1,177 (26%)	1,081 (24%)	2,215 (50%)	4,473 (100%)
Kingston	123,800	1,054 (39%)	329 (12%)	1,294 (48%)	2,677 (100%)
Niagara Falls	88,100	1,821 (75%)	535 (22%)	56 (2%)	2,412 (100%)
Barrie	141,400	707 (30%)	550 (23%)	1,129 (47%)	2,386 (100%)
Windsor	217,200	1,290 (70%)	453 (25%)	104 (6%)	1,847 (100%)
St. Catharines	133,100	456 (42%)	237 (22%)	405 (37%)	1,098 (100%)
Brantford	**97,500**	**816 (49%)**	**453 (27%)**	**380 (23%)**	**1,649 (100%)**
Average		**47%**	**22%**	**30%**	**100%**

Source: Canada Mortgage and Housing Corporation (CMHC)

From 2012 to 2016, nearly one-half of the new housing starts in Brantford have been single or semi-detached dwellings with townhouses accounting for a 27% share, and apartments and other unit types accounting for the remaining 23%.

There is a wide variance in the share of single and semi-detached dwelling housing starts as a proportion of the housing mix in the comparative cities over the five year period. The share ranges from a low of 26% in Guelph, to a high of 75% in Niagara Falls. The average of the seven cities is 47%, which is very comparable to Brantford's 49%. In fact, Brantford is close to average in all three housing types.

7.4 UNIT PROPORTION ON GREENFIELD VERSUS INTENSIFICATION

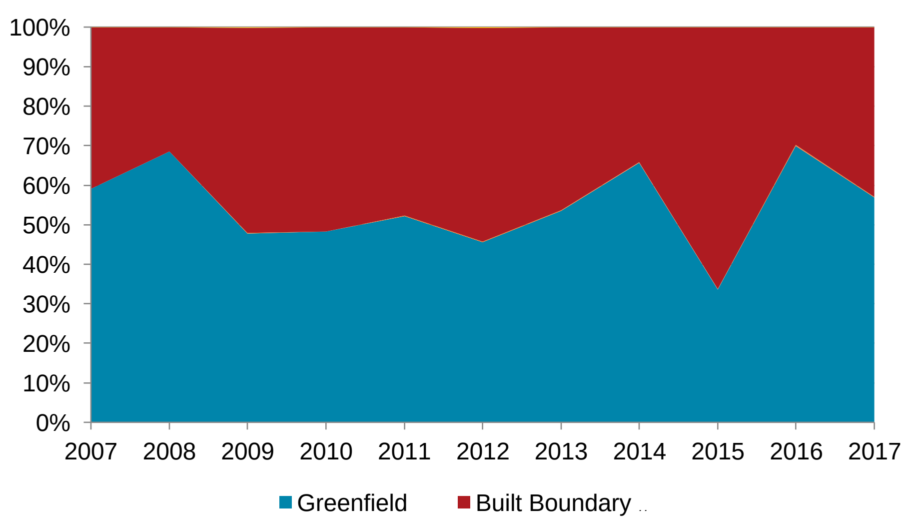
Data from City staff identifies the ratio of residential development within the DGA versus development within the Built-up Area. As shown in Table 7.10, during the past 11 years, 46% of new residential units have been within the Built-up Area.

TABLE 7.10: Greenfield Versus Built-up Area								
Year	Greenfield		Built Boundary		Tutela Heights		Total	
	#	%	#	%	#	%	#	%
2007	305	59%	211	41%	-	-	516	100%
2008	295	69%	135	31%	-	-	430	100%
2009	134	48%	146	52%	-	-	280	100%
2010	189	48%	202	52%	-	-	391	100%
2011	176	52%	160	48%	-	-	336	100%
2012	146	46%	173	54%	-	-	319	100%
2013	169	54%	146	46%	-	-	315	100%
2014	201	66%	104	34%	-	-	305	100%
2015	205	34%	403	66%	-	-	608	100%
2016	163	70%	69	30%	-	-	232	100%
2017	229	54%	173	41%	24	6%	426	100%
Total	**2,212**	**53%**	**1,922**	**46%**	**24**	**1%**	**4,158**	**100%**

Source: City of Brantford

Exhibit 6 presents a 100% stacked distribution of housing units by location (Designated Greenfield Area versus Built-up Area) for the City of Brantford (identifying the shares for each year, always totaling 100%).

EXHIBIT 6:



7.5 CHARACTERISTICS OF BRANTFORD'S CURRENT APPLICATIONS AND APPROVALS

Table 7.11 illustrates the housing mix in the residential "development pipeline" for the City of Brantford, including Draft Approved Plans, Registered Plans and current development applications as of December 2017.

The table indicates that the proportion of low density housing is quite high at 65 to 66% in the Built-up Area and the Designated Greenfield Area with no high density units in the "development pipeline". The overall proportion of medium density housing units is also nearly the same between the Built-up Area and the Designated Greenfield Area.

Although the medium density units (townhouses) only accommodate 35% of the units in the development pipeline, the total number (1,389 units) represents an increase of 35% over the 1,027 townhouse building permits issued in the last 11 years.

TABLE 7.11: DEVELOPMENT PIPELINE - CURRENT APPLICATIONS, DRAFT APPROVED AND REGISTERED PLANS AS OF DECEMBER 2017

Location	Low Density	Medium Density	High Density	Total	Low Density	Medium Density	High Density	Total
	# of Units				% Share			
CURRENT APPLICATIONS								
Built Area	19	123	0	142	13%	87%	0%	100%
Greenfield Area	846	249	0	1,095	77%	23%	0%	100%
Total	**865**	**372**	**0**	**1,237**	**70%**	**30%**	**0%**	**100%**
DRAFT APPROVED PLANS								
Built Area	609	108	0	717	85%	15%	0%	100%
Greenfield Area	935	642	0	1,577	59%	41%	0%	100%
Total	**1,544**	**750**	**0**	**2,294**	**67%**	**33%**	**0%**	**100%**
REGISTERED PLANS								
Built Area	23	98	0	121	19%	81%	0%	100%
Greenfield Area	202	169	0	371	54%	46%	0%	100%
Total	**225**	**267**	**0**	**492**	**46%**	**54%**	**0%**	**100%**
TOTAL								
Built Area	651	329	0	980	66%	34%	0%	100%
Greenfield Area	1,983	1,060	0	3,043	65%	35%	0%	100%
Total	**2,634**	**1,389**	**0**	**4,023**	**65%**	**35%**	**0%**	**100%**

7.6 PERSONS PER UNIT

Hemson Consulting provided input into the land needs assessment and provided an overall persons per unit (PPU) based on a household forecast to 2041. That forecast is provided in Table 7.12 and shows a decline to 2031 and a leveling off to 2041.

TABLE 7.12: PPU FORECAST

Year	PPU
2016	2.44
2021	2.44
2031	2.37
2041	2.38

Source: Hemson Consulting, 2018

The PPU was further broken down by policy area in both 2016 and at the end of the planning period in 2041 as shown in Table 7.13. For the 2041 PPU, separate PPU estimates are provided for units that existed in 2016 and "new units" built after 2016, which provides for aging of existing households. These PPU figures will be used in the Community Area land needs assessment in Section 10 of the report.

TABLE 7.13: PPU FORECAST BY POLICY AREA

Forecast Horizon	Built-up Area	Designated Greenfield Area	Rural Area	Total
2016	2.42	2.84	2.58	2.44
2041 units existing in 2016	2.15	2.52	2.30	2.17
2041 new units	2.20	3.10	2.30	2.70
2041 total units	2.16	3.02	2.30	2.38

Source: Hemson Consulting, 2018

For determining future DGA density, the PPU was further disaggregated by housing type as shown in Table 7.14.

TABLE 7.14: PPU IN DGA BY UNIT TYPE

Mid-Year	Singles + Semis	Townhouses	Apartments
2016	3.05	2.47	1.60
2031	3.44	2.40	1.60
2041	3.44	2.58	1.60

Source: Hemson Consulting, 2018 and

City of Brantford's 2014 Development Charges Background Study

We have also added the 2016 PPU by unit type from the Development Charges Background Study for new construction to illustrate the anticipated change in PPU by housing type to 2041. The PPU for singles, semis and townhouses is expected to increase in the DGA as an increasing number of young families are attracted to new housing in Brantford by 2041.

8 INTENSIFICATION STRATEGY

The Intensification Strategy section of the report sets out the intended policy direction for intensification including where intensification is to be directed; assesses the intensification potential within the City of Brantford; and recommends an intensification target for the City.

8.1 BASIS OF THE INTENSIFICATION STRATEGY

The 2016 Draft Official Plan provides the basis for the Intensification Strategy. The Official Plan sets out a defined urban structure of centres and corridors (see Schedule 1 of the 2016 Draft Official Plan) that are intended to provide a framework for the provision of higher density, mixed-use development that will support an efficient and integrated transit system. In support of this centres and corridors urban structure, intensification is to be facilitated primarily within the Downtown Urban Growth Centre, the Intensification Corridors and the Major Commercial Centres, which are all intended to be mixed-use areas.

Development through intensification within the existing stable neighbourhoods is to be limited to compatible development on vacant lots, minor infill development and the establishment of second units.

8.2 CAPACITY ASSESSMENT METHODOLOGY

The capacity assessment focuses on the lands within the Downtown Urban Growth Centre designation, the Major Commercial Centre designation and the Intensification Corridor designation as proposed in the 2016 Draft Official Plan. These areas are shown schematically on **Figure 5,** with the Urban Growth Centre shown on **Figure 6**. Intensification within the Residential designation, in existing neighbourhoods, is also considered to capture the potential for second units, as well as limited infill development through current applications and vacant sites.

These broad intensification areas and corridors are broken down into specific intensification areas and sites, as illustrated in **Figure 7**. For each area and site, the existing built form is described, and the potential for future intensification is assessed based on:

1. the estimated potential for change, based on a percentage of the net land area expected to intensify over the time period; and
2. the estimated type and density of the residential built form that is anticipated, based on road widths, lot depths, permitted uses and typical net density yields by built form type and height.

Figure 5 – Intensification Focus Areas

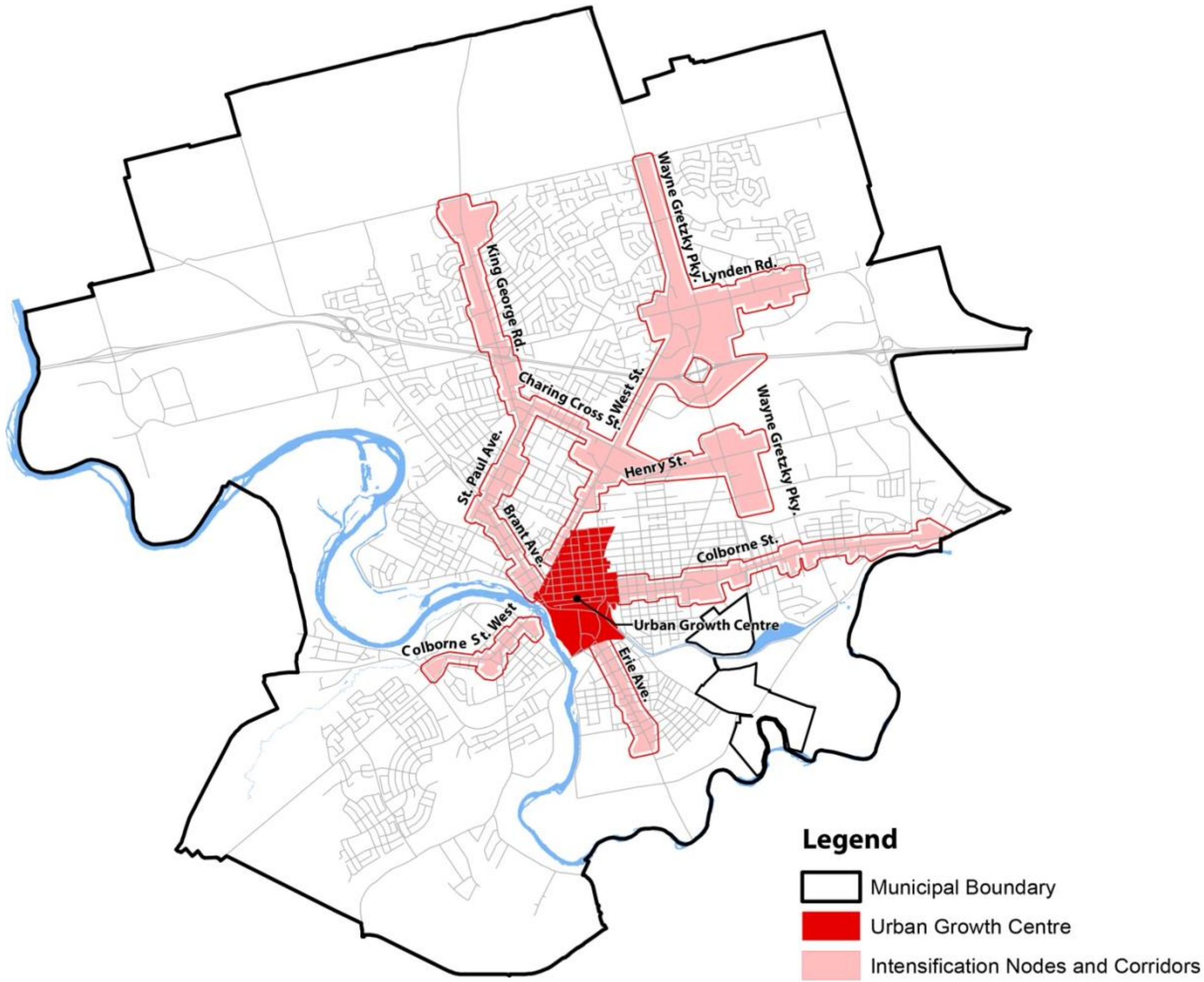
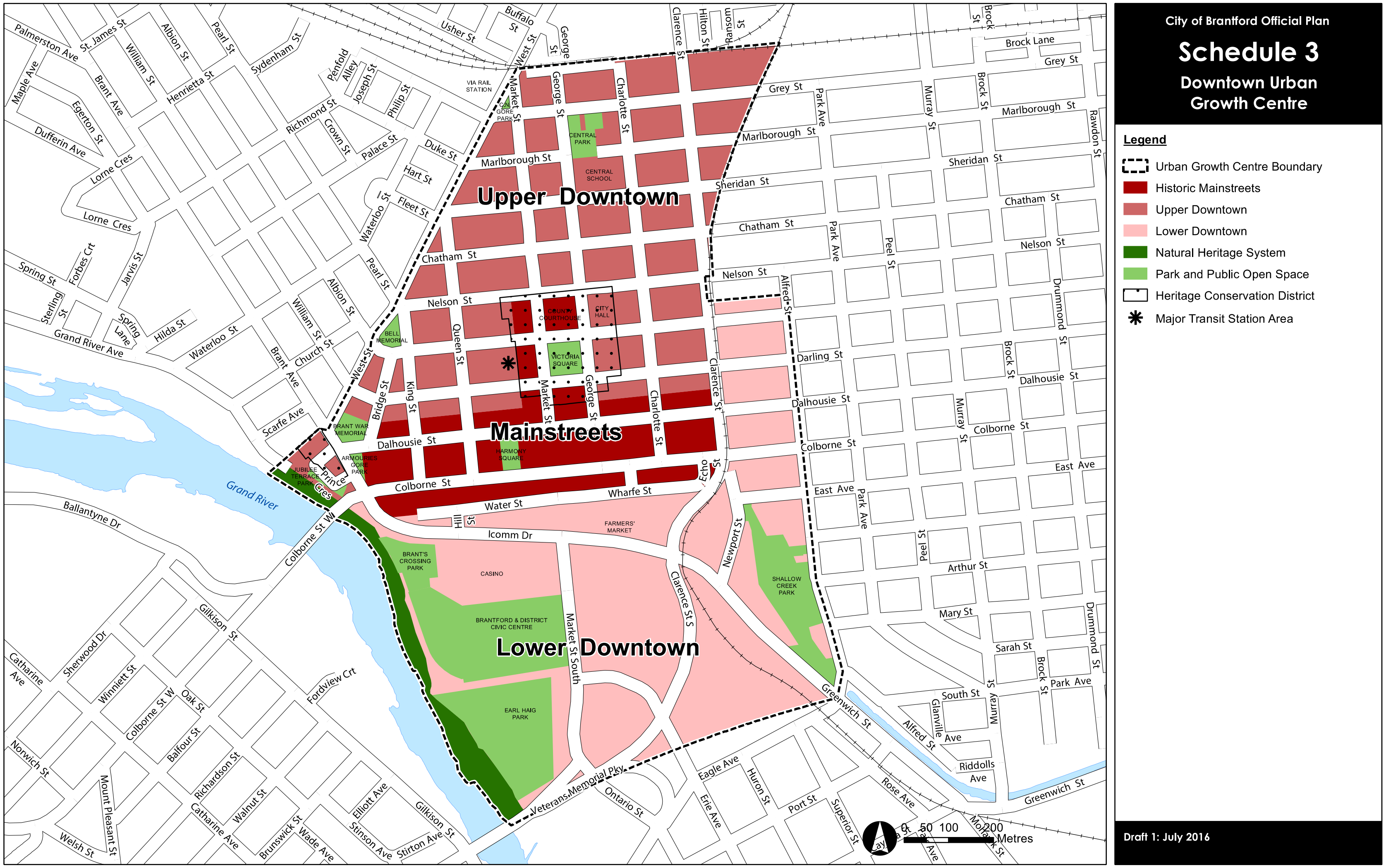


Figure 6 – Schedule 3 of Draft Official Plan – Downtown Urban Growth Centre
City of Brantford



8.2.1 Assessment of Development Potential

Each intensification area was assigned an intensification qualifier of VERY LOW, LOW, MODEST or SIGNIFICANT based on the potential for intensification. The intent of the capacity assessment is to provide an estimate of the percentage of the net land area that may be expected to intensify to the year 2041. It is a reasonable expectation of what could happen by the year 2041. Sometimes this assessment is based on existing vacant lots, or the preponderance of large surface parking lots, while sometimes it is based on the relative stability of the existing land uses, or age of the existing land uses.

In addition, the team used the assessments of the Transportation Capacity Overview and the Servicing Opportunities and Constraints Overview to temper the intensification potential.

Transportation Capacity Overview
This scoring assessed the City of Brantford's existing transportation capacity and its ability to support growth within the identified intensification areas. It is a high level review, intended only to support the further evaluation of intensification potential.

Servicing Opportunities and Constraints Overview
This overview looked at the capacity of the City of Brantford's existing Water, Wastewater, and Stormwater infrastructure to support growth within the identified intensification areas and is intended to support the further evaluation of intensification potential.

Both the transportation and servicing analyses utilized the scorecard in Table 8.1 below in their respective evaluations:

TABLE 8.1: TRANSPORTATION AND SERVICING SCORE		
1	2	3
Very Supportive of Growth	Supportive of Growth	Constrained
• Existing Infrastructure has Available Capacity to Support Growth • Upgrades **May Be Required** to Support Ultimate Buildout Scenarios	• Existing Infrastructure has Some Available Capacity to Support Growth • Upgrades **Will Be Required** to Support Ultimate Buildout Scenarios	• Existing Infrastructure Has Limited/No Capacity to Support Growth • Upgrades to Support Growth **Not Feasible or If Feasible, Are Required In The Short Term**

8.2.2 Built Form and Density Assumptions

For each intensification area, the team assessed the potential long-term built form. The densities assumed for each built form are based on the following net density ranges:

- 3-Storey Townhouses: 35-54 units per hectare (uph)
- 6-Storey buildings: 55-74 uph
- 8-storey buildings: 55-100 uph

- 12-storey buildings: 55-125 uph

8.2.3 Intensification Scenarios

For each intensification area, three scenarios were developed:

Scenario A - BASELINE Intensification Opportunity: Estimates for establishing potential on any site were based on the following BASELINE assumptions:

- Significant potential for residential intensification – 20 to 40% of the net land area;
- Modest potential for residential intensification – 15 to 20% of the net land area;
- Low potential for residential intensification – 10 to 15% of the net land area; and
- Very low potential for residential intensification – 0 to 5% of the net land area.

The baseline land use assumptions were based on the 2016 Draft Official Plan, which does not permit townhouses within the Downtown Urban Growth Centre, the Major Commercial Centres or along the Intensification Corridors. Land use assumptions for Scenario A assume that 100% of intensification potential would be developed as apartments, with the exception of townhouses on sites with very low potential for residential intensification.

Scenario B - BASELINE Intensification Opportunity with Townhouses added: Estimates for establishing potential on any site were based on the following assumptions:

- Significant potential for residential intensification – 20 to 40% of the net land area;
- Modest potential for residential intensification – 15 to 20% of the net land area;
- Low potential for residential intensification - 10 to 15% of the net land area; and
- Very low potential for residential intensification – 0 to 5% of the net land area.

This analysis assumes a more significant proportion developed as townhouses as noted below.

Scenario C - HIGH Intensification Opportunity: Estimates for establishing potential on any site were based on the following HIGH opportunity assessment:

- Significant potential for residential intensification – 40 to 50% of the net land area;
- Modest potential for residential intensification – 30 to 40% of the net land area;
- Low potential for residential intensification – 10 to 30% of the net land area; and
- Very low potential for residential intensification – 0 to 5% of the net land area.

Land use assumptions for Scenarios B and C assume that:

- **Major Commercial Areas**: 50% of intensification potential developed as townhouses and 50% developed as apartments;
- **Intensification Corridors**: 100% of intensification potential developed as townhouses; and
- **Infill Sites in Existing Neighbourhoods:** 100% of intensification potential developed as townhouses.

8.2.4 Caveats and Limitations

The results of these scenarios do not imply any level of development approval, or provide specific guidance with respect to what forms of development are likely to be approved, or eventually built. The results of the scenarios are to provide an example about how much residential intensification may be affected within the City of Brantford to the year 2041 - a very long time-frame, within which many assumptions can change.

As such, the results of the scenarios are solely for the purposes of informing the broader growth management exercise, where an understanding of the potential for the City of Brantford to deliver residential intensification is quantified, notwithstanding how precarious the assumptions may be, and without knowing how the City will actually evolve given all of those issues previously identified.

It is important to recognize that the actual achievement of intensification opportunities may be reliant on a whole host of variables that while considered, are beyond the ability to factor in to the assessment in any meaningful way, including:

- Financial feasibility;
- Market acceptance;
- The planning approvals process;
- The availability of municipal infrastructure;
- The implementation of enhanced transit facilities;
- Landowner motivation and urgency to redevelop the property;
- Competition from alternative opportunities for development in greenfields;
- Council priorities; and
- The provision of development incentives.

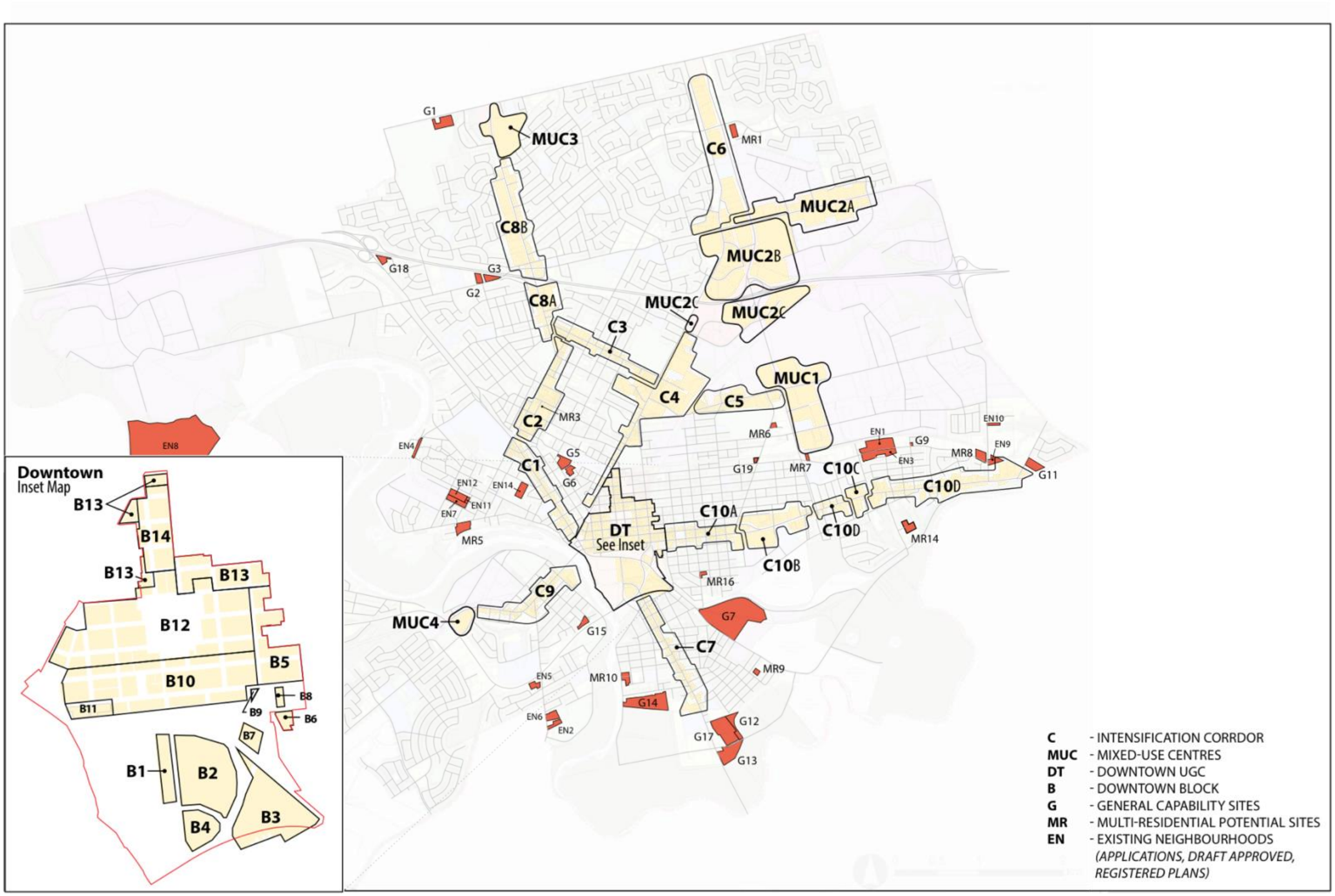
8.2.5 Intensification Areas and Sites

Figure 7 illustrates the intensification sites and areas reviewed as part of the intensification supply analysis. The details of the intensification analysis are found in **Appendix C**, as discussed in Section 8.3 and summarized in Section 8.4.

The analysis looks at potential intensification sites and areas within Brantford's Built-up Area and categorizes them in the following six categories as indicated on **Figure 7**:

- **The Downtown Urban Growth Centre:**
  - Lower Downtown (Blocks B1-5), Vacant sites B6, B7 and B8;
  - Historic Mainstreets (Vacant sites B9 and B11 and Block B10);
  - Upper Downtown (Blocks B12 to B14);
- **Major Commercial Centres (Areas MUC1-4);**
- **Intensification Corridors (Corridors C1-10); and**
- **Existing Residential Neighbourhoods (EN)**
  - The development of a number of identified Applications, and Draft Approved/Registered Plans of Subdivision (identified on **Figure 7** as EN (Existing Neighbourhood) sites), on lands that are within the Built-up Area, but outside of the identified Downtown Urban Growth Centre, Major Commercial Centres and Intensification Corridors**.**
- **Multi-Residential Potential (MR)**
  - The development of sites with potential for intensified, multi-residential development (identified on **Figure 7** as MR (Multi-Residential Potential) Sites), on lands that are within the Built-up Area, but outside of the identified Downtown Urban Growth Centre, Major Commercial Centres and Intensification Corridors**.**
- **General Capability (G)**
  - The development of sites with potential for modest infill development (identified on **Figure 7** as G (General Capability) Sites), in a lower intensity form of residential development, on lands that are within the Built-up Area, but outside of the identified Downtown Urban Growth Centre, Major Commercial Centres and Intensification Corridors**.**

Figure 7 – Intensification Areas and Sites



8.3 INTENSIFICATION SUPPLY AND ANALYSIS

8.3.1 Downtown Urban Growth Centre

The existing Downtown Urban Growth Centre is approximately 130 hectares in area. It includes the historic downtown as well as older residential neighbourhoods to the north of the downtown to Durham Street and the new lower Downtown south of Icomm Drive.

In 2016, there was a population of 2,644 people (including Census Net Under-coverage) and employment of 4,565 jobs within the Downtown Urban Growth Centre, which equates to a density of 55 persons and jobs per hectare.

The Growth Plan requires a density of 150 residents and jobs combined per hectare within the Downtown Urban Growth Centre to be achieved by 2031, which means an additional 12,290 people and jobs are required.

Based on the analysis in Section 3, 2,252 Major Office jobs are forecasted for the City, which should be directed to the Downtown. It is also likely that additional retail, service commercial and institutional jobs could be anticipated with additional population and office intensification. An additional 1,000 jobs are forecasted for a total of 3,252 jobs.

These additional people and jobs increase the density to 81 residents and jobs combined per hectare and results in a requirement for additional 9,040 people or approximately 5,650 units (based on 1.6 ppu). Although students are being attracted to the Downtown to attend Wilfrid Laurier University and Conestoga College, students living in the Urban Growth Centre do not count towards the Growth Plan’s target density. In our opinion, this is a significant oversight in the Provincial methodology.

Preliminary analysis of the intensification potential in the existing Urban Growth Centre found that it would not be possible to achieve the Growth Plan target even by 2041 due in part to the large pockets of low-rise, residential homes in the northern part of the Urban Growth Centre.

City staff undertook a refinement of the Urban Growth Centre boundary to remove most of the low-rise residential areas as well as some parks and open space areas. The proposed revised Urban Growth Centre boundary is illustrated in **Figure 8** as an overlay on the current Urban Growth Centre boundary. The revised Urban Growth Centre is approximately 104 hectares in area. It is estimated to contain a 2016 population of 1,779 people including Census Net Under-coverage and employment of 4,300 for a 2016 density of 58 residents and jobs combined per hectare.

To achieve the Growth Plan target of 150 residents and jobs combined per hectare, an additional 9,520 people and jobs are required. As noted above, assuming a potential 2,252 Major Office jobs and a further 1,000 Population-Related jobs, 6,270 more residents would be required in 3,900 units.

The next sections assess the potential capacity in the various parts of the revised Downtown Urban Growth Centre boundary.

Figure 8 – Revised Downtown Urban Growth Centre Boundary

Intensification Potential - Lower Downtown

The Lower Downtown has substantial redevelopment potential. There is a great deal of space allocated to surface parking lots that serve major uses such as the Civic Centre and the Casino, as well as smaller parking areas that serve suburban style restaurants and retail commercial plaza form developments.

Redevelopment should be in a mixed-use mid-rise form - up to 6 storeys - at densities up to 74 uph net, or in a mixed-use high-rise form and up to 12 storeys (may be taller) - at densities ranging up 125 uph net. Townhouses were not considered as a potential housing form as they are not permitted in the Lower Downtown designation in the 2016 Draft Official Plan.

It is assumed that redevelopment in all five Blocks in the Lower Downtown would appropriately accommodate a range of mid-rise and high-rise apartment housing (up to 12 storeys), in a mixed-use form, including new retail commercial uses at grade. From a residential perspective, density ranging from 55 to 125 uph net should be considered. The three intensification scenarios for the Lower Downtown yield modest to significant intensification potential. As seen in Table 8.2, the intensification potential for the Lower Downtown could range from a low of 200 to a high of 1,076 units.

TABLE 8.2 LOWER DOWNTOWN SUMMARY

Scenario	Singles/Semis		Townhouse		Apartment		Total	
	Low	High	Low	High	Low	High	Low	High
A	0	0	0	0	200	723	200	723
B	0	0	0	0	200	723	200	723
C	0	0	0	0	399	1,076	399	1,076

Intensification Potential - Historic Mainstreets

The Historic Mainstreets have relatively modest redevelopment potential given the historic context, and the desire to accommodate new growth within the existing historic building envelopes. However, there are several vacant sites that do have development potential that needs to be considered in this exercise.

Overall, within the Historic Mainstreets designation, development should be in a mixed-use mid-rise form - up to 6 storeys at densities ranging from 55 to 74 uph net, or in a mixed-use high-rise form - up to 8 storeys at densities ranging from 75 to 100 uph net. Townhouses are not permitted in the Historic Mainstreets designation.

The three intensification scenarios for the Historic Mainstreets yield low to modest intensification potential. As seen in Table 8.3, the intensification potential for the Historic Mainstreets could range from a low of 92 to a high of 344 units.

TABLE 8.3: HISTORIC MAINSTREETS SUMMARY

Scenario	Singles/Semis		Townhouse		Apartment		Total	
	Low	High	Low	High	Low	High	Low	High
A	0	0	0	0	92	184	92	184
B	0	0	0	0	92	184	92	184

C	0	0	0	0	183	344	183	344

Intensification Potential - Upper Downtown

The Upper Downtown designation includes a number of distinct and diverse areas that will have significantly different potential for accommodating intensification opportunities over time. Given the favourable existing and proposed Official Plan development policies, residential intensification, in appropriate locations, should include both mid-rise and high-rise buildings, up to 8 storeys, and at densities ranging from 55 to 100 uph net.

The Upper Downtown is also found to yield low to modest intensification potential. As seen in Table 8.4, the intensification potential ranges from a low of 121 to a high of 542 units.

TABLE 8.4: UPPER DOWNTOWN SUMMARY

Scenario	Singles/Semis		Townhouse		Apartment		Total	
	Low	High	Low	High	Low	High	Low	High
A	0	0	0	0	121	271	121	271
B	0	0	0	0	121	271	121	271
C	0	0	0	0	235	542	235	542

Urban Growth Centre Summary Potential

The total potential in the Downtown Urban Growth Centre is found to have modest intensification potential, which ranges from 412 units in the low range of Scenario A to 1,962 units in the high range of Scenario C. However, in order to achieve a density target of 150 residents and jobs combined per hectare, a total of 3,900 new units (as noted previously) will be required in the Downtown Urban Growth Centre (1,938 more than the highest scenario). The greatest opportunity is in the Lower Downtown. To achieve the targeted density, the proportion of intensification in the Lower Downtown will need to increase from 40 to 50% to between 75 and 85%. That assumption requires that 75 to 85% of the entire Lower Downtown will need to redevelop by 2031; a highly unlikely assumption but one that is required to meet the minimum Growth Plan density target. The scenarios for the Urban Growth Centre's intensification potential can be seen below in Table 8.5. In order to achieve the Urban Growth Centre density targets, the next draft of the Official Plan may need to incorporate higher minimum densities and policies to encourage redevelopment of the Lower Downtown for high density residential development.

TABLE 8.5: DOWNTOWN URBAN GROWTH CENTRE SUMMARY

Scenario	Singles/Semis		Townhouse		Apartment		Total	
	Low	High	Low	High	Low	High	Low	High
A	0	0	0	0	412	1,178	412	1,178
B	0	0	0	0	412	1,178	412	1,178
C	0	0	0	0	817	1,962	817	1,962

8.3.2 Major Commercial Centres

The areas identified as Major Commercial Centres (MUC on **Figure 7**) include most of the City's newer format retail commercial developments - plazas, malls, stand-alone commercial buildings and large format stores, either stand-alone or in clusters. These areas are also typically located along the City's primary road network that radiates outward from the Downtown, and which forms the backbone of Brantford's existing and planned transit system.

The current draft of the Official Plan identifies these areas as key destinations and intensification areas based on their transformation from retail commercial centres to mixed-use centres that include mid-rise and high-rise residential apartments, up to 12 storeys, which can achieve densities ranging from 55 to 125 uph net.

The Major Commercial Centres will yield high intensification potential, as seen in Table 8.6, ranging from a low of 1,942 to a high of 6,694.

TABLE 8.6: MAJOR COMMERCIAL CENTRE SUMMARY

Scenario	Singles/Semis		Townhouse		Apartment		Total	
	Low	High	Low	High	Low	High	Low	High
A	0	0	0	0	1,942	8,369	1,942	8,369
B	0	0	618	1,852	751	3,186	1,369	5,038
C	0	0	1,165	2,438	1,392	4,256	2,557	6,694

8.3.3 Intensification Corridors

The areas identified as Intensification Corridors include most of the primary roads that radiate out of the Downtown, many connecting to the Major Commercial Centres and hinterland around Brantford, while some also intersect with Highway 403. These primary roads form the backbone of Brantford's existing and planned transit system, and are expected to evolve into mixed-use, higher density corridors in support of the planned urban structure and planned investments in transit.

The current draft of the Official Plan identifies these corridors as key intensification areas based on their transformation that is expected to include mid-rise and high-rise residential apartments, up to 8 storeys, which can achieve densities ranging from 55 to 100 uph net.

It is important to note that the existing draft of the Official Plan does not permit townhouse forms less than 3.5 storeys in the Intensification Corridors, however, given the detailed review of the context of each corridor, in some instances (given road width and lot depth), 2 and 3 storey townhouses could be an appropriate form of intensification, which should be acknowledged in the next draft of the Official Plan. Townhouses, up to 3.5 storeys can achieve densities between 35 and 54 uph net.

There is significant intensification potential within the Intensification Corridors, which ranges from a low of 1,438 to 3,945 units, as per Table 8.7.

TABLE 8.7: INTENSIFICATION CORRIDOR SUMMARY

Scenario	Singles/Semis		Townhouse		Apartment		Total	
	Low	High	Low	High	Low	High	Low	High
A	0	0	0	131	1,438	3,881	1,438	4,012
B	0	0	915	2,435	0	0	915	2,435
C	0	0	1,652	3,945	0	0	1,652	3,945

8.3.4 Existing Neighbourhoods

Second Units

2016 Census data indicates that there are 39,215 households currently existing in Brantford. The Census also tells us that approximately 66% of the existing housing stock is single and semi-detached dwelling units – 25,882 dwelling units. Based on a review of Census data and experience in other municipalities, illegal second units generally comprise less than 5% of the housing stock while legal and illegal units together comprise less than 10% of the housing stock across the GTA. With the change in Provincial legislation requiring zoning by-laws to permit second units as of right, it is anticipated that the number of legal units will increase. It is estimated, for the purposes of this exercise, that somewhere between 5% and 10% of all of the single and semi-detached dwelling units will, by 2041, accommodate a second unit. These second units, within the principal dwelling or in a granny flat or laneway housing, will contribute toward the residential intensification potential of the City of Brantford.

However, it must be assumed that some of the existing dwellings already accommodate second units. It is therefore assumed that 5% of existing units already accommodate second units and that the percentage could increase to between 7.5% to 10% by 2041. As a result, it is estimated that between 650 to 1,300 second units could be generated within the Existing Neighbourhoods.

In-Process/Approved Dwelling Units (Existing Neighbourhood)

In addition to the potential for second units, residential intensification within Existing Neighbourhoods is captured in this assessment in a number of additional categories, including:

- The development of a number of identified Applications and Draft Approved/Registered Plans of Subdivision - identified on **Figure 7** as EN (Existing Neighbourhood) sites. The City provided a list of in-process and anticipated development applications on lands that are within the Built-up Area, but outside of the identified Downtown Urban Centre, Major Commercial Centres and Intensification Corridors, as summarized in Table 8.8. The intensification potential through applications and approvals totals 980 units.

TABLE 8.8: IN-PROCESS UNITS IN EXISTING BUA – TOTAL				
BUA	**Singles & Semis (units)**	**Townhouses (units)**	**Apartments (units)**	**TOTAL (units)**
Current Applications	19	123	0	155
Draft Approved Plans	609	108	0	704
Registered Plans	23	98	0	121
TOTAL	651	329	0	980

- The development of sites with potential for intensified development - identified on **Figure 7** as **MR (Multi-Residential Potential) Sites**. The City provided a list of sites that are considered to have potential for multi-residential development on lands that are within the Built-up Area, but outside of the identified Downtown Urban Growth Centre, Major Commercial Centres and Intensification Corridors**.**

- The development of sites with potential for infill development - identified on **Figure 7** as **G (General Capability) Sites.** The City provided a list of sites that are considered to have modest infill potential for lower intensity form of residential development on lands that are within the Built-up Area, but outside of the identified Downtown Urban Growth Centre, Major Commercial Centres and Intensification Corridors**.**

The intensification potential of the scattered vacant and redevelopment sites referred to as MR (Multi-Residential Potential) and G (General Capability) on **Figure 7** is as follows:

Intensification Potential:
Scenario A: 300 - 605 Apartments
Scenario B: 522 - 774 Townhouses
Scenario C: 522 – 1,207 Townhouses

8.4 INTENSIFICATION SUPPLY AND CAPACITY SUMMARY

The analysis concludes that there are both low and high supply scenarios when considering intensification potential within the Built-up Area, as set out in Tables 8.9 through 8.11 and as summarized in Table 8.12.

The supply capacity potential ranges from a low of 4,519 units in Scenario B to a high in Scenario A of 16,437 units. Based on the forecast of 26,570 new households in Section 10, Table 10.4, these supply capacities range from 17% of new households to 62% of new households. These numbers demonstrate that at the high end of the capacity, it is theoretically possible to approach 60% intensification without any consideration of likelihood or feasibility of that target. These numbers also demonstrate a huge range in potential supply of intensification.

TABLE 8.9: INTENSIFICATION SCENARIO A										
	Singles + Semis		Townhouses		Apartments		Second Units		Total Units	
	Low	High	Low	High	Low	High	Low	High	Low	High
Downtown	-	-	-	-	412	1,178	-	-	412	1,178
Major Commercial	-	-	-	-	1,942	8,369	-	-	1,942	8,369
Intensification Corridor	-	-	-	131	1,438	3,881	-	-	1,438	4,012
Existing Neighbourhood[1]	651	651	329	329	300	605	650	1,300	1,930	2,878
TOTAL	**651**	**651**	**329**	**460**	**4,092**	**14,033**	**650**	**1,300**	**5,272**	**16,437**

[1] In-process applications, anticipated applications, scattered redevelopment sites and second units

TABLE 8.10: INTENSIFICATION SCENARIO B										
	Singles + Semis		Townhouses		Apartments		Second Units		Total Units	
	Low	High	Low	High	Low	High	Low	High	Low	High
Downtown	-	-	-	-	412	1178	-	-	412	1,178
Major Commercial	-	-	618	1,852	751	3,186	-	-	1,369	5,038
Intensification Corridor	-	-	915	2,435	-	-	-	-	915	2,435
Existing Neighbourhood	651	651	522	774	0	0	650	1,300	1,823	2,725
TOTAL	**651**	**651**	**2,055**	**5,061**	**1,163**	**4,364**	**650**	**1,300**	**4,519**	**11,376**

TABLE 8.11: INTENSIFICATION SCENARIO C										
	Singles + Semis		Townhouses		Apartments		Second Units		Total Units	
	Low	High	Low	High	Low	High	Low	High	Low	High
Downtown	-	-	-	-	817	1,962	-	-	817	1,962
Major Commercial	-	-	1,165	2,438	1,392	4,256	-	-	2,557	6,694
Intensification Corridor	-	-	1,652	3,945	-	-	-	-	1,652	3,945
Existing Neighbourhood	651	651	522	1,207	0	0	650	1,300	1,823	3,158
TOTAL	**651**	**651**	**3,339**	**7,590**	**2,209**	**6,218**	**650**	**1,300**	**6,849**	**15,759**

TABLE 8.12: SCENARIO SUMMARY (BY DWELLING TYPE)

Scenario	Singles/Semis		Townhouses		Apartments/SU		Total	
	Low	High	Low	High	Low	High	Low	High
Scenario A	651	651	329	460	4,742	15,333	**5,272**	**16,437**
Scenario B	651	651	2,055	5,061	1,813	5,664	**4,519**	**11,376**
Scenario C	651	651	3,339	7,590	2,859	7,518	**6,849**	**15,759**

8.5 PREVIOUS INTENSIFICATION STUDY

The City previously completed an intensification strategy in August 2012. That study identified similar intensification areas and corridors as discussed in this section and identified a total potential of 16,885 units, which is quite close to the high range in the three scenarios discussed above. However, to achieve the 40% intensification target to 2031, as required at that time, the City only had to accommodate 3,800 new units in the Built-up Area. This number is significantly less than what is now required by the Growth Plan to 2041 (i.e. 12,380 units to 2041 based on the recommended alternative intensification target as shown in Tables 10.5 and 10.6). The report also found that the Growth Plan targets for density in the Urban Growth Centre were not being met and would require a significant increase in units to achieve the Growth Plan density target of 150 residents and jobs combined per hectare.

8.6 DETERMINING AN APPROPRIATE INTENSIFICATION TARGET FOR THE BUILT-UP AREA

The three scenarios help to inform the intensification target, but none of them is a preferred scenario for the reasons provided in the following discussion.

Although the City has achieved 46% intensification since 2007, that has largely been through the construction of single-detached dwellings, townhouses, primarily small apartment conversions and small new apartments as illustrated in Tables 7.6 and 7.7. As the large vacant sites in the Built-up Area are developed, the intensification must shift to development and redevelopment of smaller sites primarily for apartments. However, as shown in **Appendix A**, only two apartment buildings constructed in the last eleven years have contained more than 100 units and, in addition, a total of three new buildings have contained more than 50 units.

As well as shown in Table 7.6, in only three out of 11 years were more than 200 building permits issued for residential units. To achieve the 2041 population forecasts, absorption of new units will need to approach 1,400 units per year between 2021 and 2031 and 1,000 new units per year between 2031 and 2041. As shown in these past trends, even achieving 40% intensification, at these rates of absorption, will be a challenge and require a substantial increase in the volume of intensification units.

The recent trends are even more acute when looking at the Downtown Brantford Urban Growth Centre where over 3,900 new units will be required. As seen in Tables 8.13 and 8.14 below, over the last ten years, only 232 units have been constructed in the Urban Growth Centre with 206 of them being apartment units. There have also been more conversions (59%) then new builds (41%). Of the 206 apartment units identified in Table 8.13, 60% (124 units) are conversions and only 40% (82 units) are new builds. These statistics demonstrate that a substantive and likely unrealistic change is required to achieve the density target for the Urban Growth Centre.

TABLE 8.13: URBAN GROWTH CENTRE INTENSIFICATION BY TYPE FROM 2007 to 2017

Type	Units	%
Single Detached, new and conversion	3	1%
Semi Detached, Duplex, 2nd Dwelling	23	10%
Townhouses	0	0%
Apartment Units	206	89%
Total	232	100%

TABLE 8.14: URBAN GROWTH CENTRE CONVERSION AND NEW BUILDS FROM 2007 to 2017

Type	Units	%
Conversions	137	59%
New Builds	95	41%
Total	232	100%

It is clear that the intent of the Provincial Growth Plan is to create a shift in the housing market to more dense housing forms and greater intensification. It is also clear that the 2017 Growth Plan is seeking to “move the bar” from the 40% intensification target set in the 2006 Growth Plan. The question that must be considered is how much shift is appropriate and feasible in Brantford while still “moving the bar”.

Achieving 40% intensification in the Built-up Area will require 10,700 new units, which would be a combination primarily of townhouse and apartment units as noted in the scenarios. Achieving 50% intensification will require nearly 13,400 units; and achieving 60% intensification will require nearly 16,000 apartment units. At the higher levels of intensification, a higher proportion of the units will be apartments. These levels would be a significant increase in the number of apartment units that currently exist in the City.

Increasing the number of apartments beyond those required to meet the 40% intensification target will be a challenge in Brantford. Higher order transit – a key incentive for high density housing – neither exists nor is planned before 2041. As well, house prices are not to the level that push prospective buyers to apartment forms ($414,150 was the average house price in April 2018), and people are attracted to Brantford for the lower priced, ground-related housing product.

At the level required to achieve the intensification target at 60% in the Built-up Area, it is unlikely that there will be any market for high density housing in the DGA. This outcome does not allow for a balanced housing market throughout the City. The higher target, coupled with the density targets required in the DGA, will require a substantial shift in the housing market. Nearly 16,000 units over 25 years is a significant level of higher density growth when compared to the City's existing housing supply, which contains less than 8,000 apartments in a mature urban community. This number is even more dramatic when one considers that the largest new building in 11 years in the Built-up Area contained only 150 apartment units, and there have only been two buildings of that size constructed since the Growth Plan was introduced. This shift is a clear departure from recent market activity in Brantford, and it is uncertain whether such a profound shift in housing mix is supportable by consumer demand.

A substantial shift alone will be required to achieve the number of apartment units required in the Downtown Urban Growth Centre. In a market such as Brantford, requirements for significant levels of apartments in the Major Commercial Areas and Intensification Corridors, in addition to the Urban Growth Centre, will compete with the ability of the Urban Growth Centre to accommodate apartments and achieve the minimum required density.

A more realistic scenario likely involves a continuation of the shift toward medium and higher density forms of housing, but not to the extent envisioned by a 60% intensification target.

Just achieving the density target of 150 residents and jobs combined per hectare in the Downtown Urban Growth Centre will require a dramatic shift in the absorption of apartment units in the City. With a limited apartment market in the City for the foreseeable future, it is recommended that the apartment growth should be focused in the Downtown Urban Growth Centre with more limited apartment growth in the Intensification Corridors in combination with townhouse redevelopment on larger sites. It is also recommended that the Urban Growth Centre boundary be refined as shown in **Figure 8**.

Further, due to the past slow absorption for apartments and townhouses in the City, it is recommended that the intensification target be slowly increased.

Until 2021, approximately 1,875 new households are forecast as shown in Table 10.6. Maintaining the existing 40% intensification target to 2021 would result in 750 units in the Built-up Area.

Between 2021 and 2031, 14,230 new households are forecast. Increasing the intensification target to 45% would require 6,400 units in the Built-up Area, or 640 units per year, which is substantial increase in the rate of absorption.

If the intensification target were gradually increased further to 50% between 2031 and 2041, it would require 5,230 additional units, or 520 units per year, in the Built-up Area.

This graduated target results in a total of 12,380 new units needed in the Built-up Area by 2041. A reasonable distribution of the 12,380 units by type to the various geographical components of the Built-up Area is illustrated in Table 8.15.

TABLE 8.15: Proposed Intensification Units by Type and Area

Units by Area	Number of Units	%
Semi-detached Units in the Existing Neighbourhoods	650	5%
Second Units in the Existing Neighbourhoods	1,250	10%
Townhouses in the Existing Neighbourhoods	800	7%
Student Housing Units	1,000	8%
Townhouse in the Intensification Corridors and Major Commercial sites	3,400	28%
Apartments in the Intensification Corridors and Major Commercial sites	1,300	11%
Apartments in the Downtown Urban Growth Centre	3,900	31%
Total	12,400	100%

In combination with the recommended unit distribution in the DGA, this unit mix would achieve the more diversified housing mix called for in the housing strategy.

8.7 RECOMMENDED ALTERNATIVE INTENSIFICATION TARGET

Based on the preceding analysis, it is therefore recommended that the City maintain the 40% intensification target to 2021, increase the target to 45% between 2021 and 2031, and increase it to 50% after 2031. It is further recommended that the City review the targets before 2031. If the City is not achieving the alternative intensification target and no incentives are feasible to increase the rate of intensification, then the City should reconsider the targets in a future Municipal Comprehensive Review before the post 2031 target is applied.

Tests for an Alternative Density

The Growth Plan (2017) sets out a series of criteria to be met for an alternative intensification target in Policy 2.2.2.5. These criteria and the analysis of meeting the criteria are addressed as follows:

a) maintain or improve on the minimum intensification target in the official plan that is approved and in effect;

It is proposed that the minimum intensification target in effect in the City's Official Plan – 40%, be maintained until 2021. The minimum target is proposed to increase gradually to 45% after 2021 and 50% after 2031, which maintains and improves the in-effect intensification target.

b) be appropriate given the size of the delineated Built-up Area;

The supply capacity found that intensification potential could range from 4,519 to 16,437 units, as per Table 8.12. However, this is total theoretical supply and as the caveats and limitations note in Section 8.2, there are many variables that determine whether a property will actually intensify or not. It is unreasonable to expect that all assumptions on supply will come true during the planning period so that a higher end range can be achieved. The proposed alternative intensification target would result in 12,380 intensification units, which is approximately the mid-point of the range and is appropriate for the character of Brantford's Built-up Area.

c) account for existing infrastructure, public service facilities, and capital planning;

The alternative intensification target accounts for existing and anticipated infrastructure, as those factors were used to assess the potential intensification opportunities in each intensification site and area.

d) account for existing planning approvals and other related planning studies;

Current draft and registered plans of subdivision have been taken into account as well as the emerging urban structure in the 2016 Draft Official Plan, which establishes the planned intensification areas.

e) consider the actual rate of intensification being achieved annually across the upper- or single-tier municipality;

The actual rate of intensification over the past 11 years has been 46% but, as explained earlier in this section, that intensification rate was achieved through a low absorption, small intensification projects and a high mix of ground-related housing. As previously noted, single-detached and semi-detached units comprised 30% of the units over the 11 years. Those factors are not going to continue in the coming years. Single-detached and semi-detached units are anticipated to comprise only 5% of the intensification target to 2041. As well, yearly absorption is going to increase from an average of 175 units per year to approximately 640 units per year between 2021 and 2031. Achieving this level of intensification on a yearly basis will require larger intensification projects than has been the norm in the past.

f) support diversification of the total range and mix of housing options in delineated Built-up Areas to the horizon of [the Growth] Plan, while considering anticipated demand;

The proposed graduated alternative intensification target results in further diversification of the housing mix with increased townhouses and apartments. The rate of this diversification, however, has taken into account the past trends in absorption of townhouses and apartments and the anticipated demand moving forward. As such, a graduated intensification target can best respond to the limited but potentially growing demand for multiple-unit housing.

g) account for lands where development is prohibited or severely restricted;

The areas where development is more restricted are within the stable residential neighbourhoods, which the alternative intensification target took into account by assuming a limited amount of intensification in those areas. These intensification opportunities include second units, existing approvals and applications and infill townhouses on vacant or underutilized sites. In total, Table 8.15 identifies a target of 2,700 units in the existing residential neighbourhoods to 2041.

h) support the achievement of complete communities.

Providing a broader range of housing opportunities while being cognizant of anticipated demand helps to achieve a complete community.

9 HOUSING Strategy – DGA DENSITY TARGET AND UNIT MIX

9.1 EXISTING DESIGNATED GREENFIELD LAND SUPPLY

Designated Greenfield Area (DGA) Land Area Breakdown

The DGA in Brantford totals 2,039.6 hectares. The DGA represents all lands between the Delineated Built-up Area and the Settlement Area boundary, which is illustrated on **Figure 9** along with the land use components of the DGA. For the purposes of assigning a density to the DGA, the Growth Plan (2017) permits a municipality to exclude natural features and the Natural Heritage System, Employment Areas, cemeteries and right-of-ways of major infrastructure. These excluded components, referred to as "take-outs", total 1,375.6 hectares as noted in Table 9.1. The remaining developable area within the existing DGA totals 664 hectares. Table 9.1 also identifies the land use and development status of the remaining developable area.

Residential Land Supply

The supply of residential units within the DGA is categorized as follows:

- Built (applying to all existing units within the DGA that have been built since 2006, when the first Growth Plan introduced the built boundary and the DGA);
- Registered/Draft Approved (applying to the portion of the DGA that is subject to registered or draft approved subdivision applications);
- Applications (applying to the portion of the DGA that is subject to active applications that have not yet been approved); and
- Vacant (applying to the portion of the DGA that is not subject to any development applications, and where an assumption for number of units is made on the lands).

TABLE 9.1: DGA AREA BREAKDOWN	
	Area (ha)
DGA TOTAL AREA	**2,039.6**
DGA Take-out Areas	**1,375.6**
Employment	390.4
Cemetery	12.7
Right-of-ways of Major Infrastructure	76.0
Natural Heritage System	896.5
DGA Developable Areas	**664.0**
Commercial Built	4.4
Commercial Vacant	5.1
School Sites Built	4.0
School Sites Draft Approved	2.7
School Site Vacant	5.0
Community Institutional Vacant	16.8
Place of Worship Built	1.9
Place of Worship Vacant	1.4
Residential Built	153.3
Tutela Heights Built	87.0
Residential Registered	23.4
Residential Draft Approved	87.3
Residential Application	56.9
Residential Vacant	91.1
Tutela Heights Vacant	123.7

Table 9.2 illustrates the supply of built, registered and draft approved units by type within the existing DGA, totaling 5,276 units excluding Tutela Heights. As noted in Table 9.5, there are an additional 267 low density units built, but no registered or draft approved units or active applications, in Tutela Heights.

TABLE 9.2: UNITS IN EXISTING DGA EXCLUDING TUTELA HEIGHTS – REGISTERED, DRAFT APPROVED, APPLICATION AND BUILT

DGA Area	Singles & Semis (units)	Townhouses (units)	Apartments (units)	TOTAL (units)
Built	1,527	470	120	2,117
Registered	214	169	0	383
Draft Approved	1,005	641	0	1,646
Application	873	257	0	1,130
Total	**3,619**	**1,537**	**120**	**5,276**
%	**69%**	**29%**	**2%**	**100%**

Source: Data obtained from the City of Brantford

Figure 9 illustrates the location of the greenfield residential supply with a numeric identifier for each site. The supply detail by numbered site shown on **Figure 9** is contained in **Appendix D.**

Table 9.3 assesses the potential supply of units on the vacant DGA lands without application. The estimated number of units on vacant lands is based on the vacant developable area, the permitted housing types, and generally the mid-point of permitted densities in the Official Plan designations applicable to the vacant lands[7]. There are no minimum or maximum densities set out for the land use designations in the West of Conklin Secondary Plan, although the vacant lands are required to contribute to an overall density of 50 persons and jobs per hectare. In the West of Conklin Secondary Plan, the permitted housing types and existing densities in the area were used to determine the potential units. It is noted that neither the Neighbourhood Centre designation nor the Village Centre designation permit single-detached units.

TABLE 9.3 POTENTIAL UNITS IN EXISTING DGA – VACANT LAND

Designation	Area (ha)	Density (uph gross)	Singles & Semis	Townhouses	Apartments	Total	Unit Mix
Low Density Residential	22.25	16	356	0	0	356	*100% singles/semis*
Residential Grandview	1.94	8	15	0	0	15	*100% singles/semis*
Medium Density Residential	25.87	32	0	828	0	828	*100 % townhouses*
High Density Residential	1.35	95	0	0	129	129	*100% apartments*
Neighbourhood Residential (Conklin)	22.29	16	321	36	0	357	*90% singles/semis; 10% towns*
Neighbourhood Centre (Conklin)	1.68	32	0	54	0	54	*100% townhouses*
Village Centre (Conklin)	15.74	40	0	567	63	630	*90% towns; 10% apartments*
SUBTOTAL	91.12	-	692	1,485	192	2,369	-
Tutela Heights - Suburban	123.73	10	1,237	0	0	1,237	*100% singles*
TOTAL	**214.85**	**-**	**1,929**	**1,485**	**192**	**3,606**	**-**
%			**54%**	**41%**	**5%**	**100%**	

[7] Based on an average net density of 25 uph for Low Density Residential, 15 uph for Suburban Residential in Tutela Heights, 50 uph for Medium Density Residential and 150 uph for apartments for High Density Residential, and converted to gross density using a net to gross rate of 63%.

Figure 9 - DGA Mapping Analysis

City of Brantford

The West of Conklin Secondary Plan calls for 2,400 to 2,600 units. However, the units that are registered, draft approved, application or built already total 3,285 units. Our estimate for remaining vacant lands within the West of Conklin Secondary Plan is approximately 1,040 units, which is a considerable intensification of what was originally planned for this secondary plan area. This data indicates that the City has been successful in increasing the densities in the West of Conklin Secondary Plan area, and there may be opportunity to further increase the densities on the remaining vacant lands.

Combined, the total unit potential based on current plans within the existing DGA, exclusive of Tutela Heights, is illustrated in Table 9.4.

TABLE 9.4: EXISTING AND POTENTIAL UNITS IN EXISTING DGA EXCLUDING TUTELA HEIGHTS

DGA	Singles & Semis (units)	Townhouses (units)	Apartments (units)	TOTAL (units)
Built	1,527	470	120	2,117
Registered	214	169	0	383
Draft Approved	1,005	641	0	1,646
Application	873	257	0	1,130
Vacant	692	1,484	192	2,368
Total	**4,311**	**3,021**	**312**	**7,644**
%	**56%**	**40%**	**4%**	**100%**

Under the “Land Needs Assessment Methodology for the Greater Golden Horseshoe”, undelineated settlement areas are to be included in the DGA for calculating densities. Tutela Heights is an undelineated settlement area. The lands to be included in the DGA in this case include not only the vacant lands and lands within registered, draft approved and proposed (application) plans of subdivision, but also the entire existing supply of housing built in Tutela Heights. Table 9.5 documents the total unit potential within Tutela Heights, including both built houses and vacant lands, and the corresponding land area.

TABLE 9.5: EXISTING AND POTENTIAL UNITS IN TUTELA HEIGHTS

Status	Area (ha)	Singles & Semis (units)	Townhouses (units)	Apartments (units)
Built	87.0	267	0	0
Vacant	123.7	1,237	0	0
Total	**210.7**	**1,504**	**0**	**0**

In summary, the current unit potential of the DGA including Tutela Heights is 9,150 units as shown in Table 9.6 (total of Tables 9.4 and 9.5).

TABLE 9.6: TOTAL EXISTING AND POTENTIAL UNITS IN EXISTING DGA INCLUDING TUTELA HEIGHTS				
DGA	**Singles & Semis (units)**	**Townhouses (units)**	**Apartments (units)**	**TOTAL (units)**
Existing Brantford	4,311	3,021	312	7,644
Tutela Heights	1,504	0	0	1,504
Total	**5,815**	**3,021**	**312**	**9,148**
%	64%	33%	3%	100%

9.2 POPULATION-RELATED EMPLOYMENT CONTRIBUTION TO THE DGA DENSITY

Assumptions for the DGA employment density

Population-Related Employment within the existing DGA includes:

a) Work-at-home jobs (Home-Based Employment);
b) Jobs on built commercial sites;
c) Anticipated jobs on vacant, designated commercial sites;
d) Jobs at existing and designated place of worship sites;
e) Jobs at existing and planned school sites; and
f) Jobs at other institutional uses.

Assumptions were made with respect to the rate of jobs for people who work at home, as well as the number of jobs assumed on commercial and institutional lands. Table 9.7 illustrates how the work-at-home rate by population was calculated and Table 9.8 documents the density assumptions for commercial and institutional – school jobs within the DGA.

TABLE 9.7: WORK AT HOME JOBS		
2041 Jobs:	79,000	
Share of 2041 Jobs (Work-at-Home):	5%	
# of 2041 Work-at-Home Jobs:	3,950	
2041 Population:	163,000	
Rate of Work-at-Home Jobs/Person*:	**0.024**	***(2.4%)***

** Cushman Wakefield*

Commercial lands and other institutional lands are anticipated to have an average density of 64 jobs per hectare. Elementary schools typically have approximately 40 employees on 2.4 to 2.8 hectares, whereas secondary schools typically have in the range of 80 to 100 employees on 5 to 6 hectares, which results in fairly low employees per hectare. Places of worship range from 5 to 20 jobs per facility.

TABLE 9.8: COMMERCIAL AND INSTITUTIONAL JOBS		
Density of Commercial Jobs*:	64	jobs per gross Ha
Density of Institutional Jobs:	40	jobs per elementary school
	80	jobs per secondary school
Density of Places of Worship	15	jobs per place of worship
Density of Other Institutional Jobs*:	64	jobs per gross Ha

** Cushman Wakefield*

Commercial Supply in the DGA

The supply of lands used and planned for commercial purposes in the existing DGA (built and vacant) is set out in Table 9.9.

TABLE 9.9: COMMERCIAL SITES – BUILT, REGISTERED, DRAFT APPROVED, VACANT	
DGA	**Area (Ha)**
Built	4.4
Registered	0.0
Draft Approved	0.0
Vacant	5.1
Total	**9.5**

An additional 16 hectares of vacant commercial DGA lands are located within the former part of Brant County and are now within the City's Settlement Area boundary. These lands are located on Paris Road within the midst of an Employment Area and will likely provide an ancillary commercial use to the employment uses as well as to drive-by trade. These activities fit within the anticipated 10% of the Population-Related Employment locating within the Employment Area as discussed in Section 3. As such, for the purposes of this analysis, these lands are assumed to be part of the broader "Employment Area take-out" in the DGA and were included in the Employment Area vacant land supply.

Institutional Supply in the DGA

There is one secondary school site and three elementary school sites identified in the existing DGA. The secondary school is located within the vacant lands in the West of Conklin Community Institutional designation. Two elementary schools are built on one site (the Walter Gretzky Public and St. Basil Catholic elementary schools), and the third elementary school site is within a draft approved plan of subdivision in the West of Conklin Neighbourhood Residential designation.

The West of Conklin Secondary Plan also designates lands Community Institutional/Recreation Centre. Planned land uses within this designation include a place of worship, the above mentioned secondary school and a sports complex, which is to include a community centre, library, multi-purpose rooms and sports fields.

The supply of lands used and planned for institutional purposes in the existing DGA (built and vacant) is set out in Table 9.10.

TABLE 9.10: INSTITUTIONAL SITES – BUILT, REGISTERED DRAFT APPROVED, VACANT

DGA	Area (Ha)
Built – school sites	4.0
Built – place of worship	1.9
Draft Approved – school site	2.7
Vacant – school site	5.0
Vacant – place of worship	1.4
Vacant – other institutional lands	16.8
Total	**31.8**

Total Jobs in the DGA

In order to get a complete picture of existing density within the DGA, it is important to factor in the existing and planned number of jobs. In Table 9.11, work-at-home employment is applied to both existing residents and forecast new residents by application status. Commercial density from Table 9.8 is applied to the vacant and built commercial space from Table 9.9 and institutional density from Table 9.8 is applied to the vacant and built institutional space from Table 9.10.

TABLE 9.11: JOBS IN EXISTING DGA	
DGA	Total (jobs)
Work at home in Built Units	146
Work at home in Registered Units	26
Work at home in Draft Approved Units	113
Work at home in Application Units	80
Work at home in units on Vacant land	147
Work at home - Tutela Heights Built	20
Work at home - Tutela Heights Vacant	91
Commercial - Tutela Heights Built	8
Commercial – Built	86
Commercial Vacant	326
School – Built	80
School - Draft Approved	40
School – Vacant	80
Community Institutional – Vacant	142
Place of Worship – Built	15
Place of Worship – Vacant	15
TOTAL	1,415

9.3 CURRENT DENSITY BEING ACHIEVED IN THE DESIGNATED GREENFIELD AREA

The density of the existing residential DGA has been examined, applying the 2016 PPU values as identified in Section 7.6 to the units in Table 9.2. In addition, the Population-Related jobs from Section 9.2 including work-at-home jobs are added as shown in Table 9.12.

TABLE 9.12: DENSITY OF EXISTING DGA EXCLUDING TUTELA HEIGHTS – BUILT, REGISTERED, DRAFT APPROVED

DGA	Singles & Semis (persons)	Townhouses (persons)	Apartments (persons)	TOTAL (persons)	Jobs	AREA (Ha)	Density (persons + jobs per Ha)
Registered	653	417	0	1,070	26	23.45	46.7
Draft Approved	3,065	1,583	0	4,649	153	90.00	53.3
Application	2,663	635	0	3,297	80	56.92	59.3
Subtotal	**6,381**	**2,635**	**0**	**9,016**	**259**	**170.36**	**54.4**
Built	4,657	1,161	192	6,010	327	160.53	39.5
Total	**11,038**	**3,796**	**192**	**15,026**	**586**	**330.89**	**47.2**

For the portion of the existing DGA that is subject to a registered, draft approved or proposed (application) subdivision, the DGA density is over 54 residents and jobs combined per hectare as shown in Table 9.12, but the density on the built component of the DGA at 39 residents and jobs combined per hectare brings down the density of the planned and built DGA, excluding Tutela Heights, to 47 residents and jobs combined per hectare.

For the portion of the existing DGA that is currently vacant, excluding Tutela Heights, the DGA density at build-out is estimated to be 57 residents and jobs combined per hectare based on planned densities in the Official Plan as shown in Table 9.13.

TABLE 9.13: ANTICIPATED DENSITY OF EXISTING VACANT DGA EXCLUDING TUTELA HEIGHTS

DGA	Singles & Semis (persons)	Townhouses (persons)	Apartments (persons)	TOTAL (persons)	Jobs	AREA (Ha)	Density (persons +jobs per Ha)
Vacant	**2,111**	**3,665**	**307**	**6,083**	**710**	**119.4**	**56.9**

In Tutela Heights, the density based on vacant land alone is estimated to be only 31 residents and jobs combined per hectare as illustrated in Table 9.14, due to the low density residential permission in the Brant County Official Plan. Tutela Heights is currently serviced with municipal water but private septic systems. The density on the vacant lands assumes full municipal services are extended to Tutela Heights but is based on densities for large lot single detached dwellings. When the existing built areas, which are primarily estate lots, are added in, the overall density in Tutela Heights drops considerably to 22 residents and jobs combined per hectare.

TABLE 9.14: ANTICIPATED DENSITY IN TUTELA HEIGHTS

DGA	Singles & Semis (persons)	Townhouses (persons)	Apartments (persons)	TOTAL (persons)	Jobs	AREA (Ha)	Density (persons +jobs per Ha)
Built	814	0	0	814	28	90.1	9.4
Vacant	3,774	0	0	3,774	91	123.7	31.2
Total	4,558	0	0	4,558	119	213.8	22.0

The total existing DGA including Tutela Heights is summarized in Table 9.15. It illustrates that the density on the built portion of the DGA at the end of 2017 was nearly 29 residents and jobs combined per hectare including Tutela Heights. The DGA density on registered, draft approved, application and vacant lands equates to approximately 55 residents and jobs combined per hectare excluding Tutela Heights. When Tutela Heights vacant land is added, the density falls slightly to 48 residents and jobs combined per hectare, and when the existing built portion of the DGA including Tutela Heights is added, the density falls to 41 residents and jobs combined per hectare. However, when considering the Existing DGA excluding Tutela Heights the density is 50 residents and jobs combined per hectare, which meets the density in the current Official Plan.

For the existing vacant DGA lands in Brantford including Tutela Heights, there may be an opportunity in the new Official Plan to increase both the density and the housing mix in order to ensure a higher density of residents and jobs combined is achieved in new development.

TABLE 9.15: EXISTING DGA DENSITY (RESIDENTIAL AND COMMERCIAL)

	Persons	Jobs	Area (Ha)	Density (persons + jobs per Ha.)
Built (excluding Tutela Heights)	6,010	327	160.5	39.5
Tutela Heights Built	814	28	90.1	9.4
Subtotal Built (including Tutela Heights)	**6,824**	**355**	**250.6**	**28.7**
Registered	1,070	26	23.4	46.7
Draft Approved	4,649	153	90.0	53.3
Application	3,297	80	56.9	59.3
Vacant (excluding Tutela Heights)	6,083	710	119.4	56.9
Subtotal Unbuilt (excluding Tutela Heights)	**15,098**	**969**	**289.7**	**55.5**
Tutela Heights Vacant	3,774	91	123.7	31.2
Subtotal Unbuilt (including Tutela Heights)	**18,872**	**1,060**	**413.4**	**48.2**
Total (excluding Tutela Heights)	**21,108**	**1,296**	**450.2**	**49.8**
Total (including Tutela Heights)	**25,696**	**1,415**	**664.**	**40.8**

Although the overall existing DGA density, exclusive of the built area, appears to meet the density target in the 2013 Growth Plan and in the current Official Plan, the land area is based on the take-outs in the 2017 Growth Plan where Employment Areas and rights-of-way of major infrastructure can be excluded (see Table 9.1). If the DGA density was calculated based on the take-outs permitted in the 2013 Growth Plan, the density would be much less than the required target.

9.4 DETERMINING AN APPROPRIATE HOUSING MIX

The Technical Report for the Greater Golden Horseshoe Growth Forecast contained a forecast unit mix by type to 2041 for the City of Brantford. Table 9.16 shows the anticipated unit mix, and unit growth to 2041 from the Technical Report.

The Technical Report's 2011 to 2041 unit mix for new housing of 56% single and semi-detached, 25% townhouses and 19% apartments is similar to the housing mix for the housing starts in Brantford in the past 10 years (56%, 28%, 16%) as per Table 7.3, but with a slightly higher proportion of apartment units compared to townhouses.

To achieve a greater density in the DGA and intensification in the Built-up Area, this mix will need to shift from what has been previously forecast.

TABLE 9.16: HOUSING BY TYPE – BRANTFORD					
	Singles	**Semis**	**Townhouses**	**Apartments**	**Total**
2001	21,240	1,970	2,670	7,970	**33,850**
2011	23,500	1,920	3,140	8,940	**37,500**
2021	27,900	2,180	4,810	9,910	**44,800**
2031	33,340	2,720	7,450	11,730	**55,240**
2041	38,420	3,430	10,460	14,600	**66,910**
2011-2041 Growth	14,920	1,510	7,320	5,660	**29,410**
	50.7%	***5.1%***	***24.9%***	***19.2%***	***100.0%***
2021-2041 Growth	10,520	1,250	5,650	4,690	**22,110**
	47.6%	***5.7%***	***25.6%***	***21.2%***	***100.0%***
2031-2041 Growth	5,080	710	3,010	2,870	**11,670**
	43.5%	***6.1%***	***25.8%***	***24.6%***	***100.0%***
2041	38,420	3,430	10,460	14,600	**66,910**
	57.4%	***5.1%***	***15.6%***	***21.8%***	***100.0%***
Source: Hemson Consulting, Technical Report for the Greater Golden Horseshoe Forecast					

The existing DGA including Tutela Heights is planned to have a unit mix of 64% single detached and semi-detached units, 33% townhouses and 3% apartments (see Table 9.6), based on the units already built and planned (i.e. built and in registered and draft approved plans of subdivision and active applications, as well as the capacity of the vacant DGA lands as per the densities permitted in the current Official Plan). This is close to the unit mix for building permits issued in the DGA over the last 11 years (Table 7.5).

However, as noted previously, increases in density and unit mix on the vacant lands in the existing DGA could be considered in the new Official Plan. For instance, if the gross density on the remaining vacant Low Density Residential lands without application was increased to 18 units per gross hectare from 16 units per gross hectare, and the Suburban Residential density was increased to 16.5 units per gross hectare from 10 units per gross hectare (see Table 9.3), the overall density in the existing DGA would increase to 47 residents and jobs combined per hectare including total population as shown in Table 10.18. This revised unit mix and density would result in a significant increase in supply of approximately 890 units, which is in line with Growth Plan objectives.

9.5 RECOMMENDED ALTERNATIVE DGA DENSITY TARGET TO 2041

Components of a DGA Density Target

The Growth Plan requires the Official Plan to set out one overall minimum DGA density target that is measured over the entire DGA. The Growth Plan requires a density of 80 residents and jobs combined per hectare, but municipalities in the Outer Ring of the Greater Golden Horseshoe can request an alternative target.

The density target is based on the future number of residents and jobs in the DGA in 2041, divided by the area of the DGA excluding the take-outs discussed in Section 9.1. The overall DGA density target represents an average density to be achieved over the entire area to which the target applies. While there may be areas of lower and higher density within the DGA, all areas must be balanced so that overall the minimum target is achieved.

Constraints to Achieving the Growth Plan Density Target

This report recognizes the legacy of low density development already built in the DGA, particularly in Tutela Heights, that brings down the Existing DGA density measurement, and impacts the City's ability to reach a higher density target across the entire DGA.

As noted in Sections 9.3 and 9.4, the Existing DGA based on current plans can achieve a density of only 41 residents and jobs combined per hectare. However, through increased density and mix of housing on Brantford's remaining vacant lands, the Existing DGA could achieve a density of 47 residents and jobs combined per hectare, still well shy of the Growth Plan target of 80 residents and jobs combined per hectare.

The opportunity to increase density even further will largely depend on new Community Area lands brought into the Settlement Area boundary (i.e. the New DGA). On these lands, further increases in density will depend on the ability to accommodate an even greater range of multi-unit housing.

However, the intensification target and DGA density target are closely related. In essence, the higher the intensification target, the more likely it is that a greater number of higher density units, such as townhouses and apartments, will be located within the Built-up Area, which would make it more challenging to attract higher density units within the DGA.

Simply put, if most of the demand for higher density housing forms such as apartments is accommodated within the Built-up Area, it leaves the majority of the DGA to be developed for lower density, ground-related housing. This challenge is particularly acute in an Outer Ring municipality such as Brantford, where historically the predominant form of housing has been low density in nature, and the pace of both townhouse and apartment development in the past 11 years has been slow and based on small projects.

In addition to the limited market for multiple-housing forms in the past, the lack of higher order transit also limits the potential to increase the proportion of higher density housing. With higher order transit, some residents are willing to live in higher density housing to take advantage of the transportation benefits associated with living within walking distance to a higher order transit station.

Without higher order transit in the DGA, and with the need to focus apartment forms in the Downtown Urban Growth Centre and the Intensification Corridors, it will be difficult for the City to achieve significantly higher densities than are currently planned for the DGA.

Opportunities for Increased Density in the New DGA

While recognizing the constraints of accommodating higher density housing forms within the DGA, the new Community Area DGA could accommodate a greater mix of housing types, particularly multiple unit ground-related housing. A housing mix of 55% single-detached and semi-detached units, 40% townhouses and 5% apartments would lead to an approximate density of 60[8] residents and jobs combined per hectare after adding Population-Related Employment including work-at-home employment. It is a significant increase in density and mix of units including multiple-housing forms from what is currently planned in the existing vacant DGA.

Arriving at an Alternative Density Target

The future combined population and employment anticipated to be accommodated in Brantford's DGA in 2041 is 58,916 residents and jobs, as shown on Table 10.19. If planned as recommended in this report (at 47 residents and jobs combined per hectare), the Existing DGA will accommodate 31,344 residents and jobs measured on 664 hectares.

The balance of 27,572 residents and jobs will be accommodated in the New DGA, which will require 460 additional hectares if planned at a density of 60 residents and jobs combined per hectare as recommended above in this report. In 2041, the 58,916 residents and jobs measured on an overall combined DGA area of 1,124 hectares will provide a density of 52 residents and jobs per hectare. This density figure will be the Alternative Density Target requested of the Minister of Municipal Affairs and Housing.

Policy Recommendations to Achieve the Alternative Density Target

To help achieve the alternative DGA density target of 52 residents and jobs combined per hectare, balanced across the entire DGA, this report recommends that area specific density targets be established in the new Official Plan.

> **Existing DGA:** Based on the increased density on vacant lands noted in Section 9.4, the new Official Plan should require the DGA within the current Settlement Area boundary

[8] Based on a net density of 25 uph for singles & semi-detached dwellings (an average single detached lot of 12 m. frontage (40 ft.)), 50 uph for townhouses (average townhouse lot frontage of 6.7 m. (22 ft.)), and 150 uph for apartments (an average density for a mid-rise apartment building), with a net to gross rate of 55%. As well, 8% of the land area being occupied by Population-Related Employment and work-at-home employment at 2.4% of the population. Finally, the 2041 PPU for the DGA would be applied.

(i.e. the Existing DGA) to meet an overall average density of 47 residents and jobs combined per hectare.

Vacant Lands in Existing DGA: For the portion of the Existing DGA that is currently vacant without application, the Official Plan should require a minimum overall average density of 55 residents and jobs combined per hectare.

New DGA: For the DGA within the new Community Area to be brought into the Settlement Area boundary, the Official Plan should require a minimum overall average density of 60 residents and jobs combined per hectare.

Tests for an Alternative Density Target

The Growth Plan (2017) sets out a series of criteria to be met for an alternative DGA density target in Policy 2.2.7.6. These criteria and the analysis of meeting the criteria are addressed as follows:

a) maintain or improve on the minimum density target in the official plan that is approved and in effect as of July 1, 2017;

The minimum density target in effect in the City's current Official Plan is 50 residents and jobs combined per hectare. However, it is not reflected in what has been built to date in the DGA, largely due to the addition of Tutela Heights, but it is being achieved in current registered and draft approved plans of subdivision. The in-effect density will increase as the remaining vacant lands in the current Settlement Area boundary (i.e. the Existing DGA) are planned to achieve a higher density of 55 residents and jobs combined per hectare. In addition, the density on new Community Area DGA lands (i.e. the New DGA) will be planned achieve 60 residents and jobs combined per hectare, which also improves the in-effect density target.

b) achieve a more compact built form to the horizon of [the Growth] Plan that is appropriate given the characteristics of the municipality and adjacent communities;

Both the housing mix and density are proposed to gradually increase to 2041 which is appropriate given Brantford's historical housing mix predominated by single-detached housing; the past slow rate of townhouse and apartment construction; the small size of individual apartment and townhouse projects; and the current low densities in the built portion of the DGA. The density of the current built area in the DGA including Tutela Heights is only 29 residents and jobs combined per hectare, and in the built part of Tutela Heights, it is only 9 residents and jobs combined per hectare. Approvals and currently designated and planned residential areas will increase the density of the Existing DGA to 47 residents and jobs combined per hectare. Together with new Community Area lands (i.e. New DGA) which are proposed to achieve 60 residents and jobs combined per hectare, the overall density of the entire DGA will be increased to 52 residents and jobs combined per hectare. This increase will lead to a more compact urban form.

c) reflect documented actions taken to increase planned densities in accordance with policy 2.2.7.4 a) ii);

The Existing DGA is currently designated predominantly within the approved West of Conklin Secondary Plan or with approvals from a previous Ontario Municipal Board decision, except for Tutela Heights. The 2016 Draft Official Plan recognizes these existing permissions. The vacant undeveloped lands in Tutela Heights are currently designated Suburban Residential in the Brant County Official Plan and are intended to function as a low density residential area. This designation contains no minimum or maximum density. The next draft of the City of Brantford Official Plan will change the designation for these lands, provide a minimum density and explore a broader housing mix to ensure a minimum density of 55 residents and jobs combined per hectare can be achieved on remaining vacant lands in the Existing DGA.

The new Official Plan will also include policies at a secondary plan level of detail for the new Community Area DGA lands within the Boundary Adjustment Lands. These New DGA lands will be designated to ensure an appropriate unit mix and density to achieve 60 residents and jobs combined per hectare.

d) achieve a more compact built form that supports existing or planned transit and active transportation to the horizon of the Growth Plan;

The City contains no major transit facilities and is not expected to obtain such facilities prior to 2041. Exceeding the current built density will achieve a more compact built form than currently exists in Brantford. The proposed urban structure in the 2016 Draft Official Plan consists of nodes and intensification corridors. Those intensification corridors will be extended into the new Community Area DGA within the Boundary Adjustment Lands, providing the opportunity to create more compact areas along the corridors supporting frequent transit and active transportation in the vicinity of the corridors.

e) account for existing and planned infrastructure, public service facilities, and capital planning;

The proposed overall density target for the entire DGA does account for current limitations on existing infrastructure, and the need to extend infrastructure, and upgrade and provide additional pumping stations, reservoirs, stormwater management and public service facilities, to support development in the new Community Area DGA within the Boundary Adjustment Lands.

f) account for lands built and planning matters that are approved and in effect;

The proposed overall density target for the entire DGA accounts for the significantly lower density on the built portions of the Existing DGA, including within Tutela Heights. It also accounts for the approved densities set out in registered and draft approved plans of subdivision, and land use permissions for the remaining vacant lands in the Existing DGA, including those within the West of Conklin Secondary Plan.

g) support the diversification of the total range and mix of housing options in designated greenfield areas to the horizon of [the Growth] Plan, while considering the community character.

As described in Table 7.1, the existing housing mix in Brantford is predominantly comprised of single and semi-detached housing, which in the 2016 Census account for 70% of the built housing units in the entire City, excluding the Boundary Adjustment Lands. When looking at housing patterns only over the past 10 years from 2007 through 2016, the mix diversifies with the proportion of single and semi-detached houses declining to nearly 56% of housing starts recorded by CMHC, and 52% based on the City's city-wide building permit data. In the DGA, 70% of the units issued building permits by the City from 2007 through 2016 were for single and semi-detached housing.

Based on current approvals and secondary plan permissions, the housing mix in the unbuilt portion of the Existing DGA including Tutela Heights will be 60% single-detached and semi-detached units, 38% townhouses and 3% apartments.

In the new Community Area DGA, the new Official Plan will plan for a mix of 55% single and semi-detached housing, 40% townhouses and 5% apartments until 2041. This progressive change in the mix of housing supports the diversification in the range and mix of housing in the DGA.

9.6 AFFORDABLE HOUSING

The 2016 Draft Official Plan contains targets for the development of affordable rental and affordable ownership housing. Policy 6.1.4 of the 2016 Draft Official Plan established a target of 180 new affordable residential units each year, through either the construction of new units or through the conversion of non-residential space. Out of those 180 units, approximately 85% will be affordable rental units and approximately 15% will be affordable ownership units. The 2016 Draft Official Plan also encourages the supply of new affordable housing in a variety of locations and dwelling types.

The 2016 Draft Official Plan required that the creation of affordable ownership units not be at the expense of affordable rental units. As such, priority shall be given to the retention and creation of affordable rental units.

To do so, the 2016 Draft Official Plan discourages the conversion of rental housing units, particularly condominium conversion of rental housing units. The Draft Official Plan only permits consideration of such conversions when the vacancy rate for rental housing units has been more than 3% for a minimum of three consecutive years, as established by the Canadian Mortgage and Housing Corporation. The 2016 Draft Official Plan also proposes that the demolition of affordable rental housing units be discouraged unless an adequate number of affordable rental housing units at similar rents are included in a development, or unless the building is not habitable as deemed by the City's Chief Building Official.

In order to monitor Brantford's affordable housing availability and future needs, it is recommended that the City update the *Brantford-Brant Housing Stability Plan 2014-2024* every five years upon the availability of relevant Census information.

10 COMMUNITY AREA LAND NEEDS

The Community Area land needs assessment incorporates information and targets set out in the Housing Strategy in Sections 7 and 9 of this report and the intensification target set out in Section 8 of this report. It follows the steps set out in the "Land Needs Assessment Methodology for the Greater Golden Horseshoe".

STEP R1: FORECAST POPULATION GROWTH BY PLANNING PERIOD

The first step is to set out the total population growth to 2031 and 2041. Table 10.1 contains the total population including Census Net Under-coverage as well as the total forecast population for Brantford for 2031 and 2041 as set out in Schedule 3 of the Growth Plan.

Table 10.1 also identifies the household population by subtracting the Census Net Under-coverage for the three time periods and assumes a non-household population rate of 2.39%, which drops slightly to 2.07% in 2031.

TABLE 10.1: POPULATION GROWTH BY PLANNING PERIOD

Population	2016	2031	2041
Total Population*	101,710	139,000	163,000
Census Net Under-coverage rate	3.0%	3.0%	3.0%
Census Population**	98,660	134,830	158,110
Household Population	96,300	130,330	154,710
Non-Household Population	2,360	4,500	3,940
Non-Household Population Rate	2.39%	3.34%	2.49%

*Includes Census Net Under-coverage
** Includes Census population in the Boundary Adjustment Lands
Source: Statistics Canada and Growth Plan

STEP R2: FORECAST TOTAL NUMBER OF HOUSING UNITS REQUIRED TO ACCOMMODATE POPULATION GROWTH IN EACH PLANNING PERIOD.

The second step is to forecast household growth by forecasting household formation rates by the age of the primary household maintainer and then applying those 2016 formation rates to the 2031 and 2041 Census population forecasts by age as shown in Table 10.2.

TABLE 10.2: HOUSEHOLD FORECAST

Census Age	2016 Population by Age	2016 Households by Age of Primary Household Maintainer	2016 Household Formation Rate	2031 Population by Age	2031 Households by Age of Primary Household Maintainer	2041 Population by Age	2041 Households by Age of Primary Household Maintainer
15-19	5,870	130	2.2%	7,640	170	9,840	210
20-24	5,910	990	16.5%	6,490	1,070	8,410	1,390
25-29	6,030	2,330	38.3%	6,780	2,600	8,180	3,140
30-34	6,370	3,210	50.0%	8,470	4,230	8,700	4,350
35-39	6,190	3,260	52.1%	9,020	4,700	8,940	4,660
40-44	6,130	3,370	54.5%	8,500	4,630	10,120	5,510
45-49	6,170	3,510	56.1%	8,400	4,710	10,310	5,780
50-54	7,270	4,180	56.8%	7,980	4,530	9,700	5,510
55-59	7,050	4,150	57.9%	7,680	4,450	9,400	5,440
60-64	6,480	3,770	57.5%	7,760	4,460	9,010	5,180
65-69	5,510	3,410	60.9%	8,480	5,170	8,540	5,210
70-74	3,830	2,400	61.7%	7,650	4,720	8,060	4,980
75-79	2,800	1,770	62.3%	6,320	3,940	8,080	5,030
80-84	2,180	1,460	65.8%	4,670	3,070	6,510	4,280
85-89	1,530	870	55.9%	2,650	1,480	4,420	2,470
90+	920	450	48.0%	1,590	760	3,040	1,460
Total Households		**39,220**			**54,700**		**64,590**

Source: Hemson Consulting

Household growth from Table 10.2 is summarized in Table 10.3 with the addition of the household growth from 2016 to 2021. It is assumed for the purpose of this Municipal Comprehensive Review that 2021 will be the Provincial approval date of the new Official Plan.

TABLE 10.3: HOUSEHOLD FORECAST BY FORECAST PERIOD, INCLUDING 2021

Planning Period	Total Households	Planning Period	Household Growth
2016	39,220	-	-
2021	41,070	2016-2021	1,850
2031	54,700	2021-2031	13,630
2041	64,590	2031-2041	9,890
Total Growth		**2016-2041**	**25,370**

Source: Hemson Consulting

Table 10.4 shows the household growth forecast plus a growth forecast for units not occupied by usual residents, which may be students, seasonal residents or vacant units.

Brantford does not have any significant numbers of seasonal residents but does have post-secondary students at the Wilfrid Laurier University Campus and Conestoga College. Currently there are 3,000 students at the Laurier campus. 600 students live on campus and another 300 live in private programmed student housing. It is assumed that another third of the students live in off-campus market housing. The University forecasts the student population could increase to 8,000. If the proportion of students living on-campus, off-campus and at home/commute remains the same, approximately 2,500 students will require additional housing. Assuming a student per unit rate of 2.5, another 1,000 student units will be required.

In terms of vacant units, Brantford currently has 8,000 apartments. The intensification strategy assumes another 6,450 apartment units in the Built-up Area. Assuming a vacancy rate of 3% for apartment units only, there would be approximately 200 additional vacant units by 2041. It is assumed that the vast majority of the growth in housing units not occupied by usual residents will be in the Built-up Area.

TABLE 10.4: HOUSING UNIT GROWTH BY FORECAST PERIOD, INCLUDING GROWTH IN UNITS NOT OCCUPIED BY USUAL RESIDENTS

Planning Period	Household Growth	Growth in Housing Units Not Occupied by Usual Residents	Growth in Total Housing Units
2016-2021	1,850	25	1,875
2021-2031	13,630	600	14,230
2031-2041	9,890	575	10,465
Total	**25,370**	**1,200**	**26,570**

STEP R3: ALLOCATE HOUSING UNITS TO EACH POLICY AREA FOR EACH PLANNING PERIOD

In Step R3, the housing unit growth by forecast period is allocated to each of the three policy areas in order to meet the intensification targets in the Built-up Area and any anticipated Rural Area growth. The proportion to the DGA is the amount of growth left over after allocation to the Built-up Area and the Rural Area as shown in Tables 10.5 and 10.6.

TABLE 10.5: FORECAST SHARE OF HOUSING UNIT GROWTH BY POLICY AREA

Planning Period	Delineated Built-up Area	Designated Greenfield Area	Rural Area	Total
2016-2021	40%	60%	0 %	100%
2021-2031	45%	55.2%	-0.2%	100%
2031-2041	50%	50.6%	-0.6%	100%
Total	**46.6%**	**53.7%**	**-0.3%**	**100%**

TABLE 10.6: FORECAST HOUSING UNIT GROWTH BY POLICY AREA

Planning Period	Delineated Built-up Area	Designated Greenfield Area	Rural Area	Total
2016-2021	750	1,125	0	1,875
2021-2031	6,400	7,855	-25	14,230
2031-2041	5,230	5,295	-60	10,465
Total	**12,380**	**14,275**	**-85**	**26,570**

To achieve the graduated intensification target proposed in Table 10.5, 12,380 new units will need to be constructed in the Built-up Area by 2041. It is recommended that the unit targets for the Built-up Area by planning period be included within the new Official Plan.

After allocation of housing units to the three policy areas in Table 10.6, the units not occupied by usual residents as set out in Table 10.7 are removed from the housing unit total to yield occupied housing units, or household growth, as shown in Table 10.8. The removal of the households not occupied by usual residents is required to determine the DGA density requirement, as those households do not count towards the DGA density target.

TABLE 10.7: FORECAST GROWTH IN HOUSING UNITS NOT OCCUPIED BY USUAL RESIDENTS				
Planning Period	**Delineated Built-up Area**	**Designated Greenfield Area**	**Rural Area**	**Total**
2016-2021	25			25
2021-2031	600			600
2031-2041	550	25		575
Total	**1,175**	**25**		**1,200**

TABLE 10.8: FORECAST HOUSEHOLD GROWTH BY POLICY AREA IN OCCUPIED HOUSEHOLDS				
Planning Period	**Delineated Built-up Area**	**Designated Greenfield Area**	**Rural Area**	**Total**
2016-2021	725	1,125	0	1,850
2021-2031	5,800	7,855	-25	13,630
2031-2041	4,680	5,270	-60	9,890
Total	**11,205**	**14,250**	**-85**	**25,370**

The total occupied households by policy area in the four planning periods are then calculated as shown in Table 10.9.

TABLE 10.9: FORECAST HOUSEHOLDS BY POLICY AREA				
Planning Period	**Delineated Built-up Area**	**Designated Greenfield Area**	**Rural Area**	**Total**
2016	37,060	2,160[9]	180	39,400
2021	37,785	3,285	180	41,250
2031	43,585	11,140	155	54,880
2041	48,265	16,410	95	64,770

[9] From Built units in Table 9.2 (2,117) and Tutela Heights built units in Table 9.5 (267) minus building permits issued in 2017 in Table 7.5 (229) equals 2,155 rounded to 2,160.

STEP R4: FORECAST POPULATION OF EACH POLICY AREA

In the fourth step the total households from Step R3 are translated back into permanent population, by applying persons per unit (PPU) to the three policy areas: Built-up Area, DGA and Rural. Table 10.10 sets out the overall PPU by each milestone year. The PPU is anticipated to decline to 2031 and then level off, as was shown on Table 7.12 in Section 7.6.

TABLE 10.10: PERSONS PER UNIT FORECAST

Planning Period	Household Population	Households	Person Per Unit
2016	96,285	39,400	2.44
2021	100,650	41,250	2.44
2031	130,330	54,880	2.37
2041	154,170	64,770	2.38

Table 10.11 calculates the household growth from 2016 to 2041 by policy area from Table 10.9.

TABLE 10.11: HOUSEHOLDS, 2016, 2041 AND 2016 TO 2041 GROWTH

Planning Period	Delineated Built-up Area	Designated Greenfield Area	Rural Area	Total
2016	37,060	2,160	180	39,400
2041	48,265	16,410	95	64,770
2016-2041	**11,205**	**14,250**	**-85**	**25,370**

A 2016 PPU by policy area is applied to the existing units in 2016, and a 2041 PPU is applied to the same units in 2041. The lower PPU rates in 2041 reflect the aging of the population in the existing 2016 dwellings as shown in Table 10.12.

TABLE 10.12: EXISTING 2016 HOUSEHOLDS IN 2016 AND 2041

Planning Period	Delineated Built-up Area	Designated Greenfield Area	Rural Area	Total
Existing Households in 2016	37,060	2,160	180	39,400
2016 PPU*	2.42	2.84	2.58	
Household Population in 2016	89,685	6,135	465	96,285
Existing Households in 2041	37,060	2,160	180	39,400
2041 PPU *	2.15	2.52	2.3	
Household Population in 2041	79,680	5,445	415	85,540

* PPU for units existing in 2016. See Table 7.13

A 2041 PPU for new units was applied to the unit growth between 2016 and 2041 using higher PPU's indicative of housing with younger families, as shown in Table 10.13.

TABLE 10.13: NEW UNITS IN 2041

Planning Period	Delineated Built-up Area	Designated Greenfield Area	Rural Area	Total
2016-2041 Household Growth	11,205	14,250	-85	25,370
2041 PPU*	2.2	3.1	2.30	
2041 Household Population in new units	24,650	44,175	-195	68,630

*PPU for new units in 2041. See Table 7.13

Table 10.14 contains the total units and population in 2016 and 2041. The 2041 totals are determined by adding the new growth from Table 10.13 to the 2016 units and population aged to 2041 from the lower half of Table 10.12.

TABLE 10.14: TOTAL UNITS IN 2016 AND 2041

Planning Period	Delineated Built-up Area	Designated Greenfield Area	Rural Area	Total
2016 Households	37,060	2,160	180	39,400
2016 PPU	2.42	2.84	2.58	
2016 Household Population	89,685	6,135	465	96,285
2041 Households	48,265	16,410	95	64,770
2041 PPU	2.16	3.02	2.3	
2041 Household Population	104,330	49,620	220	154,170

Step R4c in the Land Needs Assessment Methodology requires the non-household population rate to be added to the household population and the Census Net Under-coverage to be added to arrive at the population by policy area for 2016 (Table 10.15).

TABLE 10.15: TOTAL POPULATION IN 2016				
2016 Total Population	**Delineated Built-up Area**	**Designated Greenfield Area**	**Rural Area**	**Total**
Household Population	89,685	6,135	465	96,285
Non-Household Population Rate	2.39%	2.39%	2.39%	2.39%
Non-Household Population	2,195	155	15	2,365
Census Population	91,880	6,290	480	98,650
Net Under-coverage Rate	3.00%	3.00%	3.00%	3.00%
Total Population	94,720	6,485	495	101,700

The same process is then undertaken for the 2041 population as shown in Table 10.16.

TABLE 10.16: TOTAL POPULATION IN 2041				
2041 Total Population	**Delineated Built-up Area**	**Designated Greenfield Area**	**Rural Area**	**Total**
Household Population	104,330	49,620	220	154,170
Non-Household Population Rate	2.49%	2.49%	2.49%	2.49%
Non-Household Population	2,665	1,270	5	3,940
Census Population	106,995	50,890	225	158,110
Net Under-coverage Rate	3.00%	3.00%	3.00%	3.00%
Total Population	110,305	52,465	230	163,000

STEP R5: CALCULATE THE MINIMUM NUMBER OF RESIDENTS AND JOBS TO BE ACCOMMODATED IN THE EXISTING DESIGNATED GREENFIELD AREA (DGA)

In step five, the minimum number of residents (population) and jobs (employment) that are planned to be accommodated in the current or Existing DGA is calculated at build out in 2041.

To provide a comparative population in 2041, the population of the developed DGA existing in 2016 aged to 2041, as set out in Table 10.12, and the population in units built in 2017 aged to 2041, are both included. The rest of the minimum population is from Table 9.15, but with vacant lands increased in density, as discussed in Section 9.4, to 18 units per gross hectare on Low Density Residential lands and to 16.5 on Suburban Residential lands. This increase in density on the remaining vacant lands without application adds a further potential for 890 units, for a total potential of 7,700 units on the unbuilt portion of the Existing DGA. For development on vacant land between 2021 and 2031, the PPU was increased. Finally, the non-household population and Census Net Under-coverage is added as shown in Table 10.17.

Table 10.17 CALCULATION OF POPULATION IN EXISTING DGA IN 2041

Status	Population
Built by 2016 aged to 2041 (Table 10.12)	5,445
Built in 2016-2017 aged to 2041[10]	577
Registered (Table 9.15)	1,070
Draft Approved (Table 9.15)	4,649
Application (Table 9.15)	3,297
Vacant with 2031 PPU*	13,213
Household Population	**28,231**
Non-Household Population (@2.49%)	721
Census Population	**28,952**
Net Under-coverage Rate	3%
Total Population	**29,847**

* 2031 PPU used from Table 7.14

The 2041 population in the Existing DGA of 29,847 is added to Table 10.18. The 2041 employment in the Existing DGA of 1,496 includes total employment already built and anticipated (in registered and draft approved plans of subdivision, active applications and vacant land) from Table 9.15, plus additional work-at-home employment in the extra 890 units resulting from increased density in the vacant lands.

[10] From building permits issue in 2017 in Table 7.5, which was 229 units multiplied by a PPU of 2.52 for 2041 units existing in 2016 from Table 7.13.

The Existing Designated Greenfield Area with take-outs, or net-outs as referred to in the Land Needs Assessment Methodology, is 664 hectares, as set out in Table 10.18 and as described earlier in Table 9.1.

This population and employment result in an overall density of 47 residents and jobs combined per hectare within the Existing DGA including lands already built upon.

Table 10.18: MINIMUM POPULATION AND EMPLOYMENT PLANNED FOR EXISTING DESIGNATED GREENFIELD AT 2041	
Population	29,847
Employment	1,496
Total (Residents and Jobs)	**31,344**
Existing Designated Greenfield Area with Net-Outs (ha)	
Total Designated Greenfield Area	2,039.6
Less Natural Heritage System	(896.5)
Less Major Infrastructure Right-of-ways	(76.0)
Less Employment Areas	(390.4)
Less Cemeteries	(12.7)
Existing Designated Greenfield Area (ha)	664.0
Existing Designated Greenfield Area Density	
Density in residents and jobs combined per hectare	**47.2**

This density is less than the 2013 Growth Plan DGA density requirement of 50 residents and jobs combined per hectare, but that is largely due to the very low density within the existing built portion of Tutela Heights which was brought into the Brantford Settlement Area through the municipal boundary adjustment. If the built portion of the DGA is omitted from the calculation of density, the Existing DGA could achieve a density of 56 residents and jobs combined per hectare, which exceeds the 2013 Growth Plan DGA density requirement. The Land Needs Assessment Methodology recognizes this situation and notes that the density targets in an existing Official Plan may have to be adjusted to account for development in an undelineated Built-up Area such as Tutela Heights.

STEP R6: ESTABLISH COMMUNITY AREA LAND NEED

In the final step, we determined whether there is sufficient land in the Existing DGA or whether a Settlement Area boundary expansion is required. In this step, the total 2041 population forecast in the DGA from Table 10.16,and the 2041 employment allocated to the DGA in Table 6.14, are input to Table 10.19, along with the total residents and jobs from Table 10.18 that can be accommodated within the Existing DGA.

TABLE 10.19: 2041 DGA RESIDENTS AND JOBS	
Population	52,465
Employment	6,451
Total Residents and Jobs in DGA	**58,916**
Less Minimum Residents and Jobs to be accommodated in Existing DGA	31,344
Total Residents and Jobs in New DGA	**27,572**

As shown in Table 10.19, a Settlement Area boundary expansion is required to accommodate 27,572 residents and jobs in new Community Area DGA lands (i.e. New DGA).

To determine how much land area the residual residents and jobs in Table 10.19 will require, the total residents and jobs in the New DGA is divided by the density target of 60 residents and jobs combined per hectare recommended in Section 9.5. As a result, a total of 460 hectares of new Community Area DGA lands are required through a Settlement Area expansion as shown in Table 10.20.

TABLE 10.20: NEW DESIGNATED GREENFIELD AREA TOTAL	
Total Residents and Jobs in New DGA	**27,572**
Divided by Minimum DGA Density Target in New Community Area DGA	60
New Community Area land need (ha)	**460**

11 CONCLUSION

The purpose of this MCR Part 1 Report is to document the first components of the MCR. Key outcomes and findings described in this report include:

- the recommended density of employment lands;
- the identification of employment lands to be converted to non-employment uses;
- the amount of employment lands needed to accommodate the 2041 forecasts;
- the recommended alternative Built-up Area intensification target;
- the recommended refinement of the boundary of the Downtown Brantford Urban Growth Centre;
- the recommended Designated Greenfield Area density target;
- the amount of additional community lands (which includes residential, commercial, institutional and open space) needed to accommodate the 2041 forecasts; and
- the amount of the Boundary Adjustment Lands that need to be brought into Brantford's Settlement Area boundary to accommodate forecast population and employment growth to the year 2041.

Recommended Density of Employment Lands

The Employment Strategy forecasts an employment density for Employment Areas of 23 jobs per hectare based on current site coverage, an allowance for long term vacancy due to site configuration and ownership issues, and the evolving nature of Employment Areas in Brantford. Population-Related Employment in Employment Areas is forecast at a density of 64 jobs per hectare.

Identification of Employment Lands to be Converted to Non-employment Uses

The employment land conversion component of the Employment Strategy recommends protection of two large, newly developing Employment Areas: Braneida Industrial Park and the Northwest Industrial Park; as well as five smaller, older built industrial areas. The study recommends conversion of 66 hectares of employment designated lands comprising lands currently designated Mixed Industrial Commercial and General Industrial lands along the City's Intensification Corridors, as well as some scattered older industrial areas that are embedded within historic stable residential neighbourhoods and unlikely to be used for employment purposes in the future.

Amount of Employment Area Lands Needed to Accommodate the 2041 Forecasts

The land needs assessment calculated the Employment Area land needs and determined that an additional 336 hectares of land beyond that currently located within the City's existing

Settlement Area boundary are required to meet the 2041 employment forecasts.

Refinement of the Boundary of the Downtown Brantford Urban Growth Centre

The Intensification Strategy recommended that the boundary of the Urban Growth Centre be adjusted. The adjusted boundary, as seen in **Figure 8**, reduces the total area of the Urban Growth Centre from 130 hectares to 104 hectares.

Recommended Alternative Built-up Area intensification target

An alternative intensification target is recommended for the Built-up Area. The report recommends a graduated intensification target that maintains the current 40% intensification target to 2021, increases it to 45% between 2021 and 2031, and further increases it to 50% between 2031 and 2041. The report also recommends the allocation of the 12,400 intensification units to the various intensification areas within the Built-up Area.

Recommended Designated Greenfield Area Density Target

The Housing Strategy recommends an alternative Designated Greenfield Area density target of 52 residents and jobs combined per hectare over the entire Designated Greenfield Area, with additional area specific targets to be established in the new Official Plan to help achieve the overall target. Therefore, it is also recommended that the Designated Greenfield Area within the current Settlement Area boundary (i.e. the Existing DGA) be planned to meet a density 47 residents and jobs combined per hectare, while the remaining unbuilt lands within the current Settlement Area boundary be planned for a density of 55 residents and jobs combined per hectare. New Community Area Designated Greenfield Areas within the Boundary Adjustment Lands (i.e. the New DGA) are recommended to achieve a minimum density of 60 residents and jobs combined per hectare.

Amount of Additional Community Area Lands Needed to Accommodate the 2041 Forecasts

Lastly the report calculates the Community Area land needs following the Province's Land Needs Assessment Methodology. The draft land needs assessment determined that an additional 460 hectares of land beyond that currently located within the City's current Settlement Area boundary are required to meet the 2041 population forecasts.

Amount of the Boundary Adjustment Lands that Need to be Brought into Brantford's Settlement Area boundary

To accommodate the additional Employment Area land needs identified in Section 6 (363 hectares) and the additional Community Area land needs identified in Section 10 (460 hectares), a Settlement Area boundary expansion is required.

The potential locations of that Settlement Area boundary expansion are evaluated in the MCR Part 2 Report.

Appendix A

New Apartment Units in the Built-up Area

Appendix A - New Apartment Units in the Built-up Area

Apartment Construction by Project				
Year	Units	Address	Type	Notes
2007	28	115 SHERWOOD DR	conv/alt	former 2 storey industrial building converted to 28 apartments
	26	6 BELL LANE	new	new, 2 storey Bell Lane Terrace apartment building, part of the John Noble Home seniors retirement complex
	12	75 DALHOUSIE ST	new	12 units above ground floor commercial in new 4 storey building at 75 Dalhousie Street (Bodega Inn, west side of Harmony Square)
	4	117 MARKET ST	conv/alt	4 units in existing 2 storey building
	1	667 GREY ST	conv/alt	add unit in existing 2 storey multiple
	71	**SUBTOTAL**		
2008	10	251 COLBORNE ST	conv/alt	10 ground floor units added in existing 3 storey Uptown Downtown Suites building
	3	163 MARKET ST	conv/alt	addition of second floor apartments above ground floor commercial
	3	38 SHERIDAN ST	triplex new	new triplex
	3	40 SHERIDAN ST	triplex new	new triplex
	2	258 WEST ST	conv/alt	add 2 units in existing 7 storey apartment building (West Park Tower)
	1	84 1/2 COLBORNE ST	conv/alt	add 1 unit in existing 3 storey building
	1	643 GREY ST	conv/alt	add 6th unit in existing 2 storey multiple
	23	**SUBTOTAL**		
2009	34	351 COLBORNE ST	conv/alt	McHutchion Lofts, conversion and 3rd storey addition to existing building
	18	54 WINNIETT ST	new	18 units in new, 3 storey building
	15	172 MARKET ST	conv/alt	conversion and addition to existing 2 storey building
	1	56 BARNES AVE	conv/alt	add 1 unit in existing 4 storey apartment building
	1	639 GREY ST	conv/alt	add 5th unit in existing 2 storey multiple
	1	639 GREY ST	conv/alt	add 6th unit in existing 2 storey multiple
	70	**SUBTOTAL**		
2010	40	255 COLBORNE ST	new	40 units above ground floor commercial in new 5 storey building
	30	5 ALFRED ST	new	30 units in new 3 storey apartment building
	4	170 NORTH PARK ST	Fourplex new	new fourplex, units A-D
	4	170 NORTH PARK ST	Fourplex new	new fourplex, units E-H
	4	170 NORTH PARK ST	Fourplex new	new fourplex, units I-L
	4	142 NELSON ST	Fourplex new	new fourplex
	1	29 DUKE ST	Fourplex conv/alt	add 1 unit in existing 2 storey multiple
	1	385 CHATHAM ST	Triplex conv/alt	add third unit to create triplex
	1	315 DARLING ST	Triplex conv/alt	add third unit to create triplex
	1	138 MARKET ST	conv/alt	add 1 unit in existing 2 storey building
	1	655 GREY ST	conv/alt	add 5th unit in existing 2 storey multiple
	91	**SUBTOTAL**		
2011	44	575 PARK RD N	new	new 49 unit, 4 storey apartment building (permits spread between Dec 2011 (44 units) and Jan 2012 (5 units)), Counsel Park Road Place
	17	1 ALFRED ST	new	17 units in new 2 storey apartment building
	15	65 GEORGE ST	conv/alt	conversion of church to residential units
	4	104 MARLBOROUGH ST	conv/alt	former 2 storey industrial building converted to 4 residential units
	1	113 BRANT AVE	Fourplex conv/alt	add 4th unit in existing 2 storey multiple
	1	158 SYDENHAM ST	Fourplex conv/alt	add 1 unit in existing 2 storey multiple
	82	**SUBTOTAL**		

Apartment Construction by Project				
Year	Units	Address	Type	Notes
2012	55	53 DALHOUSIE ST	conv/alt	56 units with ground floor commercial in existing 5 storey Expositor Place (former Brantford Expositor building)
	1	53 DALHOUSIE ST	conv/alt	see record above
	5	575 PARK RD N	new	see record in 2011 for 575 Park Rd N
	2	66 QUEEN ST	Fourplex conv/alt	add 2 units in former semi-detached, 2 1/2 storey dwelling
	1	22 DUNDAS ST E	conv/alt	add basement apartment in 1 storey commercial building
	64	**SUBTOTAL**		
2013	4	124 SHERWOOD DR	Fourplex new	new fourplex
	1	204 DALHOUSIE ST	conv/alt	unit added in existing 1 storey commercial building
	1	150 DARLING ST	conv/alt	add 1 unit in existing 13 storey building
	1	19 LYNNWOOD DR	conv/alt	add 1 unit in existing 6 storey building
	1	268 DALHOUSIE ST	Triplex conv/alt	add third unit to create triplex
	1	166 DARLING ST	Triplex conv/alt	add third unit to create triplex
	9	**SUBTOTAL**		
2014	30	436 POWERLINE RD	new	new 30 unit, 3 storey apartment building (retirement)
	24	180 DALHOUSIE ST	new	new 24 unit, 4 storey apartment building (student rentals)
	2	339 WELLINGTON ST	conv/alt	add 2 basement units in existing 2 storey multiple
	2	50 COLBORNE ST	conv/alt	2 units added in existing 3 storey Turnbull Building (4 King St)
	1	20 PULESTON ST	Triplex conv/alt	add third unit to create triplex
	1	101 WELLINGTON ST	Triplex conv/alt	add third unit to create triplex
	60	**SUBTOTAL**		
2015	153	555 PARK RD N	new	new, 7 storey Harris Place Apartments
	152	335 DUNSDON ST	new	also new, 7 storey Harris Place Apartments
	8	11 WEST ST	conv/alt	conversion of existing 4th storey to 8 residential units
	3	5 SPRING LANE	triplex new	new triplex
	2	84 BRANT AVE	conv/alt	conversion of commercial to 2 residential units in existing 2 storey building
	1	2 MAIN ST	conv/alt	add dwelling unit in existing 2 storey building with ground floor commercial
	1	130 GEORGE ST	Triplex conv/alt	add third unit to create triplex
	320	**SUBTOTAL**		
2016	4	172 NORTH PARK ST	Fourplex new	new fourplex, units M-P
	4	172 NORTH PARK ST	Fourplex new	new fourplex, units Q-T
	4	172 NORTH PARK ST	Fourplex new	new fourplex, units U-X
	2	41 WILLIAM ST	Triplex conv/alt	add 2 units to create triplex
	1	169 DARLING ST	Triplex conv/alt	add third unit to create triplex
	1	73-75 SHERIDAN ST	Triplex conv/alt	add third unit to create triplex
	16	**SUBTOTAL**		
2017	57	97 MOUNT PLEASANT ST	new	new, 4 storey apartment building, part of the John Noble Home seniors retirement complex
	54	85 MORRELL ST	conv/alt	conversion of former 2 storey warehouse
	15	73 MURRAY ST	conv/alt	additional units in a former grocery store within a mixed use building
	1	135 ALBION ST	Fourplex conv/alt	add 4th unit in basement of existing 2 storey multiple
	1	663 GREY ST	conv/alt	add 5th unit in existing 2 storey fourplex
	128	**SUBTOTAL**		
Total	**934**			

Appendix B

New Townhouse Units in the Built-up Area and Designated Greenfield Area

Appendix B - New Townhouse Units the Built-up Area and Designated Greenfield Area

Townhouse Construction By Project - Built Boundary				
Year	**Units**	**Subtotal**	**Type**	**Location**
2007	5		block	1038 Colborne St
2008	8		block	1038 Colborne St
2009	3		block	1038 Colborne St
2010	16		block	1038 Colborne St
		32		unit block townhouse development at 1038 Colborne St
2008	10		block	20 McConkey Cres
2009	14		block	20 McConkey Cres
2010	28		block	20 McConkey Cres
2011	24		block	20 McConkey Cres
2012	21		block	20 McConkey Cres
2013	20		block	20 McConkey Cres
		117		unit block townhouse development at 20 McConkey Cres (including 100 Wayne
2008	7		block	60 Dufferin St
2015	14		block	60 Dufferin St
		21		block towns at 58, 60 and 62 Dufferin St
2007	16	**16**	block	655 Park Rd N (more units were issued permits prior to 2007 at this development)
2007	9	**9**	block	35 Cobden Crt (more units were issued permits prior to 2007 at this development)
2008	13	**13**	block	12 Brantwood Park Rd (was part of 26 Brantwood Park Rd)
2010	33	**33**	block	560 Grey St
2013	1	**1**	block	51 Dundas St East (additional unit added to existing block)
2016	7		block	41 Garden Ave
2017	12		block	41 Garden Ave
		19		block towns at 41 Garden Ave
2008	5		street	2-10 Steed Crt (was 71 Rowanwood Ave)
2007	11		street	12-32 Steed Crt (was 71 Rowanwood Ave)
2008	4		street	68-74 Rowanwood Ave (was part of 560 Grey St)
		20		street towns at Rowanwood/Steed Court
2015	22		street	33-55 and 36-54 Banks St
2013	10		street	56-64 and 57-65 Banks St
2013	6		street	86A, 86B, 88A, 88B, 90A, 90B Wilkes St
		38		street towns former brownfield redevelopment at Banks/Wilkes St
2011	10		street	177-187 and 200-206 Thomas Ave
2012	5		street	188-196 Thomas Ave
2013	22		street	148-158, 176-182, 149-161 and 167-175 Thomas Ave
2013	9		street	10-18 and 26-32 and Cline Rd
		46		street towns in Thomas Ave/Cline Rd area
2007	9	**9**	street	23A, B and C, 25A, B and C, 27A, B and C Mohawk St
2008	3	**3**	street	36-40 Terrace Hill St
2008	6	**6**	street	5A, B and C and 7A, B and C Walnut St
2009	3	**3**	street	71A, B and C Gilkison St
2012	3	**3**	street	20-24 Jubilee Ave
2012	3	**3**	street	26-30 Bond St
2013	3	**3**	street	188, 190 and 192 Albion St
2014	3	**3**	street	435A, B and C Nelson St
2015	4	**4**	street	60-66 Dublin St (87 North Park St)
2016	12	**12**	street	30-52 Leonard St
Total Block Townhouse		**261**		
Total Street Townhouse		**153**		
TOTAL TOWNHOUSES BUA		**414**		

Table 5.6: Townhouse Construction by Project – Greenfield (DGA)				
Year	**Units**	**Subtotal**	**Type**	**Location**
2010	18		block	21 Diana Ave (at Shellard Lane)
2011	9		block	21 Diana Ave (at Shellard Lane)
2013	8		block	21 Diana Ave (at Shellard Lane)
2014	30		block	21 Diana Ave (at Shellard Lane)
2015	37		block	21 Diana Ave (at Shellard Lane)
2016	36		block	21 Diana Ave (at Shellard Lane)
		138		unit block townhouse development at 21 Diana Ave
2009	20		block	220 Blackburn Drive, units 13-16 and 25-40
2007	14		block	220 Blackburn Dr, units 1-6 and 17-24
2008	6		block	220 Blackburn Dr, units 7-12
		40		unit block townhouse development at 220 Blackburn Dr
2016	6		block	40 Heath St
2017	5		block	40 Heath St
		11		block townhouses at 40 Heath St
2011	25	**25**	block	55 Diana Ave, part of the Seasons Bell Lane retirement community
2012	26		street	56-96 and 75-83 English Lane
2011	11		street	63-73 and 85-93 English Lane
2016	17		street	101-133 English Lane
2015	15		street	135-163 English Lane
2013	12		street	213-235 Powell Rd
2016	19		street	218-254 Powell Rd
2014	14		street	237-251 and 255-265 Powell Rd
2015	22		street	256-284 and 267-279 Powell Rd
2012	6		street	78-88 Bisset Ave
2013	31		street	79-115 and 90-112 Bisset Ave
		173		street townhouses in same area
2009	6		street	16-26 Duncan Ave
2008	6		street	28-38 Duncan Ave
2007	18		street	40-74 Duncan Ave
2007	5		street	210-218 Blackburn Dr
2010	6		street	226-236 Blackburn Dr
2008	4		street	238-244 Blackburn Dr
2009	6		street	246-256 Blackburn Dr
		51		street townhouses, surrounding the block towns at 220 Blackburn Dr
2011	39	**39**	street	231-241 Blackburn Dr (6 towns); 2-20 Avedisian St (10 towns); 1-11, 15-25, 8-16 and 26-36 Dwyer Crt (23 towns)
2017	52		street	1-11, 33-63 and 2-60 Butcher Cres
2017	46		street	1-11, 25-47, 6-10 and 14-62 Cole Cres
2017	38		street	1-31, 35-45 and 2-32 Longboat Run West
		136		street townhouses in same area
Total Block Townhouse		**214**		
Total Street Townhouse		**399**		
TOTAL TOWNHOUSES DGA		**613**		

Appendix C

Intensification Supply and Analysis

Appendix C: Intensification Supply and Analysis

Appendix C provides the details of the intensification analysis discussed in Section 8.3 and summarized in Section 8.4 of this report. The intensification analysis discussed in this appendix is based on the capacity assessment methodology outlined in Section 8.2.

Urban Growth Centre

Lower Downtown

The Lower Downtown has substantial redevelopment potential. The following analysis has identified a potential development of 200 to 1,076 total units for the Lower Downtown. The development potential for each block is further analyzed in the following tables.

TABLE 6.1 LOWER DOWNTOWN SUMMARY

Scenario	Singles/Semis		Townhouse		Apartment		Total	
	Low	High	Low	High	Low	High	Low	High
A	0	0	0	0	200	723	200	723
B	0	0	0	0	200	723	200	723
C	0	0	0	0	399	1076	399	1,076

BLOCK 1 - Casino/Civic Centre Site

Potential for intensification exists through redevelopment of parking lots. Structured parking could be used to make sites available for mixed-use development. However, existing uses are likely to remain.

TABLE 6.2: TRANSPORTATION SCORE

Area	Score	Comments
B1	1	Good network capacity, good access, good/direct connections in downtown (auto/transit)

TABLE 6.3 SERVICING SCORE

Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
B1	1	3	2	2	Potentially challenging stormwater servicing due to floodplain. Downstream wastewater pump station upgrade likely needed; upgrade to support multiple intensification areas.

Intensification Potential – *Significant*
Scenario A: 17 - 75 Apartments
Scenario B: 17 - 75 Apartments
Scenario C: 33 - 94 Apartments

BLOCK 2

This block has a typical suburban retail lot coverage, with plenty of parking. The block could redevelop for more urban mixed-use developments. Currently the site includes a grocery store, beer store, and LCBO, as well as service commercial uses and various fast food restaurants that are all relatively new, and typical suburban built forms.

TABLE 6.4: TRANSPORTATION SCORE		
Area	Score	Comments
B2	1	Good network capacity, good access, good/direct connections in downtown (auto/transit)

TABLE 6.5: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
B2	1	3	2	2	Potentially challenging stormwater servicing due to floodplain. Downstream wastewater pump station upgrade likely needed; upgrade to support multiple intensification areas.

Intensification Potential – *Modest*
Scenario A: 53 - 162 Apartments
Scenario B: 53 - 162 Apartments
Scenario C: 107 - 324 Apartments

BLOCK 3

This block is a complex site that includes old rail lines, gas station, employment uses, and land set aside for the future eastward extension of Veterans Memorial Parkway.

TABLE 6.6: TRANSPORTATION SCORE		
Area	Score	Comments
B3	1	Good network capacity, good access, good/direct connections in downtown (auto/transit)

TABLE 6.7: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
B3	1	3	2	2	Potentially challenging stormwater servicing due to floodplain. Downstream wastewater pump station upgrade likely needed; upgrade to support multiple intensification areas.

Intensification Potential – *Significant*
Scenario A: 72 - 326 Apartments
Scenario B: 72 - 326 Apartments

Scenario C: 143 - 408 Apartments

BLOCK 4 - Brantford Convention Centre Site

This site has tremendous potential for comprehensive urban redevelopment.

TABLE 6.8: TRANSPORTATION SCORE		
Area	Score	Comments
B4	1	Good network capacity, good access, good/direct connections in downtown (auto/transit)

TABLE 6.9: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
B4	1	3	2	2	Potentially challenging stormwater servicing due to floodplain. Downstream wastewater pump station upgrade likely needed; upgrade to support multiple intensification areas.

Intensification Potential – *Significant*
Scenario A: 20 - 93 Apartments
Scenario B: 20 - 93 Apartments
Scenario C: 41 - 116 Apartments

BLOCK 5 [Sites B5, B6, B7, B8] - Residential Blocks

These blocks contain primarily smaller scale commercial and residential land uses, as well as the former location of the Brantford Family YMCA, now the society of St. Vincent de Paul Thrift Store. There are a number of vacant sites identified on the City's data base –B5, B6, B7, B8. These blocks have a favourable land use designation in the existing and proposed Official Plans and can be expected to redevelop for more intense land uses over time. However, there are a significant number of existing houses within the blocks and sites. These properties traditionally take longer to redevelop.

TABLE 6.10: TRANSPORTATION SCORE		
Area	Score	Comments
B5	1	Good network capacity, good access, good/direct connections in downtown (auto/transit)
B6	2	No access to appropriate street type, poor access to transit
B7	1	Good network capacity, good access, good/direct connections in downtown (auto/transit)
B8	3	No access to appropriate street type, poor access to transit

TABLE 6.11: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
B5	1	1	1	1	
B6	1	1	1	1	
B7	1	1	2	1	Potentially challenging stormwater servicing due to floodplain.
B8	1	1	1	1	

Intensification Potential – *Modest*
Scenario A: 38 - 66 Apartments
Scenario B: 38 - 66 Apartments
Scenario C: 75 - 123 Apartments

<u>Historic Mainstreets</u>
The Historic Mainstreets have relatively modest redevelopment potential given the historic context, and the desire to accommodate new growth within the existing historic building envelopes. However, there are several vacant sites that do have development potential that needs to be considered in this exercise.

Overall, within the Historic Mainstreets designation, development should be in a mixed-use Mid-Rise form - up to 6 storeys at densities ranging from 55 to 74 uph net, or in a mixed-use High-Rise form - up to 8 storeys at densities ranging from 75 to 100 uph net. Townhouses are not permitted in the Historic Mainstreets designation.

TABLE 6.12: HISTORIC DOWNTOWN SUMMARY								
Scenario	**Singles/Semis**		**Townhouse**		**Apartment**		**Total**	
	Low	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**
A	0	0	0	0	92	184	92	184
B	0	0	0	0	92	184	92	184
C	0	0	0	0	183	344	183	344

BLOCK 10 and B9
Overall, these blocks include the historic elements of the Downtown where achieving the intensification potential can be complex and will need to be in keeping within the heritage character of the downtown district. Intensification in Block 10 is more about converting existing buildings, rather than substantial redevelopment. The block is not considered a major intensification area. Block 10 includes Vacant Site B9. B9 is a vacant site, in a prominent location.

Any redevelopment within Block 10 should be in a mixed-use Mid-Rise form – up to 6 storeys at densities ranging from 55 to 74 uph net.

TABLE 6.13: TRANSPORTATION SCORE		
Area	Score	Comments
B9	1	Good network capacity, good access, good/direct connections in downtown (auto/transit)
B10	1	Good network capacity, good access, good/direct connections in downtown (auto/transit)

TABLE 6.14: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
B9	1	1	1	1	
B10	1	1	1	1	

Intensification Potential for B9 and Block 10 – *Modest*
Scenario A: 84 - 151 Apartments
Scenario B: 84 - 150 Apartments
Scenario C: 169 - 303 Apartments

B11 - VACANT SITE

This is a vacant site, in a prominent location.

This site should accommodate new development in a mixed-use Mid-Rise and High-Rise Apartment housing - up to 12 storeys (and potentially taller), and at densities ranging from 55 to 125 uph net.

TABLE 6.15: TRANSPORTATION SCORE		
Area	Score	Comments
B11	1	Good network capacity, good access, good/direct connections in downtown (auto/transit)

TABLE 6.16: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
B11	1	1	1	1	

Intensification Potential – *Significant*
Scenario A: 7 - 33 Apartments
Scenario B: 7 - 33 Apartments
Scenario C: 14 - 41 Apartments

Upper Downtown

The Upper Downtown designation includes a number of distinct and diverse areas that will have significantly different potential for accommodating intensification opportunities over time. Given the favourable existing and proposed Official Plan development policies, residential intensification, in appropriate locations, should include both Mid-Rise and High-Rise buildings, up to 8 storeys, and at densities ranging from 55 to 100 uph net.

TABLE 6.17: UPPER DOWNTOWN SUMMARY								
Scenario	**Singles/Semis**		**Townhouse**		**Apartment**		**Total**	
	Low	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**
A	0	0	0	0	121	271	121	271
B	0	0	0	0	121	271	121	271
C	0	0	0	0	235	542	235	542

BLOCK 12

This area includes a substantial and growing institutional / administrative function, as well as a transit hub and some service commercial/office functions. It is anticipated that the institutional/administrative functions will continue to expand. As a result, the contribution to residential intensification, other than for student focused housing, is expected to be limited.

However, where residential intensification is to be considered, redevelopment should include both Mid-Rise and High-Rise buildings, up to 8 storeys, and at densities ranging from 55 to 100 uph net.

TABLE 6.18: TRANSPORTATION SCORE		
Area	Score	Comments
B12	1	Good network capacity, good access, good/direct connections in downtown (auto/transit)

TABLE 6.19: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
B12	2	2	1	2	Potential local infrastructure capacity limitations. Upgrades may be needed to support growth.

Intensification Potential – *Modest*
Scenario A: 90 - 217 Apartments
Scenario B: 90 - 217 Apartments
Scenario C: 179 - 434 Apartments

BLOCK 13

This area is characterized as a primarily low density residential neighbourhood, focused on Central Public School and Central Park. It is expected that this neighbourhood will remain stable for some time, but will be under pressure to convert houses into student apartments, or at least a relatively high element of second units. The area is not considered a major intensification area.

Within this Block, residential intensification will focus on conversion of the existing houses into apartments and the development of second units.

TABLE 6.20: TRANSPORTATION SCORE

Area	Score	Comments
B13	1	Good network capacity, good access, good/direct connections in downtown (auto/transit)

TABLE 6.21: SERVICING SCORE

Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
B13	2	1	2	2	Potential local water capacity limitations. Potentially challenging stormwater management requirements.

Intensification Potential – *Low*
Scenario A: 7 - 10 Apartments
Scenario B: 7 - 10 Apartments
Scenario C: 7 - 20 Apartments

BLOCK 14

This block includes the frontages along Market Street and Grey Street. It contains a mix of small scale independent commercial businesses and single detached homes.

However, where residential intensification is to be considered, redevelopment should include Mid-Rise and High-Rise buildings, potentially up to 6 storeys, and at densities ranging from 55 to 74 uph net.

TABLE 6.22: TRANSPORTATION SCORE

Area	Score	Comments
B14	1	Good network capacity, good access, good/direct connections in downtown (auto/transit)

TABLE 6.23: SERVICING SCORE

Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
B14	2	1	2	2	Potential local water capacity limitations. Potentially challenging stormwater management requirements.

Intensification Potential – *Modest*
Scenario A: 24 - 44 Apartments
Scenario B: 24 - 44 Apartments
Scenario C: 49 - 88 Apartments

Urban Growth Centre Summary Potential
The total potential in the Downtown Urban Growth Centre ranges from 412 units in the low range of Scenario A to 1,962 units in the high range of Scenario C. However, in order to achieve a density target of 150 persons & jobs / hectare, a total of 3,900 new units (as noted on page 88) will be required in the Downtown Urban Growth Centre (1,938 more than the highest scenario). The greatest opportunity is in the lower downtown. To achieve the targeted density, the proportion of intensification in the lower downtown will need to increase from 40 to 50% to between 75 and 85%. That assumption requires that 75 to 85% of the entire Lower Downtown will need to redevelop by 2041. A highly unlikely assumption but one that is required to meet the minimum Growth Plan density target.

TABLE 6.24: DOWNTOWN URBAN GROWTH CENTRE SUMMARY

Scenario	Singles/Semis		Townhouse		Apartment		Total	
	Low	High	Low	High	Low	High	Low	High
A	0	0	0	0	412	1,178	412	1,178
B	0	0	0	0	412	1,178	412	1,178
C	0	0	0	0	817	1,962	817	1,962

Mixed-Use Centres

The areas identified as Mixed-Use Centres include most of the City's newer format retail commercial developments - plazas, malls, stand-alone commercial buildings and large format stores, either stand alone or in clusters. These areas are also typically located along the City's primary road network that radiates outward from the Downtown, and which forms the backbone of Brantford's existing and planned transit system.

The current draft of the Official Plan identifies these areas as key destinations and intensification areas based on their transformation from retail commercial centres to mixed-use centres that include Mid-Rise and High-Rise residential apartments, up to 12 storeys, which can achieve densities ranging from 55 to 125 uph net.

TABLE 6.25: MIXED-USE CENTRE SUMMARY

Scenario	Singles/Semis		Townhouse		Apartment		Total	
	Low	High	Low	High	Low	High	Low	High
A	0	0	0	0	1942	8369	1942	8369
B	0	0	618	1852	751	3186	1369	5038
C	0	0	1165	2438	1392	4256	2557	6694

MUC1

This is a large format retail centre that includes plaza forms, significant parking lots and a very large vacant site (L26). To the north and east, the lands are industrial, which limits residential intensification potential, but access to Wayne Gretzky Parkway, which is a likely transit route and Intensification Corridor, enhances the intensification potential, at least on the Wayne Gretzky Parkway frontage. There are also some large vacant industrial properties in proximity.

In this Area, the focus should be on Mid-Rise and High-Rise residential apartments, up to 12 storeys, which can achieve densities ranging from 55 to 125 uph net.

TABLE 6.26: TRANSPORTATION SCORE		
Area	Score	Comments
MUC1	1	Good network capacity, good access, good/direct connections in downtown (auto/transit)

TABLE 6.27: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
MUC1	1	2	1	1	Potential trunk wastewater upgrades needed; upgrades will be needed to service overall City growth and Urban Boundary Expansion Area.

Intensification Potential – *Significant*
Scenario A: 439 - 1,997 Apartments
Scenario B: 140 - 431 Townhouses and 220 - 999 Apartments
Scenario C: 280 - 539 Townhouses and 439 - 1,248 Apartments

MCU2 – Highway 403/Wayne Gretzky Parkway Interchange

This area is the largest agglomeration of retail commercial and service commercial uses in Brantford. It is a relatively typical suburban plaza/mall configuration, including large format retails uses, surrounded by very large surface parking lots. The residential intensification potential of these sites is substantial, taking advantage of the Wayne Gretzky Parkway frontage, and the substantial inventory of large surface parking lots.

- **MCU2A** – The segment north of the 403 Interchange, including the existing enclosed Lynden Park Mall, is wholly functioning as a major retail commercial centre, with expansive surface parking lots. This segment has a significant potential for residential intensification.

  In this segment, the focus should be on Mid-Rise and High-Rise residential apartments, up to 12 storeys, which can achieve densities ranging from 55 to 125 uph net.

Intensification Potential – *Significant*
Scenario A: 383 - 1,742 Apartments
Scenario B: 122 - 376 Townhouses and 192-871 Apartments
Scenario C: 244 - 470 Townhouses and 383-1,089 Apartments

- **MCU2B** – The Lynden Road frontage includes uses that typically require larger land areas like car dealerships and the IKEA store. These uses also have significant redevelopment potential that could include residential intensification opportunities.

  In this segment, the focus should be on Mid-Rise and High-Rise residential apartments, up to 12 storeys, which can achieve densities ranging from 55 to 125 uph net.

  Intensification Potential – *Significant*
  Scenario A: 704 – 3,200 Apartments
  Scenario B: 224 - 691 Townhouses and 352 - 1,600 Apartments
  Scenario C: 448 - 864 Townhouses and 704 - 2,000 Apartments

- **MCU2C** – The lands within the south-west and south-east quadrants of the interchange are a more eclectic mixture of land uses. They have a limited opportunity for residential intensification given their evolving condition from more industrial to more commercial land uses.

  In this segment, the focus should be on Mid-Rise and High-Rise residential apartments, up to 12 storeys, which can achieve densities ranging from 55 to 125 uph net.

  Intensification Potential – *Low*
  Scenario A: 201 - 684 Apartments
  Scenario B 64 - 148 Townhouses and 100 - 342 Apartments
  Scenario C: 64 - 296 Townhouses and 100 - 684 Apartments

TABLE 6.28: TRANSPORTATION SCORE

Area	Score	Comments
MUC2A	3	Access to and across Highway 403 capacity constrained, therefore access downtown problematic. New transit terminal north of Highway 403 would enhance transit opportunities and reduce auto demand in area.
MUC2B	3	Access to and across Highway 403 capacity constrained, therefore access downtown problematic. New transit terminal north of Highway 403 would enhance transit opportunities and reduce auto demand in area.
MUC2C	2	Access to and across Highway 403 capacity constrained, access and capacity to downtown good.

TABLE 6.29: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
MUC2A	2	2	3	3	Existing local infrastructure at capacity. Upgrades needed to support growth.
MUC2B	1	2	1	1	Potential trunk wastewater upgrades needed; upgrades will be needed to service overall City growth and Urban Boundary Expansion Area.
MUC2C	1	2	1	1	Potential trunk wastewater upgrades needed; upgrades will be needed to service overall City growth and Urban Boundary Expansion Area.

MUC3 - Brantford Commons

This area includes a Walmart Super Centre, LCBO, Beer Store and Cinemas on the east side of King George Road. It includes very large parking lots that provide an opportunity for residential intensification, particularly with the establishment of a significant destination/transit hub. The west side of the road is a multi-tenant strip plaza that could eventually be redeveloped with a more urban form of mixed-use development, including intensified residential uses.

From a built form perspective, development should be a Mid-Rise or High-Rise mixed-use building, up to 8 storeys, and at densities ranging from 55 to 100 uph net.

TABLE 6.30: TRANSPORTATION SCORE		
Area	Score	Comments
MUC3	2	Access to and across Highway 403 capacity constrained, therefore access downtown problematic. New transit terminal north of Highway 403 would enhance transit opportunities and reduce auto demand in area.

TABLE 6.31: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
MUC3	1	2	1	1	Potential trunk wastewater upgrades needed; upgrades will be needed to service overall City growth and Urban Boundary Expansion Area.

Intensification Potential – *Significant*
Scenario A: 193 - 702 Apartments
Scenario B: 61 - 189 Townhouses and 96 - 651 Apartments
Scenario C: 123 - 237 Townhouses and 193 - 438 Apartments

MUC4

The majority of the area is a new suburban plaza that includes a Sobey's, Shoppers Drug Mart and Home Hardware, among other service commercial uses. Lot coverage appears to be about 35%, with a large parking lot to serve the commercial uses. There is a vacant lot included in this area that could accommodate a more urban mixed-use development.

From a built form perspective, development should be a Mid-Rise, mixed-use building, up to 6 storeys, and at densities ranging from 55 to 74 uph net.

TABLE 6.32: TRANSPORTATION SCORE

Area	Score	Comments
MUC4	2	Opportunity limited by constrained capacity across river

TABLE 6.33: SERVICING SCORE

Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
MUC4	1	3	1	2	Downstream wastewater pump station upgrade likely needed; upgrade to support multiple intensification areas.

Intensification Potential – *Low*
Scenario A: 22 - 45 Apartments
Scenario B: 7 - 16 Townhouses and 11 - 22 Apartments
Scenario C: 7 - 33 Townhouses and 11 - 45 Apartments

Intensification Corridors

The areas identified as Intensification Corridors include most of the primary roads that radiate out of the Downtown, many connecting to the Major Commercial Centres and hinterland around Brantford, while some also intersect with Highway 403. These primary roads form the backbone of Brantford's existing and planned transit system, and are expected to evolve into mixed-use, higher density corridors in support of the planned urban structure and planned investments in transit.

The 2016 Draft Official Plan identifies these corridors as key intensification areas based on their transformation that is expected to include mid-rise and high-rise residential apartments, up to 8 storeys, which can achieve densities ranging from 55 to 100 uph net.

It is important to note that the 2016 Draft Official Plan does not permit townhouse forms less than 3.5 storeys in the Intensification Corridors, however, given the detailed review of the context of each corridor, in some instances (given road width and lot depth), 2 and 3 storey townhouses could be an appropriate form of intensification, which should be acknowledged in the next draft of the Official Plan. Townhouses, up to 3.5 storeys can achieve densities between 35 and 54 uph net.

TABLE 6.34: INTENSIFICATION CORRIDOR SUMMARY								
Scenario	**Singles/Semis**		**Townhouse**		**Apartment**		**Total**	
	Low	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**
A	0	0	0	131	1,438	3,881	1,438	4,012
B	0	0	915	2,435	0	0	915	2,435
C	0	0	1,652	3,945	0	0	1,652	3,945

CORRIDOR 1 - Brant Avenue

This corridor contains no vacant sites and no vacant buildings. Brantford Collegiate Institute is a key land use in the corridor. The corridor contains small-scale commercial uses, many in former residential buildings. Along the corridor, lots abut low density residential uses, and lot depths are considered shallow.

From a built form perspective, development should be in a Townhouse form, up to 3.5 storeys, and at densities ranging from 35 to 54 uph net.

TABLE 6.35: TRANSPORTATION SCORE		
Area	Score	Comments
C1	2	Good network capacity, good/direct connections into downtown (auto/transit)

TABLE 6.36: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
C1	2	2	3	3	Existing local infrastructure at capacity. Upgrades needed to support growth.

Intensification Potential – *Very Low*
Scenario A: 0 - 27 Townhouses
Scenario B: 0 - 27 Townhouses
Scenario C: 0 - 27 Townhouses

CORRIDOR 2 - St. Paul Avenue

The corridor contains no vacant lots and no vacant buildings. The Brantford General Hospital and Community Midwives of Brantford are two key land uses. Those uses have significant surface parking lots that may have potential for residential intensification. The north west side is predominately low density residential. The south east side contains commercial uses in commercial buildings with lot sizes that have depth to ensure appropriate interface with adjacent residential uses.

From a built form perspective, development should be a Mid-Rise, mixed-use building, up to 6 storeys, and at densities ranging from 55 to 74 uph net.

TABLE 6.37: TRANSPORTATION SCORE		
Area	Score	Comments
C2	3	Future capacity constraints.

TABLE 6.38: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
C2	2	2	3	3	Existing local infrastructure at capacity. Upgrades needed to support growth.

Intensification Potential – *Low*
Scenario A: 69 - 139 Apartments
Scenario B: 44 - 101 Townhouses
Scenario C: 44 - 202 Townhouses

CORRIDOR 3 - Charing Cross Street

The corridor contains no vacant lots and no vacant buildings. The commercial uses along Charing Cross Street are on lots with adequate depth to accommodate an appropriate interface with adjacent low density residential uses.

From a built form perspective, development should be a Mid-Rise, mixed-use building, up to 6 storeys, and at densities ranging from 55 to 74 uph net.

TABLE 6.39: TRANSPORTATION SCORE		
Area	Score	Comments
C3	2	Good adjacent capacity, good access to auto and transit to downtown, capacity access to Highway 403 constrained

TABLE 6.40: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
C3	1	1	1	1	

Intensification Potential – *Modest*
Scenario A: 94 - 168 Apartments
Scenario B: 60 - 123 Townhouses
Scenario C: 119 - 246 Townhouses

CORRIDOR 4 - West Street

The corridor contains no vacant lots and no vacant buildings. Across from Greenwood Cemetery, there are a number of residential uses and the non-residential land uses are on fairly shallow lots up to where the Shoppers Drug Mart is located. From Henry Street to Harris Avenue the uses include institutional buildings and government offices. The Shoppers Drug Mart site is large, and has some residential intensification potential. It would also appear that the lands in the south west quadrant of the Charing Cross Street/West Street intersection remain mostly undeveloped, and lands north of Charing Cross Street, which are currently residential, have potential to intensify due to their adjacency to the Fox Ridge Care Community.

From a built form perspective, development should be a Mid-Rise, mixed-use building, up to 6 storeys, and at densities ranging from 55 to 74 uph net.

TABLE 6.41 TRANSPORTATION SCORE		
Area	Score	Comments
C4	1	Good network capacity, good/direct connections into downtown (auto/transit)

TABLE 6.42 SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
C4	3	1	2	2	Local watermain upgrades needed. Potentially challenging stormwater management requirements.

Intensification Potential – *Modest*
Scenario A: 380 - 682 Apartments
Scenario B: 242 - 497 Townhouses
Scenario C: 484 - 995 Townhouses

CORRIDOR 5 - Henry Street

The corridor contains no vacant lots and no vacant buildings. The south side mostly contains existing residential uses with little opportunity for intensification. The north side is more eclectic in its land use mix, and includes residential and commercial/industrial uses. Either side of Earl Avenue appear to be good locations for higher density development.

From a built form perspective, development should be a Mid-Rise, mixed-use building, up to 6 storeys, and at densities ranging from 55 to 74 uph net.

TABLE 6.43: TRANSPORTATION SCORE		
Area	Score	Comments
C5	2	Fair network capacity, arterial connections have limited capacity

TABLE 6.44: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
C5	3	1	3	3	Existing and downstream infrastructure at capacity. Upgrades needed to support growth.

Intensification Potential – *Very Low*
Scenario A: 0 - 54 Apartments
Scenario B: 0 - 40 Townhouses
Scenario C: 0 - 40 Townhouses

CORRIDOR 6 - Park Road North

The corridor contains no vacant buildings, but a large vacant lot is located at the very north end. This corridor is a newer component of the urban structure and includes relatively new commercial developments and medium density residential uses.

From a built form perspective, development on the vacant site should be a Mid-Rise, mixed-use building, up to 8 storeys, and at densities ranging from 55 to 100 uph net.

TABLE 6.45: TRANSPORTATION SCORE		
Area	Score Transportation	Comments
C6	2	Good capacity accessing Highway 403, poor capacity traversing interchange

TABLE 6.46: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
C6	1	2	1	1	Potential trunk infrastructure upgrades needed. Upgrades will be needed to service overall City growth and Urban Boundary Expansion Area.

Intensification Potential – *Low*
Scenario A: 156 - 426 Apartments
Scenario B: 99 - 230 Townhouses
Scenario C: 99 - 460 Townhouses

CORRIDOR 7 - Erie Avenue

The corridor contains no vacant lots and few vacant buildings. This is a low density residential corridor, with few commercial uses. The residential character of the street remains intact. Lot depths are narrow reflecting their residential function.

From a built form perspective, development should be in a Townhouse form, up to 3.5 storeys, and at densities ranging from 35 to 54 uph net.

TABLE 6.47: TRANSPORTATION SCORE		
Area	Score	Comments
C7	2	Fair network capacity, good/direct connections into downtown (auto/transit)

TABLE 6.48: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
C7	1	2	2	2	Potential trunk infrastructure upgrades needed. Potentially challenging stormwater management requirements.

Intensification Potential – *Very Low*
Scenario A: 0 - 32 Townhouses
Scenario B: 0 - 32 Townhouses
Scenario C: 0 - 32 Townhouses

CORRIDOR 8 - King George Road

This corridor contains some vacant land parcels but no vacant buildings. This is an eclectic corridor that has a mixture of plaza format and large format retail facilities, including relatively large surface parking lots.

- **Segment A**
  South of Highway 403, the corridor is a continuous commercial strip with some plaza form and stand-alone retail and service commercial uses. It contains some new and older buildings. The road is quite wide and serves more typical highway commercial uses. Lot depths are, for the most part appropriate for the commercial developments that they accommodate. The Giant Tiger/Tim Horton's site has the best potential.

  From a built form perspective, development should be a Mid-Rise, mixed-use building, up to 6 storeys, and at densities ranging from 55 to 74 uph net.

  Intensification Potential – *Modest*
  Scenario A: 75 - 135 Apartments
  Scenario B: 48 - 99 Townhouses
  Scenario C: 96 - 197 Townhouses

- **Segment B**
  North of Highway 403, on the west side of King George Road, lots are deep with substantial surface parking lots, mostly located adjacent to the road.

  From a built form perspective, development should be a Mid-Rise, mixed-use building, up to 8 storeys, and at densities ranging from 55 to 100 uph net.

  Intensification Potential – *Significant*
  Scenario A: 262 - 954 Apartments
  Scenario B: 167 - 515 Townhouses
  Scenario C: 334 - 644 Townhouses

TABLE 6.49: TRANSPORTATION SCORE		
Area	Score	Comments
C8A	3	Constrained capacity accessing Highway 403 and traversing interchange
C8B	3	Constrained capacity accessing Highway 403 and traversing interchange

TABLE 6.50: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
C8A	1	1	1	1	
C8B	1	1	1	1	

CORRIDOR 9 - Colborne Street - West of the Grand River

This part of Colborne Street contains an eclectic mix of residential, industrial and commercial uses, all modest in scale. The age and condition of the buildings and the depth of some of the exiting lots could accommodate higher density mixed-use development. The area appears ready to accept new investment, and its proximity to the Downtown is an asset**.**

From a built form perspective, development should be a Mid-Rise, mixed-use building, up to 6 storeys, and at densities ranging from 55 to 74 uph net.

TABLE 6.51: TRANSPORTATION SCORE		
Area	Score Transportation	Comments
C9	2	Good access to downtown though opportunity limited by constrained capacity across river

TABLE 6.52: SERVICING SCORE					
Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
C9	1	3	3	3	Very challenging stormwater servicing due to floodplain and downstream capacity limitations. Downstream wastewater pump station upgrade likely needed; upgrade to support multiple intensification areas.

Intensification Potential – *Modest*
Scenario A: 95 - 171 Apartments
Scenario B: 61 - 125 Townhouses
Scenario C: 121 - 250 Townhouses

CORRIDOR 10 - Colborne Street - East of Downtown

The corridor contains a large vacant site, once accommodating a Canadian Tire store (10.6 acres) along with 4 smaller sites, which are also vacant. There are no vacant buildings.

- **Segment A**
  From Clarence Street to Iroquois Street, the land uses are predominantly residential with some residential conversions to accommodate commercial land uses.

  From a built form perspective, development should be a Mid-Rise, mixed-use building, up to 6 storeys, and at densities ranging from 55 to 74 uph net.

  Intensification Potential – *Low*
  Scenario A: 56 - 133 Apartments
  Scenario B: 36 - 83 Townhouses
  Scenario C: 36 - 166 Townhouses

- **Segment B**
  From Iroquois Street to Lynnwood Drive, there are a number of large commercial uses surrounding the Pauline Johnson Collegiate and Vocational School. This part of the corridor includes some existing apartment buildings as well as the vacant Canadian Tire site.

  From a built form perspective, development should be a Mid-Rise, mixed-use building, up to 12 storeys, and at densities ranging from 55 to 120 uph net.

  Intensification Potential – *Significant*
  Scenario A: 197 - 893 Apartments
  Scenario B: 125 - 386 Townhouses
  Scenario C: 250 - 482 Townhouses

- **Segment C**
  There is another cluster of significant potential for residential intensification on this corridor between Robinson Avenue and James Street on the north side of Colborne Street.

  From a built form perspective, development should be a Mid-Rise, mixed-use building, up to 6 storeys, and at densities ranging from 55 to 74 uph net.

  Intensification Potential – *Significant*
  Scenario A: 54 - 145 Apartments
  Scenario B: 34 - 106 Townhouses
  Scenario C: 69 - 133 Townhouses

- **Segment D**
  The rest of the Colborne Street Corridor is considered to be relatively stable residential area.

  From a built form perspective, development should be in a Townhouse form, up to 3.5 storeys, and at densities ranging from 35 to 54 uph net.

  Intensification Potential – *Very Low*
  Scenario A: 0 - 72 Townhouses
  Scenario B: 0 - 72 Townhouses
  Scenario C: 0 - 72 Townhouses

TABLE 6.53: TRANSPORTATION SCORE

Area	Score Transportation	Comments
C10A	1	Good network capacity, good/direct connections into downtown (auto/transit)
C10B	1	Good network capacity, good/direct connections into downtown (auto/transit)
C10C	1	Good network capacity, good/direct connections into downtown (auto/transit)
C10D	1	Good network capacity, good/direct connections into downtown (auto/transit)

TABLE 6.54: SERVICING SCORE

Area	Score				Comments
	Water	Wastewater	Stormwater	Overall	
C10A	2	1	2	2	Trunk watermain upgrades may be needed; upgrades would also support overall City growth. Potentially challenging stormwater management requirements.
C10B	2	2	1	2	Trunk watermain upgrades may be needed; upgrades would also support overall City growth. Potential for local wastewater upgrades.
C10C	1	1	1	1	
C10D	2	1	2	2	Local watermain upgrades may be needed. Potentially challenging stormwater management requirements.

Appendix D

Designated Greenfield Area Supply Calculations

Appendix D - Designated Greenfield Area Supply Calculations

DGA Development Pipeline

OBJECT ID	Area (hectares)	DGA_Type	Status	Land Use	Registered Plan	Singles & Semis	Towns	Apts
23	0.97	Commercial	Built	Deejay's Auto				
96	0.37	Commercial	Built	General Commercial				
143	3.1	Commercial	Built	Schut's Landscape - in Tutela Heights Undelineated Settlement Area - 8 employees as per City Employment Survey				
Total	**4.4**							
28	1.9	Place of Worship	Built	Salvation Army Brantford				
Total	**1.9**							
25	1.8	Commercial	Vacant	Commercial - under construction				
94	1.1	Commercial	Vacant					
95	0.5	Commercial	Vacant					
145	1.7	Commercial	Vacant	General Commercial Conklin Secondary Plan				
Total	**5.1**							
6	0.9	Residential	Built		2M-1902	12	0	0
16	17.4	Residential	Built		2M-1899	214	0	0
17	1.5	Residential	Built		2M-1912	16	0	0
29	13.2	Residential	Built		2M-1897	160	0	0
30	7.4	Residential	Built		2M-1896	84	0	0
31	18.1	Residential	Built	Less built school site	2M-1925	207	0	0
35	16.9	Residential	Built		2M-1905	235	0	0
36	5.9	Residential	Built		2M-1920	42	37	0
37	3.1	Residential	Built		2M-1916	58	0	0
38	1.2	Residential	Built		2M-1917	0	37	0
42	11.3	Residential	Built		2M-1923	120	99	0
43	14.2	Residential	Built		2M-1892	107	91	0
44	11.0	Residential	Built		2M-1894	91	0	0
45	1.6	Residential	Built		2M-1914	0	39	0
46	1.6	Residential	Built		Condo Plan No. 85	0	29	0
47	6.2	Residential	Built		2M-1904	82	0	0
48	3.1	Residential	Built		2M-1903	46	0	0
49	14.3	Residential	Built		2M-1913 & Condo Plan No. 94	0	138	120
54	2.8	Residential	Built		2M-1911	43	0	0
55	1.5	Residential	Built		2M-1833	10	0	0
Total	**153.3**							
132	87.0	Tutela Heights	Built			267	0	0
Total	**87.0**							
1	48.0	Residential	Application	assuming residential lots in place of school	29T-17505	800	178	-
92	8.9	Residential	Application		29T-17506	73	79	
Total	**56.9**							
7	4.9	Residential	Draft Approved		29T-04508	93	0	0
18	14.2	Residential	Draft Approved		29T-17502	187	66	0
27	4.9	Residential	Draft Approved		29T-17501, 29CD-17501	0	177	0
59	27.0	Residential	Draft Approved	less school	29T-16502	357	305	0
60	12.2	Residential	Draft Approved	Wyndfield Phase 7 west b	29T-16501	142	46	0
78	24.1	Residential	Draft Approved	Wyndfield Phase 6B	29T-15502	226	47	0
Total	**87.3**							
32	6.0	Residential	Registered	Wynfield Phase 7A	2M-1937	72	-	-
39	6.5	Residential	Registered	Wyndfield Phase 5	2M-1928	80	-	-
56	9.4	Residential	Registered	Wyndfield Phase 6A	2M-1932	62	136	-
89	1.5	Residential	Registered		Condo Plan No. 107		33	
Total	**23.4**							
9	11.5	Residential	Vacant	Medium Density				
24	3.8	Residential	Vacant	Medium Density as per OP - 86.5 units per net residential hectare				
52	3.3	Residential	Vacant	Medium Density				
53	1.6	Residential	Vacant	Medium Density				
62	2.4	Residential	Vacant	Medium Density				
63	1.3	Residential	Vacant	Medium Density				
71	3.4	Residential	Vacant	West Conklin SP - Neighbourhood Residential				
72	15.7	Residential	Vacant	West Conklin SP - Village Centre				
73	13.9	Residential	Vacant	West Conklin SP -Neighbourhood Residential				
75	2.0	Residential	Vacant	Medium Density				
76	1.4	Residential	Vacant	High Density				
79	1.9	Residential	Vacant	Low Density (Grandview)				
80	19.9	Residential	Vacant	Low Density (Sifton)				
97	2.3	Residential	Vacant	Low Density				
146	1.7	Residential	Vacant	West Conklin SP - Neighbourhood Centre				
147	5.0	Residential	Vacant	West Conklin SP - Neighbourhood Residential	Future Development for 29T-17505			
Total	**91.1**							
133	46.0	Tutela Heights	Vacant					
134	11.8	Tutela Heights	Vacant					
135	62.5	Tutela Heights	Vacant					
142	3.4	Tutela Heights	Vacant					
Total	**123.7**							
59x	2.7	School	Draft Approved	Link to ID59				
31x	4.0	School	Built (2schools)	Link to ID31				
10x	5.0	High School	Vacant	Link to 10				
Total	**11.7**							
8	1.4	Place of Worship	Vacant	West Conklin SP - Rec Centre				
10	16.8	Community Institutional	Vacant	West Conklin SP - Rec Centre				
Total	**18.1**							

Total DGA Developable Area	**664.0**	**ha**

Legend
Commercial - Built
Place of Worship - Built
Commercial - Vacant
Residential - Built
Tutela Heights - Built
Residential - Application
Residential - Draft Approved
Residential - Registered
Residential - Vacant
Tutela Heights - Vacant
School Sites
Community Institutional - Vacant

Appendix E

Glossary

Appendix E - Glossary

Built-up Area – All lands within the delineated built boundary.

Community Area – Areas designated and used for a range of urban uses including residential, mixed-use, institutional, open space and commercial.

Delineated Built Boundary – The limits of the developed urban area as defined by the Minister of Municipal Affairs and Housing in consultation with affected municipalities for the purpose of measuring the minimum intensification target in this Plan.

Designated Greenfield Area (DGA) – Lands within settlement areas but outside of delineated built-up areas that have been designated in an official plan for development.

Employment Area – Areas designated in an official plan for clusters of business and economic activities including, but not limited to, manufacturing, warehousing, offices, and associated retail and ancillary facilities.

Employment Lands Employment – Refers to industrial-type jobs including, but not limited to manufacturing, research and development, warehousing and distribution and wholesale trade.

Home-Based Employment – People who work from their home.

Major Office Employment – Refers to freestanding office buildings that are approximately 4,000 square meters of floor space of greater.

Minimum Distance Separation Formulae – Formulae and guidelines to determine setback distance between livestock barns, manure storage or anaerobic digesters and surrounding lands with the objective of separating uses to reduce incompatibility concerns related to odour.

Natural Heritage System – Refers to the connected systems of natural features and areas and the lands and waters that link them together.

No Fixed Place of Employment (NFPE) – Refers to workers who are not located at a fixed workplace each day of the year such as construction employees.

Population-Related Employment – Refers to employment that exists in response to or serves a resident population and is not primarily located in Employment Areas. Such employment is typically accommodated within neighbourhoods, downtowns and commercial areas.

Rural Employment – Refers to employment that exists in the City of Brantford outside of the City’s current Settlement Area boundary.

Settlement Area – Urban areas and rural *settlement areas* within municipalities that are built up areas where development is concentrated, have a mix of land uses and have been designated in an official plan for development.

Urban Growth Centre – Refers to existing or emerging downtown areas as defined by the Minister of Municipal Affairs and Housing.

Usual Place of Work (UPOW) employment – Refers to workers who are employed at a specific address.