

# RESIDENTIAL LAND SUPPLY ANALYSIS

2021 - 2046

City of Brockville, ON

December 2021

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## INTRODUCTION

The City of Brockville is completing the ten-year review of its Official Plan. The current Official Plan was approved by the Minister of Municipal Affairs and Housing in February 2012.

As part of this review, the Official Plan update is recommending a planning horizon of twenty-five years or to the year 2046. This means the City must assess its land supply for both housing and employment to ensure there is a sufficient supply of land for the planned growth to 2046.

The Provincial Policy Statement (2020) identifies that municipalities must plan for growth and also identifies the requirements for growth. The following policies of the Provincial Policy Statement (2020) are relevant to this requirement of planning for growth:

*1.1.2 Sufficient land shall be made available to accommodate an appropriate range and mix of land uses to meet projected needs for a time horizon of up to 25 years, informed by provincial guidelines. .... Within settlement areas, sufficient land shall be made available through intensification and redevelopment and, if necessary, designated growth areas.*

*1.1.3.8 A planning authority may identify a settlement area or allow the expansion of a settlement area boundary only at the time of a comprehensive review and only where it has been demonstrated that:*

- a) sufficient opportunities to accommodate growth and to satisfy market demand are not available through intensification, redevelopment and designated growth areas to accommodate the projected needs over the identified planning horizon;*
- b) the infrastructure and public service facilities which are planned or available are suitable for the development over the long term, are financially viable over their life cycle, and protect public health and safety and the natural environment;*
- c) in prime agricultural areas:*
  - 1. the lands do not comprise specialty crop areas;*
  - 2. alternative locations have been evaluated, and*
    - i. there are no reasonable alternatives which avoid prime agricultural areas; and*
    - ii. there are no reasonable alternatives on lower priority agricultural lands in prime agricultural areas;*
- d) the new or expanding settlement area is in compliance with the minimum distance separation formulae; and*
- e) impacts from new or expanding settlement areas on agricultural operations which are adjacent or close to the settlement area are mitigated to the extent feasible.*

*In undertaking a comprehensive review, the level of detail of the assessment should correspond with the complexity and scale of the settlement boundary expansion or development proposal.*

This report addresses Policy 1.1.2 of the Provincial Policy Statement (2020) – determining land supply needs for the planning horizon to 2046 for residential land. A separate report has been prepared for employment land supply. An additional report will be provided identifying options for growth and will address PPS Policy 1.1.3.8 as well as the requirements of the City of Brockville Official Plan (Policy 3.2.3 regarding expansion of settlement areas) to analyze options for the location of any settlement area expansion to achieve the forecasted growth.

## POPULATION FORECASTS

Population and employment forecasting was completed by *metroeconomics* for this Official Plan update. The summary analysis by *metroeconomics* can be found in Appendix A to this report. The City of Brockville is within the larger Brockville Census Subdivision which includes the City of Brockville, August Township and Elizabethtown-Kitley Township. Analysis was completed recognizing this relationship and establishing forecasts to the year 2046 for population and employment for the City of Brockville.

*metroeconomics'* approach to the development of population projections for an area starts with assessing the breadth, depth, and growth potential of the local economy because population growth is most often correlated with economic expansion. Statistics Canada defines a Census Agglomeration (CA) as a group of economically and socially interdependent municipalities (Census Sub-Divisions or CSDs) with a major urban core of at least 10,000 people. The Brockville CA includes the City of Brockville with a population of 39,517 in 2020, Elizabethtown-Kitley with a population of 9,762 and Augusta with a population of 7,376. The population of the CA, therefore, is 39,517. Over the span from 1986 to 2020 the CA's population grew by a modest 1,177 with Brockville accounting for 653 of that gain and the suburban CSDs each accounting for about 260.

The approach to projecting the City of Brockville's potential is to determine the potential of the CA – in other words the economic region – then to determine where within the CA people will choose or be permitted to locate and where within the CA employers will choose to locate.

The analysis of population has established a forecasted growth for the City of Brockville to 2046 of an additional 3,800 persons. This forecast is the basis for analyzing residential land supply need.

## FORECASTING LAND SUPPLY NEEDS - RESIDENTIAL

The forecast of land supply needs for housing is completed through a series of steps of analysis. These are:

- a) Forecast population to 2046,
- b) Forecast housing need by dwelling type to accommodate forecasted population,

- c) Determine existing housing supply,
- d) Determine housing need and land needed to support housing growth,
- e) Determine conformity to the Provincial Policy Statement requirements for planning for growth.

## HOUSING NEED

Housing need is determined by completing the following steps:

1. Forecasting population growth by five-year age cohort.
2. Applying a “headship rate” or household formation rate to each five-year age cohort starting with ages 15-19 – this establishes the number of households to 2046. The number of households in 2020 is deducted from the 2046 forecast to determine the increase in households.
3. The Provincial Policy Statement (2020) requires a market-based assessment to housing (Policy 1.1.1 a); Policy 1.1.3.8 a). The analysis of households completed in Step 2 then has a market-based analysis completed to determine housing type needed. Housing type needed is completed for three categories of housing:
  - a. Singles and Semi-Detached Units,
  - b. Townhouses and Duplexes,
  - c. Apartments.

### *Age Cohort Forecast – 2046*

The age cohort forecast methodology was prepared utilizing the cohort survival method. This method of forecasting creates a forecast of population by five-year age cohorts, consistent with the five-year age cohorts utilized in the Census of Canada. This results in a forecast by age cohort to 2046 which is shown in the following table.

*Table – 2046 Age Cohort*

Age Grouping	Forecasted Population
<b>0-4</b>	1,339
<b>5-9</b>	1,235
<b>10-14</b>	1,341
<b>15-19</b>	1,386
<b>20-24</b>	1,353
<b>25-29</b>	1,431
<b>30-34</b>	1,516
<b>35-39</b>	1,649
<b>40-44</b>	1,770
<b>45-49</b>	2,029
<b>50-54</b>	1,914

Age Grouping	Forecasted Population
55-59	1,643
60-64	1,340
65-69	1,171
70-74	1,157
75+	4,708

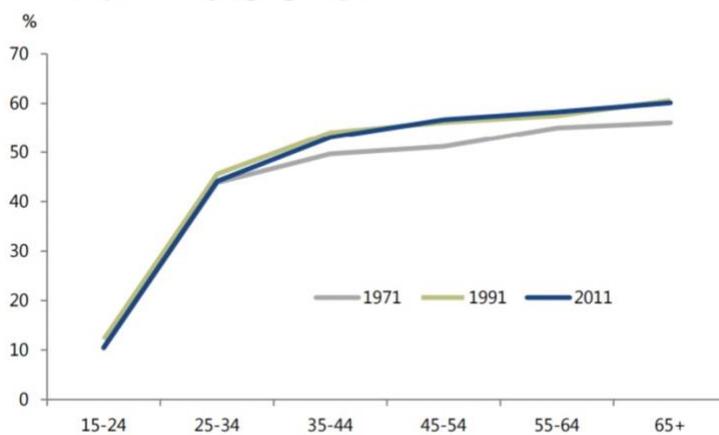
### *Housing – Dwelling Type Forecast*

There are two components to forecasting dwelling type: household formation and market-based analysis of housing need.

#### Household Formation

Household formation is determined by applying household formation rates to each 2046 age cohort, starting at age cohort 15-24. Household formation rates have remained largely consistent over time according to the analysis by the Parliamentary Budget Office. Household formation is also referred to as headship rates. For Brockville, headship rates were developed utilizing information from municipal analysis of household formation by five-year age cohort.

Headship rates by age groups



Sources: Statistics Canada and Parliamentary Budget Officer.

Utilizing standard headship rates, the 2046 net increase in households is shown in the table below. Age cohorts 0-14 are not shown as these are children living at home and not forming new households in the forecast year.

Table – 2046 Household Increase

Age Grouping	Forecasted Household Increase (#)
15-19	6.25
20-24	6.2
25-29	85.28
30-34	178
35-39	325.54
40-44	410.3
45-49	482.22
50-54	267.86
55-59	-155.4
60-64	-220.8
65-69	-329.84
70-74	-295.12
75+	1,136
<b>TOTAL</b>	<b>1895.49</b>

The declining forecast of households in the 55-74 age cohort is related to declines in these population age groups to 2046. This is largely due to the decline in manufacturing in Brockville resulting in changes in the adult population seeking employment elsewhere. This can be seen at the start of the forecast period and earlier in the population information.

#### Market-Based Analysis of Housing Need

The Provincial Policy Statement (2020) requires a review of market-based housing need in determining growth, growth management, and whether a settlement area expansion is needed. Propensities for housing type in the three main categories of housing supply<sup>1</sup> were applied to the 2046 household increase. This was done utilizing propensity for apartment or ground related housing by age cohort as a first step. The second step was to analyze households and the propensity to either singles/semis or townhouses/duplexes.

Applying this analysis, the following are the results by housing type.

Table – 2046 Household Increase

Housing Type	Forecasted Units Needed
<b>Singles/Semi-Detached</b>	1048.9
<b>Townhouses/Duplexes</b>	699.3

<sup>1</sup> The categories of housing are taken from the City of Brockville Development Charges Background Study.

Housing Type	Forecasted Units Needed
Apartments	147.29
TOTAL	1895.49

The ratios to determine single/semi-detached or townhouses duplexes were determined utilizing information in the split of lower density housing from the City’s Development Charges Background Study.

## EXISTING HOUSING SUPPLY

Residential land supply consists of two types of land for development consistent with the PPS (2020).

- Greenfield Development,
- Infill, Intensification and Brownfield Development.

### *Residential Land Supply – Gross Land Supply*

The City of Brockville has prepared summary documents (refer to Appendix of Supply Information) which identifies the available gross land supply by property. Analysis of the gross supply by property was completed using the following steps:

1. For Greenfield Lands:
  - a. For those lands with an approved development plan, the number of housing units in the approved plans were used. There were no lands with an approved plan in the properties within the supply.
  - b. For those lands without an approved plan, the forecasted densities were used based on the policies in the draft Official Plan update:
    - i. Singles/Semis: 25 units per hectare
    - ii. Townhouses/Duplexes: 60 units per hectare
  - c. All lands were confirmed to be in the low-density category of development (singles, semis, duplexes, townhouses).
  - d. The split of units between singles/semis and townhouses/duplexes is the same method as used in the determination of housing units needed to 2046 (i.e. based on the City’s Development Charges Background Study).
2. For Intensification Lands
  - a. For those lands with an approved development plan, the number of housing units in the approved plans were used.
  - b. For those lands without an approved development plan, the following was utilized:

- i. The area of each property was determined and a total for all properties in this grouping was determined.
- ii. An analysis of yield (units per hectare) for this type of development (medium density infill) was completed by City of Brockville staff based on recently approved development applications. The gross supply yield for this type of development was approximately 100 units per hectare. This density is used to project the number of units for vacant intensification sites.
- c. The intensification lands were reviewed and confirmed to be in the Apartment category of development.
- d. It is also noted that additional dwelling units are not included in the supply of housing. Analysis of the number of additional dwelling units built in Brockville (based on building permits) reveals a minimal supply in the order of 1-2 units per year.

#### *Residential Land Supply – Adjustments to Achieve Net Land Supply*

The above calculations for greenfield and intensification sites are considered the “gross” land supply. That is, the gross supply is what is available prior to considering factors such as parks, roads etc. Adjustment (reduction) of the supply occurs to address factors such as:

- New roads,
- Parkland,
- Infrastructure (sewer, water, stormwater),
- Active transportation,
- Other infrastructure (hydro corridors, provincial highways),
- Environmental and natural heritage features,
- Other matters such as undevelopable areas/parcels due to site specific issues.

Land supply analysis for residential needs uses a reduction of that ranges from 43% to 55% of gross supply due to the above reductions (or take-outs). It is noted that the higher amounts (50% and greater) are in upper and single tier municipalities with a broader land base. The lower amount of take-out (43%) was used by the Town of Milton – a growing community. This is the take-out factor applied for Brockville. The following table is the overall residential supply for Brockville based on the gross supply as above with the take-out of 43% applied. With the 50% take-out applied, the gross supply is calculated as “Net Supply” which is the projected supply of units.

For the lands identified, the following is application of the take-out percentage:

- For Greenfield lands, a take-out of 43% was applied.
- For Intensification lands with confirmed units, no take-out was applied because there is an approved development plan.
- For Intensification lands with no approved plan, the 43% take-out was applied.

*Table – Housing Supply – Net Supply of Units*

Category	Gross Supply of Units	Take-Out %	Net Supply of Units
<b>Greenfield (Low Density)</b>	1,725	43%	983
<b>Intensification – with approved plans (Apartment)</b>	478	0%	483
<b>Intensification – vacant land (Apartment)</b>	1,073	43%	612
<b>Additional Dwelling Units/Second Suites</b>	100	0%	100
<b>TOTAL</b>	<b>3,381</b>		<b>2,178</b>

## LAND NEEDED FOR HOUSING GROWTH

The overall analysis of forecasted housing units needed compared to the available supply yields the following results.

*Table – Net Results of Housing Units Required*

Category	Forecasted Units Required	Available Supply	Net Supply of Units Required
<b>Singles/Semi-Detached</b>	1048.9	589.8	459.1
<b>Townhouses/Duplexes + Additional Dwelling Units</b>	699.3	493.2	206.1
<b>Apartments</b>	147.29	1,095	0

The City of Brockville requires an increase in land supply to provide low-density housing to 2046. The net supply of units is then used to calculate the land needs required in hectares. The following densities are applied:

- Singles and Semi-Detached: 25 units per hectare
- Townhouses/Duplexes: 60 units per hectare

Applying the above densities results in the following required land for housing to 2046:

- Singles and Semi-Detached: 18.36 ha
- Townhouses/Duplexes: 3.43 ha

TOTAL

21.8 ha

The methodology for land needs to include a factor to address community land needs. Community land need is for items such as roads; sewer, water, stormwater infrastructure; parks; active transportation; natural heritage; and more. The factor is 43% (as discussed above) which means that the above land figure would be increased to ensure sufficient land is available for planning for community land needs.

This results in the total land need for 2046 being 38.24 ha.

## PROVINCIAL POLICY STATEMENT CONFORMITY

The Provincial Policy Statement requires the City of Brockville confirm the supply of residential land is sufficient to meeting housing needs for the forecast period – 2046. This section completes the analysis of the Provincial Policy Statement for conformity to this provision.

Housing supply is typically evaluated on the basis of number of years of supply. With a forecast horizon to 2046, the City of Brockville must confirm a supply of 25 years. Supply is measured using existing information on annual housing supply. This is done by taking the total supply and dividing by the number of housing units achieved per year. Two data sources are used for this analysis of housing units per year: the City's Annual Building Permit information and the forecasted residential units in the City's Development Charges.

These figures are then assessed against the number of housing units to determine if there is sufficient supply. The following table is the analysis of the existing net supply as identified previously.

Category	Net Supply of Units - Existing	Average Units/Year	Years of Supply
<b>Building Permits</b> <sup>1</sup>	2,178	57	38.2
<b>Development Charges</b> <sup>2</sup>	2,178	112.5	19.4

<sup>1</sup> Source: City of Brockville 2020 Annual Building Permit Report

<sup>2</sup> Source: City of Brockville Development Charges Background Study

The following additional analysis is done to include the market-based housing net supply of additional units (see table above).

Category	Net Supply of Units - Existing	Net Supply of Units – Market Based Addition	Average Units/Year	Years of Supply
<b>Building Permits</b> <sup>1</sup>	2,178	665.2	57	49.8

Category	Net Supply of Units - Existing	Net Supply of Units – Market Based Addition	Average Units/Year	Years of Supply
<b>Development Charges <sup>2</sup></b>	2,178	665.2	112.5	25.3

<sup>1</sup> Source: City of Brockville 2020 Annual Building Permit Report

<sup>2</sup> Source: City of Brockville Development Charges Background Study

Utilizing the City’s average building permits/year with the existing supply or the addition of the market-based supply, the City achieves the required residential land supply in accordance with the PPS.

Utilizing the City’s Development Charges forecasted residential units per year, the City achieves the PPS requirements for the required residential land supply with the inclusion of the market-based addition of units.

## APPENDIX 1 - RESIDENTIAL LAND SUPPLY

### Low-Density/Greenfield Land

Designated Urban Greenfield Lands (Gross Supply)						
	Description	Roll Number	Area (Acres)	Zone		
<b>Greenfield lands</b>						
GF 1	1084841 Ontario Inc	080203006040301	10.42	H1-R1		
GF 2	Dorman	080203006039500	3.00	H1-R1		
GF 3	Hart	080203006039700	5.00	H1-R1		
GF 4	Hollis / Philips	080203006039600	1.00	H1-R1		
GF 5	Brockville Country Club	080203006036700	21.53	H1-R1		
GF 6	Bennett	080203005535400	7.96	R1		

GF 7	901772 Ontario Ltd	080201002032200 & 80201002032301	1.32	R2 (Currently under Zoning Amendment Application for R6)		
GF 8	Sterritt	080203007003100	0.95	H1-R3		
GF 9	Kostuch estate	080201002001900	4.47	H1, H2, H4-R4		
GF 10	Kinghill Properties	080201001513801	5.53	O.S.		
GF 11	St. Alban's Holdings Inc.	080201001513818	10.7	H1-R4-1, in part, and O.S., in part		
GF 12	10673145 Canada Inc.	080201003019001	22.56	H1, H2-R3		
GF 13	Roman Catholic Episcopal Diocese Kingston	080202005206200	3.06	H1-R2		
GF 14	JULIADA HOLDINGS INC.	080202005314000	41.70	H1-R2 & H1-C1, O.S.		
GF 15	JULIADA HOLDINGS INC.	080202005340000	9.40	H1-R2		
GF 16	653973 Ontario Ltd.	080202005355200	7.86	H1-R3		
GF 17	653973 Ontario Ltd.	080202005364800	2.75	H1-R2		
GF 18	653973 Ontario Ltd.	080202005353500	2.37	H1-R2		
GF 19	653973 Ontario Ltd.	080202005340400	1.65	H1-R2		

GF 20	Zigman	080201002047500	0.91	R3		
GF 21	Kinjul Ltd.	080203007505200	0.50	H1-R2		
GF 22	Kinjul Ltd.	080203007505400	0.89	H1-R2		
GF 23	BMR Investments Inc.	080203005514900	2.9	R3		
GF 24	Cathedral Enterprises Limited	080202005200905	2.17	R2, R3, R4-12		
<b>Total, Acres</b>			<b>170.60</b>			
<b>Total Ha</b>			<b>69.04</b>			

Intensification with Approved Plans

Designated Urban Intensification Lands (Gross Supply)						
	Description	Roll Number	Area (Acres)	Zone		
<b>Brownfield &amp; Intensification</b>						
IAP 1	Firmland (Brockville) Inc	080201002504600	2.67	R6	7	
IAP 2	JUNO (Brockville) Limited	080202003521000	0.75	MD-17	26	
IAP 3	Metcalfe Realty Company Limited	080202003515300	1.49	H2, H5-MW-3	32	
IAP 4					30	
IAP 5	Marguerita Residence Corporation	080202004022100	1.48	R9-7	181	
IAP 6	Brockville Landings Inc.	080202003501400	1.33	H2-R9-2	106	
IAP 7	1786073 Ontario Inc.	080202003507800	0.41	MW	4	
IAP 8	J. Blackburn Construction	080203006015900	3.78	R5-8	92	
<b>Approved Units</b>					<b>478</b>	

Intensification Vacant Land

Designated Urban Intensification Lands (Gross Supply)						
	Description	Roll Number	Area (Acres)	Zone		
<b>Brownfield &amp; Intensification</b>						
IVL 1	11013424 Canada Inc.	080203006005000	39.31	H1-R4, in part, I1-10, in part, and I1-9, in part		
IVL 2	6108555 Canada Limited	080202003501100	1.39	H5-R8-1		
IVL 3	1671171 Ontario Ltd	080202003500900	0.94	MW-2		
IVL 4	BOYCE	080202003503700	0.05	MW		
IVL 5	BOYCE	080202003503900	0.07	MW		
IVL 6	BOYCE	080202003504000	0.07	MW		
IVL 7	Esso Imperial Oil	080202003507000	0.39	MD		
IVL 8	City of Brockville	080202004002200	0.32	MD		
IVL 9	City of Brockville	080202003507601	0.35	MW		
IVL 10	City of Brockville	080202003513200	0.06	MW		
IVL 11	City of Brockville	080202003513201	0.03	MW		
IVL 12	City of Brockville	080202003503000	0.02	MW		
IVL 13	City of Brockville	080202003502900	0.02	MW		
IVL 14	Barbour / Alexander	080202003513500	0.18	MW		
IVL 15	Rob Thompson Hotels Ltd	080202003513600	0.09	MW		

IVL 16	330791 Ontario Limited	080203005523300	1.05	H1, H5-R4-2		
<b>Total Acres</b>			<b>43.54</b>			
<b>Total Ha</b>			<b>17.416</b>			