

Appendix 4

Analysis of Residential Net to Gross Ratios in the City of Ottawa

March 2020

Research and Forecasting Unit
Planning, Infrastructure and Economic Development Department

Analysis of Residential Gross to Net Ratios in the City of Ottawa

A key part of the City's long-term development strategy is to increase residential density while promoting a variety of dwelling types and ensuring development is sustainable by protecting important natural areas and providing proper stormwater management while building new complete communities where new urban residential lands are required. The purpose of this report is to examine existing, developing and proposed residential development ratios (proportion of land used for residential development), in the city of Ottawa to determine a suitable ratio that is applicable to potential new residential hectares to estimate the total area requirements for new complete communities. Types of land examined in this study are: existing and developing suburban areas, urban expansion study areas and developing community expansion areas included from the 2012 OPA 76 urban boundary hearing.

Suburban Areas

For the suburban land analysis, development was examined in neighbourhoods mainly developed after 2005. The analysis concentrated on land uses that were built, and in some cases where planned development had reached the registration stage. Land use features that were assessed included the number, unit type and area of residential units, and the area of non-residential uses such as road rights-of-way, parks and open space, schools, local retail, stormwater facilities and other uses typically found in a subdivision.

Methodology for Suburban Areas

Areas selected for the study were chosen from four of the five suburban sub-areas of Ottawa: Kanata-Stittsville, South Nepean, Leitrim and Orléans. Riverside South was not included in this study as the current development does not contain a wide enough range of land uses to be representative. Each of the sites selected had to meet the following basic criteria:

- a) Be large enough to have a varied mix of residential and non-residential uses;
- b) Have commenced or initiated residential development or have development reach the stage of registration.
- c) Have at least 85% of dwellings units built after 2005.¹

Areas are identified based on their location in one of the suburban sub-areas. The extent to which a neighbourhood was developed was determined by checking the development status of properties on the City's database system (MAP). Assessment data provided information on unit type, date of construction, lot area and road right-of-way area. The areas of schools and roads which were incomplete or missing in the assessment data were obtained from the MAP system.

¹ Two areas were less than 85%: areas 1 and 4 were included in order to monitor trends in areas that had developed in an earlier time period.



Suburban Areas – Findings

The eight areas chosen contained 32,585 residential units on 1,045 ha of land and had an average gross to net ratio of 53.1%. Eighty-two percent of the units were built after 2005. Non-residential uses comprised 924 ha as show in Table 1.

Area Name	Total Residential Units Built	Total Study Area	Total Residential Area (net ha)	Gross to Net Ratio of Total Area	Total Non-Residential Area (net ha)	Non-Residential % of Total Area
Area1 Kanata North	4,750	333.5	183.7	55.1%	149.7	44.9%
Area 2 Fairwinds	2,982	193.8	99.2	51.2%	94.6	48.8%
Area 3 Fernbank	2,016	132.3	64.2	48.5%	68.1	51.5%
Area 4 Old South Nepean	7,489	426.4	238.6	56.0%	187.8	44.0%
Area 5 Half Moon Bay	4,165	207.2	116.2	56.1%	91.0	43.9%
Area 6 Leitrim	3,351	215.7	113.8	52.7%	101.9	47.3%
Area 7 Orléans West	2,320	148.0	77.4	52.3%	70.6	47.7%
Area 8 Orléans Avalon/Mer Bleue	5,512	312.9	152.4	48.7%	160.4	51.3%
Total	32,585	1,969.6	1,045.5	53.1%	924.1	46.9%

Land Use Trends in the Eight Study Areas

An average of 33.5% of the land area was used for single-detached units. Townhouses accounted for 15.2%, semi-detached 2.9%, stacked townhouses made up 1% and both apartments and mobile homes made up less than one percent of development as shown in Table 2.



Of non-residential uses, parks and open space averaged 4.5% of the land, schools 4.0%, retail/commercial uses 3.1%, institutional 1.6%, hydro rights-of-way 0.8%, natural features 0.5%, stormwater ponds 2.9%, stormwater channels 1.2%, pumping stations, pathways, railways and rapid transit rights-of-way all averaged less than one percent of land use and 27.7% was developed for roads as shown in Table 2.

Land Use	Area 1 Kanata North	Area 2 Fairwinds	Area 3 Fernbank	Area 4 Old South Nepean	Area 5 Half Moon Bay	Area 6 Leitrim	Area 7 Orléans West	Area 8 Orléans Avalon/Mer Bleue	Total Share (%) by Land Use
Singles	36.5%	36.6%	31.1%	32.4%	38.8%	30.9%	33.3%	29.1%	33.5%
Semi-detached	2.2%	2.1%	1.0%	5.5%	1.1%	7.2%	1.5%	0.6%	2.9%
Townhouse	16.2%	10.9%	12.9%	16.3%	14.9%	13.3%	15.6%	17.5%	15.2%
Stacked Townhouse	0.3%	0.0%	1.7%	1.4%	1.2%	1.4%	0.9%	1.0%	1.0%
Apartment	0.0%	0.0%	1.9%	0.3%	0.0%	0.0%	1.0%	0.6%	0.4%
Mobile Home	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Schools	2.5%	1.3%	2.1%	5.6%	5.1%	2.7%	1.3%	7.0%	4.0%
Parks/Open Space	4.8%	2.1%	4.4%	3.1%	5.6%	5.6%	5.4%	5.6%	4.5%
Retail/Commercial	2.2%	10.7%	4.8%	2.0%	0.0%	5.2%	1.8%	1.5%	3.1%
Institutional	2.1%	0.9%	0.0%	1.4%	0.0%	3.0%	0.0%	3.4%	1.6%
Hydro Corridor/ROW	3.7%	0.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.3%	0.8%
Natural Features	0.2%	0.0%	0.0%	0.7%	0.0%	0.0%	4.2%	0.0%	0.5%
Stormwater Pond	1.6%	1.8%	9.6%	0.0%	1.5%	0.0%	5.4%	8.0%	2.9%
Stormwater Channel	2.4%	1.8%	0.0%	0.0%	0.0%	3.9%	2.6%	0.0%	1.2%
Pumping Station	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
Pathways	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Railway	0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	0.0%	0.3%
Rapid Transit ROW	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.2%
Roads	25.3%	30.2%	28.8%	28.8%	31.7%	26.6%	26.8%	25.4%	27.7%
Sub-Total Residential	55.1%	51.2%	48.5%	56.0%	56.1%	52.7%	52.3%	48.7%	53.1%
Sub-Total Non-Residential	44.9%	48.8%	51.5%	44.0%	43.9%	47.3%	47.7%	51.3%	46.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Low density development comprises the largest portion of land use in suburban developments (51.9%). This is followed by medium density unit types (primarily townhouse units) (42.4%) and apartment development (5.7%) as shown in Table 3.

Suburban Area	Low	Medium	High
---------------	-----	--------	------



	Density	Density	Density
Area 1 Kanata North	52.9%	45.8%	1.3%
Area 2 Fairwinds	63.2%	36.8%	0.0%
Area 3 Fernbank	51.5%	33.2%	15.3%
Area 4 Old South Nepean	51.2%	40.9%	7.9%
Area 5 Half Moon Bay	55.6%	40.9%	3.6%
Area 6 Leitrim	57.1%	36.5%	6.4%
Area 7 Orléans West	41.6%	49.6%	8.8%
Area 8 Orléans Avalon/Mer Bleue	44.4%	49.4%	6.2%
Total	51.9%	42.4%	5.7%

Urban Expansion Study Areas and Developing Community Expansion Areas

In August 2012, 1,134.2 gross hectares were added to the urban area through an Ontario Municipal Board decision, of which 941.3 gross hectares were considered developable land. This land was comprised of twenty expansion study areas and nine communities that were deemed ‘developing communities.’ Urban expansion areas are lands identified in the Official Plan that are required to accommodate urban growth to the year 2031. The lands are intended to be developed primarily for residential purposes, with some non-residential uses to meet the needs of the future residents.

Since 2012, half of the 20 expansion parcels are in the process of being developed or have a development application. Seven of the nine ‘developing communities,’ (one of which was a stormwater pond area), contain a development application.

Urban Expansion Study Areas

Section 3.11 of the Official Plan requires the completion of a comprehensive planning study prior to an urban expansion study area being re-designated as General Urban. Plans were conducted for all twenty expansion areas from OPA 76. Three Community Design Plans (CDP’s) were drafted for Kanata North, Barrhaven South and Mer Bleue. A Comprehensive Study Report was written for the Richcraft-owned Kanata Highlands Area and a Concept Plan was prepared for Cardinal Creek.

For this report, all the community plans in place for the urban expansion study areas were assessed with regard to the components of the residential and non-residential aspects of the plan. As the breakdown of unit types varied from plan to plan, this report attempted to group what it felt were the three primary categories of units: low density (primarily singles and semi-detached), medium density (townhouse/multiple units) and high density (stacked townhouse and apartment units). The overall area of each neighbourhood was calculated by totalling all residential and non-residential land uses. The gross to net ratio was taken as the percentage of land area occupied by all residential uses compared to the total land area.

Urban Expansion Study Areas – Plan Summaries

Below are summaries of the various community plans for the urban expansion areas. These locations are included in Map 1 of this report.

Kanata North CDP – Located north of the established urban communities of Morgan’s Grant, Briarbrook, and Brookside adjacent to Hillside Estates subdivision to the north and Marchbrook Circle and Panandrick subdivisions to the west. Planned for approximately 3,000 dwelling units (between 2,930 and 3,035). A proposed overall density of 36 u/nha. Because of perceived market demand, proposes to develop 30% singles – less than the minimum of 45% called for in the OP. Published in June 2016.



Kanata Highlands CSR – Area has frontage along Huntmar Dr. to the west and frontage along Terry Fox Dr. to the east. One goal was to implement relevant objectives and strategic directions advanced by the city's *Building Better and Smarter Suburbs* (BBSS) report. Plan proposes to develop at 38 u/nha. Published August 2018.

Mer Bleue CDP – Area extends between Mer Bleue Rd. and Tenth Line Rd. and north of the village of Notre-Dame-des-Champs. Plan for approximately 3,500 residential units. Proposes a development density of between 34 and 42 u/nha. This plan intends to realize the relevant objectives and strategic directions of BBSS. Published June 2017

Barrhaven South CDP – Located east of Borrisokane Rd., north of Barnsdale Rd., southwest of the existing Barrhaven South CDP lands and west of existing Greenbank Road. Proposing approximately 1,200 residential units and expected to achieve a density of 36 u/nha. Committing to implement relevant objectives and strategic directions advanced by the BBSS report. Published in May 2018.

Cardinal Creek CP – Bounded by Ottawa Road 174 and the Ottawa River to the north, Cardinal Creek to the west, Frank Kenney Rd./Ted Kelly lane to the east; and urban area limits to the south. Proposing 3,500 residential units at build-out. An overall average development density of 34 to 42 u/nha. This plan was developed prior to BBSS. Published July 2013.

Although these plans are conceptual by nature, and are primarily guides for development, as the communities do not have to develop exactly as presented in the plan, it is expected that these areas will develop to a certain extent as published in their respective plans.

Urban Expansion Study Areas – Findings

As in the suburban areas, the overall area of each expansion study area was calculated by totalling all residential and non-residential land uses. The gross to net was taken as the percentage of land area occupied by all residential uses compared to the total land area. Based on the land use details outlined in the community plans, reports and studies, urban expansion study lands will have an overall gross to net of approximately 45.6% with a high of 52.6% in the Kanata Highlands CSR and a low of 42.9% in the Barrhaven South CDP. The overall rate is 7.5% lower than the rate of 53.1% found in the currently developing suburban plans as shown in Table 4.

Area Name	Total Residential Units Proposed	Total Expansion Area	Total Residential Area (net ha)	Gross to Net Ratio of Total Area	Total Non-Residential Area (net ha)	Non-Residential % of Total Area
Kanata North CDP	2,965	181.0	80.1	44.3%	100.9	55.7%
Kanata Highlands CSR	680	34.0	17.9	52.6%	16.1	47.4%
Barrhaven South CDP	1,200	78.2	33.5	42.9%	44.6	57.1%
Mer Bleue CDP	3,545	212.0	96.0	45.3%	116.0	54.7%
Cardinal Creek CP	3,745	191.0	90.0	47.1%	101.0	52.9%
Total	12,135	696.2	317.5	45.6%	378.7	54.4%

Note: CDP = Community Design Plan, CSR = Comprehensive Study Report and CP = Concept Plan

Upon closer inspection of the residential unit type breakdown in the expansion areas, it was noted that all of the plans for expansion study areas contain a proposed level of high density development that is higher than 10% or the Official Plan (OP) recommendation. In contrast, in the suburban areas, only the Fernbank suburban development has a higher density proportion that is greater than 10% (15.3%). The other developments range from no high density development in Fairwinds to 8.8% in Orléans West. The



increase in higher density residential development mix in the urban expansion study areas appears to have come at the expense of lower density unit types as their proportion dropped from 51.9% in suburban areas to 47.1% in expansion area plans as shown in Table 5.

Area Name	Low Density	Medium Density	High Density
Kanata North CDP	32.4%	32.0%	35.6%
Kanata Highlands CSR	54.4%	27.9%	17.6%
Barrhaven South CDP	55.0%	35.0%	10.0%
Mer Bleue CDP	56.3%	33.3%	10.4%
Cardinal Creek CP	46.1%	26.2%	27.8%
Total	47.1%	30.6%	22.3%

All the community plans for the expansion study areas except the Kanata Highlands CSR, have a non-residential portion that is greater than 50%. Outside of roads, non-residential land in the expansion areas was directed primarily towards natural features (9.0%), stormwater uses (6.7%), parks and open space development (6.1%) and schools (5.7%) as shown in Table 6.

Land Use	Kanata North CDP	Kanata Highlands CSR	Barrhaven South CDP	Mer Bleue CDP	Cardinal Creek CP	Total Share (%) by Land Use
Schools	7.4%	0.0%	4.5%	6.1%	5.2%	5.7%
Parks/Open Space	5.7%	6.3%	6.0%	7.1%	5.2%	6.1%
Retail/Commercial	8.8%	0.0%	2.7%	1.4%	0.0%	3.0%
Institutional (Fire Station)	0.5%	0.0%	1.4%	0.0%	0.0%	0.3%
Natural Features	6.9%	0.0%	0.0%	5.2%	20.4%	9.0%
Stormwater Pond	2.3%	7.9%	7.2%	13.2%	3.1%	6.7%
Park & Ride	1.4%	0.0%	3.3%	0.0%	0.0%	0.7%
Turtle Corridor	0.0%	7.4%	0.0%	0.0%	0.0%	0.4%
Rapid Transit ROW (BRT)	2.7%	0.0%	0.0%	0.0%	0.0%	0.7%
Roads	20.1%	25.8%	32.1%	21.7%	18.8%	21.9%
Total	55.7%	47.4%	57.1%	54.7%	52.9%	54.4%

All the expansion study areas had a greater proportion of lower density units than high density except the Kanata North CDP (35.6%), which indicated that the demands of the market would be an influence in developing more higher density product in the form of residential multi-unit dwellings.

Developing Community Expansion Areas Lands - Findings

Reserved primarily for residential development, developing community expansion areas or remnant parcels consist of mainly residential units but also contain non-residential uses needed to more fully support the character of the larger community.



For this report, the developing community expansion areas are identified by their sub area locations and their OPA 76 parcel numbers: Stittsville south 6a-c, Leitrim 8a, Leitrim 9a, Orléans south 10d-e. In several cases, these areas have been combined and are developing as one community (see Map).

Of the eight developing expansion parcels from OPA 76, seven currently have a development application that is registered, draft approved or pending draft approval. These parcels have an average total land area of 30 hectares and a gross to net of 60.2% as shown in Table 7.

Table 7 - Development Composition of Developing Community Expansion Areas						
Area Name	Total Residential Units Proposed/ Built	Total Study Area	Total Residential Area (net ha)	Gross to Net Ratio of Total Area	Total Non-Residential Area (net ha)	Non-Residential % of Total Area
Area 6a	731	38.4	21.5	56.0%	16.9	44.0%
Area 6b-c	616	33.7	22.0	65.2%	11.7	34.8%
Area 8a	332	19.5	13.0	66.7%	6.5	33.3%
Area 9a	681	32.9	17.6	53.6%	15.3	46.4%
Area 10d-e	548	25.8	16.3	63.2%	9.5	36.8%
Total	2,908	150.2	90.4	60.2%	59.8	39.8%

As in currently developing suburban areas and urban expansion study areas, low density dwelling units are the most predominant type of land use in developing community expansion areas with 54.2% of the residential units as shown in Table 8. At the same time however, only 9% of units were allocated to high density use.

Table 8 - Unit Breakdown in Developing Community Expansion Areas			
Suburban Area	Low Density	Medium Density	High Density
Area 6a	59.8%	16.7%	23.5%
Area 6b-c	56.3%	43.7%	0.0%
Area 8a	35.8%	64.2%	0.0%
Area 9a	19.6%	80.4%	0.0%
Area 10d-e	69.0%	22.3%	8.8%
Total	54.2%	36.8%	9.0%

After residential, the largest land use was for roads (26.2%) and land for parks (6%). Other uses needed to complete the larger community such as commercial/retail uses, stormwater ponds, walkways, hydro corridor, access blocks, and a school comprise the remaining 7.6% of land in developing community expansion areas as shown in Table 9.

Table 9 - Share of Land Uses for Developing Community Expansion Areas						
Land Uses	Area 6a	Area 6b-c	Area 8a	Area 9a	Area 10 d-e	Total
Residential	56.0%	65.2%	66.7%	53.6%	63.2%	60.2%
Roads	22.9%	22.8%	21.9%	33.0%	30.1%	26.2%
Parks	5.6%	6.5%	2.1%	7.9%	6.7%	6.0%



Other Uses	15.5%	5.5%	9.3%	5.5%	0.0%	7.6%
------------	-------	------	------	------	------	-------------

Conclusion

The ratio of land used for net residential purposes as a share of total land within a subdivision or other “general urban” area is an important factor in estimating residential land supply and demand over the period of the Official Plan. This report reviewed eight suburban areas in Ottawa predominantly built after 2005, five urban expansion study areas and five developing community expansion areas to identify the ratio of residential land that is currently being developed or proposed in order to establish a rate that could be applicable to new greenfield development and future secondary plans for new areas.

Currently a gross to net of 55% is applied to undeveloped greenfield lands. However, historic changes in infrastructure standards and the use of more land for items such as natural features, hydro corridors and environmental lands, has led to the erosion of the gross to net rate and a need to re-examine this figure. The findings in this report indicate that current suburban communities are developing below the 55% ratio (53.1%) and proposed plans for the urban expansion areas are lower still (45.6%). As gross to net rates continue to decline, the city has been mindful of this reduction and has made strides to stem the progression of this trend through the Infrastructure Review and other policies that support overall land efficiency.

To that end, a new gross to net rate of 50% is reasonable for new greenfield ‘complete communities’ based on an approximate average of the gross to net of suburban areas (53.1%) and the gross to net of urban expansion study areas (45.6%). This new, lower gross to net rate should contribute positively to current city building objectives while providing a balance between residential and non-residential uses in newer neighbourhoods and making optimal use of the land in future developments.

According to current plans and development patterns developing community expansion areas are built at an average gross to net rate of 60.2%. These areas are generally ‘residual’ pieces of land that contain mostly residential units with many of the non-residential uses already within the adjacent existing community. Should an urban expansion be necessary it would be efficient for the City to add larger areas wherever possible. Therefore the 50% gross to net rate should be used when determining how much land is to be considered.

The gross to net ratio of greenfield residential development in Ottawa will continue to be monitored periodically as new areas are completed in order to assess whether expansion areas are developing according to their respective plans and if development ratios are trending according to the gross to net ratios noted in this report.

Appendices:

1. Suburban Area Site Descriptions
2. MAP 1: OPA 76 Urban Expansion Parcels



Appendix 1 – Suburban Area Site Descriptions

Area 1: Kanata North (Gross to Net = 55.1%, Total Area = 333.5 gross ha)

Non-Residential Uses	Area (ha)	% of Total Area
		9 Page



Area 1 is bounded to the north by Old Carp Road, west by the urban boundary, south by Terry Fox Drive and Kanata North Business Park, and east by the Marshes golf course (within the business park). Housing is a mix of singles, semis, towns and stacked units. There are three schools (2.5% of the area), 12 parks and open space areas (4.8%), stormwater ponds (2.4%) and stormwater drains (2.4%), a hydro corridor (3.7%), institutional uses (church and a town hall), (2.1%), natural features (0.2%) and retail and commercial uses (2.2%). Roads and pathways occupy 25.4% of the area. Residential uses account for 55.1%.

Parks	16.04	4.8%
Schools	8.19	2.5%
Pathways	0.42	0.1%
Natural Features	0.58	0.2%
Hydro Corridor	12.38	3.7%
SWM	5.32	1.6%
Stormwater Drain	7.95	2.4%
Institutional	7.09	2.1%
Retail/Commercial	7.27	2.2%
Roads	84.50	25.3%
Total Non-Residential	149.7	44.9%
Total Area	333.5	100.0%

Residential Uses	Units	Area (ha)	% of Total Area
Single detached	2,339	121.55	36.5%
Semi detached	174	7.19	2.2%
Townhouse	2,177	53.92	16.2%
Stacked Townhouse	60	1.06	0.3%
Total Residential	4,750	183.7	55.1%



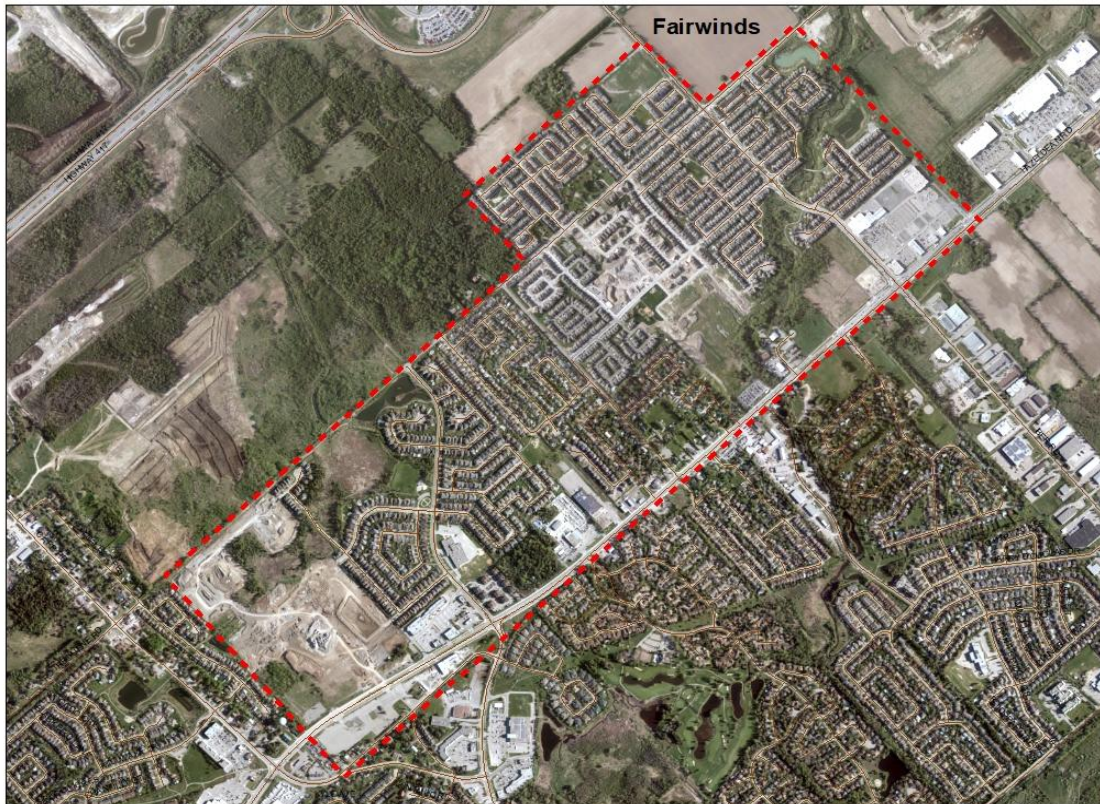


Area 2: Fairwinds (Gross to Net = 51.2%, Total Area = 193.8 gross ha)

Located south of the Kanata West Business Park, Area 2 is bounded to the north by future residential development, to the east by future residential development, to the south by Hazeldean Road and to the west by residential and future residential development. Nearly 90% of the 2,982 residential units in this area were built after 2005. There is one site proposed for a school (1.3%), six parks with parkland (2.1%), stormwater ponds (1.8%) and stormwater corridors (1.8%), retail/commercial uses (10.7%) and institutional uses (place of worship and retirement home) (0.9%). Roads and pathways consume 30.3% of the area. Residential uses account for 51.2% of the area.

Residential Uses	Units	Area (ha)	% of Total Area
Single detached	1,675	71.01	36.6%
Semi-detached	144	4.08	2.1%
Townhouse	1,097	21.11	10.9%
Mobile Home	66	3.02	1.6%
Total Residential	2,982	99.2	51.2%

Non-Residential Uses	Area (ha)	% of Total Area
Parks	4.01	2.1%
Schools	2.50	1.3%
Retail/Commercial	20.70	10.7%
Institutional	1.81	0.9%
SWM	3.43	1.8%
SWM Corridor	3.51	1.8%
Pathways	0.11	0.1%
Roads	58.50	30.2%
Total Non-Residential	94.6	48.8%
Total Area	193.8	100.0%



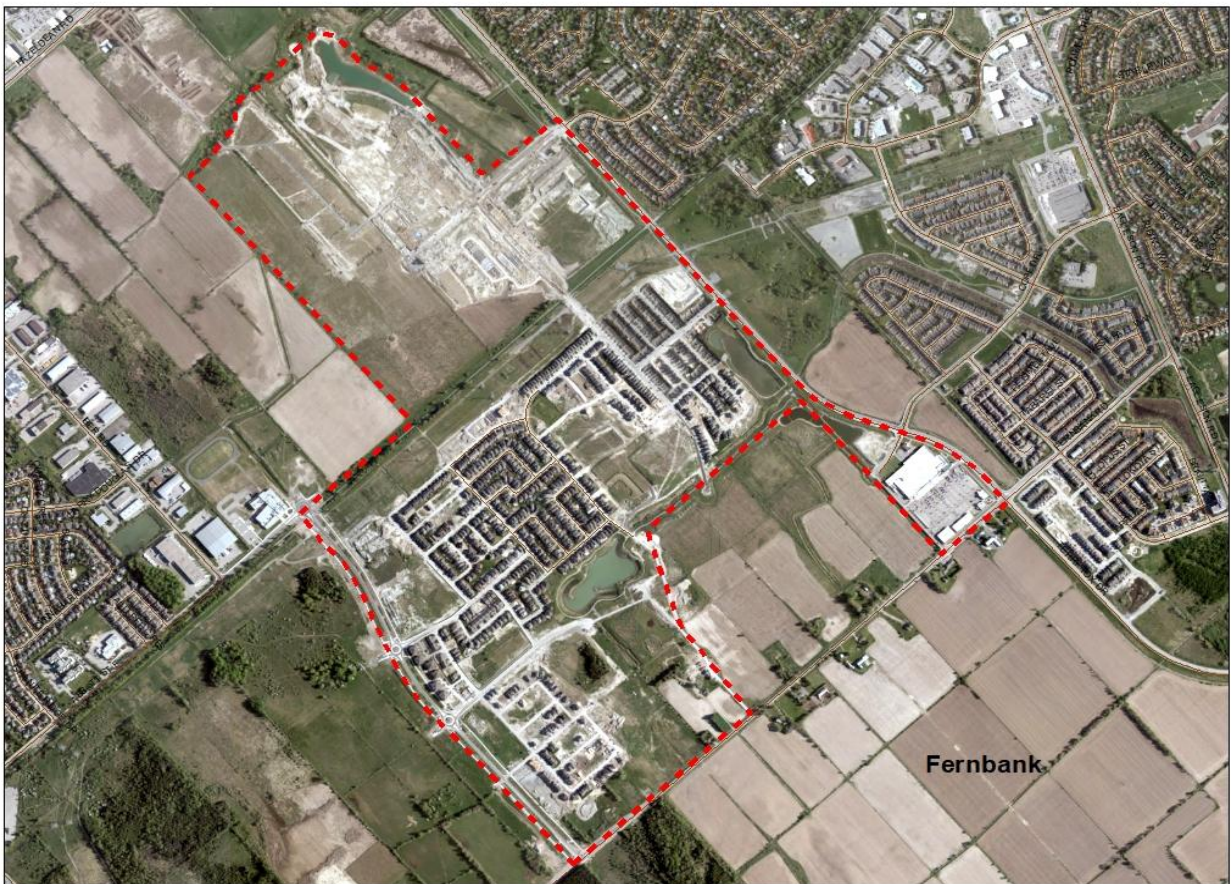


Area 3: Fernbank (Gross to Net = 48.5%, Total Area = 132.3 gross ha)

The northern boundary of Area 3 is future residential development, the south edge is the urban boundary, the west is bounded by future residential development, and the eastern boundary is Terry Fox Drive. All 2,016 residential units in this area developed after 2010. Currently, there are two parks (4.4%), a school block (2.1%), a retail centre off Terry Fox Drive (4.8%), a portion of a hydro corridor (1.8%), three stormwater ponds (9.6%) and 28.8% used for roads. Residential land occupies 48.5% of the area.

Residential Uses	Units	Area (ha)	% of Total Area
Single-detached	1,009	41.19	31.1%
Semi-detached	30	1.26	1.0%
Townhouse	669	17.01	12.9%
Stacked Townhouse	188	2.30	1.7%
Apartments	120	2.48	1.9%
Total Residential	2,016	64.2	48.5%

Non-Residential Uses	Area (ha)	% of Total Area
Parks	5.77	4.4%
School	2.82	2.1%
Retail	6.30	4.8%
Hydro Corridor	2.42	1.8%
SWM	12.66	9.6%
Roads	38.12	28.8%
Total Non-Residential	68.09	51.5%
Total Area	132.3	100.0%





Area 4: Old South Nepean (Gross to Net = 56.0%, Total Area = 426.4 gross ha)

Bounded to the north by active farmland, to the east by active farmland and existing residential land, and to the south and west by existing residential development Area 4 has 7,489 residential units of which nearly 45% were built prior to 2000. This area has 14 parks and playing fields (3.1%), seven schools (5.6%), retail and commercial uses (2.0%), a transitway station (1.1%), natural areas (0.7%), institutional uses (1.4%) and a portion of railway line (1.4%). Roads occupy 28.8% of the area. Residential uses occupy 56.0%.

Residential Uses	Units	Area (ha)	% of Total Area
Single-detached	3,006	138.27	32.4%
Semi-detached	827	23.38	5.5%
Townhouse	3,066	69.59	16.3%
Stacked Townhouse	438	5.93	1.4%
Apartment	152	1.41	0.3%
Total Residential	7,489	238.6	56.0%

Non-Residential Uses	Area (ha)	% of Total Area
Parks	13.22	3.1%
Schools	24.05	5.6%
Retail (Gas Station)/Commercial Centre	8.33	2.0%
Transitway Station	4.51	1.1%
Natural Feature (Trail)	3.01	0.7%
Institutional (Ret. Home/Day Care, Funeral Home, Mosque)	6.07	1.4%
Railway	5.88	1.4%
Roads	122.71	28.8%
Total Non-Residential	187.8	44.0%
Total Area	426.4	100.0%





Area 5: Half Moon Bay (Gross to Net = 56.1%, Total Area = 207.2 gross ha)

Area 5 is bounded to the north by undeveloped land, to the east by existing residential development, south by undeveloped residential land and to the west by undeveloped residential and quarry land. The 4,165 singles, semis, townhouses and stacked townhouses were all built primarily after 2005 with over 80% built after 2010. Non-residential uses include three schools and a school block (5.1%), ten parks (5.6%) and a stormwater pond (1.5%). Roads use 31.7% of the area. Residential uses occupy 56.1% of the area.

Residential Uses	Units	Area (ha)	% of Total Area
Single detached	2,234	80.40	38.8%
Semi-detached	81	2.37	1.1%
Townhouse	1,702	30.91	14.9%
Stacked Townhouse	148	2.49	1.2%
Total Residential	4,165	116.17	56.1%

Non-Residential Uses	Area (ha)	% of Total Area
Parks	11.59	5.6%
Schools	10.66	5.1%
SWM	3.03	1.5%
Roads	65.72	31.7%
Total Non-Residential	91.00	43.9%
Total Area	207.17	100.0%





Area 6: Leitrim (Gross to Net = 52.7%, Total Area= 215.7 gross ha)

Area 6 comprises the entire built Leitrim area to date and is bounded to the north by a cemetery and undeveloped land, to the east by undeveloped residential land and the urban boundary and bounded by the urban boundary to the south and west. The area's 3,351 units average eight years old, with just over 90% built after 2005. Non-residential uses include a school and a school lot (2.7%), nine parks (5.6%), retail/commercial uses (5.2%), a stormwater channel (3.9%), a sewage pumping station (0.1%), institutional uses comprised of a fire station, a church, the Ottawa Rotary Home and an arena (3.0%). Roads and pathways occupy 26.6% of the area, and residential uses 52.7%.

Residential Uses	Units	Area (ha)	% of Total Area
Single detached	1,352	66.62	30.9%
Semi-detached	560	15.53	7.2%
Townhouse	1,223	28.63	13.3%
Stacked Townhouse	216	2.97	1.4%
Total Residential	3,351	113.7	52.7%

Non-Residential Uses	Area (ha)	% of Total Area
Parks	12.13	5.6%
Schools	5.91	2.7%
Retail/Commercial	11.30	5.2%
Sewage Pumping Station	0.13	0.1%
SWM Channel	8.46	3.9%
Institutional	6.56	3.0%
Pathways	0.09	0.0%
Roads	57.33	26.6%
Total Non-Residential	101.9	47.3%
Total Area	215.7	100.0%



Area 7: Orléans West (Gross to Net = 52.3%, Total Area = 148.0 gross ha)

Residential Uses	Units	Area (ha)	% of Total Area
Appendix 4: Residential Net to Gross Ratio			



Single detached	911	49.33	33.3%
Semi-detached	53	2.16	1.5%
Townhouse	1,151	23.07	15.6%
Stacked Townhouse	133	1.40	0.9%
Apartment	72	1.43	1.0%
Total Residential	2,320	77.4	52.3%

Area 7 is located west of Mer Bleue Road and is bisected by Renaud Road. It is bounded to the north by a hydro corridor, to the east by future residential development land, and to the south

and west by the Greenbelt. Virtually all the 2,320 housing units were built after 2005 (97%). There is one school in this area (1.3%), four parks (5.4%), retail uses (1.8%), two stormwater ponds (5.4%), a stormwater corridor (2.6%) and a forested area (4.2%). Roads and pathways account for 26.8% of the land, and residential uses 52.3%.

Non-Residential Uses	Area (ha)	% of Total Area
Parks/Open Space	7.95	5.4%
Schools	1.96	1.3%
Retail	2.73	1.8%
Pathway	0.01	0.0%
Forested/Natural Area	6.27	4.2%
Hydro Pumping Station	0.13	0.1%
SWM	7.96	5.4%
SWM Corridor	3.85	2.6%
Roads	39.72	26.8%
Total Non-Residential	70.6	47.7%
Total Area	148.0	100.0%



Area 8: Orléans Avalon/Mer Bleue (Gross to Net = 48.7%, Total Area = 312.8 gross ha)

Non-Residential Uses	Area (ha)	% of Total Area
----------------------	-----------	-----------------



Area 8 is bound to the north by a hydro corridor and existing residential development, to the east and south by the urban boundary, and to the west by Mer Bleue Road. There were 5,512 housing units, with 93% being single-detached and townhouse units. The area also contains semis, stacked townhouses and apartments. There are nine parks with parkland (5.6%), three schools and three lots reserved for future schools (7.0%), a retail/commercial plaza (1.5%), institutional uses (community centre and proposed medical centre) (3.4%), a hydro corridor (0.3%), stormwater ponds (8.0%) and a pumping station. A total of 25.4% of the land is taken by roads. Residential uses occupy

Parks	17.47	5.6%
Schools	21.98	7.0%
Commercial/Retail	4.66	1.5%
Institutional (Community/Health Centre)	10.75	3.4%
Hydro Corridor	1.09	0.3%
SWM	24.94	8.0%
Pumping Station	0.12	0.0%
Roads	79.40	25.4%
Total Non-Residential	160.4	51.3%
Total Area	312.8	100.0%

48.7%.

Residential Uses	Units	Area (ha)	% of Total Area
Single detached	2,390	90.99	29.1%
Semi-detached	58	1.78	0.6%
Townhouse	2,724	54.80	17.5%
Stacked Townhouse	196	2.99	1.0%
Apartment	144	1.88	0.6%
Total Residential	5,512	152.4	48.7%



