Ambitious Density Scenario – Community Area Land Need

City of Hamilton Land Needs Assessment to 2051
Technical Working Paper – Draft Summary of Results
December 2020
The housing forecast for Hamilton identifies a growth of 110,320 new housing units (including single detached, semi detached, townhouses, and apartments) by 2051.

The 110,320 units need to be split up by unit type. In Line 2, the Ground-related units include single detached, semi detached and townhouse (rowhouse) units. Accessory apartments include basement apartments or detached units in an accessory building. Line 2 shows the unit breakdown by type which results when the City plans for an average rate of intensification of 60% between 2021 and 2051. In the LNA, this is referred to as the Ambitious Density Scenario. As the rate of intensification increases, the percentage of apartments also increases.
Based on Growth Plan policy areas of Built-Up Area (BUA) and Designated Greenfield Area (DGA), the expected unit growth by each type of unit is divided by the location where the new units will be developed. Click [here](#) for a map of these areas. The intensification units (60%) are assigned to the BUA. The rest of the units are assigned to the DGA. A very small portion (140 units) of the overall unit growth is assigned to the rural area, and is not shown in line 3 below.

**Unit Growth by Type to Growth Plan Policy Areas (LNA Table 8 and 11):**

3.

<table>
<thead>
<tr>
<th>Ground Related:</th>
<th>Accessory Apartments:</th>
<th>Apartments:</th>
<th>Total Unit Growth:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUA: 13,240</td>
<td>BUA: 2,650</td>
<td>BUA: 50,300</td>
<td>BUA: 66,190</td>
</tr>
<tr>
<td>DGA: 41,340</td>
<td>DGA: 660</td>
<td>DGA: 1,990</td>
<td>DGA: 43,990</td>
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</tbody>
</table>

Line 3 identifies the total ‘demand’ for new units in the Designated Greenfield Area as 43,990 units. These 43,990 units are divided between the City’s Existing DGA lands (already in the urban area) and New DGA lands (Urban Expansion Areas) in the next step.
To determine the breakdown of units between the Existing DGA and the Urban Expansion Area, we subtract the potential supply of units in the Existing DGA (line 5) from the demand of 43,990 units (line 4). For this next calculation, the Ground Related units are broken down into Single / Semi-detached units and Rowhouses (townhouses), and Accessory Apartments are grouped with Apartments.

4. Unit Demand in the Designated Greenfield Area to 2051 (LNA Table 11):

- Singles / Semis: 23,670
- Rows: 17,670
- Apartments: 2,650

5. Potential Unit Supply in the Existing Designated Greenfield Area in 2021 (LNA Table 10):

- Singles / Semis: 5,590
- Rows: 6,910
- Apartments: 8,060

Subtracting the Potential Unit Supply (Line 5) from the Unit Demand (Line 4) results in the units, by type, that will need to be built in the new DGA (Urban Expansion Area) - see Line 6.
For Singles / semis and Rowhouses, there is a shortfall of available units in the Existing DGA meaning that the additional units will be built in the Urban Expansion Area. For Apartments, there is already more supply of apartments than there is demand in the Existing DGA, so there is no requirement for apartments in the Urban Expansion Area. A total of 23,430 units (28,850 shortfall units – 5,420 surplus apartments) will be in the Urban Expansion Area.

**Unit shortfall or surplus to be accommodated in Urban Expansion Area – Line 4 minus Line 5 (LNA Table 12):**

- **Singles / Semis:** Shortfall of 18,090 units
- **Rows:** Shortfall of 10,760 units
- **Apartments:** Surplus of 5,420 units
- **Total Units in Urban Expansion Area:** 23,430
To figure out the required land area needed to accommodate the 23,430 units in the Urban Expansion Area, a density factor by each unit type is applied, measured in units per hectare (line 7).

**Density Factor by Unit Type (uph) and Resulting Net Land Need by Unit Type (LNA Table 17):**

- **Singles / Semis:**
  - 35 uph x 18,090 units:
  - 520 ha

- **Rows:**
  - 70 uph x 10,760 units:
  - 150 ha

- **Apartments:**
  - N/A

**Total net land need:**

670 ha

This results in a ‘net’ land need of 670 ha. The ‘net’ land need only includes the land needed for each individual housing unit (or the lot area of each new unit). The ‘net’ land area does not include any lands required in the Urban Expansion Area for other uses such as roads, parks, institutional uses, commercial uses, stormwater management etc. These additional uses require the land area to be doubled, as shown in line 8, which provides us with the ‘gross’ land area required for the Urban Expansion Area of 1,340 ha.

**Net to Gross Ratio Factor = 50% (LNA Table 17):**

- **670 ha**
- **2**

1,340 gross ha of land required