Residential Density Handbook

January 2018



INTRODUCTION

Purpose

The residential development examples within this handbook have been compiled to provide a visual context to residential density, based on the number of dwelling units per hectare. The examples have been sourced from St. Albert, Edmonton, and Calgary.

Calculating Density

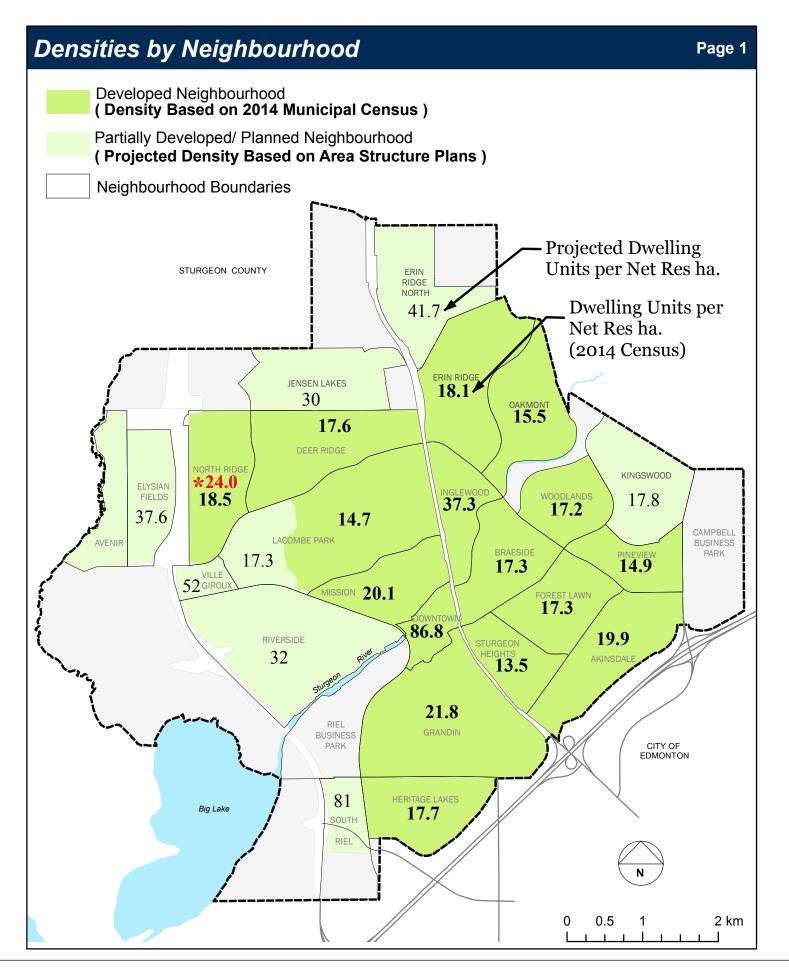
The following methodology was used to calculate density:

- 1. The total area of the site or lots was determined from registered subdivision or condominium plans.
- 2. The total area was divided by the number of dwellings to calculate the dwelling units per hectare (du/ha).

This calculation method is in alignment with the Edmonton Metropolitan Region Board method of calculating dwelling units per net residential hectare (du/nrha). The calculation includes areas used for residential development and excludes areas for parks and trails, school sites, walkways, storm water management areas, and roads.

Definitions

- "single-detached dwelling" means a development comprised of 1 dwelling unit on a site separated by open space from any development on an adjoining site;
- "semi-detached dwelling" means a single building containing two side-by-side dwelling units each with its own title and direct connection to finished grade.
- "townhousing" means a single building comprised of 3 or more dwelling units, each unit with a separate, direct entrance from the exterior; and includes stacked townhousing, back-to-back townhousing, and street-oriented townhousing.
- "street-oriented townhousing" means a single building comprised of a row of 3 or more dwelling units, with a separate direct entrance from the exterior.





Housing Density - Single-Detached Dwellings

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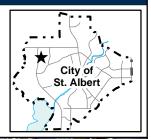
Neighbourhood: North Ridge - Napoleon Crescent

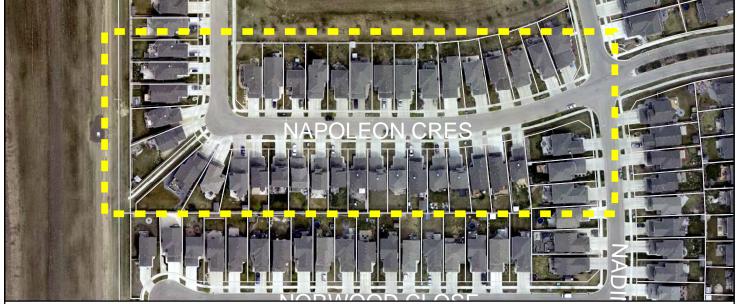
Type of Units: Single-Detached with Front Drive Garages

Number of Housing Units: 37

Property Size: 1.6 ha (Typical Lot Size = 10.5 m wide x 33.9 m long)

Density: 23.1 du/ha





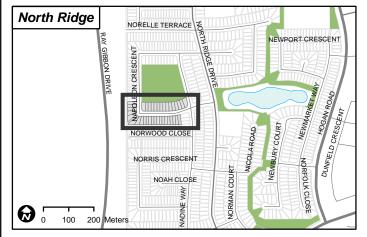




Photo Source: Pictometry Canada, 2016



Photo Source: City of St. Albert Stock Photos, 2016



Photo Source: Google Maps - Street View, image captured Oct 2015





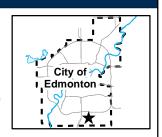
Neighbourhood: Summerside - 7015 22 Avenue SW, Edmonton

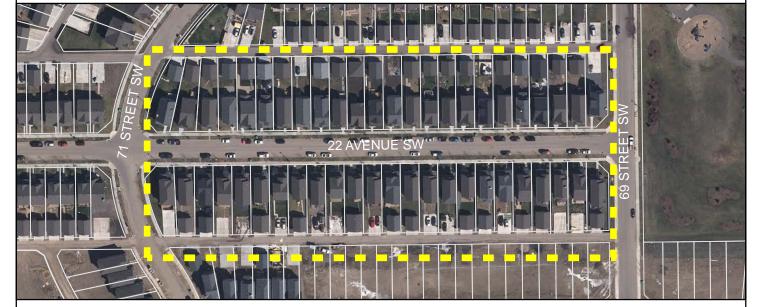
Type of Units: Single-Detached Dwellings

Number of Housing Units: 48

Property Size: 1.60 ha (Typical Lot Size = 9.4 m wide x 35.7 m long)

Density: 30 du/ha









This map was prepared January 22, 2018 by the P&D Department



Photo Source: Google Maps - Street View, image captured Jun 2015



Photo Source: Google Maps - Street View, image captured Jun 2015





Housing Density - Single-Detached Dwellings

Page 4

Neighbourhood: Currie Barracks - 17 Murmansk Way SW, Calgary

Type of Units: Single-Detached Dwellings (Lane)

Number of Housing Units: 6

Property Size: 0.214 ha (Typical Lot Size: 10.9 m wide x 33.4 m long)

Density: 28.0 du/ha

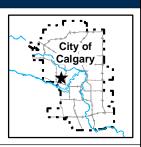




Photo Source: Google Maps, Imagery 2018

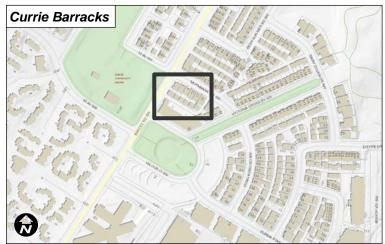


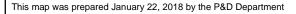
Photo Source: City of Calgary



Photo Source: Google Maps - Street View, image captured Oct 2012



Photo Source: Google Maps - Street View, image captured Oct 2012







Housing Density - Semi-Detached Dwellings

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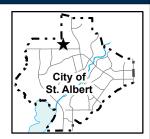
Neighbourhood: Jensen Lakes

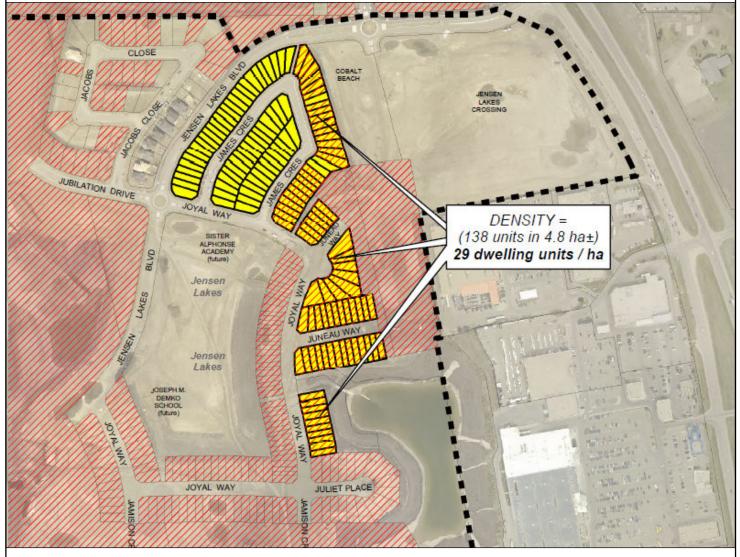
Type of Units: Semi-Detached Dwellings

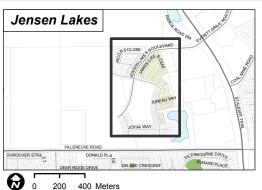
Number of Housing Units: 138

Property Size: 4.8 ha (Typical Lot Size = 9.4 m wide x 35.5 m long)

Density: 29 du/ha







Jensen Lakes Neighbourhood

4.8/ha

138 Parcels for Semi-Detached Housing

Undeveloped Parcels - as of Nov, 2017





Housing Density - Semi-Detached Dwellings

Page 6

Neighbourhood: Summerside - 7117 22 Avenue SW, Edmonton Type of Units: Semi-Detached Dwellings with Detached Garages

Number of Housing Units: 10

Property Size: 0.30 ha (Typical Lot Size = 7.6 m wide x 34.5 m long)

Density: 33.3 du/ha

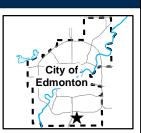








Photo Source: Google Maps - Street View, image captured Jun 2015









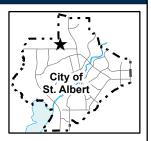
Neighbourhood: Jensen Lakes

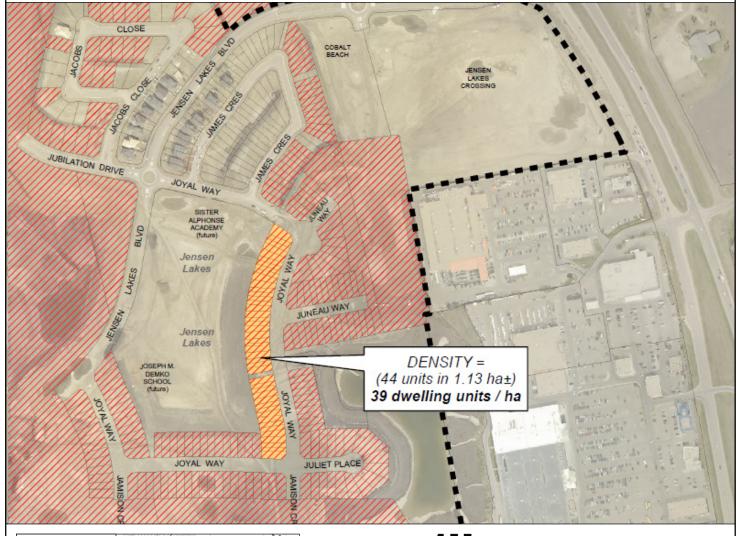
Type of Units: Street-Oriented Townhousing (No Back Lanes)

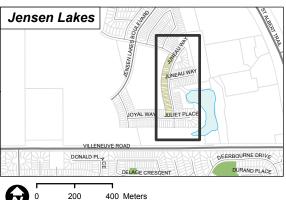
Number of Housing Units: 44

Property Size: 1.13 ha (Typical Lot Size = 6.5 m wide x 35.0 m long)

Density: 39 du/ha







Jensen Lakes Neighbourhood

1.13 ha 44 Parcels for Street-Oriented Townhousing

///// Undeveloped Parcels - as of Nov, 2017





Housing Density - Townhousing

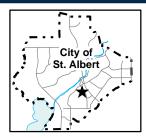
Neighbourhood: Grandin - Garden Crescent, St. Albert

Type of Units: Townhousing with Rear Lane

Number of Housing Units: 66 Units - Built in 1960

Property Size: 1.56 ha (Typical Lot Size = 7.5 m wide x 36.2 m long)

Density: 42.3 du/ha



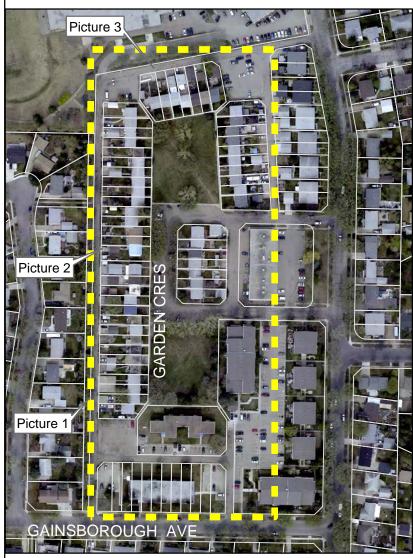




Photo Source: Pictometry Canada, 2016



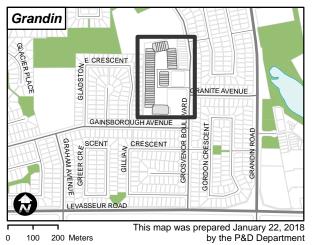
Photo Source: Google Maps - Street View, image captured Oct 2015



Photo Source: Google Maps - Street View, image captured Oct 2015



Photo Source: Google Maps - Street View, image captured Oct 2015







Neighbourhood: Griesbach - 14420-98 St NW, Edmonton

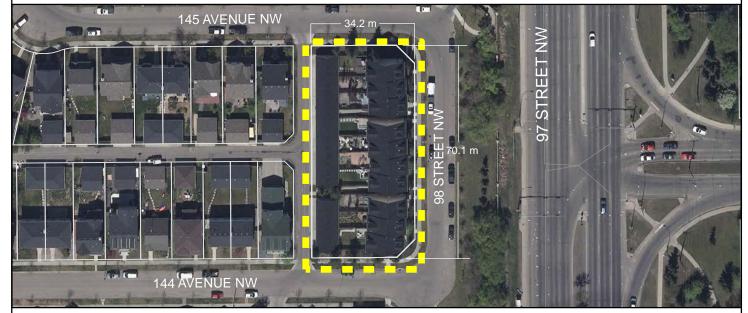
Type of Units: 3-4 Plex Townhousing with Detached Garages (Lane)

Number of Housing Units: 10

Property Size: 0.234 ha

Density: 42.7 du/ha





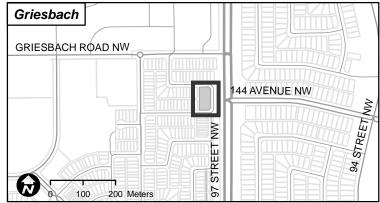




Photo Source: Pictometry Canada, 2016



Photo Source: Google Maps - Street View, image captured Jun 2015



Photo Source: Google Maps - Street View, image captured Jun 2015 $\,$





Neighbourhood: Garrison Woods - 1 Somme Blvd SW, Calgary

Type of Units: Townhousing with Detached Garage (Lane)

Number of Housing Units: 33

Property Size: 0.765 ha

Density: 43.1 du/ha







Photo Source: Google Maps - Street View, image captured Jul 2015

Photo Source: Google Maps, Imagery 2018

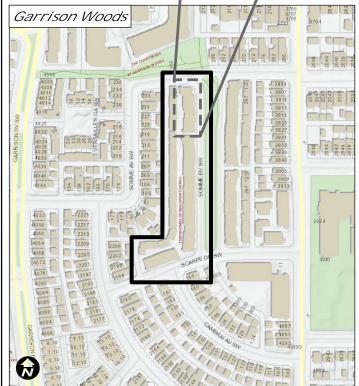


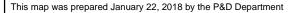
Photo Source: City of Calgary



Prioto Source. Google Maps - Street View, image captured Jul 2015



Photo Source: Google Maps - Street View, image captured Jul 2015







Housing Density - Townhousing

Page 11

Neighbourhood: Garrison Green - 2623 Dallaire Ave SW, Calgary

Type of Units: Townhousing Developments with Detached Garages

Number of Housing Units: 12

Property Size: 0.284 ha (86.6 m wide x 34 m long)

Density: 42.2 du/ha





Photo Source: Google Maps, Imagery 2018



Photo Source: City of Calgary



Photo Source: Google Maps - Street View, image captured Jul 2015



Photo Source: Google Maps - Street View, image captured Jul 2015



Photo Source: Google Maps - Street View, image captured Aug 2014





Neighbourhood: Botanica - 200 Bellerose Drive, St. Albert

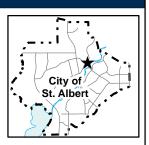
Type of Units: Multi-Family Apartment

Number of Housing Units: Building 1 - 130 units; Building 2 - 168 units

(6 Stories Facing Bellerose Dr./ 9 Stories Facing River)

Density: 191 du/ha (Size = 1.53 ha)

Building Status: Under Construction





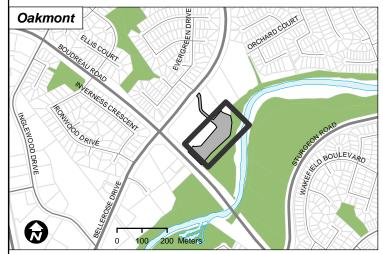




Photo Source: bdltd.ca



Photo Source: livebotanica.ca



Photo Source: buzzbuzzhome.com/ca/botanica



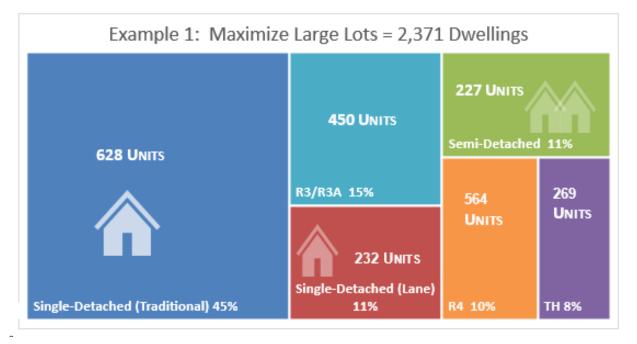


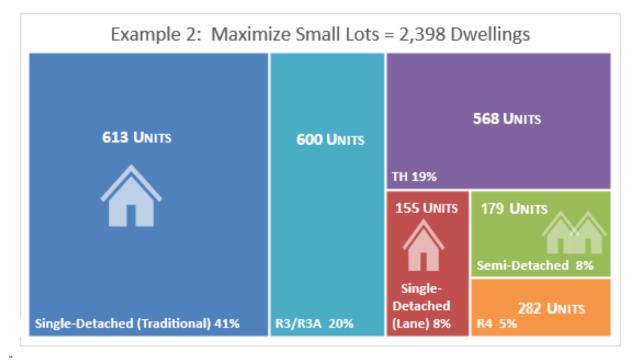
Administration is providing several hypothetical scenarios to illustrate the range of dwelling forms needed to achieve 40 du/ha within an imaginary neighbourhood. Refer to the City of St. Albert map on page 1 for densities of predominantly single-family neighbourhoods.

- Assumed Land Area = 100 ha, with 60 ha developed as residential housing. This area excludes public roads, walkways, school sites, parks, trails, and public utility lots.
- Assumed Lot depths = 33 m
- Net densities = 40 du/ha (all examples)

Assumed Multi-Family Densities:

- R3, R3A = 50 du/ha combined
- R4 = 94 du/ha









Assumptions:

- Assumed Land Area = 100 ha, with 60 ha developed as residential housing. This area excludes public roads, walkways, school sites, parks, trails, and public utility lots.
- Assumed Lot depths = 33 m
- Net densities = 40 du/ha (all examples)

Assumed Multi-Family Densities:

- R3, R3A = 50 du/ha combined
- R4 = 94 du/ha



