

Resources Summary

Population density resources

- [Population density - behind the numbers.pdf](#)
 - **Source:** Research and illustrations (pdf attachment)
 - **Priority:** Critical support
 - **Reference Sources:**
 - JHP Architecture Density Guide - [Density Guide](#)
 - Sustainable Halton: Explaining density: appendix 1-E [Sustainable Halton - Explaining Density](#)
 - **Summary:**
 - It became clear that population density is the key driver of whether a community is pleasant and livable or dense, overcrowded and basically a “people warehouse”. We researched the most densely populated communities in North America - here they are.
 - We researched typical population densities which each kind of building can provide.
- [Density estimates per Distrikt and Corbett Applications.pdf](#) supported by [Distrikt Applications summary](#)
 - **Source:** Research spreadsheet amended based on changes to Distrikt applications; Distrikt and Corbett numbers come from their applications submitted to OLT. Distrikt summary numbers are screenshots from the four Distrikt applications on Oakville.ca
 - **Priority:** Critical support (Confidential re: Distrikt?)
 - **Reference Sources:**
 - Distrikt Development - 166 South Service Road East - OPA 1614.79, Z.1614.79 and 24T-22006/1614
 - Cross Realty Incorporated (Distrikt Developments) - 157 and 165 Cross Avenue, Z.1614.83, OPA 1614.83 and 24T-24002/1614
 - 590 Argus Developments Inc. - 590 Argus Road - Z.1614.81, OPA 1614.81 & 24T-23001/1614
 - Oakville Argus Cross LP - 217 to 227 Cross Avenue and 571 to 595 Argus Road - OPA 1614.78, Z.1614.78 and 24T-22005/1614
 - **Summary:** We noted that planners, consultants and developers don’t provide population density numbers. So we took data from Distrikt and Corbett applications submitted to the OLT and calculated the resulting population density on their lands.
- [Midtown - Modeling diversity of housing mix.pdf](#)
 - **Source:** WLO research - Spreadsheet references sources throughout as per “population density behind the numbers” above.
 - **Status:** Critical support and summary of density comparisons
 - **Summary:** A spreadsheet example of different housing types and population densities, and a summary comparison of all population densities discussed so far.

- [Why net developable land is the right measure.pdf \(this is an extract\)](#)
 - o **Source:** Halton Region – excerpt from Sustainable Halton document
 - o **Status:** Not critical
 - o **Reference Sources:**
 - [Sustainable Halton](#). Item III A in Sustainable Halton - Explaining Density
 - o **Summary:** The province sets population density minimums based on gross land area (including roads, railways, hydro lands, creeks etc. that cannot be developed). This extract from Halton Region indicates that net developable land is the right measure for urban planning. In Midtown this makes a big difference - the gross area is 103 hectares but take away the railway and hydro and the land that can be developed is only 43 hectares.
- [Overcrowding Effects.pdf](#)
 - o **Source:** Output from ChatGPT, include in other material
 - o **Status:** Critical
 - o **Summary:** We asked Chat GPT to describe the effects of overcrowding, and then if a density of 1500 people per hectare would be considered overcrowding. The response and sources are concerning.
 - o **References Sources:** Chat GPT

Distributed Density

- [Density Done Right \(external link\)](#)
 - o **Source:** Ryerson University
 - o **Status:** Not critical
 - o **Summary:** This paper from Ryerson University argues that density becomes liveable if it is distributed. We agree with most of its positions, but disagree that dictats of 3 or 4 units as of right is good planning at a community level.
- [Distributed Density.pdf](#)
 - o **Source:** Paper using pics from google maps. Reference - See street votes below
 - o **Status:** Critical
 - o **Summary:** A short paper illustrating the opportunity, as an example in Ward 3, to distribute density along single storey retail and office areas, of which there are many in Oakville. The paper also summarizes the alternative to 3-4 units as of right - aka "Street Votes".
- [Grand Boulevards and the AB 2011 Revolution \(external link\)](#)
 - o **Source:** HR Inc
 - o **Status:** Important support
 - o **Summary:** This approach to distributed density was pioneered by Peter Calthorpe and legislated into practice in California
- [Superbia \(external link\)](#)
 - o **Source:** SUPURBIA A study of urban intensification in outer London - work in progress
 - o **Status:** Not critical

- o **Summary:** A forward-looking study of how to evolve our suburban areas to a denser and livable model
- **Street Votes - Empowering communities for more and better housing** (external link)
 - o **Source:** YIMBY Alliance - Based on the “[Supurbia](#)” proposals of the Greater London Authority and HTA Design
 - o **Status:** Important
 - o **Summary:** A high-level summary of the “Street Votes” idea proposed in the UK. Which we believe is an attractive and more democratic approach to “gentle densification” of our neighborhoods rather than a government diktat of 3 or 4 units as of right. Follow the link to [Home - YIMBY Alliance](#) for more detail.

Timelines for construction

- [Timeline for Construction.pdf](#)
 - o **Source:** Output from ChatGPT, include in other material
 - o **Status:** Critical
 - o **Summary:** We noted the urgency expressed by the provincial Government to build housing, but were puzzled by their enthusiasm for development of high rise towers given the extra time it takes for them to become available to move in. We asked Chat GPT and it seems that not only does it take up to an extra 2 years to pre-sell and get finance for high rise towers compared to mid rise, there is also an extra 1-2 years required to build high rise towers compared to mid rise.

Climate considerations

- [Building types and climate considerations.pdf](#)
 - o **Source:** Output from ChatGPT, include in other material
 - o **Status:** Critical
 - o **Summary:** It seems strange when we have an opportunity to plan an entire community that we would ignore climate change - since increasingly it is making its effects felt. So we researched the numbers to confirm that we can massively reduce carbon costs of build and operation of Midtown by using mass timber construction of mid-rise up to 12 storeys rather than concrete and steel tall towers.

Liveability

- [Liveability 101 - What Makes a Community Livable?](#) (external link)
 - o **Source:** The American Institute of Architects
 - o **Status:** Not Critical
 - o **Summary:** An overview of Livability considerations by the American Association of Architects
- [Noise and Pollution.pdf](#)
 - o **Source:** Output from ChatGPT, include in other material
 - o **Status:** Critical

- **Summary:** It seemed strange to us that planners seriously expect people to live by a 6 lane highway, while environmental assessments for Distrikt and Corbett applications so far both indicate dangerous noise levels and the need to warn occupants of noise danger. This brief research underscores our concern.

Other Resources (External Links)

- [What really matters in multi-storey building design? A simultaneous sensitivity study of embodied carbon, construction cost, and operational energy](#)
 - A study of embodied carbon, construction cost and operational energy
- **CTV News - This is what an 'incredibly difficult' heat wave was like inside one of Canada's densest neighbourhoods**
 - A CTV news article on people's experience of heat in a high density environment
- **Article: Decoupling density from tallness in analysing the life cycle greenhouse gas emissions of cities**
 - A nature partner journals / RMIT University paper on lifecycle greenhouse emissions of cities
- **Architects Declare Open Letter re tall buildings**
 - An open letter from 2023 on the need to move urban architecture away from tall buildings because of their negative effect on climate change
 - **Priority:** Important
- **The Guardian - Cities need Goldilocks housing density – not too high or low, but just right**
 - An influential and much quoted article by Toronto writer Lloyd Alter on the need to avoid extreme urban densities in favour of the goldilocks density level.
 - **Priority:** Important
- **Article - How tall should a building be: How not to build in a climate crisis**
 - Also by Lloyd Alter, on the environmental cost of building tall.
 - **Priority:** Important
- **UCL-Energy 'High-Rise Buildings: Energy and Density' research project results**
 - A reference web page from UCL energy on the results of a study into energy costs of high rise buildings
- [Canadian Architect - Why we need embodied carbon benchmarks](#)
 - A study in Canadian Architect on what it would take to cut embodied carbon
- [City of Toronto - LEED v4 Supplement – Summary Comparison](#)
 - A Toronto City document summarizing the requirements to achieve LEED v4 level of green Standards for development of mid to high rise buildings.
- **City of Toronto - Tall Building Guidelines**
 - Toronto tall building design guidelines, 2013.

- **Urban Land Institute - 10 Principles Singapore**
 - o Paper by the Urban Land Institute and the Centre for Liveable Cities describing the ten key lessons from Singapore for liveable high density cities.
- **US Federal Highway Administration - Living with Noise**
 - o Paper from the US Federal Highway Administration addressing how to plan land use with highway traffic noise in mind.
- **UK Policy Exchange - Strong Suburbs**
 - o Paper by Policy Exchange, a UK think tank, on liveable suburbs of the future
- **WSP - How can we live like this? The limits of urban density**
 - o Article by Joey Gardiner in Healthy places on the sweet spot of mid-rise development.
- **York University - Sprawl can be vertical or horizontal, tackling it requires a hard look at housing policy**
 - o Article from York University, Toronto, on the need to address housing policy to counteract finance capital that is driving vertical sprawl in Toronto.
- **American Society of Landscape Architects - Interview with Peter Calthorpe**
 - o From the American Society of Landscape Architects, an interview with visionary and influential urban planner, Peter Calthorpe.
 - o **Priority:** Important
- **Spacing - Explaining Transit Oriented Development: Benefits and Drawbacks**
 - o **Priority:** Important
 - o Article by Erick Villagomez, UBC professor, explaining transit oriented development and why tall towers are not necessary parts of TOD.