CAPSTONE: PROFESSIONAL REPORT

Growing towards 'complete communities'?

Analyzing locational quality of housing in Canadian CMAs by amenity density

CAPSTONE (PLAN 528A) | KATRINA TARNAWSKY | AUGUST 2022

executive summary

The goal of achieving "complete communities" is shared across all of Canada's major urban regions. The 6 most populous metropolitan areas - Vancouver, Edmonton, Calgary, Toronto, Ottawa, and Montréal - all seek to support residential growth where households will have access to an array of essential services and amenities such as public transit, health care, and child care.

And yet, a significant amount of new housing has recently been built across Canada in the form of low-density greenfield development. The resulting neighbourhoods often have low amenity richness and likely do not meet the definition of a complete community. There is limited literature that has critically looked at this potential disparity between the complete communities that were planned for, and the actual locational quality delivered along with new housing.

In response, this study seeks to classify the locations of new housing supply in Canada’s largest Census Metropolitan Areas (CMAs) by their amenity richness, and identify where differences exist across regions, dwelling types, and intended markets. Furthermore it analyzes whether these observed patterns align with stated policy goals regarding amenity provision in complete communities. New data made available through the Statistics Canada Proximity Measures Database forms the basis of this analysis.

A policy review of the 6 urban regions mentioned above was completed first. All regional governments prioritize planning for complete communities that are both located in close proximity to and rich in diverse amenities. However, most plans do not have a clear implementation strategy to ensure that this goal is achieved.

Following this, the study presents a tabular analysis of housing starts, categorized by amenity density of the census tract (CT) within which they were located. The analysis yielded the following insights:

Overall

- Almost 80% of housing starts in Canada's 6 largest metropolitan regions were located in low amenity neighbourhoods, and less than 10% in high amenity neighbourhoods, or “complete communities”

By CMA

- Toronto CMA has the highest level of starts in high amenity CTs, at 21%
- Vancouver CMA has the highest number of starts within medium amenity CTs at 27%, but also shows the highest number of single-detached housing starts at this level of amenity richness
- The CMAs of both Edmonton and Calgary have no CTs that are considered to have high amenity density when using the Canada-wide scoring distribution
- Ottawa CMA has a similar pattern to the Alberta CMAs, but has also delivered a sizeable proportion of apartment construction in high amenity areas
- Though comparably rich in CTs with a high amenity density, the Montréal CMA has delivered only 3% of new starts in those neighbourhoods

By Dwelling Type

- Apartment units are most optimally located with respect to amenity density, with 36% in medium and high amenity CTs
- New single detached, semi-detached, and row housing units are located almost solely within low amenity CTs (95-98%)

By Intended Market

- Units intended for the condo market seem to fare slightly better than apartments with respect to delivery in medium and high amenity density CTs (30% vs 26%)
- However, in looking at solely high amenity CTs, purpose-built rental units edge out condo units in Vancouver and Toronto
- The freehold market delivered housing starts almost solely within low amenity CTs
- Co-op starts, though few in number, tend to be located in higher proportions in high amenity CTs than any other tenure type

The Canada Mortgage and Housing Corporation estimates that 5.8 million units are needed in the next decade to restore affordability to the housing market. A large percentage of these units will be delivered in the 6 largest CMAs. Regional governments must strengthen their growth plans to hold municipalities accountable for delivering and measuring proximity to amenities within their neighbourhoods. It is critical that a larger percentage of the nation’s future housing starts be delivered in areas that provide a higher quantity and quality of amenities to Canadian households.

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1 introduction

According to the Canada Mortgage and Housing Corporation, Canada's 6 largest metropolitan areas had over 700,000 housing starts between 2016 and 2021 (CMHC, n.d.-a). This equates to one new dwelling for every 25 residents, or for every 8.5 families, who reside in these census metropolitan areas (CMAs). However, despite housing growth in most urban regions, demand for housing appears to be outpacing growth, resulting in decreases in affordability for most Canadian households. The CMHC has projected that the housing stock will increase by 2.3 million units between 2021-2030, but recently calculated that an additional 3.5 million units are required in order to restore affordability to the market (CMHC, 2022-a).

But with so much housing construction on the horizon for Canadian municipalities, it is also important to consider not just the quantity of units that must be delivered, but other elements, such as their locational adequacy. "Liveability" of communities is often a key principle cited in regional growth plans, and amenity access plays a key role in achieving this goal.

Planning for housing in locations within close proximity to services and amenities is important for numerous reasons:

- It increases the walkability or bikeability of neighbourhoods, allowing residents to access essentials via healthier means of active transport
- It promotes more equitable neighbourhoods, by ensuring easy access to daily needs for all residents, rather than only for those who can afford private vehicles
- It results in less sprawling development patterns, which helps to ensure both the financial and environmental sustainability of our urban areas

Yet, as new housing is built across the country, often in the form of low-density development in distant suburbs (StatCan, 2022-a), it does not appear that these principles are necessarily being followed. There is also no recent cross-jurisdictional study that investigates whether planners' aims of providing appropriate amenity density in tandem with housing delivery have come to fruition.

This study seeks to address this gap and understand whether the spatial pattern of dwelling construction since 2016 has conformed with the provision of amenity richness that regional governments are striving for. It will also explore variations across metropolitan areas, dwelling types, and intended markets, so as to provide a clearer picture of:

- Whether richer or poorer amenity neighbourhoods have been associated with greater housing starts
- What factors are associated with those starts in high amenity neighbourhoods, and
- What improvements in growth planning may be necessary in the coming years.

To do this, data from CMHC will be combined with the relatively new proximity measures data from Statistics Canada (StatCan) in order to create a measure of relative amenity richness for new housing across different census tracts (or the rough equivalent to a local neighbourhood) in Canada's largest CMAs. Although amenity richness as defined by these proximity measures may not map directly onto the concept of liveability or locational quality, it provides useful insights into the availability and accessibility of amenities and services that Canadians need and expect within a short walk or drive.

Importance of Proximity to Amenities

Much has been made of the importance of "liveable" or "complete" communities in the last few decades. The Growth Plan for the Greater Golden Horseshoe defines complete communities in the following way:

"Places such as mixed-use neighbourhoods or other areas within cities, towns, and settlement areas that offer and support opportunities for people of all ages and abilities to conveniently access most of the necessities for daily living, including an appropriate mix of jobs, local stores, and services, a full range of housing, transportation options and public service facilities. Complete communities are age-friendly and may take different shapes and forms appropriate to their contexts."

(Ontario Ministry of Municipal Affairs and Housing, 2020, p. 68)

This is a fairly typical definition, and one upon which this analysis relies. It focuses on convenient access to certain essential functions of social, professional, and private life, including employment, places to shop, transportation, and publicly-provided services. These aspects must all be

associated with nearby housing.

Most municipal and regional plans state that achieving complete communities within their boundaries is a central goal that guides their growth and planning strategies.

In recent years, the concept of a complete community has also evolved into the trendy "15-minute city" paradigm, popularized globally during the COVID-19 pandemic by cities such as Paris, France. The 15-minute city adds a temporal concept to planning for daily needs, accommodating "an optimal density that would have access to basic essential services within a 15-min walking or cycling distance" (Moreno, et al., 2021, pp. 105-6).

But beyond being a fashionable phrase to use in planning policies, why is planning for amenity density important? Badland et al. argue that access to a number of "domains of livability" are associated with certain positive health outcomes, and are closely aligned with the social determinants of health (2014). These domains include: crime and safety, education, employment and income, health and social services, housing, leisure and culture, local food and other goods, natural environment, public open space, transport, and social cohesion and local democracy. They cite epidemiological evidence that those who live in socially- or resource-deprived neighbourhoods "experience higher levels of morbidity and premature mortality than those who are more advantaged" (Badland, et al., 2014, pg. 65).

In addition to better health outcomes, adequate access to amenities and services is required in ensuring equitable housing opportunities for individuals and families across all income segments. A report by the McKinsey Global Institute states that unlocking land supply at the right location is the most critical step in providing affordable housing (2014). They state that, in order for affordable housing projects to achieve success, they "must be built where residents can reach jobs in reasonable commuting times, families have access to schools and vital services, and people can connect with the society around them" (McKinsey Global Institute, 2014, pg. 7). Lack of this infrastructure can cause housing projects to fail.

Perhaps the most clear signal of the importance of the proximity of housing to amenities and services is the fact that the United Nations includes these aspects under its definition of the right to housing. Article 11.1 of the International Covenant on Economic, Social and Cultural Rights recognizes

the right to an *adequate* standard of living, including housing (United Nations, 1966). The Committee on Economic, Social and Cultural Rights (CESCR) further clarified this right by stating that housing must meet a number of conditions to be considered adequate, including its location.

"Adequate housing must be in a location which allows access to employment options, health-care services, schools, childcare centres and other social facilities. This is true both in large cities and in rural areas where the temporal and financial costs of getting to and from the place of work can place excessive demands upon the budgets of poor households. Similarly, housing should not be built on polluted sites nor in immediate proximity to pollution sources that threaten the right to health of the inhabitants;"

(United Nations CESCR, 1991)

In 2019, Bill C-97 containing the National Housing Strategy (NHS) Act and the right to housing passed the Canadian Senate, committing the federal government to progressively realize this right in accordance with international human rights law (National Right to Housing Network, 2022). Because it has adopted this rights framework, Canada has obligations to provide citizens with homes under certain "locational standards".

These standards of adequacy closely match the above definition of complete communities, but also specifically identify health, childcare, and educational facilities.

Yet, as both McKinsey and Badland et al. note, much new affordable housing is located in urban fringe greenfield

Figure 1. Rendering for A New Row Housing Development in Edmonton. Source: Mutti Homes

developments (where land is cheaper), in developments that include only low-density housing, “with limited and delayed provision of employment, education, service and public transport infrastructure within walking and cycling distance” (Badland, et. al., 2014, pg. 65).

Therefore, by examining whether new housing construction is taking place within high amenity neighbourhoods (or complete communities), this study also investigates whether governments are following the NHS obligation to deliver locational adequacy, as defined by the UN CESCR.

To achieve this, we needed to define the amenity density of neighbourhoods where new housing starts are found. Those neighbourhoods that met a certain amenity density threshold represented areas that might be considered complete communities by the standards set out in Canada's regional growth plans and the NHS.

Study Context

CMHC 2022 HOUSING SUPPLY REPORT

The CMHC Housing Supply Report for Canadian Metropolitan Areas was released in May 2022. The report provided insights into new housing supply in Canada’s major urban areas in order to better understand supply responsiveness in the face of affordability challenges in the housing market (CMHC, 2022-b). In looking at housing starts in the CMAs of Vancouver, Edmonton, Calgary, Toronto, Ottawa, and Montréal, the report highlighted a few key findings:

- Housing starts have struggled to keep up with population growth in some CMAs.
- Apartments (both intended for rental and ownership) dominate construction in the largest urban centres - Montréal, Toronto, and Vancouver.
- In contrast, ground-oriented housing dominates construction starts in Edmonton, Calgary, and Ottawa.
- The proportion of rental housing has increased in a number of CMAs, but not in Toronto.
- Toronto has the highest proportion of high-rise apartment units under construction, while other CMAs have more diversity in building type, with fewer units and floors.

The report, however, only commented on the quantity, type, and location of housing. There was no information provided about the quality of housing, including amenity-richness of the surrounding neighbourhoods. This

study seeks to address this gap.

HOUSING STARTS VISUALIZATION

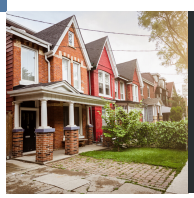
The Housing Assessment Resource Tools (HART) project team has further visualized CMHC's data on housing starts in order to illustrate where construction of new units has taken place in the 6 CMAs in question. The goal of the HART project is to develop robust, equity-focused, comparable, and replicable housing need and land assessment methods for governments across Canada to employ in the progressive realization of the right to housing (Whitzman, et al., 2021).

Using the software Tableau, they have mapped the spatial distribution of new construction by census tract (CT), including filterable information on year of construction, dwelling type, and tenure type. Again, HART's visualizations only provide information on quantity of housing, and not the quality of the census tracts according to amenity density. This study seeks to address this gap in the knowledge base.

(The HART visualizations of housing starts in each CMA are used in Section 4 of this report for illustrative purposes.)

Census Tracts

Small geographic areas that usually have a population of fewer than 7,500 persons, based on data from the previous census. They are located in CMAs and in census agglomerations (CAs) that had a core population of 50,000 or more in the previous census. (StatCan, 2022-b)



2 research methods

Study Context

This project explores the location of newly constructed housing in Canada's major metropolitan areas in terms of its proximity to critical services and amenities. Using data recently collected and made publicly available by Statistics Canada (StatCan) and CMHC, this research assesses whether new supply is being delivered in amenity rich areas of cities, and how these construction patterns may or may not align with stated policy goals for complete, healthy communities.

Research Questions

1. How can the locations of new housing supply in Canada's largest CMAs be classified in terms of amenity richness?
2. Does amenity richness differ geographically (by CMA)? By dwelling type? By intended market?
3. Do the observed patterns align with stated policy goals regarding amenity provision in complete communities?

Methodology

This study began with a high level policy review of the regional land use plans that are associated with each of the 6 CMAs, with the goal of identifying what these documents state are the regional goals regarding location of new construction and amenity provision to neighbourhoods. Regional growth plans for each CMA that were in force between 2016-2021 were selected for review. Plans were scanned for the terms "amenities" and "complete communities" to determine what policy direction(s) they articulated with

regards to amenity richness or provision to developing or redeveloping neighbourhoods. Additionally, the plans were parsed to determine whether they identified any implementation and performance monitoring actions that measured either proximity to or density of amenities within given areas. This provided information as to whether regional governments were embedding accountability into their goals of achieving complete communities.

Following the policy review, a tabular data analysis was undertaken to investigate the patterns of housing starts according to CT and reported by dwelling type and intended market. This section incorporated a comparative evaluation of recent housing delivery according to amenity richness across Canada's largest CMAs

Tables included percentages of units started in CTs that are ranked low to high for amenity density based on a Canada-wide measure.

Data

This analysis used data from two sources - the Proximity Measures Database (PMD) and the CMHC's Housing Market Information Portal (HMIP). The PMD was released in April 2020 as a result of a collaboration between StatCan and CMHC to generate data and analyses in support of the National Housing Strategy (StatCan, 2020). The PMD supplies neighbourhood-level measures of the physical proximity of 10 services and amenities (see Figure 3) across Canada at the highly granular level of the dissemination block (DB). The 10 measures align closely with the domains of urban liveability identified by Badland et al. as essential factors that promote health and wellbeing - a core goal of complete communities (2014).

Dissemination Blocks

Areas bounded on all sides by roads and/or boundaries of standard geographic areas. (StatCan, 2022-c)

The measures are based on a gravity model that accounts for the distance between a reference DB and all the DBs in which the service is located (within a given distance), as well as the size - or in the case of public transit, frequency - of the services (Alasia, A. et al., 2021).

Data was sourced from official statistics from StatCan's data holdings (primarily the Business Register, which is a central repository of businesses and institutions operating in Canada), and openly licensed and public databases. The latter was composed of open micro data primarily from municipal, provincial, and federal sources, as well as the OpenStreetMap road network and OpenRouteService software.

10 PMD Services and Amenities

Employment
10 km drive

Grocery Stores
1 km walk

Pharmacies
1 km walk

Health Care
3 km drive

Child Care
1.5 km walk

Primary Education
1.5 km walk

Secondary Education
1.5 km walk

Public Transit
1 km walk

Neighbourhood Parks
1 km walk

Libraries
1.5 km walk

Figure 2. PMD Services and Amenities. Data Source: StatCan, 2020

Figure 3. City of Calgary skyline. Source: Canva

The HMIP is a database where CMHC regularly publishes data collected via a number of surveys and census statistics. The data used for this project was gathered as a part of the Starts and Completions Survey. CMHC conducts site visits on a monthly basis in CMAs to enumerate new residential units which have reached set stages in the construction process (CMHC, n.d.-c). The data granularity is not as high as that generated by the PMD, but is available at the CT level.

In order to best understand the amenity richness of the neighbourhoods where new dwellings have been constructed in Canada's largest CMAs, the sample was limited to housing starts. CMHC used starts data in the 2022 Housing Supply Report to represent new construction, so the same data was used in this study in order to build on that work.

The sample was limited to starts data from January 1, 2016 to December 31, 2021 for 6 CMAs (Vancouver, Edmonton, Calgary, Toronto, Ottawa, and Montréal). The dataset included four dwelling types as well as four intended markets (or tenure types) for the units surveyed:

Table 1. Dwelling Types of Housing

Type	Definition
Single-Detached	A building containing only one dwelling unit, which is completely separated on all sides from any other dwelling or structure.
Semi-Detached (Double)	1 of 2 dwellings located side-by-side in a building, adjoining no other structure and separated by a common or party wall extending from ground to roof.
Row (Townhouse)	A 1-family dwelling unit in a row of 3 or more attached dwellings separated by a common or party wall extending from ground to roof.
Apartment and other	Includes all dwellings other than those described above, including structures commonly known as stacked townhouses, duplexes, triplexes, double duplexes and row duplexes.

Source: CMHC, n.d.-c

Table 2. Intended Markets of Housing

Type	Definition
Homeowner	A residence where the owner owns the dwelling and lot outright. Also called freehold.
Condominium	An individual dwelling unit which is privately owned, but where the building and/or the land are collectively owned by all dwelling unit owners. This includes strata-titled condominiums.
Rental	A dwelling constructed for rental purposes, regardless of who finances the structure.
Cooperative (Co-op)	A tenure type wherein occupants form associations or corporations (typically non-profit) to own and operate a group of housing units, including common areas and other amenities. The members own a share in the cooperative, are entitled to occupy a unit, and have access to the common areas and amenities. Monthly housing charges are set by the members to cover the cost of running the co-op.

Source: CMHC, n.d.-c

Evaluation of Census Tracts

The goal of this analysis was to determine the amenity richness associated with the location, dwelling type and intended market of new construction in Canada's largest CMAs over the past 5 years. For simplicity of analysis, a new measure was calculated that assigned each DB in each CMA one of three amenity density classifications based on a combination of all 10 proximity measures. The classifications were labeled "low", "medium", or "high":

- **Low**: At least 1 of the 10 proximity measures was 0. Proximity measures are 0 where DBs are beyond a specified distance from an amenity. (See Appendix A for specified distances.)
- **Medium**: All 10 proximity measures were above 0.
- **High**: All 10 of the proximity measures were above 0 and fell within the top third of their distribution both Canada-wide and within each CMA. (See Appendix A for high

amenity density thresholds.)*

It was then necessary to aggregate amenity density from the DBs to the CT level. This was achieved by calculating a sum of each of the DB areas within a given CT associated with “low", “medium”, and “high” density. The CT was then assigned the amenity density value associated with the largest sum. As a result, the CTs also had a resulting amenity density score of “low”, “medium”, or “high”.

Finally, the housing starts in each CT within a given CMA were added together based on their amenity density score, and further disaggregated according to dwelling type and intended market. This final disaggregation was performed to ascertain whether certain forms of building or tenures were associated with housing starts in areas of higher amenity density.

In the final analysis, a CT with a "high" classification was considered a complete community, as it had each of the 10 essential services and amenities within close proximity to residents. New housing starts within these high amenity CTs were taken as an indicator of progress towards the goal of achieving complete communities within a given CMA.

* *For this report, the Canada-wide classifications were used in the tabular analysis, and this provided insight into how the CMAs compare in terms of amenity provision. However, the within-CMA classifications (i.e. those which were ranked low, medium, and high in comparison only to other CTs within the same CMA) yielded very similar proportions of starts in low, medium, and high amenity CTs. In fact, they varied only 1-2% for almost all categories of starts, except co-ops. Therefore, there was no real difference when looking at the proportion of starts in neighbourhoods that are defined as “amenity rich/poor” by the Canadian distribution versus the CMA-specific distribution.*

3

policy review

The following section provides a high-level evaluation of the regional planning context that concerns housing and amenity provision in Canada's 6 largest CMAs. It briefly describes how the regional growth plans in force during the years examined by this study (2016-2021) laid strategies for amenity density. It also summarizes implementation measures and performance monitoring associated with these strategies,

Although the regional planning jurisdictions of these urban areas may not correspond exactly to the CMA boundaries defined by StatCan, these jurisdictions provide important policy directions for the majority of the housing development under consideration by this study.

Figure 4. Housing in Montréal.
Source: Canva

Vancouver

Regional Growth Policy: *Metro Vancouver 2040: Shaping Our Future*

Years in Force: 2011-2022

Stated Goals Concerning Housing Development and Amenity Richness: The plan set 5 goals, of which Goal 4 was "Develop Complete Communities".

The board's definition of a complete community was one with "[a]ccess to a wide range of services and amenities close to home, and a strong sense of regional and community identity and connection" as a means of promoting health and wellbeing (Greater Vancouver Regional District Board, 2011, p. 45).

Strategies to achieve Goal 4 were:

- 4.1 Provide diverse and affordable housing choices
- 4.2 Develop healthy and complete communities with access to a range of services and amenities

The second strategy aimed to design neighbourhoods within Urban Areas, Urban Centres, and Local Centres as accessible for people of all ages and physical ability, and to provide for transit, cycling and walking infrastructure, employment, social and cultural opportunities, parks, greenways and recreational opportunities.

Implementation and Performance Monitoring: Individual municipalities were required to include a Regional Context Statement within their Official Community Plan (OCP) that identified the relationship between the OCP and the goals, strategies and actions identified in the Regional Growth Strategy.

Progress toward complete communities and health were monitored only by a vaguely defined measure "walkability" rather than by a specific measure of amenity provision or proximity.

Figure 5. City of Vancouver Apartments. Source: Canva

Edmonton

Regional Growth Policy: *1) Growing Forward: The Capital Region Growth Plan; 2) The Edmonton Metropolitan Region Growth Plan*

Years in Force: 1) 2010-2017; 2) 2017-present

Stated Goals Concerning Housing Development and Amenity Richness: 1) In Growing Forward, the board identified 6 guiding principles, of which #4 deals with amenity provision:

> 4. The location of housing is based on integrated planning for efficient land use that provides access to necessary amenities such as transit and support services and achieves appropriate types of housing stock, densities and affordability for both renters and owners.
>
> (Capital Region Board, 2009, p. 107)

2) In the 2017 growth plan, the more common term of "complete" communities was used when describing the plan's key strategies and growth outcomes:

> "This Plan aims to create complete communities at a variety of scales and contexts across the Region. Complete communities meet people's needs for daily living at all ages and provide convenient access to a mix of jobs, local services, a full range of housing, community infrastructure and multi-modal transportation choices."
>
> (Edmonton Metropolitan Region Board (EMRB), 2017, p. 21)

Complete communities were a core aspect of the plan's regional policy area of Integration of Land Use & Infrastructure.

Implementation and Performance Monitoring: Municipalities were required to prepare a Regional Context Statement in their Municipal Development Plan that included details on a) how they would meet minimum greenfield densities, b) their aspirational intensification targets and centres targets, and c) a definition of built-up urban areas.

The only key performance indicator pertaining to amenity density was a measurement of the diversity of land uses in greenfield areas (% of area per generalized land use category). The plan acknowledged "but does not address the soft infrastructure components of a complete community including culture, health, education, law enforcement and emergency services" (EMRB, 2017, p. 21).

Calgary

Regional Growth Policy: *Calgary Metropolitan Region Growth Plan*

Years in Force: 2021-present

Stated Goals Concerning Housing Development and Amenity Richness: The board set out several growth plan objectives, of which Objective H was "Limit or discourage new auto-oriented residential communities that are dominated by single-detached housing with limited amenities."

The Calgary Metropolitan Region Board (CMRB) adopted their first growth plan in 2021. The growth plan established "Preferred Placetypes", or development forms that the board believed would improve environmental and fiscal outcomes and efficiency in infrastructure and servicing. The types were called Infill and Redevelopment, Masterplan Communities, and Mixed-use/TOD. In addition to being compact and contiguous, with a diverse mix of housing types, the Preferred Placetypes were to be complete communities that provided "access to local services, neighbourhood amenities, and commercial uses" (CMRB, 2021, p. 52). The plan indicated that growth should be primarily in these placetypes, and in preferred growth areas (termed Urban Municipalities, Joint Planning Areas or Hamlet Growth Areas).

Implementation and Performance Monitoring: The plan asserted that implementation would take place through collaborative efforts with local municipalities. To assist the municipalities with reporting and monitoring, the CMRB intends to create an implementation toolkit within one year of approval of the Growth Plan. A Geographic Information System (GIS) dataset that shows the changes over time of Placetypes in the Region will also be established.

Although these measures are promising, it is difficult to evaluate their rigour with respect to amenity provision at this stage in their development.

Toronto

Regional Growth Policy: *1) Places to Grow: Growth Plan for the Greater Golden Horseshoe; 2) A Place to Grow: Growth Plan for the Greater Golden Horseshoe*

Years in Force: 1) 2006-2020; 2) 2020-present

Stated Goals Concerning Housing Development and Amenity Richness:
1) In the 2006 growth plan, the first guiding principle to achieve the region's vision was to "build compact, vibrant and complete communities" (Ontario Ministry of Public Infrastructure Renewal, 2006, p. 10). The plan focused mainly on achieving intensification of residential densities in designated areas, but only mentions amenities once within the document.

2) The vision of the 2020 regional growth plan provided a slightly more detailed definition of complete communities:

> "The GGH will have sufficient housing supply that reflects market demand and what is needed in local communities. Thriving, livable, vibrant, and productive urban and rural areas will foster community health and individual well-being. … Residents will have easy access to food, shelter, education, health care, arts and recreation, and information technology. Public services will be colocated in community hubs that are broadly accessible"
>
> (Ontario Ministry of Municipal Affairs and Housing, 2020, p. 4)

Provision of amenities took on a more central focus in the latter plan, and the focus on fostering complete communities was apparent through the other policies within the document.

Implementation and Performance Monitoring: Both the 2006 and 2020 growth plans were implemented at the provincial level, with the responsible Minister working collaboratively with municipalities and other stakeholders. Clear performance measures were also not defined in either of the plans, but were to be developed and monitored by the Minister. Instead, a series of minimum intensification and density targets were prepared to support the development of complete communities. No specific amenity measure was included, but investment in public service facilities was encouraged through the co-location of services in community hubs.

Ottawa

Regional Growth Policy: N/A

Years in Force: N/A

Unlike the other regional urban areas examined in this policy review, the Ottawa CMA does not correspond to a planning region. The National Capital Commission prepares plans for parkland and other federally-owned lands at the regional level, but this does not encompass the delivery of housing and community amenities.

Instead, the most pertinent plans that contain information on urban growth and neighbourhood formation are municipal Official Plans (OP). Of these, the OPs of the City of Ottawa and Ville de Gatineau represent the largest jurisdictions.

Ottawa's OP that was in force from 2003-2021 focused on "Building Liveable Communities" as a strategic direction (City of Ottawa, 2003). It stated the following:

> "This Plan proposes that Ottawa's communities be built on the basics: good housing, employment, ample greenspace, a sense of history and culture. But it also proposes to create more liveable communities by focusing more on community design and by engaging in collaborative community building, particularly in and around the Mixed Use Centres and Mainstreets that have a great potential for growth."
>
> (City of Ottawa, 2003, section 2.5)

However, this prioritization of liveable communities encompassed policies that centered more on implementing urban design and achieving compatibility than on delivering access to key amenities and services.

In contrast, Ottawa's newest OP, adopted in the fall of 2021, was built entirely on the concept of evolution towards 15-minute neighbourhoods. It comes with a strong set of implementation measures, including:

- Providing broad land use permissions in concentrated areas that are within a 15-minute walk to residents
- Moving Retail Food Stores and Licensed Child Care Centres or Facilities Providing Temporary Care into the category of "Generally Permitted Uses"
- Establishing a Future Neighbourhood Overlay intended to guide development
- Allowing for the creation of Community Improvement Plans (City of Ottawa, 2021)

Gatineau has also set a strategic direction towards complete communities within their *Schéma d'aménagement et de développement révisé* (SADR) and recent *Plan d'urbanisme*. Direction #4 in these plans is "Créer des milieux de vie complets et écoresponsables", and it has set target densities to achieve this (Ville de Gatineau, 2016, p. 47). Yet, the only measure corresponding to amenities was determining the number of jobs per inhabitant, with a target of a 10% increase for central nodes.

Figure 6. Ottawa high-rise buildings. Source: Unsplash.

Montréal

Regional Growth Policy: *Plan métropolitain d'aménagement et de développement*

Years in Force: 2011-present

Stated Goals Concerning Housing Development and Amenity Richness: Policy Direction 1 - A Greater Montréal with Sustainable Living Environments addressed some aspects of amenity provision and complete communities.

The Communauté métropolitaine de Montréal (CMM) has prioritized household growth in Transit-Oriented Development (TOD) neighbourhoods around structural metropolitan mass-transit network stations. They stated that the creation of TOD neighbourhoods helps improve urban quality of life and simultaneously furthers many objectives, including "[increasing] accessibility to local services via public and active transportation" (CMM, 2011, p. 81).

It also encouraged the creation of Eco-Districts (or "Sustainable" Neighbourhoods), which are designed to be multifunctional by hosting businesses and services, and facilitating access to sports and cultural activities as well as employment hubs.

Implementation and Performance Monitoring: The plan required local municipalities to provide for compliance with the minimum density threshold, and indicated that this could be done by noting the proximity of public services. The provincial government has committed to monitoring local government land use planning orientations to ensure the consistency of planning efforts.

Summary

Although most regional plans have, at their core, a focus on planning for complete communities that are both located in close proximity to and rich in diverse amenities, most plans did not have a clear implementation strategy to ensure that this goal was achieved. Generally speaking, the plans only specified that certain densities of housing needed to be met, and said nothing of measuring proximity of that housing to essential amenities and services. Of all the regional plans examined, only the Montréal region included any reference to a measure that directly analyzed amenities. This is where using the PMD data along with housing starts can provide a new method of evaluating the success of complete communities with respect to new dwellings in Canada's CMAs.

4 proximity measures

by CMA, Intended Market, and Dwelling Type

Summary

This section of the study presents a tabular analysis of the new construction starts by the amenity density of the CT they are located within. Data is shown cumulatively (in the case of the cross-national data), as well as segregated by dwelling type and intended market.

Data from the Vancouver, Edmonton, Calgary, Toronto, Ottawa, and Montréal CMAs is first presented comparatively. Following this analysis, this study dives into each region in order to provide a more localized series of insights.

Figure 7. Greenfield development in Southwest Edmonton.
Source: Rohit Group of Companies.

Comparative Analysis

Between 2016 and 2021, there were 710,347 housing starts recorded across the 6 largest Canadian CMAs. Of these, almost 80% were located in low amenity neighbourhoods, and less than 10% in high amenity neighbourhoods, or "complete communities". But, as is illustrated in the following tabular analysis, there were also marked differences across the different urban regions, different dwelling types, and intended markets.

Table 3. Proportion of total housing starts in each CMA located within low, medium, and high amenity CTs.

CMA	Total Starts	Low	Medium	High
Canada (All 6 CMAs)	710,347	79%	12%	8%
Vancouver	152,213	70%	27%	3%
Edmonton	65,479	98%	2%	-
Calgary	63.016	90%	10%	-
Toronto	229,788	71%	8%	21%
Ottawa	48,247	92%	5%	4%
Montréal	151,604	86%	11%	3%

For instance, Table 3 shows us that the Vancouver CMA has delivered housing starts in CTs of low, medium, and high amenity density at roughly the same proportions as the total number of CTs that exist within those categories (low=73% of total CTs; medium=24%; high=3%). This region has the highest number of starts within medium amenity CTs, but also shows the highest number of single-detached housing starts at this level of amenity richness, at 19%. Given that this dwelling type represents the lowest amount of dwelling density possible, it may be important to ask whether higher density dwelling types would be more beneficial in allowing a greater number of households to reside in these higher amenity CTs.

The CMAs of both Edmonton and Calgary have no CTs that are considered to have high amenity density when using the Canada-wide scoring distribution, and therefore cannot

contribute housing starts in areas that have excellent liveability by Canadian standards. Edmonton fares poorest in this respect, as it has 94% of its CTs designated as low amenity, and is delivering 98% of new housing into these low amenity areas. It appears that the largest factors leading to low scoring CTs in these CMAs are a paucity of child care services, primary education facilities, and grocery stores (see Appendix B).

The pattern of housing starts by amenity level in the Ottawa CMA is not much better than in the two Alberta CMAs, but due to high levels of apartment construction in high amenity areas, it has provided a proportion of units that are in well-serviced neighbourhoods.

The Toronto CMA has the highest level of starts in high amenity CTs, at 21%, raising the Canadian average significantly. But there exists a gap between the majority of units started in low amenity areas and those in high amenity areas. 12% of CTs in Toronto are considered medium amenity, and are not being taken advantage of to their full extent for new housing construction.

Though comparably rich in CTs with a high amenity density, the Montréal CMA has delivered only 3% of new starts in those neighbourhoods.

Table 4. Proportion of housing starts of each dwelling type located in medium and high amenity CTs.

CMA	Single Detached	Semi-Detached	Row	Apartment
Canada (All 6 CMAs)	4%	5%	2%	30%
Vancouver	20%	33%	4%	36%
Edmonton	1%	3%	0%	4%
Calgary	1%	1%	2%	22%
Toronto	2%	3%	3%	44%
Ottawa	1%	2%	1%	23%
Montréal	1%	2%	2%	17%

In analyzing proximity to amenities by dwelling type, apartment units are most optimally located. This is not unduly surprising, as higher density building forms are able to house the higher population needed to support businesses and justify the delivery of higher levels of government services.

Even so, the majority of apartment starts were still delivered in low amenity CTs. For example, Toronto, which has the highest proportion of apartment starts in medium and high amenity CTs, still had 56% of apartments constructed in low amenity CTs.

Table 5. Proportion of housing starts of each intended market located in medium and high amenity CTs.

CMA	Freehold	Rental	Condo	Co-op
Canada (All 6 CMAs)	3%	26%	30%	29%
Vancouver	17%	37%	30%	23%
Edmonton	1%	4%	3%	-
Calgary	1%	23%	19%	-
Toronto	3%	56%	41%	-
Ottawa	1%	19%	25%	100%
Montréal	2%	15%	19%	29%

Within the apartment dwelling type, units intended for the condo market seem to fare slightly better than apartments with respect to delivery in medium and high amenity CTs. Yet, in looking at solely high amenity CTs, rental units edge out condo units in the Vancouver and Toronto CMAs (Condos in the Montréal and Ottawa CMAs had between 2-4% more units started in high amenity CTs.)

In every CMA, the freehold market delivered housing starts almost solely within low amenity CTs. This aligns with the fact that most freehold homes constructed in Canada are single-detached homes, which consistently also have extremely high proportions of starts in low-density CTs. Semi-detached and row housing starts don't fare any better. These low density housing forms are being built either in new

developments at the suburban peripheries (e.g. Edmonton and Calgary), or replacing existing low-density housing in mature communities (e.g. Vancouver) where the local neighbourhood is not equipped to provide the necessary services and amenities necessary for a high quality of life.

Finally, a small number of co-op units have been delivered recently in Vancouver, Ottawa, and Montréal. Though they represent only a small fraction of the total housing starts that were recorded, they tend to be located in larger concentrations in high amenity CTs than any other tenure type. Whether this is a result of land use regulations, land prices, or some other factor remains an area for future study.

Figure 8. Rendering of rental development in Toronto's West Don Lands. Source: Cobe.



Vancouver

Population, 2021: *2,642,825*
Population density per km2: *918.0*
Total starts, 2016-2021: *152,213*

Figure 9. Choropleth map showing proportion of housing starts in Vancouver CMA CTs.
Source: HART.

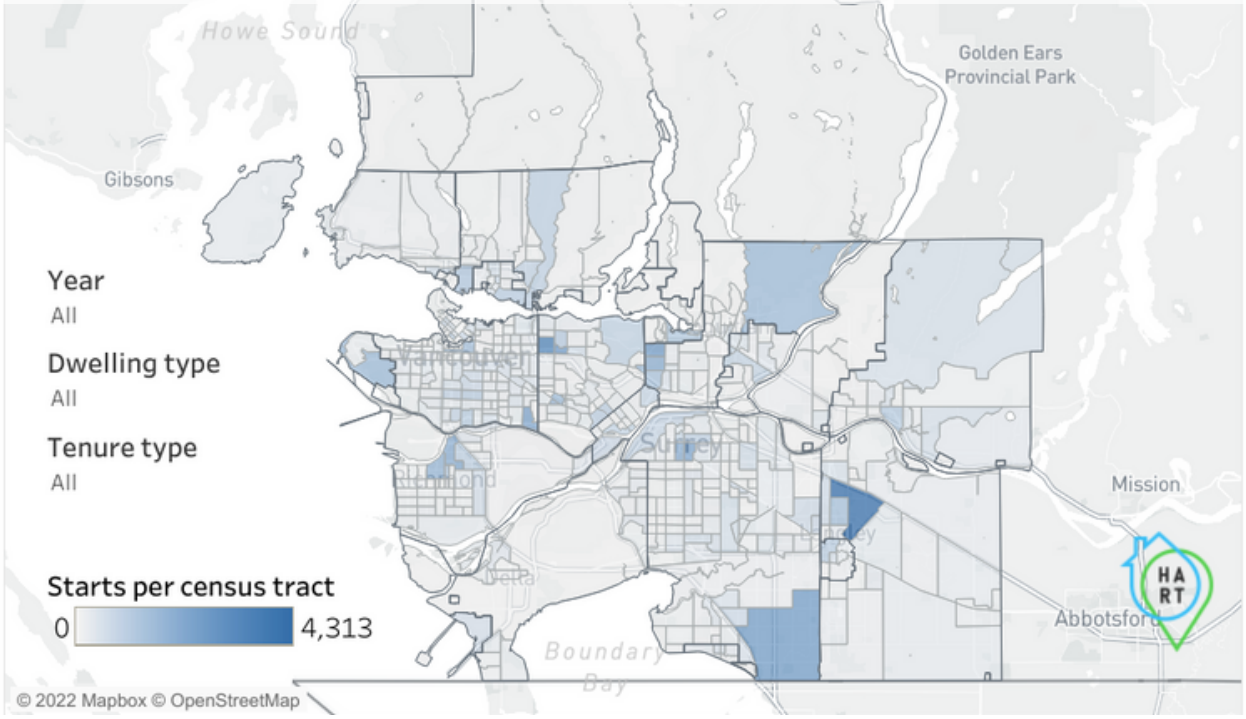


Table 6. Proportion of Vancouver CMA CTs categorized as low, medium, and high amenity.

Total CTs in CMA	Low	Medium	High
446	73%	24%	3%

OVERVIEW

Possibly more than any other Canadian housing market, the Vancouver CMA has been defined by significant affordability and vacancy challenges since 2016. Average rents have jumped from $1,236 to $1,546 over the past 6 years, with a vacancy rate that has hovered around 1% each year (CMHC, n.d.-b). Calls for increased housing supply have become so urgent that the Minister for Housing has indicated the province may be open to taking control of housing stock away from municipalities by provincial mandate (Carrigg, 2022).

However, between 2016-2021, Vancouver led the 6 largest Canadian CMAs in annual housing starts, with about 100 starts per 10,000 population (CMHC,

2022-b). It was the only urban centre to see single-detached construction decline, a trend that has been developing over the past decade. In tandem, apartment construction has been growing, with apartment starts representing 70% of all units started between 2016 and 2020. This is likely due to the significant geographic limitations on sprawl in the Lower Mainland.

Housing starts have been concentrated in the City of Vancouver, Surrey, and Burnaby, with a few additional pockets of intensive development in Coquitlam and the Township of Langley.

PROXIMITY BY DWELLING TYPE

Table 7. Proportion of total housing starts by dwelling type in the Vancouver CMA located within low, medium, and high amenity CTs.

Dwelling Type	Total Starts	Low	Medium	High
Single Detached	23,730	80%	19%	1%
Semi-Detached	3,071	67%	28%	5%
Row	17,641	96%	4%	-
Apartment	107,771	64%	33%	3%

In Vancouver, apartments are the type of housing with the smallest proportion of units within low amenity CTs and the highest proportion within medium amenity CTs, roughly two thirds and one third respectively. Additionally, though semi-detached homes represent the smallest proportion of total starts, they also have the highest percentage located in high amenity CTs.

Single detached homes, though primarily constructed in low amenity CTs, have almost one fifth of new units built in medium amenity CTs. This diverges from the pattern found in the five other urban areas of this study, which have only 1-2% of single-family homes located in medium amenity CTs. This means that row housing is the most predominant housing in Vancouver to be built in low amenity areas.

PROXIMITY BY INTENDED MARKET

Table 8. Proportion of total housing starts by intended market in the Vancouver CMA located within low, medium, and high amenity CTs.

Tenure Type	Total Starts	Low	Medium	High
Freehold	21,997	83%	15%	1%
Rental	36,117	63%	31%	5%
Condo	93,982	70%	28%	2%
Co-op	117	77%	23%	0%

Rental units represent the highest proportion of construction within both high and medium amenity CTs. This is followed by condo units, which represent almost three times as many starts as rental units.

Only 117 co-op units have been constructed since 2016, but almost one quarter of these were built in medium amenity CTs.

Freehold starts have the highest proportion of units within low density CTs, which is consistent across all 6 CMAs. However, 15% are built in medium density CTs, which is significantly higher than all the other CMAs under consideration. This likely reflects the 19% of single detached homes within medium amenity CTs, as these types of dwellings are usually owned.



Edmonton

Population, 2021: *1,418,118*
Population density per km2: *150.6*
Total starts, 2016-2021: *65,479*

Figure 10. Choropleth map showing proportion of housing starts in Edmonton CMA CTs. Source: HART.

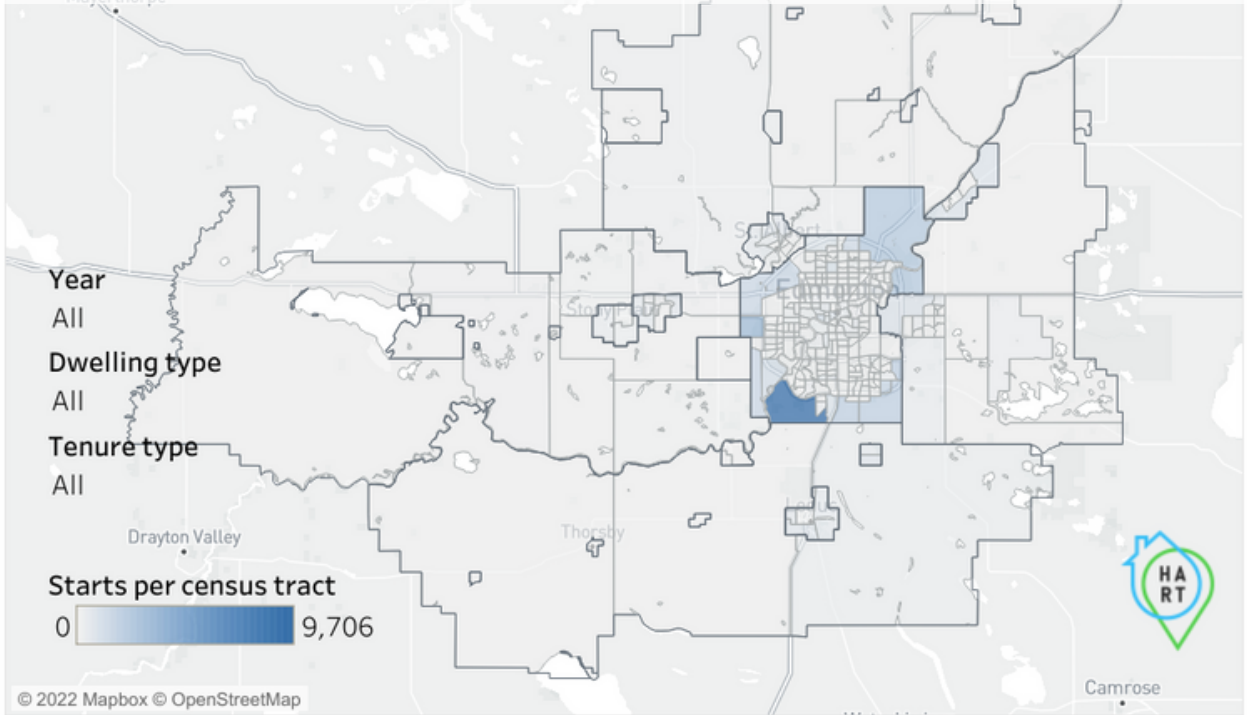


Table 9. Proportion of Edmonton CMA CTs categorized as low, medium, and high amenity.

Total CTs in CMA	Low	Medium	High
224	94%	6%	-

OVERVIEW

Edmonton has the highest percentage of single-detached housing starts across the 6 CMAs, at 45.4% of all dwelling types in 2021. It is also the largest CMA by area, and therefore has significantly higher quantities of developable land than CMAs such as Vancouver.

However, the proportion of higher density building forms is growing, with greater options for tenure types becoming available. For instance, CMHC reports that Edmonton is an outlier among Canadian CMAs with respect to proportion of apartments started as purpose-built rental (CMHC, 2022-b). 90.8% of apartment housing starts were intended for the rental market, due to low high vacancy rates in condos. Most of these were in structures of 3 or fewer

stories, further demonstrating Edmonton's orientation towards lower-density housing forms.

Most of the development in the Edmonton CMA is located in newly developing neighbourhoods at the peripheries of the urban area, such as in the Terwillegar, West Jasper Place, and South Mill Woods neighbourhoods, as well as smaller municipalities such as Beaumont, Fort Saskatchewan, and Strathcona County.

PROXIMITY BY DWELLING TYPE

Table 10. Proportion of total housing starts by dwelling type in the Edmonton CMA located within low, medium, and high amenity CTs.

Dwelling Type	Total Starts	Low	Medium	High
Single Detached	27,416	99%	1%	-
Semi-Detached	9,332	97%	3%	-
Row	8,436	100%	-	-
Apartment	20,295	96%	4%	-

Housing starts in the Edmonton CMA across all dwelling types have access to the lowest amenity richness of all the CMAs in this study. Even apartment buildings, which have a 10% or higher proportion of starts within medium amenity CTs in the other study areas, have only 4% within medium amenity CTs in Edmonton.

No new construction in the Edmonton region has taken place in CTs with a high amenity score. In fact, Edmonton does not have any CTs that are considered to have a high amenity density. This means that Edmonton CMA CTs fall within the bottom two thirds of the Canada-wide distribution of proximity measures.

The very low amenity density is likely due to the fact that Edmonton's growth pattern has been primarily outwards into suburban areas through new developments. In these types of communities, fewer amenities and services such as schools, childcare facilities, and grocery stores are established and are typically only easily accessible via motor vehicle.

PROXIMITY BY INTENDED MARKET

Table 11. Proportion of total housing starts by intended market in the Edmonton CMA located within low, medium, and high amenity CTs.

Tenure Type	Total Starts	Low	Medium	High
Freehold	40,702	99%	1%	-
Rental	10,286	96%	4%	-
Condo	14,491	97%	3%	-
Co-op	-	-	-	-

Again, we see that almost all construction intended for any market in Edmonton is located within low amenity CTs. Freehold construction has the highest concentration in low amenity neighbourhoods, while purpose-built rental and condos represent the few starts that took place within medium amenity CTs. No co-op units were constructed in Edmonton during the period encompassed by this study.



Calgary

Population, 2021: *1,481,806*
Population density per km2: *290.6*
Total starts, 2016-2021: *63,016*

Figure 11. Choropleth map showing proportion of housing starts in Calgary CMA CTs.
Source: HART.

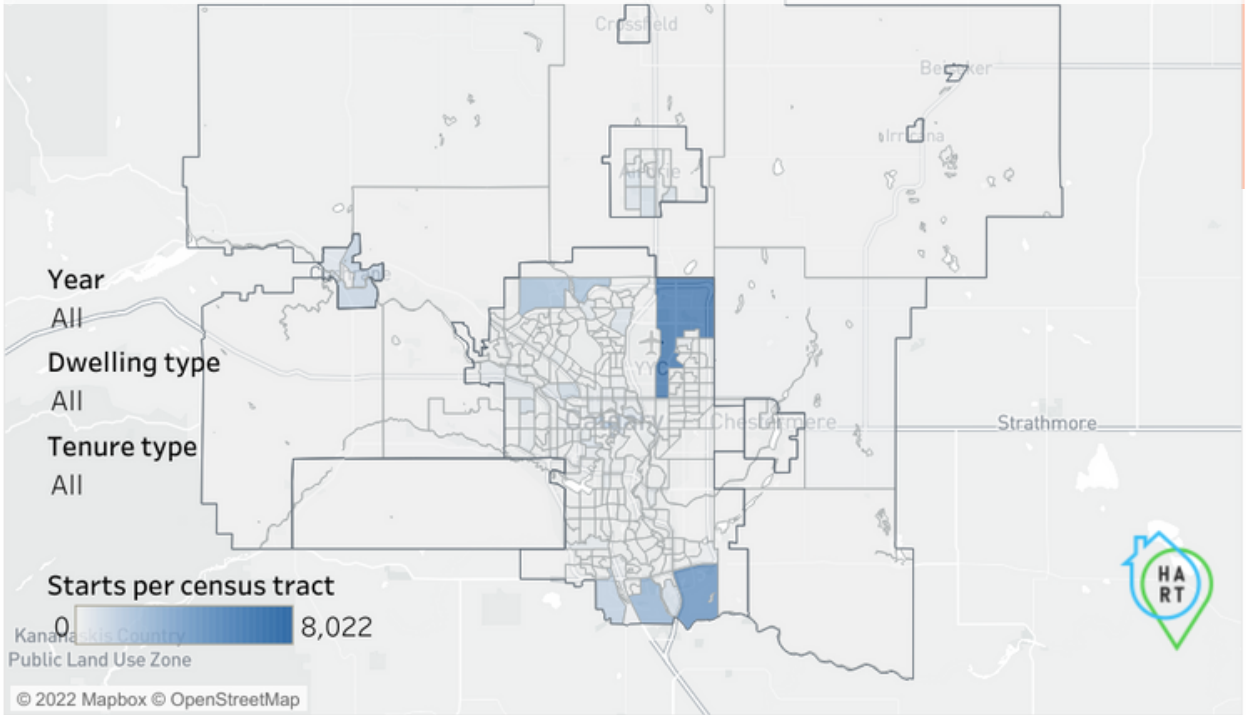


Table 12. Proportion of Calgary CMA CTs categorized as low, medium, and high amenity.

Total CTs in CMA	Low	Medium	High
191	93%	7%	-

OVERVIEW

The patterns of housing starts in the Calgary CMA are fairly similar to those in Edmonton, though the market is perhaps slightly more volatile, due to changes in economic and oil-industry conditions. The CMA has a large area, with the housing landscape historically dominated by low density housing forms.

Single-detached units represent a high proportion of housing starts (36.7%) similar to Edmonton, but are less common than apartment starts (CMHC, 2022-b). Here, apartment tenure represented 42% of new units in 2021. Within the apartment dwelling type, Calgary differs from Edmonton, in that condos take up the largest share at almost 60%, with rental trailing at 40%.

New housing starts between 2016-2021 were primarily located in new suburban developments in the north, northeast, and south of Calgary, such as in the Falconridge, Castleridge, McKenzie Towne, New Brighton and Shawnee Slopes neighbourhoods. The municipalities of Airdrie and Cochrane also saw an uptick in housing development, mainly oriented towards homeownership.

PROXIMITY BY DWELLING TYPE

Table 13. Proportion of total housing starts by dwelling type in the Calgary CMA located within low, medium, and high amenity CTs.

Dwelling Type	Total Starts	Low	Medium	High
Single Detached	20,861	99%	1%	-
Semi-Detached	6,496	99%	1%	-
Row	8,819	98%	2%	-
Apartment	26,840	78%	22%	-

The pattern of housing starts by amenity density is similar in the Calgary CMA to what was seen in Edmonton, with the marked exception of apartment starts. Single-detached, semi-detached, and row housing has been constructed almost solely in low amenity CTs. However, 22% of apartment starts can be found in medium-density areas. This is due to the fact that a significant segment of apartment construction has taken place in the central urban core, represented by the Mission, Beltline, and Eau Claire neighbourhoods. Apartments constructed in the Falconridge, Castleridge, and McKenzie Towne neighbourhoods - the majority of new builds - do not benefit from the same amenity richness.

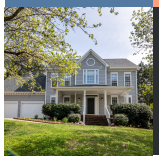
Calgary, just like Edmonton, does not have any CTs that are designated as high amenity when compared to the Canada-wide distribution.

PROXIMITY BY INTENDED MARKET

Table 14. Proportion of total housing starts by intended market in the Calgary CMA located within low, medium, and high amenity CTs.

Tenure Type	Total Starts	Low	Medium	High
Freehold	32,571	99%	1%	-
Rental	6,201	77%	23%	-
Condo	24,244	81%	19%	-
Co-op	-	-	-	-

While the highest number of starts between 2016-2021 have been intended for the freehold market, these units are almost all located within low amenity CTs. Rental and condo units represent roughly one fifth of starts within medium amenity CTs, with purpose-built rental representing a 4% higher proportion. This number aligns with the prevalence of apartments within medium amenity CTs, as might be expected.





Toronto

Population, 2021: *6,202,225*
Population density per km2: *1,050.7*
Total starts, 2016-2021: *229,788*

Figure 12. Choropleth map showing proportion of housing starts in Toronto CMA CTs.
Source: HART.

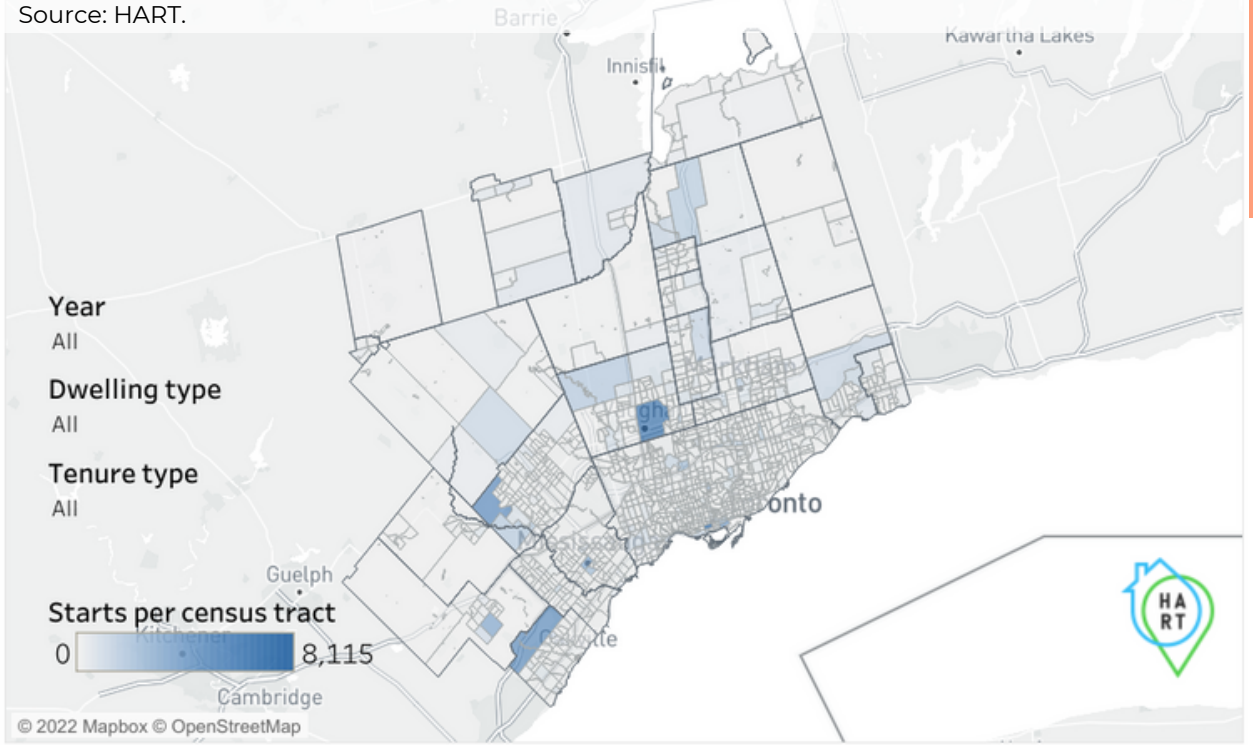


Table 15. Proportion of Toronto CMA CTs categorized as low, medium, and high amenity.

Total CTs in CMA	Low	Medium	High
909	80%	12%	8%

OVERVIEW

Since the 2000s, housing starts relative to population have trended downward in Toronto. Although it is building record high numbers of units, it is the only CMA in this study to have experienced a reduction in annual housing starts per 10,000 population in the last year (CMHC, 2022-b).

Between one third and one quarter of housing starts in the last 6 years have been apartments, and in 2021, Toronto exhibited the highest proportion of these apartment starts dedicated to condos at 83.9%. CMHC posits that this low rental apartment construction is due to the excess profitability of condo development in the region (CMHC, 2022-b). This may contribute to

Toronto's significant affordability challenges, which are on the same scale, and possibly even worse than Vancouver's (Nuttall, 2022).

Toronto is also the CMA with the largest proportion of tall apartment buildings, with 16.9% of new apartment starts in 2021 being more than 30 stories. The propensity in this region is to build housing at far higher densities than any other Canadian CMA, due to land scarcity and high land costs.

New housing starts are found both in the City of Toronto and regionally. Within the city, strong growth appeared in the Waterfront Communities, and in downtown neighbourhoods such as Moss Park and Regent Park. In this region, housing starts were also concentrated in Vaughan, West Brampton, Oakville, Milton, and central Mississauga.

PROXIMITY BY DWELLING TYPE

Table 16. Proportion of total housing starts by dwelling type in the Toronto CMA located within low, medium, and high amenity CTs.

Dwelling Type	Total Starts	Low	Medium	High
Single Detached	45,407	98%	2%	-
Semi-Detached	5,282	97%	2%	1%
Row	27,823	97%	2%	1%
Apartment	151,276	56%	11%	32%

In reviewing the different dwelling types of new starts in the Toronto CMA, it is very clear that apartment construction is performing best with respect to quantity of starts within high amenity CTs. With over 150,000 new apartment units constructed in the past 6 years, Toronto is also building the largest number of units within high amenity CTs by sheer number. Compared to 3,356 starts in high amenity CTs in Vancouver, the Toronto market has delivered 48,427 units at the same level of amenity density.

Single-detached, semi-detached, and row housing have very low proportions of new construction within medium and high amenity CTs in Toronto. This is the same pattern we see across almost all the other CMAs, varying by 1 or 2 percentage points. (The only exception, as we saw earlier, is Vancouver.)

PROXIMITY BY INTENDED MARKET

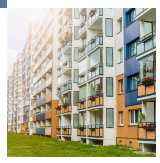
Table 17. Proportion of total housing starts by intended market in the Toronto CMA located within low, medium, and high amenity CTs.

Tenure Type	Total Starts	Low	Medium	High
Freehold	76,545	97%	2%	1%
Rental	23,109	44%	15%	41%
Condo	130,134	59%	11%	30%
Co-op	-	-	-	-

A distinct difference in amenity richness is also apparent between the rental and condo markets. Rental starts provide better access to high amenity neighbourhoods in the Toronto CMA than condos by 11%. Yet, interestingly, there have been far more starts in both low and high amenity CTs for both tenures than in medium amenity CTs.

This can be interpreted as relating to strong apartment construction in two areas of the region:

- The Waterfront Communities in the City of Toronto core, where the density of amenities and services is high
- Vaughan and Mississauga, where the density of amenities and services is low (on a Canada-wide basis)





Ottawa

Population, 2021: *1,488,307*
Population density per km2: *185.0*
Total starts, 2016-2021: *48,247*

Figure 13. Choropleth map showing proportion of housing starts in Ottawa CMA CTs.
Source: HART.

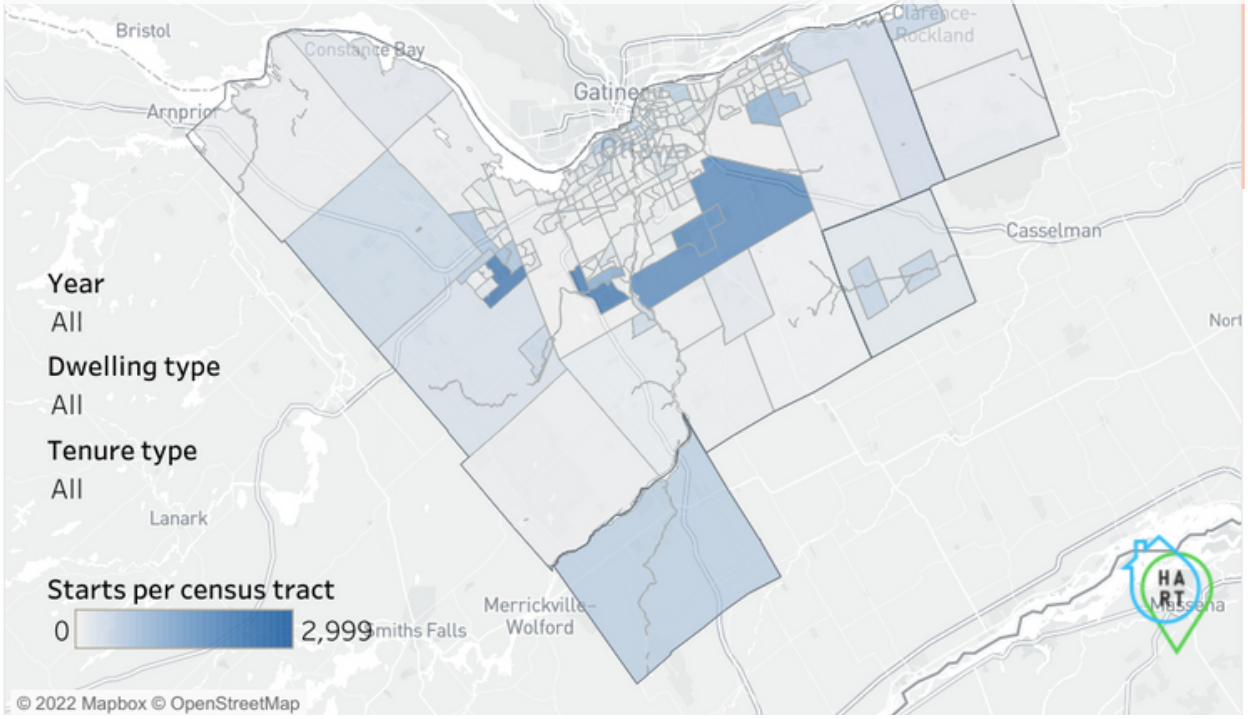


Table 18. Proportion of Ottawa CMA (ON) CTs categorized as low, medium, and high amenity.

Total CTs in CMA	Low	Medium	High
179	87%	10%	3%

OVERVIEW

Housing starts in Ottawa between 2016-2021 are fairly evenly distributed between single-detached housing, row housing, and apartment forms. This is unique in that row housing does not represent such a major proportion of housing types in any of the other 6 CMAs. Medium density housing is also prevalent within apartment construction, with 53.8% of these starts being in buildings of between 6 to 20 units (CMHC, 2022-b).

Freehold starts represent the dominant form of tenure in the Ottawa CMA, but the proportion of rental apartments is growing.

The areas of highest housing construction over the last several years include suburban neighbourhoods of the City of Ottawa, such as Gloucester, Western Orléans, Barrhaven, and Stittsville.

PROXIMITY BY DWELLING TYPE

Table 19. Proportion of total housing starts by dwelling type in the Ottawa CMA (ON) located within low, medium, and high amenity CTs.

Dwelling Type	Total Starts	Low	Medium	High
Single Detached	15,741	99%	1%	-
Semi-Detached	1,775	98%	2%	-
Row	14,009	99%	1%	-
Apartment	16,722	77%	12%	10%

In the Ottawa CMA*, the pattern of housing starts by dwelling type is very similar to that seen in the Calgary CMA. Most lower density housing structures are located in low amenity CTs. The only major difference between these regions is that 10% of apartment starts in Ottawa were located in high amenity CTs.

PROXIMITY BY INTENDED MARKET

Table 20. Proportion of total housing starts by intended market in the Ottawa CMA (ON) located within low, medium, and high amenity CTs.

Tenure Type	Total Starts	Low	Medium	High
Freehold	31,150	99%	1%	-
Rental	7,524	81%	10%	8%
Condo	9,557	75%	13%	12%
Co-op	16	-	-	100%

* *For the Ottawa CMA data, only the CTs within Ontario were available through the HMIP, and not those within Quebec.*

Unlike the previous 4 CMAs, condos in Ottawa have a slightly higher proportion of starts within both medium and high amenity CTs than rentals. However, they differ only by 3-4%, so this is not a very meaningful disparity.

The Ottawa CMA did see a few co-op unit starts between 2016-2021, 100% of which are considered constructed within a high amenity area. However, all 16 of these units were built in the same CT (likely the same structure), which had a high amenity density value.

Freehold unit starts remain almost entirely concentrated in low amenity CTs.



Montréal

Population, 2021: *4,291,732*
Population density per km2: *919.0*
Total starts, 2016-2021: *151,604*

Figure 14. Choropleth map showing proportion of housing starts in Montréal CMA CTs.
Source: HART.

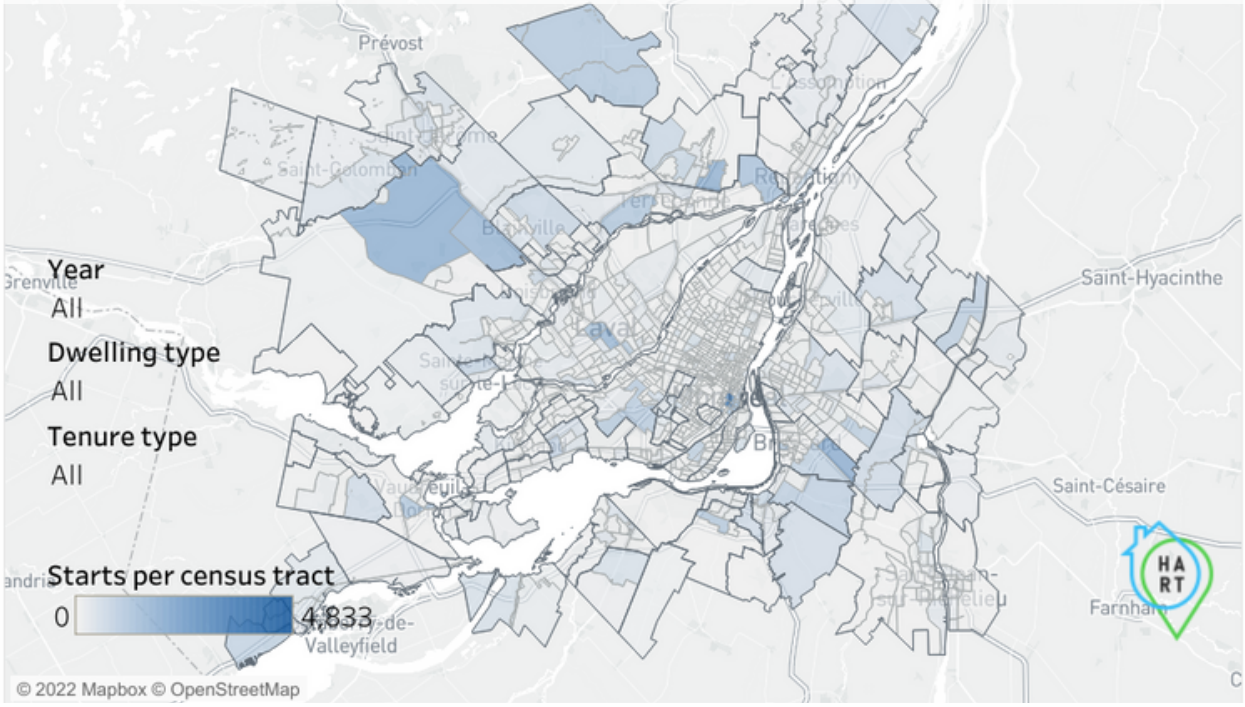


Table 21. Proportion of Montréal CMA CTs categorized as low, medium, and high amenity.

Total CTs in CMA	Low	Medium	High
813	78%	14%	9%

OVERVIEW

Since 2016, housing starts in the Montréal CMA have been primarily apartment structures, (between 80-84% each year). In tandem, only 1 in 10 housing starts have been single-detached homes. This shows a pattern of intensification of limited land in the region, which is similar to what is seen in Toronto and Vancouver. Though not as severe, Montréal is also facing its own affordability challenges, with low vacancy rates pushing up rents 3.7% in 2021 (CMHC, 2022-c).

Montréal is second only to Edmonton with respect to the proportion of apartment construction geared toward rental tenure. In 2021, 72.8% of apartments were purpose-built rental units, though this proportion has

fluctuated over the years, with condos occasionally being more prevalent. The apartment segment has also been dominated by buildings of 3 or fewer stories, achieving increased housing densities, but constructed horizontally rather than vertically as in Toronto and Vancouver.

Locations of new starts in the Montréal CMA show a more diffuse pattern than in the other CMAs. CTs with the highest proportions of new starts exist in the central neighbourhood of Ville-Marie, but also in more peripheral areas, such as the Chomedey neighbourhood in Laval, and the municipalities of Brossard, Mascouche, Mirabel, and Terrebonne.

PROXIMITY BY DWELLING TYPE

Table 22. Proportion of total housing starts by dwelling type in the Montréal CMA located within low, medium, and high amenity CTs.

Dwelling Type	Total Starts	Low	Medium	High
Single Detached	15,353	99%	1%	-
Semi-Detached	4,731	98%	2%	-
Row	7,707	98%	2%	1%
Apartment	123,813	83%	13%	4%

Although the Montréal region has a population size and density on the scale of the Vancouver and Toronto CMAs, its amenity richness for starts by dwelling type reflect a pattern more similar to that seen in the Calgary CMA. Single-detached, semi-detached, and row housing starts are all mostly located in low density CTs, as is typical across all the CMAs in this study, but a comparatively lower number of apartment starts are located in medium and high amenity CTs. This is unexpected, as the Montréal CMA has the largest percentage of high amenity CTs across all the Canadian metropolitan areas considered by this study. New housing starts seem to be occurring in proportionally greater quantities in Montréal's low amenity CTs such as Brossard, Mirabel, and Terrebonne.

PROXIMITY BY INTENDED MARKET

Table 23. Proportion of total housing starts by intended market in the Montréal CMA located within low, medium, and high amenity CTs.

Tenure Type	Total Starts	Low	Medium	High
Freehold	27,184	98%	1%	1%
Rental	76,865	85%	12%	3%
Condo	46,331	81%	14%	5%
Co-op	1,224	71%	20%	9%

By tenure type, housing starts in Montréal also show lower proportions of units in medium and high amenity starts than in similarly populous and dense regions. Condo starts have edged out rental starts with respect to location in higher amenity neighbourhoods. Because rental starts form the majority of construction taking place in the last 6 years, this means fewer units are being delivered in well-located CTs.

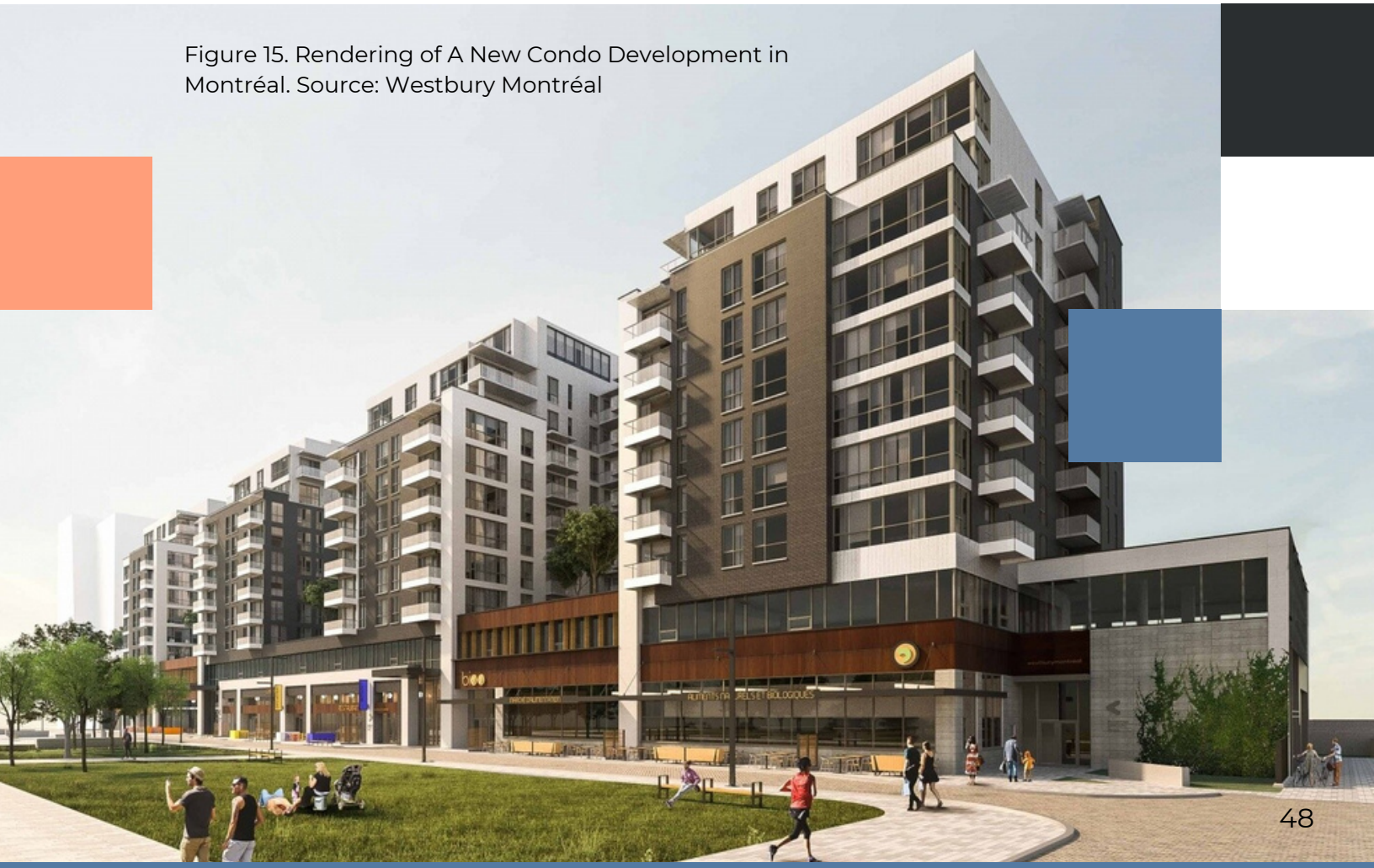
Where Montréal stands out from all the other CMAs is in co-op construction. In addition to delivering far more co-op units than any other regional market, one fifth of these are located in medium amenity CTs, and one in every ten in high amenity CTs. Construction of co-ops has taken place primarily in CTs within the City of Montréal itself, where services and amenities are concentrated more highly than in the surrounding suburban municipalities.

5 limitations

There are a few limitations that should be noted in this research. First, the data available through the PMD may not provide a complete picture of the services and amenities available within all CTs evaluated. Data coverage for some proximity measures varies based on the availability of authoritative open data sources. Not every municipality within each CMA has the same quality of open source data available.

The PMD also evaluates proximity from the geographic center of DBs. Therefore, the measures are less accurate for parcels that are distant from the geographic center of their DB. This can be problematic for suburban or rural areas where DBs are quite large.

Figure 15. Rendering of A New Condo Development in Montréal. Source: Westbury Montréal



The data sourced from CMHC's HMIP also presented challenges in that the 2011 CT boundaries were used for the 2016 count of housing starts, but the 2016 CT boundaries were used for the counts from 2017 to 2021. To address the inconsistency between the boundaries, 68 of the 2011 CTs were split to create new CTs in 2016.

Additionally, the HMIP provided housing starts across 2,843 unique CTs. 81 of these CTs were excluded from the study, based on the following conditions:

- 76 of the CTs lacked official boundaries
- 5 of the CTs were smaller than the underlying DB

In aggregating the PMD data from the DB level up to the CT level for linkage to the HMIP starts, there was a certain amount of "loss" of amenity density, most notable in Edmonton and Calgary. Certain high amenity density blocks were outnumbered by low density blocks within their CT, and the resulting score for the entire area was either medium or low. Edmonton had 65 high amenity DBs and Calgary had 51, all which were absorbed into CTs that were categorized as medium or low. The other CMAs also experienced some loss, but retained some high amenity CTs in the final categorization and analysis.

The lack of available data through the HMIP for the Quebec CTs located within the Ottawa CMA also limited this study's ability to provide a full picture of housing delivery within the capital region.

Finally, the data used in this study does not account for equity considerations related to the social accessibility and relative affordability of certain services and amenities. A CT that is assigned a high amenity value may have high quantities of certain measures, such as employment sources or grocery stores, for example. However, the employment sources may not necessarily be accessible to residents of different education levels or lower levels of English or French proficiency. And the grocery stores within close proximity may serve a primarily luxury clientele at high prices, or not stock certain culturally-appropriate foods. Due to this gap in the data, this study is not able to provide a full picture of the amenity richness of all CTs within the 6 CMAs.

6

conclusion

Regional plans across Canada show that a clear policy direction exists for delivering new housing in locations where employment opportunities and amenities such as transit, health, greenspace, groceries, and other services can be easily accessed. Yet this study has shown that every 4 out of 5 dwelling units that were started in large urban areas in the last 6 years were found in low amenity neighbourhoods. Furthermore, the Toronto CMA is the only region that has housing starts in high amenity CTs in any significant proportion. The Edmonton and Calgary CMAs cannot even deliver starts in complete communities at this stage, because none of their CTs are considered amenity rich within the Canadian distribution.

If homes for existing and future Canadians are not being constructed in the complete communities that regional governments indicate they are striving for, then what are the implications for public health? For environmental sustainability goals? For Canada's legislated right to housing?

A large proportion of the 5.8 million units that CMHC estimates Canada will need in the next decade will be constructed in the Vancouver, Edmonton, Calgary, Toronto, Ottawa, and Montréal CMAs. Regional governments should consider how to strengthen their growth plans to hold municipalities accountable fordelivering locationally adequate housing at a neighbourhood level.

Recommendations as to how this might be achieved include:

1. **Specifically including amenity proximity measures within policies for growth plan implementation**
   Out of all the regional growth plans, only Montréal's mentioned a performance indicator of proximity of residents to public services. Growth plans should implement a monitoring paradigm that uses data such as what is available through the Proximity Measures Database to understand and optimize amenity density within a given neighbourhood.

2 **Tracking amenity provision at the neighbourhood scale directly, rather than assuming it will occur as a result of overall densification**

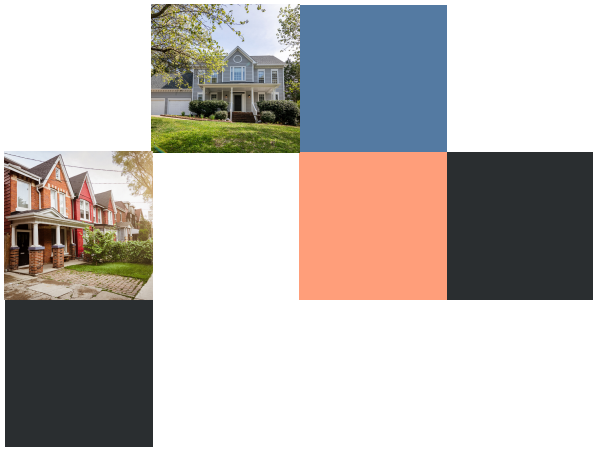
Every growth plan made use of a density or intensification target (e.g. people and/or jobs per hectare), and seemed to depend on this measure rather than on a finer grain analysis of whether residents would have access to health, education, park space, and other amenities. As Perrott notes, big box stores, business parks, and mega-recreation facilities "may check the '+ jobs' box in a density calculation", but not deliver a complete community at the neighbourhood scale (2022). Metropolitan regions should instead consider a different evaluative framework for completeness that, in addition to promoting density, also analyzes provision and proximity to distinct services and amenities such as the 10 measures used by StatCan.

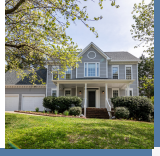
3 **Focusing on higher density structures, with primarily rental tenure**

Lower density housing starts (i.e. single detached homes, semi-detached homes, and row houses) with freehold tenure are not, and likely cannot, be delivered within high amenity, complete communities.

Conversely, apartment structures always represented the largest proportion of new units within medium and high amenity CTs across Canada. Purpose-built rental starts also represented the highest proportion of units within high amenity neighbourhoods. If metropolitan areas are committed to delivering more housing within complete communities, the development focus should be on multi-unit rental buildings.

It is critical that a larger percentage of the nation's future housing starts be delivered in areas that provide a higher quantity and quality of amenities to Canadian households. These few steps may help to ensure that current and future Canadians will have their right to locationally adequate housing realized.





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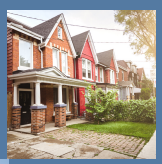

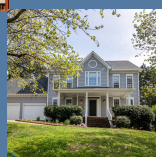

appendix a

Proximity Measure Descriptions

Table 24. Proximity measure descriptions including source of data, method of weighting, mode of travel and given distance.

Measure	Source	Weight *	Mode	Distance
Employment	Business Register	Number of employees	Driving	10 km
Grocery stores	Business Register	Revenue	Walking	1 km
Pharmacies	Business Register	-	Walking	1 km
Healthcare	Business Register	Number of employees	Driving	3 km
Child care	Business Register	-	Walking	1.5 km
Primary education	Open Database of Education Facilities	-	Walking	1.5 km
Secondary education	Open Database of Education Facilities	-	Walking	1.5 km
Public transit	GTFS	Number of trips between 7 am and 10 am	Walking	1 km
Parks	Authoritative open data sources, OpenStreetMap	-	Walking	1 km
Libraries	Conglomeration of open and publicly available data sources	-	Walking	1 km

Source: Alasia et al., 2021

* *"-" denotes uniform weight*

appendix b

66th percentiles of proximity measures by geography

Table 25. 66th percentiles of proximity measures by geography

Measure	Van.	Edm.	Cal.	Tor.	Ott.	Mon.	Canada
Employment	0.09	0.05	0.07	0.08	0.05	0.06	0.07
Grocery stores	0.07	0.01	0.03	0.04	0.02	0.04	0.04
Pharmacies	0.05	0.02	0.02	0.05	0.02	0.03	0.03
Healthcare	0.03	0.01	0.01	0.02	0.01	0.01	0.01
Child care	0.09	0.06	0.07	0.06	0.10	0.19	0.10
Primary education	0.13	0.09	0.12	0.15	0.13	0.12	0.13
Secondary education	0.17	0.07	0.08	0.04	0.04	0.04	0.05
Public transit	0.03	0.01	0.01	0.02	0.02	0.02	0.02
Parks	0.06	0.07	0.07	0.08	0.08	0.07	0.08
Libraries	0.05	0.00	0.00	0.05	0.00	0.05	0.00

66th percentiles were used in the calculation of highly amenity dense DBs. DBs where all 10 of the proximity measures were above 0 and fell within the top third of their distribution Canada-wide were categorized as "high" amenity.

The table is colour-coded based on deviation from the national 66th percentiles. Red is used for values below the national 66th percentiles, and green is used for those above. Larger deviations are represented with darker shades.