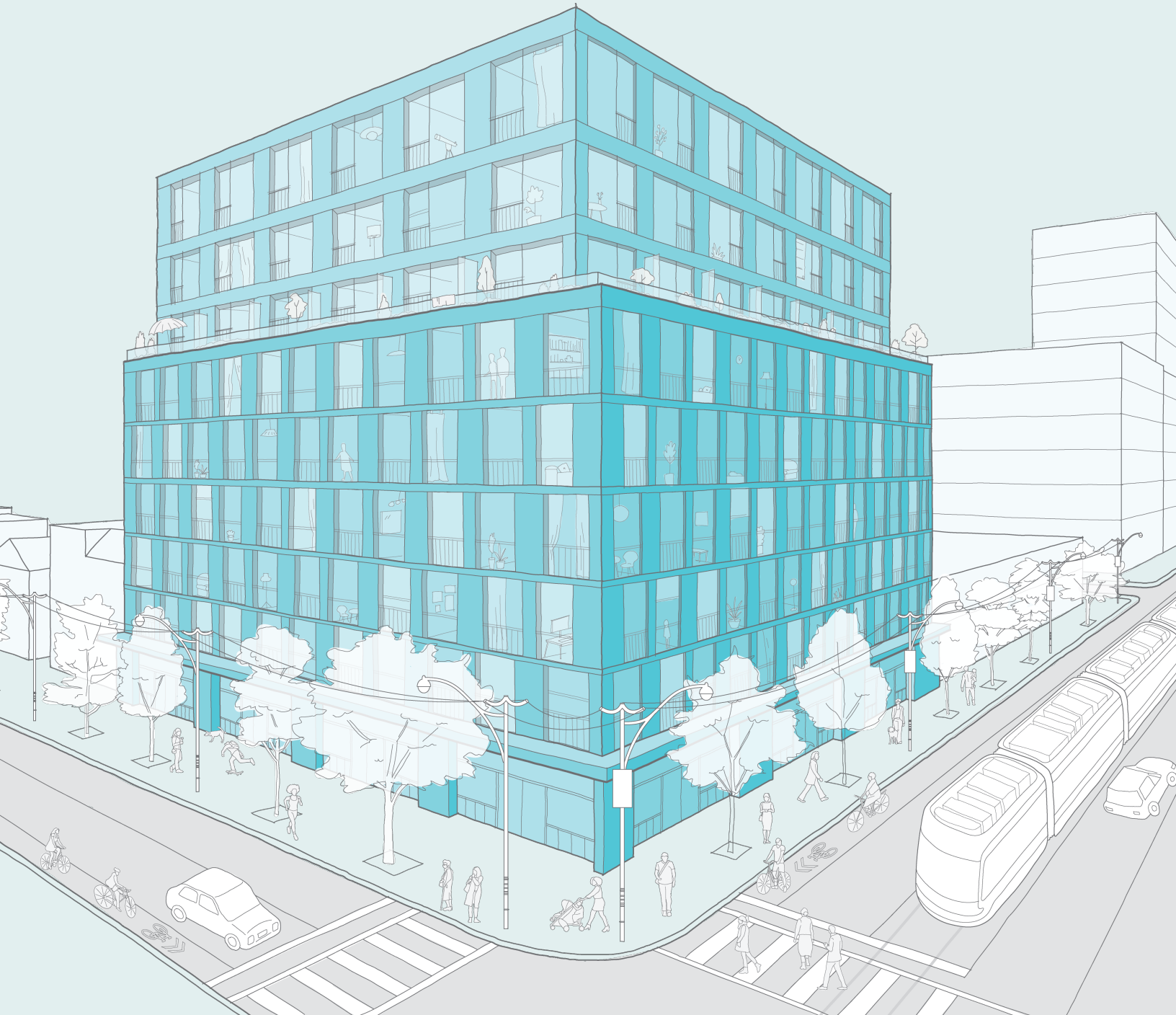


THE MID-RISE MANUAL

UNLOCKING MID-RISE TO END ONTARIO'S HOUSING SHORTAGE



THE MID-RISE MANUAL
UNLOCKING MID-RISE TO END ONTARIO'S HOUSING SHORTAGE

November 2024

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LGA and SvN authored the report and the findings and recommendations within. This effort was based on an unbiased, objective effort from apolitical organizations, intended to facilitate collaboration between all levels of government as well as relevant stakeholders.

Special thanks to Blair Scorgie, Jonathan Diamond, Steven Webber and Graig Uens.



**environmental
defence**

This report has been commissioned by Robert Eisenberg, C.M., and Environmental Defence.

Environmental Defence has initiated a task force and steering committee to study “the missing middle” as part of a wider exploration of residential intensification as an antidote to urban sprawl.

This report is intended to identify and address key issues and opportunities associated with mid-rise development for advocacy and communication with a range of potential stakeholders including provincial and federal politicians, Toronto city councillors, planning department staff, like-minded city builders, and the general public.

We would like to extend a special thank you to the industry experts who participated in the engagement phase of this process and shared their knowledge and experience with the challenges of mid-rise development.

THE MID-RISE MANUAL

UNLOCKING MID-RISE TO END ONTARIO'S HOUSING SHORTAGE

Foreword

Ontario is in the midst of a housing shortage, and the production of new homes is far too slow to deliver the 1.7 million new homes that will be needed by 2031 to end it. What's more, very little of the new housing being built in response to that demand is affordable to the average family.

At the same time, the existing low-density, use-segregated character of most existing Ontario "neighbourhoods"—caused by decades of government-imposed sprawl, highway schemes and exclusionary zoning—is one of the most challenging obstacles to meeting the province's climate obligations and keeping municipal governments fiscally solvent. The continuation of this outward, low-density expansion would jeopardize what remains of Ontario's quality farmland and wipe out its most vulnerable species.

It has been clear for several years now that the only approach that can adequately address these challenges is to quickly build large numbers of mid-rise apartments within what are currently low-rise neighbourhoods.

This can't happen without rapid and systemic changes to the way governments regulate and incentivize the creation and growth of towns, cities and suburbs. This report is the step-by-step guide to delivering that change. It describes, in detail, what Ontario's governments must do to clear away the obstacles and rearrange the incentives to expedite the delivery of mid-rise buildings, quickly and affordably creating the thousands of homes needed for the people of Ontario.



Robert Eisenberg, C.M.



Tim Gray, MSc, Executive Director, Environmental Defence



Phil Pothen, JD, MLA Counsel & Ontario Environment Program Manager,
Environmental Defence

THE GOAL: TO DELIVER 1.5 TO 1.7 MILLION HOMES IN ONTARIO BY 2031

Adding large numbers of midrise buildings to major streets in existing built-up areas is the only approach that can quickly and sustainably generate enough homes to catch up with housing need and end Ontario's housing shortage. Mid-rise housing can:

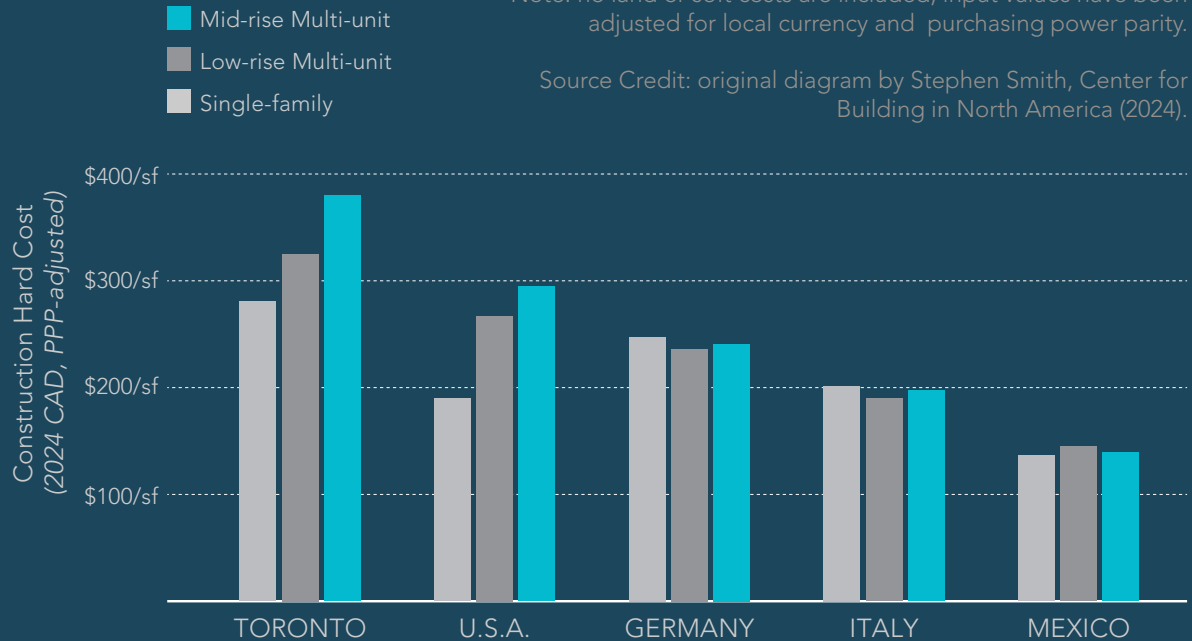
- economically add enormous capacity to accommodate the growing population by being more labour-efficient than other in-use building forms allowing multiple units to be built on a unified site all at once,
- deploy simpler and lower-carbon methods and materials than "high-rise" developments by using similar methods of wood-frame construction as used for low-rise housing,
- take advantage of roads, sewers and other public infrastructure that already exist, unlike in greenfield developments,
- enhance pedestrian traffic, use of public transportation, and decrease reliance on automobiles,
- reliably densify and diversify our urban and post-WWII suburbs into beautiful and walkable complete communities - curing their car dependency - in time to meet Ontario's climate change obligations, and
- help to meet the demand for family-sized accommodation, in family-friendly settings, a need that has been exploited as pretext for greenfield sprawl that is destroying Ontario's remaining prime farmland and southern wildlife habitats. In principle, a mid-rise apartment should be the lowest-cost way to deliver a family-sized, family-friendly new home.

Mid-rise construction on major streets also makes efficient use of infrastructure and tax dollars, supports main streets and downtown arts districts, and has most of our daily needs met within a short walk, cycle, or transit trip from where we live. Mid-rise can:

- reduce car travel by making it viable to meet residents needs within a short walk or bicycle ride of where they live
- provide a way to transform car-dominated streets into walkable, beautiful places
- achieve densities that are cost-effective to service more quickly and predictably than incremental homeowner-led garden suite and multiplex development alone, allowing for planning and delivery of expanded transit and public services

Construction Cost Comparison between Housing Typologies
 Note: no land or soft costs are included, input values have been adjusted for local currency and purchasing power parity.

Source Credit: original diagram by Stephen Smith, Center for Building in North America (2024).



Why has so little mid-rise housing actually been built in Ontario?

Current laws and policies prevent Ontario's builders - whether public or private - from realizing the intrinsic construction cost, environmental, and labour-efficiency advantages of mid-rise infill housing. Prohibitions and restrictive policies have artificially made what should be the cheapest, fastest, and most efficient way to build housing more expensive than conventional "tall or sprawl" options.

This Mid-rise Manual is your step-by-step guide to fixing that situation - quickly clearing the obstacles and rearranging the incentives to get hundreds of thousands of homes we need built each year in the places and at the prices required to solve our housing shortage and our climate and environmental crises.

Guiding Principles:

The cost of creating mid-rise housing must be low enough to:

- be competitive with high-rise development;
- incentivize the development of affordable housing for rent and for sale;
- efficiently provide a broader mix of unit sizes and attractive ground-related accommodation, with incentives for larger units with multiple bedrooms;
- provide the most humane, environmentally friendly, and cost-effective way to meet the immediate need to rapidly increase Ontario's housing supply without increasing suburban sprawl.

OBSTACLES & SOLUTIONS TO CREATING MID-RISE BUILDINGS

1. LAND COST: CREATE AS-OF-RIGHT PERMISSION TO BUILD MID-RISE IN PLACES WHERE IT'S ACTUALLY VIABLE TO BUILD

Even in many municipalities that purport to support mid-rise development, “exclusionary zoning” creates competition for a limited subset of development sites - commercial strips with fast-moving car traffic - or the same downtowns, “MTSAs”, and large brownfield parcels where taller buildings are viable.

Provincial Government should:

- Designate avenues and major residential streets inside presently “low-rise” areas as strategic locations for growth and intensification through Provincial planning policy (p.20)
- Amend provincial planning laws to provide as of right permission for mid-rise development up to six storeys, without step-backs, on all of Ontario’s “avenues” and on all residential major streets, including those in currently-low-rise areas (p.20)
- Amend provincial planning laws to mandate permissions for mid-rise development on all “avenues” (or equivalent) and on all residential major streets in greenfield development (p.20)

Municipal Governments should:

- Proactively amend zoning bylaws to provide as of right permission for mid-rise development up to six storeys, without step-backs, on all “avenues” and on all residential major streets, including those in currently-low-rise areas. (p.18)
- Proactively amend official plans to identify avenues and major residential streets inside presently “low-rise” areas as strategic locations for growth and intensification, where significant physical change is to be promoted. (p.24)
- Use new statutory tools as set out in O.Reg. 173/16. to establish fixed criteria for permitting mid-rise building heights in excess of six storeys in pre-defined circumstances and locations (such as the intersection of two major streets) without rezoning. (p.24)
- Update existing performance standards or guidelines for assessing proposed amendments to existing zoning to permit midrise development in excess of six storeys to focus on actual performance, rather than prescribing certain building geometry. (p.24)

Federal Government should:

- Require municipalities to allow mid-rise development on both avenues and major residential streets as a condition of federal housing and infrastructure funding.

2. CONSTRUCTION COST: LEGALIZE LABOUR EFFICIENT DESIGNS AND METHODS FOR MID-RISE

Mid-rise buildings can effectively redeploy “low-rise” construction labour and materials to deliver far more units, but outdated laws force mid-rise to meet the same costly and labour-intensive requirements as high-rise development.

Provincial Government should:

- Prohibit municipalities from mandating on-site parking
- Legalize fire-safe, performance-based alternatives to non-combustible side wall construction (p.48)
- Legalize fire-safe “exposed mass timber” construction up to 8 storeys (p.49)
- Legalize fire-safe “single egress” construction up to 6 storeys (p.50)

Municipal Governments should:

- Remove mandatory “step-back” requirements for mid-rise buildings. (p.22)
- Provide simplified and standardized prescriptive solutions for smaller mid-rise developments to comply with stormwater management requirements. (p.57)
- Request or require local electricity distribution system operators to publish a design standard for optimized electrical service to smaller mid-rise buildings to reduce costs, delays and over-engineering. (p.58)
- Develop compact and less onerous garbage collection and loading bay requirements for mid-rise buildings. (p.59)

3. CARRYING AND PROCEDURAL COSTS: SIMPLIFY AND SPEED UP APPROVALS PROCESSES

Provincial Government should:

- Provide municipalities with permanent funding for planning staff to support midrise development on major streets and avenues.

Municipal Governments should:

- Provide “as of right” zoning for mid-rise development of at least six storeys without any further rezoning, in every location where mid-rise is development is intended, (p.18)
- Expedite planning approvals, even where proposals don’t fully comply with the regulation, by enabling Staff to make decisions on minor deviations from the regulation using a list of prescribed criteria, as set out in O.Reg. 173/16. (p.24)
- Simplify planning application requirements, especially where the development proposal conforms to the “as-of-right” built form regulation. (p.26)
- Establish a dedicated team within planning and buildings departments to curate specialized expertise in mid-rise development. (p.26)
- Develop a centralized database of existing conditions information, so that this can be relied upon by development proponents and City Staff and not re-investigated for each project. (p.27)

4. REDUCE THE COST BURDEN OF GOVERNMENT FEES, TAXES AND CHARGES

Provincial Government should:

- Encourage fiscally responsible compact urban development patterns that allow municipalities to balance their budgets by eliminating incentives for urban sprawl and diversify LVC funding mechanisms to reduce the need for Development Charges. (p.37)
- Require municipalities to impose significantly lower general services development charges for all mid-rise in existing built up areas than for single- and semi-detached and greenfield development. (p.38)
- Direct MPAC to update property assessments to ensure property taxes are equitably distributed and accurately based on current property values. (p.40)
- Reform the Provincial Land Transfer Tax as a Real Estate Capital Gains Tax (including primary residences) as a more effective tax on profits rather than transactions.(p.40)
- Prohibit municipal governments from charging higher property tax rates for rental housing than ownership housing. (p.40)

Municipal Governments should:

- Fund many of the General Services currently funded through Development Charges using property taxes instead. (p.38)
- Harmonize residential property tax rates between residential and multi-unit residential to remove a disincentive for purpose-built rental housing. (p.40)
- Reform the Municipal Land Transfer Tax as a Real Estate Capital Gains Tax (including primary residences) as a more effective tax on profits rather than transactions. (p.40)
- Use property and other taxes, rather than development charges, to proactively upgrade capacity along major streets. (p.40)

5. TRANSITION SMALL-SCALE INFILL DEVELOPERS AND LOW-RISE CONSTRUCTION SUBTRADES TO MID-RISE DEVELOPMENT

Provincial Government should:

- Support new builders of small-scale mid-rise development, with supportive financial and legal structures as well as procedural support and guidance for non-professional and less-experienced developers. (p.42)
- Offer low-cost, long-term fixed-rate financing for construction of mid-rise buildings (p.42)

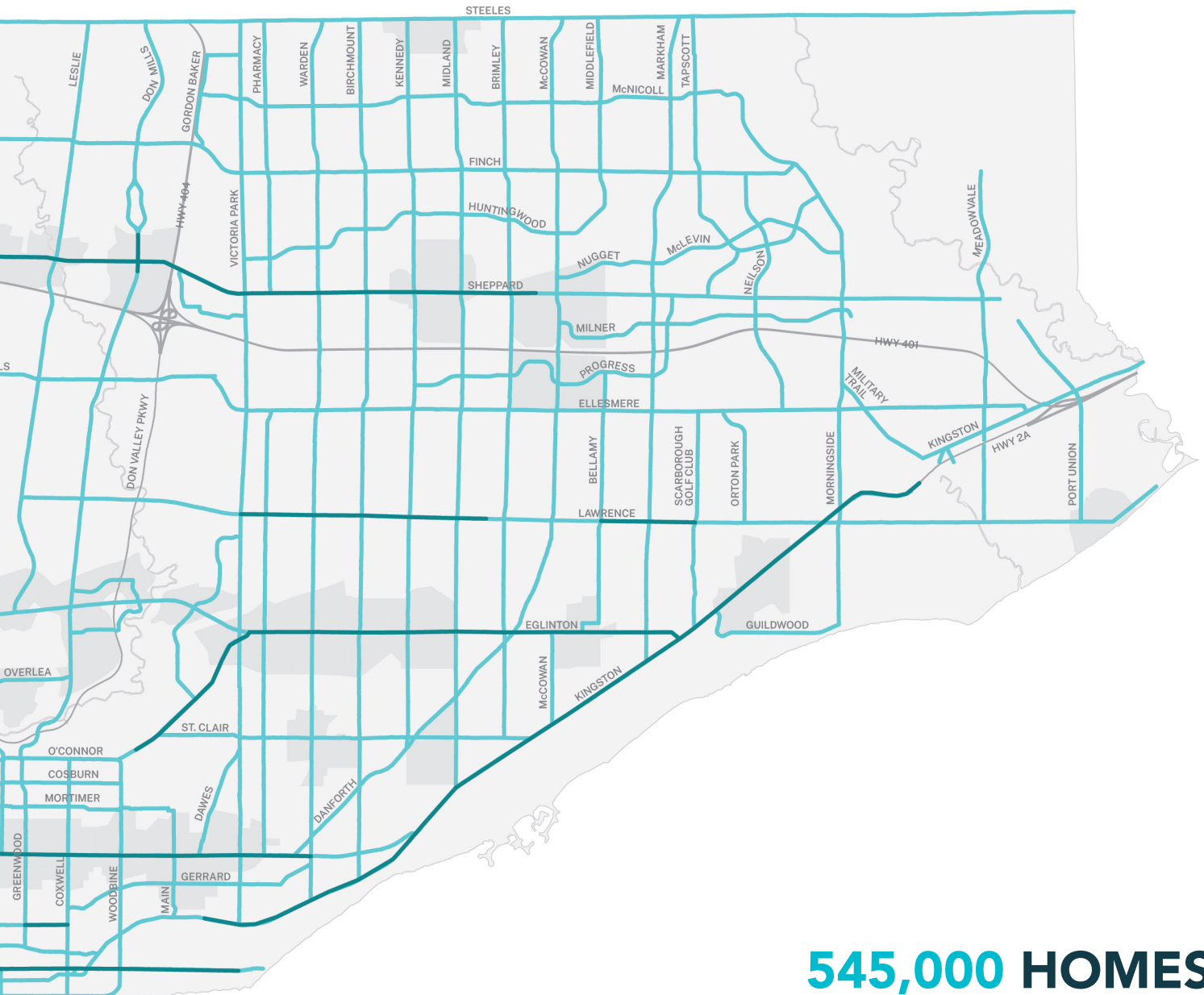
Municipal Governments should:

- Simplify mid-rise approvals processes and provide support to non-professional and less-experienced mid-rise developers.

Federal Government should:

- Incentivize citizen-led development, by prioritizing the creation of financial and legal structures, procedural support and guidance for non-professional and less-experienced developers.
- Offer low-cost, long-term fixed-rate financing for construction of mid-rise buildings

AVENUES AND MAJOR STREETS IN TORONTO



545,000 HOMES
1.2 MILLION PEOPLE
LIVING IN WALKABLE, LOW-CARBON,
FAMILY-FRIENDLY NEIGHBOURHOODS

Data courtesy of Ratio.City, a division of ESRI Canada.
Please refer to the *Mid-rise Capacity Calculation* on pg. 70 for more information.

Base graphic modified from Toronto City Planning Division (Toronto Official Plan, Map 3).



Quartier Altona Mitte
Hamburg, Germany
master plan with several architects

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WHY MID-RISE?

“Broad intensification means a more inclusive city, a better quality of life for more people, and improved social cohesion. This approach uses public infrastructure more efficiently. Density means genuinely walkable neighborhoods that can be effectively served by mass transit and rely less on the car. More to the point, denser living, in smaller homes and with shorter commutes, produces a low-carbon city...”

More neighbourhoods that are dense with people, dense with different kinds of activity, rich in amenities, and served with transit. That is what Toronto needs now, and it is what the planet now demands of Toronto.”

– Alex Bozikovic, House Divided

Canada is in the midst of a housing shortage, and the housing that is available is unaffordable to the average family. We must address this; and at the same time we must also build low-carbon homes within resilient neighbourhoods to take decisive action on climate change. Doing so will require systemic change: all people, industries, and levels of government need to work together to address the combined climate and housing crises.

At the core of this challenge is a change in the way that we design our communities. Over the last 70 years, planning policy has encouraged suburban sprawl: resource-intensive and car-dependent neighbourhoods of mostly single-detached houses. This pattern must change — we need healthy, resilient and livable neighbourhoods with more diverse housing options. This type of housing is supported by two key principles:

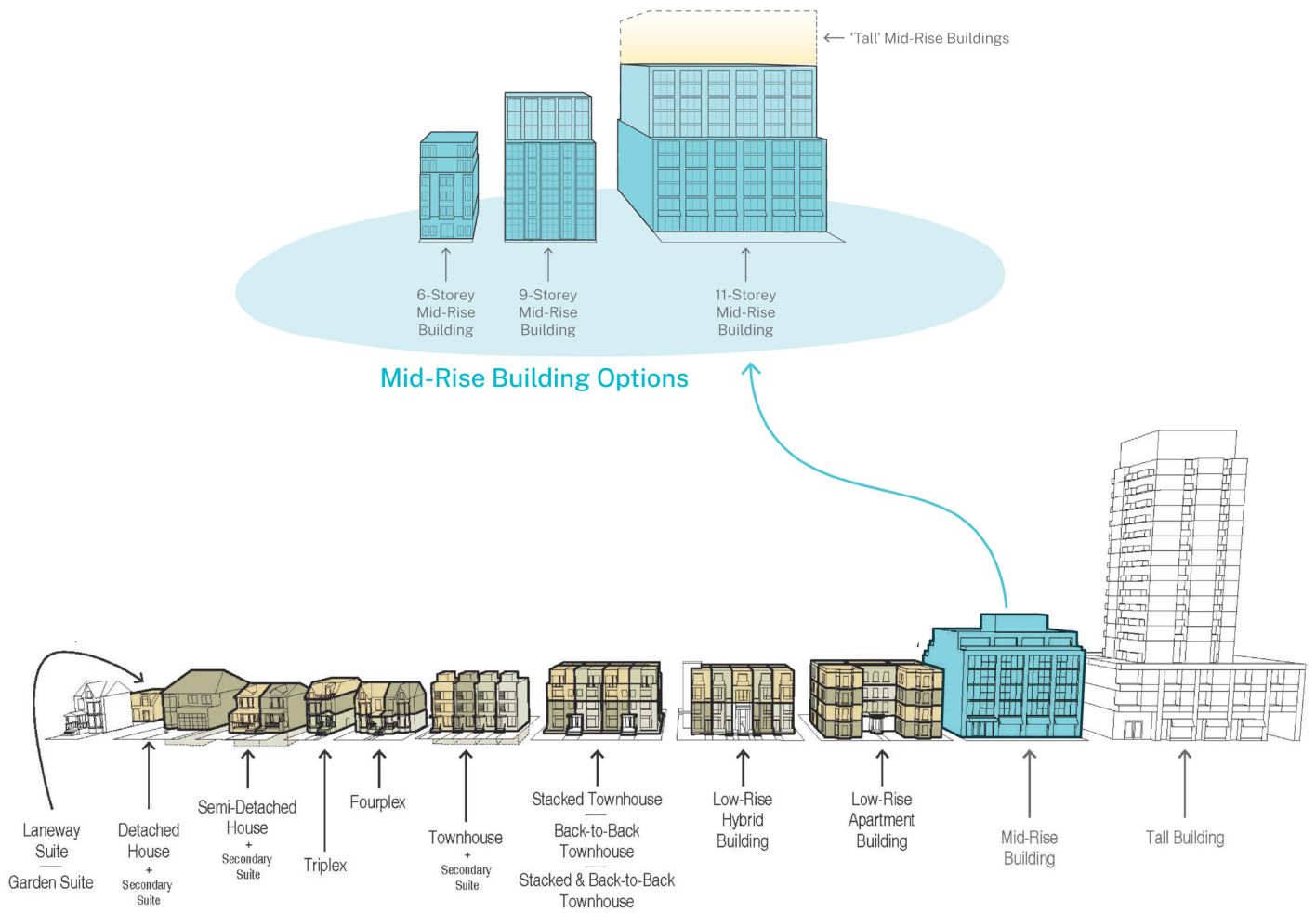
- **Dense neighbourhoods**, which enable greater housing supply, balanced municipal budgets, and reduce transportation emissions; creating convenient and walkable communities
- **Diverse building types** which enable a broader mix of housing options, flexible rental and ownership tenure, and more efficient, low-carbon methods of construction

Mid-rise buildings have the potential to deliver this density and diversity at a massive scale in Ontario's communities. In Toronto, for example, adding six-storey mid-rise buildings along Avenues as well as Major Streets within neighbourhoods, would increase housing capacity by an estimated 545,000 homes, forming the foundation for renewed vibrancy within many residential neighborhoods across the City.

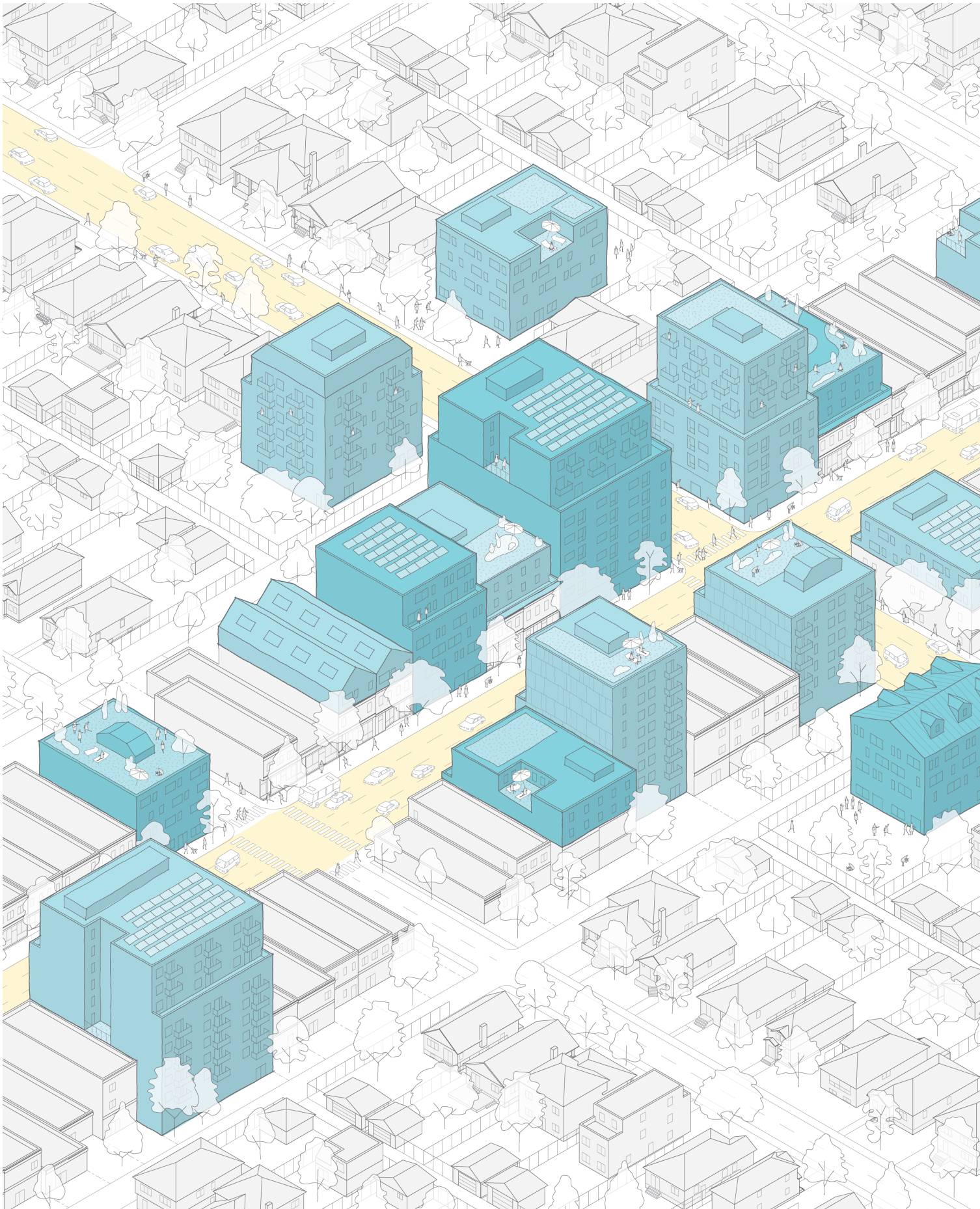
City planners have supported this goal for decades and created a detailed set of performance standards for mid-rise buildings in 2010. However these standards were only applicable to Avenues and have been overly restrictive and largely ineffective at delivering the healthy density they were intended to encourage. Toronto has seen an average of only 10 mid-rise buildings built per year since they were adopted.¹ The uncertainty and risks of the current planning approvals process adds an excessive amount of time, complexity, cost to mid-rise development. The result is that mid-rise buildings are often not viable compared to low-rise and high-rise buildings.

This report outlines a path to fix this: to deliver density and diversity with sustainable mid-rise buildings in livable neighbourhoods and family-friendly communities throughout Ontario and across the country.

¹ City of Toronto (2023). Report for Action, Mid-Rise Buildings Rear Transition Performance Standards Review & Draft Update.



Mid-rise buildings in Toronto are defined as those between 5-11 storeys in height, shown in comparison to other housing typologies.





HOW DO WE SOLVE THIS?

“There are no easy answers: any changes to the existing status quo may improve conditions for some but are likely to leave one stakeholder or another worse off than their current position. Nevertheless, change is necessary to meet the urgency of the moment.”

- Siemiatycki, Matti. (2023).
Perspective on the Rental Housing Roundtable.

This document is designed as a guide for all levels of government — as a *manual* that identifies ways to unlock the potential of mid-rise buildings along the Avenues, as well as within Neighbourhoods on Major Streets. These solutions aim to expedite delivery, provide design flexibility, and reduce the cost of mid-rise development.

The recommendations are the result of relevant literature reviews and semi-structured interviews with a range of industry and academic experts to identify appropriate policy levers — the dramatic shifts necessary for Federal, Provincial and Municipal government to properly support mid-rise development. They are categorized as follows:

- 1.0** Planning Policy & Approvals Processes
- 2.0** Fiscal Policy
- 3.0** Building Code
- 4.0** Infrastructure
- 5.0** Construction

Because our current situation is the result of a systemic set of issues, no single actor can solve this alone. An effective approach demands **collaboration**: a strong sense of shared responsibility, urgency, and ambition to create positive change.

However, the recommendations of this report can and should be implemented regardless of whether or not this collaboration exists:

Each level of government has the opportunity to make a significant impact.

Adjacent: The potential for sustainability, affordability and livability - a diagram of appropriate density and diversity of housing forms in Toronto neighbourhoods.

College Street Mid-Rise

Address: 871-899 College Street, Toronto, ON

Architect: Studio JCI

8 storeys, reinforced concrete construction

131 residential units

(28 condominium, 108 purpose-built rental)





1.0 PLANNING POLICY & APPROVALS PROCESSES

¹ City of Toronto. (2010). Avenues & Mid-Rise Buildings Study.

Midrise urbanism has been — at least superficially — part of the growth strategy in parts of Ontario for nearly 40 years, beginning with “Main Street” studies in pre-amalgamation City of Toronto in 1987.¹ Across the province, mid-rise development has been widely touted as the preferred form for re-urbanizing arterial roads, many of which are also planned for significant investment in public transit.

However, in virtually every Ontario municipality, the combination of land use planning laws, policies and local zoning bylaws make most mid-rise projects unviable. On almost every lot where the cost of land and existing infrastructure would normally make mid-rise an attractive option, the multiple layers of regulatory restrictions add time, risk, and uncertainty. The result is that mid-rise buildings are often too complicated and expensive to build.

In Toronto, for example, mid-rise development was theoretically permissible only on limited segments of arterial roads that are referred to in the Official Plan as the ‘Avenues’. This kind of restriction has prevented significant mid-rise development from occurring.

² **Avenues** are specific segments of Major Streets that are designated for large-scale reurbanization through mixed use development comprising new homes, workplaces, and community institutions.

Examples: Danforth Avenue, Kingston Road, St. Clair Avenue West.

Refer to City of Toronto. (2006). Official Plan, Map 2

However, public sentiment around this situation has reached the tipping point. There is now a widespread consensus that actually building mid-rise apartment buildings along the City's mixed use Avenues² and residential Major Streets³ is critical to meeting the City's housing goals. Therefore, this chapter uses Toronto as an example to illustrate the reforms that all of Ontario's municipalities will need to make to unlock mid-rise and end the housing shortage.

The City has made progress in recent years on its planning policy around mid-rise buildings. In March 2023, the City's Executive Committee adopted the Housing Action Plan⁴, and directed staff to review and recommend a number of changes:

³ **Major Streets** are transportation corridors which support surface transportation, shipping and delivery routes, and provide connectivity across the City. They are lined with diverse businesses, employment areas, parks, schools and residential areas.

Examples: Davenport Road, Marlee Avenue, Cosburn Avenue, Guildwood Parkway.

Refer to City of Toronto. (2006). Official Plan, Map 3

- Allowing 6-storey residential buildings along Major Streets in residential neighbourhoods (now in-force);
- Reviewing the performance standards for mid-rise buildings, specifically the rear transition standards (in progress);
- Updating the zoning by-law to implement as-of-right zoning for mid-rise development on Avenues (in progress);
- Expanding and potentially introducing new Avenues, and expanding the Mixed Use Areas designation across the City; and,
- Streamlining study requirements new mid-rise buildings.

⁴ City of Toronto. Executive Committee Agenda Item no. EX3.1, March 21, 2023.

Despite this progress, the key steps necessary to enable mid-rise development have not been taken. Specifically, it is vital that mid-rise development is added to existing residential areas that have — until recently — been limited to low-rise buildings.

Taking this step will unlock the potential for households of all types to access attainable housing in a neighbourhood settings along existing residential streets, rather than being forced into greenfield subdivisions on the urban fringe or moving to an entirely different region. Mid-rise buildings on residential Major Streets will create a significant supply of new housing in desirable, transit rich areas, support local businesses, optimize infrastructure investments, and reduce the need for long commutes by private car.

In May 2024, Toronto City Council adopted amendments to the Official Plan and Zoning By-law to permit 6-storey residential buildings on Major Streets in the Neighbourhoods designation.⁵ However, these policies are still quite restrictive. The approved Official Plan Amendment caps building height at 6 storeys, and requires new buildings to meet the setback requirements of the adjacent low-rise residential zones. The approved Zoning By-law amendment maintains the required 50% landscaped area and 25% soft landscaping from the low-rise residential zone. These provisions, in our opinion, will limit the City's ability to introduce substantial new housing on Major Streets in residential neighbourhoods and address the housing crisis.

⁵ City of Toronto. Planning and Housing Committee Agenda Item no. PH12.3, May 22, 2024.

In order to rapidly increase housing supply using mid-rise development, the City should expand the Avenues concept and add all residential Major Streets to the urban structure and growth strategy. Across these areas, there should be broad as-of-right permissions for mid-rise buildings.

Furthermore, the planning approvals process should be greatly simplified to expedite the issuance of more building permits for new mid-rise construction.

1.1 Adopt a Progressive Policy Foundation

In every municipality, the Official Plan is the high-level policy document that guides change in a manner that supports objectives such as reducing congestion, increasing housing affordability, and protecting the environment. The Official Plan (OP) establishes the framework for growth and identifies where new population and jobs will be accommodated through redevelopment. In Toronto, as in most municipalities within the Greater Golden Horseshoe, the OP has typically identified only the Downtown and Centres as priority locations for infill housing and workplaces. Avenues are also identified as strategic growth area, supported by investments in public transit and upgrades to the pedestrian environment.

While it has been nearly 20 years since the Avenues category was identified as a third focus for growth, the sections of street identified as Avenues have represented only a tiny share of Toronto's streets. The overwhelming majority of the City's residential Major Streets should be added to the City's growth strategy, unlocking the potential of mid-rise development to distribute intensified, transit-supportive housing throughout the City's neighbourhoods.

Recently, Toronto City Planning initiated the Avenues Policy Review, which includes a study of other Major Streets for potential new Avenues. The Staff Report to the Planning and Housing Committee⁶ proposes a new typology for categorizing of existing and new Avenues, according to their primary land use context:

- Main Street Avenue Corridor
- Residential Avenue Corridor
- Mixed Use Node

We support adding all residential Major Streets to the City's growth strategy. Specifically, Major Streets that are fronted by lands within the Neighbourhoods designation on Maps 13-24 of the Official Plan should be intensified with mid-rise housing to create new homes for families.

Although this policy change is something that municipal governments should undertake on their own, it is also a matter falling squarely within provincial jurisdiction. Given the scale and urgency of Ontario's housing shortage, the provincial government should address this through policy change at the Provincial level.

The Ministry of Municipal Affairs and Housing recently issued a new Provincial Planning Statement⁷ which identifies Frequent Transit Corridors⁸ as strategic growth areas. Policy 2.4.3.1 states:

Planning authorities shall plan for intensification on lands that are adjacent to existing and planned frequent transit corridors, where appropriate.

This language should be strengthened to require municipalities to plan for the intensification of all Frequent Transit Corridors, as most Major Streets through residential areas have regular bus service.

In Canada, municipalities are "creatures of the Province", which means they are under the jurisdiction of the Provincial government. This means that the Province, through legislation, can compel municipalities to act. Therefore, it may be more expedient to enact changes to Provincial legislation, or to use a Minister's Zoning Order, to achieve mid-rise housing on Major Streets across the GTHA.

⁶ City of Toronto. Planning and Housing Committee Agenda no. PH12.3, May 22, 2024.

⁷ Ministry of Municipal Affairs and Housing. (2024). Proposed Provincial Planning Statement.

⁸ **Frequent Transit:** A public transit service that runs at least every 15 minutes in both directions throughout the day and into the evening every day of the week.

Municipal Recommendations:

- Expand the Avenues concept to include more areas for the development of mid-rise (or taller) buildings.
- Add residential Major Streets to the City's growth strategy and Urban Structure (Map 2 of the Official Plan) and adopt enabling policies within Section 2.2 of the Official Plan.

Provincial Recommendations:

- Approve Major Transit Station Area delineations so the City can get started on updating policies & zoning in these strategic growth areas.
- Amend policy 2.4.3.1 of the Provincial Planning Statement related to Frequent Transit Corridors, to require municipalities to identify these corridors in the OP and plan for their intensification to achieve a minimum density of 150 people and jobs per hectare.
- Similar to Major Transit Station Area policies, restrict appeals of policies and regulations related for Frequent Transit Corridors.
- Directly convey "as-of-right" permissions for 6-storey buildings on Major Streets through an amendment to the Planning Act, or through a Minister's Zoning Order that would apply to all residential Major Streets.

Federal Recommendations:

- Require Municipalities to allow mid-rise development on residential Major Streets as a condition of federal funding for housing and infrastructure.

1.2 Simplify Development Regulations

A key principle to unlock mid-rise development is simplicity: regulations should be based on clear as-of-right permissions. In the case of building height, for instance, the introduction of broad-based “as-of-right” permissions increases the supply of land available for mid-rise development, which brings down the cost of that land.⁹ It also provides greater certainty for what can be built on any site. However, our current system is complex.

⁹ Phillips, S. (2022). Building Up the “Zoning Buffer”: Using Broad Upzones to Increase Housing Capacity Without Increasing Land Values

In 2010, City Council endorsed the recommendations of the “Avenues and Mid-Rise Buildings Study” which included a series of Performance Standards (often referred to as the “Mid-rise Guidelines”) defining acceptable building forms and relationships with adjacent conditions. It was intended that the Performance Standards would guide development proponents as they put together proposals for new mid-rise buildings, and assist Planning Staff in their evaluation of development proposals, but not that they would become the new “rules”. However, these guidelines were subsequently enshrined in the Zoning By-law and have become the de-facto regulation for many of the Avenues.

The Mid-rise Guidelines are currently being reviewed as part of City Planning’s Housing Action Plan work program. Specifically, Staff had been directed to recommend an alternative to the Rear Transition Performance Standards 5A to 5D, which require the application of a 45 degree angular plane over the rear of the building. The intent of this angular plane was to respond to concerns expressed by residents of nearby low-rise streets - ostensibly to prevent shadowing and overlook from a new mid-rise building onto adjacent low-rise neighbourhoods.

It has been demonstrated that Performance Standard 5A to 5D do not achieve the intended goals, and actually have significant negative consequences. The terracing required to meet the angular plane creates a “layer cake” building form that is expensive to build and requires significant amounts of concrete and steel, which are high in embodied carbon. The form does not lend itself to mass timber construction, which necessitates a more box-like building form. Most importantly, the terracing results in a reduction in potential living areas and housing units, an unacceptable impact given the current housing crisis.

Through their consultations on the modifications to the Rear Transition performance standard, Staff heard from members of the public who have advocated for a more “box-like” form. In the meeting on April 17, 2024, Planning & Urban Design staff presented a modified Performance Standard that would permit a six-storey box, with a 2.5 metre step-back above the sixth floor. This would be a significant step in the right direction.

¹⁰ Alter, L. (2024). How to make buildings boxy but beautiful, Substack.

A “box-like” form is easier and cheaper to construct, is amenable to low-carbon construction, supports greater energy efficiency and provides for more effective and livable unit configurations.¹⁰ Existing homeowners’ concerns about shadow and privacy impacts are subjective, and of minor importance when compared to addressing the crises of housing supply and climate change.

As-of-right permissions for a 6-storey box on all residential Major Streets will also reduce the restrictions related to setbacks and landscaping that are included in the recently passed Official Plan Amendment and Zoning By-law Amendment. A height of 6 storeys should be the baseline maximum throughout every neighbourhood in the city. In certain locations, such as at the intersection of two Major Streets, or on Major Streets with frequent transit service, the maximum as-of-right building height should be even higher.

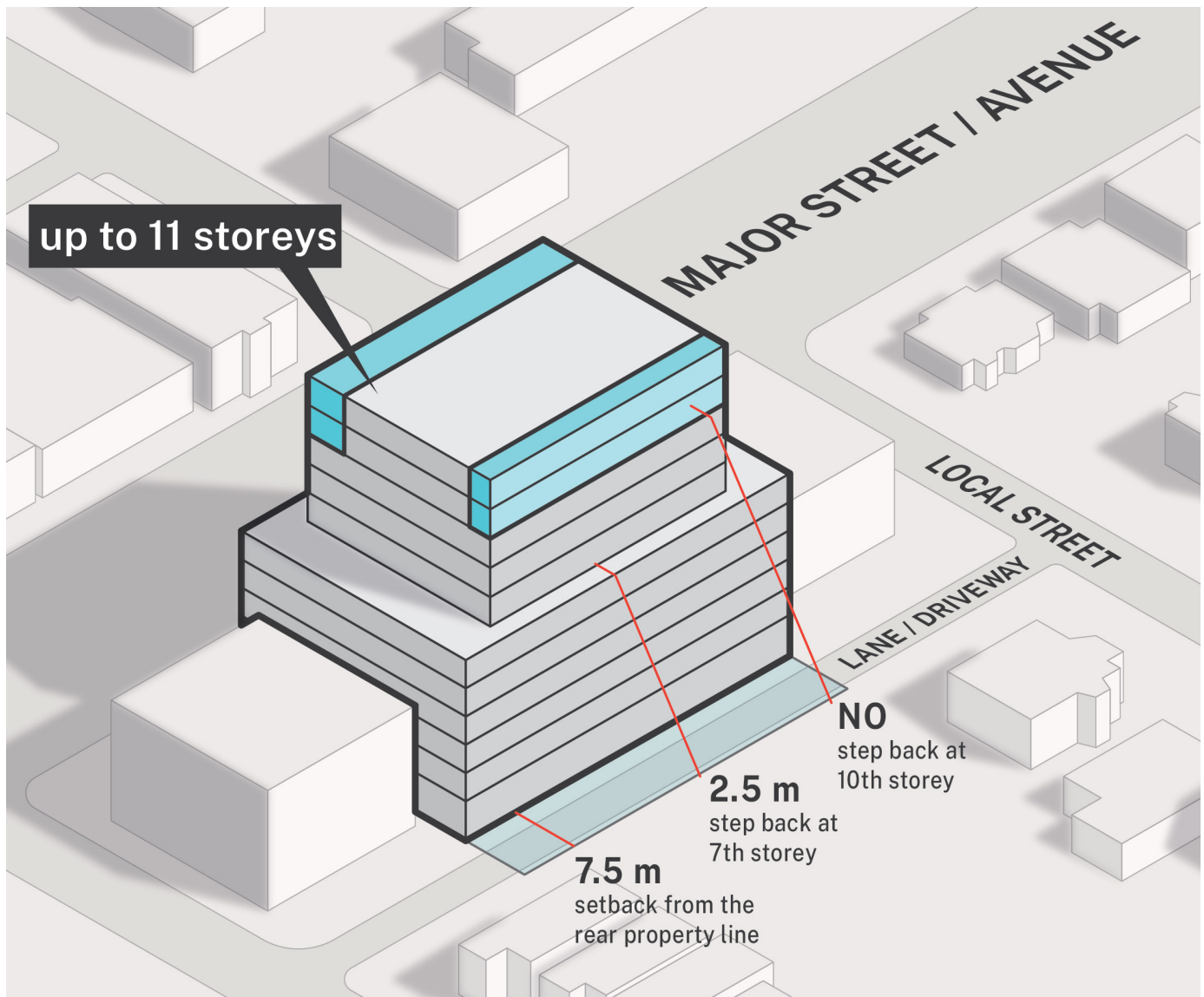
"It's not so important how high the building is or how much it looks like a perfume bottle; it's more important how it interacts with the city."

- Jan Gehl

Illustration 1.1 - Recommendation for Single Stepback Transition Standard for Mid-Rise Buildings, based on standards outlined in [Table 1](#).

This is a modified reproduction of the original diagram produced for the "Mid-Rise Rear Transition Performance Standards Update" public consultation in April 2024. The City is proposing to replace angular plane requirements with step-backs of 2.5 meters above 6 storeys and 9 storeys in building height.

The highlighted blue massing represents the additional building volume that could be accommodated with a single 2.5 meter stepback at 6 storeys. This would also simplify structural design, roof detailing and more flexibility of unit layouts.



Principles for simplified mid-rise development regulations

If we are serious about unlocking the potential of mid-rise development, then our planning system should make it easy for interested property owners to go out and build them. As-of-right permissions should be simple, and regulations should focus on key societal priorities rather than building geometry. Key principles for municipal planning departments - and provincial policymakers - to consider in their work program to reform the zoning regulations are summarized below:

- **Flexibility:** Built form standards should be presented as a range that accounts for site-specific considerations, avoiding the need for minor variances;
- **Performance:** Define standards based on outcomes, rather than geometry. For example, context-based massing modifications can be determined through a shadow study rather than the application of an angular plane;
- **Use of conditions that support public interest:** Conditional zoning (Section 34[16] of the Planning Act) or the Community Planning Permit System (O. Reg. 173/16) allow for conditional regulations whereby deviations from the standards may be permitted without the need for planning approvals subject to meeting pre-specified criteria based on public interest. For example, additional height could be granted if a project addresses societal priorities such as affordable housing, community amenities, and public realm improvements.

Specific recommendations that align with these principles have been detailed in the "Ontario-Wide Template for As-of-Right Zoning Amendments to Unlock Mid-Rise Housing", [Table 1](#).

Provincial Recommendations:

Amend the Planning Act to implement zoning following the template set out in [Table 1](#) in all of Ontario's existing built up areas and pre-2022 Settlement Areas.

Municipal Recommendations:

Reform zoning to adopt the amendments set out in [Table 1](#). Consider adopting a regulation under O. Reg. 173/16 to provide to provide fixed criteria for staff to permit mid-rise developments that exceed six storeys or otherwise deviate from the the basic "as of right" permissions:

- Implement performance-based metrics for building applications in excess of six storeys instead of form-based standards.
- Permit minor deviations from the by-law without requiring a minor variance or rezoning application, allowing staff to approve development that supports city-building objectives.
- Incentivize high impact outcomes (ie. affordable housing, energy efficiency, low upfront carbon emissions etc.) through the use of conditions and density bonusing.



Artistic Re-Representation of a 6 storey mid-rise proposal.
Original design by Gabriel Fain Architects.

1.3 Streamline the Approvals Process

¹¹ Altus Group (2022). BILD Municipal Benchmarking Study.

Across Ontario, the approvals processes for mid-rise development are time-consuming and labor-intensive for everyone involved. In the City of Toronto, for example, it takes approximately 32 months, and may require the preparation of up to 20 specialized consultant reports.¹¹ If Council votes to refuse an application, or if it takes too long for the application to make it to Council, the applicant must resort to an appeal to the Ontario Land Tribunal, adding several more months to the process. The extended timeline for approvals leads to increased carrying costs, design costs and risk associated with delivering all multi-unit residential buildings, regardless of their form.

Despite this situation, characteristics of the current regulatory system make these applications effectively mandatory: zoning amendments and site plan control are either necessary to make a mid-rise project viable, required by the municipality, or both. The current approvals process downloads one of city government's core responsibilities — planning for growth — to individual property developers. They must “prove” that a new development can be supported by city services, and that the project “fits” within its context. This burden of proof is met through the aforementioned consultant reports. In order to prioritize mid-rise development, the approvals process must be expedited; reducing the time, cost, and risk associated with development.

One major lever is to study growth impacts on an entire Avenue or Major Street, rather than for each site individually. This would greatly reduce the cost and time required and result in a more holistic and coordinated growth plan for the area. The Housing Action Plan's Local Area Reviews should be coordinated by the City, rather than being assigned to individual applicants.

This strategy would significantly reduce the quantity of reports required for a development project. In a typical zoning or site plan control application, the following reports can be eliminated for mid-rise buildings if corridor-wide studies are done by the City:

- Functional Servicing and Stormwater Management Report
- Transportation Impact Study
- Land Use Compatibility Studies, including Noise, Odour and Vibration
- Block Context Plan

In addition, there are a number of technical investigations that are often required at the zoning or site plan stage. These studies are expensive, and are often not relevant until construction. For mid-rise buildings, the following reports should be deferred until the building permit stage, where construction financing may be used to cover their costs:

- Geotechnical Study
- Hydrogeological Study
- Arborist/Tree Preservation Report
- Accessible Design Standards Checklist
- Energy Model

Following these strategies, it is possible to limit the submission requirements for an infill mid-rise building to the following:

- Application Form and Fee
- Survey, Architectural, Landscape, and Civil Engineering Drawings
- Green Development Standards Checklist

The City of Brampton currently has three site plan control streams: Limited, Basic, and Full, depending on the scale and complexity of the application. This is something that other municipalities should consider, and scope the submission requirements appropriately as a means of facilitating mid-rise development. Additional analyses may be required based on site-specific conditions, such as a Contaminated Site Assessment. Small projects based on approved prototypes should have a 'Limited' circulation.

Currently, the Planning Act exempts proposals of 10 dwelling units or less from the site plan control process. If a building with 10 dwelling units is proposed, the proponent can go straight to building permit. However, it is unclear why the threshold has been set specifically at 10 units. If this limit were increased, it would create a path for expedited approvals for mid-rise buildings.

Municipal Recommendations:

- Develop a centralized database of existing conditions information, including data on soils, archaeology, and public infrastructure, so that this can be relied upon by development proponents and City Staff.
- Establish a Mid-rise Priority Review Stream with dedicated staff to curate specialized expertise in mid-rise development.
- Update the City-wide Streetscape Manual to provide guidance on public realm measures such as sidewalk treatment and trees, to be implemented through conditions of approval.
- Proactively streamline the list of submission requirements so that the majority of mid-rise proposals can go through a Limited or Basic site plan control stream.
- Proactively address "weak links" in existing infrastructure, and ensure replacement of aging infrastructure supports full build out of mid-rise on all avenues and major streets.

Provincial Recommendations:

- Review the 10 units threshold in Section 42 of the Planning Act, over which proposals for new buildings are required to go through Site Plan Control.

Table 1:
Ontario-Wide Template for As-of-Right Zoning
Amendments to Unlock Mid-Rise Housing

No.	Topic	Standard
1	Building Height (Overlay Map)	<p>Baseline Maximum Building Height across all Major Streets: 6 storeys</p> <p>Major Streets served by a streetcar or high-frequency bus route: the greater of 8 storeys or the width of the right-of-way</p> <p>Within 200 metres of a planned or existing community node (school, community centre, park, post-secondary institution): the greater of 8 storeys or the width of the right-of-way</p> <p>At the intersection of two Major Streets: 11 storeys</p> <p>Within a Major Transit Station Area (MTSA), Downtown, or Centres: as specified in MTSA-specific Official Plan policy or Secondary Plan</p>
2	Density	No maximum FSI
3	Front Facade	Minimum of 75% of façade built to the setback line for the first 3 storeys, unless providing a public amenity such as a parkette or public art feature.
4	Minimum Ground Floor Height	<p>For mixed-use buildings, the minimum floor to floor height of the ground floor should be 4.5 metres to facilitate immediate or future retail uses at grade.</p> <p>For residential uses, there should be no minimum height other OBC minimums.</p>
5	Setbacks	<p><u>Front Setback:</u></p> <p>Minimum for residential uses at grade: 3 m, or 0 m when ground floor is raised a minimum of 0.9m.</p> <p>Minimum, non-residential uses at grade: 0 m, subject to meeting the minimum sidewalk zone.</p> <p><u>Exterior Side (corner lot):</u> Minimum for residential uses at grade: 3 m, or 0 m when ground floor is raised a minimum of 0.9m.</p> <p><u>Interior side:</u> Minimum 0 m</p> <p><u>Rear:</u> Minimum 7.5 m, and where the rear lot line abuts a lane, the setback may be taken from the opposite side of the lane.</p>

Rationale

Six storeys is the maximum height of the Major Streets Official Plan and Zoning By-law Amendment (Agenda Item no. PH12.3).

Certain contexts can support more density due to having excellent transit service, or proximity to key community facilities.

We support the direction in the Avenues Policy Review staff report (Agenda Item no. PH10.3) which suggests that the intersection of two Major Streets may be an appropriate locations for taller buildings.

In accordance with Provincial policy, MTSA's and Urban Growth Centres are planned to achieve specified minimum heights and densities. The standards recommended herein would not apply to Avenue and Major Street segments that are within MTSA's or Urban Growth Centres.

The density (FSI) number does not directly relate to the form of the building, as it is a ratio of floor area to the site area.

This standard is from the 2010 Performance Standards. The intent of this standard is to create a continuous street wall.

The minimum 4.5 metres is from the 2010 Performance Standards. This is appropriate for Avenues that serve a commercial function. A lesser ground floor height may be more appropriate for residential Major Streets.

A minimum of 3 metres between a residential building and the public sidewalk creates a gradual transition from public areas to private, and provides opportunities for residents to have small gardens. A moderately raised ground floor facilitates privacy.

Where non-residential uses are proposed at grade, the front street wall of mid-rise buildings should be built to the front property line. This standard is from the 2010 guidelines. However, a greater setback may be required in order to provide the appropriate sidewalk zone that is related to the function of the street. The minimum sidewalk zone should be prescribed in the City's streetscape manual.

This reflects the City's current direction as contained in the recommended modifications to the rear transition guidelines and the As-of-right Zoning for Avenues without Avenue Studies (April 2024 Community Consultation Presentation)

Table 1: (continued)**Ontario-Wide Template for As-of-Right Zoning
Amendments to Unlock Mid-Rise Housing**

No.	Topic	Standard
6	Step-backs	<p><i>Front and Exterior Side (corner lot):</i> One step-back above the 6th floor, minimum 2.5 m</p> <p><i>Rear:</i> If a 10 m setback is provided at the ground level, no step-backs are required. Otherwise, one step-back above the 6th floor: 2.5 m</p>
7	Parking	No minimum car parking requirements
8	Access and Servicing	Access to servicing areas and to parking shall be off a rear laneway or secondary street
9	Mechanical Penthouse	<p>Height Projection: The mechanical penthouse may exceed the maximum building height by no more than 5 metres.</p> <p>Width: If located within 3.0 metres of a lot line abutting a street, the linear width of the mechanical penthouse may not exceed 50% of the width of the building's main walls facing that street.</p>
10	Permeable Area	Minimum 50% of the area not covered by a building
11	Loading Space	No 'Type G' loading space is required for buildings under 60 units.

Rationale

General Note Regarding Step-backs: Building step-backs have very little quantifiable impact on street experience, contextual form, or aesthetics. However, they do have potentially significant negative implications for building cost and carbon emissions, as they can add complexity and inefficiency to the building form.

The standards shown here reflect the current direction as contained in the recommended modifications by City Staff to the rear transition guidelines and the As-of-right Zoning for Avenues without Avenue Studies. A step-back of 2.5 metres facilitates mass timber construction, as a single cross-laminated timber (CLT) panel typically has a span of 2.3 to 2.6 metres.

Toronto's Zoning By-law only requires parking for visitors, however, in transit-accessible locations such as most Avenues and Major Streets, this may not be warranted.

Parking can greatly impact the feasibility and environmental footprint of a project.

This standard is from the 2010 Performance Standards. The intent of this standard is to limit vehicular activity on the public street and reduce potential for conflict with pedestrians and cyclists.

Allowing the mechanical penthouse to occupy up to 50% of the width of the main wall provides greater flexibility on narrow sites. The standards shown are existing in the Commercial Residential (CR) zone according to Zoning By-law 569-2013. However, the By-law currently limits the total area of the mechanical penthouse to 30% of the roof area, which is not warranted if the intent of the standard is to reduce the visual impact (perceived height) of the mechanical penthouse for a pedestrian on the sidewalk.

Zoning By-law 569-2013 does not have a landscaping requirement for the Commercial Residential (CR) zone, but zones in the Residential zone category do. One reason for the minimum landscaping requirement is to provide permeable surfaces for infiltrating stormwater. This can also be achieved through permeable surface material and design of walkways and driveways, which are not currently considered in the By-law.

Zoning By-law 569-2013 already exempts buildings with under 30 units from providing a 'Type G' loading space, which is typically required for solid waste collection. The City's Waste Collection Standards (2022) contain an exemption for buildings with between 30 and 60 units. This exemption should be reflected in the regulation.



Duke Condos
Address: 2803 Dundas Street W, Toronto, ON
Architect: Quadrangle

7 storeys, reinforced concrete construction
85 residential units (condominium)



2.0 FISCAL POLICY

“Cities are expensive to build but slow and even more expensive to change....it is critical the new growth take a different tack. Otherwise, we continue to embed severe future problems by building sprawl that will be very difficult and expensive to mitigate.”

- Pamela Blais

Introduction

This section presents the case for all levels of government to make use of the fiscal policy tools at their disposal to incentivize mid-rise development along existing residential streets in Ontario's neighbourhoods.

Although there are many benefits to building more mid-rise housing instead of low-rise and high-rise development, the ability for this scale of development to “pencil out” is constrained by the cost burden of various direct government fees and charges, property taxes and other systemic factors. Much like the length of the planning approvals process, the costs measured on a per-unit or per-square foot basis can be higher for mid-rise than for high-rise development. Without incentives tailored to support mid-rise construction, such development cannot compete with the higher rates of return and economies of scale inherent to high-rise buildings. The following recommendations aim to “tilt the playing field” by using fiscal policy to make mid-rise housing easier to build:

- Encourage Fiscally-responsible Urban Development
- Reduce Development Charges
- Reform Property Taxation
- Increase and Diversify Development Capacity

Housing Supply versus Housing Demand

It is important to highlight that the focus of this report — especially within this fiscal policy section — is to increase mid-rise housing supply. Conversely, recommendations to reduce housing demand are not within the scope of this report. Such demand-side factors include demographics and immigration strategy, the impact of rising interest rates on both developers and homebuyers' borrowing capacity, as well as the extension of mortgage amortization periods and the indirect impact of an uncapped exemption from capital gains tax on the sale of primary residences.

2.1 Encourage Fiscally-Responsible Urban Development

A key reason to incentivize more mid-rise buildings is that this form of development is fiscally responsible; it is one of the best ways to ensure future growth provides long term benefits to the public and supports healthy municipal budgets.

The collective costs of development are often viewed through the lens of direct costs to municipal budgets, particularly for infrastructure and community services. However this must be balanced with broader consideration for the range of indirect costs and benefits that are influenced by urban development patterns. Public health, agricultural and biodiversity systems, and climate resilience are significantly impacted by urban planning policy and the scale and location of new development. Mid-rise development extends the idea of collective fiscal responsibility because it represents building configurations and methods of construction that redirect the labour, equipment and materials that would otherwise be applied towards single-detached low-rise development.

¹ Rankin, K. H., Arceo, A., Isin, K., & Saxe, S. (2024). Embodied GHG of missing middle: Residential building form and strategies for more efficient housing. *Journal of Industrial Ecology*, 1–14.

² Marohn, C. (2020). *America's Growth Ponzi Scheme*. Strong Towns.

³ Badger, E. (2013, May 21). *Quantifying the Cost of Sprawl*. Bloomberg.

More than a decade ago, Environmental Defence's report "The High Cost of Sprawl" warned lawmakers about the fiscal drawbacks of greenfield development and persistently low densities in Ontario's existing built-up areas. The report notes that this development pattern is the result of economic distortions based on government subsidies. These economic distortions make sprawl artificially cheaper for individual homeowners, but more expensive for society as a whole when the indirect cost of factors such as excess carbon emissions,¹ car dependency, infrastructure maintenance, mortality, social isolation, and obesity are taken into account. From a fiscal perspective, sprawl is a costly investment with a negative long-term return: what urban theorist Charles Marohn calls a "growth ponzi scheme".² In contrast, an assessment of finances across 17 metropolitan regions across North America³ found that on average, compact development is more responsible:

- costing 38% less in up-front infrastructure for roads, sewers, and water lines.
- costing 10% less in ongoing municipal service delivery (ie. garbage, police etc.)
- producing 1000% more tax revenue per acre

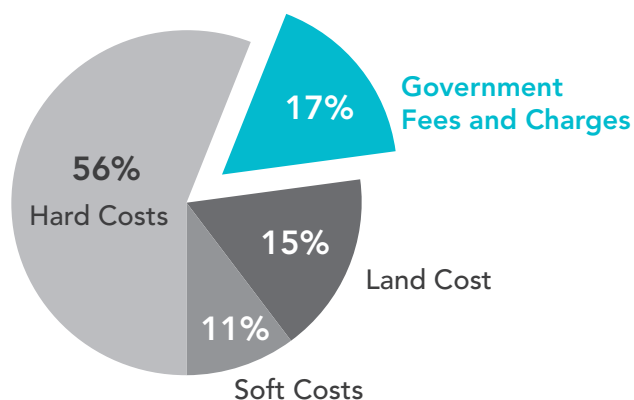
Despite these benefits, various policies continue to subsidize sprawl and disincentivize compact urban development, making inefficient use of our limited public funds.

Recommendations:

All levels of government should maximize the effectiveness and efficient-use of our public funds by incentivizing compact development. Specific recommendations are outlined in Environmental Defence's report "The High Cost of Sprawl"⁴, and include:

1. eliminate subsidies for sprawl and align development charge rates with the true costs of infrastructure and future servicing of new communities
2. invest in mass transportation to move people and goods efficiently
3. use development charge incentives and taxes to ensure efficient land use
4. establish a best practices guide for the use of development charges
5. encourage complete communities by updating zoning restrictions

⁴ Environmental Defence (2013). *The High Costs of Sprawl: Why Building More Sustainable Communities Will Save Us Time and Money*.

**Table 2.1 - Mid-rise Development Costs Example**

This chart shows a simplified calculation of typical cost inputs for small mid-rise development in Toronto, with a more detailed calculation of government charges and fees on a per-square foot and per-unit basis.

Direct government charges and fees amount to just under \$3.5 million, or approximately 17% of the overall development cost.

The pro forma does not capture the recent exemption of purpose-built rental development from HST, which represents an overall reduction of government fees and charges from 17% down to 12% of project costs.

6-Storey Apartment Building on a Major Street in Toronto

Source: Leader Lane Developments

Site Area:	532 m ²	(5,726 sq.ft.)	Floor Space Index (FSI):	3.94x
Gross Floor Area:	2,094 m ²	(22,540 sq.ft.)	Building Efficiency:	80.1%
Net Leasable Area:	1,677 m ²	(18,053 sq.ft.)	Number of Floors:	6 floors
Residential Leasable Area:	1,508 m ²	(16,233 sq.ft.)	Number of Residential Units:	30 units

Input Cost Assumptions	per sq. ft.	per unit	total
Land Cost (land acquisition)	\$166	\$100,000	\$3,000,000
Soft Costs (design, engineering, planning)	\$100	\$75,133	\$2,254,000
Hard Costs (construction)	\$500	\$375,667	\$11,270,000
Government Fees and Charges	\$200	\$116,655	\$3,499,600
Total Costs	\$966	\$667,455	\$20,023,600

Government Fees and Charges Breakdown	per sq. ft.	per unit	total
Land Transfer Tax	\$6	\$3,765	\$112,950
Preliminary Project Review Fees	-	\$9	\$274
Committee of Adjustment	-	\$198	\$5,950
Site Plan Control	\$2	\$1,429	\$42,855
Demo Permit	-	\$33	\$985
Development Charges (see Table 2.2)	\$67	\$40,395	\$1,211,845
Interest on Development Charges	\$11	\$6,576	\$197,277
Building Permits	\$2	\$1,250	\$37,500
Parkland Dedication	\$17	\$10,000	\$300,000
Education Levy	\$4	\$2,693	\$80,790
Property Tax during Development	\$3	\$1,750	\$52,500
Self-Supply Taxes Owed - HST	\$112	\$67,437	\$2,023,123
Self-Supply Taxes Rebate - HST	(\$33)	(\$24,431)	(\$732,937)
Utility Connections	\$4	\$2,667	\$80,000
Gas Disconnect	-	\$217	\$6,500
Hydro Connection	\$4	\$2,667	\$80,000
Total Government Fees and Charges	\$200	\$116,654	\$3,499,600

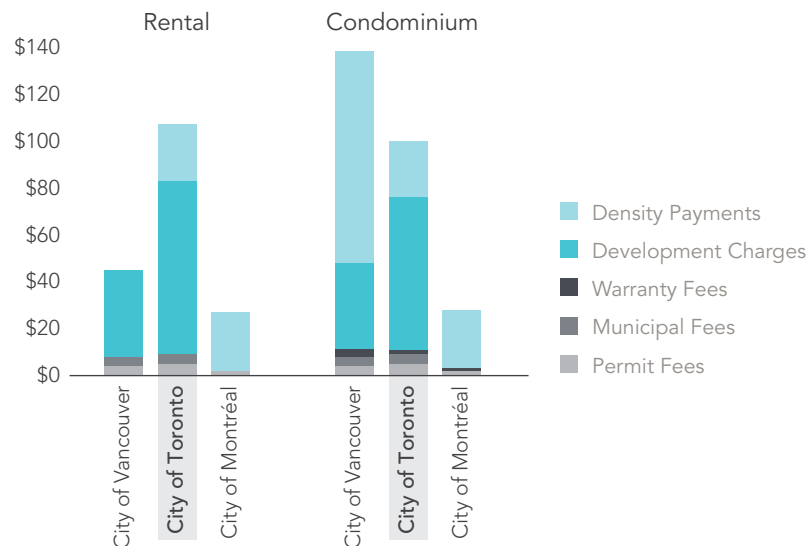
2.2 Reduce Development Charges

Lower infrastructure costs are one of most compelling advantages of mid-rise infill housing on existing residential streets. Unlike greenfield development, infill can often take advantage of existing infrastructure capacity: streets, sidewalks, water mains, sewer systems, libraries, and schools. In many neighbourhoods, these systems have adequate or extra capacity given the decline in family sizes in the past 50 years. Therefore, adding more homes and households to existing neighbourhoods lowers the per-resident cost of maintaining and replacing existing infrastructure over the long term.

Development Charges (DCs) are a subset of Government Fees and Charges, and are one of the primary mechanisms that municipalities use to fund new infrastructure and services. The chart in [Table 2.1](#) shows that Government Fees and Charges on mid-rise development in Toronto can total 17% of the costs on average. On their own, DCs can comprise roughly 5-10% of the cost of new housing supply.⁶ These significant costs are factored into the financial feasibility, impacting whether or not a project gets built, and passed on to the buyer or renter, impacting affordability. Therefore, their application has a major impact on the financial feasibility of new housing development.

Despite the infrastructural efficiency of infill development, most municipalities apply the same development charges to this type of housing as to greenfield development. Their logic often relies on the notion that new growth – new residents to a neighbourhood – should pay for the cost of this growth. Whether or not these costs actually exist is a point of contention. For example, DCs in Toronto are applied to multi-unit residential buildings on a per-bedroom and tenure basis ([Table 2.2](#)) and the infrastructure costs are categorized as 'General Services' and 'Engineered Services'. These charges are applied equally and regardless of location in the city. As a result, new housing supply in cheaper areas or requiring less upgrades effectively subsidizes the cost of new housing that is either more intensive, or located in more costly (ie. low-density greenfield) areas of the city that require new infrastructure. The diagram below compares the rates for low and mid-rise development in Toronto with Vancouver and Montreal, illustrating the different approaches of each of these municipalities toward DCs:

⁶Yaseen Hemeda. (2021, April 26). How Much Does it Really Cost to Build a New Condo? GTA Homes.



Government Charges on Residential Development in Canada
 per square foot* by municipality for low to mid-rise dwelling types
 Source: CMHC and Altus Group, 2022 - (*of saleable/leaseable area)

Recommendations:

1. The Provincial government should match federal infrastructure funding programs such as the Canada Housing Infrastructure Fund and the Canada Community-Building Fund. This will provide adequate funding for municipalities support infrastructure and service upgrades, allowing the city to more easily accommodate future growth in alignment with growth mandates established by the Provincial Policy Statement.
2. Municipal governments should reduce Development Charges on new housing supply by:
 - a. Facilitating cost-efficient/holistic and systematic implementation of infrastructure upgrades as outlined in [Section 4.0](#) of this report.
 - b. Reducing the 'General Services' category of Development Charges for all mid-rise development on avenues and residential major streets.
 - c. Planning and proactively implementing infrastructure upgrades to reduce the 'Engineering Services' category of development charges.
 - d. Diversifying funding mechanisms through Land Value Capture (LVC)⁷ for the 'Engineering Services' category of Development Charges. For instance, municipalities should work with the Provincial government to develop and implement a municipal services corporation utility model for water and wastewater under which the municipal corporation would borrow and amortize costs among customers instead of using Development Charges.⁸
3. Acknowledging that the financial viability of compact mid-rise development is more challenging than larger building projects, municipal governments should:
 - a. Eliminate the 'General Services' category of Development charges for all "as-of-right" mid-rise buildings with between 6 and 30 dwelling units having a maximum dwelling unit size of up to 140m² (1500ft²), along Avenues and residential Major Streets. This is similar to the existing Development Charge exemption on other residential streets for multiplexes of up to 4 units. This strategy would decrease the cost burden of Development Charges by almost two-thirds and incentivize smaller multi-unit residential buildings.

⁷ Siemiatycki et al (2023). Land Value Capture Study: Paying for Transit-Oriented Communities. Infrastructure Institute, University of Toronto's School of Cities

⁸ Housing Affordability Task Force, 2022

Table 2.2 - City of Toronto Residential Development Charges Rates

This table shows the current development charge rate structure for new residential development in Toronto and is categorized based on tenure and unit sizes (number of bedrooms).

Engineering services (roads, water, sewer and stormwater infrastructure) accounts for almost 37% of the total charge per unit, while general services account for around 63% of the total charge.

Source: City of Toronto, Effective June 6, 2024.

	Residential Charge By Unit Type (Apartments)					Percentage of Overall Charge
	Non-Rental (Condo/Ownership)		Rental* (Purpose-built Rental)			
	2 or more Bedrooms	1 Bedroom and Bachelor	3 or more Bedrooms	2 Bedrooms	1 Bedroom and Bachelor	
NOTE: Rates in this schedule apply to "purpose built rental units" as defined in Bylaw 1137-2022 and to "rental housing development" as defined in the DC Act						
General Services						
Spadina Subway Extension	\$2,566	\$1,675	\$1,589	\$1,695	\$1,176	3.2 - 3.5%
Transit (balance)	\$31,130	\$20,322	\$17,840	\$19,030	\$13,199	38.5 - 39.3%
Parks and Recreation	\$11,853	\$7,738	\$6,597	\$7,037	\$4,881	14.6 - 14.7%
Library	\$1,630	\$1,064	\$1,132	\$1,207	\$837	2.0 - 2.5%
Housing Services - Shelter	\$0	\$0	\$0	\$0	\$0	0%
Housing Services - Affordable Housing	\$0	\$0	\$0	\$0	\$0	0%
Police	\$452	\$295	\$340	\$362	\$251	0.6 - 0.7%
Fire	\$169	\$111	\$127	\$135	\$94	0.2 - 0.3%
Ambulance Services	\$621	\$406	\$321	\$343	\$238	0.7 - 0.8%
Development-Related Studies	\$121	\$79	\$91	\$97	\$67	0.2%
Long Term Care	\$1,404	\$917	\$82	\$87	\$60	0.2 - 1.7%
Child Care	\$702	\$458	\$475	\$507	\$352	0.9 - 1.1%
Waste Diversion	\$565	\$369	\$32	\$34	\$23	0.1 - 0.7%
Subtotal: General Services	\$51,214	\$33,433	\$28,626	\$30,534	\$21,178	63.2 - 63.5%
Engineered Services						
Roads and Related	\$17,139	\$11,188	\$8,332	\$8,887	\$6,163	18.4 - 21.2%
Water	\$2,663	\$1,738	\$1,997	\$2,130	\$1,477	3.3 - 4.4%
Sanitary Sewer	\$6,552	\$4,277	\$4,831	\$5,154	\$3,574	8.1 - 10.7%
Storm Water Management	\$3,123	\$2,039	\$1,494	\$1,594	\$1,105	3.3 - 3.9%
Subtotal: Engineered Services	\$29,476	\$19,243	\$16,654	\$17,765	\$12,319	36.5 - 36.8%
TOTAL CHARGE PER UNIT	\$80,690	\$52,676	\$45,280	\$48,299	\$33,497	100%

2.3 Reform Property Taxation

The financial model for mid-rise development as purpose-built rental housing (where rental revenue is earned over time) is significantly different from ownership/condominium projects. Recognizing this distinction, the federal and provincial government recently eliminated the HST on purpose-built rental (PBR) projects, leveling the playing field for apartment rental housing to be more cost-competitive with condominium development. The federal government has also recently announced it will increase the Capital Cost Allowance rate from 4% to 10%, allowing owners of purpose-built rental housing to apply depreciation expenses against their taxes.⁹

⁹ "Infrastructure Canada - Solving the Housing Crisis: Canada's Housing Plan, 2024

In addition to these changes, taxation at the municipal level should be reformed to support more purpose-built rental housing. For instance, residential property tax rates differ between condominium and rental housing. Residential property tax rates are classified as "residential" or "multi-unit", defined as residential buildings with seven (7) or more dwelling units. However, condominiums – regardless of size and unit count – are not classified as "multi-unit" residential properties, whereas purpose-built rental buildings are. For example, existing rental buildings in Toronto (1.004%) currently pay double the property tax rate of condominium buildings (0.554%).¹⁰ There is a tax rate subclass for new multi-unit residential buildings (applicable for a period of 35 years following construction) currently set at the same rate as the "residential" subclass. The provincial government also recently filed legislation to allow municipalities to offer an optional property tax discount of up to 35% for new purpose-built rental housing, to be implemented at municipal discretion.

¹⁰ City of Toronto. 2024 Property Tax Rates.

Taxation of real estate transactions is another major consideration. The Provincial Land Transfer Tax (LTT) and Municipal Land Transfer Tax (MLTT) apply to the sale of property regardless of whether a profit or a loss was realized on the transaction. Part of the rationale for this is to reduce real estate speculation, however another consequence is that it also discourages the transfer of property between beneficial owners. Property values must increase by at least the equivalent amount of this tax in order to justify the upfront cost of the MLTT+ LTT in addition to upfront legal and realtor fees. This inherently raises the transaction cost of the property and discourages homeowners from selling homes that no longer suit their housing needs.

Recommendations:

- Municipalities should make use of Ontario Regulation 140/24 to provide a tax rate reduction of up to 35% for the new multi-unit residential property subclass, or remove distinctions between tenure types to increase the long-term operating viability of purpose-built rental housing supply.
- Raise property tax rates across all residential categories to reduce reliance upon Development Charges on new housing supply and request MPAC to update property assessments (frozen since 2016 due to 2020 reassessment being delayed by pandemic) to ensure property taxes are equitably distributed and accurately based on current property values.
- Reform the Land Transfer Tax as a capital gains tax on the sale of property (including primary residences) as a more effective tax on real estate speculation.

2.4 Increase and Diversify Development Capacity

The scale and complexity of the housing crisis requires a comprehensive approach, drawing on the effort of as many actors as possible to increase development capacity. One idea is to incentivize more property owners to participate in development — particularly small-scale infill housing — to diversify the industry and increase the ability to quickly build more homes within existing urban areas.

¹¹ Burda, C., Collins-Williams, M. (2015). "Make Way for Mid-Rise."

Many professional developers prefer to build taller buildings rather than mid-rise. The cost of each measured on a per-unit or per-square foot basis is similar,¹¹ as is the timeline for approvals. However, the uncertainty and risk associated with the entire process makes the economies of scale for high-rise a better bet. Even when developers can make their pro-forma for mid-rise buildings work, it is often because they have assembled several properties into a larger development site to achieve a scale similar to high-rise. The current system hence encourages development of "big" buildings, even if they aren't explicitly high-rise. In both mid-rise and high-rise, these larger developments balance the upfront investment risks in alignment with market expectations and financing requirements that favor larger, well-capitalized developers who have the capacity and experience to participate.

Changing the system to support the viability of small-scale mid-rise housing would broaden the ability for existing landlords and homeowners to redevelop their properties, increasing the opportunity space for non-professionals to build homes. Many existing landowners have already paid off their mortgage and hence are well-suited to redevelop their property without the cost of land acquisition. Making it easier for the owner of a smaller property to build without having to acquire adjacent property — based on factors outlined in other sections of this report — helps to both increase housing options and diversify the industry. There are various financial incentives that could also help create the conditions for expanding participation in the development industry.

Encourage Citizen-led Development

The as-of-right zoning reform discussed in the previous chapter could open the opportunity for existing homeowners of residential property to work together, acting as "citizen developers" of multi-unit mid-rise housing within their own communities.

¹² Larch Lab (2022), *Livable Low-Carbon City: 11: Better Living through Baugruppen*

In order to enable this, Ontario could adopt and support the so-called "Baugruppen" development model. This is common in Germany and has become popular in other parts of the world.¹²

¹³ Eldredge, B. (2016, April 7). *Could This German Affordable Homebuilding Plan Be a Model for the U.S.?* Curbed.

As a process, *Baugruppen* begin by forming a corporation in which each member becomes a shareholder and provides a loan, providing equity to fund land acquisition and upfront development costs. Since the participants are often non-professionals with little to no previous development expertise, they are often aided by expert facilitators who help them navigate the process, access alternative mortgage and construction financing, and design the building. Once construction is complete, each *Baugruppen* shareholder owns their apartment through a typical tenure agreement, such as condominium or a co-operative.¹³

¹⁴ OAA Housing Affordability Task Group & SvN Architects + Planners Inc. (2019). Housing Affordability in Growing Urban Areas.

In addition to enabling a broader group of people to participate in development, a benefit of having future owner-occupants make decisions regarding the design of the building is that this often results in higher quality and more sustainable construction. The upfront profit motivations for a citizen developers as future owner is also inherently lower than typical development.¹⁴ In the case of the well-documented 'Nightingale' apartments in Melbourne, Australia, the citizen-led development resulted in homes being sold at 15% below comparable market rates by eliminating upfront profit incentives as well as the realtor commissions and marketing costs associated with traditional development.

Recommendations:

- To incentivize citizen-led development, the provincial government should prioritize the creation of financial and legal structures (such as a simplified strata/condominium registration process for smaller buildings), as well as procedural support and guidance for non-professional developers to redevelop existing properties.
- To incentivize the construction of mid-rise buildings, the Federal government should expand the "Canada Builds Apartment Construction Loan Program" program to offer low-cost, long-term fixed-rate financing towards the construction of mid-rise buildings and ensure that the application requirements do not discourage small-scale/citizen-led developers.^{15,16}

¹⁵ Moffatt et al., 2023

¹⁶ "Infrastructure Canada - Solving the Housing Crisis: Canada's Housing Plan, 2024

Support Community Land Trusts with Underused Public Land

Land cost typically accounts for 10 to 30% of the development cost of mid-rise housing. One way to reduce this cost is to harness the power of non-profit land ownership and non-market housing development. Both of these strategies have the potential to remove properties from future land value speculation and support the production of more affordable housing. Non-market housing has been experimented with in Toronto in various forms, and the strategy can be either top-down or bottom-up.

An example of a bottom-up strategy is the creation of non-profit Community Land Trusts (CLT). In Toronto, the Parkdale Neighbourhood Land Trust is a robust example of this model. Within this framework, a trust receives or purchases property and leases the buildings on that land for community-oriented uses. The land is removed from the market and future speculation, while the income earned from the buildings typically covers operational costs and any debt servicing. Over time, new capital investments and construction become feasible by leveraging the existing holdings of the land trust. CLTs are governed by a board which assumes responsibility for the properties and ensures they are used for purposes such as affordable housing and community services.¹⁷

¹⁷ Ngan, J. (2022, May 17). Community land trusts could help provide affordable housing we so desperately need. Broadview.

¹⁸The Globe and Mail (2024), "Could Canada's Underused Public Land Be the Key to Solving the Housing Crisis?"

A top-down strategy for non-profit land ownership is to leverage underutilized government-owned property to be made available for new housing supply while retaining public ownership as long-term land lease. A recent survey determined that if suitable urban Federal Lands throughout Canada were to be used for housing, it could facilitate the creation of approximately 750,000 new homes.¹⁸

Government-owned lands can be utilized to both increase housing supply and deliver many collective benefits to society. For example, in many European cities such as Amsterdam, Hamburg, and Vienna, public land is leased to developers through a transparent municipal decision-making process that also includes an architectural design competition to encourage measures such as affordability, sustainability, public space, and community facilities in exchange for the right to build on this land.

All three levels of government across Canada collectively own a vast portfolio of urban real estate, which includes vacant land, parking lots and low-rise buildings such as libraries, schools, recreation centers, transit and fire stations. These can be leveraged to create more housing within existing neighbourhoods. Within Toronto, the Toronto Community Housing Corporation owns many high-rise buildings where considerable infill development possibilities exist in the adjacent landscape areas and large parking lots.¹⁹ If the strategies presented in the other sections of this report are implemented to make it easier to build mid-rise housing, they could help to maximize the potential of these underused public lands.

¹⁹Siemiatycki, M., & Chapple, K. (2023). Perspective on the Rental Housing Roundtable. #4.

Recommendations:

All levels of government should:

- provide financial support to Community Land Trusts (CLT) to acquire existing properties as well as low-cost financing for capital repairs and renovations, as well as building additions and new construction to add more housing.
- maintain government ownership of land and provide long-term land leases to develop mixed (market and affordable) housing or sell this land to CLTs or other non-profit organizations
- identify the development potential of publicly-owned underused urban land and develop these properties as affordable, accessible and sustainable housing using a diverse range of building typologies (especially mid-rise). This could be implemented through an expanded mandate of the "Canada Lands Company".

V6 Leslieville

Address: 1602-1604 Queen Street East, Toronto, ON

Architect: CMV Group Architects

6 storeys, mass timber

10 residential units (purpose-built rental)





3.0 BUILDING CODE

“Given the relatively small scale of mid-rise buildings on the Avenues, the life and safety requirements often add up to a “belt and suspenders” approach that is costly without providing much measurable improvement to life and fire safety.”

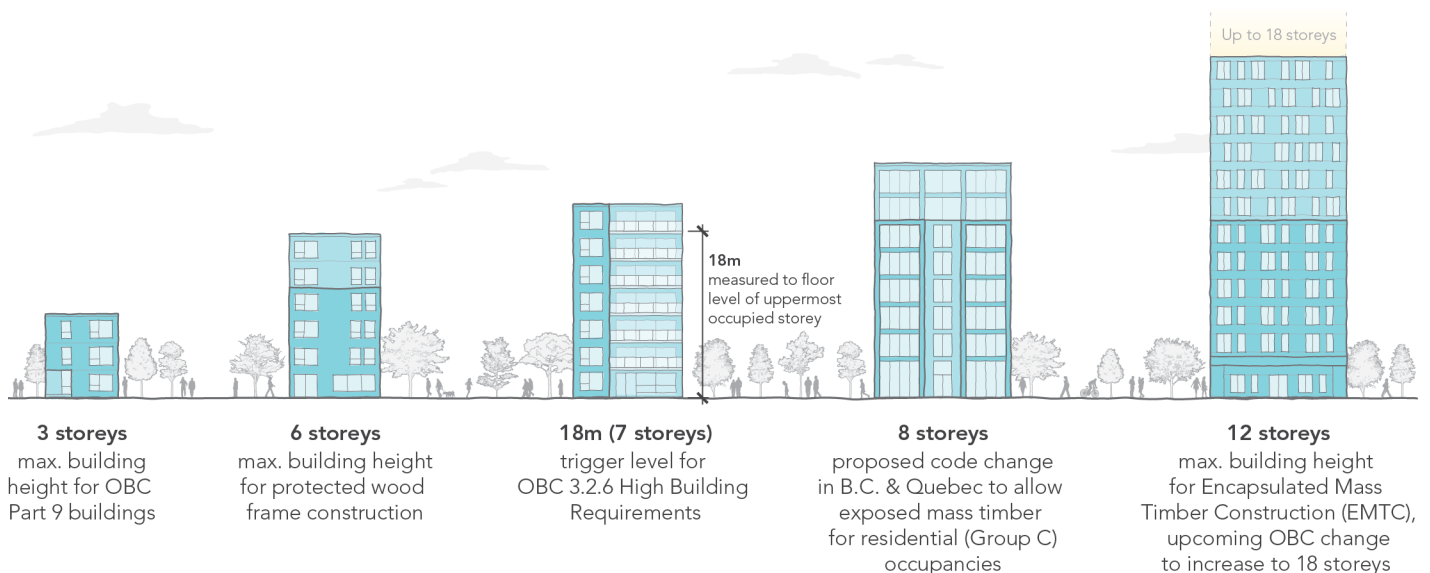
- 2010 City of Toronto Avenues & Mid-Rise Buildings Study
Section 4.5.6 ‘Ontario Building Code Issues’

Introduction

Many prescriptive requirements of the Ontario Building Code restrict the feasibility of mid-rise buildings and should be modernized to accommodate more design flexibility and low-carbon methods of construction without reducing the safety of such buildings.

Mid-rise buildings are typically categorized by a building height of 5 to 11 storeys. However, mid-rise buildings are subject to many of the same provincial building code requirements as much taller high-rise buildings. The Ontario Building Code categorizes mid-rise buildings as “Part 3” buildings subject to more restrictive requirements than “Part 9” buildings, which are limited to a maximum height of 3 storeys and a building footprint of 600m². Mid-rise buildings over 18 metres in height (approximately 7 storeys, measured to the floor level of the uppermost occupied storey) are also subject to additional fire and life safety measures known as ‘High Building Requirements’. This means that an 8-storey mid-rise shares many of the same fire and life safety requirements as an 80-storey high-rise. These prescriptive trigger levels add cost, complexity, and inefficiency to the moderate scale of mid-rise buildings.

In this chapter we will consider how the building code should be changed to better address the scale of mid-rise construction and identify performance-based alternatives to accommodate more design flexibility without reducing safety.



3.1 Register and Track Accepted Alternative Solutions

The 2005 edition of the National Building Code of Canada introduced an objective-based format and so-called “alternative solutions” to encourage construction innovation and design flexibility so long as the design meets the equivalent or better performance of the requirements set out in the prescriptive sections of the code.

However, the use of alternative solutions and construction industry familiarity with them remains low. Every alternative solution is subject to site-specific approval, requiring discretionary review by the municipal buildings department.

A considerable demographic shift is also occurring as many experienced building officials retire, resulting in a chronic shortage of plans examiners and necessitating an important knowledge transfer to the next generation. This trend further discourages the use of alternative solutions as more inexperienced building officials tend to be less comfortable with approving performance-based designs.

Another problem is that previously approved alternative solutions are not publicly available. Alberta has a provincial registry overseen by the Ministry of Municipal Affairs to collect alternative solutions across municipalities and uses it to inform future codes development. Ontario does not. Alternative solutions are hence often scrutinized as unique and unprecedented, such that the industry must rely heavily on the knowledge of building code consultants and their experience with previous projects.

Recommendations:

- Create a provincial database to register and keep track of previously approved alternative solutions and allow the database to be accessed by municipal building departments (as well as licensed architects and engineers). Use this database to inform future policy priorities and building code changes.

Note: allow proponents of a successful alternative solution to withhold, redact or request removal of intellectual property from the database where privacy or compensation from third-party use is a concern.

- The Toronto Buildings department has recently published generic alternative solutions to accommodate the construction of laneway suites with extended travel distances by requiring additional fire safety measures.¹ Request the Chief Building Official prepare additional generic alternative solutions to address common mid-rise building issues.

¹ City of Toronto. “Providing Fire Department Access to a New Laneway Suite.”

The province could also introduce an enhanced certification system for licensed architects and engineers similar to the City of Vancouver’s voluntary CP (Certified Professional) program to facilitate: *“the issuance of building permits for new or existing buildings by allowing certified professionals to take on the full review and inspection role on behalf of the City. Under the CP permit process, permit issuance can be staged, allowing construction to start earlier than otherwise – an advantage to building owners wanting to expedite their projects.”*²

² City of Vancouver. “Certified Professional Program.”

3.2 Allow Combustible Construction of Side Walls

Recent changes to the Ontario Building Code to permit encapsulated mass timber construction up to 12 storeys (2022) and protected wood-frame construction up to six storeys (2015) make it possible to build mid-rise structures at lower cost and with a significantly reduced embodied carbon footprint.

However, such construction remains challenging in urban areas and on small sites that are characteristic of mid-rise infill development. In particular, the building code requires noncombustible construction of walls that are built near the property line. This rule means that smaller infill projects along Avenues, as well as Major Streets within neighbourhoods, are required to have the main side walls built of steel or concrete, even if the rest of the structure is built of protected wood frame or encapsulated mass timber. This leads to significant additional complexity, cost and embodied (upfront) carbon emissions.³

³ Lam, Elsa. "Home Products: R-Hauz, Toronto, Ontario and Intelligent City, Vancouver, British Columbia" Canadian Architect. (2020).

The Ontario Building Code contains these requirements for Spatial Separation and Exposure Protection under Section 3.2.3 intended to prevent the spread of fire across and between buildings. Where side walls are located in close proximity of the property line, a minimum fire-resistance rating of 1 hour and noncombustible construction and cladding is required.

A successful pilot project for mass timber mid-rise buildings along Toronto's main streets was recently developed by Assembly Corp. with CMV Group Architects and Moses Structural Engineers and included an alternative solution to accommodate the use of mass timber for the exterior walls within close proximity of the property line. (See CWC, R-Town Vertical 6 / Mass Timber Mid-rise.)⁴ The design proposes a significant increase to the minimum fire-resistance rating of the exterior wall assembly as a performance-based alternative to the prescriptive requirement for noncombustible construction.

⁴ Canada Wood Council. "R-Town Vertical 6 / Mass Timber Mid-rise." (2022).

Recommendations:

- Request the Canadian Board for Harmonized Construction Codes develop performance-based criteria for alternatives to noncombustible construction of exterior walls within limiting distances and close proximity to property lines.
- Change Section 3.2.3.7. of the Ontario Building Code to allow combustible construction with increased minimum fire-resistance ratings as alternative to noncombustible construction of exterior walls within limiting distances in close proximity to property lines.
- Request the Chief Building Official to develop a generic alternative solution to accommodate low-carbon methods of construction for exterior walls in close proximity to property lines and make this information publicly available.

3.3 Expand Permissions for Mass Timber Construction

British Columbia and Quebec have led a joint task group to develop proposed changes to their provincial building codes to further enable the use of mass timber construction for residential and other building occupancies.⁵

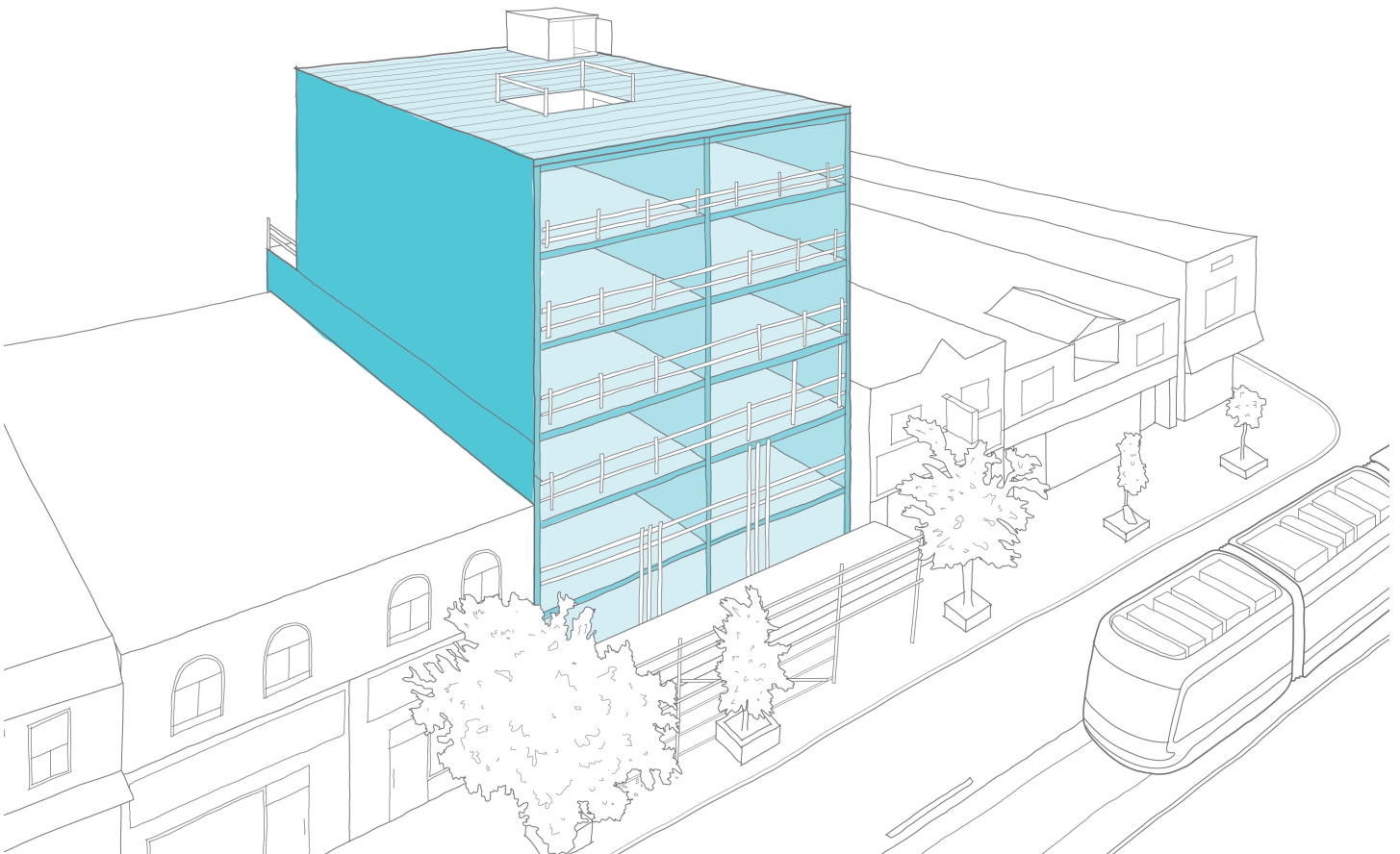
⁵ CBHCC-CCHCC. (2023). EMTC Proposed Change 01.

⁶ Churkina, G., Organschi, A., et al. "Buildings as a global carbon sink." *Nature Sustainability* 3, 269–276 (2020).

These changes include increasing the maximum building height for Encapsulated Mass Timber Construction (EMTC) construction from 12 storeys to 18 storeys, and allowing residential buildings of up to 8 storeys with more exposed/unencapsulated mass timber construction. These permissions incentivize the use of thicker mass timber panels as low-carbon alternative to concrete and steel structures, such that the structure of mid-rise buildings functions as a long-term carbon sequestration opportunity.⁶

Recommendations:

- In addition to increasing the maximum building height for Encapsulated Mass Timber Construction (EMTC) to 18 storeys, request the provincial government to work with British Columbia and Quebec to introduce additional permissions for unencapsulated mass timber construction of up to 8 storeys in residential (Group C) occupancies in the Ontario Building Code.



This illustration shows a 6-storey mid-rise apartment building while under construction. The exterior walls adjacent to the property line beside the neighbouring buildings are required by the Ontario Building Code to be of noncombustible construction.

3.4 Allow Single Staircase Buildings

The provincial government recently announced it will consider changes to allow single staircase designs for small multi-unit residential buildings with additional fire and life safety measures. This change was a recommendation of the 2023 National Housing Accord, 2022 Ontario Housing Affordability Task Force, 2019 OAA Housing Affordability Task Group and the 2010 Mid-rise Performance Standards consultant report.

Section 3.4.2.1. of the Ontario and the National Building Code of Canada specifies that every floor area in a building over two storeys in height must be served by at least two exits. A review of building codes worldwide suggests that while two exits is appropriate for larger buildings and non-residential occupancies, it is unnecessary for smaller multi-unit residential buildings where additional safety measures are provided. Canada and Uganda are currently the most restrictive countries in the world by requiring two exit stairs for all multi-unit residential designs.⁷

⁷Speckert, Conrad. "Jurisdictional Scan." *The Second Egress*. (2022).

The current rule leads to apartment buildings typically having two staircases located at opposite ends of the building connected by a continuous public corridor. This creates floor plans that are similar to hotels, with two rows of several repetitive unit layouts and many dwellings having access to daylight and fresh air from one side. Outside North America, such "double-loaded corridor" configurations are uncommon and small apartment buildings typically have a single central staircase serving a limited number of dwelling units per floor. Depending on the building depth, single exit configurations increase the floor area efficiency of a design by roughly 5-7%. Design flexibility of unit layouts also increases, making 3 or 4-bedroom units feasible in the same floor area of a typical 2-bedroom unit along a corridor. Single stair design also increases the ability to provide natural ventilation and daylight (i.e.. saving on operational energy) and to locate bedrooms on the quiet side of buildings.

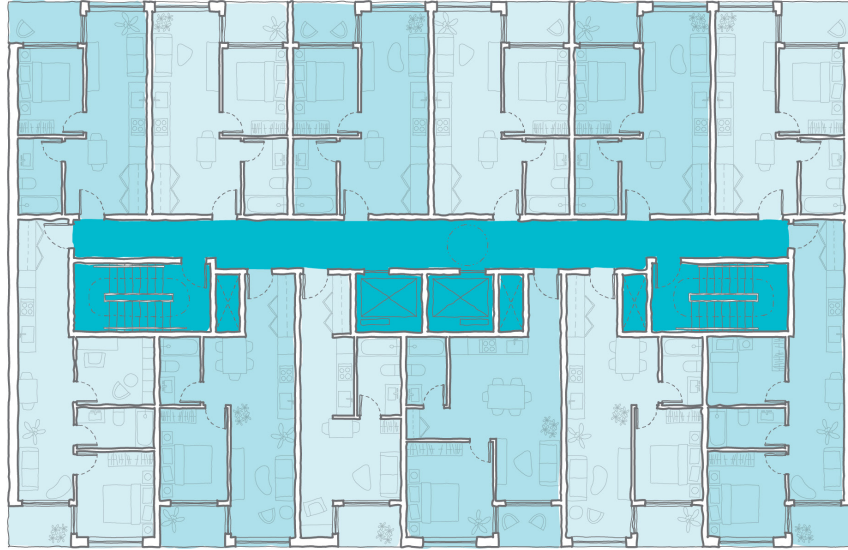
This change would significantly improve the feasibility of smaller apartment buildings, especially in existing urban areas such as Toronto's Major Streets and Avenues. It could also unlock the ability for small-scale developers and existing owners of smaller properties to build mid-rise housing. The City of Seattle, New York City and State of Hawaii allow single staircase buildings of up to six storeys in height, and the State of Washington, California and Oregon have recently passed state legislature bills to study and implement similar code changes. Globally, many jurisdictions allow single staircase buildings of even greater height; Norway up to 8 storeys, Sweden up to 16 storeys, France up to 50 metres and Germany up to 60 metres for example.

Recommendations:

- Request the Canadian Board for Harmonized Construction Codes to prioritize CCR 1815 and 1816 (single egress) for the upcoming 2025-2030 codes cycle.
- Amend the Ontario Building Code to allow for single exit staircase buildings up to 6 storeys with additional fire and life safety requirements.
- Request the Chief Building Official to develop alternative solution guidelines for single staircase designs and support corresponding changes to the OBC.

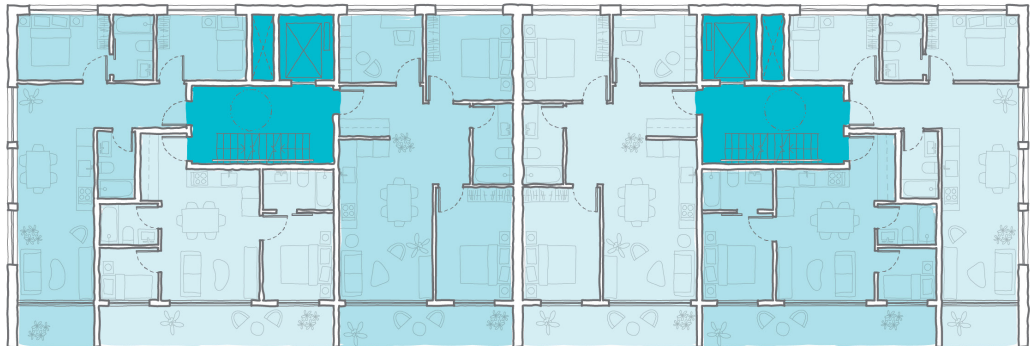
Example of a Double-Loaded Corridor Configuration, Representative Apartment Building Floor Plan in North America

This floor plan shows a mix of studio, one-bedroom, one-bedroom plus den unit layouts arranged along a double-loaded corridor configuration with two exit stairs and two elevators serving the building. Each unit has limited access to fresh air and daylight from one side.



Example of a Single Stair / Point Access Block Configuration, Representative Apartment Building Floor Plan in other Jurisdictions

This floor plan shows a mix of one-bed, two-bed and three-bed unit layouts arranged around a single staircase configuration and repeated side-by-side. Each unit has access to fresh air and daylight from multiple sides.



Disclosure: LGA Architectural Partners and David Hine Engineering submitted related code change requests (CCR 1815 and 1816) to the Canadian Board for Harmonized Construction Codes in April 2022. The proposal includes strict conditions to limit the number of dwelling units per storey, maximum floor area of each dwelling unit and total occupant load per storey for mid-rise buildings of up to six storeys. The proposal also requires fire sprinklers throughout the building, increases the fire-protection rating of entrance doors, requires automatic monitoring of the fire alarm system to reduce fire department response times and introduces smoke control measures to protect the exit stair.

River Street Infill

Address: 41 River Street, Toronto, ON

Architect: Studio JCI

5 storeys, mass timber

29 residential units (purpose-built rental)





4.0 INFRASTRUCTURE

Introduction

The maintenance of city infrastructure is critical to ensure potable water supply, sewer and stormwater capacity, garbage collection, gas lines and electrical service continue to operate safely and efficiently. Where new development and growth is planned, ensuring upgrades are co-ordinated is critical to the well-being and function of the neighbourhood as a whole.

However, Avenue and Area-specific Studies do not always include a thorough review of existing infrastructure capacity or propose a co-ordinated implementation strategy for the necessary upgrades required to meet the density and growth targets identified and intended by these studies.

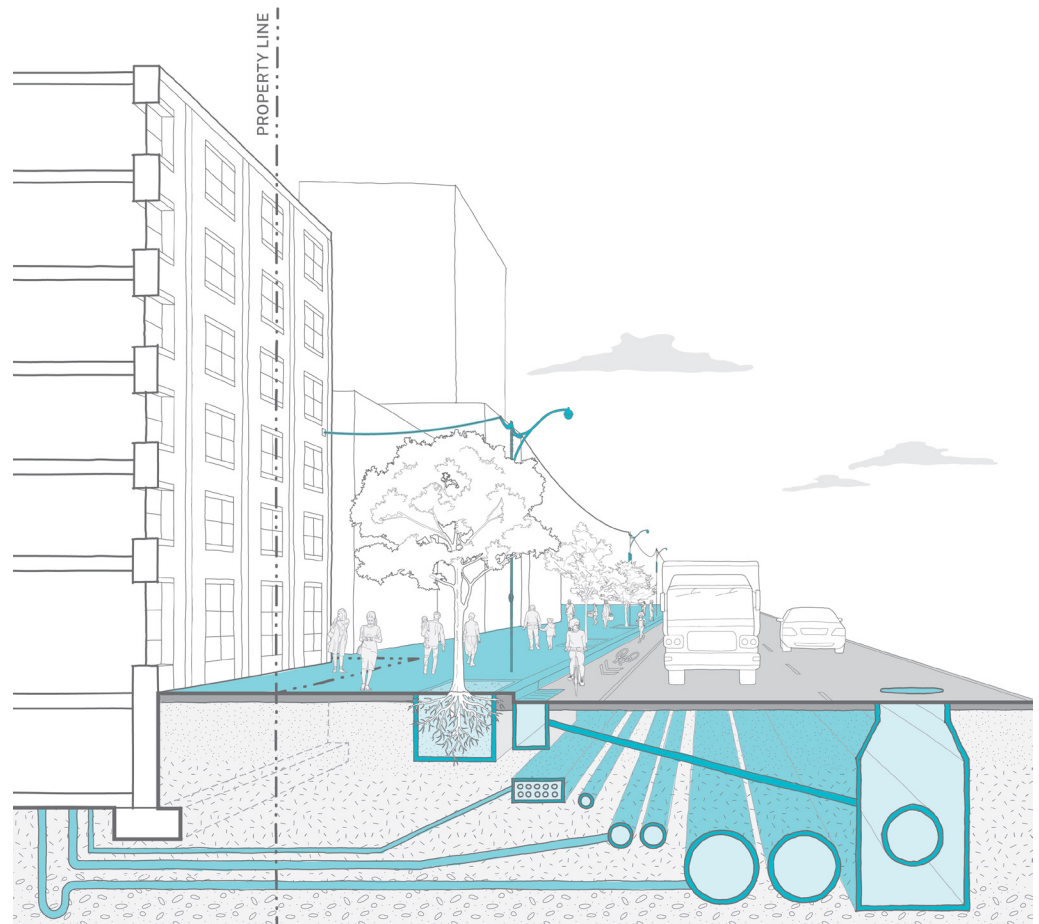
The current approvals process requires each development application to independently determine existing infrastructure capacity, propose and implement solutions based on the impact of the individual project upon existing infrastructure. This invariably leads to piece-meal upgrades of city infrastructure, with the related engineering and construction costs impacting project feasibility. Where significant infrastructure upgrades are required, the co-ordination of work between public and private infrastructure providers and associated delays also add significant risk to the development project, especially for small-scale infill development within existing residential neighbourhoods.

With funding from Federal and Provincial governments to support systematic infrastructure upgrades in line with future density and growth targets, the city should lead infrastructure upgrades and develop more efficient, holistic, and systematic solutions. The current approach of each small-scale development providing their own solution on a project-by-project basis leads to a patchwork of ad-hoc upgrades.

Additional steps could also be taken to simplify and provide clarity on infrastructure requirements for small scale mid-rise development sites to support compact urban growth. The city should create prescriptive compliance options for small scale mid-rise development to meet on-site stormwater management and infiltration requirements based on lot area and soil types based on location (using city data from existing borehole analyses already completed throughout the city). Toronto Hydro and the Electrical Safety Authority should allow professional engineers to provide performance-based residential load calculations to ensure electrical service is appropriately sized for the proposed development. The city should revise the eligibility criteria of the Mid-rise Building Exemption from certain garbage collection and loading requirements or develop an intermediate waste collection and diversion method suitable for mid-rise buildings. Each of these highly technical civil, electrical and waste management engineering issues has a significant impact on the feasibility of mid-rise development.

4.1 Create a Holistic Approach to Infrastructure Upgrades

For example, Toronto is currently in the process of modeling the city's existing water, stormwater and wastewater infrastructure system. Engineers working on a proposed mid-rise development use the modelled capacity data to assess the impact of the project (and must account for other recently approved projects often not captured in the base model provided by the city) to confirm downstream impact and necessary upgrades. Capacity upgrades are then identified by the engineering team to offset the impact of the new development on the existing infrastructure. The next development in the affected area then repeats this same process, beginning with the city's base model, then adding the impact of previous development submissions in the area, to then analyze the impact of the proposal and identify necessary offsetting measures. The result is a piecemeal approach towards municipal infrastructure upgrades and servicing.



This illustration highlights the various infrastructure considerations applicable to a 6-storey mid-rise apartment building along a Major Street - including engineering services such as electricity, water, sewers and stormwater, as well as garbage and waste management, telecommunications, sidewalks, urban forestry, lighting, bike lanes, roads and transit considerations.

An alternative approach to this process, supported by funding from Federal and Provincial governments, as noted in **Section 2.0** of this report, would be for the city to lead on infrastructure planning, as well as maintain the digital infrastructure model with up-to-date information. The result would be more holistic, cost-effective and systematic co-ordination of service upgrades, rather than piece-meal upgrades led by each individual small-scale infill development project team.

Upgrades to infrastructure and services along Avenues, as well as on Major Streets within neighbourhoods, should be assessment-funded rather than only being funded by new growth, given the entire neighbourhood benefits from such upgrades to the existing infrastructure.

Regarding water connections, in Toronto the Toronto Water By-Law does not support re-use of existing connections. A replacement connection (for one that is still functioning) is costly and often involves boring to the far side of the ROW. Allowing re-use of existing connections, with fees collected against future replacement, would further support the feasibility and delivery of small-scale infill mid-rise projects.

Recommendations:

1. The Provincial government should align to and reinforce Federal infrastructure funding programs such as the Canada Housing Infrastructure Fund and the Canada Community-Building Fund. This will provide adequate funding to support infrastructure and service upgrades in Toronto, allowing the city to more easily accommodate future growth in alignment with growth mandates established by the Provincial Policy Statement.
2. The municipality should reduce Development Charges by:
 - Facilitating cost-efficient/holistic and systematic implementation of infrastructure upgrades rather than piecemeal site-by-site upgrades to lessen the cost of Engineering Services for all developments.
 - Funding upgrades to infrastructure and services along Avenues and Main Streets through dedicating funds available through Federal and Provincial infrastructure funding to lessen the cost of Engineering Services for all developments.

Refer to **Section 2.0**.

 - Amend the Toronto Water By-Law to allow re-use of existing water connections, where deemed functional and sufficient for proposed small-scale infill development, with fees collected against future replacement.

4.2 Simplify Stormwater Management for Small Sites

Stormwater management is a critical concern for new developments, particularly where a project increases the overall lot coverage and hence changes the ability of the property to absorb rainwater without impacting adjacent properties. Stormwater management for smaller mid-rise sites is currently evaluated the same way as larger mid-rise and tall building development sites and requires detailed site-specific soil analysis, infiltration testing and a performance-based method for the design of stormwater management systems on site. This makes sense for larger sites and larger projects where the impact of each development is significant and where customized solutions can be engineered. On smaller sites, this custom engineering adds to the overall project soft costs and adds additional time to the approvals process to review and confirm that stormwater will be properly managed and controlled on site - more specifically, that the first 5mm of rainwater is re-used, oil and other pollutants are properly separated, and subsoil infiltration occurs within 72 hours.

For smaller development sites, implementing a prescriptive compliance option for stormwater management requirements would simplify the process and help reduce project soft costs. The prescriptive options would be informed by knowledge of existing soil conditions throughout the city from existing borehole data and analyses that has been completed throughout the city. A prescriptive compliance path would provide standardized and simplified solutions for holding tank and infiltration gallery size based on lot area, and oil separator requirements based on paved drive and parking area, as an alternate to the current site-specific analysis and performance-based design approach.

By extension, offering this compliance option for smaller sites would then allow city engineering staff to focus more attention towards complex development applications for larger sites and improve review times for such developments as well.

An alternative prescriptive approach also expands opportunities for the use of innovative standardized products (i.e.. such as lower cost and lower carbon plastic alternatives to standard concrete tanks) if designed and tested in adherence to these prescriptive requirements.

Recommendations:

- Request the municipality to develop and implement a prescriptive compliance option for stormwater management, applicable to smaller infill development, to expedite design and review times while ensuring minimum standards are applied and met for every proposed infill development.

4.3 Simplify Mid-rise Electrical Service Requirements

Toronto Hydro provides three options for electrical service to multi-unit residential buildings depending on their scale: overhead pole-mounted transformers, pad-mounted transformers, and customer-supplied indoor transformer vaults. Overhead service is only available to smaller projects where the electrical load calculations based on the Ontario Electrical Safety Code (OESC) accommodate such service. In many cases, the prescriptive method for calculation of peak load conditions using the OESC results in vastly oversized systems and is not indicative of real-world performance. The basis for the prescriptive load calculations in smaller multi-unit residential buildings needs to be updated or should allow electrical engineers to provide an alternative method of compliance using performance-based calculations for new buildings.

The required floor space and clearances for an outdoor transformer or indoor electrical vault have a significant impact for smaller mid-rise buildings. The design standards for outdoor pad-mounted transformers require large clearances to the adjacent building, such that they are incompatible with smaller infill site conditions. Where the design does not provide a basement, indoor vaults must be accommodated on the ground floor of the building and impact the available floor area for other uses. Indoor electrical equipment vaults require costlier solid masonry or concrete construction and additional fire protection and ventilation requirements. These are necessary safety requirements; however, this adds unnecessary cost and complexity where the system has been vastly oversized for the needs of the building.

Recommendations:

- Update sections 8-200 and 8-202 of the Ontario Electrical Safety Code and allow electrical engineers to submit performance-based residential load calculation as alternative compliance method for new construction. This would ensure electrical service is appropriately sized to reflect actual conditions.
- Request Toronto Hydro to prepare an intermediate design standard for optimized electrical service to smaller mid-rise buildings (i.e. smaller than the vault size required for tall buildings) and provide conditions for pre-approval. This would reduce costs, uncertainty and simplify the approvals process.

4.4 Optimize Regulations for Mid-rise Waste Collection

The City of Toronto provides requirements for the design of Garbage, Recycling and Organics collection and waste storage areas in multi-unit residential buildings.

Curbside bin pick-up is permitted for smaller buildings of up to 30 dwelling units and front-end container collection is typically required for larger buildings with 31 or more dwelling units. Front-end collection triggers the requirement for a large Type-G loading bay with a large overhead clearance located on the private property. The impact of a Type-G loading bay and the associated staging area and access route can be prohibitive for mid-rise buildings.

In May 2023, the Solid Waste Management Services (SWMS) department created a 'Mid-rise Building Exemption' to allow discretion for buildings of 31 to 60 dwelling units to be exempt from front-end collection and be serviced by curbside pick-up. Applicants must "demonstrate that front-end collection requirements are detrimental and incompatible with the buildings footprint and/or property area." The efforts of the SWMS and Engineering and Construction Services team to create this exemption for mid-rise buildings is commendable. However, the definition of "detrimental and incompatible" has not been defined and remains subject to discretionary and site-specific approval by the general manager. Eligibility for this exemption needs to be confirmed as early as possible in the design process given the major impact of this requirement on structural and ground floor configuration of a building.

As the city shifts to a fully electrified fleet of vehicles by 2040, there is an opportunity to reconsider the dimension and design of new garbage trucks and waste diversion practices. Mid-rise buildings are not well suited to the current residential curbside pick-up method, or the front-end collection and garbage chute/compactor designs intended for taller buildings.

Recommendations:

- Update the eligibility criteria for the 'Mid-rise Building Exemption' to include specific criteria for eligible building footprint and/or property area. Alternatively, provide an appendix with several example site plans to establish precedent and avoid potential challenges or disputes between design teams and the SWMS general manager.
- Develop an intermediate method of waste collection and diversion optimized for mid-rise buildings, based on best practices in other cities where multi-unit mid-rise buildings are more prevalent (i.e. smaller trucks, no garbage chutes, distinct recycling of glass, mixed paper and cardboard, etc.).

Oben Flats Leslieville

Address: 1075 Queen Street E, Toronto, ON

Architect: superkul

6 storeys, hybrid steel frame and hollow-core slabs
48 residential units (purpose-built rental)





5.0 CONSTRUCTION

Introduction

The construction cost of mid-rise buildings (on a per-square-foot or per-unit basis) is often higher when compared to high-rise buildings. Building step-back requirements and building code constraints add complexity to the structural design and floor plan layouts of mid-rise buildings which leads to additional construction cost, a reliance upon reinforced concrete construction, and limits the implementation of alternative and/or innovative methods of construction (ie. wood-frame, modular, mass timber).

Simplifying step-backs and building form guidelines for mid-rise buildings, as outlined in [Section 1.0](#) of this report, would provide design flexibility and support the use of other methods of construction, especially low-carbon alternatives to reinforced concrete construction. Diversifying the available methods of construction and the skilled labour required, as well as simplifying building form to allow repeatable and efficient floor plans will expedite construction schedules and reduce the construction cost of mid-rise housing to be competitive with taller buildings.

Low-cost financing for prefabrication companies, subsidized training and apprenticeship programs can support the necessary labour force to grow such businesses.

While alternative methods of delivery expand the labour pool and reduce the demand for on-site labour, addressing the growing shortage of skilled trades and construction workers remains a critical issue. This will require increased government investment and commitment to ensure the construction industry can grow rapidly to meet housing demand, beginning with revisions to apprenticeship regulations defined by the Ontario College of Trades and federal immigration quotas for foreign-trained skilled trades and construction workers.

Smaller properties suitable for mid-rise urban infill development pose significant logistical constraints related to access, staging and services. Simplifying the engineering and transportation planning process and reducing street occupation permit fees for mid-rise development (such as hoarding permits, sidewalk and lane closures) would also further incentivize such construction.

“If Canada can fix the financial and policy barriers and create an environment conducive to additional construction, the residential construction industry will be confronted with labour shortages even more extreme than they are currently. Changes to Canada’s immigration system are needed to proactively attract much-needed skilled workers, specifically for residential construction, in addition to encouraging Canada’s current population to pursue careers in the skilled trades and support apprenticeship programs..”

- Canadian Home Builder's Association, Sector Transition Strategy

5.1 Incentivize Off-Site Construction Strategies

There are many advantages to off-site methods of construction, including reduced labour, faster project delivery, reduced site waste and improved quality control. However, off-site construction also necessitates a higher degree of repetition and standardization compared to conventional stick-built and cast-in-place concrete construction.

Many of the recommendations in the other sections of this report address methods of construction and simplification of building form to allow a more systematized approach to construction. Recently published CSA standards will also support consistency of certifications, inspections and approvals for modular construction. However, the design of building elements for panelized and volumetric modular construction is primarily limited by logistical constraints. In Ontario, the Ministry of Transportation establishes the oversize permit and escort requirements, which then informs the maximum dimensions of structural spans and informs the resulting building layout.

Another key consideration is moisture management while in transit and during construction. A clearer approvals process reduces the risk of delays and accommodates careful scheduling and co-ordination to maximize the benefits of off-site construction. Where the approvals process is unclear and discretionary, early production of modular housing can be jeopardized by the delay of such approvals.

Off-site manufacturing involves much greater overhead and capital costs compared to conventional construction. As a result, prefabrication businesses are much more vulnerable to “boom and bust” economic cycles.¹ The CMHC should provide funding to support growth and resilience of prefabrication companies and improve construction industry productivity.

¹ Canadian Home Builders' Association. (2024, February 8). CHBA's Sector Transition Strategy.

Recommendations:

- Provide low-cost loans through the Canada Infrastructure Bank to support the higher upfront capital cost of prefabrication factories and correlate repayments with the number of units produced to mitigate exposure to economic downturns.
- Provide innovation grants through CMHC to prefabrication companies to support digitalisation of design (BIM) and production automation.
- Harmonize provincial and local regulations on oversize load transportation for manufactured housing and standardize escort requirements across jurisdictions, to enable manufacturers to deliver consistent designs across provinces.
- Expedite lane closure approvals, crane permits and co-ordination of dropped overhead power lines where the duration of impact is a short time period.

"The Ontario government has estimated that it will need 100,000 more construction workers to help deliver the province's ambitious infrastructure plans, including 1.5 million homes by 2031. Additional efforts will be made in 2023 to help the immigration system target health care and construction – two sectors that have the highest need for labour."

- City of Toronto, Housing Action Plan 2022-2026

5.2 Expand Skilled Trades and Construction Labour Supply

The growing skilled trades shortage is the result of both a generational demographic trend as a significant portion of the aging workforce enters into retirement, as well as prevalent socio-cultural biases in favor of young people pursuing university educations.² However, given the median income for skilled trades in Canada today ranges from \$80,000 to \$100,000 and is well above the average annual salary of \$55,000, the career decisions of young people are changing.

The provincial government has recently taken steps to address the skilled trades and construction labour shortage with various investments in apprenticeship programs and training opportunities. The federal government has also increased immigration of skilled trades through the category-based selection system.³ These are steps in the right direction and demonstrate an awareness for the growing labour shortage in the construction industry.

In 2018, the provincial government also revised the apprenticeship ratios established by the Ontario College of Trades from a 3-1 ratio requiring three licensed journeymen to supervise one apprentice, to a ratio of one journeyman to one apprentice. The impact of this policy change significantly increases the future capacity of the skilled trades to catch up with demand, however it is a slow process to take effect.

While simplifying allowable building form will lead to the implementation of alternative methods of construction (i.e. wood-frame, modular, mass timber) and expand the labour pool involved in delivering housing, it is critical for the province to continue to expand skilled trades programs and training to increase the construction labour force. The federal government should help to co-ordinate training and certifications across Canada to ensure skilled trades can work across provinces without unnecessary barriers.

² Butler, C. (2023, July 5). "Ontario's construction industry faces a severe labour crunch and it seems it's about to get worse." CBC News.

³ Immigration, Refugees and Citizenship Canada (2023, August 1). "Canada announces the first-ever Express Entry invitations for newcomers with experience in the trades."

Recommendations:

- provide financial incentives for apprenticeship and skilled trades training and work with the Ontario College of Trades to further revise apprenticeship ratios
- eliminate unnecessary inter-provincial barriers to recognition of skilled trades qualifications
- increase the federal immigration targets for express entry through category-based selection in the construction sector (Federal Skilled Worker Program, Canadian Experience Class and the Federal Skilled Trades Program) to help address shortages in the skilled trades and construction labour force.

5.3 Facilitate Site Logistics and Street Occupation

Mid-rise construction involves many complex logistical considerations, especially the co-ordination of material deliveries and temporary storage on site, as well as the careful positioning and rigging of a crane tower with sufficient crane swing clearance or providing a staging area for a mobile boom truck. The builder must also ensure protective hoarding, access gates and site security is provided where necessary.

Smaller properties inherently pose more logistical constraints than larger sites, and mid-block sites without laneway access are especially challenging in terms of access and clearances. Such sites also do not offer the same economies of scale and efficiency of construction as larger buildings on larger sites. As a result, the increased logistical complexity of smaller mid-block mid-rise developments increases relative construction cost and time, and the feasibility of innovative methods of panelized or modular construction is further restricted.

The impact of the approvals process for site logistics and street occupation, ranging from road closure and crane swing permits to the monthly cost of hoarding permits and various other municipal fees, is especially burdensome for smaller projects on smaller sites.

If the goal is to support mid-rise buildings as an integral part of building healthy communities, it is appropriate that the entire hierarchy of relevant regulations and requirements be revised to truly incentivize and support the delivery of this kind of housing. This is particularly applicable to small urban infill sites where logistical constraints have the greatest impact on project viability.

Recommendations:

- Streamline the coordination process with a dedicated planning review and approvals team for mid-rise building applications, not only for the planning approvals process up to building permit submission, but carried through the transportation and engineering review process of site logistics and related co-ordination items during construction.
- Reduce applicable fees and expedite street occupation permit applications (ie. road closure, crane swing, hoarding permits, etc) for mid-rise buildings.
- Allow temporary occupying of on-street parking spaces directly adjacent to the proposed site for mid-rise developments. The number of parking spaces permitted to be reserved or blocked would correspond to the lot frontage of the development site.

5.4 Reduce Construction Costs

The cost of construction materials and labour (often referred to as hard costs) are typically around 50-60% of the total project cost for a mid-rise building.⁴ These costs have also nearly doubled on a per-square-foot basis in the past two decades while the construction industry has seen limited innovation and decreasing efficiency in housing production over the past 70 years.⁵

⁴ GTA Homes, 2023

⁵ Donnelly, 2020

The other sections of this report include a full range of recommendations that can help to bring down the cost of development, either by reducing time, complexity or costs of the overall project. However, the availability of specific construction materials and building products can have a serious impact on the feasibility of mid-rise construction. This should be addressed as a separate consideration to the other recommendations for skilled trades and construction labour and focuses primarily on increasing competition between manufacturers and suppliers of itemized building materials and products.

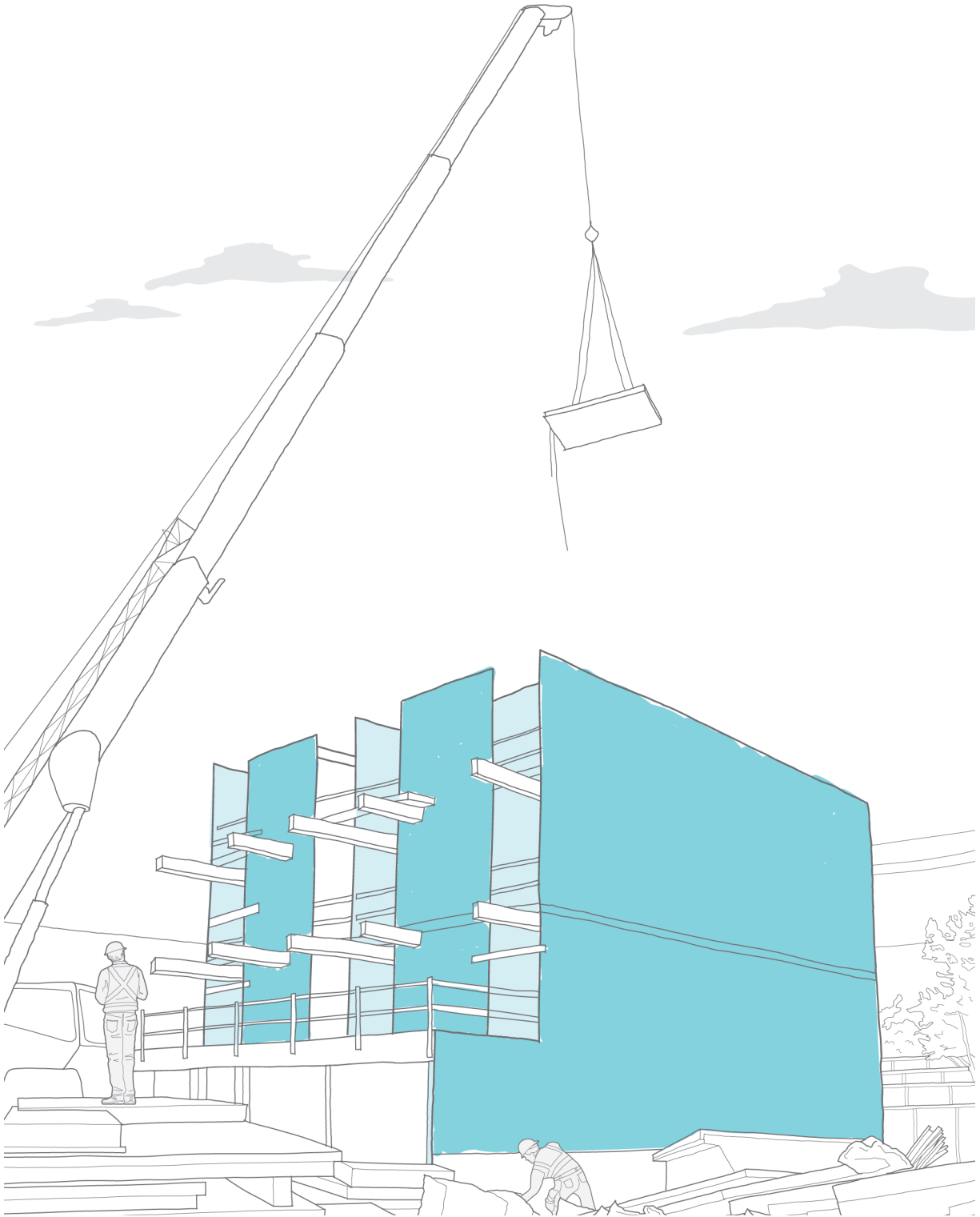
Many Canadian technical standards for construction materials are similar or identical to the ASTM (American Society for Testing and Materials) standards in the United States. However, there is significant deviation between many of these North American requirements and the more commonly adopted ISO (International Standards Organization) and the CE (European Conformity) certification systems adopted across Europe and other international jurisdictions. As a result, where North American technical standards and testing requirements significantly differ, less products are available due to the cost and complexity of recertifying for the North American market and/or changing the design to meet distinct requirements. This is demonstrated by the example of elevator costs, design and availability in North America relative to other developed countries and has severe impacts on the accessibility and design of multi-unit residential buildings.⁶ Whereas a European contractor can access high-performance, low-carbon building products and various other itemized elements like windows, mechanical systems and even door hardware from a wide range of suppliers, Canadians are constrained to products that have been tested and certified to our own national and provincial standards.

⁶ Smith, Stephen. Center for Building in North America.

The result is a higher degree of regulatory capture by incumbent manufacturers and less competition, longer lead-times and higher construction costs.

Recommendations:

- Remove unnecessary barriers in provincial technical standards and testing requirements that prohibit and disincentivize inter-provincial (and international) trade of building products
- Review and consider removing customs and import tariffs on high-performance and low-carbon building materials to increase competition and availability
- Recognize common international certifications (dual certification) of construction materials and building product approvals across Canada to reduce barriers to international trade



Junction House

Address: 2720 Dundas Street W, Toronto, ON

Architect: superkul

9 storeys, reinforced concrete

151 residential units (condominium)



JUNCTION



LIMITATIONS & NEXT STEPS

This report was prepared by a team of architects and planners to incentivize the construction of more mid-rise buildings in Ontario's existing urban, suburban and small-town built up areas. While many of the recommendations fall within municipal jurisdiction, implementing the provincial and federal policy recommendations would encourage such development in other urban areas across the country as a solution to both housing and climate crises.

The recommendations are intended to reduce the costs and time to deliver new housing supply by supporting the construction of mid-rise buildings. It is important to distinguish that this is a housing supply report and does not include recommendations to address housing demand. Comprehensively addressing 'housing affordability' would require further analysis to also consider various other demographic, immigration, mobility, employment, and lifestyle factors. This report also does not account for the effect on both housing supply and demand of interest rates, mortgage qualification criteria and amortization periods, first-time homebuyer's incentives, or the indirect impact of Canada's unlimited capital gains tax exemption on the sale of primary residences.

A few planning policy and tax reform ideas were not included in the report but may be appropriate for future consideration. These include "as-of-right" density bonuses for sustainability and affordability criteria, as well as ideas for land value taxation as alternative source of municipal revenue or infrastructure funding.

Mid-rise Capacity Calculation

The population and housing capacity estimate for mid-rise development along Avenues and Residential Major streets (see page 4) is based on the following assumptions:

1. A density of **160 people per gross hectare**¹, applied to lots fronting along Avenues and Major Streets, with an additional 25% of the combined land area to represent streets and other non-developable lands.
2. An occupancy of **2.2 people per home**, signaling the intent for larger, family-sized homes

Note: 1.75pp/home is the forecasted occupancy for new apartment units according to the 2022 Development Charge Background Study and 2.0pp/home is the actual 2021 Statistics Canada Census reporting for buildings over 5 storeys in height.

3. Properties fronting along these streets have been excluded where they are:
 - within Natural Heritage Areas, Open Space Areas, Employment Areas, or Utility Corridors, as these are not intended to be developable lands.
 - within Major Transit Station Areas or Urban Growth Centres, which are planned for higher density development.
 - already built up with a density exceeding 3.0 FAR (floor area ratio), as this indicates the existing building form is already a mid-rise or larger development.

Thank you to Ratio.City, a division of ESRI Canada, for their assistance with this analysis.

¹ 160 people per gross hectare corresponds to an approximate building height of 6 storeys and a density that is comparable to central Barcelona, but in a linear form.

The Provincial Planning Statement calls for a minimum gross density 150 people and jobs combined per hectare in Major Transit Station Areas that are served by light rail or bus rapid transit.

ENGAGEMENT

The authors of this report conducted interviews with industry professionals to capture personal accounts of the planning, design, development and construction process for mid-rise buildings in Toronto. The interview participants were selected upon the basis of their previous experience with mid-rise housing. They include six real estate development executives, two principal architects, two professional urban planners and former senior city planners, as well as a development cost consultant, land economist and construction manager. The interviews were conducted in a semi-structured format.

LIST OF INTERVIEWS

August 8, 2023

Ali Saneneijad - Development Executive, Collage Works

August 9, 2023

Alex Speigel - Development Executive, Windmill Development Group

August 14, 2023

Peter Venetas - Development Executive, Kapelo

August 16, 2023

Gabriel & Jonathan Diamond - Development Executives, Well Grounded Real Estate

August 17, 2023

Leith Moore - Development Executive, Assembly Corp.

August 21, 2023

Niall Finnegan - Development Cost Consultant, Finnegan Marshall

August 22, 2023

Steven Webber - Land Economist + Urban Planner, Urban Formation

August 30, 2023

Tim Otten - Construction Manager, Bluescape

August 31, 2023

Julian Battiston - Development Executive and Contractor, Oben Flats

Andre D'Elia - Principal Architect, Superkul Inc

September 6, 2023

Jonathan Tinney - Planner, SvN Architects + Planners (former Chief Planner, City of Victoria)

September 8, 2023

Graig Uens - Planner, Batory Planning (former Senior Planner, City of Toronto)

September 12, 2023

Jae-gap Chung - Principal Architect, Studio JCI

LITERATURE REVIEW

The following is a shortlist of related studies and reports addressing policy reforms to support more mid-rise development. Some of these documents do not exclusively focus on this scale of building, but collectively provide research and recommendations to address planning, approvals and other regulations that directly impact the feasibility of mid-rise development.

**The National Housing Accord:
A Multi-Sector Approach to Ending Canada's Rental Housing Crisis**
August 15, 2023
Mike Moffatt, Tim Richter, Michael Brooks
CAEH, REALPAC, Smart Prosperity Institute

Condoland: The Planning, Design, and Development of Toronto's CityPlace
May 31, 2023
James T. White, John Punter
UBC Press

Perspective on the Rental Housing Roundtable
March 2023
Matti Siemiatycki, Karen Chapple

Housing Market Insight: Government Charges on Residential Development in Canada's Largest Metropolitan Areas
July 2022
Canada Mortgage and Housing Corporation

Ontario Housing Affordability Task Force Report
February 8, 2022
Ontario Ministry of Municipal Affairs and Housing

New Homeowner Money in the Government's Bank: How Unspent Municipal Reserves are Impacting Building Livable, Affordable Communities in the GTA.
October 5, 2021
Altus Group, prepared for BILD

Impacts of Streamlining Construction Approval Processes in Ontario
September 2020
Canadian Centre for Economic Analysis

Municipal Benchmarking Study
September 2020
Altus Group, prepared for BILD

Comparison of Government Charges on New Homes in Major Canadian and US Metro Areas

September 13, 2019
Altus Group, prepared for BILD

Housing Affordability in Growing Urban Areas, Summary Report

February 2019
SvN Architects + Planners, prepared for the Ontario Association of Architects

Site Plan Delay Analysis

July 19, 2018
Altus Group, prepared for the Ontario Association of Architects

Mid-rise Building Performance Standards Addendum

April 20, 2016
City of Toronto

Encouraging Construction and Retention of Purpose-Built Rental Housing in Canada: Analysis of Federal Tax Policy Options

January 2016
Focus Consulting & Greg Lampert, prepared for CHBA and GTA Housing Action Lab

Make Way for Mid-Rise

April 30, 2015
Cherise Burda & Mike Collins-Williams
GTA Housing Action Lab, Pembina Institute, OHBA

A Review of the Site Plan Approval Process in Ontario

October 2013
Bousfields and Altus Group, prepared for the Ontario Association of Architects

Unlocking the Potential for Mid-Rise Buildings: Six Storey Wood Structures

February 2013
Paul J. Bedford, prepared for BILD

Avenues & Mid-Rise Buildings Study (Mid-rise Performance Standards)

May 2010
Brook McIlroy Planning + Urban Design/Pace Architects, ERA Architects, Quadrangle Architects Limited, Urban Marketing Collaborative, prepared for the City of Toronto

Mid-rise Symposium 2009: Breaking barriers, building confidence

February 8, 2010 (Symposium Summary Report)
Glenn R. Miller, Mia A. Hunt, Ian D.C. Myrans - Canadian Urban Institute

Mid-Rise Buildings – Urbanizing the Avenues

November 28-29, 2005 (Symposium)
Toronto City Planning, Canadian Urban Institute, Toronto Society of Architects

Economic Impact of Federal Tax Legislation on the Rental Housing Market in Canada

November 1998
Clayton Research Associates, for the Canadian Federation of Apartment Associations

