



Missing Middle Housing: Development Costs and Affordability

Report for the Urban Land Institute Curtner Urban Leaders Program 2020

Alexander Elgin, B+H Architect
Amy Buitenhuis, City of Toronto
David MacMillan, City of Toronto
Jasmine Frolick, Castlepoint Numa
Jed Kilbourn, Waterfront Toronto
Jeffrey Lee, IMCO Invest
Michael Otchie, ERA Architects
Olwen Bennett, New Commons Development
Stephanie Maignan, B+H Architect

September 2020

Contents

Executive Summary	3
Introduction	5
Methodology	6
Inputs and assumptions	6
Development	6
Financing	6
Operation	6
Expenses	6
HST	7
Case Studies	8
Existing Conversion	8
254 Havelock Street	8
New House-Form Buildings	9
68 Burnaby Road	9
2165 Gerrard St E	10
New Low-Rise Apartment Buildings	11
722-724 Marlee Avenue	11
Findings	12
Land Costs	12
Hard Costs	12
Municipal Costs	12
HST for self-supply of rental properties	12
Financing	13
Discussion	15
Existing Conversions	15
New House-Form Construction	16
New Low-Rise Apartments	17
Next Steps	19

Executive Summary

A pro forma analysis of several "Missing Middle" projects shows that expanding housing options has the potential to generate new rental units in neighbourhoods. The City of Toronto can contribute to affordability primarily through changes to development charges and other municipal costs, and by establishing a straightforward approvals process.

The conversion of existing houses to include additional dwellings is the most financially feasible option. In this approach, it is possible to achieve lower rents due to the lower cost of construction. To deepen affordability, these types of conversions may benefit from property tax incentives to stimulate uptake, as well as financing support from the City. For new development, deeply affordable rents will likely require a density bonus-type approach with development charge waivers or deferrals, and elimination of parking requirements in order to achieve affordability. The City could explore an agreement with landlords where rental rates and tenure length are guaranteed in exchange for these waivers and exemptions.

Below are the types of "Missing Middle" projects that were examined from a financial feasibility perspective:

Existing Conversions

- The quickest and lowest cost approach is to allow homeowners to convert existing detached and semi-detached houses into triplexes or fourplexes, city-wide. In these situations, assuming the land is owned and the original mortgage paid off, the lower renovation costs and relatively straightforward process means that new units are delivered fastest and with the lowest achievable rents. Incentives such as property tax breaks may be necessary to stimulate uptake.

New House-Form Buildings

- New construction is more expensive and more time-intensive, and the scale of the new development makes it difficult to approach affordable rents. In the case of a homeowner that demolishes their existing house and builds a modest triplex, it is several years before the building breaks even, assuming high end of market rents. While plausible, this is not guaranteed. Additional density would likely be required to achieve affordable rents.
- Developers – whether for-profit or not – will require more intense use of the land in order to generate affordable rental units as part of a viable project. Reduced municipal development costs and a straightforward approvals process would further improve affordability.

New Low-Rise Apartment Buildings

- Apartment buildings up to four storeys are least likely to generate affordable rental units without significant financial support. Property assemblies, concrete construction, structured parking, and the full approvals process mean higher development costs and carrying costs, but many locations would prevent additional height and density. Larger projects are also less likely to merit reduced Development Charges (DCs) and other municipal charges. The larger scale also tends to make a project less attractive to neighbours, causing expensive delays in the development process. While the additional scale helps improve the feasibility of a rental development, affordability would likely be the result of a decision not to maximize rental income (i.e. rents would reflect mortgage costs, not necessarily market rates). With the elimination of parking requirements and waiver of DCs, attached to an agreement with the City to enforce affordability, a project

of this scale could provide affordable rents (particularly when CMHC low-interest rental housing financing programs are used).

Beyond planning-specific changes, the City of Toronto may be able to play other important roles to support deeper affordability:

- Property tax incentives for house conversions
- Financing support such as co-borrowing with retired homeowners, or direct low-interest loans to developers
- Advocating to the federal government for changes to HST on rental self-supply

Introduction

Changes to zoning and the approvals process, though essential to expanding housing options in neighbourhoods, are insufficient. Missing Middle development must also be economically viable to achieve any significant supply. Development costs, financing options, and incentives must be explored to support affordability at this scale.

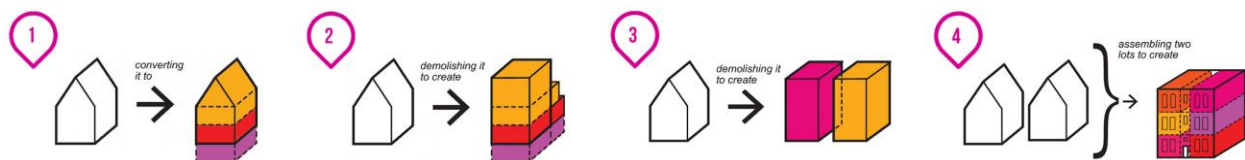
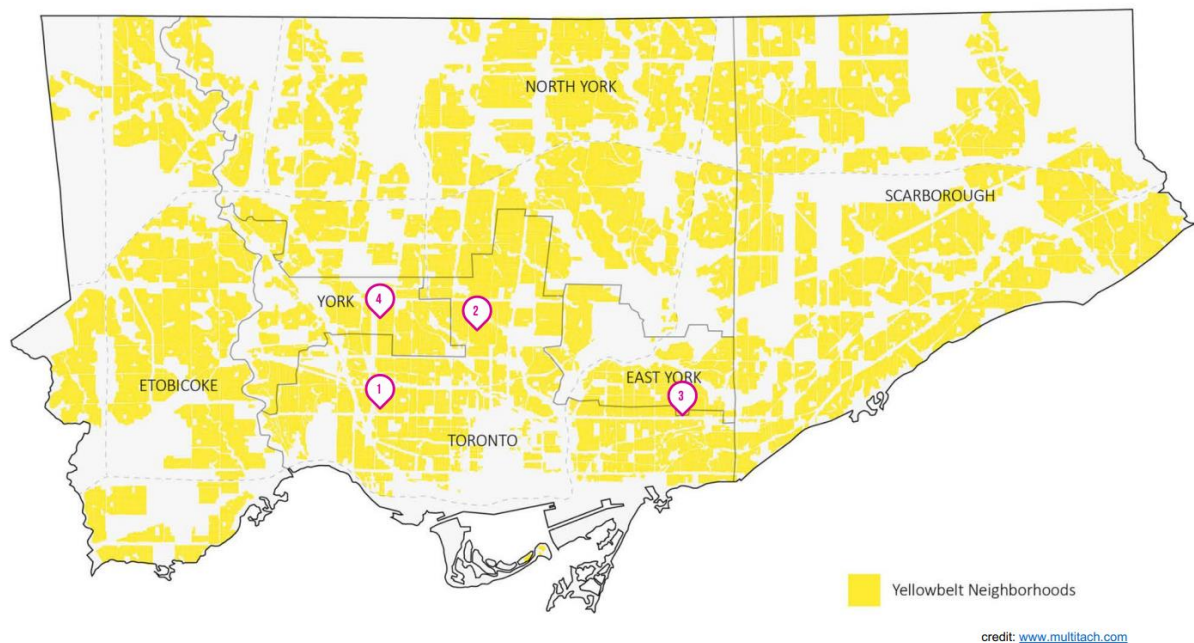
Development costs are an important factor in housing affordability. Key costs include:

- Land
- Hard costs (construction)
- Parking requirements
- Soft costs (e.g. consulting fees)
- Development Charges
- Parkland dedication
- HST

Financing is also important. Most homeowners exploring a conversion or redevelopment would not have any barriers to financing, though retirees with limited cash flows may need support. For small developers, obtaining financing for projects greater than five units can be challenging due to the terms of commercial construction loans.

The approvals process also affects both development costs and financing through application fees and loan carrying costs, respectively. The longer a project proponent needs to carry a construction loan, the more they will pay in interest.

In order to better understand the impact of development and financing costs on housing affordability, we undertook a pro forma analysis of several real projects that represent Missing Middle archetypes, shown below.



Methodology

The overarching objective for the analysis was to determine whether or not each project could generate affordable rents, which we defined here as 30% of median household income for each particular neighbourhood.

To estimate what the rents would be, we applied plausible scenarios:

- For the homeowner-led projects, monthly rents could be equal to debt payments, or set to meet a desired break-even point.
- For developer-led projects, we sought rents that would produce at least a 15% return on equity (ROE), which we defined as the minimum requirement for economic viability.

Using the 15% ROE as the goal, we used a “goal seek” to determine what the rents would be at various levels of Development Charges.

- Our preliminary sensitivity analysis focused on DCs because they add considerable cost to a project and there is a high degree of municipal control, but any of the other key cost drivers could be considered in additional analyses

Where rents were still unaffordable with changes to DCs, other pro forma inputs were adjusted to identify opportunities to further improve affordability, such as elimination of parking, and waiver of parkland dedication.

Inputs and assumptions

Development

- Building efficiency = 85-95%
- Land costs = \$200-250 psf
- Hard costs = \$250-350 psf
- Soft costs = 20% of hard costs
- Contingency = 10% of hard costs
- Structured parking = \$75,000 per space
- Development charges per
 - [City of Toronto Residential Development Charges Rates](#)
 - [TDSB Schedule of Education Development Charges](#)
 - [TCDSB Development Charges](#)
- Parkland dedication rate per [City of Toronto By-Law 1020-2010](#)

Financing

- Construction loan to cost ratio = 75%
- Construction loan interest rate = 3-6%
- Construction loan duration = 6 months-2 years
- Construction loan average balance = 50%
- Permanent loan interest rate = 2-3%
- Permanent loan term = 25-35 years

Operation

- Rent escalation = 3%
- Vacancy factor = 3%

Expenses

- Operating expenses = 15-25% of effective gross revenue (EGR)

- CAPEX/Reserves = 4% of EGR

Harmonized Sales Tax (for rental self-supply)

- 13% (valued based on purchase price and construction cost)
- \$24,000 rebate per unit

We supplemented the pro forma analysis through interviews with several other individuals developing missing middle projects, including:

- New triplex in High Park
- Bungalow addition and conversion to triplex in Don Mills
- New 5-unit condominium building in Harbord Village
- New 4-unit condominium building in High Park
- Two new 4-plexes with laneways suites in the Upper Beaches

Finally, to better-understand financing challenges and opportunities we interviewed:

- Senior Financial Advisor at one of the major banks
- Director of Impact Lending at an alternative lender
- Tax attorney

Case Studies

Existing Conversion

254 Havelock Street: Semi-Detached to Triplex

CASE STUDY #1

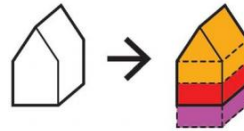
254 Havelock Street

PARAMETERS

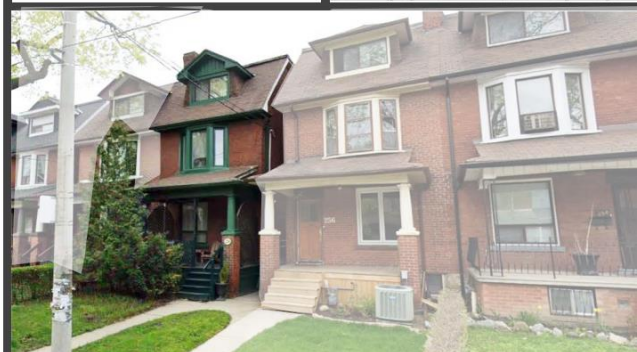
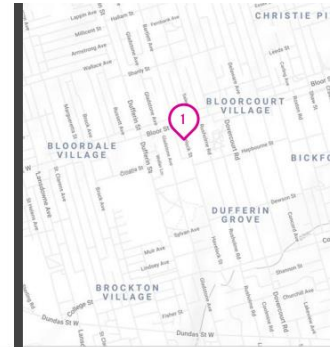
- Existing three-story semi-detached dwelling
- R Zone

DEVELOPMENT VISION

- Internal reconfiguration to accommodate multiple dwellings
- Triplex with family suite on top two levels
- Rental housing
- No parking
- No Variances or Site Plan Amendment



one house into three units



CASE STUDY #1

254 Havelock Street

RENTAL BREAKDOWN

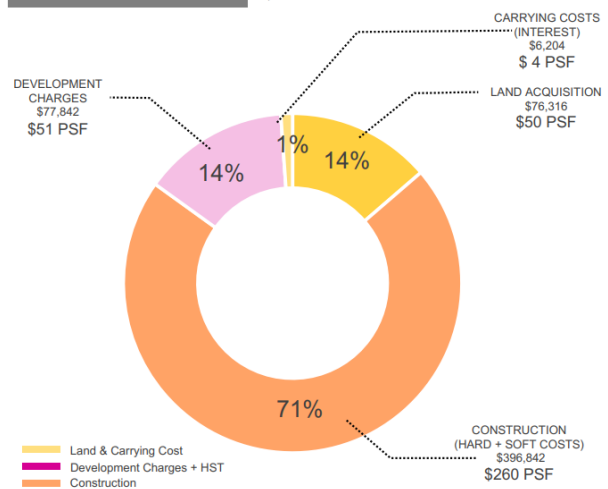
- Rent required to pocket \$1,200/month in income: **\$1,650 / month (avg)**
- Median household income in the neighbourhood: **\$77,547**
- Affordable rent for median income household: **\$1,940 / month**

KEY CONSIDERATIONS

- Municipal fees: **\$77,842 (\$38,921 per new unit)**
- Rents possible if municipal fees were waived: **\$1,550 / month (avg) (-\$100/month)**

COST BREAKDOWN

\$365 PSF OVERALL



New House-Form Buildings

68 Burnaby Road: Triplex

CASE STUDY #2

68 Burnaby Blvd

PARAMETERS

- Demolish existing two-story detached dwelling
- R Zone

DEVELOPMENT VISION

- New triplex with family suite on top two levels
- Rental housing
- No parking
- No Variances or Site Plan Amendment required



CASE STUDY #2

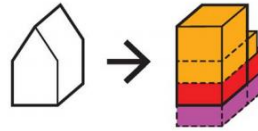
68 Burnaby Blvd

RENTAL BREAKDOWN

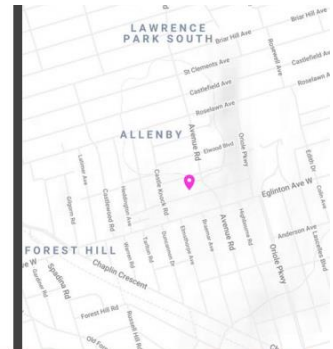
- Rent required to break even by year three:
\$3,050 / month
- Median household income in the neighbourhood: **\$77,547**
- Affordable rent for median income household:
\$1,940 / month

KEY CONSIDERATIONS

- Municipal Fees: **\$115,014 (\$57,507 per new unit)**
- Rents possible if municipal fees were waived:
\$2,800 / month (-\$250/month)

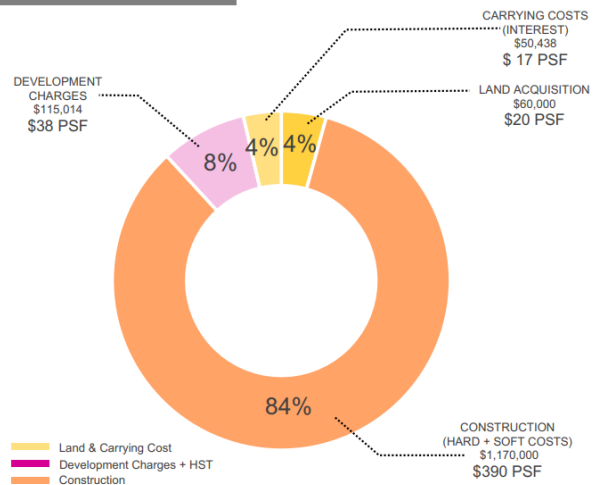


one house into
three new units

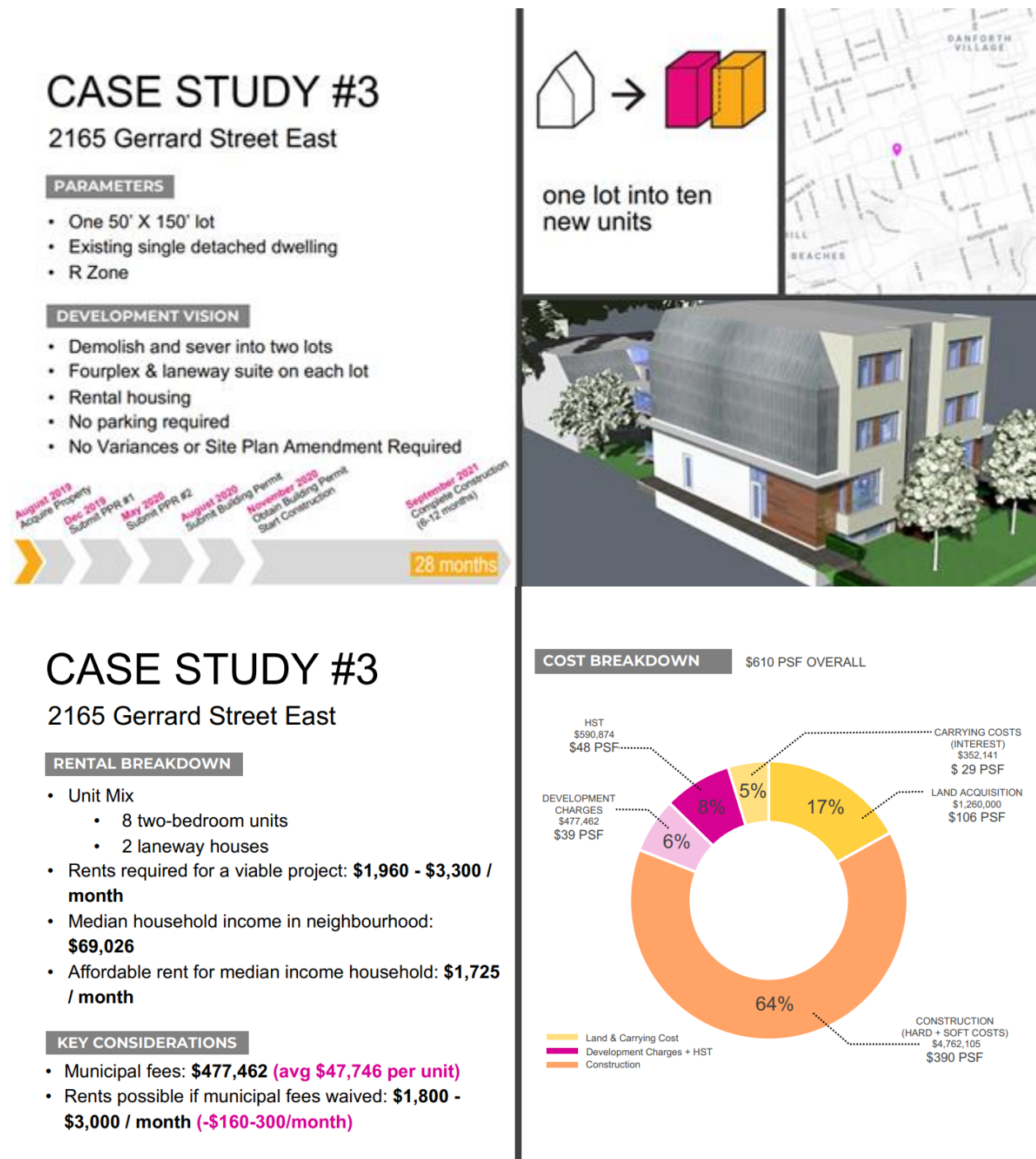


COST BREAKDOWN

\$465 PSF OVERALL



2165 Gerrard St E: Semi-detached four-plexes, each with a laneway suite



New Low-Rise Apartment Buildings

722-724 Marlee Avenue: 28-unit rental apartment building

CASE STUDY #4

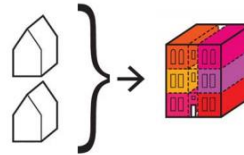
722-724 Marlee Avenue

PARAMETERS

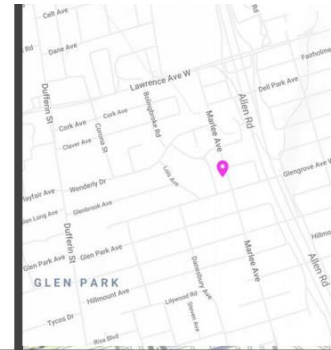
- Two 50'X150' adjacent lots
- Existing single detached dwelling on each lot
- RD Zone

DEVELOPMENT VISION

- Demolish & assemble two lots
- 28 unit suites
 - 10 one-bedroom units
 - 18 two-bedroom units
- 20 below-grade parking spaces
- Requires Rezoning & Site Plan Approval



two lots into a 28-unit building



CASE STUDY #4

722-724 Marlee Avenue

RENTAL BREAKDOWN

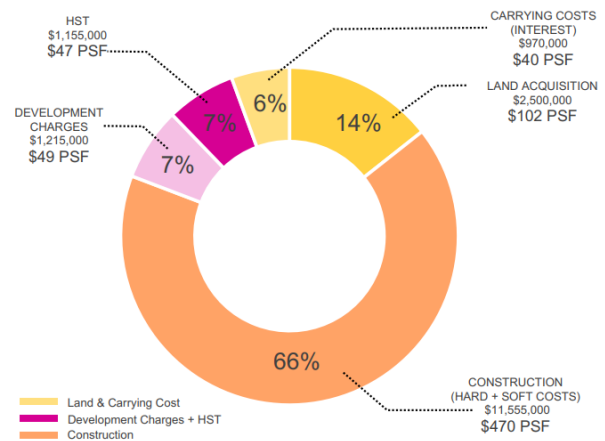
- Unit mix
 - 10 one-bedroom units
 - 18 two-bedroom units
- 20 parking spaces
- Rents required for a viable project
 - one-bedroom: **\$2,490 / month**
 - two-bedroom: **\$2,840 / month**
- Median household income in neighbourhood: **\$63,778**
- Affordable rent for household earning median income: **\$1,595 / month**

KEY CONSIDERATIONS

- Municipal fees **\$1,215,102 (avg \$43,396 per unit)**
- Rents possible if municipal fees & parking waived
 - one-bedroom: **\$2,000 / month (-\$490/month)**
 - two-bedroom: **\$2,280 / month (-\$560/month)**

COST BREAKDOWN

\$708 PSF OVERALL



Findings

Land Costs

Though the cost of land varies, it easily accounts for 15-20% of total development costs, and likely more in very desirable locations.

Hard Costs

Renovation costs are generally much lower compared to new construction. Based on an architectural services quote from a local firm for the Don Mills triplex:

- Major interior renovations can be delivered for \$150 psf.
- Third floor "top-ups" cost \$200 psf.

(Itemized costs for interior renovations are available at

<http://www.ontariocontractors.com/costs.htm#9>)

New construction is significantly more expensive than a renovation. Depending on the built form, the construction method, and the level of finishes, estimates range from \$250-\$400 per square foot.

Municipal Costs

Development Charges and cash-in-lieu of parkland added \$40-50 per square foot to the total development costs.

Reductions to DCs and cash-in-lieu of parkland would help to reduce rents, especially in modest triplexes and existing conversions where the per unit structure means DCs are a larger portion of total costs.

Generally, these costs are not easily understood. The below table shows that costs can vary widely for what is effectively the same detached house.

	1. Conversion		2. New Build w/one secondary suite		3. New Build	
	Applicable Units	Cost	Applicable Units	Cost	Applicable Units	Cost
DCs	0	\$0	1	\$64,000	2	\$127,000
CIL	1	\$43,000	1	\$43,000	2	\$57,400
Total		\$43,000		\$107,000		\$184,000

- A renovated single to triple is exempt from Development Charges (DCs) because you are allowed to add "one or two units", but cash-in-lieu (CIL) for parkland is levied on the third unit
- New triplex with one secondary suite would pay DCs and CIL on 1 unit.
- New triplex would pay DCs and CIL for parkland on 2 units

Applicants only find out the cost of cash-in-lieu of parkland once they apply for a building permit, and although the rate is specified in bylaw 1020-2010, the approach to land valuation is unclear. Therefore, not only can it be costly, but the amount would be unknown until after a significant amount of work has been done.

HST for self-supply of rental properties

Self-supply of rental units is subject to HST, which can be a significant cost. HST would have been paid on construction already, but this would add an additional 13% at the time the property gets rented. Our understanding is that the Canada Revenue Agency uses the construction cost and purchase price as a valuation. Compared to condominiums, where buyers pay the HST,

and which have a lower tax rate, HST has a greater impact on rentals. New-build rental units are eligible for a \$24,000 rebate per unit in Ontario.

Building a new home or engaging someone else to build a new home for the purposes of leasing it in the course of a business (which for HST purposes includes leasing out the home), meets the definition of a “builder”, thus self-supply rules apply. The owner is effectively treated as though they sold the home to themselves.

The home is sold at fair market value as of the later of the time that the property is “substantially completed” (i.e. 90% completed - CRA often uses the occupancy certificate date) and when the tenant moves in, assuming that it is leased.

“Fair Market Value” (FMV) excludes the costs of HST, land transfer taxes, etc. The legal definition is “[T]he highest price available estimated in terms of money which a willing seller may obtain for the property in an open and unrestricted market from a willing knowledgeable purchaser acting at arm's length.”). Appraisers use one of the following methods:

- “Cost method” (land acquisition cost + construction cost);
- “Comparable sales method” (looking at similar homes in the area); or
- Present value of the income stream from a rental.

In Ontario, the new housing rental rebate on the self-supply HST is presently \$24,000 per unit in Ontario.

Financing

Existing Conversions

Financing is not generally expected to be a challenge for house conversions. Homeowners with good credit scores (650-900) and sufficient equity in the house (20-25%) would be able to get a mortgage or secured line of credit (e.g. HELOC) or hybrid at comparable low interest rates.

Access to financing may be difficult for retirees in particular because lenders are likely to be concerned about their capacity to service the loan. Therefore, retirees looking to downsize and generate passive income through rental units may need to consider co-borrowing. Stratification (“condoizing”) is also an option, but can add significant cost and complexity. A Plan of Condominium application fee is \$16k, and the process could cost \$10,000 per unit.

New Construction

For projects less than five units, once approvals and permits are in place, the homeowner would apply for the draw-mortgage to fund the construction. For major lenders, there is no appreciable difference in lending costs compared to a conversion, despite the additional complexity. The typical draw mortgage rate is approximately 3%.

Financing is a key issue for projects with five or more units because they require commercial loans (construction/progress draw mortgages). It would be a small loan for most conventional lenders, and likely perceived as risky, thus interest rates and fees would be higher (5.5-6.0%). A lower loan-to-cost (LTC), investors, and an experienced project team can help to de-risk the loan.

In addition to approved plans and drawings, developers would also have to provide a detailed description and budget – profits, costs, timeline projection, material inventory, suppliers and subcontractors. Builders must be reputable and licensed. Typical lending criteria include:

- Down payment minimum of 20%-25% (up to 100% in Toronto with alternative lenders) funded prior to drawing on loan

- Proof of ability to repay loan (Recourse) – credit, income, etc.
- Property appraisal
- Term is typically 6 months to up to 2 years
- 7-15% interest rate depending on credit quality
- Commitment Fee of 75 bps of loan deducted from the loan amount
- Loan advanced for major milestones (i.e. demo / excavation, pouring the foundation)
- Holdback 10% - released upon completion
- Line up completion mortgage to refinance (only funded upon completion)

Conventional lenders are less likely to finance affordable rental projects because the pro forma may not show the desired return (15%). Grants and other government subsidies can help, but it's likely that the developer would need to seek financing from alternative lenders.

The Canada Mortgage and Housing Corporation (CMHC) plays an important role in financing for rental projects with five or more units, and for which loans greater than \$1 million are required. CMHC allows up to 100% LTC, 50-year amortizations, and very attractive interest rates (2.0% or lower). This of course means very strict eligibility criteria:

- Zoning in place, site plan in process and building permit available
- Minimum financial viability (financial and operational ability to carry out the project e.g. cost overruns, delays in construction, lease-up)
 - at least 5 year PM experience operating a housing property of similar type and size
 - credit and repayment history – at least break even cash flow over past 5 years with excellent credit and repayment history
 - construction management experience – successfully completed a similar project on time and within budget or enter into a fixed price contract with a GC who has experience (size, cost, building form, construction type in the same market area), ability to withstand unexpected increases in construction costs
 - Newly formed groups, alternate covenants, collateral and mitigation may be considered
 - Borrower net worth – at least 25% of the loan, minimum of \$100k
 - Guarantee requirements – 100% recourse during construction and rent-up, may become non-recourse

Carrying Costs

Generally, the carrying costs for new construction projects are expected to be much higher compared to a renovation:

- Preliminary Project Reviews, Committee of Adjustment hearings, and Building Permits can easily take 12-18 months compared to less than six for a straightforward interior renovation
- Homeowners would have to find alternate accommodations during this time
- Demolition costs are paid out of pocket
- The loan for new development is likely larger and subject to higher interest rates for developers

Although difficult to estimate, temporary accommodations during a major renovation can be significant carrying costs for house conversions.

Note on upfront costs:

Development Charges, HST, demolition and other costs are paid out of pocket well before any rental revenue is collected, which can be a deterrent to conversions and new development. For new development in particular, up-front costs can easily be hundreds of thousands of dollars.

Discussion

Existing Conversions

The pro forma analysis of 254 Havelock indicates that house conversions are most likely to generate affordable rental units, driven primarily by reduced hard costs. This remains true in spite of cash-in-lieu of parkland and potentially development charges, as well as the \$40,000 fee for a rezoning application.

However, when you consider that conversions could be accomplished with no changes to the house exterior, homeowners looking at \$100,000+ in potential additional costs may decide to circumvent the current process entirely.

Therefore, to encourage safe conversions into legal units, these direct and indirect costs merit further consideration:

- What is the net demand placed on infrastructure and green space by projects of this scale, especially in neighbourhoods that have lost population?
- Why are development charges levied on the third unit of a semi-detached conversion, but not on detached, when there are negligible differences in size, access, parking and infrastructure demands?
- What is the opportunity cost for City Planning staff in terms of time spent on review for a rezoning, as unlikely as it may be?

Even with the appropriate zoning, the process can still be challenging. The team working on the development approvals process shared a testimonial from a homeowner in Little Italy that converted their semi-detached house to a triplex. The overall process took two years, despite as of right zoning, because the Committee of Adjustment and permitting process added 7 months to the schedule, which meant lost revenue and increased interim living expenses. The homeowner liked the pre-application zoning assessment service, and found it very valuable. They would appreciate a similar approach for perhaps certain types of minor variances in order to receive faster approval.

Access to financing may be a barrier to conversions by retired homeowners. The developer of the four-unit condominium in High Park noted that her retired neighbours were unable to obtain reasonable financing, and so decided to sell their house instead of converting. The house is being demolished and will be replaced by a larger single-family house.

The disruption associated with a major renovation also cannot be discounted. Financial assistance for temporary accommodations, perhaps factored in to total borrowing costs, may help reduce the burden of undertaking a house conversion.

While addressing these issues may unlock some pent-up demand for conversions, it is unlikely to generate significant new supply. Beyond reducing costs, there are a number of roles the City could play to help generate supply of more affordable units:

- Could the City act as the co-borrower to help "house rich-cash poor" retirees unlock the equity in their house, with conditions that the rents be set at affordable rates for specified terms?
- Instead of eliminating charges and parking requirements, could the City waive or defer these requirements in exchange for deeper affordability or to prevent deconversion? (e.g. [City of Victoria](#) approach)
- Should the City consider deferring property tax increases on the new rental units to stimulate uptake? (e.g. [City of Mississauga](#) approach to middle income housing)

New House-Form Construction

New construction is of course more expensive than an existing conversion. Construction, municipal charges, financing, and carrying costs due to a longer process are all higher, plus land acquisition and/or demolition have to be taken into account.

Hard and soft costs account for over 80% of the total project costs of the Midtown triplex at 68 Burnaby Boulevard. It is a rather large triplex: the basement and main floor rental units are 915 and 1,445 square feet, respectively, while the two-level family suite is 3,775 square feet. For the owner to break-even in three years, rents would need to be over \$3,000 per month. While this is an aggressive payback period, these rental rates are commensurate with high-quality units in this neighbourhood.

Therefore, even with a straightforward approvals process and reduced municipal costs, affordability in this scenario likely depends on homeowners charging below-market rents for the new units. If the goal for 68 Burnaby was to just cover mortgage costs, for example, rents would be much less. Unfortunately, lenders typically loan money based on fair market rents, which would be a disincentive to offering below-market rents.

Yet there are very good reasons to facilitate and potentially incentivize these types of projects. Like 254 Havelock, a new large house can eventually be converted to a triplex later, likely at more affordable rents over time. Designing the new house for easy conversion to legal suites would be optimal, and new concepts are emerging that are designed to facilitate this (e.g. [Flexplex](#)).

The homeowner that is planning an addition and renovation to their Don Mills bungalow is essentially designing an intergenerational house that can later be converted to a legal triplex, assuming the zoning allows it:

- The additional floor is necessary space for the family of five today
- When the eldest children move out, one floor can become an in-law suite
- When the youngest moves out, the basement can become a secondary suite

The design will enable relatively straightforward interior renovations and will allow the owners to age in place while earning some rental income in retirement.

Although eliminating DCs and cash-in-lieu of parkland does not on its own make rents affordable, there would be value in clarifying the application of these municipal charges. For triplexes in particular:

- A renovated single-detached to triplex is exempt from Development Charges (DCs) because you are allowed to add "one or two units", but cash-in-lieu (CIL) for parkland is levied on the third unit
- New triplex with one secondary suite (i.e. the owner lives in one of the units) would pay DCs and CIL on 1 unit.
- New triplex would pay DCs and CIL for parkland on 2 units

The planning consultant that explained this also noted that it encourages circumvention of the process. By adding one unit at a time, and closing the permits after each unit, no DCs or cash-in-lieu of parkland would be paid. By comparison, on the same street as the planned Don Mills triplex, homeowners with same-sized lots are easily building multi-million dollar luxury houses without any major challenges in terms of process and financing, and with no additional municipal costs.

The proposed development at 2165 Gerrard St. East is a very important case study because it exemplifies the kind of situation necessary for a missing middle developer to approach affordable rents:

- Intensification: The 50x125 foot lot can accommodate eight, two-bedroom units (each 900 square feet), and two laneway suites (each over 1,000 square feet).
- Process: No rezoning or site plan approval, and only a lot severance (no variances)
- Laneway suites: effectively no additional land costs for these suites, and they eliminate parking requirements for the entire property

Even with a purchase price of \$1.26 million, the developer of 2165 Gerrard would still have a viable project charging approximately \$2,000/month for the two-bedroom units, slightly more than the \$1,725/month to be considered affordable for median income earners in the neighbourhood. Waiving or deferring DCs and the cash contribution for parkland would reduce rents to \$1,800/month.

The built form also mattered very much in this case. The original proposal for a nine stacked townhouses would have triggered site plan approval, and a number of variances, including from parking requirements. Depending on the final design of the townhouses, Ontario Building Code Part 3 may have applied, which would have pushed hard costs from \$250 to over \$300 psf.

Financing can be a challenge for larger Missing Middle projects as 5+ units typically use commercial construction loans. Interest rates jump from $\pm 3\%$ to $\pm 6\%$, and non-bank lenders typically require an upfront commitment fee. This is where CMHC, through lower rates and longer amortizations, or insured mortgages, can make a difference to rental rates.

2165 Gerrard shows that there is a narrow path for missing middle developers to provide affordable rental units and still make a reasonable profit, even when subject to DCs and cash-in-lieu of parkland. In addition to land intensification, priorities include:

- Tightly controlled construction costs (stay within OBC Part 9)
- Minimal carrying costs (as-of-right permissions and lower cost construction financing)
- Access to alternative lenders (e.g. CMHC)

A new industry of small developers and lenders will be essential to help scale-up missing middle housing development. Opportunities for the City to support this industry include:

- Establishing a straightforward approvals process;
- Providing flexibility on DCs and other charges (perhaps tiers based on unit count);
- Facilitating access to low-cost financing; and
- Advocating to the federal government for different tax treatment.

Ultimately, greater intensification (i.e. more, but smaller units) is a key determinant of affordability, especially for purchased sites. Even with land and construction costs 4x more than 68 Burnaby, 2165 Gerrard starts generating a positive cash flow in roughly the same amount of time.

Not only would intensification be more likely to generate market affordable rents, but it could also provide an opportunity for the City to support deeper affordability. Considering 68 Burnaby's 6,000 sf GFA - which could easily accommodate 4-6 units - should the City allow this additional density provided that some of the units meet deeper affordability goals? For examples, see the City of Portland's [Residential Infill Project](#) and the City of Vancouver's proposed [Making HOME Program](#) for middle-income earners.

New Low-Rise Apartments

Our analysis of 722-724 Marlee Avenue suggests that low-rise apartment buildings are likely to be some of the most financially-challenging missing middle projects given current planning requirements and processes.

- Property assembly often incurs a premium that increases land costs
- Construction costs increase, especially if using concrete formwork
- Below-grade parking adds significant direct costs, and also longer construction timelines
- Full rezoning and site plan approval applications cost at least \$70,000, incur longer review timelines, and thus higher soft costs for required studies
- Commercial loans are more expensive, approvals and construction timelines are longer, and therefore overall carrying costs are greater

722-724 Marlee is located in a neighbourhood with a lower median income, so the higher development costs creates the largest gap between affordable rents (\$1,595/month) and rents required for a viable project (\$2,490-2,840/month). It is not clear that the local market would support one and two-bedroom units at these rental rates.

Eliminating DCs and parking requirements would reduce development costs by over \$2 million, and rents by approximately \$500/month. It may be difficult to justify completely eliminating DCs for a 28-unit building, but parking requirements merit scrutiny as the site is a 5 and 7 minute walk from two subway stations. Going to slab-on-grade construction would save over \$1 million in construction costs and reduce overall construction time.

722-724 Marlee faces similar challenges as mid-rise sites on avenues, where projects have per square foot construction costs similar to high-rise projects, but without the number of units that makes them financially viable.

An important caveat is that concrete formwork may not be necessary. The OBC already allows wood structures up to six storeys. While stick-built construction may not be possible, engineered timber or a hybrid approach can reduce material and time costs. For example, [R-Hauz Solutions](#) uses mass timber and prefabricated panels to build six-storey mid-rise developments, slab-on-grade. Hard costs are approximately \$350 psf, including design costs. This is on par with estimated hard costs for 722-724 Marlee, but construction timelines would likely be much shorter. R-Hauz estimates 5 months for the six-storey product.

This is an area where the City can potentially help drive affordability by offering pre-approved design options. If low-rise apartment buildings can be delivered in a repeatable manner, construction costs and timelines would be shortened, and site plan approval may not be required. R-Hauz is one developer already moving in this direction, and the City can help to accelerate this.

Ultimately, the most effective, but perhaps controversial solution in the case is to allow additional density. A fifth storey would add another 5-10 units, which would have a significant effect on rental rates. This may hold true even if the City sought deep affordability for a certain number of units in exchange for this density. Marlee Avenue, defined as a Minor Arterial Road, may be an appropriate location for this trade-off.

Next Steps

Our analysis shows it is possible for homeowners and small developers to deliver new affordable housing units in "Missing Middle" archetypes, but the City will have to play a very active role to support both scale and affordability.

- Conversion of existing houses is the most immediate solution, but incentives will likely be needed to stimulate uptake, and achieving adequate scale will be a challenge.
- New construction would benefit most from a planning framework that reduces municipal costs and streamlines approvals. Intensification is the key to making the pro forma work and may also provide an opportunity to support deeper affordability.

Going forward, key considerations for the City of Toronto include:

- The extent to which development costs can be reduced through changes to development charges and parkland dedication, minimum parking requirements, and process-related costs (soft costs and carrying costs).
- Opportunities to address financing challenges, such as co-borrowing with retirees to enable house conversions, and direct low-interest loans via recoverable debt.
- Incentives such as property tax rebates/deferrals to stimulate existing house conversions, and a density bonus-type approach to new construction for deeper affordability.