Affordable Housing: Exploring Alternative Housing Methods

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Abstract

For the past three decades, government investments in social and affordable housing in Canada have drastically declined. The Toronto housing market is increasingly expensive and the lower and middle classes struggle to afford quality housing that meets their diverse needs. The housing crisis is explained as an outcome of global and national neoliberalization trends; including the commodification of housing, the dismantling of social supports, the underfunding and discontinuity of social housing programs, and the decline of affordable rentals in Toronto's housing stock. These structural issues require deep societal transformations and political commitments that are not likely to materialize in the near future. Hence, I argue that alternative housing methods and the strengths of all sectors should be leveraged in the meantime to incentivize and conserve quality affordable housing units. The goal of this Major Project is to, first, understand the current context in Toronto and affordable housing policies, programs, and tools, both current and historical. Second, the paper examines both domestic and international alternative affordable housing typologies, tenures, construction methods, policy models, and financing mechanisms which are underutilized or not used at all in Toronto. The third section dives deeper into opportunities for some of these unique housing methods to be implemented within Toronto, with the lens of legislative applicability and opportunities for implementation. The Major Paper explains why some of these models are underutilized or non-existent within Toronto's housing ecosystem. It concludes that there is room for innovation in affordable housing, and that cities like Toronto should leverage all housing sectors to provide affordable housing that meets the diverse needs of all residents.

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Foreword

This major research project fulfills the requirements set forth by the Masters of Environmental Studies with a specialization in Planning degree. It explores social housing, market housing, development, affordable housing, policy, and design. Three objectives outlined in my Plan of Study are:

1) To examine housing legislation, policy and programs throughout Canadian history.
2) To develop an understanding of the incentives and disincentives for developers to construct affordable housing.
3) To understand planning policies and tools that can provide more affordable housing in Toronto.

Throughout my major research project, I have met all three objectives outlined in my Plan of Study.

My research contributes to the field of planning in Toronto in the following three ways:

1) It examines affordable housing policies, programs and tools.
2) It illuminates and compiles thirty unique housing options found internationally and domestically into succinct summaries.
3) It dives deeper into four specific alternative housing methods which could be implemented in Toronto under the current legislative framework. Each housing method caters to a housing sector, or partnership between housing sectors.

Throughout my time in the Masters of Environmental Studies Program I learned four key Lessons:

Lesson 1: To alleviate Toronto's housing crisis more funding is required from all three levels of government.

Lesson 2: More policy interventions are needed from all three levels of government, specifically municipal to help mitigate Toronto's affordable housing crisis and incentivize developers to construct affordable housing.

Lesson 3: We must leverage all sectors of housing to provide better quality and quantity of affordable housing.

Lesson 4: There is room for innovation within Toronto's affordable housing ecosystem.

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Introduction

The Motivation For This Project

I began my academic career in an undergraduate program in urban planning in Toronto. After graduating I worked for Toronto Community Housing (TCHC) in the development division on the Regent Park Revitalization. Throughout my time at TCHC, the largest public housing provider in Canada, I learned that there was a chronic lack of funding for affordable housing. I learned that the need for more affordable housing and more diverse housing options for both low-income and middle-income residence is drastically increasing. I came to York with the intention of learning more about social and affordable housing throughout history. I was determined to find ways that the private sector could be better utilized to provide affordable housing given that TCHC is so underfunded.

Throughout my time at York I discovered that we cannot provide affordable housing solely on the backs of the private sector. But rather, we must leverage all housing sectors to provide quality affordable housing and alternative housing options. The private sector has many strengths including access to resources such as funding, expertise in development, the ability to build quickly, and manage buildings effectively. The public sector also has strengths such as the ability to access large pools of reliable public money and create and implement policy. The non-profit sector has strengths such as community engagement, and leverage within neighbourhoods. Partnerships between the private, public, and non-profit sector have proven to be successful both domestically and internationally. I learned that there is no simple solution to mitigating Toronto's affordable housing crisis, but that there is significant room for innovation. There are unique methods of providing housing which are underutilized and or not used at all in Toronto. I believe that with the right education, funding, and political climate Toronto can provide more affordable housing to all demographics.

Research Methods

My research will be a mixed-method approach

1) I used descriptive statistics (quantitative data) to set the background and provide the detail necessary to explain the current housing market in Toronto. I used secondary data

from the Canadian Mortgage and Housing Corporation (CMHC), Statistics Canada, and the City of Toronto.

2) My method to gather qualitative data was compiled in three parts. First, I did a scoping review to conduct a policy analysis of current Canadian housing policies (Peters et al. 2015). Second, I did a another scoping review to conduct an international scan of best practices for alternative housing methods. Lastly, I conducted various interviews with experts across all sectors of housing in Toronto, to examine the current context of affordable housing, and alternative housing methods.

Organization of Major Research Project

This major research project is divided into three sections. Chapter 1 outlines the current context in Toronto by dissecting Toronto's "housing crisis", examining the definitions of affordable housing in Canada, conducting a historic review of housing policy, and finally, discussing existing and future steps for government interventions in affordable housing in Toronto. In Chapter 2, I have listed alternative housing methods found both internationally and domestically with brief explanations on what it is, who it serves, and strengths and weaknesses of the model. Lastly, throughout Chapter 3, I dive much deeper into four of these housing methods, infill housing, temporary modular housing, shared equity mortgages, and flexible housing. Within this section, I explore what each housing method is, who is the target demographic, the strengths and weaknesses, a case study, the ideal location, the legislative applicability to Toronto, why has it not been done, and what are the incentives for this model to be constructed. This paper examines the current context in Toronto, looks broadly towards a large scope of alternative housing methods, and then narrows in on methods which could be implemented within Toronto's existing legislative parameters.

Chapter 1 – Housing Unaffordability: The Current Context

Dissecting Toronto's Housing Crisis

The City of Toronto is facing an affordable and public housing crisis. The vacancy rate in Toronto is at a historic low of 1.1% as reported by the Canada Mortgage and Housing Corporation (CMHC, 2018d). The average cost for a newly listed two-bedroom apartment is $2,850 per month as of June 2019 (Chen, 2019). There is not enough housing to meet the demands of residence, and what new housing that is being built is often out of reach for a lot of Torontonians. There is a lack of government support toward the creation of new social housing units, and the waitlist for existing units is over 100,000. For the past three decades in Canada, government subsidies for affordable housing have drastically declined. The Toronto housing market is increasingly expensive and the lower and middle class cannot afford to have quality housing. For example, Statistics Canada illustrates that 38 percent of households in Toronto earn less than $50,000 annually and more than one-third of all renters are spending over 30 percent of their annual income on shelter (Pagliaro, 2018). One-third of renters in the City of Toronto are not living in affordable housing defined by the Canadian Government standards. Everyone should have access to quality, affordable housing but it is not a "legal right" in Canada. Housing has become a for-profit commodity as opposed to being about the people (Rozworski, 2018). In Toronto, the vast majority of private sector developments have been luxury condominiums (Lehrer, Keil & Kipfer, 2010). There has not been a market saturation in luxury condominiums because of the commodification of housing. International investors are buying luxury real-estate as investment assets and leaving these units vacant. Luxury condominiums cannot meet the variety of needs for Toronto residents. All factors result in an affordable housing crisis for many low-income and middle-income Toronto residents.

There are many factors contributing to Toronto's affordable housing crisis. In this section I will address the following: the commodification of housing, the dismantling of social supports, the lack of social housing, the lack of housing diversity, and the decline of affordable rental in Toronto's housing stock.

Speculation / Commodification of housing

First, following trends in other global cities, housing has become a financial commodity rather than a public good for the residents of Toronto. A condominium boom has meant that developers have bought up land and significantly intensified Toronto's urban landscape (Lehrer, Keil & Kipfer, 2010). During the 1990s condominiums were built for the low – medium markets. Now there is an increase in luxury condominium developments (Lehrer, Keil & Kipfer, 2010). Housing has become a commodity given Toronto's strong housing market. Foreign investors are using the massive upswing in small luxury condominiums as "safety deposit boxes in the sky" (Rozworski, 2018). In April 2017 Kathleen Wynne announced Ontario's Fair Housing Plan. The plan includes many policies aimed at lowering the cost of housing for Torontonians, one of which is the Non-Resident Speculation Tax. this tax is aimed at curbing foreign investment by applying a 15 percent tax on the purchase of a residential property in the Greater Golden Horseshoe (Ontario Ministry of Finance, 2017). Yet, housing commodification is still prevalent in Toronto and the Non-Resident Speculation Tax is under threat because of the change in governmental power which occurred in October 2018.

Dismantling of Social Supports as a Result of Neoliberal Capitalist State

Second, the dismantling of the welfare state in Ontario and the adoption of increasingly neoliberal policies centered around the individual and market economy have minimized the role of the state as a housing provider and cut the delivery of social housing programs and supports. During the slashing of public funding in the 1990s Ontario moved from a successful welfare state to a neoliberal state motivated by the market and "individual choice" (Moriah and Hackworth, 2006). Clifford and Walks (2014) agree that there was a neoliberal shift in housing policy that changed the role of the state from the social rental housing toward private sector landlords. Kipfer and Keil (2002) suggest that as a result of the 1990's shift, Toronto became a "competitive city" which relies on neoliberal planning. The neoliberal shift is significant to housing policy. There is an increased reliance on the private sector to provide public services. Sousa and Quarter (2003) agree that we are living in an increased neoconservative and privatized world of shrinking government and are finding market-based solutions to public concerns. However, the private sector is a for-profit business that will not provide public goods unless they receive maximized profits in return for their investment and risk (Black, 2014). The neoliberal shift in housing policy during the 1990s has significant repercussions for affordable housing in Toronto.

Lack of Social Housing

Along with the affordable housing crisis, there is also a social housing crisis within the City of Toronto. The system has become highly limited and there is little funding for retrofitting, repairing, and maintaining the city's aging buildings. David Hulchanski states that "Canada has the most private-sector-dominated, market-based housing system of any Western nation [including the United States] … and the smallest social housing sector of any Western nation (except the United States)" (Hulchanski, 2002, p.IV). Most of Canadian housing supply relies on the private sector. In 2004, 5% of Canadian households lived in non-market units (public housing, non-profits, and co-ops). Canada's housing system relies heavily on the private sector to provide, maintain, and operate its housing market (Hulchanski, 2007, p.1)". There were 102,049 households on the waiting list during the first quarter of 2019, this number is just under the total actual amount of residence that live in Toronto Community Housing (City of Toronto, 2019f). The creation of new social housing has been limited over the past 40 years. Today little to no additional public housing units are being built. However, new replacement units are being constructed in Toronto's largest public housing developments. To fund the construction, Toronto Community Housing (Toronto's largest public housing provider) sells off valuable land to developers. They then partner with the developers in the construction of new market and public housing units. Problems arise through this process, such as the relocation of public housing tenants during the construction, and controversy of creating mixed-income neighborhoods. However, this process assists with decreasing the rising capital repair backlog of Toronto Community Housing, and provides low-income people with new housing.

Lack of Housing Diversity

There is a lack of housing diversity in Toronto's housing market. The main types of housing are tall condominium buildings, single detached houses in Toronto's neighbourhood districts and city peripheries, and rental properties, either scattered within single detached houses or in high rise towers. There is a trend emerging in Toronto housing literature coined as the missing middle. This is the idea that Toronto development is centered around a "tall and sprawl" pattern. A 2018 report written by the Ryerson University City Building Institute outlines the following:

> *"The majority of new housing built and under construction is either one-bedroom condos at high-density nodes, and low-density housing at the urban*

> *fringe. This has left households with little choice in the housing market. They can choose a small condo in a high-rise tower, or single-family home that comes with a long commute." (Haines and Aird, 2018, p.3)."*

This leaves Torontonians with little options in housing diversity, and a lack of access to affordable housing in the downtown core. Additionally, constant low-rise construction on the city fringes has negative environmental impacts such as farmland and ecosystem depletion and increased dependency on cars because the areas are too low-density to be serviced by transit. In summary, there are little housing options available to families in central locations and urban neighbourhoods are increasingly out of reach for Torontonians.

Lack of Affordable Rental

Rental housing is struggling to keep up with the demand for the following reasons: lack of purpose-built rental supply, increasing demand, and increased homeownership costs. The rental housing market is an important market for those seeking affordable housing. The monthly costs are often lower then that of homeownership, and no initial large lump sum (mortgage down payment) is required. The amount of privately built and operated rental housing increased significantly throughout the 1960s – 1980s then drastically shrank during the 1990s until the present day where the percentage of rental housing is at an all-time low (Black, 2014).

Students are a large segment of the population that is often forgotten about in discussions around housing affordability. They are a vulnerable population which is usually heavily affected by increased rental housing costs because they typically are low-income. Students are transient in nature and often do not benefit from rent control measures because of quick turnaround times. They are new to the housing market and often do not know their housing rights, and are easily taken advantage of by predatory landlord practices. Universities are building little new housing, and what new housing that is being constructed is built by the private sector, and is often financially out of reach for most students. Thus, students are turning towards the private sector, and are living in less than ideal, or illegal, living situations. As a result of increased rental prices, students are incurring more debt, or take on second jobs which increases their time in school, leaving them as a vulnerable segment of the population for longer. There is a lack of affordable rental housing and students are taking up these units from those most in need. Better housing solutions for students can improve Toronto's affordable housing market.

This section will explore reasons for the lack of affordable rental by examining the lack of newly constructed purpose built rental supply, increasing demand for affordable rental, and increased homeownership costs.

Firstly, the private sector is not building enough affordable purpose-built rental. 95% of all housing in Canada is provided by the private market, which has little incentive to build affordable housing, or rental housing (Hulchanski, 2007, p.1). Hulchanski states that "market forces will not supply affordable rental housing it so desperately needs" (Hulchanski, 2004. p.IV). What little rental housing being created is not affordable. Almost 40,000 rental units were constructed from 2014 – 2017, out of those units only 2.5 percent were considered affordable (Monsebraaten, 2018). As Canada moves towards a more privatized world there are significant impacts on affordable housing, especially rental housing, because condominium-style developments generate more revenue. The financialization of the housing sector has increased land value and construction costs, thus fewer private sector developers are creating purpose-built rental in order to see fast returns on capital investment. Construction costs rose 12 percent from 2017 – 2018 in Toronto (Kalinowski, 2019). This results in limited rental supply and increased homeownership costs which are transferred onto the consumer. The private housing market is a profit generating business where every stakeholder involved in the development of rental housing expects their financial returns to match the risk they assumed (Black, 2014). Developers have the highest profit margins and lowest risks when building luxury condominiums thus the incentives to build rental housing is minimal. Toronto's land prices are very high and construction costs are rising. It is difficult to get financing for rental buildings, and there is a lack of government incentives to create rental apartments. Lastly, the challenges for construction and maintenance of rental housing are significant and often deters developers from building rental housing. All this accumulates to rental housing becoming more difficult and less profitable to construct versus condominium-style housing (Black, 2014).

Secondly, the supply of purpose-built rental is not enough to keep up with the growth of the Greater Toronto Area (CMHC, 2017). Supply is not meeting demand in Toronto, specifically in the rental market. The growth rate in Toronto between 2011 and 2016 was 4.46%, and the population is projected to continue to grow over the next few years. This means about 100,000 additional people every year across the Greater Toronto Area (Canada Population, 2019). CMHC Rental Housing Report (2017) states that more migrants increase rental demand. Canada's strong economy is attracting immigrants. Typically newcomers will rent until they find a home to own (CMHC, 2017). Refugees are now entering the low-income rental market after leaving government-subsidized housing. Additionally, international student enrollment has risen, and temporary foreign workers have increased creating an all-time high demand for rental housing (CMHC, 2017).

Lastly, homeownership costs are extremely high which results in more people seeking rental housing. Rental housing has been on the decline and homeownership costs have increased drastically in Toronto over the past five years. The Canadian federal government has supported homeownership as opposed to public housing by providing policies and funding geared towards homeowners. See the Historic Review of Federal Policy section in this major research project for a background on the favoring of homeownership in Canadian federal housing policy.

The combination of the lack of purpose built rental supply by the private market, the increased demand for affordable rental and increased homeownership costs, contribute to the affordable housing crisis, specifically in regards to the creation of new purpose built rental units.

The impacts of the commodification of housing, the dismantling of social supports, the lack of social housing, lack of housing diversity, and the decline of rental housing, have created a perfect storm for unaffordability throughout the private market in Toronto.

Varying definitions of Affordable Housing

There are varying definitions of affordable housing and social housing, this section will discuss different definitions of both affordable housing and social housing.

In Canada, affordable housing is defined through a percentage of income and percentage compared to the market. The Canadian Federal Government defines affordable housing as 30% of gross annual income, based off Canadian Housing and Mortgage Corporation (CMHC), a federally run corporation, rental market surveys. Many definitions of affordable housing in Canada rely on CMHC's market definition. See (Figure 1) for the market rental rates as defined in CMHC's Rental Market Report 2017. The survey examines only private units with at least three rental units that have been on the market for over three months. CMHC's market value is often below the actual market value because it includes rental properties that have been lived in for longer periods of time, making them more affordable because of rent control measures mandated by the Province of Ontario. The actual cost of renting a unit new to the market is higher then CMHC's definition because landlords are able to charge what the actual market will bare.

Bachelor	1 Bedroom	2 Bedroom	3 Bedroom
$1,019	$1,202	$1,426	$1,610

Figure 1: Market Rental Rates 2017 (CMHC Rental Market Report 2017).

The City of Toronto Official Plan defines affordable rental housing based off of percentage compared to the market. However, they define an affordable unit as being "at or below one times the average City of Toronto rent, by unit type (number of bedrooms), as reported annually by the Canada Mortgage and Housing Corporation" (City of Toronto, 2019, pg. 3-25). The Official Plan defines housing as affordable if the rent the same as the market value defined by CMHC. Toronto Community Housing Corporation (TCHC) provides both rent-geared-to-income units and affordable units. For example, rent-geared-to-income defined by TCHC is 33% of total income before taxes. TCHC also offers affordable housing which is 80% of the "market value". The market value is defined by Canada Mortgage and Housing Corporation (CMHC). Lastly, different definitions of affordable housing have drastic impacts on policy because it affects how public funding models are applied.

On a provincial level the Ontario Planning Act defines affordable housing through both a percentage of income and percentage compared to the market "housing is considered affordable when households do not pay more the 30% of gross income on annual accommodation costs, or when the purchase price for housing is at least 10% below average market value or when households do not pay more then 30% of gross annual household income for rent or when the rent is at or below the average market rent (Ministry of Municipal Affairs and Housing, 2018).

The term "deep affordability" has recently gained popularity. New York City defines deep affordability as 30% of a resident's income who is making under 40% of the Annual Median Income (NYC City Planning, 2016). The City of Toronto has no explicit definition of deep affordability. However, it outlines that "deeper affordability" is 80% of the Average Market Rent as outlined by CMHC (City of Toronto, 2015., pg. 17). The Advocacy Centre for Tenants Ontario (ACTO) defines deep affordability as under 30% of a resident's total income (ACTO, n.d., pg. 13).

A clear definition of "deep affordability" could be useful to encourage government policy and initiatives to provide deep affordability.

Understanding Social Housing Models

This section will attempt to define social housing. Social housing refers to any non-market funded housing, irrespective of design, ownership and governance or funding model. Public housing refers to government owned and managed housing. In Canada, subsidies for public housing tenants are organized with a rent-geared-to-income system. In contrast, vouchers are public subsidies for tenants in private rental housing, frequently used in the U.S.A. In Canada, Co-operatives refer to a form of social housing that is managed by non-profit organizations and their members (residents) who pay either market or subsidized rents. Until recently, most Canadian co-ops also included a rent-geared-to-income subsidy system. Along with emergency housing (shelters) and assisted housing (for people with medical problems or disabilities), all the above models are designed to assist those who do not have the economic means to live in a market-driven economy. In addition, there are mechanisms in Canada to make market housing more affordable. With inclusionary zoning, private developments are regulated to include a portion of more affordable private or subsidized units. Sousa and Quarter (2003) state that there are four different types of public housing; traditional public housing, cooperative housing, private non-profit housing, and municipal non-profit housing (Sousa and Quarter, 2003, p.592). As demonstrated in this paragraph, there are many different models for public housing. Not all models work in all societies and political climates.

Historic Review of Housing Policies

It is important to understand the history of housing policy in Canada when discussing current day solutions to providing affordable housing and housing policy. This section will examine public housing policy, federal policy, the downloading of housing responsibility throughout the last century in Canada, and will also examine the private sector's involvement in affordable housing throughout this time period.

Historic Review of Public Housing

The creation of public housing and public housing policy is turbulent and fluctuates throughout the 20th – 21st century. Madden and Marcuse outline that there have been three major public housing waves within the United States. First, there were World War One programs that aimed at housing military and industrial workers. Second, there were post-war veteran programs aimed at housing those who had fought in World War One. Third, larger public housing programs were developed to respond to the great depression (Madden, Marcuse, 2016). Greg Suttor claims that there were six major turning points for Canada's public housing policy from the postwar period to the turn of the millennium (Suttor, 2016). Housing policy became a priority for the Canadian government during the postwar years and faded at the end of the 20th century (Suttor, 2016). The strongest years for public housing policy were in a thirty-year period from the mid-1960's to the mid-1990's. During this time, Canada's housing policy was renowned worldwide (Suttor, 2016). The creation of new public housing was a federal initiative and was consistent, however, did vary from province to province (Suttor, 2016). Suttor states that there has been a "modest re-engagement" since 2002 (Suttor, 2016, p.151). Carter and Polevychok, 2004 state that "although housing is back on the social and political agenda, it is struggling to find a place amongst other spending priorities such as health care, education, defence, and security. It is not yet recognized as an integral part of the social policy agenda" (Carter and Polevychok 2004, p.30). There is a lack of policy and programs to increase housing options to low-income Canadians.

Large-scale housing developments began during the mid-1930s and are continuing in North American society today. The height of this type of development was in the 1960's, with the help of increased federal funding and transferring the development from the municipal jurisdiction to the provincial government (Suttor, 2016). These large redevelopments were coined "super-projects"; with large blocks detached from the city fabric, they often had increased density, little penetration into the community, and were often rotated to further isolate them from the street grid (Laurence, 2006, p.149). Large-scale public housing redevelopments can be aggressive and interrupt the cities' organic processes. However, they stem from a place of good intention, as public housing benefits the most vulnerable of populations: veterans, lower-class working poor, immigrants, people with addictions and disorders, and generally those who cannot afford to live in the private housing market.

Large-scale public housing redevelopment (as opposed to small-scale development) allows governments to provide a larger number of beds, at the same time decreasing building costs. However, large-scale developments require a lot of resources and funding. The process of acquiring land, demolishing existing communities, and building new housing is costly and requires a lot of political support. Thus, public housing historically has changed at the whim of larger political and societal trends.

Today, many public housing estates that were built in part through postwar urban renewal strategies face redevelopment. In Toronto, councillors and planners with NDP connections shaped the beginning of the public housing movement, responding to a number of deeper forces (Abbruzzese, 2017). In 1993 the federal government passed the responsibility of public housing to the provinces along with the related funding. However, the municipality today does not receive much of this funding. As Duffy et. al. put it, "provinces inherited the federal money. Cities inherited the problem" (2014, p.5). The brunt of the negative side effects are placed on the municipality. Therefore, municipalities are increasingly trying to find innovative ways to fund public housing without the proper provincial and federal funding (Duffy et. al, 2014, p.4).

After the 1993 downloading, housing planners then made the argument that the only way in which Toronto could address the major capital repair backlog was to sell off public land and use that revenue to fund redevelopment. This neo-liberal way of building encourages the market-driven economy to fund public assets. The neo-liberal theory would suggest that this last wave of large-scale revitalization took place to strengthen the private economy and create more areas for investment within the downtown core. An anti-poverty perspective would argue that the initial redevelopments were a positive thing, as they provided more and better housing for those seeking public housing. They would also argue that the current day revitalizations are negative because of the harsh interventions that occur during relocation. Finally, planners influenced by Jane Jacobs see redevelopment as an opportunity to redesign the physical space by bringing back the street grid. For example, the Regent Park revitalization, which began in 2004, is opening up the street grid and providing more penetration into the community, to enhance vibrancy, safety, and better connections to the downtown core.

Historic Review of Federal Policy

We cannot talk about Canada's private housing market without looking at the role of the Canadian government's policy and programs. Canadian housing policy affects all of the housing systems within Canada, including the private market. "Since the 1970s a steady stream of individual homeowner purchase assistance programs have been necessary simply to maintain Canada's ownership rate at about two-thirds (Hulchanski, 2004, p. 223)." Crook agrees that the Canadian government favours the homeownership model (Crook, 2004). The federal government assists homeowners by providing mortgage loans. This began in the mid-1940's and continues today (Hulchanski, 2004). The Canadian government also allows homebuyers to draw from RRSP's (Registered Retirement Savings Plans) up to $20,000 (tax-free) to purchase a house. Additionally, when an owner-occupied house in Canada is sold, the homeowner pays no tax on their capital gains. This results in an annual subsidy of approximately $3.7 Billion (Hulchanski, 2004, p.224). Hulchanski argues that Canada does have a "housing system" but that the policies and programs are not geared toward the Canadian poor population. He states that the role of the Canadian government on housing policy has been almost exclusively in the homeownership sector. If government policies and programs are geared toward the homebuyer, it is natural that the private sector builds condominiums as opposed to rental housing.

Existing Government Interventions

Although Toronto is experiencing a "housing crisis" there are existing government policies and programs aimed at providing affordable housing. In this section, I will address the contributions all three levels of government make to affordable housing and the following initiatives: Canadian National Housing Strategy, Ontario Fair Housing Act, Municipal Land Sales, City of Toronto Doors Open Program, City of Toronto Housing Now initiative, Tower Renewal, Inclusionary Zoning, Density Bonusing, Community Land Trusts, and Co-Operative Housing.

Understanding Levels of Government

First, I will outline the Canadian government system structure and how all levels of government affect housing policy. The Canadian federal government plays a large part in housing regulations. It controls interest rates, economic policy, mortgage lending practices, and immigration, which affects the demand for housing (Walker and Carter, 2010, p.344). The province contributes to housing by producing building codes, construction standards, and provincial land-use polices (Walker and Carter, 2010, p.344). The municipal government contributes lot regulations, occupancy by-laws, subdivision design standards and critiques, and health and safety aspects to the built structure (Walker and Carter, 2010, p. 344). All levels of government contribute policy and legislation to planning for social housing. All levels of government have the capacity to fund housing programs. Given the complex political character of planning for public housing, this sector is ever changing and forced to adapt to political shifts.

Canadian National Housing Strategy

In November 2017, the Canadian government released the Canadian National Housing Strategy, the first major intervention from the federal government in 25 years. It outlines $40 Billion towards the creation and maintenance of affordable housing over 10 years across Canada. The strategy targets 530,000 families and aims to reduce homelessness by 50 percent (Mathieu, 2018). As part of the National Housing Strategy $13.2 billion is provided in low-cost loans and/or financial contributions over ten years to either the creation of affordable housing or repair of existing affordable housing. To be eligible for both the new construction stream and the repair of existing affordable housing, a community housing provider, municipality, province, indigenous government or organizations, and/ or the private sector must provide 30% of rental units below 80% of the median market rental rate as outlined by CMHC. Additionally, they must also commit to providing these units for a minimum of 20 years (CMHC, 2018c). The national housing strategy modestly increases funding for affordable and public housing, sustains existing contributions, and levers resources from the Provinces and Territories in cost-sharing initiatives (Suttor, 2018). This is undoubtedly a step in the right direction from the Federal Government.

Ontario Fair Housing Act

In April 2017, the Provincial and Federal government promised that they would protect social housing across Ontario, but it is too early to say how and when the money will be given across the municipalities of Ontario, and given the current political climate if the money will be given at all. Additionally, although early in Doug Ford's term, he has had significant impacts on housing affordability in Ontario. The following are some of his promises, however, only some have been implemented. His goal is to increase development, rid rent control measures, remove the Foreign Investor's Tax, open up the Greenbelt, cancel the development charge rebate program, and spend 1 Billion on affordable housing. These interventions are a reflection of the sad times for affordable housing policy during the 1990's Mike Harris years.

Municipal Land Sales Programs

Many City of Toronto initiatives including Doors Open and Housing First (an initiative announced in 1999 targeted at providing Homelessness relief), have indicated the need to sell off surplus City property in order to fund and incentivize the private sector to create more affordable housing. At the beginning of 2018 the City of Toronto launched CreateTO, a cooperation designed to sell off City of Toronto Surplus land with the intention of generating revenue for community improvements and affordable housing. However, the initiative has been largely unsuccessful, the cooperation has only sold properties and has created infighting amongst city departments and agencies on where to allocate the generated revenue from land sales (Gray, 2018).

City of Toronto Doors Open Program

In early 2015 Mayor John Tory revealed The Doors Open Program, which was later approved in 2016. The plan was an outcome of the City of Toronto Housing Opportunities Toronto Action Plan 2010-2020. The aim of the Doors Open Investment Plan 2016-2020 is to provide 5,000 new affordable rental units and 2,000 new affordable homeownership units, built by the private sector. The city has promised to provide incentives to developers such as fast-tracking planning approvals, providing City-owned surplus land and financial incentives such as exemptions from development charges, planning fees and property taxes. The province has offered $125 million to this program for development charge rebates (City of Toronto, 2018a). Private and non-profit organizations may qualify if they are offering "quality rental housing" or are including affordable housing in their future development plans (City of Toronto, 2018a, pg. 5). Affordable housing is defined in this case as at market rates as outlined by Canadian Mortgage and Housing Corporation (See definitions section in this Major Research Project for more information).

City of Toronto Housing Now Initiative

In January 2019 City council voted to introduce Mayor John Tory's Housing Now initiative. The motion passed in a 22 to 4 vote, the initiative aims at creating affordable housing through the private sector, similar to Doors Open 2016-2020 (City of Toronto, 2019a). The plan aims to create 3,700 new affordable units (defined as at market value as per CMHC) (City of Toronto, 2019a). The city will provide public land and other financial incentives to developers and not-for-profits to be able to provide a guaranteed percentage of units that are more affordable across the city. The city promises to open up 11 City of Toronto owned surplus sites for the development of housing. The plan promises to allocate 290 million dollars in fee exemptions, and land sales. It aims to construct, through the private sector, 10,000 new residential units. One-third of all units must be "affordable" the rest will be split into rental and condominium units. An "affordable unit" in this case is defined as 80% of market value outlined by CMHC. The plan is controversial for a number of reasons. Mike Layton, a long-time city councillor, voted against the motion because he does not believe it is making enough of an impact on Toronto's housing crisis. He moved a motion to amend the initiative from 33% to 50% of all units created to be affordable with one-fifth of all units being deeply affordable, meaning 40% of market value defined by CMHC. The motion failed with a 7 – 19 vote. Councillor Matlow proposed to amend the initiative to include that all new units be under rent control, however that motion also failed with a 12 – 14 vote. Lastly, critics of the initiative believe that little purpose-built rental will be constructed outside of the affordable housing mandated in the initiative, because the market is not forced to construct different types of housing.

Tower Renewal

Tower renewal not only creates new affordable rental but maintains existing rental stock within The City. Almost 1 million people in the Greater Golden Horseshoe live in large concrete towers built mostly between the 1950 – 1970's, some of which require significant repairs and upgrading. The tower renewal program began in 2007 and aims at improving three basic factors: energy retrofits, increased livability by providing more social and economic opportunities, and improving green space around towers by creating infill development and transit connections (Evergreen, n.d.). As announced by ERA Architects, a firm which began initial work on Tower Renewal, there have been significant impacts of tower renewal on the Toronto rental stock since its inception. Some highlights are: improved access to federal and provincial funding surrounding apartment retrofits, rezoning of 500 tower sites to “remove barriers to Complete Communities”, a University research network establishment, and creating prototypes to engage the industry on the development of local best practices (ERA, 2018). Tower renewal is undoubtedly a step in the right direction however, more is needed to be done to get building retrofits off of the ground and tower communities transformed.

Inclusionary Zoning

Inclusionary zoning, put simply, is a policy tool to mandate that all new developments include a certain portion of affordable housing. This number is either a percentage of the total units, or a percentage of the total square footage/meterage in a new development. There is a debate on the effectiveness of inclusionary zoning and whether it can actually provide affordable housing. The central contentious piece around inclusionary zoning is that if developers are mandated to provide affordable ownership units, they will pass the loss in revenue to the consumers of the other market units in the building. Rusk (2008) states that there is no reliable research proving inclusionary zoning does, in fact, increase housing prices. He states that if there has been an increase in housing prices from the studies he’s conducted, they are very minor (2-3%) and could be a direct result of improper inclusionary zoning legislation (Rusk, 2008, p.5). In summary, it is not clear if inclusionary zoning does increase the housing costs outside of the affordable housing units provided by the legislation.

Another debate surrounding inclusionary zoning is whether it will reduce the supply of housing because it disincentives developers to build new housing projects due to a reduction of profit margins. Clayton (2008) compared three U.S. cities and determined that inclusionary zoning will have negative effects on the price and production of housing. He examined 33 communities from 1973 – 2003 and found that there was a significant drop in the number of building permits (Clayton, 2008). Rusk (2008) believes that Clayton’s work is not credible and often relies too heavily on speculation and that no worthy research supports the notion that inclusionary zoning decreases the supply across the market. Rusk and Clayton both agree that inclusionary zoning does not produce a significant number of new affordable housing units. In the studies conducted across the United States post inclusionary zoning implementation, there was an increase of 3-7% of new units within the new housing stock (Rusk, 2008, p.6). Inclusionary zoning is a step in the right direction, however, the impacts on the affordable housing market are minor.

Density Bonusing

Another planning tool which could provide affordable housing in Toronto is Section 37. Section 37 of the Ontario Planning Act provides developers with an opportunity to exchange increased density with additional funding to provide community improvements. Municipal zoning by-laws outline the limit the height and density of developments within wards. Section 37 states that if a development exceeds the bylaws developers can approach city councilors to propose financial compensation or services of some "community benefit" for the ward in which the height or density bylaws exceeded (City of Toronto, 2016). Community benefits range from affordable housing to public art, park improvements, streetscape improvements etc.. Although Section 37 can be an effective tool in providing affordable housing it is often underutilized because the councilors tend to put money into visible community improvements that directly benefit the existing constituents. A report published in 2013 outlines that less than 6% of all Section 37 funding was allocated towards affordable housing in Toronto (Moore, 2013, p.5). As the City of Toronto expands drastically Section 37 can be a useful tool in providing affordable housing, however, it is a band-aid solution to a much larger problem.

Community Land Trusts

There are initiatives to provide affordable housing in the City of Toronto through non-profit organizations and community groups. One notable affordable housing initiative in Toronto are community land trusts. A community land trust occurs when a non-profit organization acquires land, usually through donors. They then either bank the land to provide leverage for bank loans or use the land to construct community amenities, typically affordable housing units for those in need (Conaty, 2008). Although community land trusts can be an effective way of providing land for affordable housing, they typically require significant funding sources, which limits their scope.

Co-Operative Housing

Co-operative housing plays a large role in the social housing sector in Canada. Particularly between the 1970's and the 1990's the Canadian government issued many programs to aid the construction of co-op housing. In Canada, the most typical type of co-ops are nonequity co-ops, the creation of which is usually supported by government mortgages, subsidies and other assistance to a group of residents who form cooperative organizations for the purpose of non-profit housing (Sousa and Quarter, 2003, p.563). Within the regulatory and legal framework of cooperative acts, residents decide on their governing structure, budget, and rules and regulations for the housing development. Co-ops are a way to keep rent affordable as the members of the co-op decide on the rent level. Based on a combination of market averages and subsidy calculations, the bulk of the rent is used to pay down mortgages and loans, maintain the buildings and save for capital repairs. Co-ops are beneficial for affordability, security of housing, and creating a sense of community (CMHC, n.d.). Their development does however, require on government assistance for capital and operating expenses. Both land-trusts and co-operative housing are great ways to provide affordable housing, yet are limited by the availability of private funds and government spending. However, large non-profits are able to leverage their assets to create more affordable housing for those in need.

In conclusion, there are existing interventions to aid the maintenance and creation of affordable and social housing within Toronto. In summary, the Canadian National Housing Strategy is a step in the right direction. Ontario’s political support and funding for affordable housing is turbulent. Municipal land sale programs have not necessarily resulted in affordable housing. Current programs such as Doors Open and Housing Now rely heavily on the private market to provide affordable housing, and it is too early to tell if these initiatives will actually result in more affordable housing. Maintaining existing rental stock is very important, and the Tower Renewal Program is helpful, however, critics say not enough. It is unclear if inclusionary zoning will make a real impact. Section 37 is a helpful tool, but does not produce a large number of affordable housing units. Lastly, community land trusts and co-ops are very useful in providing affordable housing but often rely on large funding sources which limits their scope. I believe that these initiatives are not enough to meet the demanding affordable housing needs of Toronto residents. There are existing policies and programs which are being used within Canada and internationally that can contribute to providing more quantity and better quality affordable housing, and there is room for innovation within the affordable housing market.

Next Steps for Government Intervention

This section explores next steps for government intervention which have not been implemented in Toronto. It outlines ways to increase the development of new purpose built rental, as well as create new rental units within Toronto's existing housing infrastructure.

Increase Purpose-Built Rental

The Ryerson City Building Institute along with Evergreen released a report in 2017 that outlined comprehensive recommendations to address the lack of rental housing within Toronto. The report recommends the creation of 8,000 new purpose-built rental units and outlines ways to achieve this goal. Seven policy recommendations were outlined to increase rental units within the existing housing stock, and to incentivize the creation of new purpose-built rental. The key policy recommendations for the creation of rental within existing housing are as follows: "municipalities introduce vacant unit taxes, municipalities regulate short-term rentals, municipalities adopt land-use changes to permit more residential development" (Cohrs, German, Haines, 2017). The policy recommendations to create new purpose rental are as follows: Province expand the development charge rebate program, municipalities incentivize all rental development, Provincial and Federal government develop a "one-window" service in order to increase development incentives, and the federal government make changes to HST policy (Cohrs, German, Haines, 2017). These policy recommendations would ensure the most efficient use of the current housing stock, and provide incentives for developers to finance and fast track new rental properties.

Jill Black (2014) interviewed over 30 members of the real estate community in Toronto. According to research participants, there are several interventions that the government could implement to incentivize private sector developers to build rental housing: streamlining the approval process, sell-off government-owned surplus land at a reduced rate, and decreasing soft costs such as environmental assessments and development charges. Loan guaranties would also help by removing the lenders' risk if the development does not come to fruition (Black, 2014). Lastly, developers spoke about altering regulation to allow for wood frame construction, which new technologies have made fire safe and cheaper to construct.

The private sector is a for-profit business and even if construction costs are lowered, unless legally mandated, they will not pass the savings onto the consumer. Instead they will charge what the market can bare to receive the highest profits possible. Even if subsidies are available to the private sector (specifically rental housing) developers are hesitant to take advantage because of the uncertainty with government commitments, as in the past, governments have stopped programs with little notice (Black, 2014, p.iii). Additional factors that have disincentive developers to build affordable housing using government subsidies include: government requirements for higher construction and operating costs, waiting time for building permits, zoning approval and construction, and mortgage loan insurance (Black, 2014, p.iii). Thus, even with certain government interventions the private sector is still hesitant to construct purpose built rental.

Increase Rental Housing in Existing Buildings

There are existing policies which have increased access to the rental market by using existing housing structures. As Canadian cities like Toronto and Vancouver are seeing vacancy rates hovering around 1% a vacancy tax has proven useful to disincentive speculation and encourage properties owners to rent out vacant units. As of January 1, 2017, the City of Vancouver introduced a vacancy tax otherwise known as the Empty Homes Tax. This tax charges homeowners with 1% of the homes property value per year. Units that are permanently occupied by the principal resident or, are rented out for 6 months in the year, are exempt from the tax. In 2018 the number of unoccupied residences in Vancouver shrank by 15% of those 15% over half have been added to the rental market (The Canadian Press, 2019). Additionally, the revenue generated from this tax could be put back into the affordable housing market. This is a simple tax which can be implemented in Toronto. As part of Kathleen Wynn's Ontario Fair Housing Plan municipalities are now authorized to adopt vacancy taxes, in May 2017 the City of Toronto Act (a provincial legislative document) was amended to allow Toronto to implement a tax on vacant units. A community consultation was conducted in Toronto late 2017 to gage public interest. A staff report released in April 2018 outlines that, residence were generally in favour of the tax, and that The City of Toronto should allocate up to $200,000 to do more research on the design and implementation of a vacancy tax (City of Toronto, 2018b). As of July 2019, no tax has been implemented in the City of Toronto.

New technology has made short term rentals possible for landlords. Companies such as Airbnb have taken long-term rental properties off the market in major cities like Toronto, as Airbnb generally is more profitable then long-term rental properties. A report from McGill University states that Airbnb has removed approximately 31,100 rental units in Canada, half of which are located in Toronto, Vancouver and Montreal. Of which over 30% of all revenue generated through

Airbnb was done by 1% of its hosts (Wachsmuth, 2019). In other words, the majority of people profiting from Airbnb are large landlords. Cities all over the world have begun to introduce some sort of Airbnb regulation limiting the amount of time of stays, introducing additional taxes on stays, restricting number of guests, and mandating that the stays only occur in an already occupied home (Lagrave, 2018). In early 2018 the City Council approved regulations of short-term rentals in Toronto. The new regulations would require that short term rental companies acquire a license with the City and that short-term rental landlords register with the City. A tax of 4% of all short term rentals would then be required as part of the Municipal Accommodation Tax (MAT), an existing tax for hotels, hostels, etc. (City of Toronto, 2019b). The decision was appealed and therefore is not in effect as of July 2019. In August 2019 a five-day hearing will take place at the Local Planning Appeal Tribunal (LPAT) on whether or not to regulate short term rentals.

In conclusion, increasing the amount of purpose built rental and leveraging the existing housing stock to add more rental units to Toronto's housing supply would be invaluable for providing affordable housing. There are government interventions which could aid to the creation of new rental units, however, developers are hesitant to participate in these programs. Existing policies to add more rental units within built housing are in affect across global cities. If Toronto implemented a vacancy tax and short term rental legislation there would be an increase in affordable rental, something Toronto desperately needs.

Chapter 2 – Illuminating Alternative Housing Methods

In this section I will review thirty housing methods that can be implemented by various housing sectors to achieve affordability and more diversity in Toronto's housing market. The objective of this chapter is to illuminate alternative housing methods which are underutilized or non-existent in Toronto. Although many of these models are not feasible for implementation, this chapter will demonstrate how housing is not linear, and provide a comprehensive view of innovative housing methods. This chapter is divided into housing typologies, tenures, construction methods, policies, and financing mechanisms. I have selected these because they provide opportunities for innovation, and are underutilized, or non-existent in Toronto's housing ecosystem.

1. Housing typologies

1.1 Micro-housing

Micro-housing is an affordable housing design technique centered around small unit sizes. The units are no larger than 350 square feet and include a kitchen and washroom within the unit. Micro-housing typically compensates for its small size with high ceilings, large windows, built-in storage, and flexible furniture. Purpose built micro-housing buildings will often bundle other services such as shared lounge spaces, outdoor spaces, and storage. (Kalinowski, 2019). This technique is catered to young professionals who want to live in the cities downtown core. It is an effective way of providing affordable housing in areas where land values are high. These apartments can cost as much as 30% less than conventional apartments but do cost more per square foot (Burda, C., Haines, G., & Nelischer, C., 2019). However, purpose-built micro-housing units are not often as affordable because units are often catered towards the luxury clientele.

1.2 Container Housing

Container houses are made from shipping containers that are designed to be stacked to meet the needs of home buyers. Shipping containers cost anywhere between $1,400 - $4,000 depending on size and can range in cost to build between $150,000 - $175,000, this is about half the construction cost of a traditional home (360 Mobile Office). Container houses are known to be affordable, eco-friendly, flexible, easy to transport, and have a short design and construction timeframe. However, container housing is a new industry and thus the cost and materials can be comparable to traditional building techniques (360 Mobile Office). Additionally, container housing rental units might not be an effective affordable housing tool as the cost savings might not be passed onto the consumer.

1.3 Flexible Housing

Modular housing, also known as parcel housing, is an affordable housing design technique where a developer provides homebuyers with the option to buy units based on their desired size. Homebuyers have the option of buying single or multiple parcels, and are sold based off of predetermined parcel sizes to meet the needs of the homebuyer. The buildings are shells and constructed similarly to office buildings, so that they can be adjusted based on the needs of the residence in the building. Homebuyers have the option of buying single or multiple parcels. This design technique is effective for a changing family structure. As a family grows the homebuyer can purchase adjacent parcels to expand their home and if the family shrinks they can sell off parcels as desired. This model is also very effective in providing secondary suites because a homeowner can buy a parcel and rent for supplementary income.

1.4 Naked House

The naked house is often paired with modular housing (see above). This technique is designed so that new units are constructed to meet the minimum building code. The homeowner can then construct their home independently. The new buildings also come with little additional amenities to keep condominium costs down. Because of the simplicity of the units, naked houses can often be constructed in factory-made housing modules which cut additional construction costs (see factory Assembled / Prefabricated Housing Section) (Naked House, n.d.). Units are typically 20% - 40% below market cost. However, homebuyers need to consider additional independent construction costs.

1.5 Floating Homes

Floating homes are a design typology where houses are built on large floating concrete barges and float on water. They are built offsite and then dragged to the desired location. They are fully equipped with heat, hydro, plumbing, and insulation. This technique could be effective in providing affordable housing in cities built around water with high land values. Homebuyers don’t pay typical property taxes, but incur additional fees such as marina fees and “mooring fees”

(Toronto Float Homes, 2014). Additionally, because of their unconventional nature it is harder to get a mortgage from traditional banks.

1.6 Houseboats

Houseboats are boats which are constructed to accommodate people living on the them. Houseboats typically don't often have the same comforts of typical housing, such as potable water. But living on a houseboat is possible through connections to the dock to service electrical needs. They operate with a septic tank and potable water is accessible through the marina. They are often more affordable than a typical house to buy, but like a car they depreciate in value. Homeowners don't pay traditional taxes, such as property tax, but do occur additional costs through docking and marina fees. Electricity is also expensive because often it is the main source of heating for the boats, especially in the winter months.

1.7 Adaptive Reuse

Adaptive reuse is the process of converting one building type into another building type that was not the original designed purpose of the building. Typically, adaptive reuse is used to convert old buildings to serve a new purpose. It is common to see this technique in old buildings which are designated heritage buildings thus, they cannot be demolished. It is more environmentally sustainable as the building does not need to be demolished, and old building materials are salvaged. It also is appealing to renters or homebuyers as the character if the original building is maintained. It can often be very costly to construct adaptive reuse buildings as much of the building's infrastructure including electrical, plumbing, etc., needs to be replaced to keep up with modern building codes. Also, acquiring approvals for heritage building alteration can often be time-consuming (Erskine, C. 2013). Developing heritage buildings is often more costly, but the rate of return is greater for the developer because of the appeal of the uniqueness of the buildings (Erskine, C. 2013). Adaptive reuse is an effective building technique because it is more environmentally sustainable, and it maintains the character of a neighbourhood, however, it does not often result in providing deep housing affordability.

1.8 Infill Housing

Infill Housing typically looks for areas for intensification within the pre-existing city fabric. This includes additions to existing built housing, secondary suites, laneway housing, townhouse infill, any type of additional density. This could also include the demolition of a large single family house and the creation of two additional houses on the same lot. It also includes the demolition of one or more single-family houses to create a row of townhouses. In a typical neighbourhood increasing the maximum building height from 3-4 stories can increase average density by up to 35% (Van Nostrand, J., Bresler, L., Scrogie, B., Pitre, E., & Davies, Q. J. 2019). Infill housing can add more density which in theory creates more supply which makes housing more affordable.

1.9 Laneway Housing

Laneway housing is a type of infill housing (see above). Laneway suites are typically built on pre-existing lots and used as secondary suites, they usually are built in the backyard and front onto the back lane, hence the name laneway housing. They are typically smaller in scale and detached from the main house, however, they often use services such as plumbing and electricity from the main house. It is an effective way of increasing density in low-density areas (City of Toronto, 2019e.). It provides additional rental property and a second income to families, while maintaining neighbourhood and community character. Secondary suites are typically rented out at market value however, do provide more rental housing in the downtown core.

Alternative Housing Method	**Key Housing Sector**	**Target Demographic**	**Barriers**
Housing Typologies			
1.1 Micro Housing	Private	Young singles in high land value areas	Size of units
1.2 Container Housing	Private	Young singles in high land value areas	New building technique – cost savings aren’t yet realized
1.3 Flexible Housing	Private	Homebuyers (usually low-income) and/or families	New development technique – acquiring investors is difficult
1.4 Naked House	Private	Low/middle-income homebuyers	Homebuyers need to carry out renovations
1.5 Floating House	Private	Homebuyers	Does not provide deep affordability
1.6 Houseboats	Private	Low/middle-income homebuyers	Less comfortable living conditions
1.7 Adaptive Reuse	Private / Public	Everyone	Does not often provide deep affordability
1.8 Infill Housing	Private / Public	Rental market and/ or Homeowners	Does not often provide deep affordability

1.9 Laneway Housing	Private	Rental market and/ or Homeowners	Does not often provide deep affordability

2. Tenures

2.1 Co-operative Housing

Co-operative housing plays a large role in the social housing sector in Canada. Particularly between the 1970s and the 1990s the Canadian government issued many programs to aid the construction of co-op housing. In Canada, the most typical type of co-ops are nonequity co-ops, the creation of which is usually supported by government mortgages, subsidies and other assistance to a group of residents who form cooperative organizations for the purpose of non-profit housing (Sousa and Quarter, 2003, p.563). Within the regulatory and legal framework of cooperative acts, residents decide on their governing structure, budget, and rules and regulations for the housing development. Co-ops are a way to keep rent affordable as the members of the co-op decide on the rent level. Based on a combination of market averages and subsidy calculations, the bulk of the rent is used to pay down mortgages and loans, maintain the buildings, and save for capital repairs. Co-ops are beneficial for affordability, the security of housing, and creating a sense of community (Canada Mortgage and Housing Corporation, n.d.). Their development does however, require on government assistance for capital and operating expenses. Co-operative housing is a great way to provide affordable housing, yet is limited by the availability of private funds and government spending. However, large non-profits are able to leverage their assets to create more affordable housing for those in need.

2.2 Cohousing

Cohousing is a living structure where people share basic amenities. The structure of cohousing arrangement varies significantly. A rooming house would be considered cohousing as the separate units share washroom and kitchen facilities. However, new purpose-built cohousing arrangements are being constructed to cut costs for the consumer. A report released by the Ryerson City Institute examined a number of these living arrangements and categorized cohousing into the four following categories: Hotel style, family style, affordable, and roommate style (Burda et. al., 2019). Hotel style is usually geared towards luxury clients, includes flexible and short term leases. Buildings have shared facilities such as lounges, workrooms, cleaning services and social activities. Rents are typically lower compared to traditional units but the square footage is often significantly less. Family style, is a multi-unit rental agreement catered towards families, the units are fully equipped with kitchens and washrooms but residence share amenities such as outdoor space, lounge areas, daycares and laundry etc.. Family style is typically more affordable as units are smaller. Affordable style is characterized by smaller unit sizes with shared non-luxury amenities, renters exchange personal space for common space. Developers still capitalize on the development by gaining higher revenues per square foot, but units are more affordable. Lastly, roommate style is multi-bedroom rental units that are run like a hotel with services and amenities, they are designed for young wealthy professionals looking for a community experience. They are short term leases and include social programming, and roommates are typically pre-screened. Rents are more expensive because of the targeted demographic. An emerging type of cohousing is a HomeShare program where seniors are paired with students in order to provide lower rent to the student and an added source of income for the senior. Seniors benefit from having someone in their unit to help with day-to-day maintenance, cooking, and company, and students benefit by having reduced rents. In summary, cohousing is convenient and creates a sense of community. New cohousing developments provide a wide array of options for people, including less expensive models because of smaller units sizes, but because of their unique luxury style the savings don’t always get passed onto the consumer.

2.3 Temporary Modular Housing

Temporary housing on vacant land is a recent initiative. The model revolves around adding housing to areas that are underutilized. Many lots are sitting vacant during the development approval process. Homes are typically built offsite and can be built in three months and then stacked together on-site (City of Vancouver, 2019). The units are typically managed by a non-profit that often provides additional services such as health care, employment services, and sometimes meals. The target demographic is people experiencing homelessness, this model allows people to get off the streets into ready to live units. It meets the urgent needs of people experiencing homelessness (City of Vancouver, 2019). This is a very effective way of getting people off the street as units are low-cost and can be reconfigured to different sites easily. However, this model does rely entirely on government subsidy.

Alternative Housing Method	**Key Housing Sector**	**Target Demographic**	**Barriers**
Tenures			
2.1 Co-op Housing	Public / Non-profit	Everyone	Often relies on government funding / political support
2.2 Cohousing	Private	Low-income renters / seniors	Roommate / tenant issues may arise
2.3 Temporary Housing	Public / Non-profit	People experiencing homelessness / precarious housing	Relies on government funding / political support

3. Construction Methods and Technologies

3.1 Wood Frame Construction

Wood frame construction is on the rise and gaining popularity in Canada. Traditional concrete and steel construction are one of the biggest sources of carbon dioxide emissions. This building technique cross-laminates timber by gluing wood panels in an angular fashion, this provides additional stability and force. This technique is just as strong as concrete but five times lighter. Wood Frame construction is just as safe as traditional building techniques, there is a common misconception that wood burns faster however a solid piece of wood will char on the outside but will not burn internally (Donovan, V. 2019). Concrete buildings have internal rods which can expand in a fire and then explode, and steel melts as it burns. Additionally, wood-framed houses are appealing to the residence because it is aesthetically pleasing. Construction should also be faster because builders do not need to form the concrete on site. However, there are limited suppliers that can provide the quantity of wood needed during construction. This model in theory would be cheaper, however, there is a steep learning curve currently in the construction industry which passes additional costs onto the project. Lastly, developers might not pass the cost saving onto the clients as the aesthetic of wood frame construction is desirable.

3.2 Bamboo Construction

Bamboo is a low cost, low carbon emission building material. Bamboo is a tpye grass and thus takes much less time to harvest then wood. Canada is capable of growing bamboo however, only in certain areas with a warmer climate. The University of British Columbia is experimenting with creating high quality moister resistant bamboo panels to replace wood paneling. This is done by combining a mixture of wood and bamboo on different angles, this technique has more strength and water resistance. Bamboo is difficult to work with as a building product because the size, shape and density vary significantly. Bamboo is not appropriate for high-rise construction because of the lack of internal strength (University of British Columbia, 2014). In summary, Bamboo can be an effective building tool for small scale development, however, more research needs to be done to be implemented effectively in Canada.

3.3 Factory assembled / Prefabricated Housing

Factory assembled housing, otherwise known as prefabricated housing, is a process where buildings are constructed off-site, typically in a factory or warehouse, then transported to their permanent location. This can be done in stages or entirely built off-site depending on the project. This technique is gaining popularity in Canada. It can decrease the amount of building trades required on-site at one time and improve worker safety. It is also faster to construct and easier to maneuver on smaller sites. It can also cut down on unwanted construction by-products such as noise and dust. It is more energy efficient and can reduce construction cost by 25% and timelines by 50% (Kalinowski, 2019). There are significant cost savings for developers in building prefabricated housing however, the cost savings are not guaranteed to be transferred onto the residence.

3.4 Upgrades to Existing Rental Stock

Upgrades to existing rental stock provide better quality rental housing for residents and can increase supply by maintaining existing rental buildings. Policies have been implemented in Toronto to upgrade towers to make them more energy efficient and less wasteful. However, through this process landlords can evict tenants while significant repairs are taking place. If the tenant is evicted the landlord can then charge more for rent because it is no longer under rent control. Thus, better quality rental housing is created but the costs incurred from the maintenance can be passed onto the renter and could even result in eviction.

3.5 Vertical Family - Large Unit Construction

A large unit is considered to be three plus bedrooms. New construction of large units is uncommon in Toronto, as it is more profitable for developers to build 1 – 2 bedroom units. In Toronto new buildings consist of 80% single and double rooms and less than 10% have more than three bedrooms (Kirk, 2017). Families are getting pushed out of the downtown core because of the rising cost of single-family detached homes in low-density areas. More construction of large units is needed in order to accommodate families within the downtown core. To save on space buildings are constructed with joint amenities such as childcare facilities and storage, specifically for strollers to meet family needs. Balconies are combined so that there are communal outdoor spaces for children to play. Vertical family living is more cost effective for families wanting to live downtown as opposed to single detached housing (Kirk, 2017). Developers do not often build large unit sizes because they are not as profitable as one-bedrooms, however, policy could mandate large unit construction in new builds effectively.

Alternative Housing Method	**Key Housing Sector**	**Target Demographic**	**Barriers**
Construction Methods and Technologies			
3.1 Wood Frame	All	Everyone	New building technique – cost savings aren't yet realized
3.2 Bamboo Construction	All	Everyone	New building technique – more research needs to be done
3.3 Factory assembled / prefabricated	All	Everyone	None
3.4 Upgrades to existing rental	All	Rental market	Often relies on government policies and programs
3.5 Vertical family	Private / Public	Families	Not as profit-generating as small luxury condominiums

4. Policy Models

4.1 Vacancy Controls

A speculative vacancy tax is a tax targeting foreign and domestic speculators who own property as an investment and leave the property vacant. This curbs the commodification of housing as it makes it less desirable for investors to buy into the real-estate market and keep units vacant. It incentivizes them to turn their investments into a rental property which increases rental supply without the construction of new buildings (Province of British Columbia, n.d.). It turns empty homes into places for people to live. The tax revenues from a vacancy tax can then be put back into affordable housing.

4.2 Rent Controls

Rent control directly affects the affordability of a unit by limiting the amount that a landlord can increase rent. Rent controls are already in place in Toronto although under threat from the current provincial government. The downsides of rent control are that it discourages developers to build new rental properties because it is less profitable than a condominium model, and the return on investment is longer. Additionally, arguments made against rent control are that it encourages landlords to sell their existing rental units to receive the highest price upfront. However, it is a simple and effective policy tool to ensure that rents are not increasing with the market value.

4.3 Mixed-income housing

Affordable housing providers are constructing buildings to include both affordable units and market units. Market units help offset the cost of the creation and maintenance of the affordable units, and is attractive when seeking investors. The downside of this model is that the market units take up space in what could be an affordable housing building, and tensions can arise between market tenants and affordable housing tenants.

4.4 Inclusionary Zoning

Inclusionary zoning, is a policy tool to mandate that all new developments include a certain portion of affordable housing, (see Chapter 1 of this Major Research Project for more information on inclusionary zoning). This number is either a percentage of the total units, or a percentage of the total square footage/meterage in a new development. There is a debate on the effectiveness of inclusionary zoning and whether it can actually provide affordable housing. The central contentious piece around inclusionary zoning is that if developers are mandated to provide affordable ownership units, they will pass the loss in revenue onto the consumers of the other market units in the building. Rusk (2008) states that there is no reliable research proving inclusionary zoning does, in fact, increase housing prices. He states that if there has been an increase in housing prices from the studies he's conducted, they are very minor (2-3%) and could be a direct result of improper inclusionary zoning legislation (Rusk, 2008, p.5). Another debate surrounding inclusionary zoning is whether it will reduce the supply of housing because it disincentives developers to build new housing projects due to a reduction of profit margins. In the studies conducted across the United States post inclusionary zoning implementation, there was an increase of 3-7% of new units within the new housing stock (Rusk, 2008, p.6). In summary, it is not clear if inclusionary zoning does increase the housing costs outside of the affordable housing units provided by the legislation. Inclusionary zoning is a step in the right direction, however, the impacts on the affordable housing market are minor.

4.5 Density Bonusing

Density bonusing already exists in Toronto and has been somewhat effective in providing affordable housing, it is Section 37 of the Ontario Planning Act (See Chapter 1 in this Major Research Project for more information on Section 37). It provides developers with an opportunity to exchange increased density with additional funding to provide community improvements. Municipal zoning by-laws outline the height and density limits of developments throughout the city. Section 37 states that if a development exceeds the bylaw's height and density requirements, developers can approach city councillors to propose financial compensation or services. These resources are then pooled for the creation of a community benefit for the ward in which height or density bylaws are exceeded. Community benefits range from affordable housing to public art, park improvements, streetscape improvements etc.. Although Section 37 can be an effective tool in providing affordable housing it is often underutilized because the councillors tend to put money into visible community improvements that directly benefit the existing constituents. A report published in 2013 outlines that less than 6% of all Section 37 funding was allocated towards affordable housing in Toronto (Moore, 2013, p.5). As the City of Toronto expands Section 37 can be a useful tool in providing affordable housing.

4.6 Voucher System

The voucher system is popular in the United States, this system is designed to provide individual subsidies to low-income people living in market units to offset the cost of housing. The subsidy is often given directly to the landlord and covers a portion of the tenant's rent. This mechanism provides affordable housing to those in need. It relies on the market to supply the unit, and the public sector to provide the funding. Problems with this model are that landlords are often reluctant to participate in voucher system programs because of stigmas associated with low-income tenants.

Alternative Housing Method	Key Housing Sector	Target Demographic	Barriers
Policy Models			
4.1 Vacancy Controls	All	Rental market	Not favourable amongst wealthy homebuyers
4.2 Rent Controls	Public / Private	Rental market	Can disincentives private market to construct new rental
4.3 Mixed-Income Housing	All	Everyone	Market spaces dominate affordable housing units. Tension between tenants
4.4 Inclusionary Zoning	All	Renters	Costs are transferred onto homebuyers
4.5 Density Bonusing	All	Everyone	Toronto's system does not often result in affordable housing.
4.6 Voucher System	All	Low-income renters	Landlords can be reluctant to participate in the program

5. Financing Mechanisms

5.1 Social Impact Bonds

Social impact bonds are an emerging private-public partnership tool. Social impact bonds occur when a private investor finances a service or building, and then is reimbursed when the service or building is complete. It is a partnership between the private sector, non-profits and public sector. The capital is invested by the private sector, the non-profit runs a service or program that provides a social benefit, and then the public sector reimburses the private sector when a previously agreed upon set of criteria are met (Province of Ontario, 2017). The model benefits the private sector because they are able to invest capital, and if conditions are met they get a steady rate of return from a trusted source, the government. The model benefits non-profits because capital and financing are provided. Lastly, it benefits the public sector because services are provided and funding is only given once requirements are complete.

5.2 Development Charge Rebates

Development charge rebates are rebates that are given to developers who construct affordable housing, typically rental units. In Ontario a development charge rebate program was introduced through Ontario Fair Housing Plan in 2017. Development charges are fees which occur during construction, it is a revenue generating tool for municipalities and is intended to cover the costs that are associated with new development such as sewers, increased emergency services, schools, etc.. This program provides developers with rebates on their development charges in exchange, the developer must provide rental units below 175% of the average market rent. The municipalities have the option to lower this requirement based on local circumstances and or housing policies (City of Toronto, 2017). Development charge rebates are an effective tool to incentivise developers to construct more affordable rental, and or, market rental units.

5.3 Government Loan Programs

Government loan programs can range from providing government loans to the individual homebuyer, to providing loans to large corporations, in order to provide more affordable housing. Canada has had a history of providing low-interest mortgage rates for an extended period of time in order to incentivize the private sector to build affordable housing. Additionally, Canada has provided low-interest loans to the co-operative sector to provide affordable housing however, that has not been done in decades. In recent years, we have seen a drastic decline in loan programs targeted toward low-interest loans for large scale housing developments, however, there has been a modest reinvestment since the National Housing Strategy was released in late 2017.

5.4 Community Land Trusts

A community land trust occurs when a non-profit organization acquires land, usually through donors. They then either bank the land to provide leverage for bank loans or use the land to construct community amenities, typically affordable housing units for those in need (Conaty, 2008). Although community land trusts are an effective way of providing affordable housing, they typically require significant funding sources, which limits their scope.

5.5 Land Value Capture

Land value capture enables communities or municipalities to recover the land value increases that are a direct result from public investment. The public investment projects are typically, public transit, new businesses, or cultural events. The increase in land values after such public improvements would then be taxed, the revenue generated from such taxation could then be funneled into providing more affordable housing within those areas (Boyle & Yan, 2018).

5.6 Non-Profit Housing Developers

Non-profit housing developers are appearing in major cities. The roles and systems change from organization to organization, but the basic approach is that the non-profit developer partners with a community agency or affordable housing provider to build new affordable housing. The non-profit developer offers experience in development and will sometimes upfront capital needed to get the project off of the ground. The non-profit developer will then typically leave the project once completed, and the community agency or affordable housing provider will operate the rental units. The non-profit developer will then recoup the capital initially invested as well as their development fees through the affordable rents and the mortgage from the project.

5.7 Equity Financing

Equity financing assists homebuyers in their initial down payments on their new home. The developer assists the homebuyer in providing a down payment through a second mortgage which translates into a low-down-payment requirement for the homebuyer (Options for Homes, n.d.). The monthly mortgage payments are lowered because of the initial investment by the developer. The developer then receives an equity portion in the unit which is then paid back on an agreed-upon payment cycle or returned to the developer with appreciation when the unit is sold (Burda, 2019). This model requires no government subsidy and is profitable for the developer and the homebuyer, however, the return on investment takes longer and thus these projects are more difficult when seeking investors.

Alternative Housing Method	**Key Housing Sector**	**Target Demographic**	**Barriers**
Financing Mechanisms			
5.1 Social Impact Bonds	All	Low income	Relies on government funding / political support
5.2 Development Charge Rebates	Public / Private	All	Relies on government funding / political support
5.3 Government Loan Programs	All	Homeowners	Relies on government funding / political support
5.4 Community Land Trusts	Public / Non-Profit	Low-income renters	Relies on government funding / political support
5.5 Land Value Capture	Public	Low-income renters	Relies on government policy and political support
5.6 Non-Profit Housing Developers	Non-Profit	Low-income renters or homebuyers	None

5.7 Equity Financing	All	Homebuyers (usually low-income)	Difficult to establish

This chapter provided an overview of alternative housing methods in order to open up the affordable housing imagination. There are so many innovative ways of providing affordable housing, I have just listed thirty, yet there are more which are undiscovered by myself, or still to be invented. Although many of these methods are impractical for actual implementation in Toronto, many are being used in our own backyards. This chapter provides a new lens on how to think about housing. Housing is not linear and there is no one right way to house people. Toronto has a very diverse population and thus, there must be diversity in housing. Additionally, many of these housing methods have the capacity to reduce housing costs, something Toronto desperately needs.

Chapter 3 – Exploring Alternative Housing Methods

This chapter dives deeper into four alternative housing methods: Infill housing, temporary modular housing, shared equity mortgage financing, and flexible housing. I chose to further examine these models because of the range of housing sectors involved, the diverse target demographic, the legislative applicability within Toronto, their effectiveness, and because most of the models are new technology, and/or are underutilized in Toronto's housing sector. As you can see in Figure 3 I chose to examine models that cross over all housing sectors (private, public, non-profit). Additionally, the target demographic varies across all selected alternative housing methods, diversity in housing is important to meet the needs of all residents. All of the methods can be implemented within Toronto's legislative parameters, so no policies would need to be created or altered to implement each housing method. All the models are underutilized within Toronto, either because it is new technology or not enough funding has been acquired to implement the models on a large scale. Lastly, I believe all the methods are scalable and if implemented correctly could be very effective in providing affordable housing to Torontonians. I seek to bring light to these models and examine: the target demographic, strengths and weaknesses, a case study, the ideal location, the legislative applicability, why it is underutilized, and the incentives for implementation.

Alternative Housing Method	**Housing Sector**	**Target Demographic**	**Barriers**
Infill Housing	Private	Rental market and/or homeowners	Does not provide deep affordability
Temporary Modular Housing	Public	People experiencing homelessness	Relies on government funding
Shared Equity Mortgage	Non-Profit and or Public	Homebuyers (usually low-income)	Difficult to establish
Flexible Housing	Private	Homebuyers (usually low-income) and/or families	Difficult to find investors

Figure 3 summary of 4 alternative housing methods

Infill Housing

What is the housing intervention?

Infill Housing is a housing model that increases the supply of housing while maintaining the pre-existing city fabric through renovations, additions and or redevelopments SvN, 2019). The housing is often constructed within zoning-by-law and avenue guideline legislation. Infill housing includes additions or extensions to existing houses, secondary suites and laneway housing. Infill could also include the demolition of a large single family house and the creation of two additional houses on the same lot. It also includes the demolition of one or more single-family houses to create a row of townhouses. In a typical neighbourhood increasing the maximum building height from 3-4 stories can increase average density by up to 35% (Van Nostrand, J., Bresler, L., Scrogie, B., Pitre, E., & Davies, Q. J. 2019). Infill housing can add more density which in theory creates more supply which makes housing more affordable.

Figure 4: Intensification within Neighbourhoods (SvN, 2019).

There are various forms of infill housing. In 2015 the GTA Housing Action Lab commissioned The Ontario Home Builders' Association and the Pembina Institute to write two research papers on infill housing and intensifying existing communities. They categorized infill housing into the following categories: attached secondary suites, detached secondary suites, infill townhouses, and mid-rise housing.

Figure 5: Secondary Suites (Vijayakumar and Collins-Williams, 2015, pg.5).

Attached secondary suites are essentially basement or attic apartments (See Figure 5). They include kitchens, bathrooms and separate sleeping areas. They use the main houses existing services such as gas, water and electricity. It is common for these units to have shared facilities such as laundry, stairwells, and entranceways. Secondary suites rents are typically lower than a common apartment unit and provides additional income for the homeowner (Vijayakumar and Collins-Williams, 2015, pg.5-6).

Detached secondary suites otherwise known as laneway houses, garage suites, and or "granny flats" (See Figure 6) are small one or two storey structures that are conversions from garages or sheds or are new builds. They are separate structures and often will extend services such as gas, water, and electricity from the main house. They have their own entrance and may share a backyard with the original house. Laneway houses are typically rented out, or facilitate intergenerational living. In Toronto Laneway houses may be severed and sold as "strata" properties (Vijayakumar and Collins-Williams, 2015, pg.7-8). Garden suites are similar to laneway suites but may share facilities like a yard or laundry. These units are usually designed for intergenerational living and are otherwise known as "granny flats". Garage suites like laneway houses and granny flats are built on top of existing garages. Secondary suites provide income relief for homeowners and supply the market with additional rental housing.

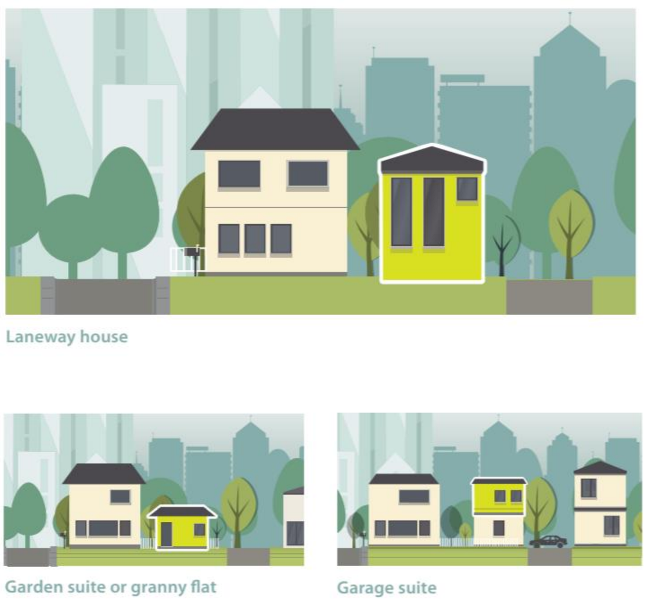

Figure 6: Secondary Suites (Vijayakumar and Collins-Williams, 2015, pg.8)

Infill Townhouses are townhouses that are similar to conventional detached, or semi-detached housing. They are constructed in areas that are underutilized or awkwardly shaped, that would not facilitate higher density development. They have their own address and are often stacked in order to produce more units. Infill townhouses are an effective way of increasing density while maintaining neighbourhood structure.

Figure 7: Infill Townhouses (Vijayakumar and Collins-Williams, 2015, pg.12)

Mid-Rise buildings range from 5 – 11 stories high. They are most common along avenues, main streets and transit corridors. They can be either rental or condominium properties and often have larger units to accommodate the family market. They often have commercial properties at grade and center design around the "human scale" with having large step backs in order to mitigate shadows and focus the design around the pedestrian experience (Burda and Collins-Williams, 2015).

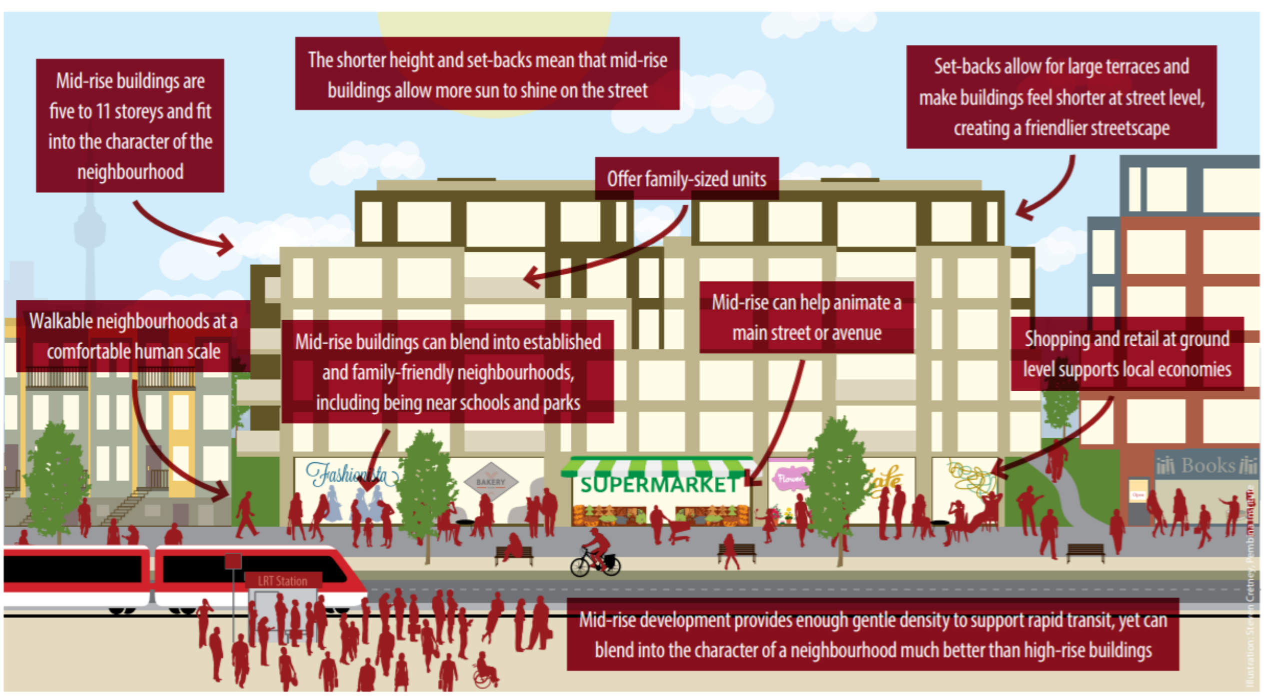

Figure 8: Mid-Rise Intensification (Burda and Collins-Williams, 2015, pg. 2).

Target Demographic

There is no common demographic for infill housing, however, the buildings usually do not provide deep affordability. Infill housing is a good way to increase rental properties, which in theory will help mitigate the supply vs. demand and keep rents stagnant. Secondary suites are beneficial for intergenerational living. They have the potential to provide secondary units for family members while maintaining privacy and semi-independence (Race et al, pg. 8). Homeownership is common in the infill townhouse, and mid-rise housing model. Infill housing is an effective way of boosting this supply while maintaining the neighbourhood aesthetic.

Strengths of the model

There are many strengths associated with infill housing, infill housing intensifies downtown areas without major development projects. This helps in maintaining the existing atheistic of neighbourhoods while providing additional housing options. Secondary suites also do not require major construction and can be built off-site and then assembled significantly faster. Laneway suites also help with the look and safety of laneways (Race, et al., 2017, pg. 8)

Intensification within the downtown core reduces car dependence and increases transit use, increased transit use results in better quality and quantity infrastructure "the more people living in transit-accessible neighbourhoods provide more justification for good local transit services" (Vijayakumar and Collins-Williams, 2015, pg. 2). Intensification can also result in thriving local markets. Businesses in residential areas benefit from increased customers. Intensification is also more environmentally sustainable, it is an alternative to sprawl which consumes valuable farmland.

Downtown neighbourhoods are losing population because of shrinking households and high housing prices keep out young families (Vijayakumar and Collins-Williams, 2015, pg. 3). Secondary suites can also provide additional space while maintaining privacy for family members. Infill housing can assist with providing the homeowner with additional financial support in terms of rental income or by selling off portions of their property. Secondary suites can help the homeowner with high mortgage payments.

Infill townhouses are similarly designed to detached and semi-detached houses. They have front facing streets and outdoor space with ground floor access. The strengths of infill townhouses are that people can live close to amenities or transit and it increases housing supply without altering neighbourhood characteristics.

Mid-rise buildings can be accommodated on many avenues within Toronto. Mid-rise apartments provide the opportunity for homeownership or rental. The specific strengths of mid-rise development are that it provides a higher density of people while still maintaining the human scale. They often also offer more family size units as they are often located in neighbourhoods that have significant amenities for families (Burda and Collins-Williams, 2015).

Weaknesses of the model

Weaknesses with infill development, is that local residents are averse to development throughout established neighbourhoods. Residents are concerned about parking and congestion associated with increased population. Vijayakumar and Collins-Williams (2015, pg.6) suggest that these concerns can be mitigated with increased on-street parking permits, car sharing and adjusting local parking standards.

Laneway houses have received significant push back from the residence because of privacy concerns as these structures tend to be closer to neighbouring properties, compared to typical houses. Laneway suites have also been prohibited in many municipalities across Ontario. Laneways are not often serviced with water, electricity and gas so services need to be connected through the existing house (Race, et al, 2017). These costs are then passed onto the homebuyer or developer. Additionally, the Ontario Building Code requires a certain road width for fronting properties requiring garbage and emergency vehicles, laneways often do not meet the minimum road width to accommodate these services (Vijayakumar and Collins-Williams, 2015).

Infill townhouses have fewer barriers because they are new builds that are served through existing or newly built streets. However, there is more opposition from the neighbouring residence that are concerned that increased homes will alter the character of the neighbourhood (Vijayakumar and Collins-Williams, 2015).

Existing Infill Housing Provider

R-Haus is a Toronto based architecture and construction management firm that centers around providing infill housing. They work alongside existing property owners to design and construct two forms of housing: mid-rise buildings along avenues, and laneway suites. The V6 model (See Figure 9) is a 6 storey townhouse made with a timber frame that is designed to meet the City of Toronto Avenue Guidelines. There is an elevator which services every level of the home so it meets accessibility standards. The V6 model is customizable but the structure is consistent from project to project which reduces design costs for the homeowner. The units are slab on grade, meaning there is no basement which can also be a cost-saving measure. Lastly, the units are built off-site and the models are then assembled on the on-site location, which takes approximately 4 months. Factory assembled housing cuts costs and construction time which is desirable for sounding neighbours.

Figure 9: R-Hauz,V6 Model (R-Hauz, n.d.)

Figure 10: R-Hauz V2 Model (R-Hauz, n.d.)

The second model R-Hauz offers is V2 (Figure 10), it is a prefabricated laneway suite designed to work within the new City of Toronto Laneway Housing Guidelines. They can be built over garages or as new builds. The structures are one or two stories and vary with need. They are customizable to accommodate wheelchair accessibility, and varying lot widths. Lastly, they are also factory made and on-site assembled in as little as a month.

Ideal location within the City (e.g. suburbs, inner-suburbs, downtown, waterfront, etc.)

The ideal location for infill housing is low-density urban areas. Infill housing can often be implemented within the existing legislative parameters while still protecting neighbourhood integrity. "Secondary suites help the province and municipalities reach their intensification goals while increasing the stock of affordable and rental housing through incremental density increases that are essentially "invisible" within established neighbourhoods" (Vijayakumar and Collins-Williams, 2015, pg.4).. It is difficult to build new in a well-established neighbourhood because of strict zoning regulations and neighbourhood push back. Infill housing is a simple and effective way of increasing the supply of both rental and ownership housing. Although not as common infill housing can be implemented in new communities. New Urbanist subdivisions often include servicing within laneways to allow for future laneway house expansion.

In the City of Toronto there are 250km of laneways, but only a certain portion of these laneways can accommodate laneway housing. This is due to an emergency vehicle, and garbage truck access (Race et al, 2017, pg. 14)

The ideal location for infill townhouses are lots with low density dilapidated buildings, brownfields or vacant lots. Infill townhouses are most common in non-residentially zoned areas because lots are bigger and can produce a larger number of townhomes. Awkwardly shaped parcels of land can accommodate infill townhouses as the building footprint is smaller than that of a mid or high rise building. Infill townhomes can also be built in well-established neighbourhood communities, specifically large lots that were once detached houses.

The ideal location for mid-rise buildings are avenues within the city, ideally close to transit routes.

Legislative applicability to Toronto

Across Ontario there are municipal regulations which limit secondary suites. In 2012 the Government of Ontario passed the Strong Communities Through Affordable Housing Act, this required municipalities to allow secondary suites. However, municipal policies across Ontario are inconsistent and many still prohibit secondary suites (Vijayakumar and Collins-Williams, 2015, pg.5). For example, Markham and Mississauga specifically state that secondary dwellings must be within the main house and cannot be built in a separate structure.

The GTA Housing Action Lab report recommends that guidelines should be created in order to simplify and reduce costs for homeowners and developers in the construction of new laneway housing. The report states that the provincial government should allow for as-of-right secondary suites across Toronto as part of the Ontario Building Code. They also recommended that the City of Toronto should become more flexible with the zoning by-law requirements, specifically in regards to height, density and setbacks (Vijayakumar and Collins-Williams, 2015, pg.14). Lastly, they recommend to allow laneway housing in laneways that are smaller, they ask the emergency services to better understand how to "service smaller spaces" in order to accommodate this built form.

There are rules and regulations that constrain the development of mid-rise compared to other building options. The GTA Housing Action Lab report outlines that allowing wood frame construction can help increase the number of mid-rises. In 2009 the Government of British Columbia changed their building code to allow wood frame construction, this resulted in more the 250 new mid-rise buildings (Burda and Collins-Williams 2015).

The GTA Housing Action Lab report recommends the following interventions to promote mid-rise development. Require minimum density targets along avenues, increase transit options along avenues, reduce parking requirements, create a development permit system, require commercial at grade before construction, and have more equitable parkland dedication. Currently the city of Toronto zoning by-laws hinder development along avenues and corridors because the legislation is outdated. However, the Growth Plan outlines increased intensification along avenues and transit routes (Burda and Collins-Williams, 2015). The GTA Housing Action Lab report recommends that the zoning meet the provincial policy and regulations. They also recommend providing better quality and quantity transit options along avenues to promote mid-rise development. The report recommends decreasing parking requirements, specifically underground parking. It costs $30,000.00 to construct an underground parking spot and those costs get transferred onto the homebuyer (Burda and Collins-Williams, 2015, pg. 3). Additionally maintenance of parking garages such as security, lighting and cleaning costs gets passed onto the homebuyer. They recommend decreasing the length of the development approval process by pre-approving mid-rise buildings along avenues. The planning process in Toronto is on a case-by-case basis and areas are commonly "underzoned" so development is stagnated, this results in longer development approval times which is more costly, and those costs get passed onto the homebuyers. They recommend implementing a Development Permit System (DPS), which puts blanket permits along avenues and corridors to allow for faster growth (Burda and Collins-Williams, 2015, pg. 3). This Major Project recommends that the City of Toronto require commercial at grade before mid-rise construction begins. This will help maintain the characteristics of the neighbourhood and "add to a vibrant sidewalk culture" (Burda and Collins-Williams, 2015, pg. 11). Lastly, the report calls for more equitable parkland dedication. Parkland dedication penalizes the developer of high-rise and mid-rise construction more than low-rise construction because the calculation is based on a number of residences as opposed to density. These costs again, get transferred onto the homebuyer and decrease the affordability of the mid-rise developments.

Why has it not been done?

Infill housing is becoming increasingly popular in Toronto. Land values within Toronto's downtown are becoming more and more expensive and thus developers are looking to develop in smaller and more restricted areas. This results in more townhouse infill developments because they are easily configured to fit into awkward lot sizes. Laneway housing is beginning to see a significant uptick in the market with the emergence of new laneway housing regulations, making secondary suites possible.

Mid-rise housing is becoming more popular but developers often opt to construct high-rise buildings before mid-rise. The planning development process costs about the same for high-rise and mid-rise on the same piece of land so private sector developers will choose to build high-rises because they will have a higher return on investment due to more unit creation. (Burda and Collins-Williams, 2015, pg. 3).

What are the incentives for the for-profit housing provider?

Incentives for secondary units are that it provides a source of revenue for a homebuyer which can assist with costly mortgage payments. There are no political, or policy incentives for developers to construct mid-rise buildings as opposed to high-rise buildings.

Temporary Modular Housing

What is the housing intervention

This housing intervention is a combination of modular, container, infill, temporary and factory assembled/ prefabricated housing (See Chapter 2). Temporary modular housing is a system where units are constructed in an off-site location, often a factory, and then assembled on-site. The sites are typically those in major cities that are underutilized or are vacant. Municipalities have been implementing temporary modular housing on lots that are awaiting development approvals. They are designed to provide temporary housing relief, and are commonly fully furnished and serviced through municipal waste and water systems. They are portable and often compact and can be relocated easily.

Target Demographic

The target demographic for this housing intervention are those experiencing homelessness and seeking emergency shelter. However, the temporary modular housing model has been used to create temporary housing for people during disaster relief efforts, or those that are relocated for a short period of time such as during major building repairs (Astel, n.d.). For the purpose of this section I will be discussing temporary modular housing in the context of providing emergency shelter support. This housing method is ideal for this target demographic because of the ability to easily incorporate additional services within the building's structure. Non-profits will partner with the public sector housing provider to provide services that meet the needs of people experiencing homelessness on-site.

Strengths of the model

The units can be constructed much more quickly than permanent housing. Units can be constructed and assembled in as little as three months (City of Vancouver, 2018). Additionally, construction costs are low because of repetitive unit sizes and layouts, there is no need for multiple design and permit costs.

Units are often placed in underutilized areas of the city where development applications are under review, or there is unused city land. The units are portable and can be easily relocated and reconfigured to different sites around the city (City of Vancouver, 2018).

A major strength of this model is that it provides immediate relief for those experiencing homelessness, and can be easily paired with social supports. If paired with social supports this model can create a sense of community and reintegrates vacant lands back into neighbourhoods.

This model can also be easily implemented in areas with high homeless population which limits displacement of people when getting off of the streets. This is beneficial because people experiencing homelessness can remain in their communities and connected to pre-established supports and social networks. Lastly, because this model is often paired with some sort of social support people experiencing homelessness do not often face isolation which can occur when someone is permanently housed. They are close to their existing social networks and involved in the temporary modular housing community.

The units are built offsite and then assembled on-site, this means that the construction impacts are limited. Neighbours do not experience increased traffic, dust or noise for long periods of time which helps with resident push back in the sounding area of the development .

Weaknesses of the model

The major weakness of the model is that it relies on government funding for the implementation, construction, and services. In other words, the model is reliant on political support which can be inconsistent. This can hinder the scope and limit the amount of units which are created.

Another weakness of the model is that it is temporary in nature, meaning it does not provide permanent housing. It gets people experiencing homelessness off of the streets but it is more of an interim solution and does not create long-term housing options for those most in need. This is because if the land in which the temporary modular housing sells, or development applications are approved and it is ready for construction, these temporary modular houses can be relocated. Relocation especially for a vulnerable population such as those experiencing homelessness can have negative lasting impacts.

The last weakness of the model is that underutilized land is difficult to acquire in major cities, especially in areas with high land values. Governments may be hesitant to surrender land for the purpose of temporary modular housing because relocation of these tenants may be difficult and push back could tie the land up for longer then anticipated.

Existing Temporary Modular Housing Provider

The Government of British Columbia announced in 2017, 66 million dollars towards 600 units of temporary modular housing for the City of Vancouver. Since the announcement the government has slightly overshot its target and has provided 606 units. Units are typically 320 square feet bachelor apartments and have a kitchenette, bathroom and sleeping/ living areas, see Figure 11 for a picture of an existing unit (City of Vancouver, 2018).

Figure 11: City of Vancouver Temporary Modular Housing Interior Image (Vancouver Courier, 2018)

The units are placed on lands that are underutilized municipal property. Or lands that are going through the development approval process and are sitting vacant awaiting redevelopment.

Residence are given additional supports such as life skills training, social services, and health services. Residents are also given two meals a day and are connected within the broader community. They have the opportunity to volunteer, get involved in the surrounding community and engage in social activities and events. It is a well-rounded approach to rebuilding their lives.

Ideal location within the City (e.g. suburbs, inner-suburbs, downtown, waterfront, etc.)

Any property that is developable can be used for this model. The ideal locations for this model are lots within the city that are underutilized or vacant. Government-owned property that is waiting for development within the city is ideal. There have been discussions surrounding placing the units on private lands awaiting redevelopment and providing an incentive for the developer in exchange.

The most ideal location for this model are sites that are close to an existing homeless population. This allows clients to maintain existing services and assists with a smoother transition from the streets to a semi-permanent home. Additionally, services and supports that are existing within the community can support the units on-site.

Legislative applicability to Toronto

This model can be used within existing legislative parameters. There is no additional policy and/or legislation required to implement temporary modular housing. However, municipal political support is important in order to cut approval times and gain community support.

Why has it not been done?

This model has not been done in Toronto because there is no government funding to support the creation of these units. The City of Toronto has allocated funding for emergency shelter projects but not emergency housing. No funding is anticipated in the near future given the current provincial political climate. However, the City of Toronto could reallocate funding to Temporary Modular Housing as opposed to Emergency Shelter projects, this would not cover the same amount of people experiencing homelessness as an emergency shelter would, but it provide an interim solution to Toronto’s shelter crisis.

What are the incentives for the for-profit housing provider?

As this is a government funded project there is no incentive for the for-profit sector to provide temporary modular housing. However, there are opportunities for partnership with the for-profit and public-sector housing sectors. As land often is tied up in lengthy approval processes, there is an opportunity to install the temporary modular homes on private land. Incentives such as development charge rebates, section 37 relief, and tax exemptions could be implemented by the city to encourage the for-profit sector to allow the structures on their lands while awaiting development approval.

Shared Equity Mortgage

What is the housing intervention

Shared Equity Mortgages, otherwise known as Equity Financing, assists homebuyers in their initial down payments on their new home. This is a new trend emerging in Canada where a non-profit organization or a government program assists the homebuyer in providing a down payment through a second mortgage which results in a low-down payment for the homebuyer (Options for Homes, n.d.). The non-profit or government then receives an equity portion in the unit which is then paid back on an agreed-upon payment cycle or returned to the developer with the unit appreciation when the unit is sold (Burda, 2019). The model can stand alone without government intervention, or, government funds can be used to provide the second mortgage. To implement this model initial capital is required for the construction and land costs, specifically for the first building. See Figure 12 for an example of the Shared Equity Mortgage Model.

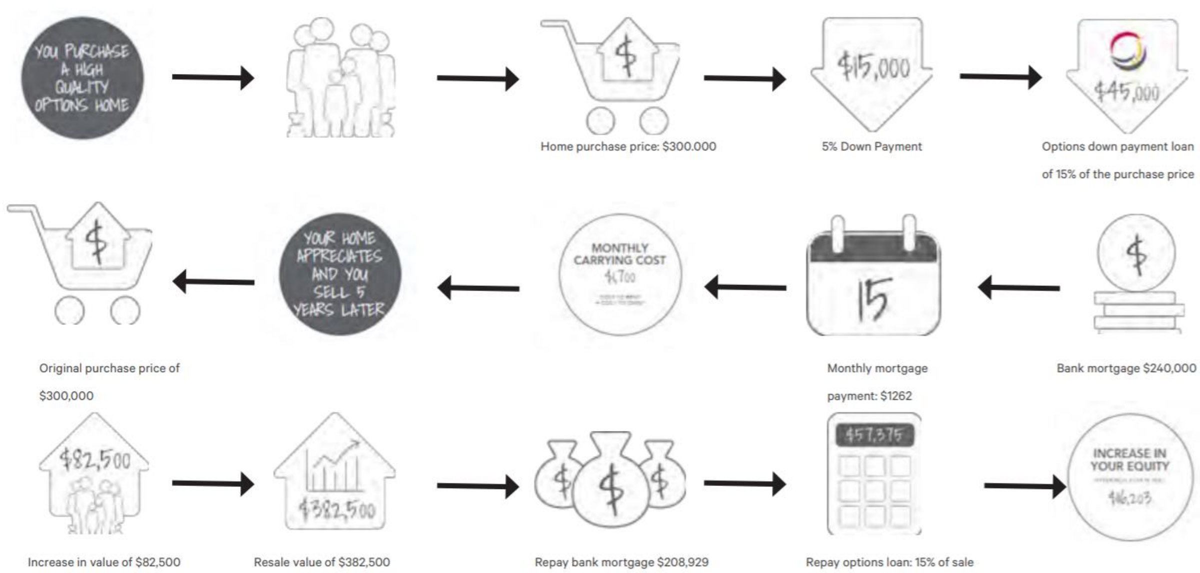

Figure 12: Shared Equity Mortgage Model (SvN, 2019)

Target Demographic

The target demographic for the Shared Equity Mortgage model ranges from first-time homebuyers, to downsizers, to families however there is no specific target demographic. This model is not appropriate for those needing deep affordability because the homebuyer must qualify for an initial mortgage, the second mortgage that this model delivers lowers the homebuyers required income but does not provide the whole cost of the mortgage.

Some non-profit programs limit who can participate in this program such as Habitat for Humanity. Habitat for Humanity only serves families under a certain income bracket. To qualify for this program they must be in need of better housing living in “poorly maintained, unhealthy or overcrowded housing; unaffordable rent; inaccessible housing for people living with disabilities; or have other shelter needs.” (Habitat for Humanity, 2019). Families that are accepted purchase their home and have a no down payment and an interest-free mortgage which payments are geared toward their income. They must also invest 500 volunteer hours into Habitat for Humanity (Habitat for Humanity, 2019).

Strengths of the model

Strengths of the Shared Equity Mortgage model are that once established it can be completely self-sustaining, it can be implemented anywhere and it is scalable. It can also function independently or in conjunction with government support.

The model is completely self-sustaining, as the company builds more buildings the capital pool increases. The homebuyer pays back the loans from the initial capital pool once they sell, refinance, or no longer use the unit as their permanent residence. The loan is paid back plus a percentage of the unit appreciation, this means that as long as new developments are created, there is a constant source of revenue from initial investment repayment and the unit appreciation, which is then profit for the capital pool. The money can then be reinvested into future developments guiding the purpose of the model's mission, to provide more affordable homeownership.

The model is scalable and can be implemented in most markets. It is more successful in middle markets where the value of the land is not so high that only wealthy homebuyers can secure an initial mortgage, and no so low that the percentage of unit appreciation is not profitable. Additionally, it does not need policy or legislation, or government funding. The most successful market for this model is similar to the ideal “profit based developer model”, where land costs are not very high but will rise once the development is complete. There are ideal markets for this model but ultimately can be used anywhere a profit based developer would build.

As mentioned above the model does not need any additional government funding, policy, or legislation but can work in conjunction with public funds. There are emerging programs where governments assist homebuyers by providing a funding subsidy based off of a percentage of the unit value in the form of a second mortgage. The government then receives the percentage of the value of the unit once the property is sold, or refinanced. Additionally, if governments provided non-profit housing developers with the initial capital investment to build the first building the model can snowball and expand to create more affordable housing options for homebuyers. The model can function independently but works well with government collaboration.

Weaknesses of the model

The weaknesses in the model are that it is reliant on the market, it cannot provide deep affordability without government subsidy, and that it needs to have an initial capital investment.

The model is reliant on the profit that it is generated through the resale of units. This means that if the market is not profitable the model cannot sustain itself independently. The more the housing costs increase the more profits are made on the units and the more money is put back into the capital funding. However, if the market becomes stagnant the profits on the units become less and there is less money going into the capital funding pool. This results in the inability to build more affordable units. The model depends on the markets ability to have high resale values in order to grow the initial capital to create more affordable units. If the market should crash the resale values would decrease and there would be no appreciation on the costs of the unit. This would result in no profit reinvested into the initial capital pool and the model would no longer be self-sustaining.

The model cannot provide deep affordability, it can reduce carrying costs for homeowners but they need to have a high enough income to retain a mortgage. As real estate values and land values appreciate so does the ability to serve a segment of the population. As the market increases the depth of affordability decreases.

Another weakness in the model is that there needs to be a significant initial capital investment to construct the first development. Once the initial capital investment is secure the model is self-sustaining. The initial capital can be generated through a multitude of funding’s sources such as government grants, philanthropists or investors. However, it is an unattractive investment opportunity because the return on investment is minimal and reliant on individual homebuyers reselling their units. The model cannot provide a significant return on investment because the profits from the units must be given back into the initial capital investment in order to fund new units. The more successful models are either established and have been around for years, or are created by initial government funding.

Existing Shared Equity Mortgage Provider

Options for Homes is a Toronto based non-profit housing developer providing more affordable homeownership. They have been operating for over 25 years without government funding (Options for Homes, 2019). The company partners with Delta, and their mission is to keep costs low in order to pass it to the homeowners through marketing and sales costs and payment support options.

Options for homes was established in the mid-90s and the first project was constructed on Mill Street in the distillery. Since establishment Options for Homes have built 14 condominiums, 3,024 units and supported 5,653 people through their model (Options for Homes, 2019).

Options for homes provide potential homeowners with up to 15% of the mortgage down payment in the form of a second mortgage. Once the homeowner sells the unit they return the initial Options for Homes down payment plus the appreciation value of their loan. For example, if a homeowner requires 15% mortgage down payment assistance, once the homeowner sells their unit they return 15% of the value of the unit to Options for Homes. In theory Options for Homes would receive their initial investment plus a portion of the appreciation on the unit. That money is then reinvested into the “Pay it Forward Fund” where more housing developments are created.

Options for Homes is open to anyone seeking a unit and will sell to people requiring no down payment assistance. They do not specify that the homebuyer must be low-income however, to receive down payment assistance of 15% the homebuyer must demonstrate financial need. The second mortgage does not require a monthly payment on interest or principal.

Options for Homes acts as a development consultant and development manager. They find, acquire finance and launch new developments. Once land and financing are established they create a co-operative made up of volunteers and board members, the co-operative then contracts Options for Homes to redevelop the land. Once the building is constructed a condominium corporation is formed and Options for Homes leaves the building.

The difference between a private developer and Options for Homes is that a private developer has a profit margin. In a private development the profit margin would be retained by the developer as profit Options for Homes funnels that money back into the initial capital investment and the "profit" is made available to homebuyers as part of the down payment assistance.

Options for Homes builds units larger then typical for-profit developers, however, the mix of 1, 2, and 3-bedroom units is similar to that of a typical for-profit housing developer.

Ideal location within the City (e.g. suburbs, inner-suburbs, downtown, waterfront, etc.)

The model works within the same framework as a typical for-profit housing developer however, is not ideal in areas with very high land values. The land value is directly related to the purchase value and thus the homebuyer's income must be higher in order to put down the down payment and sustain monthly payments for the first mortgage. Additionally, if the percentage of down payment assistance, provided by the non-profit developer, is too high it can hinder the creation of new units because the money is tied up in a single development.

The ideal locations for this model are areas where the equity pool can grow. For example, areas that are not yet established but once the development is complete land values will rise, in other words, gentrifying neighbourhoods.

Legislative applicability to Toronto

There is no legislation that either allows or prohibits this model. The model can operate within the existing development framework. There are government programs which assist in the implementation of the Shared Equity Mortgage. The Canadian Federal government announced in the 2019 budget the First-Time Home Buyer Incentive, which is a Shared Equity Model. They will invest 1.25 Billion over 3 years beginning September 2019 and will be administered through Canada Mortgage and Housing Corporation (CMHC). The federal government would assist first-time homebuyers with a 10% interest-free loan in order to keep monthly payments down by providing a smaller mortgage. There are a number of limitations including the mortgage is only available if it is insured by CMHC. The Homebuyer must provide the first down payment of at least 5% and have a household income below $120,000 annually. Additionally, the most expensive home that can be bought under the program is $600,000 because of mortgage caps based off of homebuyers income (Alini, 2019). It is unclear if the Federal government will require the homebuyer to simply repay the initial down payment, or, if they will require a share of the sold price. The difference between this model and Options for Homes, is that the Canadian Federal government is only acting as a financier, not a developer, in other words the federal government is not constructing new buildings only working within the existing market.

Why has it not been done?

For the private sector it is difficult to implement this model because they are not willing to have investor capital tied up for many years. As mentioned they only receive the initial investment once the homebuyer sells, refinances, or it is no longer their primary residence. It is difficult for the non-profit sector because they need to acquire the initial capital for the first buildings in order to sustain the model to create more housing developments.

What are the incentives for the for-profit housing provider?

There are little incentives for the for-profit housing sector to develop this model as there are no financial gains in providing more affordable housing. For a non-profit affordable housing developer, it is their mission and they do not need further incentives.

Flexible Housing

What is the housing intervention

The flexible housing model is often paired with the naked house model. For the purposes of this section I will be discussing the flexible housing and the naked housing model in tandem.

Flexible housing, also known as parcel housing and modular housing, is an affordable housing design technique where a developer provides homebuyers with the option to buy units based on their desired size. Homebuyers have the option of buying single or multiple parcels to meet their needs. The buildings are mid-rise or high-rise shells, built similarly to an office building, that can be adjusted based on the needs of the homebuyers. This design technique is effective for a changing family structure. As a family grows the homebuyer can purchase adjacent parcels to expand their home, and if the family shrinks they can sell off parcels of their home. This model is also very effective in providing secondary suites because a homeowner can buy a parcel and rent for supplementary income.

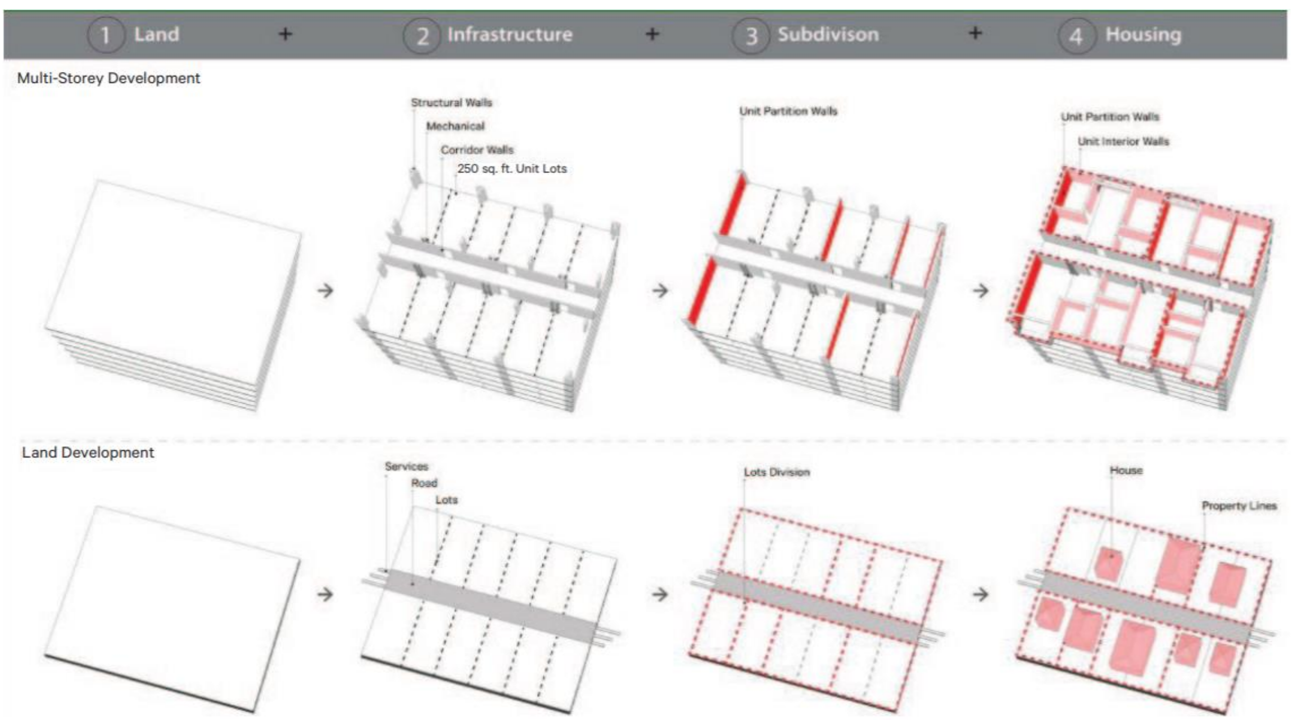

Figure 13: Flexible Housing Model (SvN, 2018, pg.29) NOTE: Find better resolution photo

The naked house model is a technique designed so that new units are constructed to meet the minimum building code with a sink, toilet and proper servicing outputs. The homeowner can then construct their home independently. The new buildings also come with little additional building amenities to keep condominium costs down. Because of the simplicity of the units, naked houses can often be constructed in factory-made housing modules which cut additional construction costs, Units are typically 20% - 40% below market cost (Naked House, n.d.). However, homebuyers need to consider additional costs for their independent construction.

Target Demographic

The target demographic of this model is anyone seeking affordable housing. The units are flexible and can be easily adapted, this form of housing can accommodate a large family or a single bachelor depending on need. Those with low income seeking homeownership are accommodated within this model, especially when paired with the Shared Equity Mortgage. The units are designed so that homebuyers can purchase or sell adjacent modules depending on need. For example, if a family is growing they may purchase a module adjacent to their unit to accommodate more bedroom space. In the same way, if a family shrinks they may sell or rent a module adjacent to their unit to gain additional income. Lastly, the model is designed so that people can have additional rental income. The homebuyer can purchase two modules, renovate one of the modules and use it as income to support the renovations on their other live-in module.

Strengths of the model

This model does not require residents to move when their family structure changes. Homebuyers have the choice of the degree of completion within the unit so that they can renovate to meet their exact needs on a budget. They can choose their ideal ownership model: purchase with family, friends, or as a co-housing group. There is an option for affordable rental income for the homebuyer, and has the capacity to increase rental units across the city. Lastly, people have the option to have live-work units, some properties are zoned to accommodate live-work units accessing the street which allows residents to operate a business in their home.

Weaknesses of the model

The major weakness of this model is that it is not well recognized by the industry. Investors are hesitant to contribute their capital towards projects which have not been completed. Additionally, if paired with the Shared Equity Mortgage model, it is not as attractive to a development investor because the return on investment is reliant on the resale value, which often has a high turn around time.

Existing Flexible Housing Provider

JvN/d is a “for profit, social enterprise company”, otherwise known as Parcel Developments. Founded by John van Nostrand, JvN/d has developed a model for providing flexible affordable housing. It is a development, architecture and finance firm that aims at providing affordable flexible housing to those with low incomes.

Within the JvN/d model homebuyers choose the size and layout of their unit, the degree of completion, the variety of ownership. They have the option to sublet a part of their unit, grow or shrink their unit with changing family structure, and have an option to live and work within the units (see Figure 14).

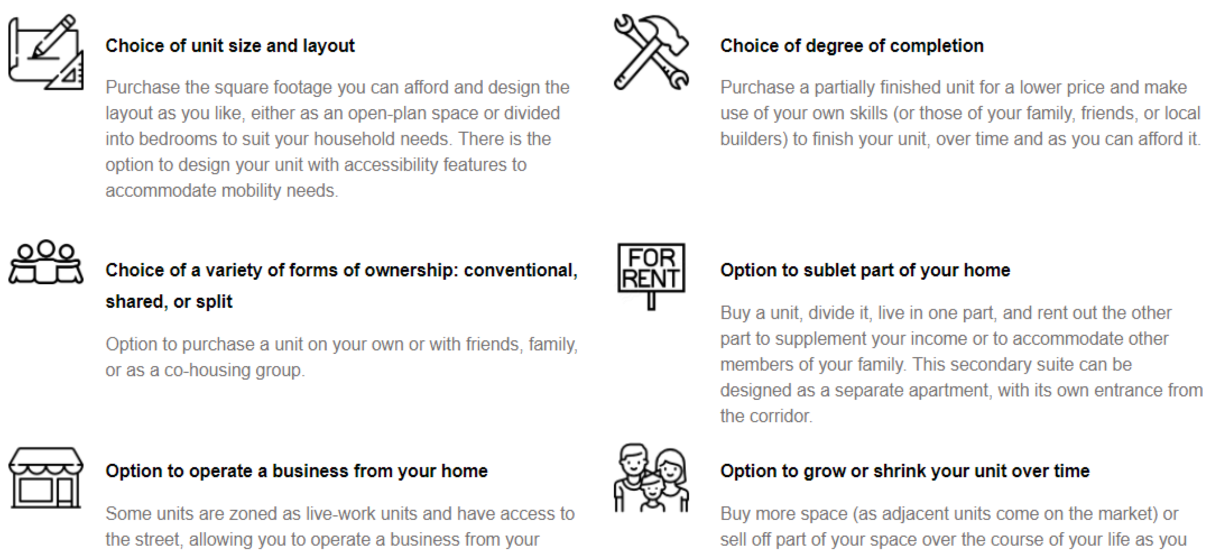

Figure 14: Flexible Housing Financing (JvN/d, 2019)

The first building of this kind is being constructed in Hamilton Ontario, with a second under the development review process. Each floor is divided into separate lots, the building provides each lot with access to mechanical and electrical services such as: sanitation, electricity, water, heating, air conditioning, telecommunications, etc.. Homebuyer can buy modules in either 225 square feet, or 450 square foot parcels (JvN/d, 2019). They can purchase any amalgamation of these models they wish depending on need and availability. The homebuyer can also decide what extent they would like their units to be furnished. Options range from bare minimum building code requirements to fully furnished lock and key apartments. As the units are so flexible, a homebuyer making as little as $25,000 a year can purchase a module (JvN/d, 2019).

Parcel developments, also known as JvN/d participates in shared equity mortgage programs. (See shared equity mortgage section of this report). They will put up to 15% of the down payment for a homebuyer who demonstrates “sufficient need” (JvN/d, 2019). In exchange, the buyer must rent a portion of the unit below the Canadian Mortgage and Housing Affordability (CMHC) affordability guidelines. In this model, the buyer can afford a larger unit while receiving a rental income and increases the affordable rental stock within the City. The homebuyer increases the amount of equity in the unit and pays less interest on their mortgage. Lastly, their debt to income ratio is lowered which means less risk. JvN/d benefits by receiving profits from the home appreciation in the unit upon resale.

Ideal location within the City (e.g. suburbs, inner-suburbs, downtown, waterfront, etc.)

This model can be implemented anywhere that supports mid to high-rise density.

Legislative applicability to Toronto

The model can function within the existing legislative parameters for development. It is subject to the same development guidelines as any new construction.

Why has it not been done?

Flexible housing is a for-profit model that is very new to Canada. The only development that is under construction is JvN/d’s mid-rise building in Hamilton and it includes a Shared Equity Mortgage program. Development investors are hesitant to invest in new models because they want as low risk as possible. Additionally, developments with Shared Equity Mortgages have a lower turn around time on their initial investments. Therefore, developers will choose to invest their capital in markets that are more secure with a faster investment turn around time.

What are the incentives for the for-profit housing provider?

There are no incentives for the for-profit housing sector to provide flexible housing. JvN/d is a for-profit development company, however, it has a social-economic aspect which seeks to provide affordable housing to low-income homebuyers. The major incentive for a development firm such as JvN/d is social responsibility and the ability to tap into the low-income housing market. There are very little options for the low-income housing sector and thus very little competition within this market.

Conclusion

I chose to examine infill housing, temporary modular housing, shared equity mortgage financing, and flexible housing, because combined they address all housing sectors, they cover a diverse target demographic, they all work within Toronto's legislative parameters, they are underutilized, and I believe they can be effective in providing affordable housing to Torontonians.

Key Recommendations

- Infill housing
    - Implementation of a public program to educate homeowners on the benefits of adding secondary suites or intensifying their properties.
    - More companies like R-Hauz reach out to homeowners to provide cost-benefits for adding additional density and assisting with the process of creating additional density.
    - Fewer regulations on houses built off of small laneways. Emergency services better understand how to service smaller spaces.
- Temporary Modular Housing
    - The public sector step up in providing funding for temporary modular housing.
    - The City of Toronto and /or Toronto Community Housing examine the feasibility for the implementation of temporary modular housing to help relieve the social housing waitlist. Examine ways to utilize the Canadian National Housing Strategy Co-Investment Fund.
    - Ontario provincial government provide funding for emergency housing relief similar to the funding provided by the Government of British Columbia.
- Shared Equity Mortgage
    - More non-profits focus efforts in providing new affordable housing through a shared equity mortgage program.
    - Examine ways to include the public sector in initial capital funding.
- Flexible Housing
    - More private companies adopt a flexible housing model.
    - More education surrounding the benefits to the homebuyers, and the profit-generating potential for the private sector.

Housing is a living ecosystem, there must be varying forms of housing to meet the diverse needs of those living in major cities. We must create housing for all cultures, abilities, ages, and income levels. If affordable housing was created for certain segments of the population, this would free up space in the housing market for other vulnerable residence. For example, if there were better housing solutions for post-secondary students, it would provide more affordable rental, helping the overall housing market.

Infill Housing, temporary modular housing, shared equity mortgage financing, and flexible housing, offer a variety of housing typologies which cater to different segments of the population. Infill housing provides existing homeowners with the opportunity to intensify their properties to generate additional revenue. It also caters to the rental market looking for small units within established neighbourhoods. Temporary modular housing offers people experiencing homelessness, sometimes the most challenging to house with semi-permanent housing and services. A shared equity mortgage model provides low to middle-income earners the opportunity for homeownership, and larger unit sizes catered to the needs of families. Flexible housing offers low to middle-income earners opportunities for homeownership, and allows residences to cut down on additional costs by allowing them to independently renovate. Lastly, flexible housing allows housing to grow and shrink based off of residence needs without relocation.

All of the housing models selected can fit within Toronto's legislative parameters, no new policies, programs, or by-laws are required. Infill housing can create new housing supply within existing legislative parameters, and on an incremental level. This is beneficial because it allows more units to come on the market faster, maintains neighbourhood character, and there is less push back from residence (less NIMBYism). Temporary modular housing, does not require any policy or by-law changes and can operate within existing legislative parameters. If government funding was made available a significant amount of Toronto's most vulnerable could find effective housing solutions quickly. Shared equity mortgages do not require any legislative changes or even funding for implementation. It is an effective way of providing homeownership opportunities to the middle to low-income housing market. Flexible housing also can work within Toronto's existing policy and legislative parameters. It does not require any government intervention and can boost the rental supply while providing people with low-income homeownership.

Please note that the most substantial method was the Shared Equity Mortgage, this is because this method has been used in Toronto for 25 years and thus there was more information to examine. I included the shared equity mortgage not because it is a new affordable housing financing mechanism but because I believe it is underutilized, and not well disseminated.

Limitations of this Major Paper

A limitation of my research in Chapter 3 is the lack of a housing method that addresses the needs of the rental market exclusively on a large scale, while that operating within Toronto's existing legislative parameters. Through my research, I found that there are no one alternative housing method that provides more and better quality rental housing, but an accumulation of many solutions involving all housing sectors. For more information on ways to create and maintain Toronto's rental housing stock, please see Chapter 1 current context and policy analysis.

All of the alternative housing interventions selected address the creation of new affordable housing. I recognize that the maintenance and preservation of current affordable housing are just as crucial to elevate Toronto's housing situation. Toronto's existing rental housing is an important source of affordable housing. Old rental buildings supply the city with much of the affordable rental stock. If these units are not maintained they can fall into a state of disrepair and may exasperate the affordable housing crisis even further. For more information on best practices, and current policies and programs that maintain the existing rental housing stock please see Chapter 1 of this Major Research Project.

There is always room for innovation when it comes to providing affordable housing and more variety of housing. I recognize that there may be alternative housing methods which were not addressed within this Major Research Project, specifically Chapter 2, because they either were undiscovered by myself, or because they were too similar to other affordable housing methods and thus were not included.

There is still room for innovation working alongside all four levels of government when it comes to housing, specifically rental housing, in addressing Toronto's affordable housing crisis. It is the public sector's responsibility to provide policies and programs to incentivize the private sector to develop affordable housing. It is also the responsibility of the public sector to allocate funding for the creation and upkeep of existing affordable housing. It is the responsibility of the non-profit sector to provide services and programs which can aid those seeking affordable housing, and if possible, implement affordable housing through models such as co-ops, community land trusts, and shared equity financing. Lastly, it is the private sector's responsibility to educate themselves on other profit generating models that can deliver affordable housing. It is also the private sectors responsibility to have an open mind and leverage public programs and policies which could create and maintain affordable housing while still maintaining profits.

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