

**A CITY TO CALL HOME:**  
REVISITING THE FORM OF THE URBAN FAMILY HOME IN OTTAWA

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## **ABSTRACT**

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While ground-breaking architectural ideas and typologies have emerged, shaped and refined domestic architecture throughout the history of modern architecture, there has been little true innovation in recent years in Canadian housing, particularly in family housing. New domestic architecture can take many forms; however, in the urban core, space limitations render the task of innovating housing forms more challenging. This is not to say that the current typologies, the condominium high-rise being dominant among them, do not work, but rather, that they are ill-suited for housing families. This thesis proposes to refine urban family housing and takes on a current Ottawa Community Housing Corporation (OCH) project, seeking to develop renewed urban housing strategies and residential intensification methodologies. As OCH's largest family-oriented social housing community,

Rochester Heights, Ottawa, provides an ideal opportunity to re-imagine the conventional definition of urban residential housing.

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## INTRODUCTION

The creation of permanent habitable space where individuals can keep their possessions and find shelter and comfort is an essential human practice. House forms are endlessly varied and dictated by climate, topography, social rituals and customs, and of course, economic position. Family housing is a special category of housing and it deserves particular attention. What makes housing "family housing"? What functions and which specific qualities must "family housing" respectively perform and possess? This thesis will address these questions.

### *Housing - Land Use In Urban Settings*

While non-urban areas host lower density housing typologies, and notably, North America's preferred family dwelling form, the detached house, urban areas must yield much higher densities and therefore demand "compressed"

settlement forms. Urban housing that is suited to families has confounded architects and planners for decades. The modern higher density forms, high-rise towers in particular, don't attract families as successfully as they do childless persons or couples. The high-rise condominium, an evolution of the earlier "apartment tower," caters to a higher income population than the tower renters of old, and is enjoying an era of great popularity in Canada. Its success as a housing model in urban cores can be attributed to changes in the market which now favours city living. The compact combination of units into one single location is an ideal formula for developers and many dwellers and buyers. Unfortunately unit sizes produced by this formula do not typically attract the Canadian family. This is a dilemma.

And yet, the provision of family housing in the core is imperative: a successful urban core requires social diversity and a multifaceted population. Families, including ones requiring social assistance, should be able to find a

home in the city. The benefits associated with urban living should therefore not be limited to persons without children.

The enduring strength of cities reflects the profoundly social nature of humanity. Our ability to connect with one another is the defining characteristic of our species.<sup>1</sup>

As it is called to meet the needs of families living in urban centres, social housing is inherently associated with urban locations. The selected site for redevelopment, Rochester Heights, is an existing family-oriented social housing community located in Ottawa, Ontario. It is managed by the largest social housing provider in the city, Ottawa Community Housing (OCH). While this research provides crucial information for this particular family social housing development, it also aims to communicate ideas regarding the

design of family housing in general. Family housing should not discriminate based on financial means, and therefore should be available to all.

## **PART I: URBAN HOUSING: A CANADIAN FACT**

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### **1. HOUSING IN NORTH AMERICA**

#### Population in Canada's Urban Areas

*Ottawa's Urban Development*

*Making a Choice*

*Developers and Urban Housing in Ottawa*

*Humphrey Carver's Perspective on Canadian Urban Housing History*

#### Family Housing

*Defining "Family"*

*A Gap Between Developer Offerings and Family Preferences*

#### Social Housing

*Social Housing in Ottawa*

*Social Housing a Gateway to Urban Family Housing in Ottawa*

## *Population in Canada's Urban Areas*

On every continent and in every city families are anxiously looking for better places in which to live. As we approach the middle of the twentieth century the shortage of houses is a world-wide phenomenon. <sup>2</sup>

Humphrey Carver, 1948

In North America, the advent of mass produced family housing in the suburbs responded to the postwar housing shortage. Urban areas provide the majority of housing accommodations across the globe.<sup>3</sup> Eighty-one percent of Canada's population resides in urban areas (see figure 1). But what in fact can we consider as being the "urban area"? Statistics Canada defines "urban area" as any area with "at least 1000 persons and a density of 400 [persons] or more per square kilometre".<sup>4</sup> Statistic Canada's definition, further defines sub-

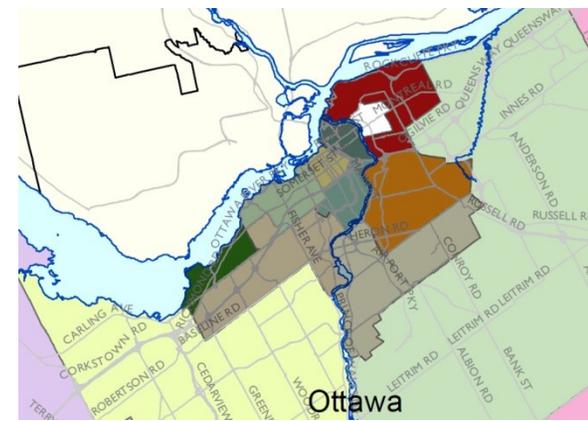
Figure 1 Canadian Population Distribution 1851-2011

	Population	Urban	Rural	Urban	Rural
	number			% of total population	
<b>Canada</b>					
1851	2,436,297	318,079	2,118,218	13	87
1861	3,229,633	527,220	2,702,413	16	84
1871	3,737,257	722,343	3,014,914	19	81
1881	4,381,256	1,109,507	3,271,749	25	75
1891	4,932,206	1,537,098	3,395,108	31	69
1901	5,418,663	2,023,364	3,395,299	37	63
1911	7,221,662	3,276,812	3,944,850	45	55
1921	8,800,249	4,353,428	4,446,821	49	51
1931	10,376,379	5,572,058	4,804,321	54	46
1941	11,506,655	6,252,416	5,254,239	54	46
1951	14,009,429	8,628,253	5,381,176	62	38
1956	16,080,791	10,714,855	5,365,936	67	33
1961	18,238,247	12,700,390	5,537,857	70	30
1966	20,014,880	14,726,759	5,288,121	74	26
1971	21,568,305	16,410,785	5,157,520	76	24
1976	22,992,595	17,366,970	5,625,625	76	24
1981	24,343,177	18,435,923	5,907,254	76	24
1986	25,309,330	19,352,080	5,957,250	76	24
1991	27,296,856	20,906,872	6,389,984	77	23
1996	28,846,758	22,461,207	6,385,551	78	22
2001	30,007,094	23,908,211	6,098,883	80	20
2006	31,612,897	25,350,743	6,262,154	80	20
2011	33,476,688	27,147,274	6,329,414	81	19

categories for urban population centres: small (1000 to 29,999 residents), medium (30,000 to 99,999 residents), and large population centres (100,000 residents and above).<sup>5</sup>

While the majority of Canadians, as stated above, live in urban centres, the definition of "urban" includes many suburbs which also fall within the minimum person per area count. However, for the purposes of this thesis, the term "urban area" will be defined as the area contained inside the historical boundaries of the former City of Ottawa, pre-amalgamation, that is to say the area darkened in figure 2. Urban area housing is generally comprised of mid to high-rise typologies; however, in Ottawa the city's inner streetcar suburbs remain predominantly occupied by detached houses.

Figure 2 Former City of Ottawa Zones Pre-Amalgamation Darkened to Show Boundaries



### *Ottawa's Urban Development*

For several decades after World War II, Ottawa's former streetcar suburbs -- Hintonburg, Westboro, Britannia Village, Old Ottawa South, the Glebe, and Ottawa East -- had lost their appeal, and young families looked to the newly built suburbs with their associated community supports: new schools, churches and arenas. More recently in Canadian housing history, however, these mature residential neighbourhoods have become once again very desirable and expensive, with families returning to the urban core in ever growing numbers. This thesis asks: how can architecture compensate and adjust to the return of families to the core? What forms can urban family housing take today?

### *Making a Choice*

One might ask, why would families even consider living in urban housing when suburban sprawl and the popularity of the single-family dwelling seem to indicate a clear preference for the suburbs?

Families add to the vibrancy of cities, and ensure the continuation and longevity of existing urban infrastructures like schools and parks. When schools are empty due to lack of children, and close as a result, the surrounding neighbourhood has lost something of its life and colour. A neighbourhood with a vibrant school yard is more desirable than one with a parking lot. While not all families prefer to live in the city, some do. Municipalities and governments would do well to ensure that these families find appropriate and affordable housing options so as to safeguard their cities' dynamism. Conversely, a growing body of research and debate regarding the best location to raise children, advances that urban cores are

ideal for families. Such books as Kieran Bonner's *A Great Place to Raise Kids: Interpretation, Science and the Rural-Urban Debate* (1997), Elizabeth A. Mulroy's *The New Uprooted: Single Mothers in Urban Life* (1995), and Peter Saunders' *Social Theory and the Urban Question* (2004) provide arguments in favour of urban centres for families. According to these authors, choosing an urban environment for raising children would include such advantages as reduced commute times to and from work, proximity to stores and cultural venues, and safety in numbers, among other things.

Families living in the suburbs spend more time in their vehicles than those living in the city. Public transportation to the surrounding suburbs is available in Ottawa, but travel times are lengthy.<sup>6</sup> This has many effects on family life: the time spent commuting is subtracted from family time. Money spent to own, maintain and operate a vehicle is not available for other needs the family members may have. Daily commuting by car exposes families to

an elevated risks of vehicular accidents.<sup>7</sup> A report by the Ontario Association of Family Physicians states the issue succinctly: "Building more compact, dense communities where residents can walk, cycle or take public transit is one important way to improve the rate of death and injury on our roads. The interests of public health require interventions in urban planning and public transportation."<sup>8</sup> Walking and cycling, which are not practical options for long-distant commutes between suburbs and city core, for obvious reasons, are, on the contrary, real options for city-dwellers.

Today the affordable house is found in increasingly distant suburbs, far outside city boundaries. In searching for an affordable house, the buyer must now travel to even more distant locations, even if they work in the city's core. The new extent of suburban sprawl is another reason families now reconsider the city as a viable option. These sprawling developments are taking over agricultural land, marshes, and natural habitats of wildlife. Yet given the

environmental crisis, these environments which are crucial to world ecological balance, need to be valued and taken into consideration. Thus, for many reasons, research on new forms of urban family housing is timely and necessary.

### *Developers and Urban Housing in Ottawa*

A major issue in Ottawa, as in other Canadian cities, has been the growing demand for urban housing. The city's limited land available for development has significantly restricted housing typologies. The densification of mature neighbourhoods "inside the city" has become the solution, with Ottawa's aging low-rise streetcar suburbs being slowly transformed with higher density housing. Opportunistic housing developers who monopolized downtown sites for profitable high-rise development are in essence compounding the urban housing problem through their land-use. The challenge of creating family dwellings in urban locations is that they do not

fit into the developer's profit equation very comfortably. Developer's "downtown offerings" for condominium living are not only influencing the downtown urban form and skyline significantly, but they are also shaping the city's social makeup. Buyers generally consist of "...singles, dinkies (double income no kids), one-parent families and elderly people of various ethnic and cultural backgrounds. All of these groups will have their own expectations regarding their home but surprisingly almost all of them prefer, an urban environment and an apartment."<sup>9</sup>

Families are not easily able to partake the condominium form for several reasons. Firstly, the cost poses challenges to families with children. It is not uncommon to find advertisements such as "suites start at an ultra-compact 373 square feet for \$179,000 and rise to just over 900 square feet for just over \$450,000."<sup>10</sup> Additionally, families typically require more room and additional bedrooms than are currently provided in condominium units. Families also

appreciate easy access to the outdoors and the possibility of modifying the dwelling over time to fit their changing needs. It is interesting to note that the small number of families who do live in Ottawa's new condominium towers are renters. In this sense, the condo resembles the apartment tower of old, providing families with shelter, but not with a sense of ownership.<sup>11</sup>

### *Humphrey Carver's Perspective on Canadian Urban Housing History*

Renown Ottawa urban planner, the English born Humphrey Carver (1902 - 1995), reflected on housing in Ottawa and Toronto in great depth throughout the war and postwar era, especially during his tenure at the Central Mortgage and Housing Corporation (CMHC). Carver spent much of his career working on a vision for Canadian housing and addressing key issues including the housing shortage. As the Canadian population grew and cities increased in size, housing became a pressing issue for the Canadian government. Carver's work would inform strategies regarding access to home ownership,

affordability, and construction quality, in the postwar years. According to Carver's 1975 book *Compassionate Landscapes*, "the only interested party in the housing scene which didn't seem to get much attention at staff meetings of CMHC was the Canadian family which couldn't afford home-ownership... ..the criterion of success was the number of new housing units provided under the National Housing Act..."<sup>12</sup> Carver understood early on that the issue of Canadian family housing was a national dilemma, and one, he felt, which was not being fully addressed.

Government agencies developed policies and housing programs to address the pressing deficit of urban housing, but did so in a manner that facilitated the development of suburbs while hindering that of the central city. As such, they did not take on the shortage and inefficiencies of urban family housing head on. The *Universal Declaration of Human Rights* and the *Canadian Charter of Rights and Freedom* included the provision of decent housing to all Canadians

as a basic right. "Everyone has the right to a standard of living adequate for the health and well-being of himself and his family, including food, clothing, housing and medical care..."<sup>13</sup> But for years, a gap persisted between the vision and the real conditions, as the government struggled to find a way to provide affordable housing for all Canadians.

In his book *Houses for Canadians: A Study of Housing Problems in the Toronto Area* (1948) Carver discussed and elaborated on various measures and strategies to provide affordable and decent housing in Canada. Focusing on the city of Toronto, he elaborated on the internal reorganization of existing large urban dwellings into multiple smaller units to ease pressure on the housing shortage. Unfortunately the redesign of existing housing stock made no contributions towards new urban housing designs nor did it improve the issue of affordability. The renovation strategy was limited by the number of existing large urban dwelling stock and could therefore not produce enough

new housing units to accommodate the growing needs of the postwar population.

The question of urban family housing was in a sense suspended for decades, as Ottawa developed according to a suburban extension model. As he elaborated in *Cities In The Suburbs* (1962) Carver also critiqued the design of suburbs and promoted the idea of a suburb built around a town centre.<sup>14</sup> The urban family housing question was only to be reactivated much later, during the first decades of the twenty-first century and up to the present day.<sup>15</sup>

Carver outlines what he viewed as operative principles for successful environments at the scale of the neighbourhood for families. "The life of a family," he wrote, "does not take place entirely within the four walls of its dwelling; the amenities of the neighbourhood and the social contacts with other families are very much a part of the daily round."<sup>16</sup> Overall, Carver

provided the Canadian public and policy makers alike with invaluable insight into the development of Canadian housing and the urban landscape.

As for the houses proper, Carver had been reflecting on their form since the 1940's. Carver's *Houses for Canadians* (1948), outlined the physical characteristics of good housing, and insisted upon the need for the dwelling to be integrated into a community. It is unsurprising that to this day the aspects discussed by Carver of protection, content, air and light, services, and character continue to be features of most, if not all, modern housing and community designs.<sup>17</sup>

### ***Family Housing***

Architecturally families deserve appropriate attention. The particularities and practicalities of raising children, a task that is greatly influenced by the dwelling form and its mode of contact with the exterior environment and

community, should guide the design of family housing. The role and importance of the home in the growth of young children is unique. The home demands to be safe; it is where children first learns how to behave, communicate and become individuals. To appropriately determine what family housing might consist of in an urban context, we must first address the notion of "family".

### *Defining "Family"*

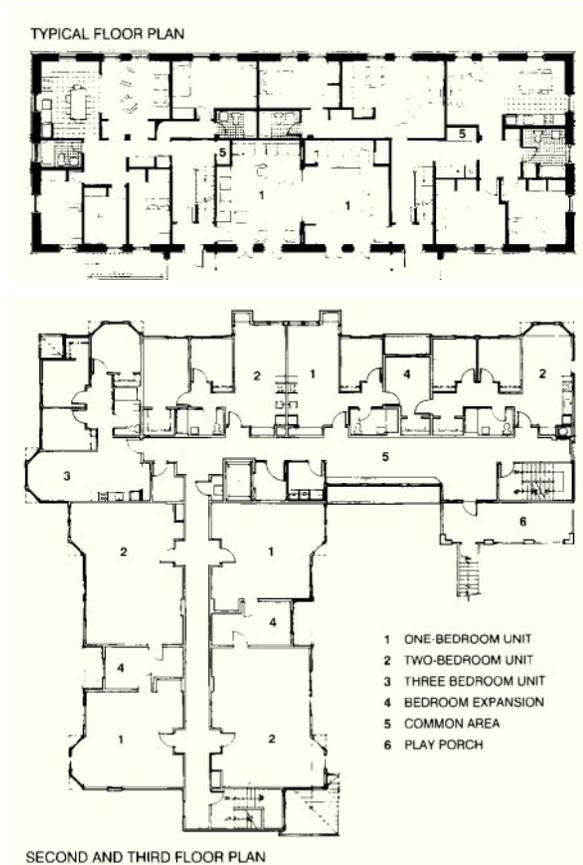
While the notion of family in society is continually evolving to include non-traditional family structures, within the scope of this thesis, the family construct is defined by the grouping of mature heads of household with dependents. The word 'family' is commonly understood as a group of people including at least one child and one adult who are bound to each other legally and/or biologically, with one or more mature individuals representing the head of the household. While the word "family" is of course complex, and

should not exclude childless adults, this thesis will however be concerned with children and the raising of children in urban environments in a focussed way. The design of housing for families with one or more children will consequently receive more attention here. The goal of the thesis is to explore architectural and planning forms that adapt to the varying needs and stages of a child's life as he or she grows, and those of the adults who care for them, be they single persons, guardians, parents, or grand-parents, or combinations thereof.

It may have been appropriate for some time to neglect this particular niche of potential urban dwellers, as these have favoured the bounties associated with suburban lifestyles and its low-rise single family housing forms, parks etc. However, families should not be excluded from cities' central areas: new forms that are appropriate for families are therefore needed in urban cores. At

Figure 3 (Top) Neighbourhood Women Renaissance Housing, Brooklyn, New York

Figure 4 (Bottom) YMCA Family Village, Redmond, Washington



the moment, urban housing options for families are inadequate. Families therefore have few options besides moving to the suburbs.

While it is unreasonable to expect custom housing to accommodate each individual family, "family housing" should provide more than the mere bedroom count families need. It is helpful here to study examples of alternative housing forms that take into consideration the non-homogeneous needs of their inhabitants, in various parts of the world, and over time. There are examples of housing projects that take into account the fact that families change in size over the course of years. Pyatok Associate's design of the "YMCA Family Village" in Redmond, Washington (1993), incorporates additional bedrooms between units that can be accessed and occupied as the family grows.<sup>18</sup> Katrina Adam's design of "Neighbourhood Women Renaissance Housing" in Brooklyn, New York (1993), includes design features such as "one-room apartments next to larger units to accommodate

grandparents or friends..."<sup>19</sup> While these and other alternative housing designs provide a glimpse of family and social housing possibilities, the search continues for housing forms that consider and sustain varying family needs in urban contexts, for all income groups. These are but two examples of ways in which "family housing" stimulates innovation in housing design.

The Winnipeg-based architectural firm 5468796 have made family housing a central topic of research and practice. Projects like "Centre Village" in Winnipeg (with Cohlmeier Architecture Limited) address the idea of family housing affordability in urban contexts. The strategy for this affordable housing project was to use European design standards to develop the high density community.<sup>20</sup> In a similar fashion, Ottawa architects Colizza Bruni explored the smaller house model as a way to provide a more affordable family house in a transitional neighbourhood in Ottawa's core: the recent "Hintonburg Six" project organized six spatially interesting houses, all under

one thousand square feet, on a site where one site one house.<sup>21</sup> A recent article featured in the Saturday edition of *The Ottawa Citizen* by Avi Friedman of McGill University is evidence that the topic of family living environments is on people's minds (April 09, 2015). Friedman describes how the idea of active living prompted the design of the housing community in Porvoo, Finland, and makes a case for well-developed family housing as a way of saving on health care costs.<sup>22</sup> The design proposal at the end of this thesis aims to contribute to research on family house design, and will explore questions of family dwelling size, health and wellbeing, and the potential for modification over time, through design.

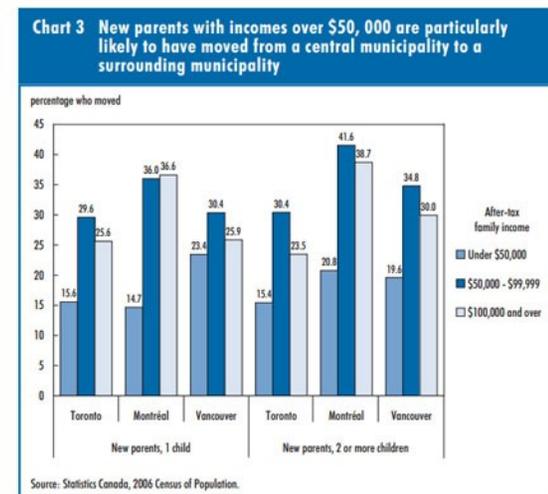
### *A Gap Between Developer Offerings and Family Preferences*

While low-rise urban family housing exists, it is scarce. Young families are forced to choose between compact urban condominium units or more affordable suburban homes. While there is a sliding scale between these two

housing extremes, the choice often falls into one of these categories. "In fact, the 2006 Census data show that households consisting of a couple with children continued to be more strongly represented in outlying areas than in city centres in practically all of the country's urban areas."<sup>23</sup> As single family detached homes in suburban developments continue to be the favoured choice for young families in Ottawa, the developers will not take the risk of redefining a new suburban form. Innovation in housing is neither likely to happen in the suburbs, nor in the urban condo movement. Innovation, interestingly enough, is most likely and plausible in the context of social housing, where land and housing costs are subsidized by the government. But how then, can the production of market rate family housing be made possible in urban contexts?

Edward Glaeser's *Triumph of the City* (2011) makes a strong case for urban living for environmental reasons.<sup>24</sup> When evidence shows that the current

Figure 5 Movement of Families From City Centres to Surrounding Municipalities

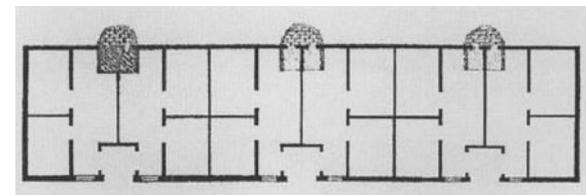


and seemingly only viable urban housing is the high-rise compact dwellings, we must ask: where do families fit in?

The development of alternative housing forms such as the stacked-townhouse was but one attempt at addressing the increased land costs of living in cities. This building typology addressed the expensive land costs by increasing housing density. Today however, the stacked town, displaced by the condo tower, has become a negligible feature of the contemporary urban fabric and has taken root as part of the suburban housing typologies.

The history of the stacked townhouse is complex. Peter Ward in *A History of Domestic Space: Privacy and the Canadian Home* (1999), explains that the townhouse or row house has been known to exist in Canada as far back as 1801 in Quebec.<sup>25</sup> Stacked terrace housing was a common housing form in Montreal in the later years of the nineteenth century.<sup>26</sup> The stacked

Figure 6 Bécancour Hemp Works Workers Housing, Quebec, 1801



townhouse was well-suited for both the late nineteenth and early twentieth century; its hold as an urban form has diminished with the advent of the developers' condo towers. Carver wrote in *Houses for Canadians* in 1948:

It is obvious that a family is likely to be most healthy and happy when it is living in a house that is easy to keep clean, that can be maintained at a desirable temperature, that provides some privacy for each individual and a generally stimulating atmosphere of light and colour.<sup>27</sup>

Carver asked a question in 1960 that Ottawans continue to ask today: can an equivalent to a commodious single family house in the suburbs be created for a denser urban setting? Is such a thing possible?

To answer this, we must first look at affordable urban housing in the form of social housing.

## ***Social Housing***

While many families in the postwar period in Ottawa and throughout Canada moved to the new suburbs, families of lesser means remained in the core, where more affordable housing could be found and a car would not be needed. The suburbs did not provide a solution for the poor. It is for these reasons that social housing communities have predominantly been a feature of central urban areas, located close to amenities and to public transportation systems. CMHC originally took charge of the design and funding of affordable housing in Canadian cities. This was done through the National Housing Act of 1944.<sup>28</sup> As of 1967 however, CMHC began to pass down the task of providing affordable housing to provincial and municipal agencies.<sup>29</sup> These were better suited to oversee the local demand for social housing. Today, Ottawa's largest local agency providing subsidized housing is Ottawa Community Housing Corporation (OCH).

### *Social Housing in Ottawa*

Social Housing providers own and operate approximately 22,500 social housing units in Ottawa, with most located in high density urban areas.<sup>30</sup>

These are managed by OCH and at least 45 other agencies including Centretown Citizens Ottawa Corporation, Gloucester Housing Corporation, Nepean Housing, and Taiga Non Profit Housing to name a few.<sup>31</sup> OCH was founded in 2002 after the amalgamation of City Living and Ottawa Housing Corporation, organisms each possessing over 25 years of housing experience. OCH inherited an aging housing stock, the majority of which was built between 1960 and 1980. The properties vary greatly in size, density and location, although most are located in the centre of the city.

In order to provide for the particular needs of their tenants, OCH has categorized its properties according to tenancy; some are geared toward the

housing of seniors, families or single persons separately, while others cater to a mixed population.

The housing's urban location has benefited residents as it provides them with easy access to services, amenities, public transportation, and places of business, which would otherwise be difficult to access without a car. OCH's suburban and rural housing stock is limited, according to Director of Planning and Engineering at OCH, Barron Meyerhoffer. Ottawa's ex-centric social housing is less successful and these pose challenges for maintenance and upkeep, Meyerhoffer explains.<sup>32</sup> "Proximity of social housing projects to each other lowers their maintenance costs and also allows for greater social diversity. We only provide senior housing outside the core at this point."<sup>33</sup> Central locations of social housing are also a preferred choice: projects in the core are more likely to be filled than ones located outside the city boundaries.

In keeping with current trends in social housing around the world, OCH prides itself on the integration of its housing stock into the existing fabric of the city, and is committed to providing housing forms that do not stand out nor seem out of character or context from their surrounding community. The design approach OCH favours takes into consideration their tenants' well-being. For OCH, individuals in need of social housing, like those who are not, need to be provided with humane and dignified housing forms regardless of socio-economic conditions. One dilemma OCH faces with its current housing stock is that it does not generally adapt well to the occupants' changing needs in terms of size. Adaptability, however, is exactly what families require most from their homes, whether it be in social housing or not.

There is a difference of course between rented and owned homes. Outside of the social housing context, it is not uncommon for families who require more space to sell their home and purchase a bigger one. Families with greater

means who own their home have much more control over the latter's size. To begin, larger homes provide more opportunities for adjustments: there is more floor area to work with to satisfy changing needs. Single family and row homes usually include basements, as well, and are typically larger than urban condominiums; this means that families find them satisfactory for longer periods. An owner, what is more, can expand the home's floor area with an addition, while a renter cannot even consider this. In sum, market rate housing offers "additional space" in comparison with rental housing's typically tighter and less modifiable floor areas, thus providing more options for families' changing needs.

### *Social Housing: a Gateway to Urban Family Housing in Ottawa*

Knowing that access to market rate family housing in Ottawa and throughout North America has typically entailed a move away from the city and that social family housing, conversely, has been built in the core, one understands

the importance of studying urban social housing as a first step when researching urban family housing. This thesis will therefore look at the design for urban family housing on a centrally located low-rise social housing site owned by OCH. The idea here is that the research into affordable urban housing conducted in this thesis also aims to contribute to research into urban family housing in general. Social housing is a doorway to, and fruitful vessel for, a deeper understanding of "urban family housing." Cost is a significant obstacle to urban family housing for the middle class. And while social housing enjoys unique conditions because it is subsidized, there may still be ways in which developers of market rate family housing can learn from social housing projects. In exploring a social housing project for families, this thesis seeks to derive lessons that can be applied to market rate family housing in city cores. I hope to uncover new and creative approaches to family urban housing in general.

As a way of understanding the complex issue of urban family social housing and appropriate design responses, contemporary and historical data will be discussed in greater detail in the following chapter. This research is meant to support and clarify design principles which can then be tested and applied in a final architectural proposition for family housing on an Ottawa OCH site.

## NOTES

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- 12 Carver, Humphrey. *Compassionate Landscapes*. Toronto: University of Toronto Press, 1975. p.108.
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- 16 Carver. *Houses for Canadians*. 1948. p.23.

- 
- 17 The characteristics Carver discusses for the dwelling plan and the greater community include: aspects of protection (shelter, traffic), content (size and spaces, variety), air and light (ventilation and sunlight, recreation), services (water, sewage and various apparatus for food preparation, personal hygiene and household cleaning, community center, stores) and character (recognition and individuality and layout and focal centre).  
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## 2. URBAN HOUSING

Urban Housing in History

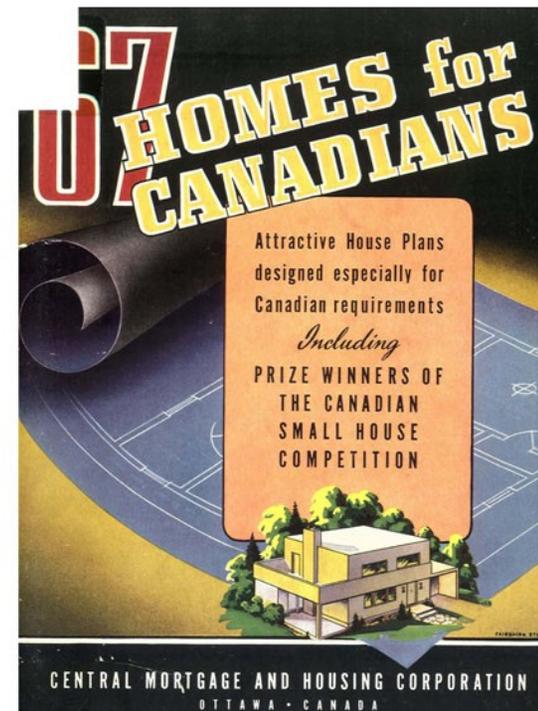
*Success of Past Urban Models*

### ***Urban Housing in History***

The garden city movement in England was a response to poor living conditions in industrializing cities, and proposed planned housing in a green setting as an alternative to tenements in the crowded and polluted industrial city. The notion that gardens were superior to cities as settings for raise families made its way deeply into Anglo-American sensibilities.<sup>1</sup> The postwar period in Canada and the United States was a time for building suburbs where families could have access to ownership. Housing policies in North America, such as the National Housing Act in Canada prompted, housing and employment. Recognizing the fundamental changes that technology and urbanization had on the urban form, postwar policy makers promoted modernism as the right language to pursue modern housing forms more systematically with a view to producing affordable housing for the masses.

The twentieth century was also a vibrant time for housing experimentation and innovation in Canada, particularly in the area of family housing under the umbrella of the CMHC. However, in recent years commercial forms have come to dominate urban housing. CMHC's involvement in housing has shifted slightly. While still the authority on housing, the housing market and the mortgage financial system, its involvement has shifted from design innovation to construction research.<sup>2</sup> CMHC's publications of *67 Homes for Canadians* in 1947 as well as *Small House Designs* in 1957 were staples of literature on small affordable housing designs by architects for Canadians. CMHC financed the Canadian Housing Design Council, established in 1957.<sup>3</sup> The Canadian Housing Design Council was to encourage and assist in the improvement of housing designs.<sup>4</sup> In Canada's private sector, the search for affordable housing models was also extensive. Henry Fliess, James Murray, Robert Grossman, among others, explored higher density housing forms in

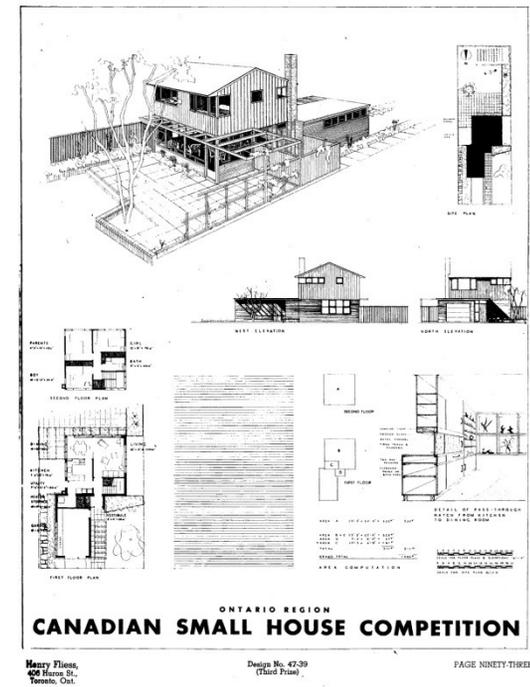
Figure 7 CMHC 67 Homes for Canadians Publication



many Canadian cities.<sup>5</sup> Various projects emerged from their studies. Henry Fliess' Don Mills project provided an opportunity to test new housing concepts; as Fliess explained in his 1950 RAIC Journal article *The Modern House: a brief critical analysis*: "completely new building types have emerged from completely new needs."<sup>6</sup> As a subject of research and innovation, family housing has since fallen between the cracks. Renewed reflection about the meaning and form of urban family housing is both needed and pressing especially for social housing agencies and their aging housing stock.

From the birth of the metropolis in the nineteenth century, urban planners, architects and visionaries have made attempts to redefine the long standing meaning of urban family housing. Their visions and revisions of residential architecture in an urban context informs this thesis. The creation and design of a particular architectural style to meet the distinct needs of families in city cores can alter the function and character of entire cities. The Ottawa public,

Figure 8 Fliess' Third Prize Winning Canadian Small House Competition (1947)



in general terms, has been rather accepting of conventional housing forms of late: "people are buying it, so developers keep building it," one might say. In some cities, however, the public has demanded a greater degree of refinement in housing form, particularly in the development of family social housing. The research of CMHC, Fliess and Carver underscores that the development of affordable housing forms in Canada (and elsewhere) has long been tied to experimentation. Noting that critics like Jane Jacobs strongly disagreed with imposing radical housing experiments onto social housing tenants, this thesis recognizes that attempts to innovative family housing forms must be done with caution and thoughtfulness.

### *Success of Past Urban Models*

Before the success of condo towers the postwar North American apartment tower model was created to respond to the needs of low income families. It provided affordable rental urban living units. These buildings later became

painted in an unfavourable light and have since vanished from the development market. Interestingly however, while today's condominium marketing strategies emphasize "carefree, maintenance free lifestyles," the rental apartment tower model, was in some ways much simpler for families. Notably, renters in apartment towers are relieved of the often complicated burdens of condominium board politics and management. Articles in the popular press, like *MacLean's* April 2014 article "Condo Hell," provide a glimpse into the complexities and challenges of condominium living, where agreement among members of the condo board can be very difficult to achieve.<sup>7</sup> Un-neighbourly disputes, undemocratic governance, a laundry list of rules and animosity between owners of different generations are just some of the tensions that owners must sometime face. This model is not conducive to families who would sooner devote their time to personal matters and raising their children. The added complexities associated with condo boards

are yet another deterrent for families. As a potential first step in home ownership for young adults and small families, the urban condo has its place. While noting the condo is often the first rung on the ownership ladder for many young people, it does not, however, meet the longer-term needs of growing families. Of course, some young parents choose to beat the odds.<sup>8</sup> Still, we must ask: how is it that architectural design innovations have not yet resolved the question of urban family housing with more varied and creative solutions?

## NOTES

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## **PART II: FAMILY HOUSING: A TOPIC OF RESEARCH**

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### **3. RESEARCH ON FAMILY HOUSING: THE SIZE OF A HOUSE**

Lewis Mumford and the Home in History

Norbert Schoenauer and the Court Garden House

Dolores Hayden and Alternative Family Housing Forms

This chapter considers the spatial intricacies of family housing in its most dominant forms, and specifically, the size of a family house.

### ***Lewis Mumford and the Home in History***

Recurring patterns in house forms and layouts through history and across the globe indicate that there is an almost timeless dimension to how humans dwell.

Lewis Mumford, American historian of architecture and urbanism, provides some insight and reflection on the house in history and its surrounding environment. In his book, *The City in History*, Mumford's analysis of early family dwellings provides an essential understanding of family life and daily rituals in relation to ancient Greek dwellings.

The most primitive dwelling that has yet been discovered in Mesopotamia, according to Robert Braidwood, is a hole dug out of the

soil, sun-dried to brick hardness...<sup>1</sup> Everywhere, the village is a small cluster of families, from half a dozen to threescore perhaps, each with its own hearth, its own household god, its own shrine, its own burial plot... each family follows the same way of life and participates in the same labours.<sup>2</sup>

Mumford's description of an early family dwelling underscores important features that are used here in a definition of family housing. Mumford also points out that these primitive dwellings assigned clear spatial allocations to each daily task, including pragmatic and ritual practices from birth to death. From this brief description we can ascertain that the notion of the family house also deals with the span of life.

Mumford also examines the size of the earliest known family homes in ancient Greece and underscores the importance of the house as more than

simple shelter. Mumford points out that the size of the family house seems to reflect some consistency over time.

...it is interesting to note that the small houses found in Mohenjo-Daro [Pakistan], from about the middle of the third millennium B.C., were two stories high and about thirty by twenty-seven feet: about the same size as a modest house in Greek Priene about 200B.C., which measured twenty-six feet by twenty.<sup>3</sup>

Even in the crudest neolithic village, the house was always more than mere shelter for the physical body: it was the meeting place of a household; its hearth was a center of religious ceremony as well as an aid to cooking; it was the home of the household god and the locus of a family's being, a repository of oral values not measurable in money.<sup>4</sup>

While the interior compositions were shaped by habits, Mumford points out that the overall shape of the building was more strongly defined by location. Indeed, location, climate, and available materials are determinant factors in the shape of all traditional housing. Modern housing differs most from traditional housing in this fact. Yet beyond floor areas being non-changing in these early dwelling forms, the hearth emerges as an element of great significance. The hearth or primitive kitchen has evolved and its meaning has changed, but it remains a central element of all family homes. We learn from Mumford, that the hearth was also a gathering device in the early home; the notion of gathering is important and remains so throughout history, in every family home.

### ***Norbert Schoenauer and the Court Garden House for Families***

Norbert Schoenauer, a distinguished Canadian architect and university professor, provided a more recent perspective on the family home. His

research into the recuperation of the ancient courtyard type for postwar housing in Canada is very interesting as it emphasizes the family as a separate and unique social unit. Schoenauer proposed the court garden house as a more efficient model for family housing -- up to 30 % land savings -- since no space would be wasted on side yards. In one example of a court garden house titled "court-garden 1" presented in their study, the authors laud the court-garden house as follows: "its floor area is 1,230 square feet without the garage. In contrast to the building area, which equals that of conventional homes, the lot area is much smaller. The percentage of land saving in gross area, inclusive of the common green, is slightly more than a third, namely, thirty-four percent."<sup>5</sup> Schoenauer rejected the standard "box footprint," he did nonetheless advance that the detached house provided an ideal setting for family life:

A single-family detached house is inherently ground-related, with easy access to garden or backyard. Moreover, it complements the basic social unit -the family- and is viewed as the ideal home in which to raise children. A "zoned" single-family dwelling complements the requirements of both the adults and children of a family.<sup>6</sup>

Schoenauer draws out the ideal form of family housing, the single-family house. The form caters to and provides for the varying needs for social interaction, in addition to being easily accessible. Its form allows for proximity and connection to the outdoors and surrounding community. The spacious nature and flexibility of interior spaces also accommodate the varying needs of families. This is why it has become the predominant feature of suburban developments.

The problem, however, is that homes in the suburbs, no matter who lives in them, are far from the city. People who live in them most often must spend time commuting to work places, and are thus unable to nurture regular relationships with nearby shops, and housing. And of course, they have less personal time and time with their families.

### ***Dolores Hayden and Research on Alternative Family Housing Forms***

While the single family home may be the preferred housing form for families today, alternative forms and designs were conceived in the twentieth century in an attempt to address some of the family dwellings' shortcomings. Dolores Hayden, an architect, professor and historian, discusses alternative housing experiments in her books *Redesigning the American Dream* of 1984 and *The Grand Domestic Revolution* of 1981.

Courtyard housing is the strongest typological response to the need to balance privacy and community. In the European tradition, as we have seen, a good many designers struggled to graft the ideas of the feminist exponents of the neighbourhood strategy onto multi-family housing projects with extensive facilities for child care, shared meals and community facilities.<sup>7</sup>

Like Schoenauer, Hayden believes there exists a deep rooted connection of the family home to the ground plane and provides insight into the importance of the home's need for privacy. The importance and benefit of private space in multi-family housing is significant. Hayden also underscores the role of the familial homestead in the accomplishment of women's daily tasks, which included child supervision. To accomplish these tasks, women relied on communal services and access to exterior spaces.

In *Redesigning the American Dream*, Hayden presents examples of alternative multi-family housing forms and facilities that attempted to provide these external services. The examples she presents gave special consideration to both familial bonds and relationships, and the need for individual privacy and space. Hayden describes a typical suburban housing development of the 1950's and 1960's, in the following way:

The architectural and landscaping possibilities presented by accessory apartments are complex and exciting ones. Consider a stereotypical tract of the 1950s and 1960s. A typical suburban block will have been divided into plots of a quarter to half an acre each. If there are, say, thirteen houses, then thirteen driveways might be used by twenty-six cars; ten garden sheds, ten swings, thirteen lawn mowers, thirteen outdoor dining tables begin to suggest the duplication of existing amenities. Yet in the R-1 design there are few transitions between

public streets and private homes, no community park, no space to socialize with neighbours because all space is either strictly private or strictly public.<sup>8</sup>

Hayden demonstrates through her research that the balance of public and private spaces along with the family's need for external support services is a major issue in multi-family housing designs. Regarding the lack of clear designations and boundaries of exterior spaces in superblock tower-in-the-park projects, critics have frequently asked: "who are they for? what are they to be used for ?" Unclear limits and ill-defined purpose: these are recurring problems of shared outdoor spaces in modernist-era social housing. Outdoor seating, play structures, or gardens can correct the problem of uncomfortable "vague spaces."

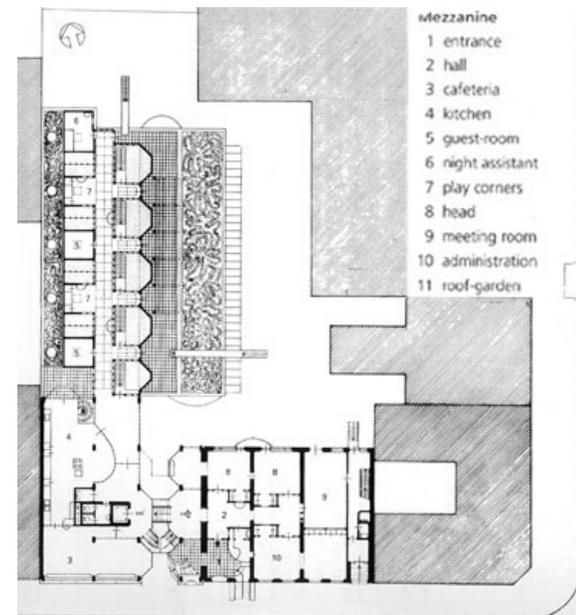
However, Hayden clearly demonstrates that multi-family developments allow for opportunities of unexpected connections between inhabitants, ones that simply cannot happen in the single-family development model. Hayden also expands the notion of "family housing" and its ties to the community and resources. Hayden continuously reminds the reader of the ultimate purpose of the home and does so by providing glimpses of family life: "part of homemaking involves seeing that each family member's myriad personal needs are fully met", she writes, adding: "equally important are those ties to kin and community that maintain the social status and ethnic identity of the household."<sup>9</sup> She also speaks to the importance of associating with one's community, and of finding support and gaining an identity therein. Hayden demonstrates the importance of external services like daycare and community facilities as well as the presence of other families, to provide the family with stability and assistance.

Hayden also presents case studies of unique housing projects which, through architectural designs, attempted to resolve the separation of public and private spaces responsibly, while addressing distinct families structures.

[A] European project of great interest is Aldo van Eyck's courtyard housing complex for single-parent mothers in Amsterdam, Holland [1959]. He has long been known as a talented designer giving care and attention to both social programs and aesthetic realization. In this commission his client was an institution. He made housing for children, housing for parents, counselling spaces, and a common dining facility in addition to offices and outdoor space.<sup>10</sup>

Hayden also discusses the Fiona House which opened in 1972 and which included many design features to help single parents. Hayden writes: "The interior corridors doubled as playrooms, with carpeted floors and windows,

Figure 9 Aldo van Eyck's Single-Parent Housing Complex (1959), Amsterdam



from each apartment looking in, so that a parent cooking could watch a child at play."<sup>11</sup> Both these projects, while focused on a specific family structure type, provided design components that responded to the tenant's particular needs for spatial flexibility and social support amenities. Families are unique in this sense as their needs are multi-generational. We can also gather from this that women in multi-family housing also played an important role in the conception of their designs.

Overall, each of these projects testify to the importance of privacy for each family and the need for well-formulated public spaces which, when provided together, render the task of raising children easier. Hayden chooses to include in her book case studies concerned with the place of women in the home and in society. The arrangement of spaces are concerned with the proximity of the kitchen to children's play areas. While the female-dominated stereotype

associated with it has been greatly diminished, we note here that the kitchen still remains an important feature in interior layouts of the present.

The work of Mumford, Schoenauer and Hayden on family dwellings, have here contributed to painting a picture of the family home, and in showing how the home has changed and stayed the same through time. Practicing architects, too, have considered the design of the family home as a physical construction. That question was most notably at the centre of Frank Lloyd Wright's work, and culminated in his design of the usonian family home, a suburban model, but one that was guided by the principle of efficiency. The usonian home was buildable, small, humble in tone, but spatially very rich, and by establishing strong indoor-outdoor connections, it anticipates children and family life. Another very famous example is the work of Le Corbusier: his utopian housing concepts of the City for Three Million People and its immeubles villas and Unité d'Habitation were answers to the question about

how families should live in proximity to urban environments. They proposed new housing forms and arrangements, and resolved all the important questions pertaining to family housing: how to create private outdoor spaces in non-detached units in the sky, how to arrange children's and parent' quarters and family living areas with appropriate amounts of privacy, and how to set up a broader social network of community supports around the units. These are two landmarks in modernist housing history, but of course, there are many others.<sup>12</sup>

From these historical summaries, we can gather, firstly, that a fundamental criterion for success in public housing developments is the balance of social life and family privacy. This balance is produced as much by the site plan as by the dwelling designs proper. Secondly, we note the considerable benefits of a connection of family dwellings to the ground. Finally, the surrounding environment of the home also plays an important role. Access to exterior

amenities and community resources are essential for the health and success of family-oriented housing communities.

## NOTES

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- 1 Mumford, Lewis. *The City in History: Its Origins, Its Transformations, and Its Prospects*. New York: Houghton Mifflin Harcourt, 1981. p.16.
- 2 Mumford. *The City in History*. p.18.
- 3 Ibid., p.62
- 4 Ibid., p.220
- 5 Schoenauer, Norbert, Seeman, *The Court-Garden House*, Montreal, McGill University Press: 1962. p.165. I thank again my advisor for bringing this study to my attention.
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- 9 Ibid., p.64.
- 10 Ibid., p.137-138.
- 11 Ibid., p.167.
- 12 On research into the family home in the context of Ottawa, please see: Debanné, Janine: "Rothwell Heights: The Modernist House in Ottawa and the Vulnerability of "Perfect Dimensions," in *Conserving the Modern in Canada, La Sauvegarde du Modernisme au Canada* (Docomomo Canada-Ontario, 2007).

## **PART III: LOCAL CONDITIONS**

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### **4. SITE ANALYSIS - ROCHESTER HEIGHTS**

Site Within an Urban Renewal Scheme

Rochester Heights: Shortcomings of its Site Plan

Rochester Heights: Shortcomings of its Buildings

Tenants of Rochester Heights on Life in Public Housing

Rochester Heights: In Need of Renewal

How to Proceed?

The following chapter establishes Rochester Heights' importance as a public housing community in Ottawa.

### ***Site Within an Urban Renewal Scheme***

In 1958 the land parcel occupied today by OCH's Rochester Heights was part of a major study by the Planning Branch of the City of Ottawa that reviewed all housing conditions in the entire city. "The preliminary survey showed that 13 areas in Ottawa might require some form of renewal action."<sup>1</sup> The Preston Street urban renewal area was one of these thirteen areas. Located in the neighbourhood of West Centretown district and West of today's communities of Little Italy and Chinatown, the Preston Street area is bordered by the Queensway to the south, Balsam Street to the north, Preston Street to the west and Booth Street to the east. A follow up study completed in 1962 continued to show the extent of deficiencies and substandard housing noted in the 1958 report for the Preston Street area and beyond.

Figure 10 Centretown West Neighbourhood Showing the Preston Street Redevelopment





Figure 11 Aerial map of Ottawa Showing Preston Street (in Magenta) and Gladstone Avenue (in Orange) in 1958



Figure 12 Aerial map of Ottawa Showing Preston Street (in Magenta) and Gladstone Avenue (in Orange) in 1965

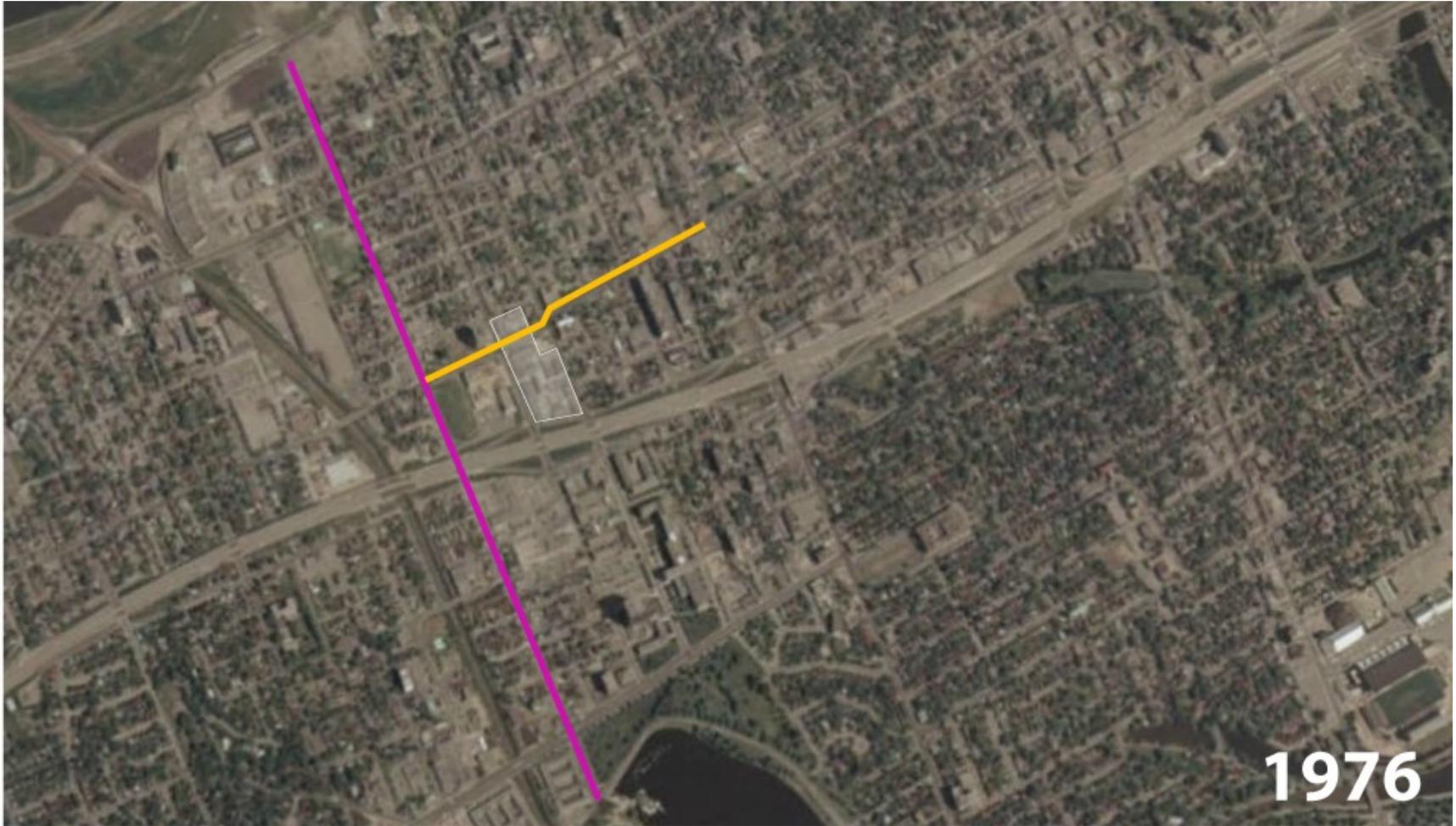
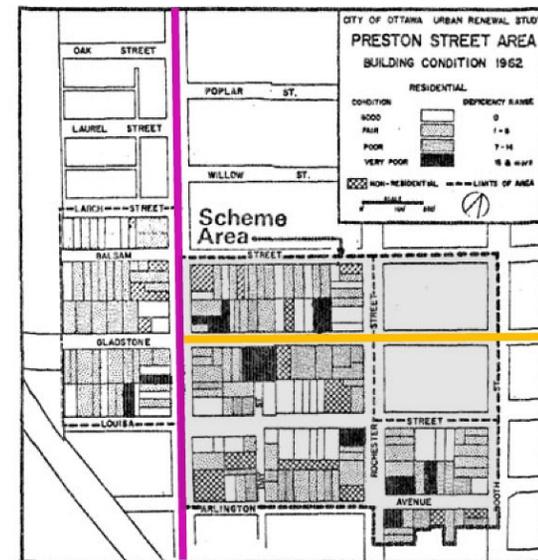


Figure 13 Aerial map of Ottawa Showing Preston Street (in Magenta) and Gladstone Avenue (in Orange) in 1976

The area contained a large number of substandard residential buildings and redevelopment proposals were soon put forth.<sup>2</sup> On October 21, 1963, Preston Street was officially declared an urban renewal area.<sup>3</sup> An agreement between CMHC and the city to clear the land under the NHA quickly followed, in 1964. The redevelopment area included between 15.5 and 20.8 acres with approximately six acres dedicated to new public housing.<sup>4</sup>

Before redevelopment, the existing urban fabric within the Preston Street area featured a predominantly low-rise typology of structurally unsafe and aging single-family homes generally occupied by multiple families.<sup>5</sup> Despite low building heights, the fabric's tight grain and lack of parks meant that there was little to no useable open space for the sizeable population of children in the area. The implementation of public housing would in turn provide for the strong need for affordable, spacious and safe family dwellings.

Figure 14 Extent of Preston Street Redevelopment



In order to create larger sites for the public housing and high school developments, Louisa Street and Arlington Avenue were terminated at Booth Street. By October 1966, Rochester Heights along with the adjacent site allocated for the High School of Commerce (now Adult High School) were the first cleared and completed redevelopment projects of the renewal site.<sup>6</sup> The high school was to be set on approximately seven acres and would provide much needed playgrounds and public open space for the community.<sup>7</sup>

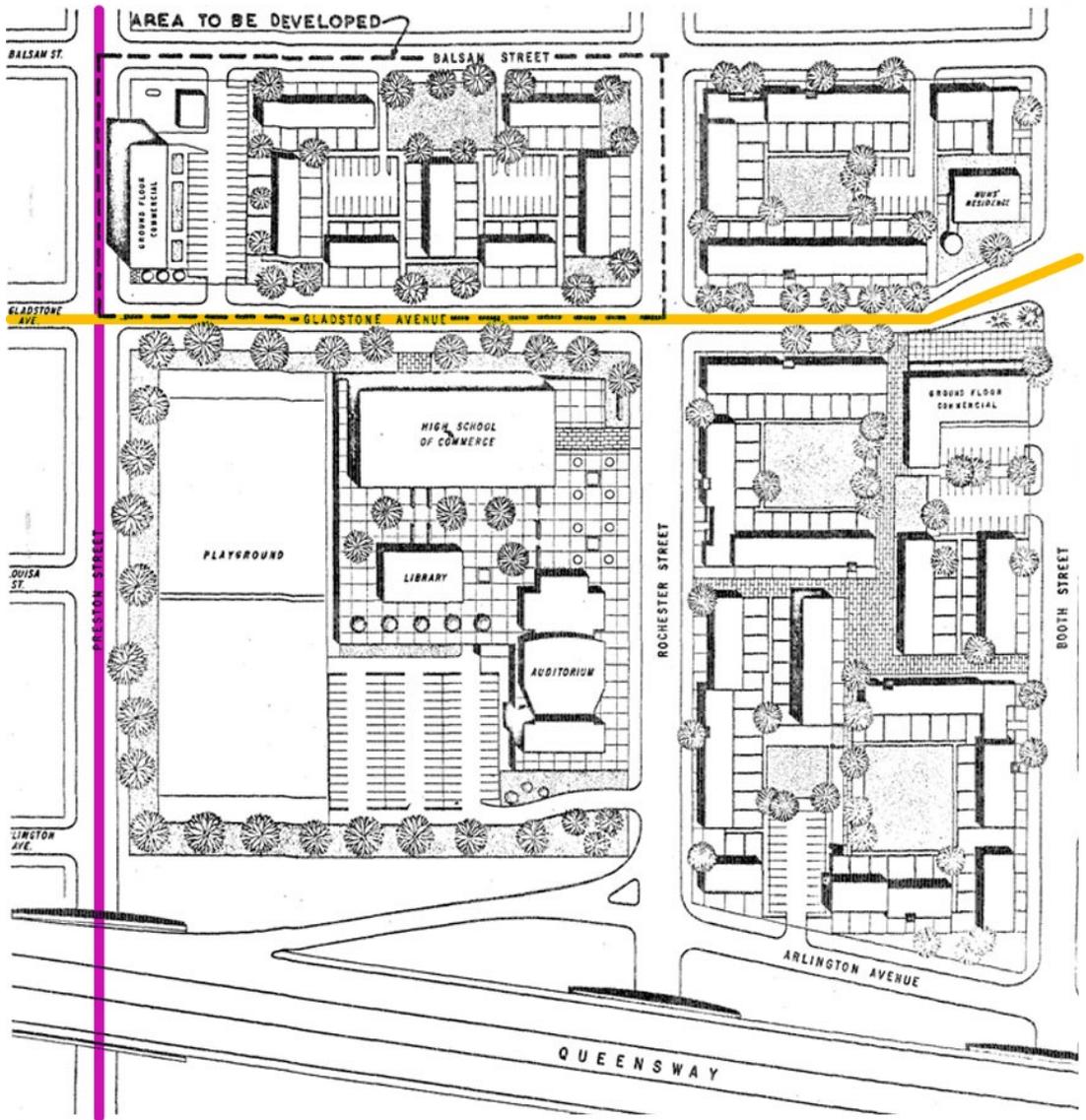
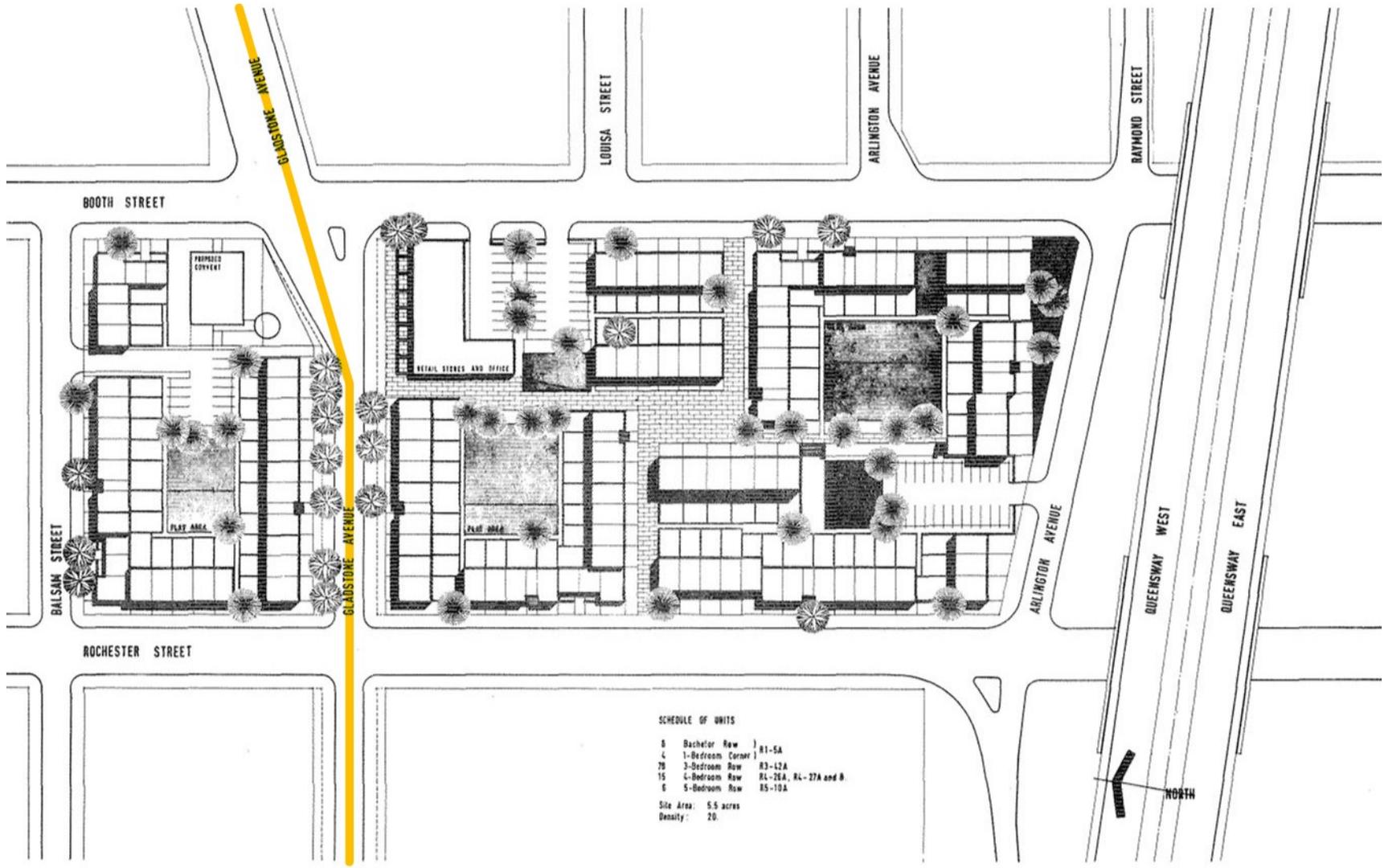


Figure 15 Preston Street Development Proposal with Rochester Heights to the Right



SCHEDULE OF UNITS

8	Bachelor Row	R1-5A
4	1-Bedroom Corner	R3-L2A
78	3-Bedroom Row	R4-26A, R4-27A and B
15	4-Bedroom Row	R5-10A
6	5-Bedroom Row	

Site Area: 5.5 acres  
Density: 20

**ROCHESTER HEIGHTS**

SITE CODE: 2

**SITE LAYOUT**

SCALE 1" TO 40'

Today, Rochester Heights is OCH's largest family-oriented community. The 104-unit development is comprised of mainly two-storey townhomes, and is bordered by Balsam Street, Booth Street, the Queensway and Rochester Street, with Gladstone Avenue, an arterial mainstreet, intersecting the development. Ninety-five of Rochester Heights townhomes vary from three to five bedrooms. These are set within a park-like setting complete with communal green spaces, clustered parking, and network of footpaths. Over the years these have provided a serene, yet somewhat isolated environment in the middle of the city in which to raise a family. Indeed, the postwar planning principles that guided the urban renewal project conceived the urban block as a self-sufficient entity.

### ***Rochester Heights: Shortcomings of Site Plan***

The housing typology of Rochester Heights site reflects some housing styles and planning ideologies of German 1920's social housing, in particular the

Figure 17 Rochester Heights Circa 1979 Journal Article



*siedlungen*, or low townhouse bars organized around a shared green space. Rochester Heights notably recalls architect Bruno Taut's Onkel-Toms-Hütte development in Berlin, of 1926-1927, with its linear banks of townhouses organized alongside a system of pedestrian pathways, protected by a canopy of mature trees.<sup>8</sup> In many ways, Rochester Heights embodies the modernist garden suburb ideal, with its virtues, and with its flaws. Jane Jacobs would critically call the development a "togetherness enclave" *The Death and Life of Great American Cities*.<sup>9</sup> Its townhouse rows neither possess a strong street presence, nor do they connect to the surrounding urban fabric.

"The physical layout of the buildings is not conducive to enabling contribution to the surrounding neighbourhood context."<sup>10</sup> In this sense, rather than being a dynamic part of the community, Rochester Heights creates an interruption in the Little Italy and Preston Street fabric.

Figure 18 (Top) Rochester Heights Public Housing,  
Ottawa  
Figure 19 (Bottom) Bruno Taut's Onkel-Toms-Hütte,  
Berlin



Access to the developments' central spaces is confusing and uncertain, as is their nature as semi-private or as fully public space. These ambiguities further prohibit the developments' connection to the neighbouring community. The few parkettes featured on the site are generally located behind the townhome units. While these parkettes allow for varying activities to occur simultaneously, backyard fencing obstructs views from the housing towards them. The narrow footpaths that lead to them appear as afterthoughts rather than as integral elements of the site design. As a result, perceived and real safety within the development is undermined. The issue of safety is compounded by decreased surveillance, and the lack of sense of ownership of the public spaces, the latter being a well-understood factor in elevated urban crime rates. Jane Jacobs discussed this "eyes on the street" concept in her book *Death and Life in the Great American City* of 1961; it is also an integral part of the Crime Prevention Through Environmental Design

Figure 20 Rochester Heights Communal Lawn Behind Housing Units



(CPTED) concept, which looks at the design and use of the built environment as a means of eliminating crime.<sup>11</sup>

The development of Rochester Heights is located on a slight slope with its high point along Booth Street and its low point on the south-western corner of Rochester and Raymond Streets. Apart from the elimination of basements in the new housing, the original project did not take into account this unique topography nor address the fact that seasonal rivers form each spring and run underneath the site.

A revised site plan offers an opportunity to respond to the site's topography and the community's need for safe exterior public space in a more sensitive and specific manner.

### ***Rochester Heights: Shortcomings of Buildings***

Rochester Heights was an experimental building project produced by the CMCH in 1966.<sup>12</sup> Today, it is fair to say that these once avant-garde buildings have aged and that their lifecycle is at an end. OCH must spend \$250,000 on maintenance -- in particular on repairs of rotting sub-floors above the crawl spaces and repairs to flooring and heating, to name but a few of the items on the repair list -- this year alone. As one example, the flat roofs were retrofitted with pitched roofs quite early in the life of the development in order to solve roof performance and overhead protection issues of both wall and window problems.<sup>13</sup> The "Planning Rationale Rochester Heights Revitalization" document of Lily Wilson, 2013 by OCH, documents the maintenance issues of Rochester Heights buildings, and highlights:

...several issues including, but not limited to, fair to poor concrete and asphalt walkways and parking, free-standing and accumulated water

in the crawlspaces situated under occupied units with no functioning drainage from the property, and aging, deteriorated exterior walls. Replacement of heating, ventilation and piping systems as well as the electrical distribution system is recommended since all components are outdated and perform poorly.<sup>14</sup>

OCH has performed yearly maintenance to the housing and has made improvements to the health and safety of the community by adding community services and supporting tenant initiatives. "Other improvements to the living environment, including the creation of a Community House and a community-lead initiative for the replacement of the play structure, have taken place."<sup>15</sup>

### ***Tenants of Rochester Heights on Life in Public Housing***

A research report commissioned in 1970 by CMHC, completed by Victor Valentine, Dean of the Sociology Department at Carleton University, weighed in on the spatial considerations and allocations, as well on the physical characteristics of public housing of three sites in Ottawa. Valentine included the Rochester Heights development in his study. Published in 1970, *Space for Living* took on the task of defining and gathering testimonial information from households, regarding their home. The report provided a critical perspective on how tenants used their interior living spaces and included accounts of tenants' opinions regarding their home's size and layout. Their comments on the physical characteristics of the overall development are also interesting.

It is important to note that tenant criticisms were primarily to do with construction problems and inferior standards. The table below illustrates the

distribution of tenant criticisms of three, four and five bedroom units at the three Ottawa social housing neighbourhoods in question, including of course Rochester Heights for which construction was completed in 1966.

<u>Criticism</u>	<u>Respondents</u>	<u>Number</u>	<u>Percentage</u>
Dining-Kitchen has varied use	65	44	66%
Lack of closet doors	65	24	36%
Would like shelves [in] basement	37	5	14%
Lack of broom closet	39	23	58%
Lack of shower	65	31	47%
Lack of Heating control	35	13	36%
Lack of Kitchen cupboard doors	23	20	86%
Would like basement	23	17	72%

**Table 1 - Criticism Applying to All House Type**(Table from *Space for Living* report, 1970, p.6)

Valentine's findings that the tenants' criticisms were associated with the incompleteness or minimal provisions in the area of finishes -- the absence of provisions such as closet and kitchen cupboard doors for example -- underscored the problem that plagued public housing projects of the time. Such problems as lack of doors could nonetheless be easily corrected when

public funding became available. The results from this section of interviews also demonstrated that the provision of certain amenity spaces, such as broom closets, shelving, and basements, had a considerable impact on the organization and cleanliness of a home. In the development of Rochester Heights, the fact that basements were not provided due to unfavourable site conditions had repercussions that were strongly felt by all the interviewed tenants, as reflected in their comments. Valentine summarized as follows:

Would like basement - 72%: This criticism only applies to Rochester Heights where ground conditions required their omission. The point made by this criticism is that respondents did not consider the laundry and storage areas, provided in lieu of the basement and complying with Residential Standards, adequate in approaching the amenity provided by a basement.<sup>16</sup>

Storage and the home's size affect tenants' appreciation of their home. Living in a home with limited space or lack of adequate storage for various everyday items such as a broom, for instance, becomes both an irritant and a daily reminder one's economic status and limited financial means. A broom out of place can lead to a myriad of deeper issues including feelings of inadequacy, frustrations with financial status, socio-economic alienation, added stress, etc. One might imagine that such frustrations could also lead to hardened feelings of stigmatization towards one's home and possibly, one's entire community.

From these criticisms we can identify that the integration of laundry areas into storage spaces on ground or upper floors did not adequately compensate for the absence of a basement. Relatedly, freezer ownership was also shown to be lower in the Rochester Heights development, a consequence of the lack of a basement.<sup>17</sup> Valentine reported that "the rate of ownership and size of freezers, should be carefully watched to see if any problems occur in the

future with regards to storage. This latter point is of particular importance in basement-less houses or in houses where basement space is of the minimum."<sup>18</sup> Clearly, the provision of generous storage and an open, flexible “below-grade addendum” to the unit, was appreciated by families, and greatly contributed to the management of day-to-day living.

*Space for Living* also reported great dissatisfaction with the Kitchen-Dining combination.

Though only 66% record the fact, it is clear from the interviews that the great majority of tenants prefer the Dining-Kitchen relationship and use the room for a far greater variety of activities than simply eating. Cooking, ironing, entertaining, homework, playing games, writing, sewing, indicate the range of uses. There is clear evidence in the interviews that respondents wished that the room be larger. Providing

the table will seat the occupants of the house plus having adequate circulation space it is difficult to see how much larger this room can be made, bearing in mind the meagre information now available and the discipline of costs for Public Housing. It may be that if a choice for space has to be made, there should be a greater leaning towards the needs of the Dining-Kitchen than the Living Room.<sup>19</sup>

Valentine's research demonstrated that, beyond achieving minimum standards, room sizes and storage in public housing needed to be better adjusted to tenants' real use of spaces of their dwellings. This recalls the importance of the kitchen noted by Mumford and Hayden. Kitchens and dining rooms, which can be used for a variety of functions on any given day, are thus distinct and especially important. They must therefore balance efficiency of size with flexibility for gatherings and varied uses. The relationship between the efficiency of the space for gatherings and size is

clear. "*Space for Living*" also demonstrated that the disorganized nature of the Kitchen-Dining space (with its small size, missing fixtures and awkward circulation paths around furniture) could render it unwelcoming and impede it becoming the 'heart of the home'. Recalling Mumford and Hayden's ideas regarding the meaning of home and gathering, the kitchen provides an opportunity to bond and strengthen family relationships. It is therefore fundamental for this space to perform well spatially and experientially.

Valentine's report also included information about smaller rooms such as linen closets, noting that some tenants (in particular in larger units) were dissatisfied with the size of the linen closets. Sound transmission between units was also a major issue. It is interesting to note that, with a value of 48, the sound transmission rating between Rochester's units complied with the National Building Code of the time, and that this standard has since been raised to 50.<sup>20</sup> These are factors that through the design process could easily

be noted, modified and corrected. Although few tenants would move due to inadequate linen closet storage, moving because of noisy neighbours is something that would be more likely to occur.

Valentine identified the importance of storage for items such as freezers, as mentioned above, but he also studies the storage of items such as those used in early childhood years. On this matter, based on tenant interviews, he concluded that the provision of storage in the basement for children's equipment such as high-chairs and carriages, which are used daily, was not only inconvenient, but unacceptable.<sup>21</sup> Additional space should be allocated to house these items on the main floor. Valentine also noted that as these items were only used for two to three years of a child's early life, they were therefore not permanent fixtures of a family's home furnishings. The longevity of use, however, increased according to the number of children living in the home.<sup>22</sup> Depending on the number of children being raised, these

staples in child rearing could be in use for an extended period of time. Storage for these items has an immense impact on the home's available space.

While Valentine's report was focused specifically on the building proper, it did uncover some interesting issues pertaining to the site and its design, in particular, tenant's dominant complaint that exterior yards lacked privacy.<sup>23</sup>

While the report did not go into great detail about the site plan and its provisions of children's play areas and equipment it did explain that:

The cost of providing adequate site works has always been a problem; invariably, when money has to be saved on a project the site works bear the first brunt of the axe, with the same future criticisms being made as in these interviews. It does not yet seem to be realized that, as known in Europe, the higher the density, the absolute necessity to provide correct and adequate site works.<sup>24</sup>

From this, Valentine imparts that the relationship between public exterior spaces and private outdoor spaces in housing developments should be considered carefully and is directly correlated to the site's contribution of both public and private design elements, such as site furnishings, fencing, trees, etc. While the need for funding is acute in public housing, the site's design contributes to the shared backdrop to the everyday activity. The design and distribution of public and private spaces therefore have an enormous impact on the quality and success of the development. And in urban settings, where pedestrian through-passage is much more frequent than in suburban detached housing developments, the site plan is all the more consequential.

Valentine's findings contribute to the body of research on space allocations and distribution in residential architecture. It is clear from his report that the basement as holder of essential storage, has played a major role in families

preference for the low-rise housing form. In addition to this, Valentine's report also demonstrates that families require housing forms that provide space, in particular basements, where children for play: whether they be in public housing or not, "basements are in fact used for many activities, particularly by the children," he writes.<sup>25</sup> Unlike the basement-less units at Rochester Heights, new developments in Ontario include unfinished basements. These provide neutral and flexible spaces that dwellers independently define. In addition to providing storage, these areas can become playrooms, offices, media spaces, or combinations thereof. The livability of the house depends greatly on the basement to contribute to its overall organization, storage capacity and size.

The provision of large flexible living spaces, and ample storage will facilitate the life of families with growing children. These spaces also contribute greatly to the ability for families to gather, which is imperative to the success of the

home. In the context of this thesis which explores higher density family housing the question becomes: How could the basement be reinterpreted in multi-level urban housing forms?

Drawing upon direct interviews, Valentine's report established a precedent for public housing tenants. Their thoughts regarding the home shed light not only on public housing but also on family life. To be sure, there would be much to learn from studies of this nature in the present day with regards to transformations in public housing developments and the family unit in Ottawa over the last half century.

### ***Rochester Heights: In Need of Renewal***

For reasons listed above, OCH has identified the Rochester Heights housing settlement as a priority site for redevelopment. But before redeveloping, it is important to emphasize that OCH's long waitlist for housing means that no

affordable housing should be lost in Ottawa. This is especially important on the Rochester Heights site, as it represents OCH's third largest OCH family housing community in Ottawa's Central District of Ottawa.<sup>26</sup> Yet the Rochester townhomes' deteriorating conditions means that demolition makes sense. This is a contradiction, and OCH's solution must of course be replacement and improvement with increased density. For OCH, the Rochester site represents a valuable opportunity not only to improve inefficient housing stock and plug a leak in maintenance costs, but to increase affordable housing offerings as well. Barron Meyerhoffer, Director of Planning and Engineering at OCH explains that "the ideal would be to increase density and provide market rate units, ideally ten to twenty percent, perhaps even sell part of the land to help fund the redevelopment."<sup>27</sup>

The site's central location is highly desirable, and any developer would love the opportunity to redevelop the Booth, Raymond, Rochester and Gladstone

block into market rate high-rise condominiums and/or stacked town houses. The interest here and the tremendous promise of this site in fact, is that its redevelopment is not for developers to decide. OCH is obliged and committed to securing this site for affordable family housing, period. For the purposes of this thesis, the site therefore offers an ideal vessel for exploring and testing family housing forms in urban settings today. Acknowledging that issues surrounding access to family housing go well beyond design and have much to do with cost, the hope is that findings might be applied to market-rate housing for families in urban centres.

### ***How to Proceed?***

There are many case studies of contemporary revitalization of superblock housing sites in Canada. The revitalization of these mid-twentieth century superblock social housing projects elect, in most cases, to phase revitalization by demolishing and inserting new buildings. Such was the case for Toronto's

Regent Park and Alexandra Park neighbourhoods. While the Rochester Heights site is much smaller than Regent Parks' 69 acres and Alexandra Park's 18 acres, its development in the 1960's followed many of CIAM's principles regarding residential buildings in the park.<sup>28</sup> A major part of the revitalization of these projects was the reassignment of land for roads. This was to reconnect the developments to the city grid and sew the site back into the surrounding community and city. Rochester Heights, however, is not conducive to such measures due to size and current site massing.

Despite the benefit of preserving some or all of the housing, this thesis argues that the appropriate model is a complete replacement. This is in agreement with OCH's philosophy. OCH has in fact commissioned studies about the viability of such an endeavour. In 2009, IBI group was retained to perform a strategic planning analysis to determine OCH's redevelopment options; this was followed by a planning rationale for the revitalization of Rochester

Heights in 2013.<sup>29</sup> Both of these reports demonstrate the site's potential for redevelopment and outline the policies and regulatory framework at the national, provincial, and municipal levels, that would affect the site at the time of redevelopment. These reports also examined the revitalization strategies employed in similar public housing projects in Ottawa (the Richmond Road Affordable housing project) and in other cities. These included: Alexandra Park in Toronto which has a similar history as Rochester Heights, Velencia Gardens and North Beach Place in San Francisco, 1400 on Fifth Avenue, in New York City, the Creighton/Garish Neighbourhood Renewal in Halifax, the O'Bee's Steam Bath in Winnipeg, Regent Park in Toronto and Angus Shops in Montreal.<sup>30</sup>

Phasing must be considered as Rochester Heights is fully occupied. A new development on this site should minimize tenant displacement, and take into account human sensibilities around such a dramatic change.

## NOTES

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- 1 Gray, Linda. *Beyond the Bulldozer: Community Renewal in Ottawa*. Ottawa: Corporation of the City of Ottawa, 1971. p.9
- 2 Department of Planning and Works, Planning Branch. "Preston Street." *In Urban Renewal: Ottawa Canada*, by Planning Branch Department of Planning and Works, 72-78. Ottawa: Corporation of the City of Ottawa, 1967. p. 73.
- 3 Department of Planning and Works, *In Urban Renewal: Ottawa Canada*. p.77.
- 4 While Linda Gray notes that 20.8 acres were dedicated for the overall redevelopment and 6.8 acres for public housing, CMHC's Urban renewal documents note 15.5 acres were dedicated for the renewal and 5.5 acres for public housing, similarly the Planning Branch documents state the renewal at 16 acres. The inconsistencies can possibly be attributed to changes in planned renewal area and the completed renewal area.  
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Corporation, Central Mortgage and Housing. *Urban Renewal in Ottawa and Hull*. Central Mortgage and Housing Corporation, Architectural and Planning Division, 1971. p.3  
Department of Planning and Works, Planning Branch. "Preston Street." *In Urban Renewal: Ottawa Canada*, by Planning Branch Department of Planning and Works, 72-78. Ottawa: Corporation of the City of Ottawa, 1967. p. 77.
- 5 Department of Planning and Works. *In Urban Renewal: Ottawa Canada*. p. 73.
- 6 Valentine, Dean. *Space for Living: The use of space in Public Housing*. Carleton University Sociology Department Research, Ottawa: CMHC, 1970.  
and, Gray, Linda. *Beyond the Bulldozer: Community Renewal in Ottawa*. Ottawa: Corporation of the City of Ottawa, 1971. p.10
- 7 There are some discrepancies in the Preston Street renewal area and the land area attributed for public housing.  
Corporation, Central Mortgage and Housing. *Urban Renewal in Ottawa and Hull*. Central Mortgage and Housing Corporation, Architectural and Planning Division, 1971. p.3  
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Gray, Linda. *Beyond the Bulldozer: Community Renewal in Ottawa*. Ottawa: Corporation of the City of Ottawa, 1971. p.10
- 8 Hall, Peter. *Cities of Tomorrow*. Malden: Blackwell Publishing, 2002. p.126-127.
- 9 Jacobs, Jane. *The Death and Life of Great American Cities*. New York: Vintage Book, 1961. p.80.

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- 10 Wilson, Lily. *Planning Rationale Rochester Heights Revitalization*. Ottawa Community Housing, 2013.p.6
  - 11 "CPTED is a proactive design philosophy built around a core set of principles that is based on the belief that the proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime as well as an improvement in the quality of life."  
Ontario, CPTED. *Crime Prevention Through Environmental Design*. 2014.
  - 12 Valentine, Dean. *Space for Living: The use of space in Public Housing*. Carleton University Sociology Department Research, Ottawa: CMHC, 1970.
  - 13 Meyerhoffer, Barron, interview by Michelle Uyeyama. *Email Conversation* (March 08, 2015).
  - 14 Wilson, Lily. *Planning Rationale Rochester Heights Revitalization*. Ottawa Community Housing, 2013.p.9
  - 15 Wilson. *Planning Rationale Rochester Heights Revitalization*.p.6
  - 16 Valentine, Victor. *Space for Living: The use of space in Public Housing*. Carleton University Sociology Department Research, Ottawa: CMHC, 1970. p.8
  - 17 Valentine. *Space for Living*. p.19.
  - 18 Ibid., p.21
  - 19 Ibid., p.6-7
  - 20 Ibid., p.9-10
  - 21 Ibid., p.22
  - 22 Ibid., p.20
  - 23 Ibid., p.11
  - 24 Ibid., p.11
  - 25 Ibid., p.27
  - 26 The wait time for OCH housing is up to 8 years. It provides less than its 15% goal of market-rate housing.34% of tenants households are families with children less than 18 years of age and 31% are seniors. The two largest family communities in Ottawa's Central District are LeBreton Flats West Town Centre with 118 one to three bedroom townhomes and the largest community being the 182 townhome units of Strathcona Heights which include one to four bedroom townhomes.  
Housing, Ottawa Community. *About OCH*. and Meyerhoffer, Barron, Interview by Michelle Uyeyama. *Email Conversation* (October 14, 2014).
  - 27 Meyerhoffer, Barron. Interview by Michelle Uyeyama. September 22, 2014.
  - 28 Alexandra Park: Housing, Toronto Community. *Alexandra Park Planning Rationale*. Toronto: Toronto Community Housing, 2011. p.4. and Regent Park: Housing, Toronto Community. *Regent Park Social Development Plan*. Toronto: Toronto Community Housing, 2007. p.3

- 
- 29 The first report commissioned by OCH was a Strategic Planning Analysis by IBI Group, the second was a Planning Rationale for the Revitalization of Rochester Heights by Lily Wilson Group, IBI. *Rochester Heights Strategic Planning Analysis*. Strategic Planning Analysis, Ottawa: IBI Group, 2008. and, Wilson, Lily. *Planning Rationale Rochester Heights Revitalization*. Ottawa Community Housing, 2013.p.9
- 30 Group, IBI. *Rochester Heights Strategic Planning Analysis*. Strategic Planning Analysis, Ottawa: IBI Group, 2008.

## **PART IV: RENEWING RENEWAL AT ROCHESTER HEIGHTS**

### **5. TERMS OF REFERENCE**

Having established the current site conditions of the Rochester Heights, the focus is now directed to the composition for its revitalization. Re-imagining the landscape of urban family housing at Rochester Heights must both remember the past and propose a new future for urban families in public housing. The existing settlement should only be demolished if something better can replace it. Rochester Heights is not devoid of qualities, after all. A higher settlement form and one that offers greater connection to the surrounding urban fabric is called for. In order to make the project financially viable, Ottawa Community Housing Corporation envisions that some amount of market rate housing must be integrated into the new development.<sup>1</sup> This thesis has accepted this premise. The new project, here proposed, reassigns the lot north of Gladstone to private developers.

Proceeds from selling off this section of the property will serve to finance part of the new housing and landscape, and offset the cost of the redevelopment, helping to make a lower density, ground-oriented family-friendly settlement, achievable. The proposal aims to increase the number of housing types currently provided so as to cater to a more varied demographic and increase diversity.

The project must be guided by clear aims. One must not demolish and replace without first stating reasons and intent. The proposal is to increase the number of family housing units by fifty percent, and this, despite the reduction of the site's size due to the reassignment of its Northern block. It is imperative that a new development produce additional housing in order to reduce OCH's waitlist. Furthermore, the following principles will guide the site design:

- Increase connections to surrounding fabric, with clear connections and entry points to access the internal portions of the site
- Incorporate well defined and well configured outdoor spaces, including both shared public spaces and private ones
- Incorporating an internal pedestrian "street" for interior units that do not face one of the four streets that define the site
- Increasing the housing's connection to and view of internal public spaces
- Incorporate public spaces that provide for multiple uses and promote social interaction

The architecture of the units will furthermore be improved according to the ideas explored in this thesis. In addition to fulfilling the OCH's objectives for family units, in regards to bedrooms, accessibility and the number of bathrooms, the following principles will guide the unit designs:

- Grounding upper level units with entries close to grade
- Flexible floor plans that allow spaces to function in multiple ways
- Increased storage and storage types

- Cross ventilation and increased natural lighting
- Incorporating "flex rooms" in each unit, which can function as playrooms, storage, or study rooms

These principles, which will be explained in more depth in chapter 7, will guide the design for urban family social housing in the proposal for a renewed Rochester Heights. Before embarking on this design however, an exploration of case studies in urban family housing will be useful. The following chapter presents a selection of case studies from various chapters of housing history of the last sixty years as a source of inspiration and guidance for the thesis proposal.

## NOTES

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- 1 Meyerhoffer, Barron, interview by Michelle Uyeyama. Email Conversation (October 14, 2014).

## **6. HOUSING CASE STUDIES**

Sky-Garden Houses by We Architects

Courtyard House by Jorn Utzon

Habitat 67 by Moshe Safdie

Unité d'Habitation by Le Corbusier

Co-housing communities by McCamant & Durrett Architects

The case studies presented below demonstrate different siting and housing strategies explored in the previous chapters of this thesis. These strategies include, but are not limited to, site layouts and the distribution of exterior private and public spaces, as well as housing forms and character of interior spaces. Aspects of each of these projects provided models for the architectural proposal for new housing at Rochester Heights, presented in the final chapter of this thesis.

The variety of projects selected as case studies shows just a small portion of the richly diverse range of housing forms for family living. While each of these projects responds to specific social, economical and political conditions, they share the characteristics of being oriented toward families and of being experimental and propositional in nature at the time they conceived. The text below lists each case study's distinguishing and inventive elements, followed by a short description and project images.

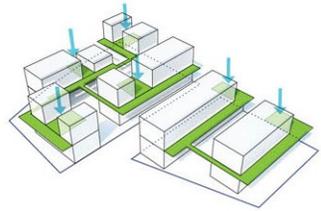
### ***Sky-Garden Houses by We Architecture***

(Denmark, 2011, 47 homes over 4500 square meters)

We Architecture's social housing proposal of stacked duplex units one above another and provided over-dimensioned raised walkways for both circulation and private terraces. We Architecture subtracted duplex units from the raised walkway level to provide light to the housing complex and generate gardens for upper level units.

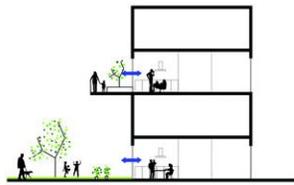
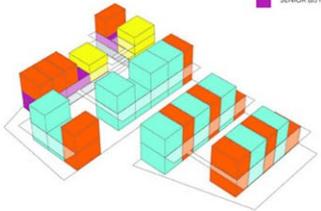
- Incorporation of private spaces for dwellings above grade: a raised sidewalk wraps around and between the masses.

- Porous arrangement of the structures: the major building masses are "carved out" in the middle, on floors three and four. The subtraction of part of the building mass on the upper floors increases light penetration into the lot.



GALLERIES

- SMALL 65 m<sup>2</sup>
- MEDIUM 85 m<sup>2</sup>
- LARGE 115 m<sup>2</sup>
- SENIOR 85 m<sup>2</sup>



INSIDE / OUTSIDE

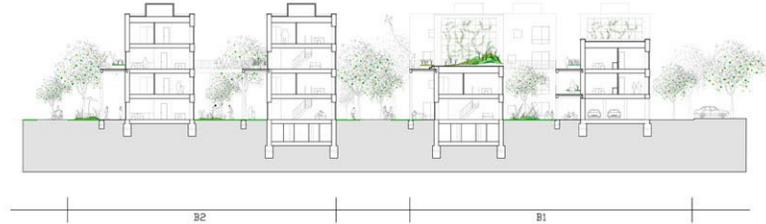


Figure 21 Conceptual Drawings for Sky-Garden Houses

## ***Courtyard House by Jorn Utzon***

(Denmark, 1957, 63 homes over 0.062 square kilometres)

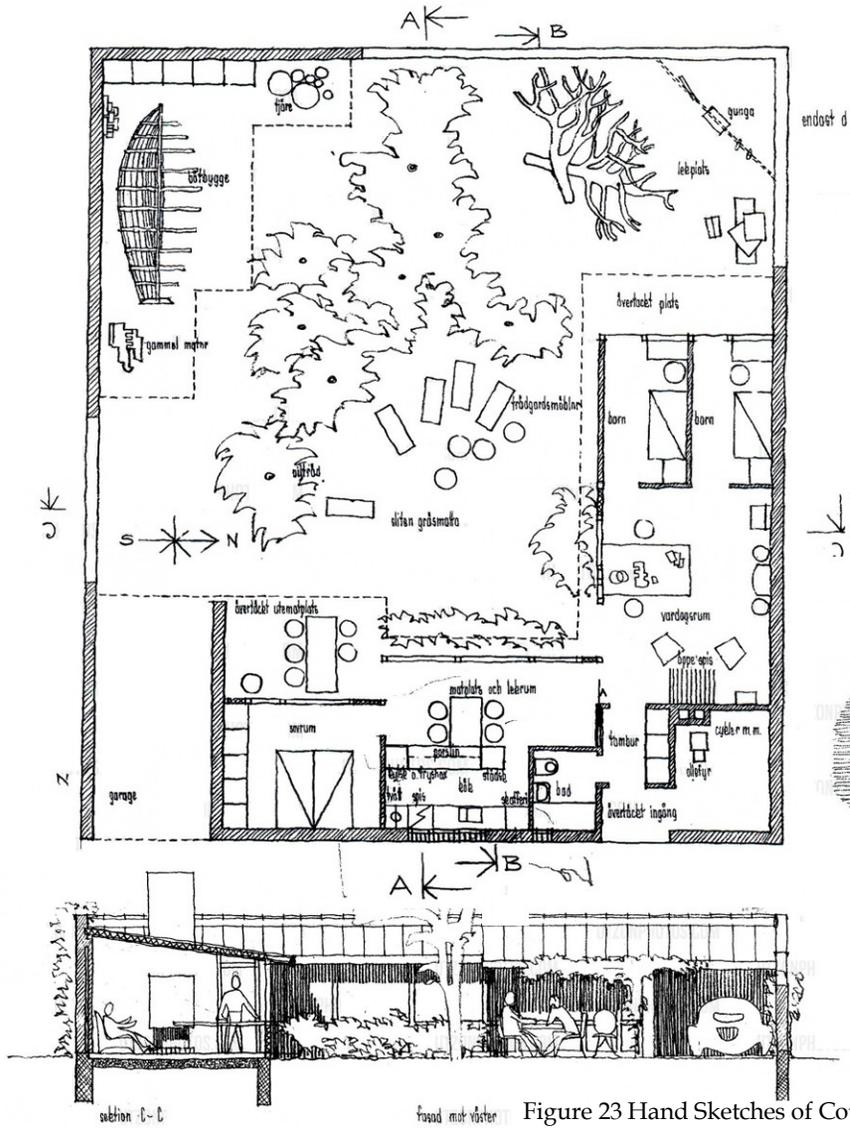
Utzon's 63 L shaped houses were inspired by traditional Danish farmhouses with courtyards and illustrate an "additive approach" in that the neighbourhood is formed by progressively repeating a singular L-shaped house as the project slowly climbs a hill. There is one unit at the bottom, while the fabric becomes denser at the other end.

- Privacy attained from the housing form: occupying a total area of 49 x 49 feet, the houses are L-shaped, the open end of the L being completed by two walls that form a walled garden. Each house thus possesses private outdoor space. The units are placed in a large communal garden intended in Utzon's design to compensate for the reduced size of the houses and their gardens.

- Increased daylight due to the courtyard glass walls.

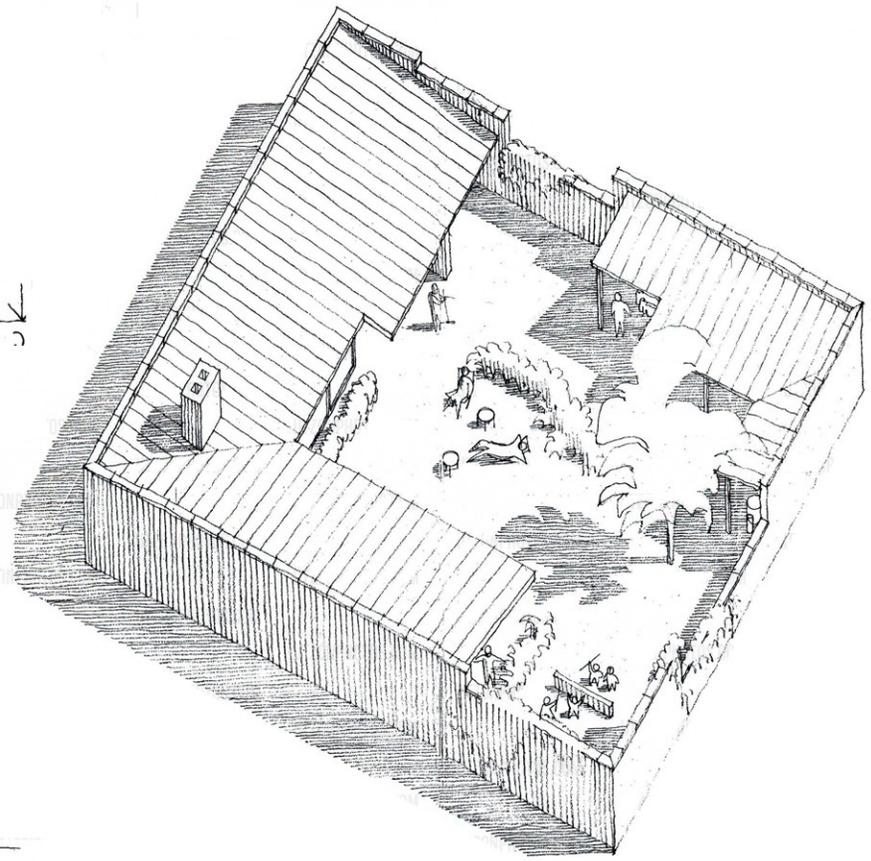
Figure 22 (Top and Bottom) Courtyard House  
Development Denmark





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frasad mot väster Figure 23 Hand Sketches of Courtyard House by Jørn Utzon

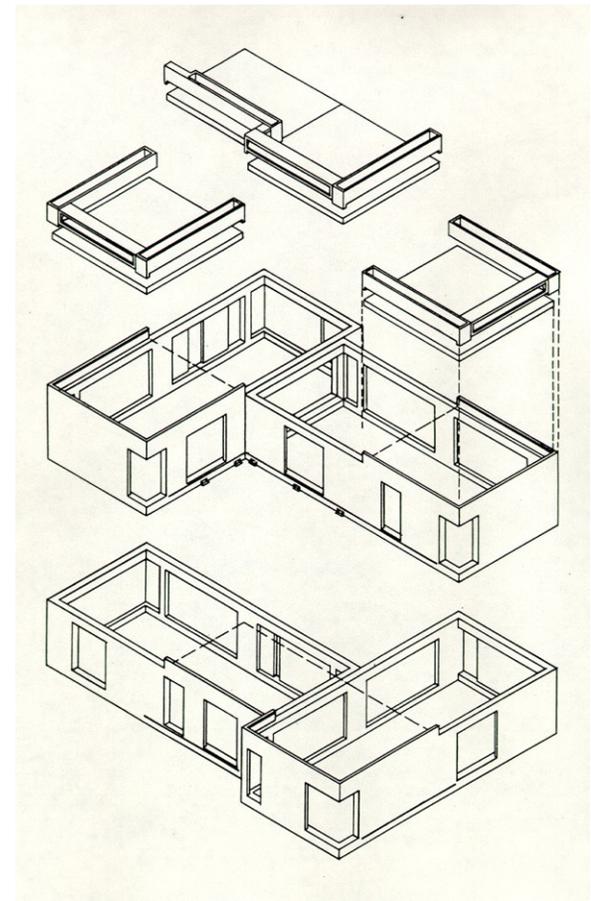
## ***Habitat 67 by Moshe Safdie***

(Montreal, 1967, 158 units on a total of 10 storeys)

Moshe Safdie's Habitat 67 housing pavilion built as part of the 1967 World Exposition, themed "Man and his World", took on the task of rethinking high-density family housing. The project, conceived from his thesis about family housing at McGill University, had two goals: to provide affordable housing by creating modular pre-cast concrete units, and to provide high density housing with private entrances and access to exterior private terraces.

- Incorporation of private spaces for dwellings above grade: Unit configurations ranging from one to four modules of 600 square foot "boxes" include exterior private roof gardens over lower unit modules.

Figure 24 Habitat 67 Prefabricated Unit Module Composition



- Diverse types of reproducible units that are brought together to create a uniform housing form which still allow for tenant identity within a larger ensemble.

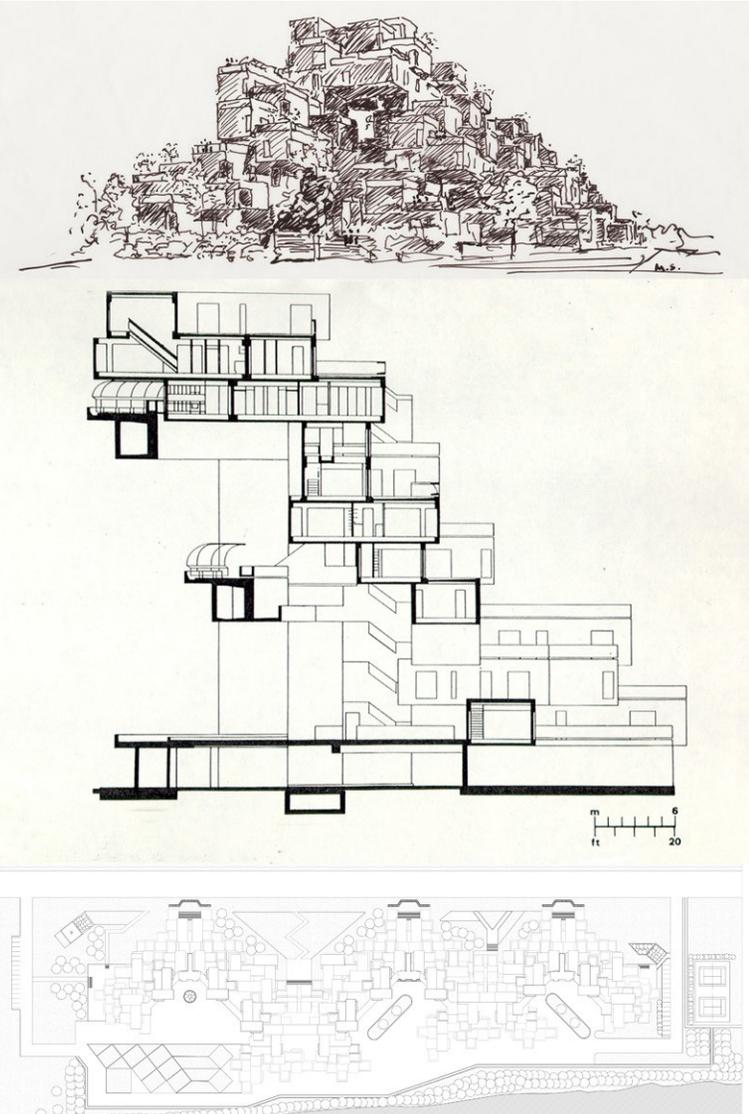
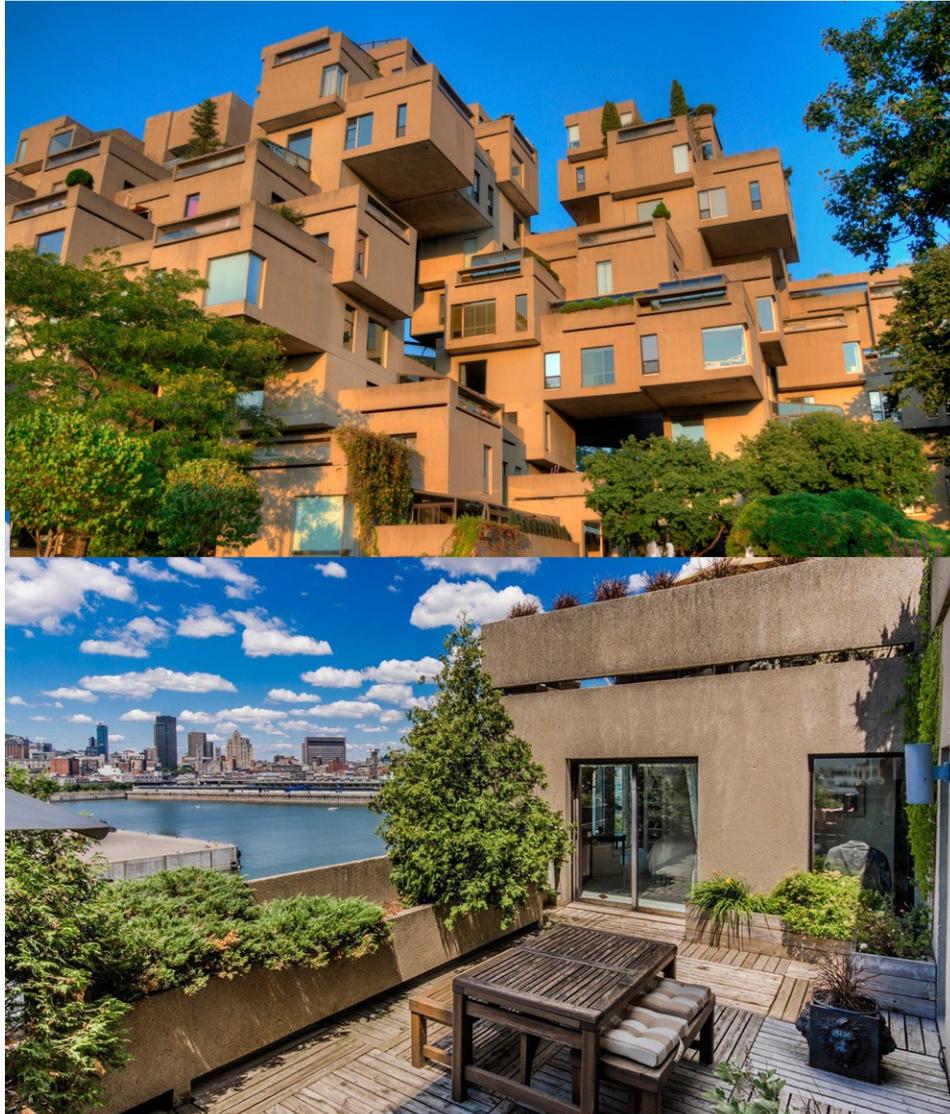


Figure 25 Habitat 67 Various Pictures, Sketches and Drawings

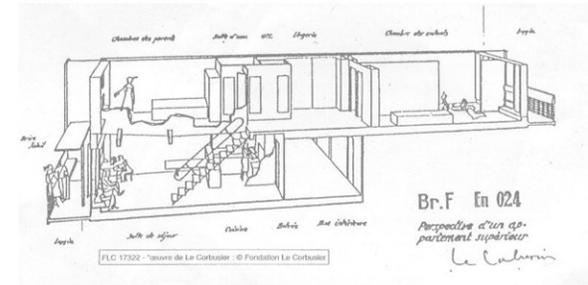
## ***Unité d'Habitation by Le Corbusier***

(Marseilles, 1952, 337 apartments on a total of 18 storeys)

Le Corbusier's famous "city in the sky" implemented the modular proportional system, and produced a new idea of family living to complete his vision of the modern city. With corridors on every third floor only, the slab produces two-storey units which are L-shaped in section, and thus, which have windows on both sides of the slab and cross ventilation. The building incorporates 23 unit types as well as a "city street" on the seventh floor with stores (including medical, sports, and school supply shops) and services. A roof garden turns the exhaust chimneys into sculptures and incorporates a kindergarten, a shallow pool, an outdoor theatre and a playground for the community's children.

- Multi-level housing in high density buildings

Figure 26 Le Corbusier's Unité d'Habitation



- Compact housing forms that still allow for luxury and spaciousness through the integration of double-heights spaces
- Ventilation and natural lighting: of the units through the L-shaped units' sectional forms which provide units with through building cross ventilation and natural sunlight which was unique and an uncommon feature of apartment buildings which face a single building facade.
- Transformation of utilitarian elements into child-friendly spaces: such as the transformation of simple concrete to serve multiple uses, such as shallow pools and benches.

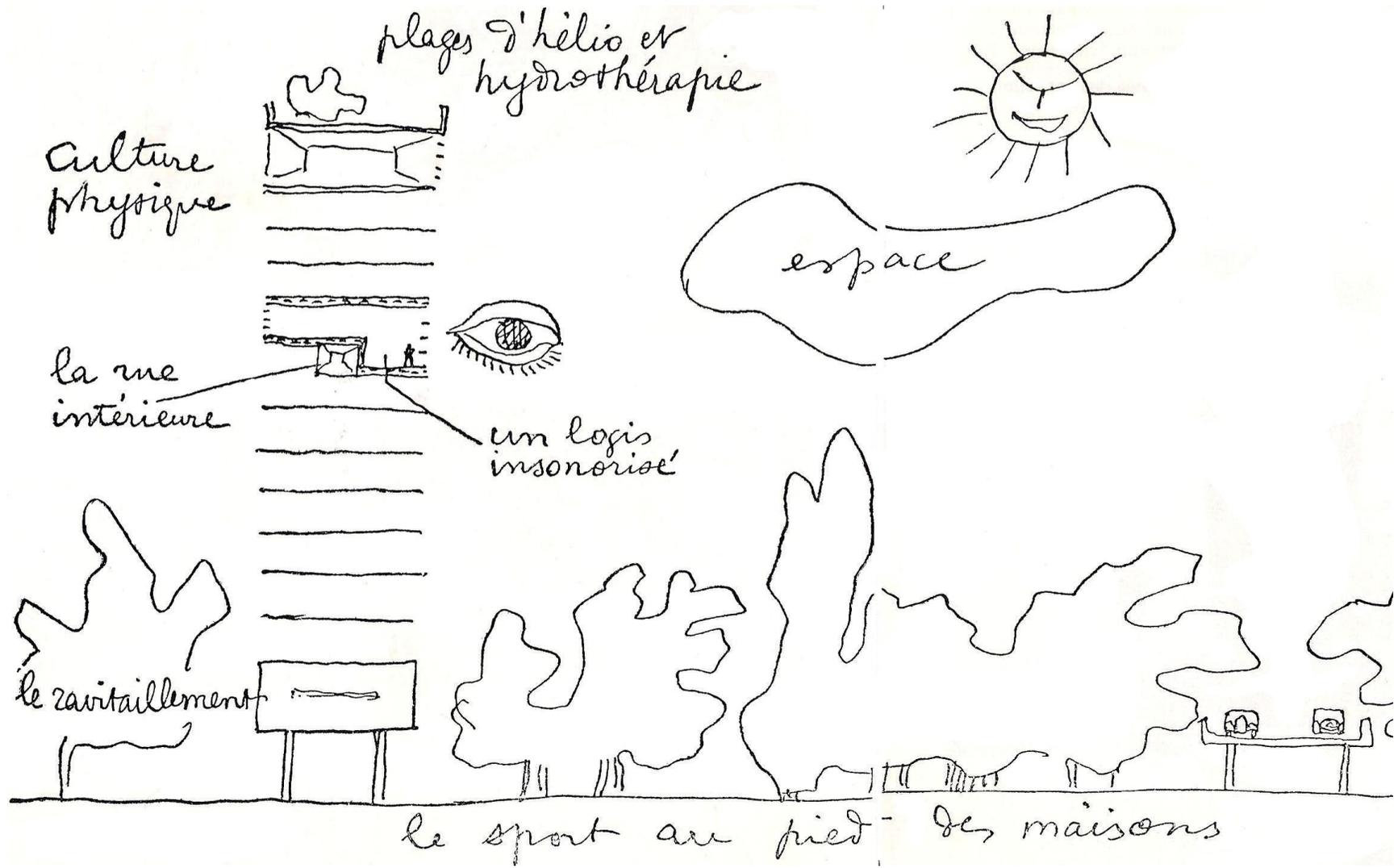


Figure 27 Unité d'Habitation Sketch by Le Corbusier

## ***Co-housing communities by McCamant & Durrett Architects***

(Various locations, dates and sites)

McCamant & Durrett introduced the concept of co-housing communities into North America in the late 1980's. Co-housing communities relies heavily on the integration of residents into the design development process to ensure the community design meets their priorities. The balance between privacy of the individual home and the publicly shared spaces where numerous activities take place is at the heart of the community design concept. The "development's physical design encourages the sense of community" and is key in making the communities successful.<sup>1</sup>

- Spatial division of exterior spaces and amenities for communal use
- The acknowledgement of individuality and privacy within a larger community context via the design and use of colour of individual homes.

Figure 28 Various Co-Housing Exterior Communal Spaces





The above case studies present an array of approaches to higher-density family housing in comparison to the detached house model. They each propose how families can live together, yet sufficiently apart. They show how proximity can be an asset to family life. The specific elements that I retain here for the design proposal for Rochester Heights are multiple. With regards to the journeys from the public realm to the units, the following proposal is inspired by: We Architect's and Safdie's raised pedestrian streets as an alternative to grade accessibility when the latter is not possible, Le Corbusier's skip stop and playful approach to the building, and Utzon's provision of a walled garden and the notion of the importance of boundaries and privacy as a compliment to communal and open spaces. In terms of exterior outdoor spaces, the project learns from Safdie's Habitat project and how, in particular, the creation of collective networks and of private havens are treated as two sides of the same coin. McCamant & Durrett's Co-housing

projects demonstrate how exterior communal spaces can contribute to increasing light and air-flow in addition to acting as community anchors. Devices for creating individuality amidst the collective that this project will refer to are walled gardens (Utzon) and the use of colour (McCamant & Durrett).

## **7. DESIGN PROJECT PROPOSAL**

The following chapter presents a design proposal for one hundred and fifty dwelling units at Rochester Heights to replace the existing hundred units currently provided. This chapter thus tells a story of an imagined new life for the Ottawa housing development of Rochester Heights, through architecture. Lewis Mumford's historical perspective of the family home, Norbert Schoenauer's analysis of grouped housing forms for families, Dolores Hayden's study of house form in relation to the role of women and the raising of children, and Victor Valentine's in-depth picture of life in social housing in Ottawa, will be brought to bear on the development of a new housing district at Rochester Heights, Ottawa. Lessons learned from case-studies of notable family developments will also be operative here. A first step in this proposal is to declare primary criteria for the home designs. These criteria will be at the heart of all the design decisions, from the site plan to

unit layout and detail design. My starting point is to return to Lewis Mumford's insights regarding the importance of a space for gathering in the family home. Each family unit in the new Rochester Heights housing will be conceived around a generous shared space for family gathering. Secondly, privacy for each family as a unit is here seen as imperative in the design decisions. Thirdly, the criteria of convenient and fluid access to the ground and the outdoors, directs the design. Finally, the project keeps in mind Ottawa Community Housing's past experiences and present aspirations to better tie the neighbourhood to its surroundings.

### ***The Site***

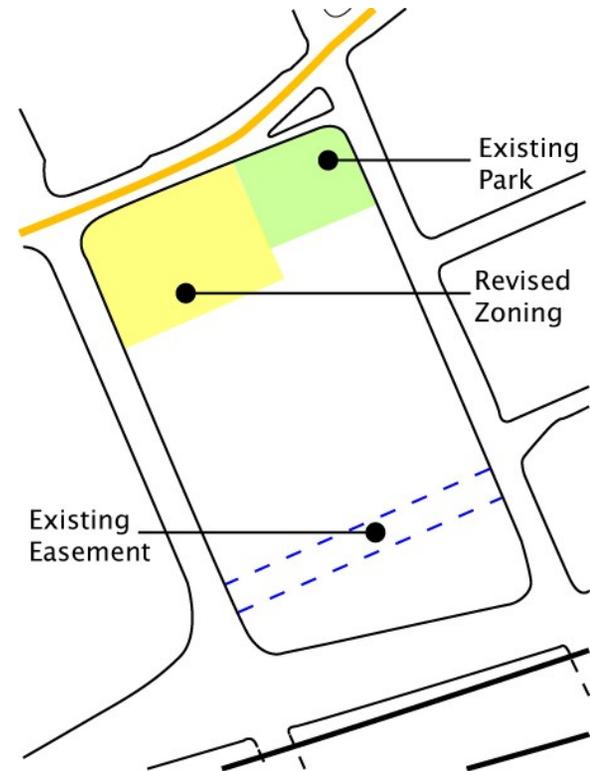
The first step in revitalizing the site was to understand the internal and external zoning and environmental conditions that would affect its redevelopment. These conditions included: an existing easement along the southern border of the site, the highway noise pollution on Raymond Street,

and the revised zoning sought by the City of Ottawa.<sup>2</sup> With the anticipated changes in zoning affecting the permitted uses along Gladstone and OCH's desire to include some market-rate housing alongside the affordable units on that site, I deemed it appropriate to designate the portion of the site along Gladstone for an eight storey building to include a portion of market rate rental dwellings in combination with subsidized unit rentals. Additional revenues generated by this strategy would of course be directed toward the affordable family housing on the much larger remainder of the site. Sited on a city-designated "traditional main street," this building would house commercial spaces on street level. Current zoning restricts height to twenty meters, which translates to six storeys. This proposal chooses to remain fairly close to the ordinance. Should this site be redeveloped, the height of this building will of course be a contested topic, the current climate in Ottawa favouring great departures from the ordinance, and much taller structures.

The question of the height of a taller building at the Gladstone end of the site is not this thesis's central concern. Rather, the thesis is interested in studying a conception of the neighbourhood as a whole.

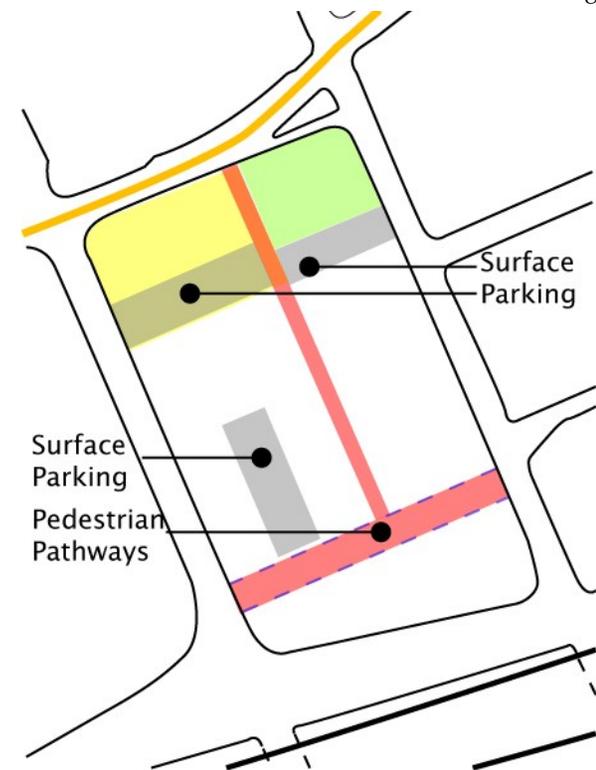
The easement divides the remaining portion of the site awkwardly, as seen in figure 29 as it left a thin edge along Raymond Street. This presented a design challenge, but also an opportunity. A linear mid to high-rise residential building would address both the noise issues from the highway and the limitation caused by the easement extremely well.<sup>3</sup> This proposal implements a mid-rise apartment building along Raymond Street. The latter's building mass not only constitutes fifty units, but also acts as a noise-shield for the remainder of the site. The noise issue along the Raymond Street facade must of course be resolved; various strategies including multi-pane glazing and a vertical garden "sleeve" will be described further on.

Figure 30 Conditions Affecting the Rochester Heights' Site Design



The intent for the remaining central portion of the block was to include mid-rise housing that addresses the street, incorporates communal green spaces, as well as includes a community house as a community anchor. Access to the site's internal spaces is provided through the use of two major perpendicular pedestrian pathways. The first pathway provides access to Gladstone Avenue and is positioned between the new market-rate building and the existing Piazza Dante Park. The pathway's location would both serve to connect and provide the community with an identity along Gladstone Avenue. The second pathway makes full use of the easement and transforms, it into a community promenade. The pathway connects Rochester and Booth Streets and provides access to and through the site for the neighbouring communities. By reducing the number of pathways and placing the remaining ones more strategic and meaningful locations in relation to neighbourhood patterns, an increase in foot traffic on the four surrounding

Figure 31 Location of Pedestrian Pathways and Surface Parking



city streets is anticipated. This would result in added neighbourhood vitality and safety as well.

The biggest struggle for the site plan was the incorporation of tenant and visitor parking, as underground parking was not an option due to the seasonal river. In turn, accommodating the required number of parking spaces on grade would cover a large portion of the site area and consume land that is greatly needed for the housing, which is unacceptable. The solution was to place the majority of parking at grade behind the existing park and the new market-rate housing. Inconveniences from this parking location include longer walks to housing units. This parking scenario allows for the majority of the southern portion of land to be free for buildings. A secondary benefit from this scenario is that cars are kept closer to the main street Gladstone Avenue, resulting in a quieter neighbourhood. Finally,



location is an important decision, as the latter functions as a social anchor for the community and plays an important and supportive role in the function and socialization of families. A central and visible location is therefore appropriate. As compared to the current situation - the community house is now located inside a vacant housing unit - the new community house will have a stronger symbolic presence.



Figure 33 Rochester Heights Proposed Redevelopment Site Plan



Figure 34 Aerial Perspective of Rochester Heights and the Surrounding Community



Figure 35 Communal Green Looking North Towards Gladstone Avenue



Figure 36 Communal Green Looking East Towards Booth Street



Figure 37 Offset Stacked Maisonette and Stacked Maisonette Pass-Through Buildings Looking South-West From Gladstone Avenue Pathway to Communal Green

### ***The Buildings***

This proposal increases the number of different kinds of units as compared to the current neighbourhood to provide for both a greater variety of tenant family formations (single persons as well as families with children) and their sizes. Since the majority of units currently available at Rochester Heights are three-bedroom units, multiple housing forms are here proposed to respond to tenants' varying needs, including accessibility. The variety of three-bedroom units is also in response to the land available for redevelopment, and to the density required to achieve a fifty percent increase in housing from the current housing stock count.

The building are to be colour coded for simplification:

Blue represents the Market Rate Housing

Teal represents the Offset Stacked Townhouse

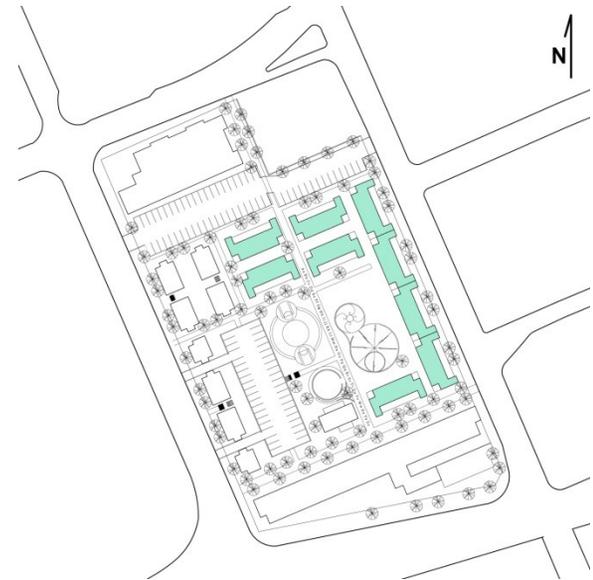
Yellow represents the Stacked Maisonette Tower

Pink represents the Stacked Maisonette Pass-Through Building

### *Offset Stacked Townhouse*

The first three-bedroom housing type presented here, the "offset stacked townhouse" is conceived as a variation and combination of the townhouse, the stacked townhouse, and the courtyard garden house. The four-storey offset stacked townhouse provides for a three-bedroom unit at grade and a four-bedroom unit above with both units having entry access directly at grade. The shallow housing form allows for exterior private space to be integrated into the footprint, with the lower unit having a private rear courtyard and the upper unit having a street-side terrace. The configuration allows the upper unit to connect to the street visually while maintaining its privacy. The upper unit is also given a smaller terrace facing the site's communal spaces, again allowing the upper unit to connect visually, this time with the surrounding community. The three-bedroom lower unit features a

Figure 38 Site Plan Showing the Location of the Offset Stacked Townhomes



large entry closet and makes use of the upper units' raised floor for additional entry storage. Both units feature an open plan kitchen, dining and living spaces that allow tenants to shape the interior space to meet their needs, as well as for more natural light and ventilation than conventional narrow lot townhouse designs. The shallow form allows for the front and back walls to carry the structural loads, minimizing sound transmission to the adjoining units. The floor plans also include large flex spaces, ample storage options, broom closets and multiple linen closets which are integrated seamlessly into the design. The master plan distributes eighteen offset stacked units in close proximity to Booth Street. See figure 35.

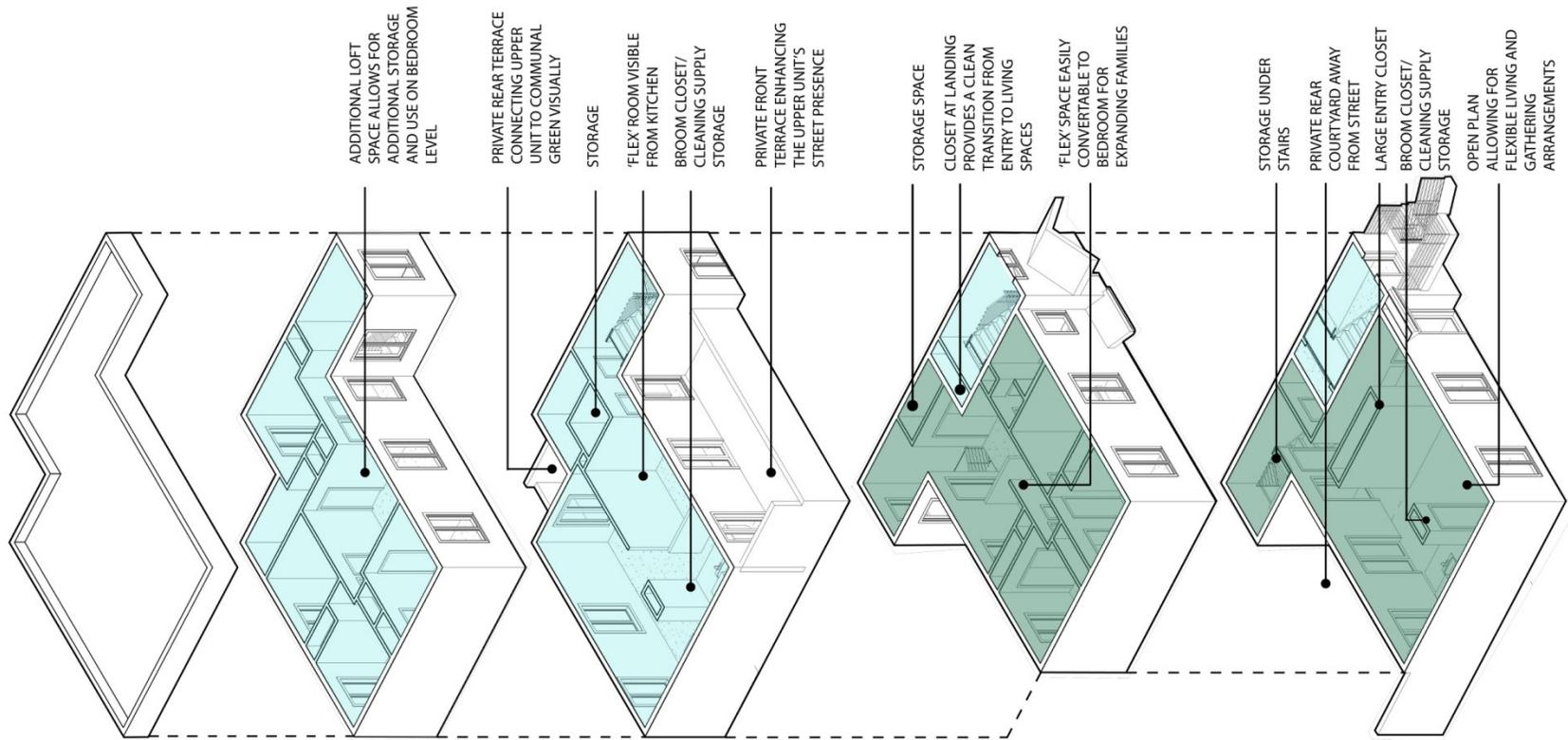


Figure 39 Offset Stacked Townhouse with Both Units Having Grade Entry Access



Figure 40 Offset Stacked Townhouse Upper Four Bedroom Unit and Lower Three Bedroom Unit Plans



Figure 41 Offset Stacked Townhomes Along Booth Street Looking North



Figure 42 Ground Floor Three Bedroom Unit Open Plan Living Space



Figure 44 Third Floor Four Bedroom Unit Exterior Terrace

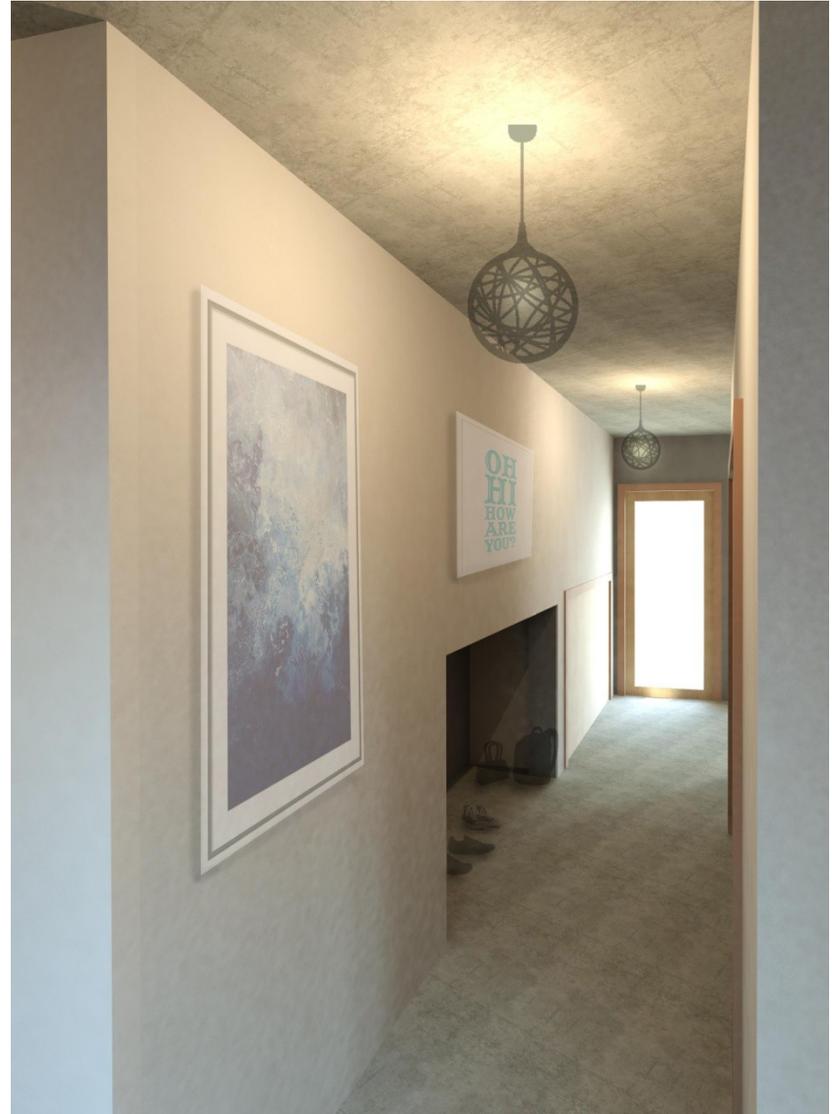


Figure 43 Ground Floor Three Bedroom Unit Entry Hall

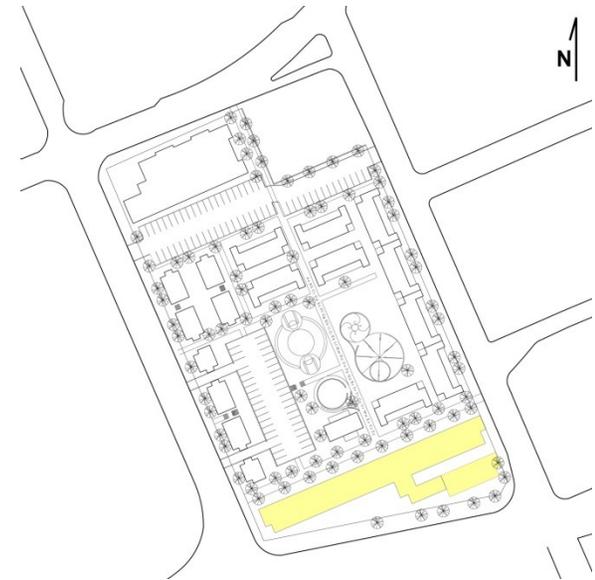


Figure 45 Third Floor Four Bedroom Unit 'Flex' Room and Kitchen

### *Stacked Maisonette Tower*

The second three-bedroom type is housed inside a stacked maisonette slab, here named the "Raymond Street Bar." The latter, is a variation on the skip-stop corridor and the single loaded corridor: rather than stacking two inverted L-shaped units (L-shaped in section) around a corridor, as does Le Corbusier in the Unité, this design stacks single L-shaped units such that the corridor receives natural light (there is no corridor for the grade level units). The slab is eight storeys tall, and all of the units possess two storeys, with a bedroom and living space on the ground floor and bedrooms and a flexible family space on the upper floor. The combination of the skip-stop and single loaded corridor configuration yields a narrower footprint than a single skip-stop layout, while allowing natural light and fresh air into the unit dwellings. Four three-bedroom maisonette unit types are featured in the Raymond Street Bar. The maisonettes at grade are directly accessible with private entries

Figure 46 Site Plan Showing the Location of the Stacked Maisonette Tower



along the main pedestrian pathway. These lower units are also designed to be accessible and feature a ground floor bedroom and full bathroom in addition to an open kitchen, dining, and living spaces. The lower unit's exterior private space is located along Raymond Street. That outdoor space is extended vertically with a three-storey tall "sleeve" defined by a planted screen that veils the housing from the highway on the first three floors. The upper unit's design incorporates a ground floor bedroom with two additional bedrooms on the unit's second storey. The unit's large flex space spanning the depth of the unit and also doubles as a warm weather exterior terrace with views of the plant wall and the communal green space. A double height interior space also provides a visual connection between the lower level living spaces with the flex space above. The eight storey building includes fifty three-bedroom maisonettes.

Figure 47 Building Section of the Stacked Maisonette Tower Building Showing the Double Height Interior Space and Single Loaded Corridor



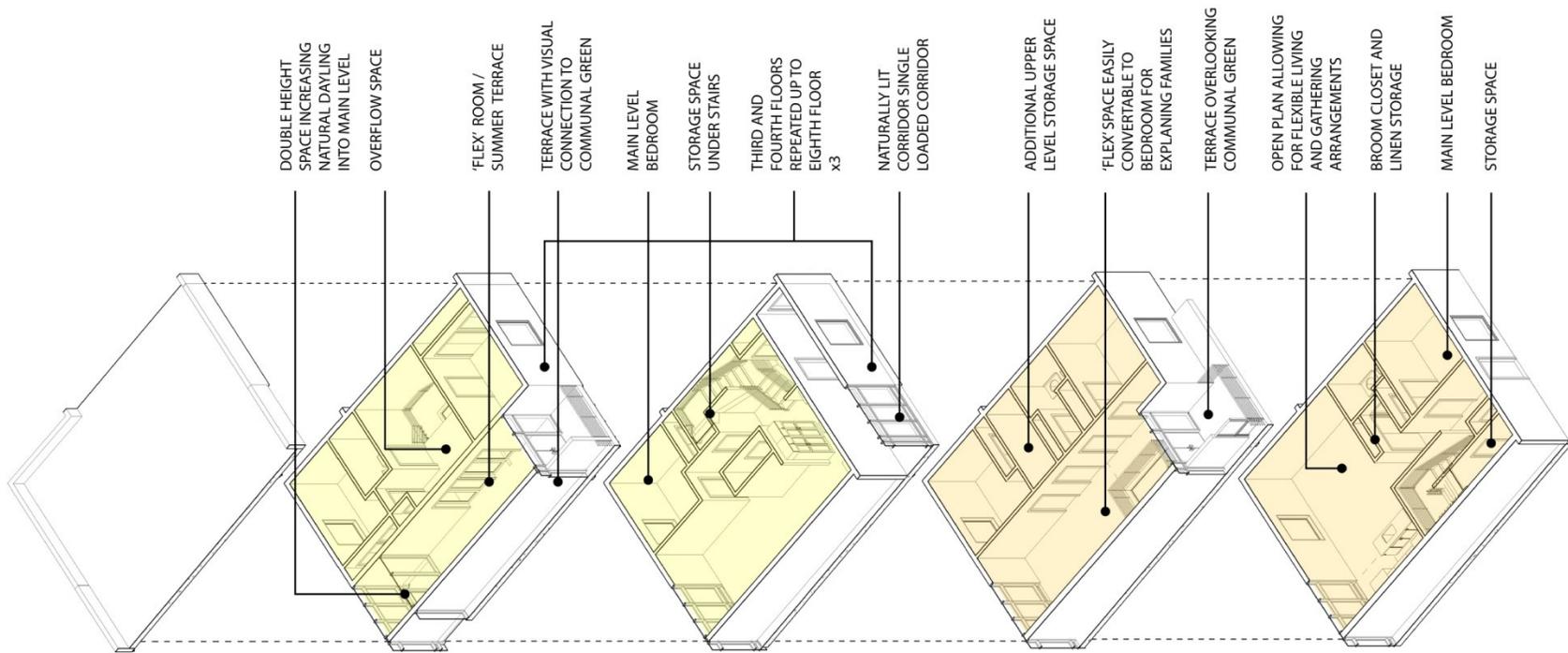


Figure 48 Stacked Maisonette Tower Lower Units



Figure 49 Typical Floor Plans of Stacked Maisonette Tower



Figure 50 Stacked Maisonette Tower Building View from Common Green Looking South



Figure 51 Private Exterior Space for Ground Floor Units with Plant Wall Privacy Screen



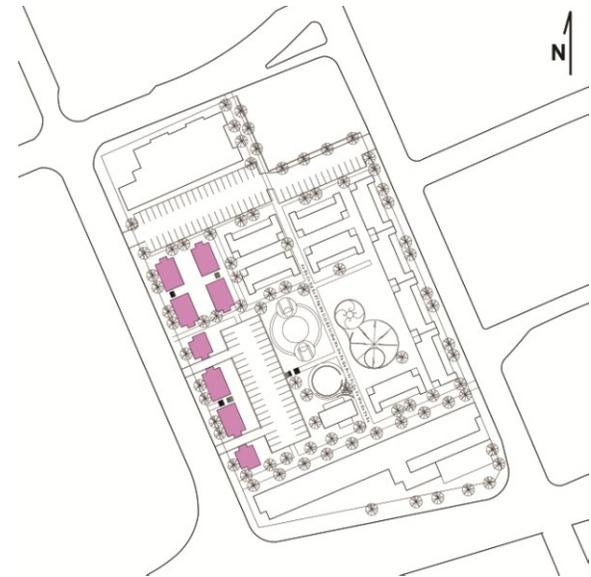
Figure 52 Typical Unit Upper Floor 'Flex' Room/Summer Terrace

### *Stacked Maisonette Pass-Through Building*

The third building type, the "Stacked Maisonette Pass-Through Building," is a combination of the duplex model, a slab building and open space, and is four storeys in height. My proposition places four buildings of this typology along Rochester Street and two internally, one at grade and the other above the parking lot. The Stacked Maisonette Pass-Through feature a mix of multi-level units varying from bachelors to five bedroom units, all of which are accessed directly from the outdoors, and this on varying grades: some are accessed from the ground, other via exterior stairs. This arrangement reinforces tenants' physical and emotional connection to the community.

The longest of the three Stacked Maisonette Pass-Through bars is punctured in three places on its first floor with vehicular and pedestrian access points. Two openings lead cars to a roofed surface parking lot and one, the middle one, leads to a stair and to a second grouping of Stacked Maisonette Pass-

Figure 53 Site Plan Showing Location of Stacked Maisonette Pass-Through Buildings



Through (twelve in total) atop the parking podium. The building form is also punctured on the third and fourth floor. These volumetric subtractions generate private outdoor spaces that serve as unit terraces. They also allow fresh air and afternoon daylight to penetrate through the building form to the communal green beyond, while providing through-views for the buildings located in the vicinity of the site. Grade level units have access to private rear yards while upper units have access to exterior terraces. The unit plans follow principles shared with the other building types.

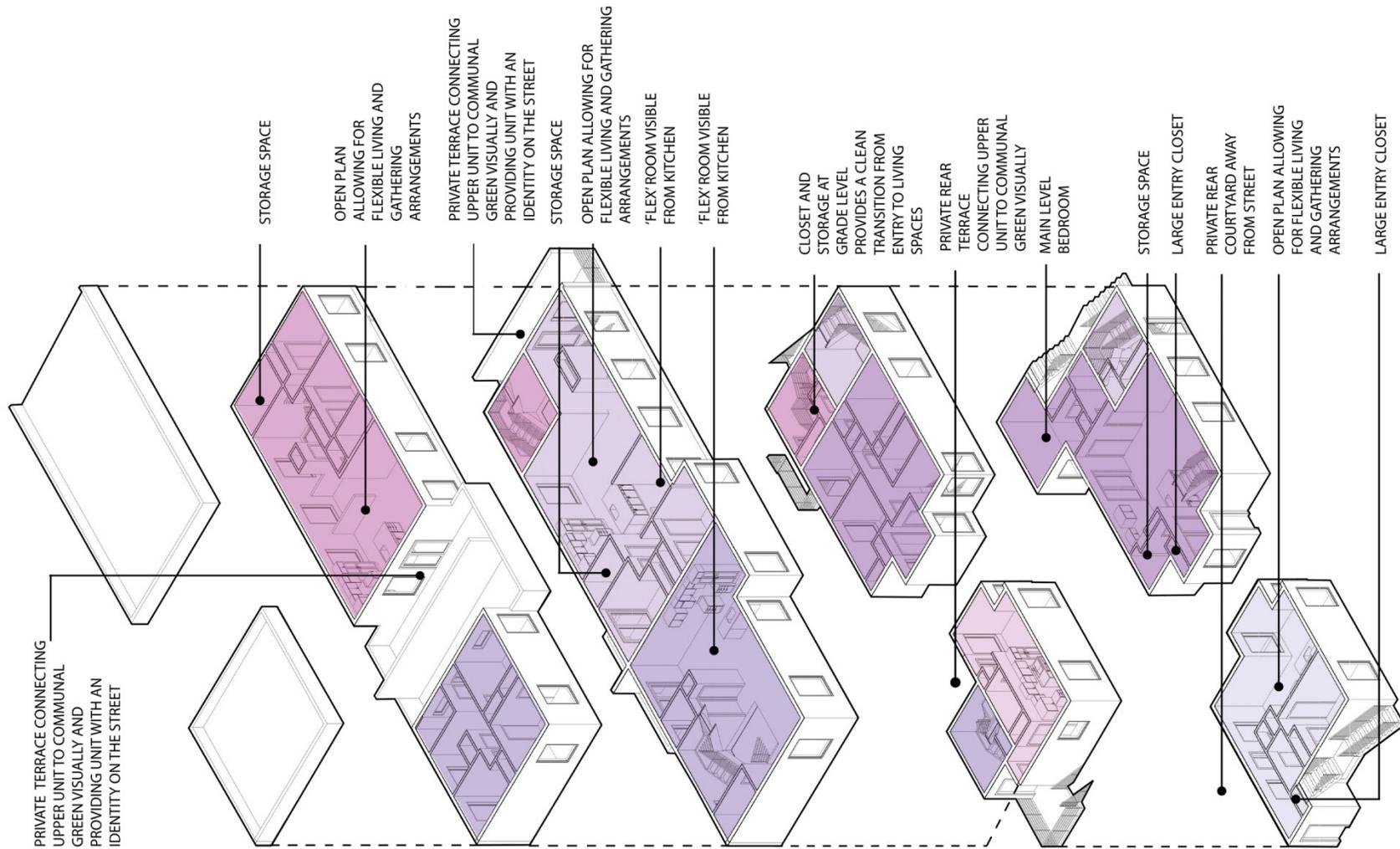


Figure 54 Left Half of the Longest Stacked Maisonette Pass-Through Building Showing Unit Distribution



Figure 55 Left Half of the Longest Stacked Maisonette Pass-Through Building Floor Plans



Figure 56 Stacked Maisonette Pass-Through Building Looking South on Rochester Street



Figure 57 Stacked Maisonette Pass-Through Building Looking East From Rochester Street



Figure 58 Five Bedroom Unit Ground Floor Living Space



Figure 59 Fourth Floor Two Bedroom Unit Exterior Terrace Looking East Towards the Common Green

### *Interior Layout Philosophy*

Unit planning in all the buildings in this proposal, Offset Stacked Townhouse, Stacked Maisonette Tower and Stacked Maisonette Pass-Through, is consistent. Each of the proposed unit designs considers the family's needs for space, change, gathering and privacy. Each unit employs open planning for the kitchen, dining and living areas, to reinforce the theme of family gathering explored in Part 2. Additionally, larger unit floor plans (two-bedroom to five-bedroom) incorporate an extra room with four foot high walls not typically found in dwelling design. The reason for this extra room, which I name "flex space," is to provide a defined yet porous space for family life. Use will of course vary from home to home, and over time. The low walls protect "use rituals:" furniture such as a desk, storage structures, surfaces for work or art, books, can more happily rest against a wall than in fully open space. The walls also guide circulation paths, again, protecting the integrity of

the flex space for a particular use. The placement of this flex space varies in the proposed designs, but never measures less than 8' x 8' and is given direct or indirect views to the street and community. The flex space can of course be converted into a bedroom when located along a windowed exterior wall, or could be used for storage, or could double as an extension of the living room or as a den: whatever its destiny, the flex space allows the home to be shaped based on its inhabitants and their current life. The flex space, an alternative and compensation for the absence of the basement, is in essence a support to family life in a non-detached dwelling with reduced floor area.

As for washrooms, there is a powder room on the main floor level in addition to a full-bathroom in three-bedroom units or larger. This follows Baron Meyerhoffer and OCH's new guidelines. OCH mandate that all units be "visitable" (accessible b persons in a wheelchair), that interior stairs be wider than the minimum permitted by the code, and that water closets be provided

on the main levels of units containing three or more bedrooms. Following OCH's mandate, this proposal includes a portion of visitable units, with a stair-less main entry and a powder room and living area on the main level. These features provide tenant guests who are physically disabled with access to washrooms and living spaces. The incorporation of interior staircases measuring 42" in width (more than the code's requirement of 36") offers more space for tenants to circulate and cross paths within the units. The features of visitable units and the wider interior staircase provide units that are better adapted for gathering tenants and their guests.

#### *Unit Sizes and Number of Bedrooms*

This proposition relied on the current inventory provided at Rochester Heights to establish the distribution of unit sizes. Not counting the Gladstone building (the one to house some market rate units) the new development provides 6 bachelor units, 6 one-bedroom, 12 two-bedroom, 68 three-

bedroom, 16 four-bedroom and 6 five-bedroom units. The following presents the planning of the three-bedroom units from this proposal. At present, seventy percent of the homes in Rochester Heights are three-bedroom townhomes, and this clearly demonstrates the building type's importance for today's families. Because the three-bedroom unit is the most prevalent, it is the only one presented here in plan drawing form.

*Site Statistics Tables*

<u>Unit Types and Sizes</u>	<u>Original Site</u>	<u>Goal</u>	<u>Proposed Site</u>
Bachelor	6	9	2
1 bedroom	3	5	2
2 bedroom	-	2	12
3 bedroom	74	111	66
4 bedroom	15	23	16
5 bedroom	6	9	6
Market Rate	-	2	50
Total	104	161	150

Table 2 - Rochester Heights Breakdown of Existing and Proposed Units<sup>5</sup>

Unit Type Building Distribution	Bach	1	2	3	4	5
Offset Stacked Townhouse	-	-	-	16	16	-
Stacked Tower unit	-	-	-	50	-	-
Stacked Pass-Through Building	2	2	12	2	-	6
Market Rate	-	28	10	12		
Total	2	30	22	80	16	6

**Table 3 - Proposed Unit Breakdown by Building Type**

Unit Types	Existing Unit Sizes	Proposed Unit Sizes
Subsidized Rentals		
Bachelor	n/a	41m <sup>2</sup> (443sq.ft.)
1 bedroom	n/a	68 m <sup>2</sup> (727sq.ft.)
2 bedroom	-	144-145 m <sup>2</sup> (1550-1565sq.ft.)
3 bedroom	103 m <sup>2</sup> (1109sq.ft.)	153-165 m <sup>2</sup> (1652-1783sq.ft.)
4 bedroom	103-121 m <sup>2</sup> (1109-1302sq.ft.)	184 m <sup>2</sup> (1978sq.ft.)
5 bedroom	181 m <sup>2</sup> (1948sq.ft.)	167 m <sup>2</sup> (1802sq.ft.)
Market Rentals		
1 bedroom	-	70 m <sup>2</sup> (753sq.ft.)
2 bedroom	-	90 m <sup>2</sup> (969sq.ft.)
3 bedroom	-	130 m <sup>2</sup> (1399sq.ft.)

**Table 4 - Rochester Heights Breakdown of Existing and Proposed Unit Sizes by Type**

\* The proposed unit sizes include 1.1m (42") wide stairs within the overall floor area calculations.

Unit Types	Standard Market Unit Sizes	Proposed Unit Sizes
Subsidized Rentals		
Bachelor	n/a	41m <sup>2</sup> (443sq.ft.)
1 bedroom	80m <sup>2</sup> (860sq.ft.)	68 m <sup>2</sup> (727sq.ft.)
2 bedroom	100m <sup>2</sup> (1076sq.ft.)	144-145 m <sup>2</sup> (1550-1565sq.ft.)
3 bedroom	120m <sup>2</sup> (1292sq.ft.)	153-165 m <sup>2</sup> (1652-1783sq.ft.)
4 bedroom	150m <sup>2</sup> (1615sq.ft.)	184 m <sup>2</sup> (1978sq.ft.)
5 bedroom	n/a	167 m <sup>2</sup> (1802sq.ft.)
Market Rentals		
1 bedroom	-	70 m <sup>2</sup> (753sq.ft.)
2 bedroom	-	90 m <sup>2</sup> (969sq.ft.)
3 bedroom	-	130 m <sup>2</sup> (1399sq.ft.)

**Table 5 - Breakdown of Strategic Planning and Proposed Unit Sizes by Type<sup>6</sup>**

\* The proposed unit sizes include 1.1m (42") wide stairs within the overall floor area calculations.

## NOTES

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- 1 Group, Winter Street Design. The Cohousing Company McCamant & Durrett Architects. 2014.
- 2 The zoning change is part of the Gladstone Avenue Traditional Mainstreet Draft Review. The extent of the zoning revision has been added in the Appendix  
Ottawa, City of. "Gladstone Avenue." *Ottawa*. September 29, 2014.
- 3 As indicated in the Ottawa Citizen newspaper article "Forgotten Pleasures of Privacy". The issue might have become obsolete with renovations, such as with new multi-pane windows, which would have greatly reduced the sound transmission into the housing units. To ensure the issue does not reoccur; however, this thesis takes this sound issue as a serious problem and addresses it directly through architectural design.  
Hill, Tom. "Forgotten Pleasures of Privacy." *The Ottawa Citizen*, February 1979: 93.
- 4 Hayden, Dolores. *Redesigning the American Dream: The Future of Housing, Work and Family Life*. Toronto: George J. McLeod Limited, 1984.
- 5 Housing, Ottawa Community. *About OCH*.
- 6 Group, IBI. *Rochester Heights Strategic Planning Analysis*. Strategic Planning Analysis, Ottawa: IBI Group, 2008.p.23.

## CONCLUSION

An examination of dominant trends in urban housing forms in the present makes obvious the fact that the city of today is not geared towards families. Ottawa's urban housing offerings fall within this general tendency. And Ottawa's downtown demographic makeup is changing as a result. Additionally, the development of new, large-scale, high-rise condo towers within or adjacent to low-rise family neighbourhoods is drastically altering established communities. Family oriented amenities are quickly disappearing from Ottawa's core, in particular parks and schools. In response, this thesis set up a series of questions on the meaning and form of urban family housing in the Nation's Capital. And while the above writing and architectural proposition have not answered all of them, I hope, through them, to have contributed to a broader reflection about the possibility of affordable family

- What makes housing "family housing"?
- What functions and what specific qualities must "family housing" respectively perform and possess?
- How can contemporary urban housing better respond to the migration of families from suburbs back to the city?
- What forms can urban family housing take today?
- How then, can the production of market rate family housing be made possible in urban contexts?
- How is it that architectural design innovations have not yet resolved the question of urban family housing with more varied and creative solutions?
- How could the basement be reinterpreted in

housing in the downtown area.

The question of urban family housing is complex and cannot be resolved through the design of any one single architectural project. The key here was to study elements of the history and theory of the family home (Mumford, Schoenauer and Hayden) alongside built case studies to begin to formulate an approach to family housing design. The above research pursued each of the historical house plan as a statement about values and beliefs as well as a solution to the everyday problems of domestic life, in order to guide the formulation of layouts for the present.

This thesis set up parameters to achieve a cohesive and appropriate response to the diminishing amount of affordable urban family housing in Ottawa. It is noted that the architectural proposal herein was only achieved through the redevelopment of a social housing site where land and building costs are

subsidized. The question of affordability is one that is not easily resolved, and one that would require a great deal more consideration. Achieving affordable urban family housing outside of the social assistance programs context is a topic indeed begging for further study.

This thesis began by addressing the need for redeveloping an aging public housing development with the goal of replacing and increasing the housing count. The incorporation of market-rate housing units was a strongly considered decision of which the hope and aim was the creation of a more balanced community, socially and economically. The project's aim to increase the yield of affordable family housing was only partially successful in that the increase is not as significant as initially intended. The reason for this is twofold. Units in this proposal are larger than previous units. While this decision is controversial, it drew from research findings and the desire to improve dwelling conditions. Secondly, the delicate scale of the surrounding

low-rise community posed a challenge to high density development. I wished for the new development to be compatible with the existing neighbourhood and for it to abide by the current zoning allowances for the majority of the project in order to lower development costs.

While the new housing redevelopment proposal only achieved an increase of forty four percent as opposed to the fifty percent desired, it did succeed in other ways: testing alternative urban housing forms that are appropriate for families, creating privacy in the context of large housing developments, and addressing the need for "extra space" in stacked, high-density housing forms through the re-interpretation of a feature of detached houses, the basement. The proposed site plan accomplished these goals through: the incorporation of large open public spaces that are well defined and configured for multiple activities, the distribution of exterior private space, the incorporation of elements that visually connect the tenants with their surroundings and

establish tenant privacy, and finally, through the configuration and distribution of clearly defined pedestrian pathways. In turn, the residential buildings aimed to offer improved dwellings for families. Firstly, all of the housing types in the new design for Rochester Heights contain dwellings that are easily accessible from the ground. Secondly, the dwellings anticipate change and adaptability through the incorporation of interior storage spaces and flex spaces. Finally, the building forms employed in the project are conceived to allow fresh air and daylight on multiple building facades. The stacked-housing developed within this thesis is one example of how to reconfigure the single family low-rise dwelling so as to comply with density requirements appropriate to the urban core while providing dwellings that are large enough for families. Finally, unlike the suburbs where land is owned and practiced in parcels by multiple private owners, the property on which the proposed housing is developed is shared. Management of open

spaces and amenities is therefore more efficient. Harking back to earlier co-operative housing experiments, a structure where services, maintenance and land costs are shared could be translated to market-rate housing once again as a strategy for producing affordable family housing in the urban core.

***Postscript: Critical Reflection on the Site Plan***

The research into affordable urban housing is one that must be continued. This thesis provides a renewed enthusiasm that affordable urban family housing can and should be achieved through re-opening the dialogue and discussing the need for affordable urban family housing today in cities such as Ottawa.

As a way of reflecting on the above work, this thesis concludes with a revised site plan drawing (figure 60: see overleaf). In urban propositions like the one here attempted, the sewing together of a new neighbourhood with a pre-

existing fabric remains the most delicate yet consequential task. In this last reworking of the site plan, the concern is to more strongly connect the new Rochester Heights with the adjacent neighbourhoods. The new design shows a refinement of the proposition and of its network footpaths. Notably, the opening of the north-east corner of the site onto the existing Piazza Dante Park produces a much more dynamic relationship between the proposed and the historical fabrics than in earlier versions. The placement of the Rochester Heights community house within this zone of intersection is meant to signal renewed opportunity for socialization. The community house's revised position also aims to produce a sense of reciprocity between the urban realm to the North (Dante Park and the bustling Gladstone "Main Street") and the new park that occupies the heart of the block. The family housing along the western, eastern, and southern edges, thus cradle this park, while also themselves becoming filters to the surrounding neighbourhood.



Figure 60 Postscript: Revised Site Plan

## **APPENDIX**

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### OCH Interviews

*Email conversation with Barron Meyerhoffer, OCH - October 14, 2014*

*Email conversation with Barron Meyerhoffer, OCH - March 08, 2015*

### Rochester Heights Existing Unit Plans

*R3-42A*

*R4-26A*

*R4-27B*

*R5-10A*

## OTTAWA COMMUNITY HOUSING INTERVIEWS

*Email conversation with Barron Meyerhoffer, OCH - October 14, 2014*

***1. Are there a large number of blended or multi-generation families?***

*Not so much in this community. The community is predominantly new Canadians with larger families with no previous history.*

***2. Have tenants provided feedback about this community?***

*No. This is a big piece of how OCH will/should engage the existing, and broader, community. I'm guessing this is a more "leading edge" desire, but has not been played out. This is no small detail though. Your thoughts are appreciated.*

**3. Are they happy with the housing accommodations in general?**

*Generally not bad, but I believe it is based on expectation. You and I would have radically different opinions, but we have played the “redevelopment is coming soon” card, so I believe we are benefiting from that excitement.*

**4. Because this is a targeted 'family' community are there tenants that do not have kids?**

*Very few. Our rules demand you have the bodies to fill the rooms, and we will move under-housed families to smaller units as part of the lease and legislative requirements.*

**5. Would this be something that you would envision keeping this mixed typology or should the housing types push to keep this strictly for families?**

*If you follow the above scenario, we need 1 and 2 bedroom units so that families with greater numbers of kids can downsize in a community in which they lived as the kids leave (we do not intentionally force people out of their community if at all possible)*

**6. Have you heard of any complaints regarding the surrounding neighbourhood? (ie: noise issues from the Queensway?)**

*We have few complaints from the community, and any we have had were about kids playgrounds and activity spaces which we have tried to address. As well, there was a CPTED inspection done to which we have responded to address most of their concerns.*

**EXTERIOR NECESSITIES:**

**- Durable Exterior Finishes (at least on the lower floors):**

*Yes*

**- Use of CPTED to ensure safe environments. (pathways, private/public spaces, lighting, little to no building articulations that create added shadows):**

*Yes*

**INTERIOR NECESSITIES:**

**- 1.5 baths for every 3+ bedroom unit:**

*Please*

**- Visitable units:**

*If affordable*

**- Accessible units with W/D and Dishwasher:**

*10% target and yes to all*

**- 42" wide stairs within units:**

*Yes*

**SITE REQUIREMENTS:**

**- Community House (Rooms/office for homework, large community room, common kitchen, please specify if there's anything else):**

*a negotiated detail, but for this scenario, we would have a purpose built, modest area for a Community House, dedicated to the internal OCH community (predominantly for code and funding reasons). This does not preclude a bigger better occupancy broader community facility given a contributing partner.*

**- Outdoor play spaces (Park structures for young kids, green space, developed play space for older kids - basketball etc.):**

*YES, YES, YES. But with consultation and a community lead in determining need.*

**- Design for phased development:**

*Critical to actually make this work*

***Email conversation with Barron Meyerhoffer, OCH - March 08,  
2015***

***1. What are the yearly maintenance issues being addressed at  
Rochester Heights?***

*Yearly issues are heating (six central boiler plants), continuing rust out of utilities including heating loops, electrical distribution, and moisture issues arising from the dirt crawl spaces.*

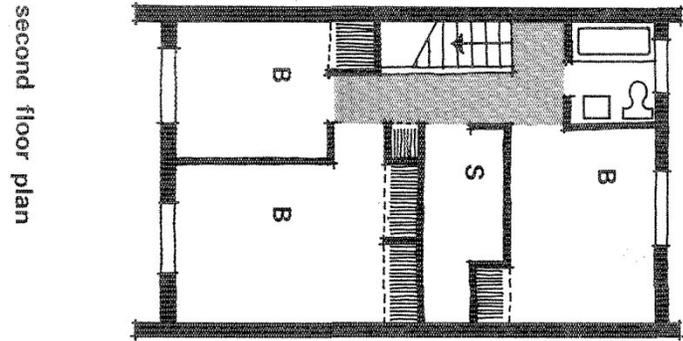
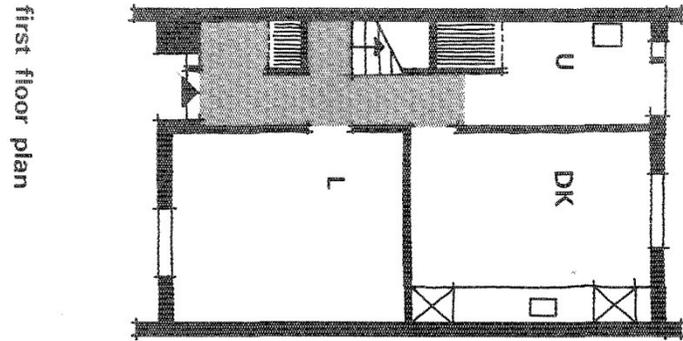
***2. How much is being spent on these issues yearly?***

*We have minimised spending based on our ongoing effort to redevelop the site, but all six package boilers will be replaced this year as they will not last long enough to see the community through to redevelopment. Moisture issues can be an annoyance, or a major investment depending on the severity. I would guess we will spend \$250,000 at least this year, but are trying to minimize maintenance on a year by year basis.*

**3. When did the sloped roofs get added?**

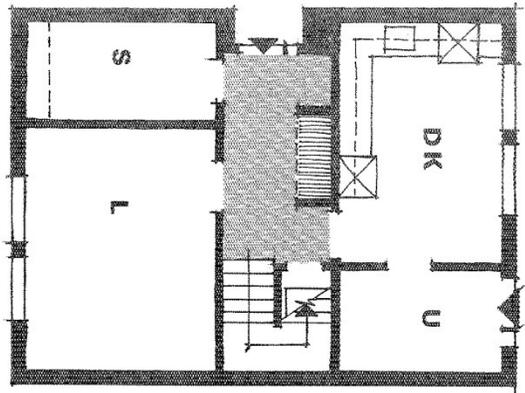
*The trusses were added to the roofing system in 1989 - 1993 (five phases, roughly 21 units per year.*

# ROCHESTER HEIGHTS EXISTING UNIT PLANS

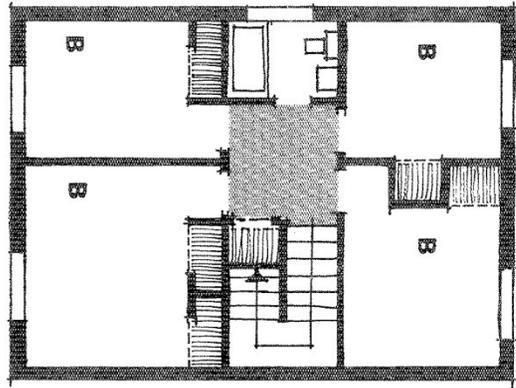


**R3 - 42A**  
Rowhouse

Figure 61 Existing Rochester Heights Three Bedroom Unit



first floor plan

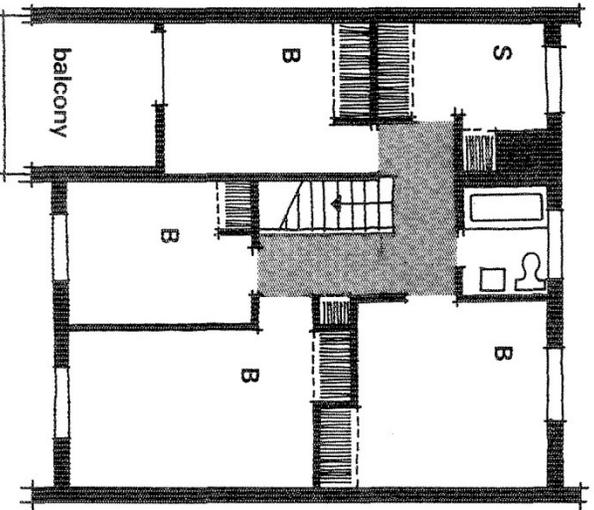


second floor plan

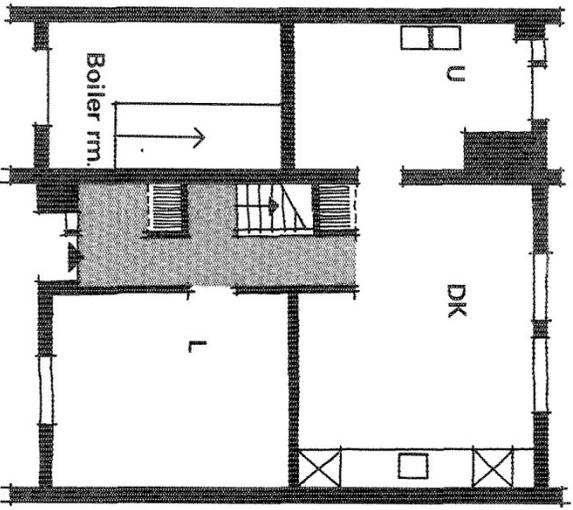
**R4-26A**  
Rowhouse

Figure 62 Existing Rochester Heights Four Bedroom Unit

**R4-27B**  
Rowhouse



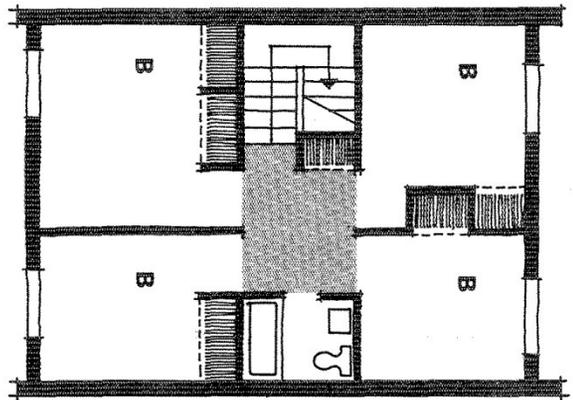
second floor plan



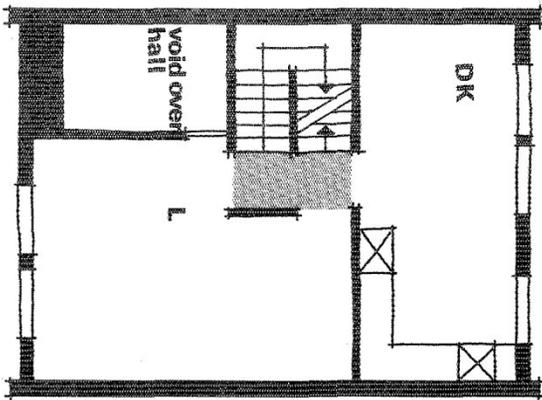
first floor plan

Figure 63 Existing Rochester Heights Four Bedroom Unit

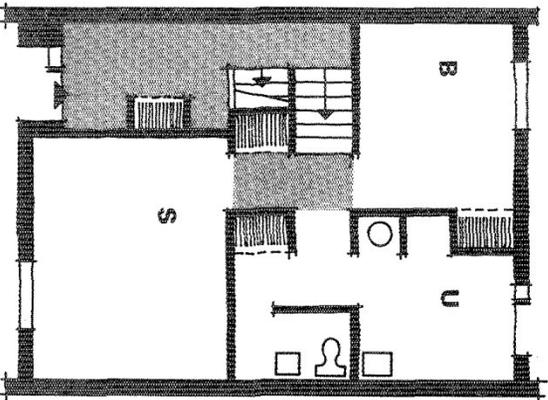
**R5 - 10A**  
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second floor plan



first floor plan



lower floor plan

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